

Appendix F: Digital Geophysical Mapping Survey Report

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INTERNAL DRAFT

Digital Geophysical Mapping Survey Report

Basewide Site Inspection

Multiple Munitions Response Program Sites

Naval Base Kitsap Bangor, WA

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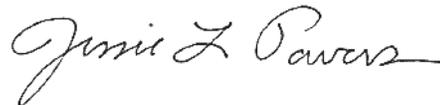
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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
AES	AES Consultants, Inc
APP	Accident Prevention Plan
bgs	Below Ground Surface
cm	Centimeter
CORS	Continuously Operating Reference Station
CSM	Conceptual Site Model
DGM	Digital Geophysical Mapping
DFW	Definable Feature of Work
DUA	Data Usability Assessment
FCR	Field Change Request
GIS	Geographic Information System
GSV	Geophysical System Verification
GPS	Global Positioning System
GPR	Ground Penetrating Radar
HAZWOPER	Hazardous Waste Operations and Emergency Response
HDOP	Horizontal Dilution of Precision
in	Inch
IAW	In Accordance With
ISO	Industry Standard Object
IVS	Instrument Verification Strip
MDAS	Material Documented as Safe
MEC	Munitions and Explosives of Concern
MHz	Megahertz
MPC	Measurement Performance Criterion
MPPEH	Material Potentially Presenting an Explosive Hazard
MQO	Measurement Quality Objective
MRP	Munitions Response Program
mV	Millivolt
NAD83	North American Datum 1983
NBK	Naval Base Kitsap
OSHA	Occupational Safety and Health Administration
PLS	Professional Land Surveyor
ppm	Part Per Million

Acronyms/Abbreviations	Definition
QA	Quality Assurance
QC	Quality Control
QAPP	Quality Assurance Project Plan
QRIR	Quality Receiving Inspection Report
RCA	Root Cause Analysis
RMS	Root Mean Square
RTK	Real-Time Kinematic
RTS	Robotic Total Station
SI	Site Inspection
SOP	Standard Operating Procedure
SRA	Saturated Response Area
SSHP	Site Safety and Health Plan
US	United States
UXO	Unexploded Ordnance
UXOQCS	Unexploded Ordnance Quality Control Specialist
V	Volts
WA	Washington

1.0 INTRODUCTION

This digital geophysical mapping (DGM) survey report has been prepared under United States (US) Navy contract N6247016D9008, Contract Task Order N4425519F4112, in support of the site inspection (SI) at multiple basewide munitions response program (MRP) sites at Naval Base Kitsap Bangor (NBK) in Silverdale, Washington (WA).

This report details work completed as part of definable features of work (DFWs) 1, 3, 5, 6, 7, 8, and 10 in the Final Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern (MEC QAPP) dated June 2021. The geophysical surveys were completed by Tetra Tech, Inc. in accordance with (IAW) the MEC QAPP, Tetra Tech's quality system, and with applicable Standard Operating Procedures (SOPs). This report also includes a data usability assessment (DUA) following the steps in MEC QAPP Worksheet #37.

Tetra Tech completed terrestrial DGM and ground penetrating radar (GPR) surveys at eight MRP sites in support of the SI. The DGM surveys were completed using the Geonics, Ltd. EM61-MK2 high power sensor (EM61-MK2HP) and the Geosensors TEM-8g towed sensor array. The DGM survey objective was to assess the presence of metal in the subsurface, which may be associated with munitions at the following sites: UXO 03, UXO 04, UXO 07, UXO 11, UXO 11B, UXO 13, UXO 17, and UXO 17B. The DGM survey was completed to support the overall SI objective to assess the absence or presence of munitions and explosives of concern/material potentially representing explosive hazard (MEC/MPPEH) at these sites. Historical documents indicate the MRP sites may contain MEC on the surface and/or in the subsurface, which poses an unacceptable risk to current and future site receptors.

Field change requests (FCRs) submitted during the execution of the SI are provided with the SI report and summarized therein. Ongoing geophysical surveying was subsequently conducted IAW the approved FCRs.

2.0 SUMMARY OF DEFINABLE FEATURES OF WORK

The DFWs applicable to this report are summarized in sections 2.1 – 2.6. These sections address the geophysical components of this investigation. Tetra Tech implemented the three phases of control process during each relevant DFW. The Tetra Tech quality control (QC) Geophysicist led virtual preparatory and initial inspections prior to the start of the work tasks and immediately after the field tasks commenced. Ongoing quality inspections were conducted throughout execution of the DFWs and documented via weekly DGM QC reports IAW the MEC QAPP.

Daily DGM field reports and weekly QC reports are in Appendix A and B to this report, respectively.

2.1 MOBILIZATION AND SITE PREPARATION (DFW 1)

The project objectives for DFW 1 were to mobilize personnel and equipment to the project site in a phased manner corresponding to project tasks. The Tetra Tech UXO site management team mobilized to NBK prior to the start of geophysical operations to prepare the site (e.g., surface clearance, vegetation reduction and so forth). These site preparation activities are discussed in the SI report, along with relevant munitions findings and site observations.

The Tetra Tech UXO site management team conducted site-specific training for geophysical field personnel upon their arrival to the site and prior to the commencement of fieldwork IAW the MEC QAPP and with the accident prevention plan/site safety and health plan (APP/SSHP). All geophysical field personnel were confirmed to have completed the US Department of Labor Occupational Health and Safety Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) 40-hour training course, and current 8-hour refreshers. Additionally, geophysical personnel obtained required base access passes IAW NBK security protocols.

Two Tetra Tech geophysical teams mobilized to NBK on July 11, 2022. Initial DGM equipment receipt inspections, inventory, assembly, and function testing were performed off site. Training led by a Tetra Tech subject matter expert on the TEM-8g operation was also delivered off site. SOPs on specific tasks were provided to field personnel for review prior to the start of field work. After the team arrived on base at NBK, additional training or refreshers were provided by the Tetra Tech Site Geophysicist or their designee. Appendix D contains all field SOP checklists completed throughout this effort. All QC SOP checklists and relevant quality receiving inspection reports (QRIRs) were submitted as part of the weekly QC reports (Appendix B).

As part of DFW 1, a Microsoft Access database was created for project data compilation, storage and management. The database includes relevant DGM data tracked throughout the project, including key information such as production details, running QC summaries, and the blind seed registry. This database was updated regularly throughout the project and provided with each data package submittal to the Navy. The final master DGM project database is provided as an electronic submittal to this report (Appendix H).

AES Consultants, Inc. (AES), a Washington Licensed Professional Land Surveyor (PLS) established temporary control points at the MRP sites IAW DGM SOP 7 and at the field operations staging area. Temporary control points were tied to a Continuously Operating Reference Station (CORS) network and were reported as Washington North State Plane, North American Datum 1983 (NAD83), in units of US Survey Feet. Additional temporary control points were placed by AES on June 28, 2022 and on July 21, 2022 to support geophysical data collection and QC seeding. The surveyor report is provided as an appendix to the Final IVS Technical Memorandum in Appendix F. Other temporary control points needed by Tetra Tech during DGM operations were established at individual MRP sites to facilitate accurate positioning of DGM data. The independent survey control was used as the starting point for all subsequent temporary controls set by Tetra Tech.

2.2 QC SEEDING (DFW 3)

The DGM project objectives for DFW 3 were to establish a blind seeding program IAW the geophysical system verification (GSV) process. Blind seeds consisting of small, schedule 40 and medium schedule 80 industry standard object (ISOs) were emplaced IAW DGM SOP 03 at depths and orientations specified by the QC Geophysicist. Seeds were distributed such that each DGM field team would encounter at least one seed per day of data collection in full-coverage areas. Blind seeds were not placed along DGM transects IAW the MEC QAPP. Seed identification, ISO type, depth, and orientation were photo documented and seed locations were recorded using either Leica TS16 Robotic Total Station (RTS) or Leica GS14 Real-Time Kinematic (RTK) Global Positioning System (GPS) prior to backfilling the holes and covering the seeds.

Blind seeding was performed in a phased manner, to allow for site preparation activities (e.g., vegetation clearance, surface clearance) to be completed at the MRP sites prior to the start of the DGM surveys. Blind seeding was completed by the QC seed team between June 28 and August 19, 2022. The blind seed team comprised the QC Geophysicist and a UXO Technician II implementing instrument-aided anomaly avoidance measures. After August 22, 2022, the UXO Quality Control Specialist (UXOQCS) completed remaining blind seeding.

All mapped QC seeds not in saturated response areas (SRAs) were successfully detected and targeted from the gridded DGM data within tolerance. SRAs comprise sections of the site with a high anomalous response due to elevated concentrations of metal in the subsurface, which prevents selection of discrete targets. In these cases, polygons are delineated around each SRA in the DGM results. QC seeds emplaced in SRAs were thus not picked (nor distinguishable) as discrete targets. The unpicked seeds in SRAs are the subject of Non-Conformance Report (NCR) 005, which also notes one QC seed in UXO 17B was not mapped within the DGM survey footprint; another seed was successfully detected by the DGM team on the same date of collection, however, ameliorating the missed seed.

The QC seed registry was firewalled during the project IAW the MEC QAPP firewalling requirements. The seed registry is included as part of the master project database in Appendix H. The seed details are no longer firewalled because no intrusive investigation of DGM targets was scoped as part of the SI.

2.3 INSTRUMENT VERIFICATION STRIP ESTABLISHMENT (DFW 5)

The project objectives for DFW 5 were to construct the instrument verification strip (IVS) and verify the correct assembly and operation of geophysical systems to be used for the detection survey. Based on the results of background surveys collected with the EM61-MK2 HP on July 14, 2022, one IVS (IVS1) was installed on July 19, 2022 IAW DGM SOPs 1 and 7. The instrument assembly, IVS installation, and initial IVS surveys for the EM61-MK2 HP and TEM-8g systems are detailed in the IVS Technical Memorandum (Appendix F). Each DGM system brought to the site for data collection underwent initial validation at the IVS IAW the GSV process. Photos approved for release by NBK security personnel depicting each assembly DGM sensor type are included in the Final IVS Technical Memorandum in Appendix F.

The technical memorandum also presents the basis for the target picking thresholds used for the DGM surveys with the EM61-MK2 HP and TEM-8g systems. The threshold for EM61-MK2 HP surveys was established as 5 millivolts (mV) on Channel 2 and the threshold for the TEM-8g surveys was established as 8 parts per million (ppm) on Bin 2.

2.4 EM61-MK2 AND TEM-8G DGM FIELD SURVEYS (DFW 6)

The project objective of DFW 6 was to conduct DGM surveys using the EM61-MK2 HP and the TEM-8g. The EM61-MK2 HP and TEM-8g surveys were completed between July 19, 2022 – November 11, 2022. The DGM surveys were completed only within the pre-established investigation footprint of each MRP site, and after vegetation reduction and surface clearance.

2.4.1 EM61-MK2 Surveys

EM61-MK2 HP surveys were conducted at eight MRP sites (Table 1). The EM61-MK2 HP systems were operated in wheel mode. Data positioning was achieved using either a Leica RTK GPS or a Leica RTS system, based on site conditions. Geophysical and positional data were simultaneously streamed to hand-held tablet computers and recorded to a raw data file. Data at all eight sites were collected IAW DGM SOP 4. Relevant site features recorded in the field were also incorporated into the project GIS.

Table 1. EM61-MK2 HP Data Collection Summary

Site	Planned Coverage (acres)	Actual coverage (acres)	Transects (feet)	Full Coverage (acres)	Comments
UXO 03	5.4	6.80	89,796	0.042	<ul style="list-style-type: none"> Numerous obstacles present such as, trees, streams, ditches, cultural features, and marshes (i.e. swamp) Data gaps were not filled due to rough terrain.
UXO 04	1.1	1.32	15,552	0.149	Three mini grids were mapped in addition to the transects: <ul style="list-style-type: none"> [REDACTED]

Site	Planned Coverage (acres)	Actual coverage (acres)	Transects (feet)	Full Coverage (acres)	Comments
UXO 07	0.1	0.11	1,458	--	
UXO 11	0.3	0.21	2,780	--	
UXO 11B	0.3	0.67	8,954	--	
UXO 13	0.3	0.22	2,928	--	
UXO 17	5	1.94	--	1.94	<ul style="list-style-type: none"> Data gaps caused by numerous trees and one bee hive The TEM-8g was unable to survey in wooded areas at UXO 17; used EM61-MK2 HP instead
UXO 17B	13.3	9.15	--	9.15	Data gaps are due to steep terrain, significant brush encountered, bee hives, soil mounds, and a large pit in the north section of 17B.
Totals	25.8	20.42	121,468	11.281	

Transect data were collected at MRP sites UXO 03, UXO 04, UXO 07, UXO 11, UXO 11B, and UXO 13. Transect surveys included a single pass of the EM61-MK2 HP sensor along each cleared transect corridor. Deviations in the collected transect line path from planned transect alignments were primarily caused by trees, impassable terrain, or due to the presence of other obstructions (e.g. surface debris). Plastic pin flags were employed by operators along the centerline and endpoints of each transect using either a RTS or RTK GPS to help maintain proposed survey line spacing.

Full coverage surveys were performed in portions of MRP sites UXO 17 and UXO 17B that were traversable with the person-portable EM61-MK2 HP but un navigable with the TEM-8g towed array. Additionally, four grids were collected in UXO 04 as a follow-up to the DGM transect survey. Full coverage EM61-MK2 surveys were collected at a line spacing of 1.5 feet. Flags and marking paint were used to maintain line spacing and to minimize cross-track data gaps.

2.4.2 TEM-8g Surveys

The TEM-8g array was towed by a Polaris utility vehicle equipped with a Trimble real-time differential GPS for navigation along survey lines. Positional data used for post-processing were collected with two Novatel GPS sensors mounted to the TEM-8g array. Data collection was IAW DGM SOP 9.

Full coverage TEM-8g data were collected at sites UXO 03, UXO 07, UXO 17 and UXO 17B (Table 2). Data were collected at a line spacing of 5 feet, with deviations and data obstructions documented in field notes. Gaps in the survey coverage with the TEM-8g resulting from the inability to precisely maneuver the towed array around trees or other terrain features were completed using the person-portable EM61-MK2 HP sensors. Tetra Tech data processing personnel communicated these gaps in the coverage with the DGM field teams, and where the field team determined additional coverage could be gained, they used the EM61-MK2. The TEM-8g was used to collect transect data along only one transect in UXO 04.

Table 2. TEM-8g Data Collection Summary

Site	Planned Coverage (acres)	Actual coverage (acres)	Transects (feet)	Full Coverage (acres)	Comments
UXO 03	0.5	0.32	--	0.32	<ul style="list-style-type: none"> One mini grid was completed at UXO 03 Gap fill for this grid was completed using the EM61-MK2 HP after the TEM-8g experienced a hardware malfunction near the end of the field program
UXO 04	0.5	0.42	398	0.37	<ul style="list-style-type: none"> Transect footage is associated with one long transect [REDACTED]
UXO 07	0.8	0.67	--	0.67	<ul style="list-style-type: none"> Coverage extended beyond the northern MRP site boundary due to the need for the TEM-8g towed array to turn around The project team decided to present these data with the UXO 07 results map
UXO 17	9.3	6.13	--	6.13	<ul style="list-style-type: none"> The TEM-8g was unable to survey in wooded areas at UXO 17; used EM61-MK2 HP instead
UXO 17B	13.3	8.16	--	8.16	TEM-8g data gaps due to steep terrain, significant brush, beehives, soil mounds, ditches/swales, and stumps, and from a large pit in the north section of 17B.
Totals	24.4	15.65	398	15.65	

Towards the end of the field work in UXO 03, while working to collect gaps in the initial full-coverage area, the TEM-8g experienced a hardware malfunction that required offsite diagnostics and eventual repair. Because all initial TEM-8g data collection at the MRP sites was complete and the data were verified as acceptable, the project team decision was made to complete remaining infill of UXO 03 TEM-8g coverage gaps with the M61-MK2 HP to avoid a prolonged delay while waiting for the TEM-8g to be repaired.

2.4.3 Digital Geophysical Mapping Field Quality Control

QC measures in the field during the DGM surveys included geodetic function checks for the positioning systems, DGM sensor function tests, and twice-daily data collection at the IVS—all IAW the MEC QAPP. The positioning system checks included recording measurements at temporary control points with known measurements to verify the positioning system was set up properly for use in the field. Sensor function tests checked to confirm the DGM system sensors were functioning as intended; in the case of the TEM-8g, this test checked each sensor in the array. The IVS surveys were completed to verify each DGM system was properly detecting the seeds in the IVS and that the positioning systems were accurately identifying target positions for the QC seeds.

Throughout the DGM surveys, the DGM field team uploaded raw data daily to a secure Tetra Tech SharePoint site for retrieval by data processing personnel. The Site Geophysicist was responsible for verifying records were complete and that supporting information, such as field logs and stand-alone positioning data (e.g., geodetic QC test measurements) were provided for evaluation. Field logs were captured using Tetra Forms, the company's electronic data capture tool. The daily logbooks were supplied as part of the raw and processed data packages.

Field SOP checklists were also completed in Tetra Forms and submitted with the logbook entries. These SOP checklists are provided as Appendix D to this report to save the reviewer from having to search through the daily logbook entries to verify completion of the checklists.

Nonconformance Reports

NCR 001 addresses a GPS measurement quality objective (MQO) failure on August 8, 2022 caused by the base station tipping over during daily production surveys. Because the base station receiver maintained satellite coverage in this position, it introduced a positional shift in the data. NCR 002 addresses EM61-MK2 HP sensor function tests, which necessitated the replacement of one of the EM61-MK2 HP sensors onsite. Part of the corrective action for this NCR included validation of the new system at the IVS. NCR 003 addresses the failure to collect morning QC tests without positional data from one of the GPS receivers. NCR 004 addresses the failure to include positional data for one geophysical system on September 6, 2022 due to a setting error in the field computer.

2.5 GROUND PENETRATING RADAR FIELD SURVEYS (DFW 7)

The project objective of DFW 7 was to conduct GPR field surveys to assess the vertical extent of potential debris and the thickness of cover soil. The surveys were conducted IAW FCR 006, which updated the GPR survey approach to collect focused data along profiles strategically placed across features of interest identified in the DGM surveys at Sites UXO 04, UXO 07, UXO 17, and UXO 17B. The GPR survey profile placement was determined through review of the DGM results and after discussions with the project team; these discussions also included rationale for not performing GPR surveys at Sites UXO 03, UXO 11, UXO 11B, and UXO 13. Table 3 summarizes the GPR surveys at NBK in support of the SI.

Table 3. GPR Data Collection Summary

Site	Transects (Feet)
UXO 04	1,255.55
UXO 07	353.96
UXO 17	1,120.59
UXO 17B	1,370.47
Total	4,100.57

Surveys were conducted using a Geophysical Survey Systems, Inc. (GSSI) SIR 4000 coupled with the 350 megaHertz (MHz) scanning antenna, which utilizes GSSI’s proprietary HyperStacking technology to allow for greater depth and data resolution. The GPR system was assembled and operated IAW the manufacturer instruction manual and mounted to a 4-wheel pushcart for data collection. The end points of each GPR survey profile were reacquired and marked in the field using RTS. A differential GPS was attached as part of the GPR system to record the survey line paths. Deviations along the planned survey profiles were the result of the need to push the cart around rocks, surface metal, trees, or soft ground.

GPR Field QC

QC measures implemented in the field during the GPR survey included daily system function checks, communication with the GPS, and collection of data at the IVS. The IVS surveys were not completed to assess response to the seeds but rather to verify the GPR system was transmitting properly, scans were not being dropped or skipped, and that the resulting profile length of the known IVS lines was within the tolerance specified in the MEC QAPP.

Similar to the DGM surveys, the raw GPR data and associated field documentation were posted to the secure SharePoint site for retrieval by data processing personnel.

2.6 DGM AND GPR DATA PROCESSING AND QC (DFW 8)

The project objective for DFW 8 was to process DGM and GPR data, select targets from DGM data, and update the project GIS and Access database. DGM data were processed, and target picking was performed IAW DGM SOP 5 and SOP 10. Completed data processing SOP checklists are in Appendix D, along with the field SOP checklists.

IAW the Final IVS Technical Memorandum (Appendix F), targets were selected at or above a threshold of 5 mV in Channel 2 for EM61-MK2 HP data, and 8 ppm in Bin 2 for TEM-8g data. Production and daily static test data were monitored to confirm the threshold was sufficiently above local background and noise levels. Target selection lists, processed files, and geophysical maps were created for each MRP site.

Discrete targets were selected using two different peak-picking algorithms in the UXO Land module within Geosoft Oasis Montaj, depending on survey type (transect or full coverage). Initial target selections along transects were auto-selected using a peak-picking algorithm based on the Channel 2 profile data. In full-coverage survey areas, targets were auto-selected from gridded data using the Blakely picking method in Geosoft. After initial target selection, data corresponding to the target selected by the above-mentioned picking method were evaluated to confirm the validity and positioning of each target. Targets found to be invalid or incorrectly located were removed or adjusted. Additionally, peaks that were not selected by the UXO Land module, yet deemed valid, were manually selected as targets. All targeted anomalies occurring at or above the targeting threshold were assigned a unique identification number corresponding to the MRP survey site and the target location (e.g., UXO 17_f0001).

The criteria for selecting and locating targeted anomalies included the following:

- Maximum amplitude of the response with respect to local background conditions, 5x root mean squared (RMS)
- Decay of peak response across all channels
- Lateral extent (width) of the response
- Location of the response with respect to the edge of the survey area, inaccessible areas, land features, or cultural features within or adjacent to the survey area.

In some cases, the density of subsurface anomalous response is so high that the selection of individual targets was not possible. These areas identified as SRAs are bound by polygons in the processed DGM results. Table 4 summarizes the number of targets, SRAs, and total SRA acreage for the EM61-MK2 HP and TEM-8g data at each MRP site.

Table 4. Target Totals for EM61-MK2 HP and TEM-8g Surveys

Site	EM61-MK2 HP Targets	Number of SRAs	Acreage of SRAs	TEM-8g Targets	Number of SRAs	Acreage of SRAs
UXO 03	3954	3	9.19	426	3	0.06
UXO 04	400	10	1.76	70	3	0.37
UXO 07	58	1	0.07	374	4	0.2
UXO 11	65	1	0.09	n/a	n/a	n/a
UXO 11B	233	3	0.34	n/a	n/a	n/a
UXO 13	326	4	0.17	n/a	n/a	n/a

Site	EM61-MK2 HP Targets	Number of SRAs	Acreage of SRAs	TEM-8g Targets	Number of SRAs	Acreage of SRAs
UXO 17	1455	4	1.01	2503	8	4
UXO 17B	4092	18	8.26	2676	20	6.4

2.6.1 DGM Data Deliverables

For each delivered target list, the DGM data processor provided relevant comments regarding the derived target picks. For example, an above-ground power line corridor bisected a section of Site UXO 11. This section of data was affected by additional noise impacts from the power lines, which created peak amplitudes exceeding the target picking threshold that were then selected as ‘targets’ by the UXO Land picking scheme. These targets were added to the target database because they met the target picking criteria but they were identified as “noise picks” in comments by the DGM data processor.

The DGM data processing personnel provided DGM results to the Tetra Tech GIS Manager as electronic, georeferenced data layers for inclusion in the master project GIS. This process allowed the DGM data to be overlain on existing aerial imagery and to be combined with other project data (e.g., surface clearance findings) to provide a comprehensive depiction of the SI data. Working versions of these maps served as the basis for regular in-progress reviews with the project team, and to inform decisions on next steps throughout the SI. The maps presenting the DGM results are in Appendix E.

DGM data deliverables were provided on a regular basis to Navy EODTECHDIV for quality assurance (QA) inspection. A separate secure folder was created on the project SharePoint site for the Navy to retrieve the processed data packages after internal review by Tetra Tech’s QC Geophysicist. The master Access database served as the primary repository for running QC summaries and tracking, with the exception of firewalled blind seed details during project execution. The Navy QA Geophysicist was provided separate access to a firewalled location on the SharePoint site for access to blind seed updates posted by the QC Geophysicist. Project team production personnel did not have access to this firewalled blind seed location data.

The final version of the master database (included as Appendix H) includes the blind seed details because this information is now no longer considered firewalled. Data provided in each QA submittal throughout the DGM survey execution included the following:

- Raw DGM data files and field logs
- Processed geophysical data files (production, QC tests and IVS files)
- Geosoft databases (data and target databases)
- Relevant QC plots for MQO conformance
- Target lists in CSV format
- Polygon files for SRAs
- Updated version of the master project Access database

2.6.2 Discussion of DGM Results

The DGM survey maps in Appendix E present the EM61-MK2 HP and TEM-8g response results, discrete target locations, and the delineated SRAs. The target counts and SRA acreages are summarized in Table 4. The results at each site demonstrate varying degrees of impact from buried metallic objects.

Because no intrusive investigation of DGM targets is scoped for the SI, there is no information available on the vertical extent of the discrete anomaly sources or the nature of these sources. Based on the surface clearance findings, where MEC/MPPEH was encountered on the ground surface, there may also be MEC/MPPEH present

within the subsurface, either as discrete objects or co-mingled with other debris. Without intrusive investigation of target locations, however, the nature of the anomaly sources remains unknown.

Site UXO 03 (Figures E1-E3) data exhibit the presence of widespread metallic debris across the majority of the site. Both the EM61-MK2 HP and limited TEM-8g data collection at the site demonstrate the same condition. A large portion of the site is represented by SRAs, the footprint of which include a large quantity of material documented as safe (MDAS) identified during the surface clearance and historic disposal features (e.g., mounds, incinerator, and trench).

Site UXO 04 (Figure E4) data depict extensive SRA footprints across much of the site, most notably south of [REDACTED]. It is not known whether the high-amplitude DGM responses (i.e., pink color shading) are associated with metallic debris from rail cars potentially disposed in the area, or with metallic, mineral-rich ballast rock associated with the rail spur extending along the western edge of the site. A relatively large amount of MDAS is also present south of [REDACTED] coincident with many of the SRAs in the DGM data. Based on historic images of the site that depict a clearing, the area has undergone significant disturbance associated with the construction of [REDACTED]. This disturbance and the current location of [REDACTED] itself are consistent with the location of the area of interest from historic drawings.

Site UXO 07 (Figure E5) depicts suspected disposal features consistent with the topographic mounds in the eastern portion of this site. The DGM results demonstrate the mounds contain buried metal. The lateral extent of this feature appears to extend beyond the northern limit of the UXO 07 boundary, as evidenced by TEM-8g data collected when the towed array was turned around. Although only two findings were noted by the surface clearance, one was an MEC/MPPEH object.

Site UXO 11 (Figure E6) depicts SRAs coincident with drums visible at the surface. The portion of the site immediately south of the transects is characterized by steep, inaccessible slopes. The aboveground power lines bisecting the northern portion of the site coincides with locally higher numbers of geophysical targets due to noise impacting the data from the power lines. One MDAS object was identified during surface clearance.

Site UXO 11B (Figure E7) also depicts SRAs coincident with known surface obstructions. These obstructions included surface metal debris, which could not be easily removed during surface clearance, and a cultural feature. The DGM data do not depict a high concentration of targets within the footprint of the former disposal area. One MDAS object was identified during surface clearance.

Site UXO 13 (Figure E8) does not include SRAs. Localized dense discrete geophysical target counts were observed, notably along the western site boundary. The higher anomaly counts in this part of the site may be attributable to proximity to the road [REDACTED] of the site.

Site UXO 17 (Figure E9) results depict SRAs consistent with a former disposal site, based on the lateral extent of the SRAs and high amplitude of the responses. The UXO 17 data suggest debris was disposed in pits or trenches, or was subjected to earthwork activities. MDAS was documented primarily in the northernmost section of the site; the southern section did not yield much on the surface, likely because of its recreational use and regular maintenance by the installation.

Site UXO 17B (Figure E10-E11) includes laterally extensive elevated DGM amplitudes, the results of which suggest the presence of remaining rail track and ballast in the northern sidings at the site. The DGM responses from the remainder of the site also suggest the source(s) of the geophysical response have been spread across the site, potentially scrap, debris and/or ballast material from the former rail tracks. The responses appear similar to the extensive SRA region south of [REDACTED] at Site UXO 04. Compared to Sites UXO 07, UXO 17, and UXO 11, the DGM anomaly footprints suggest there is less indication at UXO 17B of debris in the form of pits or trenches due to general lack of definition of the high-amplitude response areas and SRAs. The DGM anomaly response patterns suggest one or more of the following: (1) evidence of debris or scrap offloaded and dumped from rail cars, (2) more recent earthwork activities spread metal within the shallow subsurface, and (3) the responses are predominately associated with demolition and removal of the former rail line and ballast rock.

2.6.3 Ground Penetrating Radar Data Deliverables

GPR data were processed using GSSI's RADAN software. Data processing consisted of the following steps:

- Correcting for time zero, i.e., removing reflections between the bottom of the antenna and the ground surface
- Removing background and noise-related effects in the data (as appropriate)
- Applying gain (i.e., amplitude) to the data to enhance visualization of subtle changes in reflections at the interface between subsurface layers
- Identification of the noise floor, or the point at which the noise exceeds the usable signal
- Generating two-dimensional profiles for interpretation of data

The GIS maps were updated to show the 'as-collected' GPR profiles recorded by the GPS relative to the planned transect locations. In some areas (e.g., at UXO 04, south of [REDACTED]), the GPS would lose satellite coverage due to the wooded conditions but the GPR system does not stop recording the profile data. Based on the daily IVS checks of GPR functionality and the ability for built-in wheel encoders to track the profile distance, the GPR profiles presented in Appendix G include the full length of the profile collected.

Like the processed DGM data packages, raw and processed GPR data packages were provided to the Navy QA Geophysicist for inspection and review. Raw packages included the daily GPR field logs. RADAN maintains a separate data file for each processing step completed as part of the workflow. Each file processed IAW the aforementioned bullets was provided in the data packages provided to the Navy. Images of each final processed data file were provided in the submittals because the native files are only viewable in RADAN. Additionally, Tetra Tech provided a Microsoft Excel crosswalk between the individual raw GPR file names for each MRP site and the corresponding GPR profile to facilitate QA inspection and review. The master project Access database in Appendix H was also updated for the GPR survey.

2.6.4 Discussion of Ground Penetrating Radar Results

The GPR results are presented in Appendix G and include a location map of the profiles and the processed images as profiles. Where possible to identify in the data, these profiles depict suspected buried debris in cyan, the top of interpreted undisturbed soils in yellow and the RADAN-derived noise floor bottom in green. These features are presented as solid color lines on the GPR profiles for visual display, as opposed to dashed lines, but it is important to note they are interpretations rendered without the aid of ground truth. GPR data possess a greater amount of non-uniqueness compared to the DGM metal detection surveys because reflections in GPR data are a result of inherent differences in the properties of contrasting subsurface materials. Thus, for example, changes in soil layering may appear in the data similar to the top of the water table. A tree root, large rock or manmade metallic object in the shallow surface may also appear similarly in the data. Therefore, it is important to note that reliable detection and identification of discrete metallic objects associated with munitions is generally beyond the technology capability of GPR.

The GPR results in Appendix G A are summarized as follows.

UXO 04 (Figures G1-G6): The GPR profiles display a greater achieved depth of penetration (approximately 34ft) than presented for the other MRP sites. These profiles were collected first during the GPR survey, and even though data suggest greater depth of penetration, data beyond approximately 15 feet are not usable for practical interpretation. The field team adjusted the acquisition settings in the GPR system to minimize recording extra data at other sites, which add no practical value to this investigation.

Another notable difference with UXO 04 is the absence of interpretive features other than just the bottom of the noise floor. This observation is likely the result of the following conditions at UXO 04: (1) widespread manmade metal or metallic-mineral rich stone (e.g., railroad ballast) in the shallow subsurface, and (2) an increase in the clay mineral content of subsurface soils. The presence of shallow metallic materials (manmade or geologic) in the

subsurface is evident in the DGM survey results at UXO 04. The presence of potentially clay-rich soils is also consistent with the fact the entire MRP site has experienced some degree of soil disturbance associated with construction of [REDACTED] plus evidence of prior earthworks activities south of [REDACTED] [REDACTED] evident in historic aerial site imagery. This disturbance may result in increased amounts of clay-rich soils used as fill material. These conditions typically limit overall efficacy of GPR surveying at the site, where the GPR signal attenuation was too high in the shallow subsurface (e.g., upper 1ft) to provide meaningful interpretation at depth.

UXO 07 (Figures G7-G9): The GPR data depict reliable interpretation to approximately 13 feet below ground surface (bgs). GPR data collected at this site focused on suspected disposal areas identified in the DGM data, with key focus on the mounds in the eastern portion of the site. Suspected buried debris imaged by Profiles GPR 1 and GPR 2 (Figure G8) appears to be within the upper 5 feet of the subsurface. The remaining profiles collected at UXO 07 were collected across the mounds in the eastern portion of the site. These results indicate an approximate 2- to 2.5-foot thick soil cover atop buried debris. Buried debris appears to extend to depths of between 7.5 feet and 10 feet bgs beneath the mounds.

UXO 17 (Figures G10-G13): GPR surveys were focused in the central and northern portions of the MRP site. The top of buried debris along the western side of the site, near the base of the current western slope, suggests a thicker layer of cover soil, with the top of debris at around 5 feet bgs. Elsewhere within the site, the GPR data suggest the top of the buried debris is relatively shallow at approximately 2 to 2.5 feet bgs. The GPR data and observations during field work indicate the site was subjected to earthwork activities, with materials likely pushed towards the north and eastern portion of the MRP site during re-development since its prior use as a disposal area. Historic topographic maps demonstrate the steep slopes to the west and north were likely built to accommodate construction of existing structures at the top of the slope. The site's subjection to earthworks is further supported by metal debris protruding from the ground in the area to the [REDACTED] of the dirt road that extends through the site (i.e., Profile GPR 9, Figure G12).

The base of the suspected debris at Site UXO 17 cannot be reliably imaged in the GPR data. The data indicate likely undisturbed soils range from approximately 5 to 10 feet below ground surface, although it is possible that the water table is within this depth interval. Existing site-specific hydrogeologic information reportedly indicates the presence of a perched water table at Site UXO 17.

UXO 17B (Figures G14-G17): The GPR data for this site appear to depict changes in subsurface geology and hydrogeology throughout the site and less evidence of widespread disposal of buried debris. In the northern section of the site (Figure G-15) the cyan lines for profiles collected in the former rail car sidings are likely evidence of the remaining track and ballast, as suggested by the DGM data from this part of the site. Moving southward through the site, the field teams reported wetter, softer ground due to poorer soil drainage after precipitation events. GPR Profiles 3 and 4 on Figure G15 and GPR Profiles 8 and 9 on Figure G17 demonstrate potential impacts from shallow groundwater table and wet soils at the surface. Other profiles with interpreted top of debris depicted may, in actuality, also depict the groundwater surface.

These results are consistent with the indication in the DGM data that spreading of metallic objects (manmade or geologic) within the shallow subsurface has likely occurred at UXO 17B. Changes in the site topography around the middle of the site, likely at the time of the construction of the current parking area, also suggest soil may have been pushed around the site, thus further resulting in the seemingly haphazard appearance of the high metallic responses in the DGM and general lack of discernable features in the GPR data.

2.7 DEMOBILIZATION (DFW 10)

The DGM project objective of DFW 10 was to demobilize field crews and equipment, and to restore field area to pre-survey conditions. Upon completion of field work, pin flags, wooden stakes and metal nails installed by Tetra Tech as temporary control points were removed from survey areas. All QC seeds were removed from survey

areas. The temporary control points emplaced by the land surveyor at each MRP site location and the IVS 1 seeds were not removed.

DGM field teams demobilized on November 18, 2022, after the completion of planned field activities.

3.0 DATA USABILITY ASSESSMENT

The following sections present the data usability assessment (DUA) using the four steps described in MEC QAPP Worksheet #37.

3.1 STEP 1: REVIEW PROJECT OBJECTIVES AND SAMPLING DESIGN

The problem statement for the SI at NBK Bangor states, “The presence of MPPEH/MEC on the surface or in the subsurface would potentially pose an unacceptable explosive hazard to the public, site workers, NBK Bangor personnel, and others with access to a site. Potentially incomplete exposure pathways exist for human receptors to be exposed to MPPEH/MEC under current and potential future land uses” (MEC QAPP Worksheet #11 June 2021). Furthermore, the stated objective of the SI is to “assess and verify the absence or presence of MPPEH and support the subsequent path forward...” The problem statement and project objectives for the SI remain unchanged.

The DGM survey approach (i.e., sampling design) for this SI also remained unchanged. Access limitations caused by terrain, trees or steep slopes, which may have resulted in deviations from planned survey transect alignments or reduced coverage in portions of the site, are not considered sampling design changes as part of this DUA step.

Updates were made to the GPR approach, which included collection of focused profiles across features of interest in the DGM results as opposed to blanket full coverage collection or collection along evenly-spaced transects across the site. This update is addressed in FCR 006, presented in the SI report.

3.2 STEP 2: REVIEW DATA VERIFICATION/VALIDATION OUTPUTS AND EVALUATE CONFORMANCE TO MEASUREMENT PERFORMANCE CRITERIA

Data verification and validation outputs are evaluated as follows.

- Review available QC outputs, including daily QC reports and NCRs, with associated RCA/CAs
- Evaluate conformance to measurement performance criteria (MPC) documented on MEC QAPP Worksheet #12
- Evaluate conformance to MQOs documented on MEC QAPP Worksheet #22

3.2.1 QC Outputs

Table 5 summarizes relevant verification, validation, and usability outputs applicable to the DGM surveys in MEC QAPP Worksheets #35.

Table 5. Summary of Verification and Validation Outputs

Output	Description	Location
SOP Checklists	Field checklists were completed for applicable SOPs. QC SOP checklists are included in weekly QC reports.	Appendix B; Appendix D

Output	Description	Location
FCRs	FCR 005 - changes to EM-61 MK2 battery voltage	SI Report
	FCR 006 - updates to GPR sampling design	
PLS Report	Site control monuments were placed at each MRP site by a WA-licensed PLS. The PLS Report is included as Attachment C of the IVS Technical Memorandum	Appendix F
Weekly QC Reports	QC Reports were completed daily to document all relevant QC activities.	Appendix B
Blind Seed Register	QC seeds were reviewed to confirm data met associated MPCs and MQOs.	Appendix H
Raw and Processed Data DGM and GPR data packages	Raw and processed data were delivered to the Navy via secure project SharePoint site.	Electronic Data Deliverables Provided During Project Execution
Three Phase of Control Documentation	Preparatory, Initial, and Follow-up Inspections were performed for DFWs 3 and 5-8. Follow-up Inspections are included in weekly geophysical QC reports.	Appendix B
NCR with RCA/CA	NCR 001 – post-processed GPS Horizontal Dilution of Precision (HDOP) exceeds 3.5 for daily datasets 08/08/22	Appendix C
	NCR 002 - PM instrument function test response for G2 EM61-HP sensor exceeds 20% of initial response	
	NCR 003 - No positional data collected for 08/24/22 TEM-8g AM IVS test.	
	NCR 004 - No positional data recorded with G3 system on 09/06/22.	
	NCR 005 - Multiple QC seeds in full-coverage DGM survey areas were not selected as discrete targets by the DGM Data Processor because the mapping results depict the seeds in saturated response areas. NCR	
Master Project Access Database	QC metrics were tracked in the project Access Database and included with data deliverables.	Appendix H

3.2.2 Measurement Performance Criteria and Measurement Quality Objectives Conformance

Tables 6 and 7 present the MPC and MQO results that demonstrate the usability of DGM and GPR data collected during the SI investigation to support the project DQOs described in Worksheet #11. Note that MQOs associated

with DFW 5 are discussed in the Final IVS Technical Memorandum and the IVS Technical Memorandum Addendum 01 (Appendix F). All relevant documentation related to NCRs are included in Appendix C. In all cases, documented nonconformances have been addressed with a root-cause analysis (RCA), and an appropriate corrective action has been implemented.

Table 6. Project MPCs

Measurement	Data Quality Indicator	Specification	Result
Accessibility	Completeness	Access to the site will be pre-arranged to ensure field personnel have authorization to access survey areas. Individual sites are physically accessible to facilitate data collection	Access to site was coordinated between the Tetra Tech UXO site management team, DGM field teams, and the installation to facilitate access to the survey areas.
Planned Survey Coverage (Transects)	Representativeness/ Completeness	For individual sites where transect approach to data collection will be used, the spacing will be sufficient to delineate the lateral extent (i.e. footprint) of suspected disposal or dunnage areas.	<ul style="list-style-type: none"> • Geophysical surveys were completed within the footprint of sites having undergone vegetation reduction and surface clearance • No step-out surveys, including DGM, were performed as part of this SI • DGM transect spacing is sufficient for delineation of former disposal areas, but for some sites (e.g., UXO 07), the disposal areas may extend beyond the current limits of the site boundary • DGM results do support achievement of the project objectives in supporting the decision-making process for next steps at each MRP site
Planned Survey Coverage (Full-Coverage - DGM)	Representativeness/ Completeness	For individual sites with full-survey coverage approach, data collection will provide 100% coverage of the planned survey area. This criterion applies to sites undergoing full-coverage analog and DGM surveys.	100% coverage of the accessible survey area for each geophysical system was achieved. Data gaps were documented by the field team to include inaccessible conditions such as unsafe terrain, trees, surface metal piles, and steep slopes.
Detection Threshold (DGM Surveys)	Sensitivity	HP EM61-MK2 and TEM-8g surveys will be 5x RMS noise levels (or standard deviation).	The detection thresholds for each detection platform are $\geq 5x$ RMS and are detailed in the Final IVS Technical Memorandum (Appendix F)

Measurement	Data Quality Indicator	Specification	Result
Detection Survey (GPR Survey)	Sensitivity	Specification is that sufficient signal-to-noise is achievable at each individual site in order to provide appropriate data to provide meaningful interpretation on depth of penetration.	The GPR survey results demonstrate sufficient depth of penetration and signal-to-noise within the limits of the technology. Sites UXO 04 and UXO 17B have subsurface conditions, which appear to limit the overall efficacy of the GPR survey
Positioning Requirements (Transects)	Accuracy	Actual transect center line positions within ±25 feet of planned alignment.	All transect center line positions were within ± 25 feet of planned alignment.
Positioning Requirements (Full Coverage)	Accuracy	Where grids are to be staked on site, recorded grid corner positions within ±15-centimeter (cm) of planned locations in order to facilitate accurate data positioning and target reacquisition within grids.	<ul style="list-style-type: none"> • Use of survey-grade positioning systems (e.g., RTS) in support of DGM operations were function checked every day they were planned for use • Temporary control points were set by Tetra Tech field personnel as needed to facilitate accurate positioning • For full-coverage sites (e.g. UXO 17B), data collection was performed across 100% of accessible areas within the footprint of the site having undergone preparation activities, therefore, all DGM surveys met this requirement for accuracy • At Site UXO 04, grids were sited by Tetra Tech using RTS based on the transect survey results
Survey Coverage (Transects)	Accuracy / Completeness	100% of planned transects are surveyed	100% of accessible transect areas were collected and positional data recorded.
Survey Coverage (Full-Coverage - DGM)	Accuracy / Completeness	100% of specified acreage is surveyed at the achieved lane spacing.	100% of accessible full coverage areas were collected with coverage results presented in the Access database (Appendix H).
Subsurface QC Seeding	Accuracy / Completeness	100% detection of blind subsurface QC seeds; QC seeds placed in full coverage areas at a rate to facilitate one seed encountered per DGM team/field day.	<ul style="list-style-type: none"> • All mapped QC seeds that were not located in SRAs were successfully detected and targeted from the gridded DGM data • QC seeds were encountered by each geophysical system performing a

Measurement	Data Quality Indicator	Specification	Result
			complete day of production mapping at a single MRP site <ul style="list-style-type: none"> • Seed performance results are presented in the Blind Seed Registry (Appendix H).

Table 7. Project MQOs

Measurement Quality Objective	MQO#	Acceptance Criteria	Results
Geodetic function check	1-6	Measured coordinates at known location is within ±4 in of ground truth	Average = 0.48 in
			Max = 2.52 in
Ongoing Instrument Function Test (EM61-MK2 HP)	3-4	Response (mean static spike minus mean static background within 20% of predicted response for all channels)	Average: 4.95%
			Max: 28.42%
Ongoing Instrument Function Test (TEM-8g)	3-5	Response (mean static spike minus mean static background within 20% of predicted response Tx coupled Rx combinations)	Average: 1.43%
			Max: 9.82%
Ongoing dynamic positioning precision (IVS)	3-7	Derived positions of IVS targets ±10 in of the running average positions	Average: 1.98 in
			Max: 9.17 in
In-line measurement spacing	3-8	98% ≤ 0.75ft between successive measurements; 100% ≤ 3.3-foot gaps are filled or adequately explained (e.g., unsafe terrain or obstructions)	Along line spacing passes for the TEM-8g and EM61-MK2 HP coils. Small failures due to end of line gap, Geosoft calculation error.
Transect Coverage (EM61-MK2 HP and TEM-8g)	3-9	Sensor swath center line within 25 feet of planned transect alignment. Missing transects or deviations outside tolerance are explained (e.g., unsafe terrain obstructions)	Pass, transect coverage for TEM-8g and EM61_MK2 HP coils within 25 feet of planned transect
Full Coverage (EM61-MK2 HP and TEM-8g)	3-10	≥90% at project design spacing; 98% ≤3.3ft spacing. Exceptions include gaps explained by field team (e.g., unsafe terrain, obstructions)	Pass, full coverage for TEM-8g and EM61_MK2 HP coils was achieved and ≥ 90% at project design spacing; 98% ≤ 3.3 feet spacing. Gaps were explained and due to unsafe terrain, obstructions, etc.
Sensor Separation (EM61-MK2 HP and TEM-8g)	3-13	Minimum separation of 150 feet between sensors	Pass, a minimum separation of 150 feet between sensors was maintained throughout the project survey
Battery Voltage (EM61-MK2 HP)	3-14	Battery Voltage must be ≥ 11 volts (V)	Pass, Battery voltage was above 11V, battery was changed if voltage fell below 11V

Valid position data (RTK GPS)	3-15	≥98% GPS fix quality 4. Gaps must be bounded by GPS fix quality 4 data unless located at survey boundary	Pass; 100% RTK fix quality 4
Valid position data (post-processed GPS)	3-16	≥98% GPS HDOP < 3.5	Pass; 99.88% GPS HDOP <3.5
Dynamic DGM Survey Performance	3-17	Blind seeds detected and derived target location within ±2.5 feet of ground truth for data collected with RTK GPS or RTS	Average: 1.14 feet Max: 2.49 feet
Ongoing Instrument Function Test (GPR)	4-2	Communication established between antenna and data logger; GPR antenna receives signal	Pass; GPR data collection and communication settings verified during daily IVS surveys
Odometer Function Test (GPR Survey Wheel Mode)	4-3	Odometer (survey wheel) accurate to within ±3.3 feet when odometer/survey wheel data used for positioning	Pass; tolerance ranged between 1.4 feet and 2.9 feet based on distance measurements recorded along the IVS center line
Transect Coverage (GPR)	4-3	Survey path within 25 feet of planned transect alignment. Missing transects or deviations outside tolerance are explained (e.g., navigate around obstruction)	Pass; transects were completed within tolerance unless deviation necessary to avoid rocks, trees, or soft/wet soils.
Full Coverage (GPR)	4-4	≥ 90% survey paths within ±5 feet of planned transect spacing of 10feet; 98% ±10 feet. Missing transects or deviations outside tolerance are explained (e.g., unsafe terrain, obstructions)	

3.3 STEP 3 – DOCUMENT DATA USABILITY, UPDATE THE CSM, AND DRAW CONCLUSIONS

This section reviews the data usability inputs using the following steps:

- Evaluate data completeness.
- Summarize the impacts of non-conformances on data usability.
- Summarize updates to current CSM
- Summarize data usability conclusions

3.3.1 Data Completeness and Impacts on Data Usability

The verification and validation outputs included in this DUA confirm the data quality and quantity are sufficient to support the overall project objectives of the SI. The NCR/RCA process was followed for QC variances associated with the dynamic surveys and processing, and corrective actions were developed in coordination with the project team to ensure the usability of the data was not adversely impacted.

3.3.2 Update to Conceptual Site Models

Updates to the conceptual site models (CSMs) based on the DGM survey results are limited to site-specific conditions relevant to impacts to data collection. Additional updates to the overall CSM for the MRP sites in this SI are addressed in the SI report.

- Site UXO 03: no updates to the CSM based on DGM survey
- Site UXO 04: delineated SRAs indicate high response area in the DGM data extend beyond the current site boundary
- Site UXO 07: delineated SRAs indicate a high response area in the DGM data extending beyond the current site boundary
- Site UXO 11: overhead power line corridor bisects the northern portion of the site; impacts to the DGM data include additional noise, which may locally increase the number of false positives in the target list based on the established target picking threshold; steep slopes to the south of the site limit extent to which digital data can be safely collected
- Site UXO 11B: surface debris piles and cultural feature create SRAs in the DGM data
- Site UXO 13: localized steep slopes within the project area limit the ability to collect 100% digital DGM data across the entire site
- Site UXO 17: Metallic debris was observed protruding from the ground in the northern portion of the site, [REDACTED]; delineated SRAs indicate a high-response area in the DGM data extending beyond the current site boundary
- Site UXO 17B: Poor soil drainage creates standing water and soft ground surface conditions, depending on precipitation levels; these conditions potentially limit the amount of coverage with digital geophysical systems

3.3.3 Conclusions

The DGM and GPR data collected as part this SI can be used as intended to achieve the project objectives. Updates to the technical approach were considered in cooperation with the project team, and do not adversely impact data usability. The data provided by the geophysical surveys are sufficient to inform decisions regarding the potential absence or presence of munitions-related items at the MRP sites, but without intrusive resolution of anomalies, the nature of the anomalies is unknown.

3.4 STEP 4 – DOCUMENT LESSONS LEARNED AND MAKE RECOMMENDATIONS

Lessons learned from the DGM and GPR survey include the following:

- Post-processed GPS data collection should include setup of a secondary base station, if the primary base station cannot be visually monitored by the survey team. This backup measure can prevent the need to re-collect data in the event the field team is unaware the primary base station has deviated from its established position.
- Blanket GPR coverage surveys at these MRP sites (and sites with similar conditions) are not as efficient for munitions response actions as focused surveys targeting features delineated in area-wide mapping surveys.
- Vehicle tow systems should consider potential changes in the site conditions based on the weather or other activities onsite (e.g., vegetation reduction causing muddy conditions). Towed array surveys should be prepared to accommodate rugged micro-terrain in terms of trailer height and the types of wheels used to minimize survey down time.

- Blind QC seed emplacement should include the use of a digital sensor or multiple analog sensors to confirm background response is acceptable for seed detection during DGM. Acceptable instruments would include an EM61-MK2 or a combination of analog sensors capable of detecting all-metal anomalies to the maximum depths prescribed in the blind seeding program. This measure could reduce the likelihood of a QC seed being placed in an SRA, which would prohibit the anomaly from being selected as a discrete target.

APPENDIX A – DAILY REPORTS

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. 01
Contract No. N6247016D9008	Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA	Date: 07/12/2022
Contractor: Tetra Tech, Inc.	Site Superintendent: Forrest Malone; SUXOS	
AM Weather: 60 F. Clear. Winds N 2 MPH.	PM Weather: 75 F. Sunny. Winds 4 MPH.	

Description of Work Activities for the Day

- The team arrived at the site trailer for initial briefing on tasks and duties that need to be completed. The majority of the team was able to complete the base ID process, and the rest of the team will complete this process after initial access is granted.
- The TEM-8g system was delivered to the site trailer off -site from the base then assembled. Equipment was used to collect a sample dataset in order to confirm the equipment is functioning as intended.
- Initial setup and inventory of EM61-MKII HP system was done. No testing was complete on this day.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Jeff Gamey	1	Off-Site Technical Support	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	0
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	50

List safety actions taken today/safety inspections conducted:

Daily Safety Brief. Daily Safety Inspection. Vehicle checks. Equipment checks.

Remarks:

- Work Planned for following work day:
- The team will continue equipment checks, and training on equipment.
 - Procurement of additional items needed before on-site field operations begin.
 - Site Specific Training
 - Preparatory meeting for DFW #5 & #6



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/12/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.12 21:24:55 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						01	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/12/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/12/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/12/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/12/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. <div style="border: 1px solid black; padding: 2px;">02</div>
Contract No. <div style="border: 1px solid black; padding: 2px;">N6247016D9008</div>	Title & Location: <div style="border: 1px solid black; padding: 2px;">Naval Base Kitsap Bangor SI; Silverdale, WA</div>	Date: <div style="border: 1px solid black; padding: 2px;">07/13/2022</div>
Contractor: <div style="border: 1px solid black; padding: 2px;">Tetra Tech, Inc.</div>	Site Superintendent: <div style="border: 1px solid black; padding: 2px;">Forrest Malone; SUXOS</div>	
AM Weather: <div style="border: 1px solid black; padding: 2px;">64 F. Clear. Winds N 2 MPH.</div>	PM Weather: <div style="border: 1px solid black; padding: 2px;">75 F. Sunny. Winds 4 MPH.</div>	

Description of Work Activities for the Day

- The team completed the preparatory call for DFW #5 & #6, and completed Site Specific Training.
- Function tests were completed with both EM61-MKII HP systems.
- Site Geo conducted a site walk with SUXOS and UXOQCS to sites 3, 4, 11, 11b, 13, 17, and 17b.
- Team picked up trailer for TEM-8g transportation to site.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Jeff Gamey	1	Off-Site Technical Support	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">50</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">50</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">100</div>
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		

List safety actions taken today/safety inspections conducted:

Daily Safety Brief. Daily Safety Inspection. Traffic safety.

Remarks:

Work Planned for following work day:

- The team will continue equipment training, and equipment setup.
- Collect pre-seeded IVS survey.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

07/13/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.13 21:52:44 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 07/13/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/13/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/13/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/13/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No.
		03
Contract No.	Title & Location:	Date:
N6247016D9008	Naval Base Kitsap Bangor SI; Silverdale, WA	07/14/2022
Contractor:		Site Superintendent:
Tetra Tech, Inc.		Forrest Malone; SUXOS
AM Weather:		PM Weather:
64 F. Clear. Winds N 2 MPH.		75 F. Sunny. Winds 2 MPH.

Description of Work Activities for the Day

- The team continued training on the EM61-MKII HP system. Prepared equipment for transportation over to the base.
- Additional testing with the TEM-8g.
- Collection of two pre-seeded background surveys.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Jeff Gamey	1	Off-Site Technical Support	10
6	Nolan Walker	1	Geo	10
Total:				60

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<input style="width: 50px;" type="text" value="60"/>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<input style="width: 50px;" type="text" value="100"/>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<input style="width: 50px;" type="text" value="160"/>

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Slips, trips, and Falls. Hydration.

Remarks:

-Nolan Walker received his base access ID.

Work Planned for following work day:

- Transportation of equipment to the site.
- IVS installation.
- IVS initial collection
- Start collection of EM61-MKII survey data

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

07/14/2022

Signature

Brett Yarborough

Digitally signed by Brett Yarborough
Date: 2022.07.15 10:28:21 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						03	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/14/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/14/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/14/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/14/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No.
		04
Contract No.	Title & Location:	Date:
N6247016D9008	Naval Base Kitsap Bangor SI; Silverdale, WA	07/17/2022
Contractor:		Site Superintendent:
Tetra Tech, Inc.		Forrest Malone; SUXOS
AM Weather:		PM Weather:
64 F. Cloudy/Drizzle. Winds N 2 MPH.		65 F. Cloudy. Winds 2 MPH.

Description of Work Activities for the Day

- The team continued testing of the EM61-MKII HP system. Prepared equipment for transportation over to the base.
- Additional testing with the TEM-8g.
- Site Geo placed additional control points in UXO 17b, and measured the southern boundary points for the extension of utility clearance in the laydown yard.
- Site walk of UXO 7 & 7b

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Jeff Gamey	1	Off-Site Technical Support	10
6	Nolan Walker	1	Geo	10
Total:				60

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	60
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	160
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	220

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Proper comms., Situational Awareness.

Remarks:

- Team waiting on approval for extension boundary for Utilities clearance in the laydown yard.

Work Planned for following work day:

- Transport TEM-8g to site
- Place additional control points in survey areas

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/17/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.17 21:32:36 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No.			Title & Location:			04	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			Date:	
						07/17/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/17/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/17/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/17/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No.
		05
Contract No.	Title & Location:	Date:
N6247016D9008	Naval Base Kitsap Bangor SI; Silverdale, WA	07/18/2022
Contractor:		Site Superintendent:
Tetra Tech, Inc.		Forrest Malone; SUXOS
AM Weather:		PM Weather:
66 F. Sunny. Winds N 2 MPH.		75 F. Sunny. Winds 2 MPH.

Description of Work Activities for the Day

-The team transported the TEM-8g to site, and staged the trailer for the following day operations.
 - Additional control points in UXO 17b by the field team.
 - Field team took a site walk of UXO 3 for reconnaissance, and placed additional controls in the lower base section of UXO 04.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Jeff Gamey	1	Off-Site Technical Support	10
6	Nolan Walker	1	Geo	10
Total:				60

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<input style="width: 80%;" type="text" value="60"/>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<input style="width: 80%;" type="text" value="220"/>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<input style="width: 80%;" type="text" value="280"/>

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Safe Driving practices, Situational Awareness.

Remarks:

- Team waiting on approval for extension boundary for Utilities clearance in the laydown yard.

Work Planned for following work day:

- Transport remaining equipment to site.
- IVS construction and initial equipment checks through IVS.
- Place additional control points in survey areas.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/18/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.18 21:16:10 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						05	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/18/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/18/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/18/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/18/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. 06
Contract No. N6247016D9008	Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA	Date: 07/19/2022
Contractor: Tetra Tech, Inc.	Site Superintendent: Forrest Malone; SUXOS	
AM Weather: 66 F. Sunny. Winds N 2 MPH.	PM Weather: 75 F. Sunny. Winds 2 MPH.	

Description of Work Activities for the Day

- The team constructed the IVS (SOP 1) in the laydown yard after receiving clearance for the utility clearance area extension .
 - Initial IVS testing was completed with the TEM-8g (SOP 2).
 - Initial IVS testing was completed by the field team using both EM61-MKII HP units with the robotic total station (RTS), and one system using the RTK positioning system (SOP 2).

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nolan Walker	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	280
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	330
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Fire prevention, fire safety, Situational Awareness.

Remarks:

Work Planned for following work day:
 - G1 team will be working on EM61-MKII HP transects in UXO 03.
 - G2 team will be working on TEM-8g full coverage areas in UXO 17b.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/19/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.19 21:13:43 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						06	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/19/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/19/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/19/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/19/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. 07
Contract No. N6247016D9008	Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA	Date: 07/20/2022
Contractor: Tetra Tech, Inc.	Site Superintendent: Forrest Malone; SUXOS	
AM Weather: 66 F. Sunny. Winds N 2 MPH.	PM Weather: 75 F. Sunny. Winds 2 MPH.	

Description of Work Activities for the Day

- The TEM-8g team (G2) started collection of UXO 17b.
 - The EM61-MKII HP team (G2) was unable to collect due to lack of control points in UXO 03. Team attempted to place additional control point in the area, but accuracy was unable to be achieved due to tree coverage and distance from PLS established control.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nolan Walker	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	330
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	380

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. DGM Activities, Slips, Trips, Falls, Situational Awareness.

Remarks:

- Surveyor will be on-site tomorrow to place additional control points to better assist DGM collection in areas that.
- After returning to the lay down yard at the end of the day, TEM-8g team noticed that two of the tires on the sensor had started to deflate. Extra tires are on-site, and will be swapped in the AM. The tires removed will be repaired and stored as spares for a later time.
- UXO 17 was unable to be accessed due to base operations in area.

Work Planned for following work day:

- G1 team will be working on EM61-MKII HP transects in UXO 17b or UXO 07 (If accessible)
- G2 team will be working on TEM-8g full coverage areas in UXO 17b.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/20/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.20 22:32:20 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						07	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/20/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/20/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/20/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/20/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. 08
Contract No. N6247016D9008	Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA	Date: 07/21/2022
Contractor: Tetra Tech, Inc.	Site Superintendent: Forrest Malone; SUXOS	
AM Weather: 66 F. Sunny. Winds N 2 MPH.	PM Weather: 75 F. Sunny. Winds 2 MPH.	

Description of Work Activities for the Day

- The TEM-8g team (G2) continued collection of UXO 17b.
 - The EM61-MKII HP team (G1) started collection of UXO 17b in areas that the TEM-8g would be unable to access.
 - Site Geo assisted with the placement of additional control points while the PLS was on-site. Additional control were placed in UXO 3, UXO 11, UXO 11b, and UXO 17b.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nolan Walker	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	380
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	430

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Situational Awareness.

Remarks:

Work Planned for following work day:
 - G1 team will be working on EM61-MKII HP transects in UXO 17b south or UXO 07 (If accessible)
 - G2 team will be working on TEM-8g full coverage areas in UXO 04.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/21/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.22 08:24:32 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No.						08	
N6247016D9008			Title & Location:			Date:	
			Naval Base Kitsap Bangor SI; Silverdale, WA			07/21/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/21/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/21/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/21/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No. <div style="border: 1px solid black; padding: 2px;">09</div>
Contract No. <div style="border: 1px solid black; padding: 2px;">N6247016D9008</div>	Title & Location: <div style="border: 1px solid black; padding: 2px;">Naval Base Kitsap Bangor SI; Silverdale, WA</div>	Date: <div style="border: 1px solid black; padding: 2px;">07/24/2022</div>
Contractor: <div style="border: 1px solid black; padding: 2px;">Tetra Tech, Inc.</div>	Site Superintendent: <div style="border: 1px solid black; padding: 2px;">Forrest Malone; SUXOS</div>	
AM Weather: <div style="border: 1px solid black; padding: 2px;">66 F. Sunny. Winds N 2 MPH.</div>	PM Weather: <div style="border: 1px solid black; padding: 2px;">75 F. Sunny. Winds 2 MPH.</div>	

Description of Work Activities for the Day

- The TEM-8g team continued full coverage collection of UXO 17b.
- The EM61-MKII HP team started collection of UXO 04 transects on the upper base side of the area.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nolan Walker	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">50</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">430</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">480</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Situational Awareness.

Remarks:

- TEM-8g will not be operational tomorrow due to tire maintenance.
- Work Planned for following work day:
- G1 team will be working on EM61-MKII HP Full Coverage in UXO 17b North.
 - G2 team will be working on EM61-MKII HP transects in UXO 03.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/24/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.24 22:17:41 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.		
Contract No. N6247016D9008						Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA		09
						Date: 07/24/2022		
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	07/24/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/24/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/24/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION		Report No.
		10
Contract No.	Title & Location:	Date:
N6247016D9008	Naval Base Kitsap Bangor SI; Silverdale, WA	07/25/2022
Contractor:		Site Superintendent:
Tetra Tech, Inc.		Forrest Malone; SUXOS
AM Weather:		PM Weather:
70 F. Sunny. Winds N 2 MPH.		81 F. Sunny. Winds 2 MPH.

Description of Work Activities for the Day

- The G1 team using the EM61-MKII HP system collected full coverage data in UXO17b North. Team completed collection of sidings 19 and 20.
 - The G2 team using the EM61-MKII HP team started collection of UXO 03 transects on the eastern side of area. Approximately 75% of transects 77, 78, and 79 were collected.

#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nolan Walker	1	Geo	10
6	Nick Emm	1	Geo	11
Total:				61

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	61
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	480
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	541
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Staying hydrated. Being aware of temperatures. Situational Awareness.

CONTRACTOR PRODUCTION REPORT

Remarks:

Today, Nick Emm completed the badging process and the site specific training with the UXOQCS/UXOSO. Nolan Walker is demobilizing from site on 07/26/2022.

Work Planned for following work day:

- G1 team will be working on TEM-8g Full Coverage in UXO 17b North.
- G2 team will be working on EM61-MKII HP transects in UXO 03.

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

07/25/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.25 18:53:15 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						10	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/25/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/25/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/25/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/25/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				11
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 07/26/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 74 F. Sunny. Winds N 2 MPH.		PM Weather: 91 F. Sunny. Winds 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM-8g system collected full coverage data in UXO17b North. Team completed collected approximately 7 grids of full coverage data in the center portion UXO17b in the North. - The G2 team using the EM61-MKII HP team started collection of UXO 03 transects on the eastern side of area. Remaining uncollected portions of transects 77, 78, and 79 have completed collection, and transect 76 was completed.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	540
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	590

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Staying hydrated. Being aware of temperatures. Taking breaks when needed to maintain personal health. Situational Awareness.

CONTRACTOR PRODUCTION REPORT

Remarks:

At the end of the day, during the PM IVS tests, the UTV for the TEM-8g experienced a mechanical issue to the back driver side wheel. The lug nuts on the wheel failed, and caused the UTV to be inoperable due to this mechanical issue. The failure point was at the rim of the tire, where the lug nut broke through the rim of the tire. Operator identified that there an issue immediately with the UTV, and safety stopped the vehicle before any additional damage was done.

A spare wheel/rim set is on-site. As a safety precaution, inspection of the wheel hub and surrounding areas will be performed before any work will be done on the UTV. Additional, all tires will be checked before daily operation.

Work Planned for following work day:

- G1 team will be working on EM61-MKII HP Full Coverage in UXO 17b North.
- G2 team will be working on EM61-MKII HP transects in UXO 03.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/26/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.26 22:15:52 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 07/26/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/26/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/26/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/26/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
Contract No.			Title & Location:	
N6247016D9008			Naval Base Kitsap Bangor St; Silverdale, WA	
Contractor:			Site Superintendent:	
Tetra Tech, Inc.			Forrest Malone; SUXOS	
AM Weather:			PM Weather:	
71 F. Sunny. Winds N 3 MPH.			91 F. Sunny. Winds 2 MPH.	
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP system collected full coverage data in UXO17b North. Team completed collection of sidings 20 and 17, and started collection of siding 17(15%). - The G2 team using the EM61-MKII HP team continued collection of UXO 03 transects on the southern end of the area. Approximately 25% of transects 73, 74, and 75 were collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">50</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">590</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">640</div>
List safety actions taken today/safety inspections conducted:			
Daily Safety Brief - Off-site. Daily Safety Inspection. Insect Stings and Allergies. Situational Awareness.			
Remarks:			
Today, Polaris tow vehicle was loaded and secured onto trailer for transport to repair facility following day.			
Work Planned for following work day: - G1 team will be working on EM61-MKII HP transects in UXO 04. - G2 team will be working on EM61-MKII HP transects in UXO 04.			



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/27/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.27 22:09:32 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						12	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/27/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/27/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/27/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/27/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			13	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	07/30/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
65 F. Sunny. Winds 0 MPH.		93 F. Sunny. Winds S 8 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP team started collection of UXO 04 transects on the Northern end of the area. 100% of transects 1-20 and 35 as well as approximately 10% of transects 27-34 were collected. - The G2 team using the EM61-MKII HP team continued collection of UXO 04 transects on the southern end of the area. 100% of transects 17-20 as well as approximately 30% of transects 21-23 were collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	640
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	690

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Slips, Trips, and Falls. Hydration. Staying Cool.

Remarks:

Today, Replacement parts for the damaged Polaris were located and purchased.

Work Planned for following work day:

- G1 team will continue working on EM61-MKII HP transects in UXO 04.
- G2 team will continue working on EM61-MKII HP transects in UXO 04.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/30/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.30 20:09:47 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						13	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/30/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/30/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/30/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/30/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				14
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		07/31/2022
Contractor:			Site Superintendent:	
Tetra Tech, Inc.			Forrest Malone; SUXOS	
AM Weather:			PM Weather:	
67F. Sunny. Winds SW 1 MPH.			93 F. Sunny. Winds SSW 8 MPH.	
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP team continued collection of UXO 04 transects on the Northern end of the area. 100% of transects 22-34 were collected. - The G2 team using the EM61-MKII HP team continued collection of UXO 04 transects on the southern end of the area. 100% of transects 21-33 were collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	690
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	740

List safety actions taken today/safety inspections conducted:

Daily Safety Brief - Off-site. Daily Safety Inspection. Heat Related Injuries. Hydration. Staying Cool. Fatigue Management.

Remarks:

EM61-MKII HP collection complete on UXO 04 transects.

Work Planned for following work day:

- G1 team will resume work on EM61-MKII HP full coverage in UXO 17B.
- G2 team will resume work on EM61-MKII HP full coverage in UXO 17B.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

07/31/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.07.31 19:37:06 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						14	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			07/31/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	07/31/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				07/31/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	07/31/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				15
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/01/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
82 F. Sunny. Winds N 6 MPH.		66 F. Partly Cloudy. Winds NW 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP finished collection of UXO 17B full coverage in siding 11 and started siding 3. 85% of siding 11 and 15% of siding 3 collected. - The G2 team using the EM61-MKII HP team started and finished collection of UXO 17B full coverage in siding 2. 100% of siding 2 collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	50
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	740
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	790

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Vests and High Vis Clothing

Remarks:

Today, repairs were carried out on Polaris UTV. UTV is expected to be back on-site on 08/02/2022.

Work Planned for following work day:

- G1 team will start working on TEM8g full coverage in UXO 17.
- G2 team will start working on EM61-MKII HP transects in UXO 11.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/01/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.01 23:19:55 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						15	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/01/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/01/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/01/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/01/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				16
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/02/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
61 F. Drizzle. Winds N 4 MPH.		71 F. Sunny. Winds S 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B full coverage in siding 3. 35% of siding 3 collected today 50% total. - The G2 team using the EM61-MKII HP started and finished initial collection of UXO 11 transects 1-11. 100% UXO11 transects collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">50</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">790</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">840</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls. Slippery Conditions.

Remarks:

Today, new axles and bushings were cut and new solid wheels were fitted to TEM8g system.

Work Planned for following work day:

- G1 team will start working on TEM8g full coverage in UXO 17.
- G2 team will continue working on EM61-MKII HP full coverage in UXO 17B.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/02/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.02 23:44:25 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						16	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/02/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/02/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/02/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/02/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
Contract No.			Title & Location:	
N6247016D9008			Naval Base Kitsap Bangor St; Silverdale, WA	
Contractor:			Site Superintendent:	
Tetra Tech, Inc.			Forrest Malone; SUXOS	
AM Weather:			PM Weather:	
62 F. Overcast. Winds N 7 MPH.			65F. Sunny. Winds NW 3 MPH.	
Description of Work Activities for the Day				
- The G1 team using the TEM8g began initial collection of UXO 17 full coverage. approximately 12 grids complete. - The G2 team using the EM61-MKII HP started and finished initial collection of UXO 17B siding 4. 100% of UXO 17B siding 4 complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Brett Yarborough	1	Site Geo	10
2	Zach Weston	1	UXO Tech II	10
3	Jacob Jankowski	1	UXO Tech II	10
4	Jared Hester	1	UXO Tech I	10
5	Nick Emm	1	Geo	10
Total:				50

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">50</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">840</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">890</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Complacency.

Remarks:

Work Planned for following work day:
 - G1 team will continue working on TEM8g full coverage in UXO 17.
 - G2 team will start working on EM61-MKII HP transects in UXO 07.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/03/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.04 06:00:28 -07'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						17	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/03/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/03/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/03/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/03/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			18	
Contract No.	Title & Location:		Date:	
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA		08/06/2022	
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
58 F. Sunny. Winds 0 MPH.		77F. Sunny. Winds S 6 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g continued initial collection of UXO 17 full coverage. approximately 11 grids complete. UXO 04 transect 01 was completed and remaining transects in UXO 04 are unable to be collected due to tree coverage. - The G2 team using the EM61-MKII HP started and finished initial collection of UXO 7 transects 1-5. 100% of UXO 7 EM61-MKII HP transects complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	890
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	930

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Insect Bites and Stings.

Remarks:

Jacob Jankowski was stung by a yellow jacket in UXO 07, and this event was recorded in the field teams logbook.

 Work Planned for following work day:
 - G1 team will continue working on TEM8g full coverage in UXO 17.
 - G2 team will start working on EM61-MKII HP transects in UXO 11b.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/06/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.07 06:58:12 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						18	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/06/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/06/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/06/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/06/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				19
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 08/07/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 62 F. Sunny. Winds SW 3 MPH.		PM Weather: 81F. Sunny. Winds SW 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g continued and finished initial collection of UXO 17 full coverage. approximately 7 grids complete. remaining area steep or wooded, 100% UXO 17 TEM8g initial collection complete - The G2 team using the EM61-MKII HP started and finished initial collection of UXO 17B siding 6. 100% of UXO 17B siding 6 EM61-MKII HP initial full coverage complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	930
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	970

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Insect Bites and Stings. Level D PPE.

Remarks:

Work Planned for following work day:
 - G1 team will resume work TEM8g full coverage in UXO 17B.
 - G2 team will start working on EM61-MKII HP transects in UXO 13.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/07/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.08 08:15:54 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						19	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/07/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/07/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/07/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/07/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				20
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/08/2022
Contractor:			Site Superintendent:	
Tetra Tech, Inc.			Forrest Malone; SUXOS	
AM Weather:			PM Weather:	
87F. Sunny. Winds SW 3 MPH.			67F. Sunny. Winds N 3 MPH.	
Description of Work Activities for the Day				
- The G1 team using the TEM8g resumed initial collection of UXO 17B full coverage in the north end and siding 13. Approximately 7 grids complete. - The G2 team using the EM61-MKII HP started initial collection of UXO 13 transects. transects 18, 19, and 20 collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	970
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,010

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Insect Bites and Stings.

Remarks:

Base station for the TEM-8g GPS unit fell during the day. The exact time of when the GPS base station fell is unknown. Data will need to be reviewed by the data processor for decision on recollection, if applicable.

Work Planned for following work day:

- G1 team will continue working on TEM8g full coverage in UXO 17B.
- G2 team will continue working on EM61-MKII HP transects in UXO 13.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/08/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.09 09:35:36 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						20	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/08/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/08/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/08/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/08/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				21
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 08/09/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 84F. Rain. Winds NW 3 MPH.		PM Weather: 66F. Sunny. Winds W 1 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP with the Robotic Total Station continued initial collection of UXO 17B full coverage in siding 3. 45% of siding 3 collected, 95% of siding 3 initial collection complete . - The G2 team using the EM61-MKII HP with the Robotic Total Station continued initial collection of UXO 13 transects. transects 9-17 collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,010
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,050

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls. Wet Surfaces

Remarks:

Nick Emm was stung on his left hand during collection, he was observed and no adverse reaction was noted, incident was recorded in field logbook.
 SUXOS and UXOSO worked on solution to TEM8g loading and unloading safety issues.
 Work Planned for following work day:
 - G1 team will continue working on EM61-MKII HP full coverage in UXO 17B.
 - G2 team will continue working on EM61-MKII HP transects in UXO 13.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/09/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.10 09:07:36 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 08/09/2022		
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	08/09/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/09/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/09/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			22	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/10/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
77F. Overcast. Winds N 8 MPH.		65F. Sunny. Winds NW 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP began initial collection of UXO 17B full coverage in siding 5. 75% of siding 5 collected, 95% of siding 5 initial collection complete . - The G2 team using the EM61-MKII HP continued initial collection of UXO 13 transects. transects 1-8 collected. 100% of UXO 13 EM61-MKII HP initial collection complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,050
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,090

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Lightning

Remarks:

Work Planned for following work day:
 - G1 team will continue working on TEM8g full coverage in UXO 17B.
 - G2 team will start working on EM61-MKII HP transects in UXO 11B.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/10/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.11 09:47:31 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 08/10/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/10/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/10/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/10/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				23
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 08/15/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 59F. Sunny. Winds NW 2 MPH.		PM Weather: 84F. Sunny. Winds SW 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g resumed initial collection of UXO 17B full coverage. Approximately 7 grids complete including sidings 14 and 17. - The G2 team using the EM61-MKII HP started and finished initial collection of UXO 11B transects. Transects 1-10 collected. 100% of UXO 11B EM61-MKII HP initial collection complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,090
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,130

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Fatigue Management and Heat Stress.

Remarks:

Today a second TEM8g base station antenna was mounted on top of the Conex near ivs01.
 Work Planned for following work day:
 - G1 team will continue working on TEM8g full coverage in UXO 17B.
 - G2 team will resume working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/15/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.16 09:01:50 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						23	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/15/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/15/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/15/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/15/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				24
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/16/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
59F. Sunny. Winds NW 2 MPH.		84F. Sunny. Winds SW 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g continued initial collection of UXO 17B full coverage. Approximately 6 grids complete including sidings 8, 12 and 15. - The G2 team using the EM61-MKII HP resumed initial collection of UXO 3 transects. Transects 73, 74, and 75 collected				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,130
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,170

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Heat Stress

Remarks:

Work Planned for following work day:
 - G1 team will continue working on TEM8g full coverage in UXO 17B.
 - G2 team will continue working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/16/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.17 10:59:42 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						24	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/16/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/16/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/16/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/16/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				25
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/17/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
61F. Sunny. Winds 0 MPH.		88F. Sunny. Winds W 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g finished initial collection of UXO 17B full coverage. Approximately 5 grids complete including sidings 1, 3, 5, and 7. - The G2 team using the EM61-MKII HP resumed initial collection of UXO 3 transects. Transects 71, 72, and 73 50% complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">1,170</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">1,210</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Heat Related Injuries

Remarks:

Work Planned for following work day:
 - G1 team will start collection of TEM8g full coverage in UXO 7.
 - G2 team will continue working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/17/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.18 07:53:40 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/17/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/17/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/17/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/17/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				26
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/18/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
65F. Partly Cloudy. Winds 0 MPH.		89F. Sunny. Winds W 1 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g started and finished initial collection of UXO 7 full coverage. Approximately 1.5 grids collected. - The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 71, 72, and 73. Transects 71, 72, and 73 40% collected, 90% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,210
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,250

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - PPE, Cell Phone Use in Vehicles, Hydration.

Remarks:

Work Planned for following work day:
 - G1 team will resume collection of EM61-MKII HP full coverage in UXO 17B.
 - G2 team will continue working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/18/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.19 09:25:57 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						26	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/18/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/18/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/18/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/18/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			27	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/19/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
68F. Cloudy. Drizzle. Winds N 3 MPH.		85F. Sunny. Winds NW 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP resumed initial collection of UXO 17B full coverage. Approximately 2 grids collected. - The G2 team using the EM61-MKII HP completed initial collection of UXO 3 transects 71, 72, and 73 and started transects 67,68, and 69. Transects 71, 72, and 73 10% collected, 100% complete. Transects 67, 68, and 69 20% collected, 20% complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,250
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,290

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Hydration, Lightning, and Bears.

Remarks:

Today a replacement tire for the transport trailer was acquired and installed.
 Work Planned for following work day:
 - G1 team will start collection of EM61-MKII HP transects in UXO 3.
 - G2 team will continue working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/19/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.20 14:48:11 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						27	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/19/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/19/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/19/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/19/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			28	
Contract No.	Title & Location:		Date:	
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA		08/22/2022	
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
65F. Sunny. Winds NW 2 MPH.		84F. Sunny. Winds SW 4 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP started the day collecting UXO 17B full coverage. Data processors informed field team of a data issue with the EM61-MKII HP and spent the rest of the day troubleshooting, the root cause of the issue is still under investigation.</p> <p>- The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 67, 68, and 69. Transects 67, 68, 69 40% collected, total 60% complete of listed transects.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/>	No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,290
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,330

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Trench Foot

Remarks:

Today the transport trailer was inspected by the rental facility where it was procured and deemed safe.

Work Planned for following work day:

- G1 team will start collection of TEM8g full coverage in UXO 3.
- G2 team will continue working on EM61-MKII HP transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/22/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.23 09:38:53 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						28	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/22/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/22/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/22/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/22/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				29
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		08/23/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
60F. Sunny. Winds 0 MPH.		80F. Sunny. Winds SW 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g started and completed full coverage in UXO 3 - The G2 team using the EM61-MKII HP finished initial collection of UXO 3 transects 67,68, and 69. Transects 67, 68, 69 40% collected, 100% complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,330
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,370

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Foot Care and Footwear Selection

Remarks:

Work Planned for following work day:

- G1 team will start recollection of TEM8g full coverage in UXO 17B transitioning to UXO 4 full coverage after 3pm.
- G2 team will continue working on EM61-MKII HP transects in UXO 3 transitioning to UXO 4 mini grids after 3pm.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/23/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.24 09:30:27 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 08/23/2022		
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	08/23/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/23/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/23/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			30	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/24/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
68F. Sunny. Winds SW 5 MPH.		86F. Sunny. Winds SW 1 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g started recollection in UXO 17B and transitioned to UXO 4 initial full coverage after 3pm. UXO 17B recollection 50% complete, initial collection of UXO 4 TEM8g full coverage 100% complete - The G2 team using the EM61-MKII HP started initial collection of UXO 3 transects 64,65, and 66. Transects 64, 65, and 66 20% collected, 20% complete. Completed initial full coverage collection of mini grid C in UXO04.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,370
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,410

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Hydration

Remarks:

Work Planned for following work day:

- G1 team will continue recollection of TEM8g full coverage in UXO 17B transitioning to UXO 4 EM61-MKII HP mini grid after 3pm.
- G2 team will continue working on EM61-MKII HP transects in UXO 3 transitioning to UXO 4 mini grids after 3pm.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/24/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.25 08:57:50 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						30	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/24/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/24/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/24/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/24/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			31	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/25/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
89F. Sunny. Winds NW 4 MPH.		75F. Sunny. Winds NW 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g continued recollection in UXO 17B and conducted preliminary gap fill in the north end. UXO 17B recollection 100% complete. - The G2 team using the EM61-MKII HP started initial collection of UXO 3 transects 64,65, and 66. Transects 64, 65, and 66 30% collected, 50% complete. At 3PM transitioned to UXO4 to collect mini grid B, mini grid B100% complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10.5
2	Jacob Jankowski	1	UXO Tech II	10.5
3	Jared Hester	1	UXO Tech I	10.5
4	Nick Emm	1	Geo	10.5
Total:				42

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	42
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,410
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,452

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

During Preliminary gap fill in UXO17B the Polaris tow vehicle was high centered in soft soil on an underground root ball, minor damage to fender support on passenger side of the UTV was noted after recovery by team. No damage to the TEM-8g sensor was observed.

Work Planned for following work day:

- G1 team will continue working on EM61-MKII transects in UXO 3 and gap fill transects in UXO 7, 11, or 11b then transitioning to UXO 4 mini grids after 3pm.
- G2 team will be combined with G1 for today.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/25/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.26 10:33:28 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 08/25/2022		
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	08/25/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/25/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/25/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
Contract No. N6247016D9008				32
Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 08/26/2022		
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 61F. Cloudy. Winds N 7 MPH.		PM Weather: 72F. Cloudy. Winds W 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP collected 3/3 gaps in UXO7 6/31 gaps in UXO11B 1/60 gaps in UXO 4 and 70% of mini grid A in UXO 4. - The G2 team with the Leica Robotic Total Station marked gaps in UXO 11, UXO 11B, and UXO 4. All gaps marked in UXO 11 and UXO 11B, and 15 transects marked in UXO 4				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/>	No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,450
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,490
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>		

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Eye Protection

Remarks:

Work Planned for following work day:

- G1 team will continue collecting gaps in UXO11 and Mini Grid A in UXO 4 with EM61-MKII HP
- G2 team will conduct initial testing for replacement EM61-MKII HP System



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/26/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.28 05:46:32 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						32	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/26/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/26/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/26/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/26/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			33	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/29/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
57F. Sunny. Winds SW 1 MPH.		83F. Sunny. Winds S 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP collected 25/31 gaps in UXO11B 2/60 gaps in UXO4 and 20% of mini grid A in UXO 4. 31/31 gaps complete in UXO11B, 3/60 gaps complete in UXO4, 90% of mini grid A initial collection complete in UXO4 - The G2 team received and tested the replacement EM61-MKII HP, replacement was found to have issue with cable shake test during inspection, replacement unit deemed unusable for collection.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,490
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,530

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Insect Bites

Remarks:

Work Planned for following work day:

- G1 team will start collecting gaps in UXO11B and continue Mini Grid A in UXO 4 with EM61-MKII HP after 3PM
- G2 team will use the Leica Robotic Total Station to mark obstructions and features in UXO11 and UXO11B to assist data processing team with reconciliation of field data gaps.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/29/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.30 06:19:10 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						33	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/29/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/29/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/29/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/29/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			34	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	08/30/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
52F. Sunny. Winds SW 1 MPH.		88F. Sunny. Winds SW 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP collected 15/15 gaps in UXO11 1/60 gaps in UXO4 and 10% of mini grid A in UXO 4. 15/15 gaps complete in UXO11, 4/60 gaps complete in UXO4, 100% of mini grid A initial collection complete in UXO4 - The G2 team used Leica Robotic Total Station to mark obstructions and features in UXO11 to assist data processing team with reconciliation of field data gaps and marked 8 transects in UXO 4.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Nolan Walker	1	Geo	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">1,530</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">1,570</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Egress Routes

Remarks:

Zach Weston was stung by a bee on his right hip in UXO04.

Work Planned for following work day:

- G1 team will start collecting transects in UXO 3 and continue gap fill in UXO 4 with EM61-MKII HP after 3PM
- G2 team will use the Leica Robotic Total Station to mark obstructions and features in UXO11 to assist data processing team with reconciliation of field data gaps and mark remaining transects in UXO4.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/30/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.31 05:47:26 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						34	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/30/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/30/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/30/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/30/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			35	
Contract No.	Title & Location:		Date:	
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA		08/31/2022	
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
64F. Sunny. Winds N 2 MPH.		89F. Sunny. Winds N 7 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP continued initial collection of UXO 3 transects 64,65, and 66. Transects 64, 65, and 66 45% collected, 95% complete. At 3PM transitioned to UXO4 to collect gaps, 4/60 gaps in UXO4 collected, 8/60 gaps complete in UXO4</p> <p>- The G2 team used Leica Robotic Total Station to mark transect lanes ahead of G1 team in UXO3 and after 3PM marked 9 gaps in UXO 4.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Nolan Walker	1	Geo	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">1,570</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">1,610</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Wasp Stings

Remarks:

Work Planned for following work day:

- The G1 team will continue collecting EM61-MKII HP transects in UXO 3 and continue gap fill in UXO 4 with after 3PM
- The G2 team will use the Leica Robotic Total Station to mark transect lanes ahead of G1 team in UXO3 and after 3PM mark gaps in UXO 4.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

08/31/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.08.31 21:08:12 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						35	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			08/31/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	08/31/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				08/31/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	08/31/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			36	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/01/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
61F. Cloudy. Winds N 4 MPH.		78F. Sunny. Winds S 5 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP continued initial collection of UXO 3 transects 61,62, and 63. Transects 61, 62, and 63 40% collected, 40% complete. At 3PM transitioned to UXO4 to collect gaps, 8/60 gaps in UXO4 collected, 16/60 gaps complete in UXO4</p> <p>- The G2 team used Leica Robotic Total Station to mark transect lanes ahead of G1 team in UXO3 and after 3PM marked 10 gaps in UXO 4 and collected points marking inaccessible areas of steep incline and obstacles.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	0
2	Nolan Walker	1	Geo	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				30

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	30
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,610
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,640

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Poisonous Plants

Remarks:

Work Planned for following work day:

- G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
- The G2 team will conduct initial inspection and testing of replacement EM61-MKII HP system and after will resume initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

09/01/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.02 05:08:03 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						36	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/01/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/01/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/01/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/01/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				37
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		09/02/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
56F. Fog. Winds S MPH.		81F. Sunny. Winds W 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 3 transects 61,62, and 63. and marked part of transects 58, 59, and 60 for brush cutting. Transects 61, 62, and 63 60% collected, 100% complete. - The G2 team inspected, assembled, and performed initial testing of replacement EM61MKII HP system and after used Leica Robotic Total Station to put in control points near transect 40 and marked transects 38, 39, and 40 for brush cutting.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Nolan Walker	1	Geo	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">1,650</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px; width: 50px; margin: 0 auto;">1,690</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - PPE.

Remarks:

Work Planned for following work day:
 - G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will resume initial collection of EM61-MKII HP transects in UXO 3
 one of the teams will transition to gap fill in UXO4 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/02/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.04 15:50:37 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						37	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/02/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/02/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/02/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/02/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			38	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/06/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
56F. Sunny. Winds S 3 MPH.		79F. Sunny. Winds SW 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP started initial collection of UXO 3 transects 40,39, and 38. Transect 40 100% complete, Transect 39 80% complete, Transect 38 60% complete. - The G2 team using the EM61-MKII HP started initial collection of UXO 3 transects 60,59, and 58. Transects 60, 59, and 58 25% complete. After 3pm transitioned to gapfill in UXO 4, 6/60 gaps in UXO4 collected, 22/60 gaps complete in UXO4.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,690
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,730

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Wasps

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3
 one of the teams will transition to gap fill in UXO4 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/06/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.07 09:18:37 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						38	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/06/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/06/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/06/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/06/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			39	
Contract No.	Title & Location:		Date:	
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA		09/07/2022	
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
57F. Partly Cloudy. Winds 0 MPH.		77F. Sunny. Winds S 7 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP completed initial collection of UXO 3 transects 39 and 38 and started transects 37, 36, 35. T39 20% collected 100% complete, T38 40% collected, 100% complete, T37 30% collected 30% complete, T36 30% collected 30% complete T35 40% collected 40% complete.</p> <p>- The G2 team using the EM61-MKII HP recollected initial collection of UXO 3 transects 60,59, and 58. Transects 60, 59, and 58 25% complete. After 3pm transitioned to gapfill in UXO 4, 8/60 gaps in UXO4 collected, 24/60 gaps complete in UXO4.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,730
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,770

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Stop Work Authority

Remarks:

The Previous day (220906) the G2 team had an erroneous setting on their data collector that was not discovered until end of day, issue was corrected and the AM tests (220907) were sent off after AM IVS completion to confirm issue had been resolved

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3
- one of the teams will transition to gap fill in UXO4 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/07/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.08 08:33:39 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						39	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/07/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/07/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/07/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/07/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			40	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/08/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
53F. Sunny. Winds SW 2 MPH.		73F. Sunny. Winds SW 7 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP continued initial collection of UXO 3 transects 37, 36, 35. T37 65% collected 95% complete, T36 65% collected 95% complete T35 55% collected 95% complete.</p> <p>- The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 60,59, and 58. Transects 60, 59, and 58 15% collected, 40% complete. After 3pm transitioned to gapfill in UXO 4, 6/60 gaps in UXO4 collected, 30/60 gaps complete in UXO4.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/>	No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,770
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,810

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - PPE

Remarks:

Work Planned for following work day:

- The G1 team will collect gap fill with the TEM8g in UXO17 transitioning to marking features in UXO11 with the Leica RTS
- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3 transitioning to gap fill in UXO4 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/08/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.09 09:14:22 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						40	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/08/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/08/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/08/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/08/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 41	
Contract No. N6247016D9008	Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA	Date: 09/09/2022		
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 63F. Sunny. Winds S 10 MPH.		PM Weather: 78F. Sunny. Winds S 11 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g filled 19/19 gaps in UXO17 followed by packing of unused and defective gear to be shipped off site - The G2 team using the EM61-MKII HP completed initial collection of UXO 3 transects 60,59, and 58. Transects 60, 59, and 58 60% collected, 100% complete. followed by additional testing of new EM61MKII HP Coil				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,810
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,850

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - High Winds

Remarks:

Work Planned for following work day:

- The G1 team will resume initial collection of EM61-MKII HP transects in UXO 3
- The G2 team working from 10am to 8pm will continue initial collection of EM61-MKII HP transects in UXO 3 transitioning to gap fill in UXO4 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/09/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.11 20:10:28 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No. N6247016D9008							Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA	
							Date: 09/09/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/09/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/09/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/09/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			42	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/12/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
63F. Partly Cloudy. Winds N 3 MPH.		76F. Sunny. Winds NW 4 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP completed initial collection of UXO 3 transects 37, 36, 35 and started initial collection of transects 34, 33, and 32. T37 5% collected 100% complete, T36 5% collected 100% complete T35 5% collected 100% complete T34 50% collected 50% complete, T33 70% collected 70% complete, T32 50% collected 50% complete.</p> <p>- The G2 team using the EM61-MKII HP started initial collection of UXO 3 transects 57, 56, 55, 54, 53, and 52. Transects 57, 56, 55, 54, 53, and 52 15% collected, 15% complete.</p> <p>After 3pm transitioned to gap fill in UXO 4</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,850
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,890

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Tick Bites

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/12/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.13 05:56:17 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
							42	
Contract No.				Title & Location:			Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA			09/12/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/12/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/12/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/12/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 43	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 09/13/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 60F. Cloudy. Winds 0 MPH.		PM Weather: 72F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP in UXO3 collected full coverage of proposed areas for demo 1 and 2 and also continued initial collection of transects 34, 33, 32 and started initial collection of transects 31 and 30. T34 5% collected 55% complete, T33 5% collected 75% complete, T32 5% collected 55% complete, T31 50% collected 50% complete, T30 50% collected 50% complete.</p> <p>- The G2 team using the EM61-MKII HP collected 4 gaps in UXO 4 and completed gap fill in UXO 4, followed by initial collection of UXO 3 transects 51, 50, 49, 48, 47, and 46. Transects 51, 50, 49, 48, 47, and 46. 15% collected, 15% complete.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,890
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,930

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/13/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.14 05:59:44 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						43	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/13/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/13/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/13/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/13/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			44	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/14/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
61F. Cloudy. Winds W 1 MPH.		74F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP continued initial collection in UXO 3 of of transects 34, 33, 32, 31 and 30 as well as started and finished initial collection of transect 29. T34 45% collected 100% complete, T33 25% collected 100% complete, T32 45% collected 100% complete, T31 50% collected 100% complete, T30 50% collected 100% complete, T29 100% collected 100% complete.</p> <p>- The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 51, 50, 49, 48, 47, and 46 as well as started initial collection of transects 45, 44, 43, 42, and 41. Transects 51, 50, 49, 48, 47, and 46. 5% collected, 20% complete. transects 45, 44, 43, 42, and 41. 10% collected, 10% complete.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,930
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	1,970

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Proper Lifting

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/14/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.15 06:58:56 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						44	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/14/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/14/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/14/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/14/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			45	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/15/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
56F. Cloudy. Winds W 2 MPH.		69F. Cloudy. Winds S 4 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP completed initial collection in UXO 3 of transects 66, 65, 64, 63, 62, 61, and 28 as well as started initial collection of transect 27. Transects 66, 65, 64, 63, 62, and 61, 5% collected 100% complete. Transect 28 100% collected 100% complete. Transect 27 30% collected 30% complete.</p> <p>- The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, and 41. Transects 57, 56, 55, 54, 53, 52, 51, 50, and 49, 10% collected 25% complete, Transects 48, 47, and 46 10% collected, 30% complete. Transects 45, 44, 43, 42, and 41 10% collected 20% complete.</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	1,970
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,010

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - CPR

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/15/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.16 05:50:32 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No. N6247016D9008			Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA			Date: 09/15/2022		
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/15/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/15/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/15/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			46	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/16/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
54F. Cloudy. Winds N 3 MPH.		66F. Cloudy. Winds W 2 MPH.		
Description of Work Activities for the Day				
<p>- The G1 team using the EM61-MKII HP completed initial collection in UXO 3 of of transects 27, 26, 25, 24, and 23. Transect 27 70% collected 100% complete. Transects 26, 25, 24, and 23 100% collected, 100% complete</p> <p>- The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 41, 42, 43, 44, 45, 46, 47, 48, 49, and 50. Transects 41, 42, 43, 44, and 45 15% collected 35% complete. Transects 46, 47, and 48 15% collected 45% complete. Transects 49 and 50 15% collected 40% complete</p>				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,110
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,150

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/16/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.19 07:54:57 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
							46	
Contract No.				Title & Location:			Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA			09/16/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/16/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/16/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/16/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				47
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		09/19/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
51F.Sunny. Winds SW 3 MPH.		77F. Sunny. Winds S 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP started and completed initial collection in UXO 3 of transects 19, 20, 21, and 22. Transects 19, 20, 21, and 22 100% collected 100% complete - The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 51, 52, 53, 54, 55, 56, and 57. Transects 51, 52, 53, and 54 10% collected 35% complete. Transects 55, 56, and 57 75% collected 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,150
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,190

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/19/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.20 09:17:30 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
							47	
Contract No.				Title & Location:			Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA			09/19/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/19/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/19/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/19/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.
			48
Contract No.	Title & Location:		Date:
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA		09/20/2022
Contractor:		Site Superintendent:	
Tetra Tech, Inc.		Forrest Malone; SUXOS	
AM Weather:		PM Weather:	
54F. Sunny. Winds S 6 MPH.		79F. Sunny. Winds S 6 MPH.	
Description of Work Activities for the Day			
<p>- The G1 team using the EM61-MKII HP started and completed initial collection in UXO 3 of transects 18, 17, 16, 15, 14, 13, 12, 11, 10, and 9. Transects 18, 17, 16, 15, 14, 13, 12, 11, 10, and 9 100% collected 100% complete</p> <p>- The G2 team using the EM61-MKII HP continued and completed initial collection of UXO 3 transects 51, 52, 53, and 54 Transects 51, 52, 53, and 54 65% collected 100% complete</p>			
#	Employer or Employee	Number	Trade or Position
1	Zach Weston	1	UXO Tech II
2	Jacob Jankowski	1	UXO Tech II
3	Jared Hester	1	UXO Tech I
4	Nick Emm	1	Geo
			Total: 40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,190
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,230

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP transects in UXO 3
- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/20/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.21 08:20:03 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION							Report No.	
Contract No.							48	
N6247016D9008				Title & Location:			Date:	
				Naval Base Kitsap Bangor SI; Silverdale, WA			09/20/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022			
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			

Contractor Production Lead	Date
Brett Yarborough	09/20/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/20/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/20/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			49	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/21/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
51F. Sunny. Winds SW 3 MPH.		79F. Sunny. Winds NW 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP started and completed initial collection in UXO 3 of transects 8, 7, 6, 5, 4, 3, 2, and 1. Transects 8, 7, 6, 5, 4, 3, 2, and 1 100% collected 100% complete. - The G2 team using the EM61-MKII HP continued and completed initial collection of UXO 3 transects 50, 49, 48, and 47. Transects 50 and 49 60% collected 100% complete. Transects 48, and 47 55% collected 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,230
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,270

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls

Remarks:

Work Planned for following work day:
 - The G1 team will start initial collection of EM61-MKII HP full coverage in UXO 17
 - The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/21/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.22 07:55:35 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						49	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/21/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/21/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/21/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/21/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			50	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/22/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
55F. Partly Cloudy. Winds N 5 MPH.		72F. Sunny. Winds N 10 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP started initial collection of UXO 17 full coverage, approximately 1/4th grid collected - The G2 team using the EM61-MKII HP continued initial collection of UXO 3 transects 41, 42, 43, 44, 45, and 46 Transects 41, 42, 43, 44, and 45 45% collected 80% complete. Transect 46 45% collected 90% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	5
Total:				35

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	35
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,270
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,305

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset, Situational Awareness.

Remarks:

Nick Emm was sent home @ 1300 due to suspected food poisoning, Zach Weston joined G2 team

Work Planned for following work day:

- The G2 team will continue initial collection of EM61-MKII HP transects in UXO 3.
- Zach Weston will join the G2 team during the day to assist with transects in UXO 3.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/22/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.23 08:04:07 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						50	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/22/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/22/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/22/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/22/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				51
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 09/23/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 55F. Partly Cloudy. Winds N 3 MPH.		PM Weather: 70F. Sunny. Winds NW 3 MPH.		
Description of Work Activities for the Day				
- The G1 team was combined with G2 team - The G2 team using the EM61-MKII HP completed initial collection of UXO 3. Transects 41, 42, 43, 44, and 45 20% collected 100% complete. Transect 46 10% collected 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	0
Total:				30

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	30
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,305
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,335

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Hydration

Remarks:

Nick Emm was off site due to suspected food poisoning, Zach Weston joined G2 team

 Work Planned for following work day:
 - The G1 team will resume initial collection of EM61-MKII HP full coverage in UXO 17
 - The G2 team will resume initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

09/23/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.26 07:42:23 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						51	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/23/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/23/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/23/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/23/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			52	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/26/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
53F. Partly Cloudy. Winds S 2 MPH.		83F. Sunny. Winds SW 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP resumed initial collection of UXO 17, approximately 1 full grid collected - The G2 team using the EM61-MKII HP completed initial collection of UXO 17B siding 50% collected 100% complete. also collected approximately 4.5 grids in the southern middle section of 17B.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,335
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,375

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Food Poisoning

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/26/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.27 07:40:27 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						52	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/26/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	O	Jul 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/26/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/26/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/26/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			53	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	09/27/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
53F. Sunny. Winds N 1 MPH.		79F. Sunny. Winds N 5 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team using the EM61-MKII HP recollected part of mini grid B in UXO 4 and continued initial collection UXO 17B. approximately 6 grids in the southern middle section of UXO 17B collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,375
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,415

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Extreme Weather

Remarks:

Correction to CPR's ranging from 08/26/2022 to 09/26/2022.
 - Updated Equipment usage date range for Geonics EM61HP coil S/N 1920
 - Addition of KD Jones EM61HP coil S/N 0327

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/27/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.28 06:00:33 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						53	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/27/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP: SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/27/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/27/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/27/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				54
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 09/28/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 54F. Cloudy. Winds N 5 MPH.		PM Weather: 69F. Cloudy. Winds N 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately .5 grid collected - The G2 team using the EM61-MKII HP continued initial collection UXO 17B. approximately 6 grids in the southern middle section of UXO 17B collected.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,415
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,455

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - PPE

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/28/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.29 07:16:29 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						54	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/28/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/28/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/28/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/28/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				55
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		09/29/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
53F. Partly Cloudy. Winds SW 2 MPH.		70F. Partly Cloudy. Winds SW 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team using the EM61-MKII HP continued initial collection UXO 17B. Sidings 10 and 12 100% collected, 100% complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,455
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,495

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Punctuality, Layering, and Stretching

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/29/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.09.30 07:51:19 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						55	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/29/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/29/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/29/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/29/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				56
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 09/30/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 53F. Cloudy. Winds SW 2 MPH.		PM Weather: 70F. Sunny. Winds SW 4 MPH.		
Description of Work Activities for the Day				
<ul style="list-style-type: none"> - The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately .5 grid collected - The G2 team using the EM61-MKII HP continued initial collection UXO 17B. Siding 14 100% collected, 100% complete 				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">2,495</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">2,535</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Layering

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will be combined with G1 team



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

09/30/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.02 18:59:57 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						56	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			09/30/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	09/30/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				09/30/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	09/30/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				57
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/03/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
53F. Partly Cloudy. Winds SE 2 MPH.		78F. Sunny. Winds S 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team was combined with G1 team				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	0
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				30

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	30
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,535
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,565

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset, Situational Awareness.

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/03/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.03 22:50:18 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						57	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/03/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/03/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/03/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/03/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				58
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/04/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
52F. Cloudy. Winds N 3 MPH.		67F. Partly Cloudy. Winds SW 2 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP recollected 6/6 gaps in UXO11B and continued initial collection of UXO 17, approximately .5 grids collected - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B siding 16. siding 16 100% collected 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,565
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,605

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/04/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.04 23:08:28 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						58	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/04/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/04/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/04/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/04/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				59
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/05/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 54F. Cloudy. Winds SW 1 MPH.		PM Weather: 67F. Partly Cloudy. Winds SW 3 MPH.		
Description of Work Activities for the Day				
<ul style="list-style-type: none"> - The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team was combined with G1 team 				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	0
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				30

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/>	No: <input type="radio"/>	Total work hours on site this date:	30
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,605
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,635

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Bio-hazards

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/05/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.06 09:15:01 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						59	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/05/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/05/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/05/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/05/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 60	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/06/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 50F.Fog. Winds S 3 MPH.		PM Weather: 73F. Cloudy. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B siding 18. Siding 18 100%collected, 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,635
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,675

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Fatigue Management

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/06/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.07 09:53:28 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						60	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/06/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/06/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/06/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/06/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 61	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/07/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 52F. Cloudy. Winds SE 1 MPH.		PM Weather: 77F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17, approximately 1 grid collected - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B central northern section, approximately 4 grids collected				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	2,675
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	2,715

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Proper Lifting

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/07/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.09 13:51:57 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						61	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/07/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/07/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.
Contract No.				Title & Location:				Date:
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/07/2022
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO
1				O				

Contractor Production Lead	Date
Brett Yarborough	10/07/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				62
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/10/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
49F. Cloudy. Winds N 2 MPH.		68F. Cloudy. Winds S 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP completed initial collection of UXO 17, approximately 1 grid collected - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B central northern section, approximately 4 grids collected				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,715
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,755

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset

Remarks:

Work Planned for following work day:
 - The G1 team will resume initial collection of EM61-MKII HP full coverage in UXO 17B
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/10/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.11 08:44:30 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						62	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/10/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/10/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/10/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/10/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			63	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	10/11/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
46F. Sunny. Winds S 3 MPH.		66F. Sunny. Winds S 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP resumed initial collection of UXO 17B. Siding 5 25% collected 100% complete. Siding 7 20% collected 20% complete - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B central northern section, approximately 3 grids collected				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,755
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,795

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Communication

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B transitioning to gap fill in UXO13 after 3pm



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/11/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.12 06:08:37 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						63	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/11/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/11/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/11/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/11/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				64
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/12/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
47F. Sunny. Winds SW 5 MPH.		68F. Sunny. Winds S 6 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B. Siding 7 80% collected 100% complete - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B. Siding 15 20% collected 20% complete. at 3pm transitioned to gap fill in UXO13, 4/4 gaps complete				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,795
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,835

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/12/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.13 09:27:13 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						64	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/12/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/12/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/12/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/12/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				65
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/13/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
47F. Sunny. Winds S 2 MPH.		74F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete. - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B. Siding 15 80% collected 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,835
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,875

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Housekeeping

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

10/13/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.14 04:11:28 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						65	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/13/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/13/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/13/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/13/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				66
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/14/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
48F. Partly Cloudy. Winds S 2 MPH.		72F. Sunny. Winds SE 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete. - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,875
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,915

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

Work Planned for following work day:

- The G1 team will fill gaps in UXO3 with the TEM8g
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/14/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.16 20:55:52 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						66	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/14/2022	
#	Equipment <small>(Type, Model No, Serial No.)</small>	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/14/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/14/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/14/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				67
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/17/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
49F. Partly Cloudy. Winds N 3 MPH.		67F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the TEM8g collected 5/5 gaps in UXO3 - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,875
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,915

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset

Remarks:

Work Planned for following work day:
 - The G1 team will resume initial collection of EM61-MKII HP full coverage in UXO 17B
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

10/17/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.18 11:22:07 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						67	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/17/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/17/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/17/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/17/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				68
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/18/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
46F. Partly Cloudy. Winds SW 1 MPH.		68F. Sunny. Winds S 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2.5 grids complete. - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,915
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,955

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Safety Mindset

Remarks:

Work Planned for following work day:

- The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/18/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.18 21:11:35 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						68	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/18/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/18/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/18/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/18/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				69
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/19/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
46F. Partly Cloudy. Winds S 2 MPH.		68F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete. - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B North in the central section, approximately 2 grids complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	8
2	Jacob Jankowski	1	UXO Tech II	8
3	Jared Hester	1	UXO Tech I	0
4	Nick Emm	1	Geo	8
Total:				24

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	24
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,955
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,979

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - 3R' Explosive Safety

Remarks:

Jared Hester off site due to feeling unwell.
 Work day shortened due to safety concerns about air quality.
 Work Planned for following work day:
 - The G1 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/19/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.20 05:41:16 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						69	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/19/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/19/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/19/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/19/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 70	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/20/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 51F.Sunny. Winds W 3 MPH.		PM Weather: 60F.Sunny. Winds W 4 MPH.		
Description of Work Activities for the Day No on-site work was conducted on this day due to poor air quality. Collection team was on standby during the morning waiting to see if conditions improved.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	4
2	Jacob Jankowski	1	UXO Tech II	4
3	Jared Hester	1	UXO Tech I	4
4	Nick Emm	1	Geo	4
Total:				16

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	16
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,979
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	4,995

List safety actions taken today/safety inspections conducted:

No safety inspections conducted on this day. UXOSO called the day for health concerns due to poor air quality in the area.

Remarks:

Work Planned for following work day:
 - The G1 team will start initial testing of GSSI SIR 4000 GPR.
 - The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/20/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.24 20:36:37 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						70	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/20/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/20/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/20/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/20/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				71
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/21/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
51F.Drizzle. Winds W 3 MPH.		55F.Rain. Winds W 4 MPH.		
Description of Work Activities for the Day				
- The G1 team assembled and conducted preliminary testing of the GSSI SIR 4000 GPR and maintenance of the TEM8g and IVS. - The G2 team using the EM61-MKII HP continued initial collection of UXO 17B. Siding 13 100% collected, 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	4,995
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,035

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Extreme Weather

Remarks:

Work Planned for following work day:

- The G1 team will continue initial testing of GSSI SIR 4000 GPR.
- The G2 team will continue initial collection of EM61-MKII HP full coverage in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Title/Company

Date

Brett Yarborough

Site Geophysicist/Tetra Tech Inc

10/21/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.24 20:44:49 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						71	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/21/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/21/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/21/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/21/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			72	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	10/24/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
47F.Drizzle. Winds N 9 MPH.		55F.Partly Cloudy. Winds SW 3 MPH.		
Description of Work Activities for the Day				
- The G1 marked a wasp nest in UXO17B siding 3, UXO17B siding 3 100% complete. After marked GPR transects in UXO7 and south end of UXO4 and collected 4 test transects with GSSI SIR 4000 GPR in UXO4 - The G2 team using the EM61-MKII HP completed initial collection of UXO 17B. Siding 1 100% collected, 100% complete.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,035
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,075

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Communication

Remarks:

Work Planned for following work day:

- The G1 team will continue initial testing and collection of GSSI SIR 4000 GPR transects.
- The G2 team with the EM61-MKII HP will conduct gap fill in UXO 17



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/24/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.24 20:51:19 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						72	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/24/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/24/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/24/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/24/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 73	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/25/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 46F.Cloudy. Winds N 7 MPH.		PM Weather: 52F.Rain. Winds N 3 MPH.		
Description of Work Activities for the Day				
<ul style="list-style-type: none"> - The G1 team inspected obstacles in UXO17B and marked up line map to assist data processors with gap picks - The G2 team filled in 2/2 gap areas in UXO17 				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,075
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,115

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Driving in rain

Remarks:

Work Planned for following work day:
 - The G1 team will continue initial testing and collection of GSSI SIR 4000 GPR transects.
 - The G2 team with the EM61-MKII HP will conduct gap fill in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/25/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.25 22:40:37 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						73	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/25/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/25/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/25/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/25/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				74
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		10/26/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
44F.Cloudy. Winds N 3 MPH.		50F.Cloudy. Winds N 7 MPH.		
Description of Work Activities for the Day				
- The G1 team using the GSSI SIR 4000 GPR collected 12/12 GPR transects in UXO4 - The G2 team using the EM61 MKII HP filled in 2 gap areas and marked obstructions in 3 others in UXO17B				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,115
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,155

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Driving in Fog

Remarks:

Work Planned for following work day:
 - The G1 team will continue collection of GSSI SIR 4000 GPR transects in UXO7.
 - The G2 team with the EM61-MKII HP will conduct gap fill in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/26/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.27 12:59:25 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						74	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/26/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/26/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/26/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/26/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 75	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/27/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 48F.Cloudy. Winds N 14 MPH.		PM Weather: 57F.Cloudy. Winds N 12 MPH.		
Description of Work Activities for the Day				
- The G1 team using the GSSI SIR 4000 GPR collected 7/7 GPR transects in UXO7 and performed maintenance on the Polaris tow vehicle - The G2 team using the EM61 MKII HP filled in gap areas in UXO17B siding 3				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,155
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,195

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Complacency

Remarks:

Work Planned for following work day:
 - The G1 team will recollect gaps in UXO3 with the TEM8g.
 - The G2 team with the EM61-MKII HP will continue gap fill in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/27/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.28 08:33:07 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						75	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/27/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/27/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/27/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/27/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 76	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/28/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 47F.Cloudy. Winds SW 3 MPH.		PM Weather: 56F.Cloudy. Winds SW 4 MPH.		
Description of Work Activities for the Day				
- The G1 team using the EM61 MKII HP collected 11/11 TEM8g gaps in UXO3 - The G2 team using the EM61 MKII HP filled in gap areas in UXO17B southern central area				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,195
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,235

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Vehicle Safety

Remarks:

Work Planned for following work day:
 - The G1 team with the EM61-MKII HP will continue gap fill in UXO 17B
 - The G2 team with the EM61-MKII HP will continue gap fill in UXO 17B



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/28/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.10.30 15:26:57 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						76	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/28/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/28/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/28/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/28/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				77
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 10/31/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 50F.Cloudy. Winds NE 5 MPH.		PM Weather: 55F.Cloudy. Winds W 4 MPH.		
Description of Work Activities for the Day				
<ul style="list-style-type: none"> - The G1 team using the EM61 MKII HP filled in gap areas in UXO17B siding 13 - The G2 team using the EM61 MKII HP filled in gap areas in UXO17B siding 2 				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,235
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,275

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls

Remarks:

Work Planned for following work day:
 - The G1 team with the EM61-MKII HP will continue gap fill in UXO 17B
 - The G2 team start equipment clean up and packing of equipment not in use.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

10/31/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.01 11:19:24 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						77	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			10/31/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	10/31/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				10/31/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	10/31/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				78
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/01/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
41F.Cloudy. Winds S 2 MPH.		50F.Cloudy. Winds N 3 MPH.		
Description of Work Activities for the Day				
- The G1 team using the GSSI SIR 4000 GPR collected 9 transects in UXO17 The G2 team packed unused equipment for demobilization				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	<div style="border: 1px solid black; padding: 5px;">40</div>
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	<div style="border: 1px solid black; padding: 5px;">5,275</div>
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	<div style="border: 1px solid black; padding: 5px;">5,315</div>

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Proper Lifting

Remarks:

Work Planned for following work day:
 - The G1 team will pack unused gear for demobilization.
 - The G2 team will pack unused gear for demobilization.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/01/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.02 16:23:32 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						78	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/01/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	O	Aug 26, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/01/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/01/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/01/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 79	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 11/02/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 41F.Cloudy. Winds N 4 MPH.		PM Weather: 46F.Cloudy. Winds S 3 MPH.		
Description of Work Activities for the Day				
- The G1 team packed unused equipment for demobilization - The G2 team packed unused equipment for demobilization				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,315
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,355

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Proper Lifting

Remarks:

TEM8g and Polaris tow vehicle were transported to Jackson Park and Transport Trailer was returned to vendor.
 Work Planned for following work day:
 - The G1 team will evaluate and collect gaps in UXO17B and pack unused gear for demobilization.
 - The G2 team will perform site restoration and pack unused gear for demobilization.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/02/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.03 13:58:01 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.		
Contract No. N6247016D9008						Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA		Date: 11/02/2022
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022			
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022			
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022			

Contractor Production Lead	Date
Brett Yarborough	11/02/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/02/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/02/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 80	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 11/03/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 36F.Cloudy. Winds N 4 MPH.		PM Weather: 44F.Rain. Winds N 14 MPH.		
Description of Work Activities for the Day				
<ul style="list-style-type: none"> - The G1 team evaluated and collected gaps in UXO17B and packed unused gear for demobilization. - The G2 team will performed site restoration and packed unused gear for demobilization. 				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,355
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,395

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Extreme Weather

Remarks:

Work Planned for following work day:
 - The G1 team will demob gear from Jackson Park and perform site restoration at NBK.
 - The G2 team will demob gear from Jackson Park and perform site restoration at NBK.



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/03/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.04 06:09:38 -04'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						80	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/03/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		O	Jul 12, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		O	Jul 12, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/03/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/03/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/03/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No.	
			81	
Contract No.	Title & Location:	Date:		
N6247016D9008	Naval Base Kitsap Bangor St; Silverdale, WA	11/04/2022		
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
39F.Overcast. Rain. Winds N 8 MPH.		58F. Overcast .Rain. Winds N 7 MPH.		
Description of Work Activities for the Day				
- The G1 demobilized the Polaris, TEM8g array, and unused gear at the Jackson Park Compound - The G2 team was combined with G1 team				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	10
2	Jacob Jankowski	1	UXO Tech II	10
3	Jared Hester	1	UXO Tech I	10
4	Nick Emm	1	Geo	10
Total:				40

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/>	No: <input type="radio"/>	Total work hours on site this date:	40
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,395
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/>	No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,435

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Proper Lifting

Remarks:

Jared Hester and Jacob Jankowski will demobilized from the site on 11/05/2022.

 Work Planned for following work day:
 - The G1 team will perform site restoration and mark GPR transects in UXO17B
 - The G2 team has been demobilized



CONTRACTOR PRODUCTION REPORT

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/04/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.07 10:02:58 -05'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No.						81	
N6247016D9008			Title & Location:			Date:	
			Naval Base Kitsap Bangor SI; Silverdale, WA			11/04/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		10
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		10
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/04/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/04/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/04/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 82	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 11/07/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 36F. Overcast. Drizzle. Winds N 5 MPH.		PM Weather: 41F. Overcast .Rain. Winds S 3 MPH.		
Description of Work Activities for the Day - The G1 team performed site restoration in UXO4, marked 3 GPR transects in UXO17B, as well as shot in site features in UXO17B.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,435
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,453
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Slips, Trips, and Falls

Remarks:

Work Planned for following work day:
- The G1 team will continue marking and collect GPR transects in UXO17B

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/07/2022

Signature

Brett Yarborough

Digitally signed by Brett Yarborough
Date: 2022.11.08 09:02:58 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.		
Contract No. N6247016D9008						Title & Location: Naval Base Kitsap Bangor SI; Silverdale, WA		Date: 11/07/2022
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours	
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		9	
2	Chevy Traverse: License Plate- 014NLG	Enterprise		OR	Jul 10, 2022		9	
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022		
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022			
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022		
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022		
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022		
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022			

Contractor Production Lead	Date
Brett Yarborough	11/07/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/07/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/07/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				83
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/08/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
36F. Overcast. Winds S 10 MPH.		43F. Sunny. Winds S 12 MPH.		
Description of Work Activities for the Day				
- The G1 team marked 4 GPR transects in UXO17B, as well as shot in site features in UXO17B.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,453
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,471

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Extreme Weather

Remarks:

Work Planned for following work day:
- The G1 team will continue marking and collect GPR transects in UXO17B

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/08/2022

Signature

Brett Yarborough

Digitally signed by Brett Yarborough
Date: 2022.11.09 10:52:36 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						83	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/08/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate- 014NLG	Enterprise		OR	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/08/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/08/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/08/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				84
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/09/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
35F. Sunnyt. Winds E 2 MPH.		43F. Sunny. Winds N 4 MPH.		
Description of Work Activities for the Day				
- The G1 team marked 3 GPR transects in UXO17B and collected all UXO17B GPR Transects, as well as shot in site features with RTS. All 10 GPR transects in UXO17B have been completed.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,471
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,489

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Punctuality

Remarks:

Work Planned for following work day:
- The G1 team will start recovery of QC seeds in UXO17

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/09/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.10 09:55:59 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						84	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/09/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/09/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				84	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				Date:	
								11/09/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/09/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				85
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/10/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
35F. Sunnýt. Winds E 2 MPH.		43F. Sunny. Winds N 4 MPH.		
Description of Work Activities for the Day				
- The G1 team recovered QC Seeds from UXO3, UXO7, UXO17, and marked features in UXO3 and UXO17.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,471
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,489

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief -Slips Trips and Falls

Remarks:

Work Planned for following work day:
 - The G1 team will perform site restoration in UXO11 and UXO11B

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/10/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
 Date: 2022.11.11 11:20:33 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						85	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/10/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate- 014NLG	Enterprise		O	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/10/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/10/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/10/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				86
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/14/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
38F. Partly Cloudy. Winds SW 5 MPH.		50F. Sunny. Winds S 6 MPH.		
Description of Work Activities for the Day				
- The G1 team marked features in UXO11, performed site restoration in UXO11 and UXO11B, and recovered QC seeds in UXO4.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,489
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,507

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief -Safety Mindset, Situational Awareness

Remarks:

Work Planned for following work day:
 - The G1 team will prep GSSI SIR 4000 GPR for return shipment, and continue site restoration

Quality Control

Anthony Aguirre	Title/Company	Date
Brett Yarborough	Site Geophysicist/Tetra Tech Inc	11/14/2022

Signature

Brett Yarborough
Digitally signed by Brett Yarborough
Date: 2022.11.15 08:54:40 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						86	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/14/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/14/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/14/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/14/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION			Report No. 87	
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 11/15/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 37F. Partly Cloudy. Winds S 4 MPH.		PM Weather: 51F. Sunny. Winds S 4 MPH.		
Description of Work Activities for the Day - The G1 team began prepping the GSSI SIR 4000 GPR for return shipment and recovered seeds in the southern portion of UXO17B.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,507
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,525

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Hydration

Remarks:

Work Planned for following work day:
- The G1 team will recover QC seeds in the northern portion of UXO17B.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/15/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.16 12:27:06 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						87	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/15/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/15/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/15/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/15/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No.
				88
Contract No.		Title & Location:		Date:
N6247016D9008		Naval Base Kitsap Bangor St; Silverdale, WA		11/16/2022
Contractor:		Site Superintendent:		
Tetra Tech, Inc.		Forrest Malone; SUXOS		
AM Weather:		PM Weather:		
37F. Partly Cloudy. Winds SW 3 MPH.		51F. Sunny. Winds S 4 MPH.		
Description of Work Activities for the Day				
- The G1 team recovered seeds in the northern portion of UXO17B, performed site restoration in UXO3, and packed and shipped GSSI SIR 4000 GPR.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,525
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,543

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - PPE

Remarks:

Work Planned for following work day:
 - The G1 team will finish packing and shipping remaining equipment and return Dodge 3500 rental vehicle to Enterprise in Fife. Continuing Site restoration.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/16/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
 Date: 2022.11.17 08:36:25 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
Contract No.						88	
N6247016D9008			Title & Location:			Date:	
			Naval Base Kitsap Bangor SI; Silverdale, WA			11/16/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate-C80624U	Enterprise		O	Jul 11, 2022		9
2	Chevy Traverse: License Plate-014NLG	Enterprise		O	Jul 10, 2022		9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	O	Jul 12, 2022		
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		O	Oct 21, 2022		

Contractor Production Lead	Date
Brett Yarborough	11/16/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/16/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/16/2022

CONTRACTOR PRODUCTION REPORT

PRODUCTION SECTION				Report No. 89
Contract No. N6247016D9008		Title & Location: Naval Base Kitsap Bangor St; Silverdale, WA		Date: 11/17/2022
Contractor: Tetra Tech, Inc.		Site Superintendent: Forrest Malone; SUXOS		
AM Weather: 36F. Sunny. Winds S 5 MPH.		PM Weather: 5F. Sunny. Winds S 3 MPH.		
Description of Work Activities for the Day - The G1 team completed inventory, packing, and shipping of equipment off site.				
#	Employer or Employee	Number	Trade or Position	Hours
1	Zach Weston	1	UXO Tech II	9
2	Nick Emm	1	Geo	9
Total:				18

Was a job safety meeting held this date? (If yes, attach a copy of meeting minutes.)	Yes: <input checked="" type="radio"/> No: <input type="radio"/>	Total work hours on site this date:	18
Were there any lost time accidents this date? (If yes, attach a copy of completed OSHA report.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours from previous report:	5,525
Was trenching/scaffolding/HV electrical/high work done this date? (If yes, attach statement or checklist showing inspection performed.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Was hazardous material/waste released to the environment? (If yes, attach description of incident and proposed action.)	Yes: <input type="radio"/> No: <input checked="" type="radio"/>	Cumulative work hours since start of work:	5,543

List safety actions taken today/safety inspections conducted:

Daily Safety Inspection. Daily Safety Brief - Demob Activities

Remarks:

All geophysical surveying equipment has been removed from site.
Zachery Weston and Nick Emm demobilized from site on 11/18/2022.

Quality Control

Anthony Aguirre

Contractor Production Lead

Brett Yarborough

Title/Company

Site Geophysicist/Tetra Tech Inc

Date

11/17/2022

Signature

Brett Yarborough Digitally signed by Brett Yarborough
Date: 2022.11.18 12:53:56 -06'00'

CONTRACTOR PRODUCTION REPORT

EQUIPMENT SECTION						Report No.	
						89	
Contract No.			Title & Location:			Date:	
N6247016D9008			Naval Base Kitsap Bangor SI; Silverdale, WA			11/17/2022	
#	Equipment (Type, Model No, Serial No.)	Vendor	PO/MOA#	Status	Rental Start Date	Rental End Date	Daily Hours
1	Dodge RAM: License Plate- C80624U	Enterprise		OR	Jul 11, 2022	Nov 18, 2022	9
2	Chevy Traverse: License Plate- 014NLG	Enterprise		OR	Jul 10, 2022	Nov 18, 2022	9
3	TEM-8g EM Survey Equipment	Tetra Tech Warehouse		OR	Jul 12, 2022	Nov 4, 2022	
4	EM61-MKII HP: SN 2221	Geonics	9064	OR	Jul 12, 2022	Nov 17, 2022	
5	EM61-MKII HP: SN 1920	Geonics	9061	OR	Jul 12, 2022	Sep 12, 2022	
6	Ford F150: License Plate- 7T9LDY	Enterprise		OR	Jul 12, 2022	Nov 5, 2022	
7	EM61-MKII HP:SN 0327	KD Jones	N/A	OR	Aug 26, 2022	Nov 2, 2022	
8	GSSI SIR 4000 GPR	Exploration Instruments LLC		OR	Oct 21, 2022	Nov 17, 2022	

Contractor Production Lead	Date
Brett Yarborough	11/17/2022

CONTRACTOR PRODUCTION REPORT

MATERIALS SECTION								Report No.	
Contract No.				Title & Location:				Date:	
N6247016D9008				Naval Base Kitsap Bangor SI; Silverdale, WA				11/17/2022	
#	Materials Received	Vendor	PO#	Status	PO QTY	QTY Received	QTY On-Hand	QTY Short from PO	
1				O					

Contractor Production Lead	Date
Brett Yarborough	11/17/2022

APPENDIX B – WEEKLY QC REPORTS



Weekly Quality Control Report

WQCR INFORMATION

From: 06/26/2022 To: 07/02/2022 Report #: 001

Client: NAVFAC NW Project: 179-8015

Contract Name: Naval Base Kitsap Bangor Location: Silverdale, WA

Contract #: N6247016D9008 Task Order #: N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	DFW 3	Activity/Task #:	QC Seeding
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	None	Activity/Task #:	N/A
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

- Performed Preparatory Inspection for DFW #3 (QC Seeding - Subsurface).
- Inspected and tested all equipment documented in QRIR 01 (FedEx tracking # 777162711659)
- Installed subsurface seeds IAW DGM SOP 03. Seed photos submitted to Base Security Officer for review prior to removal from digital camera.

Tests Performed and Results:

- Assembled RTS Positioning System IAW MQO # 1-4 and submitted via TetraForms (Passed).
- Performed Initial Geodetic Function Check IAW MQO # 1-5 and submitted via TetraForms (Passed).
- Performed Ongoing Geodetic Function Checks IAW MQO # 1-6 and submitted via TetraForms (Passed).

Materials and Equipment Received and Results of Inspection:

- All materials received inspected by Tetra Tech QC Geophysicist. Refer to completed QRIR 01 for equipment specifics.

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

- QRIR Deficiency Item #01 resolved with shipment from warehouse (FedEx tracking # 777245238066)
- QRIR Deficiency Item #02 unresolved until next seeding mobilization
- QRIR Deficiency Item #05 unresolved until next seeding mobilization

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- In-person Geophysics Kickoff Call on 06/29/2022 at Tetra Tech Jackson Park Field Office to review upcoming geophysical phases of work. Meeting minutes for the call distributed by EGS Project Manager (PM) to Project Team on 07/07/2022.
- Coordination with NAVFAC Remedial Project Manager (RPM) and Jacobs PM regarding upcoming drilling operations at UXO 17 and UXO 07 sites.
- Established point of contact with EODTECHDIV QA Geo for future data deliveries and coordination.
- Preparatory Inspection call for DFW #3. Refer to attached inspection checklist for relevant information.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME: <input type="text" value="Jessie Powers"/>	TITLE/COMPANY: <input type="text" value="QC Geophysicist"/>	
SIGNATURE:	<input type="text" value="Jessie Powers"/>	Digitally signed by Jessie Powers Date: 2022.07.14 06:38:24 -04'00'



Preparatory Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor		
Contract #:	N6247016D9008	Date:	06/27/2022
Task Order #:		Reference:	QAPP, SOPs
DFW/Activity #:	DFW #3 - QC Seeding	Client Notified	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Orlando Redona	UXO Tech	Tetra Tech
3	Eugene Mikell	QCM	Tetra Tech
4	Jeff Gamey	Project Geo	Tetra Tech
5	Anthony Aguirre	UXOQCS	Tetra Tech
6	Scot Wilson	PM	Tetra Tech
7	Sjon Higgins	QA Geo	USN

II. Deliverables or Submittals

1.a. Review Deliverable/Submittal Register (if used). Have all applicable deliverables/submittals been approved?
 Yes No

1.b. Are the work plan and SOPs available on site?
 Yes No

If No, what items have not been submitted and why?
 a.
 b.
 c.

2. Are all resources (personnel, materials and equipment) on hand to perform the work?
 Yes No

If No, what items are missing?
 a.
 b.
 c.

3. Check approved resources against delivered resources. (This should be done as they arrive.)

Comments:

III. Equipment Checkouts

1. Has all equipment in function checked?
 Yes No N/A

1. Have all coordinates systems been verified against the plans?
 Yes No N/A

1. Are coordinates systems / measurements / units of measure consistent with the plans?
 Yes No N/A

If No, what action is taken?
 Comments:

IV. Material Storage

1. Are materials stored properly?
 Yes No N/A

If No, what action is taken?
 Comments:

V. Specifications/Reference

1. Review each paragraph of Specification/Reference

- * Emplace subsurface seeds in areas undergoing full coverage DGM surveys
- * Record positions and document seed emplacement details
- * Compile and update blind seed register
- * Implement firewalling measures between quality and production personnel

2. Discuss procedure for accomplishing the work.

QC Geo and UXO Technician will follow the procedures outlined in DGM SOP 03. Seeds will be buried IAW depth ranges provided in the QAPP, not to exceed the 2' clearance specified in the utility clearance permits.

3. Clarify any differences.

VI. Preliminary Work and Permits

1. Ensure preliminary work is correct and permits or licenses are on file.

- Yes
 No
 N/A

If No, what action is taken?

2. Are utility markouts established?

- Yes
 No
 N/A

VII. Testing (material or equipment, prior to use or operation)

1. Identify test to be performed, frequency, and by whom.

Geodetic Check Shot - each time RTS is moved. Performed by QC Geo

2. Where required?

At an established control

3. Review testing plan. If there is offsite testing required, identify it below.

N/A

4. Has test facility been approved?

N/A

VIII. Training

1. Was site-specific training conducted and documented? Yes No

2. Was an AGC demonstration of capability (DOC) performed? Yes No N/A

3. Was the DOC documented and filed in the project records? Yes No N/A

IX. Safety

1. Review applicable portion of the Task Order Site Health and Safety Plan.

2. Activity hazard analysis updated and approved? Yes No

3. APP signature page and AHAs signed? Yes No

4. Emergency contact personnel identified and contact list posted? Yes No

5. Emergency contact list current? Yes No

6. Emergency action drill conducted and documented? Yes No

7. Do all personal performing this DFW have current medical clearance and certifications (e.g., EOD/UXO, HAZWOPER, 8hr Refresher, OSHA Supervisor)? Yes No

X. Attach any DFW-specific checklist to the report, if used.

Comments:

XI. Summary of Action Items or Punch List:

Action Items:

- * Inspect and test Geodetic Equipment prior to use and document receipt inspection
- * Add additional control points to site control list

XII. Risks

1. Have risks (Safety, Scope, Schedule, Budget, Level of Quality) been reviewed and updated based on current site conditions for this DFW? Yes No

XIII. Client comments during meeting:

Comments:

Date: 06/27/2022

Forrest Malone Digitally signed by Forrest Malone
Date: 2022.06.27 14:34:46 -07'00'

Site Superintendent or Equivalent

Date: 06/27/2022

Jessie Powers Digitally signed by Jessie Powers
Date: 2022.07.14 06:37:53 -04'00'

Project Quality Manager



Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: 01	Project Name: Naval Base Kitsap Bangor
Contract #: N6247016D9008	Task Order#: <input type="text"/> Date: 06/27/2022

Section II: Material or Equipment Identification Information

#	P.O./Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	Leica RTS TS16	Jessie Powers	Conditional	<input type="radio"/> A	<input type="radio"/> R	<input checked="" type="radio"/> C	<input type="radio"/> N/A
2	McMaster Carr ISO 80	Jessie Powers	Conditional	<input type="radio"/> A	<input type="radio"/> R	<input checked="" type="radio"/> C	<input type="radio"/> N/A
3	McMaster Carr ISO 40	Jessie Powers	Accepted; Functions as intended	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
4	Nikon Coolpix Digital Camera	Jessie Powers	Accepted; Functions as intended	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
5	Canon Camera	Jessie Powers	Conditional	<input type="radio"/> A	<input type="radio"/> R	<input checked="" type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Only use this Section if you have a Reject "R" or Conditional "C" as the results of the receipt inspection in Section II above.

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
1	Tripod and survey staff not shipped with initial RTS shipment	<input type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input checked="" type="checkbox"/> Other (Specify <input type="text" value="Missing equipment will be shipped"/> <input type="checkbox"/> Rejected-Return to Vendor/Supplier	06/29/2022	06/29/2022
2	Small Schedule 80 ISOs shipped with seed labels from previous project still on	<input type="checkbox"/> Use As-Is <input checked="" type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input type="checkbox"/> Other (Specify <input type="text"/>) <input type="checkbox"/> Rejected-Return to Vendor/Supplier	06/28/2022	
5	Camera shipped without batteries and has a cracked display screen	<input type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input checked="" type="checkbox"/> Other (Specify <input type="text" value="Camera will be tested once batt"/> <input type="checkbox"/> Rejected-Return to Vendor/Supplier	07/15/2022	



Section IV: Hold Tag Information

Tag Issued: #2	<input checked="" type="checkbox"/> Hold	Do Not Use Small ISO80 Labeled Seeds	
	<input type="checkbox"/> Conditional Release	Approver's Initials:	
	<input type="checkbox"/> Final Acceptance/Release Date	Inspector: Jessie Powers	

Remarks: Old seed labels from previous project must be removed by QC Geo prior to ISOs being used for seeding on the Kitsap project.

Section V: P.O Status

Status of P.O. : <input checked="" type="checkbox"/> Completed		<input type="checkbox"/> Partial	
Inspector: Jessie Powers	Jessie Powers	<small>Digitally signed by Jessie Powers Date: 2022.07.04 19:42:40 -04'00'</small>	Date: 06/29/2022
Final Reviewer:			Date:

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.



Weekly Quality Control Report

WQCR INFORMATION

From: 07/03/2022	To: 07/09/2022	Report #:	002
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	None	Activity/Task #:	N/A
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

- DFW 3 (QC Seeding - Subsurface): Reviewed approved seed photos and compiled TetraForms seeding documentation.
- Confirmed all TT field personnel have completed base required security training (OPSEC, CUI, Cyber Awareness).

Tests Performed and Results:

None - no geophysical/geodetic data collected this week.

Materials and Equipment Received and Results of Inspection:

None - no geophysical personnel on-site this week.

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

- QRIR Deficiency Item #02 unresolved until next seeding mobilization
- QRIR Deficiency Item #05 unresolved until next seeding mobilization

Field Change Requests Initiated or Status:

- FCR-04 initiated on 07/08/2022 to address changes in key geophysical personnel and change in MEC disposition (pending). FCR-01 through FCR-03 initiated prior to the start of geophysical survey operations. Refer to project files for information on the subject of these FCRs.

JOB SAFETY: (LIST OBSERVATIONS)

No geophysical personnel on site this week.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

None

PROJECT PHOTOS

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME: TITLE/COMPANY:
SIGNATURE: Digitally signed by Jessie Powers
Date: 2022.07.14 06:50:23 -04'00'

CLEAN
CONTRACT NUMBER N6247016D9008

FIELD CHANGE REQUEST (FCR)

TASK ORDER # N4425519F4112 FCR # FCR-04 MEC QAPP DATE 07/08/2022
 LOCATION: Naval Base Kitsap Bangor, Silverdale WA NTR/RPM Janice Horton

1. Documents to be changed. Identify revision, date, section, drawing, etc.

Final MEC QAPP dated June 2021 Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor

-Change in Tetra Tech key geophysicist personnel listed in MEC QAPP:
 Worksheets 3 and 5; Table 3-1; Figure 3-2; Worksheets 4, 7 and 8; and Worksheet 6.
 AND
 -Change in MEC disposition, Section 17.10 MEC/MPPEH Management (DFW 9), 3rd bullet.

2. Description of existing requirement and proposed change (Attach sheet if necessary)

Personnel Changes:

Project Geophysicist change Jeff Gamey to Matt Barner, PG, matt.barner@tetrattech.com, 980.257.6800
 QC Geophysicist change Matt Barner to Jessie Powers, jessie.powers@tetrattech.com, 434.989.4879
 -Site Geophysicist change TBD to Brett Yarborough, brett.yarborough@tetrattech.com, 214.908.1829

MEC Disposition Change, Section 17.10 MEC/MPPEH Management (DFW 9), 3rd bullet: Location of MEC disposition expanded to include UXO 3 and UXO 7 for greater flexibility.

"• All controlled detonations will occur at the end of field operations at one location (Site A EOD Training Range) for all explosive waste safe to move." change to "• All controlled detonations will occur at the end of field operations at one of three locations (Site A EOD Training Range, UXO 3, and/or UXO 7 at the direction of the Navy) for all explosive waste safe to move."

Tt Reason for Change (Attach sheet if necessary)

Geophysicist Personnel Changes: Changeout of project personnel from June 2021 when MEC QAPP was finalized..
MEC Disposition Additional Areas: Allows for greater flexibility concerning controlled detonations of MEC. Controlled detonation at the EOD Range at the end of the project expanded to additionally allow MEC disposition at UXO 3 and/or UXO 7 at the direction of the Navy.

4. Originator: (print name and sign)		Title	Date
Linda Klink		Project Manager	7/7/2022
Reviewed by: (print name and sign)		Title: UXO Manager	Date
Norm Piper, UXO Manager			7/7/2022
Site Superintendent (Print name and sign)	Date	Task Order Manager (Print name and sign)	Date
Forrest Malone (SUXOS)	07/7/22	Linda Klink	7/7/2022
Tt Program QC Manager (Print Name and Sign)	Date	Navy Acknowledgement (Print name and sign)	Date
Michelle Coffman			

CLEAN
CONTRACT NUMBER N6247016D9008

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Weekly Quality Control Report

WQCR INFORMATION

From: 07/10/2022	To: 07/16/2022	Report #:	003
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	DFW 5, DFW 6	Activity/Task #:	IVS Installation/DGM Surveys
Initial Inspection (DFW):	DFW 3	Activity/Task #:	QC Seeding
Follow-Up Inspection (DFW):	None	Activity/Task #:	N/A
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #5 (IVS Establishment): GPS Positioning systems, EM61-HP system and TEM-8g system were received and inspected as part of QRIR 02. All geodetic and geophysical systems were assembled and tested IAW DGM SOPs 04, 07 and 09. Pre-seeded background survey of candidate IVS locations was collected and processed IAW DGM SOP 02.

Tests Performed and Results:

- Assembled GPS Positioning Systems IAW MQO # 1-4 (Passed).
- Performed Initial Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Assembled EM61-HP and TEM-8g systems IAW MQO # 3-1 (Passed).
- Performed Initial Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed In-line measurement spacing for IVS background survey IAW MQO # 3-8 (Passed)

Materials and Equipment Received and Results of Inspection:

- All materials received inspected by Tetra Tech Site Geophysicist. Refer to completed QRIR 02 for equipment specifics.

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

- QRIR 01 Deficiency Item #02 unresolved until next seeding mobilization
- QRIR 01 Deficiency Item #05 unresolved until next seeding mobilization
- QRIR 02 Deficiency Item #01 resolved with shipment from warehouse (FedEx tracking # 777373084658)
- QRIR 02 Deficiency Item #02 resolved with shipment from warehouse (FedEx tracking # 777373084658)

Field Change Requests Initiated or Status:

- FCR-04 initiated on 07/08/2022 to address changes in key geophysical personnel and change in MEC disposition (pending). FCR-01 through FCR-03 initiated prior to the start of geophysical survey operations. Refer to project files for information on the subject of these FCRs.

JOB SAFETY: (LIST OBSERVATIONS)

Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Initial Inspection call for DFW #3. Refer to attached inspection checklist for relevant information.
- Preparatory Inspection call for DFWs #5 and #6. Refer to attached inspection checklist for relevant information.

PROJECT PHOTOS



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Jul 16, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
SIGNATURE:	Jessie Powers	Digitally signed by Jessie Powers Date: 2022.07.25 09:36:05 -04'00'	



Initial Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor	
Contract #:	N6247016D9008	Date: 07/11/2022
Task Order #:	N4425519F4112	Reference: QAPP, SOPs
DFW/Activity #:	DFW #3 - QC Seeding	Client Notified <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

Part I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Eugene Mikell	QCM	Tetra Tech
3	Matt Barner	Project Geo	Tetra Tech
4	Anthony Aguirre	UXOQCS	Tetra Tech
5	Simon Jobman	Database Manager	Tetra Tech
6	Melissa King	QA Geo	USN
7	Nick Lyons	QA	USN
8	Linda Klink	PM	Tetra Tech

Part II. Preparatory punch list/deficiencies are resolved/corrected?

Yes No N/A (No punch list/deficiencies were identified)

Part III. Summarize compliance with procedures (be specific) identified at preparatory inspection.

Coordinate plans, specifications, and submittals.

Comments:

All subsurface seeds installed IAW DGM SOP 03. Running blind seed register has been updated and firewalled from the production team.

Part IV. Preliminary Work. Ensure preliminary work is complete and correct. If not, describe the action(s) taken.

Attach DFW-specific checklist to this report, if used.

Actions:

Survey report is still being drafted by the PLS.

TetraForms checklist will be attached.

Part V. Establish Levels of Workmanship

Provide performance criteria for DFW from Plans or SOP.

MQO #1-4 - Assemble Positioning System: RTS was assembled as specified in manual and DGM SOP 07 each time the system was set up for use.

MQO #1-5 - Initial Geodetic Function Check: Measured check-shot at a known control point established by the PLS was within 4 inches of ground truth following RTS assembly.

MQO #1-6 - Ongoing Geodetic Function Check: Measured check-shots at known control points were within 4 inches of ground truth each time the RTS was moved to a new location.

Part VI. Resolve any differences

Comments:

None.

Part VII. Check Safety

Review job conditions using Site Health and Safety Plan and activity hazard analysis.

Comments:

None.

Date: 07/11/2022

Jessie Powers Digitally signed by Jessie Powers
Date: 2022.07.30 10:27:12 -04'00'

Project Quality Manager



QC Checklist for Blind Seed Installation

Record: 2	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	All photos submitted to Steven Chavez (Base Security Officer) for Approval
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	SME letter for J. Powers filed on MMRP SP site
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	No official blind seed plan for this project
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
QC Geophysicist Signature	
Date	2022-07-12



Preparatory Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor	
Contract #:	N6247016D9008	Date: 07/13/2022
Task Order #:	N4425519F4112	Reference: QAPP, SOPs
DFW/Activity #:	DFW#5 - IVS Establishment; DFW #6 - DGM Field Surveys	Client Notified <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Matthew Barner	Project Geo	Tetra Tech
3	Eugene Mikell	QCM	Tetra Tech
4	Brett Yarborough	Site Geophysicist	Tetra Tech
5	Anthony Aguirre	UXOQCS	Tetra Tech
6	Melissa King	QA Geo	USN
7	Nick Lyons	QA	USN
8	Jacob Jankowski	Field Geophysicist	Tetra Tech
9	Jared Hester	Field Geophysicist	Tetra Tech
10	Nolan Walker	Field Geophysicist	Tetra Tech
11	Zachary Weston	Field Geophysicist	Tetra Tech
12	Simon Jobman	Database Manager	Tetra Tech
13	Linda Klink	PM	Tetra Tech

II. Deliverables or Submittals

1.a. Review Deliverable/Submittal Register (if used). Have all applicable deliverables/submittals been approved?
 Yes No

1.b. Are the work plan and SOPs available on site?
 Yes No

If No, what items have not been submitted and why?
 a.
 b.
 c.

2. Are all resources (personnel, materials and equipment) on hand to perform the work?
 Yes No

If No, what items are missing?
 a.
 b.
 c.

3. Check approved resources against delivered resources. (This should be done as they arrive.)

Comments:

III. Equipment Checkouts

1. Has all equipment in function checked?
 Yes No N/A

1. Have all coordinates systems been verified against the plans?
 Yes No N/A

1. Are coordinates systems / measurements / units of measure consistent with the plans?
 Yes No N/A

If No, what action is taken?
 Comments:

IV. Material Storage

1. Are materials stored properly?
 Yes No N/A

If No, what action is taken?
 Comments:

V. Specifications/Reference

1. Review each paragraph of Specification/Reference

- * Assemble and test all positioning systems (RTS/GPS) and DGM sensors (EM61-MK2 HP and TEM-8g)
- * Construct an IVS and collect an Initial IVS with each sensor being used; perform any necessary personnel DOCs
- * Collect ongoing IVS and Instrument Function Tests for all DGM sensors used in production mapping
- * Collect transect and full-coverage surveys for sites with planned geophysical coverage

2. Discuss procedure for accomplishing the work.

Field Geophysicists will assemble and test all geophysical and positional equipment IAW DGM SOPs 04, 07 and 08. A background survey will be collected with the EM61-MK2 and processed to determine the appropriateness of the IVS location. Seeds will be buried IAW depth ranges and size specifications provided in the QAPP and documented IAW DGM SOP 01. An initial IVS survey will be collected with each system IAW DGM SOP 02 prior to production data collection. Following validation, data will be collected using the EM61-MK2 HP and TEM-8g Array IAW DGM SOP 05 and DGM SOP 09, respectively.

3. Clarify any differences.

VI. Preliminary Work and Permits

1. Ensure preliminary work is correct and permits or licenses are on file.

Yes No N/A

If No, what action is taken?

2. Are utility markouts established?

Yes No N/A

VII. Testing (material or equipment, prior to use or operation)

1. Identify test to be performed, frequency, and by whom.

- Initial Geodetic Check Shot - once following assembly - Field Geo
- Ongoing Geodetic Check Shot - each time base is moved/daily (GPS); each time system is moved (RTS) - Field Geo
- Initial Instrument Function Test - once following assembly - Field Geo
- Ongoing Instrument Function Test - AM/PM and battery change (EM61); AM/PM (TEM8g) - Field Geo
- Initial IVS - once during initial sensor validation - Field Geo
- Ongoing IVS - AM/PM for each day sensor is used for production collection - Field Geo

2. Where required?

- Initial Geodetic Check Shot - At an established control point
- Ongoing Geodetic Check Shot - At an established control point
- Initial Instrument Function Test - In the field
- Ongoing Instrument Function Test - In the field
- Initial IVS - Established IVS location
- Ongoing IVS - Established IVS location

3. Review testing plan. If there is offsite testing required, identify it below.

N/A

4. Has test facility been approved?

N/A

VIII. Training

- 1. Was site-specific training conducted and documented? Yes No
- 2. Was an AGC demonstration of capability (DOC) performed? Yes No N/A
- 3. Was the DOC documented and filed in the project records? Yes No N/A

IX. Safety

1. Review applicable portion of the Task Order Site Health and Safety Plan.

- 2. Activity hazard analysis updated and approved? Yes No
- 3. APP signature page and AHAs signed? Yes No
- 4. Emergency contact personnel identified and contact list posted? Yes No
- 5. Emergency contact list current? Yes No
- 6. Emergency action drill conducted and documented? Yes No
- 7. Do all personal performing this DFW have current medical clearance and certifications (e.g., EOD/UXO, HAZWOPER, 8hr Refresher, OSHA Supervisor)? Yes No

X. Attach any DFW-specific checklist to the report, if used.

Comments:

XI. Summary of Action Items or Punch List:

Action Items:

- * Post DGM certifications for personnel to Project SP site/MMRP SP site
- * Field personnel need to complete site-specific training and sign APP/AHAs prior to any work on site
- * Field certifications for and badging for Nolan Walker needs to be completed
- * Geodetic/Geophysical equipment needs to be inspected, tested and documented on QRIR
- * PLS Report needed from AES Consultants

XII. Risks

- 1. Have risks (Safety, Scope, Schedule, Budget, Level of Quality) been reviewed and updated based on current site conditions for this DFW? Yes No

XIII. Client comments during meeting:

Comments:

- QA Geo requests access to SP folder or TT File Transfer system once there is a data deliverable



Preparatory Inspection Checklist

Contract #: N6247016D9008
Date: Jul 13, 2022

Date: 07/13/2022

Forrest Malone Digitally signed by Forrest Malone
Date: 2022.07.13 08:35:37 -07'00'

Site Superintendent or Equivalent

Date: 07/13/2022

Jessie Powers Digitally signed by Jessie Powers
Date: 2022.07.13 12:05:01 -04'00'

Project Quality Manager



Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: 02	Project Name: Naval Base Kitsap Bangor
Contract #: N6247016D9008	Task Order#: Date: 07/13/2022

Section II: Material or Equipment Identification Information

#	P.O./Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	TEM-8g Towed Array	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
2	UTV Brutus	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
3	Leica RTS TS16	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
4	Leica RTK - Blue Base	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
5	Leica RTK - GS14	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
6	ADL - Pac Crest Radio	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
7	EM61-MKII HP - Coil 1920; Console: 223409; Mesa3: 324869	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
8	EM61-MKII HP - Coil: 2221; Console: 223409; Mesa3: 322014	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
9	Handheld Radios: 2417878; 2417871; 2417875	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
10	x3 Field Tablet	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
1	x2 EM61-MKII HP RTS/RTK Tripod	<input type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input checked="" type="checkbox"/> Other (Specify <input type="text" value="Missing equipment will be shipped"/> <input type="checkbox"/> Rejected-Return to Vendor/Supplier	07/13/2022	07/14/2022
2	Batteries for RTK unit not shipped with equipment	<input type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input checked="" type="checkbox"/> Other (Specify <input type="text" value="Missing equipment will be shipped"/> <input type="checkbox"/> Rejected-Return to Vendor/Supplier	07/13/2022	



Section IV: Hold Tag Information

Tag Issued:	<input type="checkbox"/> Hold	Approver's Initials:
	<input type="checkbox"/> Conditional Release	
	<input type="checkbox"/> Final Acceptance/Release Date	

Remarks:

Section V: P.O Status

Status of P.O. : <input checked="" type="checkbox"/> Completed		<input type="checkbox"/> Partial	
Inspector: Brett Yarborough	Brett Yarborough <small>Digitally signed by Brett Yarborough Date: 2022.07.14 08:20:54 -0700'</small>	Date: 07/14/2022	
Final Reviewer: Jessie Powers	Jessie Powers <small>Digitally signed by Jessie Powers Date: 2022.07.14 12:13:40 -04'00'</small>	Date: 07/14/2022	

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.



Weekly Quality Control Report

WQCR INFORMATION

From: 07/17/2022	To: 07/23/2022	Report #:	004
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	DFW 8	Activity/Task #:	DGM Data Processing and QC
Initial Inspection (DFW):	DFW 5, DFW 6	Activity/Task #:	IVS Installation/DGM Surveys
Follow-Up Inspection (DFW):	DFW 3 (this report)	Activity/Task #:	QC Seeding
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #3 (QC Seeding): Blind seeds installed in UXO 17B IAW DGM SOP 03 and DGM SOP 07; photos were approved by Mr. Steven Chavez. QC Checklists associated with these SOPs are attached to this report. Blind Seed Log updated with installation details.

DFW #5 (IVS Establishment): IVS1 was installed IAW DGM SOP 01; photos were approved by Mr. Steven Chavez. Initial IVS tests for the TEM-8g system and each EM61-HP sensor/positioning system combination were performed IAW DGM SOP 02. Geophysical Operators were certified on all geophysical and geodetic equipment at IVS1 location. QC Checklists associated with these SOPs are attached to this report. IVS Technical Memorandum preparation in progress.

DFW #6 (DGM Surveys): Full coverage data were collected in UXO 17B with the TEM-8g and the EM61-HP IAW DGM SOP 05 and DGM SOP 09.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Initial IVS Dynamic Positioning Accuracy for EM61-HP and TEM-8g sensors IAW MQO # 3-6 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).

Materials and Equipment Received and Results of Inspection:

N/A



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Jul 23, 2022

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

None.

Field Change Requests Initiated or Status:

- FCR-04 initiated on 07/08/2022 to address changes in key geophysical personnel and change in MEC disposition (approved on 07/21/2022). Refer to attached FCR for relevant information.

JOB SAFETY: (LIST OBSERVATIONS)

Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Preparatory Inspection call for DFW #8. Refer to attached inspection checklist for relevant information.
- Initial Inspection call for DFWs #5 and #6. Refer to attached inspection checklist for relevant information.
- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.

PROJECT PHOTOS



Geo_Photo #1: IVS1_ISO1



Geo_Photo #2: IVS1_ISO2



Geo_Photo #3: IVS1_ISO3v1



Geo_Photo #4: IVS1 Installed

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.08.04 20:11:36 -04'00'



Preparatory Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor	
Contract #:	N6247016D9008	Date: 07/18/2022
Task Order #:	N4425519F4112	Reference: QAPP, SOPs
DFW/Activity #:	DFW#8 - DGM Data Processing and QC	Client Notified <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Matthew Barner	Project Geo	Tetra Tech
3	Eugene Mikell	QCM	Tetra Tech
4	Anthony Aguirre	UXOQCS	Tetra Tech
5	Melissa King	QA Geo	USN
6	Linda Klink	PM	Tetra Tech
7	Simon Jobman	Database Manager	Tetra Tech
8	Jeannie Norton	Data Processor	Tetra Tech
9	Brett Yarborough	Data Processor	Tetra Tech

II. Deliverables or Submittals

1.a. Review Deliverable/Submittal Register (if used). Have all applicable deliverables/submittals been approved?
 Yes No

1.b. Are the work plan and SOPs available on site?
 Yes No

If No, what items have not been submitted and why?
 a.
 b.
 c.

2. Are all resources (personnel, materials and equipment) on hand to perform the work?
 Yes No

If No, what items are missing?
 a.
 b.
 c.

3. Check approved resources against delivered resources. (This should be done as they arrive.)

Comments:

III. Equipment Checkouts

1. Has all equipment in function checked?
 Yes No N/A

1. Have all coordinates systems been verified against the plans?
 Yes No N/A

1. Are coordinates systems / measurements / units of measure consistent with the plans?
 Yes No N/A

If No, what action is taken?
 Comments:

IV. Material Storage

1. Are materials stored properly?
 Yes No N/A

If No, what action is taken?
 Comments:

V. Specifications/Reference

1. Review each paragraph of Specification/Reference

- * Retrieve and verify all raw data packages from the field
- * Process data and communicate with field team on need for infill surveys or additional documentation
- * Review QC test results and perform ongoing data review and interpretation
- * Target processed DGM survey data
- * Upload processed data packages for QC Geo review

2. Discuss procedure for accomplishing the work.

Data processors will retrieve raw data from the SP site and verify any relevant details impacting data processing with daily logbook entries. QC and production data will be processed IAW DGM SOPs 05 and 10 and verified against MQOs in WS#22 Table 22-3. Any datasets requiring gap-fill will be issued to the field for collection. All complete datasets will be targeted IAW the site-specific picking threshold. All processed data will be uploaded to the SP site for QC Geo review prior to weekly QA data submittal.

3. Clarify any differences.

This inspection does not cover GPR survey data processing

VI. Preliminary Work and Permits

1. Ensure preliminary work is correct and permits or licenses are on file.

- Yes
 No
 N/A

If No, what action is taken?

2. Are utility markouts established?

- Yes
 No
 N/A

VII. Testing (material or equipment, prior to use or operation)

1. Identify test to be performed, frequency, and by whom.

- Initial Geodetic Check Shot - once following assembly - Data Processor/Database Manager
- Ongoing Geodetic Check Shot - every day systems are used - Data Processor/Database Manager
- Initial Instrument Function Test - once following assembly - Data Processor
- Ongoing Instrument Function Test - every day systems are used - Data Processor
- Initial IVS positioning accuracy - once during initial sensor validation - Data Processor
- Ongoing IVS positioning precision- every day systems are used for production data - Field Geo
- In-line measurement spacing - every completed dataset
- Full coverage - every completed grid - Data Processor
- Transect coverage - every completed transect - Data Processor
- Valid Position Data - every RTK/RTS and Post-Processed GPS dataset - Data Processor
- Dynamic Survey Performance - each day of full-coverage collection - QC Geo

2. Where required?

- Initial Geodetic Check Shot - Running QC summary/Access Database
- Ongoing Geodetic Check Shot - Running QC summary/Access Database
- Initial Instrument Function Test - Running QC summary/Access Database
- Ongoing Instrument Function Test - Running QC summary/Access Database
- Initial IVS positioning accuracy - Running QC summary/Access Database
- Ongoing IVS positioning precision- Running QC summary/Access Database
- In-line measurement spacing - Running QC summary/Access Database
- Grid coverage - Running QC summary/Access Database
- Transect coverage - Running QC summary/Access Database
- Valid Position Data - Geosoft Database
- Dynamic Survey Performance - Blind Seed Log

3. Review testing plan. If there is offsite testing required, identify it below.

N/A

4. Has test facility been approved?

N/A

VIII. Training

- | | | | |
|---|---------------------------|-------------------------------------|--------------------------------------|
| 1. Was site-specific training conducted and documented? | <input type="radio"/> Yes | <input checked="" type="radio"/> No | |
| 2. Was an AGC demonstration of capability (DOC) performed? | <input type="radio"/> Yes | <input type="radio"/> No | <input checked="" type="radio"/> N/A |
| 3. Was the DOC documented and filed in the project records? | <input type="radio"/> Yes | <input type="radio"/> No | <input checked="" type="radio"/> N/A |

IX. Safety

1. Review applicable portion of the Task Order Site Health and Safety Plan.

N/A - there is no AHA for data processing. No personnel are on-site as part of DFW #8

2. Activity hazard analysis updated and approved? Yes No

3. APP signature page and AHAs signed? Yes No

4. Emergency contact personnel identified and contact list posted? Yes No

5. Emergency contact list current? Yes No

6. Emergency action drill conducted and documented? Yes No

7. Do all personnel performing this DFW have current medical clearance and certifications (e.g., EOD/UXO, HAZWOPER, 8hr Refresher, OSHA Supervisor)? Yes No

X. Attach any DFW-specific checklist to the report, if used.

Comments:

XI. Summary of Action Items or Punch List:

Action Items:

* Continue uploading GIS data for MRS to SP upon completion by Jason English

XII. Risks

1. Have risks (Safety, Scope, Schedule, Budget, Level of Quality) been reviewed and updated based on current site conditions for this DFW? Yes No

XIII. Client comments during meeting:

Comments:

Date: 07/18/2022

Matthew Barner

Digitally signed by: Matthew Barner
DN: CN = Matthew Barner email = matt.barner@tetratech.
C = US O = Tetra Tech OUI = TMR
Date: 2022.07.23 09:34:10 -0400

Site Superintendent or Equivalent

Date: 07/18/2022

Jessie Powers

Digitally signed by: Jessie Powers
Date: 2022.07.25 08:48:33 -0400

Project Quality Manager



Initial Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor	
Contract #:	N6247016D9008	Date: 07/21/2022
Task Order #:	N4425519F4112	Reference: QAPP, SOPs
DFW/Activity #:	DFW#5 - IVS Establishment; DFW #6 - DGM Field Surveys	Client Notified <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

Part I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Eugene Mikell	QCM	Tetra Tech
3	Matt Barner	Project Geo	Tetra Tech
4	Anthony Aguirre	UXOQCS	Tetra Tech
5	Simon Jobman	Database Manager	Tetra Tech
6	Melissa King	QA Geo	USN
7		QA	USN
8	Linda Klink	PM	Tetra Tech
9	Brett Yarborough	Site Geophysicist	Tetra Tech
10	Jacob Jankowski	Field Geophysicist	Tetra Tech
11	Jared Hester	Field Geophysicist	Tetra Tech
12	Zachary Weston	Field Geophysicist	Tetra Tech
13	Nolan Walker	Field Geophysicist	Tetra Tech
14	Scot Wilson	PM	Tetra Tech

Part II. Preparatory punch list/deficiencies are resolved/corrected?

Yes No N/A (No punch list/deficiencies were identified)

Part III. Summarize compliance with procedures (be specific) identified at preparatory inspection.

Coordinate plans, specifications, and submittals.

Comments:

All geodetic and geophysical sensors were assembled, tested and inspected IAW DGM SOPs 04, 07 and 08. A background survey was collected on 07/14/2022 to verify the appropriateness of the IVS location. The IVS was installed and documented IAW DGM SOP 01. Initial IVS surveys were collected with the TEM-8g, the EM61-HP coupled with RTS and the EM61 coupled with GPS on 07/19/2022 IAW DGM SOP 02. Data were collected in UXO-17B using the TEM-8g Array IAW DGM SOP 09 on 07/20/2022.

Part IV. Preliminary Work. Ensure preliminary work is complete and correct. If not, describe the action(s) taken. Attach DFW-specific checklist to this report, if used.

Actions:

Ongoing vegetation reduction and additional control emplacement by PLS in support of geophysical survey operations.

TetraForms checklist will be attached.

Part V. Establish Levels of Workmanship

Provide performance criteria for DFW from Plans or SOP.

MQO #1-4 - Assemble Positioning Systems (RTS/GPS): Systems were assembled as specified in manual and DGM SOP 07 each time the systems were moved for use.

MQO #1-5 - Initial Geodetic Function Checks (RTS/GPS): Measured check-shots at known control point established by the PLS were within 4 inches of ground truth following RTS assembly.

MQO #1-6 - Ongoing Geodetic Function Checks (RTS/GPS): Measured check-shots at known control points were within 4 inches of ground truth each time the systems were moved to a new location.

MQO #3-1 - Assemble EM61-HP system (EM61-HP/TEM-8g): Systems were assembled as specified in manuals and DGM SOP____

MQO #3-2 - Initial Instrument Function Test (EM61-HP): Static test item responses were within 20% of predicted responses based on ISO40 response curve scaled

MQO # 3-3 - Initial Instrument Function Test (TEM-8g): Static test item responses were within 20% of established baseline amplitudes averaged from a series of initial tests measurements.

MQO #3-4 - Ongoing Instrument Function Test (EM61-HP): Static test item responses were within 20% of established initial responses

MQO # 3-5 - Ongoing Instrument Function Test (TEM-8g): Static test item responses were within 20% of established initial responses

MQO # 3-6 - Initial dynamic positioning accuracy (TEM-8g): Derived positions of IVS targets were within 10" of ground truth locations

MQO # 3-8 - In-line measurement spacing (Background Survey): 100% of successive measurements were within 0.75ft

MQO # 3-13 - Sensor Separation (EM61-HP/TEM-8g): All sensors were operated > 150ft apart

MQO # 3-14 - Battery Voltage (EM61-HP): Battery changed before voltage < 11.85V

Part VI. Resolve any differences

Comments:

MQO # 3-6 - Initial dynamic positioning accuracy (EM61-HP): Initial IVS results have not been verified by data processors yet.

MQO # 3-7 - Ongoing survey positioning precision (EM61-HP/TEM-8g): Ongoing IVS results have not been verified by data processors yet.

MQO # 3-8 - In-line measurement spacing (Ongoing IVS/Production data): Ongoing IVS results and production data have not been verified by data processors yet.

MQO # 3-10 - Full coverage (EM61-HP/TEM-8g): Full-coverage production data have not yet been verified by data processors.

MQO # 3-9 - Transect Coverage (EM61-HP/TEM-8g): No transects collected yet.

MQO # 3-14 - Battery Voltage (EM61-HP): Project Geo has contacted Geonics regarding usability of data when voltage < 11.85V

Part VII. Check Safety

Review job conditions using Site Health and Safety Plan and activity hazard analysis.

Comments:

None.



Initial Inspection Checklist

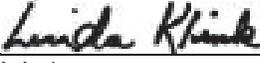
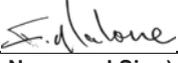
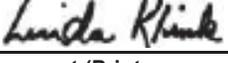
Contract #: N6247016D9008
Date: Jul 21, 2022

Date: 07/21/2022

Jessie Powers Digitally signed by Jessie Powers
Date: 2022.07.25 08:55:33 -04'00'

Project Quality Manager

CLEAN
CONTRACT NUMBER N6247016D9008

FIELD CHANGE REQUEST (FCR)			
TASK ORDER #	N4425519F4112	FCR # FCR-04 MEC QAPP	DATE 07/08/2022
LOCATION:	Naval Base Kitsap Bangor, Silverdale WA	NTR/RPM	Steven Skeeihan/Janice Horton
1. Documents to be changed. Identify revision, date, section, drawing, etc.			
Final MEC QAPP dated June 2021 Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor			
-Change in Tetra Tech key geophysicist personnel listed in MEC QAPP: Worksheets 3 and 5; Table 3-1; Figure 3-2; Worksheets 4, 7 and 8; and Worksheet 6. AND -Change in MEC disposition, Section 17.10 MEC/MPPEH Management (DFW 9), 3rd bullet.			
2. Description of existing requirement and proposed change (Attach sheet if necessary)			
Personnel Changes:			
Project Geophysicist change Jeff Gamey to Matt Barner, PG, matt.barner@tetrattech.com, 980.257.6800			
QC Geophysicist change Matt Barner to Jessie Powers, jessie.powers@tetrattech.com, 434.989.4879			
-Site Geophysicist change TBD to Brett Yarborough, brett.yarborough@tetrattech.com, 214.908.1829			
 MEC Disposition Change, Section 17.10 MEC/MPPEH Management (DFW 9), 3rd bullet: Location of MEC disposition expanded to include UXO 3 and UXO 7 for greater flexibility.			
"• All controlled detonations will occur at the end of field operations at one location (Site A EOD Training Range) for all explosive waste safe to move." change to "• All controlled detonations will occur at the end of field operations at one of three locations (Site A EOD Training Range, UXO 3, and/or UXO 7 at the direction of the Navy) for all explosive waste safe to move."			
Tt Reason for Change (Attach sheet if necessary)			
Geophysicist Personnel Changes: Changeout of project personnel from June 2021 when MEC QAPP was finalized..			
MEC Disposition Additional Areas: Allows for greater flexibility concerning controlled detonations of MEC. Controlled detonation at the EOD Range at the end of the project expanded to additionally allow MEC disposition at UXO 3 and/or UXO 7 at the direction of the Navy.			
4. Originator: (print name and sign)		Title	Date
Linda Klink 		Project Manager	7/7/2022
Reviewed by: (print name and sign)		Title: UXO Manager	Date
Norm Piper, UXO Manager 			7/7/2022
Site Superintendent (Print name and sign)	Date	Task Order Manager (Print name and sign)	Date
Forrest Malone (SUXOS) 	07/7/22	Linda Klink 	7/7/2022
Tt Program QC Manager (Print Name and Sign)	Date	Nav Acknowledgement (Print name and sign)	Date
Michelle Coffman 	7/8/2022	SKEEHAN, STEVEN, BRANT.  SKEEHAN, STEVEN, BRANT. 1160231927 Date: 2022.07.21 11:22:06 -07'00'	7/21/2022

CLEAN
CONTRACT NUMBER N6247016D9008

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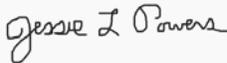


QC Checklist for IVS Installation

Record: 2	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
IVS ID	IVS1
Will this IVS be used to verify dynamic detection data?	Yes
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	All photos approved by NBK Base Security Officer Stephen Chavez. IVS Seed depths shown in photos match depths recorded in Field SOP checklist.
Item 2: Was the IVS constructed in accordance with the GSV Plan, Project QAPP or similar?	Yes
Item 2 Comments	QAPP: Small ISO80 @ 3" Horizontal; Small ISO80 @ 7" Horizontal; Medium ISO40 @ 10" Horizontal Installed: Small ISO80 @ 3" Horizontal; Small ISO80 @ 7.5" Horizontal; Medium ISO40 @ 10" Horizontal
Item 3: Were all required GPS and data files uploaded to the project files?	Yes
Item 3b: Was the pre-seeded survey data analyzed and did it confirm that the location was acceptable for IVS installation?	Yes
Item 3 Comments	IVS01 Background survey confirmed area would be acceptable once utility boundaries were extended. IVS02 Background survey confirmed area was unacceptable due to saturated responses.
QC Geophysicist Signature	
Date	2022-07-30



QC Checklist for EM61 HP Assembly

Record: 2	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Positioning Sensor Type	Other
Enter "Other" positioning sensor type	None
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos were taken at Jackson Park Office (off-base). No positioning units were included as part of this assembly checklist as no control points exist at this remote location. Checklist for EM61-HP coils #1920 (G1) and #2221 (G2)
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs required for this project. Operator certification forms for all personnel are posted to the SP site.
Item 3: Was the raw SFT data file named using the correct convention and saved to the project files?	Yes
Item 3 Comments	G1 - 220717g1test G2 - 220714g2test (file named 220714g1test1 in Field Assembly Checklist)
Item 4: SFT status when processed in Geosoft UXO-Land:	Pass
Item 4 Comments	G1 - Responses for all 4 channels were within 20% of predicted responses. G2 - Responses for all 4 channels were within 20% of predicted responses.
QC Geophysicist Signature	
Date	2022-07-27



QC Checklist for TEM-8g Assembly

Record: 2	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Positioning Sensor Type	NovAtel GPS PPK
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos taken at Jackson Park office (off-base)
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs required for this project - Operator Certification Forms posted to SP for all operators
Item 3: Was the raw SFT data file named using the correct convention and saved to the project files?	Yes
Item 4: SFT status when processed in Geosoft UXO-Land:	Pass
Item 4 Comments	largest % difference from expected values: 1%
QC Geophysicist Signature	
Date	2022-07-27

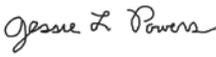


QC Checklist for Blind Seed Installation

Record: 5	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos of all blind QC seeds emplaced on 07/17/2022 have been approved by the base security officer (Steven Chavez).
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	SME letter for J. Powers filed on MMRP SP Site
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 3 Comments	
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	No official blind seed plan for this project - seeds installed based on proposed GIS locations
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	RTS Checkshots included in 07/17/22 QC Logbook. Seed locations uploaded to running blind seed log.
QC Geophysicist Signature	
Date	2022-07-17



QC Checklist for Blind Seed Installation

Record: 8	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos of all blind QC seeds emplaced on 07/18/2022 have been approved by the base security officer (Steven Chavez)
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	SME letter for J. Powers filed on MMRP SP Site
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	No official blind seed plan for this project - seeds installed based on proposed GIS locations
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	RTS Checkshots included in 07/18/22 QC Logbook. Seed locations updated to running blind seed log.
QC Geophysicist Signature	
Date	2022-07-18

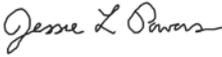


QC Checklist for Blind Seed Installation

Record: 11	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	<i>Photos of all blind QC seeds emplaced on 07/19/22 have been approved by the base security officer (Steven Chavez).</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	<i>SME letter for J. Powers filed on MMRP SP Site</i>
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	<i>No official blind seed plan for this project - seeds installed based on proposed GIS locations</i>
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	<i>Leica RTS and Leica RTK GPS checkshots included in 07/19/22 QC Logbook. Seed locations updated to running blind seed log.</i>
QC Geophysicist Signature	
Date	2022-07-19

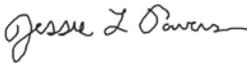


QC Checklist for Blind Seed Installation

Record: 14	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	<i>Photos of all blind QC seeds emplaced on 07/20/22 have been approved by the base security officer (Steven Chavez).</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	<i>SME letter for J. Powers filed on MMRP SP Site</i>
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	<i>No official blind seed plan for this project - seeds installed based on proposed GIS locations</i>
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	<i>Leica RTK GPS checkshots included in 07/20/22 QC Logbook. Seed locations updated to running blind seed log.</i>
QC Geophysicist Signature	
Date	2022-07-20

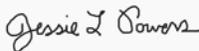


QC Checklist for Blind Seed Installation

Record: 17	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	<i>Photos of all blind QC seeds emplaced on 07/21/22 have been approved by the base security officer (Steven Chavez).</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	<i>SME letter for J. Powers filed on MMRP SP Site.</i>
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	<i>No official blind seed plan for this project - seeds installed based on proposed GIS locations</i>
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	<i>Leica RTS checkshots included in 07/21/22 QC Logbook. Seed locations uploaded to running blind seed log.</i>
QC Geophysicist Signature	
Date	2022-07-21

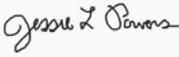


QC Checklist for Civil Survey

Record: 8	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTK GPS/ Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220717 QC Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTK GPS verified in 220717 G3 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	SME designation for B. Yarborough (G3) and J. Powers (QC) on MMRP SP Site
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify geodetic equipment prior to emplacing temporary control points.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS and Leica RTK GPS on 07/17/2022 were within 4 inches of ground truth (passed)
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7.
QC Geophysicist Signature	
Date	2022-07-17

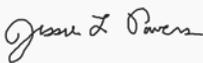


QC Checklist for Civil Survey

Record: 11	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTK GPS/ Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS verified in 2201718 QC Logbook. Assembly and geodetic checkshots for Geo1 using Leica RTK GPS verified in 220718 G1 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	SME designation for J. Powers (QC) on MMRP SP Site. Positioning System Operator Certification for Z. Weston on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS State Plane, feet.
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS and Leica RTK GPS on 07/18/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-07-18



QC Checklist for Civil Survey

Record: 14	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTK GPS/ Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS and Leica RTK GPS verified in 220719 QC Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	SME designation for J. Powers (QC) on MMRP SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS WA North State Plane; feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify geodetic equipment prior to emplacing temporary control points.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for the Leica RTS and Leica RTK GPS used for QC seeing on 07/19/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - QC seed locations recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-07-19



QC Checklist for Civil Survey

Record: 17	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Other</i>
Enter "Other" positioning sensor	<i>Leica RTK GPS/ Leica RTS</i>
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	<i>Assembly and geodetic checkshots for QC Team using Leica RTS and Leica RTK GPS in 220720 QC Logbook.</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	<i>N/A</i>
Item 2 Comments	<i>SME designation for J. Powers (QC) on MMRP SP Site</i>
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	<i>NAD83 CONUS WA North State Plane; feet</i>
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	<i>N/A</i>
Item 4 Comments	<i>Control established by PLS used to verify geodetic equipment prior to emplacing temporary control points.</i>
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	<i>All checkshots for Leica RTS and Leica RTK GPS on 07/20/2022 were within 4 inches of ground truth (passed)</i>
Item 6: Did all installed stakes and/or flags meet the project MQOs?	<i>N/A</i>
Item 6 Comments	<i>No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7</i>
QC Geophysicist Signature	
Date	<i>2022-07-20</i>



QC Checklist for Civil Survey

Record: 20	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Other</i>
Enter "Other" positioning sensor	<i>Leica RTK GPS/ Leica RTS</i>
Item 1: Was the Field Checklist completed?	<i>Yes</i>
Item 1 Comments	<i>Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220721 QC Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTK GPS verified in 220721 G2 Logbook.</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	<i>N/A</i>
Item 2 Comments	<i>SME designation for J. Powers (QC) on MMRP SP Site. Positioning system operator certification form for J. Jankowski (G2) on Project SP Site.</i>
Item 3: Was the correct project coordinate system used?	<i>Yes</i>
Item 3 Comments	<i>NAD83 CONUS WA North State Plane; feet</i>
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	<i>Yes</i>
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	<i>N/A</i>
Item 4 Comments	<i>Control established by PLS used to verify geodetic equipment prior to emplacing temporary control points.</i>
Item 5: Did all geodetic functionality tests meet the project MQOs?	<i>Yes</i>
Item 5 Comments	<i>All checkshots for Leica RTS and Leica RTK GPS on 07/21/2022 were within 4 inches of ground truth (passed).</i>
Item 6: Did all installed stakes and/or flags meet the project MQOs?	<i>N/A</i>
Item 6 Comments	<i>No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-07-21</i>



Weekly Quality Control Report

WQCR INFORMATION

From: 07/24/2022	To: 07/30/2022	Report #:	005
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	DFW 8	Activity/Task #:	DGM Data Processing and QC
Follow-Up Inspection (DFW):	DFW 5, DFW 6 (this report)	Activity/Task #:	IVS Installation/DGM Surveys
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #5 (IVS Establishment): Initial IVS tests for the G1 EM61-HP sensor/RTK GPS positioning system combination were performed IAW DGM SOP 02. QC Checklists associated with Instrument Verification are attached to this report. IVS Technical Memorandum preparation in progress.

DFW #6 (DGM Surveys): Full coverage data were collected in UXO 17B with the TEM-8g and the EM61-HP IAW DGM SOP 05 and DGM SOP 09. Transect data were collected in UXO 03 and UXO 04 with the EM61-HP IAW DGM SOP 05.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Initial IVS Dynamic Positioning Accuracy for EM61-HP sensor IAW MQO # 3-6 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).

Materials and Equipment Received and Results of Inspection:

- All materials received and inspected by Tetra Tech Site Geophysicist. Refer to completed QRIR 03 for equipment specifics.



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Jul 30, 2022

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

- QRIR 03 Deficiency Item #03 resolved with shipment from warehouse.

Field Change Requests Initiated or Status:

- FCR-05 initiated on 07/25/2022 to address updated guidance regarding minimum EM61-HP battery voltage (approved on 07/27/2022). Refer to attached FCR for relevant information.

JOB SAFETY: (LIST OBSERVATIONS)

Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Initial Inspection call for DFW #8. Refer to attached inspection checklist for relevant information.
- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	<input type="text" value="Jessie Powers"/>	TITLE/COMPANY:	<input type="text" value="QC Geophysicist"/>
		SIGNATURE:	<input type="text" value="Jessie Powers"/> <small>Digitally signed by Jessie Powers Date: 2022.08.15 07:14:04 -04'00'</small>



Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: 03	Project Name: Naval Base Kitsap Bangor
Contract #: N6247016D9008	Task Order#: Date: 07/25/2022

Section II: Material or Equipment Identification Information

#	P.O./Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	2x Geonics EM61-MKII HP Batteries	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
2	Leica RTS TS16 SN: 3870328; Barcode: 593998	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
3	Leica RTS CS20 Controller SN: 2462756 Barcode: 593999	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
4	Tripod and Rover Staff	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
1	Prism for RTS TS16; Purchase was sent directly from Hixon, and was not included in the purchase of the TS16/CS20 unit.	<input type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input checked="" type="checkbox"/> Other (Specify <input type="text" value="Missing equipment will be shipped"/> <input type="checkbox"/> Rejected-Return to Vendor/Supplier	07/25/2022	07/26/2022

Section IV: Hold Tag Information

Tag Issued:	<input type="checkbox"/> Hold <input type="checkbox"/> Conditional Release <input type="checkbox"/> Final Acceptance/Release Date	Approver's Initials: Inspector:
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Remarks:

Section V: P.O Status

Status of P.O.:	<input checked="" type="checkbox"/> Completed <input type="checkbox"/> Partial
Inspector: Brett Yarborough	Brett Yarborough <small>Digitally signed by Brett Yarborough Date: 2022.08.04 05:54:37 -0700'</small> Date: 07/26/2022
Final Reviewer: Jessie Powers	Jessie Powers <small>Digitally signed by Jessie Powers Date: 2022.08.08 15:28:33 -0400'</small> Date: 08/01/2022

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.



Initial Inspection Checklist

Contract Name:	Naval Base Kitsap Bangor	
Contract #:	N6247016D9008	Date: 07/28/2022
Task Order #:	N4425519F4112	Reference: QAPP, SOPs
DFW/Activity #:	DFW#8 - DGM Data Processing and QC	Client Notified <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

Part I. Personnel Present:

#	Name	Position	Company/Government Agency
1	Jessie Powers	QC Geo	Tetra Tech
2	Scot Wilson	PM	Tetra Tech
3	Matt Barner	Project Geo	Tetra Tech
4	Anthony Aguirre	UXOQCS	Tetra Tech
5	Simon Jobman	Database Manager	Tetra Tech
6	Melissa King	QA Geo	USN
7	Linda Klink	PM	Tetra Tech
8	Brett Yarborough	Data Processor	Tetra Tech
9	Jeannie Norton	Data Processor	Tetra Tech

Part II. Preparatory punch list/deficiencies are resolved/corrected?

Yes No N/A (No punch list/deficiencies were identified)

Part III. Summarize compliance with procedures (be specific) identified at preparatory inspection. Coordinate plans, specifications, and submittals.

Comments:

All raw geodetic and geophysical data were retrieved and reviewed by data processors against logbook entries and field checklists. Initial IVS data for both EM61-HP systems and the TEM-8g system were processed IAW DGM SOPs 05 and 10 and verified against MQOs in WS#22 Table 22-3. Data will be posted for QA review and presented in the IVS Technical Memorandum following the QC review process.

Part IV. Preliminary Work. Ensure preliminary work is complete and correct. If not, describe the action(s) taken. Attach DFW-specific checklist to this report, if used.

Actions:

TetraForms checklist for Initial IVS Dynamic Data Processing will be attached.

Part V. Establish Levels of Workmanship

Provide performance criteria for DFW from Plans or SOP.

MQO #3-2 - Initial Instrument Function Test (EM61-HP): Static test item responses were within 20% of predicted responses based on ISO40 response curve scaled

MQO # 3-3 - Initial Instrument Function Test (TEM-8g): Static test item responses were within 20% of established baseline amplitudes averaged from a series of initial tests measurements.

MQO #3-4 - Ongoing Instrument Function Test (EM61-HP): Static test item responses were within 20% of established initial responses

MQO # 3-5 - Ongoing Instrument Function Test (TEM-8g): Static test item responses were within 20% of established initial responses

MQO # 3-6 - Initial dynamic positioning accuracy (TEM-8g/EM61-HP): Derived positions of IVS targets were within 10" of ground truth locations.

MQO #3-7 - Ongoing Detection Survey Positioning Precision (TEM-8g/EM61-HP): Derived positions of IVS targets were within 10" of running average positions.

MQO # 3-8 - In-line measurement spacing (TEM-8g/EM61-HP): Data met the minimum requirements for 98% of successive measurements to be within 0.75ft; 100% of successive measurements to be within 3.3ft.

Part VI. Resolve any differences

Comments:

MQO # 3-8 - In-line measurement spacing (Production data): Production data have not been delivered for QC review yet.

MQO # 3-9 - Transect Coverage (EM61-HP/TEM-8g): Production data have not been delivered for QC review yet.

MQO # 3-10 - Full coverage (EM61-HP/TEM-8g): Production data have not been delivered for QC review yet.

MQO # 3-17 - Dynamic DGM Survey Performance: Production data have not been delivered for QC review yet.

Part VII. Check Safety

Review job conditions using Site Health and Safety Plan and activity hazard analysis.

Comments:

None.

Date: 07/28/2022

Jessie Powers Digitally signed by Jessie Powers
Date: 2022.07.28 11:15:59 -04'00'

Project Quality Manager

CLEAN
CONTRACT NUMBER N6247016D9008

FIELD CHANGE REQUEST (FCR)

TASK ORDER # N4425519F4112 FCR # FCR-05 MEC QAPP DATE 07/25/2022
 LOCATION: Naval Base Kitsap Bangor, Silverdale WA NTR/RPM Janice Horton

1. Documents to be changed. Identify revision, date, section, drawing, etc.

Final MEC QAPP dated June 2021 Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor

- Change in acceptance criteria for MQO #3-14 in Worksheet #22, Table 22-3.
- Change in SOP4, Section 3.3, 2nd last sentence.
- Change in SOP5, Section 3.1, 10th bullet.
- Change in SOP5, Section 3.3, 5th last sentence.

2. Description of existing requirement and proposed change (Attach sheet if necessary)

Existing requirement: A
 It cited MEC QAPP references in previous section list the EM61-MK2HP sensor lower limit battery level at 11.85V. These citations all indicate that data collected at a battery level less than 11.85V are subject to rejection on the basis of being out of specification.

Recommended changes:

- Worksheet #22, Table 22-3, MQO #3-14 acceptance criteria: Change to "Voltage must be ≥11.0V."
- SOP4, Section 3.3, 2nd last sentence: Change to "During data collection the battery level will be monitored, and the battery will be replaced immediately if the voltage drops below 11.0V."
- SOP5, Section 3.1, 10th bullet: Change to "Continue until area is completely covered, batteries need replacing (<11.0V), RTK DGPS power light flashes, or a break is required."
- SOP5, Section 3.3, 5th sentence: Change to "During data collection the battery level will be monitored, and the battery will be replaced immediately if the voltage drops below 11.0 volts (V)."

3. Reason for Change (Attach sheet if necessary)

EM61-MK2 HP systems in use at the project site are on rent from Geonics, Ltd. (manufacturer). During initial system assembly/onsite testing prior to the start of production work, it was observed by the field teams and reported by the Site Geophysicist the batteries supplied with the rental systems would not maintain a 11.85V battery level for an appropriate amount of time to meet daily production goals and maintain schedule efficiency. After consulting with Geonics, it was determined the systems could be safely run to battery levels as low as 11.0V without adverse impact to data usability. These changes are proposed to both address acceptance criteria moving forward as well as retroactively.

4. Originator: (print name and sign) Matt Barner <i>Matthew Barner</i>	Title Project Manager	<i>Linda Klink</i>	Date 7/26/2022
Reviewed by: (print name and sign) Norm Piper, UXO Manager <i>Norm Piper</i>	Title: UXO Manager		Date 7/26/2022
Site Superintendent (Print name and sign) Forrest Malone (SUXOS) <i>Forrest Malone</i>	Date 07/026/22	Task Order Manager (Print name and sign) Linda Klink <i>Linda Klink</i>	Date 7/26/2022
Tt Program QC Manager (Print Name and Sign) Michelle Coffman <i>Michelle Coffman</i>	Date 7/26/2022	Site Acknowledgment (Print name and sign) SKEEHAN, STEVEN. BRANT. 1160231927	Date Date: 2022.07.27 18:44:13 -07'00'

CLEAN
CONTRACT NUMBER N6247016D9008

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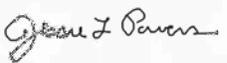


QC Checklist for Instrument Verification at IVS

Record: 2	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Checklist for EM61-HP coils #1920 (G1) and # 2221 (G2) using RTS and RTK GPS
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC for the equipment used during initial IVS data collection saved to the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs required for this project. All operators trained by Brett Yarborough (SME); documented Operator Certification Forms on SP site
Item 3: Were all required data files uploaded to the project files?	Yes
Item 3 Comments	G1 -RTS 220719ssam 220719g1ivsinitial G1 - RTK GPS 220725_g1_ssam 220725_g1_IVSam G2 - RTS 220719G2SSAM 220719g2ivsinitial2 G2 - RTK 220729g2initialgps2
Item 4: Did the geodetic functionality test meet the project MQO?	Yes
Item 4 Comments	All geodetic checkshots passed within 4" of known ground truth locations
Item 5: Did the processed SFT data meet project MQOs?	Yes
Item 5 Comments	G1 - all responses within 20% of established baseline amplitudes G2 - all responses within 20% of established baseline amplitudes
Item 6: Were initial IVS data collected IAW the SOP?	Yes
Item 6b: Did the processed IVS data meet project MQOs?	Yes
Item 6 Comments	G1 - all IVS target positions detected within 10" of ground truth locations (passed). 98% of In-line measurements are less than 0.75' spaced; 100% of in-line measurements are less than 3.3' spaced. G2 - all IVS target positions detected within 10" of ground truth locations (passed). 98% of In-line measurements are less than 0.75' spaced; 100% of in-line measurements are less than 3.3' spaced.
Item 7: Is the observed background noise acceptable for meeting project DQO's?	N/A
Item 8: Do you have sufficient information and photographs to complete the IVS Report?	Yes
Item 8 Comments	IVS installation photos approved by base security manager (Steven Chavez)
QC Geophysicist Signature	
Date	2022-07-30

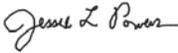


QC Checklist for Instrument Verification at IVS

Record: 5	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	QC checklist for TEM-8g geophysical sensor with Novatel GPS positioning system
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC for the equipment used during initial IVS data collection saved to the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs for this project - Operator Certification forms posted to Project SP Site
Item 3: Were all required data files uploaded to the project files?	Yes
Item 3 Comments	SFT file name: Tem02834 IVS file name: Tem02836
Item 4: Did the geodetic functionality test meet the project MQO?	N/A
Item 4 Comments	No checkshot required for post-processed GPS. Over 98% of post-processed GPS data had an HDOP < 3.5 (passed).
Item 5: Did the processed SFT data meet project MQOs?	Yes
Item 5 Comments	Responses were within 20% of established baseline amplitudes (passed).
Item 6: Were initial IVS data collected IAW the SOP?	Yes
Item 6b: Did the processed IVS data meet project MQOs?	Yes
Item 6 Comments	IVS target positions were detected within 10" of ground truth locations (passed). Over 98% of successive measurements were within 0.75'; 100% of successive measurements were within 3.3' (passed).
Item 7: Is the observed background noise acceptable for meeting project DQO's?	N/A
Item 8: Do you have sufficient information and photographs to complete the IVS Report?	Yes
Item 8 Comments	IVS installation photos were approved by the base security officer (Steven Chavez).
QC Geophysicist Signature	
Date	2022-07-30



QC Checklist for Civil Survey

Record: 26	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for G2 EM61 Team using Leica RTS in 220724 G2 Logbook</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certification for J. Jankowski on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS on 07/24/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	
Date	2022-07-24



QC Checklist for Civil Survey

Record: 29	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTK GPS/ Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo 1 using Leica RTK GPS verified in 220725 G1 Logbook. Assembly and geodetic checkshots for Geo 2 using Leica RTS verified in 220725 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Z. Weston and N. Emm (Geo 1) and J. Jankowski and J. Hester (Geo 2) on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS State Plane, feet.
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTK GPS and Leica RTS on 07/25/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-07-25

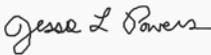


QC Checklist for Civil Survey

Record: 32	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo 2 using Leica RTS verified in 220726 G2 Logbook</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for J. Jankowski and J. Hester on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS on 07/26/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7</i>
QC Geophysicist Signature	
Date	2022-07-26



QC Checklist for Civil Survey

Record: 35	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTK GPS/ Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTK GPS verified in 220727 G1 Logbook Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220727 G2 Logbook
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certification forms for all Geo 1 and Geo 2 team members on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTK GPS and Leica RTS on 07/27/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-07-27



QC Checklist for Civil Survey

Record: 38	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220730 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220730 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for all Geo1 and Geo2 team members on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS State Plane, feet.</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for both Leica RTS systems on 07/30/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points were recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-07-30



Weekly Quality Control Report

WQCR INFORMATION

From: 07/31/2022	To: 08/06/2022	Report #:	006
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #6 (DGM Surveys): Full coverage and transect data were collected in UXO 04, UXO 07, UXO 11 and UXO 17B with the EM61-HP IAW DGM SOP 05. Full coverage and transect data were collected in UXO 04 and UXO 17 with the TEM-8g IAW DGM SOP 09. An inconsistency was noted on 08/03/2022 regarding the footprint of the area cleared and prepared for DGM relative to the GIS-supplied site boundary. The inconsistency appears to be on the order of approximately 20 feet in some areas. The TetraTech project team was notified by email on 08/05/2022.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g processed IAW DGM SOP 06 and DGM SOP 10. Data Processors identified the 08/03/22 TEM-8g AM IVS file is missing a background line. Since an IVS test does not fail any data MQOs without a background line, no NCR is needed needed for this omission. Data processing, QC and technical reporting for IVS and production data are ongoing.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

None.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Weekly Quality Control Report

Contract #: N6247016D9008

Date: Aug 6, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

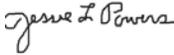
TITLE/COMPANY:

SIGNATURE:

 Digitally signed by Jessie Powers
Date: 2022.08.16 16:29:40 -07'00'

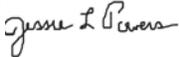


QC Checklist for Civil Survey

Record: 44	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 and Geo2 using Leica RTS systems verified in 220731 G1 and 220731 G2 Logbooks.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for all Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS State Plane, feet.
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS systems on 07/31/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-07-31

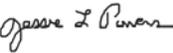


QC Checklist for Civil Survey

Record: 47	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 and Geo2 using Leica RTS positioning systems verified in 220801 G1 and 220801 G2 Logbooks.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo 1 and Geo 2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS State Plane, feet.
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica RTS systems on 08/01/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-08-01



QC Checklist for Civil Survey

Record: 50	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 and Geo 2 using Leica RTS Positioning systems verified in 220802 G1 and 220802 G2 Logbooks.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for all Geo 1 and Geo 2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS State Plane, feet.
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica RTS systems on 08/02/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-08-02



QC Checklist for Civil Survey

Record: 53	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo 2 using Leica RTS verified in 220803 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo 2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS on 08/03/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control point locations recorded IAW DGM SOP 7</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-03



QC Checklist for Civil Survey

Record: 56	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo 2 using Leica RTS verified in 220806 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo 2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS State Plane, feet.</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS on 08/06/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control point locations recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-06



Weekly Quality Control Report

WQCR INFORMATION

From: 08/07/2022	To: 08/13/2022	Report #:	007
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 8 (this report)	Activity/Task #:	DGM Data Processing and QC
Rework Status:	TEM-8g data collection in UXO 17B - pending	Activity/Task #:	DGM Surveys

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g processed IAW DGM SOP 06 and DGM SOP 10. 08/07/22 TEM-8g AM IVS file unable to be processed due to file corruption. Guidance provided by the software manufacturer Geosensors, Inc. confirmed the file was not salvageable. No NCR needed - production data will be validated with 08/07/22 PM IVS and blind seed detection. All production data collected in UXO 17B on 08/08/22 with the TEM-8g will be recollected as part of the CA for NCR-001. Data processing, QC and technical reporting for IVS and production data are ongoing.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 initiated to address the TEM-8g data failure of MQO #3-16 on 08/08/22 as a result of the base station falling over during collection. The NCR Log has been updated to reflect this addition and NCR-001 is in progress.



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Aug 13, 2022

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team and NOSSA audit kickoff call. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Weekly Quality Control Report

Contract #: N6247016D9008
Date: Aug 13, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
SIGNATURE:	Jessie Powers	Digitally signed by Jessie Powers Date: 2022.08.23 15:05:49 -04'00'	



QC Checklist for Civil Survey

Record: 62	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220807 G2 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo 2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet.
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica RTS on 08/07/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-08-07



QC Checklist for Civil Survey

Record: 65	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220808 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/08/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-08



QC Checklist for Civil Survey

Record: 68	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 and Geo2 using Leica RTS positioning systems verified in 220809 G1 and 220809 G2 Logbooks.</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	<i>Positioning System Operator Certification forms for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet.</i>
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	<i>All checkshots for Leica RTS systems on 08/09/2022 were within 4 inches of ground truth (passed).</i>
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-09



QC Checklist for Civil Survey

Record: 71	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 and Geo2 using Leica RTS positioning systems verified in 220810 G1 and 220810 G2 Logbooks.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet.</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS systems on 08/10/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-10



Weekly Quality Control Report

WQCR INFORMATION

From: 08/14/2022 To: 08/20/2022 Report #: 008

Client: NAVFAC NW Project: 179-8015

Contract Name: Naval Base Kitsap Bangor Location: Silverdale, WA

Contract #: N6247016D9008 Task Order #: N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW): None Activity/Task #: N/A

Initial Inspection (DFW): None Activity/Task #: N/A

Follow-Up Inspection (DFW): DFW 3; DFW 6; DFW 8 (this report) Activity/Task #: QC Seeing; DGM Surveys; DGM Data Processing and QC

Rework Status: TEM-8g data collection in UXO 17B - pending Activity/Task #: DGM Surveys

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #3 (QC Blind Seeding): Blind seeds and temporary control points installed in IAW DGM SOP 03 and DGM SOP 07; photos were approved by Mr. Steven Chavez. QC checklists associated with these SOPs are attached to this report. Blind Seed Log updated with installation details.

DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package for week end 08/19/22 includes EM61-HP and TEM-8g QC data from 08/06/22 - 08/10/22.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).
- Validated RTK GPS Quality 4 positioning data for EM61-HP datasets IAW MQO # 3-15 (Passed).
- Validated Post-Processed GPS HDOP < 3.5 positioning data for TEM-8g datasets IAW MQO # 3-16 (Passed).

Materials and Equipment Received and Results of Inspection:

- All materials received inspected by Tetra Tech QC Geophysicist. Refer to completed QRIR 04 for equipment specifics.

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 to address the TEM-8g data failure of MQO #3-16 on 08/08/22 is in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.
- On-site NOSSA audit 08/16/22 - 08/17/22.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
	SIGNATURE:	Jessie Powers	 Digitally signed by Jessie Powers Date: 2022.08.26 08:52:25 -04'00'



Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: 04	Project Name: Naval Base Kitsap Bangor
Contract #: N6247016D9008	Task Order#: N4425519F4112
Date: 08/17/2022	

Section II: Material or Equipment Identification Information

#	P.O./Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	20 x McMaster Carr ISO 80 seeds part #44615K466	Jessie Powers	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
2	10 x McMaster Carr ISO 40 seeds part #44615K529	Jessie Powers	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
		<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input type="checkbox"/> Other (Specify <input type="text"/>) <input type="checkbox"/> Rejected-Return to Vendor/Supplier		

Section IV: Hold Tag Information

Tag Issued:	<input type="checkbox"/> Hold	Approver's Initials:
	<input type="checkbox"/> Conditional Release	
	<input type="checkbox"/> Final Acceptance/Release Date	
Inspector:		

Remarks:

Section V: P.O Status

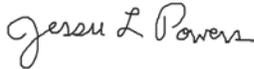
Status of P.O.:	<input checked="" type="checkbox"/> Completed	<input type="checkbox"/> Partial
Inspector: Jessie Powers	Jessie Powers	Date: 08/17/2022
Final Reviewer:		Date:

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.



QC Checklist for Blind Seed Installation

Record: 23	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos of all blind QC seeds emplaced on 08/17/22 have been approved by base security officer (Steven Chavez).
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	SME letter for J. Powers filed on MMRP SP Site
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	No official blind seed plan for this project - seeds installed based on proposed GIS locations.
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	Leica RTS checkshots included in 08/17/22 QC Logbook. Seed locations updated to running blind seed log.
QC Geophysicist Signature	
Date	2022-08-17



QC Checklist for Blind Seed Installation

Record: 26	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	<i>Photos of all blind QC seeds emplaced on 08/18/22 have been approved by the base security officer (Steven Chavez).</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	<i>SME letter for J. Powers filed on MMRP SP Site</i>
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	<i>No official blind seed plan for this project - seeds installed based on proposed GIS locations.</i>
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	<i>Leica RTS checkshots included in 08/18/22 QC Logbook. Seed locations updated to running blind seed log.</i>
QC Geophysicist Signature	<i>Jessie L. Powers</i>
Date	2022-08-18



QC Checklist for Blind Seed Installation

Record: 29	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	Photos of all blind QC seeds emplaced on 08/19/22 have been approved by the base security officer (Steven Chavez).
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	Yes
Item 2 Comments	SME letter for J. Powers filed on MMRP SP Site; Operator Certification Form for T. Aguirre on Project SP Site
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	No official blind seed plan for this project - seeds installed based on proposed GIS locations.
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	Leica RTS checkshots included in 08/19/22 QC Logbook. Seed locations updated to running blind seed log.
QC Geophysicist Signature	
Date	2022-08-19



QC Checklist for Civil Survey

Record: 74	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220815 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/15/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-15

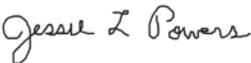


QC Checklist for Civil Survey

Record: 77	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220816 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/16/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-16

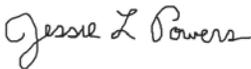


QC Checklist for Civil Survey

Record: 80	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220817 QC Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220817 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	SME designation for J. Powers (QC) on MMRP SP Site. Positioning System Operator Certifications for Geo 2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet.
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS systems on 08/17/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-08-17



QC Checklist for Civil Survey

Record: 83	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220818 QC Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220818 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	SME designation for J. Powers (QC) on MMRP SP Site. Positioning System Operator Certifications for Geo 2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS systems on 08/18/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No predetermined points were reacquired - temporary control and QC seed locations recorded IAW DGM SOP 7
QC Geophysicist Signature	
Date	2022-08-18



QC Checklist for Civil Survey

Record: 86	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220819 QC Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220819 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	SME designation for J. Powers (QC) on MMRP SP Site. Positioning System Operator Certifications for Geo 2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS systems on 08/19/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	No points reacquired from pre-determined locations. Temporary control, grid stakes and QC seed locations recorded IAW DGM SOP 7.
QC Geophysicist Signature	
Date	2022-08-19



Weekly Quality Control Report

WQCR INFORMATION

From: 08/21/2022	To: 08/27/2022	Report #:	009
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 3; DFW 6; DFW 8 (this report)	Activity/Task #:	QC Seeding; DGM Surveys; DGM Data Processing and QC
Rework Status:	TEM-8g data collection in UXO 17B - complete	Activity/Task #:	DGM Surveys

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #3 (QC Blind Seeding): Blind seed and temporary control points installed in IAW DGM SOP 03 and DGM SOP 07; photos were approved by Mr. Steven Chavez. QC checklists associated with these SOPs are attached to this report. Blind Seed Log updated with installation details.

DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data Processors upgraded DAT61MK2 software to version 2.54 to aid in EM61-HP raw file conversion, per manufacturer guidance. The usability of production data collected on 08/23/22 with the G2 EM61-HP system in UXO 03 will be evaluated as part of the root cause analysis for NCR-002. The usability of production data collected on 08/24/22 with the TEM-8g in UXO 04 and UXO 17B will be evaluated as part of the root cause analysis for NCR-002. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package for week end 08/26/22 includes EM61-HP and TEM-8g QC data from 08/15/22 - 08/19/22.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-2; 3-3 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP and TEM-8g sensors IAW MQO # 3-8 (Passed).
- Validated RTK GPS Quality 4 positioning data for EM61-HP datasets IAW MQO # 3-15 (Passed).
- Validated Post-Processed GPS HDOP < 3.5 positioning data for TEM-8g datasets IAW MQO # 3-16 (Passed).

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 to address the TEM-8g data failure of MQO #3-16 on 08/08/22 is in progress.
NCR-002 to address the Geo 2 EM61-HP data failure of MQO #3-4 on 08/23/22 is in progress.
NCR-003 to address the TEM-8g data failure of MQOs # 3-7, #3-8 and #3-16 on 08/24 is in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.
- Draft IVS Technical Memorandum submitted on 08/22/22 for client review.



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Aug 27, 2022

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.09.01 09:02:51 -04'00'



QC Checklist for Blind Seed Installation

Record: 32	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
Item 1: Was the Field Checklist completed with all required photos?	Yes
Item 1 Comments	<i>Photos of blind QC seed emplaced on 08/23/22 have been approved by the base security officer (Steven Chavez).</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	Yes
Item 2 Comments	<i>Positioning System Operator Certification for T. Aguirre on Project SP Site</i>
Item 3: Can you confirm personnel involved with Blind Seeding operations will not be involved with any production geophysical data collection, data processing or intrusive investigation?	Yes
Item 4: Were blind seeds installed IAW the Blind Seed Plan or similar?	Yes
Item 4 Comments	<i>No official blind seed plan for this project - seeds installed based on proposed GIS locations.</i>
Item 5: Were all required GPS and data files (if applicable) uploaded to the project files?	Yes
Item 5 Comments	<i>Leica RTS checkshots included in 08/23/22 QC Logbook. Seed location updated to running blind seed log.</i>
QC Geophysicist Signature	
Date	2022-08-23



QC Checklist for Civil Survey

Record: 89	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220822 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/22/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-22



QC Checklist for Civil Survey

Record: 92	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for QC Team using Leica RTS verified in 220823 QC Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220823 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for T. Aguirre on Project SP Site Positioning System Operator Certifications for Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS systems on 08/23/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No predetermined points were reacquired - temporary control points and QC seed locations recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-08-23</i>



QC Checklist for Civil Survey

Record: 95	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220824 G2 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo2 operators on Project SP Site
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots using Leica RTS system on 08/24/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	No points were reacquired - temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-08-24



QC Checklist for Civil Survey

Record: 98	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220825 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/25/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-25



QC Checklist for Civil Survey

Record: 101	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS positioning system verified in 220826 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning system prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica RTS system on 08/26/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>No points were reacquired - temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-08-26



Weekly Quality Control Report

WQCR INFORMATION

From: 08/28/2022 To: 09/03/2022 Report #: 010

Client: NAVFAC NW Project: 179-8015

Contract Name: Naval Base Kitsap Bangor Location: Silverdale, WA

Contract #: N6247016D9008 Task Order #: N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW5; DFW 6; DFW 8 (this report)	Activity/Task #:	IVS Establishment; DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #5 (IVS Establishment): Assembly and initial validation of the G3 EM61-HP system at IVS1 were performed IAW DGM SOP 02. QC Checklists associated with these SOPs are attached to this report. IVS Technical Memorandum Addendum preparation in progress.

DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package for week end 08/26/22 includes EM61-HP QC data from 08/22/22 - 08/26/22.

Tests Performed and Results:

- Performed Initial Sensor Function Tests for EM61-HP IAW MQO # 3-2 (Passed).
- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed).
- Processed Initial IVS Dynamic Positioning Accuracy for EM61-HP sensor IAW MQO # 3-6 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS datasets for EM61-HP sensors IAW MQO # 3-8 (Passed).
- Verified as-collected survey transect paths for DGM sensors IAW MQO # 3-9 (Passed).
- Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook)
- Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook).

Materials and Equipment Received and Results of Inspection:

- All materials received inspected by Tetra Tech Site Geophysicist. EM61-HP s/n #0217 rejected due to failed out-of-box QC tests; returned to vendor. EM61-HP system s/n #0327 received - refer to completed QRIR 05 for equipment specifics.

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 to address the TEM-8g data failure of MQO #3-16 on 08/08/22 is in progress.
NCR-002 to address the Geo 2 EM61-HP data failure of MQO #3-4 on 08/23/22 is in progress.
NCR-003 to address the TEM-8g data failure of MQOs # 3-7, #3-8 and #3-16 on 08/24 is in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME: <input type="text" value="Jessie Powers"/>	TITLE/COMPANY: <input type="text" value="QC Geophysicist"/>
SIGNATURE: <input type="text" value="Jessie Powers"/>	 Digitally signed by Jessie Powers Date: 2022.09.19 21:02:36 -07'00'



Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: <input type="text" value="05"/>	Project Name: <input type="text" value="Naval Base Kitsap Bangor"/>
Contract #: <input type="text" value="N6247016D9008"/>	Task Order#: <input type="text"/>
Date: <input type="text" value="09/01/2022"/>	

Section II: Material or Equipment Identification Information

#	P.O./Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	EM61-MKII HP - Coil 0327; Console: 032109	Brett Yarborough	Accepted; Function as Needed; Rental EM61MK-HP from KD Jones	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
2	Allegro CX - SN: 304627	Brett Yarborough	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
1	N/A	<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input type="checkbox"/> Other (Specify <input type="text"/>) <input type="checkbox"/> Rejected-Return to Vendor/Supplier	09/06/2022	09/06/2022

Section IV: Hold Tag Information

Tag Issued:	<input type="checkbox"/> Hold	Approver's Initials:
	<input type="checkbox"/> Conditional Release	
	<input type="checkbox"/> Final Acceptance/Release Date	

Inspector: _____

Inspector: _____

Remarks:

Section V: P.O Status

Status of P.O. : <input checked="" type="checkbox"/> Completed	<input type="checkbox"/> Partial
Inspector: Brett Yarborough	Brett Yarborough <small>Digitally signed by Brett Yarborough Date: 2022.09.21 08:17:46 -05'00'</small>
Final Reviewer: Jessie Powers	Jessie Powers <small>Digitally signed by Jessie Powers Date: 2022.09.22 09:44:52 -07'00'</small>
	Date: 09/08/2022
	Date: 09/22/2022

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.



QC Checklist for EM61 HP Assembly

Record: 5	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed with all required photos?	N/A
Item 1 Comments	No photos of system assembly were taken, due to base photo restrictions. Checklist is for EM61-HP coil #0327 (G3)
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC saved in the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs required for this project. Operator verification forms for all personnel are posted to the SP site.
Item 3: Was the raw SFT data file named using the correct convention and saved to the project files?	Yes
Item 3 Comments	G3 - 220902G2ssam
Item 4: SFT status when processed in Geosoft UXO-Land:	Pass
Item 4 Comments	G3 - Responses for all 4 channels were within 20% of predicted HP responses
QC Geophysicist Signature	
Date	2022-09-06

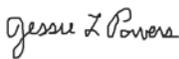


QC Checklist for Instrument Verification at IVS

Record: 8	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Checklist for EM61-HP coil # 0327 (G3) using RTS
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC for the equipment used during initial IVS data collection saved to the project files or MMRP SharePoint?	N/A
Item 2 Comments	No DOCs required for this project. Operator certification forms posted to project SP site
Item 3: Were all required data files uploaded to the project files?	Yes
Item 3 Comments	G3 - RTS 220902g3ssam 220902g3IVSAM
Item 4: Did the geodetic functionality test meet the project MQO?	Yes
Item 4 Comments	All geodetic checkshots passed within 4" off known ground truth locations
Item 5: Did the processed SFT data meet project MQOs?	Yes
Item 5 Comments	G3 - all responses within 20% of established baseline amplitudes
Item 6: Were initial IVS data collected IAW the SOP?	Yes
Item 6b: Did the processed IVS data meet project MQOs?	Yes
Item 6 Comments	G3 - all IVS target positions detected within 10" of ground truth locations (passed). 98% of in-line measurements are less than 0.75' spaced; 100% of in-line measurements are less than 3.3ft spaced
Item 7: Is the observed background noise acceptable for meeting project DQO's?	N/A
Item 8: Do you have sufficient information and photographs to complete the IVS Report?	N/A
Item 8 Comments	No photos taken off the G3 system IAW base security protocols. All IVS installation pilots have been previously submitted as part of the IVS Technical Memorandum
QC Geophysicist Signature	
Date	2022-09-06

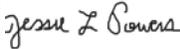


QC Checklist for Civil Survey

Record: 104	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220829 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220829 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS positioning systems on 08/29/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	Yes
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-08-29

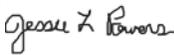


QC Checklist for Civil Survey

Record: 107	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for G1 using Leica RTS verified in 220830 G1 Logbook. Assembly and geodetic checkshots for G2 using Leica RTS verified in 220830 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS positioning systems on 08/30/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-08-30



QC Checklist for Civil Survey

Record: 110	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220831 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220831 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS positioning systems on 08/31/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-08-31



QC Checklist for Civil Survey

Record: 113	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220901 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220901 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet.
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning system prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica RTS positioning systems on 09/01/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-09-01



QC Checklist for Civil Survey

Record: 116	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220902 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220902 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 09/02/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07
QC Geophysicist Signature	
Date	2022-09-02



Weekly Quality Control Report

WQCR INFORMATION

From: 09/04/2022 To: 09/10/2022 Report #: 011

Client: NAVFAC NW Project: 179-8015

Contract Name: Naval Base Kitsap Bangor Location: Silverdale, WA

Contract #: N6247016D9008 Task Order #: N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	EM61-HP data collection in UXO 03/UXO 04 (complete)	Activity/Task #:	DGM Surveys

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. The recollection of production data originally collected on 09/06/22 with the G3 EM61-HP system in UXO 03 and UXO 04 will be addressed as part of the corrective action for NCR-004. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package for week end 09/02/22 includes EM61-HP QC data from 08/29/22 - 09/02/22, UXO 07 EM61 transect data and UXO 11 EM61 transect data. UXO-11 targets identified as suspected noise from site power lines have been identified in the database deliverables for QA review. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks IAW MQO # 1-5 (Passed).
- Performed Ongoing Sensor Function Tests for EM61-HP and TEM-8g sensors IAW MQO # 3-4; 3-5 (Passed).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP and TEM-8g sensors IAW MQO # 3-7 (Passed).
- Processed In-line measurement spacing for IVS and production EM61-HP and TEM-8g datasets IAW MQO # 3-8 (Passed).
- Verified as-collected survey transect paths for DGM sensors IAW MQO # 3-9 (Passed).
- Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook)
- Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook).
- Validated Post-Processed GPS HDOP < 3.5 positioning data for TEM-8g datasets IAW MQO # 3-16 (Passed).

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 to address the TEM-8g data failure of MQO #3-16 on 08/08/22 is in progress.
NCR-002 to address the Geo 2 EM61-HP data failure of MQO #3-4 on 08/23/22 is in progress.
NCR-003 to address the TEM-8g data failure of MQOs # 3-7, #3-8 and #3-16 on 08/24 is in progress.
NCR-004 to address the Geo 3 EM61-HP positional data failure of MQOs #3-7 and #3-9 on 09/06/22 is in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	<input type="text" value="Jessie Powers"/>	TITLE/COMPANY:	<input type="text" value="QC Geophysicist"/>
		SIGNATURE:	<input type="text" value="Jessie Powers"/>  Digitally signed by Jessie Powers Date: 2022.09.19 21:42:21 -07'00'

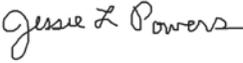


QC Checklist for Civil Survey

Record: 119	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220906 G1 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/06/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-09-06



QC Checklist for Civil Survey

Record: 122	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220907 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220907 G2 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/07/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-07



QC Checklist for Civil Survey

Record: 125	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220908 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220908 G3 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/08/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-09-08



QC Checklist for Civil Survey

Record: 128	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220909 G3 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications Geo3 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/09/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-09-09

Weekly Quality Control Report

WQCR INFORMATION			
From:	09/11/2022	To:	09/17/2022
Report #:	012		
Client:	NAVFAC NW		Project:
179-8015		Location:	Silverdale, WA
Contract Name:	Naval Base Kitsap Bangor		Task Order #:
N6247016D9008		N4425519F4112	
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p><i>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</i></p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A
<p>(Enter a summary of weekly quality activities for the site activities performed.)</p>			
<p>DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.</p>			
<p>DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package delivered for week end 09/09/22 includes EM61-HP QC data from 09/06/22 - 09/09/22 and UXO-07 full coverage TEM-8g data. UXO-07 TEM-8g data extending beyond the site boundary have been included as part of the data deliverable. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys.</p>			
<p>Tests Performed and Results:</p>			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB). - Processed In-line measurement spacing for IVS datasets for EM61-HP sensors IAW MQO # 3-8 (Passed - Access DB). - Processed coverage for TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB). - Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook) - Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			
<p>Materials and Equipment Received and Results of Inspection:</p>			
<p>N/A</p>			

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-001 to address the TEM-8g data failure of MQO #3-16 on 08/08/22 submitted to Navy for review on 09/15/22
NCR-002 to address the Geo 2 EM61-HP data failure of MQO #3-4 on 08/23/22 is in progress
NCR-003 to address the TEM-8g data failure of MQOs # 3-7, #3-8 and #3-16 on 08/24 submitted to Navy for review on 09/15/22
NCR-004 to address the Geo 3 EM61-HP positional data failure of MQOs #3-7 and #3-9 on 09/06/22 is in progress

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team. Refer to project files for approved meeting minutes.
- IVS Technical Memorandum finalized on 09/15/22

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.09.29 16:09:28 -04'00'



QC Checklist for Civil Survey

Record: 131	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220912 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220912 G3 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/12/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-12



QC Checklist for Civil Survey

Record: 134	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220913 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220913 G3 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/13/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-13



QC Checklist for Civil Survey

Record: 137	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220914 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220914 G3 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/14/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-14



QC Checklist for Civil Survey

Record: 140	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220915 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220915 G3 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/15/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-15



QC Checklist for Civil Survey

Record: 143	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220916 G1 Logbook. Assembly and geodetic checkshots for Geo3 using Leica RTS verified in 220916 G3 Logbook.
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo3 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/16/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-16

Weekly Quality Control Report

WQCR INFORMATION			
From:	09/18/2022	To:	09/24/2022
Report #:	013		
Client:	NAVFAC NW		
Project:	179-8015		
Contract Name:	Naval Base Kitsap Bangor		Location:
		Silverdale, WA	
Contract #:	N6247016D9008		Task Order #:
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A
(Enter a summary of weekly quality activities for the site activities performed.)			
<p>DFW #6 (DGM Surveys): Temporary control points installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.</p>			
<p>DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB). - Processed In-line measurement spacing for IVS datasets for EM61-HP sensors IAW MQO # 3-8 (Passed - Access DB). - Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook) - Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook). 			
Materials and Equipment Received and Results of Inspection:			
N/A			
Deficiencies/Non-conformances & Status (include a tracking # if assigned):			
<p>NCR-001 to address the TEM-8g data failure of MQO #3-16 approved by Navy on 09/19/22</p> <p>NCR-002 to address the Geo 2 EM61-HP data failure of MQO #3-4 approved by Navy on 09/21/22</p> <p>NCR-003 to address the TEM-8g data failure of MQOs # 3-7, #3-8 and #3-16 on 08/24 approved by Navy on 09/19/22</p> <p>NCR-004 to address the Geo 3 EM61-HP positional data failure of MQOs #3-7 and #3-9 submitted to Navy on 09/22/22</p>			

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Geo Telecon on 09/19/22 - guidance from Navy regarding follow-up GPR surveys in UXO 11 and UXO 07; proposed demolition sites in UXO 07 and UXO 03. Refer to project files for approved meeting minutes.
- Weekly Field Work Status call with project team on 09/21/22. Refer to project files for approved meeting minutes.
- Final Blind Seed Log submitted to QA EODTECHDIV on 09/22/22.

PROJECT PHOTOS

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Weekly Quality Control Report

Contract #: N6247016D9008
Date: Sep 24, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

 Digitally signed by Jessie Powers
Date: 2022.09.29 21:28:06 -04'00'

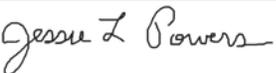


QC Checklist for Civil Survey

Record: 146	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220919 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220919 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/19/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	<i>2022-09-19</i>



QC Checklist for Civil Survey

Record: 149	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220920 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220920 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/20/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-20



QC Checklist for Civil Survey

Record: 152	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220921 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220921 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/21/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-09-21</i>



QC Checklist for Civil Survey

Record: 155	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220922 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220922 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/22/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	<i>2022-09-22</i>



QC Checklist for Civil Survey

Record: 158	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220923 G2 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 09/23/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-09-23



Weekly Quality Control Report

WQCR INFORMATION

From: 09/25/2022	To: 10/01/2022	Report #:	014
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	EM61-HP data collection in UXO-04 (complete)	Activity/Task #:	DGM Surveys

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. The recollection of production data originally collected on 08/25/22 with the G1 EM61-HP system in UXO 04 was due to missing data identified by the data processor. QA data package delivered for week end 09/23/22 includes EM61-HP QC data from week 09/12/22 - 09/16/22, week 09/19 - 09/23, and UXO-04 full coverage and transect TEM-8g data. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks for RTK and RTS units IAW MQO # 1-5 (Passed - Access DB).
- Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB).
- Processed In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB).
- Processed coverage for TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB).
- Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook)
- Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook).
- Validated Post-Processed GPS HDOP < 3.5 positioning data for TEM-8g datasets IAW MQO # 3-16 (Passed).
- Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry)

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-004_rev1 to address the Geo 3 EM61-HP positional data failure of MQOs #3-7 and #3-9 approved by Navy on 09/27/22
NCR-005 to address QC seed(s) placed in SRAs resulting in failure of MQO #3-17 in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Running CPR error regarding EM61-HP serial numbers identified by Project Geo; Navy (Melissa King) approved documentation for error correction on 09/27/22.
- Weekly Field Work Status call with project team on 09/28/22. Refer to project files for approved meeting minutes.
- IVS Technical Memorandum Addendum 01 submitted to Navy for review on 09/28/22.

PROJECT PHOTOS

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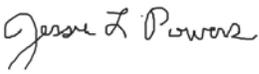
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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME: <input type="text" value="Jessie Powers"/>	TITLE/COMPANY: <input type="text" value="QC Geophysicist"/>
SIGNATURE: <input type="text" value="Jessie Powers"/>	 Digitally signed by Jessie Powers Date: 2022.10.04 22:32:00 -05'00'

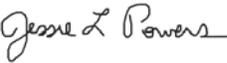


QC Checklist for Civil Survey

Record: 161	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220926 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220926 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 09/26/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-26



QC Checklist for Civil Survey

Record: 164	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220927 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220927 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 09/27/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-27



QC Checklist for Civil Survey

Record: 167	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220928 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220928 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 09/28/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-09-28</i>



QC Checklist for Civil Survey

Record: 170	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTS and Leica RTK
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220929 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220929 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 09/29/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-29



QC Checklist for Civil Survey

Record: 173	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Other
Enter "Other" positioning sensor	Leica RTS and Leica RTK
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 220930 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 220930 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 09/30/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-09-30



Weekly Quality Control Report

WQCR INFORMATION

From: 10/02/2022 To: 10/08/2022 Report #: 015

Client: NAVFAC NW Project: 179-8015

Contract Name: Naval Base Kitsap Bangor Location: Silverdale, WA

Contract #: N6247016D9008 Task Order #: N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage and transect data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.

DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package delivered for week end 09/30/22 includes EM61-HP QC data from week 09/26/22 - 09/30/22, UXO-04 full coverage and transect EM61-HP data and UXO-17 full coverage TEM-8g data. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys. QC Seed locations for QC-02, QC-03, QC-04, QC-45 and QC-46 were verified to be within SRAs and will be addressed as part of NCR-005 and the Final DUA.

Tests Performed and Results:

- Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB).
- Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB).
- Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB).
- Processed In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB).
- Processed coverage for EM61-HP and TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB).
- Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook)
- Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook).
- Validated Post-Processed GPS HDOP < 3.5 positioning data for TEM-8g datasets IAW MQO # 3-16 (Passed - Access DB).
- Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry)

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-005 to address QC seeds placed in SRAs resulting in failure of MQO #3-17 in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Geo Telecon on 10/07/22 - guidance from Navy regarding follow-up GPR surveys in UXO 04 and UXO 17. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
		SIGNATURE:	Jessie Powers  Digitally signed by Jessie Powers Date: 2022.10.11 21:03:08 -05'00'



QC Checklist for Civil Survey

Record: 176	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221003 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 10/03/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-10-03



QC Checklist for Civil Survey

Record: 179	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221004 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221004 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/04/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-10-04</i>

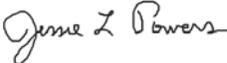


QC Checklist for Civil Survey

Record: 182	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221005 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 10/05/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-10-05



QC Checklist for Civil Survey

Record: 185	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221006 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221006 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 10/06/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-06



QC Checklist for Civil Survey

Record: 188	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221007 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221007 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 10/07/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-07



Weekly Quality Control Report

WQCR INFORMATION			
From:	10/09/2022	To:	10/15/2022
Report #:	015		
Client:	NAVFAC NW		Project:
179-8015		Location:	Silverdale, WA
Contract Name:	Naval Base Kitsap Bangor		Task Order #:
N6247016D9008		N4425519F4112	
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 8 (this report)	Activity/Task #:	DGM Surveys; DGM Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A
(Enter a summary of weekly quality activities for the site activities performed.)			
<p>DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.</p> <p>DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package delivered for week end 10/07/22 includes EM61-HP QC data from week 10/03/22 - 10/07/22 and UXO-11b transect EM61-HP data. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys. QC Seed QC-63 was confirmed by field team to be unearthed on the surface - seed registry has been edited to reflect this.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Processed Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB). - Processed In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook) - Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			
Materials and Equipment Received and Results of Inspection:			
N/A			



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Oct 15, 2022

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-005 to address QC seeds placed in SRAs resulting in failure of MQO #3-17 in progress.

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team on 10/12/22. Refer to project files for approved meeting minutes.
- Navy approval of IVS Technical Memorandum Addendum 01.

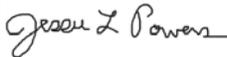
PROJECT PHOTOS

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	<input type="text" value="Jessie Powers"/>	TITLE/COMPANY:	<input type="text" value="QC Geophysicist"/>
		SIGNATURE:	<input type="text" value="Jessie Powers"/> Digitally signed by Jessie Powers Date: 2022.10.18 22:44:31 -05'00'

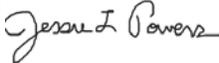


QC Checklist for Civil Survey

Record: 191	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221010 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221010 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 10/10/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-10



QC Checklist for Civil Survey

Record: 194	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221011 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221011 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/11/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-10-11



QC Checklist for Civil Survey

Record: 197	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1: Was the Field Checklist completed?	<i>Yes</i>
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221012 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221012 G2 Logbook.</i>
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	<i>N/A</i>
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3: Was the correct project coordinate system used?	<i>Yes</i>
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	<i>Yes</i>
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	<i>N/A</i>
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5: Did all geodetic functionality tests meet the project MQOs?	<i>Yes</i>
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/12/2022 were within 4 inches of ground truth (passed).</i>
Item 6: Did all installed stakes and/or flags meet the project MQOs?	<i>N/A</i>
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-10-12</i>

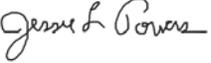


QC Checklist for Civil Survey

Record: 200	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221013 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221013 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/13/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	<i>2022-10-13</i>



QC Checklist for Civil Survey

Record: 203	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221014 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221014 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	N/A
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 10/14/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-14

Weekly Quality Control Report

WQCR INFORMATION			
From:	<input type="text" value="10/16/2022"/>	To:	<input type="text" value="10/22/2022"/>
Report #:	<input type="text" value="016"/>		
Client:	<input type="text" value="NAVFAC NW"/>	Project:	<input type="text" value="179-8015"/>
Contract Name:	<input type="text" value="Naval Base Kitsap Bangor"/>	Location:	<input type="text" value="Silverdale, WA"/>
Contract #:	<input type="text" value="N6247016D9008"/>	Task Order #:	<input type="text" value="N4425519F4112"/>
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p><i>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</i></p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Initial Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Follow-Up Inspection (DFW):	<input type="text" value="DFW 6; DFW 8 (this report)"/>	Activity/Task #:	<input type="text" value="DGM Surveys; DGM Data Processing and QC"/>
Rework Status:	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
(Enter a summary of weekly quality activities for the site activities performed.)			
<p>DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.</p> <p>DFW #8 (DGM Data Processing and QC): EM61-HP and TEM-8g data processed IAW DGM SOP 06 and DGM SOP 10. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package delivered for week end 10/14/22 includes EM61-HP QC data from week 10/10/22 - 10/14/22 and UXO-13 transect EM61-HP data. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook) - Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook). 			
Materials and Equipment Received and Results of Inspection:			
<p>GSSI SIR 4000 GPR received - refer to completed QRIR 06 for equipment specifics.</p>			
Deficiencies/Non-conformances & Status (include a tracking # if assigned):			
<p>NCR-005 to address QC seeds placed in SRAs resulting in failure of MQO #3-17 in progress.</p>			

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log. Additional safety POC established with Gravitech, as needed, during off-site training.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team on 10/19/22. Refer to project files for approved meeting minutes.
- Finalized IVS
- NSWC IHD QA approval on 10/21 of EM61 data for sites UXO 04, UXO 07, UXO 11 and UXO 11b; TEM-8g data for sites UXO 04, UXO 07 and UXO 17.
- Geo Telecon on 10/21/22 - guidance from Navy regarding follow-up GPR transect survey placement in UXO 04 and UXO 07. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.10.28 13:14:30 -05'00'

Quality Receiving Inspection Report (QRIR)

Section I: Project Identification Information

Inspection Report #: <input type="text" value="06"/>	Project Name: <input type="text" value="Naval Base Kitsap Bangor"/>		
Contract #: <input type="text" value="N6247016D9008"/>	Task Order#: <input type="text"/>	Date: <input type="text" value="10/21/2022"/>	

Section II: Material or Equipment Identification Information

#	P.O/Item Description/Vendor	Inspector	Accept/Reject Criteria	Select the Applicable Box			
1	Ticket Number: 17195; Radar antenna; Exploration Instruments	Nick Emm	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
2	Ticket Number: 17195; 4-wheel scan cart; Exploration Instruments	Nick Emm	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
3	Ticket Number: 17195; Juniper GPS receiver; Exploration Instruments	Nick Emm	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
4	Ticket Number: 17195; GPS Antenna mount; Exploration Instruments	Nick Emm	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A
5	Ticket Number: 17195; GSSI SIR 4000 Radar System Control Unit; Exploration Instruments	Nick Emm	Accepted; Function as Needed	<input checked="" type="radio"/> A	<input type="radio"/> R	<input type="radio"/> C	<input type="radio"/> N/A

Section III: Deficiency or Nonconforming Condition Information

Item#	Description of Deficiency	Corrective Action Required	Due Date	Date Completed
1	The front right clip that secures the antenna in place is broken.	<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Repair or Rework <input type="checkbox"/> Reject/Scrap (Nonconformance # <input type="text"/>) <input type="checkbox"/> Other (Specify <input type="text"/>) <input type="checkbox"/> Rejected-Return to Vendor/Supplier	10/21/2022	10/21/2022

Section IV: Hold Tag Information

Tag Issued:	<input type="checkbox"/> Hold <input type="checkbox"/> Conditional Release <input type="checkbox"/> Final Acceptance/Release Date	Approver's Initials: Inspector:
Remarks:		

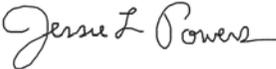
Section V: P.O Status			
Status of P.O. : <input checked="" type="checkbox"/> Completed		<input type="checkbox"/> Partial	
Inspector: Nick Emm		Nicholas Emm <small>Digitally signed by Nicholas Emm Date: 2022.10.27 16:51:58 -04'00'</small>	Date: 10/21/2022
Final Reviewer: Jessie Powers		Jessie Powers <small>Digitally signed by Jessie Powers Date: 2022.10.27 19:50:57 -05'00'</small>	Date: 10/27/2022

Notes:

1. For geophysical and GPS equipment the receipt inspection entails an out of the box function check. The equipment must be fully assembled, coordinate systems installed, accuracy checks, or other required actions to ensure the equipment is fully ready to conduct field operations.
2. Once receipt inspections are completed, equipment received from the Golden Warehouse must have the receipt inspection documentation provided with the shipment signed and returned to the Golden Warehouse Manager.
3. Advanced geophysical classification seeds and the serialized test source must be controlled (separated from other seeds) on site and verified during the receipt inspection.
4. N/A must be placed in any fields that are intentionally left blank.

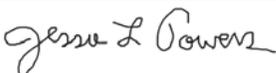


QC Checklist for Civil Survey

Record: 206	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221017 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 10/17/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-10-17

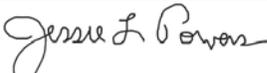


QC Checklist for Civil Survey

Record: 209	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221018 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221018 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 10/18/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-18



QC Checklist for Civil Survey

Record: 212	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1: Was the Field Checklist completed?	Yes
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221019 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221019 G2 Logbook.
Item 2: Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	Yes
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3: Was the correct project coordinate system used?	Yes
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4: Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	Yes
Item 4b: If we established control, was their sufficient data collected for an OPUS solution?	N/A
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5: Did all geodetic functionality tests meet the project MQOs?	Yes
Item 5 Comments	All checkshots for Leica positioning systems on 10/19/2022 were within 4 inches of ground truth (passed).
Item 6: Did all installed stakes and/or flags meet the project MQOs?	N/A
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-19



QC Checklist for Civil Survey

Record: 215	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221021 G2 Logbook.</i>
Item 2:	Yes
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 10/21/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-10-21

Weekly Quality Control Report

WQCR INFORMATION			
From:	<input type="text" value="10/23/2022"/>	To:	<input type="text" value="10/29/2022"/>
Report #:	<input type="text" value="017"/>		
Client:	<input type="text" value="NAVFAC NW"/>	Project:	<input type="text" value="179-8015"/>
Contract Name:	<input type="text" value="Naval Base Kitsap Bangor"/>	Location:	<input type="text" value="Silverdale, WA"/>
Contract #:	<input type="text" value="N6247016D9008"/>	Task Order #:	<input type="text" value="N4425519F4112"/>
Project Description: <div style="border: 1px solid black; padding: 5px; min-height: 80px;"> Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS. </div>			
<i>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</i>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Initial Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Follow-Up Inspection (DFW):	<input type="text" value="DFW 6; DFW 8 (this report)"/>	Activity/Task #:	<input type="text" value="DGM Surveys; DGM Data Processing and QC"/>
Rework Status:	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
(Enter a summary of weekly quality activities for the site activities performed.)			
DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.			
DFW #8 (DGM Data Processing and QC): EM61-HP data processed IAW DGM SOP 06. Data processing, QC and technical reporting for IVS and production data are ongoing. QA data package delivered for week end 10/21/22 includes EM61-HP QC data from week 10/17/22 - 10/21/22 and UXO-03 transect EM61-HP data. Final geophysical maps will be incorporated into GIS to aid PDT discussions on follow-up GPR surveys.			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Performed Instrument Function Tests for GPR sensor IAW MQO # 4-2 (Passed - Logbook) - Verified Instrument Assembly for GPR sensor IAW MQO # 4-1 (Passed - Logbook) - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensors IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified DGM sensor separation distance IAW MQO # 3-13 (Passed - Logbook) - Verified battery voltage for EM61-HP sensors IAW MQO # 3-14 (Passed - Logbook). 			
Materials and Equipment Received and Results of Inspection:			
<input type="text" value="N/A"/>			

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-005 to address QC seeds placed in SRAs resulting in failure of MQO #3-17 submitted to Navy on 10/26/22

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Navy guidance on 10/24/2022 is to withhold submittal of FCR-006 until extent of GPR scope at all sites is confirmed. FCR-006 will address changes in applicable QAPP sections related to GPR surveys and data processing.
- Weekly Field Work Status call with project team on 10/26/22. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
		SIGNATURE:	Jessie Powers Digitally signed by Jessie Powers Date: 2022.11.09 09:42:23 -06'00'



QC Checklist for Civil Survey

Record: 218	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221024 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221024 G2 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/24/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-10-24



QC Checklist for Civil Survey

Record: 221	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221025 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221025 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 10/25/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-10-25

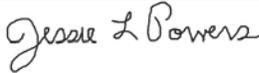


QC Checklist for Civil Survey

Record: 224	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221026 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221026 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 10/26/2022 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-26



QC Checklist for Civil Survey

Record: 227	
Project	Kitsap Bangor
QC Geophysicist	Jessie Powers
PLS Subcontractor	AES Consultants
Positioning Sensor Type	Leica RTS
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221027 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221027 G2 Logbook.
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	NAD83 CONUS Washington North State Plane, feet
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	Control established by PLS used to verify positioning systems prior to emplacing temporary control.
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	All checkshots for Leica positioning systems on 10/27/22 were within 4 inches of ground truth (passed).
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	Temporary control points recorded IAW DGM SOP 07.
QC Geophysicist Signature	
Date	2022-10-27



QC Checklist for Civil Survey

Record: 230	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	<i>Yes</i>
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221028 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221028 G2 Logbook.</i>
Item 2:	<i>N/A</i>
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	<i>Yes</i>
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	<i>Yes</i>
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	<i>N/A</i>
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	<i>Yes</i>
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/28/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	<i>N/A</i>
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	<i>2022-10-28</i>

Weekly Quality Control Report

WQCR INFORMATION			
From:	10/30/2022	To:	11/05/2022
Report #:	018		
Client:	NAVFAC NW		Project:
179-8015		Location:	Silverdale, WA
Contract Name:	Naval Base Kitsap Bangor		Task Order #:
N6247016D9008		N4425519F4112	
Project Description:			
Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.			
<i>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</i>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 6; DFW 7; DFW 8 (this report)	Activity/Task #:	DGM Surveys; GPR Field Surveys; DGM Data Processing and QC
Rework Status:	EM61-HP data collection of TEM-8g data gaps in UXO 03 (complete)	Activity/Task #:	DGM Surveys
(Enter a summary of weekly quality activities for the site activities performed.)			
DFW #6 (DGM Surveys): Verified temporary control points were installed IAW DGM SOP 07 to support full coverage data collection with the EM61-HP. QC checklists associated with this SOP are attached to this report.			
DFW #7 (GPR Field Surveys): Verified transect endpoints were marked IAW DGM SOP 07 to support focused GPR profile surveys with SIR-4000 GPR system.			
DFW #8 (DGM and GPR Data Processing and QC): EM61-HP data processed IAW DGM SOP 06 and GPR data processed IAW the software instruction manual. Data processing, QC and technical reporting for IVS and production data are ongoing. Potential software/firmware issues with the TEM-8g navigation were confirmed on 10/28/2022 by data processors and recollection of the data-gaps in UXO-03 were completed using the EM61-HP. QA data package delivered for week end 10/28/22 includes EM61-HP QC data from week 10/24/22 - 10/28/22, UXO-17 EM61-HP full coverage data and UXO-03 TEM-8g full coverage data with EM61-HP gap-fill, as needed. Final geophysical maps and profiles will be incorporated into GIS as part of the Data Usability Report.			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Ongoing Sensor Function Tests for EM61-HP sensors IAW MQO # 3-4 (Passed - Access DB). - Performed Instrument Function Tests for GPR sensor IAW MQO # 4-2 (Passed - Logbook) - Verified positioning accuracy of GPR using odometer wheel and DGPS IAW MQO # 4-3 (Passed - Logbook). - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensor IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified coverage for EM61-HP and TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB). - Verified battery voltage for EM61-HP sensor IAW MQO # 3-14 (Passed - Logbook). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

NCR-005 to address QC seeds placed in SRAs resulting in failure of MQO #3-17 approved by the Navy on 10/31/22

Field Change Requests Initiated or Status:

None.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Geo Telecon on 10/31/2022 determined remaining TEM-8g data gaps can be collected with EM61-HP system, due to possible TEM8g software/firmware issues. Guidance from Navy is that no NCR is required. UXO 17 GPR transect locations confirmed. Refer to project files for approved meeting minutes and transect figures.
- Weekly Field Work Status call with project team on 11/02/22. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

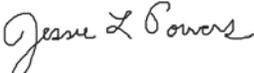
TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.11.16 16:12:00 -05'00'



QC Checklist for Civil Survey

Record: 233	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221031 G1 Logbook. Assembly and geodetic checkshots for Geo2 using Leica RTS verified in 221031 G2 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 and Geo2 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning systems on 10/31/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-10-31



QC Checklist for Civil Survey

Record: 236	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221101 G1 Logbook</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/01/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-11-01



QC Checklist for Civil Survey

Record: 239	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221103 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/03/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Data gap locations marked for navigational purposes; temporary control points recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-11-03

Weekly Quality Control Report

WQCR INFORMATION			
From:	<input type="text" value="11/06/2022"/>	To:	<input type="text" value="11/12/2022"/>
Report #:	<input type="text" value="019"/>		
Client:	<input type="text" value="NAVFAC NW"/>	Project:	<input type="text" value="179-8015"/>
Contract Name:	<input type="text" value="Naval Base Kitsap Bangor"/>	Location:	<input type="text" value="Silverdale, WA"/>
Contract #:	<input type="text" value="N6247016D9008"/>	Task Order #:	<input type="text" value="N4425519F4112"/>
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p><i>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</i></p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Initial Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Follow-Up Inspection (DFW):	<input type="text" value="DFW 7; DFW 8 (this report)"/>	Activity/Task #:	<input type="text" value="GPR Field Surveys; DGM Data Processing and QC"/>
Rework Status:	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
(Enter a summary of weekly quality activities for the site activities performed.)			
<p>DFW #7 (GPR Field Surveys): Verified transect endpoints were marked IAW DGM SOP 07 to support focused GPR profile surveys with SIR-4000 GPR system.</p> <p>DFW #8 (DGM and GPR Data Processing and QC): EM61-HP data processed IAW DGM SOP 06 and TEM-8g data processed IAW DGM SOP 10. GPR data processed IAW the software instruction manual. Data processing, QC and technical reporting for IVS and production data are ongoing. Potential software/firmware issues with the TEM-8g navigation were confirmed on 10/28/2022 by data processors; collection of TEM-8g data-gaps in UXO-17B were completed using the EM61-HP. No QA data package delivered for week end 11/04/22; remaining data will be delivered the following week.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Performed Ongoing Geodetic Function Checks for RTS units IAW MQO # 1-5 (Passed - Access DB). - Performed Instrument Function Tests for GPR sensor IAW MQO # 4-2 (Passed - Logbook) - Verified positioning accuracy of GPR using odometer wheel and DGPS IAW MQO # 4-3 (Passed - Logbook). - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensor IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified coverage for EM61-HP and TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB). - Verified battery voltage for EM61-HP sensor IAW MQO # 3-14 (Passed - Logbook). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			
Materials and Equipment Received and Results of Inspection:			
<input type="text" value="N/A"/>			

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

None.

Field Change Requests Initiated or Status:

FCR-006 to address changes in applicable QAPP sections related to GPR surveys and data processing initiated on 11/09/2022.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Guidance from Navy on 11/08/2022 is to reacquire and remove all subsurface QC seeds installed for DGM surveys. Field teams will utilize an RTS and qualified UXO Technicians for this effort.
- Weekly Field Work Status call with project team on 11/09/22. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

Digitally signed by Jessie Powers
Date: 2022.11.16 19:47:59 -05'00'

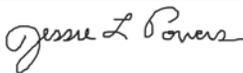


QC Checklist for Civil Survey

Record: 242	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221107 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/07/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; Site features within the collection area recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie I Powers</i>
Date	2022-11-07



QC Checklist for Civil Survey

Record: 245	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221108 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/08/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; Site features within the collection area recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-11-08

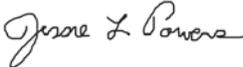


QC Checklist for Civil Survey

Record: 248	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221109 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/09/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; Site features within the collection area recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	<i>Jessie L Powers</i>
Date	2022-11-09



QC Checklist for Civil Survey

Record: 251	
Project	<i>Kitsap Bangor</i>
QC Geophysicist	<i>Jessie Powers</i>
PLS Subcontractor	<i>AES Consultants</i>
Positioning Sensor Type	<i>Leica RTS</i>
Item 1:	Yes
Was the Field Checklist completed?	
Item 1 Comments	<i>Assembly and geodetic checkshots for Geo1 using Leica RTS verified in 221110 G1 Logbook.</i>
Item 2:	N/A
Is there documentation to confirm that all applicable personnel have a current DOC or have been designated as a SME?	
Item 2 Comments	<i>Positioning System Operator Certifications for Geo1 operators on Project SP Site.</i>
Item 3:	Yes
Was the correct project coordinate system used?	
Item 3 Comments	<i>NAD83 CONUS Washington North State Plane, feet</i>
Item 4:	Yes
Was project control established either by reference to existing NGS benchmarks or by reference to HARN, CORS, VRS, or OPUS networks?	
Item 4b:	N/A
If we established control, was their sufficient data collected for an OPUS solution?	
Item 4 Comments	<i>Control established by PLS used to verify positioning systems prior to emplacing temporary control.</i>
Item 5:	Yes
Did all geodetic functionality tests meet the project MQOs?	
Item 5 Comments	<i>All checkshots for Leica positioning system on 11/10/2022 were within 4 inches of ground truth (passed).</i>
Item 6:	N/A
Did all installed stakes and/or flags meet the project MQOs?	
Item 6 Comments	<i>Transect endpoint locations marked for navigational purposes; Site features within the collection area recorded IAW DGM SOP 07.</i>
QC Geophysicist Signature	
Date	2022-11-10



Weekly Quality Control Report

WQCR INFORMATION			
From:	<input type="text" value="11/13/2022"/>	To:	<input type="text" value="11/19/2022"/>
Report #:	<input type="text" value="020"/>		
Client:	<input type="text" value="NAVFAC NW"/>	Project:	<input type="text" value="179-8015"/>
Contract Name:	<input type="text" value="Naval Base Kitsap Bangor"/>	Location:	<input type="text" value="Silverdale, WA"/>
Contract #:	<input type="text" value="N6247016D9008"/>	Task Order #:	<input type="text" value="N4425519F4112"/>
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Initial Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Follow-Up Inspection (DFW):	<input type="text" value="DFW 8 (this report)"/>	Activity/Task #:	<input type="text" value="DGM and GPR Data Processing and QC"/>
Rework Status:	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
<p>(Enter a summary of weekly quality activities for the site activities performed.)</p>			
<p>DFW #8 (DGM and GPR Data Processing and QC): EM61-HP data processed IAW DGM SOP 06. GPR data processed IAW the software instruction manual. GPR Data processing, QC and technical reporting for production data are ongoing. QC Seed location for QC-10 was verified to be outside of the collection footprint for both DGM sensors and will be addressed as part of NCR-006. QA data package delivered for week end 11/11/22 includes EM61-HP QC data from week 10/31/22 - 11/04/22, UXO-17B EM61-HP full coverage data and UXO-17B TEM-8g full coverage data. Final geophysical maps and profiles will be incorporated into GIS as part of the Data Usability Report.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensor IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified coverage for EM61-HP and TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			
Materials and Equipment Received and Results of Inspection:			
<input type="text" value="N/A"/>			
Deficiencies/Non-conformances & Status (include a tracking # if assigned):			
<input type="text" value="NCR-006 to address QC seed placed outside of the DGM footprint resulting in failure of MQO #3-17 in progress."/>			



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Nov 19, 2022

Field Change Requests Initiated or Status:

FCR-006 to address changes in applicable QAPP sections related to GPR surveys and data processing submitted for Navy approval on 11/16/2022.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team on 11/16/22. Refer to project files for approved meeting minutes.

PROJECT PHOTOS

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Weekly Quality Control Report

Contract #: N6247016D9008
Date: Nov 19, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:	Jessie Powers	TITLE/COMPANY:	QC Geophysicist
SIGNATURE:	Jessie Powers	Digitally signed by Jessie Powers Date: 2022.11.22 07:51:16 -05'00'	



Weekly Quality Control Report

WQCR INFORMATION			
From:	<input type="text" value="11/13/2022"/>	To:	<input type="text" value="11/19/2022"/>
Report #:	<input type="text" value="020"/>		
Client:	<input type="text" value="NAVFAC NW"/>	Project:	<input type="text" value="179-8015"/>
Contract Name:	<input type="text" value="Naval Base Kitsap Bangor"/>	Location:	<input type="text" value="Silverdale, WA"/>
Contract #:	<input type="text" value="N6247016D9008"/>	Task Order #:	<input type="text" value="N4425519F4112"/>
Project Description:			
<p>Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.</p>			
<p>See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.</p>			
SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:			
Preparatory Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Initial Inspection (DFW):	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
Follow-Up Inspection (DFW):	<input type="text" value="DFW 8 (this report)"/>	Activity/Task #:	<input type="text" value="DGM and GPR Data Processing and QC"/>
Rework Status:	<input type="text" value="None"/>	Activity/Task #:	<input type="text" value="N/A"/>
<p>(Enter a summary of weekly quality activities for the site activities performed.)</p>			
<p>DFW #8 (DGM and GPR Data Processing and QC): EM61-HP data processed IAW DGM SOP 06. GPR data processed IAW the software instruction manual. GPR Data processing, QC and technical reporting for production data are ongoing. QC Seed location for QC-10 was verified to be outside of the collection footprint for both DGM sensors and will be addressed as part of the Data Usability Report. QA data package delivered for week end 11/11/22 includes EM61-HP QC data from week 10/31/22 - 11/04/22, UXO-17B EM61-HP full coverage data and UXO-17B TEM-8g full coverage data. Final geophysical maps and profiles will be incorporated into GIS as part of the Data Usability Report.</p>			
Tests Performed and Results:			
<ul style="list-style-type: none"> - Verified Ongoing IVS Dynamic Positioning Precision for EM61-HP sensor IAW MQO # 3-7 (Passed - Access DB). - Verified In-line measurement spacing for IVS and production DGM datasets IAW MQO # 3-8 (Passed - Access DB). - Verified coverage for EM61-HP and TEM-8g full-coverage datasets IAW MQO # 3-9 (Passed - Access DB). - Verified Dynamic DGM Survey Performance (blind seeds) for DGM sensors IAW MQO # 3-17 (Passed - Blind Seed Registry) 			
Materials and Equipment Received and Results of Inspection:			
<input type="text" value="N/A"/>			
Deficiencies/Non-conformances & Status (include a tracking # if assigned):			
<input type="text" value="None."/>			



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Nov 19, 2022

Field Change Requests Initiated or Status:

FCR-006 to address changes in applicable QAPP sections related to GPR surveys and data processing submitted for Navy approval on 11/16/2022.

JOB SAFETY: (LIST OBSERVATIONS)

- Daily tailgate safety briefings conducted by UXOSO and documented in Daily Safety Log.

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- Weekly Field Work Status call with project team on 11/16/22. Refer to project files for approved meeting minutes.
- Guidance from QA Geophysicist is no NCR is required for seed (QC-10) placed outside the DGM footprint in UXO 17B, given the EM61 system successfully detected another seed (QC-12) on 09/27/2022.

PROJECT PHOTOS



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Nov 19, 2022

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

 Digitally signed by Jessie Powers
Date: 2022.11.22 12:50:13 -05'00'



Weekly Quality Control Report

WQCR INFORMATION

From: 11/20/2022	To: 02/21/2023	Report #:	021
Client: NAVFAC NW	Project:		179-8015
Contract Name: Naval Base Kitsap Bangor	Location:		Silverdale, WA
Contract #: N6247016D9008	Task Order #:		N4425519F4112

Project Description:

Conduct geophysical surveys as part of a Site Investigation (SI) at eight Munitions Response Sites (MRSs) on Naval Base Kitsap Bangor in Silverdale, WA. The objective of the SI is to assess and verify the absence or presence of MPPEH to support the decision-making process regarding potential future actions/investigations at each MRS.

See Contractor Production Report for information on work performed, safety, weather, and subcontractor hours.

SUMMARY OF QUALITY CONTROL ACTIVITIES PERFORMED:

Preparatory Inspection (DFW):	None	Activity/Task #:	N/A
Initial Inspection (DFW):	None	Activity/Task #:	N/A
Follow-Up Inspection (DFW):	DFW 8 (this report)	Activity/Task #:	DGM and GPR Data Processing and QC
Rework Status:	None	Activity/Task #:	N/A

(Enter a summary of weekly quality activities for the site activities performed.)

DFW #8 (DGM and GPR Data Processing and QC): GPR data processed IAW the software instruction manual. All geophysical data processing, QC and technical reporting are complete with submittal of the Draft DGM Survey Report on 02/21/2023. Final geophysical maps and profiles have been incorporated into GIS as part of the Data Usability Assessment included in the DGM Survey Report.

Tests Performed and Results:

N/A

Materials and Equipment Received and Results of Inspection:

N/A

Deficiencies/Non-conformances & Status (include a tracking # if assigned):

None.



Weekly Quality Control Report

Contract #: N6247016D9008
Date: Feb 21, 2023

Field Change Requests Initiated or Status:

FCR-006 to address changes in applicable QAPP sections related to GPR surveys and data processing approved by the Navy on 02/07/2023.

JOB SAFETY: (LIST OBSERVATIONS)

N/A - All geophysical personnel have demobilized from site

COMMENTS: MEETING RESULTS, DIRECTION RECEIVED FROM CLIENT OR REPRESENTATIVE OR OTHER INFORMATION

- NSWC IHD QA approval on 02/21/23 of GPR data for sites UXO 04, UXO 07, UXO 17 and UXO 17b. All geophysical data has received QA approval.
- This report serves as the final DGM QC Report.

PROJECT PHOTOS

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Weekly Quality Control Report

Contract #: N6247016D9008
Date: Feb 21, 2023

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials used and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge, except as may be noted above.

NAME:

TITLE/COMPANY:

SIGNATURE:

 Digitally signed by Jessie Powers
Date: 2023.02.21 11:22:17 -05'00'



QC Checklist for Dynamic Data Submittal

Record: 1

Project	Camp Robinson
QC Geophysicist	Jessie Powers
Survey Units included in Data Deliverable	17-A02, 17-A03, 17-A04, 17-B02, 17-B03, 17-B04, 17-C01, 17-C02, 17-C03, 17-D01, 17-D02, 17-D03, 17-E01, 17-E02, 17-E03, 17-F01, 17-F02, 17-F03, 17-F04, 17-G01, 17-G02, 17-G03, 17-G04, 17-G05, 17-H01, 17-H02, 17-H03, 17-H04, 17-H05, 17-I01, 17-I02, 17-I03, 17-I04, 17-I05, 17-I06, 17-J01, 17-J02, 17-J03, 17-J04, 17-J05, 17-J06, 17-K01, 17-K02, 17-K03, 17-K04, 17-K05, 17-K06, 17-L01, 17-L02, 17-L03, 17-L04, 17-L05, 17-L06, 17-M02, 17-M03, 17-M04, 17-M05, 17-M06, 17BN-A01, 17BN-A02, 17BN-B01, 17BN-B02, 17BN-C02, 17BN-C03, 17BN-C04, 17BN-C05, 17BN-D01, 17BN-D02, 17BN-D03, 17BN-D04, 17BN-D05, 17BN-E01, 17BN-E02, 17BN-E03, 17BN-E04, 17BN-F01, 17BN-F02, 17BN-F03, 17BN-F04, 17BN-F05, 17BN-G01, 17BN-G02, 17BN-G03, 17BN-G04, 17BN-G05, 17BN-H01, 17BN-H02, 17BN-H03, 17BN-H04, 17BN-I01, 17BN-I02, 17BN-I03, 17BN-J02, 17BN-J03, 17BN-J04, 17BN-J05, 17BN-K01, 17BN-K02, 17BN-K03, 17BN-K04, 17BN-K05, 17BN-L01, 17BN-L02, 17BN-L03, 17BN-L04, 17BN-M01, 17BN-M02, 17BN-M03, 17BN-N01, 17BN-N02, 17BN-N03, 17BN-N04, 17BN-N05, 17BN-O01, 17BN-O02, 17BN-O03, 17BN-O04, 17BN-O05, 17BN-P01, 17BN-P02, 17BN-P03, 17BN-P04, 17BN-Q01, 17BN-Q02, 17BN-Q03, 17BN-R02, 17BN-R03, 17BN-R04, 17BN-R05, 17BN-S01, 17BN-S02, 17BN-S03, 17BN-S04, 17BN-S05, 17BN-T01, 17BN-T02, 17BN-T03, 17BN-T04, 17BN-T05, 17BS-A04, 17BS-A05, 17BS-B04, 17BS-B05, 17BS-C03, 17BS-C04, 17BS-D01, 17BS-D02, 17BS-D03, 17BS-E02, 17BS-E03, 17BS-E04, 17BS-E05, 17BS-F01, 17BS-F02, 17BS-F03, 17BS-F04, 17BS-F05, 17BS-G01, 17BS-G02, 17BS-G03, 17BS-G04, 17BS-H01, 17BS-H02, 17BS-H03, 17BS-H04, 17BS-H05, 17BS-I02, 17BS-I03, 17BS-I04, 17BS-I05, 17BS-J01, 17BS-J02, 17BS-J03, 17BS-J04, 17BS-K01, 17BS-K02, 17BS-K03, 17BS-K04, 17BS-K05, 17BS-L02, 17BS-L03, 17BS-L04, 17BS-L05, 17BS-M01, 17BS-M02, 17BS-M03, 17BS-M04, 17BS-N01, 17BS-N02, 17BS-N03, 17BS-N04, 17BS-N05, 17BS-O01, 17BS-O02, 17BS-O03, 17BS-O04, 17BS-O05, 17BS-P02, 17BS-P03, 17BS-P04, 17BS-Q02, 17BS-Q03, 17BS-Q04, 17BS-R02, 17BS-R03, 17BS-S02, 17BS-S03, 17BS-T02, 17BS-T03, 17BS-U02, 17BS-U03, 03-F06, 03-F07, 03-F08, 03-F09, 03-G06, 03-G07, 03-G08, 04-A02, 04-B02, 04-B03, 04-B04, 04-C03, 04-C04, 04-F02, 04-F03, 04-G02, 04-G03, 04-H02, 04-H03, 04-TE01, 04-TE02, 04-TE03, 04-TE04, 04-TE05, 04-TE06, 04-TE07, 04-TE08, 04-TE09, 04-TE10, 04-TE11, 04-TE12, 04-TE13, 04-TE14, 04-TE15, 04-TE16, 04-TE17, 04-TE18, 04-TE19, 04-TE20, 04-TE21, 04-TE22, 04-TE23, 04-TE24, 04-TE25, 04-TE26, 04-TE27, 04-TE28, 04-TE29, 04-TE30, 04-TE31, 04-TE32, 04-TE33, 04-TE34, 04-TE35, 04-TT01, 03-TE01, 03-TE02, 03-TE03, 03-TE04, 03-TE05, 03-TE06, 03-TE07, 03-TE08, 03-TE09, 03-TE10, 03-TE11, 03-TE12, 03-TE13, 03-TE14, 03-TE15, 03-TE16, 03-TE17, 03-TE18, 03-TE19, 03-TE20, 03-TE21, 03-TE22, 03-TE23, 03-TE24, 03-TE25, 03-TE26, 03-TE27, 03-TE28, 03-TE29, 03-TE30, 03-TE31, 03-TE32, 03-TE33, 03-TE34, 03-TE35, 03-TE36, 03-TE37, 03-TE38, 03-TE39, 03-TE40, 03-TE41, 03-TE42, 03-TE43, 03-TE44, 03-TE45, 03-TE46, 03-TE47, 03-TE48, 03-TE49, 03-TE50, 03-TE51, 03-TE52, 03-TE53, 03-TE54, 03-TE55, 03-TE56, 03-TE57, 03-TE58, 03-TE59, 03-TE60, 03-TE61, 03-TE62, 03-TE63, 03-TE64, 03-TE65, 03-TE66, 03-TE67, 03-TE68, 03-TE69, 03-TE70, 03-TE71, 03-TE72, 03-TE73, 03-TE74, 03-TE75, 03-TE76, 03-TE77, 03-TE78, 03-TE79, 11-TE01, 11-TE02, 11-TE03, 11-TE04, 11-TE05, 11-TE06, 11-TE07, 11-TE08, 11-TE09, 11-TE10, 11-TE11, 07-A01, 07-A02, 07-B01, 07-B02, 07-C01, 07-C02, 07-TE01, 07-TE02, 07-TE03, 07-TE04, 07-TE05, 13-TE01, 13-TE02, 13-TE03, 13-TE04, 13-TE05, 13-TE06, 13-TE07, 13-TE08, 13-TE09, 13-TE10, 13-TE11, 13-TE12, 13-TE13, 13-TE14, 13-TE15, 13-TE16, 13-TE17, 13-TE18, 13-TE19, 13-TE20, 11B-TE01, 11B-TE02, 11B-TE03, 11B-TE04, 11B-TE05, 11B-TE06, 11B-TE07, 11B-TE08, 11B-TE09, 11B-TE10
Survey Units Reviewed by QC	17-A02, 17-A03, 17-A04, 17-B02, 17-B03, 17-B04, 17-C01, 17-C02, 17-C03, 17-D01, 17-D02, 17-D03, 17-E01, 17-E02, 17-E03, 17-F01, 17-F02, 17-F03, 17-F04, 17-G01, 17-G02, 17-G03, 17-G04, 17-G05, 17-H01, 17-H02, 17-H03, 17-H04, 17-H05, 17-I01, 17-I02, 17-I03, 17-I04, 17-I05, 17-I06, 17-J01, 17-J02, 17-J03, 17-J04, 17-J05, 17-J06, 17-K01, 17-K02, 17-K03, 17-K04, 17-K05, 17-K06, 17-L01, 17-L02, 17-L03, 17-L04, 17-L05, 17-L06, 17-M02, 17-M03, 17-M04, 17-M05, 17-M06, 17BN-A01, 17BN-A02, 17BN-B01, 17BN-B02, 17BN-C02, 17BN-C03, 17BN-C04, 17BN-C05, 17BN-D01, 17BN-D02, 17BN-D03, 17BN-D04, 17BN-D05, 17BN-E01, 17BN-E02, 17BN-E03, 17BN-E04, 17BN-F01, 17BN-F02, 17BN-F03, 17BN-F04, 17BN-F05, 17BN-G01, 17BN-G02, 17BN-G03, 17BN-G04, 17BN-G05, 17BN-H01, 17BN-H02, 17BN-H03, 17BN-H04, 17BN-I01, 17BN-I02, 17BN-I03, 17BN-J02, 17BN-J03, 17BN-J04, 17BN-J05, 17BN-K01, 17BN-K02, 17BN-K03, 17BN-K04, 17BN-K05, 17BN-L01, 17BN-L02, 17BN-L03, 17BN-L04, 17BN-M01, 17BN-M02, 17BN-M03, 17BN-N01, 17BN-N02, 17BN-N03, 17BN-N04, 17BN-N05, 17BN-O01, 17BN-O02, 17BN-O03, 17BN-O04, 17BN-O05, 17BN-P01, 17BN-P02, 17BN-P03, 17BN-P04, 17BN-Q01, 17BN-Q02, 17BN-Q03, 17BN-R02, 17BN-R03, 17BN-R04, 17BN-R05, 17BN-S01, 17BN-S02, 17BN-S03, 17BN-S04, 17BN-S05, 17BN-T01, 17BN-T02, 17BN-T03, 17BN-T04, 17BN-T05, 17BS-A04, 17BS-A05, 17BS-B04, 17BS-B05, 17BS-C03, 17BS-C04, 17BS-D01, 17BS-D02, 17BS-D03, 17BS-E02, 17BS-E03, 17BS-E04, 17BS-E05, 17BS-F01, 17BS-F02, 17BS-F03, 17BS-F04, 17BS-F05, 17BS-G01, 17BS-G02, 17BS-G03, 17BS-G04, 17BS-H01, 17BS-H02, 17BS-H03, 17BS-H04, 17BS-H05, 17BS-I02, 17BS-I03, 17BS-I04, 17BS-I05, 17BS-J01, 17BS-J02, 17BS-J03, 17BS-J04, 17BS-K01, 17BS-K02, 17BS-K03, 17BS-K04, 17BS-K05, 17BS-L02, 17BS-L03, 17BS-L04, 17BS-L05, 17BS-M01, 17BS-M02, 17BS-M03, 17BS-M04, 17BS-N01, 17BS-N02, 17BS-N03, 17BS-N04, 17BS-N05, 17BS-O01, 17BS-O02, 17BS-O03, 17BS-O04, 17BS-O05, 17BS-P02, 17BS-P03, 17BS-P04, 17BS-Q02, 17BS-Q03, 17BS-Q04, 17BS-R02, 17BS-R03, 17BS-S02, 17BS-S03, 17BS-T02, 17BS-T03, 17BS-U02, 17BS-U03, 03-F06, 03-F07, 03-F08, 03-F09, 03-G06, 03-G07, 03-G08, 04-A02, 04-B02, 04-B03, 04-B04, 04-C03, 04-C04, 04-F02, 04-F03, 04-G02, 04-G03, 04-H02, 04-H03, 04-TE01, 04-TE02, 04-TE03, 04-TE04, 04-TE05, 04-TE06, 04-TE07, 04-TE08, 04-TE09, 04-TE10, 04-TE11, 04-TE12, 04-TE13, 04-TE14, 04-TE15, 04-TE16, 04-TE17, 04-TE18, 04-TE19, 04-TE20, 04-TE21, 04-TE22, 04-TE23, 04-TE24, 04-TE25, 04-TE26, 04-TE27, 04-TE28, 04-TE29, 04-TE30, 04-TE31, 04-TE32, 04-TE33, 04-TE34, 04-TE35, 04-TT01, 03-TE01, 03-TE02, 03-TE03, 03-TE04, 03-TE05, 03-TE06, 03-TE07, 03-TE08, 03-TE09, 03-TE10, 03-TE11, 03-TE12, 03-TE13, 03-TE14, 03-TE15, 03-TE16, 03-TE17, 03-TE18, 03-TE19, 03-TE20, 03-TE21, 03-TE22, 03-TE23, 03-TE24, 03-TE25, 03-TE26, 03-TE27, 03-TE28, 03-TE29, 03-TE30, 03-TE31, 03-TE32, 03-TE33, 03-TE34, 03-TE35, 03-TE36, 03-TE37, 03-TE38, 03-TE39, 03-TE40, 03-TE41, 03-TE42, 03-TE43, 03-TE44, 03-TE45, 03-TE46, 03-TE47, 03-TE48, 03-TE49, 03-TE50, 03-TE51, 03-TE52, 03-TE53, 03-TE54, 03-TE55, 03-TE56, 03-TE57, 03-TE58, 03-TE59, 03-TE60, 03-TE61, 03-TE62, 03-TE63, 03-TE64, 03-TE65, 03-TE66, 03-TE67, 03-TE68, 03-TE69, 03-TE70, 03-TE71, 03-TE72, 03-TE73, 03-TE74, 03-TE75, 03-TE76, 03-TE77, 03-TE78, 03-TE79, 11-TE01, 11-TE02, 11-TE03, 11-TE04, 11-TE05, 11-TE06, 11-TE07, 11-TE08, 11-TE09, 11-TE10, 11-TE11, 07-A01, 07-A02, 07-B01, 07-B02, 07-C01, 07-C02, 07-TE01, 07-TE02, 07-TE03, 07-TE04, 07-TE05, 13-TE01, 13-TE02, 13-TE03, 13-TE04, 13-TE05, 13-TE06, 13-TE07, 13-TE08, 13-TE09, 13-TE10, 13-TE11, 13-TE12, 13-TE13, 13-TE14, 13-TE15, 13-TE16, 13-TE17, 13-TE18, 13-TE19, 13-TE20, 11B-TE01, 11B-TE02, 11B-TE03, 11B-TE04, 11B-TE05, 11B-TE06, 11B-TE07, 11B-TE08, 11B-TE09, 11B-TE10



03-TE14, 03-TE15, 03-TE16, 03-TE17, 03-TE18, 03-TE19, 03-TE20, 03-TE21, 03-TE22, 03-TE23, 03-TE24, 03-TE25, 03-TE26, 03-TE27, 03-TE28, 03-TE29, 03-TE30, 03-TE31, 03-TE32, 03-TE33, 03-TE34, 03-TE35, 03-TE36, 03-TE37, 03-TE38, 03-TE39, 03-TE40, 03-TE41, 03-TE42, 03-TE43, 03-TE44, 03-TE45, 03-TE46, 03-TE47, 03-TE48, 03-TE49, 03-TE50, 03-TE51, 03-TE52, 03-TE53, 03-TE54, 03-TE55, 03-TE56, 03-TE57, 03-TE58, 03-TE59, 03-TE60, 03-TE61, 03-TE62, 03-TE63, 03-TE64, 03-TE65, 03-TE66, 03-TE67, 03-TE68, 03-TE69, 03-TE70, 03-TE71, 03-TE72, 03-TE73, 03-TE74, 03-TE75, 03-TE76, 03-TE77, 03-TE78, 03-TE79, 11-TE01, 11-TE02, 11-TE03, 11-TE04, 11-TE05, 11-TE06, 11-TE07, 11-TE08, 11-TE09, 11-TE10, 11-TE11, 07-A01, 07-A02, 07-B01, 07-B02, 07-C01, 07-C02, 07-TE01, 07-TE02, 07-TE03, 07-TE04, 07-TE05, 13-TE01, 13-TE02, 13-TE03, 13-TE04, 13-TE05, 13-TE06, 13-TE07, 13-TE08, 13-TE09, 13-TE10, 13-TE11, 13-TE12, 13-TE13, 13-TE14, 13-TE15, 13-TE16, 13-TE17, 13-TE18, 13-TE19, 13-TE20, 11B-TE01, 11B-TE02, 11B-TE03, 11B-TE04, 11B-TE05, 11B-TE06, 11B-TE07, 11B-TE08, 11B-TE09, 11B-TE10

Data Collection Start Date	2022-07-19
Data Collection End Date	2022-11-18
Operators	Jacob Jankowski, Zach Weston, Jared Hester, Nick Emm
Data Processors	Jeannie Norton, Jen Kostera
Detection Sensor	EM61, TEM-8g
Item 1: Is there documentation to confirm that all applicable personnel (operators and data processors) have a current DOC or are designated as SMEs for the equipment used during dynamic data collection saved to the project files or MMRP SharePoint?	Yes
Item 1 Comments	No DOCs performed - all training records for personnel on project SP site
Item 2: Have all operators completed a Field Checklist for Dynamic Detection Surveys?	Yes
Item 3: Were all required Data Processing Checklists completed?	Yes
Item 3 Comments	This serves as a checklist for all project data deliverables
Item 4: Were all required files included in the deliverable folders?	Yes
Item 4 Comments	Files for each data deliverable were verified prior to submittal
Item 5: Are the corresponding IVS and SFT data saved in the project files and do they meet project MQOs?	Yes
Item 5 Comments	All QC files passed except for those addressed by NCRs 002 and 003
Item 6: Have coverage and in-line spacing MQOs been met for each survey unit?	Yes
Item 6 Comments	Any deviations are noted in the access database comments
Item 7: Were chevron-shaped anomalies present in the gridded data?	No
Item 8b: Did all blind seeds meet project MQOs?	Yes
Item 8b Comments	All seeds in collected survey areas passed, except for those identified in SRAs, as presented in NCR-005
Item 9: Does the data processor need to make any revisions?	No
QC Geophysicist Signature	
Date	2023-02-20

**CLEAN
CONTRACT NUMBER N6247016D9008**

FIELD CHANGE REQUEST (FCR)

TASK ORDER # N4425519F4112 FCR # FCR-06 MEC QAPP DATE 01/17/2023, Rev 1
 LOCATION: Naval Base Kitsap Bangor, Silverdale WA NTR/RPM Janice Horton

1. Documents to be changed. Identify revision, date, section, drawing, etc.

Final MEC QAPP dated June 2021 Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor.

There are numerous updates to the document sections and tables. These updates are presented in the attached pages in lieu of being summarized in this section.

2. Description of existing requirement and proposed change (Attach sheet if necessary)

As stated in the previous section, the updates addressed by this FCR are numerous and apply to sections of text, tables and figures in the final MEC QAPP. The attached pages present the updates to cited sections of the MEC QAPP.

The FCR addresses an alternate approach to GPR surveying at the MRP sites in support of the SI based on the project team review of existing site conditions. Key updates include elimination of full coverage GPR surveys and opting for focused GPR profile surveys across anomaly footprints of interest identified in the DGM results.

The revised agreed-upon scope with the PDT for the GPR work is as follows:

- Site UXO 4: 12 profiles
- Site UXO 7: 7 profiles
- Site UXO 17: 9 profiles
- Site UXO 17B: 10 profiles

Attachments provided with this FCR include a summary table of the MRP geophysical sites, presenting original GPR approach and proposed alternative approach, updates to relevant text and tables in the MEC QAPP and figures depicting the GPR profile locations.

4. Originator: (print name and sign) Matt Barner Matthew Barner		Title Project Manager <i>Linda Klink</i>	Date 01/17/2023
Reviewed by: (print name and sign) Norm Piper, UXO Manager <i>Norm Piper</i>		Title: UXO Manager	Date 12/09/2022
Site Superintendent (Print name and sign) Forrest Malone (SUXOS) <i>Forrest Malone</i>	Date 12/09/22	Task Order Manager (Print name and sign) Linda Klink <i>Linda Klink</i>	Date 01/17/2023
Tt Program QC Manager (Print Name and Sign) Michelle Coffman <i>Michelle Coffman</i>	Date 1/17/2023	Navy Acknowledgement (Print name and sign) <i>Charles Escala</i> <i>Charles Escala</i>	Date 02/07/2023

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CONTRACT NUMBER N6247016D9008

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MEC QAPP FCR-06, ATTACHMENT 1
EVALUATION OF MEC QAPP PLANNED GPR VERSUS CONSENSUS NEED FOR GPR/COVERAGE,
BANGOR MRP SI

SITE NAME/ LOCATION (1,2)	TOTAL SITE SIZE (ac)	SI AREA (ac)	FOOTPRINT FOR GEOPHYSICAL MAPPING (ac)	GPR Geophysical Survey and Coverage		Comments
				Planned (3)	Consensus	
UXO 000003 [REDACTED] (Site D), Lower Base	37	20	20 ac	No	No	No change, no GPR
UXO 000004 [REDACTED] (Site 9), Upper Base	6	3.3	3.3 ac	Transects (27 feet nominal transect spacing = 0.3 ac)	Yes Transects (12 transects, 1,256 linear feet)	GPR transects as planned but less acreage. Consensus as per 10/07/2022 Navy/Tetra Tech telecon and determination of GPR transect locations as per 10/21/2022 Navy/Tetra Tech telecon with revised GPR transect mapping provided in email of 10/24/2022.
UXO 000007 [REDACTED] (Site 23), North Lower Base	1	1	1 ac	Transects (12 feet nominal transect spacing = 0.2 ac) plus Full coverage (= 0.7 ac)	Yes Transects (7 transects, 354 linear feet)	GPR but transects only. Consensus as per 09/19/2022 and 10/17/2022 Navy/Tetra Tech telecons and determination of GPR transect locations as per 10/21/2022 Navy/Tetra Tech telecon with revised GPR transect mapping provided in email of 10/24/2022.
UXO 000011 [REDACTED] (Site 14), Lower Base	2	1.3	1.3 ac	Transects (16 feet nominal transect spacing = 0.2 ac)	No	No GPR. Consensus as per followup site visit of 09/22/22 following 09/19/2022 Navy/Tetra Tech telecon.
UXO 000011B* [REDACTED] (Site 8), Lower Base	2	2	2 ac	Transects (50 feet nominal transect spacing = 0.1 ac)	No	No GPR. Consensus as per 10/21/2022 Navy/Tetra Tech telecon.
UXO 000013 [REDACTED] (Site 4), Lower Base	4.1	2.5	2.5 ac	No	No	No change, no GPR
UXO 000017 [REDACTED] (Site 2), Upper Base	9.3	9.3	9.3	Full Coverage (= 0.4 ac) of landfill area only	Yes Transects (9 transects, 1,121 linear feet)	GPR but transects vs full coverage and more areas than just landfill based on EM61-HP & TEM-8g results. Consensus as per 10/07/2022 Navy/Tetra Tech telecon and determination of GPR transect locations as per 10/31/22 Navy/Tetra Tech telecon with revised GPR transect mapping provided with telecon minutes.
UXO 000017B [REDACTED] (Site 1), Upper Base	67	13.3	13.3	Full Coverage (= 13.3 ac)	Yes Transects (10 transects, 1,371 linear feet)	GPR but less acreage and transects vs full coverage. Consensus and determination of GPR transect locations as per 11/04/2022 Navy/Tetra Tech telecon.

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CONTRACT NUMBER N6247016D9008
 TASK ORDER N4425519F4112
 FCR-06, Attachment 2, Rev 1

This document summarizes updates to the final MEC QAPP for the subject task order. Text sections and tables in the MEC QAPP are presented in black font, whereas the proposed updates are in red font.

Worksheet #11, Section 11.5, Decision Rule #6.

Current Text:

Decision Rule #6: For sites where 100 percent coverage GPR surveys are planned, if localized site-specific conditions (e.g., micro-terrain, slopes) are not favorable for collection of high-quality GPR data across 100 percent of the survey area, then the Navy will be notified, and a suitable alternative will be discussed for gathering data to support the SI objective and data gathering goals (including, but not limited to, doing a partial GPR survey).

Update:

Decision Rule #6: If a site has GPR surveys planned, then the PDT will evaluate potential alternatives to the GPR data collection to the follow-up GPR approach with respect to site conditions and to still meet the project objectives. The decision-logic for this process will be documented in PDT meeting minutes, and alternative approaches to the GPR survey locations will be added to the master project GIS.

Worksheet #12, Table 12-1, Measurements #3 and #12.

Current Text:

Table 12-1. Measurement Performance Criteria ⁽¹⁾			
Measurement	Data Quality Indicator	Specification	Activity Used to Assess Performance
3. Planned survey coverage (full coverage – analog and DGM and GPR)	Representativeness/ Completeness	For individual sites with full survey coverage approach, data collection will provide 100% coverage of the planned survey area. This criterion applies to sites undergoing full coverage analog, DGM and GPR surveys.	UXOQCS reviews analog survey findings to assess coverage; QC geophysicist reviews DGM survey results to assess coverage. Completion of coverage will be assessed against documented field conditions during site preparation activities.
12. Survey coverage (full coverage – DGM and GPR)	Accuracy/ Completeness	100% of specified acreage is surveyed at the achieved lane spacing.	QC Geophysicist evaluates coverage through data package verification and validation process

Update:

Table 12-1. Measurement Performance Criteria ⁽¹⁾			
Measurement	Data Quality Indicator	Specification	Activity Used to Assess Performance
3. Planned survey coverage (full coverage – analog and DGM)	Representativeness/ Completeness	For individual sites with full survey coverage approach, data collection will provide 100% coverage of the planned survey area. This criterion applies to sites undergoing full coverage analog and DGM surveys.	UXOQCS reviews analog survey findings to assess coverage; QC geophysicist reviews DGM survey results to assess coverage. Completion of coverage will be assessed against documented field conditions during site preparation activities.
12. Survey coverage (full coverage – DGM)	Accuracy/ Completeness	100% of specified acreage is surveyed at the achieved lane spacing.	QC Geophysicist evaluates coverage through data package verification and validation process

¹ Worksheet #17 details the site-specific requirements, including Table 17-1 Summary of SI Data Collection by Site, Table 17-2 DGM and GPR Transect Surveys, and Table 17-3 DGM Full Coverage Surveys. Site-specific requirements are important to ensure that appropriate areas were worked. See Worksheet #22 for Corrective Action dictating resurvey Root Cause Analysis and Corrective Action.

Worksheet #17, Section 17.1, 2nd and 3rd paragraphs.

Current Text:

Tables 17-1 through 17-3 present the field survey details for each site to be investigated during the SI. Table 17-1 includes MPPEH items reported to have been found at each site. As shown on Figures 17-1 through 17-21, the administrative extent (i.e., the footprint) of each site in some instances may be larger than the area undergoing inspection. Table 17-1 lists the size of each site along with the footprint of the survey areas for planned analog surface surveys, DGM and GPR surveys based on the scope of services requested by the Navy for this SI. Where MPPEH is listed in this table, it is not known whether munitions-related items were further categorized as MEC, MD, scrap or other. Table 17-1 and Figures 17-1 through 17-21 also provide information about the area where site preparation activities will be performed in advance of digital geophysical surveys at each site.

Additional survey design specifics are provided in Tables 17-2 and 17-3. Table 17-2 presents the survey design details for those sites where a portion of the site will undergo DGM and GPR surveys along transects. Table 17-3 presents the area at each site across which full coverage (i.e., 100 percent coverage) surveying will be completed.

Updates:

Tables 17-1 through 17-4 present the field survey details for each site to be investigated during the SI. Table 17-1 includes MPPEH items reported to have been found at each site. As shown on Figures 17-1 through 17-21, the administrative extent (i.e., the footprint) of each site in some instances may be larger than the area undergoing inspection. Table 17-1 lists the size of each site along with the footprint of the survey areas for planned analog surface surveys and DGM surveys based on the scope of services requested by the Navy for this SI. This table also notes whether GPR surveying will be performed at the site based on PDT evaluation of site conditions documented during the DGM surveys. Where MPPEH is listed in this table, it is not known whether munitions-related items were further categorized as MEC, MD,

scrap or other. Table 17-1 and Figures 17-1 through 17-21 also provide information about the area where site preparation activities will be performed in advance of digital geophysical surveys at each site.

Additional survey design specifics are provided in Tables 17-2 through 17-4. Table 17-2 presents the survey design details for those sites where a portion of the site will undergo DGM surveys along transects. Table 17-3 presents the area at each site across which full coverage (i.e., 100 percent coverage) surveying will be completed. Table 17-4 presents the GPR data collection at each site where the survey will be performed.

Worksheet #17, Table 17-1.

This table is updated to reflect which MRP sites will have GPR surveying based on PDT meetings during the SI data reviews. Only the first and last columns of this table from the MEC QAPP are presented for brevity. These updates also reflect previous FCRs where geophysical surveys were eliminated altogether from certain sites.

Current Text:

TABLE 17-1: SUMMARY OF SI DATA COLLECTION ACTIVITIES BY SITE

SITE NAME/ LOCATION	Planned Geophysical Survey Coverage ¹			
	Types	EM61-MK2 HP T/FC (acres)	TEM-8g T/FC (acres)	GPR T/FC (acres)
UXO 02 ██████████ (Site CC), Keyport Annex	N/A	Not Applicable (N/A)	N/A	N/A
UXO 03 ██████████ (Site D), Lower Base	T/FC	T (5.4)	FC (0.5)	N/A
UXO 04 ██████████ (Site 9), Upper Base	T/FC	T & FC (1.1)	T & FC (0.5)	T (0.3)
UXO 06 ██████████ Site 22), North Lower Base	NA	N/A	N/A	N/A
UXO 07 ██████████ (Site 23), North Lower Base	T/FC	T (0.1)	FC (0.8)	T & FC (0.9)
UXO 07B ██████████ (OU1 Site A), North Lower Base	N/A	N/A	N/A	N/A
UXO 08 ██████████ (Site NN), Waterfront Restricted Area	T/FC	T & FC (0.7)	FC (3.7)	T (0.8)
UXO 09 ██████████ (Site OO), North Lower Base	NA	N/A	N/A	N/A
UXO 10 ██████████ (Site 12), Waterfront Restricted Area	T	T (1.1)	N/A	T (0.2)
UXO 11 ██████████ (Site 14), Lower Base	T	T (0.3)	N/A	T (0.2)
UXO 11B ██████████ (Site 8), Lower Base	T	T (0.3)	N/A	T (0.1)
UXO 12 ██████████ (Site HH), Lower Base	NA	N/A	N/A	N/A
UXO 13 ██████████ (Site 4 ██████████), Lower Base	T	T (0.3)	N/A	N/A
UXO 14 ██████████ (Site JJ), Waterfront Restricted Area	NA	N/A	N/A	N/A
UXO 15 ██████████ (Site KK), Waterfront Restricted Area	T/FC	T (0.8)	FC (5.6)	T (0.2)
UXO 16	T/FC	T (1.1)	FC (2.2)	N/A

SITE NAME/ LOCATION	Planned Geophysical Survey Coverage ¹			
	Types	EM61-MK2 HP T/FC (acres)	TEM-8g T/FC (acres)	GPR T/FC (acres)
██████████ (Site LL), Waterfront Restricted Area				
UXO 17 ██████████ (Site 2), Upper Base	FC	FC (5)	FC (9.3)	FC (0.4)
UXO 17B ██████████ (Site 1), Upper Base	FC	FC (13.3)	FC (13.3)	FC (13.3)
UXO 17C ██████████ (Site BB), Upper Base	NA	N/A	N/A	N/A

¹ Transect-based survey (T) or full coverage (FC) (i.e., grid-based survey across portion of footprint requiring geophysical mapping) or combination of the two (T/FC).

Update:

TABLE 17-1: SUMMARY OF SI DATA COLLECTION ACTIVITIES BY SITE

SITE NAME/ LOCATION	Planned Geophysical Survey Coverage ¹			
	Types	EM61-MK2 HP T/FC (acres)	TEM-8g T/FC (acres)	GPR YES OR N/A
UXO 02 ██████████ (Site CC), Keyport Annex	N/A	Not Applicable (N/A)	N/A	N/A
UXO 03 ██████████ (Site D), Lower Base	T/FC	T (5.4)	FC (0.5)	N/A
UXO 04 ██████████ (Site 9), Upper Base	T/FC	T & FC (1.1)	T & FC (0.5)	YES
UXO 06 ██████████ (Site 22), North Lower Base	NA	N/A	N/A	N/A
UXO 07 ██████████ (Site 23), North Lower Base	T/FC	T (0.1)	FC (0.8)	YES
UXO 07B ██████████ (OU1 Site A), North Lower Base	N/A	N/A	N/A	N/A
UXO 08 ██████████ (Site NN), Waterfront Restricted Area	N/A	N/A	N/A	N/A
UXO 09 ██████████ (Site OO), North Lower Base	NA	N/A	N/A	N/A
UXO 10 ██████████ (Site 12), Waterfront Restricted Area	N/A	N/A	N/A	N/A
UXO 11 ██████████ (Site 14), Lower Base	T	T (0.3)	N/A	N/A
UXO 11B ██████████ (Site 8), Lower Base	T	T (0.3)	N/A	N/A
UXO 12 ██████████ (Site HH), Lower Base	NA	N/A	N/A	N/A
UXO 13 ██████████ (Site 4 ██████████ , Lower Base	T	T (0.3)	N/A	N/A
UXO 14 ██████████ (Site JJ), Waterfront Restricted Area	NA	N/A	N/A	N/A
UXO 15 ██████████ (Site KK), Waterfront Restricted Area	N/A	N/A	N/A	N/A
UXO 16 ██████████ (Site LL), Waterfront Restricted Area	N/A	N/A	N/A	N/A

SITE NAME/ LOCATION	Planned Geophysical Survey Coverage ¹			
	Types	EM61-MK2 HP T/FC (acres)	TEM-8g T/FC (acres)	GPR YES OR N/A
UXO 17 [REDACTED] (Site 2), Upper Base	FC	FC (5)	FC (9.3)	YES
UXO 17B [REDACTED] (Site 1), Upper Base	FC	FC (13.3)	FC (13.3)	YES
UXO 17C [REDACTED] (Site BB), Upper Base	NA	N/A	N/A	N/A

¹ Transect-based survey (T) or full coverage (FC) (i.e., grid-based survey across portion of footprint requiring geophysical mapping) or combination of the two (T/FC).

Worksheet #17, Table 17-2.

Due to the nature of the updates made to the GPR scope, this table will be renamed and updated to remove references to GPR. The revised GPR scope will be summarized in new Table 17-4. The proposed updates also reflect previous FCRs where geophysical surveys were eliminated altogether from certain sites. Sites with no geophysical surveys completed are removed from the proposed updates to Table 17-2.

Current Text:

TABLE 17-2: DGM AND GPR TRANSECT SURVEYS

SITE NAME/ LOCATION	EM61-MK2 ¹ Nominal Transect Spacing ⁴ (feet)	TEM-8g ² Nominal Transect Spacing ⁴ (feet)	GPR ³ Nominal Transect Spacing ⁴ (feet)	Geophysical Survey Transect Coverage		
				EM61-MK2 HP (acres)	TEM-8g (acres)	GPR (acres)
UXO 03 [REDACTED] (Site D), Lower Base	12	N/A	N/A	5.4	N/A	N/A
UXO 04 [REDACTED] (Site 9), Upper Base	10	190	27	1	0.1	0.3
UXO 07 [REDACTED] (Site 23), North Lower Base	33	N/A	12	0.1	N/A	0.2
UXO 08 [REDACTED] (Site NN), Waterfront Restricted Area	61	N/A	12	0.2	N/A	0.8
UXO 10 [REDACTED] (Site 12), Waterfront Restricted Area	7	N/A	29	1.1	N/A	0.2
UXO 11 [REDACTED] (Site 14), Lower Base	22	N/A	16	0.3	N/A	0.2
UXO 11B [REDACTED] (Site 8), Lower Base	22	N/A	50	0.3	N/A	0.1
UXO 13 [REDACTED] (Site 4) , Lower Base	27	N/A	N/A	0.3	N/A	N/A

SITE NAME/ LOCATION	EM61-MK2 ¹ Nominal Transect Spacing ⁴ (feet)	TEM-8g ² Nominal Transect Spacing ⁴ (feet)	GPR ³ Nominal Transect Spacing ⁴ (feet)	Geophysical Survey Transect Coverage		
				EM61-MK2 HP (acres)	TEM-8g (acres)	GPR (acres)
UXO 15 [REDACTED] (Site KK), Waterfront Restricted Area	28	N/A	85	0.8	N/A	0.2
UXO 16 [REDACTED] (Site LL), Waterfront Restricted Area	30	N/A	N/A	1.1	N/A	N/A

¹ EM61-MK2 HP sensor swath: 3.3ft
² TEM-8g sensor swath: 5.8ft
³ GPR antenna swath: 2.5ft (note: this is specific to the Noggin 100 GPR system)
⁴ Transect spacing refers to center-to-center spacing

Updates:

TABLE 17-2: DGM TRANSECT SURVEYS

SITE NAME/ LOCATION	EM61-MK2 ¹ Nominal Transect Spacing ⁴ (feet)	TEM-8g ² Nominal Transect Spacing ⁴ (feet)	Geophysical Survey Transect Coverage	
			EM61-MK2 HP (acres)	TEM-8g (acres)
UXO 03 [REDACTED] (Site D), Lower Base	12	N/A	5.4	N/A
UXO 04 [REDACTED] (Site 9), Upper Base	10	190	1	0.1
UXO 07 [REDACTED] (Site 23), North Lower Base	33	N/A	0.1	N/A
UXO 11 [REDACTED] (Site 14), Lower Base	22	N/A	0.3	N/A
UXO 11B [REDACTED] (Site 8), Lower Base	22	N/A	0.3	N/A
UXO 13 [REDACTED] (Site 4 [REDACTED]), Lower Base	27	N/A	0.3	N/A

¹ EM61-MK2 HP sensor swath: 3.3ft
² TEM-8g sensor swath: 5.8ft

Worksheet #17, Table 17-3.

Due to the nature of the updates made to the GPR scope, this table will be renamed and updated to remove references to GPR. The revised GPR scope will be summarized in new Table 17-4. The proposed updates also reflect previous FCRs where geophysical surveys were eliminated altogether from certain sites. Sites with no geophysical surveys completed are removed from the proposed updates to Table 17-3.

Current Text:

TABLE 17-3: DGM AND GPR FULL COVERAGE SURVEYS

SITE NAME/ LOCATION	EM61-MK2 HP (acres)	TEM-8g (acres)	GPR (acres)
UXO 03 [REDACTED] (Site D), Lower Base	N/A	0.5	N/A
UXO 04 [REDACTED] (Site 9), Upper Base	0.1	0.4	N/A
UXO 07 [REDACTED] (Site 23), North Lower Base	N/A	0.8	0.7
UXO 08 [REDACTED] (Site NN), Waterfront Restricted Area	0.5	3.7	N/A
UXO 15 [REDACTED] (Site KK), Waterfront Restricted Area	N/A	5.6	N/A
UXO 16 [REDACTED] (Site LL), Waterfront Restricted Area	N/A	2.2	N/A
UXO 17 [REDACTED] (Site 2), Upper Base	5	9.3	0.4
UXO 17B [REDACTED] (Site 1), Upper Base	13.3	13.3	13.3

Updates:

TABLE 17-3: DGM FULL COVERAGE SURVEYS

SITE NAME/ LOCATION	EM61-MK2 HP (acres)	TEM-8g (acres)
UXO 03 [REDACTED] (Site D), Lower Base	N/A	0.5
UXO 04 [REDACTED] (Site 9), Upper Base	0.1	0.4
UXO 07 [REDACTED] (Site 23), North Lower Base	N/A	0.8
UXO 17 [REDACTED] (Site 2), Upper Base	5	9.3
UXO 17B [REDACTED] (Site 1), Upper Base	13.3	13.3

Worksheet #17, Table 17-4 (new).

Due to the nature of the updates made to the GPR scope, this table is added as part of this FCR to document the GPR scope to be completed at each MRP site. This table is a new addition and not an update from an existing table.

TABLE 17-4: SITES WITH GPR SURVEYING

SITE NAME/ LOCATION	GPR SCOPE	TRANSECT LENGTH (linear feet)
UXO 04 [REDACTED] (Site 9), Upper Base	12 profiles	1,256
UXO 07 [REDACTED] (Site 23), North Lower Base	7 profiles	354
UXO 17 [REDACTED] (Site 2), Upper Base	9 profiles	1,121
UXO 17B [REDACTED] (Site 1), Upper Base	10 profiles	1,371

Worksheet #17, Section 17.1 1st paragraph after Tables 17-1 through 17-4.

Current Text:

For the sites listed in Tables 17-1 through 17-3, the primary rationale for the survey design is gathering an appropriate amount of data to meet the DQOs in [Worksheet #11](#). Onboard review of the sites during QAPP development was performed by the Navy and Tetra Tech, assisted by available historical documentation and aerial images of the individual sites. The aerial imagery guided the decisions regarding the deployment of planned geophysical sensors, and potential site access restrictions were also considered.

Update:

For the sites listed in Tables 17-1 through 17-4, the primary rationale for the survey design is gathering an appropriate amount of data to meet the DQOs in [Worksheet #11](#). Onboard review of the sites during QAPP development was performed by the Navy and Tetra Tech, assisted by available historical documentation and aerial images of the individual sites. The aerial imagery guided the decisions regarding the deployment of planned geophysical sensors, and potential site access restrictions were also considered.

Worksheet #17, Section 17.8, 1st and 2nd paragraphs.

Current Text:

GPR surveys will be performed during the SI as a combination of transect surveys and full coverage surveys using grids (see Tables 17-1 through 17-3). GPR surveys will be conducted after site preparation activities, QC seeding and UXO detector-aided surface surveys are complete. Tetra Tech intends to use a Sensors & Software, Inc. Noggin 100 GPR system for completion of the GPR surveys. However, if during site preparation it is determined a different GPR system or antenna frequency would be more appropriate for the site conditions, Tetra Tech will switch to a system that provides optimal data quality and productivity for meeting the survey objectives. The selected GPR system will be assembled and operated in accordance with the manufacturer instruction manual.

The Noggin 100 system includes integrated GPS capabilities as well as a built-in odometer for tracking along-line distances. Where conditions are favorable, Tetra Tech will use GPS or RTS positioning methods with the GPR surveys.

Update:

GPR surveys will be performed during the SI in accordance with Table 17-4. The surveys will comprise collection of individual profiles strategically focusing on features of interest identified in the DGM results. The selected GPR system will be assembled and operated in accordance with the manufacturer instruction manual.

Tetra Tech will use the Geophysical Survey Systems, Inc. (GSSI) SIR-4000 GPR system with a 350-MHz scanning antenna to perform the GPR surveys. The GSSI system includes integrated Juniper Systems sub-meter GPS capabilities as well as a built-in odometer for tracking along-line distances. The entire system is mounted to a 4-wheel pushcart for collection of data at the sites. The objective of the GPR survey is to assess subsurface conditions at select DGM features; survey-grade positioning methods (i.e., centimeter-level accuracy) will not be used.

Worksheet #17, Section 17.8.1.

Current Text:

Table 17-2 presents the spacing for the sites where GPR surveying will be completed along transects. For full coverage GPR surveys (Table 17-3), a nominal profile spacing of 10 feet will be used. Unlike the DGM surveys, the objective of the GPR surveys is not to identify discrete objects in the subsurface potentially indicative of munitions-related items. Therefore, a spacing of 10 feet for full coverage GPR surveys will provide an appropriate amount of data coverage to meet the survey objectives and support achievement of the project DQOs in [Worksheet #11](#).

Navigation along GPR transects will occur in a similar manner as the EM61-MK2 HP transect and grid surveys (DFW 6). Where conditions are favorable, the survey lanes will be marked in the field to assist with along-line navigation, or a UXO technician with transect lines pre-loaded on a GPS device will walk ahead of the GPR operator. Full coverage surveys will be completed using the established grid network onsite, but the final presentation of the data will not be registered to individual grids and presented as such because meaningful interpretation of the sitewide GPR results does not lend itself to this type of presentation.

GPR field data management will conform to the same requirements in this worksheet discussed for the DGM surveys.

Update:

Unlike the DGM surveys, the objective of the GPR surveys is not to identify discrete objects in the subsurface potentially indicative of munitions-related items. The GPR will be used to further evaluate the depth of features of interest identified in the DGM results. These features are generally characterized as saturated response areas in the DGM data.

Navigation along GPR transects will occur in a similar manner as the EM61-MK2 HP transect and grid surveys (DFW 6). Where conditions are favorable, the profile locations will be marked in the field to assist with along-line navigation, or a UXO technician with transect lines pre-loaded on a GPS device will walk ahead of the GPR operator.

GPR field data management will conform to the same requirements in this worksheet discussed for the DGM surveys.

Worksheet #17, Section 17.9.3.

Current Text:

GPR data processing will be performed using manufacturer-supplied software in accordance with the software instruction manual. The specific data reduction steps during GPR data processing may vary from one type of system to the next but will generally consist of the following steps:

- Adjusting gains and dielectric constant based on observed field conditions
- Removing reflections between the bottom of the antenna and the ground surface
- Normalizing the distance profiles relative to marker locations (i.e., fiducials) inserted in the data (as applicable)

- Removing background and noise-related effects in the data (as appropriate)
- Generating 2-Dimensional profiles for interpretation of depth to buried wastes, debris or other features of interest

Tetra Tech will also generate individual depth slices of the GPR data, provided the collected data density supports this additional analysis. This additional analysis would be performed for full coverage GPR data sets and would be performed to assist the interpretation of the lateral extent and depth to buried wastes on a sitewide basis, as opposed to attempting to draw this level of interpretation from a series of closely-spaced individual 2-Dimensional profiles. Manufacturer-supplied software (Sensors & Software, Inc.) will be used, or Tetra Tech will use the third-party software GPR-SLICE by the Geophysical Archaeometry Laboratory. Analysis of the data through generation of depth slices will be performed in accordance with the specific software manufacturer instruction manual.

With the generation of individual depth slices, a volume of collected GPR data is analyzed. After setting the survey geometry, the data are re-gained, undergo background removal and filtering, as appropriate, to generate individual 2-Dimensional slices (i.e., cuts along the z-axis) of the survey area at a user-specified depth interval (e.g., 1 foot). Individual intervals may overlap each other or may be successive in depth.

Update:

GPR data processing will be performed using manufacturer-supplied software in accordance with the software instruction manual. The specific data reduction steps during GPR data processing will consist of the following steps:

- Adjusting gains and dielectric constant based on observed field conditions
- Removing reflections between the bottom of the antenna and the ground surface
- Removing background and noise-related effects in the data (as appropriate)
- Generating 2-Dimensional profiles for interpretation of depth to buried wastes, debris or other features of interest

Worksheet #17, Section 17.9.4, 2nd last paragraph.

Current Text:

Final processed GPR data packages will include field notes, raw and processed instrument-specific profiles, and as applicable, plan-view depth slice images and supporting processing files associated with generation of the depth slices. Results maps will include polygons indicating suspected buried wastes.

Update:

Final processed GPR data packages will include field notes, raw and processed two-dimensional cross-sections of the collected profiles.

Worksheet #22, Table 22-4.

Current Text:

Table 22-4. GPR Surveys⁽¹⁾

Measurement Quality Objective	Applicable DFWs	MQO#	Frequency	Responsible Person/ Reporting Method/ Verified by:	Acceptance Criteria	Failure Response
Verify correct assembly	7	4-1	Each time sensor is assembled	Site Geophysicist / Daily field log / QC Geophysicist	As specified in instrument operation manual	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of GPR operations, then RCA/CA.
Instrument Function Test	7	4-2	Each time sensor is turned on.	Site Geophysicist / Daily field log / QC Geophysicist	<ul style="list-style-type: none"> • Communication established between antenna and data logger • GPR antenna receives signal 	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of GPR operations, then RCA/CA.
Odometer Function Test (Survey Wheel Mode)	7	4-3	At the start of each day data collection is performed without the use of RTK GPS or RTS.	Site Geophysicist / Daily field log / QC Geophysicist	Odometer (survey wheel) accurate to within ± 3.3 ft when odometer/survey wheel data used for positioning	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of daily GPR operations, then RCA/CA.
Transect Coverage	7	4-3	Verified for each GPR transect collected with RTK GPS or RTS	Project Geophysicist/ GPR results maps/ GPR Data Processor; QC Geophysicist	Survey path within 25ft of planned transect alignment. Missing transects or deviations outside tolerance are explained (e.g., navigate around obstruction)	RCA/CA when no adequate explanation provided for deviation; collect missing transects or transect segments.
Full Coverage	7	4-4	Verified for each processed data set collected with RTK GPS or RTS	Project Geophysicist/ GPR results maps/ GPR Data Processor; QC Geophysicist	$\geq 90\%$ survey paths within ± 5 ft of planned transect spacing of 10ft; $\geq 98\%$ survey paths within ± 10 ft. Missing transects or deviations outside tolerance are explained (e.g., navigate around obstruction)	RCA/CA for gaps not identified by GPR Data Processor and resolved with field team or for gaps not otherwise adequately explained in field notes.

Measurement Quality Objective	Applicable DFWs	MQO#	Frequency	Responsible Person/ Reporting Method/ Verified by:	Acceptance Criteria	Failure Response
Full Coverage – Line and Fiducial Positioning	7	4-5	Verified for processed data set collected with line and fiducial positioning method	Project Geophysicist/ GPR results maps/ GPR Data Processor; QC Geophysicist	Visual inspection and photographic records of field positioning methods	RCA/CA
Valid position data (RTK GPS)	5, 7	3-15	Verified for each processed data set collected with RTK GPS or RTS	Project Geophysicist/ DGM processed database/ DGM Data Processor; QC Geophysicist	≥98% GPS fix quality 4. Gaps must be bounded by GPS fix quality 4 data.	RCA/CA for gaps not identified by GPR Data Processor and sent to the field for in-fill data collection.
¹ Stand-alone SOPS are not available for GPR surveys; governing means and methods for GPR are included within the QAPP worksheets.						

Update:

Table 22-4. GPR Surveys⁽¹⁾

Measurement Quality Objective	Applicable DFWs	MQO#	Frequency	Responsible Person/ Reporting Method/ Verified by:	Acceptance Criteria	Failure Response
Verify correct assembly	7	4-1	Each time sensor is assembled	Site Geophysicist / Daily field log / QC Geophysicist	As specified in instrument operation manual	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of GPR operations, then RCA/CA.
Instrument Function Test	7	4-2	Each time sensor is turned on.	Site Geophysicist / Daily field log / QC Geophysicist	<ul style="list-style-type: none"> Communication established between antenna and data logger GPR antenna receives signal 	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of GPR operations, then RCA/CA.
Odometer Function Test (Survey Wheel Mode)	7	4-3	At the start of each day data collection is performed without the use of GPS.	Site Geophysicist / Daily field log / QC Geophysicist	Odometer (survey wheel) accurate to within ±3.3ft when odometer/survey wheel data used for positioning	Make necessary adjustments and re-verify prior to use of sensor. If failure identified after start of daily GPR operations, then RCA/CA.
¹ Stand-alone SOPS are not available for GPR surveys; governing means and methods for GPR are included within the QAPP worksheets.						

Worksheet #29, Part 2, DGM and GPR Deliverables; Three Phase Inspection Checklists (TPC).

Current Text:

Document/Record	Generation Purpose	Completion/ Update Frequency	Format/Storage Location/Archive Requirements
Three Phase Inspection Checklists (TPC)	Documents the completion of the three phases of control undertaken for each DFW.	<p>Preparatory: Once prior to the start of work for each DFW (per DFW).</p> <p>Initial: Once at the onset of work for each DFW to summarize completion of the preparatory phase (per DFW).</p> <p>Ongoing: Weekly per DFW, unless otherwise specified in this MEC QAPP or in SOPs and if not address via another reporting means (e.g. daily production reports, weekly geophysical QC reports, etc.).</p>	Electronic copy/SharePoint or Server/ Archived electronically
DGM and GPR Data Deliverables	Digital instrument files (raw data), preliminary processing and final processing files (e.g., Geosoft databases, target lists, false color DGM mosaics, SRA outlines, GPR maps, etc.)	Raw preliminary and processed files updated weekly (along with weekly geophysical QC report). Note: data processing will occur each day after the start of field operations, although delivery of final processed files will be on a weekly basis.	Digital data files/SharePoint, Server, Archived electronically

Update:

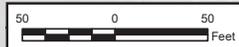
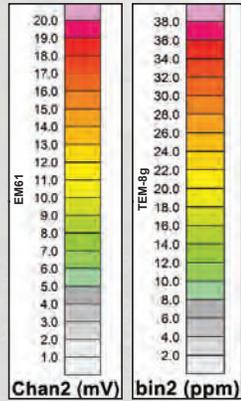
Document/Record	Generation Purpose	Completion/ Update Frequency	Format/Storage Location/Archive Requirements
Three Phase Inspection Checklists (TPC) checklists	Documents the completion of the three phases of control undertaken for each DFW.	Preparatory: Once prior to the start of work for each DFW specified in Section 14.1. Initial: Once at the onset of work for each DFW specified in Section 14.1. Ongoing: Weekly per DFW, unless otherwise specified in this MEC QAPP or in SOPs and if not address via another reporting means (e.g. daily production reports, weekly geophysical QC reports, etc.).	Electronic copy/SharePoint or Server/ Archived electronically
DGM and GPR Data Deliverables	Digital instrument files (raw data), preliminary processing and final processing files (e.g., Geosoft databases, target lists, false color DGM mosaics, SRA outlines, GPR profiles, etc.)	Raw preliminary and processed files updated weekly (along with weekly geophysical QC report). Note: data processing will occur each day after the start of field operations, although delivery of final processed files will be on a weekly basis.	Digital data files/SharePoint, Server, Archived electronically



Area of interest as depicted on 1951 to 1977 aerials

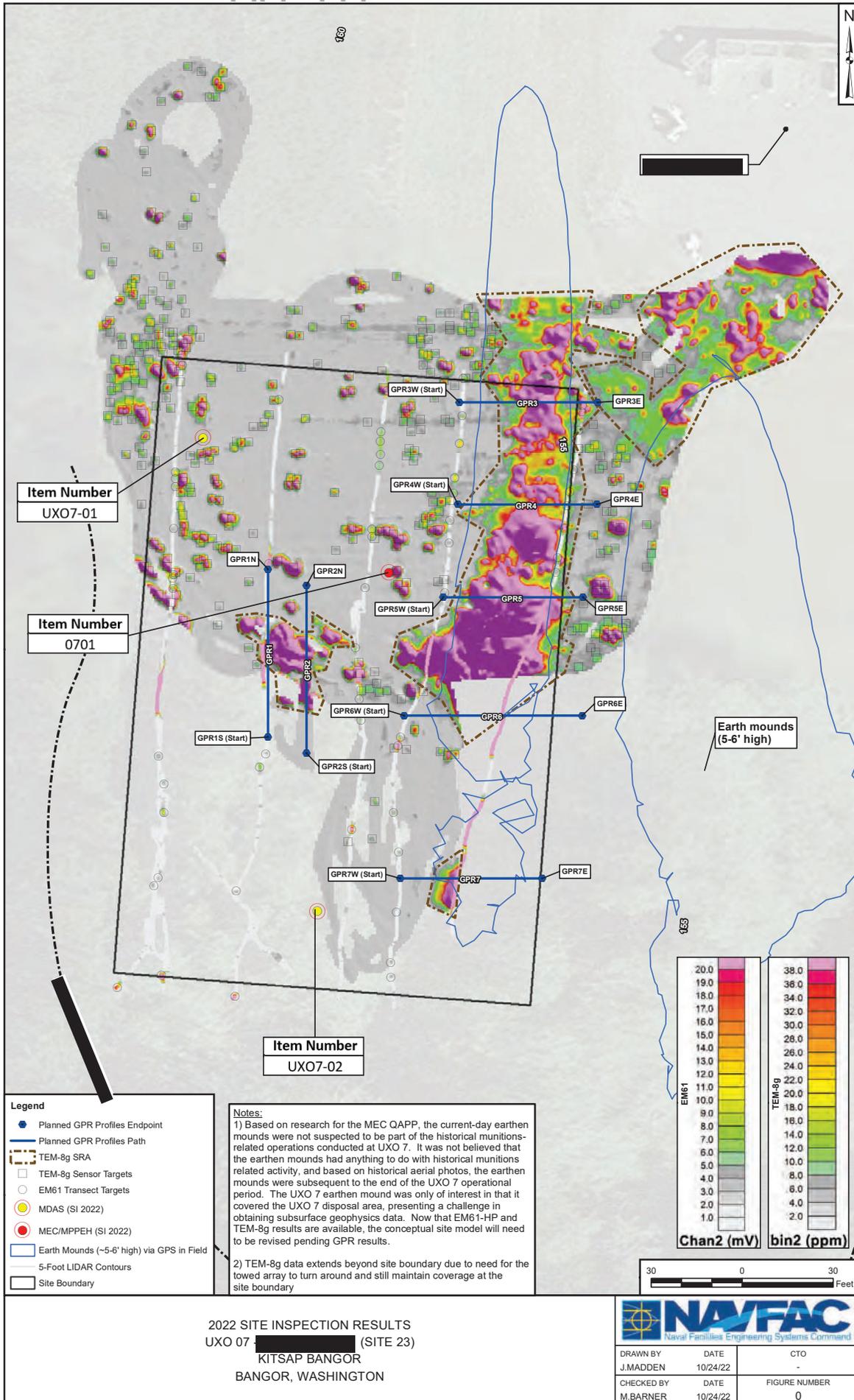


- Legend**
- Planned GPR Profiles Endpoint
 - Planned GPR Profiles Path
 - ▭ EM61 Full Coverage Grids
 - ▭ EM61 SRA
 - EM61 Targets
 - TEM-8g Sensor Targets
 - ▭ Area of interest as depicted on 1951 to 1977 aerials
 - ▭ Site Boundary



2022 SITE INSPECTION RESULTS
 UXO 04 [REDACTED] (SITE 9)
 KITSAP BANGOR
 BANGOR, WASHINGTON

		DRAWN BY J.MADDEN
CHECKED BY M.BARNER	DATE 10/24/22	FIGURE NUMBER 0



2022 SITE INSPECTION RESULTS
 UXO 07 (SITE 23)
 KITSAP BANGOR
 BANGOR, WASHINGTON

Naval Facilities Engineering Systems Command	
DRAWN BY	DATE
J.MADDEN	10/24/22
CHECKED BY	DATE
M.BARNER	10/24/22
CTO	FIGURE NUMBER
-	0



Legend

- Planned GPR Profiles Endpoint
- Planned GPR Profiles Path
- TEM-8g Sensor Targets
- TEM-8g SRA
- MDAS (SI 2022)
- MEC/MPPEH (SI 2022)
- ▭ Trash Pile
- ▭ Rebar Pit
- ▭ Approximate Location of Former Landfill
- ▭ Site Boundary

2022 SITE INSPECTION RESULTS
 UXO 17 [REDACTED]
 KITSAP BANGOR
 BANGOR, WASHINGTON

		DATE	CTO
		11/01/22	-
CHECKED BY	DATE	FIGURE NUMBER	
M.BARNER	11/01/22	0	



Legend

- Planned GPR Profiles Endpoint
- Planned GPR Profiles Path
- MDAS
- Investigation Areas
- Site Boundary



2022 SITE INVESTIGATION RESULTS
 UXO 17B [REDACTED]
 KITSAP BANGOR
 BANGOR, WASHINGTON

CTO	
DRAWN BY	DATE
J.MADDEN	11/07/22
CHECKED BY	DATE
M.BARNER	11/07/22
FIGURE NUMBER	

APPENDIX C – NCRS AND RCAS



Nonconformance Report (NCR)

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER # <u>N4425519F4112</u>	NCR # <u>001</u>	DATE: <u>08/08/2022</u>	
LOCATION: <u>Silverdale, WA</u>	CLIENT REP NOTIFIED:	<u>Melissa King US Navy, EODTECHDIV QA Geophysicist</u>	
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO# 3-16: Valid position data (Post-Processed GPS); ≥98% GPS HDOP <3.5; RCA/CA.			
2 Description of Nonconforming Item or Condition			
Data collected with the TEM-8g on 08/08/22 failed to meet the GPS HDOP requirement. Field crews documented that the base station used for post-processing fell over at some point during data collection.			
Signature:			
Prepared by: <u>Jessie Powers</u>	Title: <u>QC Geophysicist</u>	Date: <u>08/23/2022</u>	
3 Disposition Required by Responsible Organization			
<input type="checkbox"/> Use As-Is <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)?			
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4 Responsible Organization Corrective Action			
<p>Corrective Actions: Corrective actions will include securing the base station tripod legs with sandbags and surrounding the setup with caution tape if site operations by other contractors are known to be occurring in the area. In addition to these measures, a secondary base station will be mounted to the roof of the conex to minimize the chance of data loss if an unforeseen event causes the base station tripod to shift off the known control point. Should this backup base station need to be utilized, an OPUS correction will be performed at the mounted location to establish a reference point. These steps will only be taken as a backup measure in the event alternate steps are needed to minimize chance of data loss.</p> <p>Production data collected by the TEM-8g on 08/08/22, are unusable as a result of the base station falling down and will be recollected as part of the corrective action.</p>			
Organization: <u>Tetra Tech</u>	Signature:	Date: <u>9/13/2022</u>	
Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): <u>Project Geophysicist</u>			

5 Independent Evaluation of Corrective Action (PM, or Designee)			
<input checked="" type="checkbox"/> Accept			
<input type="checkbox"/> Accept with comments:			
<input type="checkbox"/> Reject			
<input type="checkbox"/> Reject with comments:			
Signature: Tt Project PM <i>Linda Klink</i>	Date: 9/13/2022		
6 Verification and Closure (PQM, UXOQCS, or Designee)			
Verification required:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Verified and closed by: <i>Janie L. Powers</i>	QC Geophysicist	9/14/2022	
Signature	Title	Date	

Acronym: PM-Project Manager, PQM-Project Quality Manager

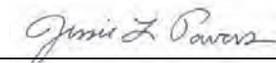
Additional Distribution To: File, Director of Quality or Designee, Project Manager

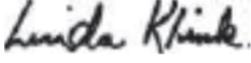
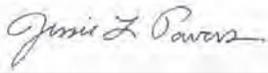
Nonconformance Root Cause Analysis Worksheet

Problem Statement/Nonconformance	
Data collected with the TEM-8g on 08/08/22 failed to meet the GPS HDOP requirement. Field crews documented that the base station used for post-processing fell over at some point during data collection.	
Investigation Results/Analyze Data	
<p>An unknown event caused the base station used for TEM-8g GPS post-processing to fall over at an undetermined point during the day on 08/08/22. The base station was originally set-up on control point CP-02 and fell to the ground approximately 2 meters from the setup location. While on the ground, the base station GPS maintained satellite coverage and continued to receive positional data, which introduced a positional shift in TEM-8g data collected during this time.</p> <p>The TEM-8g field team was collecting data outside the visual range of CP-02 and was unaware the base station had fallen over. The team continued to collect production data throughout the day and did not document the fallen base station until returning to the staging area for their end-of-day QC tests.</p> <p>Examination of the production datasets during data processing confirmed there was only one GPS file from 08/08/22 with an HDOP <3.5. However, there was no clear delineation in the GPS data correlating with a change in base station position to reliably identify the exact time the base station fell over. For these reasons, data were deemed unusable by the data processor.</p>	
Utilizing the “5 Why” method, identify the root cause.	
1. Why?	Why did TEM-8g positional data collected on 08/08 have a GPS HDOP >3.5? The GPS base station fell over during data collection. Despite continuing to receive positional data, an unwanted positioning shift was introduced during GPS post-processing. This shift is not visible to the TEM-8g operator in the GPS data stream for the TEM-8g, like would be a lack of incoming GPS data stream. This positioning shift resulted in HDOP values exceeding 3.5 for affected portions of the production data.
2. Why?	Why did the base station fall over? An unknown event (e.g., wind gust, wildlife, tampering by others, or work activities by other contractors in the staging area) caused the base station to fall over. The base station is located in an uncontrolled location that is not continuously monitored by Tetra Tech personnel.
3. Why?	Why was the base station erected in a location subject to these events? The base station was erected at known control point locations and cannot be erected in random places. Site controls are established in a way to minimize external impacts. No high winds were forecast for the subject workday. However, not every conceivable event can be predicted – especially if uncontrolled.
4. Why?	Why was the base station not better secured, knowing it would be unattended for an extended period of time? <u>Root cause:</u> additional preventative measures were not taken beyond normal site-setup procedures to account for the fact the base station would remain at an unsupervised location for an extended period of time. Due to the distributed nature of sites on Naval Base Kitsap, it is not feasible for Tetra Tech to periodically monitor the base station throughout the day without sacrificing production and safety oversight.



Nonconformance Report (NCR)

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER # <u>N4425519F4112</u>	NCR # <u>002</u>	DATE: <u>08/23/2022</u>	
LOCATION: <u>Silverdale, WA</u>	CLIENT REP NOTIFIED:	<u>Melissa King US Navy, EODTECHDIV QA Geophysicist</u>	
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO# 3-4: Ongoing instrument function test (EM61-MK2 HP); Response within 20% of initial response; RCA/CA.			
2 Description of Nonconforming Item or Condition			
The PM instrument function tests collected with the G2 EM61-HP sensor (s/n 1920) on 08/23/2022 failed to meet the response requirement.			
Signature: <u></u>			
Prepared by: <u>Jessie Powers</u>		Title: <u>QC Geophysicist</u>	Date: <u>09/12/2022</u>
3 Disposition Required by Responsible Organization			
<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
4 Responsible Organization Corrective Action			
Corrective Actions: Corrective actions will be to remove the G2 sensor from service and procure a replacement EM61-HP system from an approved vendor.			
Data Usability: The G2 system was used to collect transect data on 8/23/2022, at Site MR UXO3. No QC seeds are emplaced along transects for this project. The Tetra Tech team recommends retaining the transect data from UXO3 collected on 8/23/2022 for the following reasons:			
1. The static response profiles in Figure 1 demonstrate the system responds appropriately in terms of measured decay with increasingly later time gates.			
2. Responses to the IVS seeds were detected above the target picking threshold.			
3. The purpose of the DGM survey is to support a Site Inspection in assessing anomaly density and distribution to inform next steps for the sites.			
4. Existing evidence from Site UXO3 suggests the potential for significant amounts of metal buried in the subsurface, likely also resulting in the presence of SRAs in the DGM data.			
For these reasons, the subject failing static test is unlikely to have a material impact on the usability of the data collected on 8/23/2022, with the G2 sensors. However, out of abundance of caution and to facilitate continuing to acquire high quality DGM data to support the overall project objectives, the system was taken out of service.			
Organization: Tetra Tech	Signature: <u></u>		Date: 9/19/2022
Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): Project Geophysicist			

5 Independent Evaluation of Corrective Action (PM, or Designee)			
<input checked="" type="checkbox"/> Accept			
<input type="checkbox"/> Accept with comments:			
<input type="checkbox"/> Reject			
<input type="checkbox"/> Reject with comments:			
Signature: PM		Date: 09/20/22	
6 Verification and Closure (PQM, UXOQCS, or Designee)			
Verification required:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Verified and closed by:		QC Geophysicist	09/20/2022
	Signature	Title	Date

Acronym: PM-Project Manager, PQM-Project Quality Manager

Additional Distribution To: File, Director of Quality or Designee, Project Manager

Nonconformance Root Cause Analysis Worksheet
Problem Statement/Nonconformance

The PM instrument function tests collected with the G2 EM61-HP sensor (s/n 1920) on 08/23/2022 failed to meet the response requirement.

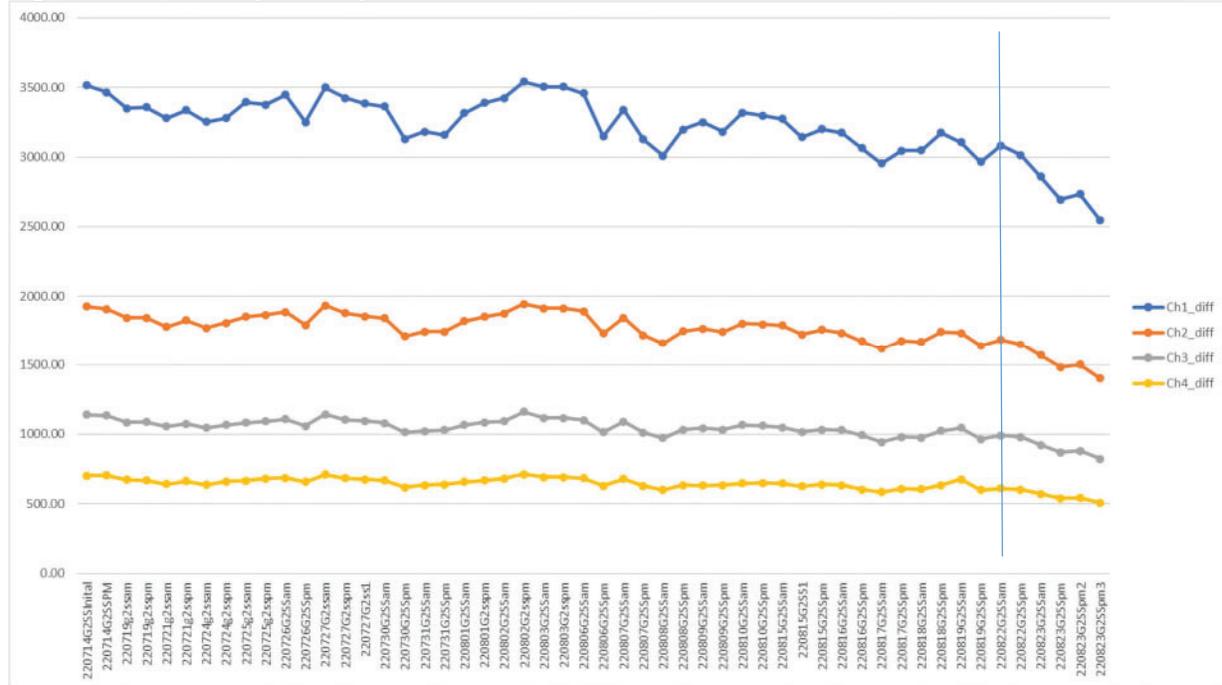
Investigation Results/Analyze Data

The failing PM instrument function test collected on 08/23/2022 was outside the $\pm 20\%$ range for all four EM61-MK2HP time channels. The failing responses were between 23-24% lower than the initial response.

As part of the troubleshooting process in the field, the field team used onsite spare components to systematically replace those system components, which could affect the response values. The location, orientation and height of the small ISO used as the test item relative to the coil center was also verified as correct and was consistent with previous tests. Field troubleshooting efforts also included two additional instrument function tests. The results of these tests yielded similar results, with responses between 22-27% lower than the initial response values. All static tests were performed at the same consistent location, so the effect does not appear to be associated with abnormal background responses or external noise sources. Inclement weather was not a factor on this day.

Review of prior test data depict static spike response values within approximately 14% of the initial response until around 8/22/2022, at which point the responses noticeably decreased (see figure below). The vertical line in the figure represents the first measurement recorded on 8/22/2022. This decrease is most evident in the Channel 1 response data. A review of the IVS data depicts a similar situation.

Figure 1. G2 Static Spike Response Values



Because additional tests conducted at the end of the day on 8/23/2022, as part of the field troubleshooting measures produced consistent results to the subject failing test, the decision was

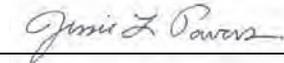
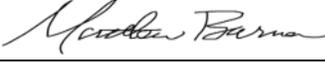
made by the Project Geophysicist to remove the failing EM61-MK2HP sensor (G2 system) from production and obtain a replacement sensor. The sensor removed from service will be sent back to the manufacturer for further diagnosis.

Utilizing the “5 Why” method, identify the root cause.

<p>1. Why?</p>	<p>Why were the responses for the G2 EM61-HP sensor outside the $\pm 20\%$ tolerance from established initial responses? <u>Root cause:</u> After attempts by the Tetra Tech field team to isolate and identify whether the problem was within a component that could be repaired or replaced with available spare parts onsite, it was determined the root cause is a hardware problem within an integral system component that cannot be resolved onsite.</p>
<p>2. Why?</p>	
<p>3. Why?</p>	
<p>4. Why?</p>	
<p>5. Why?</p>	



Nonconformance Report (NCR)

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER # <u>N4425519F4112</u>	NCR # <u>003</u>	DATE: <u>08/24/2022</u>	
LOCATION: <u>Silverdale, WA</u>	CLIENT REP NOTIFIED:	<u>Melissa King US Navy, EODTECHDIV QA Geophysicist</u>	
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO#3-7: Ongoing Detection Survey Positioning Precision (IVS); Derived IVS target positions ±10in of the running average positions; RCA/CA			
MQO#3-8: In-line measurement spacing; 98% ≤ 0.75ft between successive measurements; 100% ≤3.3ft; RCA/CA.			
MQO# 3-16: Valid position data (Post-Processed GPS); ≥98% GPS HDOP <3.5; RCA/CA.			
2 Description of Nonconforming Item or Condition			
The AM IVS collected with the TEM-8g on 08/24/22 did not contain positional data from the port GPS receiver.			
Signature: <u></u>			
Prepared by: <u>Jessie Powers</u>		Title: <u>QC Geophysicist</u>	Date: <u>08/31/2022</u>
3 Disposition Required by Responsible Organization			
<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)?			
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4 Responsible Organization Corrective Action			
Corrective Actions: The corrective action will include the TEM-8g operators reviewing this NCR and emailing an acknowledgement of reading and understanding its content and root cause of the nonconformance.			
Additionally, the corrective action will include updating DGM SOP 08 and SOP 09 to clarify the required power cycle sequence for the GPS receivers and data card during setup and initialization. Although the power cycle glitch and required sequencing was communicated during site-specific training, having this requirement clarified in the SOPs will help minimize potential future errors. These SOP updates will be considered minor QAPP changes, documented in the weekly Geophysical QC Report and confirmed during a PDT meeting as constituting minor QAPP changes. In the event the project team concludes otherwise, this NCR will be revised and resubmitted.			
Organization: Tetra Tech	Signature: <u></u>		Date: 9/13/2022
Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): Project Geophysicist			

5 Independent Evaluation of Corrective Action (PM, or Designee)			
<input checked="" type="checkbox"/> Accept <input type="checkbox"/> Accept with comments: <input type="checkbox"/> Reject <input type="checkbox"/> Reject with comments:			
Signature: Tt Project PM		Date: 9/13/2022	
6 Verification and Closure (PQM, UXOQCS, or Designee)			
Verification required:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Verified and closed by:		QC Geophysicist	9/14/2022
	Signature	Title	Date

Acronym: PM-Project Manager, PQM-Project Quality Manager

Additional Distribution To: File, Director of Quality or Designee, Project Manager

Nonconformance Root Cause Analysis Worksheet
Problem Statement/Nonconformance

The AM IVS collected with the TEM-8g on 08/24/22 did not contain positional data from the port GPS receiver.

Investigation Results/Analyze Data

During the raw data upload for 08/24/22, the Site Geophysicist noted there was a navigational file from the port GPS that was not written to the data card. The navigation files are incrementally numbered based on the Julian date of the GPS clock for both the port and starboard GPS receivers (Figure 1). The missing navigational file for the port GPS receiver corresponds to the 08/24/22 AM IVS. In Figure 1, there should be an equal number of data files in the top display window as the bottom display window.

Figure 1: Raw port (p0001) and starboard (s0003) GPS receiver files for 08/24 (Julian dates 236/237)

 p00012370.pdc	8/25/2022 2:04 AM	PDC File
 p00012362.pdc	8/25/2022 12:39 AM	PDC File
 p00012361.pdc	8/24/2022 9:16 PM	PDC File
 p00012360.pdc	8/24/2022 7:10 PM	PDC File
 s00032370.pdc	8/25/2022 2:04 AM	PDC File
 s00032363.pdc	8/25/2022 12:39 AM	PDC File
 s00032362.pdc	8/24/2022 9:16 PM	PDC File
 s00032361.pdc	8/24/2022 7:10 PM	PDC File
 s00032360.pdc	8/24/2022 6:09 PM	PDC File

The data logging program will not display “Logging” if the antenna is not physically connected. In addition, the program would not log data if the port GPS receiver was powered off. Therefore, the problem does not appear to be associated with the port GPS being inadvertently physically disconnected.

According to the manufacturer, there is a known data writing glitch that can occur if the GPS receiver is powered on before the data card has been inserted. If this happens, the data logging software will still display “Logging” to the operator, but the GPS receiver will not write to the data card until the receiver has been power-cycled in the correct sequence. In this case, the issue is not identified until reviewing the stored data files like shown in Figure 1.

Review of remaining TEM-8g data on the subject date confirmed there were no missing port GPS data for any production datasets or PM QC tests on 08/24/22. Data collected by the TEM-8g on 08/24/22 have been validated by passing AM/PM static spike tests (sensor response) and passing PM IVS test (sensor positioning precision). Additionally, data processors were able to position TEM-8g AM IVS data on 08/24/22 using the starboard GPS receiver, rather than the port GPS receiver, to further validate system functionality. Therefore, there is no impact to data usability. No subsequent similar repeat occurrences have happened as of the date of this NCR submittal.

Utilizing the “5 Why” method, identify the root cause.

1. Why?	<p>Why did TEM-8g AM IVS collected on 08/024 have no positional data from the port GPS receiver? The port GPS receiver was powered on and connected to the system but did not write to the data storage card during collection of the AM IVS.</p>
2. Why?	<p>Why did the port GPS receiver not write to the data card? The GPS receiver was powered on before the data card was inserted. This prevented the data from writing to the file storage card. This issue was remedied once the port GPS receiver was properly power cycled.</p>
3. Why?	<p>Why did the TEM-8g operators not notice the port GPS receiver wasn't writing data? The data logging program does not give an error message if there is a write error; it only does so if the GPS receiver is not powered on or if the antenna isn't properly connected.</p>
4. Why?	<p>Why didn't the TEM-8g operators correctly sequence insertion of the data card and cycling the port GPS power? <u>Root cause:</u> The incorrect power cycle was human error on that morning's setup prior to IVS collection. Following collection of the AM IVS, the port GPS receiver was turned off for transit of the TEM-8g system from the IVS to the production area. The correct power cycle sequence was initiated prior to the start of production surveying and for the rest of the subject workday.</p>

Barner, Matt

From: Weston, Zachary
Sent: Tuesday, September 13, 2022 5:39 PM
To: Barner, Matt; Emm, Nick
Cc: Powers, Jessie; Yarborough, Brett
Subject: Re: NBK NCR 3 (TEM-8g port GPS initialization)

I acknowledge I have read and understand "NBK_NCR-RCA-003"

-Zach

From: Barner, Matt <Matt.Barner@tetrattech.com>
Sent: Tuesday, September 13, 2022 12:11 PM
To: Weston, Zachary <Zachary.Weston@tetrattech.com>; Emm, Nick <Nick.Emm@tetrattech.com>
Cc: Powers, Jessie <Jessie.Powers@tetrattech.com>; Yarborough, Brett <Brett.Yarborough@tetrattech.com>
Subject: NBK NCR 3 (TEM-8g port GPS initialization)

Zach and Nick,

Please see the attached draft NCR we prepared for the lack of positioning data in the TEM-8g AM IVS on 8/24/22. This was the result of the port GPS data card initialization issue.

I know this detail has already been discussed, but as part of the corrective action documentation, I'd like for you both to read this attachment and email back with acknowledgement you have read and understand it. If there are any questions, please reach out. I plan to print each email to PDF and include them with the NCR, so nothing else is needed in terms of the reply.

Regards,
Matt

Matthew Barner, PG | Senior Geophysicist
Home Office/Direct +1 (980) 257-6800
matt.barner@tetrattech.com

Tetra Tech, Inc.
Administrative Office: 1320 N. Courthouse Road, Suite 600 | Arlington, VA 22201
Home Office Location: Charlotte, NC
www.tetrattech.com

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Barner, Matt

From: Emm, Nick
Sent: Tuesday, September 13, 2022 11:47 PM
To: Weston, Zachary; Barner, Matt
Cc: Powers, Jessie; Yarborough, Brett
Subject: RE: NBK NCR 3 (TEM-8g port GPS initialization)

I acknowledge I have read and understand "NBK_NCR-RCA-003"

Nick

Nicholas J. Emm | Geophysicist
Mobile (443) 567-1837 | nick.emm@tetrattech.com
Tetra Tech | *Leading with Science*[®] | Tetra Tech Munitions Response

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From: Weston, Zachary <Zachary.Weston@tetrattech.com>
Sent: Tuesday, September 13, 2022 5:39 PM
To: Barner, Matt <Matt.Barner@tetrattech.com>; Emm, Nick <Nick.Emm@tetrattech.com>
Cc: Powers, Jessie <Jessie.Powers@tetrattech.com>; Yarborough, Brett <Brett.Yarborough@tetrattech.com>
Subject: Re: NBK NCR 3 (TEM-8g port GPS initialization)

I acknowledge I have read and understand "NBK_NCR-RCA-003"

-Zach

From: Barner, Matt <Matt.Barner@tetrattech.com>
Sent: Tuesday, September 13, 2022 12:11 PM
To: Weston, Zachary <Zachary.Weston@tetrattech.com>; Emm, Nick <Nick.Emm@tetrattech.com>
Cc: Powers, Jessie <Jessie.Powers@tetrattech.com>; Yarborough, Brett <Brett.Yarborough@tetrattech.com>
Subject: NBK NCR 3 (TEM-8g port GPS initialization)

Zach and Nick,

Please see the attached draft NCR we prepared for the lack of positioning data in the TEM-8g AM IVS on 8/24/22. This was the result of the port GPS data card initialization issue.

I know this detail has already been discussed, but as part of the corrective action documentation, I'd like for you both to read this attachment and email back with acknowledgement you have read and understand it. If there are any questions, please reach out. I plan to print each email to PDF and include them with the NCR, so nothing else is needed in terms of the reply.

Regards,
Matt

Matthew Barner, PG | Senior Geophysicist
Home Office/Direct +1 **(980) 257-6800**
matt.barner@tetrattech.com

Tetra Tech, Inc.

Administrative Office: 1320 N. Courthouse Road, Suite 600 | Arlington, VA 22201

Home Office Location: Charlotte, NC

www.tetrattech.com

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Naval Facilities Engineering Command Northwest Silverdale, Washington

Draft
DGM SOP8 for TEM-8g Assembly for the Munitions and
Explosives of Concern Site Inspection at Naval Base Kitsap
Bangor

Multiple Sites

Naval Base Kitsap Bangor
Silverdale, Washington

February 2020



Procedure: DGM SOP8 – TEM-8g Assembly		
Procedure Owner: Geophysical Technical Manager	Effective Date: 2/7/2020	Page 2 of 12
Reference Corporate Procedure UXO-07	Tetra Tech TMR	Revision: 0

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Procedure: DGM SOP8 – TEM-8g Assembly		
Procedure Owner: Geophysical Technical Manager	Effective Date: 2/7/2020	Page 4 of 12
Reference Corporate Procedure UXO-07	Tetra Tech TMR	Revision: 0

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Procedure: DGM SOP8 – TEM-8g Assembly		
Procedure Owner: Geophysical Technical Manager	Effective Date: 2/7/2020	Page 5 of 12
Reference Corporate Procedure UXO-07	Tetra Tech TMR	Revision: 0

1.0 PURPOSE AND SCOPE

The purpose of this Standard Operating Procedure (SOP) is to provide procedures and technical guidance for assembling the ground time domain electromagnetic (TEM) detection system (TEM-8g) for dynamic data collection, and verify that all components are correctly assembled, operating normally, and capable of acquiring data of sufficient quality.

2.0 PERSONNEL, EQUIPMENT, AND MATERIALS

This section describes the personnel, equipment, and materials required to implement this SOP.

2.1 PERSONNEL

The following individuals may be involved in the assembly and verification of the TEM-8g:

- Project Geophysicist
- Site Geophysicist
- Field Technician
- Unexploded Ordnance (UXO) Personnel
- Quality Control (QC) Geophysicist

2.2 EQUIPMENT

- TEM-8g cart and coil
- Sensor system console coupled with twin global positioning systems (GPS) and navigational display
- Tow vehicle (ATV)
- A schedule 80 small industry standard object (ISO)80 for sensor function testing
- GPS base station unit

The function test item may be any metallic object that can be repeatedly placed within range of the receivers to provide a strong but not saturating instrument response. Typically, this is a 3-inch hex bolt that is kept with the system. The Site Geophysicist will be responsible for ensuring that the correct test item is used for sensor function tests and that the test item is maintained in a manner to avoid physical damage or corrosion.

2.3 TEM-8G OVERVIEW

The TEM-8g is a towed time-domain electromagnetic system designed to detect shallow ferrous and non-ferrous metallic objects as small as 20mm projectiles at depths of up to 40cm below ground (Figure 1). This system is a time-domain electromagnetic (TEM) induction array mounted on towed ground platform. When data are collected in orthogonal directions, inversion for polarizability parameters is possible which allows for basic classification of the results by ordnance type.

The configuration of this system consists of a large 2.5m x 0.75m z-axis transmitter with eight z-axis receivers arranged at 0.22m spacing along the axis of the transmitter. This creates a 1.75m swath width. Lines paths are spaced 1.5m apart to eliminate gaps in coverage. Survey speeds of approximately 2m/s with a 30Hz sample rate

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result in down-line data sampling at 0.05m. Sensor height above the ground is variable and will be set the minimum possible according to local conditions.

The orientation system is based on a pair of dual-phase GPS antennae. This process measures platform orientation (roll and yaw) for sensor position calculations. A local GPS base station is established at a local civil survey monument to collect differential data used for post-processing and data positioning. Nominal positioning accuracy for the GPS antenna is 2cm with this process.

A real-time satellite differential GPS signal is used for navigation with positioning accuracy of +/- 0.2m. The navigation equipment provides the geophysical system operator with a virtual grid that shows, in real time, each pass and its relationship to previous passes (i.e. whether the passes overlap, etc.). Using this on-board technology, the geophysical system operator will ensure that the lane spacing and gaps between lines are maintained within specifications.

All navigation, positioning, signal processing, and data management and recording will be provided by an operating console and acquisition system that is located inside the tow vehicle as shown in Figure 2. All TEM-8g survey data are assembled in Geosoft geophysical data processing software during field operations to show exactly which areas have been surveyed and where any survey gaps exist. The coordinates for any gaps in the data will be noted and the helicopter will collect fill-in data as needed to complete the survey of the site.



Figure 1. Photograph of TEM-8g ground TEM system.

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Figure 2. Photograph of the instrument rack.

3.0 PROCEDURES AND GUIDELINES

Anomaly avoidance procedures will be carried out during this procedure if a MEC hazard exists at the site.

3.1 EQUIPMENT SET-UP

Assemble the TEM-8g sensor cart, electronics box, and positioning system according to the instructions in the manufacturer's assembly manual (Airborne TEM-8 Assembly Manual Section 8 only). These instructions should be followed precisely, however, the order of operations may be modified to facilitate efficient assembly.

1. Assemble the cart
2. Place TEM coil in cart
3. Attach the two DGPS receivers on the cart
4. Attach and connect the cart to the tow vehicle via the tow bar
5. Connect the power, transmitter, receiver, GPS, and supplementary cables to the console (inside the tow vehicle), securing the cables for the survey
6. Establish a GPS base station over a known civil survey monument or at a temporary location
7. Conduct daily pre-survey inspections of all equipment for drivability by operator and geophysicist

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3.2 INITIALIZE DATA ACQUISITION COMPUTER

After assembly, system operations will be in accordance with the manufacturer’s operator’s manual. Verify polarity of direct current (DC) power supply by confirming green operating light on front of data console. Allow sensors to warm up. Insert Compact Flash card into the GPS base station and rover units and turn on to begin data collection for at least ~~2 hours~~ 10 minutes. Flash cards must be inserted prior to turn on to avoid data recording errors.

3.3 PERFORM INITIAL SENSOR TESTS

Conduct an initial sensor connectivity test to confirm that the receivers are connected in the correct order. Using a metal object, such as a small ISO or random hand tool, pass this object over each of the receivers in sequence from port to starboard and visually verify that there is a response on the appropriate data channel. This test will be recorded for confirmation by the onsite Geophysicist but is not filed in the project database.

Conduct an initial lag test to determine the appropriate time lag to be applied to the collected data. Using the remote impulse coil connected to the console and positioned over the nearest receiver, induce at least three pulses from the control keyboard. This test will be recorded and filed into the project database by the processing Geophysicist.

Conduct an initial sensor function test to establish the baseline response amplitude for subsequent daily QC tests. Record 60 seconds of background data, followed by 60 seconds with a small ISO placed vertically over each of the permanent marks on the surface of the array (directly over the center of each coil), followed by 60 seconds of background data. This test will be conducted at least three times to find an average response for each receiver. This test will be recorded and filed in the project database by the processing Geophysicist.

3.4 EQUIPMENT OPERATIONS

Whether the DGM survey area is established as grids or transect lines, the TEM-8g is operated at survey speeds of approximately 2m/s with a 30Hz sample rate, resulting in down-line data sampling at 0.05m. The operator will collect data in files no more than 20 minutes long. Individual survey lines may be marked by fiducial increments in the data stream. Records of file names, fid numbers, line numbers and operator notations will be made manually on the flight report form or in the logbook.

3.5 NAVIGATION SYSTEMS

RTK GPS for navigation purposes is provided by OmniStar satellite service input to a Trimble display and control console. These will be installed in accordance with the manufacturer’s operating manual. Once initiated, full RTK status will be indicated by the status lights on the front of the console. This status will be monitored throughout the survey. If the RTK link is lost, the operator will stop and troubleshoot before continuing.

Survey boundaries may be entered digitally in advance or by driving a perimeter line in accordance with the Trimble operator’s manual. The operator will endeavor to record swath coverage only while the TEM-8g is recording data in order to maximize the correlation between the visual display of coverage and the actual data collected. The operator will save each day’s coverage display for continuation on successive days.

3.6 VERIFY DATA RECORDING

The TEM-8g data are stored on the TEM-8g console. At the end of the survey day the data are then downloaded onto a thumb drive transferred to a computer for processing in Geosoft Oasis Montaj software. GPS positional data are stored on compact flash drives in the rover and base station GPS. These data are downloaded onto a computer at the end of the day and processed in NovAtel Waypoint software. These post-processed DGPS data are then

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merged with the TEM data within Geosoft. All raw data will be uploaded to the project server or Sharepoint site on a daily basis. Data recording will be verified by processing a complete dataset.

4.0 DATA MANAGEMENT

The following sections describe the data that is needed to perform this SOP and the resulting data.

4.1 INPUT DATA REQUIRED

The data inputs required for TEM-8g data collection are:

- TEM-8g Assembly Manual;
- Daily IVS Checklist;
- List of potential civil survey monuments.

4.2 OUTPUT DATA

The system installation will be inspected by the site geophysicist.

The initial sensor connectivity, lag, and function tests must be recorded and filed in the project database as required. The GPS base station data will be collected and submitted for Online Positioning User Service (OPUS) solution to compare against the published location.

Output Data include:

- Raw and processed EM data for instrument gain verification (spike test);
- Raw and processed EM and GPS data for the IVS, or DGM datasets; and
- Logbook reports of any analog results.

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5.0 QUALITY CONTROL

QC for this SOP will be achieved through completion of the QC Checklist for TEM-8g Assembly. This checklist will be filled out and signed by the Project or Site Geophysicist and the QC Geophysicist upon completion of the TEM-8g assembly.

5.1 MEASUREMENT QUALITY OBJECTIVES (MQOS)

The MQOs for TEM-8g assembly are presented in Worksheet #22 of the QAPP. Results will be documented in the project database.

5.2 REPORTING

The EM61 assembly will be documented as part of the IVS Technical Memorandum. This will include information on the following:

- A brief description of the assembly and test process, along with any pertinent photograph(s)
- The initial sensor connectivity test data
- The initial lag test data
- The initial sensor function test data
- The initial GPS base station data
- Completed QC Checklist
- Out of box checklist

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5.3 QC CHECKLIST FOR TEM-8G

TEAM INFORMATION						
Team:		Location:			Date:	
Team Leader:						
Personnel Present:						
Contract #:						
Task Order #:						
QC CHECKLIST POINTS						
Item	Ref.	Inspection Points	Yes	No	N/A	Comments
1	DGM SOP8	Have personnel read and signed the workers' statement?				
2	DGM SOP8	Was the instrument assembled correctly?				
3	DGM SOP8	Was the positioning system assembled and integrated with the sensor in accordance with the published instructions?				
4	DGM SOP8	Did the Site Geophysicist ensure that the function test item is adequate for the project?				
5	DGM SOP8, WS#22	Have the appropriate MQOs been achieved?				
6	DGM SOP8	Were digital/manual records taken and backed up?				
FINDINGS						
Item	Comments					

Signatures:

Project or Site Geophysicist:		Date:	
QC Geophysicist: (indicating form reviewed):		Date:	

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5.4 CHECKLIST FOR OUT OF BOX EQUIPMENT TESTS

Project Name: _____

Project Location: _____

Contractor Point of Contact: _____

Equipment Source: _____

Equipment Serial Numbers: _____

Reviewer's Name and Title: _____

Date of Review: _____

	Y	N	N/A
1. Has the equipment been inventoried and inspected for damage or wear? Please fill out check sheets accompanying the equipment and send them back to the warehouse.	_____	_____	_____
2. When the cable shake test was performed were there spikes in the data? (Replace any faulty components if necessary, and repeat)	_____	_____	_____
3. When the instrument was nulled did it exhibit unacceptable drift?	_____	_____	_____
4. Did the system produce the expected response during the static/spike test?	_____	_____	_____
5. Did the system produce the expected response over the IVS?	_____	_____	_____



Naval Facilities Engineering Command Northwest Silverdale, Washington

Draft

DGM SOP9 for TEM-8g Data Collection for the Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor

Multiple Sites

Naval Base Kitsap Bangor
Silverdale, Washington

Februry 2020



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1.0 PURPOSE AND SCOPE

The purpose of this Standard Operating Procedure (SOP) is to provide procedures and technical guidance for performing collection of dynamic survey data using domain electromagnetic (TEM) detection system (TEM-8g).

2.0 PERSONNEL, EQUIPMENT, AND MATERIALS

This section describes the personnel, equipment, and materials required to implement this SOP.

2.1 PERSONNEL

The following individuals may be involved in the assembly and verification of the TEM-8g:

- Project Geophysicist
- Site Geophysicist
- Field Technician
- Unexploded Ordnance (UXO) Personnel
- Quality Control (QC) Geophysicist

2.2 EQUIPMENT

- TEM-8g cart and coil
- Sensor system console coupled with twin global positioning systems (GPS) and navigational display
- Tow vehicle (ATV)
- A schedule 80 small industry standard object (ISO)80 for sensor function testing
- GPS base station unit

The function test item may be any metallic object that can be repeatedly placed within range of the receivers to provide a strong but not saturating instrument response. Typically, this is a 3-inch hex bolt that is kept with the system. The Site Geophysicist will be responsible for ensuring that the correct test item is used for sensor function tests and that the test item is maintained in a manner to avoid physical damage or corrosion.

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3.0 PROCEDURES AND GUIDELINES

Anomaly avoidance procedures will be carried out during this procedure if a MEC hazard exists at the site.

3.1 EQUIPMENT SET-UP

Detailed work instructions for equipment setup and operation are found in DGM SOP8 – TEM-8g Assembly. After setup, the field team will proceed with the geophysical survey, without disassembly. DGM teams should ensure they are not operating within 200ft of another DGM team at any time. Daily survey procedures for the TEM-8g survey include:

- Verify polarity of direct current (DC) power supply by confirming green operating light on front of data console. Allow sensors to warm up.
- Insert Compact Flash card into the GPS base station and rover units and turn on to begin data collection for at least ~~2 hours~~ 10 minutes. Flash cards must be inserted prior to turn on to avoid data recording errors.
- Perform morning Static-Spike and IVS QC tests. Transfer IVS data for morning evaluation and mobilize to production area if onsite processor is available
- Input and record file name for survey
- Complete a Survey Area Report Form (SARF) for each area to be mapped (Attachment 1).
- Monitor sensor response and GPS periodically.
- Monitor gas levels in tow vehicle
- Ensure sensor overlap on adjacent transects meets the project required line-spacing
- Continue until area is completely covered, or a break is required.
- Perform afternoon Static-Spike and IVS QC tests (Attachment 1).
- Following these tests, perform end-of-day tasks, including:
 - Download survey data with instrument checks.
 - Secure the TEM-8g, tow vehicle, and GPS equipment.
 - Charge all batteries overnight.
 - The logbook pages are photocopied/photographed and transferred to the Project Geophysicist.
 - The data files are submitted to the Project Geophysicist.
 - The completed survey areas are recorded in the tracking log and/or reported to the Project Geophysicist.
 - The logbook pages are accessible for verification by the field quality control (QC) staff that may inspect them weekly.
 - Plan next day's activities.

3.2 DATA ACQUISITION

Whether the DGM survey area is established as grids or transect lines, the TEM-8g is operated at survey speeds of approximately 2m/s with a 30Hz sample rate, resulting in down-line data sampling at 0.05m. The operator will collect data in files no more than 20 minutes long. Individual survey lines may be marked by fiducial increments

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in the data stream. Records of file names, fid numbers, line numbers and operator notations will be made manually on the flight report form or in the logbook.

3.3 COVERAGE AND OBSTACLES

Coverage should be obtained at the line-spacing specified in the QAPP. Obstacles encountered during the geophysical survey will be determined and documented in the field. Coordinates will be obtained, for each obstacle, by collecting a DGM track around or along the obstacle. The DGM team will be responsible for determining whether an area is considered inaccessible due to site conditions. The DGM forms, provided as, provide examples of such conditions and may be used in the field by the survey team to assist in documenting deviations. The following steps are recommended to perform obstacle documentation:

- TEM-8g field team will be responsible for completion of the required forms logbook entry, and photo documentation (if necessary).
- Obstacles will be tied to DGPS coordinates and the obstacle will be documented on the SARF.

3.4 FIELD RECORDS

The field records collected include the TEM-8g data, Raw and GPS data, digital photographs, forms and logbooks. All records will be managed in accordance with Tetra Tech Procedures. At the end of each workday, the scanned or digital logbooks, forms and with copies of the daily QC and Production data files will be saved to the project server and/or SharePoint site. The Project Geophysicist Data Processor will review each deliverable for completeness and notify the field staff that the day's data delivery requirements, for each DGM team, have been met. If there are deficiencies in the daily DGM data deliverables, the field team will be notified for follow-up and correction.

3.4.1 Data Storage and Preliminary Processing

TEM-8g data are temporarily stored in the TEM-8g console computer and then downloaded to a laptop computer, thumb drive, or hard drive. GPS data is temporarily stored on the rover and base station cards and then are transferred to the laptop computer at the end of each survey data.

3.4.2 Photographs

Digital photographs will be taken if deemed necessary by the Site Geophysicist, Project Geophysicist, or Data Processor to document site conditions and/or obstructions during geophysical surveying. Each team will maintain a photo log in their field logbook. The date, time, and subject of each photograph will be recorded at the time the photograph is taken. The digital images and copies of the logbooks will be uploaded with the raw data on a daily basis.

3.4.3 Logbooks

One member of the team will be responsible for maintaining the logbook in accordance with Tetra Tech procedures. Ensure the following information is recorded in the logbook and/or on the SARF:

- Survey area ID
- Time survey started
- Time survey completed
- Names of team members
- Weather conditions

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- File names for the digitally recorded data. Each page of the logbook will be dated, sequentially numbered, and identified by the logbook number; all entries will be signed

In addition, the DGM team will document all aspects of their activities using the following checklists:

- Checklist for Daily IVS Checks (Attachment 1)
- Survey Area Report Form (Attachment 2)
- QC Checklist

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4.0 DATA MANAGEMENT

The following sections describe the data that is needed to perform this SOP and the resulting data.

4.1 INPUT DATA REQUIRED

The data inputs required for TEM-8g data collection are:

- TEM-8g Operators Manual;
- Daily IVS Checklist;
- Survey Area Report Form;
- Coordinates of the DGM areas to be surveyed.

4.2 RAW DATA FOR PROCESSING

The outputs of the TEM-8g data collection are:

- Raw data files (TEM-8g data as well as GPS data)
- Digitized DGM LogBooks (*.pdf)
- Digitized DGM Survey Area Report Forms (*.pdf)
- Survey area pictures (*.jpg or equivalent)
- Digitized Checklists (*.pdf or equivalent)

5.0 QUALITY CONTROL

QC for this SOP will be achieved through completion of the QC Checklist for TEM-8g Collection. This checklist will be filled out and signed by the Project or Site Geophysicist and the QC Geophysicist upon completion of the EM61 data collection for each deliverable package (e.g. weekly deliverable of grids).

5.1 MEASUREMENT QUALITY OBJECTIVES (MQOS)

The MQOs for data collection are presented in Worksheet #22 of the QAPP. Results will be documented in the project database.

5.2 REPORTING

The TEM-8g data collection will be documented in logbooks and daily production reports. This will include information on the following:

- Daily IVS Checklist;
- Areas surveyed;
- Survey Area Report Form;
- Field notes and issues.

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5.3 QC CHECKLIST FOR TEM-8G

TEAM INFORMATION						
Team:		Location:			Date:	
Team Leader:						
Personnel Present:						
Contract #:						
Task Order #:						
QC CHECKLIST POINTS						
Item	Ref.	Inspection Points	Yes	No	N/A	Comments
1	DGM SOP9	Have personnel read and signed the workers' statement?				
2	DGM SOP9	Was the GPS base set up on a known survey control point?				
3	DGM SOP9, WS#22	Were morning and afternoon IVS/Spike tests completed and within specified tolerances?				
4	DGM SOP9, WS#22	Were survey line spacings based on QAPP specifications?				
5	DGM SOP9	Were appropriate forms used to document DGM activities?				
6	DGM SOP9	Were any photographs appropriately documented and logged?				
7	DGM SOP9	Were the data and corresponding documentation uploaded to the project server or SharePoint?				
FINDINGS						
Item	Comments					

Signatures:

Project or Site Geophysicist:		Date:	
QC Geophysicist: (indicating form reviewed):		Date:	

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ATTACHMENT 1.
Survey Area Report Form (SARF)

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Survey Area Report Form

Project Name: _____

Survey Area ID: _____ Date: _____ Field Team Lead: _____

Survey Type: Grid Meandering Path Transect Other _____

Coordinate System: UTM State Plane NAD _____ Local Other _____ Unit of Measure:

meters feet

Sketch of Survey Area:

Approx. Scale: _____

North Arrow:

Terrain:

- Level Moderate Slope Steep
- Rolling Ruts Gullies
- Rocky Swampy Dangerous

Tree Cover:

- None Light Medium Thick

Brush:

- None Light Medium Thick

Weather:

- Sunny Cloudy Drizzle
- Rain Thunderstorms Hail
- Fog Humid Snow

Grid Corner Coordinates:

End

UTM/State Plane/Local

SW _____, _____
 NW _____, _____
 NE _____, _____

Battery Voltage: _____

Time: _____

Personnel Metal Check? _____

Battery: _____

Sensor Height: _____

Raw Data File Name: _____

Start

Geophysical Instrumentation: _____ Serial Number: _____

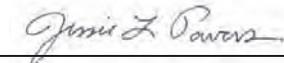
Base Station: _____ Serial Number: _____

Navigation Method: _____ Serial Number: _____

Additional Comments:



Nonconformance Report (NCR)

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER # <u>N4425519F4112</u>	NCR # <u>004</u>	DATE: <u>09/12/2022</u>	
LOCATION: <u>Silverdale, WA</u>	CLIENT REP NOTIFIED:	<u>Melissa King US Navy, EODTECHDIV QA Geophysicist</u>	
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO# 3-7: Ongoing detection survey positioning precision (IVS); derived positions of IVS targets within ±10 inches of the running average positions; RCA/CA.			
MQO#3-9: Transect coverage; verified for each DGM transect collected with RTK GPS or RTS; RCA/CA when no adequate explanation provided for deviation; collect missing transects or transect segments.			
2 Description of Nonconforming Item or Condition			
Data collected with the EM61-MK2HP (G3 system ID) on 09/06/2022, contained no positioning data in the raw files. This error includes the daily QC tests, daily IVS surveys and transect data collected on this date.			
Signature: <u></u>			
Prepared by: <u>Jessie Powers</u>	Title: <u>QC Geophysicist</u>	Date: <u>09/12/2022</u>	
3 Disposition Required by Responsible Organization			
<input type="checkbox"/> Use As-Is <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)?			
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4 Responsible Organization Corrective Action			
Data Usability: Based on the lack of positioning data in the converted data files, data collected on 09/06/2022 are deemed unusable.			
Corrective Action: Data collected on 09/06/2022 are deemed unusable and will be re-collected. The data bits setting was immediately changed back to 8 upon discovery of the error. By having to re-collect data, the field team has been reminded of the need to not let complacency take root in routine tasks.			
Organization: Tetra Tech	Signature: <u></u>		Date: 9/26/2022
Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): Project Geophysicist			

5 Independent Evaluation of Corrective Action (PM, or Designee)			
<input checked="" type="checkbox"/> Accept <input type="checkbox"/> Accept with comments: <input type="checkbox"/> Reject <input type="checkbox"/> Reject with comments:			
Signature: PM <u><i>Linda Klink</i></u>			Date: 09/26/2022
6 Verification and Closure (PQM, UXOQCS, or Designee)			
Verification required:		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Verified and closed by: <u><i>Jessie L. Powers</i></u>		<u>QC Geophysicist</u>	<u>09/26/2022</u>
Signature		Title	Date

Acronym: PM-Project Manager, PQM-Project Quality Manager

Additional Distribution To: File, Director of Quality or Designee, Project Manager

Nonconformance Root Cause Analysis Worksheet
Problem Statement/Nonconformance

Data collected with the EM61-MK2HP (G3 system ID) on 09/06/2022, contained no positioning data in the raw files. This error includes the daily QC tests, daily IVS surveys and transect data collected on this date.

Investigation Results/Analyze Data

The raw data files collected on 09/06/2022, did not contain any positioning data, unbeknownst to the field team until the end of the day during data download and review of files.

The G3 system had recently arrived onsite (arrived 08/31/2022) to replace the G2 system, which was taken out of service (see NCR 002). Initial system function checks and testing were performed on 09/02/2022.

In discussions with the field team, it was determined that the lack of positioning data via the output NMEA string from the positioning system was due to a setting error in the SET GPS PORT submenu of the DAT61 data collection software on the Allegro field PC. The number of data bits was incorrectly set to 7 instead of the required 8 bits.

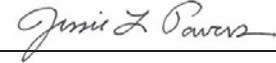
An incorrect data bits setting will not prevent the GPS string from coming into the data file, and the indicator will still show as such to the operator. The Allegro field PCs onsite are not using TrackMaker61 software, so there are no displayed survey line paths in plan view. In other words, a lack of correctly displayed line paths (or none at all) would be an immediate visual indicator to the operator of a settings problem. The positioning data indicator in the Allegro field PC software is a flashing indicator, which simply alerts the operator to the presence of incoming string data or not. However, if one were to view the incoming GPS string using a third-party software with incorrect data bits settings applied, for example, the characters would be unreadable symbols and not comprise expected geodetic coordinates. The same would be true if attempting to monitor the incoming GPS string in the SET GPS PORT submenu with an incorrect data bits setting. However, when converting the raw instrument files from binary (R61) to text format (M61) for post processing, no positions are written to the converted file (see image below). Binary data files are not informative in and of themselves.

```

220906G3A4001.M61
-----EM61MK2 FILE HEADER-----
EM61HP2 W1.12 GPS 1 0 0
220906g3 0.100
-241.73 -41.27 78.10 101.40
IN 0.00 0.00 0.00 0.00
-----
L 0.00 220906g3 GPS 1 0 0
B 0.00 0
AN 1.000
Z 08/04/2004 19:44:15
O -241.73 -41.27 78.10 101.40
T 0.000 -3.32 -8.48 -3.56 -0.98 19:44:43.543
T 1.000 -2.83 -8.90 -4.33 -0.98 19:44:43.635
T 2.000 -2.26 -8.48 -4.02 -1.23 19:44:43.747
T 3.000 -3.12 -8.48 -3.86 -0.72 19:44:43.842
T 4.000 -3.20 -7.95 -3.86 -1.47 19:44:43.940
T 5.000 -3.71 -7.33 -3.70 -1.72 19:44:44.035
T 6.000 -3.08 -6.39 -3.54 -1.46 19:44:44.146
T 7.000 -3.18 -6.50 -3.07 -1.45 19:44:44.243
T 8.000 -3.55 -7.02 -2.45 -1.19 19:44:44.339
T 9.000 -3.90 -8.39 -2.45 -1.44 19:44:44.453
T 10.000 -4.19 -9.33 -2.45 -1.44 19:44:44.547
T 11.000 -3.42 -8.81 -2.75 -1.94 19:44:44.642
T 12.000 -3.07 -7.97 -2.75 -1.69 19:44:44.755
    
```

Utilizing the “5 Why” method, identify the root cause.

1. Why?	<p>Why was there no positioning data associated with the raw instrument files from 09/06/2022? Discussion with the field team at the end of the day on 09/06/2022, revealed an incorrect data bits setting in the SET GPS PORT submenu of the DAT61 data collection software.</p>
2. Why?	<p>Why was the menu option set to 7 bits instead of 8 bits? The change was unintentional. The field team did not realize it had happened.</p>
3. Why?	<p>Why was this menu setting altered after having already collected data without issue when using a positioning system? The change was unintentional. After the team had checked the incoming NMEA string in the MONITOR GPS option of the SET GPS PORT sub menu, the data bits setting was unknowingly changed from 8 to 7 before the dialogue box was closed – either by clicking the data bits drop down menu by accident or by tabbing back up the through the preceding menu options and inadvertently changing that setting with the arrow keys on the data collector before closing the dialogue box.</p>
4. Why?	<p>Why was the issue not identified during data collection given the software provided an indication of incoming GPS positions (or lack thereof)? There was no indication to the team that the information coming through from the positioning system could not be read by the post-processing software upon conversion from binary format.</p>
5. Why?	<p>Why then would such a situation not be a more common occurrence if operators are at the mercy of software limitations? <u>Root cause:</u> the root cause is complacency (including allowing distractions) by experienced equipment operators in performing routine tasks such as navigating through setup menus when going through daily set up and checks. The field team has learned a valuable lesson in terms of focusing on the task at hand, not rushing and verifying settings are correct and complete before closing dialogue boxes.</p>

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER #	N4425519F4112	NCR #	005
			DATE: 09/29/2022
LOCATION:	Silverdale, WA	CLIENT REP NOTIFIED:	Melissa King US Navy, EODTECHDIV QA Geophysicist
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO# 3-17: Dynamic DGM Survey Performance; Blind seeds detected and derived target location within ± 2.5 ft of ground truth for data collected with RTK GPS or RTS; within ± 3.3 ft of ground truth when using line and fiducial methods; RCA/CA.			
2 Description of Nonconforming Item or Condition			
Multiple QC seeds in full-coverage DGM survey areas were not selected as discrete targets by the DGM Data Processor because the mapping results depict the seeds in saturated response areas. The following seed IDs were not picked by the DGM data as discrete targets:			
<ul style="list-style-type: none"> • QC-02 (Site UXO 17) • QC-03 (Site UXO 17) • QC-04 (Site UXO 17) • QC-44 (Site UXO 7) • QC-45 (Site UXO 4) • QC-46 (Site UXO 4) 			
Signature: 			
Prepared by: Jessie Powers		Title: QC Geophysicist	Date: 10/22/2022
3 Disposition Required by Responsible Organization			
<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)?			
		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4 Responsible Organization Corrective Action			
<p>Data Usability: The inability to target seeds within saturated response areas does not diminish the usability of the DGM data to meet the objectives for this SI, even if no additional seeds were encountered by the DGM team(s) outside the saturated response area footprints on the data collection dates. As of the date of this NCR, there have been no nonconformances involving discretely targeted seeds.</p> <p>Some delineated saturated response areas at the SI MRP sites exhibit large footprints consistent with reported historical site activities. The DGM data collected at these sites provide a realistic representation of subsurface metal distribution and geophysical anomaly density. Focused GPR surveys will be conducted at locations agreed upon by the project team to further assess potential burial depth for inclusion with the SI report. Saturated response areas may also be further investigated during a future remedial investigation.</p> <p>Corrective Action: The data sets containing nonconforming seeds in saturated response areas are considered usable to meet the project objectives. Thus, the data are recommended for use in their as-is condition. No additional QC seeds are recommended at sites still undergoing DGM because of the laterally extensive nature of the suspected debris mapped to date (i.e., having more seeds in saturated response areas will not benefit the project). Furthermore, no intrusive investigation is planned as part of this project, and next steps with regards to future investigations or actions will be developed in the future.</p>			



Nonconformance Report (NCR)

The corrective actions in this NCR apply to future nonconformances with the same root cause. In other words, additional NCRs will not be initiated for the same nonconforming condition, but nonconforming conditions will continue to be documented in the DGM QC reports. Nevertheless, in the event a seed failure occurs, which appears to potentially have a root cause different from the conditions presented herein, a new NCR will be initiated and a new RCA will be appropriately undertaken.

Organization: Tetra Tech

Signature: *Michelle Barua*

Date: 10/24/2022

Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): Project Geophysicist

5 Independent Evaluation of Corrective Action (PM, or Designee)

- Accept
- Accept with comments:
- Reject
- Reject with comments:

Signature: PM *Linda Klink*

Date: 10/26/2022

6 Verification and Closure (PQM, UXOQCS, or Designee)

Verification required: Yes No

Verified and closed by: *Janis L. Powers*

QC Geophysicist

10/26/2022

Signature

Title

Date

Acronym: PM-Project Manager, PQM-Project Quality Manager

Additional Distribution To: File, Director of Quality or Designee, Project Manager

Nonconformance Root Cause Analysis Worksheet

Problem Statement/Nonconformance

Multiple QC seeds in full-coverage DGM survey areas were not selected as discrete targets by the DGM Data Processor because the mapping results depict the seeds in saturated response areas.

Investigation Results/Analyze Data

The following images display seeds located in saturated response areas. In Figure 1, the peak amplitude response associated with the seed stands out from the elevated background response from the broader saturated response areas shown in pink. In the other figures, the seed is obscured by the response from metal in the broader feature.

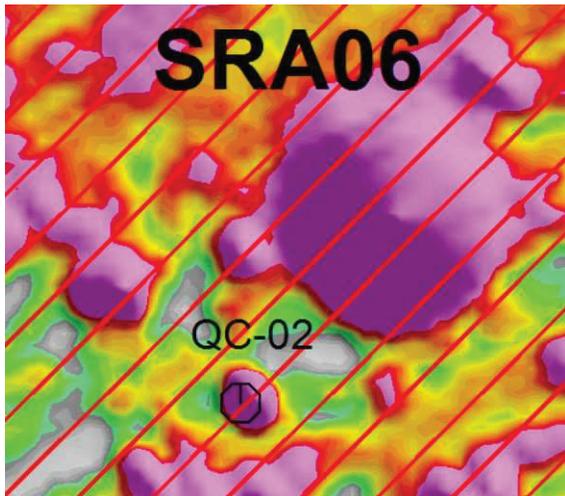


Figure 1. QC-02 – UXO 17

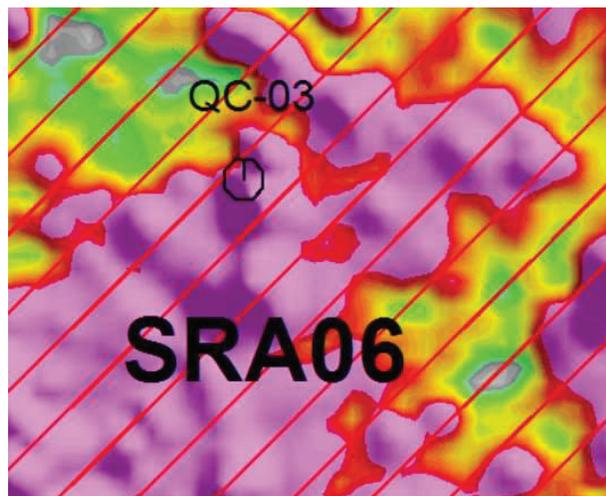


Figure 2. QC-03 – UXO 17

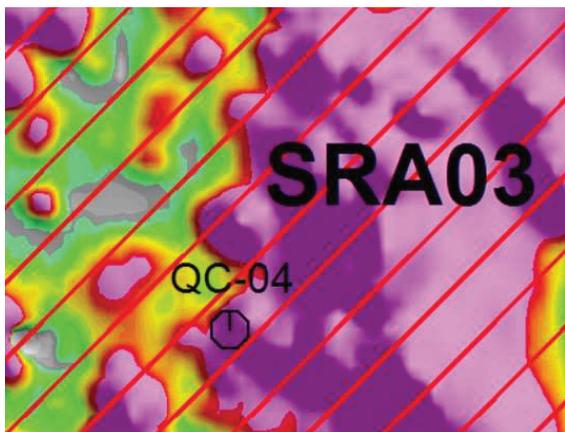


Figure 3. QC-04 – UXO 17

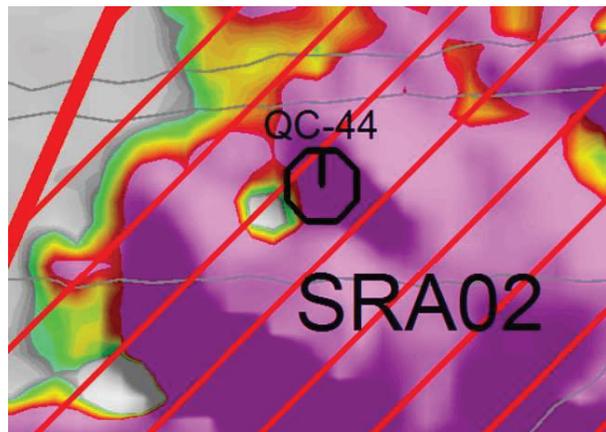


Figure 4. QC-44 – UXO 07

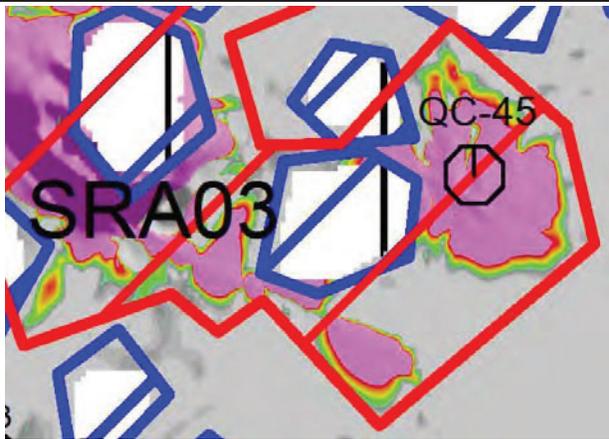


Figure 5. QC-45 – UXO 04

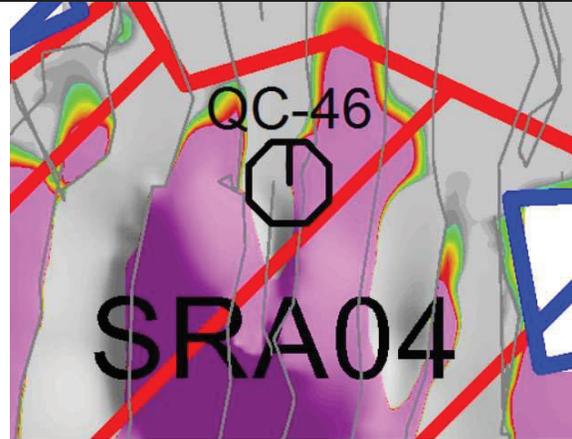


Figure 6. QC-46 – UXO 04

A review of the DGM production data and associated daily QC test data sets indicates no other nonconforming conditions, which would indicate the DGM systems were not functioning properly. This is further evidenced by seed locations where peak amplitudes are evident at the seed location, with all meeting MQO #3-17 if they would be picked as targets within saturated response areas, for example.

As part of this RCA, the UXOQCS reported that a Vallon VMH3 all-metals detector was used to support QC seeding prior to the DGM survey. No analog system functionality failures were documented in the daily UXO QC reports for the days when QC seeding was completed. UXO and DGM QC seeding procedures in the MEC QAPP were followed to use analog instruments to identify areas, which appeared sufficiently clear of metal around the planned seed location.

Utilizing the “5 Why” method, identify the root cause.

<p>1. Why?</p>	<p>Why were there no discrete target picks associated with the seeds presented in the previous section? Each nonconforming seed location is within a delineated saturated response area based on geophysical mapping results.</p>
<p>2. Why?</p>	<p>Why were seeds emplaced at the depicted locations? No indication of subsurface conflicts were identified by UXO QC personnel using a Vallon VMH3 analog instrument.</p>
<p>3. Why?</p>	<p>Why did the Vallon VMH3 indicate no conflicting anomaly locations and yet the DGM data depict high-amplitude, widespread response necessitating delineation as a saturated response area? <u>Root cause:</u> In the absence of instrument malfunction, operator error or procedural missteps, the root cause appears to be buried metal at depths beyond the reliable detection capability of the VMH3. Knowing the SI focuses on sites with known and suspected historical disposal activities, it is likely metallic debris in the subsurface was emplaced at greater depths or additional earthworks activities were conducted after disposal, which resulted in a relatively thick layer of cover soil atop the buried debris. At the time of QC seeding, no information was available to the site teams regarding lateral extent of buried debris or its potential depth because seeding was performed before DGM surveys started. It is also not unexpected the DGM systems would identify the debris with such a high amplitude given the fact that sensors with high-power transmitters and enhanced depth of detection capabilities are used for the DGM surveys.</p>

APPENDIX D – SOP CHECKLISTS



Field Checklist for EM61 HP Assembly

Record: 5

Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Jacob Jankowski, Zach Weston, Jared Hester, Nolan Walker
Positioning Sensor Type	Other
Enter "Other" positioning sensor type	No Positioning System
Item 1: Have all personnel involved with sensor assembly reviewed SOP4?	Yes
Item 2: Do you need to perform any DOC's for sensor assembly at this time?	N/A
Item 3: Are you using both a top and bottom coil?	Yes
Item 3c: Have you connected the inter-coil connecting cable?	Yes
Item 4: Enter the measured distance from the ground to the bottom of the lower coil housing in meters:	0.42
Z-Vertical Offset (up is positive):	1.25
Y-Offset in direction of travel (forward is positive)	0
X-Offset perpendicular to direction of travel (right is positive)	0
Item 5b: What positioning sensor reference point was used for the measurement?	Bottom of Quick Release
Item 6: Is the electronics fuse depressed and are the switches set to Master and 4 (and HP if applicable)?	Yes
Item 7: Photograph of Assembled Sensor	
Item 8: What data acquisition software are you using?	EM61-MK2
Item 9: Is the sampling rate set to 10Hz or higher?	Yes
Item 10: Did the system warm up for at least 15 minutes?	Yes
Item 11: 60-second Cable Shake Test Status	Pass
Item 12: 60-second Drift/Spike Test Status	Pass



Geo3

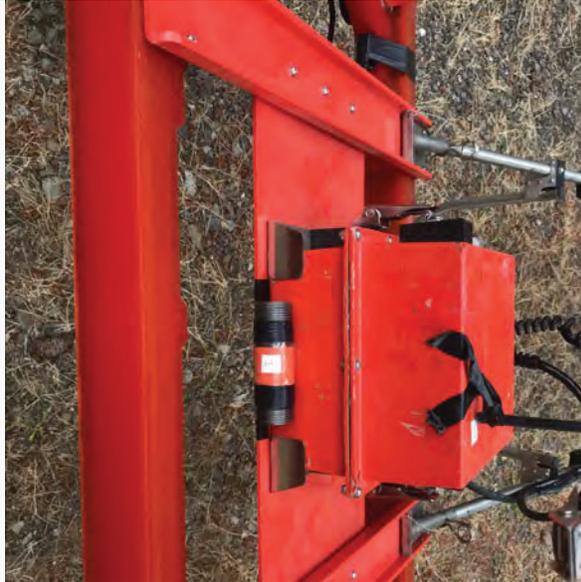
Contract No. N62470-16-D-9008

Naval Base Kitsap Bangor

Item 13:
Have you verified that the positioning sensor is functioning correctly and has been successfully integrated into the acquisition software?

Yes

Item 14:
Photograph of the ISO jig seated on the coil



Item 14b:
Measured Distance (in meters) of center of ISO to the plane of the top of the orange coil housing

0.25

Supervisor

Brett Yarborough

Supervisor Signature

Date

2022-07-17

QRIR

Date

2022-07-17 13:20:38

Project

Kitsap Bangor

Inspector

Brett Yarborough

Are all items listed on the photographed documentation accounted for and in good, working condition?

Yes

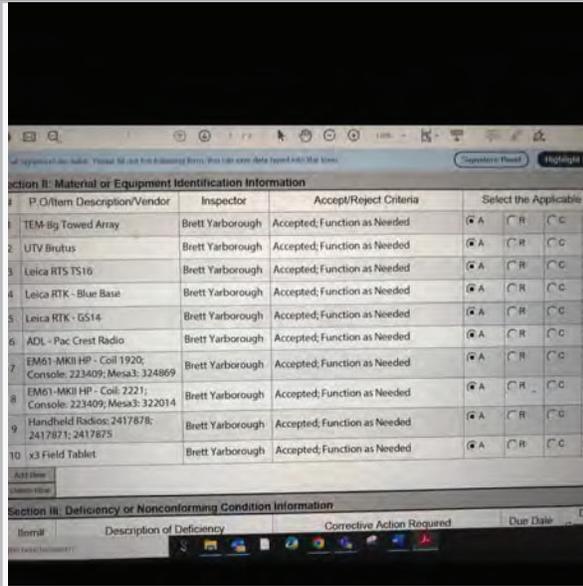
Inspector Signature

Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-17 13:21:18
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	Geonics EM61-MKII HP
Comments	G1 unit

Photographs

Photograph each list individually.


Personnel Signatures

Date/Time	2022-07-17 13:22:39
SOP	4
Team Member	Brett Yarborough
Signature	

Personnel Signatures

Date/Time	2022-07-17 13:23:36
SOP	4
Team Member	Jacob Jankowski
Signature	



Personnel Signatures

Date/Time	2022-07-17 13:23:48
SOP	4
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-17 13:24:00
SOP	4
Team Member	Nolan Walker
Signature	

Personnel Signatures

Date/Time	2022-07-17 13:24:11
SOP	4
Team Member	Jared Hester
Signature	

DGM Function Test

Date/Time	2022-07-17 13:25:31
Operator	Jacob Jankowski
Test Item ID	Small ISO 40
Location	Other
Enter "Other" location	Jackson park field office
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12.6
SFT File Name	Other
Enter "Other" SFT file name	220717g1test



SFT Results

Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0

SFT Results

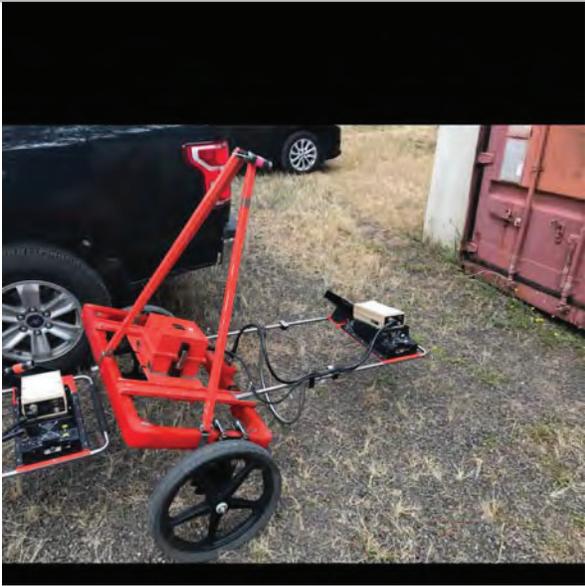
Line Type	Spike
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Line Number	1
Chan 1	3559
Chan 2	1986
Chan 3	1122
Chan 4	719
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results

Line Type	Background
Line Number	2
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for EM61 HP Assembly

Field Checklist for EM61 HP Assembly	
Project	<i>Kitsap Bangor</i>
Project Geo	<i>Matt Barner</i>
Field Personnel	<i>Brett Yarborough, Jacob Jankowski, Zach Weston, Jared Hester, Nolan Walker</i>
Positioning Sensor Type	<i>Other</i>
Enter "Other" positioning sensor type	<i>No positioning</i>
Item 1: Have all personnel involved with sensor assembly reviewed SOP4?	<i>Yes</i>
Item 2: Do you need to perform any DOC's for sensor assembly at this time?	<i>No</i>
Item 3: Are you using both a top and bottom coil?	<i>No</i>
Item 3b: Have you connected the grounding plug to the bottom coil?	<i>Yes</i>
Item 4: Enter the measured distance from the ground to the bottom of the lower coil housing in meters:	<i>0.42</i>
Z-Vertical Offset (up is positive):	<i>0.97</i>
Y-Offset in direction of travel (forward is positive)	<i>0</i>
X-Offset perpendicular to direction of travel (right is positive)	<i>0</i>
Item 5b: What positioning sensor reference point was used for the measurement?	<i>Bottom of Quick Release</i>
Item 6: Is the electronics fuse depressed and are the switches set to Master and 4 (and HP if applicable)?	<i>Yes</i>
Item 7: Photograph of Assembled Sensor	
Item 8: What data acquisition software are you using?	<i>Other</i>
Enter "Other" data acquisition software	<i>EM61.winn</i>
Item 9: Is the sampling rate set to 10Hz or higher?	<i>Yes</i>
Item 10: Did the system warm up for at least 15 minutes?	<i>Yes</i>
Item 11: 60-second Cable Shake Test Status	<i>Pass</i>
Item 12:	<i>Pass</i>

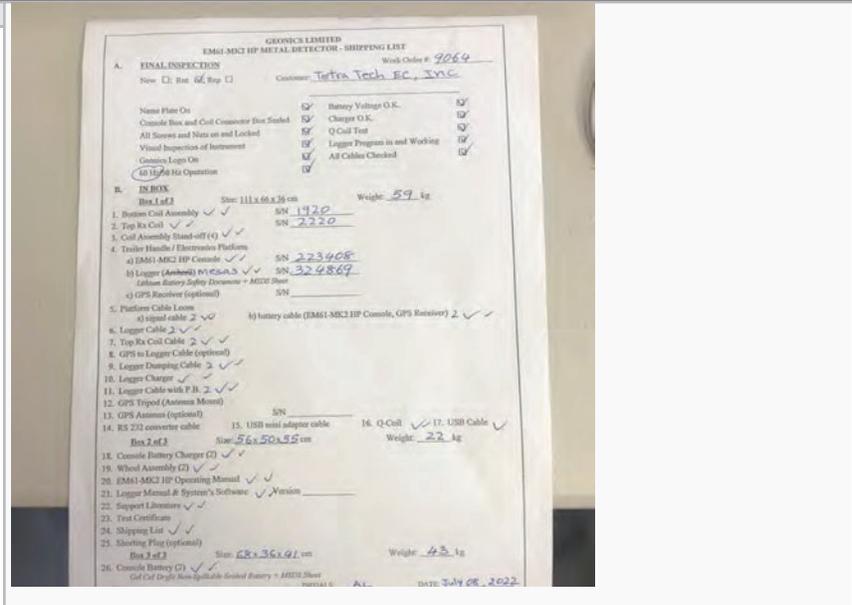


60-second Drift/Spike Test Status	
Item 13: Have you verified that the positioning sensor is functioning correctly and has been successfully integrated into the acquisition software?	Yes
Item 14: Photograph of the ISO jig seated on the coil	
Item 14b: Measured Distance (in meters) of center of ISO to the plane of the top of the orange coil housing	0.0254
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-14

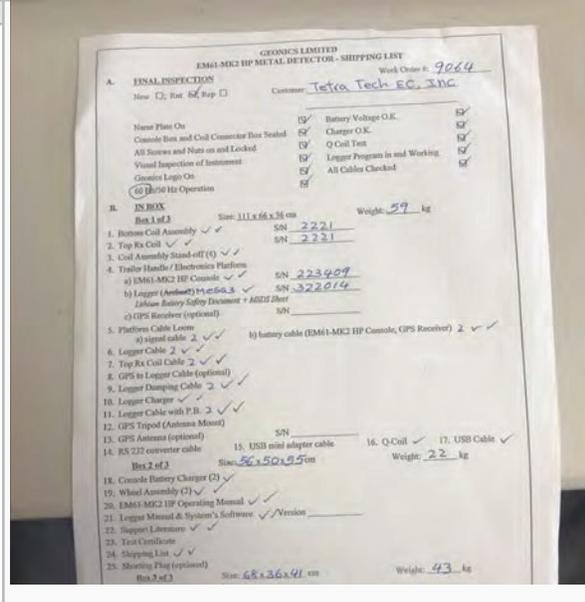
QRIR	
Date	2022-07-14 12:14:17
Project	Kitsap Bangor
Inspector	Brett Yarborough
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	

Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-14 12:14:26
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	Geonics
Comments	X2 EM61-MKII HP *See attached photos for serial number

Photographs
Photograph each list individually.

Photographs

Photograph each list individually.



Personnel Signatures	
Date/Time	2022-07-14 12:17:23
SOP	4
Team Member	Brett Yarborough
Signature	

Personnel Signatures	
Date/Time	2022-07-14 12:19:38
SOP	4
Team Member	Jared Hester
Signature	

Personnel Signatures	
Date/Time	2022-07-14 12:20:09
SOP	4
Team Member	Nolan Walker
Signature	



Personnel Signatures

Date/Time	2022-07-14 12:20:37
SOP	4
Team Member	Jacob Jankowski
Signature	

Personnel Signatures

Date/Time	2022-07-14 12:20:54
SOP	4
Team Member	Zac Weston
Signature	

DGM Function Test

Date/Time	2022-07-14 12:55:49
Operator	Jacob Jankowski
Test Item ID	Small ISO 40
Location	Other
Enter "Other" location	Jackson park offsite field trailer
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12.6
SFT File Name	Other
Enter "Other" SFT file name	220714g1test1

SFT Results

Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0

SFT Results

Line Type	Spike
Line Number	1
Chan 1	4470
Chan 2	2589
Chan 3	1511
Chan 4	985
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



SFT Results	
Line Type	Background
Line Number	2
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for EM61 HP Assembly

Field Checklist for EM61 HP Assembly	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Jacob Jankowski, Jared Hester
Positioning Sensor Type	Leica RTS
Item 1: Have all personnel involved with sensor assembly reviewed SOP4?	N/A
Item 2: Do you need to perform any DOC's for sensor assembly at this time?	N/A
Item 3: Are you using both a top and bottom coil?	No
Item 3b: Have you connected the grounding plug to the bottom coil?	Yes
Item 4: Enter the measured distance from the ground to the bottom of the lower coil housing in meters:	0
Z-Vertical Offset (up is positive):	0
Y-Offset in direction of travel (forward is positive)	0
X-Offset perpendicular to direction of travel (right is positive)	0
Item 5b: What positioning sensor reference point was used for the measurement?	Bottom of Quick Release
Item 6: Is the electronics fuse depressed and are the switches set to Master and 4 (and HP if applicable)?	Yes
Item 8: What data acquisition software are you using?	EM61-MK2
Item 9: Is the sampling rate set to 10Hz or higher?	N/A
Item 10: Did the system warm up for at least 15 minutes?	Yes
Item 11: 60-second Cable Shake Test Status	Fail
Item 11b: Describe failure and CA taken to address failure.	during cable shake noticeable values spiking and dropping
Item 11c: Post CA Test Status	Fail
Item 12: 60-second Drift/Spike Test Status	Fail
Item 12b: Describe failure and CA taken to address failure.	spike seemed to pass with little drift cable shake failed
Item 12c: Post CA Test Status	Fail
Item 13: Have you verified that the positioning sensor is functioning correctly and has been successfully integrated into the acquisition software?	N/A
Item 14b: Measured Distance (in meters) of center of ISO to the plane of the top of the orange coil housing	0
Supervisor	Zach Weston
Supervisor Signature	
Date	2022-08-29



DGM Function Test	
Date/Time	2022-08-29 19:58:33
Operator	Jacob Jankowski
Test Item ID	Small ISO 40
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12.45
SFT File Name	Other
Enter "Other" SFT file name	220829g2test
Comments	during background did 3 cable shakes showing the values spike and drop due to the ports did that one both backgrounds

SFT Results	
Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results	
Line Type	Spike
Line Number	1
Chan 1	2912
Chan 2	1656
Chan 3	959
Chan 4	625
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results	
Line Type	Background
Line Number	2
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for EM61 HP Assembly

Record: 11	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Zach Weston, Jared Hester
Positioning Sensor Type	Leica RTK GPS
Item 1: Have all personnel involved with sensor assembly reviewed SOP4?	Yes
Item 2: Do you need to perform any DOC's for sensor assembly at this time?	No
Item 3: Are you using both a top and bottom coil?	No
Item 3b: Have you connected the grounding plug to the bottom coil?	Yes
Item 4: Enter the measured distance from the ground to the bottom of the lower coil housing in meters:	0.42
Z-Vertical Offset (up is positive):	0.94
Y-Offset in direction of travel (forward is positive)	0
X-Offset perpendicular to direction of travel (right is positive)	0
Item 5b: What positioning sensor reference point was used for the measurement?	Bottom of Quick Release
Item 6: Is the electronics fuse depressed and are the switches set to Master and 4 (and HP if applicable)?	Yes
Item 8: What data acquisition software are you using?	EM61-MK2
Item 9: Is the sampling rate set to 10Hz or higher?	Yes
Item 10: Did the system warm up for at least 15 minutes?	Yes
Item 11: 60-second Cable Shake Test Status	Pass
Item 12: 60-second Drift/Spike Test Status	Pass
Item 13: Have you verified that the positioning sensor is functioning correctly and has been successfully integrated into the acquisition software?	Yes
Item 14b: Measured Distance (in meters) of center of ISO to the plane of the top of the orange coil housing	0.0127
Supervisor	Zach Weston
Supervisor Signature	
Date	2022-09-02



QRIR	
Date	2022-09-08 11:38:36
Project	Kitsap Bangor
Inspector	Zach Weston
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	

Scan all equipment barcodes and enter any external equipment.	
Date/Time	2022-09-08 11:40:52
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	0327HP
Comments	console box 032109

Personnel Signatures	
Date/Time	2022-09-08 11:32:10
SOP	4
Team Member	Zac Weston
Signature	

Personnel Signatures	
Date/Time	2022-09-08 11:32:38
SOP	4
Team Member	Jared Hester
Signature	

DGM Function Test	
Date/Time	2022-09-02 11:37:40
Operator	Zach Weston
Test Item ID	Small ISO 40
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12.1
SFT File Name	220902G2SSAM



SFT Results	
Line Type	<i>Background</i>
Line Number	1
Chan 1	-2
Chan 2	-4
Chan 3	-1
Chan 4	-1
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results	
Line Type	<i>Spike</i>
Line Number	2
Chan 1	3030
Chan 2	1713
Chan 3	985
Chan 4	647
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results	
Line Type	<i>Background</i>
Line Number	3
Chan 1	-10
Chan 2	-7
Chan 3	-7
Chan 4	-3
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for TEM-8g Assembly

Record: 2

Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Jacob Jankowski, Zach Weston, Jared Hester, Nolan Walker
Positioning Sensor Type	NovAtel GPS PPK
Item 1: Have all personnel involved with sensor assembly reviewed SOP8?	Yes
Item 2: Do you need to perform any DOC's for sensor assembly at this time?	No
Item 3: Is the array firmly seated and bolted to the platform?	Yes
Item 4: Are the brush deflectors firmly attached to the platform?	Yes
Item 5: Are the tires lightly inflated (not firm or over inflated)?	Yes
Item 6: Are the height risers installed and bolted to the platform?	N/A
Item 7: Is the GPS tower securely bolted to the platform with locktight?	Yes
Item 8: Photograph of complete assembly.	
Item 9: Are left/right/nav GPS antennae connected to the correct receivers?	Yes
Item 10: Were CF cards installed in GPS receivers before being turned on?	Yes
Item 11: Have cable connectors been securely taped at the hitch?	Yes
Item 12: Does the front LED light show green rather than red when connected?	Yes
Item 13: Is the sample rate set to project values (one of 30, 75, 90, 135, 225, 275Hz)?	Yes
Item 14:	Yes



Is the power breaker turned on (toggle up)?	
Item 15: Is on-time data collection turned off?	Yes
Item 16: Has the system warmed up for at least 15min?	Yes
Item 17: Is the PPS signal showing OK?	Yes
Item 18: Has the impulse test been conducted and then disconnected?	Yes
Item 19: Are receivers responding in the correct order during the SFT?	Yes
Item 20: Photograph of test item seated on one of the coil marks.	
Item 21: Has the navigation GPS locked onto the satellite corrections?	N/A
Item 22: Is the base station GPS assembled with CF card and running?	Yes
Item 23: Is a backup base station in use and running?	N/A
Item 24: Is there sufficient diesel fuel in the ATV?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-14

QRIR	
Date	2022-07-14 12:26:13
Project	Kitsap Bangor
Inspector	Brett Yarborough
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	

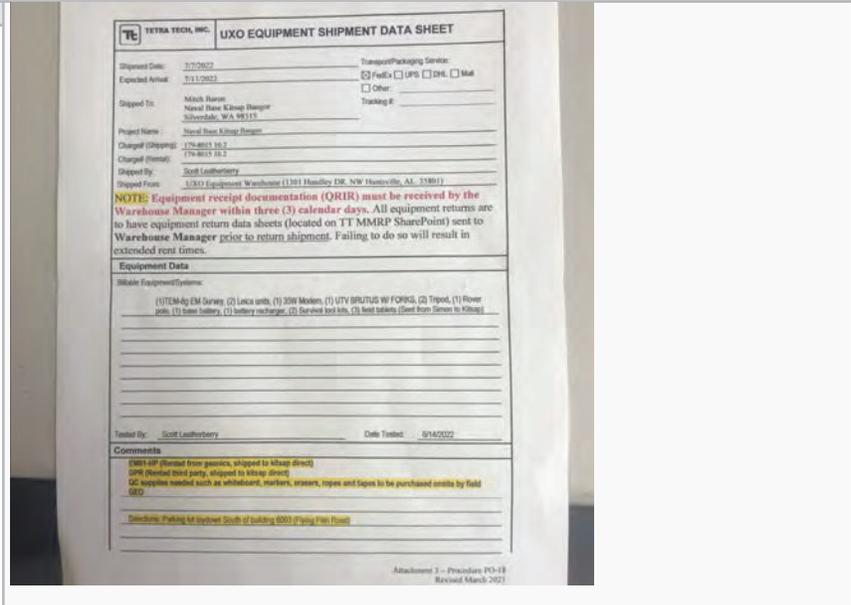


Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-14 12:26:21
Is this an External instrument?	No
Barcode	
Model	TEM-8g Em Survey
Equipment Source	Huntsville Warehouse

Photographs

Photograph each list individually.



Personnel Signatures

Date/Time	2022-07-17 13:32:17
SOP	8
Team Member	Brett Yarborough
Signature	



Personnel Signatures

Date/Time	2022-07-17 13:32:47
SOP	8
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-17 13:33:13
SOP	8
Team Member	Nolan Walker
Signature	

DGM Function Test

Date/Time	2022-07-14 12:33:33
Operator	Brett Yarborough
Test Item ID	Small Bolt
Location	Other
Enter "Other" location	Jackson Park offsite field office
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
SFT File Name	Temo2824



Field Checklist for Instrument Verification at IVS

Record: 2	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Nolan Walker, Jared Hester, Zach Weston, Jacob Jankowski, Brett Yarborough
IVS ID	IVS1
Data Type	Dynamic
Item 1: Have all personnel involved with Initial IVS reviewed SOP2?	Yes
Item 2: Do you need to perform any DOC's at this time?	N/A
Geodetic Functionality test was collected prior to Initial IVS data collection	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
Confirm you are a minimum of 200ft from other transmitting systems on site.	Yes
Item 4: Perform a SFT	DGM
Item 5: Was a project file for the IVS provided by the Project Geo and uploaded onto the AGC sensor?	
Dynamic IVS File Name:	Other
Enter "Other" IVS file name	220719g1ivsinitial
Item 6: Was dynamic data collected at the required line spacing IAW the SOP?	Yes
Item 7: Was cued data collected over each IVS item and the blank space IAW the SOP?	N/A
Item 7b: Were background validation measurements collected over the blank space?	N/A
Item 8: Were all SFT and IVS data downloaded for transfer to the project files?	N/A
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-19

Detection and Positioning Sensors used for initial IVS	
Date/Time	2022-07-26 00:18:26
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	Em61 coil 1920



Detection and Positioning Sensors used for initial IVS

Date/Time	2022-07-26 15:36:52
Is this an External instrument?	No
Enter "Other" external instrument	-
Serial Number	3214898
Model	TS16
Equipment Source	Tetra Tech Warehouse

Personnel Signatures

Date/Time	2022-07-25 18:50:11
SOP	2
Team Member	Brett Yarborough
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:20:09
SOP	2
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:25:25
SOP	2
Team Member	Nolan Walker
Signature	

Personnel Signatures

Date/Time	2022-07-25 23:04:22
SOP	2
Team Member	Jacob Jankowski
Signature	



Personnel Signatures

Date/Time	2022-07-25 23:04:57
SOP	2
Team Member	Jared Hester
Signature	

DGM SFT

Date/Time	2022-07-26 00:22:47
Operator	Jared Hester
Test Item ID	Small ISO 40
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12
SFT File Name	Other
Enter "Other" SFT file name	220719ssam

SFT Results

Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0

SFT Results

Line Type	Spike
Line Number	1
Chan 1	3998
Chan 2	2242
Chan 3	1271
Chan 4	807
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results

Line Type	Background
Line Number	2
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for Instrument Verification at IVS

Record: 8	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Zach Weston, Nolan Walker
IVS ID	IVS1
Data Type	Dynamic
Item 1: Have all personnel involved with Initial IVS reviewed SOP2?	Yes
Item 2: Do you need to perform any DOC's at this time?	No
Geodetic Functionality test was collected prior to Initial IVS data collection	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
Confirm you are a minimum of 200ft from other transmitting systems on site.	Yes
Item 4: Perform a SFT	DGM
Dynamic IVS File Name:	Other
Enter "Other" IVS file name	220719g2ivsinitial2
Item 6: Was dynamic data collected at the required line spacing IAW the SOP?	Yes
Item 7: Was cued data collected over each IVS item and the blank space IAW the SOP?	N/A
Item 7b: Were background validation measurements collected over the blank space?	N/A
Item 8: Were all SFT and IVS data downloaded for transfer to the project files?	N/A
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-25

Detection and Positioning Sensors used for initial IVS	
Date/Time	2022-07-26 00:27:59
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	Geonics Em61 2221



Personnel Signatures	
Date/Time	2022-07-25 19:20:37
SOP	2
Team Member	Brett Yarborough
Signature	

Personnel Signatures	
Date/Time	2022-07-25 19:21:01
SOP	2
Team Member	Zac Weston
Signature	

Personnel Signatures	
Date/Time	2022-07-25 19:26:55
SOP	2
Team Member	Nolan Walker
Signature	

DGM SFT	
Date/Time	2022-07-26 00:29:01
Operator	Nolan Walker
Test Item ID	Small ISO 40
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12
SFT File Name	220719G2SSAM

SFT Results	
Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



SFT Results	
Line Type	<i>Spike</i>
Line Number	1
Chan 1	3339
Chan 2	1840
Chan 3	1082
Chan 4	671
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results	
Line Type	<i>Background</i>
Line Number	2
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for Instrument Verification at IVS

Record: 11	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Zach Weston
IVS ID	IVS1
Data Type	Dynamic
Item 1: Have all personnel involved with Initial IVS reviewed SOP2?	Yes
Item 2: Do you need to perform any DOC's at this time?	No
Geodetic Functionality test was collected prior to Initial IVS data collection	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
Confirm you are a minimum of 200ft from other transmitting systems on site.	Yes
Item 4: Perform a SFT	DGM
Dynamic IVS File Name:	220902G2SSAM
Item 6: Was dynamic data collected at the required line spacing IAW the SOP?	Yes
Item 7: Was cued data collected over each IVS item and the blank space IAW the SOP?	N/A
Item 7b: Were background validation measurements collected over the blank space?	Yes
Item 8: Were all SFT and IVS data downloaded for transfer to the project files?	Yes
Supervisor	Zach Weston
Supervisor Signature	
Date	2022-09-08

Detection and Positioning Sensors used for initial IVS	
Date/Time	2022-09-08 11:15:58
Is this an External instrument?	Yes
External Instrument	Other
Enter "Other" external instrument	0327HP

Personnel Signatures	
Date/Time	2022-09-08 11:17:26
SOP	2
Team Member	Zac Weston
Signature	



Personnel Signatures

Date/Time	2022-09-08 12:01:32
SOP	2
Team Member	Jared Hester
Signature	

DGM SFT

Date/Time	2022-09-08 11:25:27
Operator	Zach Weston
Test Item ID	Small ISO 40
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12.1
SFT File Name	220902G2SSAM

SFT Results

Line Type	Background
Line Number	1
Chan 1	-2
Chan 2	-4
Chan 3	-1
Chan 4	-1
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results

Line Type	Spike
Line Number	2
Chan 1	3030
Chan 2	1713
Chan 3	985
Chan 4	647
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes

SFT Results

Line Type	Background
Line Number	3
Chan 1	-10
Chan 2	-7
Chan 3	-3
Chan 4	-3
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for Instrument Verification at IVS

Record: 5	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Zach Weston, Nolan Walker
IVS ID	IVS1
Data Type	Dynamic
Item 1: Have all personnel involved with Initial IVS reviewed SOP2?	Yes
Item 2: Do you need to perform any DOC's at this time?	N/A
Geodetic Functionality test was collected prior to Initial IVS data collection	No
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
Confirm you are a minimum of 200ft from other transmitting systems on site.	Yes
Item 4: Perform a SFT	DGM
Dynamic IVS File Name:	Other
Enter "Other" IVS file name	TEM02836
Item 6: Was dynamic data collected at the required line spacing IAW the SOP?	Yes
Item 7: Was cued data collected over each IVS item and the blank space IAW the SOP?	N/A
Item 7b: Were background validation measurements collected over the blank space?	N/A
Item 8: Were all SFT and IVS data downloaded for transfer to the project files?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-19

Detection and Positioning Sensors used for initial IVS	
Date/Time	2022-07-26 00:35:00
Is this an External instrument?	No
Barcode	570125
Model	Tem-8g
Equipment Source	Tt Warehouse
Comments	No serial numbers, system originated from TT warehouse



Personnel Signatures

Date/Time	2022-07-25 19:21:35
SOP	2
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:27:41
SOP	2
Team Member	Nolan Walker
Signature	

Personnel Signatures

Date/Time	2022-07-26 00:36:13
SOP	2
Team Member	Brett Yarborough
Signature	

DGM SFT

Date/Time	2022-07-26 00:37:05
Operator	Nolan Walker
Test Item ID	Small Bolt
Location	IVS-01
Moisture observation during SFT	Soil/vegetation is dry
Potential Sources of Electromagnetic Interference during SFT	None
Battery Level	12
SFT File Name	Other
Enter "Other" SFT file name	Tem02834

SFT Results

Line Type	Background
Line Number	0
Chan 1	0
Chan 2	0
Chan 3	0
Chan 4	0
Ch1 > Ch2 > Ch3 > Ch4? (Auto-filled)	Yes



Field Checklist for Civil Survey

Record: 2	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Jessie Powers
PLS Subcontractor	AES Consultants Inc
Positioning Sensor Type	Leica RTS
Item 1: Have all personnel involved with civil survey reviewed SOP11?	Yes
Item 2: Do you need to perform any DOC's at this time?	No
Item 3: Have you been trained on anomaly avoidance procedures?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Will you be establishing control at the site?	No
Item 6: Civil Survey Tasks to be performed:	Emplace Blind Seeds
Item 7: Have you received all required control points, stakeout or reacquisition locations and loaded them to the controller?	Yes
Item 8: Were all recorded data downloaded for transfer to the project files?	Yes
Supervisor	Jessie Powers
Supervisor Signature	
Date	2022-06-28

QRIR	
Date	2022-06-29 00:22:15
Project	Kitsap Bangor
Inspector	Jessie Powers
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	



Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-04 19:00:40
Is this an External instrument?	No
Barcode	
Serial Number	3214898
Model	Leica RTS TS16

Photographs

Photograph each list individually.

UXO EQUIPMENT SHIPMENT DATA SHEET

Shipment Date: 6/29/2022 Transport/Package Service: FedEx UPS DHL Mail

Expected Arrival: 6/29/2022 Other

Shipped To: Misch Barton
7167 Wesley Avenue NE
Everett, WA 98311 Tracking #: 77146714559

Project Name: Naval Base Kitsap Bangor

Charge# (Shipping): 1762615 10.2

Charge# (Retail): 1762615 10.2

Shipped By: Scott Luthbery

Shipped From: UXO Equipment Warehouse (1101 Hainley Dr, NW Huntsville, AL 35891)

NOTE: Equipment receipt documentation (QRIR) must be received by the Warehouse Manager within three (3) calendar days. All equipment returns are to have equipment return data sheets (located on TT MMRP SharePoint) sent to Warehouse Manager prior to return shipment. Failing to do so will result in extended rent times.

Equipment Data

Usable Equipment Systems: 0622122964 - Canon PC107 570066 - Nikon Coolpix

(2) Digital Camera (87006657077), (4) Pk Flags (200), (4) Small ISO87-4350K238, (18) medium ISO87-44615K326, (1) RTS TS16 SN: 321489800303049205

Canon PC107 - cracked display screen

Tested By: Scott Luthbery Date Tested: 6/18/2022

Comments

Digital camera tested out and functions properly. Mail ISO's ordered through Modesto-Cent part number TS16. Invoice included as reference. RTS returned each from warehouse, vehicle/collection equipment, copy of certificate is case as reference. RTS function, in observations.

Personnel Signatures

Date/Time	2022-06-29 00:17:23
SOP	11
Team Member	Jessie Powers
Signature	

Geodetic Functionality

Date/Time	2022-06-29 00:18:51
Operator	Jessie Powers
Control Point	CP08
Control Point Easting	1176983.98
Control Point Northing	255117.98
Checkshot Easting	1176983.938
Checkshot Northing	255117.934
Offset	0.062289645943317
Comments	220628CS1



Field Checklist for Civil Survey

Record: 8	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Zach Weston, Nolan Walker
PLS Subcontractor	AES consultants
Positioning Sensor Type	NovAtel GPS PPK
Item 1: Have all personnel involved with civil survey reviewed SOP11?	Yes
Item 2: Do you need to perform any DOC's at this time?	N/A
Item 3: Have you been trained on anomaly avoidance procedures?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Will you be establishing control at the site?	N/A
Item 6: Civil Survey Tasks to be performed:	Boundary Stakeout, Grid Stakeout
Will nails be placed at boundaries or grid corners?	No
Item 7: Have you received all required control points, stakeout or reacquisition locations and loaded them to the controller?	Yes
Item 8: Were all recorded data downloaded for transfer to the project files?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-25

QRIR	
Date	2022-07-30 11:38:11
Project	Kitsap Bangor
Inspector	Brett Yarborough
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	



Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-30 11:38:26
Is this an External instrument?	No
Barcode	570125
Serial Number	X60368
Model	TEM8G X60368
Equipment Source	Tetra Tech Warehouse

Personnel Signatures

Date/Time	2022-07-25 19:22:30
SOP	11
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:28:55
SOP	11
Team Member	Nolan Walker
Signature	

Example of marked stake(s):

Date/Time	2022-07-30 11:40:25
Stake Location	Grid Corner Stake
Photo(s) of marked stake	



Field Checklist for Civil Survey

Record: 11	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Jacob Jankowski, Zach Weston, Jared Hester, Nolan Walker
PLS Subcontractor	AES consultants
Positioning Sensor Type	Leica RTK GPS
Item 1: Have all personnel involved with civil survey reviewed SOP11?	Yes
Item 2: Do you need to perform any DOC's at this time?	No
Item 3: Have you been trained on anomaly avoidance procedures?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Will you be establishing control at the site?	N/A
Item 6: Civil Survey Tasks to be performed:	Boundary Stakeout, Grid Stakeout
Will nails be placed at boundaries or grid corners?	No
Item 7: Have you received all required control points, stakeout or reacquisition locations and loaded them to the controller?	Yes
Item 8: Were all recorded data downloaded for transfer to the project files?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-20

QRIR	
Date	2022-07-30 11:47:20
Project	Kitsap Bangor
Inspector	Brett Yarborough
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	



Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-30 11:52:30
Is this an External instrument?	No
Barcode	593928
Serial Number	3706926
Model	GS14
Equipment Source	Tetra Tech Warehouse

Scan all equipment barcodes and enter any external equipment.

Date/Time	2022-07-30 11:53:42
Is this an External instrument?	No
Barcode	559158
Serial Number	9471102
Model	AS10
Equipment Source	Tetra Tech Warehouse

Personnel Signatures

Date/Time	2022-07-25 19:10:22
SOP	11
Team Member	Brett Yarborough
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:11:09
SOP	11
Team Member	Nolan Walker
Signature	

Personnel Signatures

Date/Time	2022-07-25 19:11:23
SOP	11
Team Member	Zac Weston
Signature	



Example of marked stake(s):

Date/Time	2022-07-30 11:54:51
Stake Location	Grid Corner Stake
Photo(s) of marked stake	



Field Checklist for Civil Survey

Record: 5	
Project	Kitsap Bangor
Project Geo	Matt Barner
Field Personnel	Brett Yarborough, Jacob Jankowski, Jared Hester
PLS Subcontractor	AES consultants
Positioning Sensor Type	Leica RTS
Item 1: Have all personnel involved with civil survey reviewed SOP11?	Yes
Item 2: Do you need to perform any DOC's at this time?	No
Item 3: Have you been trained on anomaly avoidance procedures?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Will you be establishing control at the site?	N/A
Item 6: Civil Survey Tasks to be performed:	Boundary Stakeout, Grid Stakeout
Will nails be placed at boundaries or grid corners?	No
Item 7: Have you received all required control points, stakeout or reacquisition locations and loaded them to the controller?	Yes
Item 8: Were all recorded data downloaded for transfer to the project files?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-27

QRIR	
Date	2022-07-30 11:43:01
Project	Kitsap Bangor
Inspector	Brett Yarborough
Are all items listed on the photographed documentation accounted for and in good, working condition?	Yes
Inspector Signature	



Scan all equipment barcodes and enter any external equipment.	
Date/Time	2022-07-30 11:43:08
Is this an External instrument?	No
Barcode	
Serial Number	3870328
Model	T16
Equipment Source	Tt Warehouse
Comments	Barcode: 593998

Personnel Signatures	
Date/Time	2022-07-27 18:52:49
SOP	11
Team Member	Zac Weston
Signature	

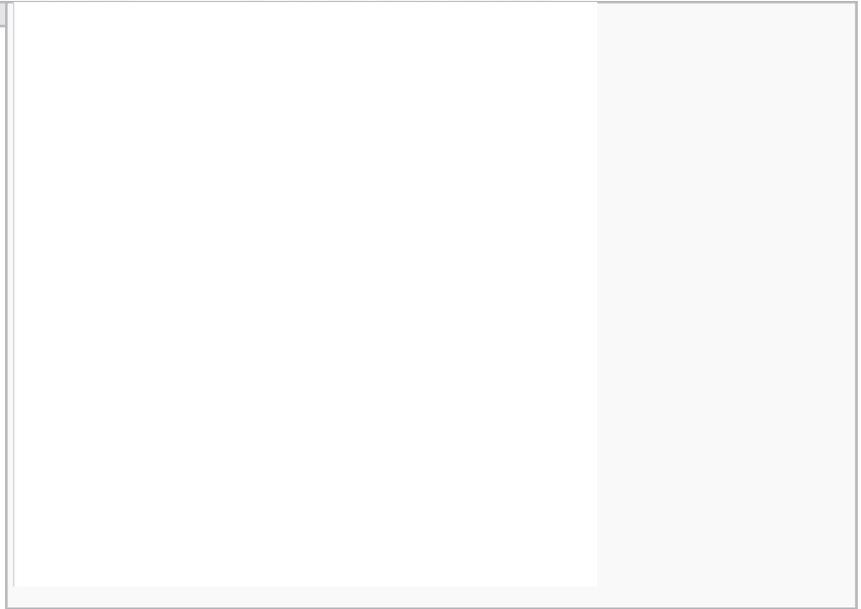
Personnel Signatures	
Date/Time	2022-07-27 18:53:30
SOP	11
Team Member	Jared Hester
Signature	

Personnel Signatures	
Date/Time	2022-07-27 18:53:56
SOP	11
Team Member	Jacob Jankowski
Signature	

Example of marked stake(s):	
Date/Time	2022-07-30 11:45:35
Stake Location	Boundary Stake



Photo(s) of marked stake





Field Checklist for Dynamic Detection Survey

Field Checklist for Dynamic Detection Survey	
Project	Kitsap Bangor
Project Geo	Matt Barner
Operator	Zach Weston, Nolan Walker
Dynamic Detection System	EM61-HP
Positioning System	RTK GPS
Survey Unit(s)	17BN-C04, 17BN-C05, 17BN-D03, 17BN-D04, 17BN-D05, 17BN-E03, 17BN-E04
Item 1:	Yes
Have all personnel involved with Dynamic Detection reviewed SOP5 (EM61-HP) or SOP9 (TEM-8g)?	
Operator has a current DOC for dynamic data collection on file or has been designated as a SME.	N/A
System was turned on for the appropriate warm-up period as defined in the SOP and user manual.	Yes
System current and/or battery level are within the acceptable range.	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
A passing SFT was collected.	Yes
IVS was collected IAW SOP2 prior to starting production data collection.	Yes
Confirm you are a minimum of 200ft from other systems on site.	Yes
Item 3:	Yes
Are grid or transect stakes emplaced or do you have a shapefile (or equivalent) loaded to a digital application to define survey unit boundaries?	
Item 4:	2
Enter the maximum acceptable line spacing for this project:	
Unit of Measure	Feet
Item 5:	Flags
Navigation Method:	
Item 7:	Yes
Were all obstacles circled in the data or documented on the FDS?	
Item 8:	Yes
Were all raw data downloaded for transfer to the project files?	
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 14:27:18
SOP	5
Team Member	Zac Weston
Signature	

Personnel Signatures

Date/Time	2022-07-25 18:18:31
SOP	5
Team Member	Nolan Walker
Signature	

Item 6: Complete the FDS for this Survey Unit.

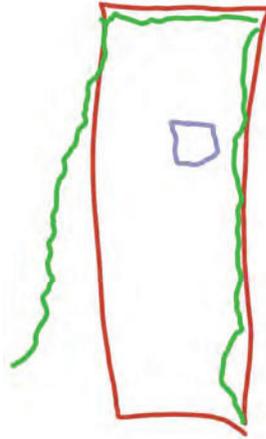
Date/Time	2022-07-25 14:28:17
Survey Unit/Grid	17BN-C04, 17BN-C05, 17BN-D03, 17BN-D04, 17BN-D05, 17BN-E03, 17BN-E04
Data Type	Initial Dynamic
Status	Started & Incomplete
Operator(s)	Zach Weston
Datum	NAD83 CONUS
Coordinate System	State Plane
Terrain	Level, Rocky
Tree Cover	Light
Brush	Light
Weather	Sunny
Battery Voltage or Transmit Current Start	12
Battery Voltage or Transmit Current End	11.85
Raw Data File Names	220725_g1

Grid Drawing(s)

Direction of Travel	E/W
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Grid drawing





Field Checklist for Dynamic Detection Survey

Record: 8	
Project	Kitsap Bangor
Project Geo	Matt Barner
Operator	Brett Yarborough, Jacob Jankowski, Jared Hester
Dynamic Detection System	EM61-HP
Positioning System	RTS
Survey Unit(s)	17BN-S03, 17BN-S04
Item 1:	Yes
Have all personnel involved with Dynamic Detection reviewed SOP5 (EM61-HP) or SOP9 (TEM-8g)?	
Operator has a current DOC for dynamic data collection on file or has been designated as a SME.	N/A
System was turned on for the appropriate warm-up period as defined in the SOP and user manual.	Yes
System current and/or battery level are within the acceptable range.	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
A passing SFT was collected.	Yes
IVS was collected IAW SOP2 prior to starting production data collection.	Yes
Confirm you are a minimum of 200ft from other systems on site.	Yes
Item 3:	Yes
Are grid or transect stakes emplaced or do you have a shapefile (or equivalent) loaded to a digital application to define survey unit boundaries?	
Item 4:	2
Enter the maximum acceptable line spacing for this project:	
Unit of Measure	Feet
Item 5:	Flags
Navigation Method:	
Item 7:	Yes
Were all obstacles circled in the data or documented on the FDS?	
Item 8:	N/A
Were all raw data downloaded for transfer to the project files?	
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-21



Personnel Signatures

Date/Time	2022-07-25 23:06:32
SOP	5
Team Member	Jacob Jankowski
Signature	

Personnel Signatures

Date/Time	2022-07-25 23:06:52
SOP	5
Team Member	Jared Hester
Signature	

Item 6: Complete the FDS for this Survey Unit.

Date/Time	2022-07-26 00:44:04
Survey Unit/Grid	17BN-S04, 17BN-S05
Data Type	Initial Dynamic
Status	Started & Completed
Operator(s)	Jacob Jankowski, Jared Hester
Datum	NAD83 CONUS
Coordinate System	State Plane
Terrain	Level, Moderate Slope, Steep, Rolling, Ruts
Tree Cover	Light
Brush	Light
Weather	Sunny
Battery Voltage or Transmit Current Start	12
Battery Voltage or Transmit Current End	12
Raw Data File Names	220721G2_17B08 220721G2_17B09 220721G2_17B09a



Field Checklist for Dynamic Detection Survey

Field Checklist for Dynamic Detection Survey	
Project	Kitsap Bangor
Project Geo	Matt Barner
Operator	Zach Weston
Dynamic Detection System	TEM-8g
Positioning System	NovAtel GPS PPK
Survey Unit(s)	17BN-R04, 17BN-R05, 17BN-S04, 17BN-S05, 17BN-T03, 17BN-T04
Item 1: Have all personnel involved with Dynamic Detection reviewed SOP5 (EM61-HP) or SOP9 (TEM-8g)?	Yes
Operator has a current DOC for dynamic data collection on file or has been designated as a SME.	N/A
System was turned on for the appropriate warm-up period as defined in the SOP and user manual.	Yes
System current and/or battery level are within the acceptable range.	Yes
The data acquisition software was monitored to ensure expected data streams (e.g., EMI, GPS, and IMU) are valid and being recorded.	Yes
A passing SFT was collected.	Yes
IVS was collected IAW SOP2 prior to starting production data collection.	Yes
Confirm you are a minimum of 200ft from other systems on site.	Yes
Item 3: Are grid or transect stakes emplaced or do you have a shapefile (or equivalent) loaded to a digital application to define survey unit boundaries?	Yes
Item 4: Enter the maximum acceptable line spacing for this project:	5
Unit of Measure	Feet
Item 5: Navigation Method:	Digital Swath
Item 7: Were all obstacles circled in the data or documented on the FDS?	Yes
Item 8: Were all raw data downloaded for transfer to the project files?	Yes
Supervisor	Brett Yarborough
Supervisor Signature	
Date	2022-07-24



Personnel Signatures

Date/Time	2022-07-23 10:59:19
SOP	9
Team Member	Zac Weston
Signature	

Item 6: Complete the FDS for this Survey Unit.

Date/Time	2022-07-23 11:04:10
Survey Unit/Grid	17BN-R04, 17BN-R05, 17BN-S04, 17BN-S05, 17BN-T03, 17BN-T04
Data Type	Initial Dynamic
Status	Started & Completed
Operator(s)	Zach Weston
Datum	WGS 84
Coordinate System	State Plane
Terrain	Level, Moderate Slope, Ruts, Rocky
Tree Cover	Medium
Brush	Light
Weather	Sunny
Battery Voltage or Transmit Current Start	12
Battery Voltage or Transmit Current End	12
Raw Data File Names	TEM02848 TEM02849
Comments	South Eastern corner rutted with sticks out of ground Northern end rutted tree at northern end small stumps deep ruts north end west strip unable to be mapped with tem8g tem8g collection complete in finger 11

Grid Drawing(s)

Direction of Travel	N/S
Grid drawing	

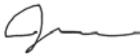


Checklist for Survey Unit Dynamic Data Processing

Record: 40	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_03 full coverage
Data Collection Team ID	Geo1
Collection Date(s)	221017
Detection Sensor	TEM-8g
Geodetic Sensor	NovAtel GPS PPK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	Yes
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	Survey gaps were filled in with EM61HP data
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 21:04:39
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 34

Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_03 transects, UXO_04 full coverage
Data Collection Team ID	Geo1, Geo2, Geo3
Collection Date(s)	220725; 220727; 220816; 220817; 220818; 220819; 220822; 220823; 220824; 220831; 220901; 220902; 220906; 220907; 220908; 220909; 220912; 220913; 220914; 220915; 220916; 220919; 220920; 220921; 220922; 22092
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	No coverage maps included for transect surveys
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 20:57:09
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 11	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_04 full coverage
Data Collection Team ID	Geo1
Collection Date(s)	220824
Detection Sensor	TEM-8g
Geodetic Sensor	NovAtel GPS PPK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	Yes
Comments	A 60Hz filter was applied to Bin1, Bin2, Bin3 and Bin4 channels due to possible power and fiber optic lines that created noise in the data.
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	Yes
Describe deviations from standard processing routine:	A 60Hz filter was applied
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Data Processor Signature	
Date	2022-09-28



Personnel Signatures

Date/Time	2022-09-28 14:44:24
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 14

Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_04 full coverage, UXO_04 transects
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	Transects collected - 220724; 220730; 220731; 220724; 220725; 220824; 220825; 220829; 220830; 220831; 220901; 220906; 220907; 220908; 220912 MinigradA - 220826; 220829 MinigradB - 220825 MinigradC - 220824
Detection Sensor	EM61
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	Yes
Comments	Background noise levels were a bit higher in the area. this is possibly due to terrain issues. The field notes that there were ruts. All targets were picked that were above 5mv however targets were analyzed, masked, and noted if they were noise.
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	Yes
Describe deviations from standard processing routine:	Some manual leveling was performed on the transects
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Data Processor Signature	
Date	2022-10-05



Personnel Signatures	
Date/Time	2022-10-05 12:37:19
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 8	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_07 full coverage
Data Collection Team ID	Geo1
Collection Date(s)	220818
Detection Sensor	TEM-8g
Geodetic Sensor	NovAtel GPS PPK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	Gridded data with an 0.8 grid cell size; State Plane
Data Processor Signature	
Date	2022-09-28



Personnel Signatures

Date/Time	2022-09-28 10:08:22
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 2	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_07 transects
Data Collection Team ID	Geo2
Collection Date(s)	220806; 220826
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	Yes
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	No Footprint Coverage maps since this was a transect area
Data Processor Signature	
Date	2022-09-15



Personnel Signatures

Date/Time	2022-09-15 15:11:12
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 5	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_11 transects
Data Collection Team ID	Geo2
Collection Date(s)	220802; 220830
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	Yes
Comments	There was a powerline running through this survey area created some noise up to roughly 8-10mV. This resulted in several noise picks between the 5mV threshold and 10mV, and even higher in a few areas.
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	Yes
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	No footprint coverage maps were created since the was a transect survey
Data Processor Signature	
Date	2022-09-15



Personnel Signatures

Date/Time	2022-09-15 15:14:50
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 20	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_11B transects
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	220815; 220829; 221004
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	N/A
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Data Processor Signature	
Date	2022-10-12



Personnel Signatures

Date/Time	2022-10-12 12:38:49
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 37	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_13 transects
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	220808; 220809; 220810
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	No Coverage maps for transect survey
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 21:01:23
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 31	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_17 full coverage
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	220922; 220926; 220927; 220928; 220929; 220930; 221003; 221004; 221005; 221006; 221007; 221010; 221025
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 20:52:34
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 17	
Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_17 full coverage
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	220803; 220806; 220807; 220909
Detection Sensor	TEM-8g
Geodetic Sensor	NovAtel GPS PPK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	Yes
Footprint Coverage .pdf	Yes
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Data Processor Signature	
Date	2022-10-05



Personnel Signatures

Date/Time	2022-10-05 13:20:48
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 28

Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_17B full coverage
Data Collection Team ID	Geo1, Geo2
Collection Date(s)	220721; 220725; 220727; 220801; 220802; 220807; 220809; 220810; 220819; 220822; 220926; 220928; 220929; 220930; 221004; 221006; 221010; 221011; 221012; 221013; 221014; 221017; 221018; 221019; 221021; 221024; 221025; 221026; 221027; 221028; 221031; 221103
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	Coverage MQC – this tool was not run in Geosoft due to the fact that the area was extremely large and full-coverage EM61HP data was overlapping in many areas. The field and processors worked together to provide coverage of all accessible areas in UXO17b with TEM8g and EM61HP data.
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 14:27:51
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Survey Unit Dynamic Data Processing

Record: 25

Project	Kitsap Bangor
Project Geo	Matt Barner
Data Processor(s)	Jeannie Norton
Survey Unit ID	UXO_17B full coverage
Data Collection Team ID	Geo1
Collection Date(s)	220720; 220721; 220724; 220726; 220808; 220815; 220816; 220817; 220824; 220825
Detection Sensor	TEM-8g
Geodetic Sensor	NovAtel GPS PPK
Item 1: Have all personnel involved with processing the Dynamic Data reviewed SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	Yes
Item 3: Was dynamic data collected in accordance with SOP5?	Yes
Item 4: Were all raw data saved to the project files?	Yes
Item 5: Was the coverage metric achieved for this grid?	Yes
Item 6: Was the in-line spacing metric achieved for this grid?	Yes
Item 7: Are the position and orientation data valid and reasonable?	Yes
Item 8: (MM2x2 only) Is the minimum transmit current >6A?	N/A
Item 9: Were any noteworthy variations with respect to the background response model or sensor noise levels observed?	No
Item 10: Were any deviations from the standard processing routine necessary for this survey unit?	No
Survey Unit .gdb	Yes
Survey Unit packed .map	Yes
Survey Unit Map .pdf	Yes
Target .gdb	Yes
Target .csv	Yes
Target_PEN .csv	No
SRA .ply	Yes
OBS .ply	Yes
Footprint Coverage .map	No
Footprint Coverage .pdf	No
Along-line Spacing .map	Yes
Along-line Spacing .pdf	Yes
Additional Notes or Comments	Coverage MQC – this tool was not run in Geosoft due to the fact that the area was extremely large and full-coverage EM61HP data was overlapping in many areas. The field and processors worked together to provide coverage of all accessible areas in UXO17b with TEM8g and EM61HP data.
Data Processor Signature	
Date	2023-02-20



Personnel Signatures

Date/Time	2023-02-20 13:59:42
SOP	6
Team Member	Jeannie Norton
Signature	



Checklist for Initial IVS Dynamic Data Processing

Record: 11	
Project	Kitsap Bangor
Project Geo	Matt Barner
QC Geo	Jessie Powers
Data Processor(s)	Jeannie Norton
IVS ID	IVS1
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTK
Item 1: Have all personnel involved with processing the initial IVS reviewed SOP4 and SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	N/A
Item 3: Was all required IVS data saved to the project files?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Did IVS data meet applicable project MQOs (e.g. - coverage, along-line spacing, valid positioning data)?	Yes
Item 6: Describe the method and parameters used to level the data?	bspline for leveling and drift correction
Item 7: Enter latency correction in seconds:	0.34
Item 8: Enter Gridding parameters:	0.25ft grid cell; minimum curvature algorithm; no blanking distance applied
Item 9: Enter the calculated standard deviation of the background response:	1.1
The minimum recommended target selection threshold is: (auto-filled)	5.5
Item 10: Target Selection Method:	Amplitude
Additional Notes or Comments	Target picking channel: CH2_lev
Project Geophysicist Signature	
Date	2022-07-27
QC Geophysicist Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 23:05:27
SOP	4
Team Member	Jeannie Norton
Signature	

Personnel Signatures

Date/Time	2022-07-25 23:05:37
SOP	6
Team Member	Jeannie Norton
Signature	

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 23:08:28
Team ID	Geo1
Data Collection Date	2022-07-25
Time of day	AM
Location within IVS	IVS01
Seed Type	Small ISO
Depth to COM (in)	3
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.95
Seed Item Northing	262373.12
Target Easting	1176888.16
Target Northing	262373.1
Target Offset (auto-filled)	0.21
Detection Sensor	em61_hp
Expected Response	165
Observed Response	118.77

Item 11: Dynamic IVS Target Information

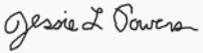
Date/Time	2022-07-25 23:10:58
Team ID	Geo1
Data Collection Date	2022-07-25
Time of day	AM
Location within IVS	IVS02
Seed Type	Small ISO
Depth to COM (in)	7.5
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.98
Seed Item Northing	262352.07
Target Easting	1176887.88
Target Northing	262352.22
Target Offset (auto-filled)	0.18
Detection Sensor	em61_hp
Expected Response	31
Observed Response	46

**Item 11:
Dynamic IVS Target Information**

Date/Time	2022-07-25 23:12:41
Team ID	Geo1
Data Collection Date	2022-07-25
Time of day	AM
Location within IVS	IVS03
Seed Type	Medium ISO
Depth to COM (in)	10
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176888
Seed Item Northing	262334.75
Target Easting	1176887.63
Target Northing	262334.63
Target Offset (auto-filled)	0.39
Detection Sensor	em61_hp
Expected Response	232
Observed Response	289



Checklist for Initial IVS Dynamic Data Processing

Record: 9	
Project	Kitsap Bangor
Project Geo	Matt Barner
QC Geo	Jessie Powers
Data Processor(s)	Jeannie Norton
IVS ID	IVS1
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTK
Item 1: Have all personnel involved with processing the initial IVS reviewed SOP4 and SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	N/A
Item 3: Was all required IVS data saved to the project files?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Did IVS data meet applicable project MQOs (e.g. - coverage, along-line spacing, valid positioning data)?	Yes
Item 6: Describe the method and parameters used to level the data?	bspline for leveling and drift correction
Item 7: Enter latency correction in seconds:	0.4
Item 8: Enter Gridding parameters:	0.25ft grid cell; minimum curvature algorithm; no blanking distance applied
Item 9: Enter the calculated standard deviation of the background response: The minimum recommended target selection threshold is: (auto-filled)	0.8 4
Item 10: Target Selection Method:	Amplitude
Additional Notes or Comments	Target picking channel: CH2_lev
Project Geophysicist Signature	
Date	2022-07-27
QC Geophysicist Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 22:18:49
SOP	4
Team Member	Jeannie Norton
Signature	

Personnel Signatures

Date/Time	2022-07-25 22:19:01
SOP	6
Team Member	Jeannie Norton
Signature	

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 22:21:17
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS01
Seed Type	Small ISO
Depth to COM (in)	3
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.95
Seed Item Northing	262373.12
Target Easting	1176887.97
Target Northing	262373.2
Target Offset (auto-filled)	0.08
Detection Sensor	em61_hp
Expected Response	65
Observed Response	78

Item 11: Dynamic IVS Target Information

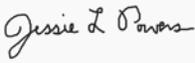
Date/Time	2022-07-25 22:22:59
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS02
Seed Type	Small ISO
Depth to COM (in)	10
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.98
Seed Item Northing	262352.07
Target Easting	1176887.76
Target Northing	262352.35
Target Offset (auto-filled)	0.36
Detection Sensor	em61_hp
Expected Response	31
Observed Response	39

**Item 11:
Dynamic IVS Target Information**

Date/Time	2022-07-25 22:25:02
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS03
Seed Type	Medium ISO
Depth to COM (in)	10
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176888
Seed Item Northing	262334.75
Target Easting	1176887.68
Target Northing	262334.78
Target Offset (auto-filled)	0.32
Detection Sensor	em61_hp
Expected Response	232
Observed Response	250



Checklist for Initial IVS Dynamic Data Processing

Record: 5	
Project	Kitsap Bangor
Project Geo	Matt Barner
QC Geo	Jessie Powers
Data Processor(s)	Jeannie Norton
IVS ID	IVS1
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the initial IVS reviewed SOP4 and SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	N/A
Item 3: Was all required IVS data saved to the project files?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Did IVS data meet applicable project MQOs (e.g. - coverage, along-line spacing, valid positioning data)?	Yes
Item 6: Describe the method and parameters used to level the data?	baseline for leveling
Item 7: Enter latency correction in seconds:	0.3
Item 8: Enter Gridding parameters:	0.25ft grid cell size; minimum curvature algorithm; no blanking radius applied
Item 9: Enter the calculated standard deviation of the background response: The minimum recommended target selection threshold is: (auto-filled)	1.1 5.5
Item 10: Target Selection Method:	Amplitude
Additional Notes or Comments	Target picking channel: CH2_lev
Project Geophysicist Signature	
Date	2022-07-27
QC Geophysicist Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 21:42:36
SOP	4
Team Member	Jeannie Norton
Signature	

Personnel Signatures

Date/Time	2022-07-25 21:42:48
SOP	6
Team Member	Jeannie Norton
Signature	

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 21:48:26
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS01
Seed Type	Small ISO
Depth to COM (in)	3
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.95
Seed Item Northing	262373.12
Target Easting	1176888
Target Northing	262373.43
Target Offset (auto-filled)	0.31
Detection Sensor	em61_hp
Expected Response	65
Observed Response	107.4

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 21:52:08
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS02
Seed Type	Small ISO
Depth to COM (in)	7.5
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.98
Seed Item Northing	262352.07
Target Easting	1176888
Target Northing	262352.44
Target Offset (auto-filled)	0.37
Detection Sensor	em61_hp
Expected Response	31
Observed Response	49

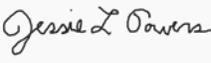


**Item 11:
Dynamic IVS Target Information**

Date/Time	2022-07-25 21:58:27
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS03
Seed Type	Medium ISO
Depth to COM (in)	10
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176888
Seed Item Northing	262334.75
Target Easting	1176887.67
Target Northing	262334.9
Target Offset (auto-filled)	0.36
Detection Sensor	em61_hp
Expected Response	232
Observed Response	302



Checklist for Initial IVS Dynamic Data Processing

Record: 7	
Project	Kitsap Bangor
Project Geo	Matt Barner
QC Geo	Jessie Powers
Data Processor(s)	Jeannie Norton
IVS ID	IVS1
Detection Sensor	EM61-HP
Geodetic Sensor	Leica RTS
Item 1: Have all personnel involved with processing the initial IVS reviewed SOP4 and SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	N/A
Item 3: Was all required IVS data saved to the project files?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Did IVS data meet applicable project MQOs (e.g. - coverage, along-line spacing, valid positioning data)?	Yes
Item 6: Describe the method and parameters used to level the data?	bspline used for leveling and drift correction
Item 7: Enter latency correction in seconds:	0.3
Item 8: Enter Gridding parameters:	0.25ft grid cell size; minimum curvature algorithm; no blanking radius applied
Item 9: Enter the calculated standard deviation of the background response: The minimum recommended target selection threshold is: (auto-filled)	0.8 4
Item 10: Target Selection Method:	Amplitude
Additional Notes or Comments	Target picking channel: CH2_lev
Project Geophysicist Signature	
Date	2022-07-27
QC Geophysicist Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 22:07:24
SOP	4
Team Member	Jeannie Norton
Signature	

Personnel Signatures

Date/Time	2022-07-25 22:07:35
SOP	6
Team Member	Jeannie Norton
Signature	

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 22:11:29
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS01
Seed Type	Small ISO
Depth to COM (in)	3
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.95
Seed Item Northing	262373.12
Target Easting	1176888.12
Target Northing	262373.19
Target Offset (auto-filled)	0.18
Detection Sensor	em61_hp
Expected Response	65
Observed Response	99

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 22:13:35
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS02
Seed Type	Small ISO
Depth to COM (in)	7.5
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.975
Seed Item Northing	262352.07
Target Easting	1176888.07
Target Northing	262352.33
Target Offset (auto-filled)	0.28
Detection Sensor	em61_hp
Expected Response	31
Observed Response	41



**Item 11:
Dynamic IVS Target Information**

Date/Time	2022-07-25 22:16:28
Team ID	Geo2
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS03
Seed Type	Medium ISO
Depth to COM (in)	10
Orientation	Horiz. Along-Line
Coordinate Units	Feet
Seed Item Easting	1176888
Seed Item Northing	262334.75
Target Easting	1176887.91
Target Northing	262334.76
Target Offset (auto-filled)	0.09
Detection Sensor	em61_hp
Expected Response	232
Observed Response	256



Checklist for Initial IVS Dynamic Data Processing

Record: 2	
Project	Kitsap Bangor
Project Geo	Matt Barner
QC Geo	Jessie Powers
Data Processor(s)	Jeannie Norton
IVS ID	IVS1
Detection Sensor	TEM-8g
Geodetic Sensor	N/A
Item 1: Have all personnel involved with processing the initial IVS reviewed SOP4 and SOP6?	Yes
Item 2: Do all personnel involved with data processing have a valid DOC on file?	N/A
Item 3: Was all required IVS data saved to the project files?	Yes
Datum	NAD83 CONUS
Coordinate System	State Plane
Item 5: Did IVS data meet applicable project MQOs (e.g. - coverage, along-line spacing, valid positioning data)?	Yes
Item 6: Describe the method and parameters used to level the data?	low pass filter 10, baseline correction
Item 7: Enter latency correction in seconds:	0.23
Item 8: Enter Gridding parameters:	grid cell size 0.15ft; minimum curvature algorithm; blanking distance 0.5ft
Item 9: Enter the calculated standard deviation of the background response:	1.64
The minimum recommended target selection threshold is: (auto-filled)	8.2
Item 10: Target Selection Method:	Amplitude
Additional Notes or Comments	Used initial IVS responses for expected values. Target picking performed using Bin 2.
Project Geophysicist Signature	
Date	2022-07-27
QC Geophysicist Signature	
Date	2022-07-25



Personnel Signatures

Date/Time	2022-07-25 10:19:51
SOP	4
Team Member	Jeannie Norton
Signature	

Personnel Signatures

Date/Time	2022-07-25 10:20:07
SOP	6
Team Member	Jeannie Norton
Signature	

Item 11: Dynamic IVS Target Information

Date/Time	2022-07-25 10:36:40
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS01
Seed Type	Small ISO
Depth to COM (in)	3
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.95
Seed Item Northing	262373.12
Target Easting	1176888.6
Target Northing	262373.4
Target Offset (auto-filled)	0.71
Detection Sensor	tem_8g
Expected Response	173
Observed Response	173.9

Item 11: Dynamic IVS Target Information

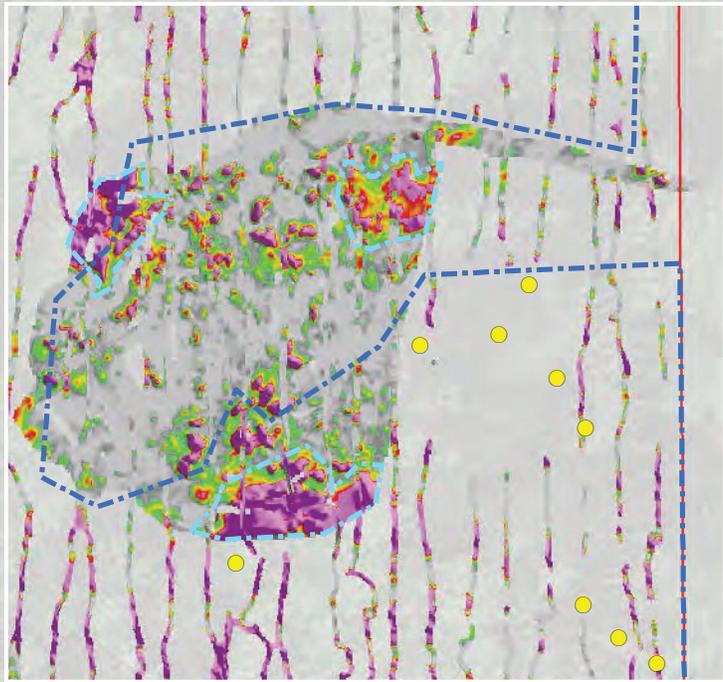
Date/Time	2022-07-25 18:56:03
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS02
Seed Type	Small ISO
Depth to COM (in)	7.5
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176887.98
Seed Item Northing	262352.07
Target Easting	1176888.6
Target Northing	262352.4
Target Offset (auto-filled)	0.70
Detection Sensor	tem_8g
Expected Response	58
Observed Response	58.7



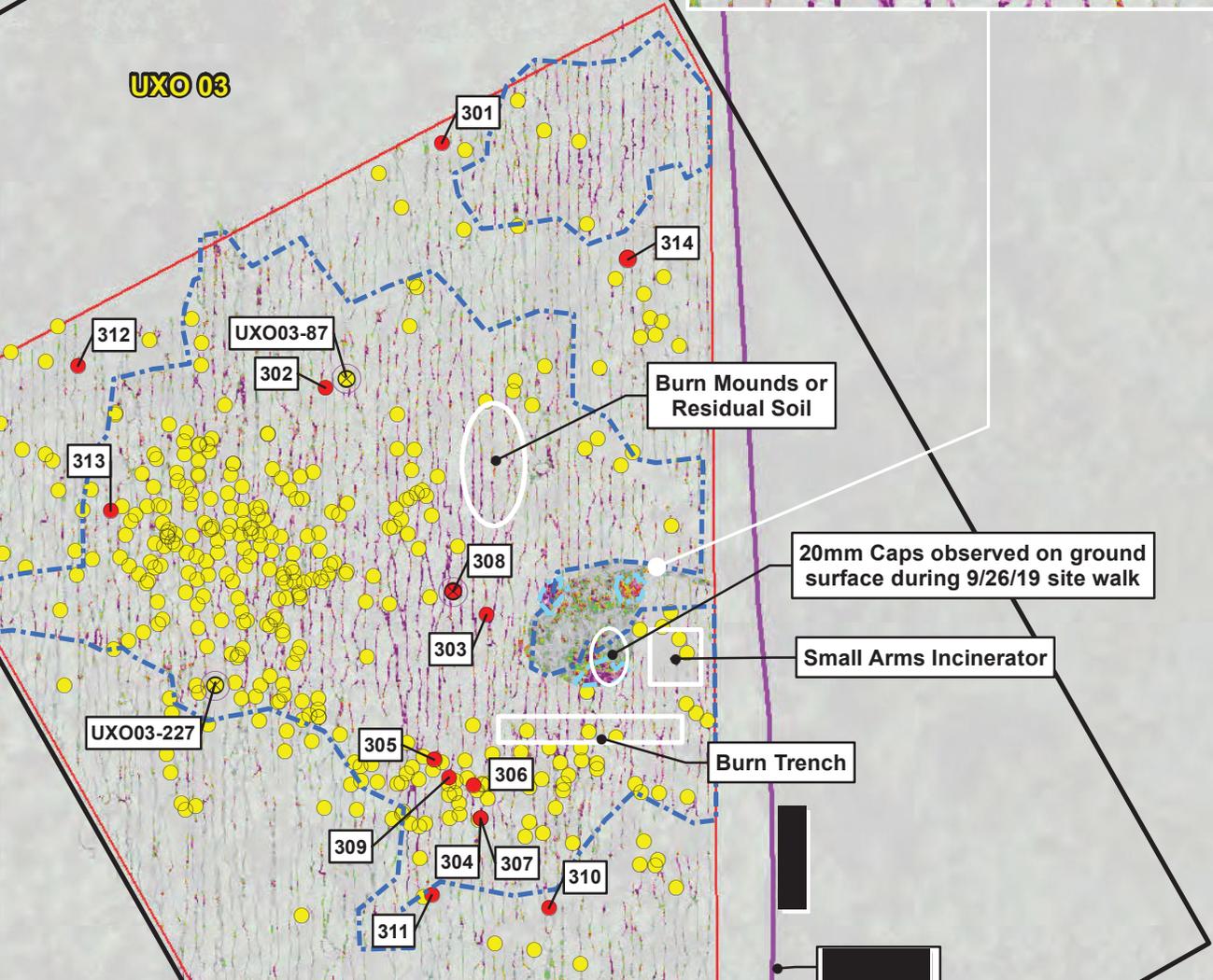
**Item 11:
Dynamic IVS Target Information**

Date/Time	2022-07-25 21:26:46
Team ID	Geo1
Data Collection Date	2022-07-19
Time of day	AM
Location within IVS	IVS03
Seed Type	Medium ISO
Depth to COM (in)	10
Orientation	Horiz. Across-Line
Coordinate Units	Feet
Seed Item Easting	1176888
Seed Item Northing	262334.75
Target Easting	1176888.3
Target Northing	262334.7
Target Offset (auto-filled)	0.30
Detection Sensor	tem_8g
Expected Response	289
Observed Response	289.1

APPENDIX E – DGM MAPS



UXO 03

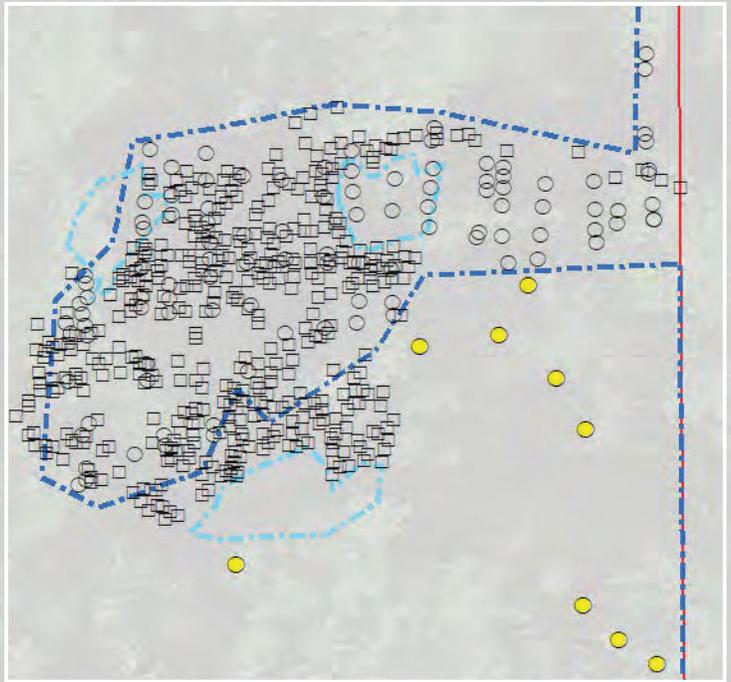


Burn Mounds or Residual Soil

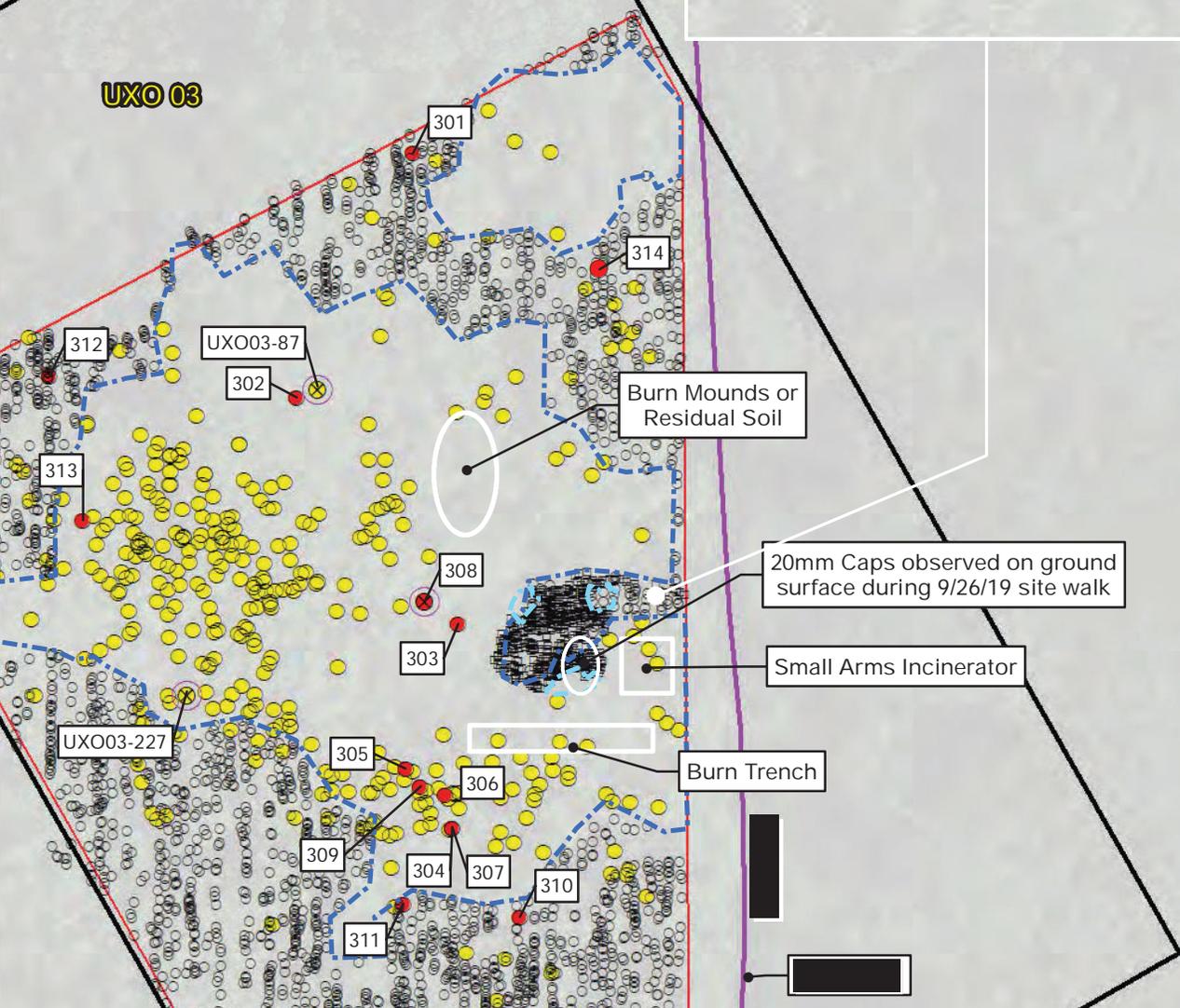
20mm Caps observed on ground surface during 9/26/19 site walk

Small Arms Incinerator

Burn Trench



UXO 03

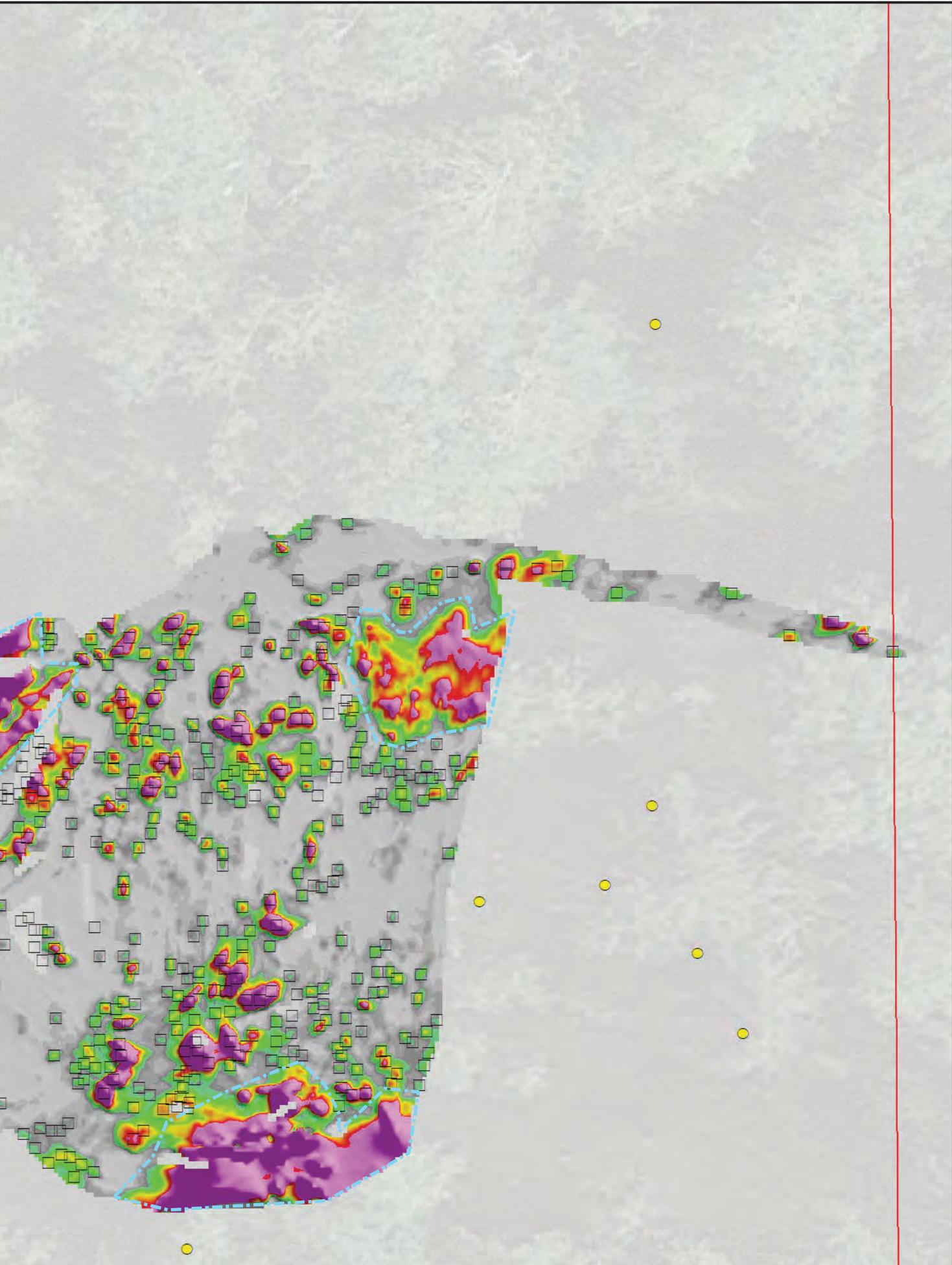


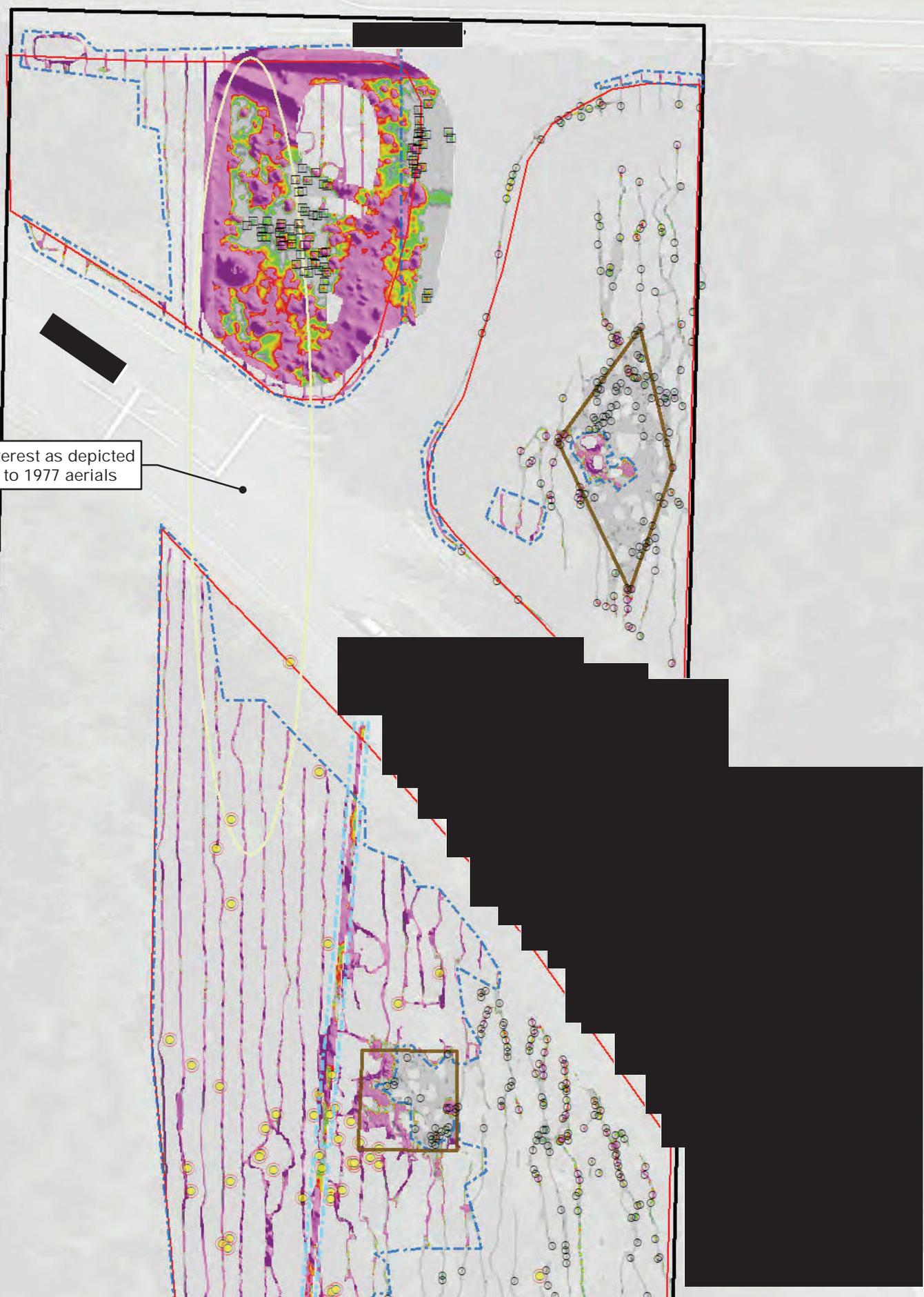
Burn Mounds or Residual Soil

20mm Caps observed on ground surface during 9/26/19 site walk

Small Arms Incinerator

Burn Trench



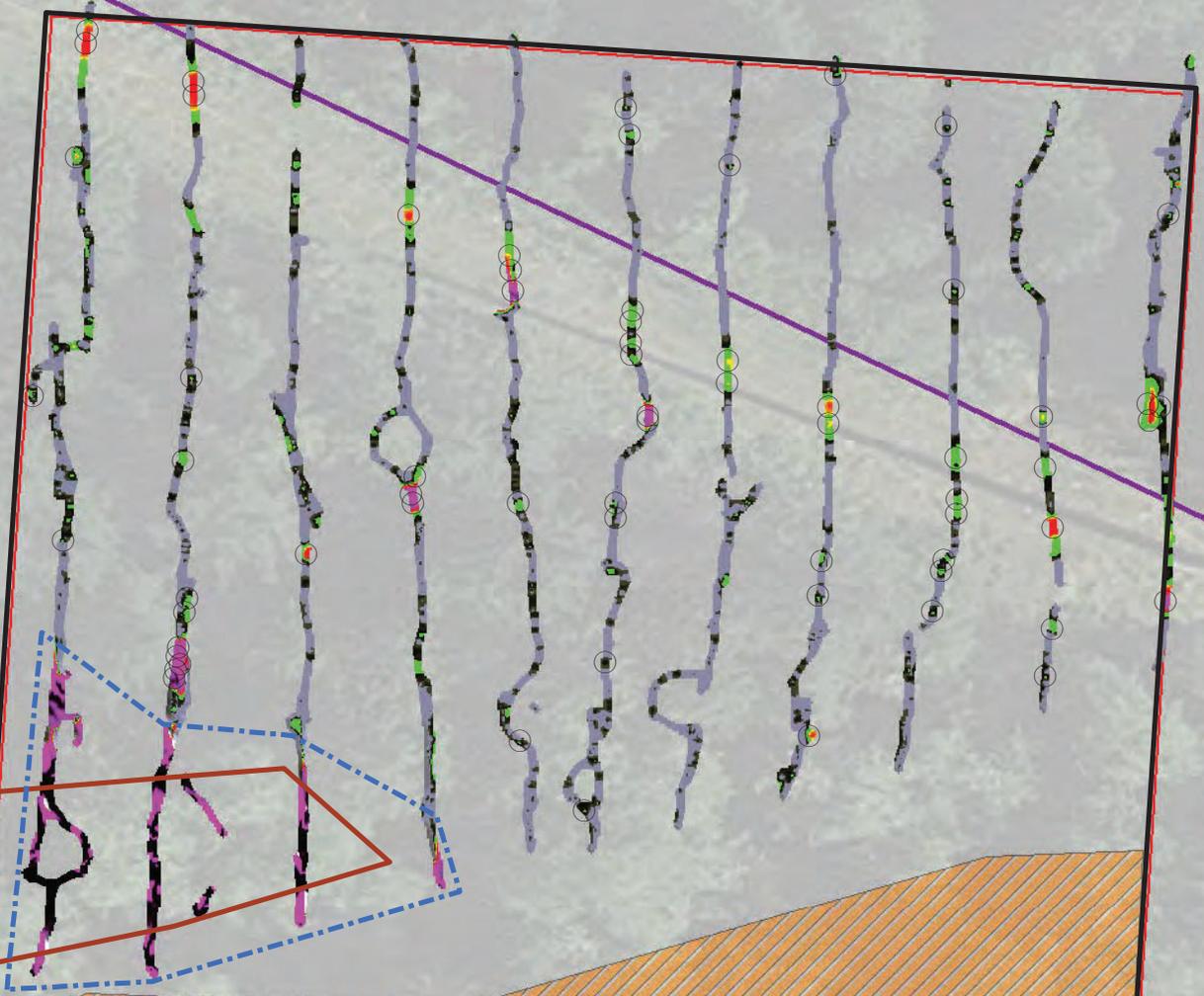


Interest as depicted
1 to 1977 aeri

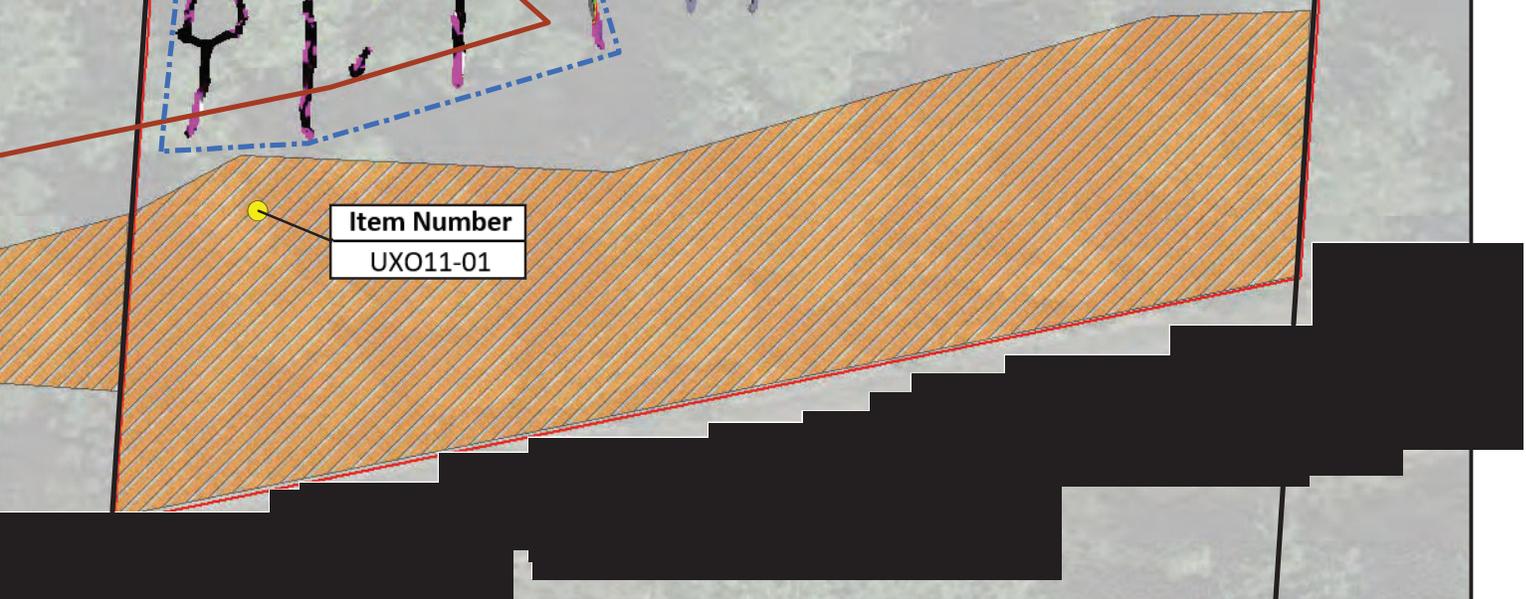


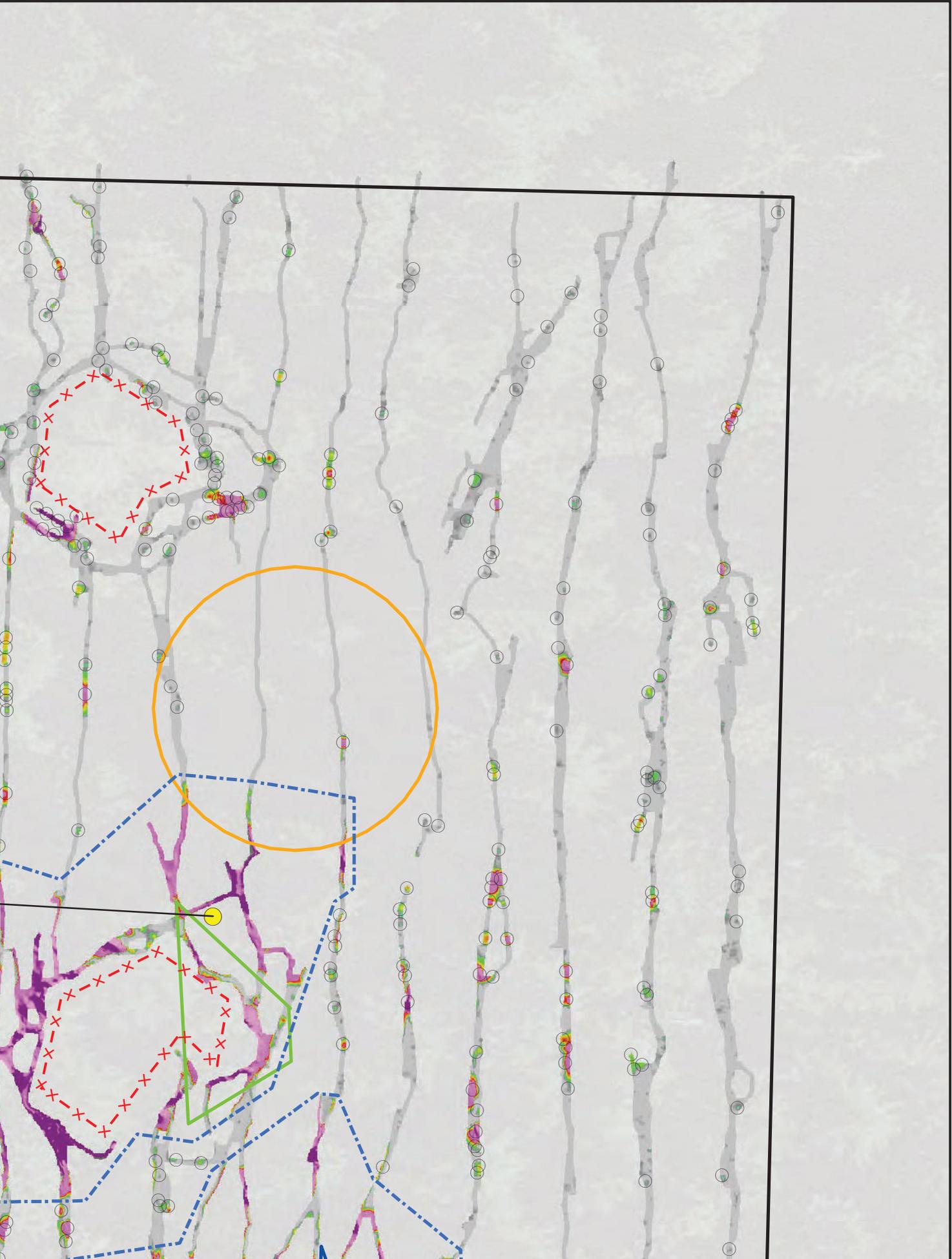
Earth mounds
(5-6' high)

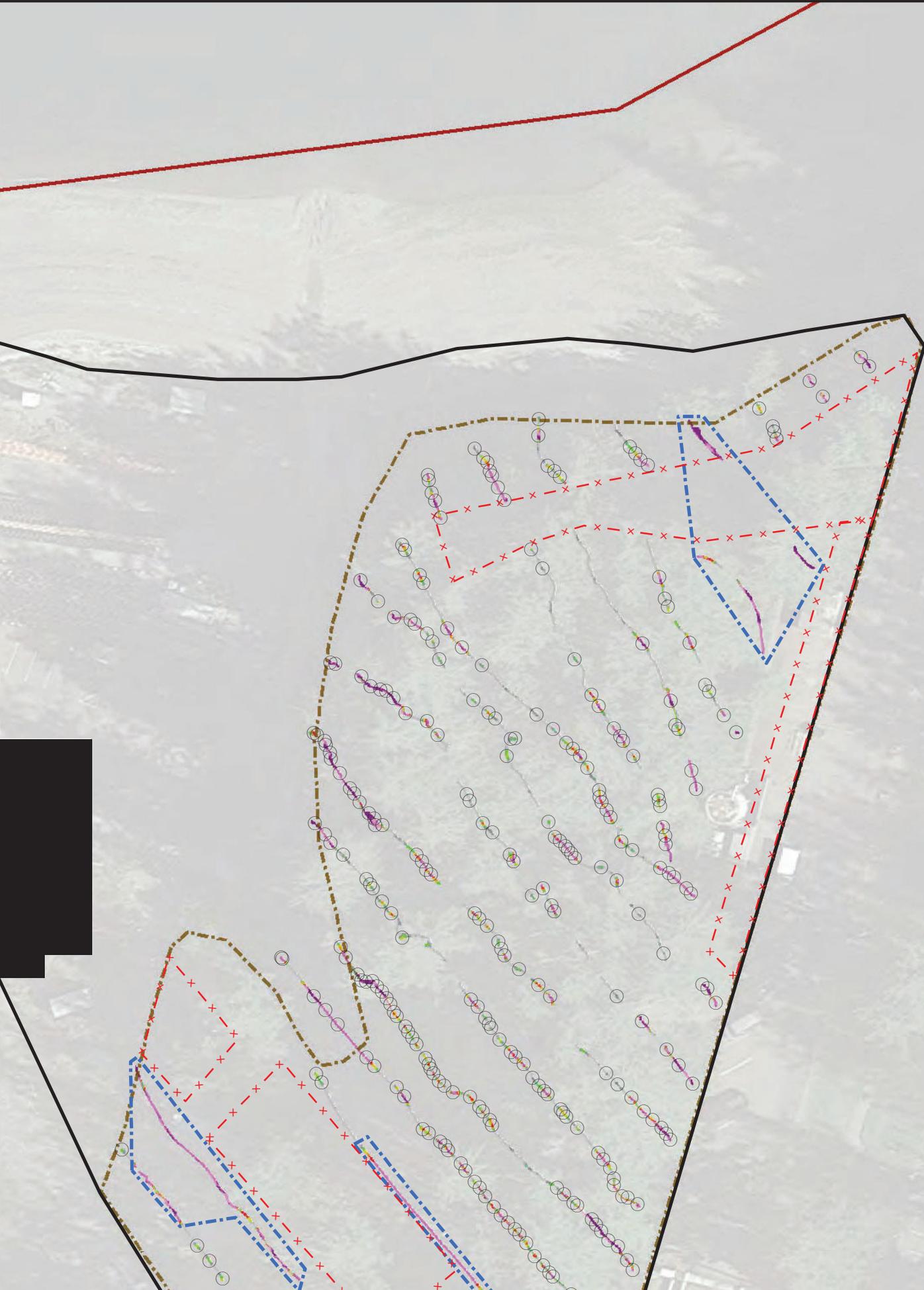
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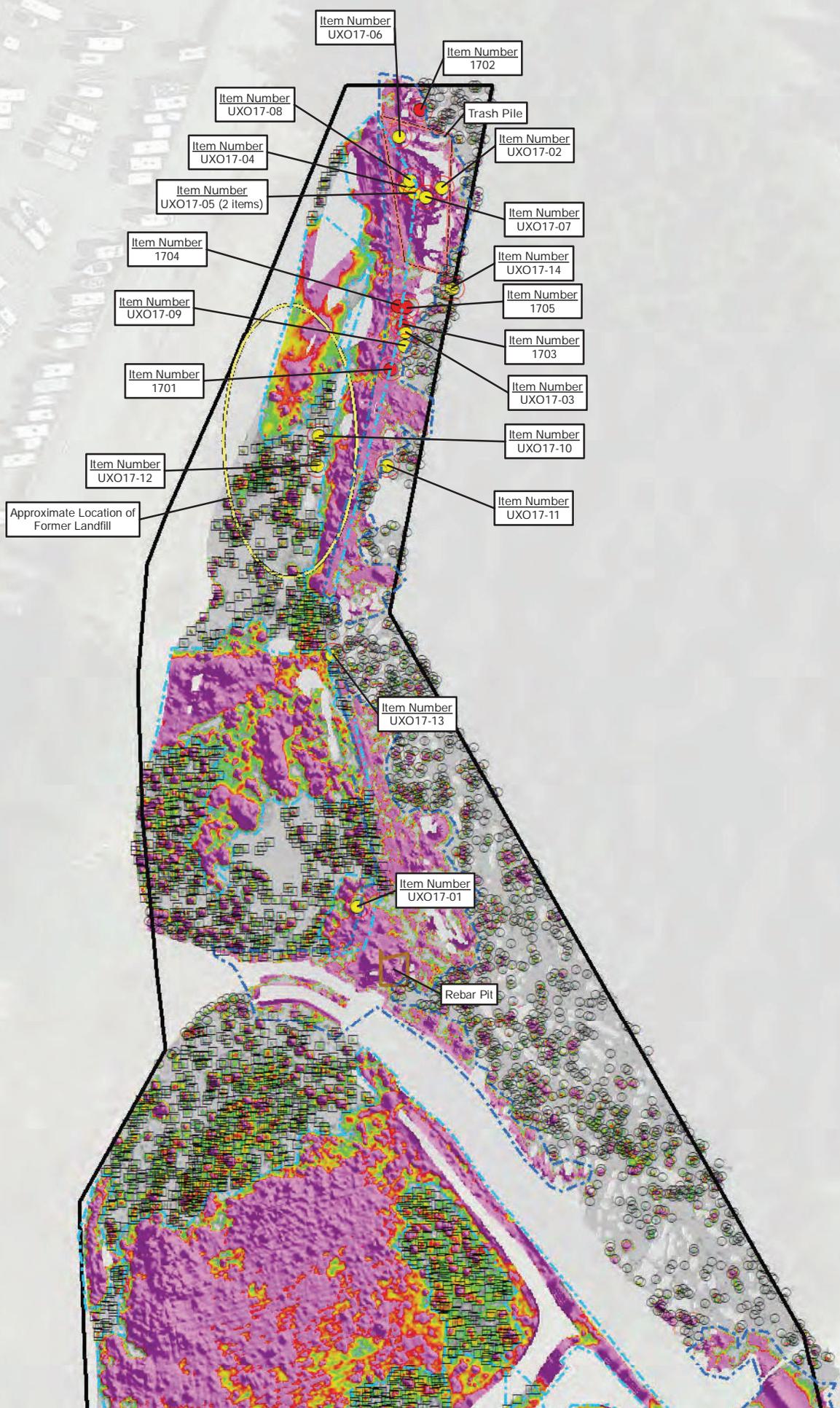


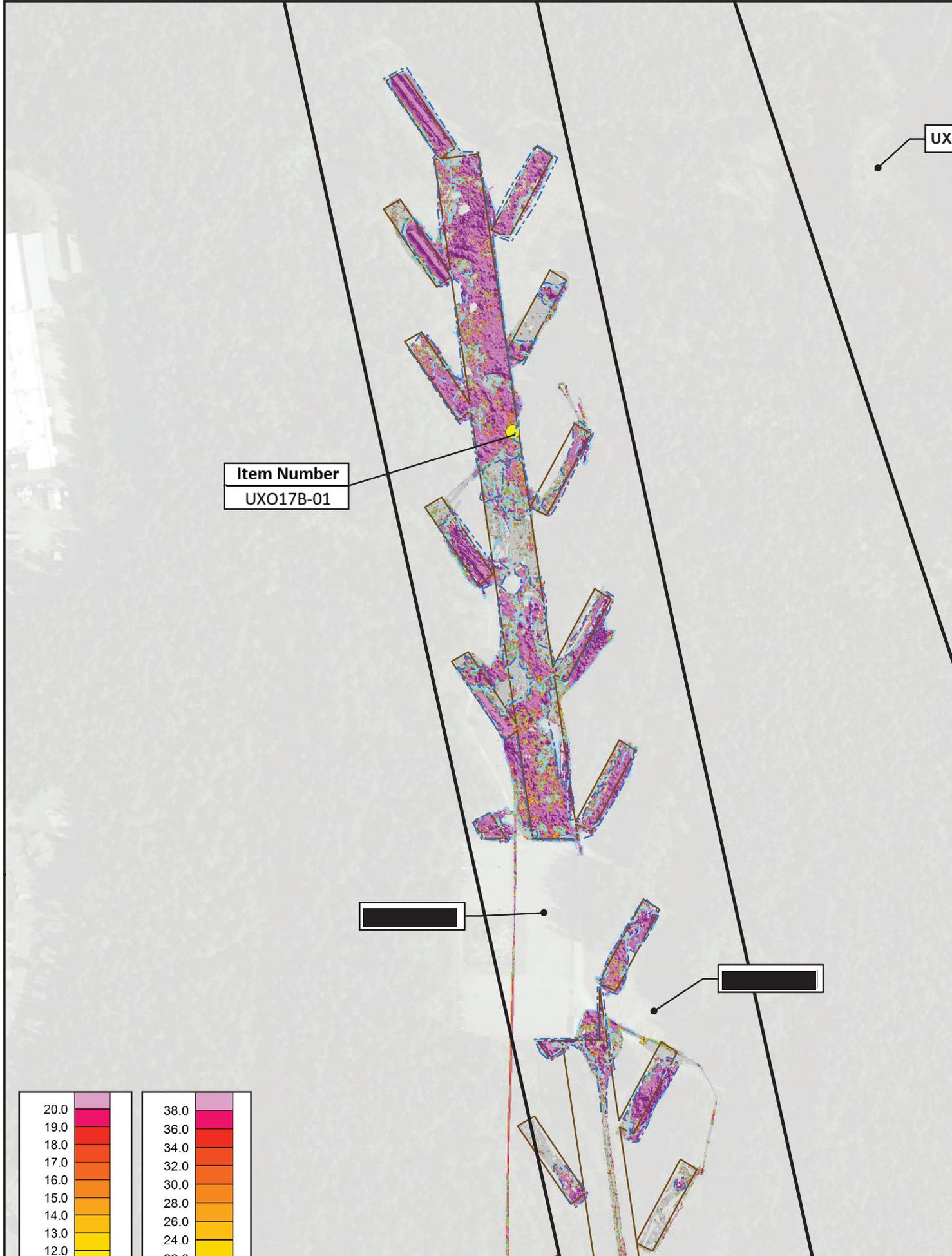
Item Number
UXO11-01









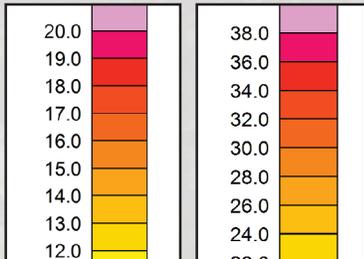


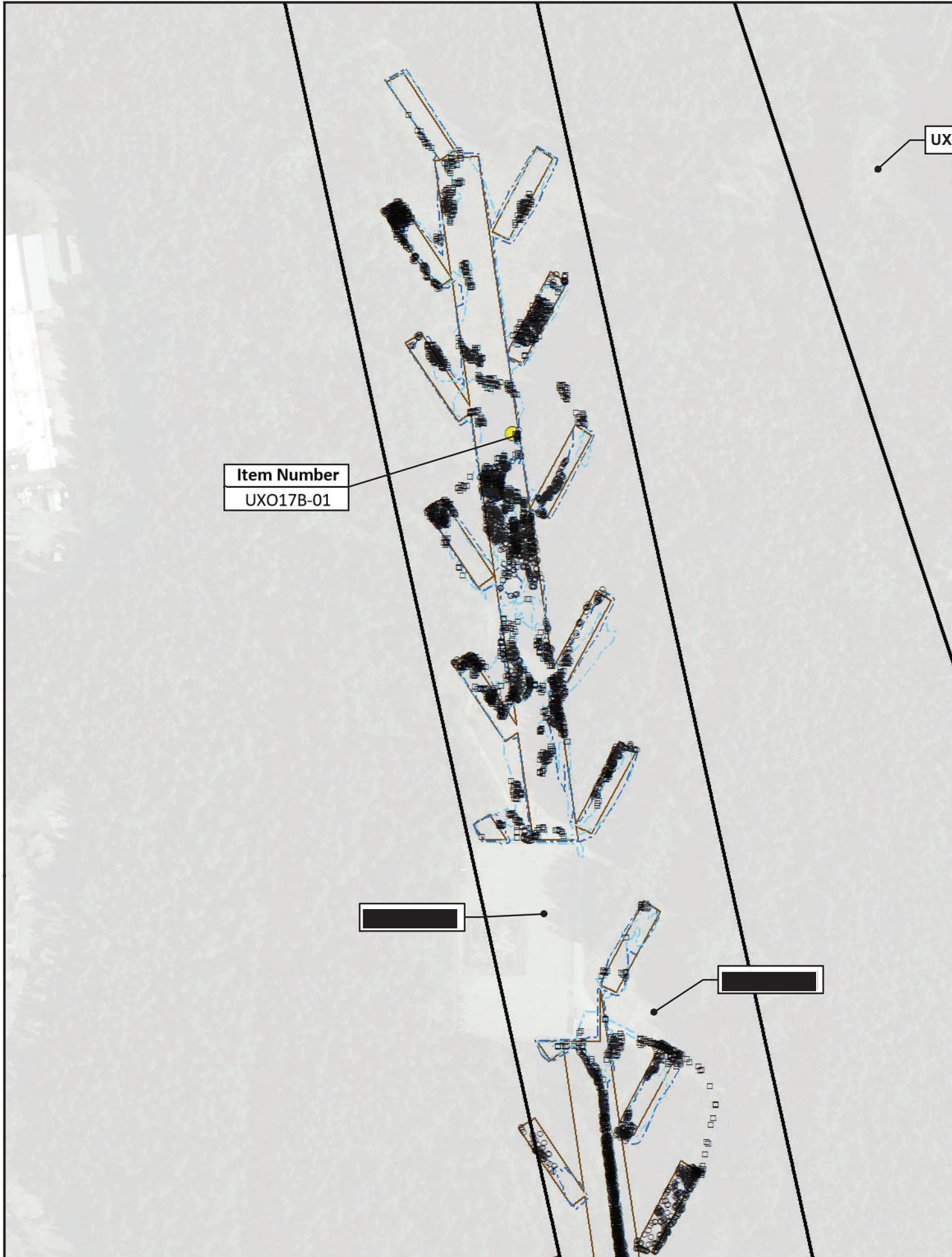
Item Number
UXO17B-01

UX

[Redacted]

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Item Number
UXO17B-01

UX

[Redacted]

[Redacted]

APPENDIX F – IVS MEMORANDA

FINAL

**Instrument Verification Strip Technical
Memorandum**

Site Inspection

Multiple Munitions Response Program Sites

Naval Base Kitsap Bangor, WA

Contract Number: N6247016D9008

Task Order Number: N4425519F4112

Document Control Number: NBK-179-8015-DOC-002

September 14, 2022

PRESENTED TO

**UNITED STATES DEPARTMENT OF
THE NAVY
Naval Facilities Engineering Command
Northwest
1101 Tautog Circle
Silverdale, WA 98315-1101**

PRESENTED BY

**Tetra Tech
4433 Corporation Lane
Suite 300
Virginia Beach, Virginia 23462
Tetrattech.com**

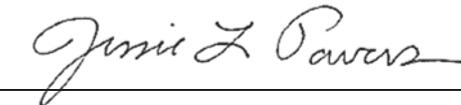
Prepared by:



Matthew Barner, P.G.
Project Geophysicist

9/14/2022

Reviewed by:



Jessie Powers
QC Geophysicist

9/14/2022

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Appendix C - Surveyor Report

Appendix D - EM61-MK2HP Response Measurements

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
DFW	Definable Feature of Work
DGM	Digital Geophysical Mapping
DGPS	Differential Global Positioning System
FCR	Field Change Request
HDOP	Horizontal Dilution of Precision
HP	High Power
ISO	Industry Standard Object
IVS	Instrument Verification Strip
MEC	Munitions and Explosives of Concern
MPPEH	Material Potentially Presenting an Explosive Hazard
MRP	Munitions Response Program
MQO	Measurement Quality Objective
mV	Millivolt
NAD83	North American Datum 1983
NRL	Naval Research Laboratory
PPK	Posit-Processed Kinematic
ppm	Parts Per Million
RTK	Real-time Kinematic
RTS	Robotic Total Station
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QRIR	Quality Receiving Inspection Reports
SI	Site Inspection
SOP	Standard Operating Procedure

1.0 INTRODUCTION

This memorandum presents the results of digital geophysical mapping (DGM) system validation at the Instrument Verification Strip (IVS) established at Naval Base Kitsap Bangor in support of a Site Inspection (SI) of multiple installation munitions response program (MRP) sites. DGM surveys are being conducted at these sites to detect metallic objects in the subsurface indicative of material potentially presenting an explosive hazard/munitions and explosives of concern (MPPEH/MEC).

The primary purpose of the IVS is to demonstrate the DGM systems used for data collection are operating properly and are capable of collecting data that meet the measurement quality objectives (MQOs) in the MEC Quality Assurance Project Plan (MEC QAPP), dated June 2021. The results of the IVS survey are also used to inform establishing an appropriate target picking threshold.

DGM systems validated at the IVS and presented in this memorandum include Tetra Tech's proprietary TEM-8g towed array and person-portable Geonics, Ltd. EM61-MK High Power (EM61-MK2HP) systems. Positioning for the TEM-8g is maintained using post-processed kinematic (PPK) differential global positioning system (DGPS) data. Positioning for the EM61-MK2HP systems is maintained using a combination of real-time kinematic (RTK) GPS and robotic total station (RTS), depending on site-specific conditions. Both PPK and RTK GPS surveys use an onsite base station erected at established control points. Tetra Tech has onsite one TEM-8g system onsite and two EM61-MK2HP systems.

The IVS (IVS #1) was established, and initial DGM system validation surveys were completed in accordance with standard operating procedures (SOPs) appended to the MEC QAPP:

- IVS construction: DGM SOP-1 and DGM SOP-7
- EM61-MK2HP assembly, validation at IVS, and data processing: DGM SOP-2; SOP-4; SOP-6
- TEM-8g assembly, validation at IVS, and data processing: DGM SOP-2; SOP-8; SOP-10

This memorandum presents the construction details and survey results at IVS #1. If additional IVS locations are established by the Tetra Tech field team during the course of the project, they will be summarized and presented in an addendum to this memorandum.

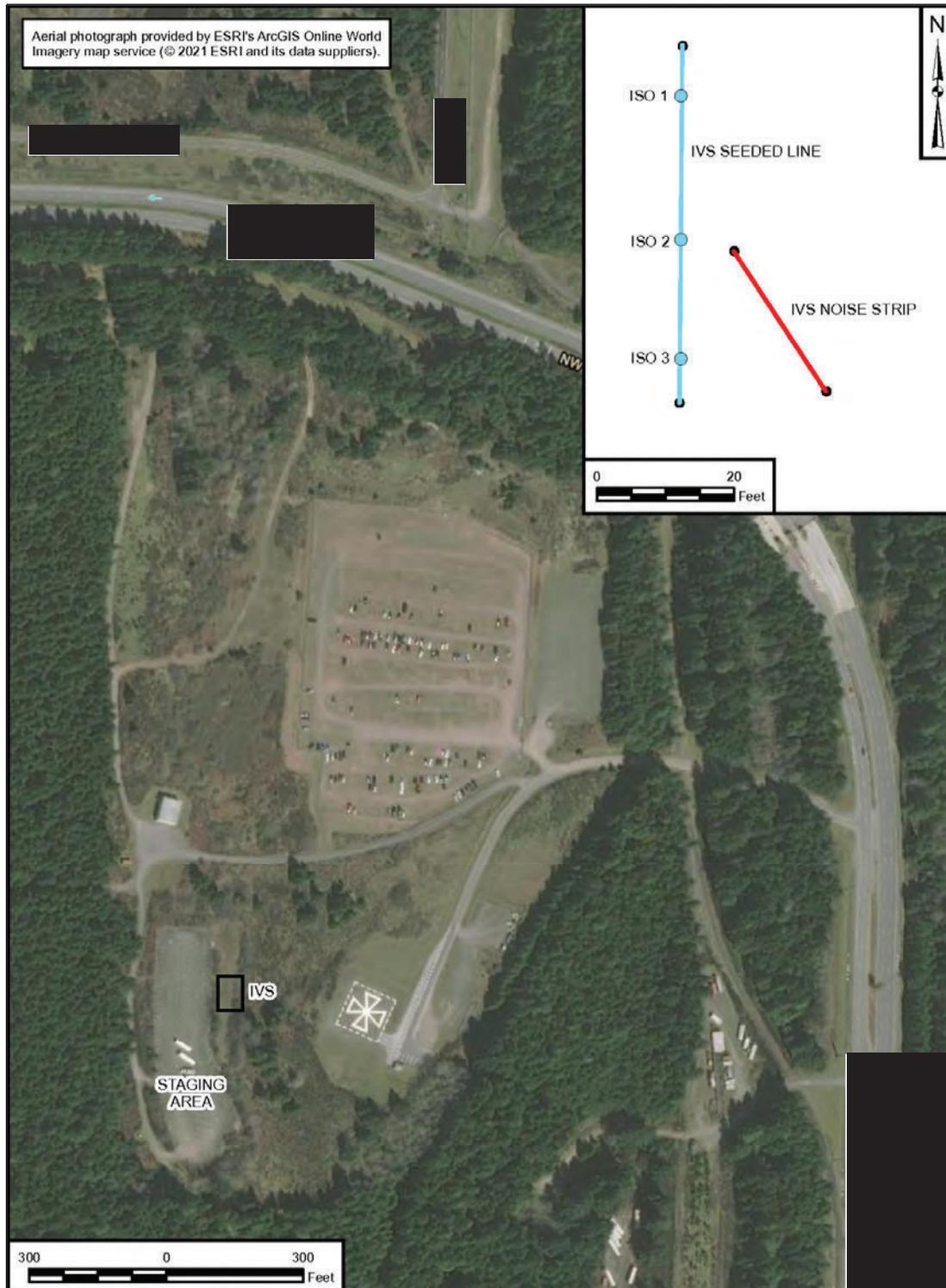
The IVS construction was completed on July 19, 2022, in accordance with Definable Feature of Work (DFW) 5 in the MEC QAPP. All photographs taken in support of the IVS construction and DGM system validation were done so in accordance with Naval Base Kitsap Bangor security protocols. Photographs included in this memorandum were reviewed by the base security officer and approved for use in project reporting.

One relevant deviation from the MEC QAPP is documented in Field Change Request (FCR) 05 to address a change in the acceptable minimum battery voltage (Worksheet #22, Table 22-3, MQO #3-14) for the EM61-MK2HP systems. FCR 05 (Appendix A) was accepted by the Navy on July 27, 2022.

2.0 IVS LOCATION AND AS-BUILT DETAILS

IVS #1 was established at the Tetra Tech field operations staging area, [REDACTED] Figure 1). The ground conditions at the IVS area include relatively flat terrain, hardpack soil, and sparse vegetation. The inset drawing in Figure 1 shows the orientation of the IVS seeded transect, the positions of three industry standard objects (ISOs) used as seeds, and the background strip (i.e., noise strip). Appendix B includes the utility clearance permit, approved in accordance with the base installation requirements when subsurface disturbance is planned (for emplacement of the seeds).

Figure 1: IVS #1 location at Naval Base Kitsap Bangor.



In accordance with the MEC QAPP and relevant SOPs, a pre-seeded survey of the IVS area was completed prior to IVS construction. The pre-seeded survey was completed using the EM61-MK2HP. The first candidate IVS area was selected in the northwest portion of the staging area but was rejected by Tetra Tech due to laterally extensive response from subsurface metal in those EM61-MK2HP results.

A second candidate area (IVS #1) was subsequently identified at the staging area (Figure 1). These pre-seeded EM61-MK2HP results are presented as Figures 2 and 3. Figure 2 demonstrates a larger area than needed was mapped to provide flexibility in the placement of the IVS seeds sufficiently far from metallic objects in the subsurface of unknown nature. Figure 3 depicts the locations of the proposed seeded line, seeds, and noise strip relative to the entire pre-seeded survey area. Final as-built IVS coordinates are presented in Table 1.

Coordinates presented in this memorandum are in Washington North State Plane, North American Datum 1983 (NAD83), and units of U.S. Survey Feet.

Figure 2: Pre-seeded EM61-MK2HP Results at IVS #1.

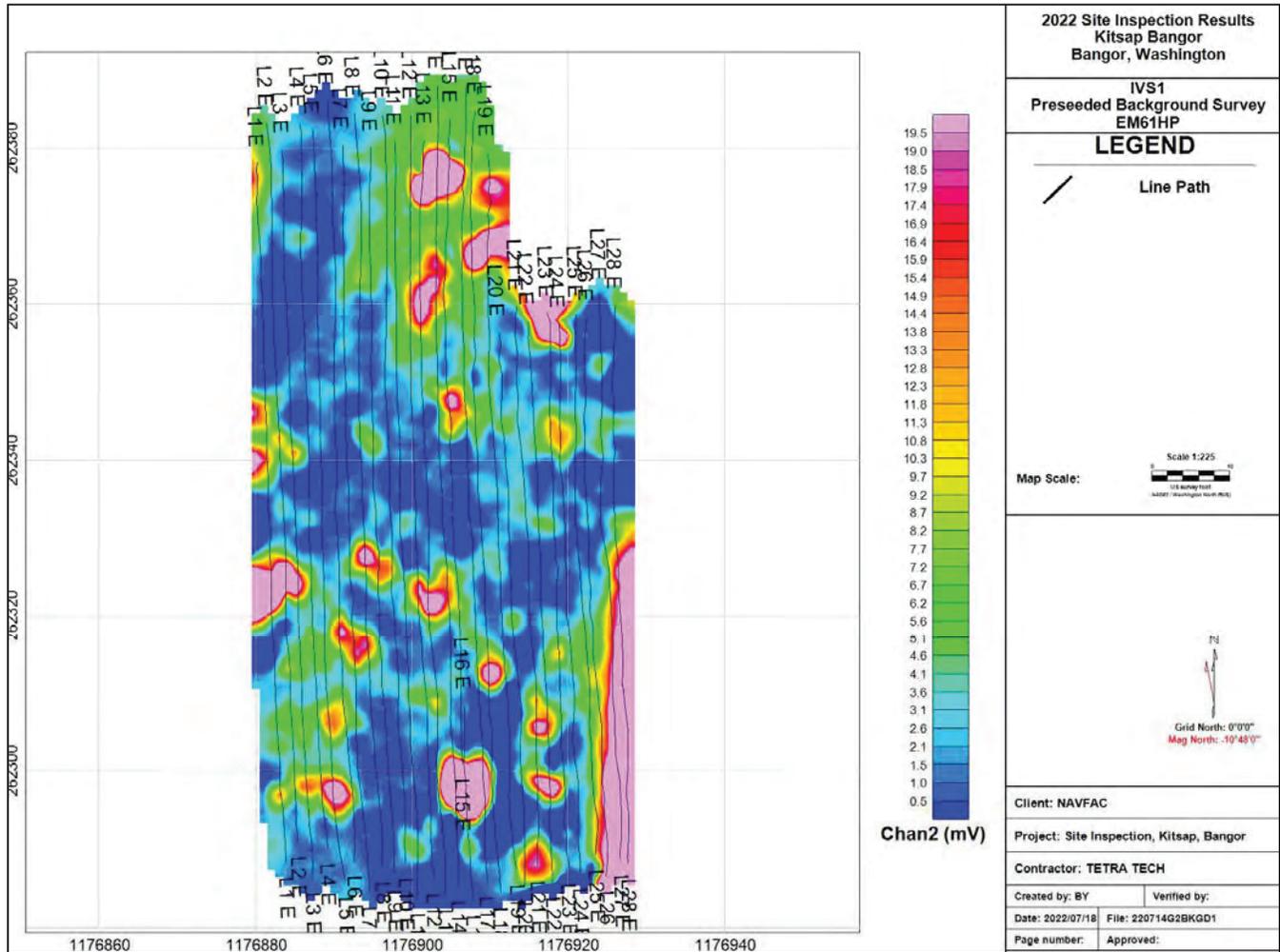
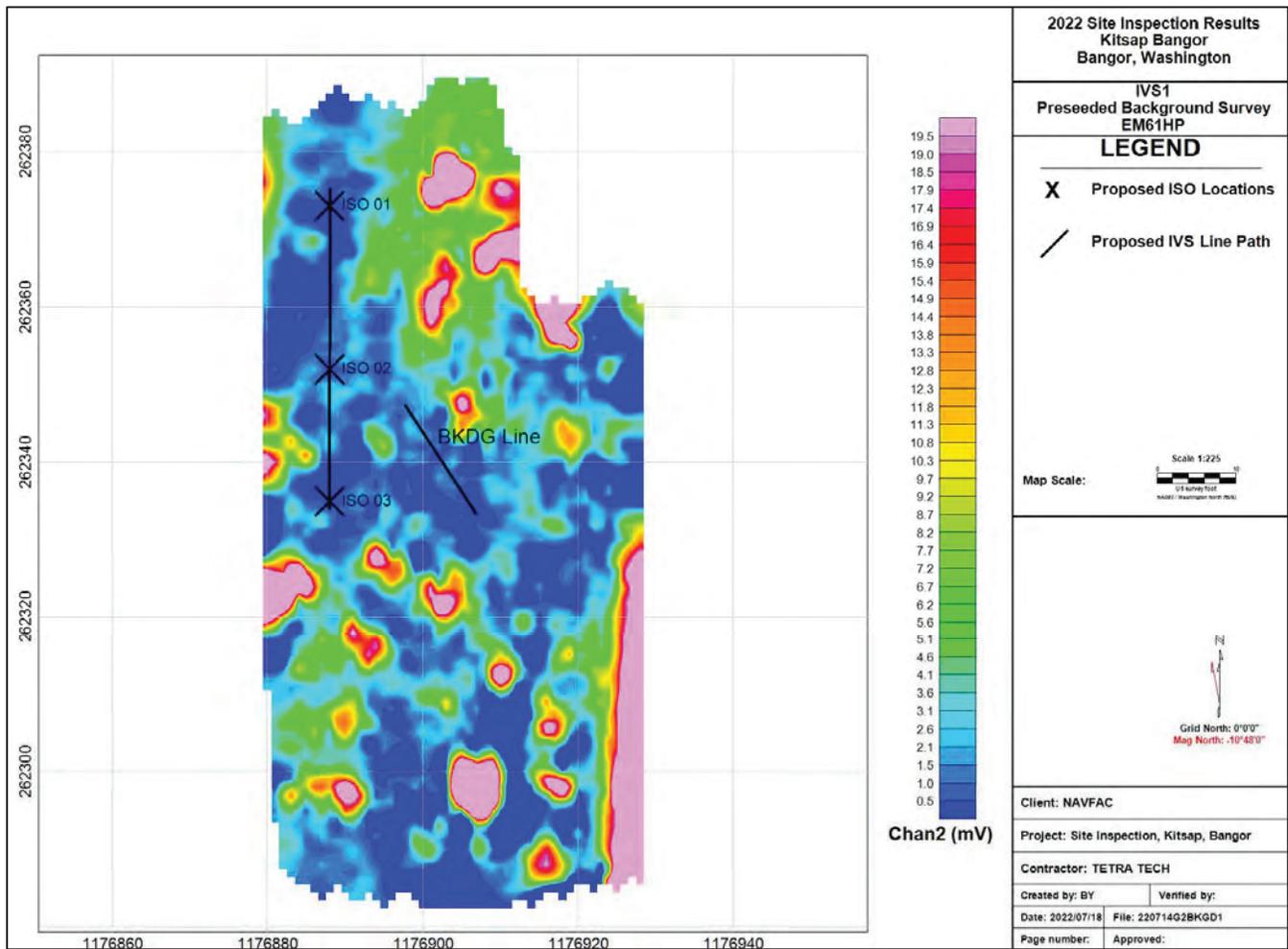


Figure 3: Proposed IVS #1 Seeded Transect and Noise Strip with EM61-MK2HP Pre-seeded Results.



Tetra Tech recorded the as-built positions of the IVS using RTK GPS. Initial site controls for the project were established by Tetra Tech’s subcontracted licensed land surveyor, AES Consultants, Inc. The surveyor report is provided in Appendix C of this memorandum. Established site controls at the time of IVS construction are presented in Table 1. Note that additional temporary control points may be set by the land surveyor, as needed, during the course of the SI fieldwork duration. Therefore, Table 1 is not a complete listing of site control points and only includes details for those points used during equipment setup and IVS establishment tasks.

IVS #1 as-built details are presented in Table 2, and relevant photographs are provided as Figure 4. The photographs in Figure 4 include the three IVS seeds during emplacement, the IVS survey lines marked in the field, and the RTK GPS set up near the IVS to record the as-built conditions. Metal survey nails were installed at the ends of the IVS transects; the positions of these nails are reflected in Table 2. The Tetra Tech field team used metal nails to mark the endpoints because the ground surface was too hard to insert non-metallic flags or stakes.

Table 1. Project Site Controls.

Point ID	Easting (U.S. Survey Feet)	Northing (U.S. Survey Feet)	Elevation (U.S. Survey Feet)
CP1	[REDACTED]	[REDACTED]	[REDACTED]
CP2	[REDACTED]	[REDACTED]	[REDACTED]
CP23	[REDACTED]	[REDACTED]	[REDACTED]

Table 2. IVS As-Built Details.

Description	Easting (U.S. Survey Feet)	Northing (U.S. Survey Feet)	Depth (Inches)	Orientation
IVS_NOISE_STRIP_SE	[REDACTED]	[REDACTED]	N/A	N/A
IVS_NOISE_STRIP_NW	[REDACTED]	[REDACTED]	N/A	N/A
IVS_SEEDED_LINE_NORTH	[REDACTED]	[REDACTED]	N/A	N/A
IVS_SEEDED_LINE_SOUTH	[REDACTED]	[REDACTED]	N/A	N/A
ISO_1	[REDACTED]	[REDACTED]	3	Horizontal, Cross-track
ISO_2	[REDACTED]	[REDACTED]	7.5	Horizontal, Cross-track
ISO_3	[REDACTED]	[REDACTED]	10	Horizontal, Cross-track

Notes:

ISO_1 and ISO_2: Small Schedule 80 Industry Standard Object (ISO80), McMaster-Carr Part No. 4550K226

ISO_3: Medium Schedule 40 ISO (ISO40), McMaster-Carr Part No. 44615K529

Whiteboard annotation for ISO_3 incorrectly labeled in the field as Schedule 80. Figure 4 shows the corrected photograph.

Figure 4: IVS Photographs.



3.0 DGM SYSTEM VALIDATION RESULTS

The DGM systems were assembled by the Tetra Tech field teams and underwent initial sensor function tests in accordance with the relevant SOPs listed in Section 1.0. Prior to the collection of the DGM data at IVS #1, the positioning systems planned for use during production surveys underwent function testing using the site controls listed in Table 1. These function checks included recording a measurement at point with the RTK GPS and RTS systems.

Documentation of the DGM and positioning equipment serial numbers and components onsite for field work is provided in daily field logs and Tetra Tech’s quality receiving inspection reports (QRIRs). This documentation has been provided to the project team as part of daily field reports, DFW preparatory inspection reports, and weekly geophysical quality control (QC) reports. Photographs of the assembled DGM systems having undergone validation at the IVS are provided in Figure 5.

Figure 5: Assembled EM61-MK2HP Systems (Top) and TEM-8g (Bottom).



3.1 SENSOR FUNCTION CHECKS

There are no published response values for the EM61-MK2HP sensors like those for the standard-power EM61-MK2 from Naval Research Laboratory (NRL). To verify functionality for the EM61-MK2HP sensors used at Naval Base Kitsap Bangor, a series of measurements were recorded with the response to a small ISO40 measured at varying distances from each sensor. These offset distances ranged between 12 and 39 inches (30 and 100 centimeters) to effectively derive a response curve. The tabulated relationship (expressed as a multiplier) between each measured response and the published response from a standard-power EM61-MK2 is presented as Tables D-1 through D-3 in Appendix D. The averaged multiplier from the measurements for Channels 1, 2, 3, and 4 was determined to be 5x, 5x, 7x and 12x, respectively.

As an accuracy check, a static spike session was separately recorded with each EM61-MK2HP using a small ISO40 at a distance of 17.7 inches (45 centimeters) from each sensor and compared to the tabulated predicted EM61-MK2HP responses in Appendix D, Table D-4. The results of this accuracy check are presented below as Table 3.

Table 3. EM61-MK2HP Accuracy Check.

Date	System	Expected EM61-MK2HP Response (mV)	Measured EM61-MK2HP Response (mV)	Deviation Between Measured and Expected
7/17/2022	G1	Ch1: 174	Ch1: 178.2	2%
		Ch2: 96.5	Ch2: 105.4	9%
		Ch3: 60.9	Ch3: 61.4	1%
		Ch4: 36	Ch4: 42.1	17%
7/17/2022	G2	Ch1: 174	Ch1: 156	10%
		Ch2: 96.5	Ch2: 88.3	8%
		Ch3: 60.9	Ch3: 53.8	12%
		Ch4: 36	Ch4: 33.6	7%
mV = milliVolts				

Measurements to establish the relationship between the EM61-MK2HP and standard power EM61-MK2 in Appendix D and the accuracy check in Table 3 were taken onsite in a series of controlled tests with the EM61-MK2HP sensors elevated above the ground surface. To optimize field efficiency during production surveys, a series of measurements were recorded with the small ISO at a distance of 0.5 inches (1.3 centimeters) from the coil. Because of the EM61-MK2HP hardware configuration, Tetra Tech’s test jig used during sensor function tests designed for a standard EM61-MK2 does not fit on the HP systems. In order to conduct ongoing sensor function tests in a practical manner during production surveys, measurements with the ISO essentially on the coil were recorded to establish a baseline series of readings and assess repeatability before beginning the production surveys of the MRP sites. Table 4 presents these baseline readings, which will serve as the basis for ongoing repeatability checks during daily sensor function tests.

Table 4. EM61-MK2HP Baseline Responses for Ongoing Sensor Function Tests.

Date	System	Measured Response (mV)	Averaged (Baseline) Response (mV)
7/17/2022	G1	Ch1: 3,565.11 Ch1: 4,066.15 Ch1: 4,065.69	3,899
		Ch2: 1,990.9 Ch2: 2,270.2 Ch2: 2,269.9	2,177
		Ch3: 1,124.1 Ch3: 1,277.8 Ch3: 1,277.8	1,226.5
		Ch4: 720.7 Ch4: 819 Ch4: 818.1	786
7/17/2022	G2	Ch1: 3,487.3 Ch1: 3,577.3 Ch1: 3,586.2 Ch1: 3,569.2	3,555
		Ch2: 1,912.9 Ch2: 1,959.1 Ch2: 1,955.4 Ch2: 1,946.7	1,943.5
		Ch3: 1,118.5 Ch3: 1,139.7 Ch3: 1,150.2 Ch3: 1,144.2	1,138.1
		Ch4: 694.6 Ch4: 705.2 Ch4: 704.4 Ch4: 701	701.3

For the TEM-8g, because it is the only sensor of its kind, there are also no published tabulated values of predicted responses. After assembly of the sensor array on July 12, 2022, initial baseline measurements were recorded. These responses are consistent with expected responses based on operations at prior project sites. Table 5 presents additional measurements taken on July 17, 2022, to demonstrate repeatability of the measurements to the

initial values. The static tests are completed using an aircraft bolt (AN4-26A) oriented vertically above each sensor in the array at a distance of 2 inches (5 centimeters).

Table 5. TEM-8g Sensor Function Test Results.

Date	Expected TEM-8g Response (ppm)	Measured TEM-8g Response (ppm)	Deviation Between Measured and Expected
7/12/2022	Receiver 1: N/A	Receiver 1: 6,560	N/A
	Receiver 2: N/A	Receiver 2: 5,495	N/A
	Receiver 3: N/A	Receiver 3: 6,145	N/A
	Receiver 4: N/A	Receiver 4: 5,741	N/A
	Receiver 5: N/A	Receiver 5: 5,675	N/A
	Receiver 6: N/A	Receiver 6: 6,189	N/A
	Receiver 7: N/A	Receiver 7: 5,630	N/A
	Receiver 8: N/A	Receiver 8: 6,760	N/A
7/17/2022 (AM)	Receiver 1: 6,560	Receiver 1: 6,329	3.5%
	Receiver 2: 5,495	Receiver 2: 5,486	0.2%
	Receiver 3: 6,145	Receiver 3: 5,983	2.6%
	Receiver 4: 5,741	Receiver 4: 5,667	1.3%
	Receiver 5: 5,675	Receiver 5: 5,577	1.7%
	Receiver 6: 6,189	Receiver 6: 6,035	2.5%
	Receiver 7: 5,630	Receiver 7: 5,596	0.6%
	Receiver 8: 6,760	Receiver 8: 6,499	3.9%
7/17/2022 (PM)	Receiver 1: 6,560	Receiver 1: 6,425	2.1%
	Receiver 2: 5,495	Receiver 2: 5,515	0.4%
	Receiver 3: 6,145	Receiver 3: 6,021	2%
	Receiver 4: 5,741	Receiver 4: 5,686	1%
	Receiver 5: 5,675	Receiver 5: 5,580	1.7%
	Receiver 6: 6,189	Receiver 6: 6,045	2.3%
	Receiver 7: 5,630	Receiver 7: 5,590	0.7%
	Receiver 8: 6,760	Receiver 8: 6,507	3.7%
ppm = parts per million (ratio of secondary field response to the peak primary field response)			

In addition to the geophysical sensors, positioning systems used for DGM data collection also went through functionality checks. These checks included recording measurements at temporary control points established onsite by the land survey subcontractor (see Table 1 and Appendix A). Table 6 summarizes the geodetic function check results.

Table 6. Geodetic Function Check Results.

Date	System Type	Point ID	Measured Easting (U.S. Survey Feet)	Measured Northing (U.S. Survey Feet)	Radial Offset (Inches)
7/14/2022	RTK	CP2	[REDACTED]	[REDACTED]	0.4
7/19/2022	RTS	CP1	[REDACTED]	[REDACTED]	0.5
7/19/2022	RTK	CP23	[REDACTED]	[REDACTED]	0.3
7/25/2022	RTK	CP1	[REDACTED]	[REDACTED]	0.35

3.2 POST-SEEDED IVS SURVEYS

Post-seeded dynamic surveys of the IVS were completed on July 19 and 25, 2022. For the EM61-MK2HP sensors, the systems were validated with both RTK GPS and RTS. The TEM-8g was validated with PPK GPS because it will not be operated at the MRP sites using an RTS positioning method. The use of PPK GPS includes post-processing the production survey data to a base station erected onsite to obtain resulting survey-grade positions (i.e., GPS Quality 4) for the gridded data and derived target locations.

The EM61-MK2HP data collection and processing were completed in accordance with the relevant SOPs listed in Section 1.0. Post-seeded results mosaics are included as Figures 6 through 10. As previously mentioned, metal survey nails were installed at the ends of the IVS survey lines. Therefore, responses associated with these nails are not observed in Figures 2 and 3.

Processed IVS data were transmitted to the Navy EODTECHDIV Quality Assurance (QA) Geophysicist via Tetra Tech’s secure Share Point site. The electronic deliverables include an updated master project database in Microsoft Access format. This project database includes running QC summaries for field QC checks presented in this memorandum, ongoing QC checks throughout the production survey, and performance metrics assessed during data processing.

Figure 6: EM61-MK2HP G1 Results Map with RTK GPS Positioning.

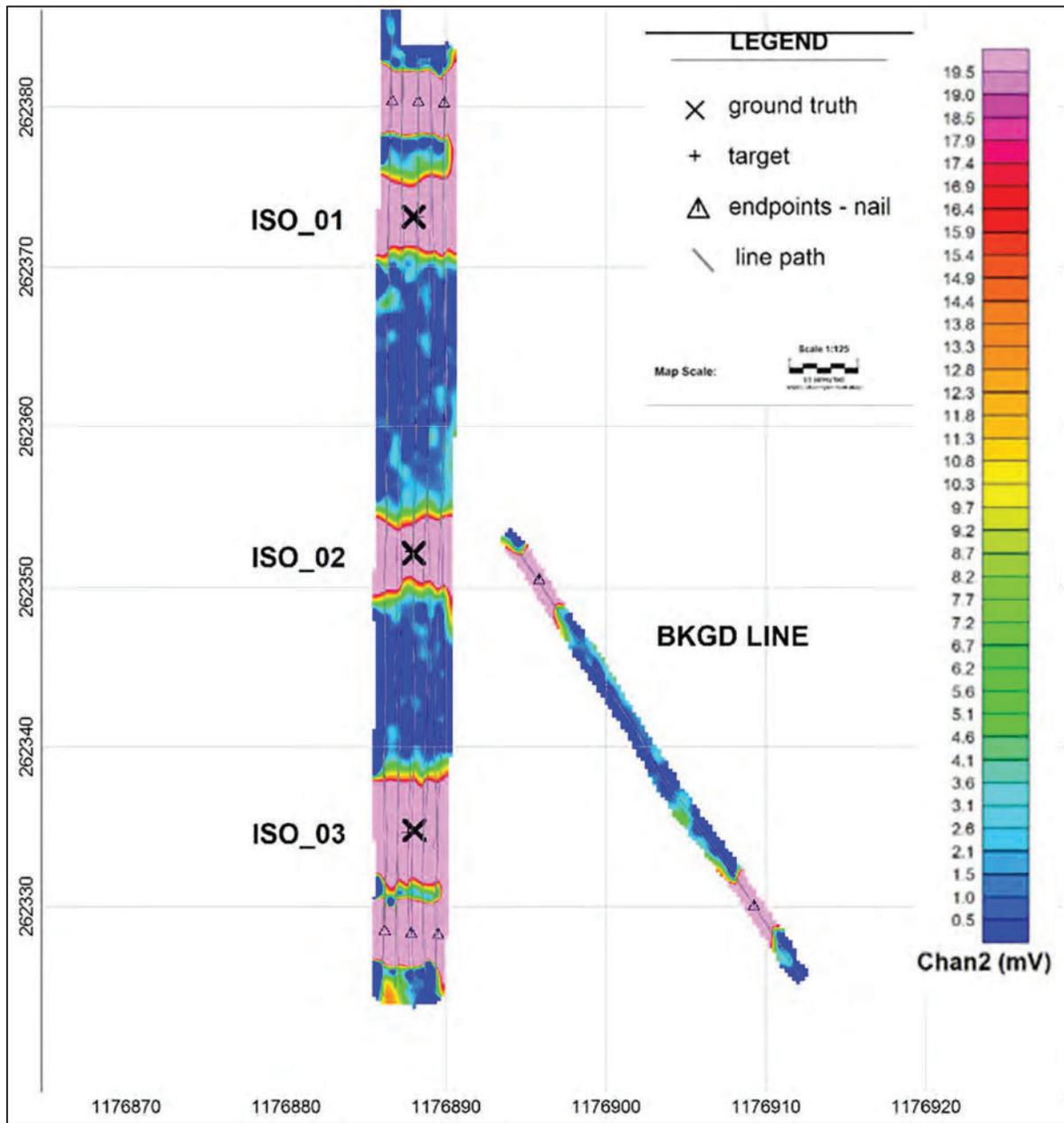


Figure 7: EM61-MK2HP G1 Results Map with RTS Positioning.

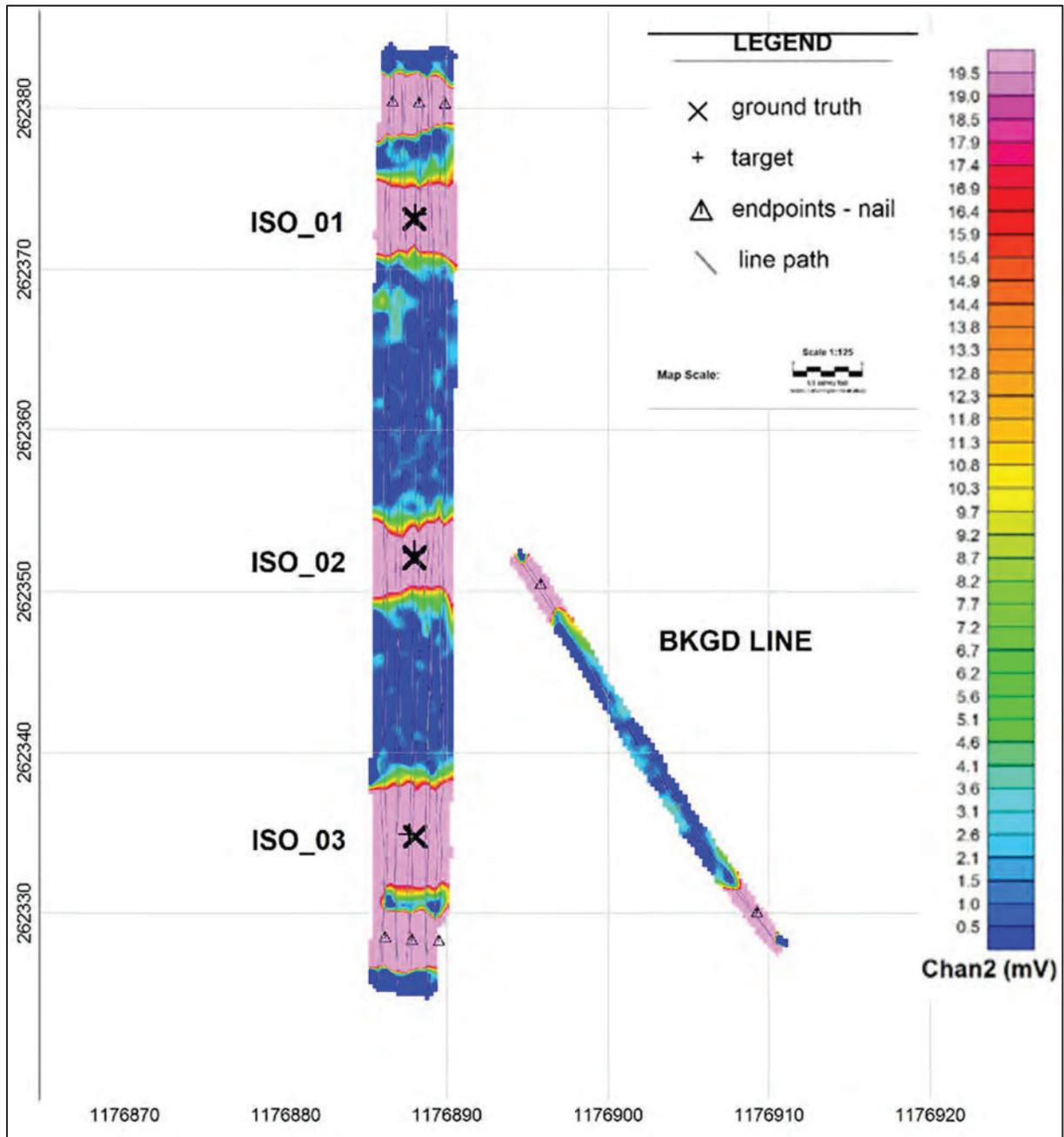


Figure 8: EM61-MK2HP G2 Results Map with RTK GPS Positioning.

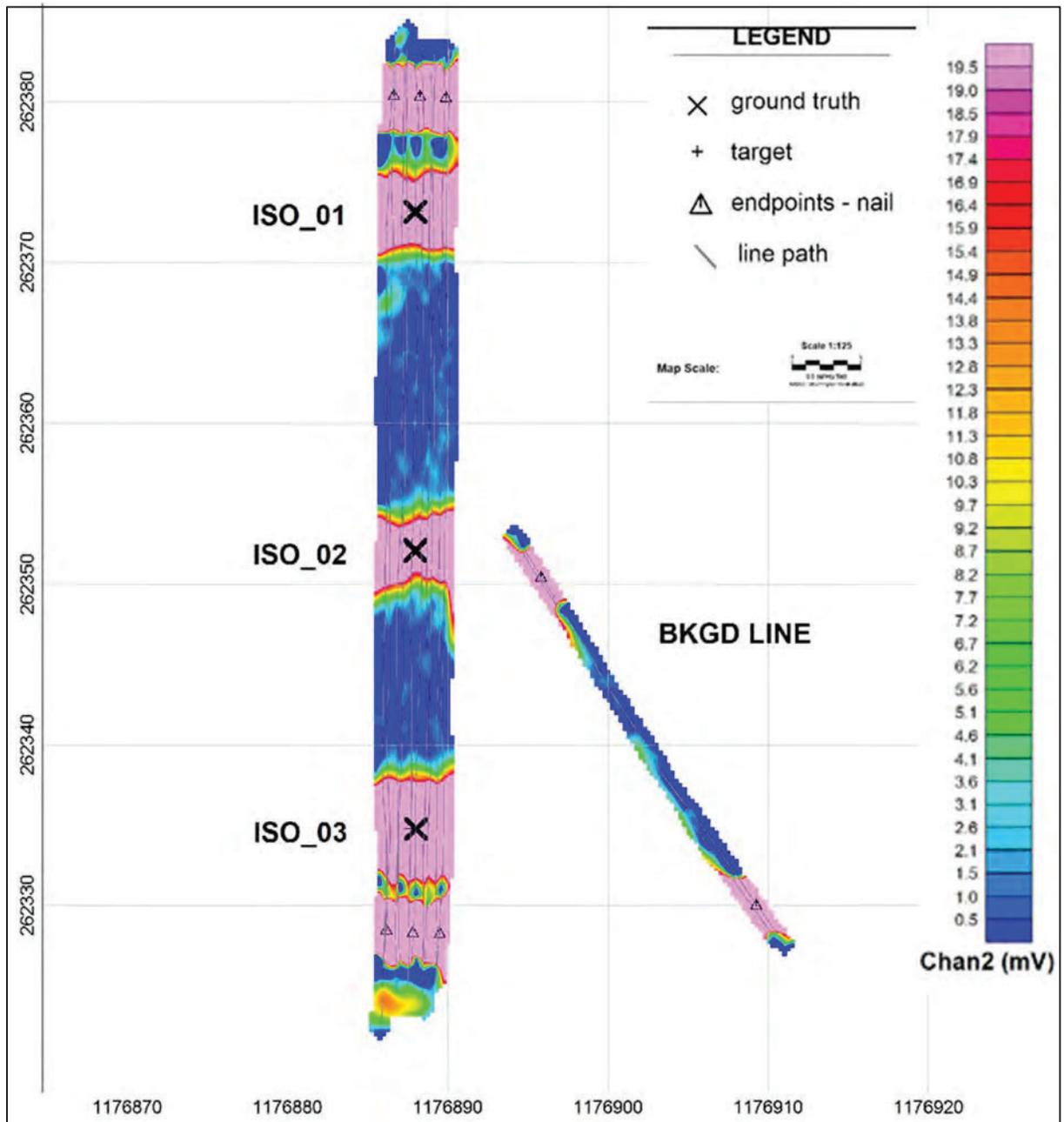


Figure 9: EM61-MK2HP G2 Results Map with RTS Positioning.

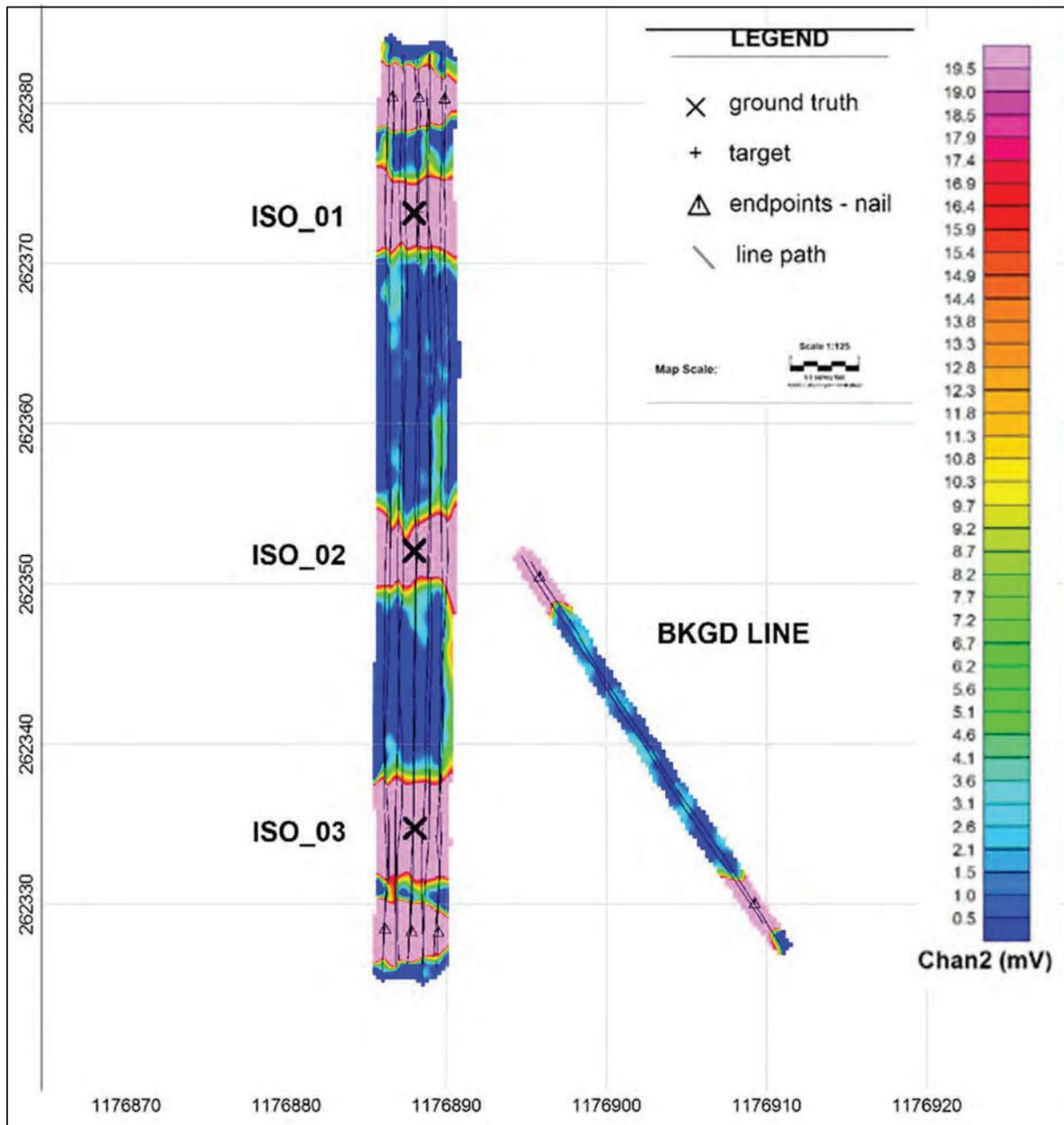
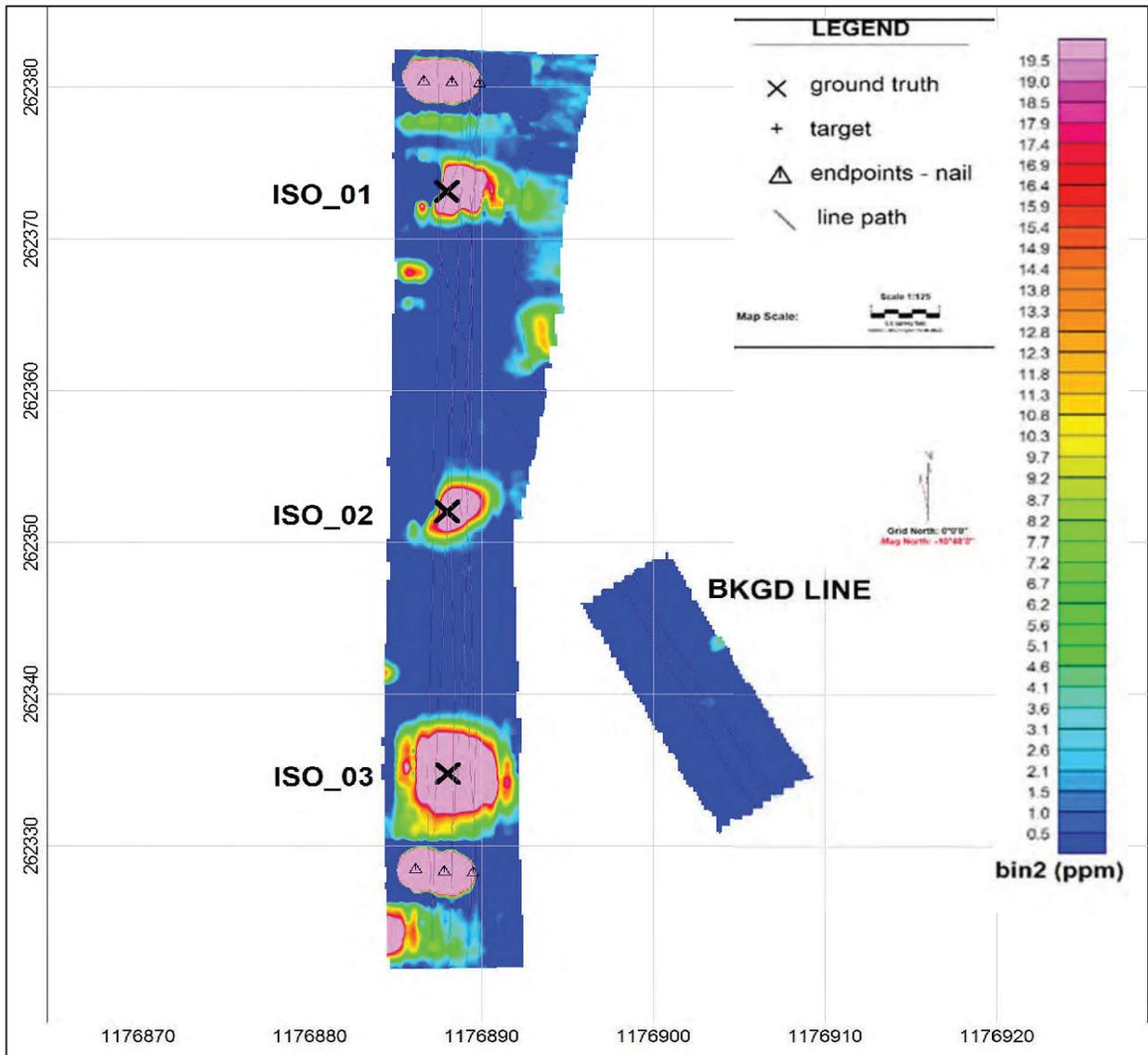


Figure 10: TEM-8g Results Map.



3.3 TARGET PICKING

Target picking thresholds for the EM61-MK2HP and TEM-8g systems were based on an assessment of the noise levels measured during the dynamic surveys of the IVS (Figures 6 through 10). Amplitude picking for each type of DGM system is based on approximately 5x the standard deviation measured in the IVS noise strip. The standard deviation of the noise levels is in practical terms the same as the root mean square (RMS) noise levels. Table 8 summarizes the standard deviation of the noise levels used as the basis for the target picking thresholds for each type of DGM system. For the EM61-MK2HP data, a single picking threshold supported by the data in Table 7 is used. It would not be practical to have two different thresholds for each EM61-MK2HP sensor.

Table 7. DGM Sensor Noise Levels.

System	Positioning	Noise Standard Deviation	Reference Channel
G1	RTK	1.1 mV	Channel 2
G1	RTS	1.1 mV	Channel 2
G2	RTK	0.8 mV	Channel 2
G2	RTS	0.8 mV	Channel 2
TEM-8g	RTK	1.6 ppm	Bin 2
G1 and G2 = EM61-MK2HP Systems.			

The target picking threshold established for the EM61-MK2HP data is 5 mV on Channel 2. With a standard deviation in the noise strip of between 0.8 mV and 1.1 mV, that range corresponds to a threshold range of 4 mV and 5.5 mV using a 5x multiplier for the noise. Therefore, a 5 mV threshold for both systems is appropriate for meeting the DGM survey objectives. The target picking threshold for the TEM-8g is 8 ppm based on the noise presented in Table 8.

Tables 8 and 9 present the derived seed targets from the IVS surveys. The derived target locations for each table are compared to the seed ground truth coordinates in Table 2. Tetra Tech evaluated picking targets from the gridded IVS data as well as from profiles along the seeded survey line because both target picking methods will be used during EM61-MK2HP data processing for the various MRP sites. TEM-8g target picking will only be performed from gridded array data.

Data collected with EM61-MK2HP along individual transects will undergo target picking from the recorded profiles along each transect, whereas sites with full coverage EM61-MK2HP surveys will undergo target picking from the gridded data sets. Tetra Tech will continue to monitor the validity of the established target picking threshold for each DGM sensor type throughout the production survey.

Table 8. IVS Seed Targets Relative to Ground Truth (Profile Picking).

System	Positioning	Seed ID	Target Easting (U.S. Survey Feet)	Target Northing (U.S. Survey Feet)	Radial Offset (inches)
G1	RTK	ISO_1	██████████	██████████	2.5
G1	RTK	ISO_2	██████████	██████████	2.1
G1	RTK	ISO_3	██████████	██████████	4.7
G1	RTS	ISO_1	██████████	██████████	3.6
G1	RTS	ISO_2	██████████	██████████	4.5
G1	RTS	ISO_3	██████████	██████████	4.4
G2	RTK	ISO_1	██████████	██████████	0.9
G2	RTK	ISO_2	██████████	██████████	4.2
G2	RTK	ISO_3	██████████	██████████	3.9
G2	RTS	ISO_1	██████████	██████████	2.2

System	Positioning	Seed ID	Target Easting (U.S. Survey Feet)	Target Northing (U.S. Survey Feet)	Radial Offset (inches)
G2	RTS	ISO_2	██████████	██████████	3.4
G2	RTS	ISO_3	██████████	██████████	1.1

G1 and G2 = EM61-MK2HP Systems.

Table 9. IVS Seed Targets Relative to Ground Truth (Grid Picking).

System	Positioning	Seed ID	Target Easting (U.S. Survey Feet)	Target Northing (U.S. Survey Feet)	Radial Offset (inches)
G1	RTK	ISO_1	██████████	██████████	2.9
G1	RTK	ISO_2	██████████	██████████	8
G1	RTK	ISO_3	██████████	██████████	2.9
G1	RTS	ISO_1	██████████	██████████	2.4
G1	RTS	ISO_2	██████████	██████████	4.2
G1	RTS	ISO_3	██████████	██████████	3
G2	RTK	ISO_1	██████████	██████████	2.4
G2	RTK	ISO_2	██████████	██████████	2.8
G2	RTK	ISO_3	██████████	██████████	0.04
G2	RTS	ISO_1	██████████	██████████	2.9
G2	RTS	ISO_2	██████████	██████████	3.5
G2	RTS	ISO_3	██████████	██████████	3
TEM-8g	RTK	ISO_1	██████████	██████████	8.5
TEM-8g	RTK	ISO_2	██████████	██████████	8.4
TEM-8g	RTK	ISO_3	██████████	██████████	3.7

G1 and G2 = EM61-MK2HP Systems.

4.0 QUALITY CONTROL

The IVS installation and data collection met the requirement QC performance metrics established in MEC QAPP Worksheet #22. Table 10 summarizes the DGM system performance related to applicable measurement quality objectives (MQOs) in the QAPP. This table also cites the table, figure, or appendix in which supporting detail is provided. No nonconformances were initiated during the IVS construction or initial IVS surveys.

Table 10. Performance Metrics for IVS Construction and DGM System Validation.

QAPP Table	MQO	Acceptance Criteria	Result	Verification
22-1	#1-3 Establish site-specific control (land survey)	Control is accurate to third order (1:10,000). Control is tied to high accuracy reference network, Continuously Operating Reference Station, Virtual Reference Station, Online Positioning User Service or equivalent network. Temporary control points placed in accessible and unobstructed location.	PASS	Table 1 Appendix B
22-1	#1-4 Assemble positioning system (RTK GPS; RTS)	As specified in instrument operation manual	PASS	Figure 4 Daily Field Logs
22-1	#1-5 Initial geodetic function check (RTK GPS; RTS)	Measured coordinates at known location (e.g., temporary control point) is ± 4 in from ground truth	0.3 – 0.5 inches; PASS	Table 6 Master project database
22-1	#1-8 Construct IVS (DGM sensors)	Area suitable, as evidenced in pre-seeded DGM survey. Seed items placed ≥ 5 ft from unknown metallic sources in subsurface. 2 small ISOs placed at ~ 3 in and ~ 7 in deep. 1 medium ISO placed at ~ 10 in. deep. All seeds horizontal and in cross-track orientation.	PASS	Figures 2 – 4 Table 2 Weekly Geophysical QC Reports
22-3	#3-1 Verify correct assembly (DGM Sensors)	As specified in instrument operation manual	PASS	Figure 5 Daily Field Logs

QAPP Table	MQO	Acceptance Criteria	Result	Verification
22-3	#3-2 Initial Instrument Function Test (EM61-MK2 HP)	Response (mean static spike minus mean static background) within 20% of predicted response (after predicted responses are scaled appropriately for HP sensor)	1% – 17%; PASS	Table 3 Master project database
22-3	#3-3 Initial Instrument Function Test (TEM-8g)	Response (mean static spike minus mean static background) within 20% of baseline amplitudes established as an average of series of initial test measurements	0.2% – 3.7%; PASS	Table 5 Master project database
22-3	#3-6 Initial dynamic positioning accuracy (IVS)	Derived positions of IVS targets are ± 10 in of the ground truth locations	0.04 – 8 inches; PASS	Tables 8 – 9 Master project database
22-3	#3-8 In-line measurement spacing	98% \leq 0.75ft between successive measurements; 100% \leq 3.3ft. Gaps are filled or adequately explained (e.g., unsafe terrain, obstructions)	100% \leq 0.75ft; PASS	Master project database
22-3	#3-14 Battery voltage (EM61-MK2 HP)	Voltage must be ≥ 11.0 V	All > 11.0 V; PASS	Appendix A Daily Field Logs
22-3	#3-15 Valid position data (RTK GPS)	$\geq 98\%$ GPS fix quality 4. Gaps must be bounded by GPS fix quality 4 data unless located at survey boundary.	100% fix Q4; PASS	Processed IVS data packages
22-3	#3-16 Valid position data (Post-Processed GPS)	$\geq 98\%$ GPS HDOP < 3.5 .	100% HDOP < 3.5 ; PASS	Processed IVS data packages Master project database
HDOP: Horizontal Dilution of Precision				

5.0 CONCLUSIONS

The DGM systems planned for use in support of the SI at multiple MRP sites were successfully validated at the IVS. The systems were validated for both RTK GPS and RTS positioning, as applicable for their intended use.

The results of the IVS validation demonstrate the DGM systems have met the requisite MQOs. These systems are capable of collecting data in support of the DGM objectives and overall SI objectives. The target picking threshold for the EM61-MK2HP data is 5 mV on Channel 2. The target picking threshold for the TEM-8g data is 8 mV in Bin2.

DGM surveys and data processing have been completed in accordance with the requirements set forth in the project-specific MEC QAPP and associated, applicable SOPs.

6.0 REFERENCES

Tetra Tech, Inc., 2021. unitions Response uaity ssurance Pro ect P an for unitions and posi es
of Concern Site nspection at a a ase itsap an or, u tipe RP Sites, a a ase
itsap an or, Si erda e, ashin ton. Revision 0. June.

APPENDIX A - FIELD CHANGE REQUEST 05

**CLEAN
CONTRACT NUMBER N6247016D9008**

FIELD CHANGE REQUEST (FCR)

TASK ORDER # N4425519F4112 FCR # FCR-05 MEC QAPP DATE 07/25/2022
 LOCATION: Naval Base Kitsap Bangor, Silverdale WA NTR/RPM Janice Horton

1. Documents to be changed. Identify revision, date, section, drawing, etc.

Final MEC QAPP dated June 2021 Munitions Response Quality Assurance Project Plan for Munitions and Explosives of Concern Site Inspection at Naval Base Kitsap Bangor

-Change in acceptance criteria for MQO #3-14 in Worksheet #22, Table 22-3.
 -Change in SOP4, Section 3.3, 2nd last sentence.
 -Change in SOP5, Section 3.1, 10th bullet.
 -Change in SOP5, Section 3.3, 5th last sentence.

2. Description of existing requirement and proposed change (Attach sheet if necessary)

Existing requirement: A
 It cited MEC QAPP references in previous section list the EM61-MK2HP sensor lower limit battery level at 11.85V. These citations all indicate that data collected at a battery level less than 11.85V are subject to rejection on the basis of being out of specification.

Recommended changes:
 -Worksheet #22, Table 22-3, MQO #3-14 acceptance criteria: Change to "Voltage must be ≥11.0V."
 -SOP4, Section 3.3, 2nd last sentence: Change to "During data collection the battery level will be monitored, and the battery will be replaced immediately if the voltage drops below 11.0V."
 -SOP5, Section 3.1, 10th bullet: Change to "Continue until area is completely covered, batteries need replacing (<11.0V), RTK DGPS power light flashes, or a break is required."
 -SOP5, Section 3.3, 5th sentence: Change to "During data collection the battery level will be monitored, and the battery will be replaced immediately if the voltage drops below 11.0 volts (V)."

3. Reason for Change (Attach sheet if necessary)

EM61-MK2 HP systems in use at the project site are on rent from Geonics, Ltd. (manufacturer). During initial system assembly/onsite testing prior to the start of production work, it was observed by the field teams and reported by the Site Geophysicist the batteries supplied with the rental systems would not maintain a 11.85V battery level for an appropriate amount of time to meet daily production goals and maintain schedule efficiency. After consulting with Geonics, it was determined the systems could be safely run to battery levels as low as 11.0V without adverse impact to data usability. These changes are proposed to both address acceptance criteria moving forward as well as retroactively.

4. Originator: (print name and sign) Matt Barner <i>Matthew Barner</i>		Title Project Manager <i>Linda Klink</i>	Date 7/26/2022
Reviewed by: (print name and sign) Norm Piper, UXO Manager <i>Norm Piper</i>		Title: UXO Manager	Date 7/26/2022
Site Superintendent (Print name and sign) Forrest Malone (SUXOS) <i>Forrest Malone</i>	Date 07/026/22	Task Order Manager (Print name and sign) Linda Klink <i>Linda Klink</i>	Date 7/26/2022
Tt Program QC Manager (Print Name and Sign) Michelle Coffman <i>Michelle Coffman</i>	Date 7/26/2022	Approved by (Print name and sign) SKEEHAN, STEVEN, BRANT, 1160231927 Date: 2022.07.27 18:44:13 -0700'	Date 231927

CLEAN
CONTRACT NUMBER N6247016D9008

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APPENDIX B - UTILITY CLEARANCE PERMIT

22-EP120 PERMIT NUMBER

Date to BOSC:
06/22/22

EXCAVATION/UTILITY LOCATES PERMIT

NAVBASEKITSAPINST 11300.3A

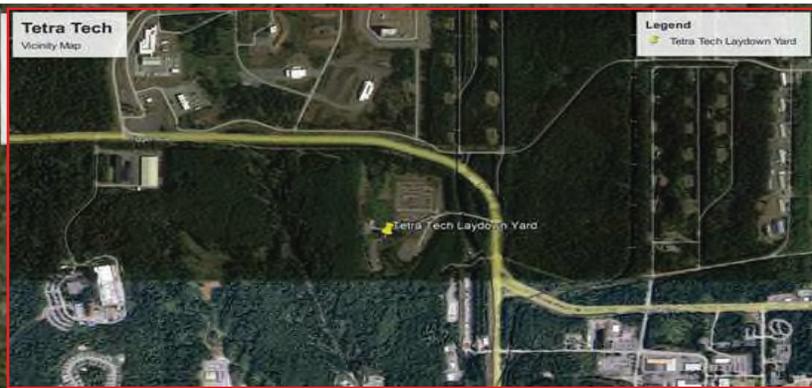
REQUESTER	From (Requester's name): Mitch Baron Organization: Tetra Tech Email: mitch.baron@tetrattech.com	Phone & Fax #'s: P 360.908.3246 F	Location of Excavation/Command/Bldg#/Street Name South of Bldg 6093 off Flying Fish Road (east of Trigger Ave). Laydown yard north and east of parking lot (west of 6060 helipad).	
	PURPOSE of Excavation (Provide a description of work to be performed and attach a DWG/sketch. Be specific): Placement of steel pipes (<4-inch dia x <12-inch long) as an instrument verifacaiton strip (IVS) for the purpose of testing geophysical detection equipment (subsurface metal detectors) and the operation process are functioning properly. See attached Laydown Area Map for work area. IVS items will be placed (and removed) within a 30 ft by 30 ft location within the laydown yard in an area determined suitable and without detector interference.			
	Contract#/Work Request#: N6247016D9008 TO# N4425519F4112		FUNDING:	
	Government Representative (Name/Email): Janice Horton / janice.l.horton5.civ@us.navy.mil (Phone and Fax): 360.556.0621			
	Desired Excavation Begin Date and Time: July 11, 2022	Estimated Completion Date: December 31, 2022	Method of Excavation and Depth: Hand tools to a maximum dept of 2 feet.	

Requester **SHALL** mark excavation site with white paint. Requester **MUST** provide map/drawing of the excavation area.
Requester **SHALL** call **ONE CALL (811)** prior to excavation and provide the 8-digit file number. File# **22273234**
Requester: Send excavation request to nbkbangpwdrequests@navy.mil via the designated Government Rep
Requester's Signature: *Mitch Baron* Date: 6-20-22

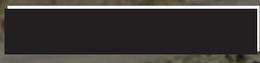
	DEPARTMENT	COLOR	COMMENTS	SIGNATURE/INITIALS	DATE
LOCATES COMPLETE	Communications, Fiber, Phone, etc. (CNRNW N/6 & SWFPAC)	Orange	<i>Cannot be signed off by Private Locate Services if in MLA or WRA NA</i>	<i>[Signature]</i>	<i>6/21/22</i>
	Alarms/ESU (Civil Service)	Orange	<i>NA</i>	<i>[Vertical Arrow]</i>	<i>[Vertical Arrow]</i>
	ICS	Orange	<i>NA</i>		
	Fire Alarm	Orange	<i>NA</i>		
	Propane	Yellow	<i>NA</i>		
	Natural Gas	Yellow	<i>NA</i>		
	Steam	Yellow	<i>NA</i>		
	Fuel Oil	Yellow	<i>NA</i>		
	LV Electrical	Red	<i>in MLA</i>		
	HV Electrical	Red	<i>NA</i>		
	Water/Sewage	Blue/Green	<i>NA</i>		
	Storm Drain	Green	<i>NA</i>		
	Irrigation	Blue	<i>NA</i>		
HVAC, Air, Chill Water	Purple	<i>NA</i>	<i>[Signature]</i>		
SWF	ALL UTILITIES	ALL	<i>Work within the MLA & WRA Mandatory Sign Off</i>		
NUWC	ALL UTILITIES	ALL			
N6	ALL UTILITIES	ALL		Gardner	6/22/22
NMII	ALL UTILITIES	ALL			
NHB JPH	Video viewing required per NAVBASEKITSAPINST 8020.1	Date Comp	<i>"All personnel responsible for managing or performing excavation work have viewed the Munitions Precaution Briefing DVD prior to starting work under this request."</i>		

Locating Company: *APS*
(Name, POC, Telephone #): *Troy Mariani 360-507-1236*

<input checked="" type="checkbox"/> Approved	Permit Expires: 7/22/2022	Extensions: Extension requests should be received 5 days before the current approved expiration date
<input type="checkbox"/> Disapproved		

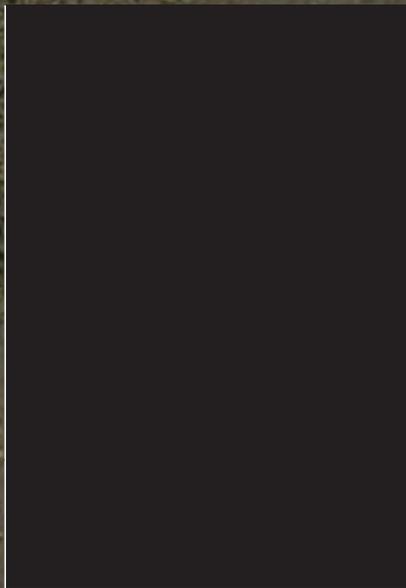


Tetra Tech



Tetra Tech
Contractor
Laydown Yard

A red arrow points from this text box to a large, irregularly shaped area outlined in red on the main aerial map.



Google earth



200 ft

A scale bar indicating a length of 200 feet.

APPENDIX C - SURVEYOR REPORT



**NOTIFICATION: THIS PAGE CONTAINS SENSITIVE BUT UNCLASSIFIED
INFORMATION WHICH IS PROTECTED BY THE FREEDOM OF INFORMATION ACT**

EXEMPTION 3. (5 USC 552(b)(3))

Information exempted by other statutes

**10 USC Section 130(e) Treatment of Certain Critical Infrastructure Security
Information**

Pages 787 - 796

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APPENDIX D - EM61-MK2HP RESPONSE MEASUREMENTS

Appendix D. EM61-MK2HP Response Measurements Compared to Standard EM61-MK2 Responses.

Tables D-1 through D-3. Derivation of Multiplier

offset (cm)	EM61-MK2HP				Std EM61-MK2				Multiplier			
	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4
40	239.3	135.9	78.6	51.0	51	28.3	12.7	4.4	4.7	4.8	6.2	11.6
50	120.4	67.4	39.8	25.3	24.1	13.4	6	2.1	5.0	5.0	6.6	12.0
60	60.7	34.0	20.9	12.7	12	6.6	3	1	5.1	5.1	7.0	12.7
70	31.8	17.5	11.3	6.4	6.2	3.5	1.6	0.5	5.1	5.0	7.0	12.7
80	16.8	8.8	6.1	3.1	3.4	1.9	0.9	0.3	5.0	4.6	6.8	10.4
90	8.8	4.2	3.5	1.3	1.9	1.1	0.5	0.2	4.7	3.8	7.0	6.4
100	4.3	2.1	2.0	0.5	1.2	0.6	0.3	0.1	3.6	3.4	6.6	5.0

offset (cm)	EM61-MK2HP				Std EM61-MK2				Multiplier			
	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4
30	849.2	532.5	334.0	233.5	112.3	62.3	28.1	9.7	7.6	8.5	11.9	24.1
40	247.5	138.4	78.7	50.6	51	28.3	12.7	4.4	4.9	4.9	6.2	11.5
50	155.8	92.7	55.4	37.2	24.1	13.4	6	2.1	6.5	6.9	9.2	17.7
60	68.5	40.5	22.8	15.9	12	6.6	3	1	5.7	6.1	7.6	15.9
70	35.2	21.8	11.8	8.6	6.2	3.5	1.6	0.5	5.7	6.2	7.4	17.1
80	19.3	12.5	6.6	4.9	3.4	1.9	0.9	0.3	5.7	6.6	7.4	16.3
90	14.2	10.3	5.9	4.8	1.9	1.1	0.5	0.2	7.5	9.4	11.8	24.1
101	5.7	5.6	3.3	3.1	1.2	0.6	0.3	0.1	4.7	9.3	11.0	30.5

offset (cm)	EM61-MK2HP				Std EM61-MK2				Multiplier			
	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4
30	411.2	232.1	137.7	87.1	112.3	62.3	28.1	9.7	3.7	3.7	4.9	9.0
40	224.9	134.8	80.1	54.4	51	28.3	12.7	4.4	4.4	4.8	6.3	12.4
50	103.5	62.5	35.6	25.1	24.1	13.4	6	2.1	4.3	4.7	5.9	12.0
60	41.7	26.8	13.8	11.3	12	6.6	3	1	3.5	4.1	4.6	11.3
70	26.0	17.6	8.6	7.7	6.2	3.5	1.6	0.5	4.2	5.0	5.4	15.4
80	17.6	12.2	6.5	5.5	3.4	1.9	0.9	0.3	5.2	6.4	7.2	18.3
90	11.0	8.1	4.4	3.6	1.9	1.1	0.5	0.2	5.8	7.4	8.8	17.8
101	4.5	4.1	1.1	1.8	1.2	0.6	0.3	0.1	3.7	6.8	3.8	18.2

Appendix D. EM61-MK2HP Response Measurements Compared to Standard EM61-MK2 Responses.

Table D-4. EM61-MK2HP Predicted Responses

offset (cm)	Std EM61-MK2				Multiplier				EM61-MK2HP			
	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4
30	112.3	62.3	28.1	9.7	5	5	7	12	561.5	311.5	196.7	116.4
31	103.7	57.5	25.9	8.9	5	5	7	12	518.5	287.5	181.3	106.8
32	95.7	53.1	23.9	8.2	5	5	7	12	478.5	265.5	167.3	98.4
33	88.4	49	22.1	7.6	5	5	7	12	442	245	154.7	91.2
34	81.6	45.3	20.4	7	5	5	7	12	408	226.5	142.8	84
35	75.4	41.8	18.9	6.5	5	5	7	12	377	209	132.3	78
36	69.7	38.7	17.4	6	5	5	7	12	348.5	193.5	121.8	72
37	64.4	35.7	16.1	5.5	5	5	7	12	322	178.5	112.7	66
38	59.6	33	14.9	5.1	5	5	7	12	298	165	104.3	61.2
39	55.1	30.6	13.8	4.7	5	5	7	12	275.5	153	96.6	56.4
40	51	28.3	12.7	4.4	5	5	7	12	255	141.5	88.9	52.8
41	47.2	26.2	11.8	4.1	5	5	7	12	236	131	82.6	49.2
42	43.7	24.3	10.9	3.8	5	5	7	12	218.5	121.5	76.3	45.6
43	40.5	22.5	10.1	3.5	5	5	7	12	202.5	112.5	70.7	42
44	37.6	20.8	9.4	3.2	5	5	7	12	188	104	65.8	38.4
45	34.8	19.3	8.7	3	5	5	7	12	174	96.5	60.9	36
46	32.3	17.9	8.1	2.8	5	5	7	12	161.5	89.5	56.7	33.6
47	30	16.7	7.5	2.6	5	5	7	12	150	83.5	52.5	31.2
48	27.9	15.5	7	2.4	5	5	7	12	139.5	77.5	49	28.8
49	25.9	14.4	6.5	2.2	5	5	7	12	129.5	72	45.5	26.4
50	24.1	13.4	6	2.1	5	5	7	12	120.5	67	42	25.2
51	22.4	12.4	5.6	1.9	5	5	7	12	112	62	39.2	22.8
52	20.9	11.6	5.2	1.8	5	5	7	12	104.5	58	36.4	21.6
53	19.4	10.8	4.9	1.7	5	5	7	12	97.0	54.0	34.3	20.4
54	18.1	10.0	4.5	1.6	5	5	7	12	90.5	50.0	31.5	19.2
55	16.9	9.4	4.2	1.4	5	5	7	12	84.5	47.0	29.4	16.8
56	15.7	8.7	3.9	1.4	5	5	7	12	78.5	43.5	27.3	16.8
57	14.7	8.1	3.7	1.3	5	5	7	12	73.5	40.5	25.9	15.6
58	13.7	7.6	3.4	1.2	5	5	7	12	68.5	38.0	23.8	14.4
59	12.8	7.1	3.2	1.1	5	5	7	12	64.0	35.5	22.4	13.2
60	12.0	6.6	3.0	1.0	5	5	7	12	60.0	33.0	21.0	12.0

FINAL
Addendum 01: Instrument Verification Strip
Technical Memorandum

Site Inspection
Multiple Munitions Response Program Sites
Naval Base Kitsap Bangor, WA

Contract Number: N6247016D9008

Task Order Number: N4425519F4112

Document Control Number: NBK-179-8015-DOC-004

October 17, 2022

PRESENTED TO

UNITED STATES DEPARTMENT OF
THE NAVY
Naval Facilities Engineering Command
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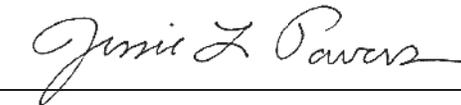
Prepared by:



Matthew Barner, P.G.
Project Geophysicist

10/17/2022

Reviewed by:



Jessie Powers
QC Geophysicist

10/17/2022

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Appendix A – NCR 002

Appendix B - EM61-MK2HP Response Measurements

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
DGM	Digital Geophysical Mapping
HP	High Power
ISO	Industry Standard Object
IVS	Instrument Verification Strip
MEC	Munitions and Explosives of Concern
MRP	Munitions Response Program
MQO	Measurement Quality Objective
mV	Millivolt
NAD83	North American Datum 1983
NCR	Nonconformance Report
NRL	Naval Research Laboratory
RTS	Robotic Total Station
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QRIR	Quality Receiving Inspection Reports
SI	Site Inspection
SOP	Standard Operating Procedure

1.0 INTRODUCTION

This addendum presents the results of digital geophysical mapping (DGM) system validation at the Instrument Verification Strip (IVS) established at Naval Base Kitsap Bangor in support of a Site Inspection (SI) of multiple installation munitions response program (MRP) sites. This document is submitted as Addendum No. 01 to the Instrument Verification Strip Technical Memorandum, Site Inspection, Naval Base Kitsap Bangor, WA, dated September 14, 2022 (hereafter referred to as the "final IVS technical memorandum").

The subject of this addendum is the validation of a replacement person-portable Geonics, Ltd. EM61-MK2 High Power (EM61-MK2HP) system as part of the corrective actions in Nonconformance Report (NCR) 002 initiated on August 23, 2022 (Appendix A). An EM61-MK2HP sensor (system ID "G2") was removed from service and replaced with system ID "G3".

Standard operating procedures (SOPs) relevant to this addendum, and which are included with the Munitions and Explosives of Concern (MEC) Quality Assurance Project Plan (QAPP), include the following: Validation at the IVS (DGM SOP-2); EM61-MK2HP assembly (DGM SOP-4); and EM61-MK2HP data processing (DGM SOP-6).

2.0 IVS LOCATION AND AS-BUILT DETAILS

Validation of the replacement G3 system was performed at IVS #1, at the Tetra Tech field operations staging area. The location of the IVS and as-built construction details remain unchanged from the final IVS technical memorandum.

Coordinates presented in this memorandum are Washington North State Plane, North American Datum 1983 (NAD83), and units of U.S. Survey Feet. Site controls from the final IVS technical memorandum remain unchanged.

3.0 DGM SYSTEM VALIDATION RESULTS

The G3 EM61-MK2HP sensor was assembled by the Tetra Tech field team on September 2, 2022, in accordance with the relevant SOPs listed in Section 1.0. Measurements to establish baseline static spike responses were recorded on September 3, 2022. Additional static response measurements to assess system response accuracy relative to the derived EM61-MK2HP curves presented in Table D-4 of the final IVS memorandum were conducted on September 8 and 9, 2022. A documentation error was suspected in the September 8, 2022, field measurements regarding the height of the DGM sensor, necessitating a repeat of the measurements on September 9, 2022.

Documentation of the new DGM sensor serial numbers and components is provided in the geophysical team digital daily logbooks provided with raw data packages and the updated quality receiving inspection report (QRIR) completed at the time of equipment inspection. The relevant QRIR was provided to the project team in the weekly DGM quality control (QC) report for the week ending September 2, 2022.

The positioning system used during the system validation undergoes ongoing daily function testing in accordance with the MEC QAPP. These results are provided in the geodetic function check results table in the master Microsoft Access project database.

3.1 SENSOR FUNCTION CHECKS

Table 1 summarizes the EM61-MK2HP static response test measurements from September 9, 2022, for the G3 DGM sensor. The measurements were recorded with a small Schedule 40 industry standard object (ISO40) positioned 19.7 inches (50 centimeters) from the sensor. The expected responses are tabulated in Appendix B; these tabulated responses comprise the same values as Table D-4 in the final IVS technical memorandum.

Table 1. EM61-MK2HP Accuracy Check from 09/09/2022.

Expected EM61-MK2HP Response (mV)	Measured EM61-MK2HP Response (mV)	Deviation Between Measured and Expected
Ch1: 120.5 Ch2: 67 Ch3: 42 Ch4: 25.2	Ch1: 103.4	14%
	Ch2: 59.7	11%
	Ch3: 35.1	16%
	Ch4: 26	3%
	Ch1: 105.1	15%
	Ch2: 60.8	10%
	Ch3: 36.5	15%
	Ch4: 26.6	5%
	Ch1: 113.1	7%
	Ch2: 63.2	6%
	Ch3: 35.4	19%
	Ch4: 24.8	2%
	Ch1: 109.6	9%
	Ch2: 62.9	6%

Expected EM61-MK2HP Response (mV)	Measured EM61-MK2HP Response (mV)	Deviation Between Measured and Expected
	Ch3: 39	7%
	Ch4: 25.8	2%
	Ch1: 107.1	11%
	Ch2: 62.5	7%
	Ch3: 38.5	8%
	Ch4: 24.6	2%
mV = milliVolts		

Table 2 presents the static measurements recorded with a small ISO40 at a distance of 0.5 inches (1.3 centimeters) from the coil on September 2, 2022. These tests were conducted using the same approach presented in the final IVS technical memorandum.

Table 2. EM61-MK2HP Baseline Responses (09/02/2022) for Ongoing Sensor Function Tests.

Measured Response (mV)	Averaged (Baseline) Response (mV)
Ch1: 3,036.8 Ch1: 3,068.2 Ch1: 3,035.9	3,047
Ch2: 1,721.3 Ch2: 1,739 Ch2: 1,720.2	1,726.8
Ch3: 989.6 Ch3: 995.3 Ch3: 982.9	989.3
Ch4: 651.5 Ch4: 654.9 Ch4: 644.4	650.3
mV = milliVolts	

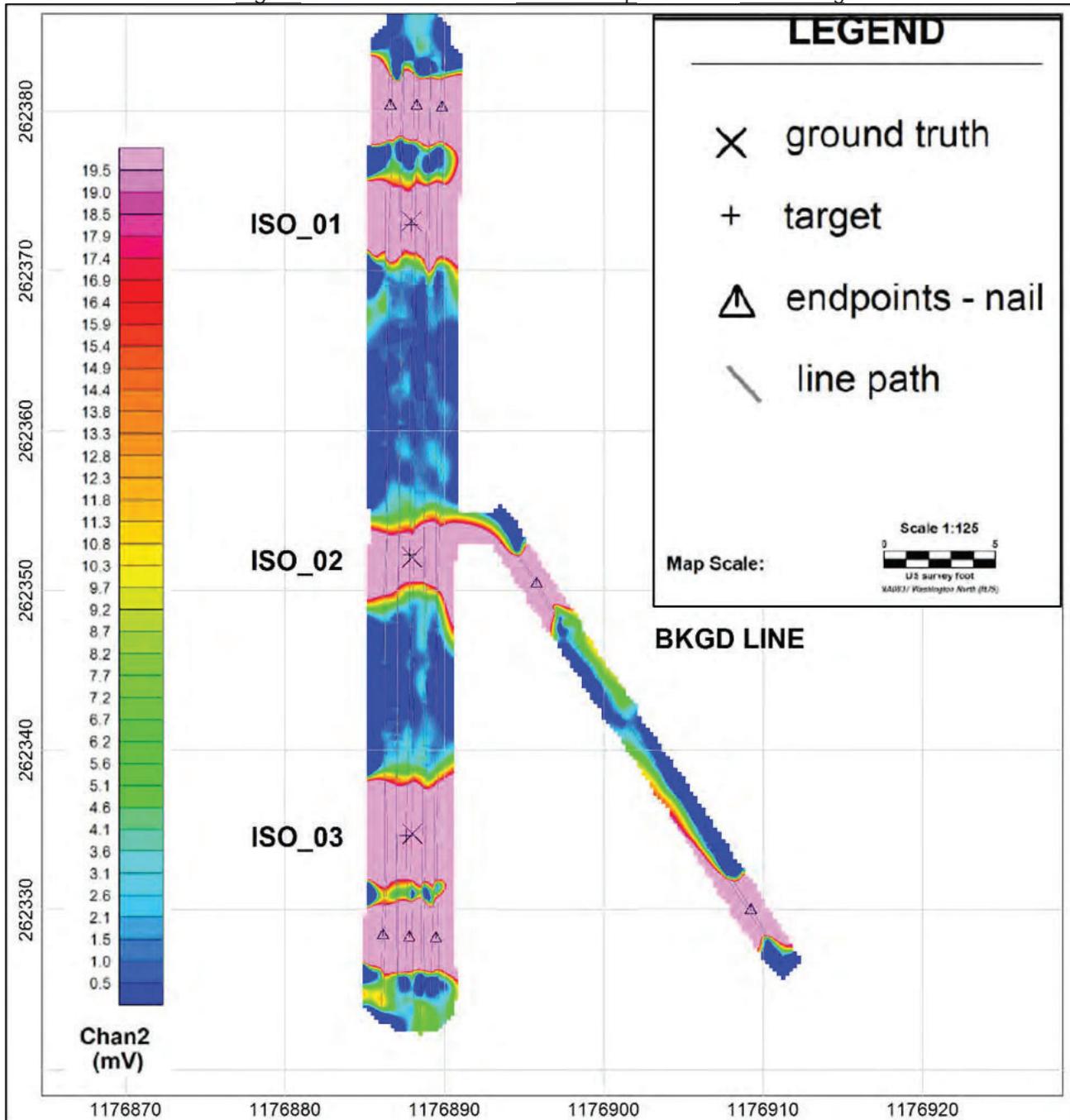
3.2 POST-SEEDED IVS SURVEYS

A dynamic survey of IVS #1 was completed on September 2, 2022, with the G3 EM61-MK2HP system. The sensor was validated with the robotic total station (RTS), which is the positioning system planned for use with the sensor in the remaining data collection areas.

The EM61-MK2HP data collection and processing were completed in accordance with the relevant SOPs listed in Section 1.0. The post-seeded results are presented in Figure 1. As stated in the final IVS technical memorandum, metal survey nails were installed at the ends of the IVS survey lines.

Processed IVS data were transmitted to the Navy EODTECHDIV Quality Assurance (QA) Geophysicist via Tetra Tech's secure Share Point site. The electronic deliverables include an updated master project database in Microsoft Access format. This project database includes running QC summaries for field QC checks presented in this memorandum, ongoing QC checks throughout the production survey, and performance metrics assessed during data processing.

Figure 1: EM61-MK2HP G3 Results Map with RTS Positioning.



3.3 TARGET PICKING

The target picking threshold used for the EM61-MK2HP G3 IVS results was 5 mV on Channel 2, consistent with the final IVS technical memorandum. The standard deviation of the noise for the G3 system was 1.0 mV, thus demonstrating the ongoing appropriateness of the established picking threshold for the G3 sensor using a multiple of 5x the noise level.

Table 3 presents the derived seed targets from the IVS survey. Tetra Tech evaluated picking targets from the gridded IVS data as well as from profiles along the seeded survey line because both target picking methods will be used during EM61-MK2HP data processing for the various MRP sites.

Data collected with EM61-MK2HP along individual transects will undergo target picking from the recorded profiles along each transect, whereas sites with full coverage EM61-MK2HP surveys will undergo target picking from the gridded data sets. Tetra Tech will continue to monitor the validity of the established target picking threshold for each DGM sensor type throughout the production survey.

Table 3. IVS Seed Targets Relative to Ground Truth.

Picking Method	Ground Truth Easting	Ground Truth Northing	Seed ID	Target Easting	Target Northing	Radial Offset (inches)
Profile	[REDACTED]	[REDACTED]	ISO_1	[REDACTED]	[REDACTED]	3
Profile	[REDACTED]	[REDACTED]	ISO_2	[REDACTED]	[REDACTED]	2.6
Profile	[REDACTED]	[REDACTED]	ISO_3	[REDACTED]	[REDACTED]	5.1
Grid	[REDACTED]	[REDACTED]	ISO_1	[REDACTED]	[REDACTED]	3.8
Grid	[REDACTED]	[REDACTED]	ISO_2	[REDACTED]	[REDACTED]	3.3
Grid	[REDACTED]	[REDACTED]	ISO_3	[REDACTED]	[REDACTED]	2.1

Note: Coordinates presented in units of U.S. Survey Feet.

4.0 QUALITY CONTROL

The IVS data collection met the requirement QC performance metrics established in MEC QAPP Worksheet #22. Table 4 summarizes the DGM system performance related to applicable measurement quality objectives (MQOs) in the QAPP. This table also cites the table, figure, or appendix in which supporting detail is provided. No nonconformances were noted during the validation of the G3 system at the IVS.

Table 4. Performance Metrics for G3 EM61-MK2HP System Validation.

QAPP Table	MQO	Acceptance Criteria	Result	Verification
22-3	#3-1 Verify correct assembly (DGM Sensors)	As specified in instrument operation manual	PASS	Daily Field Logs
22-3	#3-2 Initial Instrument Function Test (EM61-MK2 HP)	Response (mean static spike minus mean static background) within 20% of predicted response (after predicted responses are scaled appropriately for HP sensor)	2% – 19%; PASS	Table 1 Master project database
22-3	#3-6 Initial dynamic positioning accuracy (IVS)	Derived positions of IVS targets are ± 10 in of the ground truth locations	2.1 – 5.1 inches; PASS	Table 3 Master project database
22-3	#3-8 In-line measurement spacing	98% ≤ 0.75 ft between successive measurements; 100% ≤ 3.3 ft. Gaps are filled or adequately explained (e.g., unsafe terrain, obstructions)	100% ≤ 0.75 ft; PASS	Master project database
22-3	#3-14 Battery voltage (EM61-MK2 HP)	Voltage must be ≥ 11.0 V	All > 11.0 V; PASS	Daily Field Logs

5.0 CONCLUSIONS

The replacement EM61-MK2HP system brought to the site as part of the corrective actions for NCR 002, in support of the SI at multiple MRP sites, was successfully validated at the IVS. The system was validated for RTS positioning, as applicable for its intended use.

The results of the IVS validation demonstrate the DGM system has met the requisite MQOs. This system is capable of collecting data in support of the DGM objectives and overall SI objectives. The target picking threshold for the EM61-MK2HP data remains at 5 mV on Channel 2.

DGM surveys and data processing have been completed in accordance with the requirements set forth in the project-specific MEC QAPP and applicable SOPs.

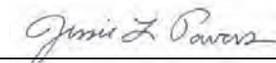
6.0 REFERENCES

- Tetra Tech, Inc., 2021. unitions Response uaity ssurance Pro ect P an for unitions and posi es of Concern Site nspection at a a ase itsap an or, utipe RP Sites, a a ase itsap an or, Si erdae, ashin ton. Revision 0. June.
- Tetra Tech, Inc., 2022. nstrument erification Strip echnica emorandum, a a ase itsap an or, utipe RP Sites, a a ase itsap an or, . September.

APPENDIX A – NCR 002



Nonconformance Report (NCR)

Naval Base Kitsap Bangor N6247016D9008			
TASK ORDER # <u>N4425519F4112</u>	NCR # <u>002</u>	DATE: <u>08/23/2022</u>	
LOCATION: <u>Silverdale, WA</u>	CLIENT REP NOTIFIED:	<u>Melissa King US Navy, EODTECHDIV QA Geophysicist</u>	
1 Plan, Procedure, Specification, or Drawing (clearly state the requirement from the source)			
MR-QAPP for Naval Base Kitsap Bangor Site Inspection (SI).			
MQO# 3-4: Ongoing instrument function test (EM61-MK2 HP); Response within 20% of initial response; RCA/CA.			
2 Description of Nonconforming Item or Condition			
The PM instrument function tests collected with the G2 EM61-HP sensor (s/n 1920) on 08/23/2022 failed to meet the response requirement.			
Signature: <u></u>			
Prepared by: <u>Jessie Powers</u>		Title: <u>QC Geophysicist</u>	Date: <u>09/12/2022</u>
3 Disposition Required by Responsible Organization			
<input checked="" type="checkbox"/> Use As-Is <input type="checkbox"/> Rework <input type="checkbox"/> Other - specify:			
Does the nonconforming condition require reevaluation of previous process or products (data or cleared areas)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
4 Responsible Organization Corrective Action			
Corrective Actions: Corrective actions will be to remove the G2 sensor from service and procure a replacement EM61-HP system from an approved vendor.			
Data Usability: The G2 system was used to collect transect data on 8/23/2022, at Site MR UXO3. No QC seeds are emplaced along transects for this project. The Tetra Tech team recommends retaining the transect data from UXO3 collected on 8/23/2022 for the following reasons:			
1. The static response profiles in Figure 1 demonstrate the system responds appropriately in terms of measured decay with increasingly later time gates.			
2. Responses to the IVS seeds were detected above the target picking threshold.			
3. The purpose of the DGM survey is to support a Site Inspection in assessing anomaly density and distribution to inform next steps for the sites.			
4. Existing evidence from Site UXO3 suggests the potential for significant amounts of metal buried in the subsurface, likely also resulting in the presence of SRAs in the DGM data.			
For these reasons, the subject failing static test is unlikely to have a material impact on the usability of the data collected on 8/23/2022, with the G2 sensors. However, out of abundance of caution and to facilitate continuing to acquire high quality DGM data to support the overall project objectives, the system was taken out of service.			
Organization: Tetra Tech	Signature: <u></u>		Date: 9/19/2022
Title (Site Supervisor, Technical Lead, Senior Geophysicist, etc.): Project Geophysicist			

5 Independent Evaluation of Corrective Action (PM, or Designee)			
<input checked="" type="checkbox"/>	Accept		
<input type="checkbox"/>	Accept with comments:		
<input type="checkbox"/>	Reject		
<input type="checkbox"/>	Reject with comments:		
Signature: PM <u><i>Linda Klink</i></u>		Date: 09/20/22	
6 Verification and Closure (PQM, UXOQCS, or Designee)			
Verification required:		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Verified and closed by:	<u><i>Jessie L. Powers</i></u>	<u>QC Geophysicist</u>	<u>09/20/2022</u>
	Signature	Title	Date

Acronym: PM-Project Manager, PQM-Project Quality Manager

Additional Distribution To: File, Director of Quality or Designee, Project Manager

Nonconformance Root Cause Analysis Worksheet
Problem Statement/Nonconformance

The PM instrument function tests collected with the G2 EM61-HP sensor (s/n 1920) on 08/23/2022 failed to meet the response requirement.

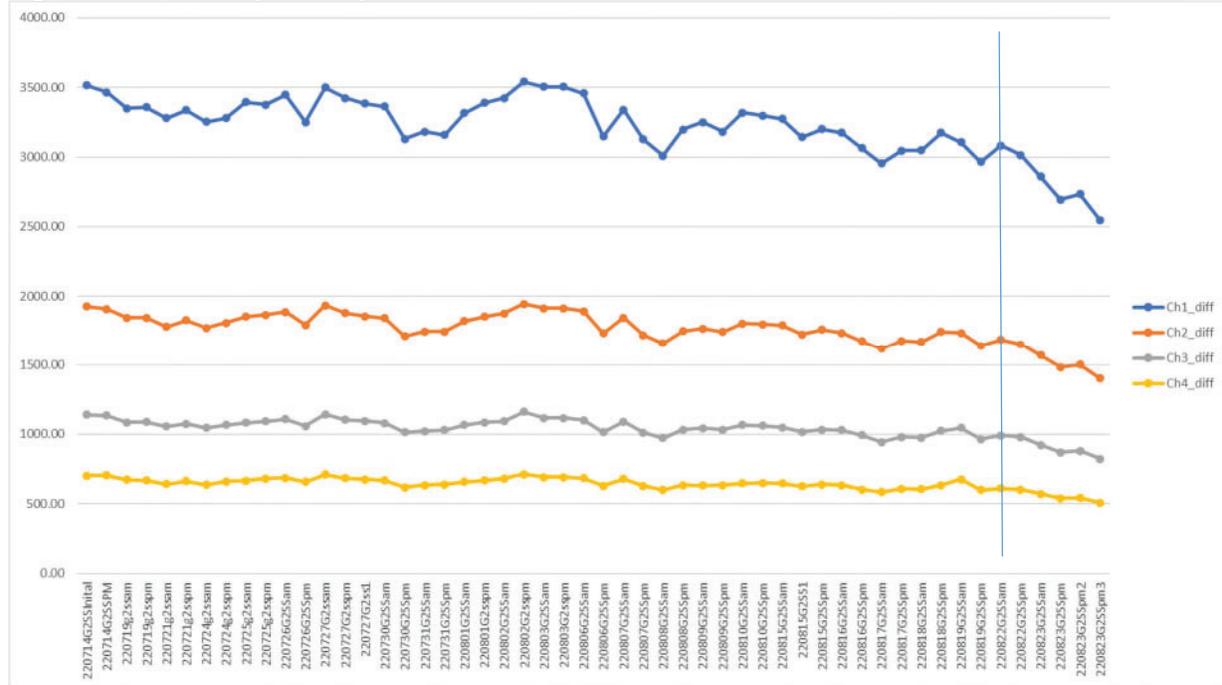
Investigation Results/Analyze Data

The failing PM instrument function test collected on 08/23/2022 was outside the $\pm 20\%$ range for all four EM61-MK2HP time channels. The failing responses were between 23-24% lower than the initial response.

As part of the troubleshooting process in the field, the field team used onsite spare components to systematically replace those system components, which could affect the response values. The location, orientation and height of the small ISO used as the test item relative to the coil center was also verified as correct and was consistent with previous tests. Field troubleshooting efforts also included two additional instrument function tests. The results of these tests yielded similar results, with responses between 22-27% lower than the initial response values. All static tests were performed at the same consistent location, so the effect does not appear to be associated with abnormal background responses or external noise sources. Inclement weather was not a factor on this day.

Review of prior test data depict static spike response values within approximately 14% of the initial response until around 8/22/2022, at which point the responses noticeably decreased (see figure below). The vertical line in the figure represents the first measurement recorded on 8/22/2022. This decrease is most evident in the Channel 1 response data. A review of the IVS data depicts a similar situation.

Figure 1. G2 Static Spike Response Values



Because additional tests conducted at the end of the day on 8/23/2022, as part of the field troubleshooting measures produced consistent results to the subject failing test, the decision was

made by the Project Geophysicist to remove the failing EM61-MK2HP sensor (G2 system) from production and obtain a replacement sensor. The sensor removed from service will be sent back to the manufacturer for further diagnosis.

Utilizing the “5 Why” method, identify the root cause.

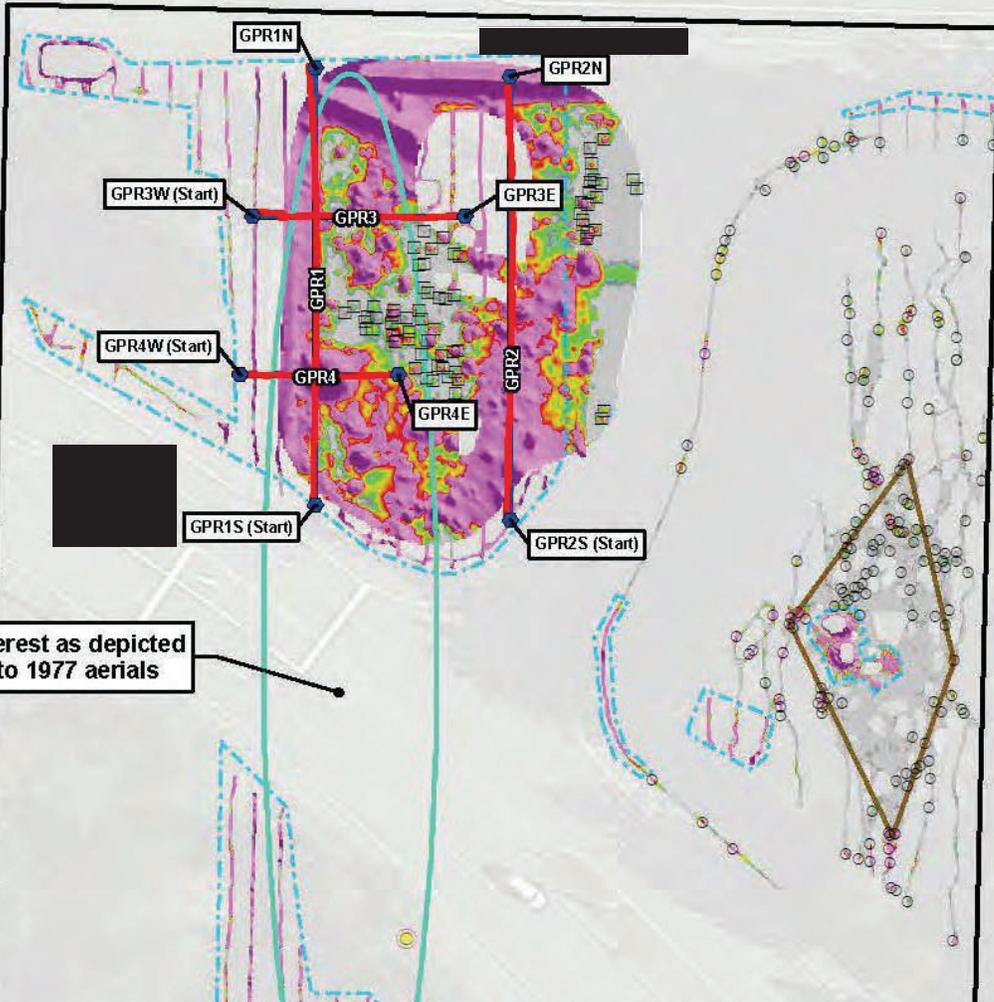
<p>1. Why?</p>	<p>Why were the responses for the G2 EM61-HP sensor outside the $\pm 20\%$ tolerance from established initial responses? <u>Root cause:</u> After attempts by the Tetra Tech field team to isolate and identify whether the problem was within a component that could be repaired or replaced with available spare parts onsite, it was determined the root cause is a hardware problem within an integral system component that cannot be resolved onsite.</p>
<p>2. Why?</p>	
<p>3. Why?</p>	
<p>4. Why?</p>	
<p>5. Why?</p>	

APPENDIX B - EM61-MK2HP RESPONSE MEASUREMENTS

Appendix B. EM61-MK2HP Response Measurements Compared to Standard EM61-MK2 Responses.

offset (cm)	Std EM61-MK2				Multiplier				EM61-MK2HP			
	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4	ch1	ch2	ch3	ch4
30	112.3	62.3	28.1	9.7	5	5	7	12	561.5	311.5	196.7	116.4
31	103.7	57.5	25.9	8.9	5	5	7	12	518.5	287.5	181.3	106.8
32	95.7	53.1	23.9	8.2	5	5	7	12	478.5	265.5	167.3	98.4
33	88.4	49	22.1	7.6	5	5	7	12	442	245	154.7	91.2
34	81.6	45.3	20.4	7	5	5	7	12	408	226.5	142.8	84
35	75.4	41.8	18.9	6.5	5	5	7	12	377	209	132.3	78
36	69.7	38.7	17.4	6	5	5	7	12	348.5	193.5	121.8	72
37	64.4	35.7	16.1	5.5	5	5	7	12	322	178.5	112.7	66
38	59.6	33	14.9	5.1	5	5	7	12	298	165	104.3	61.2
39	55.1	30.6	13.8	4.7	5	5	7	12	275.5	153	96.6	56.4
40	51	28.3	12.7	4.4	5	5	7	12	255	141.5	88.9	52.8
41	47.2	26.2	11.8	4.1	5	5	7	12	236	131	82.6	49.2
42	43.7	24.3	10.9	3.8	5	5	7	12	218.5	121.5	76.3	45.6
43	40.5	22.5	10.1	3.5	5	5	7	12	202.5	112.5	70.7	42
44	37.6	20.8	9.4	3.2	5	5	7	12	188	104	65.8	38.4
45	34.8	19.3	8.7	3	5	5	7	12	174	96.5	60.9	36
46	32.3	17.9	8.1	2.8	5	5	7	12	161.5	89.5	56.7	33.6
47	30	16.7	7.5	2.6	5	5	7	12	150	83.5	52.5	31.2
48	27.9	15.5	7	2.4	5	5	7	12	139.5	77.5	49	28.8
49	25.9	14.4	6.5	2.2	5	5	7	12	129.5	72	45.5	26.4
50	24.1	13.4	6	2.1	5	5	7	12	120.5	67	42	25.2
51	22.4	12.4	5.6	1.9	5	5	7	12	112	62	39.2	22.8
52	20.9	11.6	5.2	1.8	5	5	7	12	104.5	58	36.4	21.6
53	19.4	10.8	4.9	1.7	5	5	7	12	97.0	54.0	34.3	20.4
54	18.1	10.0	4.5	1.6	5	5	7	12	90.5	50.0	31.5	19.2
55	16.9	9.4	4.2	1.4	5	5	7	12	84.5	47.0	29.4	16.8
56	15.7	8.7	3.9	1.4	5	5	7	12	78.5	43.5	27.3	16.8
57	14.7	8.1	3.7	1.3	5	5	7	12	73.5	40.5	25.9	15.6
58	13.7	7.6	3.4	1.2	5	5	7	12	68.5	38.0	23.8	14.4
59	12.8	7.1	3.2	1.1	5	5	7	12	64.0	35.5	22.4	13.2
60	12.0	6.6	3.0	1.0	5	5	7	12	60.0	33.0	21.0	12.0

APPENDIX G – GPR DATA PROFILES

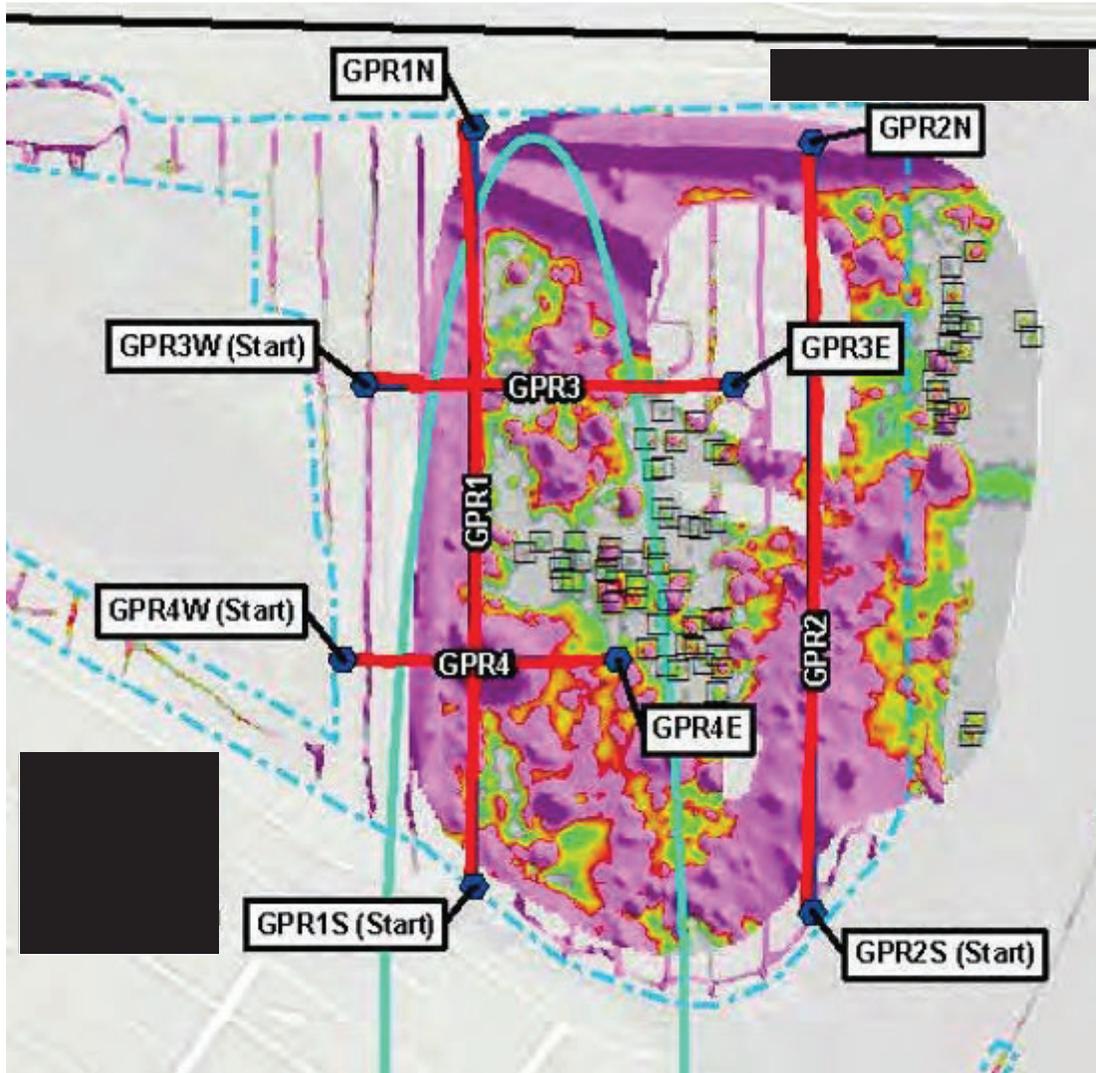


of interest as depicted
1951 to 1977 aerials

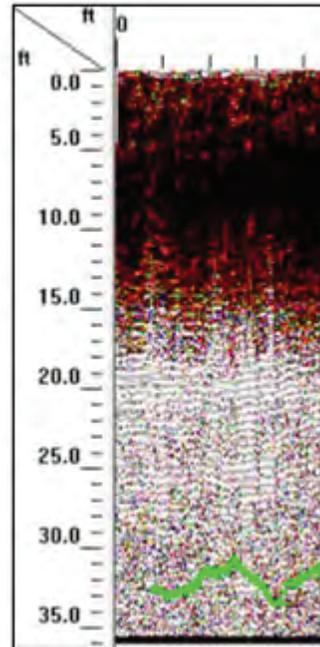


Legend

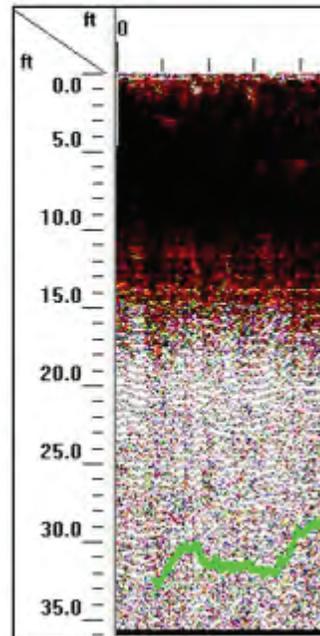
-  Planned GPR Profile
-  GPS Track for Collected Profile
-  Noise Floor
-  Suspected Metallic Debris (where indicated)
-  Interpreted Top of Undisturbed Soil Layer (where indicated)



GPR 1



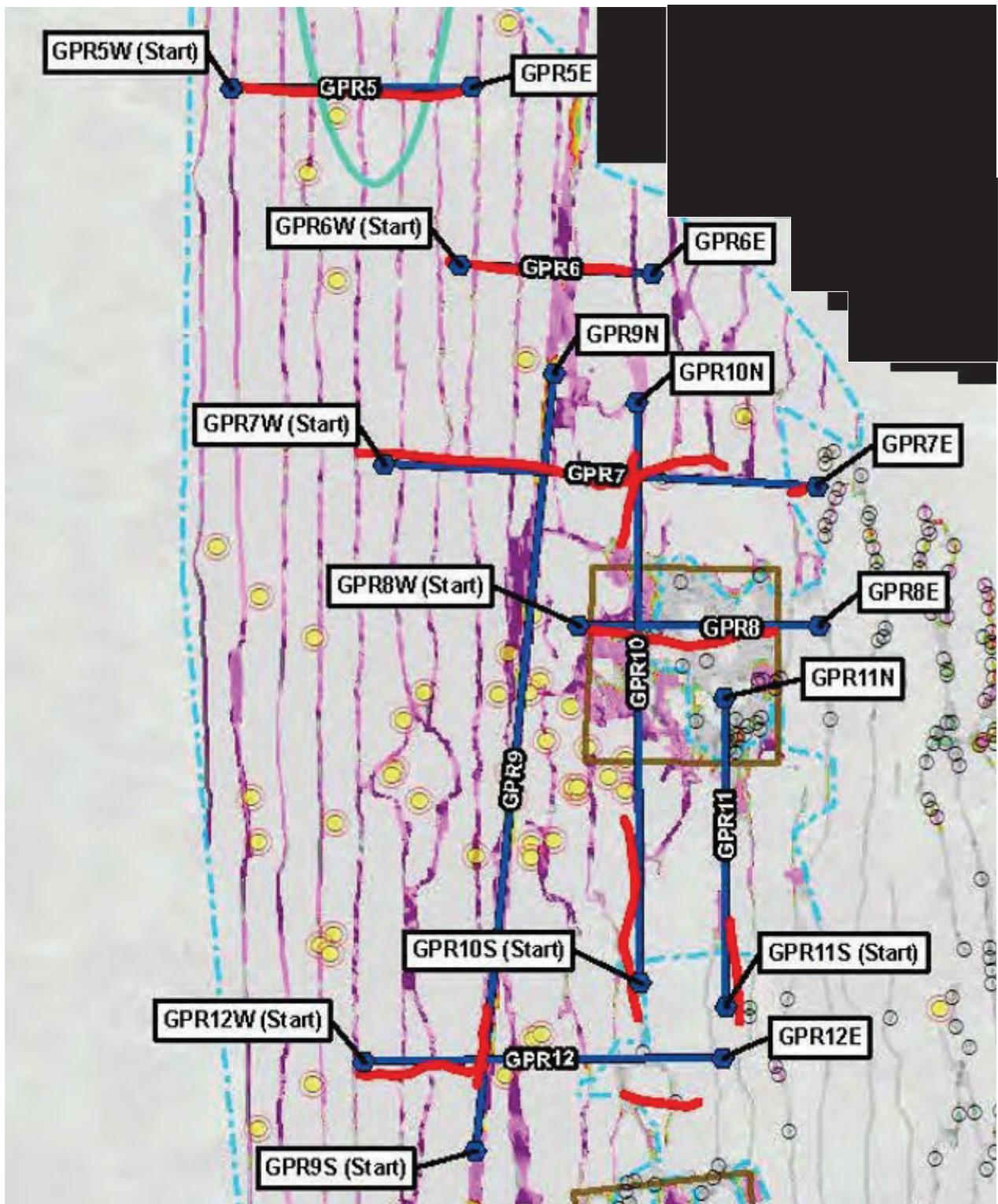
GPR 2



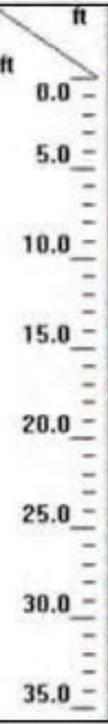
Notes:

East-west orientated profiles are depicted west to east, left to right.

North-south oriented profiles are depicted south to north, left to right.



GPR

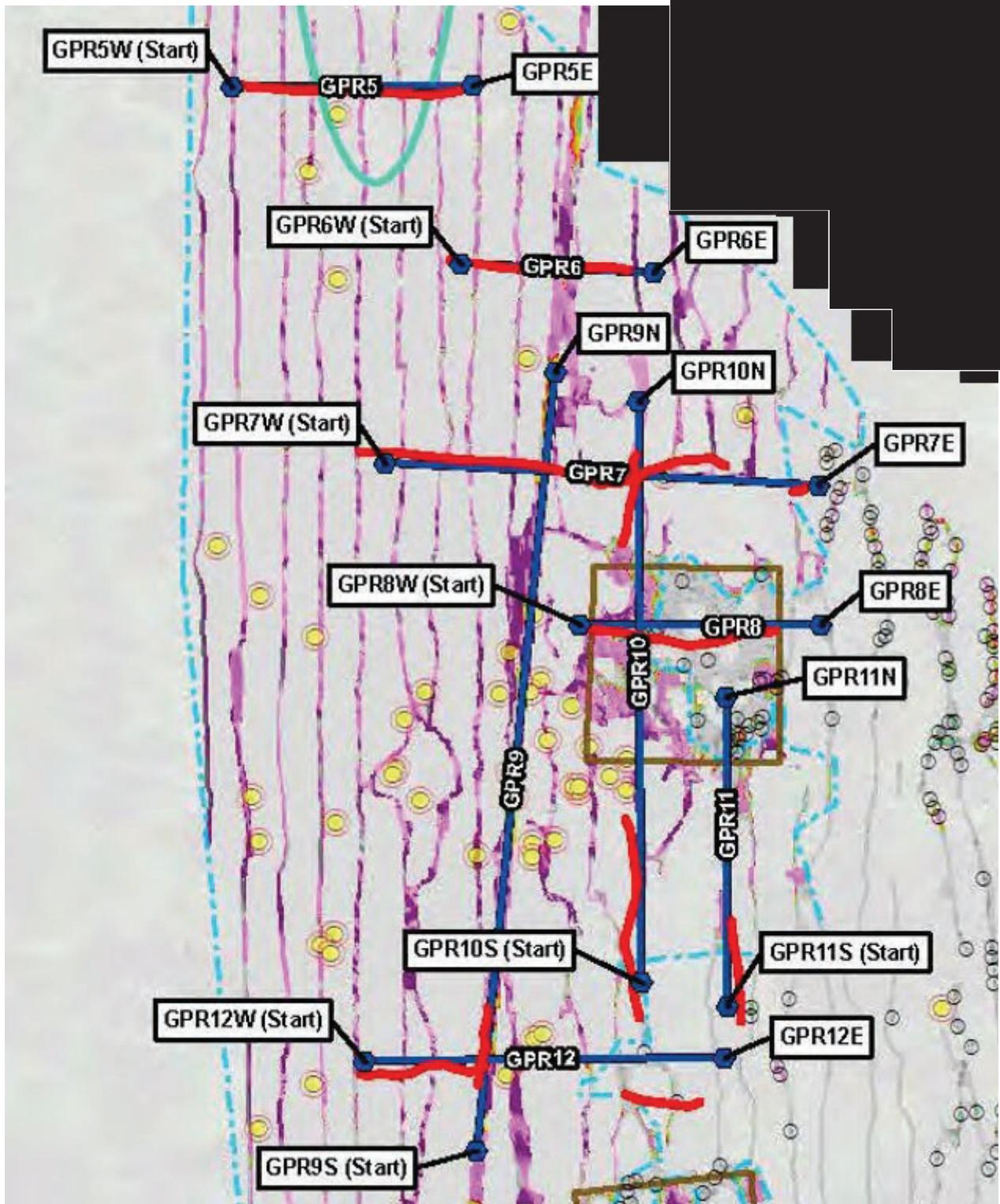


Legend

- Planned GPR Profile
- GPS Track for Collected Profile
- Noise Floor
- - - Suspected Metallic Debris (where indicated)
- Interpreted Top of Undisturbed Soil Layer (where indicated)

Notes:

- East-west orientated profiles are depicted west to east, left to right.
- North-south orientated profiles are depicted south to north, left to right.



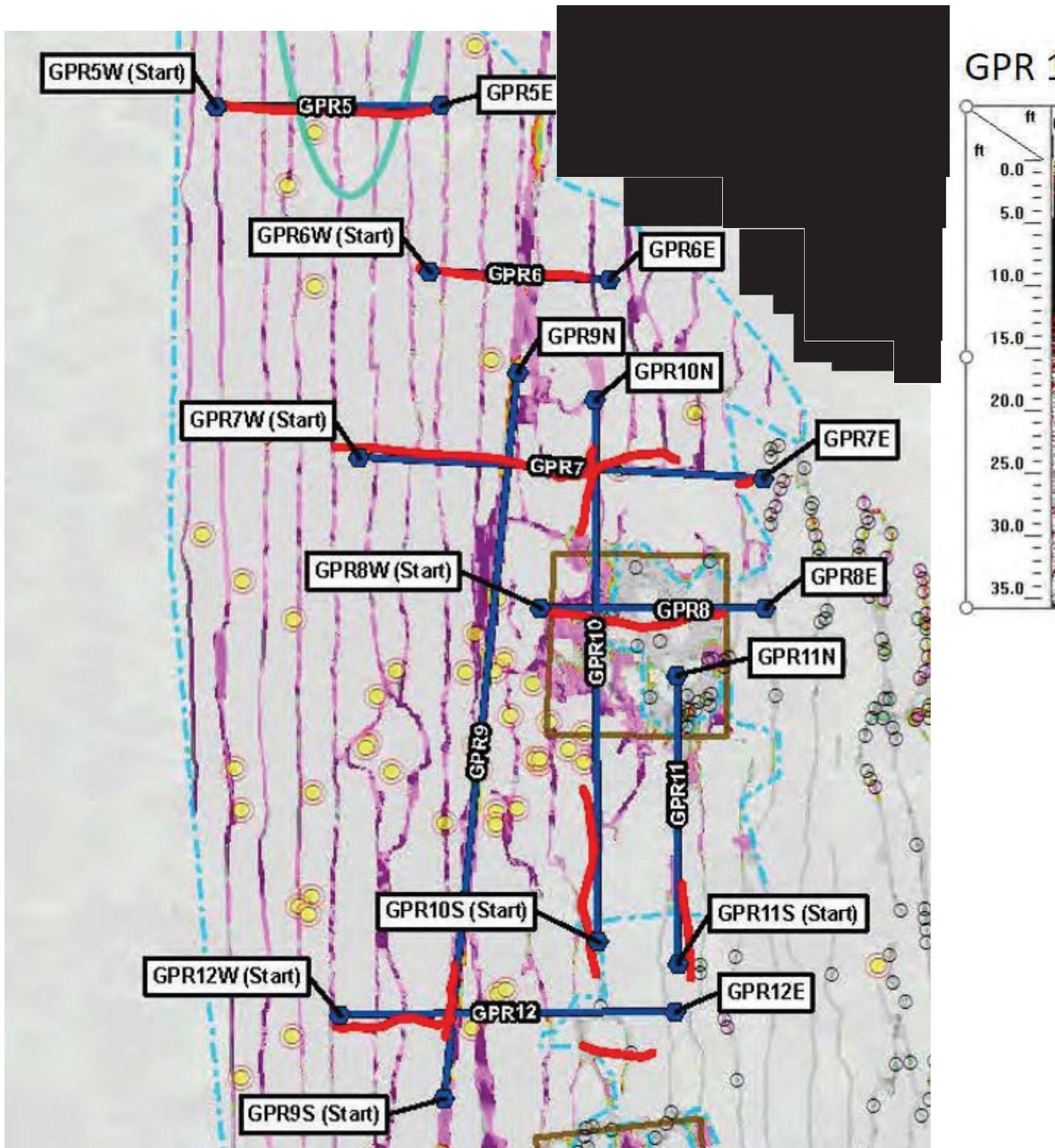
Legend

- Planned GPR Profile
- GPS Track for Collected Profile
- Noise Floor
- - - Suspected Metallic Debris (where indicated)
- Interpreted Top of Undisturbed Soil Layer (where indicated)

Notes:

East-west orientated profiles are depicted west to east, I

North-south oriented profiles are depicted south to north



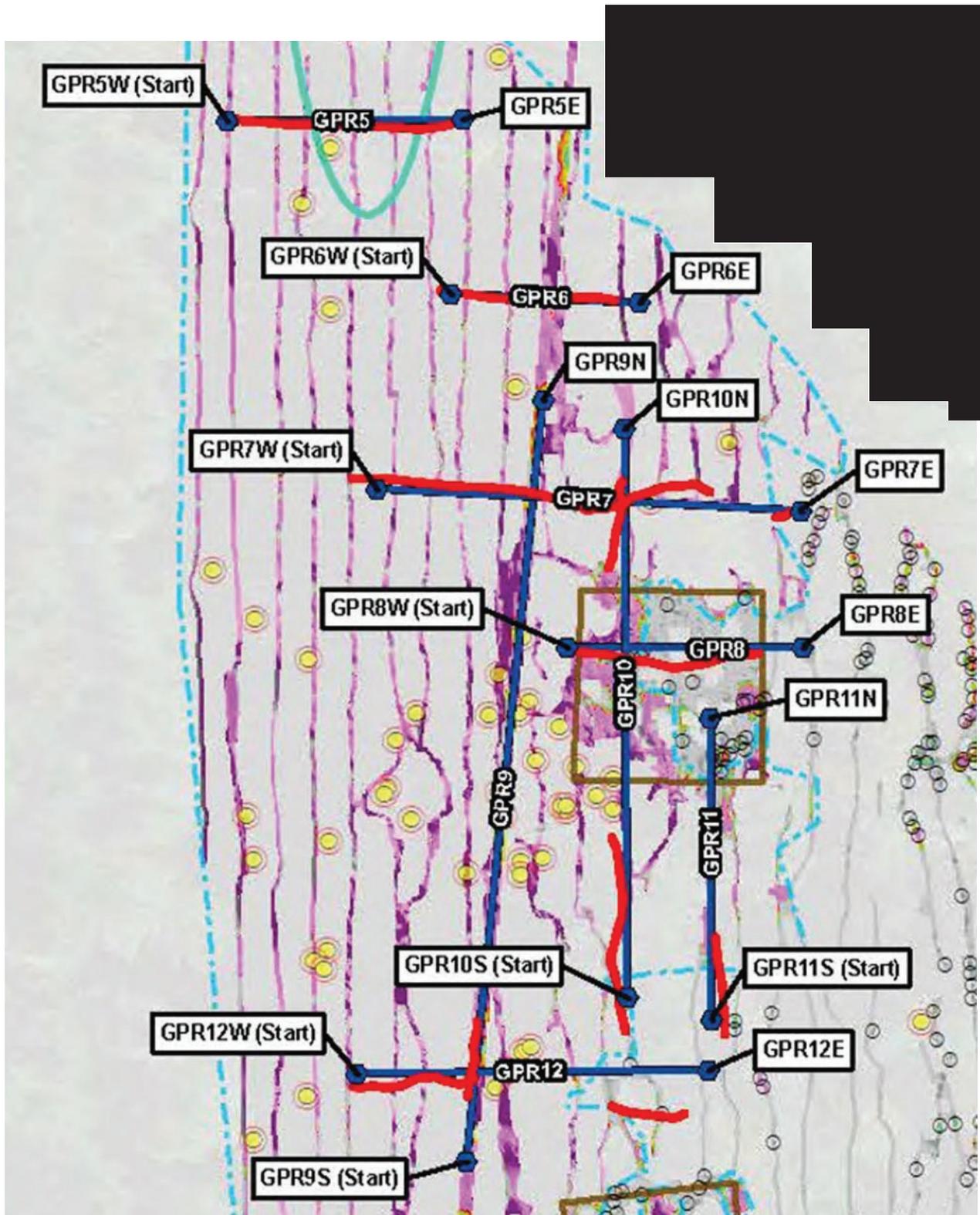
Legend

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- Noise Floor
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- Interpreted Top of Undisturbed Soil Layer (where indicated)

Notes:

East-west orientated profiles are depicted west to east, le

North-south oriented profiles are depicted south to north,



Legend

- Planned GPR Profile
- GPS Track for Collected Profile
- Noise Floor
- - - Suspected Metallic Debris (where indicated)
- Interpreted Top of Undisturbed Soil Layer (where indicated)

Notes:

East-west orientated profiles are depicted west to east, left to right.
 North-south orientated profiles are depicted south to north, left to right.

Appendix G: Analytical Results

G-1: Analytical Laboratory Reports

G-2: Data Validation Reports

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Appendix G-1: Analytical Laboratory Reports

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 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Mitch Baron
Tetra Tech, Inc.
19803 North Creek Parkway
Bothell WA 98011

Generated 12/1/2022 11:11 AM

JOB DESCRIPTION

NB Kitsap Bangor CTO NW194112, WA

JOB NUMBER

280-168718-1

Eurofins Denver

Job Notes

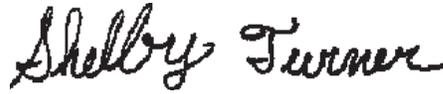
The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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 TestAmerica Project Manager.

Authorization



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Authorized for release by
Shelby R Turner, Project Manager I
Shelby.Turner@et.eurofinsus.com

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Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

LCMS

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: NB Kitsap Bangor CTO NW194112, WA

Report Number: 280-168718-1

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 11/4/2022 10:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.2° C, 2.4° C and 3.5° C.

2 x 1L unpreserved amber glass bottles for 8270E were not provided for sample RB-11012201 (280-168718-6). It can be noted that these bottles were inadvertently not supplied in the client's bottle order. The client was notified on 11/7/22 and instructed the laboratory to proceed with 1 of 2 x 500mL bottle for 8330B. It can be noted that reporting limits for 8270E will be elevated due to limited volume for extraction/analysis.

Sample X3-SS-C03-0006 (280-168718-4) has been canceled per client request on the Chain of Custody (COC).

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13), X7-TP-C03-4248 (280-168718-14), X7-TP-C04-4248 (280-168718-15), X3-SS-C07-0006 (280-168718-16) and X3-SS-C08-0006 (280-168718-17) were analyzed for Semivolatile Organic Compounds (GC/MS) in accordance with 8270E. The samples were prepared on 11/07/2022 and 11/10/2022 and analyzed on 11/11/2022, 11/14/2022 and 11/28/2022.

2,4,6-Tribromophenol (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for X3-SS-C07-0006 (280-168718-16). Evidence of matrix interference is present; therefore, re-extraction/re-analysis was not performed.

2,4-Dinitrophenol failed the recovery criteria low for the MS and MSD of sample X3-SS-C06-0006 (280-168718-9) in batch 280-594711. The LCS is within control limits; therefore, the data have been reported. Refer to the QC report for details.

Samples X3-SS-C01-0006 (280-168718-1)[20X], FD-11012201 (280-168718-2)[20X], X3-SS-C02-0006 (280-168718-3)[20X], X3-SS-C04-0006 (280-168718-5)[20X], X3-SS-C05-0006 (280-168718-7)[20X], FD-11022201 (280-168718-8)[20X], X3-SS-C06-0006 (280-168718-9)[20X], X7-SS-C01-0006 (280-168718-10)[20X], X7B-SS-C01-0006 (280-168718-11)[20X], X7-TP-C01-5460 (280-168718-12)[20X], X7-TP-C02-3648 (280-168718-13)[20X], X7-TP-C03-4248 (280-168718-14)[20X], X7-TP-C04-4248 (280-168718-15)[20X], X3-SS-C07-0006 (280-168718-16)[20X] and X3-SS-C08-0006 (280-168718-17)[20X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

The continuing calibration verification (CCV) associated with batch 280-593336 recovered outside acceptance criteria, low biased 2,4,6-Tribromophenol (Surr). A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analytes, the data have been reported. Affected samples: X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9) and (CCV 280-593336/3).

For the following sample in preparation batch 280-593019, a small amount of final volume was spilled when transferring into the clear 2mL vial: X3-SS-C07-0006 (280-168718-16).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample RB-11012201 (280-168718-6) was analyzed for Semivolatile Organic Compounds (GC/MS) in accordance with 8270E. The samples were prepared on 11/07/2022 and analyzed on 11/17/2022.

In preparation batch 280-592592, elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: RB-11012201 (280-168718-6).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXPLOSIVES (HPLC)

Samples X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13), X7-TP-C03-4248 (280-168718-14), X7-TP-C04-4248 (280-168718-15), X3-SS-C07-0006 (280-168718-16) and X3-SS-C08-0006 (280-168718-17) were analyzed for Explosives (HPLC) in accordance with 8330B. The samples were leached on 11/07/2022, prepared on 11/09/2022 and analyzed on 11/11/2022 and 11/12/2022.

Picric acid, 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene failed the recovery criteria low for the MS of sample X3-SS-C06-0006 (280-168718-9) in batch 280-593042. 1,3,5-Trinitrobenzene failed the recovery criteria high. For the MSD of sample X3-SS-C06-0006 (280-168718-9) in batch 280-593042, Picric acid, 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene failed the recovery criteria low. 1,3,5-Trinitrobenzene failed the recovery criteria high. Also, Picric acid exceeded the RPD limit. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Refer to the QC report for details.

Samples X7-TP-C01-5460 (280-168718-12)[10X], X7-TP-C02-3648 (280-168718-13)[20X] and X3-SS-C08-0006 (280-168718-17)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

A deviation from the Standard Operating Procedure (SOP) occurred. In preparation batch 280-592646, the following samples were not sieved or incrementally sampled: X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X3-SS-C06-0006 (280-168718-9[MS]), X3-SS-C06-0006 (280-168718-9[MSD]), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13), X7-TP-C03-4248 (280-168718-14), X7-TP-C04-4248 (280-168718-15), X3-SS-C07-0006 (280-168718-16), X3-SS-C08-0006 (280-168718-17), (280-168718-B-9 DU) and (280-168718-B-9 TRL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITROGUANIDINE (LCMS)

Samples X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13), X7-TP-C03-4248 (280-168718-14), X7-TP-C04-4248 (280-168718-15), X3-SS-C07-0006 (280-168718-16) and X3-SS-C08-0006 (280-168718-17) were analyzed for Nitroguanidine (LCMS) in accordance with 8321B. The samples were leached on 11/07/2022, prepared on 11/17/2022 and analyzed on 11/21/2022.

Nitroguanidine failed the recovery criteria low for the MS and MSD of sample X3-SS-C06-0006 (280-168718-9) in batch 280-594295. The associated laboratory control sample (LCS) recovery met acceptance criteria. Refer to the QC report for details.

The following samples were prepared outside of preparation holding time due hold time was misidentified in backlog : X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X3-SS-C06-0006 (280-168718-9[MS]), X3-SS-C06-0006 (280-168718-9[MSD]), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13) and X7-TP-C03-4248 (280-168718-14). The preparation holding time expired on 11/16/22 and the samples were prepared on 11/17/22. It can be noted that the laboratory did not document this discrepancy until data was lab completed and the project manager was reviewing the data. As such, the client was notified on 12/1/22.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

NITROGUANIDINE (LCMS)

Sample RB-11012201 (280-168718-6) was analyzed for Nitroguanidine (LCMS) in accordance with 8321B. The samples were analyzed on 11/21/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXPLOSIVES (HPLC)

Sample RB-11012201 (280-168718-6) was analyzed for Explosives (HPLC) in accordance with 8330B. The samples were prepared on 11/08/2022 and analyzed on 11/10/2022.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-592716. Two sets of LCS/LCSD were prepared for 8330 LCS and 3,5-DNA/Diamino instead.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples X3-SS-C01-0006 (280-168718-1), FD-11012201 (280-168718-2), X3-SS-C02-0006 (280-168718-3), X3-SS-C04-0006 (280-168718-5), X3-SS-C05-0006 (280-168718-7), FD-11022201 (280-168718-8), X3-SS-C06-0006 (280-168718-9), X7-SS-C01-0006 (280-168718-10), X7B-SS-C01-0006 (280-168718-11), X7-TP-C01-5460 (280-168718-12), X7-TP-C02-3648 (280-168718-13), X7-TP-C03-4248 (280-168718-14), X7-TP-C04-4248 (280-168718-15), X3-SS-C07-0006 (280-168718-16) and X3-SS-C08-0006 (280-168718-17) were analyzed for percent solids in accordance with ASTM D2216-90. The samples were analyzed on 11/07/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C01-0006

Lab Sample ID: 280-168718-1

No Detections.

Client Sample ID: FD-11012201

Lab Sample ID: 280-168718-2

No Detections.

Client Sample ID: X3-SS-C02-0006

Lab Sample ID: 280-168718-3

No Detections.

Client Sample ID: X3-SS-C04-0006

Lab Sample ID: 280-168718-5

No Detections.

Client Sample ID: RB-11012201

Lab Sample ID: 280-168718-6

No Detections.

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	510		97	30	ug/Kg	1		8330B	Total/NA
3,5-Dinitroaniline	87	J	97	8.7	ug/Kg	1		8330B	Total/NA
2,4-Dinitrotoluene	110		97	14	ug/Kg	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	180		97	32	ug/Kg	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	190		97	29	ug/Kg	1		8330B	Total/NA

Client Sample ID: FD-11022201

Lab Sample ID: 280-168718-8

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	240		97	30	ug/Kg	1		8330B	Total/NA
3,5-Dinitroaniline	98		97	8.8	ug/Kg	1		8330B	Total/NA
2,4-Dinitrotoluene	43	J	97	14	ug/Kg	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	210		97	32	ug/Kg	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	200		97	29	ug/Kg	1		8330B	Total/NA

Client Sample ID: X3-SS-CO6-0006

Lab Sample ID: 280-168718-9

No Detections.

Client Sample ID: X7-SS-C01-0006

Lab Sample ID: 280-168718-10

No Detections.

Client Sample ID: X7B-SS-C01-0006

Lab Sample ID: 280-168718-11

No Detections.

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	1600	M	92	21	ug/Kg	1		8330B	Total/NA
RDX - DL	38000	D	1800	400	ug/Kg	10		8330B	Total/NA

Client Sample ID: X7-TP-C02-3648

Lab Sample ID: 280-168718-13

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	4200	M	98	22	ug/Kg	1		8330B	Total/NA
RDX - DL	65000	D M	3900	840	ug/Kg	20		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Detection Summary

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C03-4248

Lab Sample ID: 280-168718-14

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	170	M	97	22	ug/Kg	1		8330B	Total/NA
RDX	4800		190	42	ug/Kg	1		8330B	Total/NA

Client Sample ID: X7-TP-C04-4248

Lab Sample ID: 280-168718-15

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	280	M	95	22	ug/Kg	1		8330B	Total/NA
RDX	6200		190	41	ug/Kg	1		8330B	Total/NA

Client Sample ID: X3-SS-C07-0006

Lab Sample ID: 280-168718-16

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	160		96	30	ug/Kg	1		8330B	Total/NA

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
N-Nitrosodiphenylamine	590	J D	7300	460	ug/Kg	20	✱	8270E	Total/NA
1,3,5-Trinitrobenzene	130		98	13	ug/Kg	1		8330B	Total/NA
3,5-Dinitroaniline	81	J	98	8.8	ug/Kg	1		8330B	Total/NA
2,4-Dinitrotoluene	8300		98	14	ug/Kg	1		8330B	Total/NA
2,6-Dinitrotoluene	430		98	19	ug/Kg	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	400		98	32	ug/Kg	1		8330B	Total/NA
2,4,6-Trinitrotoluene - DL	17000	D	490	150	ug/Kg	5		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C01-0006

Lab Sample ID: 280-168718-1

Date Collected: 11/01/22 12:35

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		11/09/22 17:15	11/11/22 17:36	1
2,4,6-Trinitrotoluene	68	U M	97	30	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
3,5-Dinitroaniline	19	U	97	8.7	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2,4-Dinitrotoluene	39	U	97	14	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2,6-Dinitrotoluene	39	U	97	19	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2-Amino-4,6-dinitrotoluene	68	U	97	32	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2-Nitrotoluene	97	U	190	46	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
3-Nitrotoluene	150	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
4-Amino-2,6-dinitrotoluene	68	U	97	29	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
4-Nitrotoluene	97	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
Nitrobenzene	190	U	290	82	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
HMX	68	U	97	22	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
PETN	970	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
Picric acid	97	U	97	55	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
RDX	97	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
Tetryl	97	U	190	43	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2,4-diamino-6-nitrotoluene	970	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 02:07	1
2,6-diamino-4-nitrotoluene	970	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 02:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	109		78 - 119	11/09/22 17:15	11/11/22 02:07	1
1,2-Dinitrobenzene	96		78 - 119	11/09/22 17:15	11/11/22 17:36	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	23.1		0.1	0.1	%			11/07/22 11:11	1

Client Sample ID: X3-SS-C01-0006

Lab Sample ID: 280-168718-1

Date Collected: 11/01/22 12:35

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 76.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	26000	U D	42000	8700	ug/Kg	☼	11/07/22 12:55	11/11/22 00:37	20
Diphenylamine	4300	U D	8600	1100	ug/Kg	☼	11/07/22 12:55	11/11/22 00:37	20
N-Nitrosodiphenylamine	1700	U D	8600	550	ug/Kg	☼	11/07/22 12:55	11/11/22 00:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85	D	44 - 115	11/07/22 12:55	11/11/22 00:37	20
2-Fluorophenol (Surr)	73	D	35 - 115	11/07/22 12:55	11/11/22 00:37	20
2,4,6-Tribromophenol (Surr)	52	D	39 - 132	11/07/22 12:55	11/11/22 00:37	20
Nitrobenzene-d5 (Surr)	68	D	37 - 122	11/07/22 12:55	11/11/22 00:37	20
Phenol-d5 (Surr)	80	D	33 - 122	11/07/22 12:55	11/11/22 00:37	20
Terphenyl-d14 (Surr)	86	D	54 - 127	11/07/22 12:55	11/11/22 00:37	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: FD-11012201

Lab Sample ID: 280-168718-2

Date Collected: 11/01/22 12:45

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	38	U	96	13	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
1,3-Dinitrobenzene	38	U	96	16	ug/Kg		11/09/22 17:15	11/11/22 18:11	1
2,4,6-Trinitrotoluene	67	U M	96	29	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
3,5-Dinitroaniline	19	U	96	8.6	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2,4-Dinitrotoluene	38	U	96	14	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2,6-Dinitrotoluene	38	U	96	18	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2-Amino-4,6-dinitrotoluene	67	U	96	32	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2-Nitrotoluene	96	U	190	45	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
3-Nitrotoluene	140	U	190	61	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
4-Amino-2,6-dinitrotoluene	67	U	96	29	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
4-Nitrotoluene	96	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
Nitrobenzene	190	U	290	82	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
Nitroglycerin	670	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
HMX	67	U	96	22	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
PETN	960	U	1900	470	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
Picric acid	96	U	96	54	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
RDX	96	U	190	41	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
Tetryl	96	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2,4-diamino-6-nitrotoluene	960	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 02:30	1
2,6-diamino-4-nitrotoluene	960	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	112		78 - 119	11/09/22 17:15	11/11/22 02:30	1
1,2-Dinitrobenzene	104		78 - 119	11/09/22 17:15	11/11/22 18:11	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	21.7		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: FD-11012201

Lab Sample ID: 280-168718-2

Date Collected: 11/01/22 12:45

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 78.3

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	25000	U D	40000	8300	ug/Kg	☼	11/07/22 12:55	11/11/22 00:57	20
Diphenylamine	4100	U D	8200	1100	ug/Kg	☼	11/07/22 12:55	11/11/22 00:57	20
N-Nitrosodiphenylamine	1700	U D	8200	520	ug/Kg	☼	11/07/22 12:55	11/11/22 00:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73	D	44 - 115	11/07/22 12:55	11/11/22 00:57	20
2-Fluorophenol (Surr)	68	D	35 - 115	11/07/22 12:55	11/11/22 00:57	20
2,4,6-Tribromophenol (Surr)	45	D	39 - 132	11/07/22 12:55	11/11/22 00:57	20
Nitrobenzene-d5 (Surr)	64	D	37 - 122	11/07/22 12:55	11/11/22 00:57	20
Phenol-d5 (Surr)	72	D	33 - 122	11/07/22 12:55	11/11/22 00:57	20
Terphenyl-d14 (Surr)	74	D	54 - 127	11/07/22 12:55	11/11/22 00:57	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C02-0006

Lab Sample ID: 280-168718-3

Date Collected: 11/01/22 13:50

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	40	U	100	14	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
1,3-Dinitrobenzene	40	U	100	17	ug/Kg		11/09/22 17:15	11/11/22 18:46	1
2,4,6-Trinitrotoluene	70	U M	100	31	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
3,5-Dinitroaniline	20	U	100	9.0	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
2,4-Dinitrotoluene	40	U	100	15	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
2,6-Dinitrotoluene	40	U	100	19	ug/Kg		11/09/22 17:15	11/11/22 18:46	1
2-Amino-4,6-dinitrotoluene	70	U	100	33	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
2-Nitrotoluene	100	U	200	47	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
3-Nitrotoluene	150	U	200	64	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
4-Amino-2,6-dinitrotoluene	70	U	100	30	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
4-Nitrotoluene	100	U	200	36	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
Nitrobenzene	200	U	300	85	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
Nitroglycerin	700	U	2000	210	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
HMX	70	U	100	23	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
PETN	1000	U	2000	490	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
Picric acid	100	U M	100	56	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
RDX	100	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 18:46	1
Tetryl	100	U	200	44	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
2,4-diamino-6-nitrotoluene	1000	U	2000	520	ug/Kg		11/09/22 17:15	11/11/22 02:53	1
2,6-diamino-4-nitrotoluene	1000	U M	2000	330	ug/Kg		11/09/22 17:15	11/11/22 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	110		78 - 119	11/09/22 17:15	11/11/22 02:53	1
1,2-Dinitrobenzene	106		78 - 119	11/09/22 17:15	11/11/22 18:46	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	23.6		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X3-SS-C02-0006

Lab Sample ID: 280-168718-3

Date Collected: 11/01/22 13:50

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 76.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	25000	U D	40000	8400	ug/Kg	☼	11/07/22 12:55	11/11/22 01:18	20
Diphenylamine	4200	U D	8300	1100	ug/Kg	☼	11/07/22 12:55	11/11/22 01:18	20
N-Nitrosodiphenylamine	1700	U D	8300	530	ug/Kg	☼	11/07/22 12:55	11/11/22 01:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69	D	44 - 115	11/07/22 12:55	11/11/22 01:18	20
2-Fluorophenol (Surr)	58	D	35 - 115	11/07/22 12:55	11/11/22 01:18	20
2,4,6-Tribromophenol (Surr)	39	D	39 - 132	11/07/22 12:55	11/11/22 01:18	20
Nitrobenzene-d5 (Surr)	54	D	37 - 122	11/07/22 12:55	11/11/22 01:18	20
Phenol-d5 (Surr)	63	D	33 - 122	11/07/22 12:55	11/11/22 01:18	20
Terphenyl-d14 (Surr)	65	D	54 - 127	11/07/22 12:55	11/11/22 01:18	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C04-0006

Lab Sample ID: 280-168718-5

Date Collected: 11/01/22 15:25

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	99	14	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
1,3-Dinitrobenzene	39	U	99	16	ug/Kg		11/09/22 17:15	11/11/22 19:21	1
2,4,6-Trinitrotoluene	69	U	99	30	ug/Kg		11/09/22 17:15	11/11/22 19:21	1
3,5-Dinitroaniline	20	U	99	8.9	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2,4-Dinitrotoluene	39	U	99	14	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2,6-Dinitrotoluene	39	U	99	19	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2-Amino-4,6-dinitrotoluene	69	U	99	32	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2-Nitrotoluene	99	U	200	47	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
3-Nitrotoluene	150	U	200	63	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
4-Amino-2,6-dinitrotoluene	69	U	99	29	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
4-Nitrotoluene	99	U	200	36	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
Nitrobenzene	200	U	300	84	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
Nitroglycerin	690	U M	2000	210	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
HMX	69	U	99	22	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
PETN	990	U	2000	490	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
Picric acid	99	U	99	56	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
RDX	99	U	200	42	ug/Kg		11/09/22 17:15	11/11/22 19:21	1
Tetryl	99	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2,4-diamino-6-nitrotoluene	990	U	2000	510	ug/Kg		11/09/22 17:15	11/11/22 03:16	1
2,6-diamino-4-nitrotoluene	990	U M	2000	320	ug/Kg		11/09/22 17:15	11/11/22 03:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	111		78 - 119	11/09/22 17:15	11/11/22 03:16	1
1,2-Dinitrobenzene	103		78 - 119	11/09/22 17:15	11/11/22 19:21	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	28.6		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X3-SS-C04-0006

Lab Sample ID: 280-168718-5

Date Collected: 11/01/22 15:25

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 71.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	28000	U D	44000	9200	ug/Kg	☼	11/07/22 12:55	11/14/22 19:37	20
Diphenylamine	4600	U D	9200	1200	ug/Kg	☼	11/07/22 12:55	11/14/22 19:37	20
N-Nitrosodiphenylamine	1900	U D	9200	580	ug/Kg	☼	11/07/22 12:55	11/14/22 19:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		44 - 115	11/07/22 12:55	11/14/22 19:37	20
2-Fluorophenol (Surr)	70		35 - 115	11/07/22 12:55	11/14/22 19:37	20
2,4,6-Tribromophenol (Surr)	53	Q	39 - 132	11/07/22 12:55	11/14/22 19:37	20
Nitrobenzene-d5 (Surr)	68		37 - 122	11/07/22 12:55	11/14/22 19:37	20
Phenol-d5 (Surr)	78		33 - 122	11/07/22 12:55	11/14/22 19:37	20
Terphenyl-d14 (Surr)	78		54 - 127	11/07/22 12:55	11/14/22 19:37	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: RB-11012201

Lab Sample ID: 280-168718-6

Date Collected: 11/01/22 15:45

Matrix: Water

Date Received: 11/04/22 10:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	60	U	60	20	ug/L		11/07/22 13:11	11/17/22 01:55	1
Diphenylamine	14	U M	20	2.1	ug/L		11/07/22 13:11	11/17/22 01:55	1
N-Nitrosodiphenylamine	16	U	20	0.88	ug/L		11/07/22 13:11	11/17/22 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		44 - 119	11/07/22 13:11	11/17/22 01:55	1
2-Fluorophenol (Surr)	37		19 - 119	11/07/22 13:11	11/17/22 01:55	1
2,4,6-Tribromophenol (Surr)	73		43 - 140	11/07/22 13:11	11/17/22 01:55	1
Nitrobenzene-d5 (Surr)	70		44 - 120	11/07/22 13:11	11/17/22 01:55	1
Phenol-d5 (Surr)	20		10 - 115	11/07/22 13:11	11/17/22 01:55	1
Terphenyl-d14 (Surr)	80		50 - 134	11/07/22 13:11	11/17/22 01:55	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.084	ug/L		11/08/22 13:27	11/10/22 01:58	1
1,3-Dinitrobenzene	0.10	U	0.11	0.037	ug/L		11/08/22 13:27	11/10/22 01:58	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.045	ug/L		11/08/22 13:27	11/10/22 01:58	1
3,5-Dinitroaniline	0.30	U	0.40	0.13	ug/L		11/08/22 13:27	11/10/22 01:58	1
2,4-Dinitrotoluene	0.080	U	0.10	0.027	ug/L		11/08/22 13:27	11/10/22 01:58	1
2,6-Dinitrotoluene	0.080	U	0.10	0.040	ug/L		11/08/22 13:27	11/10/22 01:58	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.051	ug/L		11/08/22 13:27	11/10/22 01:58	1
2-Nitrotoluene	0.20	U	0.21	0.086	ug/L		11/08/22 13:27	11/10/22 01:58	1
3-Nitrotoluene	0.40	U	0.40	0.20	ug/L		11/08/22 13:27	11/10/22 01:58	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.058	ug/L		11/08/22 13:27	11/10/22 01:58	1
4-Nitrotoluene	0.40	U	0.41	0.10	ug/L		11/08/22 13:27	11/10/22 01:58	1
Nitrobenzene	0.20	U	0.21	0.091	ug/L		11/08/22 13:27	11/10/22 01:58	1
Nitroglycerin	2.0	U	2.1	0.92	ug/L		11/08/22 13:27	11/10/22 01:58	1
HMX	0.20	U	0.21	0.088	ug/L		11/08/22 13:27	11/10/22 01:58	1
PETN	1.0	U	1.1	0.45	ug/L		11/08/22 13:27	11/10/22 01:58	1
Picric acid	0.12	U	0.40	0.044	ug/L		11/08/22 13:27	11/10/22 01:58	1
RDX	0.20	U	0.21	0.052	ug/L		11/08/22 13:27	11/10/22 01:58	1
Tetryl	0.10	U	0.11	0.032	ug/L		11/08/22 13:27	11/10/22 01:58	1
2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.43	ug/L		11/08/22 13:27	11/10/22 01:58	1
2,6-diamino-4-nitrotoluene	0.90	U M	1.0	0.22	ug/L		11/08/22 13:27	11/10/22 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	101	M	83 - 119	11/08/22 13:27	11/10/22 01:58	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	10	U	20	3.7	ug/L			11/21/22 14:25	1

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Date Collected: 11/02/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		11/09/22 17:15	11/11/22 19:56	1
2,4,6-Trinitrotoluene	510		97	30	ug/Kg		11/09/22 17:15	11/11/22 03:39	1

Eurofins Denver

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Date Collected: 11/02/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
3,5-Dinitroaniline	87	J	97	8.7	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2,4-Dinitrotoluene	110		97	14	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2,6-Dinitrotoluene	39	U	97	19	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2-Amino-4,6-dinitrotoluene	180		97	32	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2-Nitrotoluene	97	U	190	46	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
3-Nitrotoluene	150	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
4-Amino-2,6-dinitrotoluene	190		97	29	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
4-Nitrotoluene	97	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
Nitrobenzene	190	U	290	82	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
HMX	68	U	97	22	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
PETN	970	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
Picric acid	97	U	97	55	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
RDX	97	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
Tetryl	97	U	190	43	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2,4-diamino-6-nitrotoluene	970	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
2,6-diamino-4-nitrotoluene	970	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 03:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	117		78 - 119				11/09/22 17:15	11/11/22 03:39	1
1,2-Dinitrobenzene	105		78 - 119				11/09/22 17:15	11/11/22 19:56	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	14.5		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Date Collected: 11/02/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 85.5

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	37000	7700	ug/Kg	☼	11/07/22 12:55	11/14/22 19:58	20
Diphenylamine	3800	U D M	7600	1000	ug/Kg	☼	11/07/22 12:55	11/14/22 19:58	20
N-Nitrosodiphenylamine	1500	U D	7600	480	ug/Kg	☼	11/07/22 12:55	11/14/22 19:58	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		44 - 115				11/07/22 12:55	11/14/22 19:58	20
2-Fluorophenol (Surr)	67		35 - 115				11/07/22 12:55	11/14/22 19:58	20
2,4,6-Tribromophenol (Surr)	49	Q	39 - 132				11/07/22 12:55	11/14/22 19:58	20
Nitrobenzene-d5 (Surr)	64		37 - 122				11/07/22 12:55	11/14/22 19:58	20
Phenol-d5 (Surr)	75		33 - 122				11/07/22 12:55	11/14/22 19:58	20
Terphenyl-d14 (Surr)	77		54 - 127				11/07/22 12:55	11/14/22 19:58	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: FD-11022201

Lab Sample ID: 280-168718-8

Date Collected: 11/02/22 09:30

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		11/09/22 17:15	11/11/22 20:30	1
2,4,6-Trinitrotoluene	240		97	30	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
3,5-Dinitroaniline	98		97	8.8	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2,4-Dinitrotoluene	43	J	97	14	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2,6-Dinitrotoluene	39	U	97	19	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2-Amino-4,6-dinitrotoluene	210		97	32	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2-Nitrotoluene	97	U	190	46	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
3-Nitrotoluene	150	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
4-Amino-2,6-dinitrotoluene	200		97	29	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
4-Nitrotoluene	97	U	190	36	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
Nitrobenzene	190	U	290	83	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
HMX	68	U	97	22	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
PETN	970	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
Picric acid	97	U	97	55	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
RDX	97	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
Tetryl	97	U	190	43	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2,4-diamino-6-nitrotoluene	970	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 04:02	1
2,6-diamino-4-nitrotoluene	970	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 04:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	107	M	78 - 119	11/09/22 17:15	11/11/22 04:02	1
1,2-Dinitrobenzene	103		78 - 119	11/09/22 17:15	11/11/22 20:30	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	15.1		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: FD-11022201

Lab Sample ID: 280-168718-8

Date Collected: 11/02/22 09:30

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 84.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	37000	7600	ug/Kg	☼	11/07/22 12:55	11/14/22 20:18	20
Diphenylamine	3800	U D M	7600	1000	ug/Kg	☼	11/07/22 12:55	11/14/22 20:18	20
N-Nitrosodiphenylamine	1500	U D M	7600	480	ug/Kg	☼	11/07/22 12:55	11/14/22 20:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		44 - 115	11/07/22 12:55	11/14/22 20:18	20
2-Fluorophenol (Surr)	63		35 - 115	11/07/22 12:55	11/14/22 20:18	20
2,4,6-Tribromophenol (Surr)	45	Q	39 - 132	11/07/22 12:55	11/14/22 20:18	20
Nitrobenzene-d5 (Surr)	57		37 - 122	11/07/22 12:55	11/14/22 20:18	20
Phenol-d5 (Surr)	72		33 - 122	11/07/22 12:55	11/14/22 20:18	20
Terphenyl-d14 (Surr)	73		54 - 127	11/07/22 12:55	11/14/22 20:18	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-CO6-0006

Lab Sample ID: 280-168718-9

Date Collected: 11/02/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U M J1	99	14	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
1,3-Dinitrobenzene	39	U	99	16	ug/Kg		11/09/22 17:15	11/11/22 21:40	1
2,4,6-Trinitrotoluene	69	U	99	30	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
3,5-Dinitroaniline	20	U	99	8.9	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2,4-Dinitrotoluene	39	U	99	15	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2,6-Dinitrotoluene	39	U	99	19	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2-Amino-4,6-dinitrotoluene	69	U	99	32	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2-Nitrotoluene	99	U	200	47	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
3-Nitrotoluene	150	U	200	63	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
4-Amino-2,6-dinitrotoluene	69	U M	99	30	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
4-Nitrotoluene	99	U	200	36	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
Nitrobenzene	200	U	300	84	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
Nitroglycerin	690	U	2000	210	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
HMX	69	U	99	22	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
PETN	990	U	2000	490	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
Picric acid	99	U J1	99	56	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
RDX	99	U	200	42	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
Tetryl	99	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2,4-diamino-6-nitrotoluene	990	U J1	2000	510	ug/Kg		11/09/22 17:15	11/11/22 05:11	1
2,6-diamino-4-nitrotoluene	990	U M J1	2000	320	ug/Kg		11/09/22 17:15	11/11/22 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	114		78 - 119	11/09/22 17:15	11/11/22 05:11	1
1,2-Dinitrobenzene	106		78 - 119	11/09/22 17:15	11/11/22 21:40	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H J1	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	13.1		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X3-SS-CO6-0006

Lab Sample ID: 280-168718-9

Date Collected: 11/02/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	36000	7600	ug/Kg	☼	11/10/22 12:10	11/28/22 17:41	20
Diphenylamine	3800	U D	7500	1000	ug/Kg	☼	11/10/22 12:10	11/28/22 17:41	20
N-Nitrosodiphenylamine	1500	U D	7500	480	ug/Kg	☼	11/10/22 12:10	11/28/22 17:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	96		44 - 115	11/10/22 12:10	11/28/22 17:41	20
2-Fluorophenol (Surr)	84		35 - 115	11/10/22 12:10	11/28/22 17:41	20
2,4,6-Tribromophenol (Surr)	97		39 - 132	11/10/22 12:10	11/28/22 17:41	20
Nitrobenzene-d5 (Surr)	86		37 - 122	11/10/22 12:10	11/28/22 17:41	20
Phenol-d5 (Surr)	96		33 - 122	11/10/22 12:10	11/28/22 17:41	20
Terphenyl-d14 (Surr)	93		54 - 127	11/10/22 12:10	11/28/22 17:41	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-SS-C01-0006

Lab Sample ID: 280-168718-10

Date Collected: 11/02/22 11:15

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	98	13	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
1,3-Dinitrobenzene	39	U	98	16	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2,4,6-Trinitrotoluene	68	U	98	30	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
3,5-Dinitroaniline	20	U	98	8.8	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2,4-Dinitrotoluene	39	U	98	14	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2,6-Dinitrotoluene	39	U	98	19	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2-Amino-4,6-dinitrotoluene	68	U	98	32	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2-Nitrotoluene	98	U	200	46	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
3-Nitrotoluene	150	U	200	62	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
4-Amino-2,6-dinitrotoluene	68	U	98	29	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
4-Nitrotoluene	98	U	200	36	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
Nitrobenzene	200	U	290	83	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
Nitroglycerin	680	U	2000	210	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
HMX	68	U	98	22	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
PETN	980	U	2000	480	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
Picric acid	98	U M	98	55	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
RDX	98	U	200	42	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
Tetryl	98	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2,4-diamino-6-nitrotoluene	980	U	2000	500	ug/Kg		11/09/22 17:15	11/11/22 07:52	1
2,6-diamino-4-nitrotoluene	980	U M	2000	320	ug/Kg		11/09/22 17:15	11/11/22 07:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	110		78 - 119	11/09/22 17:15	11/11/22 07:52	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	16.6		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X7-SS-C01-0006

Lab Sample ID: 280-168718-10

Date Collected: 11/02/22 11:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 83.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	37000	7800	ug/Kg	☼	11/10/22 12:10	11/28/22 18:59	20
Diphenylamine	3900	U D	7700	1000	ug/Kg	☼	11/10/22 12:10	11/28/22 18:59	20
N-Nitrosodiphenylamine	1600	U D	7700	490	ug/Kg	☼	11/10/22 12:10	11/28/22 18:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		44 - 115	11/10/22 12:10	11/28/22 18:59	20
2-Fluorophenol (Surr)	75		35 - 115	11/10/22 12:10	11/28/22 18:59	20
2,4,6-Tribromophenol (Surr)	85		39 - 132	11/10/22 12:10	11/28/22 18:59	20
Nitrobenzene-d5 (Surr)	79		37 - 122	11/10/22 12:10	11/28/22 18:59	20
Phenol-d5 (Surr)	85		33 - 122	11/10/22 12:10	11/28/22 18:59	20
Terphenyl-d14 (Surr)	82		54 - 127	11/10/22 12:10	11/28/22 18:59	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7B-SS-C01-0006

Lab Sample ID: 280-168718-11

Date Collected: 11/02/22 11:50

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		11/09/22 17:15	11/12/22 00:35	1
2,4,6-Trinitrotoluene	68	U	97	30	ug/Kg		11/09/22 17:15	11/12/22 00:35	1
3,5-Dinitroaniline	19	U	97	8.8	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2,4-Dinitrotoluene	39	U	97	14	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2,6-Dinitrotoluene	39	U M	97	19	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2-Amino-4,6-dinitrotoluene	68	U	97	32	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2-Nitrotoluene	97	U M	190	46	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
3-Nitrotoluene	150	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
4-Amino-2,6-dinitrotoluene	68	U	97	29	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
4-Nitrotoluene	97	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
Nitrobenzene	190	U	290	83	ug/Kg		11/09/22 17:15	11/12/22 00:35	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
HMX	68	U	97	22	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
PETN	970	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
Picric acid	97	U	97	55	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
RDX	97	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
Tetryl	97	U	190	43	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2,4-diamino-6-nitrotoluene	970	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 08:15	1
2,6-diamino-4-nitrotoluene	970	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 08:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	112		78 - 119	11/09/22 17:15	11/11/22 08:15	1
1,2-Dinitrobenzene	104		78 - 119	11/09/22 17:15	11/12/22 00:35	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	13.4		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X7B-SS-C01-0006

Lab Sample ID: 280-168718-11

Date Collected: 11/02/22 11:50

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.6

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	22000	U D	36000	7500	ug/Kg	☼	11/10/22 12:10	11/28/22 19:25	20
Diphenylamine	3700	U D	7400	990	ug/Kg	☼	11/10/22 12:10	11/28/22 19:25	20
N-Nitrosodiphenylamine	1500	U D	7400	470	ug/Kg	☼	11/10/22 12:10	11/28/22 19:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	86		44 - 115	11/10/22 12:10	11/28/22 19:25	20
2-Fluorophenol (Surr)	83		35 - 115	11/10/22 12:10	11/28/22 19:25	20
2,4,6-Tribromophenol (Surr)	91		39 - 132	11/10/22 12:10	11/28/22 19:25	20
Nitrobenzene-d5 (Surr)	81		37 - 122	11/10/22 12:10	11/28/22 19:25	20
Phenol-d5 (Surr)	89		33 - 122	11/10/22 12:10	11/28/22 19:25	20
Terphenyl-d14 (Surr)	82		54 - 127	11/10/22 12:10	11/28/22 19:25	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	37	U	92	13	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
1,3-Dinitrobenzene	37	U	92	15	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2,4,6-Trinitrotoluene	64	U	92	28	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
3,5-Dinitroaniline	18	U	92	8.3	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2,4-Dinitrotoluene	37	U	92	14	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2,6-Dinitrotoluene	37	U	92	18	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2-Amino-4,6-dinitrotoluene	64	U	92	30	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2-Nitrotoluene	92	U	180	43	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
3-Nitrotoluene	140	U	180	59	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
4-Amino-2,6-dinitrotoluene	64	U	92	28	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
4-Nitrotoluene	92	U	180	34	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
Nitrobenzene	180	U	280	78	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
Nitroglycerin	640	U	1800	200	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
HMX	1600	M	92	21	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
PETN	920	U	1800	450	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
Picric acid	92	U	92	52	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
Tetryl	92	U	180	40	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2,4-diamino-6-nitrotoluene	920	U	1800	480	ug/Kg		11/09/22 17:15	11/11/22 08:38	1
2,6-diamino-4-nitrotoluene	920	U M	1800	300	ug/Kg		11/09/22 17:15	11/11/22 08:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	112		78 - 119	11/09/22 17:15	11/11/22 08:38	1
1,2-Dinitrobenzene	108		78 - 119	11/09/22 17:15	11/12/22 01:10	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	38000	D	1800	400	ug/Kg		11/09/22 17:15	11/11/22 16:10	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	97	D	78 - 119	11/09/22 17:15	11/11/22 16:10	10
1,2-Dinitrobenzene	100	D	78 - 119	11/09/22 17:15	11/12/22 05:14	10

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	14.6		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 85.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	37000	7700	ug/Kg	☼	11/10/22 12:10	11/28/22 19:51	20
Diphenylamine	3900	U D	7600	1000	ug/Kg	☼	11/10/22 12:10	11/28/22 19:51	20
N-Nitrosodiphenylamine	1500	U D	7600	490	ug/Kg	☼	11/10/22 12:10	11/28/22 19:51	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 85.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		44 - 115	11/10/22 12:10	11/28/22 19:51	20
2-Fluorophenol (Surr)	71		35 - 115	11/10/22 12:10	11/28/22 19:51	20
2,4,6-Tribromophenol (Surr)	57		39 - 132	11/10/22 12:10	11/28/22 19:51	20
Nitrobenzene-d5 (Surr)	87		37 - 122	11/10/22 12:10	11/28/22 19:51	20
Phenol-d5 (Surr)	81		33 - 122	11/10/22 12:10	11/28/22 19:51	20
Terphenyl-d14 (Surr)	88		54 - 127	11/10/22 12:10	11/28/22 19:51	20

Client Sample ID: X7-TP-C02-3648

Lab Sample ID: 280-168718-13

Date Collected: 11/02/22 15:35

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U M	98	14	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
1,3-Dinitrobenzene	39	U	98	16	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2,4,6-Trinitrotoluene	69	U	98	30	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
3,5-Dinitroaniline	20	U	98	8.8	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2,4-Dinitrotoluene	39	U	98	14	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2,6-Dinitrotoluene	39	U	98	19	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2-Amino-4,6-dinitrotoluene	69	U	98	32	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2-Nitrotoluene	98	U	200	46	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
3-Nitrotoluene	150	U	200	63	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
4-Amino-2,6-dinitrotoluene	69	U	98	29	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
4-Nitrotoluene	98	U	200	36	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
Nitrobenzene	200	U	290	83	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
Nitroglycerin	690	U	2000	210	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
HMX	4200	M	98	22	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
PETN	980	U	2000	480	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
Picric acid	98	U M	98	55	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
Tetryl	98	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2,4-diamino-6-nitrotoluene	980	U M	2000	510	ug/Kg		11/09/22 17:15	11/11/22 09:47	1
2,6-diamino-4-nitrotoluene	980	U M	2000	320	ug/Kg		11/09/22 17:15	11/11/22 09:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	113		78 - 119	11/09/22 17:15	11/11/22 09:47	1
1,2-Dinitrobenzene	108		78 - 119	11/09/22 17:15	11/12/22 01:45	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	65000	D M	3900	840	ug/Kg		11/09/22 17:15	11/11/22 16:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	91	D	78 - 119	11/09/22 17:15	11/11/22 16:33	20
1,2-Dinitrobenzene	86	D	78 - 119	11/09/22 17:15	11/12/22 05:49	20

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:31	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	13.3		0.1	0.1	%			11/07/22 13:24	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C02-3648

Lab Sample ID: 280-168718-13

Date Collected: 11/02/22 15:35

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.7

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	22000	U D	35000	7400	ug/Kg	☼	11/10/22 12:10	11/28/22 20:17	20
Diphenylamine	3700	U D	7300	970	ug/Kg	☼	11/10/22 12:10	11/28/22 20:17	20
N-Nitrosodiphenylamine	1500	U D	7300	460	ug/Kg	☼	11/10/22 12:10	11/28/22 20:17	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	89		44 - 115				11/10/22 12:10	11/28/22 20:17	20
2-Fluorophenol (Surr)	67		35 - 115				11/10/22 12:10	11/28/22 20:17	20
2,4,6-Tribromophenol (Surr)	56		39 - 132				11/10/22 12:10	11/28/22 20:17	20
Nitrobenzene-d5 (Surr)	81		37 - 122				11/10/22 12:10	11/28/22 20:17	20
Phenol-d5 (Surr)	77		33 - 122				11/10/22 12:10	11/28/22 20:17	20
Terphenyl-d14 (Surr)	87		54 - 127				11/10/22 12:10	11/28/22 20:17	20

Client Sample ID: X7-TP-C03-4248

Lab Sample ID: 280-168718-14

Date Collected: 11/02/22 16:40

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2,4,6-Trinitrotoluene	68	U	97	30	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
3,5-Dinitroaniline	19	U	97	8.7	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2,4-Dinitrotoluene	39	U	97	14	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2,6-Dinitrotoluene	39	U	97	19	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2-Amino-4,6-dinitrotoluene	68	U	97	32	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2-Nitrotoluene	97	U	190	46	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
3-Nitrotoluene	150	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
4-Amino-2,6-dinitrotoluene	68	U	97	29	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
4-Nitrotoluene	97	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
Nitrobenzene	190	U	290	82	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
HMX	170	M	97	22	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
PETN	970	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
Picric acid	97	U	97	55	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
RDX	4800		190	42	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
Tetryl	97	U	190	43	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2,4-diamino-6-nitrotoluene	970	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
2,6-diamino-4-nitrotoluene	970	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 10:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	112		78 - 119				11/09/22 17:15	11/11/22 10:10	1
1,2-Dinitrobenzene	109		78 - 119				11/09/22 17:15	11/12/22 02:20	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U H	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	12.9		0.1	0.1	%			11/07/22 13:24	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C03-4248

Lab Sample ID: 280-168718-14

Date Collected: 11/02/22 16:40

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 87.1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	37000	7600	ug/Kg	☼	11/10/22 12:10	11/28/22 20:43	20
Diphenylamine	3800	U D	7600	1000	ug/Kg	☼	11/10/22 12:10	11/28/22 20:43	20
N-Nitrosodiphenylamine	1500	U D	7600	480	ug/Kg	☼	11/10/22 12:10	11/28/22 20:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 115	11/10/22 12:10	11/28/22 20:43	20
2-Fluorophenol (Surr)	77		35 - 115	11/10/22 12:10	11/28/22 20:43	20
2,4,6-Tribromophenol (Surr)	66		39 - 132	11/10/22 12:10	11/28/22 20:43	20
Nitrobenzene-d5 (Surr)	79		37 - 122	11/10/22 12:10	11/28/22 20:43	20
Phenol-d5 (Surr)	78		33 - 122	11/10/22 12:10	11/28/22 20:43	20
Terphenyl-d14 (Surr)	83		54 - 127	11/10/22 12:10	11/28/22 20:43	20

Client Sample ID: X7-TP-C04-4248

Lab Sample ID: 280-168718-15

Date Collected: 11/03/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	38	U	95	13	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
1,3-Dinitrobenzene	38	U	95	16	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2,4,6-Trinitrotoluene	67	U	95	29	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
3,5-Dinitroaniline	19	U	95	8.6	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2,4-Dinitrotoluene	38	U	95	14	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2,6-Dinitrotoluene	38	U	95	18	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2-Amino-4,6-dinitrotoluene	67	U	95	31	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2-Nitrotoluene	95	U	190	45	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
3-Nitrotoluene	140	U	190	61	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
4-Amino-2,6-dinitrotoluene	67	U	95	28	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
4-Nitrotoluene	95	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
Nitrobenzene	190	U	290	81	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
Nitroglycerin	670	U	1900	200	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
HMX	280	M	95	22	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
PETN	950	U	1900	470	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
Picric acid	95	U	95	54	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
RDX	6200		190	41	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
Tetryl	95	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2,4-diamino-6-nitrotoluene	950	U M	1900	490	ug/Kg		11/09/22 17:15	11/11/22 10:33	1
2,6-diamino-4-nitrotoluene	950	U M	1900	310	ug/Kg		11/09/22 17:15	11/11/22 10:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	111		78 - 119	11/09/22 17:15	11/11/22 10:33	1
1,2-Dinitrobenzene	107		78 - 119	11/09/22 17:15	11/12/22 02:55	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	10.6		0.1	0.1	%			11/07/22 13:24	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C04-4248

Lab Sample ID: 280-168718-15

Date Collected: 11/03/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 89.4

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	22000	U D	35000	7300	ug/Kg	☼	11/10/22 12:10	11/28/22 21:08	20
Diphenylamine	3600	U D	7200	960	ug/Kg	☼	11/10/22 12:10	11/28/22 21:08	20
N-Nitrosodiphenylamine	1500	U D	7200	460	ug/Kg	☼	11/10/22 12:10	11/28/22 21:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		44 - 115	11/10/22 12:10	11/28/22 21:08	20
2-Fluorophenol (Surr)	76		35 - 115	11/10/22 12:10	11/28/22 21:08	20
2,4,6-Tribromophenol (Surr)	69		39 - 132	11/10/22 12:10	11/28/22 21:08	20
Nitrobenzene-d5 (Surr)	78		37 - 122	11/10/22 12:10	11/28/22 21:08	20
Phenol-d5 (Surr)	81		33 - 122	11/10/22 12:10	11/28/22 21:08	20
Terphenyl-d14 (Surr)	83		54 - 127	11/10/22 12:10	11/28/22 21:08	20

Client Sample ID: X3-SS-C07-0006

Lab Sample ID: 280-168718-16

Date Collected: 11/03/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	96	13	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
1,3-Dinitrobenzene	39	U	96	16	ug/Kg		11/09/22 17:15	11/12/22 04:04	1
2,4,6-Trinitrotoluene	160		96	30	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
3,5-Dinitroaniline	19	U	96	8.7	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2,4-Dinitrotoluene	39	U	96	14	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2,6-Dinitrotoluene	39	U	96	18	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2-Amino-4,6-dinitrotoluene	68	U	96	32	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2-Nitrotoluene	96	U	190	46	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
3-Nitrotoluene	140	U	190	62	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
4-Amino-2,6-dinitrotoluene	68	U	96	29	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
4-Nitrotoluene	96	U	190	35	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
Nitrobenzene	190	U	290	82	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
Nitroglycerin	680	U	1900	210	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
HMX	68	U	96	22	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
PETN	960	U	1900	480	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
Picric acid	96	U	96	54	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
RDX	96	U	190	41	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
Tetryl	96	U	190	42	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2,4-diamino-6-nitrotoluene	960	U	1900	500	ug/Kg		11/09/22 17:15	11/11/22 10:56	1
2,6-diamino-4-nitrotoluene	960	U M	1900	320	ug/Kg		11/09/22 17:15	11/11/22 10:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	109		78 - 119	11/09/22 17:15	11/11/22 10:56	1
1,2-Dinitrobenzene	103		78 - 119	11/09/22 17:15	11/12/22 04:04	1

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	12.1		0.1	0.1	%			11/07/22 13:24	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C07-0006

Lab Sample ID: 280-168718-16

Date Collected: 11/03/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 87.9

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	23000	U D	36000	7600	ug/Kg	☼	11/10/22 12:10	11/28/22 21:34	20
Diphenylamine	3800	U D	7500	1000	ug/Kg	☼	11/10/22 12:10	11/28/22 21:34	20
N-Nitrosodiphenylamine	1500	U D	7500	480	ug/Kg	☼	11/10/22 12:10	11/28/22 21:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	52		44 - 115	11/10/22 12:10	11/28/22 21:34	20
2-Fluorophenol (Surr)	47		35 - 115	11/10/22 12:10	11/28/22 21:34	20
2,4,6-Tribromophenol (Surr)	37	Q	39 - 132	11/10/22 12:10	11/28/22 21:34	20
Nitrobenzene-d5 (Surr)	47		37 - 122	11/10/22 12:10	11/28/22 21:34	20
Phenol-d5 (Surr)	52		33 - 122	11/10/22 12:10	11/28/22 21:34	20
Terphenyl-d14 (Surr)	44	Q	54 - 127	11/10/22 12:10	11/28/22 21:34	20

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Date Collected: 11/03/22 10:45

Matrix: Solid

Date Received: 11/04/22 10:35

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	130		98	13	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
1,3-Dinitrobenzene	39	U	98	16	ug/Kg		11/09/22 17:15	11/12/22 04:39	1
3,5-Dinitroaniline	81	J	98	8.8	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2,4-Dinitrotoluene	8300		98	14	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2,6-Dinitrotoluene	430		98	19	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2-Amino-4,6-dinitrotoluene	400		98	32	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2-Nitrotoluene	98	U	200	46	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
3-Nitrotoluene	150	U	200	62	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
4-Amino-2,6-dinitrotoluene	68	U	98	29	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
4-Nitrotoluene	98	U M	200	36	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
Nitrobenzene	200	U	290	83	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
Nitroglycerin	680	U	2000	210	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
HMX	68	U	98	22	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
PETN	980	U	2000	480	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
Picric acid	98	U	98	55	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
RDX	98	U	200	42	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
Tetryl	98	U M	200	43	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2,4-diamino-6-nitrotoluene	980	U	2000	500	ug/Kg		11/09/22 17:15	11/11/22 11:19	1
2,6-diamino-4-nitrotoluene	980	U M	2000	320	ug/Kg		11/09/22 17:15	11/11/22 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	106		78 - 119	11/09/22 17:15	11/11/22 11:19	1
1,2-Dinitrobenzene	102		78 - 119	11/09/22 17:15	11/12/22 04:39	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trinitrotoluene	17000	D	490	150	ug/Kg		11/09/22 17:15	11/11/22 16:56	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	102	M D	78 - 119	11/09/22 17:15	11/11/22 16:56	5
1,2-Dinitrobenzene	106	D	78 - 119	11/09/22 17:15	11/12/22 06:24	5

Client Sample Results

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Date Collected: 11/03/22 10:45

Matrix: Solid

Date Received: 11/04/22 10:35

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	11	ug/Kg		11/17/22 09:02	11/21/22 15:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	10.4		0.1	0.1	%			11/07/22 13:24	1

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Date Collected: 11/03/22 10:45

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 89.6

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	22000	U D	35000	7400	ug/Kg	☼	11/10/22 12:10	11/28/22 22:00	20
Diphenylamine	3700	U D	7300	970	ug/Kg	☼	11/10/22 12:10	11/28/22 22:00	20
N-Nitrosodiphenylamine	590	J D	7300	460	ug/Kg	☼	11/10/22 12:10	11/28/22 22:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	91		44 - 115	11/10/22 12:10	11/28/22 22:00	20
2-Fluorophenol (Surr)	84		35 - 115	11/10/22 12:10	11/28/22 22:00	20
2,4,6-Tribromophenol (Surr)	87		39 - 132	11/10/22 12:10	11/28/22 22:00	20
Nitrobenzene-d5 (Surr)	87		37 - 122	11/10/22 12:10	11/28/22 22:00	20
Phenol-d5 (Surr)	89		33 - 122	11/10/22 12:10	11/28/22 22:00	20
Terphenyl-d14 (Surr)	82		54 - 127	11/10/22 12:10	11/28/22 22:00	20

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Prep: 3510C

Analyte	LOQ	DL	Units
2,4-Dinitrophenol	30	10	ug/L
Diphenylamine	10	1.1	ug/L
N-Nitrosodiphenylamine	10	0.44	ug/L

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Prep: 3550C

Analyte	LOQ	DL	Units
2,4-Dinitrophenol	1600	330	ug/Kg
Diphenylamine	330	44	ug/Kg
N-Nitrosodiphenylamine	330	21	ug/Kg

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	0.21	0.084	ug/L
1,3-Dinitrobenzene	0.11	0.037	ug/L
2,4,6-Trinitrotoluene	0.11	0.045	ug/L
2,4-diamino-6-nitrotoluene	1.0	0.43	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-diamino-4-nitrotoluene	1.0	0.22	ug/L
2,6-Dinitrotoluene	0.10	0.040	ug/L
2-Amino-4,6-dinitrotoluene	0.11	0.051	ug/L
2-Nitrotoluene	0.21	0.086	ug/L
3,5-Dinitroaniline	0.40	0.13	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.15	0.058	ug/L
4-Nitrotoluene	0.41	0.10	ug/L
HMX	0.21	0.088	ug/L
Nitrobenzene	0.21	0.091	ug/L
Nitroglycerin	2.1	0.92	ug/L
PETN	1.1	0.45	ug/L
Picric acid	0.40	0.044	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 8330B

Drying: Prep/Air Dry

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	100	14	ug/Kg
1,3-Dinitrobenzene	100	17	ug/Kg
2,4,6-Trinitrotoluene	100	31	ug/Kg
2,4-diamino-6-nitrotoluene	2000	520	ug/Kg
2,4-Dinitrotoluene	100	15	ug/Kg
2,6-diamino-4-nitrotoluene	2000	330	ug/Kg
2,6-Dinitrotoluene	100	19	ug/Kg
2-Amino-4,6-dinitrotoluene	100	33	ug/Kg
2-Nitrotoluene	200	47	ug/Kg
3,5-Dinitroaniline	100	9.0	ug/Kg
3-Nitrotoluene	200	64	ug/Kg
4-Amino-2,6-dinitrotoluene	100	30	ug/Kg

Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Prep: 8330B

Drying: Prep/Air Dry

Analyte	LOQ	DL	Units
4-Nitrotoluene	200	37	ug/Kg
HMX	100	23	ug/Kg
Nitrobenzene	300	85	ug/Kg
Nitroglycerin	2000	220	ug/Kg
PETN	2000	490	ug/Kg
Picric acid	100	56	ug/Kg
RDX	200	43	ug/Kg
Tetryl	200	44	ug/Kg

Method: 8321B - Nitroguanidine (LC/MS)

Analyte	LOQ	DL	Units
Nitroguanidine	20	3.7	ug/L

Method: 8321B - Nitroguanidine (LC/MS)

Prep: 8330B

Drying: Prep/Air Dry

Analyte	LOQ	DL	Units
Nitroguanidine	40	11	ug/Kg

General Chemistry

Analyte	LOQ	DL	Units
Percent Moisture	0.1	0.1	%

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (44-115)	2FP (35-115)	TBP (39-132)	NBZ (37-122)	PHL (33-122)	TPHL (54-127)
280-168718-1	X3-SS-C01-0006	85 D	73 D	52 D	68 D	80 D	86 D
280-168718-2	FD-11012201	73 D	68 D	45 D	64 D	72 D	74 D
280-168718-3	X3-SS-C02-0006	69 D	58 D	39 D	54 D	63 D	65 D
280-168718-5	X3-SS-C04-0006	77	70	53 Q	68	78	78
280-168718-7	X3-SS-C05-0006	76	67	49 Q	64	75	77
280-168718-8	FD-11022201	70	63	45 Q	57	72	73
280-168718-9	X3-SS-C06-0006	96	84	97	86	96	93
280-168718-9 MS	X3-SS-C06-0006	88	79	91	77	85	80
280-168718-9 MSD	X3-SS-C06-0006	89	87	107	89	97	87
280-168718-10	X7-SS-C01-0006	82	75	85	79	85	82
280-168718-11	X7B-SS-C01-0006	86	83	91	81	89	82
280-168718-12	X7-TP-C01-5460	88	71	57	87	81	88
280-168718-13	X7-TP-C02-3648	89	67	56	81	77	87
280-168718-14	X7-TP-C03-4248	83	77	66	79	78	83
280-168718-15	X7-TP-C04-4248	84	76	69	78	81	83
280-168718-16	X3-SS-C07-0006	52	47	37 Q	47	52	44 Q
280-168718-17	X3-SS-C08-0006	91	84	87	87	89	82
LCS 280-592594/2-A	Lab Control Sample	71	73	70	71	71	93
LCS 280-593019/2-A	Lab Control Sample	67	71	89	66	72	69
LCSD 280-592594/3-A	Lab Control Sample Dup	72	75	67	73	72	88
MB 280-592594/1-A	Method Blank	67	70	60	69	68	91
MB 280-593019/1-A	Method Blank	70	51	41	71	67	79

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (44-119)	2FP (19-119)	TBP (43-140)	NBZ (44-120)	PHL (10-115)	TPHL (50-134)
280-168718-6	RB-11012201	73	37	73	70	20	80
LCS 280-592592/2-A	Lab Control Sample	77	36	96	74	22	83
LCSD 280-592592/3-A	Lab Control Sample Dup	73	31	97	70	20	81
MB 280-592592/1-A	Method Blank	65	25	70	62	13	87

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Surrogate Summary

Client: Tetra Tech, Inc.

Job ID: 280-168718-1

Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	12DNB1 (78-119)		
280-168718-1	X3-SS-C01-0006	109		
280-168718-2	FD-11012201	112		
280-168718-3	X3-SS-C02-0006	110		
280-168718-5	X3-SS-C04-0006	111		
280-168718-7	X3-SS-C05-0006	117		
280-168718-8	FD-11022201	107 M		
280-168718-9	X3-SS-C06-0006	114		
280-168718-9 DU	X3-SS-C06-0006	112		
280-168718-9 MS	X3-SS-C06-0006	99		
280-168718-9 MS	X3-SS-C06-0006	113		
280-168718-9 MSD	X3-SS-C06-0006	100		
280-168718-9 MSD	X3-SS-C06-0006	112		
280-168718-9 TRL	X3-SS-C06-0006	108		
280-168718-10	X7-SS-C01-0006	110		
280-168718-11	X7B-SS-C01-0006	112		
280-168718-12	X7-TP-C01-5460	112		
280-168718-12 - DL	X7-TP-C01-5460	97 D		
280-168718-13	X7-TP-C02-3648	113		
280-168718-13 - DL	X7-TP-C02-3648	91 D		
280-168718-14	X7-TP-C03-4248	112		
280-168718-15	X7-TP-C04-4248	111		
280-168718-16	X3-SS-C07-0006	109		
280-168718-17	X3-SS-C08-0006	106		
280-168718-17 - DL	X3-SS-C08-0006	102 M D		
LCS 280-592924/2-A	Lab Control Sample	98		
LCS 280-592924/3-A	Lab Control Sample	111		
MB 280-592924/1-A	Method Blank	112		

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	12DNB2 (78-119)		
280-168718-1	X3-SS-C01-0006	96		
280-168718-2	FD-11012201	104		
280-168718-3	X3-SS-C02-0006	106		
280-168718-5	X3-SS-C04-0006	103		
280-168718-7	X3-SS-C05-0006	105		
280-168718-8	FD-11022201	103		
280-168718-9	X3-SS-C06-0006	106		
280-168718-9 DU	X3-SS-C06-0006	107		
280-168718-9 MS	X3-SS-C06-0006	106		
280-168718-9 MSD	X3-SS-C06-0006	105		
280-168718-9 TRL	X3-SS-C06-0006	103		
280-168718-11	X7B-SS-C01-0006	104		
280-168718-12	X7-TP-C01-5460	108		
280-168718-12 - DL	X7-TP-C01-5460	100 D		

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Surrogate Summary

Client: Tetra Tech, Inc.

Job ID: 280-168718-1

Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DNB2 (78-119)			
280-168718-13	X7-TP-C02-3648	108			
280-168718-13 - DL	X7-TP-C02-3648	86 D			
280-168718-14	X7-TP-C03-4248	109			
280-168718-15	X7-TP-C04-4248	107			
280-168718-16	X3-SS-C07-0006	103			
280-168718-17	X3-SS-C08-0006	102			
280-168718-17 - DL	X3-SS-C08-0006	106 D			

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DNB1 (83-119)			
280-168718-6	RB-11012201	101 M			
LCS 280-592716/2-A	Lab Control Sample	90			
LCS 280-592716/4-A	Lab Control Sample	87			
LCSD 280-592716/3-A	Lab Control Sample Dup	91			
LCSD 280-592716/5-A	Lab Control Sample Dup	95			
MB 280-592716/1-A	Method Blank	96 M			

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

QC Sample Results

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-592592/1-A
Matrix: Water
Analysis Batch: 593651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592592

Analyte	MB MB		LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrophenol	30	U	30	10	ug/L		11/07/22 13:11	11/16/22 17:43	1
Diphenylamine	6.8	U M	10	1.1	ug/L		11/07/22 13:11	11/16/22 17:43	1
N-Nitrosodiphenylamine	8.0	U	10	0.44	ug/L		11/07/22 13:11	11/16/22 17:43	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	65		44 - 119	11/07/22 13:11	11/16/22 17:43	1
2-Fluorophenol (Surr)	25		19 - 119	11/07/22 13:11	11/16/22 17:43	1
2,4,6-Tribromophenol (Surr)	70		43 - 140	11/07/22 13:11	11/16/22 17:43	1
Nitrobenzene-d5 (Surr)	62		44 - 120	11/07/22 13:11	11/16/22 17:43	1
Phenol-d5 (Surr)	13		10 - 115	11/07/22 13:11	11/16/22 17:43	1
Terphenyl-d14 (Surr)	87		50 - 134	11/07/22 13:11	11/16/22 17:43	1

Lab Sample ID: LCS 280-592592/2-A
Matrix: Water
Analysis Batch: 593651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592592

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
2,4-Dinitrophenol	160	147		ug/L		92	23 - 143
Diphenylamine	68.0	59.7		ug/L		88	55 - 111
N-Nitrosodiphenylamine	80.0	67.1		ug/L		84	51 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	77		44 - 119
2-Fluorophenol (Surr)	36		19 - 119
2,4,6-Tribromophenol (Surr)	96		43 - 140
Nitrobenzene-d5 (Surr)	74		44 - 120
Phenol-d5 (Surr)	22		10 - 115
Terphenyl-d14 (Surr)	83		50 - 134

Lab Sample ID: LCSD 280-592592/3-A
Matrix: Water
Analysis Batch: 593651

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592592

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
2,4-Dinitrophenol	160	140		ug/L		88	23 - 143	4	20
Diphenylamine	68.0	60.1		ug/L		88	55 - 111	1	20
N-Nitrosodiphenylamine	80.0	68.1		ug/L		85	51 - 123	1	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	73		44 - 119
2-Fluorophenol (Surr)	31		19 - 119
2,4,6-Tribromophenol (Surr)	97		43 - 140
Nitrobenzene-d5 (Surr)	70		44 - 120
Phenol-d5 (Surr)	20		10 - 115
Terphenyl-d14 (Surr)	81		50 - 134

QC Sample Results

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-592594/1-A

Matrix: Solid

Analysis Batch: 592986

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 592594

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1000	U	1600	330	ug/Kg		11/07/22 12:55	11/10/22 16:43	1
Diphenylamine	170	U	330	44	ug/Kg		11/07/22 12:55	11/10/22 16:43	1
N-Nitrosodiphenylamine	67	U M	330	21	ug/Kg		11/07/22 12:55	11/10/22 16:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	67		44 - 115	11/07/22 12:55	11/10/22 16:43	1
2-Fluorophenol (Surr)	70		35 - 115	11/07/22 12:55	11/10/22 16:43	1
2,4,6-Tribromophenol (Surr)	60		39 - 132	11/07/22 12:55	11/10/22 16:43	1
Nitrobenzene-d5 (Surr)	69		37 - 122	11/07/22 12:55	11/10/22 16:43	1
Phenol-d5 (Surr)	68		33 - 122	11/07/22 12:55	11/10/22 16:43	1
Terphenyl-d14 (Surr)	91		54 - 127	11/07/22 12:55	11/10/22 16:43	1

Lab Sample ID: LCS 280-592594/2-A

Matrix: Solid

Analysis Batch: 592986

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 592594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4-Dinitrophenol	5330	3900		ug/Kg		73	46 - 120
Diphenylamine	2270	1850		ug/Kg		82	48 - 111
N-Nitrosodiphenylamine	2670	2290		ug/Kg		86	38 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	71		44 - 115
2-Fluorophenol (Surr)	73		35 - 115
2,4,6-Tribromophenol (Surr)	70		39 - 132
Nitrobenzene-d5 (Surr)	71		37 - 122
Phenol-d5 (Surr)	71		33 - 122
Terphenyl-d14 (Surr)	93		54 - 127

Lab Sample ID: LCSD 280-592594/3-A

Matrix: Solid

Analysis Batch: 592986

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 592594

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
2,4-Dinitrophenol	5330	3790		ug/Kg		71	46 - 120	3	20
Diphenylamine	2270	1740		ug/Kg		77	48 - 111	6	20
N-Nitrosodiphenylamine	2670	2140		ug/Kg		80	38 - 127	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	72		44 - 115
2-Fluorophenol (Surr)	75		35 - 115
2,4,6-Tribromophenol (Surr)	67		39 - 132
Nitrobenzene-d5 (Surr)	73		37 - 122
Phenol-d5 (Surr)	72		33 - 122
Terphenyl-d14 (Surr)	88		54 - 127

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-593019/1-A

Matrix: Solid

Analysis Batch: 594711

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 593019

Analyte	MB MB		LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrophenol	1000	U	1600	330	ug/Kg		11/10/22 12:10	11/28/22 12:54	1
Diphenylamine	170	U	330	44	ug/Kg		11/10/22 12:10	11/28/22 12:54	1
N-Nitrosodiphenylamine	67	U	330	21	ug/Kg		11/10/22 12:10	11/28/22 12:54	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	70		44 - 115	11/10/22 12:10	11/28/22 12:54	1
2-Fluorophenol (Surr)	51		35 - 115	11/10/22 12:10	11/28/22 12:54	1
2,4,6-Tribromophenol (Surr)	41		39 - 132	11/10/22 12:10	11/28/22 12:54	1
Nitrobenzene-d5 (Surr)	71		37 - 122	11/10/22 12:10	11/28/22 12:54	1
Phenol-d5 (Surr)	67		33 - 122	11/10/22 12:10	11/28/22 12:54	1
Terphenyl-d14 (Surr)	79		54 - 127	11/10/22 12:10	11/28/22 12:54	1

Lab Sample ID: LCS 280-593019/2-A

Matrix: Solid

Analysis Batch: 594711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 593019

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
2,4-Dinitrophenol	5330	3470		ug/Kg		65	46 - 120
Diphenylamine	2270	1670		ug/Kg		73	48 - 111
N-Nitrosodiphenylamine	2670	1910		ug/Kg		72	38 - 127

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	67		44 - 115
2-Fluorophenol (Surr)	71		35 - 115
2,4,6-Tribromophenol (Surr)	89		39 - 132
Nitrobenzene-d5 (Surr)	66		37 - 122
Phenol-d5 (Surr)	72		33 - 122
Terphenyl-d14 (Surr)	69		54 - 127

Lab Sample ID: 280-168718-9 MS

Matrix: Solid

Analysis Batch: 594711

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 593019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
2,4-Dinitrophenol	23000	U D	6090	8470	J D	ug/Kg	☼	NC	46 - 120
Diphenylamine	3800	U D	2590	2190	J D	ug/Kg	☼	85	48 - 111
N-Nitrosodiphenylamine	1500	U D	3050	2500	J D	ug/Kg	☼	82	38 - 127

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	88		44 - 115
2-Fluorophenol (Surr)	79		35 - 115
2,4,6-Tribromophenol (Surr)	91		39 - 132
Nitrobenzene-d5 (Surr)	77		37 - 122
Phenol-d5 (Surr)	85		33 - 122
Terphenyl-d14 (Surr)	80		54 - 127

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-168718-9 MSD

Matrix: Solid

Analysis Batch: 594711

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 593019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dinitrophenol	23000	U D	6050	8750	J D	ug/Kg	☼	NC	46 - 120	3	20
Diphenylamine	3800	U D	2570	2360	J D	ug/Kg	☼	92	48 - 111	7	20
N-Nitrosodiphenylamine	1500	U D	3030	2650	J D	ug/Kg	☼	88	38 - 127	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	89		44 - 115
2-Fluorophenol (Surr)	87		35 - 115
2,4,6-Tribromophenol (Surr)	107		39 - 132
Nitrobenzene-d5 (Surr)	89		37 - 122
Phenol-d5 (Surr)	97		33 - 122
Terphenyl-d14 (Surr)	87		54 - 127

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-592716/1-A

Matrix: Water

Analysis Batch: 592890

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 592716

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.084	ug/L		11/08/22 13:27	11/09/22 15:39	1
1,3-Dinitrobenzene	0.10	U	0.11	0.037	ug/L		11/08/22 13:27	11/09/22 15:39	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.045	ug/L		11/08/22 13:27	11/09/22 15:39	1
3,5-Dinitroaniline	0.30	U	0.40	0.13	ug/L		11/08/22 13:27	11/09/22 15:39	1
2,4-Dinitrotoluene	0.080	U	0.10	0.027	ug/L		11/08/22 13:27	11/09/22 15:39	1
2,6-Dinitrotoluene	0.080	U	0.10	0.040	ug/L		11/08/22 13:27	11/09/22 15:39	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.051	ug/L		11/08/22 13:27	11/09/22 15:39	1
2-Nitrotoluene	0.20	U	0.21	0.086	ug/L		11/08/22 13:27	11/09/22 15:39	1
3-Nitrotoluene	0.40	U	0.40	0.20	ug/L		11/08/22 13:27	11/09/22 15:39	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.058	ug/L		11/08/22 13:27	11/09/22 15:39	1
4-Nitrotoluene	0.40	U	0.41	0.10	ug/L		11/08/22 13:27	11/09/22 15:39	1
Nitrobenzene	0.20	U	0.21	0.091	ug/L		11/08/22 13:27	11/09/22 15:39	1
Nitroglycerin	2.0	U	2.1	0.92	ug/L		11/08/22 13:27	11/09/22 15:39	1
HMX	0.20	U	0.21	0.088	ug/L		11/08/22 13:27	11/09/22 15:39	1
PETN	1.0	U	1.1	0.45	ug/L		11/08/22 13:27	11/09/22 15:39	1
Picric acid	0.12	U	0.40	0.044	ug/L		11/08/22 13:27	11/09/22 15:39	1
RDX	0.20	U	0.21	0.052	ug/L		11/08/22 13:27	11/09/22 15:39	1
Tetryl	0.10	U	0.11	0.032	ug/L		11/08/22 13:27	11/09/22 15:39	1
2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.43	ug/L		11/08/22 13:27	11/09/22 15:39	1
2,6-diamino-4-nitrotoluene	0.90	U	1.0	0.22	ug/L		11/08/22 13:27	11/09/22 15:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	96	M	83 - 119	11/08/22 13:27	11/09/22 15:39	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 280-592716/2-A
Matrix: Water
Analysis Batch: 592890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.23		ug/L		112	73 - 125
1,3-Dinitrobenzene	2.00	2.05		ug/L		103	78 - 120
2,4,6-Trinitrotoluene	2.00	1.85		ug/L		93	71 - 123
2,4-Dinitrotoluene	2.00	2.01		ug/L		100	78 - 120
2,6-Dinitrotoluene	2.00	2.00		ug/L		100	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	2.03		ug/L		102	79 - 120
2-Nitrotoluene	2.00	1.56		ug/L		78	70 - 127
3-Nitrotoluene	2.00	1.57		ug/L		79	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	2.15		ug/L		107	76 - 125
4-Nitrotoluene	2.00	1.58		ug/L		79	71 - 127
Nitrobenzene	2.00	1.71		ug/L		85	65 - 134
Nitroglycerin	20.0	20.6		ug/L		103	74 - 127
HMX	2.00	1.88		ug/L		94	65 - 135
PETN	20.0	20.0		ug/L		100	73 - 127
Picric acid	2.00	2.07		ug/L		104	80 - 120
RDX	2.00	2.01		ug/L		100	68 - 130
Tetryl	2.00	2.03		ug/L		102	64 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dinitrobenzene	90		83 - 119

Lab Sample ID: LCS 280-592716/4-A
Matrix: Water
Analysis Batch: 592890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3,5-Dinitroaniline	2.00	1.48		ug/L		74	71 - 117
2,4-diamino-6-nitrotoluene	2.00	1.62	M	ug/L		81	68 - 122
2,6-diamino-4-nitrotoluene	2.00	1.74	M	ug/L		87	72 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dinitrobenzene	87		83 - 119

Lab Sample ID: LCSD 280-592716/3-A
Matrix: Water
Analysis Batch: 592890

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 592716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	2.22		ug/L		111	73 - 125	1	20
1,3-Dinitrobenzene	2.00	2.07		ug/L		103	78 - 120	1	20
2,4,6-Trinitrotoluene	2.00	1.86		ug/L		93	71 - 123	0	20
2,4-Dinitrotoluene	2.00	2.01		ug/L		101	78 - 120	0	20
2,6-Dinitrotoluene	2.00	2.08		ug/L		104	77 - 127	4	20
2-Amino-4,6-dinitrotoluene	2.00	2.06		ug/L		103	79 - 120	2	20
2-Nitrotoluene	2.00	1.61		ug/L		80	70 - 127	3	20
3-Nitrotoluene	2.00	1.66		ug/L		83	73 - 125	6	20
4-Amino-2,6-dinitrotoluene	2.00	2.20		ug/L		110	76 - 125	2	20
4-Nitrotoluene	2.00	1.64		ug/L		82	71 - 127	4	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCSD 280-592716/3-A

Matrix: Water

Analysis Batch: 592890

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 592716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Nitrobenzene	2.00	1.74		ug/L		87	65 - 134	2	20	
Nitroglycerin	20.0	20.6		ug/L		103	74 - 127	0	20	
HMX	2.00	1.82	M	ug/L		91	65 - 135	3	20	
PETN	20.0	20.0		ug/L		100	73 - 127	0	20	
Picric acid	2.00	2.04		ug/L		102	80 - 120	2	20	
RDX	2.00	1.98		ug/L		99	68 - 130	1	20	
Tetryl	2.00	2.04		ug/L		102	64 - 128	0	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	91		83 - 119

Lab Sample ID: LCSD 280-592716/5-A

Matrix: Water

Analysis Batch: 592890

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 592716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
3,5-Dinitroaniline	2.00	1.72		ug/L		86	71 - 117	15	20	
2,4-diamino-6-nitrotoluene	2.00	1.67	M	ug/L		83	68 - 122	3	20	
2,6-diamino-4-nitrotoluene	2.00	1.77	M	ug/L		89	72 - 122	2	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	95		83 - 119

Lab Sample ID: MB 280-592924/1-A

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 592924

Analyte	MB		LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3,5-Trinitrobenzene	40	U	100	14	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
1,3-Dinitrobenzene	40	U	100	17	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2,4,6-Trinitrotoluene	70	U	100	31	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
3,5-Dinitroaniline	20	U	100	9.0	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2,4-Dinitrotoluene	40	U	100	15	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2,6-Dinitrotoluene	40	U	100	19	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2-Amino-4,6-dinitrotoluene	70	U	100	33	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2-Nitrotoluene	100	U	200	47	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
3-Nitrotoluene	150	U	200	64	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
4-Amino-2,6-dinitrotoluene	70	U	100	30	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
4-Nitrotoluene	100	U	200	37	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
Nitrobenzene	200	U	300	85	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
Nitroglycerin	700	U	2000	220	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
HMX	70	U	100	23	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
PETN	1000	U	2000	490	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
Picric acid	100	U	100	56	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
RDX	100	U	200	43	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
Tetryl	100	U	200	44	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2,4-diamino-6-nitrotoluene	1000	U	2000	520	ug/Kg		11/09/22 17:15	11/11/22 00:58	1
2,6-diamino-4-nitrotoluene	1000	U	2000	330	ug/Kg		11/09/22 17:15	11/11/22 00:58	1

QC Sample Results

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: MB 280-592924/1-A
Matrix: Solid
Analysis Batch: 593042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592924

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dinitrobenzene	112		78 - 119	11/09/22 17:15	11/11/22 00:58	1

Lab Sample ID: LCS 280-592924/2-A
Matrix: Solid
Analysis Batch: 593042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,3,5-Trinitrobenzene	1000	1130		ug/Kg		113	80 - 116
1,3-Dinitrobenzene	1000	1060		ug/Kg		106	73 - 119
2,4,6-Trinitrotoluene	1000	959		ug/Kg		96	71 - 120
2,4-Dinitrotoluene	1000	1060		ug/Kg		106	75 - 121
2,6-Dinitrotoluene	1000	1000		ug/Kg		100	79 - 117
2-Amino-4,6-dinitrotoluene	1000	1010		ug/Kg		101	71 - 123
2-Nitrotoluene	1000	1020		ug/Kg		102	70 - 124
3-Nitrotoluene	1000	1030		ug/Kg		103	67 - 129
4-Amino-2,6-dinitrotoluene	1000	1060		ug/Kg		106	64 - 127
4-Nitrotoluene	1000	1000		ug/Kg		100	71 - 124
Nitrobenzene	1000	1050		ug/Kg		105	67 - 129
Nitroglycerin	10000	10800		ug/Kg		108	73 - 124
HMX	1000	952	M	ug/Kg		95	74 - 124
PETN	10000	10300		ug/Kg		103	72 - 128
Picric acid	1000	1060		ug/Kg		106	38 - 154
RDX	1000	985		ug/Kg		99	67 - 129
Tetryl	1000	1050		ug/Kg		105	68 - 135

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	98		78 - 119

Lab Sample ID: LCS 280-592924/3-A
Matrix: Solid
Analysis Batch: 593042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
3,5-Dinitroaniline	1000	998		ug/Kg		100	86 - 118
2,4-diamino-6-nitrotoluene	1000	783	J M	ug/Kg		78	10 - 150
2,6-diamino-4-nitrotoluene	1000	1040	J M	ug/Kg		104	10 - 150

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	111		78 - 119

Lab Sample ID: 280-168718-9 MS
Matrix: Solid
Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 592924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,3,5-Trinitrobenzene	39	U M J1	997	1170	J1	ug/Kg		117	80 - 116
2,4,6-Trinitrotoluene	69	U	997	1020		ug/Kg		102	71 - 120
2,4-Dinitrotoluene	39	U	997	1070		ug/Kg		107	75 - 121

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: 280-168718-9 MS

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Result	Qualifier					
2,6-Dinitrotoluene	39	U	997	1040		ug/Kg		104		79 - 117
2-Amino-4,6-dinitrotoluene	69	U	997	1020		ug/Kg		102		71 - 123
2-Nitrotoluene	99	U	997	1070		ug/Kg		108		70 - 124
3-Nitrotoluene	150	U	997	1050		ug/Kg		105		67 - 129
4-Amino-2,6-dinitrotoluene	69	U M	997	1050		ug/Kg		106		64 - 127
4-Nitrotoluene	99	U	997	1050		ug/Kg		105		71 - 124
Nitrobenzene	200	U	997	1060		ug/Kg		106		67 - 129
Nitroglycerin	690	U	9970	11100		ug/Kg		111		73 - 124
HMX	69	U	997	940	M	ug/Kg		94		74 - 124
PETN	990	U	9970	10700		ug/Kg		108		72 - 128
Picric acid	99	U J1	997	243	J1	ug/Kg		24		38 - 154
RDX	99	U	997	988		ug/Kg		99		67 - 129
Tetryl	99	U	997	1000		ug/Kg		101		68 - 135

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	99		78 - 119

Lab Sample ID: 280-168718-9 MS

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Result	Qualifier					
3,5-Dinitroaniline	20	U	951	876		ug/Kg		92		86 - 118
2,4-diamino-6-nitrotoluene	990	U J1	951	950	U M J1	ug/Kg		0		10 - 150
2,6-diamino-4-nitrotoluene	990	U M J1	951	950	U M J1	ug/Kg		0		10 - 150

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	113		78 - 119

Lab Sample ID: 280-168718-9 MS

Matrix: Solid

Analysis Batch: 593191

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Result	Qualifier					
1,3-Dinitrobenzene	39	U	997	1130		ug/Kg		113		73 - 119

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	106		78 - 119

Lab Sample ID: 280-168718-9 MSD

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
1,3,5-Trinitrobenzene	39	U M J1	990	1180	J1	ug/Kg		119		80 - 116	1	20
2,4,6-Trinitrotoluene	69	U	990	1010		ug/Kg		102		71 - 120	1	20
2,4-Dinitrotoluene	39	U	990	1060		ug/Kg		107		75 - 121	1	20
2,6-Dinitrotoluene	39	U	990	1030		ug/Kg		104		79 - 117	1	20

Eurofins Denver

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: 280-168718-9 MSD

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier		Result	Qualifier				Limits	Limit	
2-Amino-4,6-dinitrotoluene	69	U	990	1000		ug/Kg		101	71 - 123	2	20
2-Nitrotoluene	99	U	990	1040		ug/Kg		105	70 - 124	3	20
3-Nitrotoluene	150	U	990	1020		ug/Kg		103	67 - 129	3	20
4-Amino-2,6-dinitrotoluene	69	U M	990	1020		ug/Kg		103	64 - 127	3	20
4-Nitrotoluene	99	U	990	1010		ug/Kg		102	71 - 124	4	20
Nitrobenzene	200	U	990	1050		ug/Kg		106	67 - 129	1	20
Nitroglycerin	690	U	9900	11400		ug/Kg		116	73 - 124	3	20
HMX	69	U	990	939	M	ug/Kg		95	74 - 124	0	20
PETN	990	U	9900	10500		ug/Kg		106	72 - 128	2	20
Picric acid	99	U J1	990	163	M J1	ug/Kg		16	38 - 154	40	20
RDX	99	U	990	957		ug/Kg		97	67 - 129	3	20
Tetryl	99	U	990	1010		ug/Kg		102	68 - 135	1	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	100		78 - 119

Lab Sample ID: 280-168718-9 MSD

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier		Result	Qualifier				Limits	Limit	
3,5-Dinitroaniline	20	U	996	951		ug/Kg		96	86 - 118	8	20
2,4-diamino-6-nitrotoluene	990	U J1	996	1000	U M J1	ug/Kg		0	10 - 150	NC	20
2,6-diamino-4-nitrotoluene	990	U M J1	996	1000	U M J1	ug/Kg		0	10 - 150	NC	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	112		78 - 119

Lab Sample ID: 280-168718-9 MSD

Matrix: Solid

Analysis Batch: 593191

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier		Result	Qualifier				Limits	Limit	
1,3-Dinitrobenzene	39	U	990	1080		ug/Kg		109	73 - 119	5	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	105		78 - 119

Lab Sample ID: 280-168718-9 DU

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	RPD
	Result	Qualifier		Result				Qualifier	Limit
1,3,5-Trinitrobenzene	39	U M J1	38	U	ug/Kg			NC	20
2,4,6-Trinitrotoluene	69	U	67	U	ug/Kg			NC	20
3,5-Dinitroaniline	20	U	19	U	ug/Kg			NC	20
2,4-Dinitrotoluene	39	U	38	U	ug/Kg			NC	20
2,6-Dinitrotoluene	39	U	38	U	ug/Kg			NC	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: 280-168718-9 DU

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
2-Amino-4,6-dinitrotoluene	69	U	67	U	ug/Kg		NC	20
2-Nitrotoluene	99	U	96	U	ug/Kg		NC	20
3-Nitrotoluene	150	U	140	U	ug/Kg		NC	20
4-Amino-2,6-dinitrotoluene	69	U M	67	U	ug/Kg		NC	20
4-Nitrotoluene	99	U	96	U	ug/Kg		NC	20
Nitrobenzene	200	U	190	U	ug/Kg		NC	20
Nitroglycerin	690	U	670	U	ug/Kg		NC	20
HMX	69	U	67	U	ug/Kg		NC	20
PETN	990	U	960	U	ug/Kg		NC	20
Picric acid	99	U J1	96	U	ug/Kg		NC	20
RDX	99	U	96	U	ug/Kg		NC	20
Tetryl	99	U	96	U	ug/Kg		NC	20
2,4-diamino-6-nitrotoluene	990	U J1	960	U	ug/Kg		NC	20
2,6-diamino-4-nitrotoluene	990	U M J1	960	U M	ug/Kg		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	112		78 - 119

Lab Sample ID: 280-168718-9 DU

Matrix: Solid

Analysis Batch: 593191

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
1,3-Dinitrobenzene	39	U	38	U	ug/Kg		NC	20

Surrogate	DU	DU	Limits
	%Recovery	Qualifier	
1,2-Dinitrobenzene	107		78 - 119

Lab Sample ID: 280-168718-9 TRL

Matrix: Solid

Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006

Prep Type: Total/NA

Prep Batch: 592924

Analyte	Sample	Sample	TRL	TRL	Unit	D	RSD	Limit
	Result	Qualifier	Result	Qualifier				
1,3,5-Trinitrobenzene	39	U M J1	38	U	ug/Kg		NC	20
2,4,6-Trinitrotoluene	69	U	66	U	ug/Kg		NC	20
3,5-Dinitroaniline	20	U	19	U	ug/Kg		NC	20
2,4-Dinitrotoluene	39	U	38	U	ug/Kg		NC	20
2,6-Dinitrotoluene	39	U	38	U	ug/Kg		NC	20
2-Amino-4,6-dinitrotoluene	69	U	66	U	ug/Kg		NC	20
2-Nitrotoluene	99	U	94	U	ug/Kg		NC	20
3-Nitrotoluene	150	U	140	U	ug/Kg		NC	20
4-Amino-2,6-dinitrotoluene	69	U M	66	U	ug/Kg		NC	20
4-Nitrotoluene	99	U	94	U	ug/Kg		NC	20
Nitrobenzene	200	U	190	U	ug/Kg		NC	20
Nitroglycerin	690	U	660	U M	ug/Kg		NC	20
HMX	69	U	66	U	ug/Kg		NC	20
PETN	990	U	940	U	ug/Kg		NC	20
Picric acid	99	U J1	94	U	ug/Kg		NC	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: 280-168718-9 TRL
Matrix: Solid
Analysis Batch: 593042

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 592924

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
RDX	99	U	94	U	ug/Kg		NC	20
Tetryl	99	U	94	U	ug/Kg		NC	20
2,4-diamino-6-nitrotoluene	990	U J1	940	U	ug/Kg		NC	20
2,6-diamino-4-nitrotoluene	990	U M J1	940	U M	ug/Kg		NC	20

Surrogate	TRL %Recovery	TRL Qualifier	Limits
1,2-Dinitrobenzene	108		78 - 119

Lab Sample ID: 280-168718-9 TRL
Matrix: Solid
Analysis Batch: 593191

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 592924

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
1,3-Dinitrobenzene	39	U	38	U	ug/Kg		NC	20

Surrogate	TRL %Recovery	TRL Qualifier	Limits
1,2-Dinitrobenzene	103		78 - 119

Method: 8321B - Nitroguanidine (LC/MS)

Lab Sample ID: MB 280-593821/1-A
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 593821

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	11	ug/Kg		11/17/22 09:02	11/21/22 14:37	1

Lab Sample ID: LCS 280-593821/2-A
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 593821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitroguanidine	201	164		ug/Kg		82	50 - 150

Lab Sample ID: 280-168718-9 MS
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 593821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitroguanidine	25	U H J1	201	74.4	H J1	ug/Kg		37	50 - 150

Lab Sample ID: 280-168718-9 MSD
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 593821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitroguanidine	25	U H J1	201	72.2	H J1	ug/Kg		36	50 - 150	3	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method: 8321B - Nitroguanidine (LC/MS) (Continued)

Lab Sample ID: 280-168718-9 DU
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 593821

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitroguanidine	25	U H J1	25	U	ug/Kg		NC	

Lab Sample ID: 280-168718-9 TRL
Matrix: Solid
Analysis Batch: 594295

Client Sample ID: X3-SS-CO6-0006
Prep Type: Total/NA
Prep Batch: 593821

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
Nitroguanidine	25	U H J1	25	U	ug/Kg		NC	

Lab Sample ID: MB 280-594294/13
Matrix: Water
Analysis Batch: 594294

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	10	U	20	3.7	ug/L			11/21/22 14:19	1

Lab Sample ID: LCS 280-594294/14
Matrix: Water
Analysis Batch: 594294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitroguanidine	100	105		ug/L		104	50 - 150

Lab Sample ID: 280-168718-6 MS
Matrix: Water
Analysis Batch: 594294

Client Sample ID: RB-11012201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitroguanidine	10	U	100	90.1		ug/L		90	50 - 150

Lab Sample ID: 280-168718-6 MSD
Matrix: Water
Analysis Batch: 594294

Client Sample ID: RB-11012201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitroguanidine	10	U	100	107		ug/L		106	50 - 150	17	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

GC/MS Semi VOA

Prep Batch: 592592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-6	RB-11012201	Total/NA	Water	3510C	
MB 280-592592/1-A	Method Blank	Total/NA	Water	3510C	
LCS 280-592592/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 280-592592/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 592594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	3550C	
280-168718-2	FD-11012201	Total/NA	Solid	3550C	
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	3550C	
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	3550C	
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	3550C	
280-168718-8	FD-11022201	Total/NA	Solid	3550C	
MB 280-592594/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 280-592594/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 280-592594/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 592986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8270E	592594
280-168718-2	FD-11012201	Total/NA	Solid	8270E	592594
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8270E	592594
MB 280-592594/1-A	Method Blank	Total/NA	Solid	8270E	592594
LCS 280-592594/2-A	Lab Control Sample	Total/NA	Solid	8270E	592594
LCSD 280-592594/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	592594

Prep Batch: 593019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	3550C	
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	3550C	
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	3550C	
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	3550C	
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	3550C	
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	3550C	
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	3550C	
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	3550C	
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	3550C	
MB 280-593019/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 280-593019/2-A	Lab Control Sample	Total/NA	Solid	3550C	
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	3550C	
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	3550C	

Analysis Batch: 593336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8270E	592594
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8270E	592594
280-168718-8	FD-11022201	Total/NA	Solid	8270E	592594

Analysis Batch: 593651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-6	RB-11012201	Total/NA	Water	8270E	592592

QC Association Summary

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

GC/MS Semi VOA (Continued)

Analysis Batch: 593651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-592592/1-A	Method Blank	Total/NA	Water	8270E	592592
LCS 280-592592/2-A	Lab Control Sample	Total/NA	Water	8270E	592592
LCS2D 280-592592/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	592592

Analysis Batch: 594711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-9	X3-SS-CO6-0006	Total/NA	Solid	8270E	593019
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	8270E	593019
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8270E	593019
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8270E	593019
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8270E	593019
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8270E	593019
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8270E	593019
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8270E	593019
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8270E	593019
MB 280-593019/1-A	Method Blank	Total/NA	Solid	8270E	593019
LCS 280-593019/2-A	Lab Control Sample	Total/NA	Solid	8270E	593019
280-168718-9 MS	X3-SS-CO6-0006	Total/NA	Solid	8270E	593019
280-168718-9 MSD	X3-SS-CO6-0006	Total/NA	Solid	8270E	593019

HPLC/IC

Drying Batch: 592646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-2	FD-11012201	Total/NA	Solid	Prep/Air Dry	
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-8	FD-11022201	Total/NA	Solid	Prep/Air Dry	
280-168718-9	X3-SS-CO6-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-12 - DL	X7-TP-C01-5460	Total/NA	Solid	Prep/Air Dry	
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	Prep/Air Dry	
280-168718-13 - DL	X7-TP-C02-3648	Total/NA	Solid	Prep/Air Dry	
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	Prep/Air Dry	
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	Prep/Air Dry	
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	Prep/Air Dry	
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-17 - DL	X3-SS-C08-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 MS	X3-SS-CO6-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 MSD	X3-SS-CO6-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 DU	X3-SS-CO6-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 TRL	X3-SS-CO6-0006	Total/NA	Solid	Prep/Air Dry	

Prep Batch: 592716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-6	RB-11012201	Total/NA	Water	3535	
MB 280-592716/1-A	Method Blank	Total/NA	Water	3535	

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

HPLC/IC (Continued)

Prep Batch: 592716 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-592716/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-592716/4-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-592716/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
LCSD 280-592716/5-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 592890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-6	RB-11012201	Total/NA	Water	8330B	592716
MB 280-592716/1-A	Method Blank	Total/NA	Water	8330B	592716
LCS 280-592716/2-A	Lab Control Sample	Total/NA	Water	8330B	592716
LCS 280-592716/4-A	Lab Control Sample	Total/NA	Water	8330B	592716
LCSD 280-592716/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	592716
LCSD 280-592716/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	592716

Prep Batch: 592924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-2	FD-11012201	Total/NA	Solid	8330B	592646
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8330B	592646
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8330B	592646
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8330B	592646
280-168718-8	FD-11022201	Total/NA	Solid	8330B	592646
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8330B	592646
280-168718-12 - DL	X7-TP-C01-5460	Total/NA	Solid	8330B	592646
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8330B	592646
280-168718-13 - DL	X7-TP-C02-3648	Total/NA	Solid	8330B	592646
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8330B	592646
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8330B	592646
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8330B	592646
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8330B	592646
280-168718-17 - DL	X3-SS-C08-0006	Total/NA	Solid	8330B	592646
MB 280-592924/1-A	Method Blank	Total/NA	Solid	8330B	
LCS 280-592924/2-A	Lab Control Sample	Total/NA	Solid	8330B	
LCS 280-592924/3-A	Lab Control Sample	Total/NA	Solid	8330B	
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	8330B	592646

Analysis Batch: 593042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8330B	592924
280-168718-2	FD-11012201	Total/NA	Solid	8330B	592924
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8330B	592924
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8330B	592924
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8330B	592924

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

HPLC/IC (Continued)

Analysis Batch: 593042 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-8	FD-11022201	Total/NA	Solid	8330B	592924
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	8330B	592924
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8330B	592924
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8330B	592924
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8330B	592924
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8330B	592924
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8330B	592924
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8330B	592924
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8330B	592924
MB 280-592924/1-A	Method Blank	Total/NA	Solid	8330B	592924
LCS 280-592924/2-A	Lab Control Sample	Total/NA	Solid	8330B	592924
LCS 280-592924/3-A	Lab Control Sample	Total/NA	Solid	8330B	592924
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	8330B	592924

Analysis Batch: 593188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-12 - DL	X7-TP-C01-5460	Total/NA	Solid	8330B	592924
280-168718-13 - DL	X7-TP-C02-3648	Total/NA	Solid	8330B	592924
280-168718-17 - DL	X3-SS-C08-0006	Total/NA	Solid	8330B	592924

Analysis Batch: 593191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8330B	592924
280-168718-2	FD-11012201	Total/NA	Solid	8330B	592924
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8330B	592924
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8330B	592924
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8330B	592924
280-168718-8	FD-11022201	Total/NA	Solid	8330B	592924
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8330B	592924
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8330B	592924
280-168718-12 - DL	X7-TP-C01-5460	Total/NA	Solid	8330B	592924
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8330B	592924
280-168718-13 - DL	X7-TP-C02-3648	Total/NA	Solid	8330B	592924
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8330B	592924
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8330B	592924
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8330B	592924
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8330B	592924
280-168718-17 - DL	X3-SS-C08-0006	Total/NA	Solid	8330B	592924
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	8330B	592924
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	8330B	592924

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

LCMS

Drying Batch: 592646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-2	FD-11012201	Total/NA	Solid	Prep/Air Dry	
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-8	FD-11022201	Total/NA	Solid	Prep/Air Dry	
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	Prep/Air Dry	
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	Prep/Air Dry	
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	Prep/Air Dry	
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	Prep/Air Dry	
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	Prep/Air Dry	
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	Prep/Air Dry	

Prep Batch: 593821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-2	FD-11012201	Total/NA	Solid	8330B	592646
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8330B	592646
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8330B	592646
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8330B	592646
280-168718-8	FD-11022201	Total/NA	Solid	8330B	592646
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8330B	592646
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8330B	592646
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8330B	592646
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8330B	592646
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8330B	592646
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8330B	592646
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8330B	592646
MB 280-593821/1-A	Method Blank	Total/NA	Solid	8330B	
LCS 280-593821/2-A	Lab Control Sample	Total/NA	Solid	8330B	
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	8330B	592646
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	8330B	592646

Analysis Batch: 594294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-6	RB-11012201	Total/NA	Water	8321B	
MB 280-594294/13	Method Blank	Total/NA	Water	8321B	
LCS 280-594294/14	Lab Control Sample	Total/NA	Water	8321B	
280-168718-6 MS	RB-11012201	Total/NA	Water	8321B	
280-168718-6 MSD	RB-11012201	Total/NA	Water	8321B	

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

LCMS

Analysis Batch: 594295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	8321B	593821
280-168718-2	FD-11012201	Total/NA	Solid	8321B	593821
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	8321B	593821
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	8321B	593821
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	8321B	593821
280-168718-8	FD-11022201	Total/NA	Solid	8321B	593821
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	8321B	593821
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	8321B	593821
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	8321B	593821
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	8321B	593821
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	8321B	593821
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	8321B	593821
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	8321B	593821
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	8321B	593821
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	8321B	593821
MB 280-593821/1-A	Method Blank	Total/NA	Solid	8321B	593821
LCS 280-593821/2-A	Lab Control Sample	Total/NA	Solid	8321B	593821
280-168718-9 MS	X3-SS-C06-0006	Total/NA	Solid	8321B	593821
280-168718-9 MSD	X3-SS-C06-0006	Total/NA	Solid	8321B	593821
280-168718-9 DU	X3-SS-C06-0006	Total/NA	Solid	8321B	593821
280-168718-9 TRL	X3-SS-C06-0006	Total/NA	Solid	8321B	593821

General Chemistry

Analysis Batch: 592579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-168718-1	X3-SS-C01-0006	Total/NA	Solid	D 2216	
280-168718-2	FD-11012201	Total/NA	Solid	D 2216	
280-168718-3	X3-SS-C02-0006	Total/NA	Solid	D 2216	
280-168718-5	X3-SS-C04-0006	Total/NA	Solid	D 2216	
280-168718-7	X3-SS-C05-0006	Total/NA	Solid	D 2216	
280-168718-8	FD-11022201	Total/NA	Solid	D 2216	
280-168718-9	X3-SS-C06-0006	Total/NA	Solid	D 2216	
280-168718-10	X7-SS-C01-0006	Total/NA	Solid	D 2216	
280-168718-11	X7B-SS-C01-0006	Total/NA	Solid	D 2216	
280-168718-12	X7-TP-C01-5460	Total/NA	Solid	D 2216	
280-168718-13	X7-TP-C02-3648	Total/NA	Solid	D 2216	
280-168718-14	X7-TP-C03-4248	Total/NA	Solid	D 2216	
280-168718-15	X7-TP-C04-4248	Total/NA	Solid	D 2216	
280-168718-16	X3-SS-C07-0006	Total/NA	Solid	D 2216	
280-168718-17	X3-SS-C08-0006	Total/NA	Solid	D 2216	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C01-0006

Lab Sample ID: 280-168718-1

Date Collected: 11/01/22 12:35

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3153 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 02:07	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3153 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 17:36	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:43	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 11:11	CCF	EET DEN

Client Sample ID: X3-SS-C01-0006

Lab Sample ID: 280-168718-1

Date Collected: 11/01/22 12:35

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.0 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	592986	11/11/22 00:37	NIT	EET DEN

Client Sample ID: FD-11012201

Lab Sample ID: 280-168718-2

Date Collected: 11/01/22 12:45

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.4116 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 02:30	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.4116 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 18:11	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:46	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: FD-11012201

Lab Sample ID: 280-168718-2

Date Collected: 11/01/22 12:45

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 78.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.9 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	592986	11/11/22 00:57	NIT	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C02-0006

Lab Sample ID: 280-168718-3

Date Collected: 11/01/22 13:50

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.008 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 02:53	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.008 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 18:46	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:49	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X3-SS-C02-0006

Lab Sample ID: 280-168718-3

Date Collected: 11/01/22 13:50

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			31.2 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	592986	11/11/22 01:18	NIT	EET DEN

Client Sample ID: X3-SS-C04-0006

Lab Sample ID: 280-168718-5

Date Collected: 11/01/22 15:25

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.1405 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 03:16	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.1405 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 19:21	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:52	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X3-SS-C04-0006

Lab Sample ID: 280-168718-5

Date Collected: 11/01/22 15:25

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 71.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.3 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	593336	11/14/22 19:37	NIT	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: RB-11012201

Lab Sample ID: 280-168718-6

Date Collected: 11/01/22 15:45

Matrix: Water

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			500 mL	1 mL	592592	11/07/22 13:11	KAS	EET DEN
Total/NA	Analysis	8270E		1	1 mL	1 mL	593651	11/17/22 01:55	NIT	EET DEN
Total/NA	Prep	3535			498.9 mL	5 mL	592716	11/08/22 13:27	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	592890	11/10/22 01:58	JZ	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594294	11/21/22 14:25	AGCM	EET DEN

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Date Collected: 11/02/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3204 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 03:39	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3204 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 19:56	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:55	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X3-SS-C05-0006

Lab Sample ID: 280-168718-7

Date Collected: 11/02/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.5 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	593336	11/14/22 19:58	NIT	EET DEN

Client Sample ID: FD-11022201

Lab Sample ID: 280-168718-8

Date Collected: 11/02/22 09:30

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2705 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 04:02	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2705 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 20:30	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 14:58	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: FD-11022201

Lab Sample ID: 280-168718-8

Date Collected: 11/02/22 09:30

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.8 g	1 mL	592594	11/07/22 12:55	GML	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	593336	11/14/22 20:18	NIT	EET DEN

Client Sample ID: X3-SS-CO6-0006

Lab Sample ID: 280-168718-9

Date Collected: 11/02/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.1344 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 05:11	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.1344 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/11/22 21:40	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:04	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X3-SS-CO6-0006

Lab Sample ID: 280-168718-9

Date Collected: 11/02/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.3 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 17:41	NIT	EET DEN

Client Sample ID: X7-SS-C01-0006

Lab Sample ID: 280-168718-10

Date Collected: 11/02/22 11:15

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2551 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 07:52	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:19	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-SS-C01-0006

Lab Sample ID: 280-168718-10

Date Collected: 11/02/22 11:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.9 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 18:59	NIT	EET DEN

Client Sample ID: X7B-SS-C01-0006

Lab Sample ID: 280-168718-11

Date Collected: 11/02/22 11:50

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2857 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 08:15	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2857 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 00:35	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:22	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X7B-SS-C01-0006

Lab Sample ID: 280-168718-11

Date Collected: 11/02/22 11:50

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.9 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 19:25	NIT	EET DEN

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.8643 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 08:38	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.8643 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	10	1 mL	1 mL	593188	11/11/22 16:10	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.8643 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 01:10	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.8643 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	10	1 mL	1 mL	593191	11/12/22 05:14	JZ	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:28	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X7-TP-C01-5460

Lab Sample ID: 280-168718-12

Date Collected: 11/02/22 14:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.4 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 19:51	NIT	EET DEN

Client Sample ID: X7-TP-C02-3648

Lab Sample ID: 280-168718-13

Date Collected: 11/02/22 15:35

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2121 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 09:47	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.2121 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	20	1 mL	1 mL	593188	11/11/22 16:33	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2121 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 01:45	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.2121 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	20	1 mL	1 mL	593191	11/12/22 05:49	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:31	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X7-TP-C02-3648

Lab Sample ID: 280-168718-13

Date Collected: 11/02/22 15:35

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			31.3 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 20:17	NIT	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X7-TP-C03-4248

Lab Sample ID: 280-168718-14

Date Collected: 11/02/22 16:40

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.305 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 10:10	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.305 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 02:20	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:34	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X7-TP-C03-4248

Lab Sample ID: 280-168718-14

Date Collected: 11/02/22 16:40

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.0 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 20:43	NIT	EET DEN

Client Sample ID: X7-TP-C04-4248

Lab Sample ID: 280-168718-15

Date Collected: 11/03/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.5091 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 10:33	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.5091 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 02:55	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:37	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X7-TP-C04-4248

Lab Sample ID: 280-168718-15

Date Collected: 11/03/22 09:20

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.8 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 21:08	NIT	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C07-0006

Lab Sample ID: 280-168718-16

Date Collected: 11/03/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3627 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 10:56	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.3627 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 04:04	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:41	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Client Sample ID: X3-SS-C07-0006

Lab Sample ID: 280-168718-16

Date Collected: 11/03/22 10:15

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.0 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 21:34	NIT	EET DEN

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Date Collected: 11/03/22 10:45

Matrix: Solid

Date Received: 11/04/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2501 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593042	11/11/22 11:19	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.2501 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	5	1 mL	1 mL	593188	11/11/22 16:56	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10.2501 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	593191	11/12/22 04:39	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.2501 g	40 mL	592924	11/09/22 17:15	MLT	EET DEN
Total/NA	Analysis	8330B	DL	5	1 mL	1 mL	593191	11/12/22 06:24	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	592646	11/07/22 15:55	DCL	EET DEN
Total/NA	Prep	8330B			10 g	20 mL	593821	11/17/22 09:02	AGCM	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	594295	11/21/22 15:44	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			592579	11/07/22 13:24	CCF	EET DEN

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Client Sample ID: X3-SS-C08-0006

Lab Sample ID: 280-168718-17

Date Collected: 11/03/22 10:45

Matrix: Solid

Date Received: 11/04/22 10:35

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.3 g	1 mL	593019	11/10/22 12:10	EDW	EET DEN
Total/NA	Analysis	8270E		20	200 uL	200 uL	594711	11/28/22 22:00	NIT	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
 Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8321B	8330B	Solid	Nitroguanidine
Washington	State		C583-19
			08-03-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8270E	3510C	Water	Diphenylamine
8270E	3550C	Solid	Diphenylamine
8321B		Water	Nitroguanidine
8321B	8330B	Solid	Nitroguanidine
8330B	3535	Water	2,4-diamino-6-nitrotoluene
8330B	3535	Water	2,6-diamino-4-nitrotoluene
8330B	8330B	Solid	2,4-diamino-6-nitrotoluene
8330B	8330B	Solid	2,6-diamino-4-nitrotoluene
D 2216		Solid	Percent Moisture

Method Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Method	Method Description	Protocol	Laboratory
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
8321B	Nitroguanidine (LC/MS)	SW846	EET DEN
D 2216	Percent Moisture	ASTM	EET DEN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN
3550C	Ultrasonic Extraction	SW846	EET DEN
8330B	Sonication Extraction (Explosives)	SW846	EET DEN
Prep/Air Dry	Preparation, Air drying	None	EET DEN

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Job ID: 280-168718-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-168718-1	X3-SS-C01-0006	Solid	11/01/22 12:35	11/04/22 10:35
280-168718-2	FD-11012201	Solid	11/01/22 12:45	11/04/22 10:35
280-168718-3	X3-SS-C02-0006	Solid	11/01/22 13:50	11/04/22 10:35
280-168718-5	X3-SS-C04-0006	Solid	11/01/22 15:25	11/04/22 10:35
280-168718-6	RB-11012201	Water	11/01/22 15:45	11/04/22 10:35
280-168718-7	X3-SS-C05-0006	Solid	11/02/22 09:20	11/04/22 10:35
280-168718-8	FD-11022201	Solid	11/02/22 09:30	11/04/22 10:35
280-168718-9	X3-SS-C06-0006	Solid	11/02/22 10:15	11/04/22 10:35
280-168718-10	X7-SS-C01-0006	Solid	11/02/22 11:15	11/04/22 10:35
280-168718-11	X7B-SS-C01-0006	Solid	11/02/22 11:50	11/04/22 10:35
280-168718-12	X7-TP-C01-5460	Solid	11/02/22 14:20	11/04/22 10:35
280-168718-13	X7-TP-C02-3648	Solid	11/02/22 15:35	11/04/22 10:35
280-168718-14	X7-TP-C03-4248	Solid	11/02/22 16:40	11/04/22 10:35
280-168718-15	X7-TP-C04-4248	Solid	11/03/22 09:20	11/04/22 10:35
280-168718-16	X3-SS-C07-0006	Solid	11/03/22 10:15	11/04/22 10:35
280-168718-17	X3-SS-C08-0006	Solid	11/03/22 10:45	11/04/22 10:35

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_1 Analysis Batch Number: 593651

Lab Sample ID: MB 280-592592/1-A Client Sample ID: _____

Date Analyzed: 11/16/22 17:43 Lab File ID: 1602.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Diphenylamine		Invalid Compound ID	NU5H	11/17/

Lab Sample ID: 280-168718-6 Client Sample ID: RB-11012201

Date Analyzed: 11/17/22 01:55 Lab File ID: 1625.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Diphenylamine		Invalid Compound ID	NU5H	11/17/

Lab Sample ID: CCVC 280-593651/57 Client Sample ID: _____

Date Analyzed: 11/17/22 02:17 Lab File ID: 1626.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Caprolactam	6.31	Incomplete Integration	NU5H	11/17/

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Analysis Batch Number: 590052

Lab Sample ID: STD050 280-590052/13 IC Client Sample ID: _____

Date Analyzed: 10/14/22 18:11 Lab File ID: G6_101022433.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.84	Peak assignment corrected	TRE2	10/17/

Lab Sample ID: STD80 280-590052/14 IC Client Sample ID: _____

Date Analyzed: 10/14/22 18:31 Lab File ID: G6_101022434.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.87	Peak assignment corrected	TRE2	10/17/
Caprolactam	5.45	Peak assignment corrected	TRE2	10/17/

Lab Sample ID: STD120 280-590052/15 IC Client Sample ID: _____

Date Analyzed: 10/14/22 18:52 Lab File ID: G6_101022435.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.90	Incomplete Integration	TRE2	10/17/

Lab Sample ID: STD160 280-590052/16 IC Client Sample ID: _____

Date Analyzed: 10/14/22 19:12 Lab File ID: G6_101022436.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.93	Incomplete Integration	TRE2	10/17/

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Analysis Batch Number: 590052

Lab Sample ID: STD200 280-590052/17 IC Client Sample ID: _____

Date Analyzed: 10/14/22 19:33 Lab File ID: G6_101022437.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.95	Incomplete Integration	TRE2	10/17/
Caprolactam	5.50	Incomplete Integration	TRE2	10/17/
Acenaphthene	6.75	Incomplete Integration	TRE2	10/17/
4-Nitroaniline	7.32	Incomplete Integration	TRE2	10/17/

Lab Sample ID: ICV 280-590052/18 Client Sample ID: _____

Date Analyzed: 10/14/22 19:53 Lab File ID: G6_101022438.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.88	Peak assignment corrected	TRE2	10/17/
4-Nitroaniline	7.29	Peak assignment corrected	TRE2	10/17/

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Analysis Batch Number: 592986Lab Sample ID: CCV 280-592986/3 Client Sample ID: _____Date Analyzed: 11/10/22 15:20 Lab File ID: G6_101023536b.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Indeno[1,2,3-cd]pyrene	14.60	Incomplete Integration	NBC9	11/10/

Lab Sample ID: MB 280-592594/1-A Client Sample ID: _____Date Analyzed: 11/10/22 16:43 Lab File ID: G6_101023540b.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
N-Nitrosodiphenylamine		Invalid Compound ID	NU5H	11/11/

Lab Sample ID: CCVC 280-592986/36 Client Sample ID: _____Date Analyzed: 11/11/22 01:59 Lab File ID: G6_101023567.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.72	Incomplete Integration	NU5H	11/11/

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Analysis Batch Number: 593336

Lab Sample ID: CCV 280-593336/3 Client Sample ID: _____

Date Analyzed: 11/14/22 15:19 Lab File ID: G6_101023673d.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2-Methylphenol	3.85	Peak assignment corrected	NBC9	11/14/
Nitrobenzene-d5 (Surr)	4.11	Peak assignment corrected	NBC9	11/14/
Bis(2-chloroethoxy)methane	4.60	Peak assignment corrected	NBC9	11/14/
1-Methylnaphthalene	5.59	Peak assignment corrected	NBC9	11/14/
2-Fluorobiphenyl	5.86	Peak assignment corrected	NBC9	11/14/
2,6-Dinitrotoluene	6.32	Peak assignment corrected	NBC9	11/14/
1,2-Diphenylhydrazine	7.20	Peak assignment corrected	NBC9	11/14/
Azobenzene	7.20	Peak assignment corrected	NBC9	11/14/
Fluoranthene	9.10	Peak assignment corrected	NBC9	11/14/
Chrysene	10.63	Peak assignment corrected	NBC9	11/14/
Benzo[k]fluoranthene	12.15	Peak assignment corrected	NBC9	11/14/
Benzo[a]pyrene	12.61	Peak assignment corrected	NBC9	11/14/
Dibenz(a,h)anthracene	14.61	Peak assignment corrected	NBC9	11/14/
Benzo[g,h,i]perylene	14.98	Peak assignment corrected	NBC9	11/14/

Lab Sample ID: 280-168718-7 Client Sample ID: X3-SS-C05-0006

Date Analyzed: 11/14/22 19:58 Lab File ID: G6_101023686.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Diphenylamine	7.16	Peak assignment corrected	NU5H	11/15/

Lab Sample ID: 280-168718-8 Client Sample ID: FD-11022201

Date Analyzed: 11/14/22 20:18 Lab File ID: G6_101023687.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Diphenylamine	7.16	Peak assignment corrected	NU5H	11/15/
N-Nitrosodiphenylamine	7.16	Peak assignment corrected	NU5H	11/15/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 593534Lab Sample ID: STD004 280-593534/32 IC Client Sample ID: _____Date Analyzed: 11/15/22 13:59 Lab File ID: Y19305982.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.80	Peak assignment corrected	NBC9	11/16/
Benzo[b]fluoranthene	13.31	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.38	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.75	Peak assignment corrected	NBC9	11/16/

Lab Sample ID: STD010 280-593534/33 IC Client Sample ID: _____Date Analyzed: 11/15/22 14:23 Lab File ID: Y19305983.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.81	Peak assignment corrected	NBC9	11/16/
Benzo[b]fluoranthene	13.31	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.37	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.75	Peak assignment corrected	NBC9	11/16/

Lab Sample ID: STD020 280-593534/34 IC Client Sample ID: _____Date Analyzed: 11/15/22 14:49 Lab File ID: Y19305984.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.84	Peak assignment corrected	NBC9	11/16/
Benzo[b]fluoranthene	13.32	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.37	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.74	Peak assignment corrected	NBC9	11/16/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 593534Lab Sample ID: STD050 280-593534/35 IC Client Sample ID: _____Date Analyzed: 11/15/22 15:14 Lab File ID: Y19305985.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzo[b]fluoranthene	13.32	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.38	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.76	Peak assignment corrected	NBC9	11/16/

Lab Sample ID: ICIS 280-593534/36 Client Sample ID: _____Date Analyzed: 11/15/22 15:40 Lab File ID: Y19305986.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzo[b]fluoranthene	13.33	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.39	Peak assignment corrected	NBC9	11/16/
Benzo[a]pyrene	14.05	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.78	Peak assignment corrected	NBC9	11/16/

Lab Sample ID: STD120 280-593534/37 IC Client Sample ID: _____Date Analyzed: 11/15/22 16:05 Lab File ID: Y19305987.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzo[b]fluoranthene	13.33	Peak assignment corrected	NBC9	11/16/
Benzo[k]fluoranthene	13.40	Peak assignment corrected	NBC9	11/16/
Benzo[a]pyrene	14.06	Peak assignment corrected	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.79	Peak assignment corrected	NBC9	11/16/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 593534

Lab Sample ID: STD160 280-593534/38 IC Client Sample ID: _____

Date Analyzed: 11/15/22 16:31 Lab File ID: Y19305988c.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.94	Incomplete Integration	NBC9	11/16/
Caprolactam	5.50	Incomplete Integration	NBC9	11/16/
Benzo[b]fluoranthene	13.35	Incomplete Integration	NBC9	11/16/
Benzo[k]fluoranthene	13.41	Incomplete Integration	NBC9	11/16/
Benzo[a]pyrene	14.07	Incomplete Integration	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.80	Incomplete Integration	NBC9	11/16/

Lab Sample ID: STD200 280-593534/39 IC Client Sample ID: _____

Date Analyzed: 11/15/22 16:57 Lab File ID: Y19305989.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Benzoic acid	4.97	Incomplete Integration	NBC9	11/16/
Caprolactam	5.52	Incomplete Integration	NBC9	11/16/
Benzo[b]fluoranthene	13.35	Incomplete Integration	NBC9	11/16/
Benzo[k]fluoranthene	13.42	Incomplete Integration	NBC9	11/16/
Benzo[a]pyrene	14.08	Incomplete Integration	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.81	Incomplete Integration	NBC9	11/16/

Lab Sample ID: ICV 280-593534/40 Client Sample ID: _____

Date Analyzed: 11/15/22 17:22 Lab File ID: Y19305990.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Caprolactam	5.48	Incomplete Integration	NBC9	11/16/
Benzo[b]fluoranthene	13.33	Incomplete Integration	NBC9	11/16/
Benzo[k]fluoranthene	13.40	Incomplete Integration	NBC9	11/16/
Benzo[a]pyrene	14.05	Incomplete Integration	NBC9	11/16/
Indeno[1,2,3-cd]pyrene	16.78	Incomplete Integration	NBC9	11/16/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 594711Lab Sample ID: CCV 280-594711/2 Client Sample ID: _____Date Analyzed: 11/28/22 11:12 Lab File ID: Y19306462.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Bis(2-chloroethyl) ether	3.46	Peak assignment corrected	NU5H	11/29/
2-Chlorophenol	3.50	Peak assignment corrected	NU5H	11/29/
2,2'-oxybis[1-chloropropane]	3.98	Peak assignment corrected	NU5H	11/29/
Acetophenone	4.08	Peak assignment corrected	NU5H	11/29/
3 & 4 Methylphenol	4.12	Peak assignment corrected	NU5H	11/29/
Benzoic acid	4.78	Incomplete Integration	NU5H	11/29/
2,4-Dichlorophenol	4.79	Incomplete Integration	NU5H	11/29/
4-Chloroaniline	5.00	Incomplete Integration	NU5H	11/29/
2,6-Dichlorophenol	5.01	Incomplete Integration	NU5H	11/29/
4-Chloro-3-methylphenol	5.51	Incomplete Integration	NU5H	11/29/
3-Nitroaniline	6.59	Incomplete Integration	NU5H	11/29/
2,4-Dinitrophenol	6.70	Incomplete Integration	NU5H	11/29/
2,3,4,6-Tetrachlorophenol	6.95	Incomplete Integration	NU5H	11/29/
Fluorene	7.16	Incomplete Integration	NU5H	11/29/
4-Nitroaniline	7.19	Incomplete Integration	NU5H	11/29/
4,6-Dinitro-2-methylphenol	7.22	Incomplete Integration	NU5H	11/29/
Diphenylamine	7.29	Incomplete Integration	NU5H	11/29/
N-Nitrosodiphenylamine	7.29	Incomplete Integration	NU5H	11/29/
Azobenzene	7.33	Incomplete Integration	NU5H	11/29/
Benzo[a]anthracene	11.02	Incomplete Integration	NU5H	11/29/
Chrysene	11.08	Incomplete Integration	NU5H	11/29/
Benzo[a]pyrene	13.75	Incomplete Integration	NU5H	11/29/
Indeno[1,2,3-cd]pyrene	16.42	Incomplete Integration	NU5H	11/29/

Lab Sample ID: 280-168718-9 Client Sample ID: _____Date Analyzed: 11/28/22 17:41 Lab File ID: Y19306477.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 594711Lab Sample ID: 280-168718-10 Client Sample ID: _____Date Analyzed: 11/28/22 18:59 Lab File ID: Y19306480.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

Lab Sample ID: 280-168718-11 Client Sample ID: _____Date Analyzed: 11/28/22 19:25 Lab File ID: Y19306481.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/
Perylene-d12	13.87	Peak assignment corrected	NU5H	11/29/

Lab Sample ID: 280-168718-12 Client Sample ID: _____Date Analyzed: 11/28/22 19:51 Lab File ID: Y19306482.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

Lab Sample ID: 280-168718-13 Client Sample ID: _____Date Analyzed: 11/28/22 20:17 Lab File ID: Y19306483.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

Lab Sample ID: 280-168718-14 Client Sample ID: _____Date Analyzed: 11/28/22 20:43 Lab File ID: Y19306484.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Analysis Batch Number: 594711

Lab Sample ID: 280-168718-17 Client Sample ID: _____

Date Analyzed: 11/28/22 22:00 Lab File ID: Y19306487.D GC Column: Rxi-

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Phenanthrene-d10	8.06	Peak assignment corrected	NU5H	11/29/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/21 Client Sample ID: _____

Date Analyzed: 01/04/22 22:17 Lab File ID: 01040021.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: IC 280-562503/22 Client Sample ID: _____

Date Analyzed: 01/04/22 22:40 Lab File ID: 01040022.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.48	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: IC 280-562503/23 Client Sample ID: _____

Date Analyzed: 01/04/22 23:03 Lab File ID: 01040023.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.48	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: IC 280-562503/24 Client Sample ID: _____

Date Analyzed: 01/04/22 23:26 Lab File ID: 01040024.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.47	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/26 Client Sample ID: _____

Date Analyzed: 01/05/22 00:11 Lab File ID: 01040026.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.47	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: IC 280-562503/27 Client Sample ID: _____

Date Analyzed: 01/05/22 00:34 Lab File ID: 01040027.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.47	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: IC 280-562503/28 Client Sample ID: _____

Date Analyzed: 01/05/22 00:57 Lab File ID: 01040028.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.47	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

Lab Sample ID: ICV 280-562503/29 Client Sample ID: _____

Date Analyzed: 01/05/22 01:20 Lab File ID: 01040029.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.47	Baseline	zhangji	01/05/
2,4-diamino-6-nitrotoluene	6.66	Baseline	zhangji	01/05/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 579842

Lab Sample ID: IC 280-579842/11 Client Sample ID: _____

Date Analyzed: 07/02/22 13:06 Lab File ID: 07020011.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	07/02/

Lab Sample ID: IC 280-579842/12 Client Sample ID: _____

Date Analyzed: 07/02/22 13:29 Lab File ID: 07020012.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.59	Baseline	LV5D	07/02/

Lab Sample ID: IC 280-579842/13 Client Sample ID: _____

Date Analyzed: 07/02/22 13:52 Lab File ID: 07020013.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	07/02/

Lab Sample ID: IC 280-579842/14 Client Sample ID: _____

Date Analyzed: 07/02/22 14:15 Lab File ID: 07020014.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	07/02/

Lab Sample ID: IC 280-579842/15 Client Sample ID: _____

Date Analyzed: 07/02/22 14:38 Lab File ID: 07020015.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.59	Baseline	LV5D	07/02/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 579842

Lab Sample ID: IC 280-579842/16 Client Sample ID: _____

Date Analyzed: 07/02/22 15:01 Lab File ID: 07020016.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	07/06/

Lab Sample ID: IC 280-579842/17 Client Sample ID: _____

Date Analyzed: 07/02/22 15:24 Lab File ID: 07020017.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.59	Baseline	LV5D	07/06/
Nitroglycerin	10.45	Baseline	LV5D	07/06/

Lab Sample ID: IC 280-579842/18 Client Sample ID: _____

Date Analyzed: 07/02/22 15:46 Lab File ID: 07020018.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
RDX	7.58	Baseline	LV5D	07/06/
Nitroglycerin	10.45	Baseline	LV5D	07/06/
PETN	14.61	Baseline	LV5D	07/06/

Lab Sample ID: IC 280-579842/19 Client Sample ID: _____

Date Analyzed: 07/02/22 16:09 Lab File ID: 07020019.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.59	Baseline	LV5D	07/06/
RDX	7.58	Baseline	LV5D	07/06/
Nitroglycerin	10.45	Baseline	LV5D	07/06/
PETN	14.61	Baseline	LV5D	07/06/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 579842

Lab Sample ID: ICV 280-579842/20 Client Sample ID: _____

Date Analyzed: 07/02/22 16:33 Lab File ID: 07020020.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Incomplete Integration	LV5D	07/06/
Picric acid	7.92	Incomplete Integration	LV5D	07/06/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 592890

Lab Sample ID: CCV 280-592890/7 Client Sample ID: _____

Date Analyzed: 11/09/22 14:53 Lab File ID: 11090007.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.57	Baseline	LV5D	11/09/

Lab Sample ID: CCV 280-592890/8 Client Sample ID: _____

Date Analyzed: 11/09/22 15:16 Lab File ID: 11090008.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.46	Baseline	LV5D	11/09/
2,4-diamino-6-nitrotoluene	6.64	Baseline	LV5D	11/09/

Lab Sample ID: MB 280-592716/1-A Client Sample ID: _____

Date Analyzed: 11/09/22 15:39 Lab File ID: 11090011.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
1,2-Dinitrobenzene	8.51	Baseline	LV5D	11/09/

Lab Sample ID: LCSD 280-592716/3-A Client Sample ID: _____

Date Analyzed: 11/09/22 16:25 Lab File ID: 11090013.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	11/09/

Lab Sample ID: LCS 280-592716/4-A Client Sample ID: _____

Date Analyzed: 11/09/22 16:48 Lab File ID: 11090014.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	11/09/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/09/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 592890

Lab Sample ID: LCSD 280-592716/5-A Client Sample ID: _____

Date Analyzed: 11/09/22 17:11 Lab File ID: 11090015.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.45	Baseline	LV5D	11/09/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/09/

Lab Sample ID: CCV 280-592890/21 Client Sample ID: _____

Date Analyzed: 11/09/22 19:29 Lab File ID: 11090021.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	11/09/

Lab Sample ID: CCV 280-592890/22 Client Sample ID: _____

Date Analyzed: 11/09/22 19:52 Lab File ID: 11090022.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.45	Baseline	LV5D	11/09/
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	11/09/

Lab Sample ID: CCV 280-592890/34 Client Sample ID: _____

Date Analyzed: 11/10/22 00:27 Lab File ID: 11090034.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.46	Baseline	LV5D	11/10/
2,4-diamino-6-nitrotoluene	6.64	Baseline	LV5D	11/10/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 592890

Lab Sample ID: 280-168718-6 Client Sample ID: RB-11012201

Date Analyzed: 11/10/22 01:58 Lab File ID: 11090038.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
1,2-Dinitrobenzene	8.50	Baseline	LV5D	11/10/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/10/

Lab Sample ID: CCV 280-592890/39 Client Sample ID: _____

Date Analyzed: 11/10/22 02:21 Lab File ID: 11090039.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.45	Baseline	LV5D	11/10/
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	11/10/

Lab Sample ID: CCV 280-592890/40 Client Sample ID: _____

Date Analyzed: 11/10/22 02:44 Lab File ID: 11090040.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.58	Baseline	LV5D	11/10/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: CCV 280-593042/37 Client Sample ID: _____

Date Analyzed: 11/11/22 00:35 Lab File ID: 11100037.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.45	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	11/11/

Lab Sample ID: LCS 280-592924/2-A Client Sample ID: _____

Date Analyzed: 11/11/22 01:21 Lab File ID: 11100039.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.57	Baseline	LV5D	11/11/

Lab Sample ID: LCS 280-592924/3-A Client Sample ID: _____

Date Analyzed: 11/11/22 01:44 Lab File ID: 11100040.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-1 Client Sample ID: X3-SS-C01-0006

Date Analyzed: 11/11/22 02:07 Lab File ID: 11100041.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
2,4,6-Trinitrotoluene	10.82	Baseline	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: 280-168718-2 Client Sample ID: FD-11012201

Date Analyzed: 11/11/22 02:30 Lab File ID: 11100042.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,4,6-Trinitrotoluene		Invalid Compound ID	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-3 Client Sample ID: X3-SS-C02-0006

Date Analyzed: 11/11/22 02:53 Lab File ID: 11100043.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
RDX	7.57	Baseline	LV5D	11/11/
1,3-Dinitrobenzene	9.23	Baseline	LV5D	11/11/
2,4,6-Trinitrotoluene		Invalid Compound ID	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
Picric acid		Invalid Compound ID	LV5D	11/11/
2,6-Dinitrotoluene	11.47	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-5 Client Sample ID: X3-SS-C04-0006

Date Analyzed: 11/11/22 03:16 Lab File ID: 11100044.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
Nitroglycerin		Invalid Compound ID	LV5D	11/11/
2,4,6-Trinitrotoluene	10.82	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-7 Client Sample ID: X3-SS-C05-0006

Date Analyzed: 11/11/22 03:39 Lab File ID: 11100045.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: 280-168718-8 Client Sample ID: FD-11022201

Date Analyzed: 11/11/22 04:02 Lab File ID: 11100046.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
1,2-Dinitrobenzene	8.50	Baseline	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: CCV 280-593042/48 Client Sample ID: _____

Date Analyzed: 11/11/22 04:48 Lab File ID: 11100048.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.45	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-9 Client Sample ID: X3-SS-CO6-0006

Date Analyzed: 11/11/22 05:11 Lab File ID: 11100049.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-9 MS Client Sample ID: X3-SS-CO6-0006 MS

Date Analyzed: 11/11/22 05:34 Lab File ID: 11100050.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: 280-168718-9 MSD Client Sample ID: X3-SS-CO6-0006 MSD

Date Analyzed: 11/11/22 05:57 Lab File ID: 11100051.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/
Picric acid	7.88	Unspecified		

Lab Sample ID: 280-168718-9 MS Client Sample ID: X3-SS-CO6-0006 MS

Date Analyzed: 11/11/22 06:20 Lab File ID: 11100052.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.43	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-9 MSD Client Sample ID: X3-SS-CO6-0006 MSD

Date Analyzed: 11/11/22 06:43 Lab File ID: 11100053.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-9 DU Client Sample ID: X3-SS-CO6-0006 DU

Date Analyzed: 11/11/22 07:06 Lab File ID: 11100054.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042Lab Sample ID: 280-168718-9 TRL Client Sample ID: X3-SS-CO6-0006 TRLDate Analyzed: 11/11/22 07:29 Lab File ID: 11100055.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
Nitroglycerin		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-10 Client Sample ID: X7-SS-C01-0006Date Analyzed: 11/11/22 07:52 Lab File ID: 11100056.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
Picric acid		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-11 Client Sample ID: X7B-SS-C01-0006Date Analyzed: 11/11/22 08:15 Lab File ID: 11100057.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
2,6-Dinitrotoluene		Baseline	LV5D	11/11/
2-Nitrotoluene		Invalid Compound ID	LV5D	11/11/
2,4,6-Trinitrotoluene	10.82	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-12 Client Sample ID: X7-TP-C01-5460Date Analyzed: 11/11/22 08:38 Lab File ID: 11100058.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.43	Baseline	LV5D	11/11/
HMX	6.55	Baseline	LV5D	11/11/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: CCV 280-593042/59 Client Sample ID: _____

Date Analyzed: 11/11/22 09:01 Lab File ID: 11100059.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/

Lab Sample ID: CCV 280-593042/60 Client Sample ID: _____

Date Analyzed: 11/11/22 09:24 Lab File ID: 11100060.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-13 Client Sample ID: X7-TP-C02-3648

Date Analyzed: 11/11/22 09:47 Lab File ID: 11100061.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.43	Baseline	LV5D	11/11/
HMX	6.56	Baseline	LV5D	11/11/
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	11/11/
2,4-diamino-6-nitrotoluene		Invalid Compound ID	LV5D	11/11/
Picric acid		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-14 Client Sample ID: X7-TP-C03-4248

Date Analyzed: 11/11/22 10:10 Lab File ID: 11100062.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: 280-168718-15 Client Sample ID: X7-TP-C04-4248

Date Analyzed: 11/11/22 10:33 Lab File ID: 11100063.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene		Invalid Compound ID	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-16 Client Sample ID: X3-SS-C07-0006

Date Analyzed: 11/11/22 10:56 Lab File ID: 11100064.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-17 Client Sample ID: X3-SS-C08-0006

Date Analyzed: 11/11/22 11:19 Lab File ID: 11100065.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
4-Nitrotoluene		Invalid Compound ID	LV5D	11/11/
Tetryl		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: CCV 280-593042/66 Client Sample ID: _____

Date Analyzed: 11/11/22 11:43 Lab File ID: 11100066.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593042

Lab Sample ID: CCV 280-593042/67 Client Sample ID: _____

Date Analyzed: 11/11/22 12:06 Lab File ID: 11100067.D GC Column: Ultr

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	11/11/
2,4-diamino-6-nitrotoluene	6.62	Baseline	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X3 Analysis Batch Number: 593188

Lab Sample ID: CCV 280-593188/7 Client Sample ID: _____

Date Analyzed: 11/11/22 15:47 Lab File ID: 11110007.D GC Column: Ultra

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-12 DL Client Sample ID: X7-TP-C01-5460 DL

Date Analyzed: 11/11/22 16:10 Lab File ID: 11110011.D GC Column: Ultra

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.57	Baseline	LV5D	11/11/

Lab Sample ID: 280-168718-13 DL Client Sample ID: X7-TP-C02-3648 DL

Date Analyzed: 11/11/22 16:33 Lab File ID: 11110012.D GC Column: Ultra

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.56	Baseline	LV5D	11/11/
RDX	7.55	Baseline	LV5D	11/11/
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-17 DL Client Sample ID: X3-SS-C08-0006 DL

Date Analyzed: 11/11/22 16:56 Lab File ID: 11110013.D GC Column: Ultra

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
1,2-Dinitrobenzene	8.50	Baseline	LV5D	11/11/
1,3,5-Trinitrobenzene	8.61	Unspecified		
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/10 Client Sample ID: _____

Date Analyzed: 03/02/22 21:22 Lab File ID: 03020010.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	4.07	Incomplete Integration	zhangji	03/03/
2,4-diamino-6-nitrotoluene	4.70	Incomplete Integration	zhangji	03/03/
2-Amino-4,6-dinitrotoluene	18.73	Unspecified		
1,3,5-Trinitrobenzene	18.85	Split Peak	zhangji	03/03/

Lab Sample ID: IC 280-567560/11 Client Sample ID: _____

Date Analyzed: 03/02/22 21:57 Lab File ID: 03020011.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	4.09	Baseline Smoothing	zhangji	03/03/
2,4-diamino-6-nitrotoluene	4.71	Baseline Smoothing	zhangji	03/03/

Lab Sample ID: IC 280-567560/12 Client Sample ID: _____

Date Analyzed: 03/02/22 22:32 Lab File ID: 03020012.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene	4.11	Baseline Smoothing	zhangji	03/03/
2,4-diamino-6-nitrotoluene	4.71	Baseline Smoothing	zhangji	03/03/

Lab Sample ID: IC 280-567560/15 Client Sample ID: _____

Date Analyzed: 03/03/22 00:17 Lab File ID: 03020015.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.21	Baseline Smoothing	zhangji	03/03/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/16 Client Sample ID: _____

Date Analyzed: 03/03/22 00:53 Lab File ID: 03020016.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	16.07	Baseline Smoothing	zhangji	03/03/
PETN	26.22	Baseline Smoothing	zhangji	03/03/

Lab Sample ID: IC 280-567560/17 Client Sample ID: _____

Date Analyzed: 03/03/22 01:28 Lab File ID: 03020017.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	16.06	Baseline Smoothing	zhangji	03/03/
2-Amino-4,6-dinitrotoluene	18.76	Baseline Smoothing	zhangji	03/03/
1,3,5-Trinitrobenzene	18.96	Baseline Smoothing	zhangji	03/03/
PETN	26.22	Baseline Smoothing	zhangji	03/03/

Lab Sample ID: IC 280-567560/18 Client Sample ID: _____

Date Analyzed: 03/03/22 02:03 Lab File ID: 03020018.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	16.05	Baseline Smoothing	zhangji	03/03/
2-Amino-4,6-dinitrotoluene	18.75	Baseline Smoothing	zhangji	03/03/
1,3,5-Trinitrobenzene	18.95	Baseline Smoothing	zhangji	03/03/
PETN	26.22	Baseline Smoothing	zhangji	03/03/

Lab Sample ID: ICV 280-567560/19 Client Sample ID: _____

Date Analyzed: 03/03/22 02:38 Lab File ID: 03020019.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,4-diamino-6-nitrotoluene	4.75	Incomplete Integration	zhangji	03/03/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 579374

Lab Sample ID: IC 280-579374/10 Client Sample ID: _____

Date Analyzed: 06/28/22 19:24 Lab File ID: 06280010.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.03	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/11 Client Sample ID: _____

Date Analyzed: 06/28/22 19:59 Lab File ID: 06280011.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.06	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/12 Client Sample ID: _____

Date Analyzed: 06/28/22 20:34 Lab File ID: 06280012.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.06	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/13 Client Sample ID: _____

Date Analyzed: 06/28/22 21:09 Lab File ID: 06280013.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.06	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/14 Client Sample ID: _____

Date Analyzed: 06/28/22 21:45 Lab File ID: 06280014.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.08	Baseline Smoothing	LV5D	06/30/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 579374

Lab Sample ID: IC 280-579374/15 Client Sample ID: _____

Date Analyzed: 06/28/22 22:20 Lab File ID: 06280015.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
PETN	26.06	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/16 Client Sample ID: _____

Date Analyzed: 06/28/22 22:55 Lab File ID: 06280016.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.86	Baseline Smoothing	LV5D	06/30/
PETN	26.08	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/17 Client Sample ID: _____

Date Analyzed: 06/28/22 23:30 Lab File ID: 06280017.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.87	Baseline Smoothing	LV5D	06/30/
2-Amino-4,6-dinitrotoluene	18.60	Baseline Smoothing	LV5D	06/29/
1,3,5-Trinitrobenzene	18.77	Baseline Smoothing	LV5D	06/29/
PETN	26.07	Baseline Smoothing	LV5D	06/30/

Lab Sample ID: IC 280-579374/18 Client Sample ID: _____

Date Analyzed: 06/29/22 00:05 Lab File ID: 06280018.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.83	Baseline Smoothing	LV5D	06/30/
2-Amino-4,6-dinitrotoluene	18.57	Baseline Smoothing	LV5D	06/29/
1,3,5-Trinitrobenzene	18.76	Baseline Smoothing	LV5D	06/29/
PETN	26.05	Baseline Smoothing	LV5D	06/30/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: CCV 280-593191/7 Client Sample ID: _____

Date Analyzed: 11/11/22 15:51 Lab File ID: 11110007.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.58	Baseline Smoothing	LV5D	11/11/
PETN	25.76	Baseline Smoothing	LV5D	11/11/

Lab Sample ID: 280-168718-1 Client Sample ID: X3-SS-C01-0006

Date Analyzed: 11/11/22 17:36 Lab File ID: 11110012.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-2 Client Sample ID: FD-11012201

Date Analyzed: 11/11/22 18:11 Lab File ID: 11110013.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-3 Client Sample ID: X3-SS-C02-0006

Date Analyzed: 11/11/22 18:46 Lab File ID: 11110014.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
4-Nitrotoluene		Invalid Compound ID	LV5D	11/11/
Nitroglycerin		Invalid Compound ID	LV5D	11/11/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: 280-168718-5 Client Sample ID: X3-SS-C04-0006

Date Analyzed: 11/11/22 19:21 Lab File ID: 11110015.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/11/

Lab Sample ID: 280-168718-7 Client Sample ID: X3-SS-C05-0006

Date Analyzed: 11/11/22 19:56 Lab File ID: 11110016.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/11/
2-Nitrotoluene		Baseline Smoothing	LV5D	11/11/
4-Amino-2,6-dinitrotoluene	17.22	Baseline Smoothing	LV5D	11/11/
2-Amino-4,6-dinitrotoluene	18.17	Baseline Smoothing	LV5D	11/11/

Lab Sample ID: CCV 280-593191/18 Client Sample ID: _____

Date Analyzed: 11/11/22 21:05 Lab File ID: 11110018.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.50	Baseline Smoothing	LV5D	11/12/
PETN	25.70	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: 280-168718-9 Client Sample ID: X3-SS-CO6-0006

Date Analyzed: 11/11/22 21:40 Lab File ID: 11110019.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: 280-168718-9 MS Client Sample ID: X3-SS-CO6-0006 MS

Date Analyzed: 11/11/22 22:15 Lab File ID: 11110020.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.42	Baseline Smoothing	LV5D	11/12/
2-Amino-4,6-dinitrotoluene	18.20	Baseline Smoothing	LV5D	11/12/
1,3,5-Trinitrobenzene	18.34	Baseline Smoothing	LV5D	11/12/
Tetryl	23.76	Baseline Smoothing	LV5D	11/12/
2,4,6-Trinitrotoluene	24.56	Baseline Smoothing	LV5D	11/12/
PETN	25.60	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: 280-168718-9 MSD Client Sample ID: X3-SS-CO6-0006 MSD

Date Analyzed: 11/11/22 22:50 Lab File ID: 11110021.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.44	Baseline Smoothing	LV5D	11/12/
2-Nitrotoluene	16.27	Baseline Smoothing	LV5D	11/12/
4-Nitrotoluene	16.54	Baseline Smoothing	LV5D	11/12/
4-Amino-2,6-dinitrotoluene	17.17	Baseline Smoothing	LV5D	11/12/
3-Nitrotoluene	17.52	Baseline Smoothing	LV5D	11/12/
2-Amino-4,6-dinitrotoluene	18.21	Baseline Smoothing	LV5D	11/12/
1,3,5-Trinitrobenzene	18.36	Baseline Smoothing	LV5D	11/12/
Tetryl	23.81	Baseline Smoothing	LV5D	11/12/
2,4,6-Trinitrotoluene	24.61	Baseline Smoothing	LV5D	11/12/
PETN	25.63	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: 280-168718-9 DU Client Sample ID: X3-SS-CO6-0006 DU

Date Analyzed: 11/11/22 23:25 Lab File ID: 11110022.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: 280-168718-9 TRL Client Sample ID: X3-SS-CO6-0006 TRL

Date Analyzed: 11/12/22 00:00 Lab File ID: 11110023.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

Lab Sample ID: 280-168718-11 Client Sample ID: X7B-SS-C01-0006

Date Analyzed: 11/12/22 00:35 Lab File ID: 11110024.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
3-Nitrotoluene		Invalid Compound ID	LV5D	11/12/
Nitroglycerin		Invalid Compound ID	LV5D	11/12/
PETN		Invalid Compound ID	LV5D	11/12/
Tetryl		Invalid Compound ID	LV5D	11/12/
2-Nitrotoluene	16.36	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: 280-168718-12 Client Sample ID: X7-TP-C01-5460

Date Analyzed: 11/12/22 01:10 Lab File ID: 11110025.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

Lab Sample ID: 280-168718-13 Client Sample ID: X7-TP-C02-3648

Date Analyzed: 11/12/22 01:45 Lab File ID: 11110026.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	11/12/
Picric acid		Invalid Compound ID	LV5D	11/12/

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: 280-168718-15 Client Sample ID: X7-TP-C04-4248

Date Analyzed: 11/12/22 02:55 Lab File ID: 11110028.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
HMX	6.61	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: CCV 280-593191/29 Client Sample ID: _____

Date Analyzed: 11/12/22 03:29 Lab File ID: 11110029.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.43	Baseline Smoothing	LV5D	11/12/
PETN	25.61	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: 280-168718-16 Client Sample ID: X3-SS-C07-0006

Date Analyzed: 11/12/22 04:04 Lab File ID: 11110030.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

Lab Sample ID: 280-168718-17 Client Sample ID: X3-SS-C08-0006

Date Analyzed: 11/12/22 04:39 Lab File ID: 11110031.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
2-Nitrotoluene		Invalid Compound ID	LV5D	11/12/
2-Amino-4,6-dinitrotoluene	18.12	Baseline Smoothing	LV5D	11/12/
1,3,5-Trinitrobenzene	18.32	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: CHHPLC_X5 Analysis Batch Number: 593191

Lab Sample ID: 280-168718-13 DL Client Sample ID: X7-TP-C02-3648 DL

Date Analyzed: 11/12/22 05:49 Lab File ID: 11110033.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/

Lab Sample ID: 280-168718-17 DL Client Sample ID: X3-SS-C08-0006 DL

Date Analyzed: 11/12/22 06:24 Lab File ID: 11110034.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin		Invalid Compound ID	LV5D	11/12/
PETN	25.71	Baseline Smoothing	LV5D	11/12/

Lab Sample ID: CCV 280-593191/35 Client Sample ID: _____

Date Analyzed: 11/12/22 06:59 Lab File ID: 11110035.D GC Column: Luna

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	D
Nitroglycerin	15.46	Baseline Smoothing	LV5D	11/12/
2-Nitrotoluene	16.31	Baseline Smoothing	LV5D	11/12/
4-Nitrotoluene	16.61	Baseline Smoothing	LV5D	11/12/
4-Amino-2,6-dinitrotoluene	17.21	Baseline Smoothing	LV5D	11/12/
3-Nitrotoluene	17.58	Baseline Smoothing	LV5D	11/12/
2-Amino-4,6-dinitrotoluene	18.20	Baseline Smoothing	LV5D	11/12/
1,3,5-Trinitrobenzene	18.42	Baseline Smoothing	LV5D	11/12/
PETN	25.63	Baseline Smoothing	LV5D	11/12/

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
3,5-DNA LCS_00039	01/24/22	07/24/21	Acetonitrile, Lot Acetonitrile 00053	100 mL	3,5-DNA Stock_00035	1 mL	3,5-Dinitroar
.3,5-DNA Stock_00035	07/24/22		Restek, Lot A0149736		(Purchased Reagent)		3,5-Dinitroar
3,5-DNA LCS_00040	04/24/22	01/25/22	Acetonitrile, Lot Acetonitrile 00053	100 mL	3,5-DNA Stock_00035	1 mL	3,5-Dinitroar
.3,5-DNA Stock_00035	07/24/22		Restek, Lot A0149736		(Purchased Reagent)		3,5-Dinitroar
3,5-DNA LCS_00042	01/25/23	11/08/22	Acetonitrile, Lot Acetonitrile 00065	100 mL	3,5-DNA Stock_00036	1 mL	3,5-Dinitroar
.3,5-DNA Stock_00036	04/25/23		Restek, Lot A0149736		(Purchased Reagent)		3,5-Dinitroar
8270_BKK_Supp_00024	02/28/23	02/28/22	P&T Methanol, Lot MethanolP&T_00282	50 mL	AlachlorStock_00019	0.8 mL	Alachlor
					OP-568023_00016	1 mL	Famphur
					OP-568023_00017	1 mL	Famphur
.AlachlorStock_00019	08/31/25		Ultra Scientific, Lot 0006616729		(Purchased Reagent)		Alachlor
.OP-568023_00016	03/31/22		Restek, Lot A0158873		(Purchased Reagent)		Famphur
.OP-568023_00017	03/31/22		Restek, Lot A0158873		(Purchased Reagent)		Famphur
8270_LCS_Main_00086	12/31/22	08/30/22	Methanol, Lot Methanol_00344	250 mL	MS-571995_00066	5 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorob 1,2-DiphenylH 1,3-Dichlorob 1,3-Dinitroben 1,4-Dichlorob 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitrotr 2,6-Dichlorop 2,6-Dinitrotr 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Methylphenol 3-Nitroanilin 4,6-Dinitro-2

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Methylphenc
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloroe
							Bis (2-chloroe
							Bis (2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) an
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Hexadecane
							Indeno[1,2,3-
							Isophorone
							n-Decane
							N-Nitrosodi-n
							N-Nitrosodime
							N-Nitrosodiph
							n-Octadecane
							Naphthalene
							Nitrobenzene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Pentachloroph Phenanthrene Phenol Pyrene Pyridine
					MS-571995_00067	5 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorob 1,2-DiphenylH 1,3-Dichlorob 1,3-Dinitroben 1,4-Dichlorob 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Methylphenol 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Methylphenol 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylene Acetophenone Aniline Anthracene Azobenzene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloro
							Bis (2-chloro
							Bis (2-ethyl
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachloroben
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Hexadecane
							Indeno[1,2,3-
							Isophorone
							n-Decane
							N-Nitrosodi-n
							N-Nitrosodime
							N-Nitrosodiph
							n-Octadecane
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
					MS-571995_00068	5 mL	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichloro
							1,2-Dichlorok
							1,2-Diphenylh
							1,3-Dichlorok
							1,3-Dinitroben
							1,4-Dichlorok

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,4-Dioxane
							1-Methylnapht
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop
							2,4-Dimethylp
							2,4-Dinitroph
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronapht
							2-Chlorophenc
							2-Methylnapht
							2-Methylphenc
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Methylphenc
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Methylphenc
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylen
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Di-n-octyl ph Dibenz (a,h) an Dibenzofuran Diethyl phtha Dimethyl phth Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocy Hexachloroeth Hexadecane Indeno[1,2,3- Isophorone n-Decane N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph n-Octadecane Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
					MS-571995_00069	2 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorob 1,2-DiphenylH 1,3-Dichlorob 1,3-Dinitroben 1,4-Dichlorob 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2-Chlorophenol
							2-Methylnaphthalene
							2-Methylphenol
							2-Nitroaniline
							2-Nitrophenol
							3 & 4 Methylphenol
							3-Methylphenol
							3-Nitroaniline
							4,6-Dinitro-2-naphthol
							4-Bromophenylamine
							4-Chloro-3-methylphenol
							4-Chloroaniline
							4-Chlorophenylamine
							4-Methylphenol
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl)amine
							Bis(2-chloroethyl)ether
							Bis(2-ethylhexyl)amine
							Butyl benzylamine
							Carbazole
							Chrysene
							Di-n-butyl phthalate
							Di-n-octyl phthalate
							Dibenz(a,h)anthracene
							Dibenzofuran
							Diethyl phthalate
							Dimethyl phthalate
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorobenzene
							Hexachlorobutadiene
							Hexachlorocyclopentadiene
							Hexachloroethane
							Hexadecane

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Indeno[1,2,3- Isophorone n-Decane N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph n-Octadecane Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
					MS-571995_00070	3 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Methylphenol 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Methylphenol
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl) ether
							Bis(2-ethylhexyl) ether
							Butyl benzyl ether
							Carbazole
							Chrysene
							Di-n-butyl phthalate
							Di-n-octyl phthalate
							Dibenz(a,h)anthracene
							Dibenzofuran
							Diethyl phthalate
							Dimethyl phthalate
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorobenzene
							Hexachlorobutadiene
							Hexachlorocyclopentadiene
							Hexachloroethane
							Hexadecane
							Indeno[1,2,3-cd]perylene
							Isophorone
							n-Decane
							N-Nitrosodimethylamine
							N-Nitrosodiphenylamine
							n-Octadecane
							Naphthalene
							Nitrobenzene
							Pentachlorophenol
							Phenanthrene
							Phenol
							Pyrene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Pyridine
					OP-569731_00060	5 mL	Benzoic acid
							Indene
					OP-569731_00061	5 mL	Benzoic acid
							Indene
					OP-572556_00048	3 mL	Hexachlorocyclo
					OP-572556_00051	2 mL	Hexachlorocyclo
					OP-572556_00053	5 mL	Hexachlorocyclo
.MS-571995_00066	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorobenzene 1,2-Diphenylmethane 1,3-Dichlorobenzene 1,3-Dinitrobenzene 1,4-Dichlorobenzene 1,4-Dioxane 1-Methylnaphthalene 2,2'-oxybis[1,3-dichlorobenzene] 2,3,4,6-Tetrahydrophthalonitrile 2,4,5-Trichlorobenzene 2,4,6-Trichlorobenzene 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dichlorophenol 2,6-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 2-Methylnaphthalene 2-Methylphenol 2-Nitroaniline 2-Nitrophenol 3 & 4 Methylphenol 3-Methylphenol 3-Nitroaniline 4,6-Dinitro-2-naphthol 4-Bromophenyl 4-Chloro-3-methylphenol 4-Chloroaniline 4-Chlorophenol 4-Methylphenol 4-Nitroaniline 4-Nitrophenol Acenaphthene Acenaphthylene Acetophenone

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)an
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Hexadecane
							Indeno[1,2,3-
							Isophorone
							n-Decane
							N-Nitrosodi-r
N-Nitrosodime							
N-Nitrosodiph							
n-Octadecane							
Naphthalene							
Nitrobenzene							
Pentachloroph							
Phenanthrene							
Phenol							
Pyrene							
Pyridine							
.MS-571995_00067	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichlo
							1,2-Dichlorob
							1,2-DiphenylH

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,3-Dichlorob
							1,3-Dinitroben
							1,4-Dichlorob
							1,4-Dioxane
							1-Methylnapht
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop
							2,4-Dimethylp
							2,4-Dinitrophen
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronapht
							2-Chlorophenol
							2-Methylnapht
							2-Methylphenol
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Methylphenol
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Methylphenol
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Carbazole Chrysene Di-n-butyl ph Di-n-octyl ph Dibenz(a,h)ar Dibenzofuran Diethyl phtha Dimethyl phth Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocyc Hexachloroeth Hexadecane Indeno[1,2,3- Isophorone n-Decane N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph n-Octadecane Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
.MS-571995_00068	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnaph 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitroph 2,4-Dinitroto

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,6-Dichlorop
							2,6-Dinitro
							2-Chloronapht
							2-Chlorophen
							2-Methylnapht
							2-Methylphen
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Methylphen
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Methylphen
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylen
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)an
							Dibenzofuran
							Diethyl phta
							Dimethyl pht
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Hexachlorocyclo Hexachloroeth Hexadecane Indeno[1,2,3- Isophorone n-Decane N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph n-Octadecane Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
.MS-571995_00069	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorob 1,2-DiphenylH 1,3-Dichlorob 1,3-Dinitroben 1,4-Dichlorob 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitroph 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Methylphenc 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Methylphenc
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl pth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Hexadecane
							Indeno[1,2,3-
							Isophorone
							n-Decane
							N-Nitrosodi-n
							N-Nitrosodime
							N-Nitrosodiph
							n-Octadecane
							Naphthalene
							Nitrobenzene
							Pentachloroph

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-571995_00070	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	Phenanthrene Phenol Pyrene Pyridine 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Methylphenol 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Methylphenol 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylene Acetophenone Aniline Anthracene Azobenzene Benzo[a]anthr

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloroe
							Bis (2-chloroe
							Bis (2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) an
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Hexadecane
							Indeno[1,2,3-
							Isophorone
							n-Decane
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							n-Octadecane
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
.OP-569731_00060	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
.OP-569731_00061	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Indene
.OP-572556_00048	08/30/23		Restek, Lot A0171978			(Purchased Reagent)	Benzoic acid
.OP-572556_00051	08/01/23		Restek, Lot A0171978			(Purchased Reagent)	Indene
.OP-572556_00053	08/30/23		Restek, Lot A0186275			(Purchased Reagent)	Hexachlorocyc
8270_LCS_Supp_00522	11/10/22	11/03/22	P&T Methanol, Lot Methanol_00330	50 mL	OP-569730_00173	4 mL	3,3'-Dichloro

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
					OP-569732.SEC_00007	1 mL	Benzidine Atrazine Benzaldehyde Caprolactam
					OP-569732.SEC_00010	1 mL	Atrazine Benzaldehyde Caprolactam
.OP-569730_00173	07/31/23		Restek, Lot A0181121		(Purchased Reagent)		3,3'-Dichloro Benzidine
.OP-569732.SEC_00007	11/30/22		Restek, Lot A0172244		(Purchased Reagent)		Atrazine Benzaldehyde Caprolactam
.OP-569732.SEC_00010	11/30/22		Restek, Lot A0172244		(Purchased Reagent)		Atrazine Benzaldehyde Caprolactam
8270Surrogate_00166	10/21/23	10/21/22	ACETONE, Lot Acetone_00766	1000 mL	MS-567685_00041	5 mL	2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-567685_00042	5 mL	2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-567685_00043	5 mL	2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-567685_00044	5 mL	2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
.MS-567685_00041	04/30/27		Restek, Lot A0184539		(Purchased Reagent)		2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-567685_00042	04/30/27		Restek, Lot A0184539		(Purchased Reagent)		Nitrobenzene-Phenol-d5 (Su Terphenyl-d14 2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene-Phenol-d5 (Su Terphenyl-d14
.MS-567685_00043	04/30/27		Restek, Lot A0184539		(Purchased Reagent)		2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene-Phenol-d5 (Su Terphenyl-d14
.MS-567685_00044	04/30/27		Restek, Lot A0184539		(Purchased Reagent)		2,4,6 - Tribrom 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene-Phenol-d5 (Su Terphenyl-d14
8330 LCS_00111	05/12/22	11/12/21	Acetonitrile, Lot Acetonitrile_00059	100 mL	8330_NG_Stk_00097	1 mL	Nitroglycerin
					8330_NG_Stk_00107	1 mL	Nitroglycerin
					8330_PETN_Stk_00114	1 mL	PETN
					8330_PETN_Stk_00117	1 mL	PETN
					8330LCSmix1_00129	1 mL	1,3,5-Trinitro
							1,3-Dinitro
							2,4,6-Trinitro
							2,4-Dinitro
							HMX
					8330LCSmix2_00028	1 mL	Nitrobenzene
RDX							
2,6-Dinitro							
2-Amino-4,6-c							
2-Nitrotoluen							
PicricARestek_00100	1 mL	3-Nitrotoluen					
		4-Amino-2,6-c					
		4-Nitrotoluen					
		Tetryl					
.8330 NG Stk 00097	06/30/23		Restek, Lot A0161480		(Purchased Reagent)	Nitroglycerin	
.8330 NG Stk 00107	05/31/23		Restek, Lot A0161120		(Purchased Reagent)	Nitroglycerin	
.8330 PETN Stk 00114	05/31/24		Restek, Lot A0172687		(Purchased Reagent)	PETN	
.8330 PETN Stk 00117	05/31/24		Restek, Lot A0172687		(Purchased Reagent)	PETN	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.8330LCSMix1_00129	04/30/26		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitro 1,3-Dinitro 2,4,6-Trinitro 2,4-Dinitro HMX Nitrobenzene RDX
.8330LCSmix2_00028	04/30/26		Restek, Lot A0171368		(Purchased Reagent)		2,6-Dinitro 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen Tetryl
.PicricARestek 00100	11/30/25		Restek, Lot A0166597		(Purchased Reagent)		Picric acid
8330 LCS_00114	09/01/22	06/21/22	Acetonitrile, Lot Acetonitrile_00063	100 mL	8330_NG_Stk_00108	1 mL	Nitroglycerin
					8330_NG_Stk_00109	1 mL	Nitroglycerin
					8330_PETN_Stk_00110	1 mL	PETN
					8330_PETN_Stk_00119	1 mL	PETN
					8330LCSMix1_00125	1 mL	1,3,5-Trinitro 1,3-Dinitro 2,4,6-Trinitro 2,4-Dinitro HMX Nitrobenzene RDX
					8330LCSmix2_00015	1 mL	2,6-Dinitro 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen Tetryl
					PicricARestek 00101	1 mL	Picric acid
.8330 NG Stk 00108	06/21/23		Restek, Lot A0183499		(Purchased Reagent)		Nitroglycerin
.8330 NG Stk 00109	06/21/23		Restek, Lot A0183499		(Purchased Reagent)		Nitroglycerin
.8330 PETN Stk 00110	06/21/23		Restek, Lot A0172687		(Purchased Reagent)		PETN
.8330 PETN Stk 00119	06/21/23		Restek, Lot A0168448		(Purchased Reagent)		PETN
.8330LCSMix1_00125	06/21/23		Restek, Lot A0171502		(Purchased Reagent)		1,3,5-Trinitro 1,3-Dinitro 2,4,6-Trinitro 2,4-Dinitro HMX Nitrobenzene RDX
.8330LCSmix2_00015	06/21/23		Restek, Lot A0157533		(Purchased Reagent)		2,6-Dinitro 2-Amino-4,6-c

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.PicricARestek_00101	06/21/23		Restek, Lot A0175186			(Purchased Reagent)	2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen Tetryl Picric acid
8330 LCS_00116	03/16/23	10/06/22	Acetonitrile, Lot Acetonitrile_00065	50 mL	8330_NG_Stk_00113	1 mL	Nitroglycerin
					8330_PETN_Stk_00120	1 mL	PETN
					8330LCSMix1_00120	0.5 mL	1,3,5-Trinitr
							1,3-Dinitrobe
							2,4,6-Trinitr
					8330LCSmix2_00029	0.15 mL	2,4-Dinitroto
							HMX
Nitrobenzene							
8330LCSmix2_00031	0.35 mL	RDX					
		2,6-Dinitroto					
		2-Amino-4,6-c					
		2-Nitrotoluen					
		3-Nitrotoluen					
8330LCSmix2_00031	0.35 mL	4-Amino-2,6-c					
		4-Nitrotoluen					
PicricARestek_00103	0.5 mL	Picric acid					
.8330 NG Stk 00113	03/31/25		Restek, Lot A0183499			(Purchased Reagent)	Nitroglycerin
.8330 PETN Stk 00120	07/31/25		Restek, Lot A0187506			(Purchased Reagent)	PETN
.8330LCSMix1_00120	03/16/22		Restek, Lot A0163590			(Purchased Reagent)	1,3,5-Trinitr 1,3-Dinitrobe 2,4,6-Trinitr 2,4-Dinitroto HMX Nitrobenzene RDX
.8330LCSmix2_00029	09/21/23		Restek, Lot A0178262			(Purchased Reagent)	2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen Tetryl
.8330LCSmix2_00031	10/06/23		Restek, Lot A0178262			(Purchased Reagent)	2,6-Dinitroto

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen Tetryl
.PicricARestek 00103	07/26/23		Restek, Lot A0175186			(Purchased Reagent)	Picric acid
8330 LCS_00117	04/19/23	10/19/22	Acetonitrile, Lot Acetonitrile_00069	50 mL	8330_NG_Stk_00111	1 mL	Nitroglycerin
					8330_PETN_Stk_00122	1 mL	PETN
					8330LCSMix1_00136	0.5 mL	1,3,5-Trinitr
							1,3-Dinitroben
							2,4,6-Trinitr
8330LCSmix2_00032	0.5 mL	2,4-Dinitroto					
		HMX					
		Nitrobenzene					
							RDX
.8330 NG Stk 00111	10/19/23		Restek, Lot A0183499			(Purchased Reagent)	Nitroglycerin
.8330 PETN Stk 00122	10/19/23		Restek, Lot A0187506			(Purchased Reagent)	PETN
.8330LCSMix1_00136	10/19/23		Restek, Lot A0171502			(Purchased Reagent)	1,3,5-Trinitr
							1,3-Dinitroben
							2,4,6-Trinitr
							2,4-Dinitroto
							HMX
.8330LCSmix2_00032	10/19/23		Restek, Lot A0178262			(Purchased Reagent)	2,6-Dinitroto
							2-Amino-4,6-c
							2-Nitrotoluen
.PicricARestek 00104	10/19/23		Restek, Lot A0175186			(Purchased Reagent)	3-Nitrotoluen
							4-Amino-2,6-c
							4-Nitrotoluen
							Tetryl
							Picric acid
8330_ADDs_00030	02/14/22	12/02/21	Acetonitrile, Lot 211161	5 mL	2,4Diamino6NT_00080	1 mL	2,4-diamino-6
					2,6Diamino4NT_00084	1 mL	2,6-diamino-4
					833035DNASTk_00046	1 mL	3,5-Dinitroar
.2,4Diamino6NT_00080	12/02/22		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.2,6Diamino4NT_00084	09/03/22		AccuStandard, Lot 219071008-01			(Purchased Reagent)	2,6-diamino-4
.833035DNASTk_00046	02/14/22		Accustandard, Lot 220051175-01			(Purchased Reagent)	3,5-Dinitroar
8330_ADDs_00031	08/12/22	02/12/22	Acetonitrile, Lot 211161	5 mL	2,4Diamino6NT_00081	1 mL	2,4-diamino-6
					2,6Diamino4NT_00082	1 mL	2,6-diamino-4
					833035DNASTk_00048	1 mL	3,5-Dinitroar
.2,4Diamino6NT_00081	01/16/23		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6
.2,6Diamino4NT_00082	09/03/22		AccuStandard, Lot 219071008-01			(Purchased Reagent)	2,6-diamino-4
.833035DNASTk_00048	10/01/22		Accustandard, Lot 220051175-02			(Purchased Reagent)	3,5-Dinitroar
8330_ADDs_00033	01/16/23	09/30/22	Acetonitrile, Lot ACN_237	5 mL	2,4Diamino6NT_00089	1 mL	2,4-diamino-6
					2,6Diamino4NT_00092	1 mL	2,6-diamino-4
					833035DNASTk_00051	1 mL	3,5-Dinitroar
.2,4Diamino6NT_00089	01/16/23		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6
.2,6Diamino4NT_00092	10/14/23		AccuStandard, Lot 219071008-02			(Purchased Reagent)	2,6-diamino-4
.833035DNASTk_00051	03/01/23		Accustandard, Lot 222011692			(Purchased Reagent)	3,5-Dinitroar
8330DiaminLCS_00045	12/08/22	12/08/21	Acetonitrile, Lot Acetonitrile_00059	10 mL	2,4Diamino6NT_00085	1 mL	2,4-diamino-6
					2,6Diamino4NT_00088	1 mL	2,6-diamino-4
.2,4Diamino6NT_00085	12/08/22		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6
.2,6Diamino4NT_00088	12/08/22		AccuStandard, Lot 219071008-02			(Purchased Reagent)	2,6-diamino-4
8330DiaminLCS_00047	11/12/22	02/05/22	Acetonitrile, Lot Acetonitrile_00059	10 mL	2,4Diamino6NT_00087	1 mL	2,4-diamino-6
					2,6Diamino4NT_00090	1 mL	2,6-diamino-4
.2,4Diamino6NT_00087	01/16/23		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6
.2,6Diamino4NT_00090	02/05/23		AccuStandard, Lot 219071008-02			(Purchased Reagent)	2,6-diamino-4
8330DiaminLCS_00048	01/16/23	07/19/22	Acetonitrile, Lot Acetonitrile_00063	10 mL	2,4Diamino6NT_00088	1 mL	2,4-diamino-6
					2,6Diamino4NT_00091	1 mL	2,6-diamino-4
.2,4Diamino6NT_00088	01/16/23		AccuStandard, Lot 220121267			(Purchased Reagent)	2,4-diamino-6
.2,6Diamino4NT_00091	07/19/23		AccuStandard, Lot 219071008-02			(Purchased Reagent)	2,6-diamino-4
8330IntermStk_00070	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00006	1 mL	Nitroglycerin
					8330_PETN1000_00006	1 mL	PETN
					8330ICALStock_00032	1 mL	1,3,5-Trinitro 1,3-Dinitrobenz 2,4,6-Trinitro 2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen HMX Nitrobenzene RDX

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Tetryl 1,2-Dinitrobenzene Picric acid
.8330 NG1000_00006	01/04/23		Restek, Lot A0175997				Nitroglycerin
.8330 PETN1000_00006	01/04/23		Restek, Lot A0175907				PETN
.8330ICALStock_00032	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00019	1 mL	1,3,5-Trinitrobenzene 1,3-Dinitrobenzene 2,4,6-Trinitrobenzene 2,4-Dinitrobenzene 2,6-Dinitrobenzene 2-Amino-4,6-dinitrobenzene 2-Nitrotoluene 3-Nitrotoluene 4-Amino-2,6-dinitrobenzene 4-Nitrotoluene HMX Nitrobenzene RDX Tetryl
..8330 Stock_TS_00019	03/31/22		Ultra Scientific, Lot CT-0801				1,2-Dinitrobenzene 1,3,5-Trinitrobenzene 1,3-Dinitrobenzene 2,4,6-Trinitrobenzene 2,4-Dinitrobenzene 2,6-Dinitrobenzene 2-Amino-4,6-dinitrobenzene 2-Nitrotoluene 3-Nitrotoluene 4-Amino-2,6-dinitrobenzene 4-Nitrotoluene HMX Nitrobenzene RDX Tetryl
..8330SurrStock_00169	01/04/23		AccuStandard, Lot 219051500				1,2-Dinitrobenzene
.8330PASTkPS_00067	07/08/22		AccuStandard, Lot 218031154-02				Picric acid
8330IntermStk_00072	07/08/22	04/20/22	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00009	1 mL	Nitroglycerin
					8330_PETN1000_00009	1 mL	PETN
					8330ICALStock_00033	1 mL	1,3,5-Trinitrobenzene 1,3-Dinitrobenzene 2,4,6-Trinitrobenzene 2,4-Dinitrobenzene 2,6-Dinitrobenzene 2-Amino-4,6-dinitrobenzene 2-Nitrotoluene 3-Nitrotoluene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Amino-2,6-c 4-Nitrotoluen HMX Nitrobenzene RDX Tetryl 1,2-Dinitroben Picric acid
.8330 NG1000 00009	04/20/23		Restek, Lot A0175997		8330PASTkPS_00068	1 mL	(Purchased Reagent) Nitroglycerin
.8330 PETN1000 00009	04/20/23		Restek, Lot A0178439				(Purchased Reagent) PETN
.8330ICALStock_00033	04/01/23	04/01/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00021	1 mL	1,3,5-Trinitro 1,3-Dinitroben 2,4,6-Trinitro 2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen HMX Nitrobenzene RDX Tetryl
..8330 Stock_TS_00021	04/01/23		Agilent, Lot 0006604365		8330SurrStock_00170	1 mL	(Purchased Reagent) 1,3,5-Trinitro 1,3-Dinitroben 2,4,6-Trinitro 2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluen 3-Nitrotoluen 4-Amino-2,6-c 4-Nitrotoluen HMX Nitrobenzene RDX Tetryl
..8330SurrStock_00170	04/01/23		AccuStandard, Lot 219051500				(Purchased Reagent) 1,2-Dinitroben
.8330PASTkPS_00068	07/08/22		AccuStandard, Lot 218031154-02				(Purchased Reagent) Picric acid
8330IntermStk_00074	03/31/23	09/30/22	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00008	1 mL	Nitroglycerin
					8330 PETN1000 00007	1 mL	PETN
					8330ICALStock_00033	1 mL	1,3,5-Trinitro 1,3-Dinitroben 2,4,6-Trinitro

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluer 3-Nitrotoluer 4-Amino-2,6-c 4-Nitrotoluer HMX Nitrobenzene RDX Tetryl 1,2-Dinitrobo
.8330 NG1000_00008	09/30/23		Restek, Lot A0175997		8330PASTkPS_00069	1 mL	Picric acid
.8330 PETN1000_00007	09/30/23		Restek, Lot A0175907		(Purchased Reagent)		Nitroglycerin
.8330ICALStock_00033	04/01/23	04/01/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00021	1 mL	PETN 1,3,5-Trinitr
							1,3-Dinitrobo 2,4,6-Trinitr 2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluer 3-Nitrotoluer 4-Amino-2,6-c 4-Nitrotoluer HMX Nitrobenzene RDX Tetryl
..8330 Stock_TS_00021	04/01/23		Agilent, Lot 0006604365		8330SurrStock_00170	1 mL	1,2-Dinitrobo 1,3,5-Trinitr 1,3-Dinitrobo 2,4,6-Trinitr 2,4-Dinitroto 2,6-Dinitroto 2-Amino-4,6-c 2-Nitrotoluer 3-Nitrotoluer 4-Amino-2,6-c 4-Nitrotoluer HMX Nitrobenzene RDX Tetryl
..8330SurrStock_00170	04/01/23		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobo
.8330PASTkPS_00069	08/07/23		AccuStandard, Lot 218031154-03		(Purchased Reagent)		Picric acid

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
8330Surrogate_00127	05/16/22	11/16/21	Acetonitrile, Lot Acetonitrile_00059	500 mL	8330SurrStkSS_00203	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00204	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00207	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00211	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00212	1 mL	1,2-Dinitrobenzene
.8330SurrStkSS_00203	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00204	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00207	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00211	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00212	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
8330Surrogate_00128	07/21/22	01/21/22	Acetonitrile, Lot Acetonitrile_00059	500 mL	8330SurrStkSS_00205	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00206	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00208	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00209	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00210	1 mL	1,2-Dinitrobenzene
.8330SurrStkSS_00205	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00206	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00208	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00209	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00210	05/30/26		Restek, Lot A0172684		(Purchased Reagent)	1,2-Dinitrobenzene	
8330Surrogate_00129	12/15/22	06/15/22	Acetonitrile, Lot Acetonitrile_00066	500 mL	8330SurrStkSS_00213	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00214	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00215	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00216	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00217	1 mL	1,2-Dinitrobenzene
.8330SurrStkSS_00213	06/15/23		Restek, Lot A0179479		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00214	06/15/23		Restek, Lot A0179479		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00215	06/15/23		Restek, Lot A0179479		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00216	06/15/23		Restek, Lot A0179479		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00217	06/15/23		Restek, Lot A0179479		(Purchased Reagent)	1,2-Dinitrobenzene	
8330Surrogate_00131	12/15/22	10/18/22	Acetonitrile, Lot Acetonitrile_00066	500 mL	8330SurrStkSS_00223	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00224	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00225	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00226	1 mL	1,2-Dinitrobenzene
					8330SurrStkSS_00227	1 mL	1,2-Dinitrobenzene
.8330SurrStkSS_00223	10/18/23		Restek, Lot A0186579		(Purchased Reagent)	1,2-Dinitrobenzene	
.8330SurrStkSS_00224	06/30/23		Restek, Lot A0186579		(Purchased Reagent)	1,2-Dinitrobenzene	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.8330SurrStkSS_00225	10/18/23		Restek, Lot A0186579		(Purchased Reagent)		1,2-Dinitrobenzene
.8330SurrStkSS_00226	10/18/23		Restek, Lot A0186579		(Purchased Reagent)		1,2-Dinitrobenzene
.8330SurrStkSS_00227	10/18/23		Restek, Lot A0186579		(Purchased Reagent)		1,2-Dinitrobenzene
HSL SSV B3_00009	01/07/23	10/17/22	Methylene Chloride, Lot 00562	0.5 mL	MS-IS_00029	50 ugACE/L	1,4-Dichlorobenzene
.MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	Acenaphthene-d12
					MS-567684_00026	5 mL	Chrysene-d12
							Naphthalene-d12
							Perylene-d12
							Phenanthrene-d12
.MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorobenzene
							Acenaphthene-d12
							Chrysene-d12
							Naphthalene-d12
							Perylene-d12
							Phenanthrene-d12
.MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorobenzene
							Acenaphthene-d12
							Chrysene-d12
							Naphthalene-d12
							Perylene-d12
							Phenanthrene-d12
MS-DFTPP_00057							Aramite, Total
							Diallate
							Isosafrole
							Methyl Phenol
							Tentatively Identified
							Compound
							Total Cresols
							TPAH

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
					MS-31615_00005	0.5 mL	4,4'-DDD 4,4'-DDE 4,4'-DDT Benzidine_T DFTPP Pentachloroph
.MS-31615_00005	10/29/23		Restek, Lot A0179925			(Purchased Reagent)	4,4'-DDD 4,4'-DDE 4,4'-DDT Benzidine_T DFTPP Pentachloroph
MS-DFTPP_00058							Aramite, Total Diallate Isosafrole Methyl Phenol Tentatively I Compound Total Cresols TPAH
					MS-31615_00005	0.5 mL	4,4'-DDD 4,4'-DDE 4,4'-DDT Benzidine_T DFTPP Pentachloroph
.MS-31615_00005	10/29/23		Restek, Lot A0179925			(Purchased Reagent)	4,4'-DDD 4,4'-DDE 4,4'-DDT Benzidine_T DFTPP Pentachloroph
MS-DFTPP_00059							Aramite, Total Diallate Isosafrole Methyl Phenol Tentatively I Compound Total Cresols TPAH
					MS-31615_00002	0.5 mL	4,4'-DDD 4,4'-DDE 4,4'-DDT Benzidine_T DFTPP Pentachloroph
.MS-31615_00002	05/31/23		Restek, Lot A0161015			(Purchased Reagent)	4,4'-DDD

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4,4'-DDE 4,4'-DDT Benzidine T DFTPP Pentachloroph
MS-FAB080_00003	11/06/22	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00569	0.5 mL	MS-IS_00028	50 uL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLA004_00075	11/23/22	08/25/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	10 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophen Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,2-Dichlorobenzene
							1,2-Diphenylhydrazine
							1,3-Dichlorobenzene
							1,3-Dinitrobenzene
							1,4-Dichlorobenzene
							1,4-Dioxane
							1-Methylnaphthalene
							2,2'-oxybis[1,2-dichlorobenzene]
							2,3,4,6-Tetrachlorobenzene
							2,4,5-Trichlorobenzene
							2,4,6-Trichlorobenzene
							2,4-Dichlorobenzene
							2,4-Dimethylphenol
							2,4-Dinitrophenol
							2,4-Dinitrotoluene
							2,6-Dichlorobenzene
							2,6-Dinitrotoluene
							2-Chloronaphthalene
							2-Chlorophenol
							2-Methylnaphthalene
							2-Methylphenol
							2-Nitroaniline
							2-Nitrophenol
							3 & 4 Methylphenol
							3-Nitroaniline
							4,6-Dinitro-2-naphthol
							4-Bromophenyl
							4-Chloro-3-methylphenol
							4-Chloroaniline
							4-Chlorophenyl
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl) ether
							Bis(2-chloroethyl) ether
							Bis(2-ethylhexyl) ether
							Butyl benzyl ether

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
3,3'-Dichloro							
Benzoic acid							
Atrazine							
Caprolactam							
					MS-IS_00029	50 uL	1,4-Dichlorok
					Acenaphthene-		
					Chrysene-d12		
					Naphthalene-c		
					Perylene-d12		
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichl

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,2-Dichlorobenzene
							1,2-Diphenylhydrazine
							1,3-Dichlorobenzene
							1,3-Dinitrobenzene
							1,4-Dichlorobenzene
							1,4-Dioxane
							1-Methylnaphthalene
							2,2'-oxybis[1,2-dichloroethane]
							2,3,4,6-Tetrachloro-1,3,5-triazine
							2,4,5-Trichlorobenzene
							2,4,6-Trichlorobenzene
							2,4-Dichlorophenol
							2,4-Dimethylphenol
							2,4-Dinitrophenol
							2,4-Dinitrotoluene
							2,6-Dichlorophenol
							2,6-Dinitrotoluene
							2-Chloronaphthalene
							2-Chlorophenol
							2-Methylnaphthalene
							2-Methylphenol
							2-Nitroaniline
							2-Nitrophenol
							3 & 4 Methylphenol
							3-Nitroaniline
							4,6-Dinitro-2-naphthol
							4-Bromophenyl
							4-Chloro-3-methylphenol
							4-Chloroaniline
							4-Chlorophenyl
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl) ether
							Bis(2-chloroethyl) ether
							Bis(2-ethylhexyl) ether
							Butyl benzyl ether

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Carbazole Chrysene Di-n-butyl ph Di-n-octyl ph Dibenz(a,h)ar Dibenzofuran Diethyl phtha Dimethyl phth Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine OP-569730_00150 1 mL 3,3'-Dichloro OP-569731_00066 2 mL Benzoic acid OP-569732_00110 1 mL Atrazine
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807			(Purchased Reagent)	Caprolactam 2,4,6-Tribrom 2-Fluorobiphe 2-Fluoropheno Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop
							2,4-Dimethylp
							2,4-Dinitrophen
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronapht
							2-Chlorophenol
							2-Methylnapht
							2-Methylphenol
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)an
							Dibenzofuran
							Diethyl phtha

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Dimethyl pht Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichloro
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
MS-HSLA010_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	25 uL	Phenanthrene- 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylen Acetophenone Aniline

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)an
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
							3,3'-Dichloro
							Benzoic acid
							Atrazine
							Caprolactam
					MS-IS_00028	50 uL	1,4-Dichlorok
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
							Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	Phenanthrene- 2,4,6-Tribrom
							2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-DiphenylH 1,3-Dichlorok 1,3-Dinitrobe 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitroph 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylen Acetophenone Aniline

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A	
					Reagent ID	Volume Added		
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807				Anthracene	
							Azobenzene	
							Benzo[a]anthr	
							Benzo[a]pyren	
							Benzo[b]fluor	
							Benzo[g,h,i]p	
							Benzo[k]fluor	
							Benzyl alcoh	
							Bis (2-chloro	
							Bis (2-chloro	
							Bis (2-ethyl	
							Butyl benzyl	
							Carbazole	
							Chrysene	
							Di-n-butyl ph	
							Di-n-octyl ph	
							Dibenz (a,h) ar	
							Dibenzofuran	
							Diethyl phtha	
							Dimethyl phth	
							Diphenylamine	
							Fluoranthene	
							Fluorene	
							Hexachlorober	
							Hexachlorobut	
							Hexachlorocyc	
							Hexachloroeth	
							Indeno[1,2,3-	
							Isophorone	
							N-Nitrosodi-r	
							N-Nitrosodime	
							N-Nitrosodiph	
							Naphthalene	
							Nitrobenzene	
							Pentachloroph	
							Phenanthrene	
							Phenol	
							Pyrene	
							Pyridine	
						OP-569730_00150	1 mL	3,3'-Dichloro
						OP-569731_00066	2 mL	Benzoic acid
						OP-569732_00110	1 mL	Atrazine
								Caprolactam
								2,4,6-Tribrom
								2-Fluorobiphe
								2-Fluorophenc
								Nitrobenzene-
								Phenol-d5 (Su

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Terphenyl-d14
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorok 1,2-DiphenylH 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichloro 2,4,6-Trichloro 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylene Acetophenone Aniline Anthracene Azobenzene Benzo[a]anthr Benzo[a]pyren Benzo[b]fluor Benzo[g,h,i]p Benzo[k]fluor

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Benzyl alcohol Bis (2-chloroethoxy) ethane Bis (2-chloroethoxy) ethane Bis (2-ethylhexyl) ether Butyl benzyl ether Carbazole Chrysene Di-n-butyl phthalate Di-n-octyl phthalate Dibenz (a,h) anthracene Dibenzofuran Diethyl phthalate Dimethyl phthalate Diphenylamine Fluoranthene Fluorene Hexachlorobutadiene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno [1,2,3-cd] pyrene Isophorone N-Nitrosodiphenylamine N-Nitrosodiphenylamine N-Nitrosodiphenylamine Naphthalene Nitrobenzene Pentachlorophthalocyanine Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichlorobenzidine
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
					MS-567684_00026	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		Phenanthrene-1,4-Dichlorok Acenaphthene-Chrysene-d12 Naphthalene-c Perylene-d12
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		Phenanthrene-1,4-Dichlorok Acenaphthene-Chrysene-d12 Naphthalene-c Perylene-d12
MS-HSLA020_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	50 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A		
					Reagent ID	Volume Added			
							Phenol		
							Pyrene		
							Pyridine		
							3,3'-Dichloro		
							Benzoic acid		
							Atrazine		
							Caprolactam		
							MS-IS_00028	50 uL	1,4-Dichlorok
							Acenaphthene-		
							Chrysene-d12		
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	Naphthalene-c		
							Perylene-d12		
							Phenanthrene-		
							2,4,6-Tribrom		
							2-Fluorobiphe		
							2-Fluorophenc		
							Nitrobenzene-		
							Phenol-d5 (Su		
							Terphenyl-d14		
							MS-568033_00056	0.5 mL	Alachlor
MS-571995_00063						2 mL	1,1'-Biphenyl		
							1,2,4,5-Tetra		
							1,2,4-Trichlo		
							1,2-Dichlorok		
							1,2-DiphenylH		
							1,3-Dichlorok		
							1,3-Dinitroben		
							1,4-Dichlorok		
							1,4-Dioxane		
							1-Methylnapht		
							2,2'-oxybis[1		
							2,3,4,6-Tetra		
							2,4,5-Trichlo		
							2,4,6-Trichlo		
							2,4-Dichlorop		
							2,4-Dimethylp		
							2,4-Dinitroph		
							2,4-Dinitroto		
							2,6-Dichlorop		
							2,6-Dinitroto		
2-Chloronapht									
2-Chlorophenc									
2-Methylnapht									
2-Methylphenc									
2-Nitroanilin									
2-Nitrophenol									
3 & 4 Methylp									

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Phenol Pyrene Pyridine OP-569730_00150 1 mL 3,3'-Dichloro OP-569731_00066 2 mL Benzoic acid OP-569732_00110 1 mL Atrazine Caprolactam
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807			(Purchased Reagent)	2,4,6-Tribromo 2-Fluorobiphe 2-Fluorophenol Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichloro 2,4,6-Trichloro 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl)amine
							Bis(2-chloroethyl)ether
							Bis(2-ethylhexyl)amine
							Butyl benzyl ether
							Carbazole
							Chrysene
							Di-n-butyl phthalate
							Di-n-octyl phthalate
							Dibenz(a,h)anthracene
							Dibenzofuran
							Diethyl phthalate
							Dimethyl phthalate
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorobenzene
							Hexachlorobutadiene
							Hexachlorocyclopentadiene
							Hexachloroethane
							Indeno[1,2,3-cd]perylene
							Isophorone
							N-Nitrosodimethylamine
							N-Nitrosodiphenylamine
							N-Nitrosodiphenylmethane
							Naphthalene
							Nitrobenzene
							Pentachlorophenol
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichlorodiphenylmethane
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine
							Caprolactam

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
					MS-567684_00026	5 mL	1,4-Dichlorob
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
..MS-567684_00025	12/30/25	Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob	
						Acenaphthene-	
						Chrysene-d12	
						Naphthalene-c	
						Perylene-d12	
..MS-567684_00026	12/30/25	Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob	
						Acenaphthene-	
						Chrysene-d12	
						Naphthalene-c	
						Perylene-d12	
MS-HSLA050_00068	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	125 uL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
							Terphenyl-d14
							Alachlor
							1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichlo
							1,2-Dichlorob
							1,2-Diphenylh
							1,3-Dichlorob
							1,3-Dinitroben
							1,4-Dichlorob
							1,4-Dioxane
							1-Methylnapht
2,2'-oxybis[1							
2,3,4,6-Tetra							
2,4,5-Trichlo							
2,4,6-Trichlo							
2,4-Dichlorop							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,4-Dimethylp
							2,4-Dinitroph
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronaph
							2-Chlorophen
							2-Methylnaph
							2-Methylphen
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
MS-IS_00028	50 uL	1,4-Dichlorob					
Acenaphthene-							
Chrysene-d12							
Naphthalene-c							
Perylene-d12							
Phenanthrene-							
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
							Terphenyl-d14
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichlo
							1,2-Dichlorob
							1,2-DiphenylH
							1,3-Dichlorob
							1,3-Dinitrobe
							1,4-Dichlorob
							1,4-Dioxane
							1-Methylnapht
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,4-Dimethylp
							2,4-Dinitroph
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronaph
							2-Chlorophen
							2-Methylnaph
							2-Methylphen
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
					OP-569730_00150	1 mL	3,3'-Dichloro
					OP-569731_00066	2 mL	Benzoic acid
					OP-569732_00110	1 mL	Atrazine
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807		(Purchased Reagent)		Caprolactam 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601		(Purchased Reagent)		Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2-Methylnapht
							2-Methylphen
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylen
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloroe
							Bis (2-chloroe
							Bis (2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) an
							Dibenzofuran
							Diethyl phtha
							Dimethyl pht
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichloro
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLA080_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	200 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,2-Dichlorobenzene
							1,2-Diphenylhydrazine
							1,3-Dichlorobenzene
							1,3-Dinitrobenzene
							1,4-Dichlorobenzene
							1,4-Dioxane
							1-Methylnaphthalene
							2,2'-oxybis[1,2-dichlorobenzene]
							2,3,4,6-Tetrachlorobenzene
							2,4,5-Trichlorobenzene
							2,4,6-Trichlorobenzene
							2,4-Dichlorobenzene
							2,4-Dimethylphenol
							2,4-Dinitrophenol
							2,4-Dinitrotoluene
							2,6-Dichlorobenzene
							2,6-Dinitrotoluene
							2-Chloronaphthalene
							2-Chlorophenol
							2-Methylnaphthalene
							2-Methylphenol
							2-Nitroaniline
							2-Nitrophenol
							3 & 4 Methylphenol
							3-Nitroaniline
							4,6-Dinitro-2-naphthol
							4-Bromophenyl
							4-Chloro-3-methylphenol
							4-Chloroaniline
							4-Chlorophenyl
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl) ether
							Bis(2-chloroethyl) ether
							Bis(2-ethylhexyl) ether
							Butyl benzyl ether

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
3,3'-Dichloro							
Benzoic acid							
Atrazine							
Caprolactam							
					MS-IS_00028	50 uL	1,4-Dichlorok
					Acenaphthene-		
					Chrysene-d12		
					Naphthalene-c		
					Perylene-d12		
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichl

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							1,2-Dichlorobenzene
							1,2-Diphenylhydrazine
							1,3-Dichlorobenzene
							1,3-Dinitrobenzene
							1,4-Dichlorobenzene
							1,4-Dioxane
							1-Methylnaphthalene
							2,2'-oxybis[1,2-dichlorobenzene]
							2,3,4,6-Tetrachlorobenzene
							2,4,5-Trichlorobenzene
							2,4,6-Trichlorobenzene
							2,4-Dichlorobenzene
							2,4-Dimethylphenol
							2,4-Dinitrophenol
							2,4-Dinitrotoluene
							2,6-Dichlorobenzene
							2,6-Dinitrotoluene
							2-Chloronaphthalene
							2-Chlorophenol
							2-Methylnaphthalene
							2-Methylphenol
							2-Nitroaniline
							2-Nitrophenol
							3 & 4 Methylphenol
							3-Nitroaniline
							4,6-Dinitro-2-toluene
							4-Bromophenyl
							4-Chloro-3-methylphenol
							4-Chloroaniline
							4-Chlorophenyl
							4-Nitroaniline
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl)amine
							Bis(2-chloroethyl)ether
							Bis(2-ethylhexyl)amine
							Butyl benzyl

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Carbazole Chrysene Di-n-butyl ph Di-n-octyl ph Dibenz(a,h)ar Dibenzofuran Diethyl phtha Dimethyl phth Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine OP-569730_00150 1 mL 3,3'-Dichloro OP-569731_00066 2 mL Benzoic acid OP-569732_00110 1 mL Atrazine
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807			(Purchased Reagent)	Caprolactam 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophen Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop
							2,4-Dimethylp
							2,4-Dinitrophen
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronapht
							2-Chlorophenol
							2-Methylnapht
							2-Methylphenol
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)an
							Dibenzofuran
							Diethyl phtha

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Dimethyl pht Diphenylamine Fluoranthene Fluorene Hexachlorober Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichloro
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
MS-HSLA120_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	300 uL	Phenanthrene- 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylen Acetophenone Aniline

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
							3,3'-Dichloro
							Benzoic acid
							Atrazine
							Caprolactam
					MS-IS_00028	50 uL	1,4-Dichlorok
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
							Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	Phenanthrene- 2,4,6-Tribrom
							2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-DiphenylH 1,3-Dichlorok 1,3-Dinitrobe 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitroph 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylen Acetophenone Aniline

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807				Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloro
							Bis (2-chloro
							Bis (2-ethyl
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
						OP-569730_00150	1 mL 3,3'-Dichloro
						OP-569731_00066	2 mL Benzoic acid
						OP-569732_00110	1 mL Atrazine
							Caprolactam
							2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Terphenyl-d14
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichloro 1,2-Dichlorok 1,2-Diphenyl 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichloro 2,4,6-Trichloro 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenol 2-Methylnapht 2-Methylphenol 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin 4-Nitrophenol Acenaphthene Acenaphthylene Acetophenone Aniline Anthracene Azobenzene Benzo[a]anthr Benzo[a]pyren Benzo[b]fluor Benzo[g,h,i]p Benzo[k]fluor

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Benzyl alcohol Bis (2-chloroethoxy) ethane Bis (2-chloroethoxy) ethane Bis (2-ethylhexyl) ether Butyl benzyl ether Carbazole Chrysene Di-n-butyl phthalate Di-n-octyl phthalate Dibenz (a,h) anthracene Dibenzofuran Diethyl phthalate Dimethyl phthalate Diphenylamine Fluoranthene Fluorene Hexachlorobutadiene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno [1,2,3-cd] pyrene Isophorone N-Nitrosodiphenylamine N-Nitrosodiphenylamine N-Nitrosodiphenylamine Naphthalene Nitrobenzene Pentachlorophenol Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichlorobenzidine
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
					MS-567684_00026	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		Phenanthrene- 1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene- 1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		Phenanthrene- 1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLA160_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	400 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 Alachlor 1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A		
					Reagent ID	Volume Added			
							Phenol		
							Pyrene		
							Pyridine		
							3,3'-Dichloro		
							Benzoic acid		
							Atrazine		
							Caprolactam		
							MS-IS_00028	50 uL	1,4-Dichlorok
							Acenaphthene-		
							Chrysene-d12		
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	Naphthalene-c		
							Perylene-d12		
							Phenanthrene-		
							2,4,6-Tribrom		
							2-Fluorobiphe		
							2-Fluorophenc		
							Nitrobenzene-		
							Phenol-d5 (Su		
							Terphenyl-d14		
							MS-568033_00056	0.5 mL	Alachlor
MS-571995_00063	2 mL	1,1'-Biphenyl							
		1,2,4,5-Tetra							
		1,2,4-Trichld							
		1,2-Dichlorok							
		1,2-DiphenylH							
		1,3-Dichlorok							
		1,3-Dinitroben							
		1,4-Dichlorok							
		1,4-Dioxane							
		1-Methylnapht							
		2,2'-oxybis[1							
		2,3,4,6-Tetra							
		2,4,5-Trichld							
		2,4,6-Trichld							
		2,4-Dichlorop							
		2,4-Dimethylp							
		2,4-Dinitroph							
		2,4-Dinitroto							
		2,6-Dichlorop							
		2,6-Dinitroto							
		2-Chloronapht							
		2-Chlorophenc							
		2-Methylnapht							
		2-Methylphenc							
		2-Nitroanilin							
		2-Nitrophenol							
		3 & 4 Methylp							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Phenol Pyrene Pyridine OP-569730_00150 1 mL OP-569731_00066 2 mL OP-569732_00110 1 mL 3,3'-Dichloro Benzoic acid Atrazine Caprolactam
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807			(Purchased Reagent)	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601			(Purchased Reagent)	Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662			(Purchased Reagent)	1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc 2-Methylnapht 2-Methylphenc 2-Nitroanilin 2-Nitrophenol 3 & 4 Methylp 3-Nitroanilin 4,6-Dinitro-2 4-Bromophenyl 4-Chloro-3-me 4-Chloroanili 4-Chloropheny 4-Nitroanilin

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthracene
							Benzo[a]pyrene
							Benzo[b]fluoranthene
							Benzo[g,h,i]perylene
							Benzo[k]fluoranthene
							Benzyl alcohol
							Bis(2-chloroethyl)amine
							Bis(2-chloroethyl)amine
							Bis(2-ethylhexyl)amine
							Butyl benzylamine
							Carbazole
							Chrysene
							Di-n-butylamine
							Di-n-octylamine
							Dibenz(a,h)anthracene
							Dibenzofuran
							Diethyl phthalate
							Dimethyl phthalate
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorobenzene
							Hexachlorobutadiene
							Hexachlorocyclopentadiene
							Hexachloroethane
							Indeno[1,2,3-cd]perylene
							Isophorone
							N-Nitrosodiphenylamine
							N-Nitrosodimethylamine
							N-Nitrosodiphenylamine
							Naphthalene
							Nitrobenzene
							Pentachlorophenol
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichlorodiphenylmethane
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine
							Caprolactam

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
					MS-567684_00026	5 mL	1,4-Dichlorob
							Acenaphthene-
							Chrysene-d12
							Naphthalene-c
..MS-567684_00025	12/30/25	Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob	
						Acenaphthene-	
						Chrysene-d12	
						Naphthalene-c	
						Perylene-d12	
..MS-567684_00026	12/30/25	Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob	
						Acenaphthene-	
						Chrysene-d12	
						Naphthalene-c	
						Perylene-d12	
MS-HSLA200_00067	11/23/22	07/29/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLA_STK_00093	500 uL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
							Terphenyl-d14
							Alachlor
							1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichlo
							1,2-Dichlorob
							1,2-Diphenylh
							1,3-Dichlorob
							1,3-Dinitroben
							1,4-Dichlorob
							1,4-Dioxane
							1-Methylnapht
2,2'-oxybis[1							
2,3,4,6-Tetra							
2,4,5-Trichlo							
2,4,6-Trichlo							
2,4-Dichlorop							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,4-Dimethylp
							2,4-Dinitroph
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronaph
							2-Chlorophen
							2-Methylnaph
							2-Methylphen
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime
							N-Nitrosodiph
							Naphthalene
							Nitrobenzene
							Pentachloroph
							Phenanthrene
							Phenol
							Pyrene
							Pyridine
MS-IS_00028	50 uL	1,4-Dichlorob					
Acenaphthene-							
Chrysene-d12							
Naphthalene-c							
Perylene-d12							
Phenanthrene-							
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom
							2-Fluorobiphe
							2-Fluorophenc
							Nitrobenzene-
							Phenol-d5 (Su
							Terphenyl-d14
					MS-568033_00056	0.5 mL	Alachlor
					MS-571995_00063	2 mL	1,1'-Biphenyl
							1,2,4,5-Tetra
							1,2,4-Trichlo
							1,2-Dichlorob
							1,2-DiphenylH
							1,3-Dichlorob
							1,3-Dinitrobe
							1,4-Dichlorob
							1,4-Dioxane
							1-Methylnapht
							2,2'-oxybis[1
							2,3,4,6-Tetra
							2,4,5-Trichlo
							2,4,6-Trichlo
							2,4-Dichlorop

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2,4-Dimethylp
							2,4-Dinitroph
							2,4-Dinitroto
							2,6-Dichlorop
							2,6-Dinitroto
							2-Chloronaph
							2-Chlorophenc
							2-Methylnaph
							2-Methylphenc
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylene
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis(2-chloroe
							Bis(2-chloroe
							Bis(2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz(a,h)ar
							Dibenzofuran
							Diethyl phtha
							Dimethyl phth
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Hexachlorobut Hexachlorocyc Hexachloroeth Indeno[1,2,3- Isophorone N-Nitrosodi-r N-Nitrosodime N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
					OP-569730_00150	1 mL	3,3'-Dichloro
					OP-569731_00066	2 mL	Benzoic acid
					OP-569732_00110	1 mL	Atrazine
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807		(Purchased Reagent)		Caprolactam 2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-568033_00056	10/31/23		Restek, Lot A0166601		(Purchased Reagent)		Alachlor
..MS-571995_00063	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		1,1'-Biphenyl 1,2,4,5-Tetra 1,2,4-Trichlo 1,2-Dichlorok 1,2-Diphenylh 1,3-Dichlorok 1,3-Dinitroben 1,4-Dichlorok 1,4-Dioxane 1-Methylnapht 2,2'-oxybis[1 2,3,4,6-Tetra 2,4,5-Trichlo 2,4,6-Trichlo 2,4-Dichlorop 2,4-Dimethylp 2,4-Dinitrophen 2,4-Dinitroto 2,6-Dichlorop 2,6-Dinitroto 2-Chloronapht 2-Chlorophenc

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							2-Methylnapht
							2-Methylphenc
							2-Nitroanilin
							2-Nitrophenol
							3 & 4 Methylp
							3-Nitroanilin
							4,6-Dinitro-2
							4-Bromophenyl
							4-Chloro-3-me
							4-Chloroanili
							4-Chloropheny
							4-Nitroanilin
							4-Nitrophenol
							Acenaphthene
							Acenaphthylen
							Acetophenone
							Aniline
							Anthracene
							Azobenzene
							Benzo[a]anthr
							Benzo[a]pyren
							Benzo[b]fluor
							Benzo[g,h,i]p
							Benzo[k]fluor
							Benzyl alcoh
							Bis (2-chloroe
							Bis (2-chloroe
							Bis (2-ethylhe
							Butyl benzyl
							Carbazole
							Chrysene
							Di-n-butyl ph
							Di-n-octyl ph
							Dibenz (a,h) an
							Dibenzofuran
							Diethyl phtha
							Dimethyl pht
							Diphenylamine
							Fluoranthene
							Fluorene
							Hexachlorober
							Hexachlorobut
							Hexachlorocyc
							Hexachloroeth
							Indeno[1,2,3-
							Isophorone
							N-Nitrosodi-r
							N-Nitrosodime

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							N-Nitrosodiph Naphthalene Nitrobenzene Pentachloroph Phenanthrene Phenol Pyrene Pyridine
..OP-569730_00150	06/30/23		Restek, Lot A0179477			(Purchased Reagent)	3,3'-Dichloro
..OP-569731_00066	12/31/22		Restek, Lot A0173787			(Purchased Reagent)	Benzoic acid
..OP-569732_00110	06/30/23		Restek, Lot A0179852			(Purchased Reagent)	Atrazine Caprolactam
.MS-IS_00028	01/07/23	07/07/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198			(Purchased Reagent)	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLACCV5ML_00003	11/23/22	09/30/22	Methylene Chloride, Lot 00562	5 mL	MS-IS_00029	500 uL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
.MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorok Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLACCV5ML_00003	11/23/22	09/30/22	Methylene Chloride, Lot 00562	5 mL	MS-HSLA_STK_00093	2000 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 2,4-Dinitroph Diphenylamine N-Nitrosodiph
.MS-HSLA_STK_00093	11/24/22	05/31/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
					MS-571995_00063	2 mL	2,4-Dinitroph Diphenylamine N-Nitrosodiph
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807		(Purchased Reagent)		2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophenc Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-571995_00063	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		2,4-Dinitroph

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Diphenylamine N-Nitrosodiph
MS-HSLACCV5ML_00005	12/24/22	11/28/22	Methylene Chloride, Lot 00562	5 mL	MS-IS_00029	500 uL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
.MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
					MS-567684_00026	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLACCV5ML_00005	12/24/22	11/28/22	Methylene Chloride, Lot 00562	5 mL	MS-HSLA_STK_00096	2000 uL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophen Nitrobenzene- Phenol-d5 (Su Terphenyl-d14 2,4-Dinitroph Diphenylamine N-Nitrosodiph
.MS-HSLA_STK_00096	12/24/22	11/28/22	Methylene Chloride, Lot 00562	10 mL	8270SurStkHL_00419	0.4 mL	2,4,6-Tribrom 2-Fluorobiphe 2-Fluorophen

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
							Nitrobenzene-Phenol-d5 (Su Terphenyl-d14 2,4-Dinitrophen Diphenylamine N-Nitrosodiph
..8270SurStkHL_00419	05/31/26		Restek, Lot A0172807		(Purchased Reagent)		2,4,6-Tribrom 2-Fluorobiphe 2-Fluoropheno Nitrobenzene- Phenol-d5 (Su Terphenyl-d14
..MS-571995_00063	06/30/23		Restek, Lot A0179662		(Purchased Reagent)		2,4-Dinitrophen Diphenylamine N-Nitrosodiph
MS-HSLB1&B2_00014	01/07/23	10/11/22	Methylene Chloride, Lot 00562	0.5 mL	MS-IS_00029	50 uL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25		Restek, Lot A0167198		(Purchased Reagent)		1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
MS-HSLB1&B2_00014	01/07/23	10/11/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLB1_STK_00027	250 uL	2,4-Dinitroph Diphenylamine N-Nitrosodiph
.MS-HSLB1_STK_00027	01/10/23	10/11/22	Methylene Chloride, Lot MeCl2_Cycl_00543	10 mL	MS-571995.SEC_00018	2 mL	2,4-Dinitroph Diphenylamine N-Nitrosodiph
..MS-571995.SEC_00018	01/10/23	Restek, Lot A0169665		(Purchased Reagent)			2,4-Dinitroph Diphenylamine N-Nitrosodiph
MS-HSLB1&B2_00017	01/07/23	10/21/22	Methylene Chloride, Lot 00562	0.5 mL	MS-IS_00029	50 uL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
.MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00025	12/30/25	Restek, Lot A0167198		(Purchased Reagent)			1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
..MS-567684_00026	12/30/25	Restek, Lot A0167198		(Purchased Reagent)			1,4-Dichlorob Acenaphthene- Chrysene-d12 Naphthalene-c Perylene-d12 Phenanthrene-
MS-HSLB1&B2_00017	01/07/23	10/21/22	Methylene Chloride, Lot 00562	0.5 mL	MS-HSLB1_STK_00028	250 uL	2,4-Dinitroph Diphenylamine N-Nitrosodiph

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
.MS-HSLB1_STK_00028	01/10/23	10/21/22	Methylene Chloride, Lot MeCl2_Cycl_00543	10 mL	MS-571995.SEC_00019	2 mL	2,4-Dinitrophenylamine Diphenylamine N-Nitrosodiphenylamine
..MS-571995.SEC_00019	01/10/23	Restek, Lot A0169665		(Purchased Reagent)			2,4-Dinitrophenylamine Diphenylamine N-Nitrosodiphenylamine
MS-IS_00027	11/23/22	05/23/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00024	10 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
.MS-567684_00024	12/30/25	Restek, Lot A0167198		(Purchased Reagent)			1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
MS-IS_00029	01/07/23	08/03/22	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00025	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
					MS-567684_00026	5 mL	1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
.MS-567684_00025	12/30/25	Restek, Lot A0167198		(Purchased Reagent)			1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
.MS-567684_00026	12/30/25	Restek, Lot A0167198		(Purchased Reagent)			1,4-Dichlorobenzene Acenaphthene-d12 Chrysene-d12 Naphthalene-d12 Perylene-d12 Phenanthrene-d12
NGu Cal_00003	12/25/22	01/25/22	Methanol, Lot 123456	10 mL	NGu_00004	1 mL	Nitroguanidine
.NGu_00004	12/25/22	Accustandard, Lot 218091193-02		(Purchased Reagent)			Nitroguanidine

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		A
					Reagent ID	Volume Added	
NGuWorkingICV_00002	01/26/23	01/26/22	Methanol, Lot 123456	10 mL	NGu ICV_00002	0.1 mL	Nitroguanidin
.NGu ICV_00002	09/30/25		Accustandard, Lot A0164275		(Purchased Reagent)		Nitroguanidin

Reagent

2,4Diamino6NT_00080

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267
Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020
Expiration: Jan 16, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Refriger (0-5 °C)



Certified Reference Material



Component	CAS #	Purity % (LCMS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,4Diamino6NT_00081

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267
Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020
Expiration: Jan 16, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Refriger (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(LCMS)	(µg/mL)	(µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,4Diamino6NT_00085

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267
Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020
Expiration: Jan 16, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Refriger (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (LCMS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:



Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

2,4Diamino6NT_00087

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12

Description: 2,4-Diamino-6-nitrotoluene

Lot: 220121267

Solvent: Acetonitrile

Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020

Expiration: Jan 16, 2023

Sample Size: 1 mL

Components: 1

Storage Condition: Refriger (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (LCMS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

2,4Diamino6NT_00088

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267
Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020
Expiration: Jan 16, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Refriger (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (LCMS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:



Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

2,4Diamino6NT_00089

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12

Description: 2,4-Diamino-6-nitrotoluene

Lot: 220121267

Solvent: Acetonitrile

Hazards: Refer to SDS for complete safety information

Date Certified: Dec 16, 2020

Expiration: Jan 16, 2023

Sample Size: 1 mL

Components: 1

Storage Condition: Refriger (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(LCMS)	(µg/mL)	(µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00082

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13

Description: 2,6-Diamino-4-nitrotoluene

Lot: 219071008-01

Solvent: Acetonitrile

Hazards: Refer to SDS for complete safety information

Date Certified: Aug 3, 2020

Expiration: Sep 3, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared	Certified Analyte
		(GC/FID)	Concentration ² (µg/mL)	Concentration ¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of $K=2$ is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00084

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 219071008-01

Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Aug 3, 2020

Expiration: Sep 3, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00088

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 219071008-01

Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Aug 3, 2020

Expiration: Sep 3, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00090

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 219071008-01

Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Aug 3, 2020

Expiration: Sep 3, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00091

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 219071008-01

Solvent: Acetonitrile
Hazards: Refer to SDS for complete safety information

Date Certified: Aug 3, 2020
Expiration: Sep 3, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

2,6Diamino4NT_00092

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13

Description: 2,6-Diamino-4-nitrotoluene

Lot: 219071008-02

Solvent: Acetonitrile

Hazards: Refer to SDS for complete safety information

Date Certified: Sep 14, 2021

Expiration: Oct 14, 2023

Sample Size: 1 mL

Components: 1

Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/FID)	(µg/mL)	(µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:



Larry Decker, Organic QC Manager

Reagent

3,5-DNA LCS_00039

Preliminary Report

Eurofins TestAmerica, Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210724-103355.b\07240006.D
Lims ID: C18column:B16162 Inj. Date: 24-Jul-2021 12:39:38
Worklist ID: 280-0103355-006 Instrument: CHHPLC_X3
Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
13 3,5-Dinitroaniline	0.5000	0.4923	98.5	55-119

Samples for Limit Group: 1, Lims Prep Method: 3535
280-151062-B-1-A

Reagent

3,5-DNA LCS_00042

Reagent

3,5-DNA Stock_00035



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 Lot No.: A0149736
 Description : 3,5-Dinitroaniline Standard
3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : January 31, 2024 Storage: 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3,5-Dinitroaniline CAS # 618-87-1 Purity 99% (Lot 10311HS)	1,000.0 µg/mL	+/- 10.0737	µg/mL	Gravimetric
			+/- 31.3469	µg/mL	Unstressed
			+/- 31.3469	µg/mL	Stressed

Solvent: Acetonitrile
 CAS # 75-05-8
 Purity 99%

Column:

250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:

1.0 ml/min.

Mobile Phase A:

water:methanol (44:56 V/V)

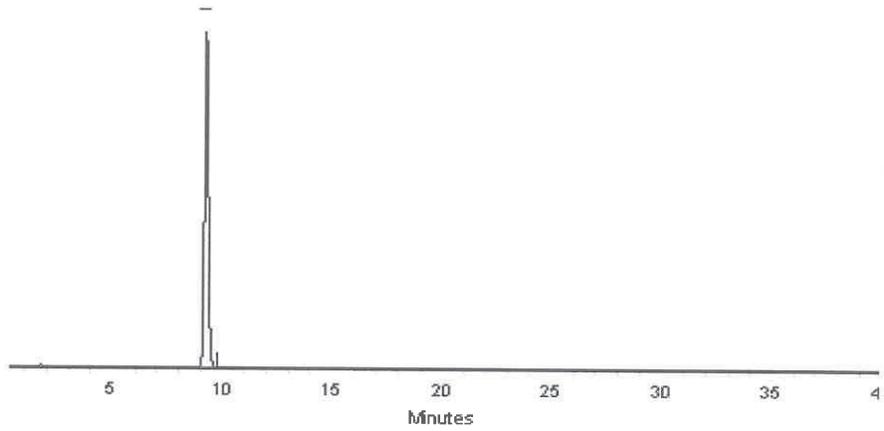
Mobile Phase B:

Mobile Phase Composition:

100%A

Det. Type:

Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jessica McClenahan

Jessica McClenahan - Operations Technician I

Date Mixed: 03-Jun-2019

Balance: 1128360905

Jennifer J. Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 05-Jun-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

3,5-DNA Stock_00036



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 Lot No.: A0149736
 Description : 3,5-Dinitroaniline Standard
3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : January 31, 2024 Storage: 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3,5-Dinitroaniline CAS # 618-87-1 Purity 99% (Lot 10311HS)	1,000.0 µg/mL	+/- 10.0737	µg/mL	Gravimetric
			+/- 31.3469	µg/mL	Unstressed
			+/- 31.3469	µg/mL	Stressed

Solvent: Acetonitrile
 CAS # 75-05-8
 Purity 99%

Column:

250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:

1.0 ml/min.

Mobile Phase A:

water:methanol (44:56 V/V)

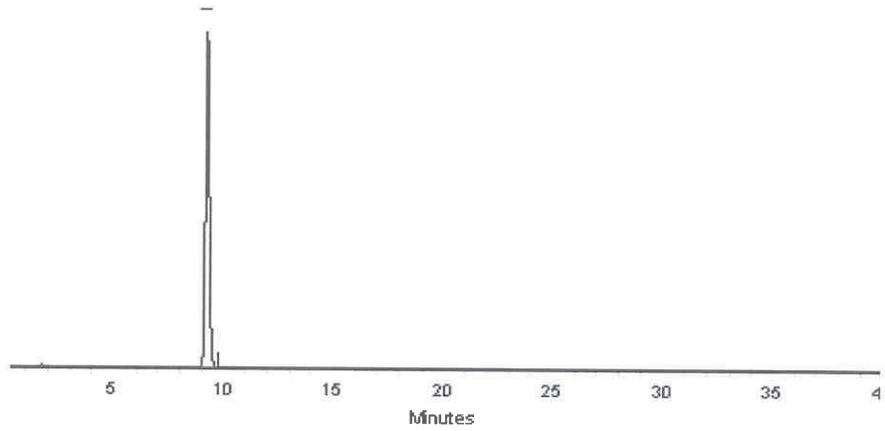
Mobile Phase B:

Mobile Phase Composition:

100%A

Det. Type:

Wavelength: 210 nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jessica McClenahan

Jessica McClenahan - Operations Technician I

Date Mixed: 03-Jun-2019

Balance: 1128360905

Jennifer J. Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 05-Jun-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8270_LCS_Main_00086

Preliminary Report

Eurofins Denver
MS, Matrix Spike Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20220913-114209.b\G6_0811996.D
 Lims ID: 8270_LCS_Main_00086
 Client ID:
 Sample Type: MS
 Inject. Date: 13-Sep-2022 10:01:30 ALS Bottle#: 7 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: 8270_LCS_MAIN_00086
 Operator ID: tessiern Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20220913-114209.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 13-Sep-2022 16:54:15 Calib Date: 12-Sep-2022 11:15:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20220912-114182.b\G6_0811961b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

Compound	Amount Added	Amount Recovered	%Rec
20 1,4-Dioxane	80.0	45.7	57.15
21 N-Nitrosodimethylamine	80.0	55.1	68.82
22 Pyridine	160.0	101.9	63.67
34 Phenol	80.0	65.9	82.40
35 Aniline	80.0	63.5	79.38
37 Bis(2-chloroethyl)ether	80.0	67.6	84.47
39 n-Decane	80.0	58.4	72.97
41 2-Chlorophenol	80.0	64.2	80.20
42 1,3-Dichlorobenzene	80.0	61.9	77.32
43 1,4-Dichlorobenzene	80.0	58.1	72.67
44 Benzyl alcohol	80.0	69.2	86.47
45 1,2-Dichlorobenzene	80.0	63.8	79.78
46 2-Methylphenol	80.0	68.6	85.80
47 2,2'-oxybis[1-chloropropane]	80.0	64.9	81.08
48 Indene	80.0	62.4	77.99
49 3 & 4 Methylphenol	80.0	68.8	85.96
50 3-Methylphenol	80.0	68.8	85.96
51 N-Nitrosodi-n-propylamine	80.0	70.3	87.84
52 4-Methylphenol	80.0	68.8	85.96
55 Acetophenone	80.0	67.5	84.41
58 Hexachloroethane	80.0	62.8	78.54
60 Nitrobenzene	80.0	67.6	84.49

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20220913-114209.b\G6_0811996.D

Compound	Amount Added	Amount Recovered	%Rec
63 Isophorone	80.0	69.0	86.20
65 2-Nitrophenol	80.0	66.6	83.20
66 2,4-Dimethylphenol	80.0	67.5	84.33
69 Bis(2-chloroethoxy)methane	80.0	67.0	83.74
70 Benzoic acid	80.0	72.6	90.75
75 2,4-Dichlorophenol	80.0	66.0	82.47
77 1,2,4-Trichlorobenzene	80.0	61.8	77.29
79 Naphthalene	80.0	62.9	78.61
80 4-Chloroaniline	80.0	64.8	81.00
81 2,6-Dichlorophenol	80.0	64.2	80.29
83 Hexachlorobutadiene	80.0	61.8	77.27
90 4-Chloro-3-methylphenol	80.0	70.9	88.67
94 2-Methylnaphthalene	80.0	64.5	80.67
96 1-Methylnaphthalene	80.0	66.9	83.60
97 Hexachlorocyclopentadiene	240.8	191.8	79.62
98 1,2,4,5-Tetrachlorobenzene	80.0	61.5	76.86
101 2,4,6-Trichlorophenol	80.0	67.3	84.10
103 2,4,5-Trichlorophenol	80.0	66.4	83.05
105 1,1'-Biphenyl	80.0	62.2	77.76
107 2-Chloronaphthalene	80.0	62.1	77.61
109 2-Nitroaniline	80.0	74.0	92.55
112 Dimethyl phthalate	80.0	65.7	82.14
113 1,3-Dinitrobenzene	80.0	77.3	96.59
114 2,6-Dinitrotoluene	80.0	73.3	91.62
115 Acenaphthylene	80.0	63.9	79.91
116 3-Nitroaniline	80.0	68.4	85.55
117 Acenaphthene	80.0	65.7	82.17
118 2,4-Dinitrophenol	160.0	151.3	94.53
120 4-Nitrophenol	160.0	152.9	95.55
122 2,4-Dinitrotoluene	80.0	72.8	90.94
123 Dibenzofuran	80.0	65.4	81.69
127 2,3,4,6-Tetrachlorophenol	80.0	70.3	87.89
128 Hexadecane	80.0	64.0	79.95
130 Diethyl phthalate	80.0	64.3	80.32
135 4-Chlorophenyl phenyl ether	80.0	64.1	80.17
136 Fluorene	80.0	66.1	82.67
139 4-Nitroaniline	80.0	67.0	83.78

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20220913-114209.b\G6_0811996.D

Compound	Amount Added	Amount Recovered	%Rec
140 4,6-Dinitro-2-methylphenol	160.0	157.1	98.21
142 Diphenylamine	68.0	57.0	83.84
143 N-Nitrosodiphenylamine	80.0	67.7	84.57
144 Azobenzene	80.0	69.3	86.64
145 1,2-Diphenylhydrazine	80.9	70.1	86.64
157 4-Bromophenyl phenyl ether	80.0	66.4	82.95
158 Hexachlorobenzene	80.0	66.3	82.91
162 n-Octadecane	80.0	64.2	80.23
164 Pentachlorophenol	160.0	142.8	89.25
169 Phenanthrene	80.0	66.5	83.11
170 Anthracene	80.0	66.6	83.28
171 Carbazole	80.0	65.2	81.50
175 Di-n-butyl phthalate	80.0	64.5	80.59
182 Fluoranthene	80.0	65.4	81.80
185 Pyrene	80.0	70.5	88.16
193 Butyl benzyl phthalate	80.0	66.2	82.78
198 Benzo[a]anthracene	80.0	61.0	76.31
199 Bis(2-ethylhexyl) phthalate	80.0	61.3	76.59
200 Chrysene	80.0	72.5	90.57
202 Di-n-octyl phthalate	80.0	56.7	70.93
204 Benzo[b]fluoranthene	80.0	57.1	71.32
205 Benzo[k]fluoranthene	80.0	79.3	99.07
208 Benzo[a]pyrene	80.0	69.5	86.85
214 Indeno[1,2,3-cd]pyrene	80.0	47.7	59.65
215 Dibenz(a,h)anthracene	80.0	61.2	76.53
216 Benzo[g,h,i]perylene	80.0	67.3	84.18

Reagent

8270SurStkHL_00419



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 Lot No.: A0172807

Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder

Handling: Sonicate prior to use. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ2508)	5,004.6 µg/mL	+/- 29.0972	µg/mL	Gravimetric
			+/- 146.0510	µg/mL	Unstressed
			+/- 177.2273	µg/mL	Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot CD-105)	5,011.4 µg/mL	+/- 29.1367	µg/mL	Gravimetric
			+/- 146.2494	µg/mL	Unstressed
			+/- 177.4681	µg/mL	Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940B)	5,003.0 µg/mL	+/- 29.0879	µg/mL	Gravimetric
			+/- 146.0043	µg/mL	Unstressed
			+/- 177.1706	µg/mL	Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00019169)	5,010.2 µg/mL	+/- 29.1297	µg/mL	Gravimetric
			+/- 146.2144	µg/mL	Unstressed
			+/- 177.4256	µg/mL	Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	5,003.9 µg/mL	+/- 29.0931	µg/mL	Gravimetric
			+/- 146.0306	µg/mL	Unstressed
			+/- 177.2025	µg/mL	Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,013.8 µg/mL	+/- 29.1507	µg/mL	Gravimetric
			+/- 146.3195	µg/mL	Unstressed
			+/- 177.5531	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

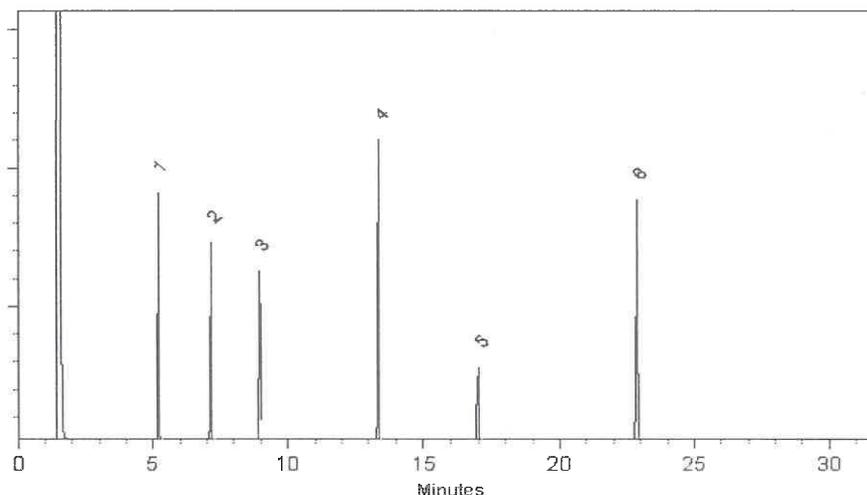
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis

Cathleen Soltis - Mix Technician

Date Mixed: 27-May-2021

Balance: 1128360905

Alexis Shelow

Alexis Shelow - Operations Tech I

Date Passed: 28-May-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330 LCS_00111

Preliminary ReportEurofins TestAmerica, Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211112-106450.b\LCS111.D
 Lims ID: LCS111 Inj. Date: 12-Nov-2021 17:18:59
 Worklist ID: 280-0106450-021 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4991	99.8	65-135
8 RDX	0.5000	0.4595	91.9	68-130
9 2,4,6-Trinitrophenol	0.5000	0.4794	95.9	73-124
11 1,3,5-Trinitrobenzene	0.5000	0.4892	97.8	73-125
12 1,3-Dinitrobenzene	0.5000	0.4864	97.3	78-120
13 Nitrobenzene	0.5000	0.4870	97.4	65-134
15 Tetryl	0.5000	0.4805	96.1	64-128
16 Nitroglycerin	5.00	4.94	98.9	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4933	98.7	71-123
18 4AMD	0.5000	0.4752	95.0	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4783	95.7	79-120
20 2,6-Dinitrotoluene	0.5000	0.4939	98.8	77-127
21 2,4-Dinitrotoluene	0.5000	0.4820	96.4	78-120
22 o-Nitrotoluene	0.5000	0.4819	96.4	70-127
23 p-Nitrotoluene	0.5000	0.4905	98.1	71-127
24 m-Nitrotoluene	0.5000	0.4585	91.7	73-125
25 PETN	5.00	4.87	97.5	73-127

Samples for Limit Group: 1, Lims Prep Method: 3535
 280-155295-A-3-A 280-155295-B-7-A

Reagent

8330 LCS_00114

Preliminary Report

Eurofins Denver
 LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220622-112020.b\06220011.D
 Lims ID: 8330 LCS 114 Inj. Date: 22-Jun-2022 16:41:51
 Worklist ID: 280-0112020-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4844	96.9	66-115	65-135	
8 RDX	0.5000	0.4954	99.1	69-122	68-130	
9 2,4,6-Trinitrophenol	0.5000	0.5410	108.2	63-135	80-120	
11 1,3,5-Trinitrobenzene	0.5000	0.5204	104.1	62-127	73-125	
12 1,3-Dinitrobenzene	0.5000	0.5250	105.0	59-131	78-120	
13 Nitrobenzene	0.5000	0.5243	104.9	46-144	65-134	
15 Tetryl	0.5000	0.5141	102.8	56-131	64-128	
16 Nitroglycerin	5.00	5.30	106.1	70-125	74-127	
17 2,4,6-Trinitrotoluene	0.5000	0.5202	104.0	46-139	71-123	
18 4-Amino-2,6-dinitrotolu	0.5000	0.4997	99.9	43-120	76-125	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4932	98.6	46-124	79-120	
20 2,6-Dinitrotoluene	0.5000	0.5087	101.7	51-130	77-127	
21 2,4-Dinitrotoluene	0.5000	0.4947	98.9	53-127	78-120	
22 o-Nitrotoluene	0.5000	0.4968	99.4	37-138	70-127	
23 p-Nitrotoluene	0.5000	0.5140	102.8	41-137	71-127	
24 m-Nitrotoluene	0.5000	0.4845	96.9	31-140	73-125	
25 PETN	5.00	5.24	104.8	67-127	73-127	

Samples for Limit Group: 1, Lims Prep Method: 3535
 280-163533-A-1-A

Samples for Limit Group: 2, Lims Prep Method: 3535
 550-185875-AK-1-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-163556-A-1-A	280-163556-A-2-A	280-163556-A-3-A
280-163556-A-4-A	280-163556-A-5-A	280-163556-A-6-A
280-163556-A-7-A	280-163556-A-8-A	280-163556-B-9-A
280-163556-B-10-A	280-163556-A-11-A	280-163597-A-1-A
280-163597-A-2-A	280-163597-A-3-A	280-163597-A-4-A
280-163597-A-5-A	280-163597-A-6-A	280-163597-A-7-A

Reagent

8330 LCS_00116

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20221006-114899.b\10060011.D
 Lims ID: 8330LCS 116 Inj. Date: 06-Oct-2022 17:02:04
 Worklist ID: 280-0114899-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4715	94.3	65-135
8 RDX	0.5000	0.4927	98.5	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5375	107.5	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5492	109.8	73-125
12 1,3-Dinitrobenzene	0.5000	0.5431	108.6	78-120
13 Nitrobenzene	0.5000	0.5250	105.0	65-134
15 Tetryl	0.5000	0.5671	113.4	64-128
16 Nitroglycerin	5.00	5.39	107.8	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4954	99.1	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.5804	116.1	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.5343	106.9	79-120
20 2,6-Dinitrotoluene	0.5000	0.5585	111.7	77-127
21 2,4-Dinitrotoluene	0.5000	0.5399	108.0	78-120
22 o-Nitrotoluene	0.5000	0.5431	108.6	70-127
23 p-Nitrotoluene	0.5000	0.5306	106.1	71-127
24 m-Nitrotoluene	0.5000	0.5416	108.3	73-125
25 PETN	5.00	5.20	104.0	73-127

Samples for Limit Group: 1, Lims Prep Method: 3535

280-167031-A-1-A

280-167031-B-2-A

280-167031-B-3-A

280-167031-B-4-A

280-167031-B-5-A

280-167031-B-6-A

280-167138-B-1-A

280-167138-B-2-A

280-167138-B-3-A

280-167138-B-4-A

280-167138-A-5-A

280-167138-B-6-A

280-167138-B-7-A

Reagent

8330 LCS_00117

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20221019-115277.b\10190011.D
 Lims ID: 8330 LCS 117 Inj. Date: 19-Oct-2022 15:52:48
 Worklist ID: 280-0115277-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
4 HMX	0.5000	0.4741	94.8	66-115	65-135
8 RDX	0.5000	0.4844	96.9	69-122	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5377	107.5	63-135	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5353	107.1	62-127	73-125
12 1,3-Dinitrobenzene	0.5000	0.5331	106.6	59-131	78-120
13 Nitrobenzene	0.5000	0.5276	105.5	46-144	65-134
15 Tetryl	0.5000	0.5301	106.0	56-131	64-128
16 Nitroglycerin	5.00	5.41	108.2	70-125	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4785	95.7	46-139	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.5548	111.0	43-120	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.5093	101.9	46-124	79-120
20 2,6-Dinitrotoluene	0.5000	0.5227	104.5	51-130	77-127
21 2,4-Dinitrotoluene	0.5000	0.5193	103.9	53-127	78-120
22 o-Nitrotoluene	0.5000	0.5135	102.7	37-138	70-127
23 p-Nitrotoluene	0.5000	0.5021	100.4	41-137	71-127
24 m-Nitrotoluene	0.5000	0.5111	102.2	31-140	73-125
25 PETN	5.00	5.21	104.2	67-127	73-127

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-167720-A-1-A

280-167720-A-2-A

280-167720-A-3-A

280-167720-A-4-A

280-167737-B-1-A

280-167737-B-2-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-167709-A-1-A

280-167709-A-2-A

280-167809-A-1-A

280-167809-A-2-A

280-167809-A-3-A

280-167809-A-4-A

280-167809-A-5-A

280-167809-A-6-A

280-167809-A-7-A

280-167809-A-8-A

280-167809-A-9-A

Reagent

8330 Stock_TS_00019



Certificate of Analysis ISO Guide 34

Stock Standard

Product Number: NAIM-833E

Page: 1 of 2

Lot Number: CT-0801

Lot Issue Date: 25-Feb-2019

Expiration Date: 31-Mar-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
HMX	002691-41-0	RM06237	1000 ± 5 µg/mL
RDX	000121-82-4	RM10915	1000 ± 5 µg/mL
1,3,5-trinitrobenzene	000099-35-4	RM06608	1002 ± 5 µg/mL
m-dinitrobenzene	000099-65-0	RM14290	1002 ± 5 µg/mL
nitrobenzene	000098-95-3	RM11472	1004 ± 5 µg/mL
2,4,6-trinitrotoluene (TNT)	000118-96-7	RM11972	1004 ± 5 µg/mL
2,4-dinitrotoluene	000121-14-2	RM10279	1004 ± 5 µg/mL
tetryl	000479-45-8	RM14651	1002 ± 5 µg/mL
2,6-dinitrotoluene	000606-20-2	NT00450	1004 ± 5 µg/mL
2-nitrotoluene	000088-72-2	NT01996	1000 ± 5 µg/mL
3-nitrotoluene	000099-08-1	NT02212	1001 ± 5 µg/mL
4-nitrotoluene	000099-99-0	NT02096	1002 ± 5 µg/mL
2-amino-4,6-dinitrotoluene	035572-78-2	RM04229	1004 ± 5 µg/mL
4-amino-2,6-dinitrotoluene	019406-51-0	RM04226	1001 ± 5 µg/mL

Matrix: acetonitrile

Storage: Store at Room Temperature (15° to 30°C).

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937

Certificate of Analysis ISO Guide 34

Stock Standard

Product Number: NAIM-833E

Page: 2 of 2

Lot Number: CT-0801

Lot Issue Date: 25-Feb-2019

Expiration Date: 31-Mar-2022

Analyte

CAS#

Analyte Lot

True Value



Monica Bourgeois

QMS Representative



ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937

Reagent

8330 Stock_TS_00021



Certificate of Analysis

Product Name: Stock Standard

Product Number: NAIM-833E-1

Lot Number: 0006604365

Lot Issue Date: 28-May-2021

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration \pm Uncertainty
HMX	002691-41-0	RM06237	1001 \pm 5 μ g/mL
RDX	000121-82-4	RM10915	1001 \pm 5 μ g/mL
1,3,5-trinitrobenzene	000099-35-4	RM17843	1001 \pm 5 μ g/mL
m-dinitrobenzene	000099-65-0	RM14290	1002 \pm 5 μ g/mL
nitrobenzene	000098-95-3	RM11472	1004 \pm 5 μ g/mL
2,4,6-trinitrotoluene (TNT)	000118-96-7	RM16204	1001 \pm 5 μ g/mL
2,4-dinitrotoluene	000121-14-2	RM10279	1004 \pm 5 μ g/mL
tetryl	000479-45-8	RM14651	1003 \pm 5 μ g/mL
2,6-dinitrotoluene	000606-20-2	RM10763	1003 \pm 5 μ g/mL
2-nitrotoluene	000088-72-2	NT01996	1004 \pm 5 μ g/mL
3-nitrotoluene	000099-08-1	NT02212	1002 \pm 5 μ g/mL
4-nitrotoluene	000099-99-0	NT02096	1002 \pm 5 μ g/mL
2-amino-4,6-dinitrotoluene	035572-78-2	RM04229	1004 \pm 5 μ g/mL
4-amino-2,6-dinitrotoluene	019406-51-0	RM04226	1003 \pm 5 μ g/mL

Matrix: acetonitrile

Storage Conditions: Store at Room Temperature (15° to 30°C).



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

Reagent

8330_NG_Stk_00097



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0161840

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,032.0 µg/mL	+/- 46.7949 µg/mL Gravimetric +/- 278.0096 µg/mL Unstressed +/- 323.4663 µg/mL Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG_Stk_00107



CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
Tel: (800)356-1688
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Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0161120

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			+/-	µg/mL	Method	
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,024.0 µg/mL	+/-	46.7205	µg/mL	Gravimetric
			+/-	277.5676	µg/mL	Unstressed
			+/-	322.9521	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Reagent

8330_NG_Stk_00108



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0183499

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,020.0 µg/mL	+/- 46.6833	µg/mL	Gravimetric
			+/- 277.3466	µg/mL	Unstressed
			+/- 322.6949	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG_Stk_00109



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0183499

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,020.0 µg/mL	+/- 46.6833	µg/mL	Gravimetric
			+/- 277.3466	µg/mL	Unstressed
			+/- 322.6949	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG_Stk_00111



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0183499

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,020.0 µg/mL	+/- 46.6833	µg/mL	Gravimetric
			+/- 277.3466	µg/mL	Unstressed
			+/- 322.6949	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG_Stk_00113



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0183499

Description : Custom Nitroglycerin Standard
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	5,020.0 µg/mL	+/- 46.6833	µg/mL	Gravimetric
			+/- 277.3466	µg/mL	Unstressed
			+/- 322.6949	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG1000_00006



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0175997

Description : Nitroglycerin Standard
Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	1,000.0 µg/mL	+/-	5.9397	µg/mL	Gravimetric
			+/-	54.7830	µg/mL	Unstressed
			+/-	63.8824	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG1000_00008



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0175997

Description : Nitroglycerin Standard
Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
			+/- 54.7830	µg/mL	Unstressed
			+/- 63.8824	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_NG1000_00009



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0175997

Description : Nitroglycerin Standard
Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Nitroglycerin CAS # 55-63-0 Purity 99% (Lot 200507JLM)	1,000.0 µg/mL	+/-	5.9397	µg/mL	Gravimetric
			+/-	54.7830	µg/mL	Unstressed
			+/-	63.8824	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00110



CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0172687

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
			+/- 278.0096	µg/mL	Unstressed
			+/- 323.4663	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

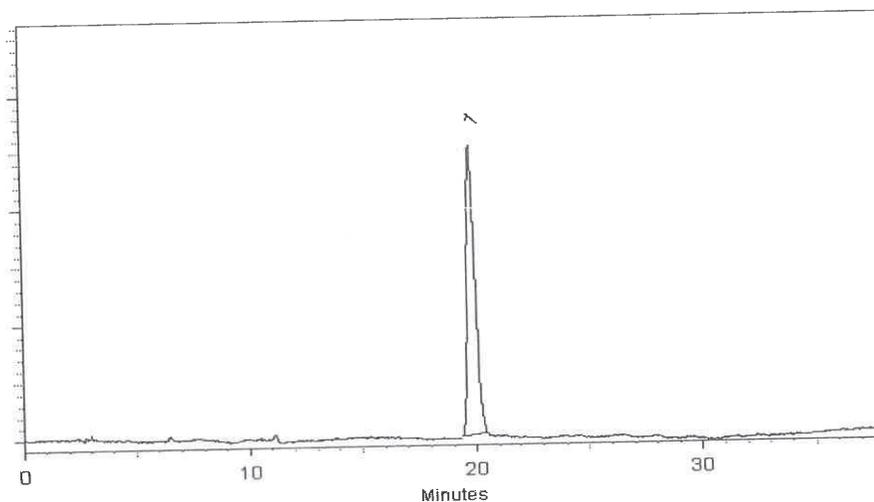
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Katelyn McGinni
Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polino at 2:28 pm, May 27, 2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00114



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0172687

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
			+/- 278.0096	µg/mL	Unstressed
			+/- 323.4663	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

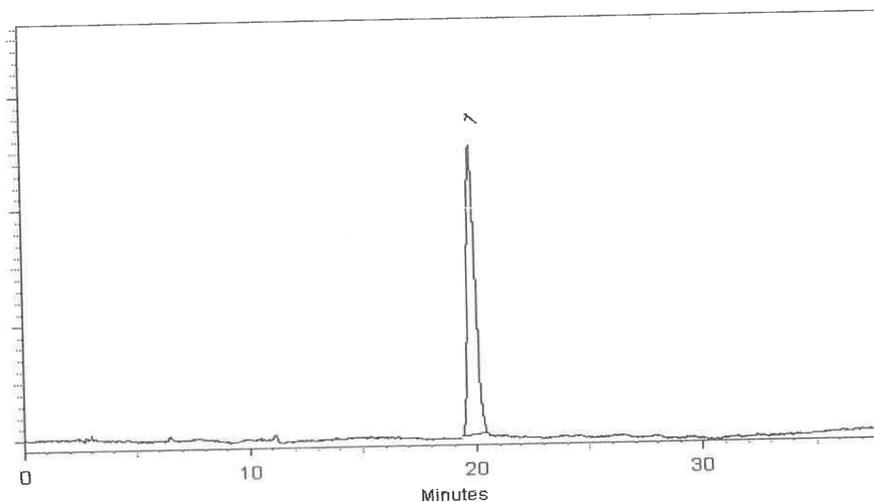
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Katelyn McGinni
Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polino at 2:28 pm, May 27, 2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00117



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0172687

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
			+/- 278.0096	µg/mL	Unstressed
			+/- 323.4663	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

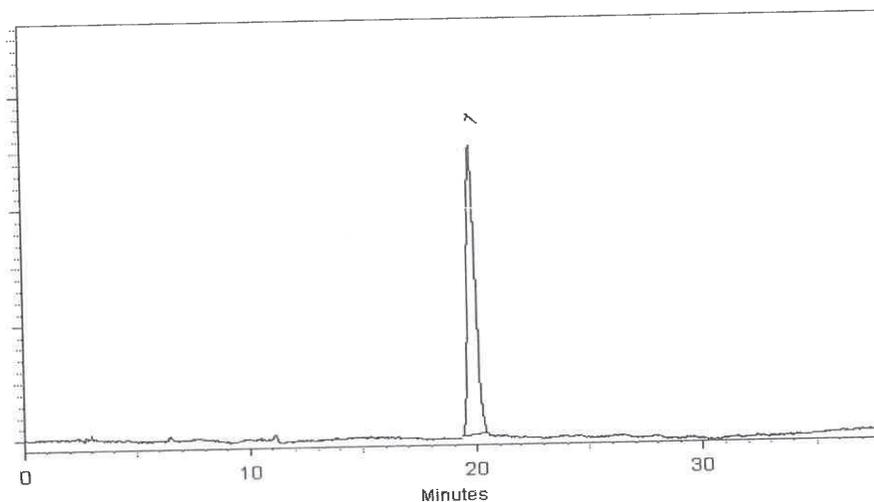
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Katelyn McGinni
Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polino at 2:28 pm, May 27, 2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00119



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com



Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0168448

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	5,008.0 µg/mL	+/-	46.5717	µg/mL	Gravimetric
			+/-	276.6836	µg/mL	Unstressed
			+/-	321.9236	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Rec 2/9/21
AL
3 vials

Reagent

8330_PETN_Stk_00120



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0187506

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	PETN CAS # 78-11-5 Purity 99%	5,028.0 µg/mL (Lot 051108JLM)	+/- 46.7577 µg/mL Gravimetric +/- 277.7886 µg/mL Unstressed +/- 323.2092 µg/mL Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

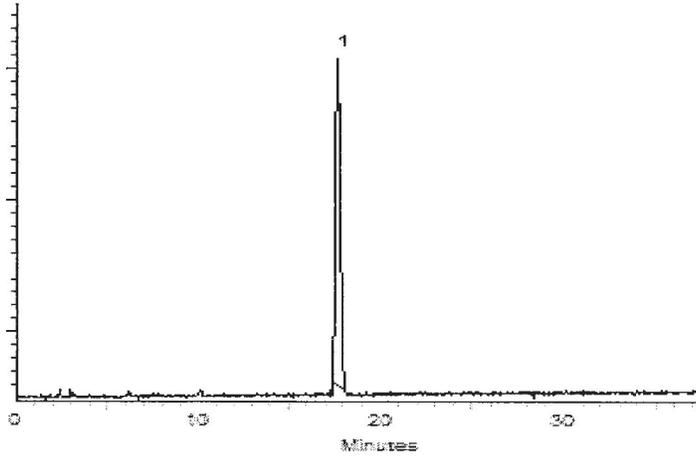
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 19-Jul-2022

Balance: B345965662

Fang-Yun Weaver

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 22-Jul-2022



Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00122



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Composition



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0187506

Description : Custom PETN Standard
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	PETN CAS # 78-11-5 Purity 99%	5,028.0 µg/mL (Lot 051108JLM)	+/- 46.7577 µg/mL Gravimetric +/- 277.7886 µg/mL Unstressed +/- 323.2092 µg/mL Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

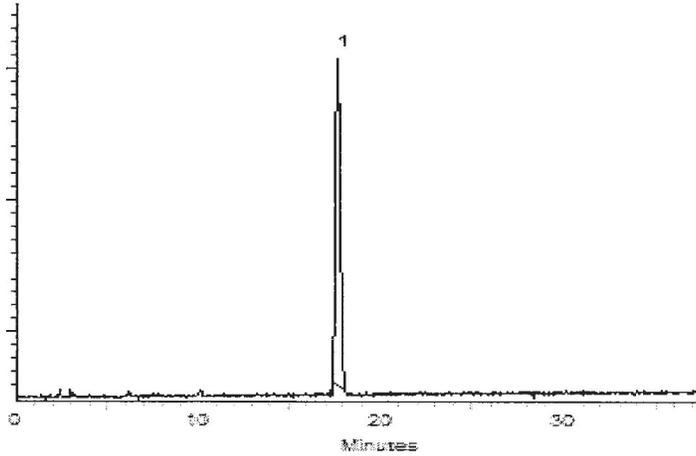
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 19-Jul-2022

Balance: B345965662

Fang-Yun Weaver

Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 22-Jul-2022



Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN1000_00006



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0175907

Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	1,006.8 µg/mL	+/- 10.1422	µg/mL	Gravimetric
			+/- 55.7605	µg/mL	Unstressed
			+/- 64.8363	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN1000_00007



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0175907

Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	PETN CAS # 78-11-5 Purity 99% (Lot 051108JLM)	1,006.8 µg/mL	+/-	10.1422	µg/mL	Gravimetric
			+/-	55.7605	µg/mL	Unstressed
			+/-	64.8363	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN1000_00009



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01



ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 Lot No.: A0178439

Description : PETN Standard
PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : November 30, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
			+/-	µg/mL	Method
1	PETN	1,005.0 µg/mL (Lot 051108JLM)	+/-	5.9694	Gravimetric
	CAS # 78-11-5		+/-	55.0569	Unstressed
	Purity 99%		+/-	64.2018	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

833035DNASTk_00046

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 220051175-01

Solvent: Methanol (50%)
Acetonitrile (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Jan 14, 2021
Expiration: Feb 14, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/MS)	(µg/mL)	(µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

Reagent

833035DNASTk_00048

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 220051175-02
Solvent: Methanol (50%)
Acetonitrile (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: **Danger**

Date Certified: Aug 31, 2021
Expiration: Oct 1, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/MS)	(µg/mL)	(µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

833035DNASTk_00051

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 222011692

Solvent: Methanol (50%)
Acetonitrile (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Feb 1, 2022
Expiration: Mar 1, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

8330DiaminLCS_00045

Preliminary Report

Eurofins TestAmerica, Denver
 LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211209-107154.b\12090006.D
 Lims ID: C18column:B16162 Inj. Date: 09-Dec-2021 14:56:05
 Worklist ID: 280-0107154-006 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
2,2,6-diamino-4-nitrotolu	0.2500	0.2410	96.4	80-150		80-120
5,2,4-diamino-6-nitrotolu	0.2500	0.2394	95.8	70-150		70-120

Samples for Limit Group: 1, Lims Prep Method: 3535

240-160937-J-1-A	240-160937-J-2-A	240-160937-J-3-A
240-160937-C-5-A	240-160937-C-7-A	240-160937-D-10-A
240-160937-J-12-A	410-65368-I-2-A	410-65368-I-3-A
410-65368-I-4-A	410-65368-I-5-A	410-65368-I-6-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-156393-A-1-A	280-156393-A-2-A	280-156393-A-3-A
280-156393-A-4-A	280-156393-B-5-A	

Samples for Limit Group: 3, Lims Prep Method: 3535

280-156388-I-1-A	280-156388-D-6-A
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Reagent

8330DiaminLCS_00047

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220208-108417.b\02080011.D
 Lims ID: DiaminoLCS047 Inj. Date: 08-Feb-2022 20:32:58
 Worklist ID: 280-0108417-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
2,2,6-diamino-4-nitrotolu	0.5000	0.4966	99.3		80-150
5,2,4-diamino-6-nitrotolu	0.5000	0.4793	95.9		70-150

Samples for Limit Group: 1, Lims Prep Method: 3535

280-158126-B-6-A	410-70932-D-4-A	410-70932-E-5-A
410-70932-E-6-A	410-70932-E-7-A	410-70932-D-8-A
280-158308-A-1-A	280-158308-A-6-A	410-71523-D-1-A
410-71523-D-2-A	410-71523-D-3-A	410-71523-D-4-A
410-71523-D-5-A	410-71523-E-6-A	410-71523-E-7-A
410-71523-D-8-A		

Samples for Limit Group: 2, Lims Prep Method: 3535

280-158154-C-1-A	280-158154-C-2-A	280-158156-A-1-A
280-158156-B-2-A	280-158156-B-3-A	280-158156-B-4-A
280-158156-A-5-A	280-157863-A-36-B	

Reagent

8330DiaminLCS_00048

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220719-112733.b\07190011.D
 Lims ID: Diamino LCS 48 Inj. Date: 19-Jul-2022 15:41:52
 Worklist ID: 280-0112733-011 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
2,6-diamino-4-nitrotolu	0.5000	0.4948	99.0	80-150	72-122
5,4-diamino-6-nitrotolu	0.5000	0.4808	96.2	70-150	68-122

Samples for Limit Group: 1, Lims Prep Method: 3535

680-218146-M-1-A	680-218146-L-2-A	680-218146-M-3-A
680-218146-L-4-A	680-218146-L-5-A	680-218146-L-6-A
680-218146-M-7-A	680-218147-L-1-A	680-218147-L-2-A
680-218147-L-3-A	680-218147-L-4-A	680-218147-M-5-A
680-218147-L-6-A	680-218147-L-7-A	680-218147-L-8-A
680-218147-L-9-A	680-218147-L-10-A	680-218147-L-11-A
680-218147-L-12-A	680-218147-L-13-A	680-218147-M-14-A
680-218147-L-15-A	680-218147-M-16-A	680-218147-M-17-A
680-218147-L-18-A	680-218147-L-19-A	680-218147-M-20-A
680-218147-L-21-A	680-218147-M-22-A	680-218147-L-23-A
860-29400-C-1-A		

Samples for Limit Group: 2, Lims Prep Method: 3535

410-91044-D-1-A	410-91044-D-2-A	410-91044-D-3-A
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Reagent

8330LCSMix1_00120

4 vials Rec. 10/6/20
8330 Cali mix t



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0163590
Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : August 31, 2025 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	HMX	1,002.5 µg/mL (Lot 191003JLM)	+/-	5.9548	µg/mL	Gravimetric
	CAS # 2691-41-0		+/-	54.9222	µg/mL	Unstressed
	Purity 98%		+/-	64.0446	µg/mL	Stressed
2	RDX	1,005.0 µg/mL (Lot 080228JLM)	+/-	5.9694	µg/mL	Gravimetric
	CAS # 121-82-4		+/-	55.0569	µg/mL	Unstressed
	Purity 99%		+/-	64.2018	µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,005.0 µg/mL (Lot A6TDK)	+/-	5.9694	µg/mL	Gravimetric
	CAS # 99-35-4		+/-	55.0569	µg/mL	Unstressed
	Purity 99%		+/-	64.2018	µg/mL	Stressed
4	1,3-Dinitrobenzene	1,007.0 µg/mL (Lot BCBN4329V)	+/-	5.9813	µg/mL	Gravimetric
	CAS # 99-65-0		+/-	55.1665	µg/mL	Unstressed
	Purity 99%		+/-	64.3295	µg/mL	Stressed
5	Nitrobenzene	1,000.0 µg/mL (Lot SHBJ3622)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 98-95-3		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,006.0 µg/mL (Lot 5737200)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 118-96-7		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
7	2,4-Dinitrotoluene	1,009.0 µg/mL (Lot MKAA0690V)	+/-	5.9932	µg/mL	Gravimetric
	CAS # 121-14-2		+/-	55.2761	µg/mL	Unstressed
	Purity 99%		+/-	64.4573	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

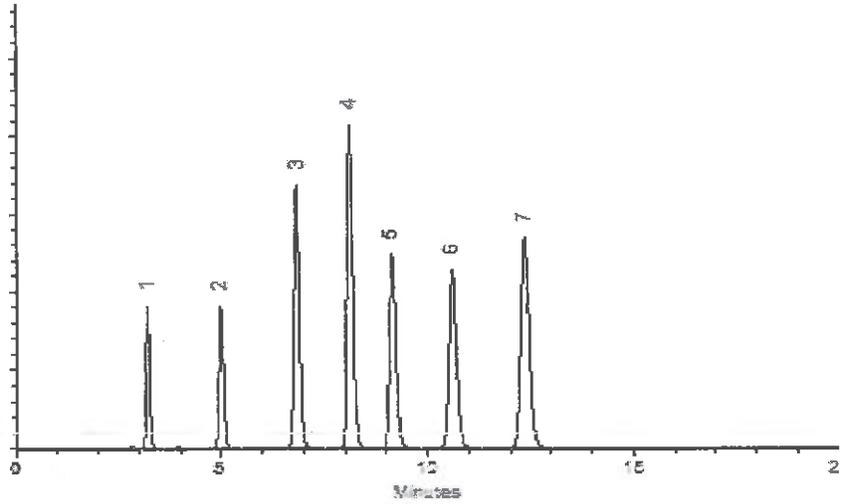
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover
Dalton Stover - Operations Technician I

Date Mixed: 17-Aug-2020 **Balance:** 1128353505

Jennifer S. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Aug-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330LCSMix1_00125



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis

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Catalog No. : 31450 **Lot No.:** A0171502
Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	HMX	1,002.0 µg/mL (Lot 210324JLM)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 2691-41-0		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
2	RDX	1,003.0 µg/mL (Lot 080220JLM)	+/-	5.9575	µg/mL	Gravimetric
	CAS # 121-82-4		+/-	54.9474	µg/mL	Unstressed
	Purity 99%		+/-	64.0740	µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,004.0 µg/mL (Lot A6TDK)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 99-35-4		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
4	1,3-Dinitrobenzene	1,000.0 µg/mL (Lot 1-DXX-24-1)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 99-65-0		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
5	Nitrobenzene	1,010.0 µg/mL (Lot MKCK4267)	+/-	5.9991	µg/mL	Gravimetric
	CAS # 98-95-3		+/-	55.3308	µg/mL	Unstressed
	Purity 99%		+/-	64.5212	µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,000.0 µg/mL (Lot D10587700)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 118-96-7		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
7	2,4-Dinitrotoluene	1,004.0 µg/mL (Lot MKAA0690)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 121-14-2		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

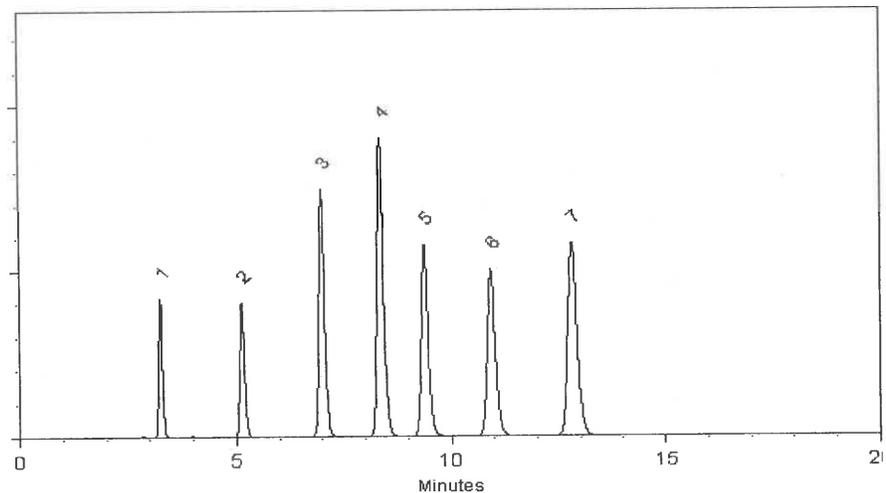
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

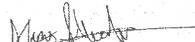
Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Lane Kibe - Mix Technician

Date Mixed: 20-Apr-2021 Balance: 1127510105


Alexis Shelow - Operations Tech I

Date Passed: 23-Apr-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSMix1_00129



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0171502
Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	HMX	1,002.0 µg/mL (Lot 210324JLM)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 2691-41-0		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
2	RDX	1,003.0 µg/mL (Lot 080220JLM)	+/-	5.9575	µg/mL	Gravimetric
	CAS # 121-82-4		+/-	54.9474	µg/mL	Unstressed
	Purity 99%		+/-	64.0740	µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,004.0 µg/mL (Lot A6TDK)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 99-35-4		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
4	1,3-Dinitrobenzene	1,000.0 µg/mL (Lot 1-DXX-24-1)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 99-65-0		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
5	Nitrobenzene	1,010.0 µg/mL (Lot MKCK4267)	+/-	5.9991	µg/mL	Gravimetric
	CAS # 98-95-3		+/-	55.3308	µg/mL	Unstressed
	Purity 99%		+/-	64.5212	µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,000.0 µg/mL (Lot D10587700)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 118-96-7		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
7	2,4-Dinitrotoluene	1,004.0 µg/mL (Lot MKAA0690)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 121-14-2		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

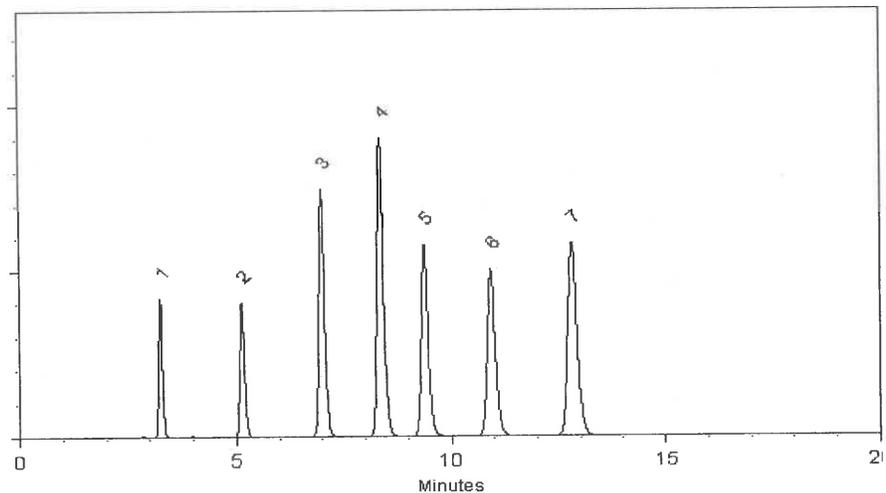
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

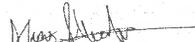
Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Lane Kibe - Mix Technician

Date Mixed: 20-Apr-2021 Balance: 1127510105


Alexis Shelow - Operations Tech I

Date Passed: 23-Apr-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSMix1_00136



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0183848

Description : 8330 Calibration Mix #1
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	HMX	1,008.0 µg/mL (Lot 210324JLM)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 2691-41-0		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed
2	RDX	1,007.0 µg/mL (Lot 080228JLM)	+/-	5.9813	µg/mL	Gravimetric
	CAS # 121-82-4		+/-	55.1665	µg/mL	Unstressed
	Purity 99%		+/-	64.3295	µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,008.0 µg/mL (Lot A6TDK)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 99-35-4		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed
4	1,3-Dinitrobenzene	1,006.0 µg/mL (Lot 1-DXX-24-1)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 99-65-0		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
5	Nitrobenzene	1,007.0 µg/mL (Lot 10224044)	+/-	5.9813	µg/mL	Gravimetric
	CAS # 98-95-3		+/-	55.1665	µg/mL	Unstressed
	Purity 99%		+/-	64.3295	µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,002.0 µg/mL (Lot D11836200)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 118-96-7		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
7	2,4-Dinitrotoluene	1,005.0 µg/mL (Lot MKAA0690V)	+/-	5.9694	µg/mL	Gravimetric
	CAS # 121-14-2		+/-	55.0569	µg/mL	Unstressed
	Purity 99%		+/-	64.2018	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

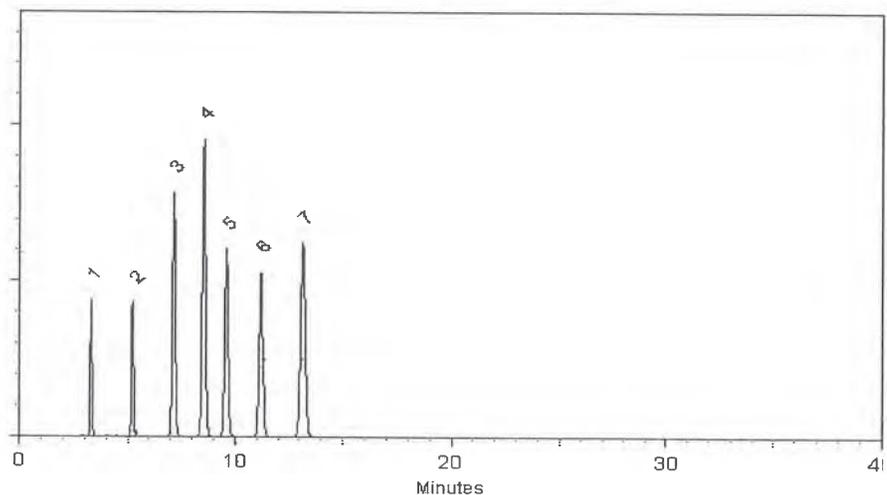
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

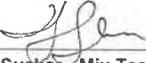
Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995


Feng-Yan Lu - QC Analyst

Date Passed: 13-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSmix2_00015



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0161545

Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Tetryl	1,004.0 µg/mL (Lot 091120JLM)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 479-45-8		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene	1,002.0 µg/mL (Lot ER070908-01)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 19406-51-0		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene	1,000.0 µg/mL (Lot 29550-55)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 35572-78-2		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
4	2,6-Dinitrotoluene	1,000.0 µg/mL (Lot 1437483V)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 606-20-2		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
5	2-Nitrotoluene	1,000.0 µg/mL (Lot BCBZ7826)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 88-72-2		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
6	4-Nitrotoluene	1,000.0 µg/mL (Lot FAU01)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 99-99-0		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed
7	3-Nitrotoluene	1,000.0 µg/mL (Lot FBO01)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 99-08-1		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

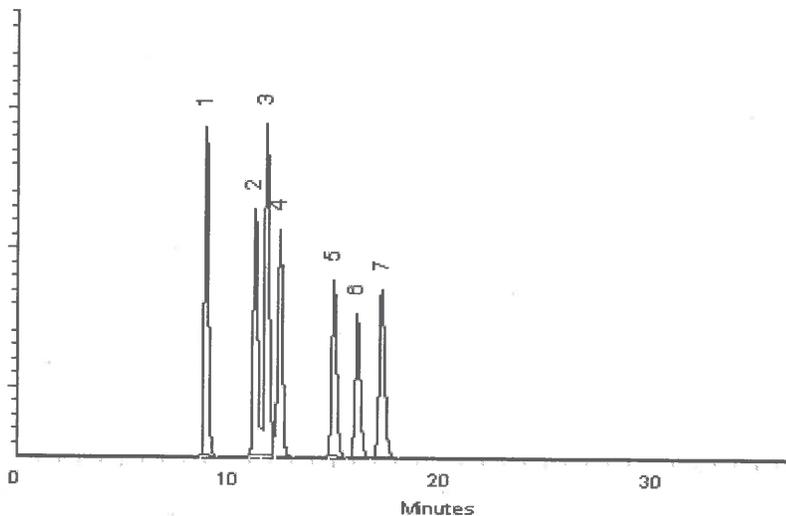
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Windle
Clara Windle - Operations Technician I

Date Mixed: 08-Jun-2020 Balance: B442140311

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Jun-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

8330LCSmix2_00028



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0171368

Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Tetryl	1,008.0 µg/mL (Lot 091120JLM)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 479-45-8		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene	1,002.0 µg/mL (Lot ER070908-01)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 19406-51-0		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene	1,006.0 µg/mL (Lot 29550-55)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 35572-78-2		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
4	2,6-Dinitrotoluene	1,008.0 µg/mL (Lot 1437483V)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 606-20-2		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed
5	2-Nitrotoluene	1,010.0 µg/mL (Lot BCBZ7826)	+/-	5.9991	µg/mL	Gravimetric
	CAS # 88-72-2		+/-	55.3308	µg/mL	Unstressed
	Purity 99%		+/-	64.5212	µg/mL	Stressed
6	4-Nitrotoluene	1,010.0 µg/mL (Lot FAU01)	+/-	5.9991	µg/mL	Gravimetric
	CAS # 99-99-0		+/-	55.3308	µg/mL	Unstressed
	Purity 99%		+/-	64.5212	µg/mL	Stressed
7	3-Nitrotoluene	1,000.0 µg/mL (Lot 07329LG)	+/-	5.9397	µg/mL	Gravimetric
	CAS # 99-08-1		+/-	54.7830	µg/mL	Unstressed
	Purity 99%		+/-	63.8824	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

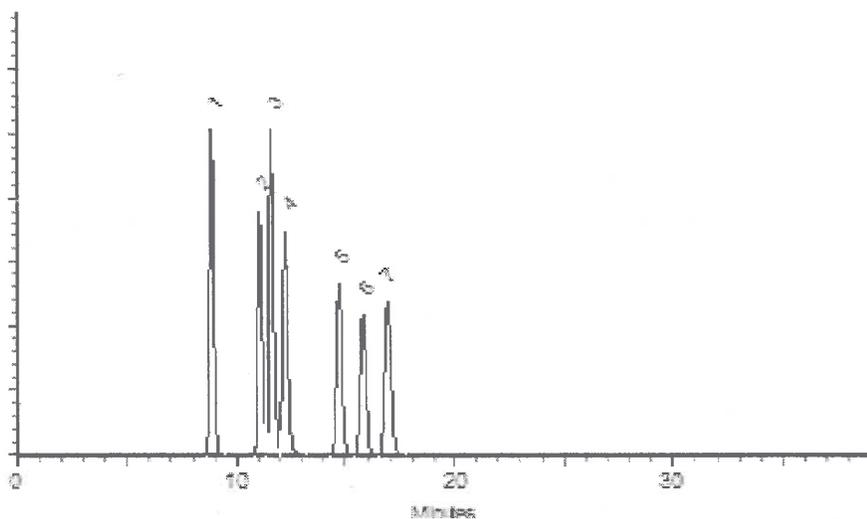
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Cory Meyer - Operations Tech I

Date Mixed: 15-Apr-2021 **Balance:** 1128342314


Alexis Shelow - Operations Tech I

Date Passed: 20-Apr-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSmix2_00029



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0178262

Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Tetryl	1,006.0 µg/mL (Lot 211028JLM)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 479-45-8		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene	1,006.0 µg/mL (Lot ER070908-01)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 19406-51-0		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene	1,002.0 µg/mL (Lot 29550-55)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 35572-78-2		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
4	2,6-Dinitrotoluene	996.0 µg/mL (Lot BCBB8606)	+/-	7.0625	µg/mL	Gravimetric
	CAS # 606-20-2		+/-	54.7001	µg/mL	Unstressed
	Purity 99%		+/-	63.7437	µg/mL	Stressed
5	2-Nitrotoluene	1,006.0 µg/mL (Lot BCBZ7826)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 88-72-2		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
6	4-Nitrotoluene	1,004.0 µg/mL (Lot FAU01)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 99-99-0		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
7	3-Nitrotoluene	1,008.0 µg/mL (Lot FBO01)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 99-08-1		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

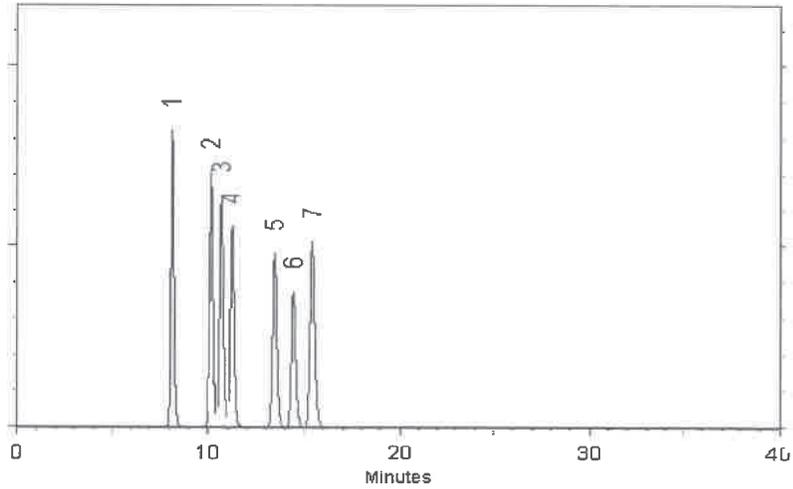
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish
Brandon Reish - Mix Technician

Date Mixed: 08-Nov-2021 **Balance:** B345965662

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Nov-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSmix2_00031



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0178262

Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Tetryl	1,006.0 µg/mL (Lot 211028JLM)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 479-45-8		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene	1,006.0 µg/mL (Lot ER070908-01)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 19406-51-0		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene	1,002.0 µg/mL (Lot 29550-55)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 35572-78-2		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
4	2,6-Dinitrotoluene	996.0 µg/mL (Lot BCBB8606)	+/-	7.0625	µg/mL	Gravimetric
	CAS # 606-20-2		+/-	54.7001	µg/mL	Unstressed
	Purity 99%		+/-	63.7437	µg/mL	Stressed
5	2-Nitrotoluene	1,006.0 µg/mL (Lot BCBZ7826)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 88-72-2		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
6	4-Nitrotoluene	1,004.0 µg/mL (Lot FAU01)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 99-99-0		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
7	3-Nitrotoluene	1,008.0 µg/mL (Lot FBO01)	+/-	5.9872	µg/mL	Gravimetric
	CAS # 99-08-1		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

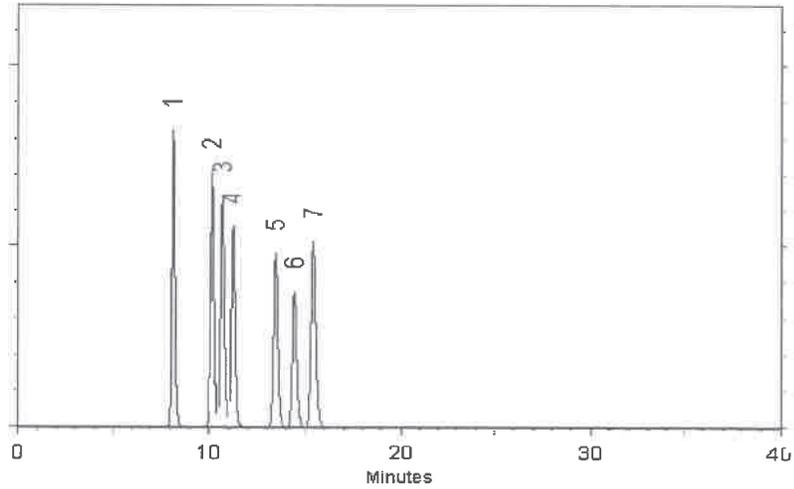
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish
Brandon Reish - Mix Technician

Date Mixed: 08-Nov-2021 **Balance:** B345965662

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Nov-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSmix2_00032



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0178262

Description : 8330 Calibration Mix #2
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2026 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Tetryl	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 479-45-8 (Lot 211028JLM)		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
2	4-Amino-2,6-dinitrotoluene	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 19406-51-0 (Lot ER070908-01)		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
3	2-Amino-4,6-dinitrotoluene	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 35572-78-2 (Lot 29550-55)		+/-	54.8926	µg/mL	Unstressed
	Purity 99%		+/-	64.0101	µg/mL	Stressed
4	2,6-Dinitrotoluene	996.0 µg/mL	+/-	7.0625	µg/mL	Gravimetric
	CAS # 606-20-2 (Lot BCBB8606)		+/-	54.7001	µg/mL	Unstressed
	Purity 99%		+/-	63.7437	µg/mL	Stressed
5	2-Nitrotoluene	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 88-72-2 (Lot BCBZ7826)		+/-	55.1117	µg/mL	Unstressed
	Purity 99%		+/-	64.2657	µg/mL	Stressed
6	4-Nitrotoluene	1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 99-99-0 (Lot FAU01)		+/-	55.0021	µg/mL	Unstressed
	Purity 99%		+/-	64.1379	µg/mL	Stressed
7	3-Nitrotoluene	1,008.0 µg/mL	+/-	5.9872	µg/mL	Gravimetric
	CAS # 99-08-1 (Lot FBO01)		+/-	55.2213	µg/mL	Unstressed
	Purity 99%		+/-	64.3934	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

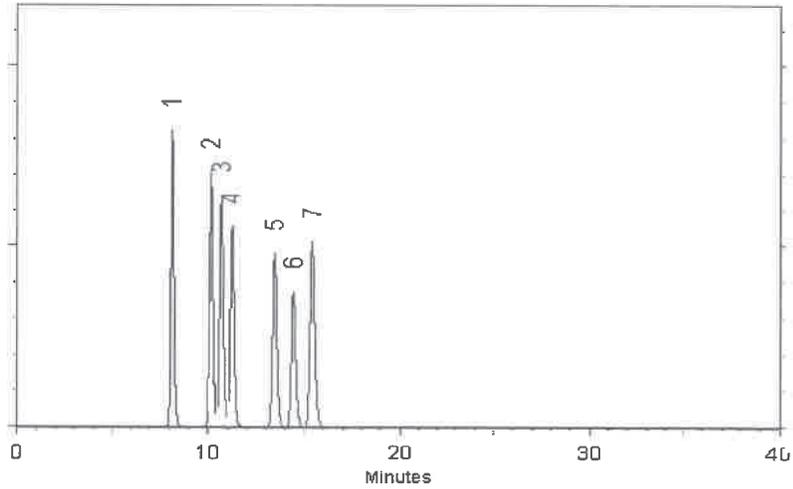
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish
Brandon Reish - Mix Technician

Date Mixed: 08-Nov-2021 **Balance:** B345965662

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Nov-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330PASTkPS_00067

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 218031154-02

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Jun 8, 2020

Expiration: Jul 8, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(HPLC)	(µg/mL)	(µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

8330PASTkPS_00068

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 218031154-02

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information



Signal Word: Danger

Date Certified: Jun 8, 2020

Expiration: Jul 8, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(HPLC)	(µg/mL)	(µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 

Larry Decker, Organic QC Manager

Reagent

8330PASTkPS_00069

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3

Description: Picric acid

Lot: 218031154-03

Solvent: Acetonitrile (50%)

Methanol (50%)

Hazards: Refer to SDS for complete safety information

Date Certified: Jul 7, 2021

Expiration: Aug 7, 2023

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Certified Reference Material



Signal Word: Danger



Component	CAS #	Purity % (HPLC)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

31499

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

8330Surrogate_00127

Preliminary Report

Eurofins TestAmerica, Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211116-106552.b\071-0801.D
Lims ID: Surr127 Inj. Date: 16-Nov-2021 17:37:51
Worklist ID: 280-0106552-072 Instrument: CHHPLC_X3
Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
\$ 10 1,2-Dinitrobenzene	0.5000	0.5055	101.1	83-119

Samples for Limit Group: 1, Lims Prep Method: 3535
280-155547-B-1-A

Reagent

8330Surrogate_00128

Preliminary Report

Eurofins TestAmerica, Denver
LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220121-108087.b\01210004.D
 Lims ID: CaCl2_Sol_00078 Inj. Date: 21-Jan-2022 15:41:36
 Worklist ID: 280-0108087-004 Instrument: CHHPLC_X3
 Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
\$ 10 1,2-Dinitrobenzene	0.5000	0.5226	104.5	78-119

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

- | | | |
|-------------------|-------------------|-------------------|
| 280-157690-A-1-B | 280-157690-A-2-B | 280-157690-A-3-B |
| 280-157690-A-4-B | 280-157690-A-5-B | 280-157690-A-6-B |
| 280-157690-A-7-E | 280-157690-A-8-B | 280-157690-A-9-B |
| 280-157690-A-10-B | 280-157690-A-11-B | 280-157690-A-12-B |
| 280-157690-A-13-B | 280-157690-A-14-B | 280-157690-A-15-B |
| 280-157690-A-16-B | 280-157690-A-17-B | 280-157690-A-18-B |

Reagent

8330Surrogate_00129

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X5\20220615-111843.b\006-0601.D

Lims ID: Surr129

Inj. Date: 15-Jun-2022 17:51:51

Worklist ID: 280-0111843-031

Instrument: CHHPLC_X5

Method: 8330_X5_Luna

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
\$ 10 1,2-Dinitrobenzene	0.5000	0.4972	99.4	63-127

Samples for Limit Group: 1, Lims Prep Method: 3535

280-163192-B-1-A

280-163192-A-2-A

280-163192-A-3-A

280-163192-B-4-A

280-163356-A-1-A

280-163356-A-2-A

280-163357-A-1-A

280-163357-A-2-A

Reagent

8330Surrogate_00131

Reagent

8330SurrStkSS_00203



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00204



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00205



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00206



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
			+/- 56.1943	µg/mL	Unstressed
			+/- 57.5086	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00207



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00208



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00209



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
			+/- 56.1943	µg/mL	Unstressed
			+/- 57.5086	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00210



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
			+/- 56.1943	µg/mL	Unstressed
			+/- 57.5086	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00211



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/- 5.9516 µg/mL Gravimetric +/- 56.1943 µg/mL Unstressed +/- 57.5086 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00212



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0172684

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
			+/-	56.1943	µg/mL	Unstressed
			+/-	57.5086	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00213

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

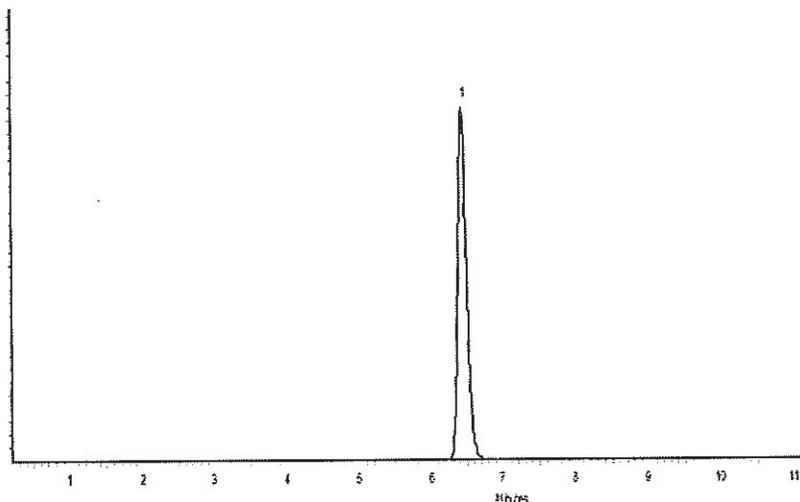
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 13-Dec-2021

Balance: B442140311

Marilisa Cowan - Operations Tech I

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00214



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0179479

Description : 8330 Surrogate Mix
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2026 Storage: 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	999.0 µg/mL	+/- 5.9338	µg/mL	Gravimetric	
			+/- 56.0261	µg/mL	Unstressed	
			+/- 57.3364	µg/mL	Stressed	

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

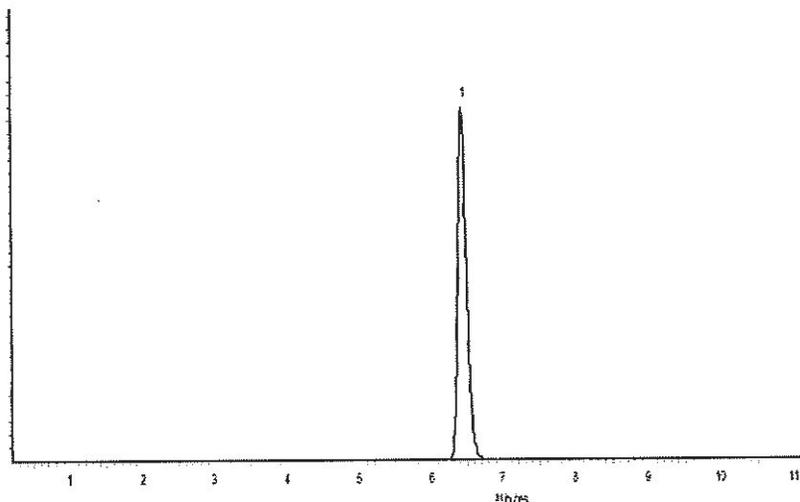
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 13-Dec-2021

Balance: B442140311

Marilisa Cowan - Operations Tech I

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00215

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

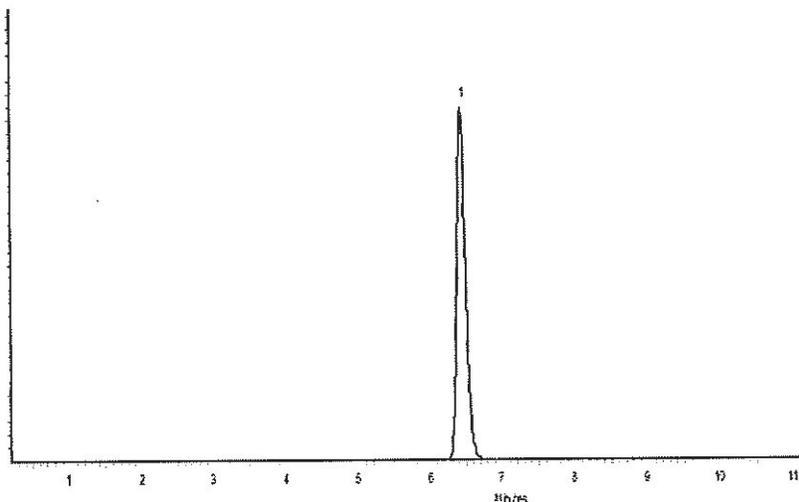
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 13-Dec-2021

Balance: B442140311

Marilisa Cowan - Operations Tech I

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00216

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

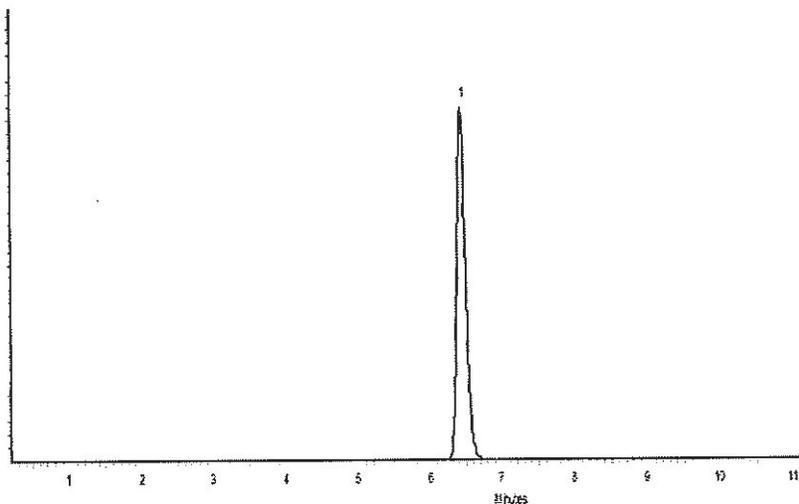
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

Date Mixed: 13-Dec-2021

Balance: B442140311

Marilina Cowan - Operations Tech I

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00217

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 Lot No.: A0179479
 Description : 8330 Surrogate Mix
 8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : December 31, 2026 Storage: 10°C or colder
 Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99% (Lot MKCH6067)	999.0 µg/mL	+/- 5.9338 µg/mL +/- 56.0261 µg/mL +/- 57.3364 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methanol
 CAS # 67-56-1
 Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

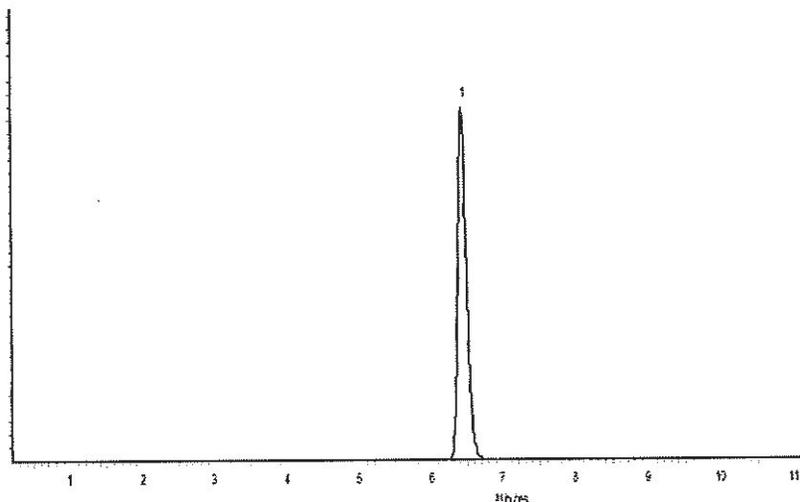
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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Morgan Craighead - Mix Technician

Date Mixed: 13-Dec-2021

Balance: B442140311

Marilisa Cowan - Operations Tech I

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00223

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

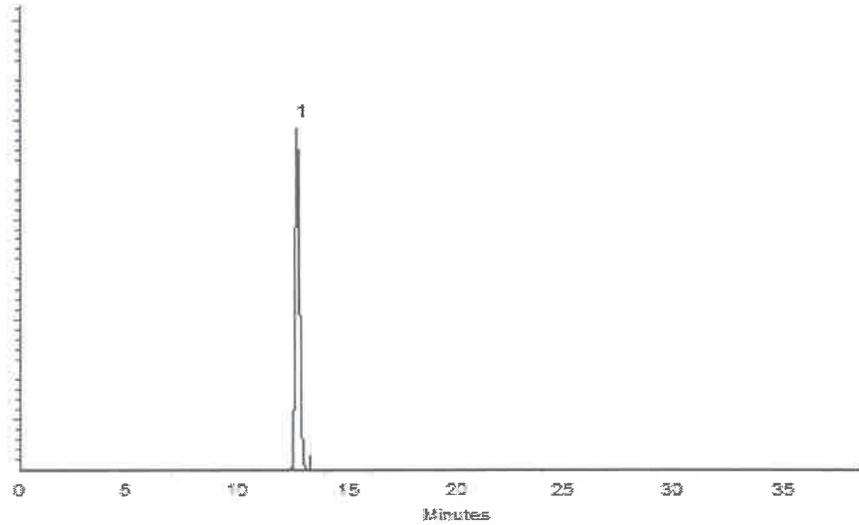
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 23-Jun-2022 **Balance:** B707717271

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00224

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

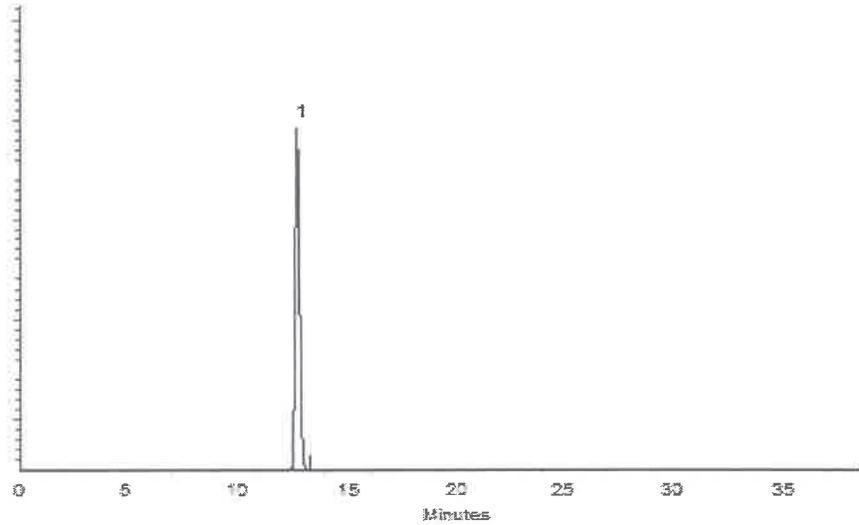
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 23-Jun-2022 Balance: B707717271

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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Certified Uncertainty Value Notes:

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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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Reagent

8330SurrStkSS_00226

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

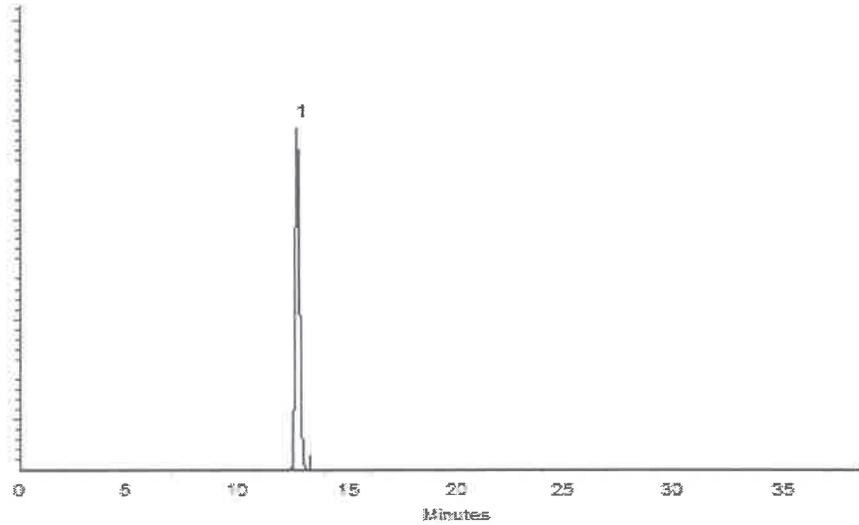
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 23-Jun-2022 Balance: B707717271

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
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Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStkSS_00227

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

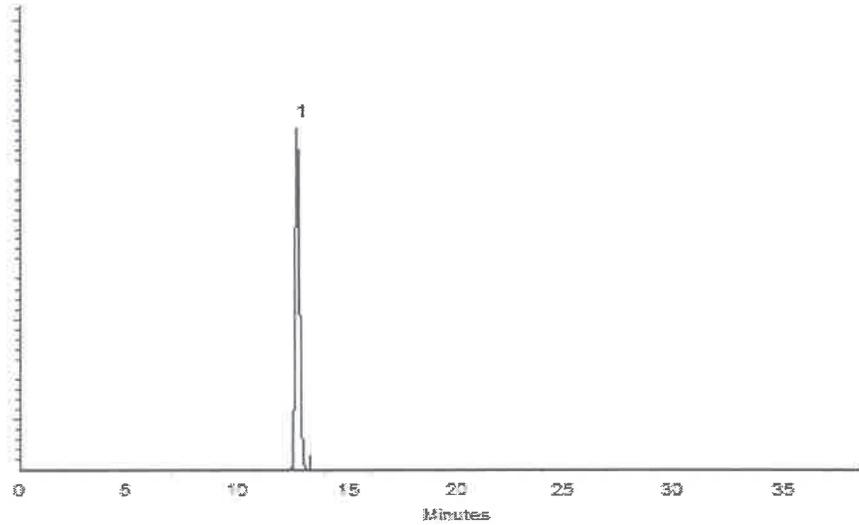
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 23-Jun-2022 Balance: B707717271

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330SurrStock_00169

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS

Description: 1,2-Dinitrobenzene

Lot: 219051500

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: May 22, 2019

Expiration: May 22, 2029

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared	Certified Analyte
		(GC/FID)	Concentration ² (µg/mL)	Concentration ¹ (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 

Larry Decker, Organic QC Manager

Reagent

8330SurrStock_00170

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500

Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared Concentration ²	Certified Analyte Concentration ¹
		(GC/FID)	(µg/mL)	(µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

Reagent

AlachlorStock_00019



Certificate of Analysis

Product Name: Alachlor Standard

Product Number: EPA-1068-1

Lot Issue Date: 14-Jul-2021

Lot Number: 0006616729

Expiration Date: 31-Aug-2025

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
alachlor	015972-60-8	RM14112	5014 ± 25 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-0A-015.1



ISO 17025 Cert
No. AT-1937

Reagent

MS-31615_00002



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0161015

Description : GC/MS Tuning Mixture
GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2023 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentachlorophenol CAS # 87-86-5 (Lot 200424JLM) Purity 99%	1,001.7 µg/mL	+/- 5.8783	µg/mL	Gravimetric
			+/- 45.6251	µg/mL	Unstressed
			+/- 65.8765	µg/mL	Stressed
2	DFTPP (Decafluorotriphenylphosphine) CAS # 5074-71-5 (Lot 10220909) Purity 96%	1,000.3 µg/mL	+/- 5.8704	µg/mL	Gravimetric
			+/- 45.5638	µg/mL	Unstressed
			+/- 65.7879	µg/mL	Stressed
3	Benzidine CAS # 92-87-5 (Lot CYGNUSX) Purity 99%	1,002.0 µg/mL	+/- 5.8803	µg/mL	Gravimetric
			+/- 45.6403	µg/mL	Unstressed
			+/- 65.8984	µg/mL	Stressed
4	4,4'-DDT CAS # 50-29-3 (Lot S37912V) Purity 99%	1,000.3 µg/mL	+/- 5.8705	µg/mL	Gravimetric
			+/- 45.5644	µg/mL	Unstressed
			+/- 65.7888	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

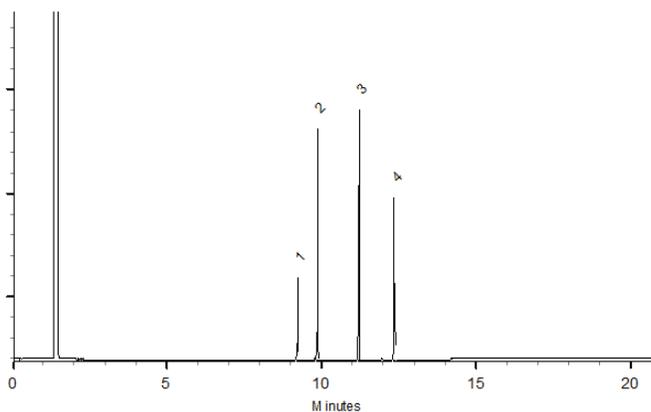
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Maje

Date Mixed: 20-May-2020 **Balance:** 1128353505

Justine Albertson
Justine Albertson - Operations Tech-ARM QC

Date Passed: 26-May-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-31615_00005



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A01G00/ 5

Description : MS Turi gxtxr n̄ te,gµm
MS Turi gxtxr n̄ te,gµm1000hr y l l̄r̄ m̄oḁx̄m̄ḁḁµ° n̄r̄ly l cy 2ga

Container Size : / ry l **Pkg Amt:** v̄r̄ly l

Expiration Date : b̄msny 8µ̄81l̄r̄ 0/ P **Storage:** 10>S̄r̄µ̄sp̄d̄ µ̄

Handling: S̄px,ctx. r̄sc̄j̄st̄x̄p̄r̄ n̄x̄ µ̄n̄2̄p̄° gs,t-m **Suip:** Ay 8tnx,
,petxF

CERTIFIED VALUES

EIQtion Grder	CompoQnd	v rah. Conc. (weigut/holQme)	Expanded Uncertainty (95% C.L.; K=2)			
1	Pentachlorophenol CAS # 87-86-5 (Lot 210706RSR) PQrity 99%	1,002.4 µg/mL	+/- 5.8826	µg/mL	Gravimetric	
			+/- 45.6585	µg/mL	Unstressed	
			+/- 65.9247	µg/mL	Stressed	
2	DFTPP (Decafluorotriphenylphosphine) CAS # 5074-71-5 (Lot Q117-147) PQrity 95%	999.4 µg/mL	+/- 5.8650	µg/mL	Gravimetric	
			+/- 45.5219	µg/mL	Unstressed	
			+/- 65.7274	µg/mL	Stressed	
3	Benzidine CAS # 92-87-5 (Lot 210907JLM) PQrity 99%	1,000.8 µg/mL	+/- 5.8733	µg/mL	Gravimetric	
			+/- 45.5857	µg/mL	Unstressed	
			+/- 65.8195	µg/mL	Stressed	
4	4,4'-DDT CAS # 50-29-3 (Lot 210916JLM) PQrity 99%	1,003.2 µg/mL	+/- 5.8873	µg/mL	Gravimetric	
			+/- 45.6950	µg/mL	Unstressed	
			+/- 65.9774	µg/mL	Stressed	

Solhent: Methylene chloride
CAS # 75-09-2
PQrity 99%

ColOmn:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

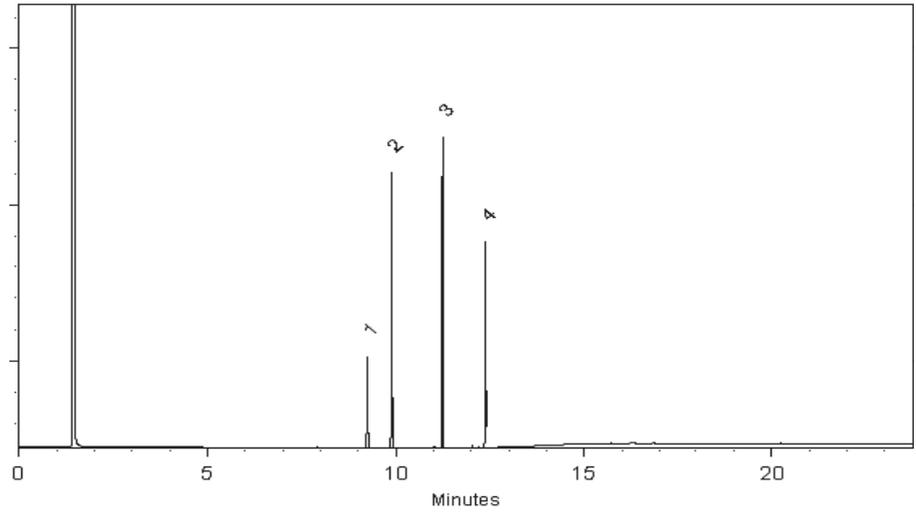
Carrier v as:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



i ot rsoopy c,pr µy n2µm nx, . rcr nxmca mpm,tx rsox° t,tx. rsoy. nx n2µp° gs,n
cssn2,cxsnfm p2,ty cam ga. rxdpgjrc8lsox° t,tx. n opgá r8mc° r. ,n n2µp° gjn
. 2nsrtx. ,µgy nx,ly mop° lrx° r22asc,txF


Matt Fragassi - Mix Technician

Date Mixed: 23-Dec-2021 **Balance:** 1127510105


Fang-Yun Lo - QC Analyst

Date Passed: 06-Jan-2022

**ManOfactOred Oner Restek's ISG 9001:2015
Registered QOality System
Certificate #FM 80397**

General Certified Reference Material Notes

Expiration Notes:

- we2tuc, tpxrf c, m ca° n p gxp2nxf rcy 2gan , p m r r r s p y 2acxsmUt, o n o m r s p y y m x° n f r s p x° t, t p x. F
- q x s m c t x, d l r s p x s m x, j c, t p x l r c x° m e 2 t u c, t p x r p h o m t 6 ≥ T r e m 8 c. n f r p x n o m r g x p 2 n x n f r 2 p° g s, r 8 n t x r n , p m f r c s s p j t x r n p n o m r s p y y m x° n f r s p x° t, t p x r p g x° r t x n o m r , p m c r m t h r d F

Priority Notes:

- j g u t, d r c x° p m s o m y t s c a t° n x, t, d r c m f r m m y t x n f r 8 d r p x m p m y p m p h o m t p a p U t x r n r s o x t: g m l r m s (D l d H j l S l r M S h w S b l n M S T u l r l S T u l r e D r c x° p m y n a t x r r 2 p t x, F
- S p y 2 p g x° . r U t, o r c r a , n f r 2 g u t, d r p h a n . n o c x r C C 9 r o c - m 8 m x r U n t r o, r s p m s, n f n p r s p y 2 n x. c, m t h p r y 2 g u t, t m r e x° p m c a. F n A n s p m s, t p x r t c s, p m t. r g. n f n p r c a g a c, m o m r c y p g x, r p h s p y 2 p g x° n x n s m . c. d n p r e s o t n m o m r m t u n f r s p x s m x, j c, t p x r p h o m 2 c m x, r s p y 2 p g x° r t x n p a g, t p x f n
- j g u t, d r p h i t. p y n i s r s p y 2 p g x° . r t. n m 2 p m f r c. n o m g y r p h o m t. p y m p f n
- j g u t, d n c a g m r c m p p g x° n f n p n o m r c r c m , r U o p a m x g y 8 m F

Certified Uncertainty Value Notes:

- i o m r g x s m c t x, t m r c m f r m m y t x n f r r t r c s s p j c x s m U t, o r D % n l C 0 3 P r c x° r l m g t° m 8 5 f i o m s m y t h r f r s p y 8 t x n f n , j m . n f n g x s m c t x, d n c a g m r t x s a g° m n r j c - t y m i s r g x s m c t x, d l r o p y p r m x n t, d r 8 m U m m x f c y 2 g a g x s m c t x, d l n , p m c r m , c 8 t a, d g x s m c t x, d r c x° n o t 2 2 t x r n , c 8 t a, d r g x s m c t x, d r c x° r U m m r s p y 8 t x n f r g. t x r n o m r p a p U t x r n t h y g a l

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k t. r c r s p - m c r m t c s, p m p h i l d U o t s o r r t - m r c r a m r a p h s p x n f m x s m p h c 2 2 p e t y c, m a d r C 5 9 F

- D r t. r t y 2 p m c x, n p r x p, m o c, n o m o t 2 2 t x r n , c 8 t a, d r g x s m c t x, d r U c. r p 8, c t x n f r g x° m m y 2 m c, g m m e, m y m r t h p n 2 n s t h s n t y m m t x, m p c a G o m m p m r n o m s m y t h r f r s p y 8 t x n f n , j m . n f r g x s m c t x, d n c a g m o p g a r p x a d r 8 m c 2 2 a n f n p n o m r 2 p° g s, r t h r, r U c. n . , p m f r c, r x p x f. , c x° c j f n m y 2 m c, g m m s p x° t, t p x. r g 2 n p r c x° r x s a g° t x r r G f c d. F n S p x, c s, r e m , m n i n s o x t s c a u m p t s m c, n U U U f m , m f s p y S p x, c s, f q. n t h p g. m m s p y y m x° c, t p x. r t h p g m o t 2 y m x, r U c. r t x f, j c x. t, n t h p y p m m o c x r G f c d. r c, m x p x f . , c x° c j f n m y 2 m c, g m m s p x° t, t p x. F
- A 2 2 a d n o m s m y t h r f r s p y 8 t x n f r g x. , j m . n f r g x s m c t x, d n c a g m r t h o m 2 p° g s, r U c. n m s n t - n f r g x° m p n , c x° c j f n o t 2 2 t x r n s p x° t, t p x. F m A 2 2 a d n o m s m y t h r f r s p y 8 t x n f n , j m . n f r g x s m c t x, d n c a g m r t h o m 2 p° g s, r U c. n m s n t - n f r g x° m p x p x f. , c x° c j f n s p x° t, t p x. r c. n 2 n s t h r f r 8 n p U f n

Label Conditions	Standard Conditions	Non-Standard Conditions
/ 5>S r j p y t x c a n z p p y n i n y 2 m c, g m n 7	kr60>Sn	Er60>Srg2nprGf cd.
10>S r p m s p a m u z r m h r m c, n 7	krP0>Sn	ErP0>Srg2nprGf cd.
0>S r p m s p a m u z (m m 4 m 7 f / 0>S r p m s p a m u z b m m 2 r l m m 4 m 7	kr l 5>Sn	Er l 5>Srg2nprGf cd.

- u n 2 c j c, m z x p, r s p y 8 t x n f 7 g x s m c t x, d n c a g m r t h p r j c - t y m i s r g x s m c t x, d r c m r c a p r f t. 2 a d n f r p x n o m s m y t h s c, n l r t h k n m f n f l m . n 2 c j c, m o p y p r m x n t, d r 8 m U m m x f c y 2 g a g x s m c t x, d l n , p m c r m , c 8 t a, d r g x s m c t x, d r c x° n o t 2 2 t x r n , c 8 t a, d r g x s m c t x, d n c a g m n c m r c - c t a 8 a m 8 d r s p x, c s, t x r r e m , m n i n s o x t s c a u m p t s m c, n U U U f m , m f s p y S p x, c s, f q. F
- i o m 2 c s; c r n f r c y p g x, r t n o m y t x t y g y n c y 2 a m t 4 m t h p U o t s o r g x s m c t x, d r t. n c a° F n i o m r c y 2 g a n r c m p - m f n a n f n p m x. g m m , o c, n o m y t x t y g y r 2 c s; c r n f r c y p g x, r e c x r 8 m g n s t m x, a d n j c x. N m m f F

Manufacturing Notes:

- S p x s m x, j c, t p x r t. r 8 c. n f r g 2 p x r j c - t y m i s r 2 m 2 c j c, t p x r g. t x r m t, o m p r c 8 c a x s m U o p. m r s c a 8 j c, t p x r o c. r 8 m m x n m y t h r f r c t a d n g. t x r n D i n j e c s r c 8 a m U n t r o, . l r c x° p m f t a g, t p x. r U t, o r f a e. . r A n a e. . U c m r F

Handling Notes:

- u, c 8 t a, d r p h o m r g x p 2 n x n f r 2 p° g s, l r U o m x n , p m f r r t r s p y 2 a c x s m U t, o n o m r s p y y m x° n f r s p x° t, t p x. l r t. n g c j c x, m m f n o p p g r o n , o m m e 2 t u c, t p x r f t. 2 a d n f r p x n o m 2 p° g s, r a 8 n a c x° r s m y t h s c, n f f S p x, c s, r e m , m n t h p m c° t, t p x c a p 2 m x n f r 2 p° g s, n , c 8 t a, d n t x t h p y c, t p x l r U t, o n o m y x p U a n f r m g x° m p , c x° t x r n o c, r p 2 m x r 2 p° g s, n , c 8 t a, d r t. n g 8 r s, n p n o m 2 n s t h s r o c x° a x r r c x° n m x - t p x y m x, c a s p x° t, t p x. n p r U o t s o n o m 2 p° g s, r t. m e 2 p. n f r f r p m d p g m s p x - m x t m x s m e m , m n g 2 2 a m r f r c s, t - c, n f r t c a r U t, o n y p. , n , c x° c j f. r 2 c s; n f r t x n y l r c y 2 g a n f i c m m a p a g y m f r c s, t - c, n f r t c a r c m r c - c t a 8 a m o p p g r o r e m , m n r c. r c r e g. , p y n p m f n r t, m y f f A° t, t p x c a d l e m , m n m a r b T b S u n t h o m 2 g y 2 p. m p h i t a e. . U c m r f r c s, t - c, t p x r c. r s c, c a p r n x g y 8 m p 8 1 < 6 1 l n U o t s o r t x s a g° m r s p y 2 a m m t x. , j g s, t p x. F

Reagent

MS-567684_00024



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 **Lot No.:** A0167198
Description : 8270 Internal Standard
8270 Internal Standard 2,000µg/mL, Methylene chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : December 31, 2025 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

*10 vials.
 #1 opened 3/17/22 gould*

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
			µg/mL		Stress	
1	1,4-Dichlorobenzene-d4	2,003.5 µg/mL	+/-	11.6482	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-30447)		+/-	90.2366	µg/mL	Unstressed
	Purity 99%		+/-	100.1286	µg/mL	Stressed
2	Naphthalene-d8	2,011.1 µg/mL	+/-	11.6927	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-1452)		+/-	90.5811	µg/mL	Unstressed
	Purity 99%		+/-	100.5110	µg/mL	Stressed
3	Acenaphthene-d10	2,003.9 µg/mL	+/-	11.6506	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-30913)		+/-	90.2546	µg/mL	Unstressed
	Purity 99%		+/-	100.1486	µg/mL	Stressed
4	Phenanthrene-d10	2,019.2 µg/mL	+/-	11.7395	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-29119)		+/-	90.9437	µg/mL	Unstressed
	Purity 99%		+/-	100.9133	µg/mL	Stressed
5	Chrysene-d12	2,015.4 µg/mL	+/-	11.7174	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-31391)		+/-	90.7726	µg/mL	Unstressed
	Purity 99%		+/-	100.7234	µg/mL	Stressed
6	Perylene-d12	2,013.9 µg/mL	+/-	11.7090	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-30020)		+/-	90.7073	µg/mL	Unstressed
	Purity 99%		+/-	100.6509	µg/mL	Stressed

Reagent

MS-567685_00041



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis



www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0184539
Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : April 30, 2027 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ3299)	5,023.5 µg/mL	+/-	29.2073	µg/mL Gravimetric
			+/-	146.6035	µg/mL Unstressed
			+/-	177.8977	µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot GH-100)	5,000.1 µg/mL	+/-	29.0708	µg/mL Gravimetric
			+/-	145.9187	µg/mL Unstressed
			+/-	177.0667	µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	5,012.6 µg/mL	+/-	29.1437	µg/mL Gravimetric
			+/-	146.2845	µg/mL Unstressed
			+/-	177.5106	µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	5,004.9 µg/mL	+/-	29.0991	µg/mL Gravimetric
			+/-	146.0607	µg/mL Unstressed
			+/-	177.2391	µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	5,009.7 µg/mL	+/-	29.1270	µg/mL Gravimetric
			+/-	146.2008	µg/mL Unstressed
			+/-	177.4091	µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,005.8 µg/mL	+/-	29.1042	µg/mL Gravimetric
			+/-	146.0860	µg/mL Unstressed
			+/-	177.2698	µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

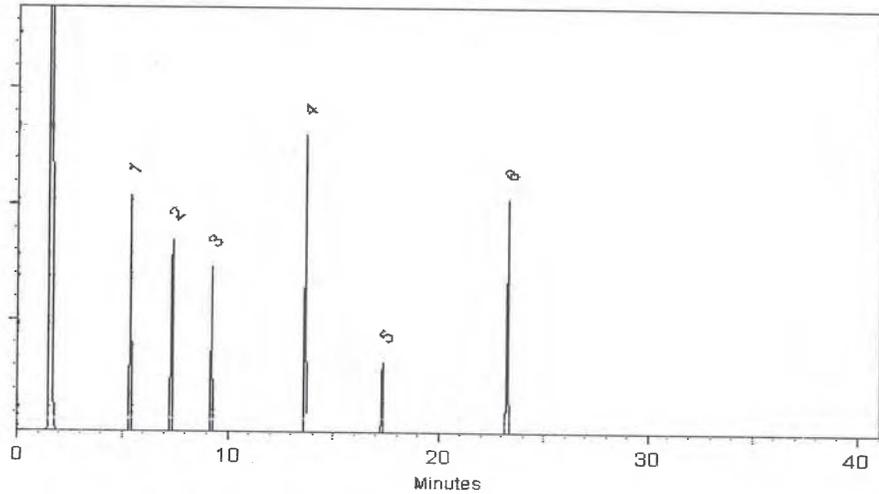
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Nick Yaw
Nick Yaw - Operations Tech I

Date Mixed: 26-Apr-2022 **Balance:** 1128360905

Nick Yaw
Nick Yaw - Operations Tech I

Date Passed: 29-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-567685_00042



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis



www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0184539
Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : April 30, 2027 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ3299)	5,023.5 µg/mL	+/-	29.2073	µg/mL Gravimetric
			+/-	146.6035	µg/mL Unstressed
			+/-	177.8977	µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot GH-100)	5,000.1 µg/mL	+/-	29.0708	µg/mL Gravimetric
			+/-	145.9187	µg/mL Unstressed
			+/-	177.0667	µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	5,012.6 µg/mL	+/-	29.1437	µg/mL Gravimetric
			+/-	146.2845	µg/mL Unstressed
			+/-	177.5106	µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	5,004.9 µg/mL	+/-	29.0991	µg/mL Gravimetric
			+/-	146.0607	µg/mL Unstressed
			+/-	177.2391	µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	5,009.7 µg/mL	+/-	29.1270	µg/mL Gravimetric
			+/-	146.2008	µg/mL Unstressed
			+/-	177.4091	µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,005.8 µg/mL	+/-	29.1042	µg/mL Gravimetric
			+/-	146.0860	µg/mL Unstressed
			+/-	177.2698	µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

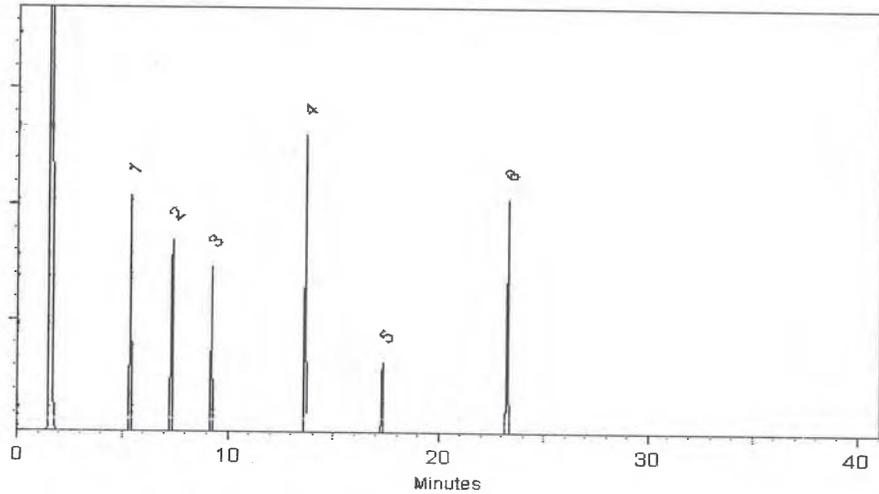
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Nick Yaw
Nick Yaw - Operations Tech I

Date Mixed: 26-Apr-2022 **Balance:** 1128360905

Nick Yaw
Nick Yaw - Operations Tech I

Date Passed: 29-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-567685_00043



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

Certificate of Analysis



www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0184539

Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ3299)	5,023.5 µg/mL	+/-	29.2073	µg/mL Gravimetric
			+/-	146.6035	µg/mL Unstressed
			+/-	177.8977	µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot GH-100)	5,000.1 µg/mL	+/-	29.0708	µg/mL Gravimetric
			+/-	145.9187	µg/mL Unstressed
			+/-	177.0667	µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	5,012.6 µg/mL	+/-	29.1437	µg/mL Gravimetric
			+/-	146.2845	µg/mL Unstressed
			+/-	177.5106	µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	5,004.9 µg/mL	+/-	29.0991	µg/mL Gravimetric
			+/-	146.0607	µg/mL Unstressed
			+/-	177.2391	µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	5,009.7 µg/mL	+/-	29.1270	µg/mL Gravimetric
			+/-	146.2008	µg/mL Unstressed
			+/-	177.4091	µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,005.8 µg/mL	+/-	29.1042	µg/mL Gravimetric
			+/-	146.0860	µg/mL Unstressed
			+/-	177.2698	µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

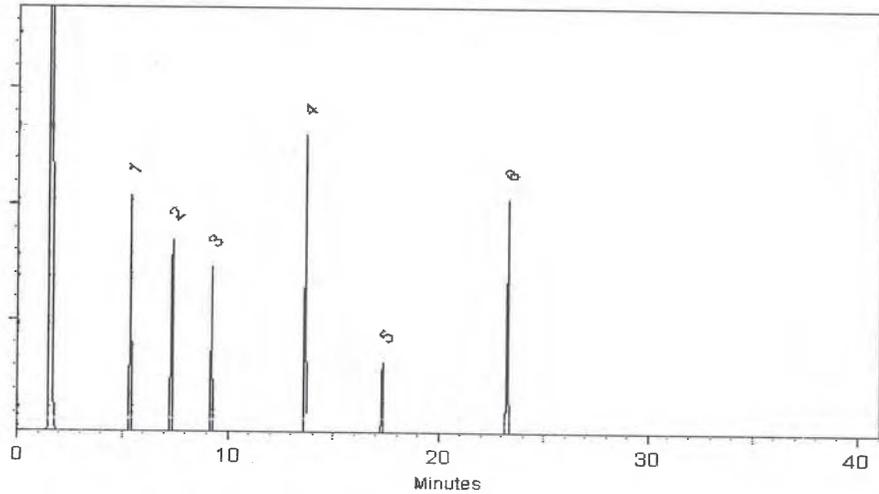
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Nick Yaw
Nick Yaw - Operations Tech I

Date Mixed: 26-Apr-2022 **Balance:** 1128360905

Nick Yaw
Nick Yaw - Operations Tech I

Date Passed: 29-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-567685_00044



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis



www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0184539
Description : 8270 Surrogate Standard
8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : April 30, 2027 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol CAS # 367-12-4 Purity 99% (Lot STBJ3299)	5,023.5 µg/mL	+/-	29.2073	µg/mL Gravimetric
			+/-	146.6035	µg/mL Unstressed
			+/-	177.8977	µg/mL Stressed
2	Phenol-d5 CAS # 4165-62-2 Purity 99% (Lot GH-100)	5,000.1 µg/mL	+/-	29.0708	µg/mL Gravimetric
			+/-	145.9187	µg/mL Unstressed
			+/-	177.0667	µg/mL Stressed
3	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	5,012.6 µg/mL	+/-	29.1437	µg/mL Gravimetric
			+/-	146.2845	µg/mL Unstressed
			+/-	177.5106	µg/mL Stressed
4	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	5,004.9 µg/mL	+/-	29.0991	µg/mL Gravimetric
			+/-	146.0607	µg/mL Unstressed
			+/-	177.2391	µg/mL Stressed
5	2,4,6-Tribromophenol CAS # 118-79-6 Purity 99% (Lot MKCJ7664)	5,009.7 µg/mL	+/-	29.1270	µg/mL Gravimetric
			+/-	146.2008	µg/mL Unstressed
			+/-	177.4091	µg/mL Stressed
6	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,005.8 µg/mL	+/-	29.1042	µg/mL Gravimetric
			+/-	146.0860	µg/mL Unstressed
			+/-	177.2698	µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

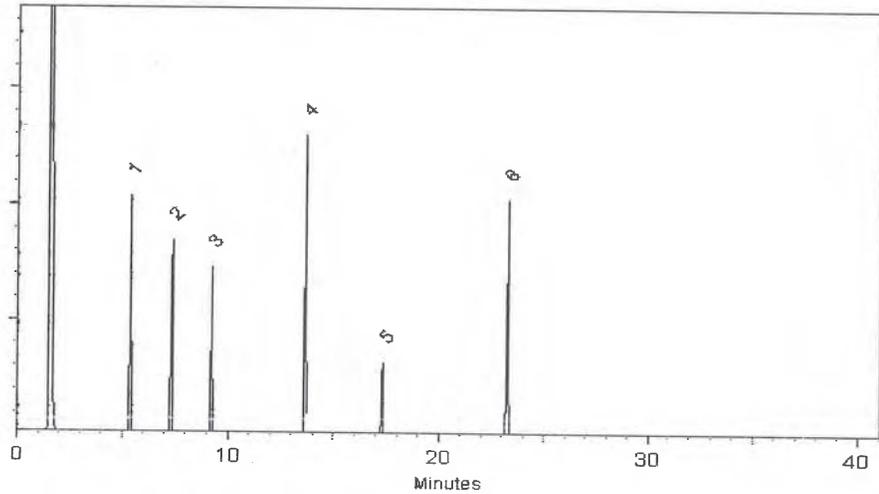
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Nick Yaw
Nick Yaw - Operations Tech I

Date Mixed: 26-Apr-2022 **Balance:** 1128360905

Nick Yaw
Nick Yaw - Operations Tech I

Date Passed: 29-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

NGu ICV_00002



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31602 **Lot No.:** A0164275

Description : Nitroguanidine Standard
Nitroguanidine Standard 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Nitroguanidine CAS # 556-88-7 Purity 99% (Lot 03708HN)	1,001.0 µg/mL	+/-	5.9456	µg/mL	Gravimetric
			+/-	54.8378	µg/mL	Unstressed
			+/-	63.9463	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

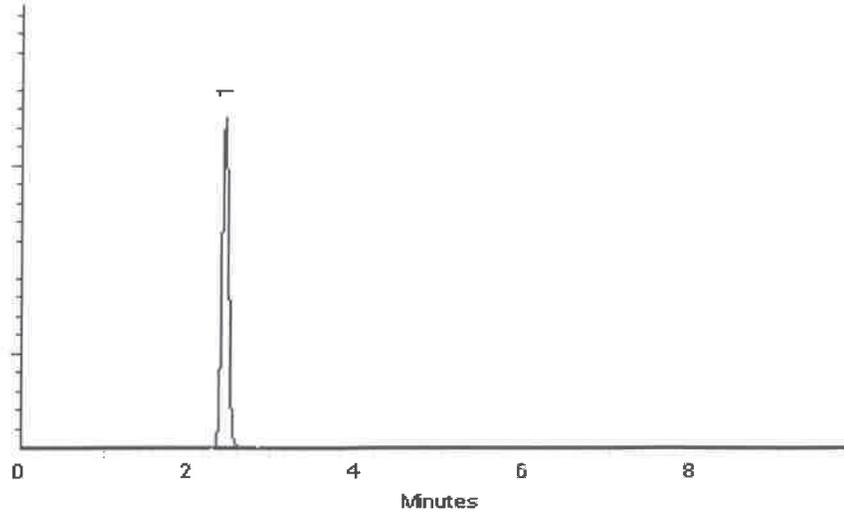
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cory Meyer
Cory Meyer - Operations Tech I

Date Mixed: 09-Sep-2020

Balance: B345965662

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 14-Sep-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

NGu_00004

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-6

Description: Nitroguanidine

Lot: 218091193-02

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Nov 25, 2020

Expiration: Dec 25, 2022

Sample Size: 1 mL

Components: 1

Storage Condition: Freeze (<-10 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (HPLC)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Nitroguanidine	556-88-7	100.0	100.4	100.4

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Reagent

OP-568023_00016



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Gravimetric Certificate



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 3165A0 **Lot No.:** G5C366/ 0

Description : 6A/ 5N5 T uni gMt re g
6A/ 5N5 T uni gMt re g, 555µmT h, M l t nod r l M n d g el , M T h L T ui d

Container Size : AMT h **Pkg Amt:** >10M h

Expiration Date : y g n M C, M5AA **Storage:** C5ca M g 2 p e l g

Handling: sn v M p e i 2 t M M n p t p v l r v t . l -

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Famphur CAS # 52-85-7 Purity 99% (Lot 9494600)	2,010.0 µg/mL	+/- 20.2482 µg/mL Gravimetric +/- 87.7744 µg/mL Unstressed +/- 87.8109 µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Cathleen Soltis - Mix Technician

Date Mixed: 16-Mar-2020 Balance: B442140311

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

-) zu'g t'pr M tl M deMpgVr pul r l eMT ui dMtpg eM M2pT ud r 2l M n'nhl M 2pT T l rel eMpre't'pr v-
- 7 r 2l g 'r to, M2p 2l r t g t'pr, Mr eMzu'g t'pr M'nhl M f y Mg M vl eM'nhl Mr pul r l eMgei 2tMl 'r nMtpg eM22pge't n'nhl M g 2pT T l rel eMpre't'pr Mpi r eM'nhl Mtpg m Ml e-

Purity Notes:

- Fi gtoMr elpgM T 2 dMl r t'foMg M tl gT 'r l eMol'p r l Mgt'pg M'nhl M p'p' n'nhl 2nr 'Ei l vMw aLSq, M Fha, M a l u) a: ,M Ualy x, Maly x, M qMr elpgM d'r nM p't-
- apT upi r eM'nhl nM Mvtl eMl gtoM'nhl v'nh r MCHM . l M l r M l n'nhl M p'p' 2t eM'nhl 2pT ul r v tl M p'g'ui g't l vMr elpgM dv-MGM 2p'g' 2t'pr M 2tpg'v'nhl eM'nhl d' d tl Ml MT pi r t'p' 2pT upi r eMl 2l v'v g'p' M 2n'f . l Ml Ml v'g eM'nhl 2p 2l r t g t'pr M'nhl M u g r t'pT upi r eMl M p'd t'pr -Ml
- Fi gtoM'nhl pT l g'2pT upi r eM'nhl M p'g' l eMv'nhl Ml T M'nhl M pT l g'-Ml
- Fi gtoM d l vMg M pi r eM'nhl Ml g v't'nhl n'p'd Ml T 4l g

Certified Uncertainty Value Notes:

- snl Mr 2l g 'r t'f vMg M tl gT 'r l eMl M22pge r 2l M n'nhl 9 M/ 50RMr eM'nhl 'el M3-M'nhl Ml g'f' eM'nhl 4'f' l eMtg vvl eM i r 2l g 'r toM d l M'nhl 2d el vM'g . T l tg'2Mr 2l g 'r to, M pT p'ri r l 'toM l t' l r %T ui dM' r 2l g 'r to, Mtpg m Ml 4' d' to i r 2l g 'r toM r eMn'u' r nMl 4' d' to Mr 2l g 'r toM r eMl g M pT 4' f' l eMv' r n'nhl M p'p' n'nhl M p'g' i d w

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

- k vM'nhl p. l g m M 2tpg'v'nhl n'nhl n'nhl vM'nhl . l d'p'p' b'el r 2l M'nhl M u'g'z' T tl d'nhl -
- q'nhl M'nhl upg r t'p' M p'tl M'nhl M n'u' r nMl 4' d' to Mr 2l g 'r toM v'p'4t 'r l eM'nhl g'v' T ul g ti g Mz'g T l vM'p'g' M ul 2'f'2M T l Ml 'r t'g d' v'nhl g' b'p'g , M'nhl Ml g'f' eM'nhl 4' f' l eMtg vvl eM'nhl 2l g 'r toM d l M n'pi eM'nhl M u'ud eM'nhl M gei 2t'nhl M'nhl vM vtpg eM'nhl M p'r %t r e g'p' M T ul g ti g M p'r e't'pr v'nhl M'nhl M r eM'nhl 2d e'r nM'nhl ov-M'nhl p'r t 2t'nhl vtl ; Ml 2nr '2 dMl g '2l M tM $\geq \geq -g\ vtl ; -2pT\ la\ p'rt\ 2t\% v-$ M'nhl M'nhl M 2pT T l r e t'pr v'nhl M'nhl M n'u' T l r t'nhl v'nhl %g r v'nhl M p'g' T pg M'nhl r M'nhl ovM'nhl M p'r % vt r e g'p' M T ul g ti g M p'r e't'pr v-
- Guu'nhl Ml g'f' eM'nhl 4' f' l eM'nhl v'g vvl eM'nhl 2l g 'r toM d l M'nhl M gei 2t'nhl v'g 2l . l eM'nhl g'v' t r e g'p' M n'u' r nMl 2p'r e't'pr v-M'nhl M'nhl Ml g'f' eM'nhl 4' f' l eMtg vvl eM'nhl 2l g 'r toM d l M'nhl M gei 2t'nhl v'g 2l . l eM'nhl g'v' p'r %t r e g'p' M 2p'r e't'pr vM'nhl M ul 2'f' eMl p'z-M

Label Conditions	Standard Conditions	Non-Standard Conditions
A3ca M pT 'r dM' p'pT Ml T ul g ti g j	kM5ca M	(M5ca M u'nhl M'nhl ov
C5ca M p'p'el g'v' l g'v' m l j	kM5ca M	(M5ca M u'nhl M'nhl ov
5ca M p'p'el g'v' Sg l N g	kM3ca M	(M3ca M u'nhl M'nhl ov

- x l u g t l M p'p' 2pT 4' f' l eM'nhl 2l g 'r toM d l vM'p'g' . T l tg'2Mr 2l g 'r toMg M d'p'p' v'ud ol eM'nhl Ml g'f'2 tl , M'nhl l el e, Ml v l u g t l M pT p'ri r l 'toM l t' l r %T ui dM' r 2l g 'r to, Mtpg m Ml 4' d' to Mr 2l g 'r toM r eMn'u' r nMl 4' d' to Mr 2l g 'r toM d l vM g M. 'd 4d M o'p'rt 2t'nhl Ml vtl ; Ml 2nr '2 dMl g '2l M tM $\geq \geq -g\ vtl ; -2pT\ la\ p'rt\ 2t\% v-$
- snl M 2; m eMT pi r t'nhl M 'r T i T M T ud M'nhl M p'p' n'nhl M 2l g 'r toM de-M'nhl M T ui d vMg M. l g'p' d eM'nhl M vi g M tn t'nhl M 'r T i T M 2; m eMT pi r t'nhl M Ml Ml M'nhl r t'nhl r v'v g' e-

Manufacturing Notes:

- apr 2l r t g t'pr M'nhl vl eMupr M'nhl . T l tg'2Mg u g t'pr Mv' r nM'nhl g'v' M d r 2l M n'pvl M d'4g t'pr M vMl l r Ml g'f' eM 'dM i v' r n'nhl q's'nhl 2l 4d M l 'nmtv, Mr elpg' d t'pr v'nhl M'nhl d v'nhl M'nhl v'v'z g -

Handling Notes:

- xt 4' d' to M'nhl Mr pul r l eMgei 2t, M'nhl n'nhl Mtpg eM M2pT ud r 2l M n'nhl M 2pT T l rel eMpre't'pr v, M'nhl g r t l eM'nhl g'p' m M tnl Mzu'g t'pr M'nhl v'ud ol eM'nhl M gei 2tM 4l dM r eMl g'f'2 tl -M p'rt 2tMl vtl ; M p'g' M e'e't'pr d'p'ul r l eMgei 2tM 4' d' to M 'r b'p'g' t'pr, M'nhl M'nhl Mr p'z d em l i r el g'v' r e'r n'nhl M'nhl M gei 2tM 4' d' to M'nhl M 4' 2t'nhl M ul 2'f'2M r ed' r nM r eM l r . 'p'r T l r t d'p'r e't'pr v'nhl M'nhl M gei 2tM M zupvl e-M'nhl p'g' d'p' r . l r 1 r 2l M l vtl ; Ml u'ud v'nhl 2t' . tl eM' d' M'nhl M T pvtM t r e g'p' M 2; l eM' M T hMT ui d v-M g'v' g'p'd T l Ml 2t' . tl eM' d' M'nhl M. 'd 4d M'nhl g'p' m Ml vtl ; MvM'nhl vtpT M p'g' l g eMl T -M'nhl e't'pr d' Ml vtl ; Ml d' M y : a x M'nhl Ml g'p'vl M'nhl v'v'z g Ml 2t' . t'pr Mv' t p'ntMl T 4l g'v' O61C, M $\geq n'nhl 2d el vM'pT ud tl M'nhl v'g 2t'pr v-$
- q'nhl M r e'v'p'd l eM'nhl tl g' d' M'nhl v'el M'nhl M T ui dM'p'r '2 tl M'nhl Mr pul r l eMT ui dM' r t'nhl M'nhl tl g' d' M'nhl 2pT ud tl dM e'v'p'd l e-

Reagent

OP-568023_00017



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Gravimetric Certificate



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 3165A0 **Lot No.:** G5C366/ 0

Description : 6A/ 5N5 T uni gMt re g
6A/ 5N5 T uni gMt re g M, 555µmT h, M I tnod r l M n d g e l , M T h L T u i d

Container Size : AMT h **Pkg Amt:** >10M h

Expiration Date : y g n M C, M 5 A A **Storage:** C5ca M g 2 p e l g

Handling: sn v M g e i 2 t M M n p t p v l r v t . I -

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Famphur CAS # 52-85-7 Purity 99% (Lot 9494600)	2,010.0 µg/mL	+/- 20.2482 µg/mL Gravimetric +/- 87.7744 µg/mL Unstressed +/- 87.8109 µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Cathleen Soltis - Mix Technician

Date Mixed: 16-Mar-2020 Balance: B442140311

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

OP-569730_00150



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 Lot No.: A0179477

Description : 8270 List 1 / Std #9
8270 List 1 / Std #9 2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL Pkg Amt: > 5 mL

Expiration Date : June 30, 2023 Storage: 10°C or colder

Handling: Contains carcinogen/reproductive toxin. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzidine	2,004.5 µg/mL (Lot 210907JLM)	+/-	11.6813	µg/mL	Gravimetric
	CAS # 92-87-5		+/-	23.9750	µg/mL	Unstressed
	Purity 99%		+/-	38.1433	µg/mL	Stressed
2	3,3'-Dichlorobenzidine	2,018.8 µg/mL (Lot 211116RSR)	+/-	11.7643	µg/mL	Gravimetric
	CAS # 91-94-1		+/-	24.1455	µg/mL	Unstressed
	Purity 99%		+/-	38.4144	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

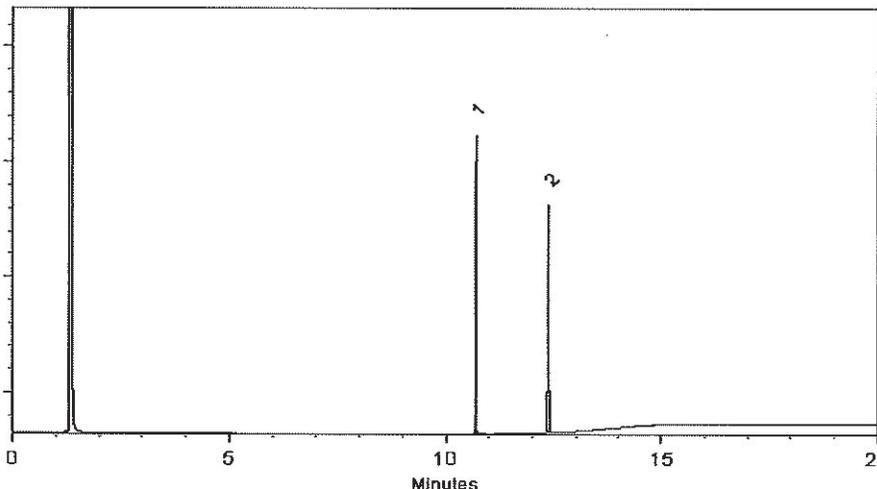
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 13-Dec-2021

Balance: 1122030677

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569730_00173



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0181121

Description : 8270 List 1 / Std #9
8270 List 1 / Std #9 2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2023 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)				
			+/-				
1	Benzidine	2,010.0 µg/mL (Lot 211228JLM)	+/-	11.6863	µg/mL	Gravimetric	
	CAS # 92-87-5		+/-	24.0277	µg/mL	Unstressed	
	Purity 99%		+/-	38.2397	µg/mL	Stressed	
2	3,3'-Dichlorobenzidine	2,000.0 µg/mL (Lot 220202JLM)	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 91-94-1		+/-	23.9079	µg/mL	Unstressed	
	Purity 98%		+/-	38.0491	µg/mL	Stressed	

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569730_11161



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 Lot No.: A0173787

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : December 31, 2022 Storage: 10°C or colder

Handling: This product is photosensitive. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Indene	2,011.6 µg/mL (Lot DMKCB7043-1211)	+/-	11.6957	µg/mL	Gravimetric
	CAS # 95-13-6		+/-	112.7892	µg/mL	Unstressed
	Purity 98%		+/-	115.4283	µg/mL	Stressed
2	Benzoic acid	2,018.2 µg/mL (Lot MKCG6487)	+/-	11.7340	µg/mL	Gravimetric
	CAS # 65-85-0		+/-	113.1585	µg/mL	Unstressed
	Purity 99%		+/-	115.8062	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

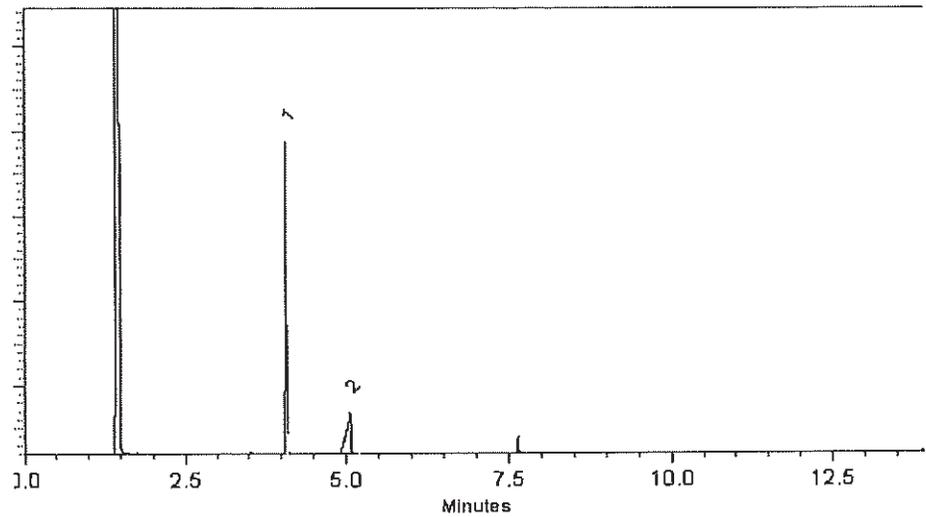
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 24-Jun-2021 Balance: 1128360905

Alexis Shalow
Alexis Shalow - Operations Tech I

Date Passed: 28-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569730_11160



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 Lot No.: A0173787

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : December 31, 2022 Storage: 10°C or colder

Handling: This product is photosensitive. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Indene	2,011.6 µg/mL (Lot DMKCB7043-1211)	+/-	11.6957	µg/mL	Gravimetric
	CAS # 95-13-6		+/-	112.7892	µg/mL	Unstressed
	Purity 98%		+/-	115.4283	µg/mL	Stressed
2	Benzoic acid	2,018.2 µg/mL (Lot MKCG6487)	+/-	11.7340	µg/mL	Gravimetric
	CAS # 65-85-0		+/-	113.1585	µg/mL	Unstressed
	Purity 99%		+/-	115.8062	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

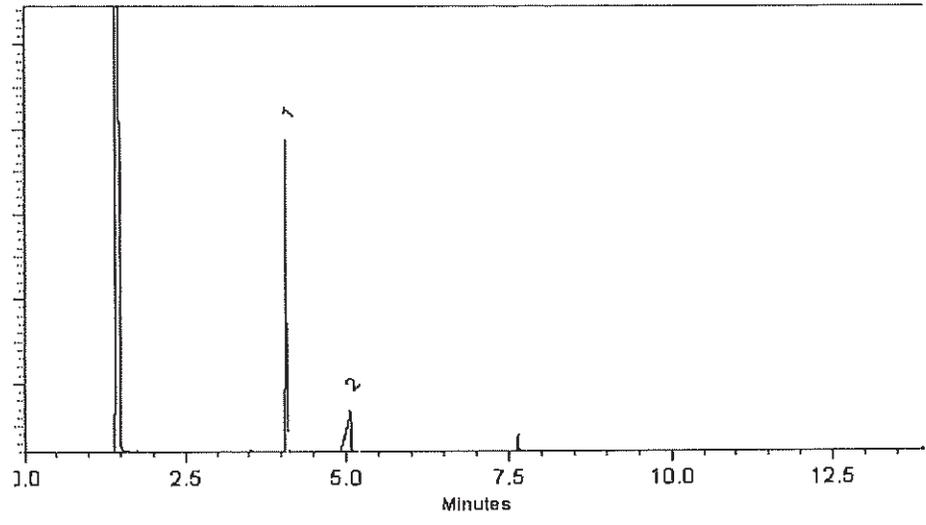
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 24-Jun-2021 Balance: 1128360905

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 28-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569730_11166



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 Lot No.: A0173787

Description : 8270 List 1 / Std #10
8270 List 1 / Std #10 2000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : December 31, 2022 Storage: 10°C or colder

Handling: This product is photosensitive. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Indene	2,011.6 µg/mL (Lot DMKCB7043-1211)	+/-	11.6957	µg/mL	Gravimetric
	CAS # 95-13-6		+/-	112.7892	µg/mL	Unstressed
	Purity 98%		+/-	115.4283	µg/mL	Stressed
2	Benzoic acid	2,018.2 µg/mL (Lot MKCG6487)	+/-	11.7340	µg/mL	Gravimetric
	CAS # 65-85-0		+/-	113.1585	µg/mL	Unstressed
	Purity 99%		+/-	115.8062	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

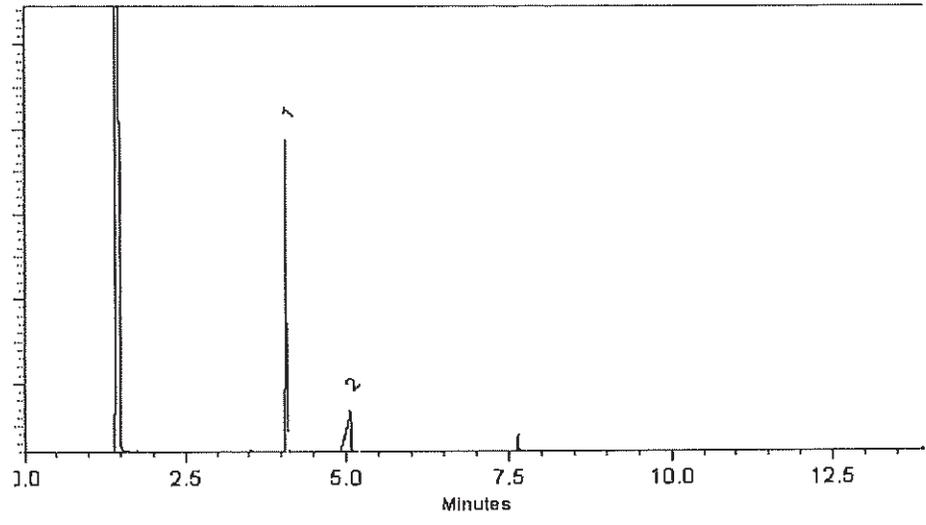
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 24-Jun-2021 Balance: 1128360905

Alexis Shalow
Alexis Shalow - Operations Tech I

Date Passed: 28-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569732 . SEC _ 00007



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732.SEC Lot No.: A0170011
 Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : September 30, 2022 Storage: 10°C or colder
 Handling: This product is photosensitive. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzaldehyde	2,011.0 µg/mL	+/-	11.7191	µg/mL	Gravimetric
	CAS # 100-52-7.SEC (Lot E7DWH)		+/-	40.1581	µg/mL	Unstressed
	Purity 99%		+/-	90.1230	µg/mL	Stressed
2	epsilon-Caprolactam	2,010.8 µg/mL	+/-	11.7177	µg/mL	Gravimetric
	CAS # 105-60-2.SEC (Lot BLJTB)		+/-	40.1531	µg/mL	Unstressed
	Purity 99%		+/-	90.1118	µg/mL	Stressed
3	Atrazine	2,011.5 µg/mL	+/-	11.7221	µg/mL	Gravimetric
	CAS # 1912-24-9.SEC (Lot 8461900)		+/-	40.1681	µg/mL	Unstressed
	Purity 99%		+/-	90.1454	µg/mL	Stressed

Solvent: Methylene chloride
 CAS # 75-09-2
 Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

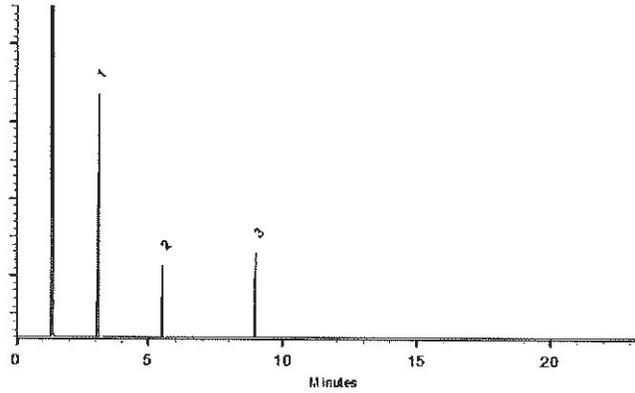
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

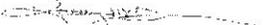
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Katelyn McGinnis - Operations Tech I

Date Mixed: 10-Mar-2021 **Balance:** B345965662


Justine Albertson - Operations Tech-ARM QC

Date Passed: 15-Mar-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569732 . SEC _ 00010



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732.SEC Lot No.: A0170011

Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : September 30, 2022 Storage: 10°C or colder

Handling: This product is photosensitive. Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzaldehyde	2,011.0 µg/mL	+/-	11.7191	µg/mL	Gravimetric
	CAS # 100-52-7.SEC (Lot E7DWH)		+/-	40.1581	µg/mL	Unstressed
	Purity 99%		+/-	90.1230	µg/mL	Stressed
2	epsilon-Caprolactam	2,010.8 µg/mL	+/-	11.7177	µg/mL	Gravimetric
	CAS # 105-60-2.SEC (Lot BLJTB)		+/-	40.1531	µg/mL	Unstressed
	Purity 99%		+/-	90.1118	µg/mL	Stressed
3	Atrazine	2,011.5 µg/mL	+/-	11.7221	µg/mL	Gravimetric
	CAS # 1912-24-9.SEC (Lot 8461900)		+/-	40.1681	µg/mL	Unstressed
	Purity 99%		+/-	90.1454	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

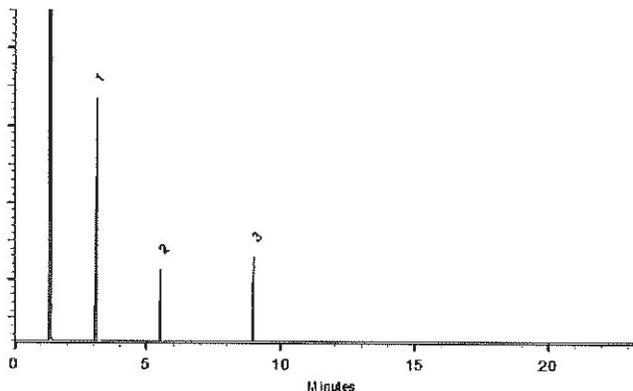
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

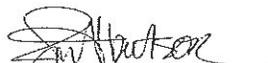
Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Katelyn McGinnis - Operations Tech I

Date Mixed: 10-Mar-2021 **Balance:** B345965662


Justine Albertson - Operations Tech-ARM QC

Date Passed: 15-Mar-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-569732_00110



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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0179852

Description : 8270 List 1 / Std #11
8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Benzaldehyde	2,000.4 µg/mL (Lot SHBJ3062)	+/-	11.6305	µg/mL	Gravimetric
	CAS # 100-52-7		+/-	39.9386	µg/mL	Unstressed
	Purity 99%		+/-	89.6444	µg/mL	Stressed
2	epsilon-Caprolactam	2,000.3 µg/mL (Lot 116X016)	+/-	11.6299	µg/mL	Gravimetric
	CAS # 105-60-2		+/-	39.9366	µg/mL	Unstressed
	Purity 99%		+/-	89.6400	µg/mL	Stressed
3	Atrazine	2,000.6 µg/mL (Lot P18FG)	+/-	11.6317	µg/mL	Gravimetric
	CAS # 1912-24-9		+/-	39.9426	µg/mL	Unstressed
	Purity 99%		+/-	89.6534	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

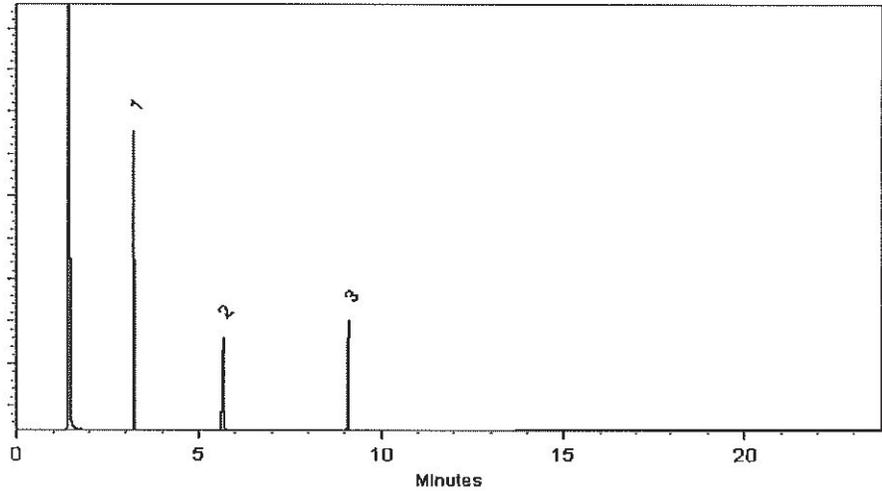
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope S. Riglin
Penelope Riglin - Operations Tech I

Date Mixed: 22-Dec-2021 Balance: 1128360905

Martina Cowan
Martina Cowan - Operations Tech I

Date Passed: 28-Dec-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-572556_00048

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Gravimetric Certificate



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572556 **Lot No.:** A0171978
Description : Custom Hexachlorocyclopentadiene Standard
Custom Hexachlorocyclopentadiene Standard 4,000µg/mL, Methylene Chloride, 5mL/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : May 31, 2025 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Hexachlorocyclopentadiene CAS # 77-47-4 Purity 99% (Lot 0012019)	4,007.0 µg/mL	+/- 23.515321 µg/mL	Gravimetric	
			+/- 224.691252 µg/mL	Unstressed	
			+/- 229.947692 µg/mL	Stressed	

Solvent: Methylene chloride
 CAS # 75-09-2
 Purity 99%


 Tom Suckal - Mix Technician

Date Mixed: 03-May-2021 Balance: B442140311

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-572556_00051

Received 10/2 5 vials



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Gravimetric Certificate



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572556 **Lot No.:** A0164809

Description : Custom Hexachlorocyclopentadiene Standard
Custom Hexachlorocyclopentadiene Standard 4,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder
Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Hexachlorocyclopentadiene CAS # 77-47-4 (Lot 0012019) Purity 99%	4,035.0 µg/mL	+/- 23.679641 µg/mL Gravimetric +/- 226.261343 µg/mL Unstressed +/- 231.554514 µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Russ Bookhamer - Operations Technician I

Date Mixed: 28-Sep-2020

Balance: 1128360905

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

OP-572556_00053

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Gravimetric Certificate



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572556 **Lot No.:** A0186275

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene Standard 4,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Hexachlorocyclopentadiene CAS # 77-47-4 (Lot 0012013) Purity 99%	4,029.0 µg/mL	+/- 23.644429	µg/mL	Gravimetric
			+/- 225.924895	µg/mL	Unstressed
			+/- 231.210195	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Brandon Reish - Mix Technician

Date Mixed: 14-Jun-2022

Balance: 1128353505

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

PicricARestek_00100



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0166597

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX
REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid CAS # 88-89-1 Purity 99% (Lot 06130CU)	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
			+/- 54.8926	µg/mL	Unstressed
			+/- 64.0101	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

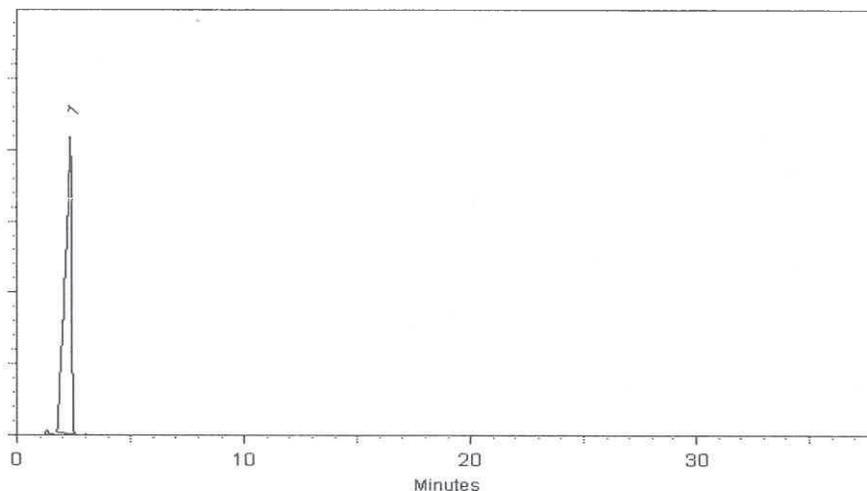
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble
Kylie Struble - Operations Technician I

Date Mixed: 22-Nov-2020 **Balance:** B251644995

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 24-Nov-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

PicricARestek_00101



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 Lot No.: A0175186

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX
REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid CAS # 88-89-1 Purity 99% (Lot 06130CU)	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
			+/- 55.1117	µg/mL	Unstressed
			+/- 64.2657	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

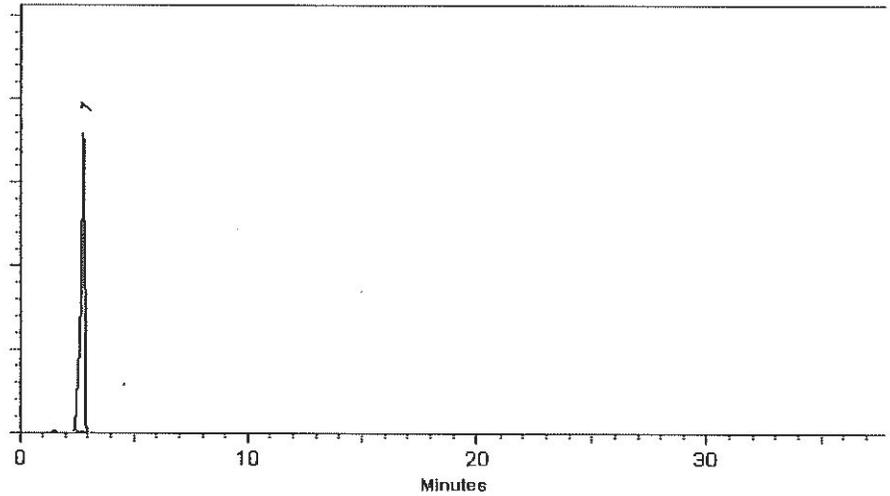
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

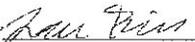
Mobile Phase B:

Mobile Phase Composition:
100%A

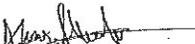
Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Lane Kibe - Mix Technician

Date Mixed: 06-Aug-2021 Balance: B345965662


Alexis Shelow - Operations Tech I

Date Passed: 10-Aug-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

PicricARestek_00103



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 Lot No.: A0175186

Description : Picric Acid Standard
Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid CAS # 88-89-1 Purity 99% (Lot 06130CU)	1,006.0 µg/mL	+/-	5.9753 µg/mL	Gravimetric
			+/-	55.1117 µg/mL	Unstressed
			+/-	64.2657 µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

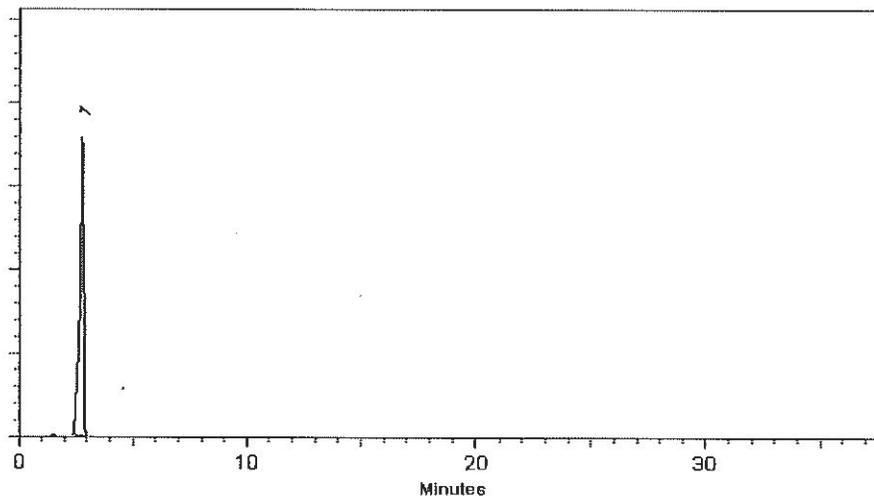
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe
Lane Kibe - Mix Technician

Date Mixed: 06-Aug-2021 Balance: B345965662

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 10-Aug-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

PicricARestek_00104



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 Lot No.: A0175186

Description : Picric Acid Standard
Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2026 Storage: 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid CAS # 88-89-1 Purity 99% (Lot 06130CU)	1,006.0 µg/mL	+/-	5.9753 µg/mL	Gravimetric
			+/-	55.1117 µg/mL	Unstressed
			+/-	64.2657 µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

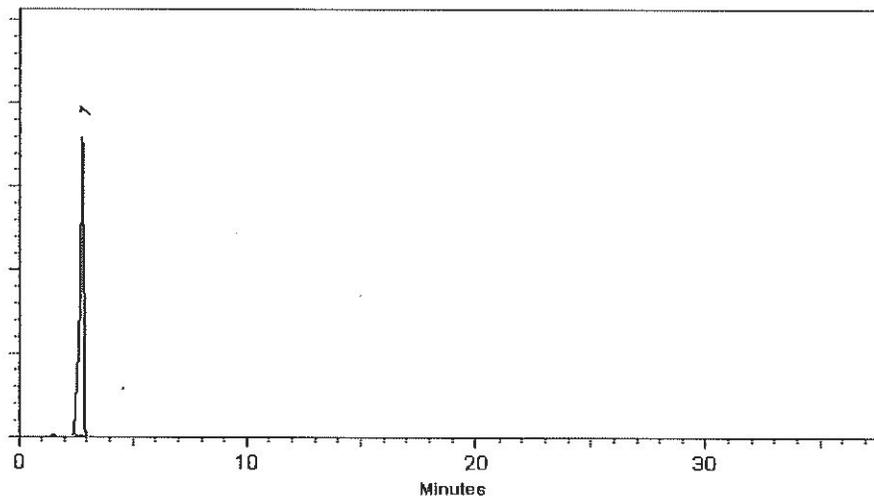
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

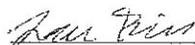
Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Lane Kibe - Mix Technician

Date Mixed: 06-Aug-2021 Balance: B345965662


Alexis Shelow - Operations Tech I

Date Passed: 10-Aug-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

8270E_DOD5

Semivolatile Organic Compounds
(GC/MS)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.: _____

Matrix: Solid

Level: Low

GC Column (1): Rxi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
X3-SS-C01-0006	280-168718-1	73 D	80 D	68 D	85 D	52 D	86 D
FD-11012201	280-168718-2	68 D	72 D	64 D	73 D	45 D	74 D
X3-SS-C02-0006	280-168718-3	58 D	63 D	54 D	69 D	39 D	65 D
X3-SS-C04-0006	280-168718-5	70	78	68	77	53 Q	78
X3-SS-C05-0006	280-168718-7	67	75	64	76	49 Q	77
FD-11022201	280-168718-8	63	72	57	70	45 Q	73
X3-SS-C06-0006	280-168718-9	84	96	86	96	97	93
X7-SS-C01-0006	280-168718-10	75	85	79	82	85	82
X7B-SS-C01-0006	280-168718-11	83	89	81	86	91	82
X7-TP-C01-5460	280-168718-12	71	81	87	88	57	88
X7-TP-C02-3648	280-168718-13	67	77	81	89	56	87
X7-TP-C03-4248	280-168718-14	77	78	79	83	66	83
X7-TP-C04-4248	280-168718-15	76	81	78	84	69	83
X3-SS-C07-0006	280-168718-16	47	52	47	52	37 Q	44 Q
X3-SS-C08-0006	280-168718-17	84	89	87	91	87	82
	MB 280-592594/1-A	70	68	69	67	60	91
	MB 280-593019/1-A	51	67	71	70	41	79
	LCS 280-592594/2-A	73	71	71	71	70	93
	LCS 280-593019/2-A	71	72	66	67	89	69
	LCSD 280-592594/3-A	75	72	73	72	67	88
X3-SS-CO6-0006 MS	280-168718-9 MS	79	85	77	88	91	80
X3-SS-CO6-0006 MSD	280-168718-9 MSD	87	97	89	89	107	87

QC LIMITS

2FP = 2-Fluorophenol (Surr)	35-115
PHL = Phenol-d5 (Surr)	33-122
NBZ = Nitrobenzene-d5 (Surr)	37-122
FBP = 2-Fluorobiphenyl	44-115
TBP = 2,4,6-Tribromophenol (Surr)	39-132
TPHL = Terphenyl-d14 (Surr)	54-127

Column to be used to flag recovery values

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): Rxi-5Sil MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
RB-11012201	280-168718-6	37	20	70	73	73	80
	MB 280-592592/1-A	25	13	62	65	70	87
	LCS 280-592592/2-A	36	22	74	77	96	83
	LCSD 280-592592/3-A	31	20	70	73	97	81

	<u>QC LIMITS</u>
2FP = 2-Fluorophenol (Surr)	19-119
PHL = Phenol-d5 (Surr)	10-115
NBZ = Nitrobenzene-d5 (Surr)	44-120
FBP = 2-Fluorobiphenyl	44-119
TBP = 2,4,6-Tribromophenol (Surr)	43-140
TPHL = Terphenyl-d14 (Surr)	50-134

Column to be used to flag recovery values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: 1603.D

Lab ID: LCS 280-592592/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	160	147	92	23-143	
Diphenylamine	68.0	59.7	88	55-111	
N-Nitrosodiphenylamine	80.0	67.1	84	51-123	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: G6_101023541b.D
 Lab ID: LCS 280-592594/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	5330	3900	73	46-120	
Diphenylamine	2270	1850	82	48-111	
N-Nitrosodiphenylamine	2670	2290	86	38-127	

Column to be used to flag recovery and RPD values
 FORM III 8270E

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Matrix: Solid Level: Low Lab File ID: Y19306467.D

Lab ID: LCS 280-593019/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	5330	3470	65	46-120	
Diphenylamine	2270	1670	73	48-111	
N-Nitrosodiphenylamine	2670	1910	72	38-127	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 1604.D
 Lab ID: LCS D 280-592592/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS D CONCENTRATION (ug/L)	LCS D % REC	% RPD	QC LIMITS		#
					RPD	REC	
2,4-Dinitrophenol	160	140	88	4	20	23-143	
Diphenylamine	68.0	60.1	88	1	20	55-111	
N-Nitrosodiphenylamine	80.0	68.1	85	1	20	51-123	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: G6_101023542b.D
 Lab ID: LCS D 280-592594/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/Kg)	LCS D CONCENTRATION (ug/Kg)	LCS D % REC	% RPD	QC LIMITS		#
					RPD	REC	
2,4-Dinitrophenol	5330	3790	71	3	20	46-120	
Diphenylamine	2270	1740	77	6	20	48-111	
N-Nitrosodiphenylamine	2670	2140	80	7	20	38-127	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: Y19306478.D
 Lab ID: 280-168718-9 MS Client ID: X3-SS-CO6-0006 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	6090	23000 U	8470 J	NC	46-120	D
Diphenylamine	2590	3800 U	2190 J	85	48-111	D
N-Nitrosodiphenylamine	3050	1500 U	2500 J	82	38-127	D

Column to be used to flag recovery and RPD values
 FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: Y19306479.D
 Lab ID: 280-168718-9 MSD Client ID: X3-SS-CO6-0006 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
2,4-Dinitrophenol	6050	8750 J	NC	3	20	46-120	D
Diphenylamine	2570	2360 J	92	7	20	48-111	D
N-Nitrosodiphenylamine	3030	2650 J	88	6	20	38-127	D

Column to be used to flag recovery and RPD values
 FORM III 8270E

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101023540b.D Lab Sample ID: MB 280-592594/1-A
 Matrix: Solid Date Extracted: 11/07/2022 12:55
 Instrument ID: SMS_G6 Date Analyzed: 11/10/2022 16:43
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-592594/2-A	G6_10102354 1b.D	11/10/2022 17:04
	LCSD 280-592594/3-A	G6_10102354 2b.D	11/10/2022 17:24
X3-SS-C01-0006	280-168718-1	G6_10102356 3.D	11/11/2022 00:37
FD-11012201	280-168718-2	G6_10102356 4.D	11/11/2022 00:57
X3-SS-C02-0006	280-168718-3	G6_10102356 5.D	11/11/2022 01:18
X3-SS-C04-0006	280-168718-5	G6_10102368 5.D	11/14/2022 19:37
X3-SS-C05-0006	280-168718-7	G6_10102368 6.D	11/14/2022 19:58
FD-11022201	280-168718-8	G6_10102368 7.D	11/14/2022 20:18

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: 1602.D Lab Sample ID: MB 280-592592/1-A
 Matrix: Water Date Extracted: 11/07/2022 13:11
 Instrument ID: SMS_1 Date Analyzed: 11/16/2022 17:43
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-592592/2-A	1603.D	11/16/2022 18:04
	LCSD 280-592592/3-A	1604.D	11/16/2022 18:26
RB-11012201	280-168718-6	1625.D	11/17/2022 01:55

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: Y19306466.D Lab Sample ID: MB 280-593019/1-A
 Matrix: Solid Date Extracted: 11/10/2022 12:10
 Instrument ID: SMS_Y Date Analyzed: 11/28/2022 12:54
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-593019/2-A	Y19306467.D	11/28/2022 13:20
X3-SS-CO6-0006	280-168718-9	Y19306477.D	11/28/2022 17:41
X3-SS-CO6-0006 MS	280-168718-9 MS	Y19306478.D	11/28/2022 18:07
X3-SS-CO6-0006 MSD	280-168718-9 MSD	Y19306479.D	11/28/2022 18:33
X7-SS-C01-0006	280-168718-10	Y19306480.D	11/28/2022 18:59
X7B-SS-C01-0006	280-168718-11	Y19306481.D	11/28/2022 19:25
X7-TP-C01-5460	280-168718-12	Y19306482.D	11/28/2022 19:51
X7-TP-C02-3648	280-168718-13	Y19306483.D	11/28/2022 20:17
X7-TP-C03-4248	280-168718-14	Y19306484.D	11/28/2022 20:43
X7-TP-C04-4248	280-168718-15	Y19306485.D	11/28/2022 21:08
X3-SS-C07-0006	280-168718-16	Y19306486.D	11/28/2022 21:34
X3-SS-C08-0006	280-168718-17	Y19306487.D	11/28/2022 22:00

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: 903b.D DFTPP Injection Date: 11/07/2022
 Instrument ID: SMS_1 DFTPP Injection Time: 14:22
 Analysis Batch No.: 592626

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	59.6
68	Less than 2.0 % of mass 69	1.0 (1.7) 1
69	Mass 69 relative abundance	57.8
70	Less than 2.0 % of mass 69	0.2 (0.4) 1
127	40.0 - 60.0 % of mass 198	54.3
197	Less than 1.0 % of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	22.9
365	Greater than 1.0 % of mass 198	3.3
441	Present but less than mass 443	9.3 (78.4) 3
442	Greater than 40.0 % of mass 198	61.2
443	17.0 - 23.0 % of mass 442	11.8 (19.3) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD0004 280-592626/18	921.D	11/07/2022	20:43
	STD0010 280-592626/19	922.D	11/07/2022	21:05
	STD0020 280-592626/20	923.D	11/07/2022	21:26
	STD0050 280-592626/21	924.D	11/07/2022	21:48
	ICIS 280-592626/22	925.D	11/07/2022	22:09
	STD0120 280-592626/23	926.D	11/07/2022	22:31
	STD0160 280-592626/24	927.D	11/07/2022	22:52
	STD0200 280-592626/25	928.D	11/07/2022	23:14
	ICV 280-592626/26	929.D	11/07/2022	23:35
	ICV 280-592626/27	930.D	11/07/2022	23:57

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: 1007.D DFTPP Injection Date: 11/09/2022
 Instrument ID: SMS_1 DFTPP Injection Time: 15:29
 Analysis Batch No.: 592922

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	59.6
68	Less than 2.0 % of mass 69	1.0 (1.7) 1
69	Mass 69 relative abundance	56.7
70	Less than 2.0 % of mass 69	0.4 (0.6) 1
127	40.0 - 60.0 % of mass 198	53.6
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	22.8
365	Greater than 1.0 % of mass 198	3.1
441	Present but less than mass 443	9.2 (80.8) 3
442	Greater than 40.0 % of mass 198	59.6
443	17.0 - 23.0 % of mass 442	11.4 (19.2) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-592922/15	1015.D	11/09/2022	18:29

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: 1597g.D DFTPP Injection Date: 11/16/2022
 Instrument ID: SMS_1 DFTPP Injection Time: 15:55
 Analysis Batch No.: 593651

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	56.8
68	Less than 2.0 % of mass 69	1.0 (1.7) 1
69	Mass 69 relative abundance	55.5
70	Less than 2.0 % of mass 69	0.3 (0.6) 1
127	40.0 - 60.0 % of mass 198	55.6
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	24.2
365	Greater than 1.0 % of mass 198	3.6
441	Present but less than mass 443	10.6 (84.1) 3
442	Greater than 40.0 % of mass 198	65.2
443	17.0 - 23.0 % of mass 442	12.6 (19.3) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-593651/2	1598.D	11/16/2022	16:17
	MB 280-592592/1-A	1602.D	11/16/2022	17:43
	LCS 280-592592/2-A	1603.D	11/16/2022	18:04
	LCSD 280-592592/3-A	1604.D	11/16/2022	18:26
RB-11012201	280-168718-6	1625.D	11/17/2022	1:55
	CCVC 280-593651/57	1626.D	11/17/2022	2:17

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101022429b.D DFTPP Injection Date: 10/14/2022
 Instrument ID: SMS_G6 DFTPP Injection Time: 16:55
 Analysis Batch No.: 590052

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	35.2
68	Less than 2.0 % of mass 69	0.3 (0.8) 1
69	Mass 69 relative abundance	38.0
70	Less than 2.0 % of mass 69	0.2 (0.5) 1
127	40.0 - 60.0 % of mass 198	50.4
197	Less than 1.0 % of mass 198	0.1
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	22.2
365	Greater than 1.0 % of mass 198	3.0
441	Present but less than mass 443	13.1 (70.8) 3
442	Greater than 40.0 % of mass 198	91.3
443	17.0 - 23.0 % of mass 442	18.5 (20.3) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD004 280-590052/10	G6_101022430.	10/14/2022	17:09
	STD010 280-590052/11	G6_101022431.	10/14/2022	17:30
	STD020 280-590052/12	G6_101022432.	10/14/2022	17:50
	STD050 280-590052/13	G6_101022433.	10/14/2022	18:11
	STD80 280-590052/14	G6_101022434.	10/14/2022	18:31
	STD120 280-590052/15	G6_101022435.	10/14/2022	18:52
	STD160 280-590052/16	G6_101022436.	10/14/2022	19:12
	STD200 280-590052/17	G6_101022437.	10/14/2022	19:33
	ICV 280-590052/18	G6_101022438.	10/14/2022	19:53
	ICV 280-590052/19	G6_101022439.	10/14/2022	20:14

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101022451.D DFTPP Injection Date: 10/15/2022
 Instrument ID: SMS_G6 DFTPP Injection Time: 00:19
 Analysis Batch No.: 590142

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	31.2
68	Less than 2.0 % of mass 69	0.5 (1.4) 1
69	Mass 69 relative abundance	33.5
70	Less than 2.0 % of mass 69	0.2 (0.7) 1
127	40.0 - 60.0 % of mass 198	48.4
197	Less than 1.0 % of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.5
275	10.0 - 30.0 % of mass 198	24.2
365	Greater than 1.0 % of mass 198	3.6
441	Present but less than mass 443	18.5 (72.1) 3
442	Greater than 40.0 % of mass 198	135.2
443	17.0 - 23.0 % of mass 442	25.7 (19.0) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-590142/6	G6_101022455.	10/15/2022	1:28

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101022539.D DFTPP Injection Date: 10/17/2022
 Instrument ID: SMS_G6 DFTPP Injection Time: 09:41
 Analysis Batch No.: 590148

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	33.2
68	Less than 2.0 % of mass 69	0.5 (1.3) 1
69	Mass 69 relative abundance	35.2
70	Less than 2.0 % of mass 69	0.2 (0.5) 1
127	40.0 - 60.0 % of mass 198	48.9
197	Less than 1.0 % of mass 198	0.4
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.5
275	10.0 - 30.0 % of mass 198	23.9
365	Greater than 1.0 % of mass 198	3.7
441	Present but less than mass 443	17.8 (69.5) 3
442	Greater than 40.0 % of mass 198	128.8
443	17.0 - 23.0 % of mass 442	25.6 (19.8) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-590148/29	G6_101022549.	10/17/2022	13:03

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101023535b.D DFTPP Injection Date: 11/10/2022
 Instrument ID: SMS_G6 DFTPP Injection Time: 15:12
 Analysis Batch No.: 592986

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	40.2
68	Less than 2.0 % of mass 69	0.5 (1.3) 1
69	Mass 69 relative abundance	41.7
70	Less than 2.0 % of mass 69	0.2 (0.4) 1
127	40.0 - 60.0 % of mass 198	54.0
197	Less than 1.0 % of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.7
275	10.0 - 30.0 % of mass 198	21.7
365	Greater than 1.0 % of mass 198	3.0
441	Present but less than mass 443	11.0 (75.9) 3
442	Greater than 40.0 % of mass 198	77.6
443	17.0 - 23.0 % of mass 442	14.5 (18.7) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-592986/3	G6_101023536b	11/10/2022	15:20
	MB 280-592594/1-A	G6_101023540b	11/10/2022	16:43
	LCS 280-592594/2-A	G6_101023541b	11/10/2022	17:04
	LCSD 280-592594/3-A	G6_101023542b	11/10/2022	17:24
X3-SS-C01-0006	280-168718-1	G6_101023563.	11/11/2022	0:37
FD-11012201	280-168718-2	G6_101023564.	11/11/2022	0:57
X3-SS-C02-0006	280-168718-3	G6_101023565.	11/11/2022	1:18
	CCVC 280-592986/36	G6_101023567.	11/11/2022	1:59

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: G6_101023672d.D DFTPP Injection Date: 11/14/2022
 Instrument ID: SMS_G6 DFTPP Injection Time: 15:10
 Analysis Batch No.: 593336

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	42.9
68	Less than 2.0 % of mass 69	0.6 (1.3) 1
69	Mass 69 relative abundance	46.5
70	Less than 2.0 % of mass 69	0.3 (0.6) 1
127	40.0 - 60.0 % of mass 198	55.7
197	Less than 1.0 % of mass 198	0.2
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.9
275	10.0 - 30.0 % of mass 198	21.0
365	Greater than 1.0 % of mass 198	2.9
441	Present but less than mass 443	8.5 (78.9) 3
442	Greater than 40.0 % of mass 198	58.4
443	17.0 - 23.0 % of mass 442	10.7 (18.3) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-593336/3	G6_101023673d	11/14/2022	15:19
X3-SS-C04-0006	280-168718-5	G6_101023685.	11/14/2022	19:37
X3-SS-C05-0006	280-168718-7	G6_101023686.	11/14/2022	19:58
FD-11022201	280-168718-8	G6_101023687.	11/14/2022	20:18
	CCVC 280-593336/32	G6_101023702.	11/15/2022	1:49

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: Y19305981.D DFTPP Injection Date: 11/15/2022
 Instrument ID: SMS_Y DFTPP Injection Time: 13:42
 Analysis Batch No.: 593534

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	42.2
68	Less than 2.0 % of mass 69	0.2 (0.5) 1
69	Mass 69 relative abundance	48.4
70	Less than 2.0 % of mass 69	0.2 (0.5) 1
127	40.0 - 60.0 % of mass 198	56.0
197	Less than 1.0 % of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.9
275	10.0 - 30.0 % of mass 198	23.8
365	Greater than 1.0 % of mass 198	2.7
441	Present but less than mass 443	14.0 (80.3) 3
442	Greater than 40.0 % of mass 198	91.8
443	17.0 - 23.0 % of mass 442	17.5 (19.0) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD004 280-593534/32	Y19305982.D	11/15/2022	13:59
	STD010 280-593534/33	Y19305983.D	11/15/2022	14:23
	STD020 280-593534/34	Y19305984.D	11/15/2022	14:49
	STD050 280-593534/35	Y19305985.D	11/15/2022	15:14
	ICIS 280-593534/36	Y19305986.D	11/15/2022	15:40
	STD120 280-593534/37	Y19305987.D	11/15/2022	16:05
	STD160 280-593534/38	Y19305988c.D	11/15/2022	16:31
	STD200 280-593534/39	Y19305989.D	11/15/2022	16:57
	ICV 280-593534/40	Y19305990.D	11/15/2022	17:22
	ICV 280-593534/41	Y19305991.D	11/15/2022	17:48

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab File ID: Y19306461.D DFTPP Injection Date: 11/28/2022
 Instrument ID: SMS_Y DFTPP Injection Time: 11:01
 Analysis Batch No.: 594711

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0 % of mass 198	34.8
68	Less than 2.0 % of mass 69	0.7 (1.5) 1
69	Mass 69 relative abundance	44.0
70	Less than 2.0 % of mass 69	0.3 (0.6) 1
127	40.0 - 60.0 % of mass 198	55.0
197	Less than 1.0 % of mass 198	0.3
198	Base Peak, 100 % relative abundance	100.0
199	5.0- 9.0 % of mass 198	6.8
275	10.0 - 30.0 % of mass 198	25.9
365	Greater than 1.0 % of mass 198	4.1
441	Present but less than mass 443	18.1 (79.7) 3
442	Greater than 40.0 % of mass 198	120.2
443	17.0 - 23.0 % of mass 442	22.7 (18.9) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-594711/2	Y19306462.D	11/28/2022	11:12
	MB 280-593019/1-A	Y19306466.D	11/28/2022	12:54
	LCS 280-593019/2-A	Y19306467.D	11/28/2022	13:20
X3-SS-CO6-0006	280-168718-9	Y19306477.D	11/28/2022	17:41
X3-SS-CO6-0006 MS	280-168718-9 MS	Y19306478.D	11/28/2022	18:07
X3-SS-CO6-0006 MSD	280-168718-9 MSD	Y19306479.D	11/28/2022	18:33
X7-SS-C01-0006	280-168718-10	Y19306480.D	11/28/2022	18:59
X7B-SS-C01-0006	280-168718-11	Y19306481.D	11/28/2022	19:25
X7-TP-C01-5460	280-168718-12	Y19306482.D	11/28/2022	19:51
X7-TP-C02-3648	280-168718-13	Y19306483.D	11/28/2022	20:17
X7-TP-C03-4248	280-168718-14	Y19306484.D	11/28/2022	20:43
X7-TP-C04-4248	280-168718-15	Y19306485.D	11/28/2022	21:08
X3-SS-C07-0006	280-168718-16	Y19306486.D	11/28/2022	21:34
X3-SS-C08-0006	280-168718-17	Y19306487.D	11/28/2022	22:00
	CCVC 280-594711/30	Y19306488.D	11/28/2022	22:26

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-592626/22 Date Analyzed: 11/07/2022 22:09
 Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): 925.D Heated Purge: (Y/N) N
 Calibration ID: 72934

	DCBd4		NPT		ANT		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	167852	4.62	638289	5.88	369015	7.61	
UPPER LIMIT	335704	5.12	1276578	6.38	738030	8.11	
LOWER LIMIT	83926	4.12	319145	5.38	184508	7.11	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-592626/26		171409	4.62	649774	5.88	368668	7.61
ICV 280-592626/27		168671	4.62	644291	5.88	360162	7.61
CCV 280-593651/2		177596	4.62	704569	5.88	418313	7.61
MB 280-592592/1-A		228735	4.61	855784	5.88	518745	7.61
LCS 280-592592/2-A		225063	4.62	899699	5.88	545123	7.61
LCSD 280-592592/3-A		261885	4.62	1025003	5.88	614387	7.61
280-168718-6	RB-11012201	183911	4.61	705342	5.88	431248	7.61
CCVC 280-593651/57		194356	4.62	745679	5.88	452214	7.61

DCBd4 = 1,4-Dichlorobenzene-d4
 NPT = Naphthalene-d8
 ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-592626/22 Date Analyzed: 11/07/2022 22:09
 Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): 925.D Heated Purge: (Y/N) N
 Calibration ID: 72934

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	660340	9.03	593126	11.74	561720	13.61	
UPPER LIMIT	1320680	9.53	1186252	12.24	1123440	14.11	
LOWER LIMIT	330170	8.53	296563	11.24	280860	13.11	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-592626/26	661571	9.03	609707	11.74	554894	13.60	
ICV 280-592626/27	656151	9.02	536771	11.73	503790	13.60	
CCV 280-593651/2	794459	9.03	758883	11.74	739383	13.61	
MB 280-592592/1-A	999943	9.03	925677	11.74	928909	13.61	
LCS 280-592592/2-A	1034686	9.03	1026719	11.75	983151	13.61	
LCSD 280-592592/3-A	1156568	9.03	1145033	11.75	1097911	13.62	
280-168718-6	RB-11012201	830731	9.03	777355	11.74	772163	13.61
CCVC 280-593651/57	847804	9.03	839843	11.74	815592	13.61	

PHN = Phenanthrene-d10
 CRY = Chrysene-d12
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-590142/6 Date Analyzed: 10/15/2022 01:28
 Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): G6_101022455.D Heated Purge: (Y/N) N
 Calibration ID: 71954

	DCBd4		NPT		ANT		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	325212	3.79	1222673	5.00	710987	6.71	
UPPER LIMIT	650424	4.29	2445346	5.50	1421974	7.21	
LOWER LIMIT	162606	3.29	611337	4.50	355494	6.21	
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 280-592986/3		378756	3.60	1372660	4.81	728831	6.51
MB 280-592594/1-A		410970	3.60	1537009	4.81	823687	6.51
LCS 280-592594/2-A		407041	3.60	1476129	4.81	771234	6.51
LCSD 280-592594/3-A		390400	3.60	1441912	4.81	768529	6.51
280-168718-1	X3-SS-C01-0006	424951	3.60	1587811	4.80	883291	6.51
280-168718-2	FD-11012201	462791	3.60	1748775	4.80	934439	6.51
280-168718-3	X3-SS-C02-0006	443381	3.60	1674206	4.81	895892	6.51
CCVC 280-592986/36		572473	3.60	2080525	4.81	1114723	6.52
CCV 280-593336/3		320555	3.58	1192394	4.79	646567	6.49
280-168718-5	X3-SS-C04-0006	399813	3.58	1574886	4.79	859973	6.49
280-168718-7	X3-SS-C05-0006	446886	3.58	1700371	4.79	940777	6.49
280-168718-8	FD-11022201	483927	3.58	1915311	4.79	1044375	6.49
CCVC 280-593336/32		391720	3.58	1495593	4.79	802030	6.49

DCBd4 = 1,4-Dichlorobenzene-d4
 NPT = Naphthalene-d8
 ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-590142/6 Date Analyzed: 10/15/2022 01:28
 Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): G6_101022455.D Heated Purge: (Y/N) N
 Calibration ID: 71954

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	1198330	8.15	1068653	10.90	987132	13.14	
UPPER LIMIT	2396660	8.65	2137306	11.40	1974264	13.64	
LOWER LIMIT	599165	7.65	534327	10.40	493566	12.64	
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 280-592986/3		1122144	7.95	871457	10.63	738564	12.75
MB 280-592594/1-A		1328894	7.94	994453	10.62	914010	12.75
LCS 280-592594/2-A		1184899	7.95	917080	10.63	795851	12.75
LCSD 280-592594/3-A		1185213	7.95	921006	10.63	812609	12.75
280-168718-1	X3-SS-C01-0006	1426063	7.94	1113089	10.62	1020931	12.75
280-168718-2	FD-11012201	1509240	7.94	1143926	10.62	1051169	12.75
280-168718-3	X3-SS-C02-0006	1436068	7.94	1085919	10.62	1009522	12.75
CCVC 280-592986/36		1689533	7.95	1342970	10.63	1130816	12.76
CCV 280-593336/3		999146	7.93	815136	10.60	684059	12.70
280-168718-5	X3-SS-C04-0006	1436856	7.92	1112157	10.59	1018779	12.70
280-168718-7	X3-SS-C05-0006	1521958	7.92	1173876	10.59	1064144	12.70
280-168718-8	FD-11022201	1691829	7.93	1243790	10.59	1101613	12.70
CCVC 280-593336/32		1221169	7.93	789786	10.60	741431	12.70

PHN = Phenanthrene-d10
 CRY = Chrysene-d12
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-593534/36 Date Analyzed: 11/15/2022 15:40
 Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): Y19305986.D Heated Purge: (Y/N) N
 Calibration ID: 73297

	DCBd4		NPT		ANT		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	108450	3.82	448027	5.03	261849	6.74	
UPPER LIMIT	216900	4.32	896054	5.53	523698	7.24	
LOWER LIMIT	54225	3.32	224014	4.53	130925	6.24	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-593534/40		102875	3.82	422051	5.03	244307	6.74
ICV 280-593534/41		114752	3.82	468381	5.03	266420	6.74
CCV 280-594711/2		78244	3.69	332149	4.91	192302	6.62
MB 280-593019/1-A		100962	3.69	417146	4.91	240670	6.62
LCS 280-593019/2-A		110117	3.69	475198	4.91	285471	6.62
280-168718-9	X3-SS-C06-0006	88787	3.69	383133	4.91	233907	6.61
280-168718-10	X7-SS-C01-0006	88521	3.69	374571	4.91	228947	6.62
280-168718-11	X7B-SS-C01-0006	97861	3.70	403678	4.91	236386	6.62
280-168718-12	X7-TP-C01-5460	94435	3.69	383910	4.90	225678	6.61
280-168718-13	X7-TP-C02-3648	86795	3.69	357473	4.91	212714	6.61
280-168718-14	X7-TP-C03-4248	105560	3.69	423518	4.91	250982	6.62
280-168718-15	X7-TP-C04-4248	90692	3.69	371984	4.91	214780	6.62
280-168718-16	X3-SS-C07-0006	90017	3.69	373731	4.91	223728	6.62
280-168718-17	X3-SS-C08-0006	86614	3.69	355602	4.91	208832	6.61
CCVC 280-594711/30		74767	3.69	320683	4.91	186169	6.62

DCBd4 = 1,4-Dichlorobenzene-d4
 NPT = Naphthalene-d8
 ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Sample No.: ICIS 280-593534/36 Date Analyzed: 11/15/2022 15:40
 Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): Y19305986.D Heated Purge: (Y/N) N
 Calibration ID: 73297

	PHN		CRY		PRY		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	457374	8.19	442649	11.24	458111	14.17	
UPPER LIMIT	914748	8.69	885298	11.74	916222	14.67	
LOWER LIMIT	228687	7.69	221325	10.74	229056	13.67	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-593534/40		425511	8.19	406634	11.24	424820	14.17
ICV 280-593534/41		467326	8.18	460945	11.22	452086	14.17
CCV 280-594711/2		334272	8.06	354064	11.03	355089	13.88
MB 280-593019/1-A		441176	8.06	451565	11.03	432247	13.87
LCS 280-593019/2-A		516817	8.06	561427	11.04	580841	13.87
280-168718-9	X3-SS-C06-0006	445775	8.06	492767	11.03	496083	13.87
280-168718-10	X7-SS-C01-0006	430256	8.06	446038	11.02	455794	13.86
280-168718-11	X7B-SS-C01-0006	421228	8.06	432871	11.02	431796	13.87
280-168718-12	X7-TP-C01-5460	417815	8.06	429747	11.03	431023	13.87
280-168718-13	X7-TP-C02-3648	389848	8.06	402470	11.02	391923	13.87
280-168718-14	X7-TP-C03-4248	449636	8.06	453462	11.02	442052	13.86
280-168718-15	X7-TP-C04-4248	384363	8.06	377016	11.02	362000	13.87
280-168718-16	X3-SS-C07-0006	419058	8.06	414440	11.02	396807	13.87
280-168718-17	X3-SS-C08-0006	369682	8.06	370323	11.02	351829	13.86
CCVC 280-594711/30		329579	8.06	348314	11.03	338604	13.87

PHN = Phenanthrene-d10
 CRY = Chrysene-d12
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C01-0006 Lab Sample ID: 280-168718-1
 Matrix: Solid Lab File ID: G6_101023563.D
 Analysis Method: 8270E Date Collected: 11/01/2022 12:35
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30.0(g) Date Analyzed: 11/11/2022 00:37
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 23.1 % Solids: 76.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	26000	U D	42000	26000	8700
122-39-4	Diphenylamine	4300	U D	8600	4300	1100
86-30-6	N-Nitrosodiphenylamine	1700	U D	8600	1700	550

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	85	D	44-115
367-12-4	2-Fluorophenol (Surr)	73	D	35-115
118-79-6	2,4,6-Tribromophenol (Surr)	52	D	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	68	D	37-122
4165-62-2	Phenol-d5 (Surr)	80	D	33-122
1718-51-0	Terphenyl-d14 (Surr)	86	D	54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023563.D
 Lims ID: 280-168718-A-1-A
 Client ID: X3-SS-C01-0006
 Sample Type: Client
 Inject. Date: 11-Nov-2022 00:37:30 ALS Bottle#: 30 Worklist Smp#: 32
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-1-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H Date: 11-Nov-2022 11:00:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	96	424951	40.0	
* 2 Naphthalene-d8	136	4.804	4.804	0.000	100	1587811	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	91	883291	40.0	
* 4 Phenanthrene-d10	188	7.944	7.949	-0.005	97	1426063	40.0	
* 5 Chrysene-d12	240	10.624	10.629	-0.005	98	1113089	40.0	
* 6 Perylene-d12	264	12.747	12.757	-0.010	97	1020931	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	92	51226	3.65	
\$ 8 Phenol-d5	99	3.275	3.280	-0.006	97	71260	3.99	
\$ 9 Nitrobenzene-d5	82	4.120	4.125	-0.005	90	50179	3.40	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.746				ND	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	110785	4.24	
\$ 12 2,4,6-Tribromophenol	330	7.275	7.281	-0.006	92	13505	2.62	
\$ 13 Terphenyl-d14	244	9.527	9.532	-0.005	97	122883	4.29	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179		7.000				ND	
18 Triethyl amine	86		1.338				ND	7
19 2-Ethoxyethanol	59		1.162				ND	
20 1,4-Dioxane	88		1.199				ND	7
21 N-Nitrosodimethylamine	74		1.360				ND	
22 Pyridine	79		1.386				ND	
23 Dimethylformamide	73		1.579				ND	
24 2-Picoline	93		1.905				ND	
25 N-Nitrosomethylethylamine	88		2.001				ND	
26 Acrylamide	71		2.296				ND	7
27 Methyl methanesulfonate	80		2.264				ND	
28 N-Nitrosodiethylamine	102		2.611				ND	
29 Pentachlorophenol_T	266		2.893				ND	
30 Ethyl methanesulfonate	79		2.900				ND	
32 Benzaldehyde	106		3.183				ND	
34 Phenol	94		3.291				ND	
35 Aniline	93		3.291				ND	
36 Alpha Methyl Styrene	118		3.339				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
37 Bis(2-chloroethyl)ether	93		3.365				ND	
38 Pentachloroethane	117		3.328				ND	
39 n-Decane	43		3.472				ND	7
41 2-Chlorophenol	128		3.398				ND	
42 1,3-Dichlorobenzene	146		3.537				ND	
43 1,4-Dichlorobenzene	146		3.611				ND	
44 Benzyl alcohol	108		3.740				ND	7
45 1,2-Dichlorobenzene	146		3.751				ND	
46 2-Methylphenol	108		3.863				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.884				ND	7
48 Indene	116		3.836				ND	
49 3 & 4 Methylphenol	108		4.018				ND	
50 3-Methylphenol	108		4.018				ND	
51 N-Nitrosodi-n-propylamine	70		4.002				ND	U
52 4-Methylphenol	108		4.018				ND	
53 N-Nitrosopyrrolidine	100		3.970				ND	
54 Benzidine_T	184		3.957				ND	
55 Acetophenone	105		3.986				ND	
56 N-Nitrosomorpholine	116		4.018				ND	
57 2-Toluidine	106		4.023				ND	
58 Hexachloroethane	117		4.066				ND	
60 Nitrobenzene	77		4.141				ND	
62 N-Nitrosopiperidine	114		4.291				ND	7
63 Isophorone	82		4.382				ND	
65 2-Nitrophenol	139		4.451				ND	
66 2,4-Dimethylphenol	107		4.526				ND	
67 Benzyl dichloride	125		4.462				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.596				ND	
69 Bis(2-chloroethoxy)methane	93		4.617				ND	
70 Benzoic acid	105	4.564	4.692	-0.128	78	1677	3.72	7a
71 3,5-Dimethylphenol	107		4.660				ND	
72 alpha,alpha-Dimethyl phenethylam	58		4.783				ND	7
75 2,4-Dichlorophenol	162		4.687				ND	
77 1,2,4-Trichlorobenzene	180		4.761				ND	
78 Alpha-Terpineol	59		4.831				ND	7
79 Naphthalene	128		4.831				ND	
80 4-Chloroaniline	127		4.906				ND	
81 2,6-Dichlorophenol	162		4.906				ND	
82 Hexachloropropene	213		4.916				ND	
83 Hexachlorobutadiene	225		4.965				ND	
85 Quinoline	129		5.152				ND	
86 N-Nitrosodi-n-butylamine	84		5.253				ND	
87 Caprolactam	55		5.227				ND	
88 p-Phenylene diamine	108		5.243				ND	
90 4-Chloro-3-methylphenol	107		5.403				ND	
91 Safrole, Total	162		5.446				ND	
92 Carbofuran phenol	164		5.425				ND	
94 2-Methylnaphthalene	142		5.505				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.601				ND	
97 Hexachlorocyclopentadiene	237		5.665				ND	
98 1,2,4,5-Tetrachlorobenzene	216		5.671				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
99 Isosafrole Peak 1	162		5.729				ND	
101 2,4,6-Trichlorophenol	196		5.794				ND	
102 2,3-Dichlorobenzamine	161		5.783				ND	
103 2,4,5-Trichlorophenol	196		5.831				ND	
104 Isosafrole Peak 2	162		5.949				ND	7
105 1,1'-Biphenyl	154		5.970				ND	
106 Toluene diamine (2,4- + 2,6- is)	122		5.927				ND	7
107 2-Chloronaphthalene	162		5.976				ND	
108 1-Chloronaphthalene	162		5.992				ND	
109 2-Nitroaniline	65		6.088				ND	
110 1,4-Naphthoquinone	158		6.157				ND	
111 1,4-Dinitrobenzene	168		6.238				ND	
112 Dimethyl phthalate	163		6.296				ND	
113 1,3-Dinitrobenzene	168		6.307				ND	
114 2,6-Dinitrotoluene	165		6.345				ND	
115 Acenaphthylene	152		6.371				ND	
116 3-Nitroaniline	138		6.494				ND	
117 Acenaphthene	153		6.543				ND	
118 2,4-Dinitrophenol	184		6.601				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	
120 4-Nitrophenol	109		6.698				ND	7
121 Pentachlorobenzene	250		6.671				ND	
122 2,4-Dinitrotoluene	165		6.730				ND	
123 Dibenzofuran	168		6.714				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	79		7.053				ND	
125 1-Naphthylamine	143		6.794				ND	
127 2,3,4,6-Tetrachlorophenol	232		6.842				ND	
128 Hexadecane	57		7.029				ND	
129 2-Naphthylamine	143		6.874				ND	
130 Diethyl phthalate	149	6.981	6.997	-0.016	95	2766	0.1022	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	79		7.053				ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	
133 Thionazin	97		7.061				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	79		7.075				ND	
135 4-Chlorophenyl phenyl ether	204		7.067				ND	
136 Fluorene	166		7.045				ND	
137 N-Nitro-o-toluidine	152		7.077				ND	
138 Tributyl phosphate	99		7.184				ND	
139 4-Nitroaniline	138		7.088				ND	
140 4,6-Dinitro-2-methylphenol	198		7.120				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	79		7.469				ND	
142 Diphenylamine	169		7.190				ND	
143 N-Nitrosodiphenylamine	169		7.190				ND	
144 Azobenzene	77		7.222				ND	
145 1,2-Diphenylhydrazine	77		7.222				ND	
146 1,5-Dimethyl-2,3-Dinitrobenzene	79		7.554				ND	
147 Sulfotepp	97		7.382				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	79		7.666				ND	
150 Diallate Peak 1	86		7.484				ND	
151 1,3,5-Trinitrobenzene	213		7.473				ND	
152 Phorate	121		7.489				ND	
154 Phenacetin	108		7.527				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallate Peak 2	86		7.564				ND	
157 4-Bromophenyl phenyl ether	248		7.537				ND	
158 Hexachlorobenzene	284		7.569				ND	
159 Dimethoate	87		7.650				ND	
160 Atrazine	200		7.740				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	161		8.123				ND	
162 n-Octadecane	85		7.933				ND	U
163 4-Aminobiphenyl	169		7.799				ND	7
164 Pentachlorophenol	266		7.773				ND	
165 Pentachloronitrobenzene	237		7.783				ND	
166 Pronamide	173		7.885				ND	
167 Disulfoton	88		8.003				ND	7
168 Dinoseb	211		7.987				ND	
169 Phenanthrene	178		7.971				ND	7
170 Anthracene	178		8.019				ND	7
171 Carbazole	167		8.195				ND	
172 Alachlor	188		8.356				ND	
173 Methyl parathion	109		8.356				ND	
175 Di-n-butyl phthalate	149		8.591				ND	
176 Ethyl Parathion	109		8.746				ND	
178 4-Nitroquinoline-1-oxide	190		8.741				ND	
179 Methapyrilene	97		8.848				ND	7
180 Isodrin	193		8.976				ND	
182 Fluoranthene	202		9.126				ND	
183 4,4-Dichlorobenzil	139		10.602				ND	
184 Benzidine	184		9.291				ND	
185 Pyrene	202		9.340				ND	
187 Aramite Peak 1	185		9.554				ND	7
189 Aramite Peak 2	185		9.629				ND	7
190 p-Dimethylamino azobenzene	120		9.677				ND	
191 Chlorobenzilate	251		9.736				ND	
192 Famphur	218		9.981				ND	
193 Butyl benzyl phthalate	149		10.057				ND	
194 3,3'-Dimethylbenzidine	212		10.019				ND	
195 2-Acetylaminofluorene	181		10.292				ND	
196 4,4'-Methylene bis(2-chloroani	231		10.650				ND	7
197 3,3'-Dichlorobenzidine	252		10.629				ND	
198 Benzo[a]anthracene	228		10.618				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.789				ND	
200 Chrysene	228		10.661				ND	7
201 6-Methylchrysene	242		11.281				ND	
202 Di-n-octyl phthalate	149		11.763				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.164				ND	
204 Benzo[b]fluoranthene	252		12.148				ND	
205 Benzo[k]fluoranthene	252		12.191				ND	
206 Hexachlorophene	196		12.554				ND	
208 Benzo[a]pyrene	252		12.661				ND	7
210 3-Methylcholanthrene	268		13.298				ND	
211 Tris(2,3-dibromopropyl)phosphate	110		13.667				ND	7
212 Dibenz[a,h]acridine	279		14.244				ND	
213 Dibenz[a,j]acridine	279		14.341				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
214 Indeno[1,2,3-cd]pyrene	276		14.598				ND	
215 Dibenz(a,h)anthracene	278		14.672				ND	
216 Benzo[g,h,i]perylene	276		15.042				ND	
217 Dibenzo[a,e]pyrene	302		17.304				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols, Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	
31 DFTPP								
59 4,4'-DDE	246		4.093				ND	
64 4,4'-DDD	235		4.352				ND	
74 4,4'-DDT	235		4.552				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha, alpha, alpl			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023563.D

Injection Date: 11-Nov-2022 00:37:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-A-1-A

Lab Sample ID: 280-168718-1

Worklist Smp#:

Client ID: X3-SS-C01-0006

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

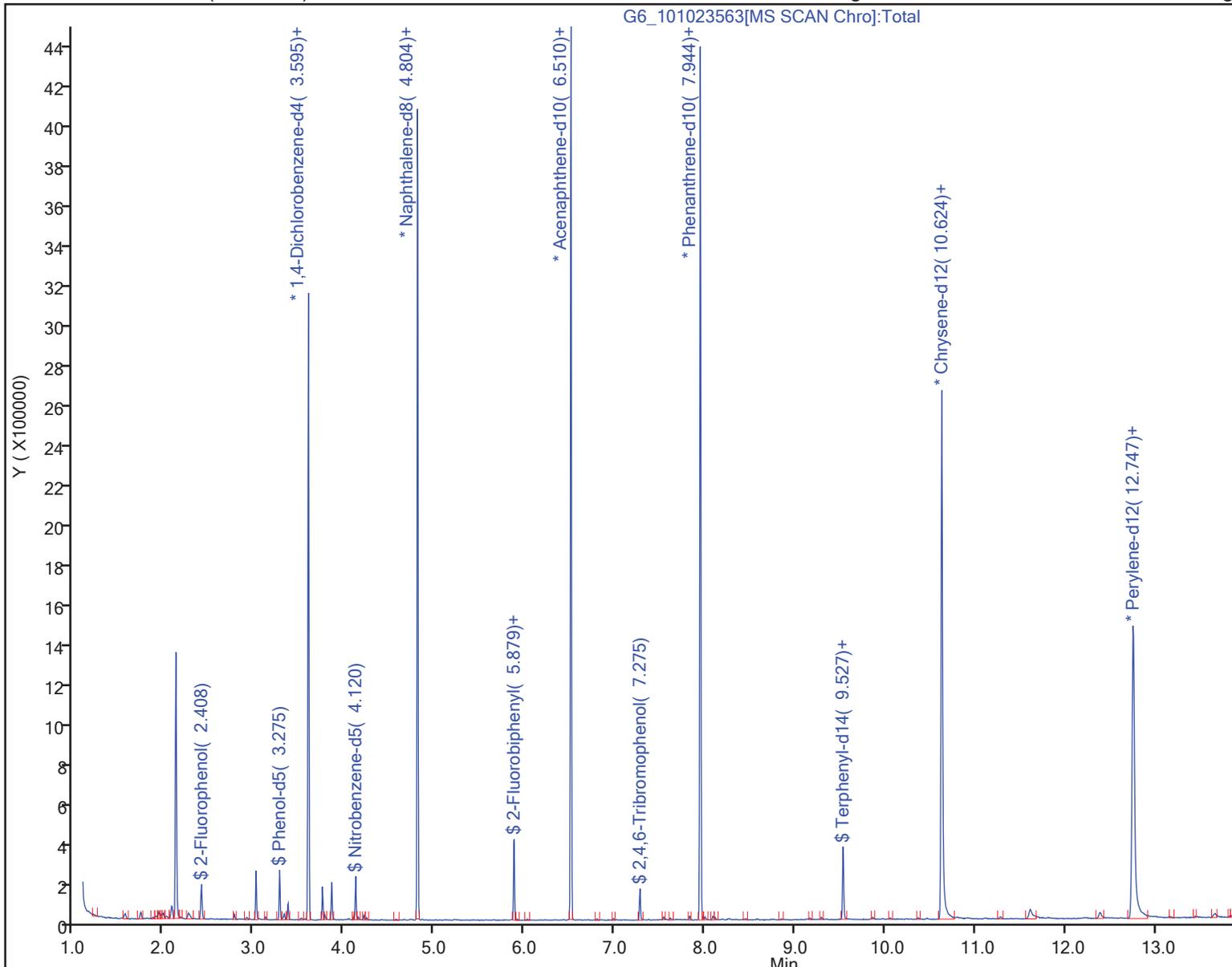
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Large



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023563.D
 Lims ID: 280-168718-A-1-A
 Client ID: X3-SS-C01-0006
 Sample Type: Client
 Inject. Date: 11-Nov-2022 00:37:30 ALS Bottle#: 30 Worklist Smp#: 32
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-1-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 11:00:37

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.65	73.08
\$ 8 Phenol-d5	100.0	3.99	79.83
\$ 9 Nitrobenzene-d5	100.0	3.40	68.03
\$ 11 2-Fluorobiphenyl	100.0	4.24	84.82
\$ 12 2,4,6-Tribromophenol	100.0	2.62	52.36
\$ 13 Terphenyl-d14	100.0	4.29	85.87

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: FD-11012201 Lab Sample ID: 280-168718-2
 Matrix: Solid Lab File ID: G6_101023564.D
 Analysis Method: 8270E Date Collected: 11/01/2022 12:45
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30.9(g) Date Analyzed: 11/11/2022 00:57
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 21.7 % Solids: 78.3 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	25000	U D	40000	25000	8300
122-39-4	Diphenylamine	4100	U D	8200	4100	1100
86-30-6	N-Nitrosodiphenylamine	1700	U D	8200	1700	520

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	73	D	44-115
367-12-4	2-Fluorophenol (Surr)	68	D	35-115
118-79-6	2,4,6-Tribromophenol (Surr)	45	D	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	64	D	37-122
4165-62-2	Phenol-d5 (Surr)	72	D	33-122
1718-51-0	Terphenyl-d14 (Surr)	74	D	54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023564.D
 Lims ID: 280-168718-B-2-A
 Client ID: FD-11012201
 Sample Type: Client
 Inject. Date: 11-Nov-2022 00:57:30 ALS Bottle#: 31 Worklist Smp#: 33
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-2-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H Date: 11-Nov-2022 11:08:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	96	462791	40.0	
* 2 Naphthalene-d8	136	4.804	4.804	0.000	99	1748775	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	92	934439	40.0	
* 4 Phenanthrene-d10	188	7.944	7.949	-0.005	97	1509240	40.0	
* 5 Chrysene-d12	240	10.623	10.629	-0.006	98	1143926	40.0	
* 6 Perylene-d12	264	12.752	12.757	-0.005	97	1051169	40.0	
\$ 7 2-Fluorophenol	112	2.403	2.403	0.000	91	51559	3.38	
\$ 8 Phenol-d5	99	3.274	3.280	-0.006	96	70269	3.61	
\$ 9 Nitrobenzene-d5	82	4.119	4.125	-0.006	91	51727	3.18	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.746				ND	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	100334	3.63	
\$ 12 2,4,6-Tribromophenol	330	7.275	7.281	-0.006	91	12292	2.25	
\$ 13 Terphenyl-d14	244	9.527	9.532	-0.005	96	109234	3.71	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179		7.000				ND	
18 Triethyl amine	86		1.338				ND	7
19 2-Ethoxyethanol	59		1.162				ND	
20 1,4-Dioxane	88		1.199				ND	7
21 N-Nitrosodimethylamine	74		1.360				ND	
22 Pyridine	79		1.386				ND	
23 Dimethylformamide	73		1.579				ND	
24 2-Picoline	93		1.905				ND	
25 N-Nitrosomethylethylamine	88		2.001				ND	
26 Acrylamide	71		2.296				ND	7
27 Methyl methanesulfonate	80		2.264				ND	
28 N-Nitrosodiethylamine	102		2.611				ND	
29 Pentachlorophenol_T	266		2.893				ND	
30 Ethyl methanesulfonate	79		2.900				ND	
32 Benzaldehyde	106		3.183				ND	
34 Phenol	94		3.291				ND	
35 Aniline	93		3.291				ND	
36 Alpha Methyl Styrene	118		3.339				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
37 Bis(2-chloroethyl)ether	93		3.365				ND	
38 Pentachloroethane	117		3.328				ND	
39 n-Decane	43		3.472				ND	7
41 2-Chlorophenol	128		3.398				ND	
42 1,3-Dichlorobenzene	146		3.537				ND	
43 1,4-Dichlorobenzene	146		3.611				ND	
44 Benzyl alcohol	108		3.740				ND	7
45 1,2-Dichlorobenzene	146		3.751				ND	
46 2-Methylphenol	108		3.863				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.884				ND	7
48 Indene	116		3.836				ND	
49 3 & 4 Methylphenol	108		4.018				ND	
50 3-Methylphenol	108		4.018				ND	
51 N-Nitrosodi-n-propylamine	70		4.002				ND	U
52 4-Methylphenol	108		4.018				ND	
53 N-Nitrosopyrrolidine	100		3.970				ND	
54 Benzidine_T	184		3.957				ND	
55 Acetophenone	105		3.986				ND	
56 N-Nitrosomorpholine	116		4.018				ND	
57 2-Toluidine	106		4.023				ND	
58 Hexachloroethane	117		4.066				ND	
60 Nitrobenzene	77		4.141				ND	
62 N-Nitrosopiperidine	114		4.291				ND	7
63 Isophorone	82		4.382				ND	
65 2-Nitrophenol	139		4.451				ND	
66 2,4-Dimethylphenol	107		4.526				ND	
67 Benzyl dichloride	125		4.462				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.596				ND	
69 Bis(2-chloroethoxy)methane	93		4.617				ND	7
70 Benzoic acid	105		4.692				ND	7
71 3,5-Dimethylphenol	107		4.660				ND	
72 alpha,alpha-Dimethyl phenethylam	58		4.783				ND	7
75 2,4-Dichlorophenol	162		4.687				ND	
77 1,2,4-Trichlorobenzene	180		4.761				ND	
78 Alpha-Terpineol	59		4.831				ND	7
79 Naphthalene	128		4.831				ND	
80 4-Chloroaniline	127		4.906				ND	
81 2,6-Dichlorophenol	162		4.906				ND	
82 Hexachloropropene	213		4.916				ND	
83 Hexachlorobutadiene	225		4.965				ND	
85 Quinoline	129		5.152				ND	
86 N-Nitrosodi-n-butylamine	84		5.253				ND	
87 Caprolactam	55		5.227				ND	7
88 p-Phenylene diamine	108		5.243				ND	
90 4-Chloro-3-methylphenol	107		5.403				ND	
91 Safrole, Total	162		5.446				ND	
92 Carbofuran phenol	164		5.425				ND	
94 2-Methylnaphthalene	142		5.505				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.601				ND	
97 Hexachlorocyclopentadiene	237		5.665				ND	
98 1,2,4,5-Tetrachlorobenzene	216		5.671				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
99 Isosafrole Peak 1	162		5.729				ND	
101 2,4,6-Trichlorophenol	196		5.794				ND	
102 2,3-Dichlorobenzeneamine	161		5.783				ND	
103 2,4,5-Trichlorophenol	196		5.831				ND	
104 Isosafrole Peak 2	162		5.949				ND	
105 1,1'-Biphenyl	154		5.970				ND	
106 Toluene diamine (2,4- + 2,6- is)	122		5.927				ND	7
107 2-Chloronaphthalene	162		5.976				ND	
108 1-Chloronaphthalene	162		5.992				ND	
109 2-Nitroaniline	65		6.088				ND	
110 1,4-Naphthoquinone	158		6.157				ND	
111 1,4-Dinitrobenzene	168		6.238				ND	
112 Dimethyl phthalate	163		6.296				ND	
113 1,3-Dinitrobenzene	168		6.307				ND	
114 2,6-Dinitrotoluene	165		6.345				ND	
115 Acenaphthylene	152		6.371				ND	
116 3-Nitroaniline	138		6.494				ND	
117 Acenaphthene	153		6.543				ND	
118 2,4-Dinitrophenol	184		6.601				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	
120 4-Nitrophenol	109		6.698				ND	7
121 Pentachlorobenzene	250		6.671				ND	
122 2,4-Dinitrotoluene	165		6.730				ND	
123 Dibenzofuran	168		6.714				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	79		7.053				ND	
125 1-Naphthylamine	143		6.794				ND	
127 2,3,4,6-Tetrachlorophenol	232		6.842				ND	
128 Hexadecane	57		7.029				ND	
129 2-Naphthylamine	143		6.874				ND	
130 Diethyl phthalate	149	6.981	6.997	-0.016	96	3028	0.1058	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	79		7.053				ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	
133 Thionazin	97		7.061				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	79		7.075				ND	
135 4-Chlorophenyl phenyl ether	204		7.067				ND	
136 Fluorene	166		7.045				ND	
137 N-Nitro-o-toluidine	152		7.077				ND	
138 Tributyl phosphate	99		7.184				ND	
139 4-Nitroaniline	138		7.088				ND	
140 4,6-Dinitro-2-methylphenol	198		7.120				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	79		7.469				ND	
142 Diphenylamine	169		7.190				ND	7
143 N-Nitrosodiphenylamine	169		7.190				ND	7
144 Azobenzene	77		7.222				ND	
145 1,2-Diphenylhydrazine	77		7.222				ND	
146 1,5-Dimethyl-2,3-Dinitrobenzene	79		7.554				ND	
147 Sulfotepp	97		7.382				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	79		7.666				ND	
150 Diallate Peak 1	86		7.484				ND	7
151 1,3,5-Trinitrobenzene	213		7.473				ND	
152 Phorate	121		7.489				ND	
154 Phenacetin	108		7.527				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallyl Peak 2	86		7.564				ND	7
157 4-Bromophenyl phenyl ether	248		7.537				ND	
158 Hexachlorobenzene	284		7.569				ND	
159 Dimethoate	87		7.650				ND	
160 Atrazine	200		7.740				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	161		8.123				ND	
162 n-Octadecane	85		7.933				ND	U
163 4-Aminobiphenyl	169		7.799				ND	7
164 Pentachlorophenol	266		7.773				ND	
165 Pentachloronitrobenzene	237		7.783				ND	
166 Pronamide	173		7.885				ND	
167 Disulfoton	88		8.003				ND	7
168 Dinoseb	211		7.987				ND	
169 Phenanthrene	178		7.971				ND	
170 Anthracene	178		8.019				ND	
171 Carbazole	167		8.195				ND	
172 Alachlor	188		8.356				ND	
173 Methyl parathion	109		8.356				ND	
175 Di-n-butyl phthalate	149		8.591				ND	
176 Ethyl Parathion	109		8.746				ND	
178 4-Nitroquinoline-1-oxide	190		8.741				ND	
179 Methapyrilene	97		8.848				ND	
180 Isodrin	193		8.976				ND	
182 Fluoranthene	202		9.126				ND	
183 4,4-Dichlorobenzil	139		10.602				ND	
184 Benzidine	184		9.291				ND	
185 Pyrene	202		9.340				ND	
187 Aramite Peak 1	185		9.554				ND	7
189 Aramite Peak 2	185		9.629				ND	7
190 p-Dimethylamino azobenzene	120		9.677				ND	
191 Chlorobenzilate	251		9.736				ND	
192 Famphur	218		9.981				ND	
193 Butyl benzyl phthalate	149		10.057				ND	
194 3,3'-Dimethylbenzidine	212		10.019				ND	
195 2-Acetylaminofluorene	181		10.292				ND	
196 4,4'-Methylene bis(2-chloroani	231		10.650				ND	7
197 3,3'-Dichlorobenzidine	252		10.629				ND	
198 Benzo[a]anthracene	228		10.618				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.789				ND	
200 Chrysene	228		10.661				ND	7
201 6-Methylchrysene	242		11.281				ND	
202 Di-n-octyl phthalate	149		11.763				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.164				ND	
204 Benzo[b]fluoranthene	252		12.148				ND	
205 Benzo[k]fluoranthene	252		12.191				ND	
206 Hexachlorophene	196		12.554				ND	
208 Benzo[a]pyrene	252		12.661				ND	7
210 3-Methylcholanthrene	268		13.298				ND	
211 Tris(2,3-dibromopropyl)phosphate	110		13.667				ND	
212 Dibenz[a,h]acridine	279		14.244				ND	
213 Dibenz[a,j]acridine	279		14.341				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
214 Indeno[1,2,3-cd]pyrene	276		14.598				ND	
215 Dibenz(a,h)anthracene	278		14.672				ND	
216 Benzo[g,h,i]perylene	276		15.042				ND	
217 Dibenzo[a,e]pyrene	302		17.304				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols, Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	
31 DFTPP								
59 4,4'-DDE	246		4.093				ND	
64 4,4'-DDD	235		4.352				ND	
74 4,4'-DDT	235		4.552				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha, alpha, alpl			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023564.D

Injection Date: 11-Nov-2022 00:57:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-B-2-A

Lab Sample ID: 280-168718-2

Worklist Smp#:

Client ID: FD-11012201

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

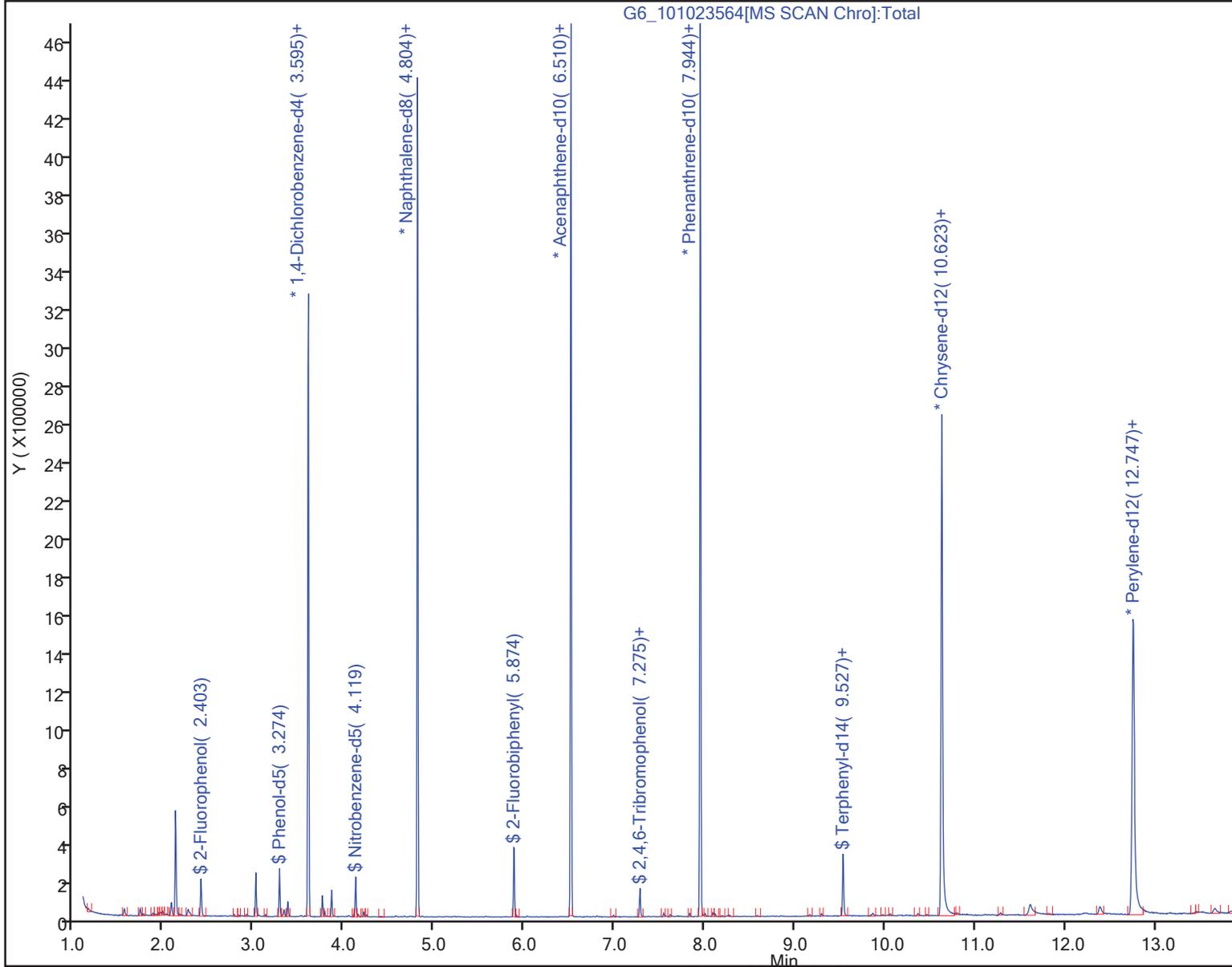
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Large



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023564.D
 Lims ID: 280-168718-B-2-A
 Client ID: FD-11012201
 Sample Type: Client
 Inject. Date: 11-Nov-2022 00:57:30 ALS Bottle#: 31 Worklist Smp#: 33
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-2-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H Date: 11-Nov-2022 11:08:30

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.38	67.54
\$ 8 Phenol-d5	100.0	3.61	72.28
\$ 9 Nitrobenzene-d5	100.0	3.18	63.67
\$ 11 2-Fluorobiphenyl	100.0	3.63	72.61
\$ 12 2,4,6-Tribromophenol	100.0	2.25	45.05
\$ 13 Terphenyl-d14	100.0	3.71	74.28

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C02-0006 Lab Sample ID: 280-168718-3
 Matrix: Solid Lab File ID: G6_101023565.D
 Analysis Method: 8270E Date Collected: 11/01/2022 13:50
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 31.2(g) Date Analyzed: 11/11/2022 01:18
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 23.6 % Solids: 76.4 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	25000	U D	40000	25000	8400
122-39-4	Diphenylamine	4200	U D	8300	4200	1100
86-30-6	N-Nitrosodiphenylamine	1700	U D	8300	1700	530

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	69	D	44-115
367-12-4	2-Fluorophenol (Surr)	58	D	35-115
118-79-6	2,4,6-Tribromophenol (Surr)	39	D	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	54	D	37-122
4165-62-2	Phenol-d5 (Surr)	63	D	33-122
1718-51-0	Terphenyl-d14 (Surr)	65	D	54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023565.D
 Lims ID: 280-168718-A-3-A
 Client ID: X3-SS-C02-0006
 Sample Type: Client
 Inject. Date: 11-Nov-2022 01:18:30 ALS Bottle#: 32 Worklist Smp#: 34
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-3-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H Date: 11-Nov-2022 11:12:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	96	443381	40.0	
* 2 Naphthalene-d8	136	4.809	4.804	0.005	99	1674206	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	91	895892	40.0	
* 4 Phenanthrene-d10	188	7.944	7.949	-0.005	97	1436068	40.0	
* 5 Chrysene-d12	240	10.623	10.629	-0.006	98	1085919	40.0	
* 6 Perylene-d12	264	12.752	12.757	-0.005	97	1009522	40.0	
\$ 7 2-Fluorophenol	112	2.403	2.403	0.000	92	42475	2.90	
\$ 8 Phenol-d5	99	3.274	3.280	-0.006	96	58604	3.15	
\$ 9 Nitrobenzene-d5	82	4.119	4.125	-0.006	90	42308	2.72	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.746				ND	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	90936	3.43	
\$ 12 2,4,6-Tribromophenol	330	7.275	7.281	-0.006	88	10218	1.95	
\$ 13 Terphenyl-d14	244	9.527	9.532	-0.005	97	90864	3.25	
17 1,4-Dimethyl-2,5-Dinitrobenzene	79	6.917	7.000	-0.083	1	79	0.008555	
18 Triethyl amine	86		1.338				ND	7
19 2-Ethoxyethanol	59		1.162				ND	
20 1,4-Dioxane	88		1.199				ND	7
21 N-Nitrosodimethylamine	74		1.360				ND	
22 Pyridine	79		1.386				ND	
23 Dimethylformamide	73		1.579				ND	
24 2-Picoline	93		1.905				ND	
25 N-Nitrosomethylethylamine	88		2.001				ND	
26 Acrylamide	71		2.296				ND	7
27 Methyl methanesulfonate	80		2.264				ND	
28 N-Nitrosodiethylamine	102		2.611				ND	
29 Pentachlorophenol_T	266		2.893				ND	
30 Ethyl methanesulfonate	79		2.900				ND	
32 Benzaldehyde	106		3.183				ND	
34 Phenol	94		3.291				ND	
35 Aniline	93		3.291				ND	7
36 Alpha Methyl Styrene	118		3.339				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
37 Bis(2-chloroethyl)ether	93		3.365				ND	7
38 Pentachloroethane	117		3.328				ND	
39 n-Decane	43		3.472				ND	7
41 2-Chlorophenol	128		3.398				ND	
42 1,3-Dichlorobenzene	146		3.537				ND	
43 1,4-Dichlorobenzene	146		3.611				ND	
44 Benzyl alcohol	108		3.740				ND	7
45 1,2-Dichlorobenzene	146		3.751				ND	
46 2-Methylphenol	108		3.863				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.884				ND	7
48 Indene	116		3.836				ND	
49 3 & 4 Methylphenol	108		4.018				ND	
50 3-Methylphenol	108		4.018				ND	
51 N-Nitrosodi-n-propylamine	70		4.002				ND	U
52 4-Methylphenol	108		4.018				ND	
53 N-Nitrosopyrrolidine	100		3.970				ND	
54 Benzidine_T	184		3.957				ND	
55 Acetophenone	105		3.986				ND	
56 N-Nitrosomorpholine	116		4.018				ND	
57 2-Toluidine	106		4.023				ND	
58 Hexachloroethane	117		4.066				ND	
60 Nitrobenzene	77		4.141				ND	
62 N-Nitrosopiperidine	114		4.291				ND	
63 Isophorone	82		4.382				ND	7
65 2-Nitrophenol	139		4.451				ND	
66 2,4-Dimethylphenol	107		4.526				ND	
67 Benzyl dichloride	125		4.462				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.596				ND	
69 Bis(2-chloroethoxy)methane	93		4.617				ND	7
70 Benzoic acid	105	4.563	4.692	-0.129	86	957	3.65	7a
71 3,5-Dimethylphenol	107		4.660				ND	U
72 alpha,alpha-Dimethyl phenethylam	58		4.783				ND	7
75 2,4-Dichlorophenol	162		4.687				ND	
77 1,2,4-Trichlorobenzene	180		4.761				ND	
78 Alpha-Terpineol	59		4.831				ND	7
79 Naphthalene	128		4.831				ND	
80 4-Chloroaniline	127		4.906				ND	
81 2,6-Dichlorophenol	162		4.906				ND	
82 Hexachloropropene	213		4.916				ND	
83 Hexachlorobutadiene	225		4.965				ND	
85 Quinoline	129		5.152				ND	
86 N-Nitrosodi-n-butylamine	84		5.253				ND	
87 Caprolactam	55		5.227				ND	
88 p-Phenylene diamine	108		5.243				ND	
90 4-Chloro-3-methylphenol	107		5.403				ND	
91 Safrole, Total	162		5.446				ND	
92 Carbofuran phenol	164		5.425				ND	
94 2-Methylnaphthalene	142		5.505				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.601				ND	
97 Hexachlorocyclopentadiene	237		5.665				ND	
98 1,2,4,5-Tetrachlorobenzene	216		5.671				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
99 Isosafrole Peak 1	162		5.729				ND	
101 2,4,6-Trichlorophenol	196		5.794				ND	
102 2,3-Dichlorobenzenamine	161		5.783				ND	
103 2,4,5-Trichlorophenol	196		5.831				ND	
104 Isosafrole Peak 2	162		5.949				ND	
105 1,1'-Biphenyl	154		5.970				ND	
106 Toluene diamine (2,4- + 2,6- is)	122		5.927				ND	7
107 2-Chloronaphthalene	162		5.976				ND	
108 1-Chloronaphthalene	162		5.992				ND	
109 2-Nitroaniline	65		6.088				ND	
110 1,4-Naphthoquinone	158		6.157				ND	
111 1,4-Dinitrobenzene	168		6.238				ND	
112 Dimethyl phthalate	163		6.296				ND	
113 1,3-Dinitrobenzene	168		6.307				ND	
114 2,6-Dinitrotoluene	165		6.345				ND	
115 Acenaphthylene	152		6.371				ND	
116 3-Nitroaniline	138		6.494				ND	
117 Acenaphthene	153		6.543				ND	
118 2,4-Dinitrophenol	184		6.601				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	
120 4-Nitrophenol	109		6.698				ND	7
121 Pentachlorobenzene	250		6.671				ND	
122 2,4-Dinitrotoluene	165		6.730				ND	
123 Dibenzofuran	168		6.714				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	79		7.053				ND	
125 1-Naphthylamine	143		6.794				ND	
127 2,3,4,6-Tetrachlorophenol	232		6.842				ND	
128 Hexadecane	57		7.029				ND	
129 2-Naphthylamine	143		6.874				ND	
130 Diethyl phthalate	149	6.981	6.997	-0.016	95	3185	0.1161	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	79		7.053				ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	
133 Thionazin	97		7.061				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	79		7.075				ND	
135 4-Chlorophenyl phenyl ether	204		7.067				ND	
136 Fluorene	166		7.045				ND	
137 N-Nitro-o-toluidine	152		7.077				ND	
138 Tributyl phosphate	99		7.184				ND	
139 4-Nitroaniline	138		7.088				ND	
140 4,6-Dinitro-2-methylphenol	198		7.120				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	79		7.469				ND	
142 Diphenylamine	169		7.190				ND	
143 N-Nitrosodiphenylamine	169		7.190				ND	
144 Azobenzene	77		7.222				ND	
145 1,2-Diphenylhydrazine	77		7.222				ND	
146 1,5-Dimethyl-2,3-Dinitrobenzene	79		7.554				ND	
147 Sulfotepp	97		7.382				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	79		7.666				ND	
150 Diallate Peak 1	86		7.484				ND	7
151 1,3,5-Trinitrobenzene	213		7.473				ND	
152 Phorate	121		7.489				ND	7
154 Phenacetin	108		7.527				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallate Peak 2	86		7.564				ND	7
157 4-Bromophenyl phenyl ether	248		7.537				ND	
158 Hexachlorobenzene	284		7.569				ND	
159 Dimethoate	87		7.650				ND	
160 Atrazine	200		7.740				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	161		8.123				ND	
162 n-Octadecane	85		7.933				ND	U
163 4-Aminobiphenyl	169		7.799				ND	7
164 Pentachlorophenol	266		7.773				ND	
165 Pentachloronitrobenzene	237		7.783				ND	
166 Pronamide	173		7.885				ND	
167 Disulfoton	88		8.003				ND	7
168 Dinoseb	211		7.987				ND	
169 Phenanthrene	178		7.971				ND	7
170 Anthracene	178		8.019				ND	7
171 Carbazole	167		8.195				ND	
172 Alachlor	188		8.356				ND	
173 Methyl parathion	109		8.356				ND	
175 Di-n-butyl phthalate	149		8.591				ND	
176 Ethyl Parathion	109		8.746				ND	
178 4-Nitroquinoline-1-oxide	190		8.741				ND	
179 Methapyrilene	97		8.848				ND	
180 Isodrin	193		8.976				ND	
182 Fluoranthene	202		9.126				ND	
183 4,4-Dichlorobenzil	139		10.602				ND	
184 Benzidine	184		9.291				ND	
185 Pyrene	202		9.340				ND	
187 Aramite Peak 1	185		9.554				ND	7
189 Aramite Peak 2	185		9.629				ND	7
190 p-Dimethylamino azobenzene	120		9.677				ND	
191 Chlorobenzilate	251		9.736				ND	
192 Famphur	218		9.981				ND	
193 Butyl benzyl phthalate	149		10.057				ND	7
194 3,3'-Dimethylbenzidine	212		10.019				ND	
195 2-Acetylaminofluorene	181		10.292				ND	
196 4,4'-Methylene bis(2-chloroani	231		10.650				ND	7
197 3,3'-Dichlorobenzidine	252		10.629				ND	
198 Benzo[a]anthracene	228		10.618				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.789				ND	
200 Chrysene	228		10.661				ND	7
201 6-Methylchrysene	242		11.281				ND	
202 Di-n-octyl phthalate	149		11.763				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.164				ND	
204 Benzo[b]fluoranthene	252		12.148				ND	
205 Benzo[k]fluoranthene	252		12.191				ND	
206 Hexachlorophene	196		12.554				ND	
208 Benzo[a]pyrene	252		12.661				ND	7
210 3-Methylcholanthrene	268		13.298				ND	
211 Tris(2,3-dibromopropyl)phosphate	110		13.667				ND	7
212 Dibenz[a,h]acridine	279		14.244				ND	
213 Dibenz[a,j]acridine	279		14.341				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
214 Indeno[1,2,3-cd]pyrene	276		14.598				ND	
215 Dibenz(a,h)anthracene	278		14.672				ND	
216 Benzo[g,h,i]perylene	276		15.042				ND	
217 Dibenzo[a,e]pyrene	302		17.304				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols, Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	
31 DFTPP								
59 4,4'-DDE	246		4.093				ND	
64 4,4'-DDD	235		4.352				ND	
74 4,4'-DDT	235		4.552				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC 1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha, alpha, alpl			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023565.D

Injection Date: 11-Nov-2022 01:18:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-A-3-A

Lab Sample ID: 280-168718-3

Worklist Smp#:

Client ID: X3-SS-C02-0006

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

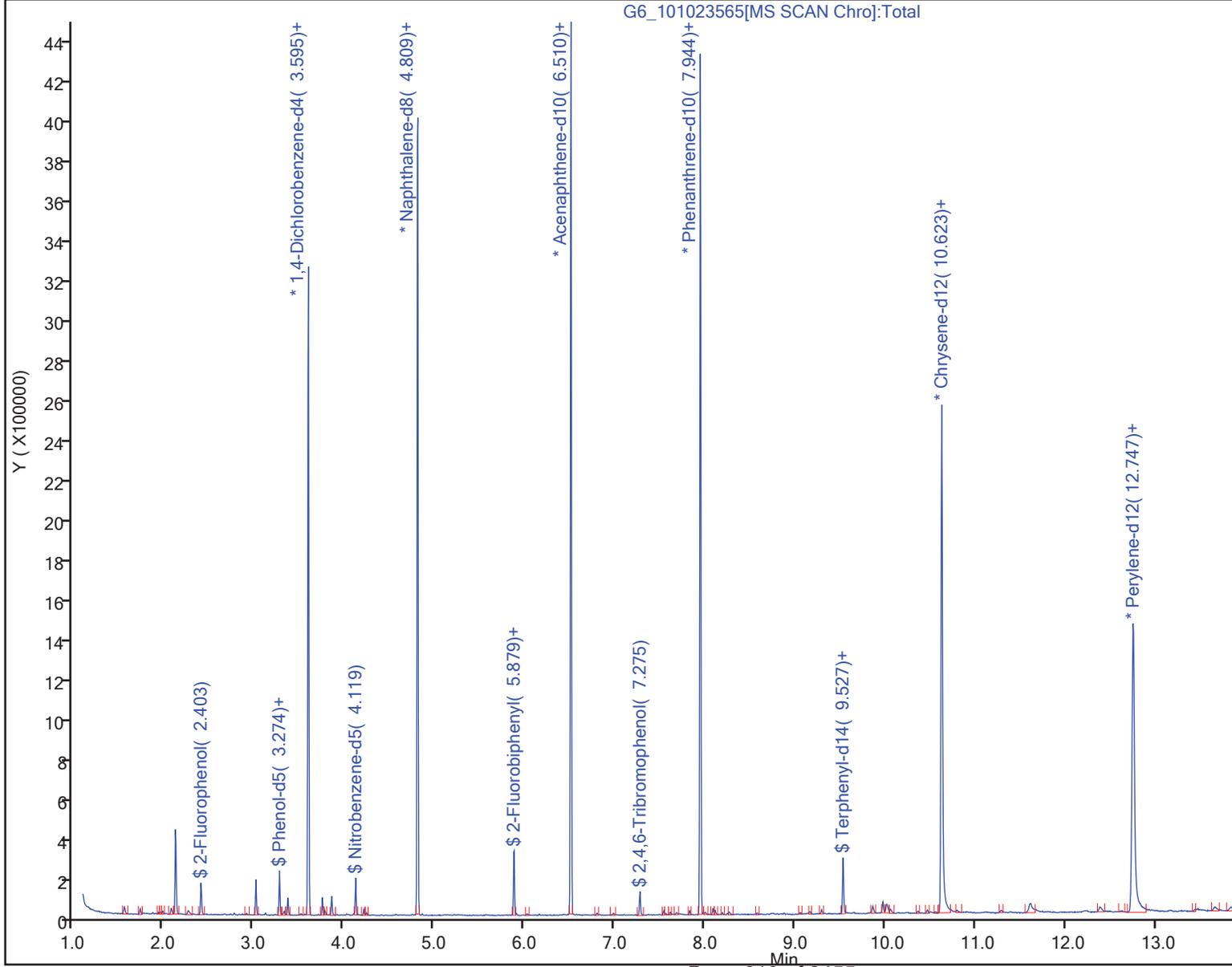
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023565.D
 Lims ID: 280-168718-A-3-A
 Client ID: X3-SS-C02-0006
 Sample Type: Client
 Inject. Date: 11-Nov-2022 01:18:30 ALS Bottle#: 32 Worklist Smp#: 34
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-3-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 11:12:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	2.90	58.08
\$ 8 Phenol-d5	100.0	3.15	62.92
\$ 9 Nitrobenzene-d5	100.0	2.72	54.40
\$ 11 2-Fluorobiphenyl	100.0	3.43	68.64
\$ 12 2,4,6-Tribromophenol	100.0	1.95	39.06
\$ 13 Terphenyl-d14	100.0	3.25	65.09

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C04-0006 Lab Sample ID: 280-168718-5
 Matrix: Solid Lab File ID: G6_101023685.D
 Analysis Method: 8270E Date Collected: 11/01/2022 15:25
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30.3(g) Date Analyzed: 11/14/2022 19:37
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 28.6 % Solids: 71.4 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593336 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	28000	U D	44000	28000	9200
122-39-4	Diphenylamine	4600	U D	9200	4600	1200
86-30-6	N-Nitrosodiphenylamine	1900	U D	9200	1900	580

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	77		44-115
367-12-4	2-Fluorophenol (Surr)	70		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	53	Q	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	68		37-122
4165-62-2	Phenol-d5 (Surr)	78		33-122
1718-51-0	Terphenyl-d14 (Surr)	78		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023685.D
 Lims ID: 280-168718-A-5-A
 Client ID: X3-SS-C04-0006
 Sample Type: Client
 Inject. Date: 14-Nov-2022 19:37:30 ALS Bottle#: 14 Worklist Smp#: 16
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-5
 Misc. Info.: 280-0115818-030
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 10:56:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	399813	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	99	1574886	40.0	
* 3 Acenaphthene-d10	164	6.489	6.494	-0.005	92	859973	40.0	
* 4 Phenanthrene-d10	188	7.922	7.928	-0.006	97	1436856	40.0	
* 5 Chrysene-d12	240	10.591	10.597	-0.006	98	1112157	40.0	
* 6 Perylene-d12	264	12.699	12.704	-0.005	97	1018779	40.0	
\$ 7 2-Fluorophenol	112	2.387	2.386	0.001	93	46445	3.52	
\$ 8 Phenol-d5	99	3.258	3.264	-0.006	95	65159	3.88	
\$ 9 Nitrobenzene-d5	82	4.104	4.109	-0.005	89	49410	3.38	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.767				ND	
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	98356	3.87	
\$ 12 2,4,6-Tribromophenol	330	7.254	7.259	-0.005	89	13403	2.67	
\$ 13 Terphenyl-d14	244	9.506	9.511	-0.005	96	111716	3.91	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179	6.970	7.000	-0.030	55	132	0.0149	
18 Triethyl amine	86		1.376				ND	7
19 2-Ethoxyethanol	59		1.178				ND	
20 1,4-Dioxane	88		1.183				ND	
21 N-Nitrosodimethylamine	74		1.338				ND	
22 Pyridine	79		1.365				ND	
23 Dimethylformamide	73		1.600				ND	
24 2-Picoline	93		1.884				ND	
25 N-Nitrosomethylethylamine	88		1.980				ND	7
26 Acrylamide	71		2.269				ND	7
27 Methyl methanesulfonate	80		2.242				ND	
28 N-Nitrosodiethylamine	102		2.590				ND	
29 Pentachlorophenol_T	266		2.881				ND	
30 Ethyl methanesulfonate	79		2.879				ND	
32 Benzaldehyde	106		3.167				ND	
34 Phenol	94		3.274				ND	
35 Aniline	93		3.274				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
36 Alpha Methyl Styrene	118		3.322				ND	
37 Bis(2-chloroethyl)ether	93		3.349				ND	
38 Pentachloroethane	117		3.312				ND	
39 n-Decane	43		3.456				ND	7
41 2-Chlorophenol	128		3.381				ND	
42 1,3-Dichlorobenzene	146		3.520				ND	
43 1,4-Dichlorobenzene	146		3.595				ND	
44 Benzyl alcohol	108		3.724				ND	7
45 1,2-Dichlorobenzene	146		3.734				ND	
46 2-Methylphenol	108		3.847				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.868				ND	U
48 Indene	116		3.820				ND	
49 3 & 4 Methylphenol	108		4.002				ND	
50 3-Methylphenol	108		4.002				ND	
51 N-Nitrosodi-n-propylamine	70		3.986				ND	7
52 4-Methylphenol	108		4.002				ND	
53 N-Nitrosopyrrolidine	100		3.954				ND	
54 Benzidine_T	184		3.946				ND	
55 Acetophenone	105		3.970				ND	
56 N-Nitrosomorpholine	116		4.002				ND	
57 2-Toluidine	106		4.007				ND	
58 Hexachloroethane	117		4.050				ND	
60 Nitrobenzene	77		4.125				ND	
62 N-Nitrosopiperidine	114		4.275				ND	7
63 Isophorone	82		4.365				ND	
65 2-Nitrophenol	139		4.435				ND	
66 2,4-Dimethylphenol	107		4.510				ND	
67 Benzyl dichloride	125		4.483				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.579				ND	
69 Bis(2-chloroethoxy)methane	93		4.601				ND	7
70 Benzoic acid	105	4.553	4.665	-0.112	82	4185	3.94	7a
71 3,5-Dimethylphenol	107		4.649				ND	U
72 alpha,alpha-Dimethyl phenethylam	58		4.740				ND	7
75 2,4-Dichlorophenol	162		4.676				ND	
77 1,2,4-Trichlorobenzene	180		4.745				ND	
78 Alpha-Terpineol	59		4.852				ND	7
79 Naphthalene	128		4.815				ND	
80 4-Chloroaniline	127		4.890				ND	
81 2,6-Dichlorophenol	162		4.890				ND	
82 Hexachloropropene	213		4.906				ND	
83 Hexachlorobutadiene	225		4.954				ND	
85 Quinoline	129		5.136				ND	
86 N-Nitrosodi-n-butylamine	84		5.237				ND	7
87 Caprolactam	55		5.237				ND	7
88 p-Phenylene diamine	108		5.232				ND	
90 4-Chloro-3-methylphenol	107		5.392				ND	
91 Safrole, Total	162		5.430				ND	
92 Carbofuran phenol	164		5.446				ND	
94 2-Methylnaphthalene	142		5.489				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.585				ND	
97 Hexachlorocyclopentadiene	237		5.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
98 1,2,4,5-Tetrachlorobenzene	216		5.654				ND	
99 Isosafrole Peak 1	162		5.713				ND	
101 2,4,6-Trichlorophenol	196		5.778				ND	
102 2,3-Dichlorobenzeneamine	161		5.767				ND	
103 2,4,5-Trichlorophenol	196		5.815				ND	
104 Isosafrole Peak 2	162		5.933				ND	
105 1,1'-Biphenyl	154		5.954				ND	
106 Toluene diamine (2,4- + 2,6- is)	222		5.949				ND	7
107 2-Chloronaphthalene	162		5.959				ND	
108 1-Chloronaphthalene	162		5.975				ND	
109 2-Nitroaniline	65		6.072				ND	
110 1,4-Naphthoquinone	158		6.141				ND	
111 1,4-Dinitrobenzene	168		6.221				ND	
112 Dimethyl phthalate	163		6.280				ND	
113 1,3-Dinitrobenzene	168		6.291				ND	
114 2,6-Dinitrotoluene	165		6.323				ND	
115 Acenaphthylene	152		6.355				ND	
116 3-Nitroaniline	138		6.478				ND	
117 Acenaphthene	153		6.526				ND	
118 2,4-Dinitrophenol	184		6.580				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	7
120 4-Nitrophenol	109		6.681				ND	7
121 Pentachlorobenzene	250		6.655				ND	
122 2,4-Dinitrotoluene	165		6.708				ND	
123 Dibenzofuran	168		6.697				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.053				ND	7
125 1-Naphthylamine	143		6.778				ND	
127 2,3,4,6-Tetrachlorophenol	232		6.826				ND	
128 Hexadecane	57		7.008				ND	
129 2-Naphthylamine	143		6.853				ND	
130 Diethyl phthalate	149	6.965	6.976	-0.011	96	7492	0.2844	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.053				ND	7
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	7
133 Thionazin	97		7.040				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.075				ND	7
135 4-Chlorophenyl phenyl ether	204		7.050				ND	
136 Fluorene	166		7.029				ND	
137 N-Nitro-o-toluidine	152		7.056				ND	
138 Tributyl phosphate	99		7.200				ND	
139 4-Nitroaniline	138		7.067				ND	
140 4,6-Dinitro-2-methylphenol	198		7.099				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.469				ND	
142 Diphenylamine	169		7.168				ND	7
143 N-Nitrosodiphenylamine	169		7.168				ND	7
144 Azobenzene	77		7.200				ND	
145 1,2-Diphenylhydrazine	77		7.200				ND	
146 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.554				ND	
147 Sulfotepp	97		7.361				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	179	7.666	7.666	0.000	61	117	1.99	
150 Diallate Peak 1	86		7.462				ND	7
151 1,3,5-Trinitrobenzene	213		7.452				ND	
152 Phorate	121		7.468				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
154 Phenacetin	108		7.500				ND	
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallyl Peak 2	86		7.543				ND	7
157 4-Bromophenyl phenyl ether	248		7.521				ND	
158 Hexachlorobenzene	284		7.553				ND	
159 Dimethoate	87		7.628				ND	
160 Atrazine	200		7.714				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	261		8.123				ND	
162 n-Octadecane	85		7.912				ND	U
163 4-Aminobiphenyl	169		7.773				ND	7
164 Pentachlorophenol	266		7.756				ND	
165 Pentachloronitrobenzene	237		7.762				ND	
166 Pronamide	173		7.863				ND	
167 Disulfoton	88		7.981				ND	7
168 Dinoseb	211		7.965				ND	
169 Phenanthrene	178		7.949				ND	7
170 Anthracene	178		7.997				ND	7
171 Carbazole	167		8.174				ND	
172 Alachlor	188		8.334				ND	
173 Methyl parathion	109		8.334				ND	
175 Di-n-butyl phthalate	149		8.569				ND	
176 Ethyl Parathion	109		8.725				ND	
178 4-Nitroquinoline-1-oxide	190		8.719				ND	
179 Methapyrilene	97		8.826				ND	7
180 Isodrin	193		8.955				ND	
182 Fluoranthene	202		9.104				ND	
183 4,4-Dichlorobenzil	139	10.591	10.602	-0.011	0	708	NC	
184 Benzidine	184		9.265				ND	
185 Pyrene	202		9.318				ND	
187 Aramite Peak 1	185		9.527				ND	7
189 Aramite Peak 2	185		9.607				ND	7
190 p-Dimethylamino azobenzene	120		9.655				ND	
191 Chlorobenzilate	251		9.714				ND	
192 Famphur	218		9.955				ND	
193 Butyl benzyl phthalate	149		10.035				ND	
194 3,3'-Dimethylbenzidine	212		9.992				ND	
195 2-Acetylaminofluorene	181		10.265				ND	
196 4,4'-Methylene bis(2-chloroaniline)	231		10.618				ND	7
197 3,3'-Dichlorobenzidine	252		10.597				ND	
198 Benzo[a]anthracene	228		10.586				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.762				ND	
200 Chrysene	228		10.629				ND	7
201 6-Methylchrysene	242		11.244				ND	
202 Di-n-octyl phthalate	149		11.720				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.110				ND	
204 Benzo[b]fluoranthene	252		12.100				ND	
205 Benzo[k]fluoranthene	252		12.148				ND	
206 Hexachlorophene	196		10.591				ND	
208 Benzo[a]pyrene	252		12.613				ND	7
210 3-Methylcholanthrene	268		13.239				ND	
211 Tris(2,3-dibromopropyl)phosphite	110		13.683				ND	7
212 Dibenz[a,h]acridine	279		14.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
213 Dibenz[a,j]acridine	279		14.276				ND	
214 Indeno[1,2,3-cd]pyrene	276		14.528				ND	
215 Dibenz(a,h)anthracene	278		14.608				ND	
216 Benzo[g,h,i]perylene	276		14.977				ND	
217 Dibenzo[a,e]pyrene	302		17.315				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols,Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	U
31 DFTPP								
59 4,4'-DDE	246		4.081				ND	
64 4,4'-DDD	235		4.316				ND	
74 4,4'-DDT	235		4.534				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha,alpha,alp			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023685.D

Injection Date: 14-Nov-2022 19:37:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-A-5-A

Lab Sample ID: 280-168718-5

Worklist Smp#:

Client ID: X3-SS-C04-0006

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

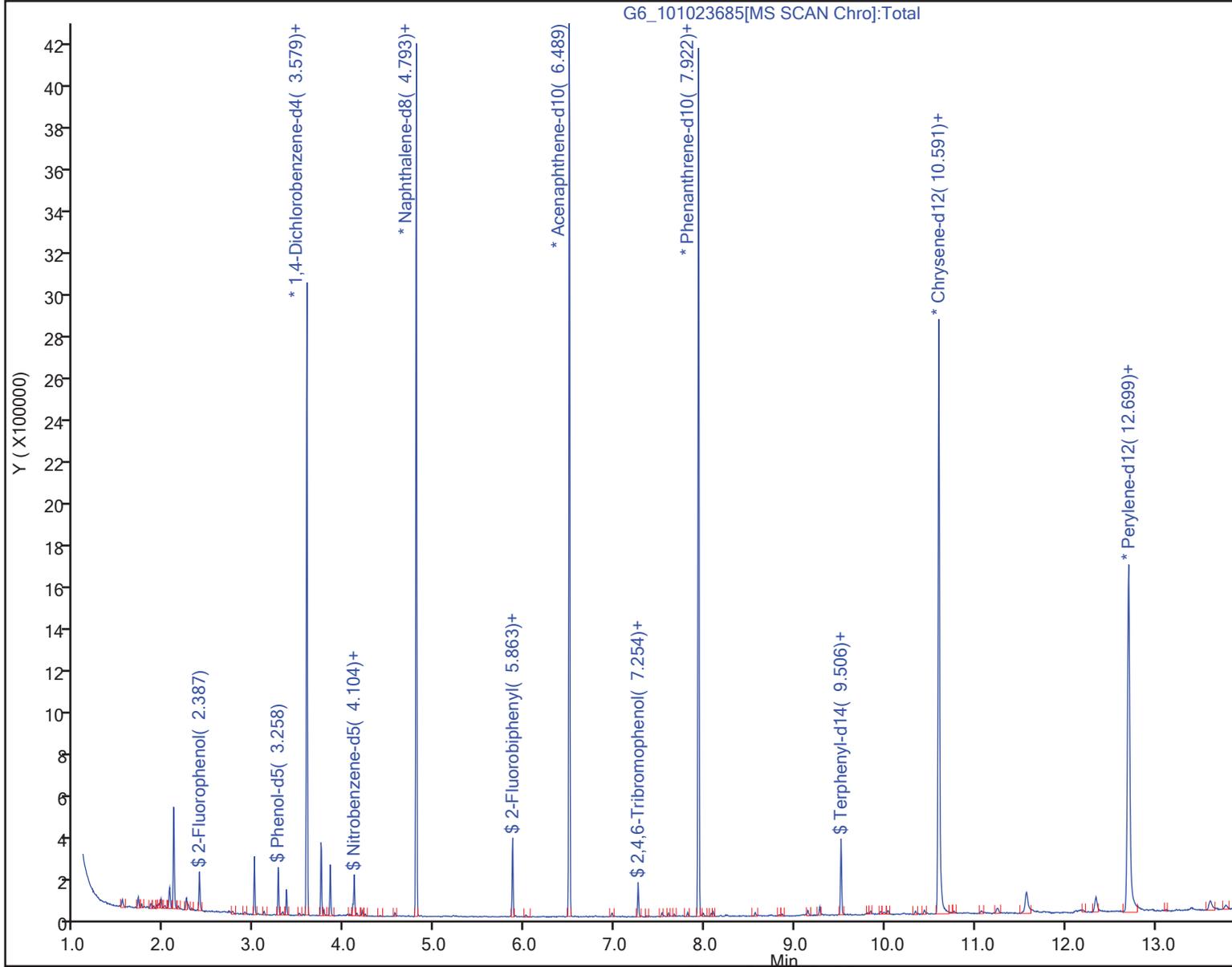
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023685.D
 Lims ID: 280-168718-A-5-A
 Client ID: X3-SS-C04-0006
 Sample Type: Client
 Inject. Date: 14-Nov-2022 19:37:30 ALS Bottle#: 14 Worklist Smp#: 16
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-5
 Misc. Info.: 280-0115818-030
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 10:56:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.52	70.43
\$ 8 Phenol-d5	100.0	3.88	77.58
\$ 9 Nitrobenzene-d5	100.0	3.38	67.54
\$ 11 2-Fluorobiphenyl	100.0	3.87	77.34
\$ 12 2,4,6-Tribromophenol	100.0	2.67	53.37
\$ 13 Terphenyl-d14	100.0	3.91	78.14

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: RB-11012201 Lab Sample ID: 280-168718-6
 Matrix: Water Lab File ID: 1625.D
 Analysis Method: 8270E Date Collected: 11/01/2022 15:45
 Extract. Method: 3510C Date Extracted: 11/07/2022 13:11
 Sample wt/vol: 500(mL) Date Analyzed: 11/17/2022 01:55
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593651 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	60	U	60	60	20
122-39-4	Diphenylamine	14	U M	20	14	2.1
86-30-6	N-Nitrosodiphenylamine	16	U	20	16	0.88

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	73		44-119
367-12-4	2-Fluorophenol (Surr)	37		19-119
118-79-6	2,4,6-Tribromophenol (Surr)	73		43-140
4165-60-0	Nitrobenzene-d5 (Surr)	70		44-120
4165-62-2	Phenol-d5 (Surr)	20		10-115
1718-51-0	Terphenyl-d14 (Surr)	80		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1625.D
 Lims ID: 280-168718-A-6-A
 Client ID: RB-11012201
 Sample Type: Client
 Inject. Date: 17-Nov-2022 01:55:49 ALS Bottle#: 0 Worklist Smp#: 56
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 280-168718-A-6-A
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:08:02 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NU5H

Date: 17-Nov-2022 12:59:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.614	4.622	-0.008	98	183911	40.0	
* 2 Naphthalene-d8	136	5.878	5.878	0.000	100	705342	40.0	
* 3 Acenaphthene-d10	164	7.614	7.610	0.004	96	431248	40.0	
* 4 Phenanthrene-d10	188	9.031	9.026	0.005	98	830731	40.0	
* 5 Chrysene-d12	240	11.741	11.738	0.003	98	777355	40.0	
* 6 Perylene-d12	264	13.606	13.603	0.003	98	772163	40.0	
\$ 7 2-Fluorophenol	112	3.422	3.441	-0.019	95	235295	36.7	
\$ 8 Phenol-d5	99	4.295	4.294	0.001	98	165122	19.7	
\$ 9 Nitrobenzene-d5	82	5.187	5.191	-0.004	90	600493	69.7	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	100	1133395	72.7	
\$ 11 2,4,6-Tribromophenol	330	8.385	8.379	0.006	92	153133	73.0	
\$ 12 Terphenyl-d14	244	10.582	10.575	0.007	97	1727359	80.5	
\$ 13 2,4,6-Trichlorophenol-d2	198		6.870				ND	
14 Triethyl amine	86		2.044				ND	U
15 1,4-Dioxane	88		2.165				ND	U
16 2-Ethoxyethanol	59		2.181				ND	
17 N-Nitrosodimethylamine	74		2.398				ND	
18 Pyridine	79		2.411				ND	
19 Dimethylformamide	73		2.683				ND	
20 2-Picoline	93		2.962				ND	
22 N-Nitrosomethylethylamine	88		3.061				ND	
21 Acrylamide	71		3.064				ND	U
23 Methyl methanesulfonate	80		3.330				ND	
24 Phenylmercaptan TIC	110		3.583				ND	
25 N-Nitrosodiethylamine	102		3.676				ND	
26 2-Bromopyridine	78		3.867				ND	
27 Ethyl methanesulfonate	79		3.951				ND	
28 Benzaldehyde	106		4.216				ND	
29 Phenol	94		4.307				ND	
31 Aniline	93		4.345				ND	
30 Pentachloroethane	117		4.348				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Alpha Methyl Styrene	118		4.384				ND	
33 Bis(2-chloroethyl)ether	93		4.400				ND	
34 2-Chlorophenol	128		4.448				ND	
35 n-Decane	43		4.480				ND	
36 1,3-Dichlorobenzene	146		4.589				ND	
37 1,4-Dichlorobenzene	146		4.640				ND	
38 Pentachlorophenol_T	266		4.692				ND	
39 4-Chloro-3-nitro-alpha,alpha,alp	179		4.766				ND	
40 Benzyl alcohol	108		4.772				ND	U
41 3-Amino-4-Chlorobenzotrifluorid	105		4.785				ND	
42 2,4-Xylidine TIC	136		4.810				ND	
43 1,2-Dichlorobenzene	146		4.823				ND	
44 o-Anisidine TIC	80		4.857				ND	
45 2-Methylphenol	108		4.890				ND	
46 Indene	116		4.900				ND	
47 2,2'-oxybis[1-chloropropane]	45		4.929				ND	
49 3-Methylphenol	108		5.034				ND	
51 4-Methylphenol	108		5.034				ND	
50 3 & 4 Methylphenol	108		5.034				ND	
48 N-Nitrosopyrrolidine	100		5.036				ND	
52 Acetophenone	105		5.041				ND	
53 N-Nitrosomorpholine	116		5.052				ND	
54 N-Nitrosodi-n-propylamine	70		5.070				ND	
55 2-Toluidine	106		5.084				ND	
56 Hexachloroethane	117		5.121				ND	
57 Sulfolane	56		5.166				ND	
58 Nitrobenzene	77		5.211				ND	U
59 N-Nitrosopiperidine	114		5.356				ND	
60 Isophorone	82		5.444				ND	U
61 2-Nitrophenol	139		5.524				ND	
62 2,4-Dimethylphenol	107		5.556				ND	
64 Benzyl dichloride	125		5.561				ND	
63 1,3-phenylenediamine TIC	108		5.568				ND	
65 5-Methyl-o-Anisidine TIC	122		5.592				ND	
66 Bis(2-chloroethoxy)methane	63		5.659				ND	
67 o,o',o"-Triethylphosphorothioat	198		5.676				ND	
68 3,5-Dimethylphenol	107		5.685				ND	
69 Benzoic acid	105		5.704				ND	U
70 2,4-Dichlorophenol	162		5.749				ND	
71 3'-Bromoacetophenone	183		5.783				ND	
72 1,2,4-Trichlorobenzene	180		5.839				ND	
73 Benzidine_T	184		5.842				ND	
76 Alpha-Terpineol	59		5.894				ND	
74 alpha,alpha-Dimethyl phenethylam	58		5.895				ND	
75 Naphthalene	128		5.900				ND	
77 4-Chloroaniline	127		5.974				ND	
78 2,6-Dichlorophenol	162		5.977				ND	
79 Hexachloropropene	213		6.020				ND	
80 Hexachlorobutadiene	225		6.079				ND	
81 Quinoline	129		6.238				ND	
84 Caprolactam	55		6.300				ND	
83 N-Nitrosodi-n-butylamine	84		6.327				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
82 p-Phenylene diamine	108		6.331				ND	
85 4-Chloro-3-methylphenol	107		6.444				ND	
86 Safrole, Total	162		6.504				ND	
87 Carbofuran phenol	164		6.556				ND	
88 2-Methylnaphthalene	141		6.576				ND	
89 1-Methylnaphthalene	142		6.685				ND	
90 1,2,4,5-Tetrachlorobenzene	216		6.781				ND	
91 Isosafrole Peak 1	162		6.789				ND	
92 Hexachlorocyclopentadiene	237		6.800				ND	
93 2,4,6-Trichlorophenol	196		6.877				ND	
94 2,3-Dichlorobenzenamine	161		6.887				ND	
95 2,4,5-Trichlorophenol	196		6.913				ND	
96 Isosafrole Peak 2	162		7.004				ND	
97 1,1'-Biphenyl	154		7.041				ND	U
98 2-Chloronaphthalene	162		7.051				ND	
99 Toluene diamine (2,4- + 2,6- isd	222		7.062				ND	
100 1-Chloronaphthalene	162		7.087				ND	
101 2-Nitroaniline	65		7.182				ND	
102 1,4-Naphthoquinone	158		7.228				ND	
103 1,4-Dinitrobenzene	168		7.292				ND	
104 Dimethyl phthalate	163		7.397				ND	
105 1,3-Dinitrobenzene	168		7.403				ND	
106 2,6-Dinitrotoluene	165		7.458				ND	
107 Acenaphthylene	152		7.461				ND	
108 3-Nitroaniline	138		7.589				ND	
109 Acenaphthene	153		7.641				ND	
110 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.678				ND	
111 2,4-Dinitrophenol	184		7.686				ND	
112 1,3-Dimethyl-2,4-Dinitrobenzene	177		7.719				ND	
113 4-Nitrophenol	109		7.747				ND	U
114 Dibenzofuran	168		7.795				ND	
115 Pentachlorobenzene	250		7.818				ND	
116 2,4-Dinitrotoluene	165		7.833				ND	
117 1-Naphthylamine	143		7.876				ND	
118 Prometon	210		7.939				ND	
119 2-Naphthylamine	143		7.946				ND	
120 2,3,4,6-Tetrachlorophenol	232		7.955				ND	
121 1,4-Dimethyl-2,6-Dinitrobenzene	179		8.019				ND	
122 Hexadecane	57		8.032				ND	
123 1,4-Dimethyl-2,3-Dinitrobenzene	177		8.054				ND	
124 Diethyl phthalate	149		8.081				ND	
126 4-Chlorophenyl phenyl ether	204		8.129				ND	
127 Fluorene	166		8.129				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		8.131				ND	
128 Thionazin	97		8.158				ND	
129 N-Nitro-o-toluidine	152		8.171				ND	
130 4-Nitroaniline	138		8.187				ND	
131 4,6-Dinitro-2-methylphenol	198		8.225				ND	
132 Diphenylamine	169		8.248				ND	U
133 N-Nitrosodiphenylamine	169		8.248				ND	
135 Azobenzene	77		8.280				ND	U
136 1,2-Diphenylhydrazine	77		8.280				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
134 1,5-Dimethyl-2,4-Dinitrobenzene	179		8.283				ND	
137 Tributyl phosphate	99		8.284				ND	U
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		8.383				ND	
139 1,2-Dimethyl-3,5-Dinitrobenzene	179		8.495				ND	
140 Sulfotepp	97		8.505				ND	
141 1,3,5-Trinitrobenzene	213		8.540				ND	
142 Diallate Peak 1	86		8.566				ND	U
143 Phorate	121		8.579				ND	
144 Phenacetin	108		8.585				ND	
145 4-Bromophenyl phenyl ether	248		8.594				ND	
147 Diallate Peak 2	86		8.647				ND	U
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		8.648				ND	
148 Hexachlorobenzene	284		8.735				ND	
149 Dimethoate	87		8.753				ND	
150 Atrazine	200		8.795				ND	
151 4-Aminobiphenyl	169		8.855				ND	
152 1,2-Dimethyl-4,5-Dinitrobenzene	179		8.889				ND	
153 Pentachlorophenol	266		8.905				ND	
154 n-Octadecane	57		8.915				ND	
155 Pronamide	173		8.949				ND	
156 Pentachloronitrobenzene	237		8.984				ND	
157 Phenanthrene	178		9.050				ND	
158 Disulfoton	88		9.078				ND	U
159 Dinoseb	211		9.090				ND	
160 Anthracene	178		9.092				ND	
161 Carbazole	167		9.246				ND	
162 Methyl parathion	109		9.434				ND	
163 Alachlor	188		9.483				ND	U
164 Di-n-butyl phthalate	149	9.645	9.637	0.008	97	1443	0.0600	
166 4-Nitroquinoline-1-oxide	190		9.812				ND	
165 Ethyl Parathion	109		9.815				ND	
167 Methapyrilene	97		9.925				ND	
168 Hexachlorophene	196		9.955				ND	
169 Isodrin	193		10.076				ND	
170 Fluoranthene	202		10.194				ND	
171 Benzidine	184		10.323				ND	
172 Pyrene	202		10.412				ND	U
173 Aramite Peak 1	185		10.583				ND	U
174 4,4-Dichlorobenzil	139		10.657				ND	
175 Aramite Peak 2	185		10.660				ND	U
176 p-Dimethylamino azobenzene	120		10.740				ND	
177 Chlorobenzilate	251		10.798				ND	
178 Famphur	218		11.085				ND	
179 3,3'-Dimethylbenzidine	212		11.090				ND	
180 Butyl benzyl phthalate	149		11.129				ND	
181 2-Acetylaminofluorene	181		11.392				ND	
182 4,4'-Methylene bis(2-chloroani	231		11.703				ND	
183 3,3'-Dichlorobenzidine	252		11.706				ND	
184 Benzo[a]anthracene	228		11.718				ND	U
185 Chrysene	228		11.769				ND	
186 Bis(2-ethylhexyl) phthalate	149		11.834				ND	U
187 Dibenzo[a,e]pyrene	302		12.074				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
188 6-Methylchrysene	242		12.354				ND	
189 Di-n-octyl phthalate	149		12.621				ND	U
190 Tris(2,3-dibromopropyl)phosphate	149		12.644				ND	
191 Benzo[b]fluoranthene	252		13.102				ND	
192 7,12-Dimethylbenz(a)anthracene	256		13.130				ND	
193 Benzo[k]fluoranthene	252		13.134				ND	
194 Benzo[a]pyrene	252		13.532				ND	U
195 3-Methylcholanthrene	268		14.052				ND	
196 Dibenz[a,h]acridine	279		14.769				ND	
197 Dibenz[a,j]acridine	279		14.831				ND	
198 Indeno[1,2,3-cd]pyrene	276		15.083				ND	
199 Dibenz(a,h)anthracene	278		15.112				ND	
200 Benzo[g,h,i]perylene	276		15.479				ND	
204 Ethyl methacrylate	69		0.000				ND	
202 Dibenz[a,h]acridine TIC	1		0.000				ND	
201 Phthalic anhydride	104		0.000				ND	
205 1,4-Dimethyl-2,5-Dinitrobenzene	1		0.000				ND	
203 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
206 DFTPP								
207 4,4'-DDE	246		6.019				ND	
208 4,4'-DDD	235		6.267				ND	
209 4,4'-DDT	235		6.497				ND	
S 210 Phthalic acid TIC	1		5.729				ND	
S 211 Total Cresols	108		15.496				ND	
S 212 Methyl Phenols, Total	108		15.496				ND	
S 213 Isosafrole	162		15.496				ND	
S 214 Diallate	86		15.496				ND	
S 215 Aramite, Total	185		15.496				ND	
S 216 TPAH	1		0.000				ND	
T 217 Phthalic anhydride TIC	76		5.729				ND	U
T 218 Kepone TIC	272		10.580				ND	
T 224 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 223 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
T 222 2,6-Dimethylphenol TIC	1		0.000				ND	
T 219 Hexachlorodibenzofurans TIC	1		0.000				ND	
T 220 Octadecane (TIC)	1		0.000				ND	
T 221 Pentachlorodibenzofurans TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1625.D

Injection Date: 17-Nov-2022 01:55:49

Instrument ID: SMS_1

Operator ID:

Lims ID: 280-168718-A-6-A

Lab Sample ID: 280-168718-6

Worklist Smp#:

Client ID: RB-11012201

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

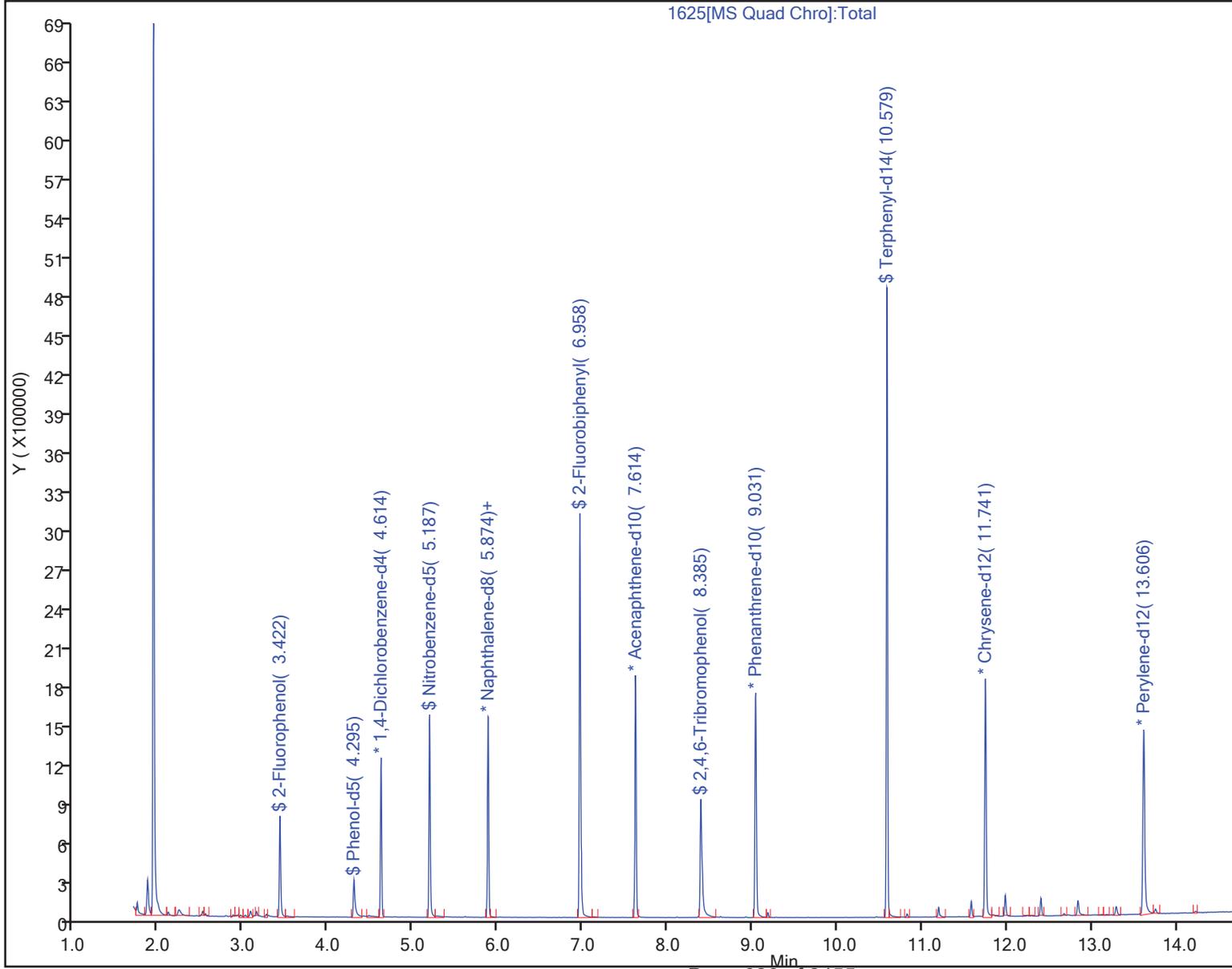
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

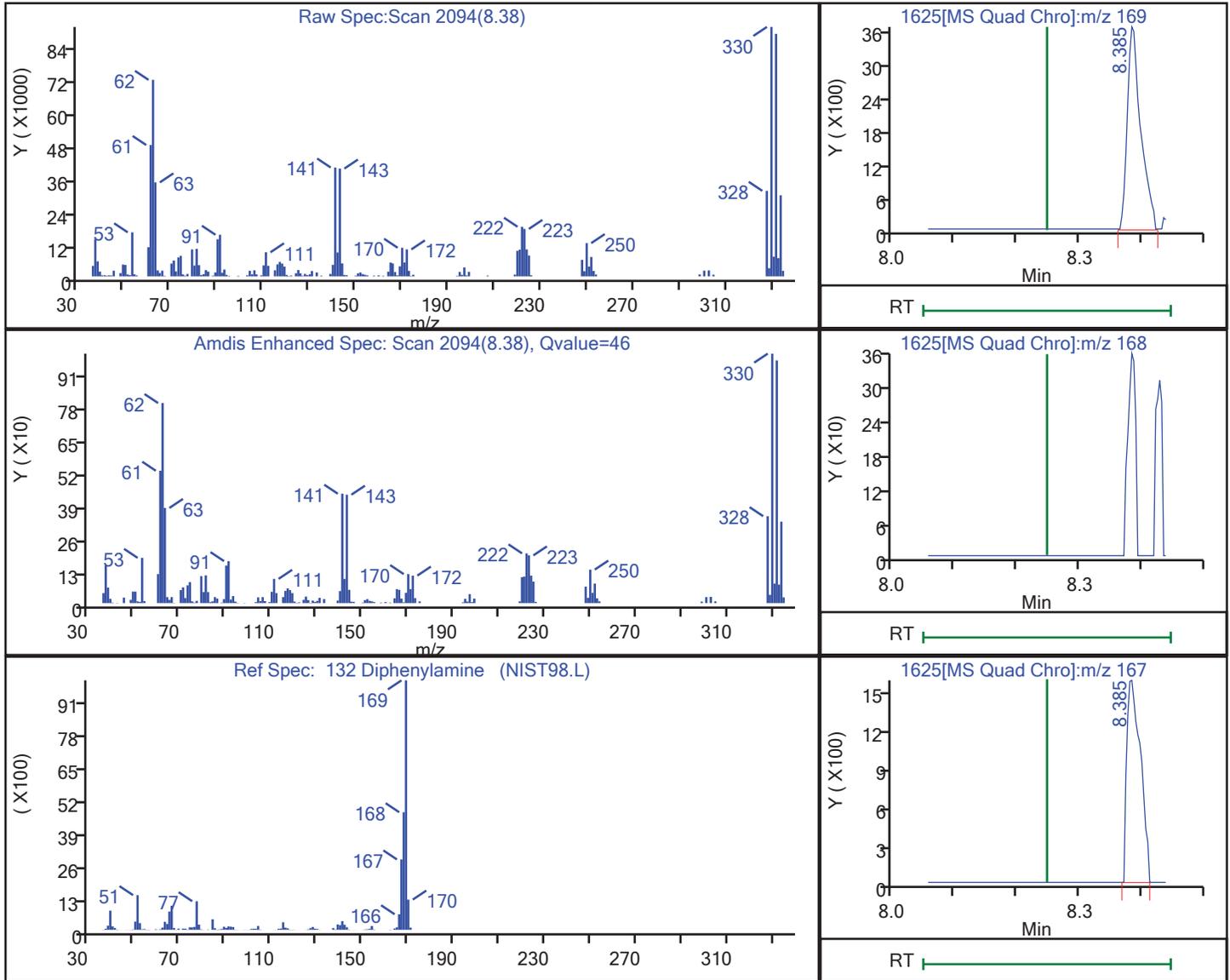


Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1625.D
 Injection Date: 17-Nov-2022 01:55:49 Instrument ID: SMS_1
 Lims ID: 280-168718-A-6-A Lab Sample ID: 280-168718-6
 Client ID: RB-11012201
 Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 56
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMS_1_8270 Limit Group: MSSV - 8270C_625
 Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

132 Diphenylamine, CAS: 122-39-4

Processing Results



RT	Mass	Response	Amount
8.38	169.00	5537	0.466235
8.25	168.00	0	
8.38	167.00	2426	

Reviewer: NU5H, 17-Nov-2022 12:57:44

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C05-0006 Lab Sample ID: 280-168718-7
 Matrix: Solid Lab File ID: G6_101023686.D
 Analysis Method: 8270E Date Collected: 11/02/2022 09:20
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30.5(g) Date Analyzed: 11/14/2022 19:58
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 14.5 % Solids: 85.5 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593336 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	37000	23000	7700
122-39-4	Diphenylamine	3800	U D M	7600	3800	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D	7600	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	76		44-115
367-12-4	2-Fluorophenol (Surr)	67		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	49	Q	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	64		37-122
4165-62-2	Phenol-d5 (Surr)	75		33-122
1718-51-0	Terphenyl-d14 (Surr)	77		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023686.D
 Lims ID: 280-168718-B-7-A
 Client ID: X3-SS-C05-0006
 Sample Type: Client
 Inject. Date: 14-Nov-2022 19:58:30 ALS Bottle#: 15 Worklist Smp#: 17
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-7
 Misc. Info.: 280-0115818-031
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:05:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	446886	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	99	1700371	40.0	
* 3 Acenaphthene-d10	164	6.489	6.494	-0.005	91	940777	40.0	
* 4 Phenanthrene-d10	188	7.922	7.928	-0.006	97	1521958	40.0	
* 5 Chrysene-d12	240	10.591	10.597	-0.006	98	1173876	40.0	
* 6 Perylene-d12	264	12.699	12.704	-0.005	97	1064144	40.0	
\$ 7 2-Fluorophenol	112	2.386	2.386	0.000	91	49591	3.36	
\$ 8 Phenol-d5	99	3.258	3.264	-0.006	96	70118	3.73	
\$ 9 Nitrobenzene-d5	82	4.103	4.109	-0.006	88	50636	3.21	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.767				ND	
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	106346	3.82	
\$ 12 2,4,6-Tribromophenol	330	7.254	7.259	-0.005	90	13522	2.46	
\$ 13 Terphenyl-d14	244	9.506	9.511	-0.005	96	115841	3.84	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179		7.000				ND	
18 Triethyl amine	86		1.376				ND	7
19 2-Ethoxyethanol	59		1.178				ND	
20 1,4-Dioxane	88		1.183				ND	
21 N-Nitrosodimethylamine	74		1.338				ND	
22 Pyridine	79		1.365				ND	
23 Dimethylformamide	73		1.600				ND	
24 2-Picoline	93		1.884				ND	
25 N-Nitrosomethylethylamine	88		1.980				ND	7
26 Acrylamide	71		2.269				ND	7
27 Methyl methanesulfonate	80		2.242				ND	
28 N-Nitrosodiethylamine	102		2.590				ND	
29 Pentachlorophenol_T	266		2.881				ND	
30 Ethyl methanesulfonate	79		2.879				ND	
32 Benzaldehyde	106		3.167				ND	
34 Phenol	94		3.274				ND	
35 Aniline	93		3.274				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
36 Alpha Methyl Styrene	118		3.322				ND	
37 Bis(2-chloroethyl)ether	93		3.349				ND	7
38 Pentachloroethane	117		3.312				ND	
39 n-Decane	43		3.456				ND	7
41 2-Chlorophenol	128		3.381				ND	
42 1,3-Dichlorobenzene	146		3.520				ND	
43 1,4-Dichlorobenzene	146		3.595				ND	
44 Benzyl alcohol	108		3.724				ND	7
45 1,2-Dichlorobenzene	146		3.734				ND	
46 2-Methylphenol	108		3.847				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.868				ND	7
48 Indene	116		3.820				ND	
49 3 & 4 Methylphenol	108		4.002				ND	
50 3-Methylphenol	108		4.002				ND	
51 N-Nitrosodi-n-propylamine	70		3.986				ND	U
52 4-Methylphenol	108		4.002				ND	
53 N-Nitrosopyrrolidine	100		3.954				ND	
54 Benzidine_T	184		3.946				ND	
55 Acetophenone	105		3.970				ND	
56 N-Nitrosomorpholine	116		4.002				ND	
57 2-Toluidine	106		4.007				ND	
58 Hexachloroethane	117		4.050				ND	
60 Nitrobenzene	77		4.125				ND	7
62 N-Nitrosopiperidine	114		4.275				ND	7
63 Isophorone	82		4.365				ND	
65 2-Nitrophenol	139		4.435				ND	
66 2,4-Dimethylphenol	107		4.510				ND	
67 Benzyl dichloride	125		4.483				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.579				ND	
69 Bis(2-chloroethoxy)methane	93		4.601				ND	7
70 Benzoic acid	105	4.553	4.665	-0.112	89	3410	3.85	7a
71 3,5-Dimethylphenol	107		4.649				ND	
72 alpha,alpha-Dimethyl phenethylam	58		4.740				ND	7
75 2,4-Dichlorophenol	162		4.676				ND	
77 1,2,4-Trichlorobenzene	180		4.745				ND	
78 Alpha-Terpineol	59		4.852				ND	7
79 Naphthalene	128		4.815				ND	
80 4-Chloroaniline	127		4.890				ND	
81 2,6-Dichlorophenol	162		4.890				ND	
82 Hexachloropropene	213		4.906				ND	
83 Hexachlorobutadiene	225		4.954				ND	
85 Quinoline	129		5.136				ND	
86 N-Nitrosodi-n-butylamine	84		5.237				ND	7
87 Caprolactam	55		5.237				ND	7
88 p-Phenylene diamine	108		5.232				ND	
90 4-Chloro-3-methylphenol	107		5.392				ND	
91 Safrole, Total	162		5.430				ND	
92 Carbofuran phenol	164		5.446				ND	
94 2-Methylnaphthalene	142		5.489				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.585				ND	
97 Hexachlorocyclopentadiene	237		5.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
98 1,2,4,5-Tetrachlorobenzene	216		5.654				ND	
99 Isosafrole Peak 1	162		5.713				ND	
101 2,4,6-Trichlorophenol	196		5.778				ND	
102 2,3-Dichlorobenzeneamine	161		5.767				ND	
103 2,4,5-Trichlorophenol	196		5.815				ND	
104 Isosafrole Peak 2	162		5.933				ND	
105 1,1'-Biphenyl	154		5.954				ND	
106 Toluene diamine (2,4- + 2,6- is)	222		5.949				ND	7
107 2-Chloronaphthalene	162		5.959				ND	
108 1-Chloronaphthalene	162		5.975				ND	
109 2-Nitroaniline	65		6.072				ND	
110 1,4-Naphthoquinone	158		6.141				ND	
111 1,4-Dinitrobenzene	168		6.221				ND	
112 Dimethyl phthalate	163		6.280				ND	
113 1,3-Dinitrobenzene	168		6.291				ND	
114 2,6-Dinitrotoluene	165		6.323				ND	
115 Acenaphthylene	152		6.355				ND	
116 3-Nitroaniline	138		6.478				ND	
117 Acenaphthene	153		6.526				ND	
118 2,4-Dinitrophenol	184		6.580				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	
120 4-Nitrophenol	109		6.681				ND	7
121 Pentachlorobenzene	250		6.655				ND	
122 2,4-Dinitrotoluene	165	6.703	6.708	-0.005	90	7665	0.9049	7a
123 Dibenzofuran	168		6.697				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.053				ND	
125 1-Naphthylamine	143		6.778				ND	7
127 2,3,4,6-Tetrachlorophenol	232		6.826				ND	
128 Hexadecane	57		7.008				ND	7
129 2-Naphthylamine	143	6.853	6.853	0.000	92	983	0.0338	7a
130 Diethyl phthalate	149	6.965	6.976	-0.011	97	6409	0.2224	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.053				ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	
133 Thionazin	97		7.040				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.075				ND	
135 4-Chlorophenyl phenyl ether	204		7.050				ND	
136 Fluorene	166		7.029				ND	7
137 N-Nitro-o-toluidine	152		7.056				ND	
138 Tributyl phosphate	99		7.200				ND	
139 4-Nitroaniline	138		7.067				ND	
140 4,6-Dinitro-2-methylphenol	198		7.099				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.469				ND	7
142 Diphenylamine	169	7.163	7.168	-0.005	95	10353	0.4168	7a
143 N-Nitrosodiphenylamine	169	7.163	7.168	-0.005	97	10353	0.4880	
144 Azobenzene	77		7.200				ND	7
145 1,2-Diphenylhydrazine	77		7.200				ND	7
146 1,5-Dimethyl-2,3-Dinitrobenzene	179	7.462	7.554	-0.092	50	856	1.97	
147 Sulfotepp	97		7.361				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.666				ND	
150 Diallate Peak 1	86		7.462				ND	7
151 1,3,5-Trinitrobenzene	213		7.452				ND	
152 Phorate	121		7.468				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
154 Phenacetin	108		7.500				ND	
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallyl Peak 2	86		7.543				ND	7
157 4-Bromophenyl phenyl ether	248		7.521				ND	
158 Hexachlorobenzene	284		7.553				ND	
159 Dimethoate	87		7.628				ND	7
160 Atrazine	200		7.714				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	21		8.123				ND	
162 n-Octadecane	85		7.912				ND	U
163 4-Aminobiphenyl	169		7.773				ND	7
164 Pentachlorophenol	266		7.756				ND	U
165 Pentachloronitrobenzene	237		7.762				ND	
166 Pronamide	173		7.863				ND	
167 Disulfoton	88		7.981				ND	7
168 Dinoseb	211		7.965				ND	
169 Phenanthrene	178		7.949				ND	7
170 Anthracene	178		7.997				ND	7
171 Carbazole	167		8.174				ND	
172 Alachlor	188		8.334				ND	
173 Methyl parathion	109		8.334				ND	
175 Di-n-butyl phthalate	149		8.569				ND	
176 Ethyl Parathion	109		8.725				ND	
178 4-Nitroquinoline-1-oxide	190		8.719				ND	
179 Methapyrilene	97		8.826				ND	
180 Isodrin	193		8.955				ND	
182 Fluoranthene	202		9.104				ND	
183 4,4-Dichlorobenzil	139		10.602				ND	
184 Benzidine	184		9.265				ND	
185 Pyrene	202		9.318				ND	
187 Aramite Peak 1	185		9.527				ND	7
189 Aramite Peak 2	185		9.607				ND	7
190 p-Dimethylamino azobenzene	120		9.655				ND	
191 Chlorobenzilate	251		9.714				ND	
192 Famphur	218		9.955				ND	
193 Butyl benzyl phthalate	149		10.035				ND	
194 3,3'-Dimethylbenzidine	212		9.992				ND	
195 2-Acetylaminofluorene	181		10.265				ND	
196 4,4'-Methylene bis(2-chloroani	231		10.618				ND	7
197 3,3'-Dichlorobenzidine	252		10.597				ND	
198 Benzo[a]anthracene	228		10.586				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.762				ND	
200 Chrysene	228		10.629				ND	7
201 6-Methylchrysene	242		11.244				ND	
202 Di-n-octyl phthalate	149		11.720				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.110				ND	
204 Benzo[b]fluoranthene	252		12.100				ND	
205 Benzo[k]fluoranthene	252		12.148				ND	
206 Hexachlorophene	196		10.591				ND	
208 Benzo[a]pyrene	252		12.613				ND	7
210 3-Methylcholanthrene	268		13.239				ND	
211 Tris(2,3-dibromopropyl)phosphite	110		13.683				ND	7
212 Dibenz[a,h]acridine	279		14.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
213 Dibenz[a,j]acridine	279		14.276				ND	
214 Indeno[1,2,3-cd]pyrene	276		14.528				ND	
215 Dibenz(a,h)anthracene	278		14.608				ND	
216 Benzo[g,h,i]perylene	276		14.977				ND	
217 Dibenzo[a,e]pyrene	302		17.315				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols,Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	U
31 DFTPP								
59 4,4'-DDE	246		4.081				ND	
64 4,4'-DDD	235		4.316				ND	
74 4,4'-DDT	235		4.534				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha,alpha,alp			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023686.D

Injection Date: 14-Nov-2022 19:58:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-B-7-A

Lab Sample ID: 280-168718-7

Worklist Smp#:

Client ID: X3-SS-C05-0006

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

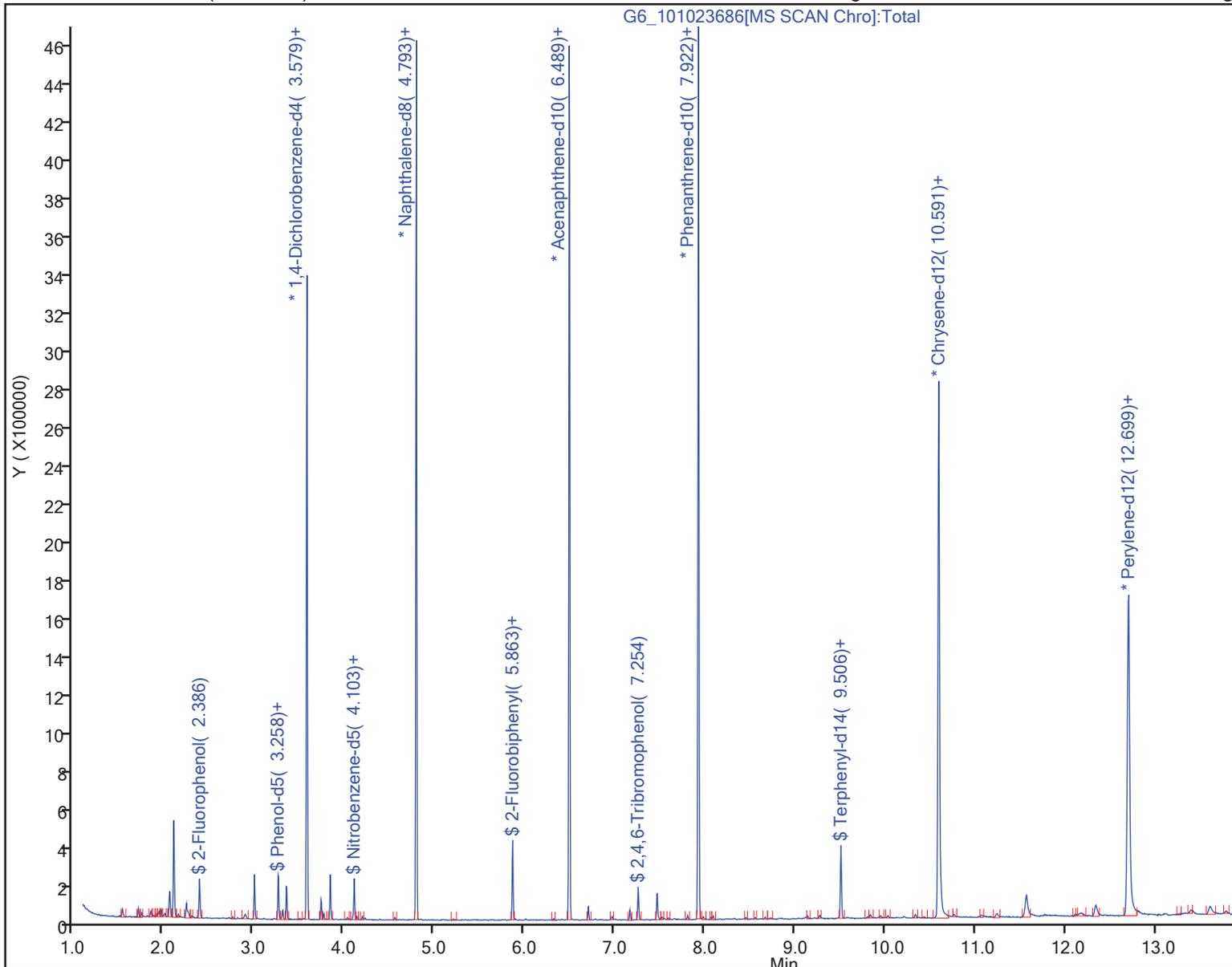
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023686.D
 Lims ID: 280-168718-B-7-A
 Client ID: X3-SS-C05-0006
 Sample Type: Client
 Inject. Date: 14-Nov-2022 19:58:30 ALS Bottle#: 15 Worklist Smp#: 17
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-7
 Misc. Info.: 280-0115818-031
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:05:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.36	67.27
\$ 8 Phenol-d5	100.0	3.73	74.69
\$ 9 Nitrobenzene-d5	100.0	3.21	64.11
\$ 11 2-Fluorobiphenyl	100.0	3.82	76.44
\$ 12 2,4,6-Tribromophenol	100.0	2.46	49.22
\$ 13 Terphenyl-d14	100.0	3.84	76.76

Eurofins Denver

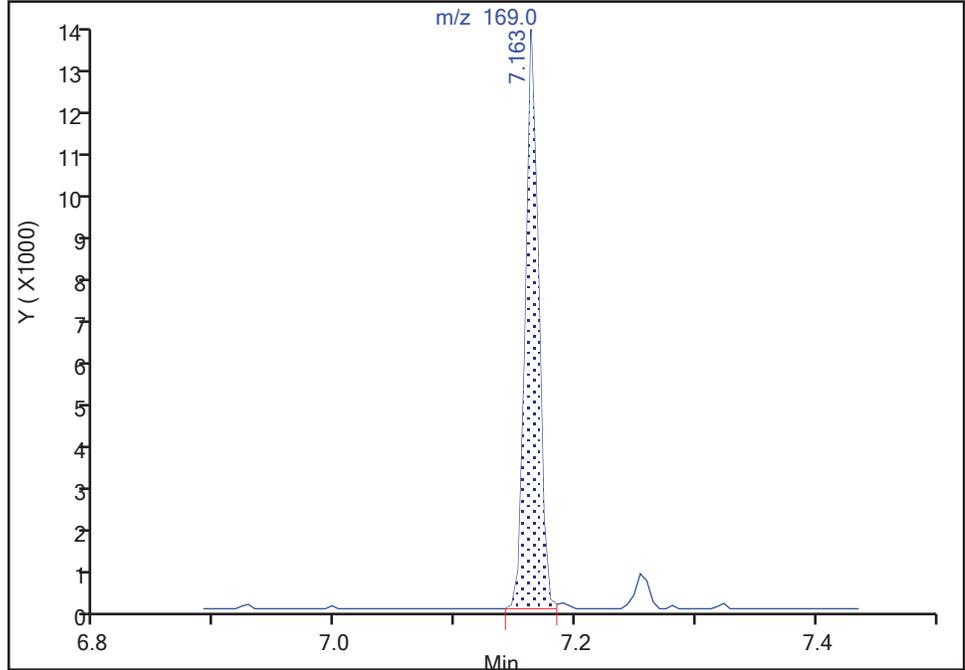
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023686.D
Injection Date: 14-Nov-2022 19:58:30 Instrument ID: SMS_G6
Lims ID: 280-168718-B-7-A Lab Sample ID: 280-168718-7
Client ID: X3-SS-C05-0006
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 20.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

142 Diphenylamine, CAS: 122-39-4

Signal: 1

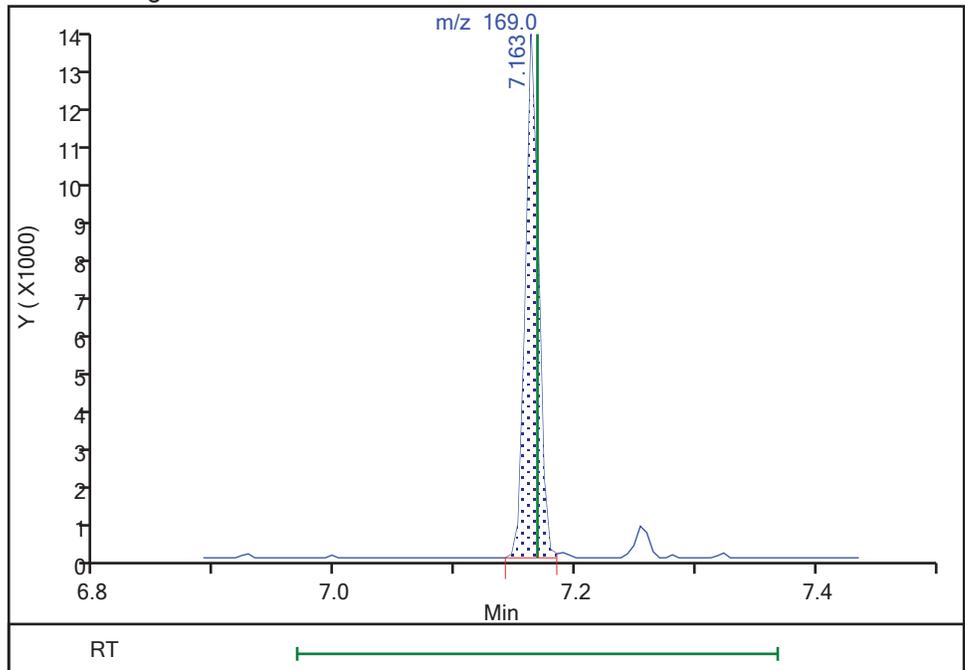
RT: 7.16
Area: 10353
Amount: 0.416775
Amount Units: ug/ml

Processing Integration Results



RT: 7.16
Area: 10353
Amount: 0.416775
Amount Units: ug/ml

Manual Integration Results



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: FD-11022201 Lab Sample ID: 280-168718-8
 Matrix: Solid Lab File ID: G6_101023687.D
 Analysis Method: 8270E Date Collected: 11/02/2022 09:30
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30.8(g) Date Analyzed: 11/14/2022 20:18
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 15.1 % Solids: 84.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593336 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	37000	23000	7600
122-39-4	Diphenylamine	3800	U D M	7600	3800	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D M	7600	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		44-115
367-12-4	2-Fluorophenol (Surr)	63		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	45	Q	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	57		37-122
4165-62-2	Phenol-d5 (Surr)	72		33-122
1718-51-0	Terphenyl-d14 (Surr)	73		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023687.D
 Lims ID: 280-168718-B-8-A
 Client ID: FD-11022201
 Sample Type: Client
 Inject. Date: 14-Nov-2022 20:18:30 ALS Bottle#: 16 Worklist Smp#: 18
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-8
 Misc. Info.: 280-0115818-032
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:10:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	483927	40.0	
* 2 Naphthalene-d8	136	4.794	4.793	0.001	99	1915311	40.0	
* 3 Acenaphthene-d10	164	6.489	6.494	-0.005	92	1044375	40.0	
* 4 Phenanthrene-d10	188	7.928	7.928	0.000	97	1691829	40.0	
* 5 Chrysene-d12	240	10.591	10.597	-0.006	98	1243790	40.0	
* 6 Perylene-d12	264	12.699	12.704	-0.005	97	1101613	40.0	
\$ 7 2-Fluorophenol	112	2.387	2.386	0.001	92	50129	3.14	
\$ 8 Phenol-d5	99	3.258	3.264	-0.006	97	73336	3.61	
\$ 9 Nitrobenzene-d5	82	4.104	4.109	-0.005	90	50368	2.83	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.767				ND	
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	108736	3.52	
\$ 12 2,4,6-Tribromophenol	330	7.254	7.259	-0.005	90	13679	2.24	
\$ 13 Terphenyl-d14	244	9.506	9.511	-0.005	97	116610	3.65	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179	7.093	7.000	0.093	1	62	0.005759	
18 Triethyl amine	86		1.376				ND	7
19 2-Ethoxyethanol	59		1.178				ND	
20 1,4-Dioxane	88		1.183				ND	7
21 N-Nitrosodimethylamine	74		1.338				ND	
22 Pyridine	79		1.365				ND	7
23 Dimethylformamide	73		1.600				ND	
24 2-Picoline	93		1.884				ND	
25 N-Nitrosomethylethylamine	88		1.980				ND	
26 Acrylamide	71		2.269				ND	7
27 Methyl methanesulfonate	80		2.242				ND	
28 N-Nitrosodiethylamine	102		2.590				ND	
29 Pentachlorophenol_T	266		2.881				ND	
30 Ethyl methanesulfonate	79		2.879				ND	
32 Benzaldehyde	106		3.167				ND	
34 Phenol	94		3.274				ND	
35 Aniline	93		3.274				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
36 Alpha Methyl Styrene	118		3.322				ND	
37 Bis(2-chloroethyl)ether	93		3.349				ND	7
38 Pentachloroethane	117		3.312				ND	
39 n-Decane	43		3.456				ND	7
41 2-Chlorophenol	128		3.381				ND	
42 1,3-Dichlorobenzene	146		3.520				ND	
43 1,4-Dichlorobenzene	146		3.595				ND	
44 Benzyl alcohol	108		3.724				ND	7
45 1,2-Dichlorobenzene	146		3.734				ND	
46 2-Methylphenol	108		3.847				ND	
47 2,2'-oxybis[1-chloropropane]	45		3.868				ND	7
48 Indene	116		3.820				ND	
49 3 & 4 Methylphenol	108		4.002				ND	
50 3-Methylphenol	108		4.002				ND	
51 N-Nitrosodi-n-propylamine	70		3.986				ND	U
52 4-Methylphenol	108		4.002				ND	
53 N-Nitrosopyrrolidine	100		3.954				ND	7
54 Benzidine_T	184		3.946				ND	
55 Acetophenone	105		3.970				ND	
56 N-Nitrosomorpholine	116		4.002				ND	
57 2-Toluidine	106		4.007				ND	
58 Hexachloroethane	117		4.050				ND	
60 Nitrobenzene	77		4.125				ND	
62 N-Nitrosopiperidine	114		4.275				ND	7
63 Isophorone	82		4.365				ND	7
65 2-Nitrophenol	139		4.435				ND	
66 2,4-Dimethylphenol	107		4.510				ND	
67 Benzyl dichloride	125		4.483				ND	
68 o,o',o"-Triethylphosphorothioat	198		4.579				ND	
69 Bis(2-chloroethoxy)methane	93		4.601				ND	7
70 Benzoic acid	105	4.553	4.665	-0.112	85	3700	3.84	7a
71 3,5-Dimethylphenol	107		4.649				ND	U
72 alpha,alpha-Dimethyl phenethylam	58		4.740				ND	7
75 2,4-Dichlorophenol	162		4.676				ND	
77 1,2,4-Trichlorobenzene	180		4.745				ND	
78 Alpha-Terpineol	59		4.852				ND	7
79 Naphthalene	128		4.815				ND	
80 4-Chloroaniline	127		4.890				ND	
81 2,6-Dichlorophenol	162		4.890				ND	
82 Hexachloropropene	213		4.906				ND	
83 Hexachlorobutadiene	225		4.954				ND	
85 Quinoline	129		5.136				ND	
86 N-Nitrosodi-n-butylamine	84		5.237				ND	
87 Caprolactam	55		5.237				ND	7
88 p-Phenylene diamine	108		5.232				ND	
90 4-Chloro-3-methylphenol	107		5.392				ND	
91 Safrole, Total	162		5.430				ND	
92 Carbofuran phenol	164		5.446				ND	
94 2-Methylnaphthalene	142		5.489				ND	
95 Phthalic anhydride	76		5.557				ND	
96 1-Methylnaphthalene	142		5.585				ND	
97 Hexachlorocyclopentadiene	237		5.649				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
98 1,2,4,5-Tetrachlorobenzene	216		5.654				ND	
99 Isosafrole Peak 1	162		5.713				ND	
101 2,4,6-Trichlorophenol	196		5.778				ND	
102 2,3-Dichlorobenzeneamine	161		5.767				ND	
103 2,4,5-Trichlorophenol	196		5.815				ND	
104 Isosafrole Peak 2	162		5.933				ND	
105 1,1'-Biphenyl	154		5.954				ND	
106 Toluene diamine (2,4- + 2,6- is)	122		5.949				ND	7
107 2-Chloronaphthalene	162		5.959				ND	
108 1-Chloronaphthalene	162		5.975				ND	
109 2-Nitroaniline	65		6.072				ND	
110 1,4-Naphthoquinone	158		6.141				ND	
111 1,4-Dinitrobenzene	168		6.221				ND	
112 Dimethyl phthalate	163		6.280				ND	
113 1,3-Dinitrobenzene	168		6.291				ND	
114 2,6-Dinitrotoluene	165		6.323				ND	
115 Acenaphthylene	152		6.355				ND	
116 3-Nitroaniline	138		6.478				ND	
117 Acenaphthene	153		6.526				ND	
118 2,4-Dinitrophenol	184		6.580				ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	77		6.995				ND	
120 4-Nitrophenol	109		6.681				ND	7
121 Pentachlorobenzene	250		6.655				ND	
122 2,4-Dinitrotoluene	165		6.708				ND	7
123 Dibenzofuran	168		6.697				ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.053				ND	
125 1-Naphthylamine	143		6.778				ND	
127 2,3,4,6-Tetrachlorophenol	232		6.826				ND	
128 Hexadecane	57		7.008				ND	7
129 2-Naphthylamine	143		6.853				ND	
130 Diethyl phthalate	149	6.965	6.976	-0.011	97	6197	0.1937	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.053				ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	77		6.995				ND	
133 Thionazin	97		7.040				ND	
134 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.075				ND	
135 4-Chlorophenyl phenyl ether	204		7.050				ND	
136 Fluorene	166		7.029				ND	
137 N-Nitro-o-toluidine	152		7.056				ND	
138 Tributyl phosphate	99		7.200				ND	
139 4-Nitroaniline	138		7.067				ND	
140 4,6-Dinitro-2-methylphenol	198		7.099				ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.469				ND	
142 Diphenylamine	169	7.163	7.168	-0.005	95	1277	0.0463	7a
143 N-Nitrosodiphenylamine	169	7.163	7.168	-0.005	92	1277	0.0541	7a
144 Azobenzene	77		7.200				ND	
145 1,2-Diphenylhydrazine	77		7.200				ND	
146 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.554				ND	
147 Sulfotepp	97		7.361				ND	
149 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.666				ND	
150 Diallate Peak 1	86		7.462				ND	7
151 1,3,5-Trinitrobenzene	213		7.452				ND	
152 Phorate	121		7.468				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
154 Phenacetin	108		7.500				ND	
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800				ND	7
156 Diallyl Peak 2	86		7.543				ND	7
157 4-Bromophenyl phenyl ether	248		7.521				ND	
158 Hexachlorobenzene	284		7.553				ND	
159 Dimethoate	87		7.628				ND	
160 Atrazine	200		7.714				ND	
161 1,2-Dimethyl-4,5-Dinitrobenzene	21		8.123				ND	
162 n-Octadecane	85		7.912				ND	U
163 4-Aminobiphenyl	169		7.773				ND	7
164 Pentachlorophenol	266		7.756				ND	
165 Pentachloronitrobenzene	237		7.762				ND	
166 Pronamide	173		7.863				ND	
167 Disulfoton	88		7.981				ND	7
168 Dinoseb	211		7.965				ND	
169 Phenanthrene	178		7.949				ND	7
170 Anthracene	178		7.997				ND	7
171 Carbazole	167		8.174				ND	
172 Alachlor	188		8.334				ND	
173 Methyl parathion	109		8.334				ND	
175 Di-n-butyl phthalate	149		8.569				ND	
176 Ethyl Parathion	109		8.725				ND	
178 4-Nitroquinoline-1-oxide	190		8.719				ND	
179 Methapyrilene	97		8.826				ND	
180 Isodrin	193		8.955				ND	
182 Fluoranthene	202		9.104				ND	
183 4,4-Dichlorobenzil	139	10.591	10.602	-0.011	0	594	NC	
184 Benzidine	184		9.265				ND	
185 Pyrene	202		9.318				ND	
187 Aramite Peak 1	185		9.527				ND	7
189 Aramite Peak 2	185		9.607				ND	7
190 p-Dimethylamino azobenzene	120		9.655				ND	
191 Chlorobenzilate	251		9.714				ND	
192 Famphur	218		9.955				ND	
193 Butyl benzyl phthalate	149		10.035				ND	
194 3,3'-Dimethylbenzidine	212		9.992				ND	
195 2-Acetylaminofluorene	181		10.265				ND	
196 4,4'-Methylene bis(2-chloroani	231		10.618				ND	7
197 3,3'-Dichlorobenzidine	252		10.597				ND	
198 Benzo[a]anthracene	228		10.586				ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.762				ND	
200 Chrysene	228		10.629				ND	7
201 6-Methylchrysene	242		11.244				ND	
202 Di-n-octyl phthalate	149		11.720				ND	
203 7,12-Dimethylbenz(a)anthracene	256		12.110				ND	
204 Benzo[b]fluoranthene	252		12.100				ND	
205 Benzo[k]fluoranthene	252		12.148				ND	
206 Hexachlorophene	196	12.688	10.591	2.097	58	603	NC	
208 Benzo[a]pyrene	252		12.613				ND	7
210 3-Methylcholanthrene	268		13.239				ND	
211 Tris(2,3-dibromopropyl)phosphite	110		13.683				ND	7
212 Dibenz[a,h]acridine	279		14.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
213 Dibenz[a,j]acridine	279		14.276				ND	
214 Indeno[1,2,3-cd]pyrene	276		14.528				ND	
215 Dibenz(a,h)anthracene	278		14.608				ND	
216 Benzo[g,h,i]perylene	276		14.977				ND	
217 Dibenzo[a,e]pyrene	302		17.315				ND	
S 218 Total Cresols	108		15.496				ND	7
S 219 Methyl Phenols,Total	108		15.496				ND	7
S 220 Isosafrole	162		15.496				ND	7
S 221 Diallate	86		15.496				ND	7
S 222 Aramite, Total	185		15.496				ND	7
237 3'-Bromoacetophenone	1		5.922				ND	
238 2-Bromopyridine	1		3.983				ND	
T 243 Kepone TIC	272		10.327				ND	
31 DFTPP								
59 4,4'-DDE	246		4.081				ND	
64 4,4'-DDD	235		4.316				ND	
74 4,4'-DDT	235		4.534				ND	
T 224 Hexachlorodibenzofurans TIC 1			0.000				ND	
T 225 Pentachlorodibenzo-p-dioxin TIC			0.000				ND	
T 228 Pentachlorodibenzofurans TIC1			0.000				ND	
T 230 Octadecane (TIC)	1		0.000				ND	
T 231 Hexachlorodibenzo-p-dioxin TIC			0.000				ND	
S 232 TPAH	1		0.000				ND	
233 Sulfolane	1		0.000				ND	
234 Prometon	1		0.000				ND	
235 4-Chloro-3-nitro-alpha,alpha,alp			4.885				ND	
236 2,6-Dimethylphenol TIC	1		0.000				ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000				ND	
244 Ethyl methacrylate	69		0.000				ND	
T 245 Phenylmercaptan TIC	1		0.000				ND	
246 5-Methyl-o-Anisidine TIC	1		0.000				ND	
247 Dibenz[a,h]acridine TIC	1		0.000				ND	
248 o-Anisidine TIC	1		0.000				ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000				ND	
250 Phthalic anhydride TIC	1		0.000				ND	
251 1,3-phenylenediamine TIC	1		0.000				ND	
252 2,4-Xylidine TIC	1		0.000				ND	
253 Phthalic acid TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023687.D

Injection Date: 14-Nov-2022 20:18:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: 280-168718-B-8-A

Lab Sample ID: 280-168718-8

Worklist Smp#:

Client ID: FD-11022201

Injection Vol: 0.5 ul

Dil. Factor: 20.0000

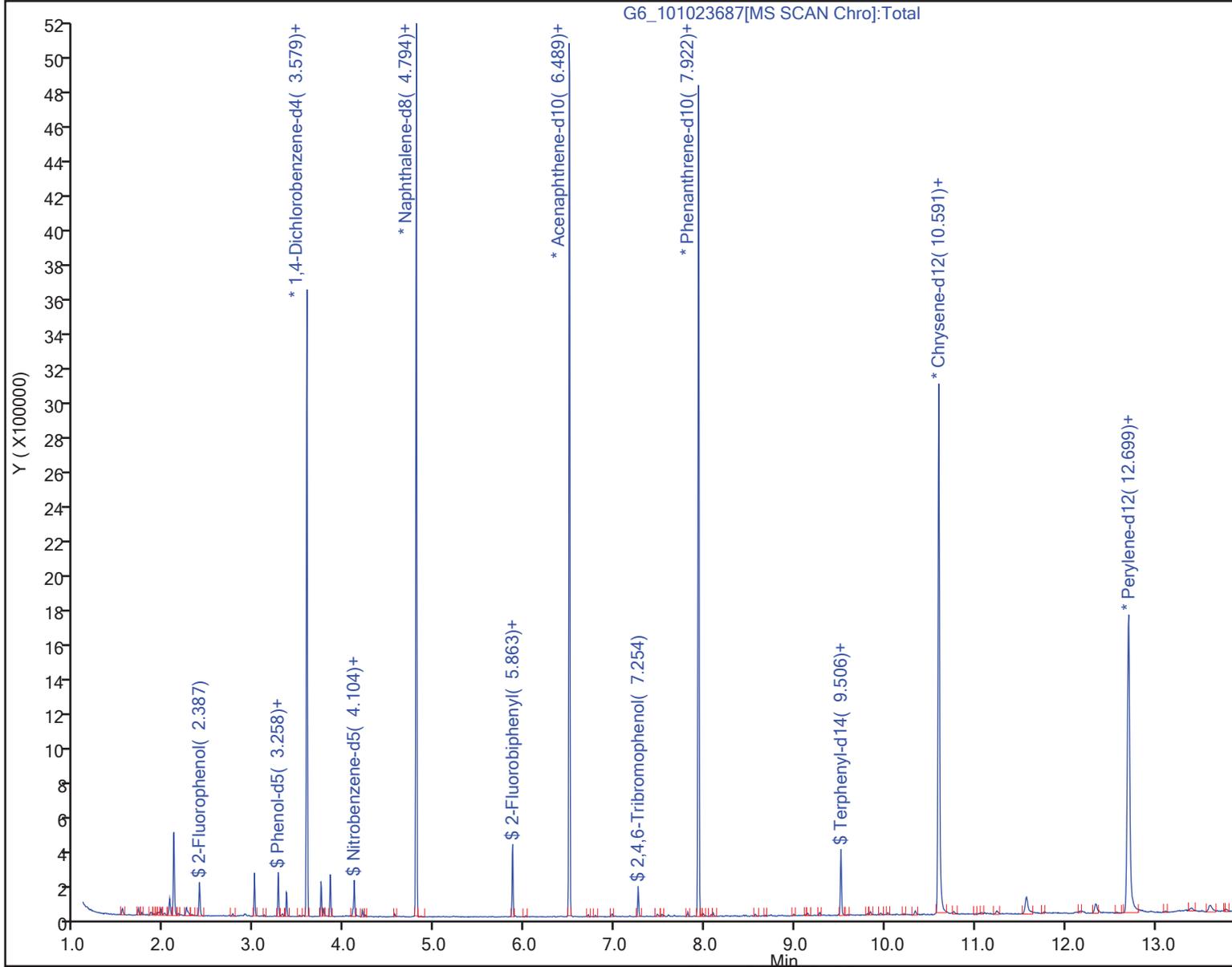
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023687.D
 Lims ID: 280-168718-B-8-A
 Client ID: FD-11022201
 Sample Type: Client
 Inject. Date: 14-Nov-2022 20:18:30 ALS Bottle#: 16 Worklist Smp#: 18
 Injection Vol: 0.5 ul Dil. Factor: 20.0000
 Sample Info: 168718-8
 Misc. Info.: 280-0115818-032
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 13:17:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:10:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.14	62.80
\$ 8 Phenol-d5	100.0	3.61	72.14
\$ 9 Nitrobenzene-d5	100.0	2.83	56.61
\$ 11 2-Fluorobiphenyl	100.0	3.52	70.41
\$ 12 2,4,6-Tribromophenol	100.0	2.24	44.85
\$ 13 Terphenyl-d14	100.0	3.65	72.93

Eurofins Denver

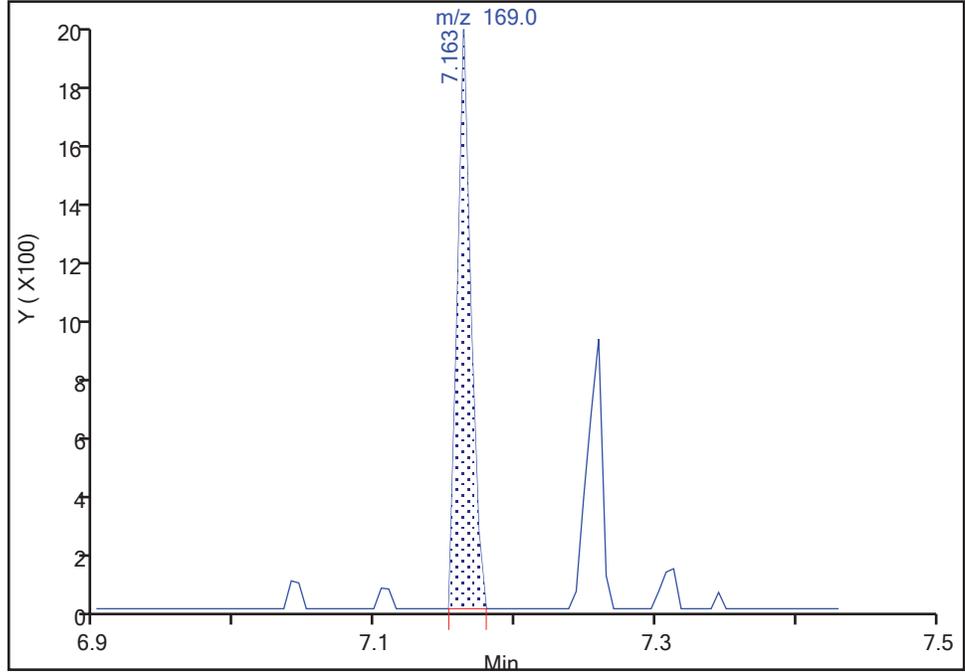
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Injection Date: 14-Nov-2022 20:18:30 Instrument ID: SMS_G6
Lims ID: 280-168718-B-8-A Lab Sample ID: 280-168718-8
Client ID: FD-11022201
Operator ID: TESSIERN ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 20.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

142 Diphenylamine, CAS: 122-39-4

Signal: 1

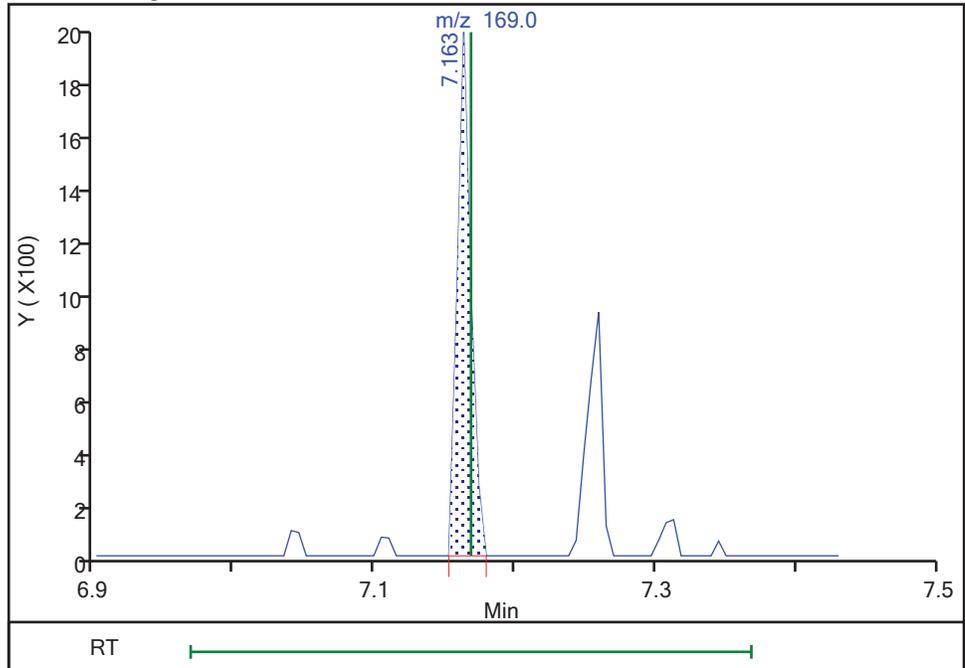
RT: 7.16
Area: 1277
Amount: 0.046308
Amount Units: ug/ml

Processing Integration Results



RT: 7.16
Area: 1277
Amount: 0.046308
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

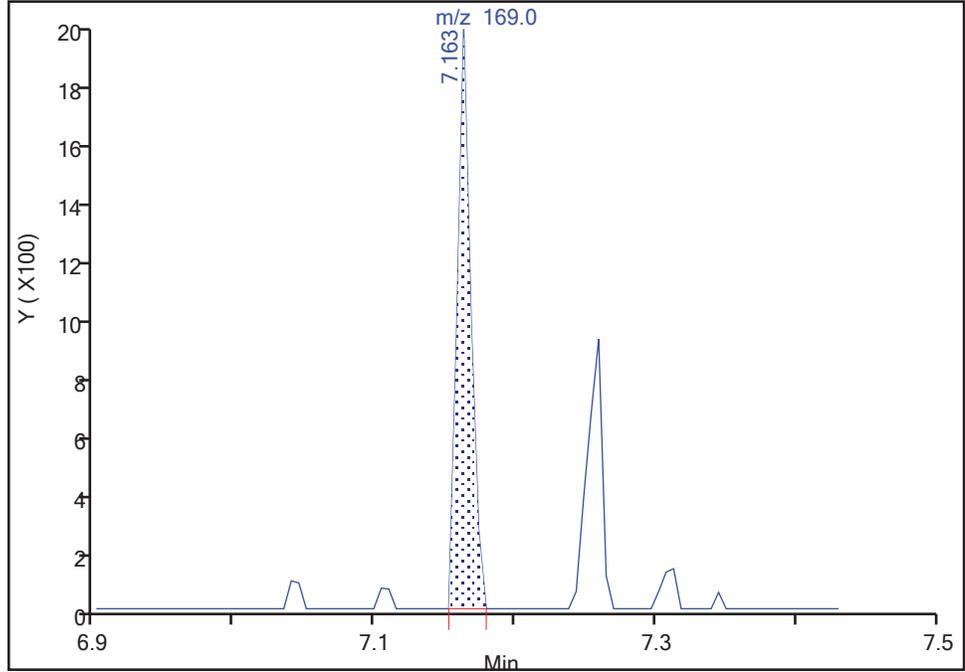
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023687.D
Injection Date: 14-Nov-2022 20:18:30 Instrument ID: SMS_G6
Lims ID: 280-168718-B-8-A Lab Sample ID: 280-168718-8
Client ID: FD-11022201
Operator ID: TESSIERN ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 20.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

143 N-Nitrosodiphenylamine, CAS: 86-30-6

Signal: 1

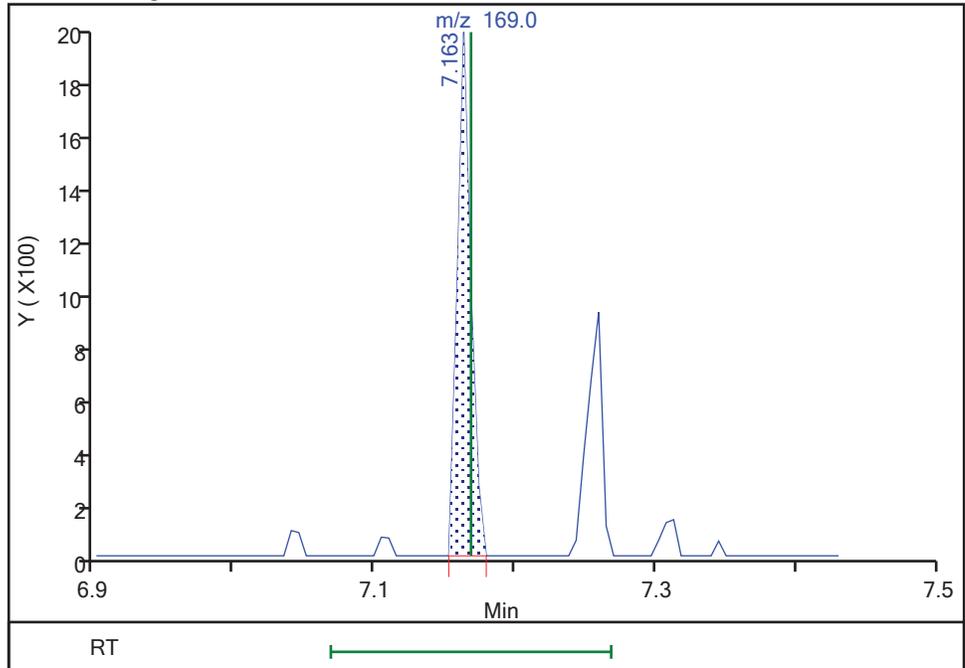
RT: 7.16
Area: 1277
Amount: 0.054149
Amount Units: ug/ml

Processing Integration Results



RT: 7.16
Area: 1277
Amount: 0.054149
Amount Units: ug/ml

Manual Integration Results



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-CO6-0006 Lab Sample ID: 280-168718-9
 Matrix: Solid Lab File ID: Y19306477.D
 Analysis Method: 8270E Date Collected: 11/02/2022 10:15
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.3(g) Date Analyzed: 11/28/2022 17:41
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 13.1 % Solids: 86.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	36000	23000	7600
122-39-4	Diphenylamine	3800	U D	7500	3800	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D	7500	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	96		44-115
367-12-4	2-Fluorophenol (Surr)	84		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	97		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	86		37-122
4165-62-2	Phenol-d5 (Surr)	96		33-122
1718-51-0	Terphenyl-d14 (Surr)	93		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306477.D
 Lims ID: 280-168718-C-9-A
 Client ID: X3-SS-CO6-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 17:41:30 ALS Bottle#: 18 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-C-9-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:50:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	88787	40.0	
* 2 Naphthalene-d8	136	4.910	4.907	0.003	99	383133	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	94	233907	40.0	
* 4 Phenanthrene-d10	188	8.056	8.059	-0.003	97	445775	40.0	a
* 5 Chrysene-d12	240	11.026	11.030	-0.004	98	492767	40.0	
* 6 Perylene-d12	264	13.868	13.888	-0.020	98	496083	40.0	
\$ 7 2-Fluorophenol	112	2.511	2.512	-0.001	89	14653	4.22	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	94	22673	4.80	
\$ 9 Nitrobenzene-d5	82	4.215	4.225	-0.007	86	18740	4.28	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.978	5.983	-0.007	99	37095	4.79	
\$ 12 2,4,6-Tribromophenol	330	7.383	7.387	-0.007	93	5641	4.85	
\$ 13 Terphenyl-d14	244	9.664	9.664	-0.001	97	59435	4.64	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	7
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	7
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.978	6.092	-0.114	34	1787	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotepp	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diellate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	201		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	U
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,diphenylmethane	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306477.D

Injection Date: 28-Nov-2022 17:41:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-C-9-A

Lab Sample ID: 280-168718-9

Worklist Smp#:

Client ID: X3-SS-CO6-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

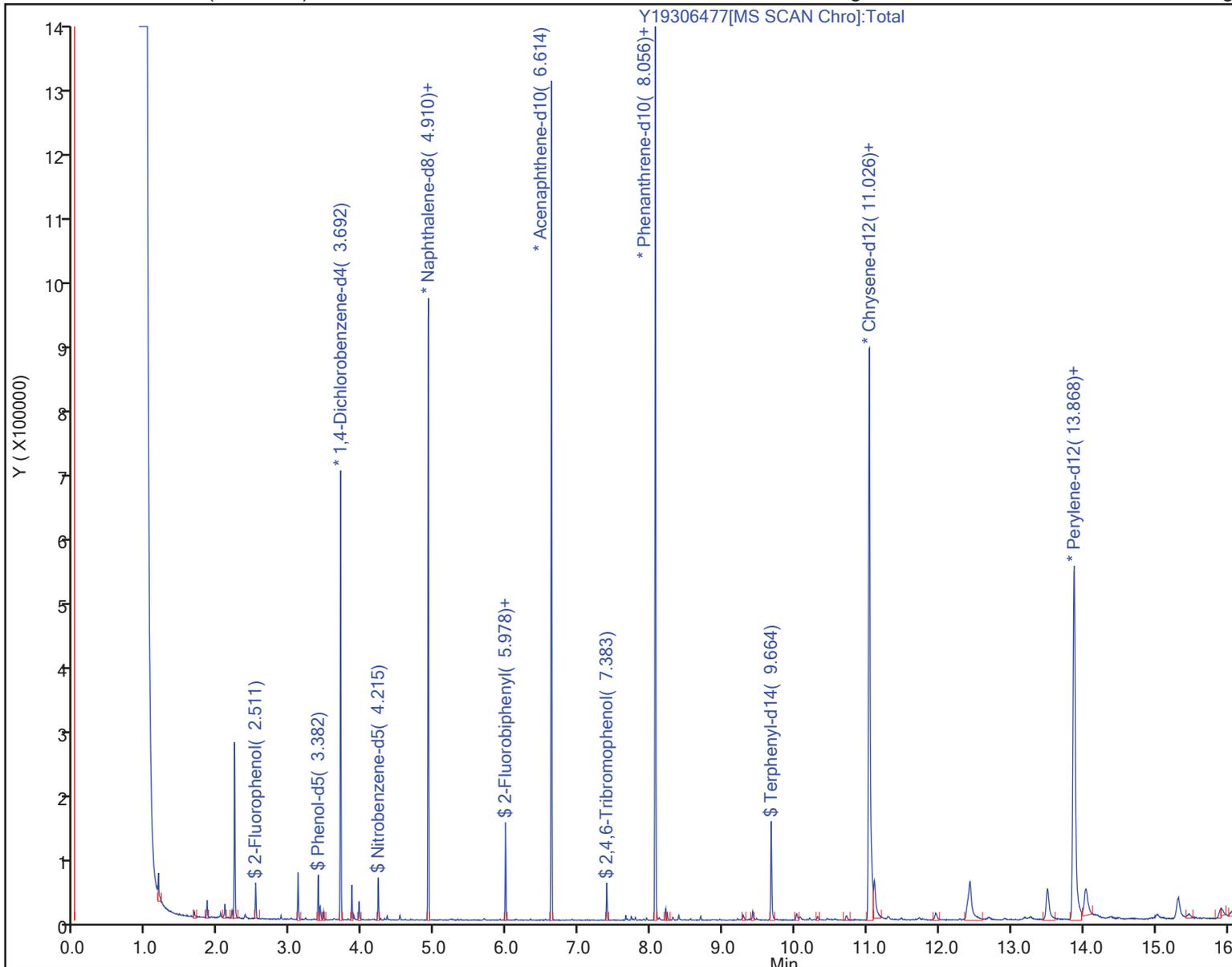
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306477.D
 Lims ID: 280-168718-C-9-A
 Client ID: X3-SS-CO6-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 17:41:30 ALS Bottle#: 18 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-C-9-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:50:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	4.22	84.50
\$ 8 Phenol-d5	100.0	4.80	96.02
\$ 9 Nitrobenzene-d5	100.0	4.28	85.57
\$ 11 2-Fluorobiphenyl	100.0	4.79	95.83
\$ 12 2,4,6-Tribromophenol	100.0	4.85	96.96
\$ 13 Terphenyl-d14	100.0	4.64	92.85

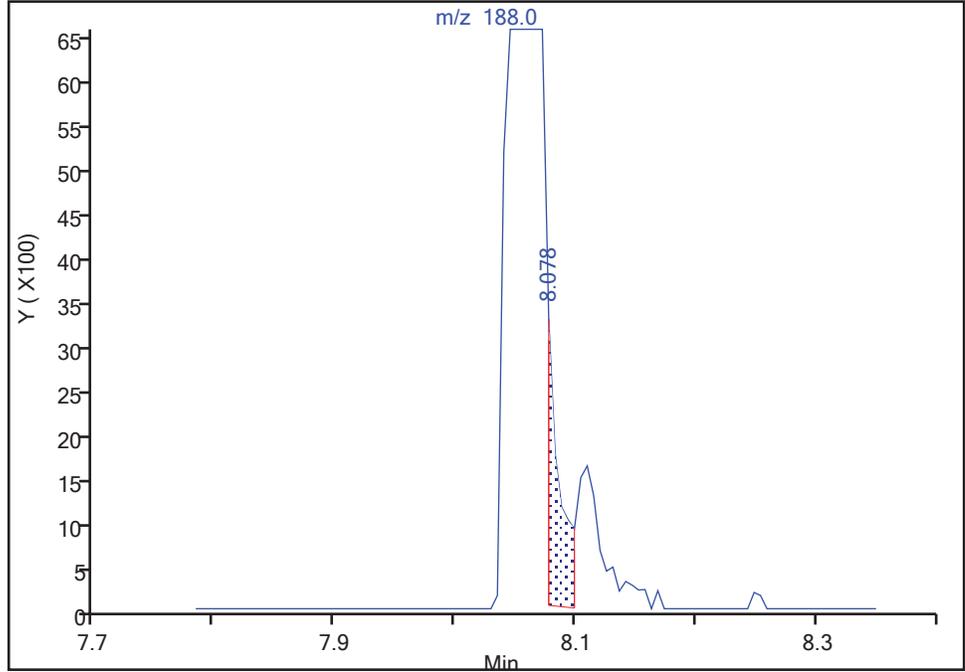
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306477.D
Injection Date: 28-Nov-2022 17:41:30 Instrument ID: SMS_Y
Lims ID: 280-168718-C-9-A Lab Sample ID: 280-168718-9
Client ID: X3-SS-CO6-0006
Operator ID: TESSIERN ALS Bottle#: 18 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

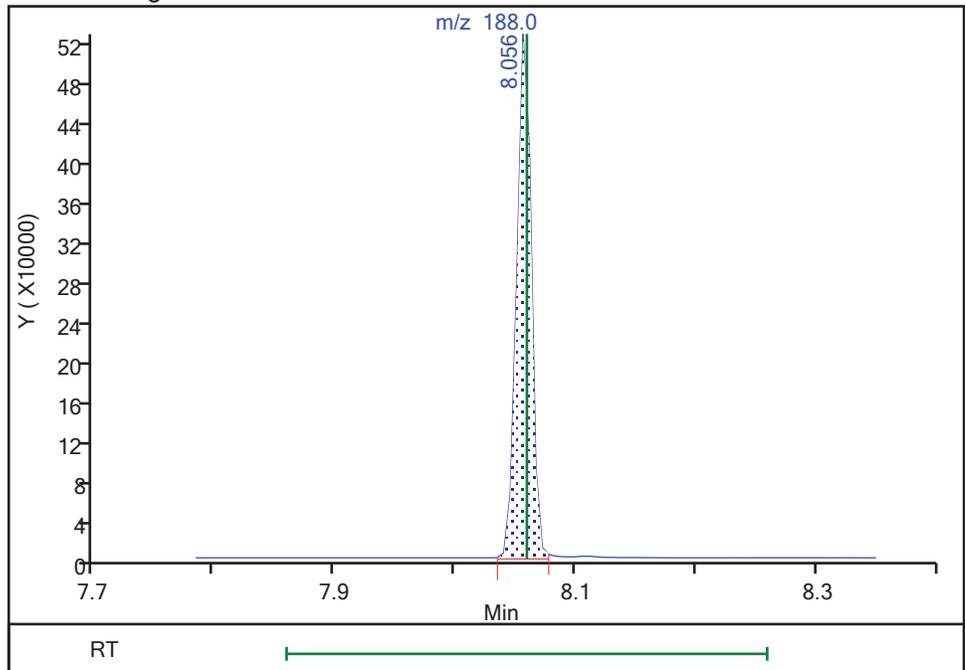
RT: 8.08
Area: 2556
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 445775
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:49:42
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-SS-C01-0006 Lab Sample ID: 280-168718-10
 Matri3: Solid Lab File ID: Y19x06480.D
 Analysis Method: 8270E Date Collected: 11/02/2022 11:15
 E3tract. Method: x550C Date E3tracted: 11/10/2022 12:10
 Sample wt/vol: x0.9(g) Date Analyzed: 11/28/2022 18:59
 Con. E3tract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: R3i-5Sil MS ID: 0.25(mm)
 % Moisture: 16.6 % Solids: 8x.4 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	2x000	U D	x7000	2x000	7800
122-x9-4	Diphenylamine	x900	U D	7700	x900	1000
86-x0-6	N-Nitrosodiphenylamine	1600	U D	7700	1600	490

CAS NO.	SURROGATE	%REC	Q	LIMITS
x21-60-8	2-Fluorobiphenyl	82		44-115
x67-12-4	2-Fluorophenol (Surr)	75		x5-115
118-79-6	2,4,6-Tribromophenol (Surr)	85		x9-1x2
4165-60-0	Nitrobenzene-d5 (Surr)	79		x7-122
4165-62-2	Phenol-d5 (Surr)	85		xx-122
1718-51-0	Terphenyl-d14 (Surr)	82		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306480.D
 Lims ID: 280-168718-A-10-A
 Client ID: X7-SS-C01-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 18:59:30 ALS Bottle#: 21 Worklist Smp#: 22
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-10-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:54:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.689	0.004	97	88521	40.0	
* 2 Naphthalene-d8	136	4.905	4.907	-0.002	100	374571	40.0	
* 3 Acenaphthene-d10	164	6.615	6.617	-0.002	93	228947	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	97	430256	40.0	a
* 5 Chrysene-d12	240	11.022	11.030	-0.008	98	446038	40.0	
* 6 Perylene-d12	264	13.864	13.888	-0.024	97	455794	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	91	12914	3.73	
\$ 8 Phenol-d5	99	3.383	3.383	0.000	95	19982	4.24	
\$ 9 Nitrobenzene-d5	82	4.211	4.225	-0.011	86	16856	3.94	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.979	5.983	-0.006	99	31089	4.10	
\$ 12 2,4,6-Tribromophenol	330	7.384	7.387	-0.006	93	4835	4.25	
\$ 13 Terphenyl-d14	244	9.665	9.664	0.000	97	47707	4.12	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	7
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	U
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.979	6.092	-0.113	34	1459	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzamine	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotepp	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	91		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	149		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,diphenylmethane	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306480.D

Injection Date: 28-Nov-2022 18:59:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-10-A

Lab Sample ID: 280-168718-10

Worklist Smp#:

Client ID: X7-SS-C01-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

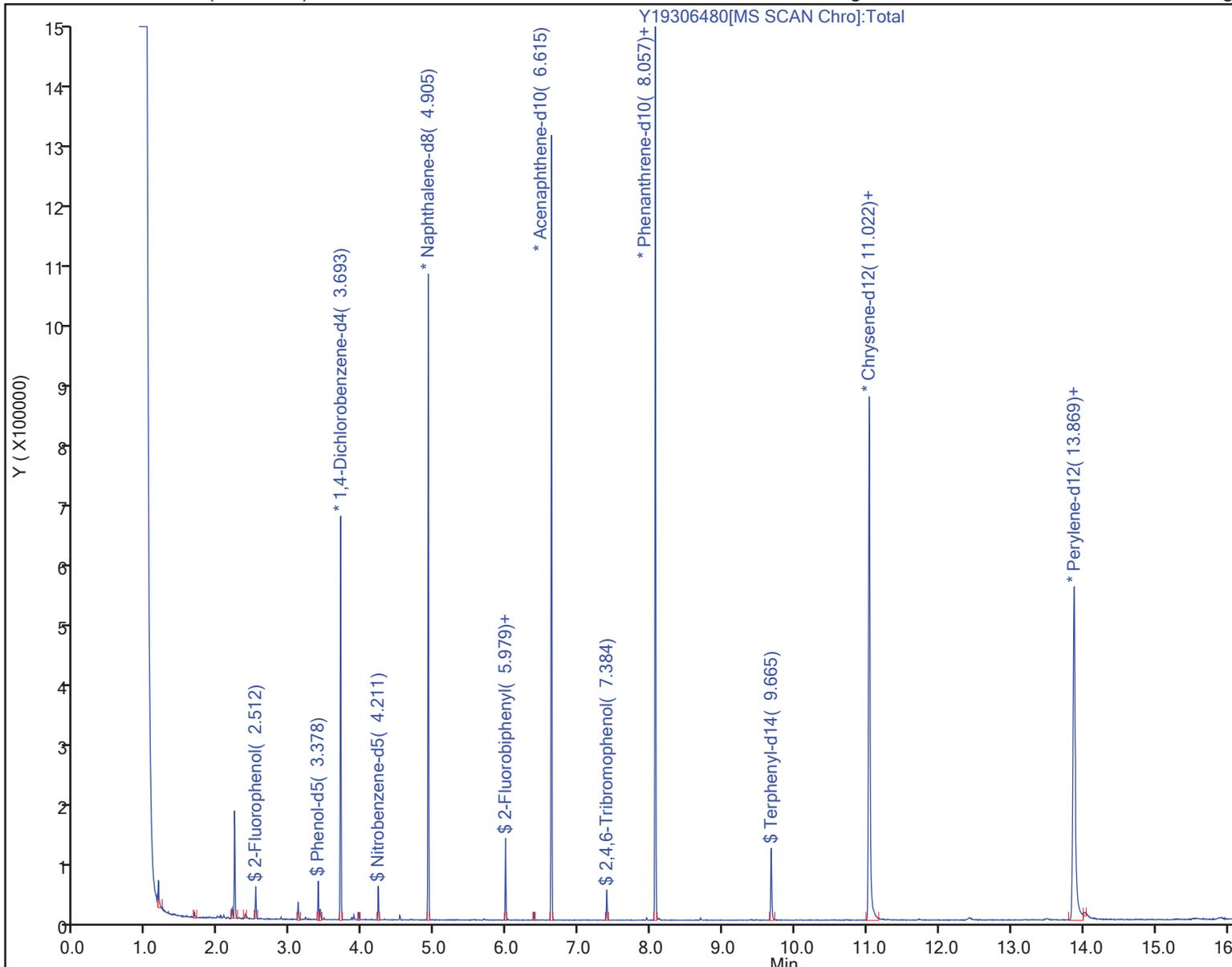
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Larg



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306480.D
 Lims ID: 280-168718-A-10-A
 Client ID: X7-SS-C01-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 18:59:30 ALS Bottle#: 21 Worklist Smp#: 22
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-10-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:54:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.73	74.69
\$ 8 Phenol-d5	100.0	4.24	84.87
\$ 9 Nitrobenzene-d5	100.0	3.94	78.73
\$ 11 2-Fluorobiphenyl	100.0	4.10	82.05
\$ 12 2,4,6-Tribromophenol	100.0	4.25	84.91
\$ 13 Terphenyl-d14	100.0	4.12	82.33

Eurofins Denver

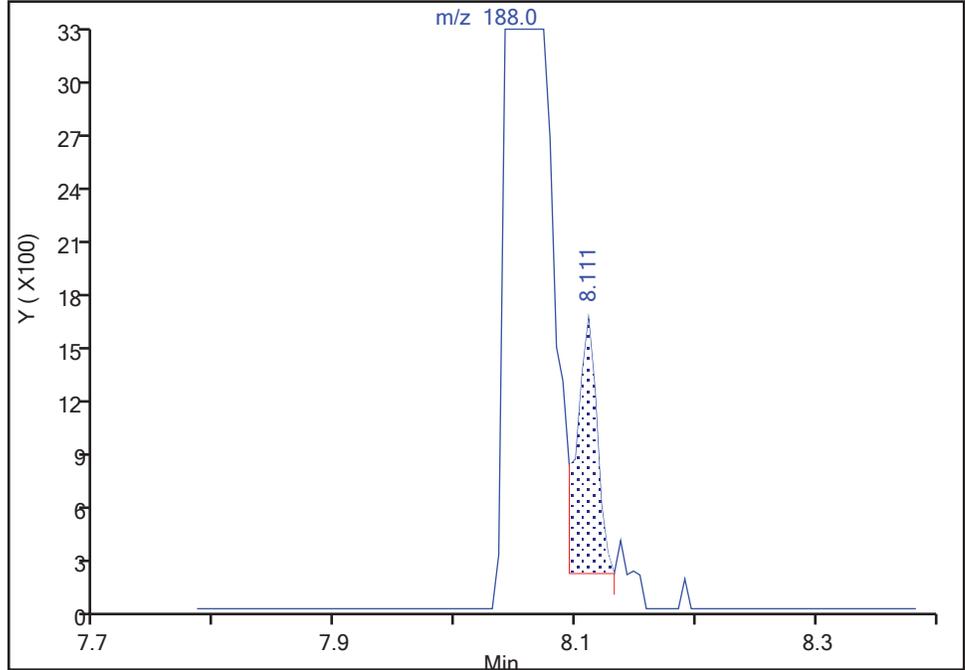
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306480.D
Injection Date: 28-Nov-2022 18:59:30 Instrument ID: SMS_Y
Lims ID: 280-168718-A-10-A Lab Sample ID: 280-168718-10
Client ID: X7-SS-C01-0006
Operator ID: TESSIERN ALS Bottle#: 21 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2

Signal: 1

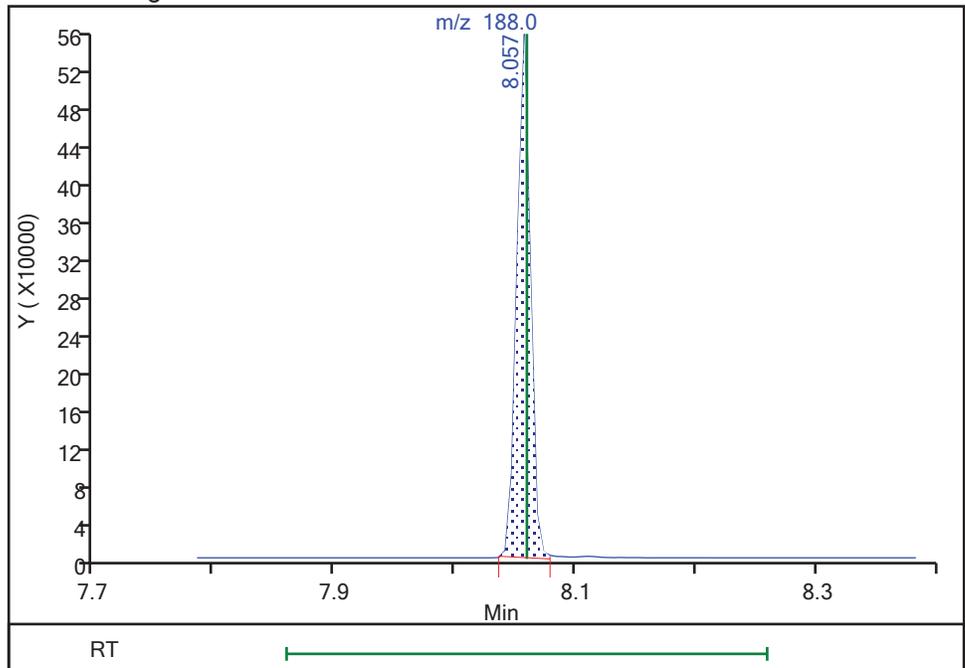
RT: 8.11
Area: 1695
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 430256
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:53:43
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7B-SS-C01-0006 Lab Sample ID: 280-168718-11
 Matrix: Solid Lab File ID: Y19306481.D
 Analysis Method: 8270E Date Collected: 11/02/2022 11:50
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.9(g) Date Analyzed: 11/28/2022 19:25
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 13.4 % Solids: 86.6 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	22000	U D	36000	22000	7500
122-39-4	Diphenylamine	3700	U D	7400	3700	990
86-30-6	N-Nitrosodiphenylamine	1500	U D	7400	1500	470

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	86		44-115
367-12-4	2-Fluorophenol (Surr)	83		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	91		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	81		37-122
4165-62-2	Phenol-d5 (Surr)	89		33-122
1718-51-0	Terphenyl-d14 (Surr)	82		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306481.D
 Lims ID: 280-168718-B-11-A
 Client ID: X7B-SS-C01-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 19:25:30 ALS Bottle#: 22 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-11-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:54:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.695	3.689	0.005	97	97861	40.0	
* 2 Naphthalene-d8	136	4.907	4.907	0.000	100	403678	40.0	
* 3 Acenaphthene-d10	164	6.617	6.617	0.000	93	236386	40.0	
* 4 Phenanthrene-d10	188	8.059	8.059	0.000	97	421228	40.0	a
* 5 Chrysene-d12	240	11.024	11.030	-0.006	98	432871	40.0	
* 6 Perylene-d12	264	13.866	13.888	-0.022	97	431796	40.0	a
\$ 7 2-Fluorophenol	112	2.514	2.512	0.002	90	15914	4.16	
\$ 8 Phenol-d5	99	3.379	3.383	-0.004	95	23129	4.44	
\$ 9 Nitrobenzene-d5	82	4.213	4.225	-0.009	86	18646	4.04	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.981	5.983	-0.004	99	33529	4.29	
\$ 12 2,4,6-Tribromophenol	330	7.386	7.387	-0.004	93	5348	4.55	
\$ 13 Terphenyl-d14	244	9.662	9.664	-0.003	97	46327	4.12	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	7
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	U
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	7
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.976	6.092	-0.116	34	1548	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotep	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallyl Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	91		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,a	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluor	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306481.D

Injection Date: 28-Nov-2022 19:25:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-B-11-A

Lab Sample ID: 280-168718-11

Worklist Smp#:

Client ID: X7B-SS-C01-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

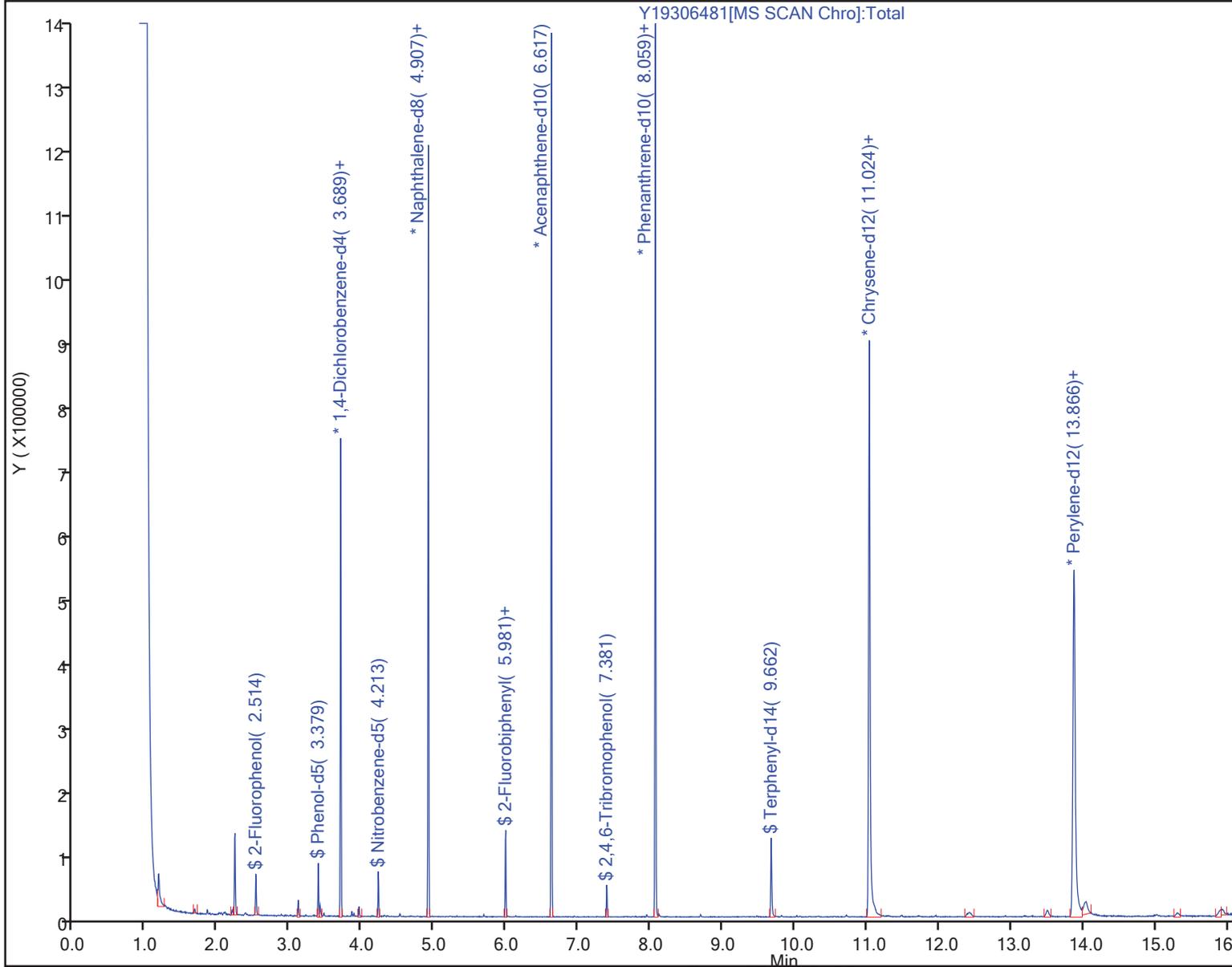
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306481.D
 Lims ID: 280-168718-B-11-A
 Client ID: X7B-SS-C01-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 19:25:30 ALS Bottle#: 22 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-11-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:54:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	4.16	83.26
\$ 8 Phenol-d5	100.0	4.44	88.87
\$ 9 Nitrobenzene-d5	100.0	4.04	80.81
\$ 11 2-Fluorobiphenyl	100.0	4.29	85.71
\$ 12 2,4,6-Tribromophenol	100.0	4.55	90.96
\$ 13 Terphenyl-d14	100.0	4.12	82.39

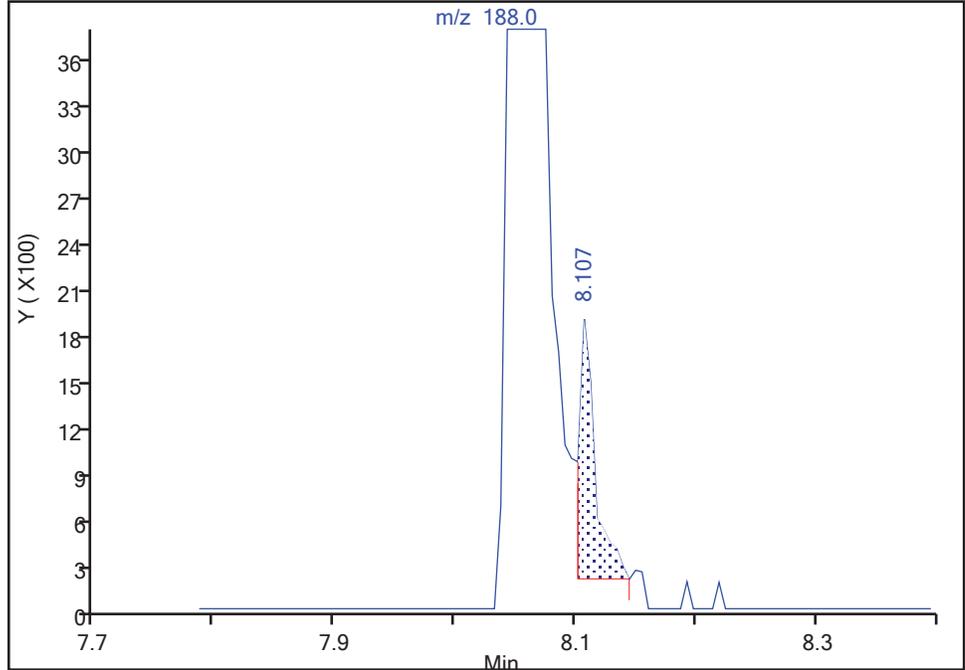
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306481.D
Injection Date: 28-Nov-2022 19:25:30 Instrument ID: SMS_Y
Lims ID: 280-168718-B-11-A Lab Sample ID: 280-168718-11
Client ID: X7B-SS-C01-0006
Operator ID: TESSIERN ALS Bottle#: 22 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

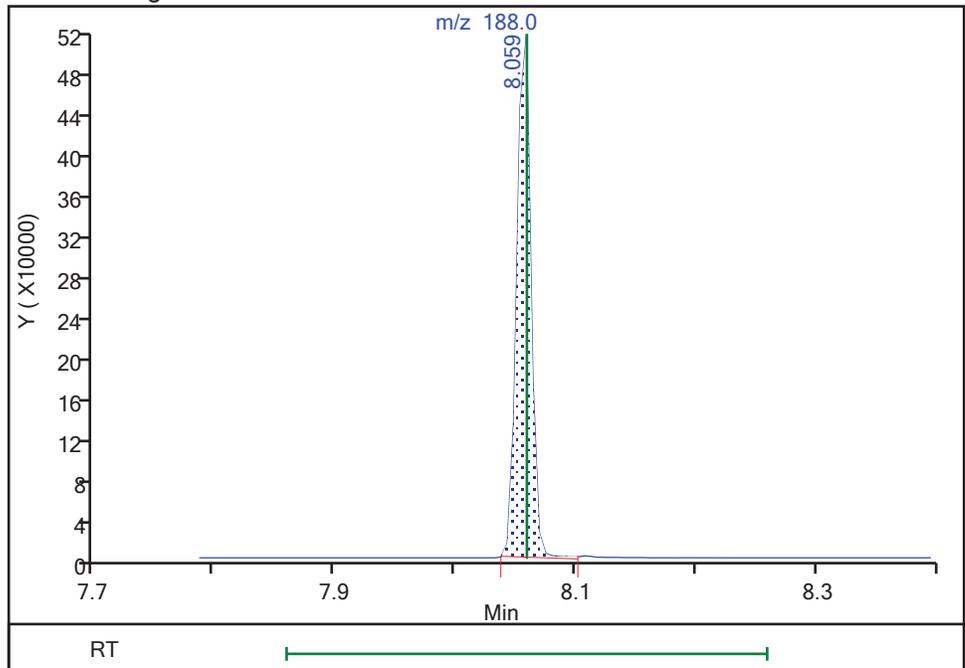
RT: 8.11
Area: 1573
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 421228
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

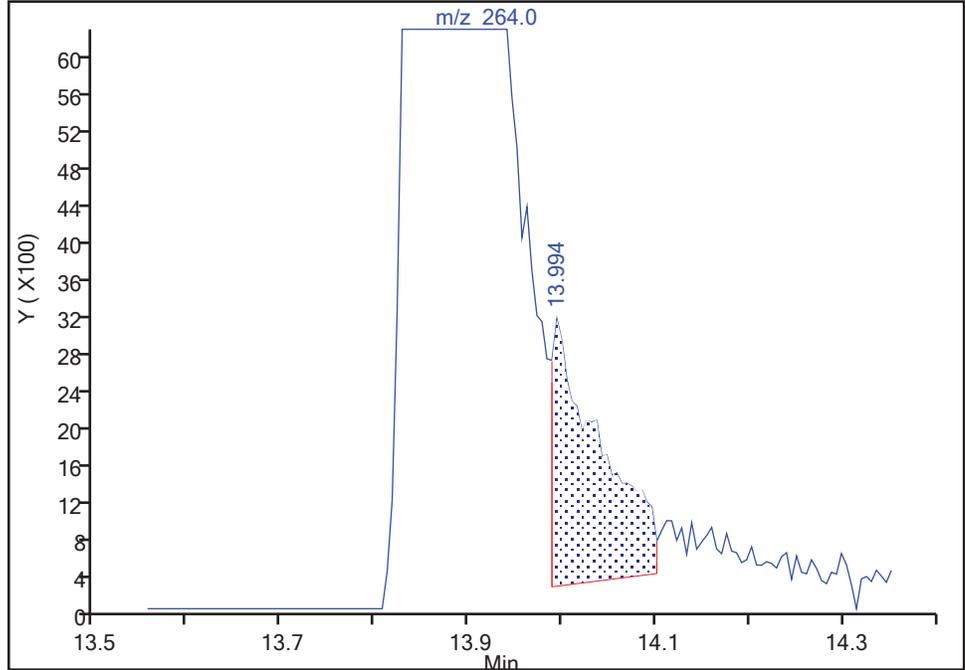
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306481.D
Injection Date: 28-Nov-2022 19:25:30 Instrument ID: SMS_Y
Lims ID: 280-168718-B-11-A Lab Sample ID: 280-168718-11
Client ID: X7B-SS-C01-0006
Operator ID: TESSIERN ALS Bottle#: 22 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 6 Perylene-d12, CAS: 1520-96-3

Signal: 1

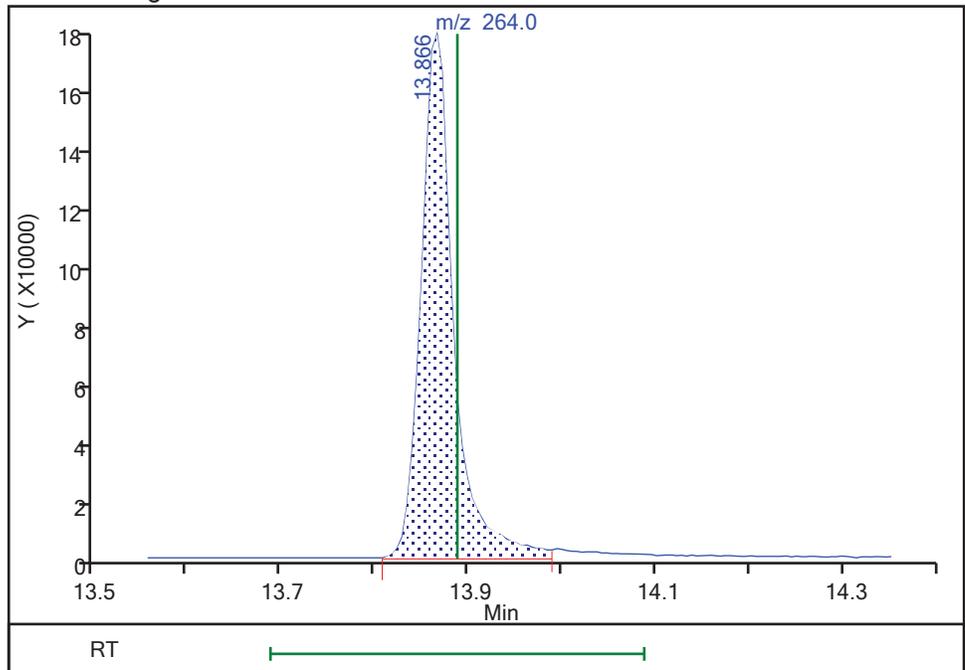
RT: 13.99
Area: 10462
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 13.87
Area: 431796
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:54:30
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C01-5460 Lab Sample ID: 280-168718-12
 Matrix: Solid Lab File ID: Y19306482.D
 Analysis Method: 8270E Date Collected: 11/02/2022 14:20
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.4(g) Date Analyzed: 11/28/2022 19:51
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 14.6 % Solids: 85.4 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	37000	23000	7700
122-39-4	Diphenylamine	3900	U D	7600	3900	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D	7600	1500	490

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	88		44-115
367-12-4	2-Fluorophenol (Surr)	71		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	57		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	87		37-122
4165-62-2	Phenol-d5 (Surr)	81		33-122
1718-51-0	Terphenyl-d14 (Surr)	88		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306482.D
 Lims ID: 280-168718-A-12-A
 Client ID: X7-TP-C01-5460
 Sample Type: Client
 Inject. Date: 28-Nov-2022 19:51:30 ALS Bottle#: 23 Worklist Smp#: 24
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-12-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 29-Nov-2022 17:57:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	94435	40.0	
* 2 Naphthalene-d8	136	4.904	4.907	-0.003	99	383910	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	94	225678	40.0	
* 4 Phenanthrene-d10	188	8.056	8.059	-0.003	98	417815	40.0	a
* 5 Chrysene-d12	240	11.027	11.030	-0.003	98	429747	40.0	
* 6 Perylene-d12	264	13.869	13.888	-0.019	97	431023	40.0	
\$ 7 2-Fluorophenol	112	2.517	2.512	0.005	90	13105	3.55	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	94	20220	4.03	
\$ 9 Nitrobenzene-d5	82	4.215	4.225	-0.007	86	19115	4.36	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.978	5.983	-0.007	99	32950	4.41	
\$ 12 2,4,6-Tribromophenol	330	7.383	7.387	-0.007	92	3199	2.85	
\$ 13 Terphenyl-d14	244	9.664	9.664	-0.001	95	48933	4.38	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	U
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	U
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117	4.178	4.172	0.010	94	1422233	987.9	E
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	7
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	7
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128	4.926	4.936	-0.006	94	3146	0.3202	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	7
87 Phthalic anhydride	76	5.978	6.092	-0.114	34	1429	NC	
88 1-Methylnaphthalene	142		5.702				ND	7
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- is)	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	7
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	7
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzene	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzene	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzene	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzene	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzene	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.236				ND	
140 Sulfotep	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	91		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	U
159 Disulfoton	88		8.105				ND	U
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	7
162 Anthracene	178		8.132				ND	7
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	7
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	7
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149	11.283	11.282	-0.001	96	15874	1.84	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,delta	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306482.D

Injection Date: 28-Nov-2022 19:51:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-12-A

Lab Sample ID: 280-168718-12

Worklist Smp#:

Client ID: X7-TP-C01-5460

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

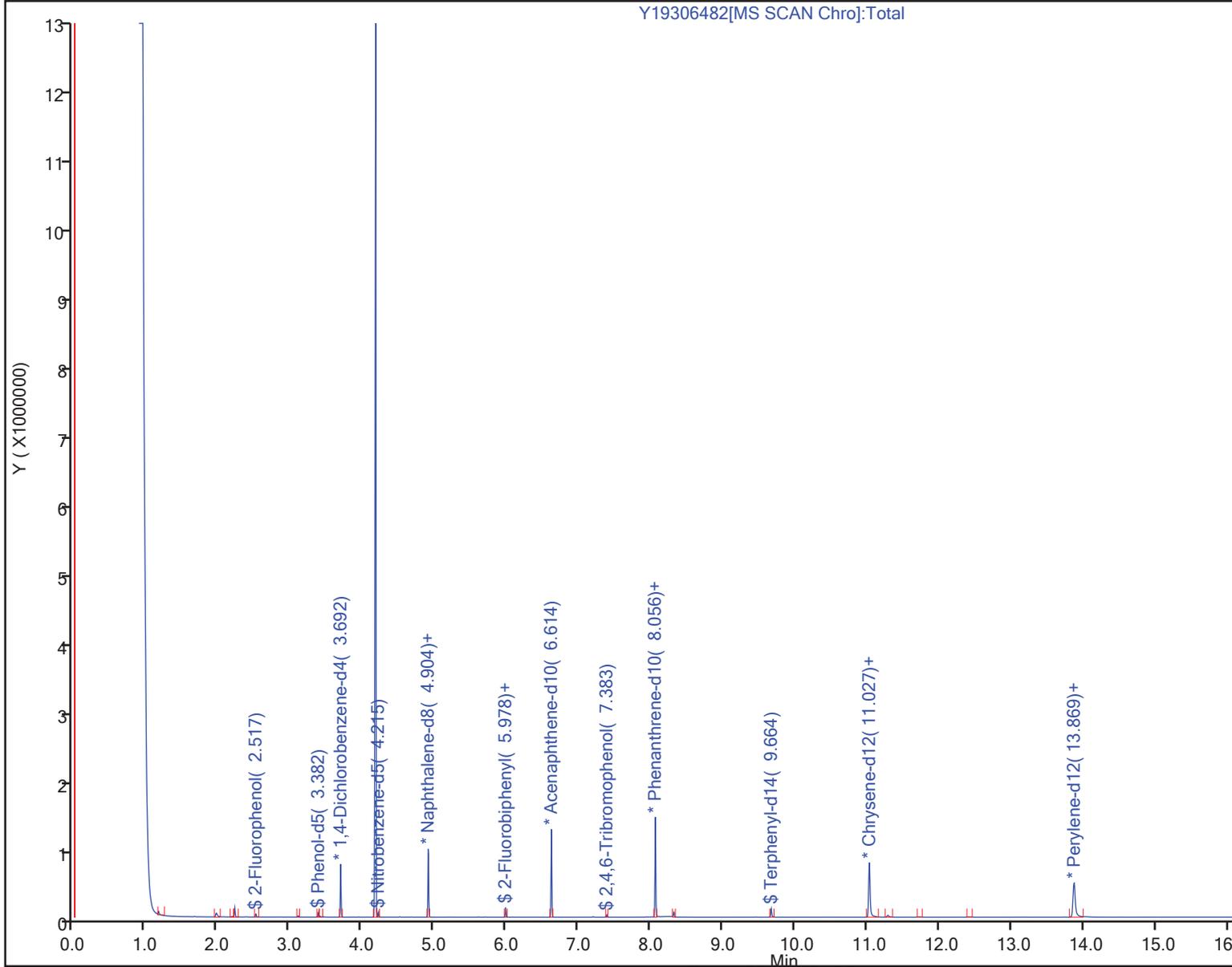
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306482.D
 Lims ID: 280-168718-A-12-A
 Client ID: X7-TP-C01-5460
 Sample Type: Client
 Inject. Date: 28-Nov-2022 19:51:30 ALS Bottle#: 23 Worklist Smp#: 24
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-12-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:57:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.55	71.05
\$ 8 Phenol-d5	100.0	4.03	80.51
\$ 9 Nitrobenzene-d5	100.0	4.36	87.11
\$ 11 2-Fluorobiphenyl	100.0	4.41	88.22
\$ 12 2,4,6-Tribromophenol	100.0	2.85	56.99
\$ 13 Terphenyl-d14	100.0	4.38	87.65

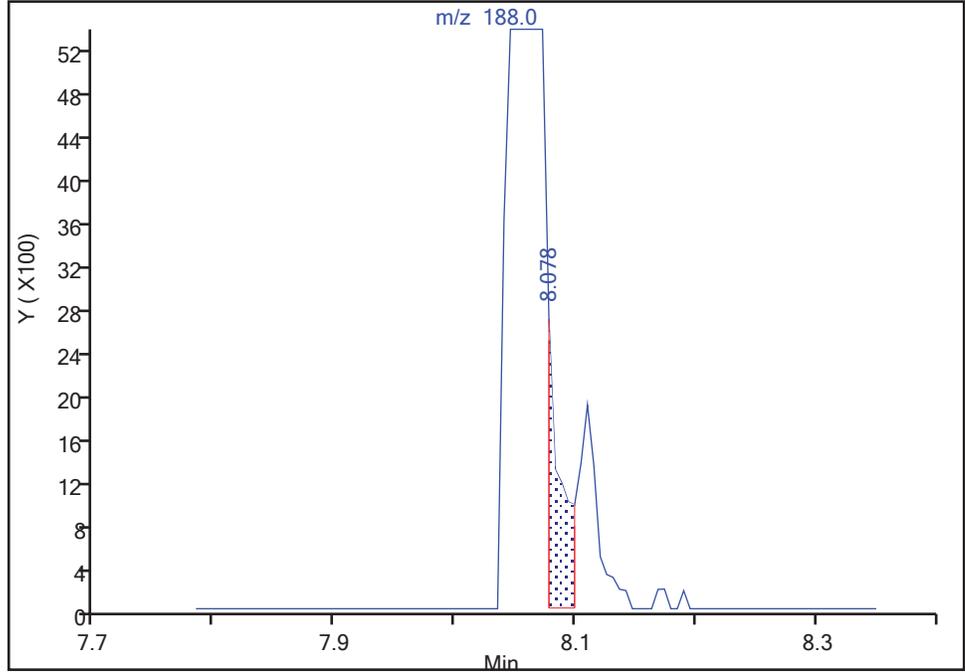
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306482.D
Injection Date: 28-Nov-2022 19:51:30 Instrument ID: SMS_Y
Lims ID: 280-168718-A-12-A Lab Sample ID: 280-168718-12
Client ID: X7-TP-C01-5460
Operator ID: TESSIERN ALS Bottle#: 23 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

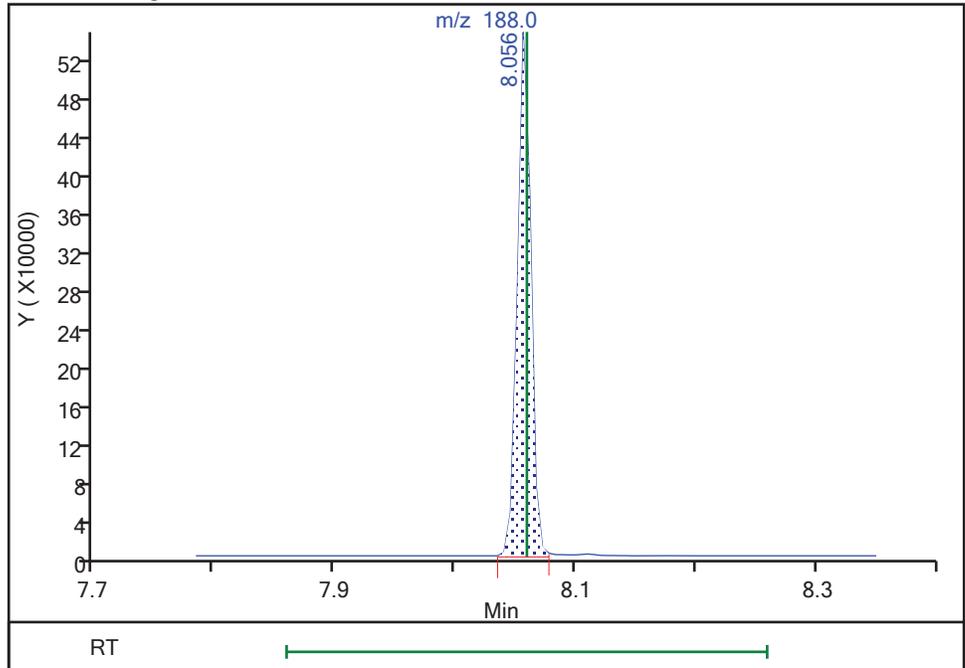
RT: 8.08
Area: 2255
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 417815
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:55:03
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C02-3648 Lab Sample ID: 280-168718-13
 Matrix: Solid Lab File ID: Y19306483.D
 Analysis Method: 8270E Date Collected: 11/02/2022 15:35
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 31.3(g) Date Analyzed: 11/28/2022 20:17
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 13.3 % Solids: 86.7 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	22000	U D	35000	22000	7400
122-39-4	Diphenylamine	3700	U D	7300	3700	970
86-30-6	N-Nitrosodiphenylamine	1500	U D	7300	1500	460

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	89		44-115
367-12-4	2-Fluorophenol (Surr)	67		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	56		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	81		37-122
4165-62-2	Phenol-d5 (Surr)	77		33-122
1718-51-0	Terphenyl-d14 (Surr)	87		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306483.D
 Lims ID: 280-168718-B-13-A
 Client ID: X7-TP-C02-3648
 Sample Type: Client
 Inject. Date: 28-Nov-2022 20:17:30 ALS Bottle#: 24 Worklist Smp#: 25
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-13-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:59:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	86795	40.0	
* 2 Naphthalene-d8	136	4.905	4.907	-0.002	100	357473	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	93	212714	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	97	389848	40.0	a
* 5 Chrysene-d12	240	11.022	11.030	-0.008	98	402470	40.0	
* 6 Perylene-d12	264	13.869	13.888	-0.019	97	391923	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	90	11425	3.37	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	94	17839	3.86	
\$ 9 Nitrobenzene-d5	82	4.216	4.225	-0.006	85	16621	4.07	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.979	5.983	-0.006	99	31258	4.44	
\$ 12 2,4,6-Tribromophenol	330	7.384	7.387	-0.006	92	2974	2.81	
\$ 13 Terphenyl-d14	244	9.665	9.664	0.000	97	45639	4.36	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	U
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117	4.168	4.172	0.000	95	2691	2.03	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128	4.926	4.936	-0.006	94	3945	0.4313	a
72 4-Chloroaniline	127		5.002				ND	7
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142	5.605	5.614	-0.006	79	923	0.1528	7a
87 Phthalic anhydride	76	5.979	6.092	-0.113	34	1266	NC	
88 1-Methylnaphthalene	142	5.701	5.705	-0.001	94	822	0.1440	7a
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	7
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	7
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	7
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotep	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diolate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	201		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178	8.078	8.082	-0.006	94	3331	0.3189	
162 Anthracene	178		8.132				ND	7
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	7
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	7
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,a	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluor	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306483.D

Injection Date: 28-Nov-2022 20:17:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-B-13-A

Lab Sample ID: 280-168718-13

Worklist Smp#:

Client ID: X7-TP-C02-3648

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

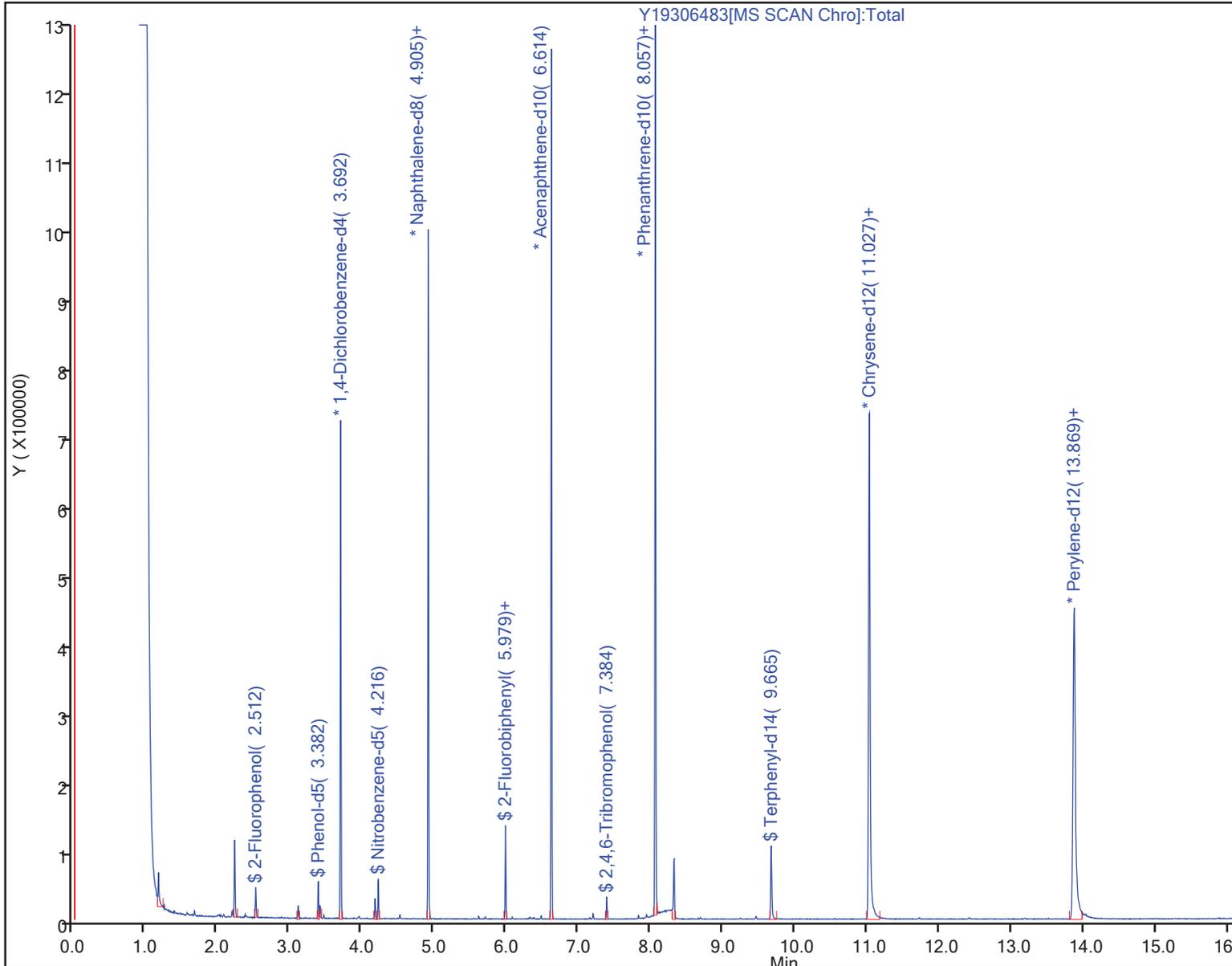
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306483.D
 Lims ID: 280-168718-B-13-A
 Client ID: X7-TP-C02-3648
 Sample Type: Client
 Inject. Date: 28-Nov-2022 20:17:30 ALS Bottle#: 24 Worklist Smp#: 25
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-13-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:59:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.37	67.39
\$ 8 Phenol-d5	100.0	3.86	77.28
\$ 9 Nitrobenzene-d5	100.0	4.07	81.34
\$ 11 2-Fluorobiphenyl	100.0	4.44	88.79
\$ 12 2,4,6-Tribromophenol	100.0	2.81	56.21
\$ 13 Terphenyl-d14	100.0	4.36	87.29

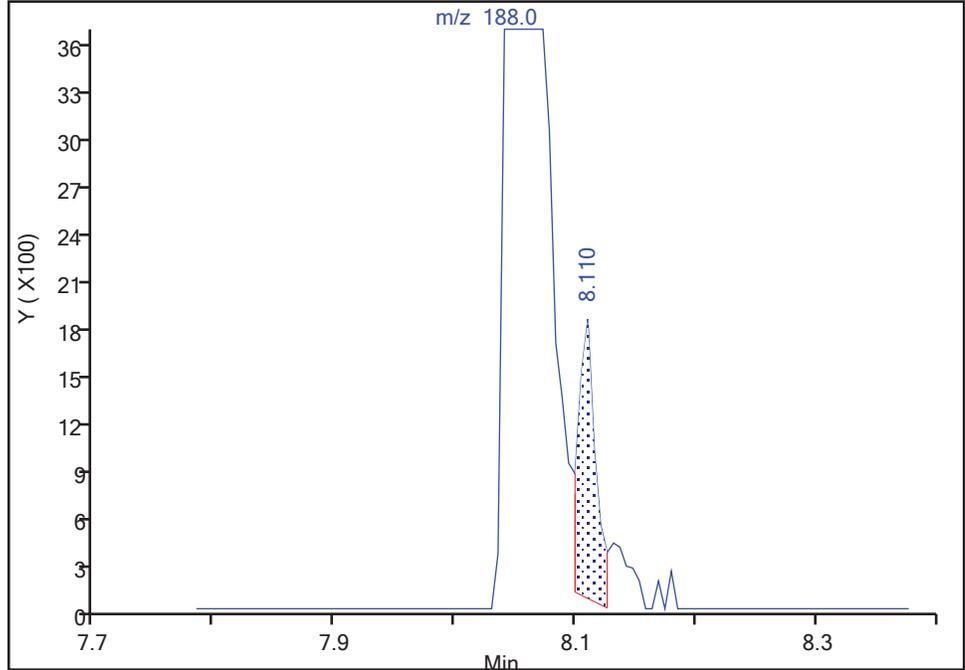
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306483.D
Injection Date: 28-Nov-2022 20:17:30 Instrument ID: SMS_Y
Lims ID: 280-168718-B-13-A Lab Sample ID: 280-168718-13
Client ID: X7-TP-C02-3648
Operator ID: TESSIERN ALS Bottle#: 24 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

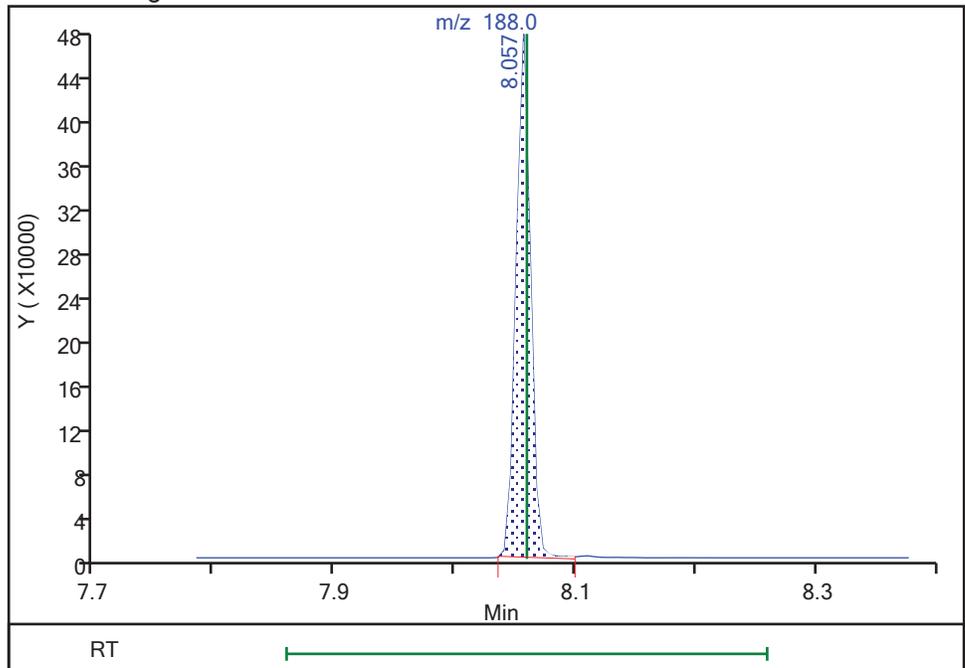
RT: 8.11
Area: 1817
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 389848
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C03-4248 Lab Sample ID: 280-168718-14
 Matrix: Solid Lab File ID: Y19306484.D
 Analysis Method: 8270E Date Collected: 11/02/2022 16:40
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.0(g) Date Analyzed: 11/28/2022 20:43
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 12.9 % Solids: 87.1 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	37000	23000	7600
122-39-4	Diphenylamine	3800	U D	7600	3800	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D	7600	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	83		44-115
367-12-4	2-Fluorophenol (Surr)	77		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	66		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	79		37-122
4165-62-2	Phenol-d5 (Surr)	78		33-122
1718-51-0	Terphenyl-d14 (Surr)	83		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306484.D
 Lims ID: 280-168718-A-14-A
 Client ID: X7-TP-C03-4248
 Sample Type: Client
 Inject. Date: 28-Nov-2022 20:43:30 ALS Bottle#: 25 Worklist Smp#: 26
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-14-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 18:00:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.689	0.004	97	105560	40.0	
* 2 Naphthalene-d8	136	4.905	4.907	-0.002	99	423518	40.0	
* 3 Acenaphthene-d10	164	6.615	6.617	-0.002	93	250982	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	97	449636	40.0	a
* 5 Chrysene-d12	240	11.022	11.030	-0.008	98	453462	40.0	
* 6 Perylene-d12	264	13.864	13.888	-0.024	97	442052	40.0	
\$ 7 2-Fluorophenol	112	2.517	2.512	0.005	90	15940	3.87	
\$ 8 Phenol-d5	99	3.383	3.383	0.000	94	21788	3.88	
\$ 9 Nitrobenzene-d5	82	4.216	4.225	-0.006	86	19015	3.93	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.979	5.983	-0.006	99	34402	4.14	
\$ 12 2,4,6-Tribromophenol	330	7.384	7.387	-0.006	93	4129	3.31	
\$ 13 Terphenyl-d14	244	9.665	9.664	0.000	97	48827	4.14	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	7
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	7
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	7
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.979	6.092	-0.113	34	1598	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzamine	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotepp	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	21		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	7
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	7
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	7
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosph	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,a	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluor	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235	4.515	4.445	0.070	1	226	NR	
230 4,4'-DDT	235	4.515	4.637	-0.122	1	226	NR	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306484.D

Injection Date: 28-Nov-2022 20:43:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-14-A

Lab Sample ID: 280-168718-14

Worklist Smp#:

Client ID: X7-TP-C03-4248

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

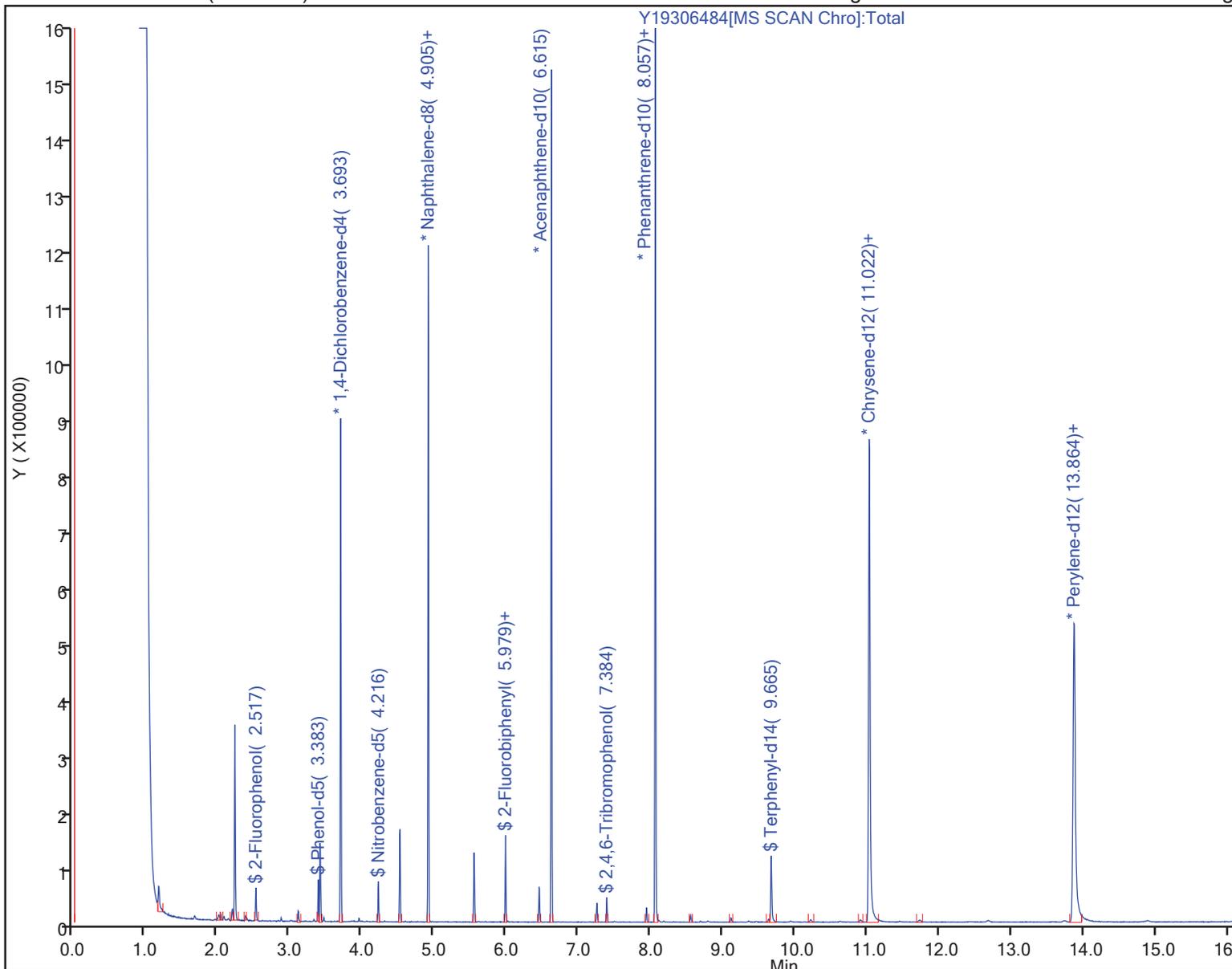
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306484.D
 Lims ID: 280-168718-A-14-A
 Client ID: X7-TP-C03-4248
 Sample Type: Client
 Inject. Date: 28-Nov-2022 20:43:30 ALS Bottle#: 25 Worklist Smp#: 26
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-14-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 29-Nov-2022 18:00:29

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.87	77.31
\$ 8 Phenol-d5	100.0	3.88	77.61
\$ 9 Nitrobenzene-d5	100.0	3.93	78.55
\$ 11 2-Fluorobiphenyl	100.0	4.14	82.82
\$ 12 2,4,6-Tribromophenol	100.0	3.31	66.14
\$ 13 Terphenyl-d14	100.0	4.14	82.89

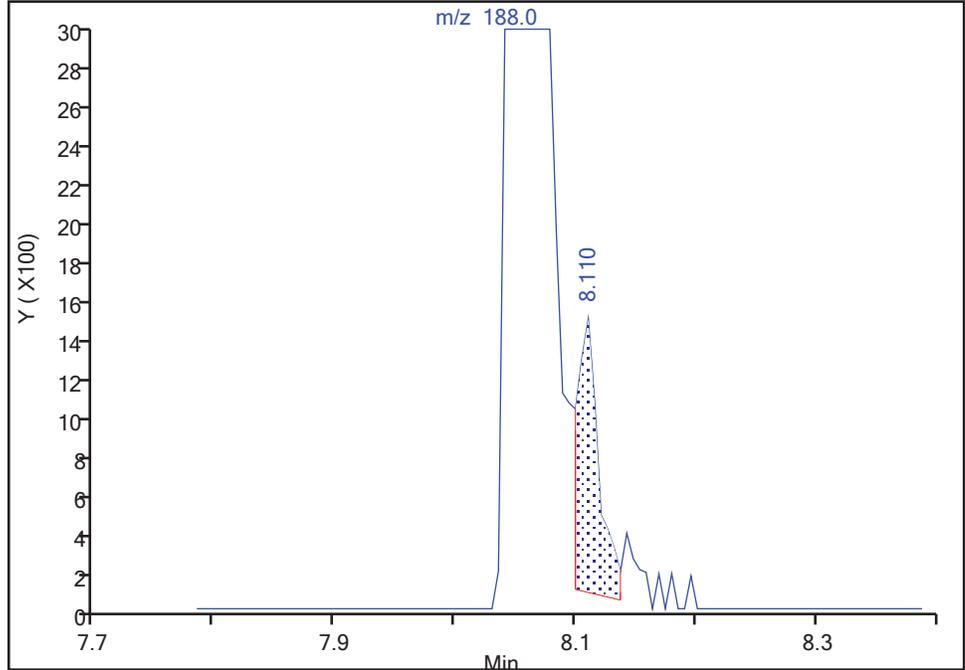
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306484.D
Injection Date: 28-Nov-2022 20:43:30 Instrument ID: SMS_Y
Lims ID: 280-168718-A-14-A Lab Sample ID: 280-168718-14
Client ID: X7-TP-C03-4248
Operator ID: TESSIERN ALS Bottle#: 25 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

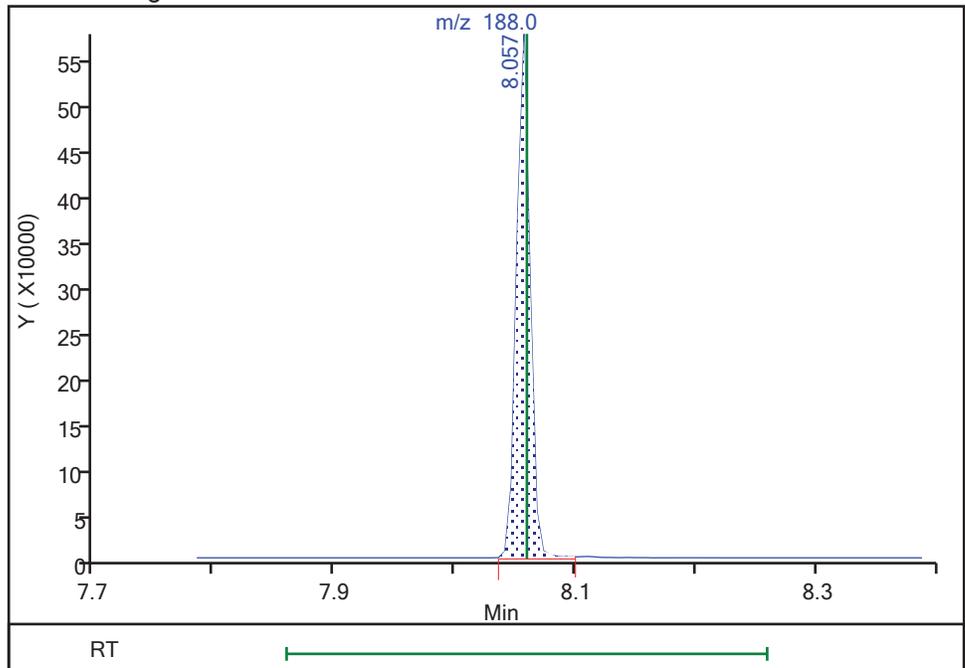
RT: 8.11
Area: 1827
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 449636
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C04-4248 Lab Sample ID: 280-168718-15
 Matrix: Solid Lab File ID: Y19306485.D
 Analysis Method: 8270E Date Collected: 11/03/2022 09:20
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.8(g) Date Analyzed: 11/28/2022 21:08
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 10.6 % Solids: 89.4 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	22000	U D	35000	22000	7300
122-39-4	Diphenylamine	3600	U D	7200	3600	960
86-30-6	N-Nitrosodiphenylamine	1500	U D	7200	1500	460

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	84		44-115
367-12-4	2-Fluorophenol (Surr)	76		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	69		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	78		37-122
4165-62-2	Phenol-d5 (Surr)	81		33-122
1718-51-0	Terphenyl-d14 (Surr)	83		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306485.D
 Lims ID: 280-168718-A-15-A
 Client ID: X7-TP-C04-4248
 Sample Type: Client
 Inject. Date: 28-Nov-2022 21:08:30 ALS Bottle#: 26 Worklist Smp#: 27
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-15-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 29-Nov-2022 18:00:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.694	3.689	0.005	97	90692	40.0	
* 2 Naphthalene-d8	136	4.906	4.907	-0.001	100	371984	40.0	
* 3 Acenaphthene-d10	164	6.616	6.617	-0.001	93	214780	40.0	
* 4 Phenanthrene-d10	188	8.058	8.059	-0.001	97	384363	40.0	
* 5 Chrysene-d12	240	11.023	11.030	-0.007	99	377016	40.0	
* 6 Perylene-d12	264	13.865	13.888	-0.023	98	362000	40.0	
\$ 7 2-Fluorophenol	112	2.518	2.512	0.006	90	13535	3.82	
\$ 8 Phenol-d5	99	3.378	3.383	-0.005	94	19455	4.03	
\$ 9 Nitrobenzene-d5	82	4.212	4.225	-0.010	86	16521	3.89	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.980	5.983	-0.005	99	29876	4.20	
\$ 12 2,4,6-Tribromophenol	330	7.385	7.387	-0.005	92	3660	3.43	
\$ 13 Terphenyl-d14	244	9.666	9.664	0.001	97	40635	4.15	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	U
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	7
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	7
87 Phthalic anhydride	76	5.980	6.092	-0.112	34	1303	NC	
88 1-Methylnaphthalene	142		5.702				ND	7
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- isd	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	7
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	7
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzen	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzen	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzen	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzen	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzen	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzen	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzen	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzen	179		7.236				ND	
140 Sulfotepp	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzen	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallyl Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	91		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	U
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	7
162 Anthracene	178		8.132				ND	7
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	7
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosph	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,diphenylmethane	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306485.D

Injection Date: 28-Nov-2022 21:08:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-15-A

Lab Sample ID: 280-168718-15

Worklist Smp#:

Client ID: X7-TP-C04-4248

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

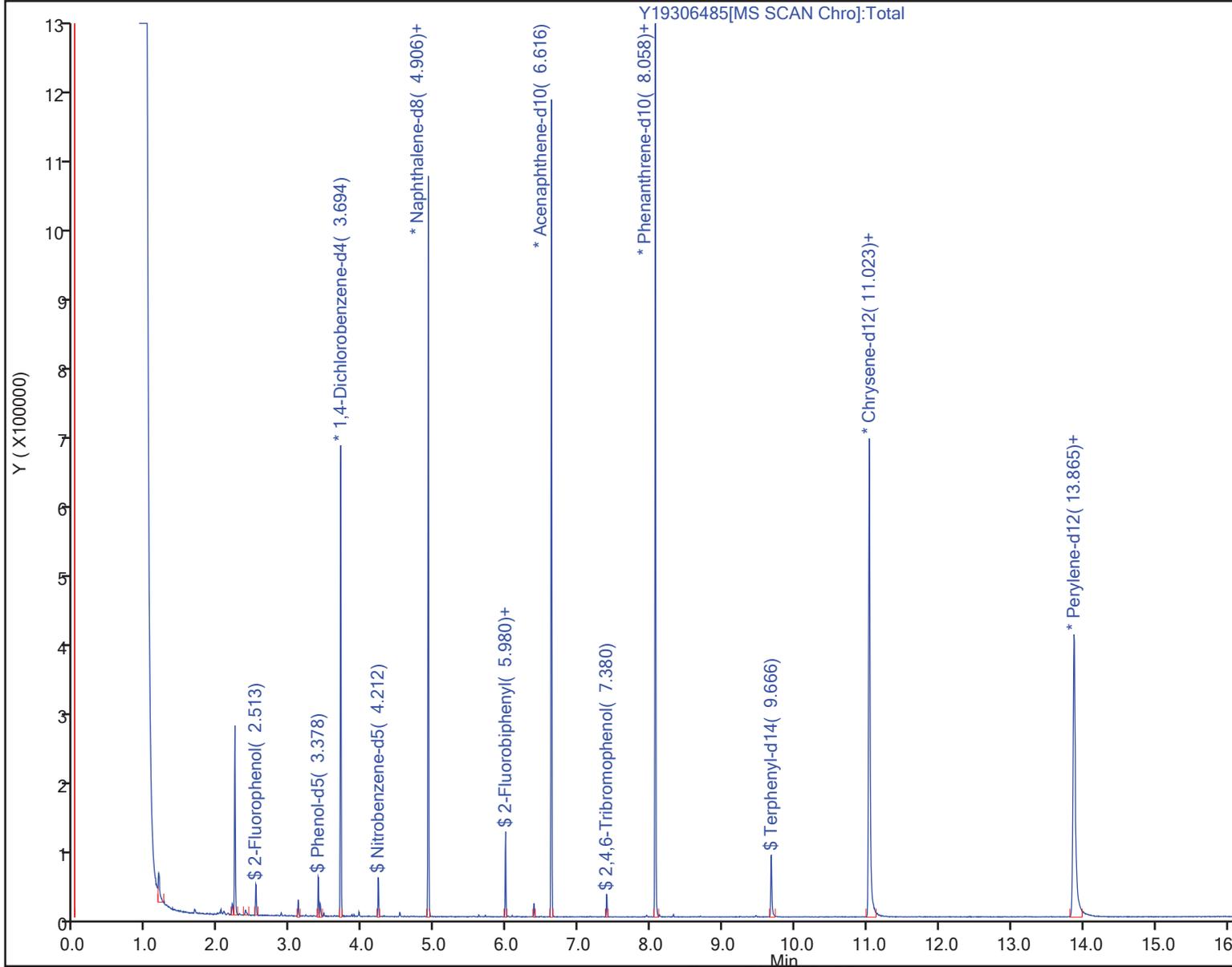
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306485.D
 Lims ID: 280-168718-A-15-A
 Client ID: X7-TP-C04-4248
 Sample Type: Client
 Inject. Date: 28-Nov-2022 21:08:30 ALS Bottle#: 26 Worklist Smp#: 27
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-15-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 18:00:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.82	76.41
\$ 8 Phenol-d5	100.0	4.03	80.66
\$ 9 Nitrobenzene-d5	100.0	3.89	77.70
\$ 11 2-Fluorobiphenyl	100.0	4.20	84.05
\$ 12 2,4,6-Tribromophenol	100.0	3.43	68.51
\$ 13 Terphenyl-d14	100.0	4.15	82.97

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C07-0006 Lab Sample ID: 280-168718-16
 Matrix: Solid Lab File ID: Y19306486.D
 Analysis Method: 8270E Date Collected: 11/03/2022 10:15
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.0(g) Date Analyzed: 11/28/2022 21:34
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 12.1 % Solids: 87.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	23000	U D	36000	23000	7600
122-39-4	Diphenylamine	3800	U D	7500	3800	1000
86-30-6	N-Nitrosodiphenylamine	1500	U D	7500	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	52		44-115
367-12-4	2-Fluorophenol (Surr)	47		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	37	Q	39-132
4165-60-0	Nitrobenzene-d5 (Surr)	47		37-122
4165-62-2	Phenol-d5 (Surr)	52		33-122
1718-51-0	Terphenyl-d14 (Surr)	44	Q	54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306486.D
 Lims ID: 280-168718-A-16-A
 Client ID: X3-SS-C07-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 21:34:30 ALS Bottle#: 27 Worklist Smp#: 28
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-16-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 18:01:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.689	3.689	0.000	97	90017	40.0	
* 2 Naphthalene-d8	136	4.907	4.907	0.000	99	373731	40.0	
* 3 Acenaphthene-d10	164	6.617	6.617	0.000	93	223728	40.0	
* 4 Phenanthrene-d10	188	8.059	8.059	0.000	97	419058	40.0	
* 5 Chrysene-d12	240	11.024	11.030	-0.006	99	414440	40.0	
* 6 Perylene-d12	264	13.866	13.888	-0.022	97	396807	40.0	
\$ 7 2-Fluorophenol	112	2.514	2.512	0.002	91	8305	2.36	
\$ 8 Phenol-d5	99	3.379	3.383	-0.004	95	12343	2.58	
\$ 9 Nitrobenzene-d5	82	4.213	4.225	-0.009	86	10106	2.37	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.976	5.983	-0.009	100	19152	2.59	
\$ 12 2,4,6-Tribromophenol	330	7.386	7.387	-0.004	90	2077	1.87	
\$ 13 Terphenyl-d14	244	9.662	9.664	-0.003	97	23496	2.18	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	7
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.976	6.092	-0.116	34	742	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- is)	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzene	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzene	179		6.606				ND	
114 2,4-Dinitrotoluene	165		6.829				ND	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzene	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzene	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzene	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	
135 N-Nitrosodiphenylamine	169		7.294				ND	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.236				ND	
140 Sulfotep	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diallate Peak 1	86		7.592				ND	
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallate Peak 2	86		7.673				ND	
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	91		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054				ND	7
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	149		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,delta	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	195		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306486.D

Injection Date: 28-Nov-2022 21:34:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-16-A

Lab Sample ID: 280-168718-16

Worklist Smp#:

Client ID: X3-SS-C07-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

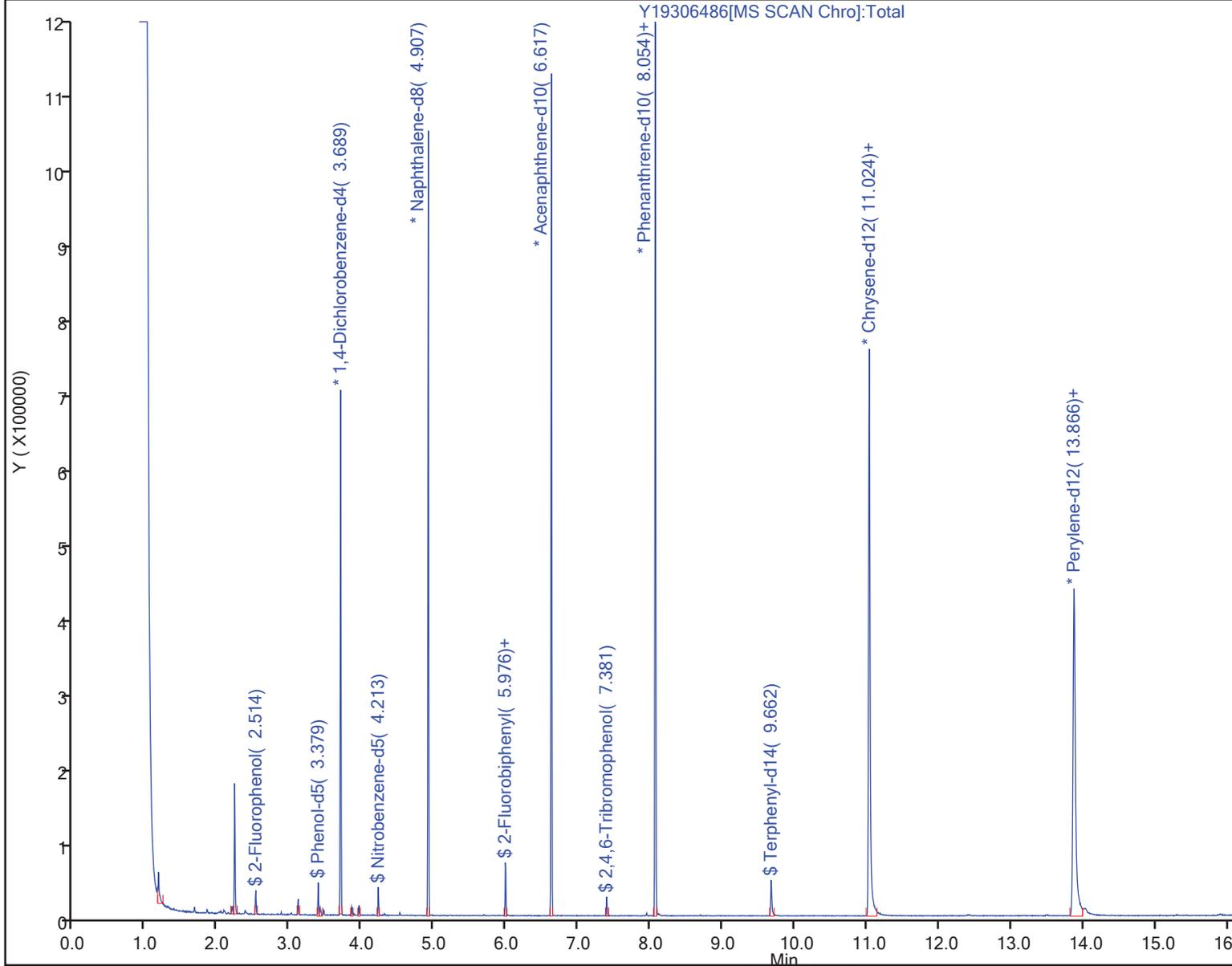
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306486.D
 Lims ID: 280-168718-A-16-A
 Client ID: X3-SS-C07-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 21:34:30 ALS Bottle#: 27 Worklist Smp#: 28
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-16-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 29-Nov-2022 18:01:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	2.36	47.24
\$ 8 Phenol-d5	100.0	2.58	51.56
\$ 9 Nitrobenzene-d5	100.0	2.37	47.31
\$ 11 2-Fluorobiphenyl	100.0	2.59	51.73
\$ 12 2,4,6-Tribromophenol	100.0	1.87	37.32
\$ 13 Terphenyl-d14	100.0	2.18	43.64

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C08-0006 Lab Sample ID: 280-168718-17
 Matrix: Solid Lab File ID: Y19306487.D
 Analysis Method: 8270E Date Collected: 11/03/2022 10:45
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.3(g) Date Analyzed: 11/28/2022 22:00
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 10.4 % Solids: 89.6 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	22000	U D	35000	22000	7400
122-39-4	Diphenylamine	3700	U D	7300	3700	970
86-30-6	N-Nitrosodiphenylamine	590	J D	7300	1500	460

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	91		44-115
367-12-4	2-Fluorophenol (Surr)	84		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	87		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	87		37-122
4165-62-2	Phenol-d5 (Surr)	89		33-122
1718-51-0	Terphenyl-d14 (Surr)	82		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306487.D
 Lims ID: 280-168718-B-17-A
 Client ID: X3-SS-C08-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 22:00:30 ALS Bottle#: 28 Worklist Smp#: 29
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-17-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 29-Nov-2022 18:01:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	86614	40.0	
* 2 Naphthalene-d8	136	4.905	4.907	-0.002	100	355602	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	93	208832	40.0	
* 4 Phenanthrene-d10	188	8.056	8.059	-0.003	97	369682	40.0	a
* 5 Chrysene-d12	240	11.021	11.030	-0.009	98	370323	40.0	
* 6 Perylene-d12	264	13.863	13.888	-0.025	97	351829	40.0	
\$ 7 2-Fluorophenol	112	2.517	2.512	0.005	89	14193	4.19	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	94	20424	4.43	
\$ 9 Nitrobenzene-d5	82	4.215	4.225	-0.007	86	17693	4.35	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961				ND	
\$ 11 2-Fluorobiphenyl	172	5.978	5.983	-0.007	99	31330	4.53	
\$ 12 2,4,6-Tribromophenol	330	7.383	7.387	-0.007	94	4511	4.34	
\$ 13 Terphenyl-d14	244	9.664	9.664	-0.001	97	39294	4.08	
14 Triethyl amine	86		1.244				ND	U
15 1,4-Dioxane	88		1.294				ND	
16 2-Ethoxyethanol	59		1.356				ND	
17 N-Nitrosodimethylamine	74		1.455				ND	
18 Pyridine	79		1.487				ND	
19 Dimethylformamide	73		1.794				ND	
20 2-Picoline	93		2.010				ND	
21 N-Nitrosomethylethylamine	88		2.095				ND	
22 Acrylamide	71		2.368				ND	7
23 Methyl methanesulfonate	80		2.352				ND	
24 N-Nitrosodiethylamine	102		2.699				ND	
25 Pentachlorophenol_T	266		2.992				ND	
26 Ethyl methanesulfonate	79		2.982				ND	
27 Benzaldehyde	106		3.278				ND	
28 Phenol	94		3.394				ND	
30 Aniline	93		3.383				ND	
31 Bis(2-chloroethyl)ether	93		3.458				ND	
32 Alpha Methyl Styrene	118		3.436				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426				ND	
34 2-Chlorophenol	128		3.501				ND	
35 n-Decane	43		3.575				ND	
37 1,3-Dichlorobenzene	146		3.639				ND	
38 1,4-Dichlorobenzene	146		3.709				ND	
39 Benzyl alcohol	108		3.837				ND	
40 1,2-Dichlorobenzene	146		3.848				ND	
41 2-Methylphenol	108		3.965				ND	
42 Benzidine_T	184		4.050				ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976				ND	
44 Indene	116		3.933				ND	
45 N-Nitrosopyrrolidine	100		4.056				ND	
46 3-Methylphenol	108		4.120				ND	
47 4-Methylphenol	108		4.120				ND	
48 3 & 4 Methylphenol	108		4.120				ND	
49 N-Nitrosomorpholine	116		4.099				ND	
50 N-Nitrosodi-n-propylamine	70		4.099				ND	
51 Acetophenone	105		4.083				ND	
52 2-Toluidine	106		4.115				ND	
53 Hexachloroethane	117		4.168				ND	
54 Nitrobenzene	77		4.238				ND	
56 N-Nitrosopiperidine	114		4.382				ND	
57 Isophorone	82		4.478				ND	
58 2-Nitrophenol	139		4.548				ND	
59 2,4-Dimethylphenol	107		4.622				ND	
60 Benzyl dichloride	125		4.668				ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692				ND	
63 Bis(2-chloroethoxy)methane	93		4.713				ND	
64 Benzoic acid	105		4.783				ND	
66 3,5-Dimethylphenol	107		4.761				ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831				ND	
68 2,4-Dichlorophenol	162		4.793				ND	
69 1,2,4-Trichlorobenzene	180		4.863				ND	
70 Alpha-Terpineol	59		5.037				ND	
71 Naphthalene	128		4.932				ND	
72 4-Chloroaniline	127		5.002				ND	
73 2,6-Dichlorophenol	162		5.007				ND	
74 Hexachloropropene	213		5.023				ND	
75 Hexachlorobutadiene	225		5.071				ND	
77 Quinoline	129		5.253				ND	
79 Caprolactam	55		5.319				ND	
80 N-Nitrosodi-n-butylamine	84		5.349				ND	
81 p-Phenylene diamine	108		5.338				ND	
83 4-Chloro-3-methylphenol	107		5.509				ND	
84 Safrole, Total	162		5.546				ND	
85 Carbofuran phenol	164		5.640				ND	
86 2-Methylnaphthalene	142		5.611				ND	
87 Phthalic anhydride	76	5.978	6.092	-0.114	34	1535	NC	
88 1-Methylnaphthalene	142		5.702				ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776				ND	
90 Hexachlorocyclopentadiene	237		5.771				ND	
91 Isosafrole Peak 1	162		5.829				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899				ND	
93 2,3-Dichlorobenzene	161		5.883				ND	
94 2,4,5-Trichlorophenol	196		5.942				ND	
96 Isosafrole Peak 2	162		6.049				ND	
97 Toluene diamine (2,4- + 2,6- is)	222		6.137				ND	
98 1,1'-Biphenyl	154		6.076				ND	
99 2-Chloronaphthalene	162		6.081				ND	
100 1-Chloronaphthalene	162		6.097				ND	
101 2-Nitroaniline	65		6.188				ND	
102 1,4-Naphthoquinone	158		6.252				ND	
103 1,4-Dinitrobenzene	168		6.332				ND	
104 Dimethyl phthalate	163		6.396				ND	
105 1,3-Dinitrobenzene	168		6.401				ND	
106 2,6-Dinitrotoluene	165		6.439				ND	
107 Acenaphthylene	152		6.476				ND	
108 3-Nitroaniline	138		6.594				ND	
109 Acenaphthene	153		6.652				ND	
110 1,3-Dimethyl-2,4-Dinitrobenzene	177		6.499				ND	
111 2,4-Dinitrophenol	184		6.701				ND	
112 4-Nitrophenol	109		6.807				ND	
113 1,3-Dimethyl-2,5-Dinitrobenzene	179		6.606				ND	
114 2,4-Dinitrotoluene	165	6.817	6.827	-0.012	88	8012	4.07	
115 Pentachlorobenzene	250		6.780				ND	
116 Dibenzofuran	168		6.823				ND	
117 1,4-Dimethyl-2,3-Dinitrobenzene	177		6.729				ND	
118 1-Naphthylamine	143		6.898				ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952				ND	
120 1,4-Dimethyl-2,6-Dinitrobenzene	179		6.788				ND	
121 2-Naphthylamine	143		6.978				ND	
122 1,4-Dimethyl-2,5-Dinitrobenzene	179		6.788				ND	
123 Diethyl phthalate	149		7.101				ND	
124 Hexadecane	57		7.139				ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		6.884				ND	
126 Thionazin	97		7.160				ND	
127 4-Chlorophenyl phenyl ether	204		7.176				ND	
128 N-Nitro-o-toluidine	152		7.176				ND	
129 Fluorene	166		7.155				ND	
130 4-Nitroaniline	138		7.192				ND	
131 4,6-Dinitro-2-methylphenol	198		7.224				ND	
132 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.044				ND	
133 Tributyl phosphate	99		7.393				ND	
134 Diphenylamine	169		7.294				ND	7
135 N-Nitrosodiphenylamine	169	7.287	7.311	-0.007	97	3985	0.7964	
136 1,2-Diphenylhydrazine	182		7.331				ND	
137 Azobenzene	77		7.331				ND	7
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.236				ND	
140 Sulfotep	97		7.486				ND	
141 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.359				ND	
142 1,3,5-Trinitrobenzene	213		7.560				ND	
143 Diethyl phthalate	86		7.592				ND	7
144 Phorate	121		7.598				ND	
145 Phenacetin	108		7.619				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359				ND	
148 4-Bromophenyl phenyl ether	248		7.651				ND	
149 Diallyl Peak 2	86		7.673				ND	7
150 Dimethoate	87		7.753				ND	
151 Hexachlorobenzene	284		7.689				ND	
152 Atrazine	200		7.840				ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	201		7.594				ND	
154 4-Aminobiphenyl	169		7.902				ND	
155 Pentachlorophenol	266		7.892				ND	
156 Pentachloronitrobenzene	237		7.897				ND	
157 Pronamide	173		7.993				ND	
158 n-Octadecane	85		8.047				ND	
159 Disulfoton	88		8.105				ND	7
160 Dinoseb	211		8.095				ND	
161 Phenanthrene	178		8.084				ND	
162 Anthracene	178		8.132				ND	
164 Carbazole	167		8.303				ND	
165 Methyl parathion	109		8.463				ND	
166 Alachlor	188		8.474				ND	
168 Di-n-butyl phthalate	149		8.698				ND	
169 Ethyl Parathion	109		8.853				ND	
170 4-Nitroquinoline-1-oxide	190		8.842				ND	
172 Methapyrilene	97		8.960				ND	
173 Isodrin	193		9.094				ND	
175 Fluoranthene	202		9.243				ND	
176 Benzidine	184		9.400				ND	
177 4,4-Dichlorobenzil	139		10.529				ND	
178 Pyrene	202		9.462				ND	
180 Aramite Peak 1	185		9.687				ND	
182 Aramite Peak 2	185		9.772				ND	
183 p-Dimethylamino azobenzene	120		9.831				ND	
184 Chlorobenzilate	251		9.906				ND	
185 Famphur	218		10.207				ND	
186 3,3'-Dimethylbenzidine	212		10.247				ND	
187 Butyl benzyl phthalate	149		10.312				ND	
188 2-Acetylaminofluorene	181		10.589				ND	
189 3,3'-Dichlorobenzidine	252		11.035				ND	
190 4,4'-Methylene bis(2-chloroaniline)	231		11.054				ND	
191 Benzo[a]anthracene	228		11.022				ND	7
192 Chrysene	228		11.076				ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284				ND	
194 6-Methylchrysene	242		11.887				ND	
195 Di-n-octyl phthalate	149		12.620				ND	
196 Benzo[b]fluoranthene	252		13.052				ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073				ND	
198 Benzo[k]fluoranthene	252		13.116				ND	
199 Hexachlorophene	196		13.658				ND	
201 Benzo[a]pyrene	252		13.752				ND	7
203 3-Methylcholanthrene	268		14.633				ND	
204 Tris(2,3-dibromopropyl)phosphate	110		12.585				ND	
205 Dibenz[a,h]acridine	279		15.937				ND	
206 Dibenz[a,j]acridine	279		16.070				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423				ND	
208 Dibenz(a,h)anthracene	278		16.541				ND	
209 Benzo[g,h,i]perylene	276		17.038				ND	
210 Dibenzo[a,e]pyrene	302		15.632				ND	
S 211 Total Cresols	108		15.636				ND	7
S 212 Methyl Phenols, Total	108		15.636				ND	7
S 213 Isosafrole	162		15.636				ND	7
S 214 Diallate	86		15.636				ND	7
S 215 Aramite, Total	185		15.636				ND	7
217 Sulfolane	56		5.226				ND	
218 Prometon	210		7.988				ND	
219 3'-Bromoacetophenone	183		5.960				ND	
220 4-Chloro-3-nitro-alpha,alpha,diphenylmethane	179		4.913				ND	
221 2-Bromopyridine	78		4.010				ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940				ND	
T 223 Kepone TIC	272		11.987				ND	
227 DFTPP								
228 4,4'-DDE	246		4.275				ND	
229 4,4'-DDD	235		4.445				ND	
230 4,4'-DDT	235		4.637				ND	
S 231 TPAH	1		0.000				ND	
T 232 Pentachlorodibenzofurans TIC1			0.140				ND	
T 233 Octadecane (TIC)	1		0.140				ND	
T 234 Pentachlorodibenzo-p-dioxin TIC			0.140				ND	
T 237 Hexachlorodibenzofurans TIC 1			0.140				ND	
T 238 Hexachlorodibenzo-p-dioxin TIC			0.140				ND	
241 2,6-Dimethylphenol TIC	1		0.000				ND	
242 Phenylmercaptan TIC	1		0.000				ND	
243 5-Methyl-o-Anisidine TIC	1		0.000				ND	
244 o-Anisidine TIC	1		0.000				ND	
245 Phthalic anhydride TIC	1		0.000				ND	
246 1,3-phenylenediamine TIC	1		0.000				ND	
247 2,4-Xylidine TIC	1		0.000				ND	
248 Phthalic acid TIC	1		0.000				ND	
251 Ethyl methacrylate	69		0.000				ND	
252 Dibenz[a,h]acridine TIC	1		0.000				ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306487.D

Injection Date: 28-Nov-2022 22:00:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-B-17-A

Lab Sample ID: 280-168718-17

Worklist Smp#:

Client ID: X3-SS-C08-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

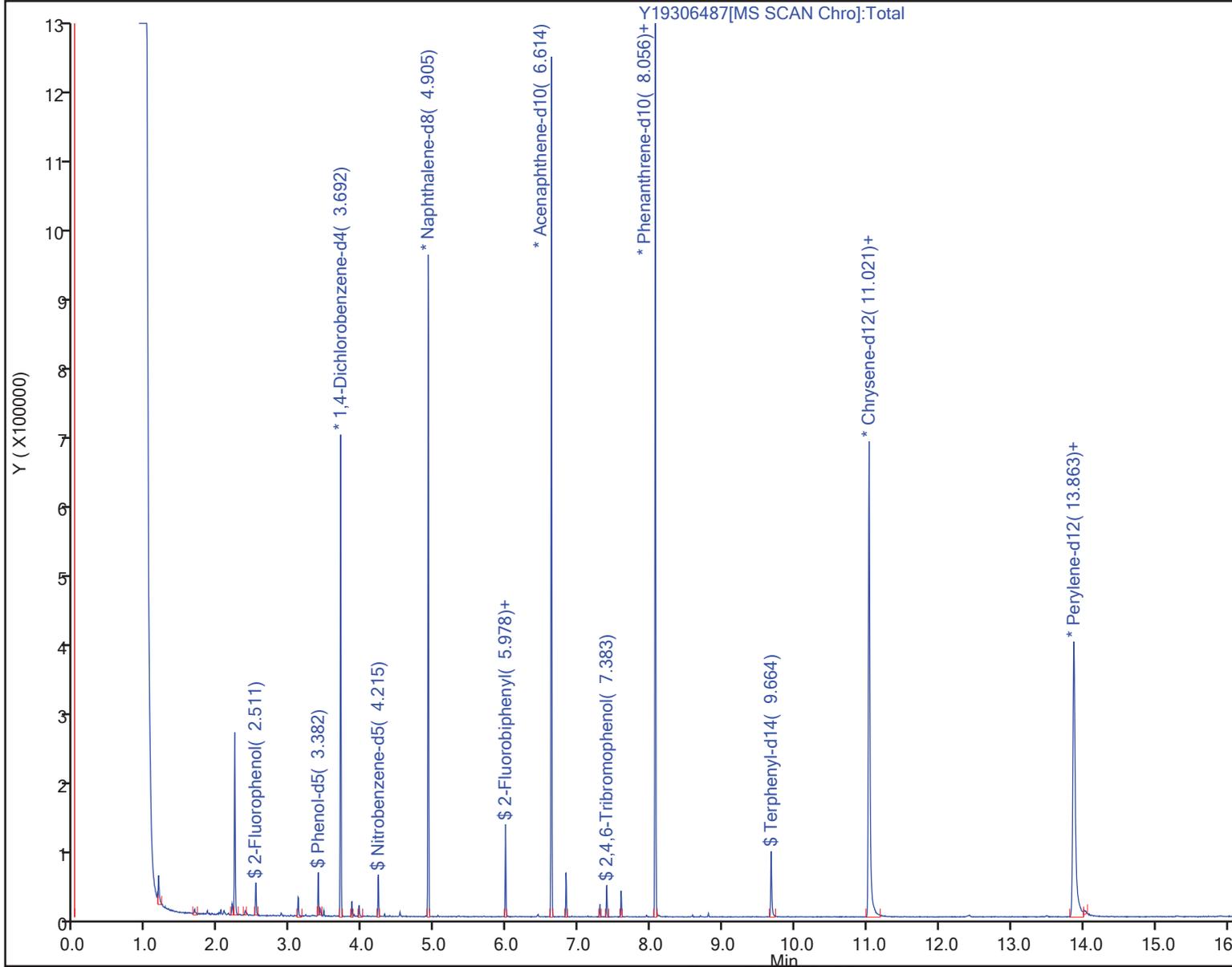
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306487.D
 Lims ID: 280-168718-B-17-A
 Client ID: X3-SS-C08-0006
 Sample Type: Client
 Inject. Date: 28-Nov-2022 22:00:30 ALS Bottle#: 28 Worklist Smp#: 29
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-B-17-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

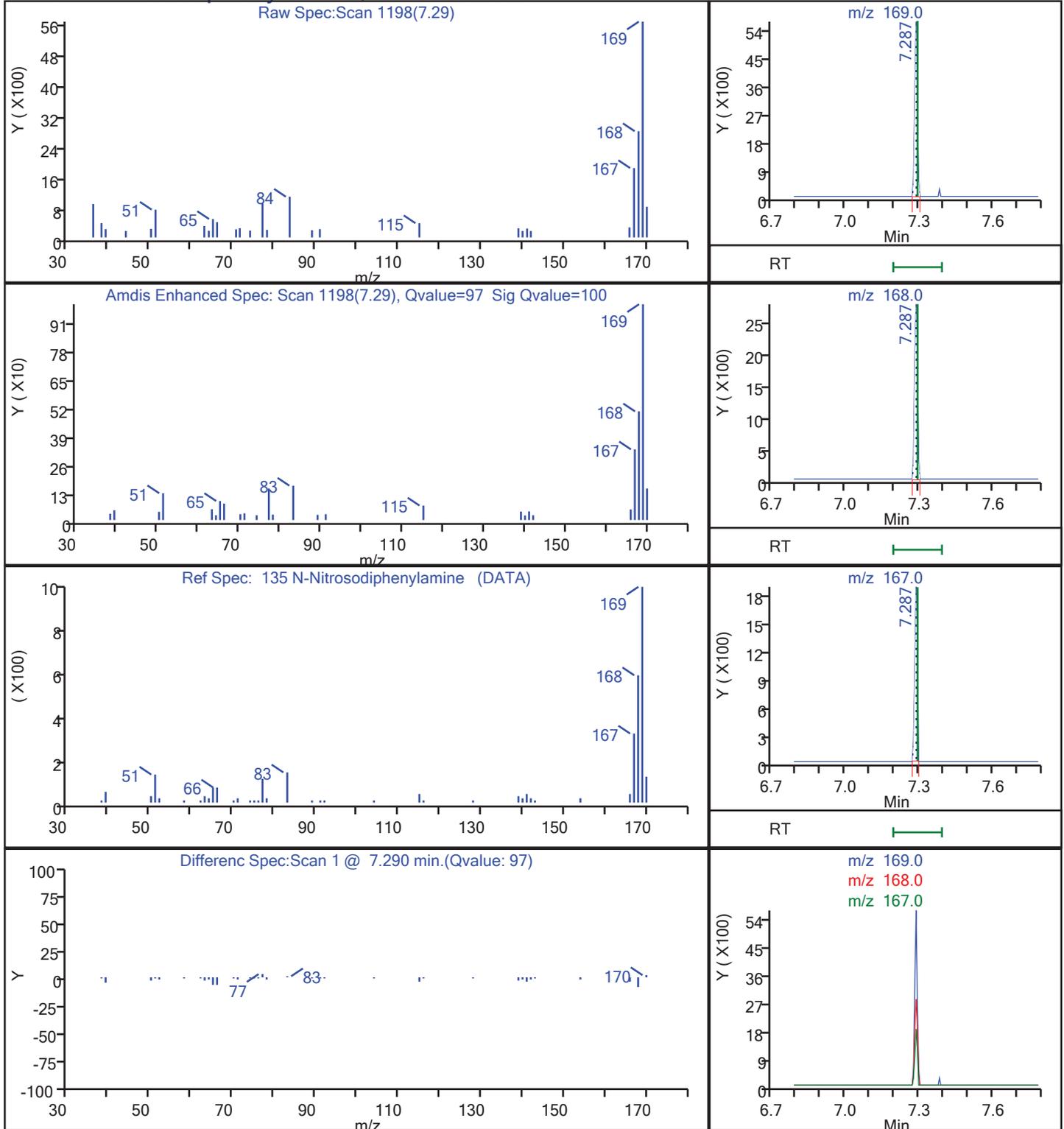
Date: 29-Nov-2022 18:01:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	4.19	83.90
\$ 8 Phenol-d5	100.0	4.43	88.66
\$ 9 Nitrobenzene-d5	100.0	4.35	87.05
\$ 11 2-Fluorobiphenyl	100.0	4.53	90.65
\$ 12 2,4,6-Tribromophenol	100.0	4.34	86.85
\$ 13 Terphenyl-d14	100.0	4.08	81.68

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306487.D
Injection Date: 28-Nov-2022 22:00:30 Instrument ID: SMS_Y
Lims ID: 280-168718-B-17-A Lab Sample ID: 280-168718-17
Client ID: X3-SS-C08-0006
Operator ID: TESSIERN ALS Bottle#: 28 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

135 N-Nitrosodiphenylamine, CAS: 86-30-6



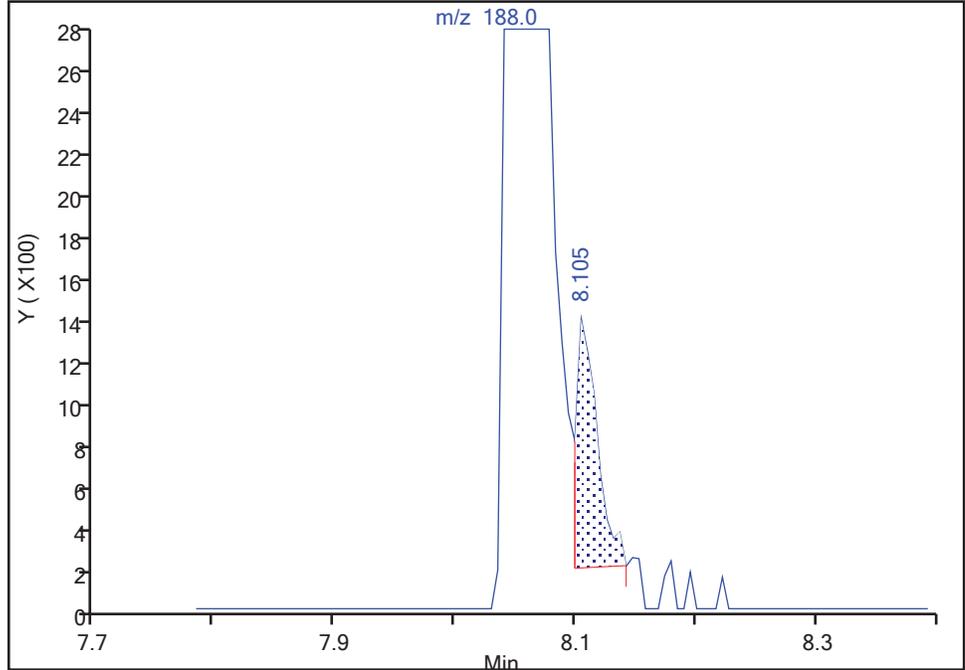
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306487.D
Injection Date: 28-Nov-2022 22:00:30 Instrument ID: SMS_Y
Lims ID: 280-168718-B-17-A Lab Sample ID: 280-168718-17
Client ID: X3-SS-C08-0006
Operator ID: TESSIERN ALS Bottle#: 28 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

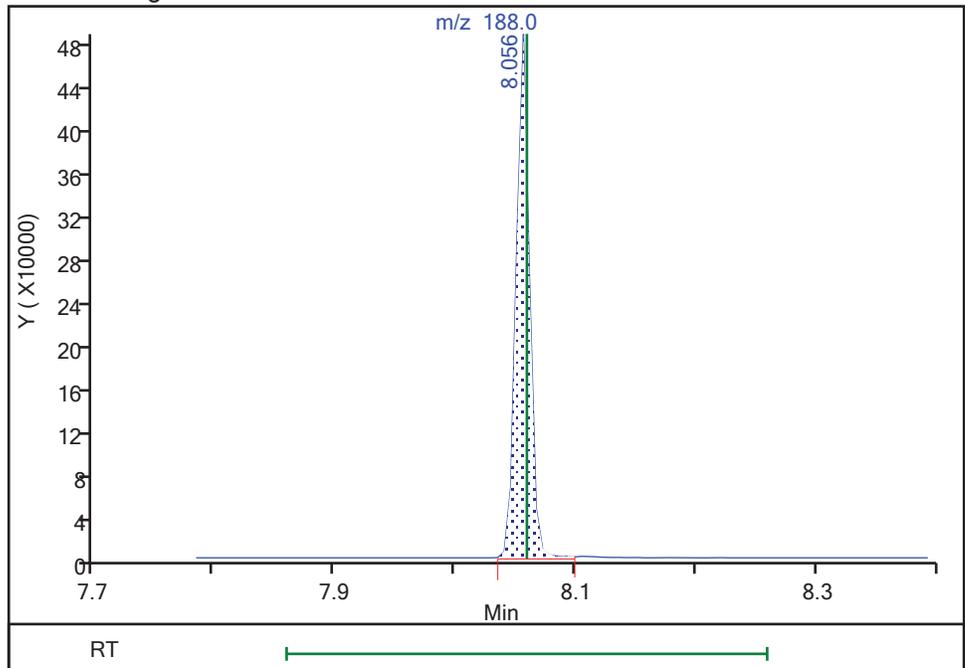
RT: 8.10
Area: 1471
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 369682
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 18:01:23
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0004 280-592626/18	921.D
Level 2	STD0010 280-592626/19	922.D
Level 3	STD0020 280-592626/20	923.D
Level 4	STD0050 280-592626/21	924.D
Level 5	ICIS 280-592626/22	925.D
Level 6	STD0120 280-592626/23	926.D
Level 7	STD0160 280-592626/24	927.D
Level 8	STD0200 280-592626/25	928.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2		
1,4-Dioxane	++++ 0.5414	0.8266 0.5468	0.6826 0.5483	0.6500	0.6317	Lin2	2.792 8	0.551 9			
N-Nitrosodimethylamine	++++ 0.8465	1.0256 0.8577	0.9374 0.8587	0.9678	0.9508	Ave		0.920 6			
Pyridine	++++ 1.4465	1.8892 1.4494	1.6822 1.4434	1.6621	1.6500	Ave		1.603 2			
Phenol	1.4571 1.6317	2.2229 1.6412	1.9374 1.6680	1.8894	1.8672	Ave		1.789 4			
Aniline	1.8094 2.0488	2.7304 2.0763	2.4613 2.0631	2.4133	2.3558	Ave		2.244 8			
Bis(2-chloroethyl)ether	1.6129 1.3936	2.0210 1.3796	1.7162 1.3855	1.6316	1.6016	Ave		1.592 8			
2-Chlorophenol	1.1063 1.1731	1.5899 1.1869	1.3889 1.2016	1.3600	1.3362	Ave		1.292 9			
1,3-Dichlorobenzene	1.3863 1.3135	1.8159 1.3344	1.5896 1.3385	1.5131	1.5032	Ave		1.474 3			
1,4-Dichlorobenzene	1.4086 1.3568	1.8965 1.3719	1.6196 1.3765	1.5724	1.5264	Ave		1.516 1			
Benzyl alcohol	++++ 0.7615	0.9220 0.7831	0.8386 0.7942	0.8387	0.8561	Ave		0.827 8			
1,2-Dichlorobenzene	1.3064 1.2576	1.7895 1.2863	1.5309 1.3021	1.4887	1.4447	Ave		1.425 8			
2-Methylphenol	1.1015 1.1713	1.5457 1.2027	1.3842 1.2025	1.3468	1.3368	Ave		1.286 4			
2,2'-oxybis[1-chloropropane]	++++ 1.8720	2.8238 1.8567	2.4377 1.8261	2.2712	2.1877	Lin2	9.840 9	1.898 1			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
3 & 4 Methylphenol	1.0767 1.2237	1.5782 1.2309	1.4308 1.2436	1.3676	1.3613	Ave		1.314 1			
Acetophenone	1.8934 1.9138	2.6531 1.9236	2.3059 1.9014	2.2078	2.1984	Ave		2.124 7			
N-Nitrosodi-n-propylamine	++++ 1.0242	1.4082 1.0325	1.2313 1.0240	1.1924	1.1762	Lin1	4.724 7	1.019 2		0.0500	
Hexachloroethane	0.5620 0.5827	0.7887 0.5922	0.6985 0.5968	0.6730	0.6631	Ave		0.644 6			
Nitrobenzene	0.3903 0.4180	0.5751 0.4204	0.5032 0.4101	0.4814	0.4772	Ave		0.459 5			
Isophorone	0.7324 0.7289	1.0342 0.7236	0.8908 0.7211	0.8447	0.8324	Ave		0.813 5			
2-Nitrophenol	0.1219 0.1593	0.1756 0.1622	0.1625 0.1639	0.1688	0.1772	Ave		0.161 4			
2,4-Dimethylphenol	0.2769 0.3346	0.4321 0.3359	0.3869 0.3293	0.3715	0.3754	Ave		0.355 3			
Bis(2-chloroethoxy)methane	++++ 0.3252	0.4586 0.3279	0.4292 0.3208	0.4142	0.3715	Lin1	1.986 1	0.320 9			
Benzoic acid	++++ 0.2834	0.0459 0.2968	0.2511 0.2977	0.2890	0.3051	Lin1	-4.12 0	0.312 2			
2,4-Dichlorophenol	0.2349 0.2664	0.3357 0.2695	0.3059 0.2758	0.3003	0.2974	Ave		0.285 7			
1,2,4-Trichlorobenzene	0.3194 0.3097	0.4278 0.3110	0.3757 0.3100	0.3536	0.3450	Ave		0.344 0			
Naphthalene	0.9565 0.8983	1.2777 0.8990	1.1232 0.8874	1.0412	1.0199	Ave		1.012 9			
4-Chloroaniline	0.3120 0.3997	0.5081 0.4034	0.4551 0.4035	0.4513	0.4534	Ave		0.423 3			
2,6-Dichlorophenol	0.2519 0.2707	0.3667 0.2742	0.3182 0.2802	0.3010	0.3070	Ave		0.296 3			
Hexachlorobutadiene	0.1746 0.1775	0.2416 0.1813	0.2088 0.1835	0.1996	0.2023	Ave		0.196 1			
4-Chloro-3-methylphenol	0.2253 0.2910	0.3698 0.2962	0.3406 0.2932	0.3279	0.3323	Ave		0.309 5			
2-Methylnaphthalene	0.5157 0.5308	0.7355 0.5335	0.6225 0.5227	0.5975	0.5949	Ave		0.581 6			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
1-Methylnaphthalene	0.5789 0.5577	0.7852 0.5627	0.6701 0.5612	0.6410	0.6308	Ave		0.623 5			
1,2,4,5-Tetrachlorobenzene	0.3103 0.3108	0.4235 0.3140	0.3674 0.3167	0.3452	0.3462	Ave		0.341 8			
Hexachlorocyclopentadiene	0.0645 0.2384	0.1777 0.2620	0.1886 0.2647	0.2276	0.2543	Lin2	-0.77 4	0.253 5		0.0500	
2,4,6-Trichlorophenol	0.2734 0.3533	0.4295 0.3650	0.3974 0.3587	0.3902	0.3979	Ave		0.370 7			
2,4,5-Trichlorophenol	0.2644 0.3881	0.4845 0.3978	0.4410 0.3857	0.4337	0.4333	Lin1	0.052 0	0.400 6			
1,1'-Biphenyl	1.3449 1.3312	1.8232 1.3283	1.6110 1.3008	1.5503	1.5169	Ave		1.475 8			
2-Chloronaphthalene	1.0684 1.0574	1.4544 1.0583	1.2803 1.0346	1.2189	1.2068	Ave		1.172 4			
2-Nitroaniline	0.2538 0.3852	0.4427 0.3911	0.4330 0.3780	0.4335	0.4387	Lin1	-0.04 3	0.396 9			
Dimethyl phthalate	1.1894 1.1710	1.5985 1.1675	1.4287 1.1268	1.3518	1.3258	Ave		1.294 9			
1,3-Dinitrobenzene	0.0902 0.1915	0.1820 0.1965	0.1832 0.1949	0.1996	0.2079	Lin2	-0.42 7	0.204 8			
2,6-Dinitrotoluene	++++ 0.2769	0.3267 0.2887	0.2994 0.2804	0.3047	0.3153	Ave		0.298 9			
Acenaphthylene	1.5634 1.5735	2.1892 1.5887	1.8899 1.5392	1.8363	1.8007	Ave		1.747 6			
3-Nitroaniline	0.1593 0.2734	0.3121 0.2770	0.3061 0.2722	0.3079	0.3052	Lin1	-0.10 9	0.282 8			
Acenaphthene	1.1282 1.0606	1.4988 1.0781	1.3054 1.0422	1.2379	1.2205	Ave		1.196 5			
2,4-Dinitrophenol	0.0210 0.1416	0.0796 0.1499	0.0958 0.1537	0.1257	0.1417	Lin2	-1.04 5	0.143 2		0.0500	
4-Nitrophenol	0.0274 0.1740	0.1465 0.1820	0.1696 0.1797	0.1962	0.2073	Lin2	-1.29 7	0.197 0		0.0500	
Dibenzofuran	1.5331 1.4360	2.0803 1.4408	1.7991 1.3923	1.6879	1.6484	Ave		1.627 2			
2,4-Dinitrotoluene	0.2278 0.3549	0.3945 0.3618	0.3910 0.3555	0.4013	0.4055	Lin2	-0.54 7	0.392 4			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
2,3,4,6-Tetrachlorophenol	++++ 0.2864	0.3340 0.2994	0.3083 0.2952	0.3096	0.3219	Ave		0.307 8			
Diethyl phthalate	1.1848 1.1651	1.6325 1.1786	1.4408 1.1510	1.3781	1.3484	Ave		1.309 9			
4-Chlorophenyl phenyl ether	0.5763 0.6058	0.8057 0.6344	0.7083 0.6211	0.6886	0.6900	Ave		0.666 3			
Fluorene	1.1692 1.2418	1.6204 1.2753	1.4596 1.2406	1.3989	1.4072	Ave		1.351 6			
4-Nitroaniline	0.1075 0.2692	0.2266 0.2756	0.2841 0.2731	0.3096	0.3039	Lin2	-0.73 3	0.297 6			
4,6-Dinitro-2-methylphenol	0.0376 0.1066	0.0837 0.1127	0.0902 0.1151	0.1053	0.1162	Lin2	-0.61 3	0.113 3			
Diphenylamine	0.9166 1.0190	1.3153 1.0427	1.2024 1.0192	1.1560	1.1411	Ave		1.101 5			
N-Nitrosodiphenylamine	0.4270 0.4793	0.6111 0.4848	0.5620 0.4840	0.5407	0.5421	Ave		0.516 4			
Azobenzene	1.5979 1.5016	2.2797 ++++	1.9847 ++++	1.8443	1.7689	Qua	-1.37 8	2.215 8	-0.005803		
1,2-Diphenylhydrazine	++++ 1.4853	2.2550 1.4704	1.9632 1.4316	1.8242	1.7497	Lin2	8.126 8	1.507 9			
4-Bromophenyl phenyl ether	0.1729 0.1821	0.2434 0.1868	0.2074 0.1879	0.2042	0.2083	Ave		0.199 1			
Hexachlorobenzene	0.2058 0.1996	0.2678 0.2029	0.2303 0.2064	0.2210	0.2251	Ave		0.219 9			
Pentachlorophenol	0.0735 0.1286	0.1287 0.1377	0.1232 0.1450	0.1337	0.1382	Lin2	-0.50 0	0.140 2			
Phenanthrene	1.0248 0.9458	1.3240 0.9339	1.1689 0.9197	1.1009	1.0851	Ave		1.062 9			
Anthracene	0.9693 0.9680	1.3409 0.9751	1.1823 0.9497	1.1177	1.1356	Ave		1.079 8			
Carbazole	0.7979 0.8687	1.1247 0.8669	1.0299 0.8576	1.0072	1.0007	Ave		0.944 2			
Alachlor	0.0883 0.1250	0.1358 0.1283	0.1317 0.1304	0.1348	0.1393	Ave		0.126 7			
Di-n-butyl phthalate	0.9334 1.0898	1.3702 1.0679	1.2676 1.0376	1.2421	1.2544	Ave		1.157 9			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Fluoranthene	0.9628 1.0395	1.3513 1.0071	1.2110 0.9940	1.1595	1.1872	Ave		1.114 1			
Pyrene	++++ 1.1567	1.6910 1.1439	1.4738 1.1034	1.4012	1.3912	Lin2	5.472 7	1.179 3			
Butyl benzyl phthalate	0.3522 0.5100	0.5601 0.5177	0.5456 0.5147	0.5800	0.5966	Lin2	-0.71 0	0.562 2			
Benzo[a]anthracene	1.0720 1.1648	1.5361 1.1640	1.3705 1.1491	1.3501	1.3585	Ave		1.270 7			
Chrysene	1.1657 1.0335	1.5542 1.0321	1.3143 ++++	1.2408	1.2333	Ave		1.224 8			
Bis(2-ethylhexyl) phthalate	0.4323 0.7066	0.7048 0.7200	0.7118 0.7077	0.7635	0.8043	Lin2	-1.20 3	0.761 8			
Di-n-octyl phthalate	0.6410 1.1953	1.1479 1.1980	1.1793 1.1711	1.3110	1.3881	Lin2	-2.40 9	1.290 1			
Benzo[b]fluoranthene	0.9959 1.1498	1.4701 1.1812	1.2867 1.1575	1.3264	1.2902	Ave		1.232 2			
Benzo[k]fluoranthene	1.1270 1.1908	1.7000 1.1810	1.5101 1.1862	1.3939	1.3890	Ave		1.334 7			
Benzo[a]pyrene	0.8878 1.0145	1.3142 1.0126	1.1641 0.9995	1.1550	1.1451	Ave		1.086 6			
Indeno[1,2,3-cd]pyrene	0.8457 1.0302	1.2777 1.0346	1.1558 1.0270	1.1535	1.1946	Ave		1.089 9			
Dibenz(a,h)anthracene	0.7501 0.9435	1.1665 0.9596	1.0596 0.9542	1.0597	1.0565	Ave		0.993 7			
Benzo[g,h,i]perylene	0.7840 0.8806	1.1491 0.8879	1.0313 0.8754	1.0117	1.0072	Ave		0.953 4			
2-Fluorophenol (Surr)	++++ 1.2476	1.6618 1.2633	1.4663 1.2589	1.4321	1.4256	Ave		1.393 6			
Phenol-d5 (Surr)	1.5330 1.6783	2.1277 1.6980	1.9848 1.6940	1.9308	1.9384	Ave		1.823 1			
Nitrobenzene-d5 (Surr)	0.3930 0.4549	0.5998 0.4547	0.5303 0.4464	0.5186	0.5117	Ave		0.488 7			
2-Fluorobiphenyl	1.3418 1.2914	1.8307 1.3066	1.5709 1.2644	1.4910	1.4765	Ave		1.446 7			
2,4,6-Tribromophenol (Surr)	0.1100 0.1847	0.1861 0.1953	0.1817 0.1971	0.1894	0.1998	Lin2	-0.32 7	0.199 0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Terphenyl-d14 (Surr)	0.9656	1.3914	1.2004	1.1554	1.1745	Ave		1.104			
	0.9922	0.9882	0.9671					3			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0004 280-592626/18	921.D
Level 2	STD0010 280-592626/19	922.D
Level 3	STD0020 280-592626/20	923.D
Level 4	STD0050 280-592626/21	924.D
Level 5	ICIS 280-592626/22	925.D
Level 6	STD0120 280-592626/23	926.D
Level 7	STD0160 280-592626/24	927.D
Level 8	STD0200 280-592626/25	928.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
1,4-Dioxane	DCBd 4	Lin2	++++ 308671	33459 413233	55894 515171	132635	212077	++++ 120	10 1
N-Nitrosodimethylamine	DCBd 4	Ave	++++ 482652	41512 648130	76758 806810	197484	319190	++++ 120	10 1
Pyridine	DCBd 4	Ave	++++ 1649445	152934 2190554	275495 2712440	678316	1107791	++++ 240	20 3
Phenol	DCBd 4	Ave	23395 930323	89976 1240239	158643 1567253	385549	626843	4.00 120	10 1
Aniline	DCBd 4	Ave	29052 1168182	110517 1569024	201546 1938542	492444	790860	4.00 120	10 1
Bis(2-chloroethyl) ether	DCBd 4	Ave	25896 794608	81804 1042553	140531 1301849	332935	537658	4.00 120	10 1
2-Chlorophenol	DCBd 4	Ave	17763 668889	64352 896908	113733 1129014	277513	448572	4.00 120	10 1
1,3-Dichlorobenzene	DCBd 4	Ave	22258 748894	73501 1008399	130168 1257626	308763	504638	4.00 120	10 1
1,4-Dichlorobenzene	DCBd 4	Ave	22617	76763	132620	320851	512411	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			773578	1036676	1293361			120	1
Benzyl alcohol	DCBd 4	Ave	+++++	37320	68668	171147	287407	+++++	10
			434165	591800	746215			120	1
1,2-Dichlorobenzene	DCBd 4	Ave	20976	72432	125354	303776	484985	4.00	10
			717064	972026	1223484			120	1
2-Methylphenol	DCBd 4	Ave	17686	62563	113343	274823	448779	4.00	10
			667829	908858	1129915			120	1
2,2'-oxybis[1-chloropropane]	DCBd 4	Lin2	+++++	114297	199611	463439	734430	+++++	10
			1067378	1403055	1715819			120	1
3 & 4 Methylphenol	DCBd 4	Ave	17288	63881	117163	279070	456980	4.00	10
			697708	930177	1168513			120	1
Acetophenone	DCBd 4	Ave	30400	107389	188815	450507	738020	4.00	10
			1091204	1453648	1786544			120	1
N-Nitrosodi-n-propylamine	DCBd 4	Lin1	+++++	57001	100825	243314	394854	+++++	10
			583960	780264	962159			120	1
Hexachloroethane	DCBd 4	Ave	9023	31925	57194	137336	222591	4.00	10
			332213	447507	560804			120	1
Nitrobenzene	NPT	Ave	23765	86656	154546	373983	609213	4.00	10
			892978	1200249	1467681			120	1
Isophorone	NPT	Ave	44600	155844	273594	656169	1062625	4.00	10
			1557082	2065576	2580871			120	1
2-Nitrophenol	NPT	Ave	7424	26468	49910	131143	226207	4.00	10
			340303	463006	586563			120	1
2,4-Dimethylphenol	NPT	Ave	16862	65111	118827	288541	479238	4.00	10
			714796	958803	1178524			120	1
Bis(2-chloroethoxy)methane	NPT	Lin1	+++++	69106	131820	321713	474264	+++++	10
			694717	936188	1148164			120	1
Benzoic acid	NPT	Lin1	+++++	13830	154248	449020	778881	+++++	20

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			1210809	1694621	2130878			240	3
2,4-Dichlorophenol	NPT	Ave	14304 569155	50580 769281	93960 986989	233239	379595	4.00 120	10 1
1,2,4-Trichlorobenzene	NPT	Ave	19451 661621	64461 887796	115403 1109594	274687	440475	4.00 120	10 1
Naphthalene	NPT	Ave	58245 1918891	192533 2566227	344964 3175894	808826	1302031	4.00 120	10 1
4-Chloroaniline	NPT	Ave	18997 853903	76559 1151646	139789 1444234	350551	578802	4.00 120	10 1
2,6-Dichlorophenol	NPT	Ave	15338 578375	55259 782865	97746 1002943	233825	391887	4.00 120	10 1
Hexachlorobutadiene	NPT	Ave	10633 379213	36405 517619	64119 656703	155010	258270	4.00 120	10 1
4-Chloro-3-methylphenol	NPT	Ave	13721 621584	55729 845569	104616 1049303	254727	424210	4.00 120	10 1
2-Methylnaphthalene	NPT	Ave	31404 1133996	110832 1523001	191186 1870533	464102	759437	4.00 120	10 1
1-Methylnaphthalene	NPT	Ave	35252 1191308	118322 1606402	205816 2008545	497911	805306	4.00 120	10 1
1,2,4,5-Tetrachlorobenzene	NPT	Ave	18897 663972	63816 896241	112849 1133475	268150	441904	4.00 120	10 1
Hexachlorocyclopentadiene	ANT	Lin2	2228 298753	15497 437413	33133 565933	101276	187711	4.00 120	10 1
2,4,6-Trichlorophenol	ANT	Ave	9445 442619	37457 609334	69797 766941	173597	293683	4.00 120	10 1
2,4,5-Trichlorophenol	ANT	Lin1	9136 486217	42258 664039	77463 824571	192955	319773	4.00 120	10 1
1,1'-Biphenyl	ANT	Ave	46466 1667909	159009 2217339	282955 2781369	689795	1119552	4.00 120	10 1
2-Chloronaphthalene	ANT	Ave	36915 1324869	126841 1766705	224869 2212049	542323	890680	4.00 120	10 1
2-Nitroaniline	ANT	Lin1	8770 482591	38612 652890	76048 808159	192875	323740	4.00 120	10 1
Dimethyl phthalate	ANT	Ave	41094 1467161	139407 1948997	250926 2409281	601465	978489	4.00 120	10 1
1,3-Dinitrobenzene	ANT	Lin2	3117	15872	32169	88812	153436	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			239903	328090	416786			120	1
2,6-Dinitrotoluene	ANT	Ave	++++ 346923	28495 481899	52587 599504	135562	232675	++++ 120	10 1
Acenaphthylene	ANT	Ave	54018 1971479	190924 2652029	331936 3290968	817032	1328989	4.00 120	10 1
3-Nitroaniline	ANT	Lin1	5505 342517	27219 462450	53771 581962	137019	225239	4.00 120	10 1
Acenaphthene	ANT	Ave	38979 1328828	130713 1799627	229284 2228341	550810	900753	4.00 120	10 1
2,4-Dinitrophenol	ANT	Lin2	1449 354733	13882 500368	33657 657317	111893	209172	8.00 240	20 3
4-Nitrophenol	ANT	Lin2	1894 436115	25551 607539	59576 768630	174610	305926	8.00 240	20 3
Dibenzofuran	ANT	Ave	52970 1799228	181432 2405172	315996 2976892	751011	1216535	4.00 120	10 1
2,4-Dinitrotoluene	ANT	Lin2	7869 444621	34403 604035	68681 760164	178545	299247	4.00 120	10 1
2,3,4,6-Tetrachlorophenol	ANT	Ave	++++ 358790	29126 499817	54147 631111	137756	237563	++++ 120	10 1
Diethyl phthalate	ANT	Ave	40935 1459808	142372 1967419	253057 2460899	613188	995161	4.00 120	10 1
4-Chlorophenyl phenyl ether	ANT	Ave	19913 759031	70267 1059038	124396 1327950	306406	509259	4.00 120	10 1
Fluorene	ANT	Ave	40398 1555899	141316 2128814	256365 2652535	622417	1038533	4.00 120	10 1
4-Nitroaniline	ANT	Lin2	3715 337274	19761 460044	49892 583845	137739	224274	4.00 120	10 1
4,6-Dinitro-2-methylphenol	PHN	Lin2	4734 482816	26866 688024	57769 885458	171674	306889	8.00 240	20 3
Diphenylamine	ANT	Ave	26918 1085199	97508 1479559	179506 1852310	437208	715842	3.40 102	8 1
N-Nitrosodiphenylamine	PHN	Ave	26912 1085199	98075 1479559	179855 1861178	440934	715905	4.00 120	10 1
Azobenzene	ANT	Qua	55207 1881394	198824 ++++	348585 ++++	820582	1305522	4.00 120	10 ++
1,2-Diphenylhydrazine	ANT	Lin2	++++	198824	348585	820582	1305522	++++	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_1

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/07/2022 20:43

Calibration End Date: 11/07/2022 23:14

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			1881394	2481571	3094554			121	1
4-Bromophenyl phenyl ether	PHN	Ave	10894 412290	39072 570138	66382 722656	166509	275116	4.00 120	10 1
Hexachlorobenzene	PHN	Ave	12968 451885	42988 619255	73707 793514	180230	297252	4.00 120	10 1
Pentachlorophenol	PHN	Lin2	9259 582380	41305 840363	78855 1115254	218034	364994	8.00 240	20 3
Phenanthrene	PHN	Ave	64587 2141455	212503 2850038	374103 3536484	897804	1433123	4.00 120	10 1
Anthracene	PHN	Ave	61093 2191726	215218 2975587	378400 3652026	911465	1499761	4.00 120	10 1
Carbazole	PHN	Ave	50288 1966949	180514 2645446	329639 3297788	821347	1321587	4.00 120	10 1
Alachlor	PHN	Ave	5568 283116	21794 391599	42139 501606	109905	183965	4.00 120	10 1
Di-n-butyl phthalate	PHN	Ave	58825 2467480	219913 3258925	405707 3990090	1012896	1656631	4.00 120	10 1
Fluoranthene	PHN	Ave	60681 2353604	216887 3073414	387570 3822171	945594	1567975	4.00 120	10 1
Pyrene	CRY	Lin2	++++ 2449586	227676 3300635	408643 4049955	1013749	1650351	++++ 120	10 1
Butyl benzyl phthalate	CRY	Lin2	18635 1080101	75416 1493909	151279 1889047	419639	707668	4.00 120	10 1
Benzo[a]anthracene	CRY	Ave	56718 2466680	206820 3358800	380012 4217783	976764	1611568	4.00 120	10 1
Chrysene	CRY	Ave	61675 2188526	209260 2978038	364420 ++++	897689	1462956	4.00 120	10 1
Bis(2-ethylhexyl) phthalate	PHN	Lin2	27246 1599922	113123 2197343	227821 2721546	622640	1062216	4.00 120	10 1
Di-n-octyl phthalate	CRY	Lin2	33913 2531314	154551 3456944	326993 4298572	948501	1646601	4.00 120	10 1
Benzo[b]fluoranthene	PRY	Ave	48736 2234861	182195 3114835	328639 3886008	882267	1449462	4.00 120	10 1
Benzo[k]fluoranthene	PRY	Ave	55152 2314477	210683 3114257	385696 3982370	927204	1560406	4.00 120	10 1
Benzo[a]pyrene	PRY	Ave	43449	162869	297329	768278	1286499	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_1 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/07/2022 20:43 Calibration End Date: 11/07/2022 23:14 Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			1971917	2670247	3355406			120	1
Indeno[1,2,3-cd]pyrene	CRY	Ave	44743 2181548	172029 2985274	320466 3769480	834504	1417130	4.00 120	10 1
Dibenz(a,h)anthracene	PRY	Ave	36709 1833815	144573 2530361	270628 3203413	704866	1186932	4.00 120	10 1
Benzo[g,h,i]perylene	PRY	Ave	38366 1711712	142414 2341403	263404 2938837	672935	1131496	4.00 120	10 1
2-Fluorophenol (Surr)	DCBd 4	Ave	++++ 711338	67262 954612	120069 1182904	292228	478563	++++ 120	10 1
Phenol-d5 (Surr)	DCBd 4	Ave	24614 956911	86123 1283105	162526 1591708	393994	650737	4.00 120	10 1
Nitrobenzene-d5 (Surr)	NPT	Ave	23934 971847	90376 1298087	162866 1597594	402877	653278	4.00 120	10 1
2-Fluorobiphenyl	ANT	Ave	46359 1618029	159664 2181172	275901 2703521	663391	1089725	4.00 120	10 1
2,4,6-Tribromophenol (Surr)	ANT	Lin2	3800 231445	16232 326017	31905 421354	84283	147460	4.00 120	10 1
Terphenyl-d14 (Surr)	CRY	Ave	51088 2101154	187346 2851345	332847 3549599	835901	1393240	4.00 120	10 1

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\921.D
 Lims ID: STD0004 HSL
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 07-Nov-2022 20:43:43 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD004 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 10:56:42 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.626	4.624	0.002	97	160558	40.0	40.0	
* 2 Naphthalene-d8	136	5.877	5.880	-0.003	99	608967	40.0	40.0	
* 3 Acenaphthene-d10	164	7.608	7.609	0.000	96	345506	40.0	40.0	
* 4 Phenanthrene-d10	188	9.022	9.028	-0.006	97	630250	40.0	40.0	
* 5 Chrysene-d12	240	11.733	11.740	-0.007	98	529069	40.0	40.0	
* 6 Perylene-d12	264	13.601	13.606	-0.005	97	489375	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.450	3.441	0.009	95	18256	4.00	3.26	
\$ 8 Phenol-d5	99	4.300	4.294	0.006	96	24614	4.00	3.36	
\$ 9 Nitrobenzene-d5	82	5.193	5.191	0.002	92	23934	4.00	3.22	
\$ 10 2-Fluorobiphenyl	172	6.955	6.958	-0.003	99	46359	4.00	3.71	
\$ 11 2,4,6-Tribromophenol	330	8.376	8.379	-0.003	89	3800	4.00	3.85	
\$ 12 Terphenyl-d14	244	10.576	10.575	0.001	97	51088	4.00	3.50	
15 1,4-Dioxane	88	2.178	2.165	0.013	97	9539	4.00	-0.7544	
17 N-Nitrosodimethylamine	74	2.421	2.398	0.023	90	8809	4.00	2.38	
18 Pyridine	79	2.478	2.411	0.067	96	14415	8.00	2.24	
29 Phenol	94	4.310	4.307	0.003	97	23395	4.00	3.26	
31 Aniline	93	4.351	4.345	0.006	98	29052	4.00	3.22	
32 Alpha Methyl Styrene	118	4.386	4.384	0.002	89	19021	4.00	3.44	
33 Bis(2-chloroethyl)ether	93	4.403	4.400	0.002	96	25896	4.00	4.05	
34 2-Chlorophenol	128	4.454	4.448	0.006	94	17763	4.00	3.42	
35 n-Decane	43	4.483	4.480	0.003	90	25806	4.00	-0.7325	
36 1,3-Dichlorobenzene	146	4.594	4.589	0.005	93	22258	4.00	3.76	
37 1,4-Dichlorobenzene	146	4.642	4.640	0.002	91	22617	4.00	3.72	
40 Benzyl alcohol	108	4.802	4.772	0.030	51	1145	4.00	0.3446	
43 1,2-Dichlorobenzene	146	4.828	4.823	0.005	90	20976	4.00	3.67	
45 2-Methylphenol	108	4.895	4.890	0.005	97	17686	4.00	3.43	
46 Indene	116	4.902	4.900	0.002	88	73117	8.00	7.21	
47 2,2'-oxybis[1-chloropropane]	45	4.934	4.929	0.005	92	33680	4.00	-0.7640	
49 3-Methylphenol	108	5.042	5.034	0.008	89	17288	4.00	3.28	
51 4-Methylphenol	108	5.042	5.034	0.008	94	17288	4.00	3.28	
50 3 & 4 Methylphenol	108	5.042	5.034	0.008	0	17288	4.00	3.28	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.055	5.041	0.014	85	30400	4.00	3.56	
54 N-Nitrosodi-n-propylamine	70	5.113	5.070	0.043	85	14283	4.00	-1.14	
56 Hexachloroethane	117	5.126	5.121	0.005	91	9023	4.00	3.49	
58 Nitrobenzene	77	5.212	5.211	0.001	88	23765	4.00	3.40	
60 Isophorone	82	5.490	5.444	0.046	98	44600	4.00	3.60	
61 2-Nitrophenol	139	5.528	5.524	0.004	92	7424	4.00	3.02	
62 2,4-Dimethylphenol	107	5.564	5.556	0.008	98	16862	4.00	3.12	
66 Bis(2-chloroethoxy)methane	63	5.695	5.659	0.036	85	14331	4.00	-3.26	
68 3,5-Dimethylphenol	107	5.695	5.685	0.010	75	18913	4.00	3.33	
69 Benzoic acid	105	5.640	5.704	-0.064	89	13042	8.00	15.9	
70 2,4-Dichlorophenol	162	5.759	5.749	0.010	95	14304	4.00	3.29	
72 1,2,4-Trichlorobenzene	180	5.839	5.839	0.000	94	19451	4.00	3.71	
75 Naphthalene	128	5.897	5.900	-0.003	98	58245	4.00	3.78	
77 4-Chloroaniline	127	5.993	5.974	0.019	91	18997	4.00	2.95	
78 2,6-Dichlorophenol	162	5.980	5.977	0.003	92	15338	4.00	3.40	
80 Hexachlorobutadiene	225	6.079	6.079	0.000	96	10633	4.00	3.56	
84 Caprolactam	55		6.297				ND	ND	
85 4-Chloro-3-methylphenol	107	6.453	6.444	0.009	94	13721	4.00	2.91	
88 2-Methylnaphthalene	141	6.578	6.576	0.002	92	31404	4.00	3.55	
89 1-Methylnaphthalene	142	6.683	6.685	-0.002	93	35252	4.00	3.71	
90 1,2,4,5-Tetrachlorobenzene	216	6.779	6.781	-0.002	98	18897	4.00	3.63	
92 Hexachlorocyclopentadiene	237	6.802	6.800	0.002	95	2228	4.00	4.07	
93 2,4,6-Trichlorophenol	196	6.882	6.877	0.005	93	9445	4.00	2.95	
94 2,3-Dichlorobenzenamine	161	6.891	6.887	0.004	94	18156	4.00	3.49	
95 2,4,5-Trichlorophenol	196	6.926	6.913	0.013	92	9136	4.00	2.51	
97 1,1'-Biphenyl	154	7.042	7.041	0.001	97	46466	4.00	3.65	
98 2-Chloronaphthalene	162	7.051	7.051	0.000	97	36915	4.00	3.65	
101 2-Nitroaniline	65	7.192	7.182	0.010	76	8770	4.00	2.67	
104 Dimethyl phthalate	163	7.409	7.397	0.012	97	41094	4.00	3.67	
105 1,3-Dinitrobenzene	168	7.413	7.403	0.010	74	3117	4.00	3.85	
106 2,6-Dinitrotoluene	165	7.457	7.458	-0.001	84	6664	4.00	2.58	
107 Acenaphthylene	152	7.461	7.461	0.000	98	54018	4.00	3.58	
108 3-Nitroaniline	138	7.608	7.589	0.019	33	5505	4.00	2.64	
109 Acenaphthene	153	7.640	7.641	-0.001	97	38979	4.00	3.77	
111 2,4-Dinitrophenol	184	7.697	7.686	0.011	72	1449	8.00	8.47	
113 4-Nitrophenol	109	7.797	7.747	0.050	58	1894	8.00	7.70	
114 Dibenzofuran	168	7.793	7.795	-0.002	96	52970	4.00	3.77	
116 2,4-Dinitrotoluene	165	7.835	7.833	0.002	86	7869	4.00	3.71	
120 2,3,4,6-Tetrachlorophenol	232	7.953	7.955	-0.002	78	6727	4.00	2.53	
122 Hexadecane	57	8.030	8.032	-0.002	94	31987	4.00	-0.6290	
124 Diethyl phthalate	149	8.085	8.081	0.004	97	40935	4.00	3.62	
126 4-Chlorophenyl phenyl ether	204	8.126	8.129	-0.003	88	19913	4.00	3.46	
127 Fluorene	166	8.126	8.129	-0.003	90	40398	4.00	3.46	
130 4-Nitroaniline	138	8.209	8.187	0.022	75	3715	4.00	3.91	
131 4,6-Dinitro-2-methylphenol	198	8.222	8.225	-0.003	76	4734	8.00	8.07	
132 Diphenylamine	169	8.248	8.248	0.000	91	26918	3.40	2.83	
133 N-Nitrosodiphenylamine	169	8.248	8.248	0.000	66	26912	4.00	3.31	
136 1,2-Diphenylhydrazine	77	8.277	8.280	-0.003	41	55207	4.04	-1.15	
135 Azobenzene	77	8.277	8.280	-0.003	98	55207	4.00	3.54	
145 4-Bromophenyl phenyl ether	248	8.593	8.594	-0.001	78	10894	4.00	3.47	
148 Hexachlorobenzene	284	8.734	8.735	-0.001	93	12968	4.00	3.74	
150 Atrazine	200		8.797				ND	ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
153 Pentachlorophenol	266	8.903	8.905	-0.002	88	9259	8.00	7.76	
154 n-Octadecane	57	8.913	8.915	-0.002	96	30582	4.00	-2.30	
157 Phenanthrene	178	9.044	9.050	-0.006	99	64587	4.00	3.86	
160 Anthracene	178	9.086	9.092	-0.006	99	61093	4.00	3.59	
161 Carbazole	167	9.249	9.246	0.003	96	50288	4.00	3.38	
163 Alachlor	188	9.486	9.483	0.003	92	5568	4.00	2.79	
164 Di-n-butyl phthalate	149	9.636	9.637	-0.001	100	58825	4.00	3.22	
170 Fluoranthene	202	10.192	10.194	-0.002	99	60681	4.00	3.46	
172 Pyrene	202	10.409	10.412	-0.003	96	64335	4.00	-0.5162	
180 Butyl benzyl phthalate	149	11.125	11.129	-0.004	95	18635	4.00	3.77	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.714	11.718	-0.004	99	56718	4.00	3.37	
185 Chrysene	228	11.765	11.769	-0.004	97	61675	4.00	3.81	
186 Bis(2-ethylhexyl) phthalate	149	11.832	11.834	-0.002	97	27246	4.00	3.85	
189 Di-n-octyl phthalate	149	12.619	12.621	-0.002	99	33913	4.00	3.85	
191 Benzo[b]fluoranthene	252	13.092	13.102	-0.010	97	48736	4.00	3.23	
193 Benzo[k]fluoranthene	252	13.124	13.134	-0.010	99	55152	4.00	3.38	
194 Benzo[a]pyrene	252	13.521	13.532	-0.011	78	43449	4.00	3.27	
198 Indeno[1,2,3-cd]pyrene	276	15.071	15.083	-0.012	98	44743	4.00	3.10	
199 Dibenz(a,h)anthracene	278	15.107	15.112	-0.005	89	36709	4.00	3.02	
200 Benzo[g,h,i]perylene	276	15.463	15.479	-0.016	98	38366	4.00	3.29	
S 211 Total Cresols	108				0			6.70	
S 212 Methyl Phenols,Total	108				0			6.70	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA004_00075

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\921.D

Injection Date: 07-Nov-2022 20:43:43

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0004 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

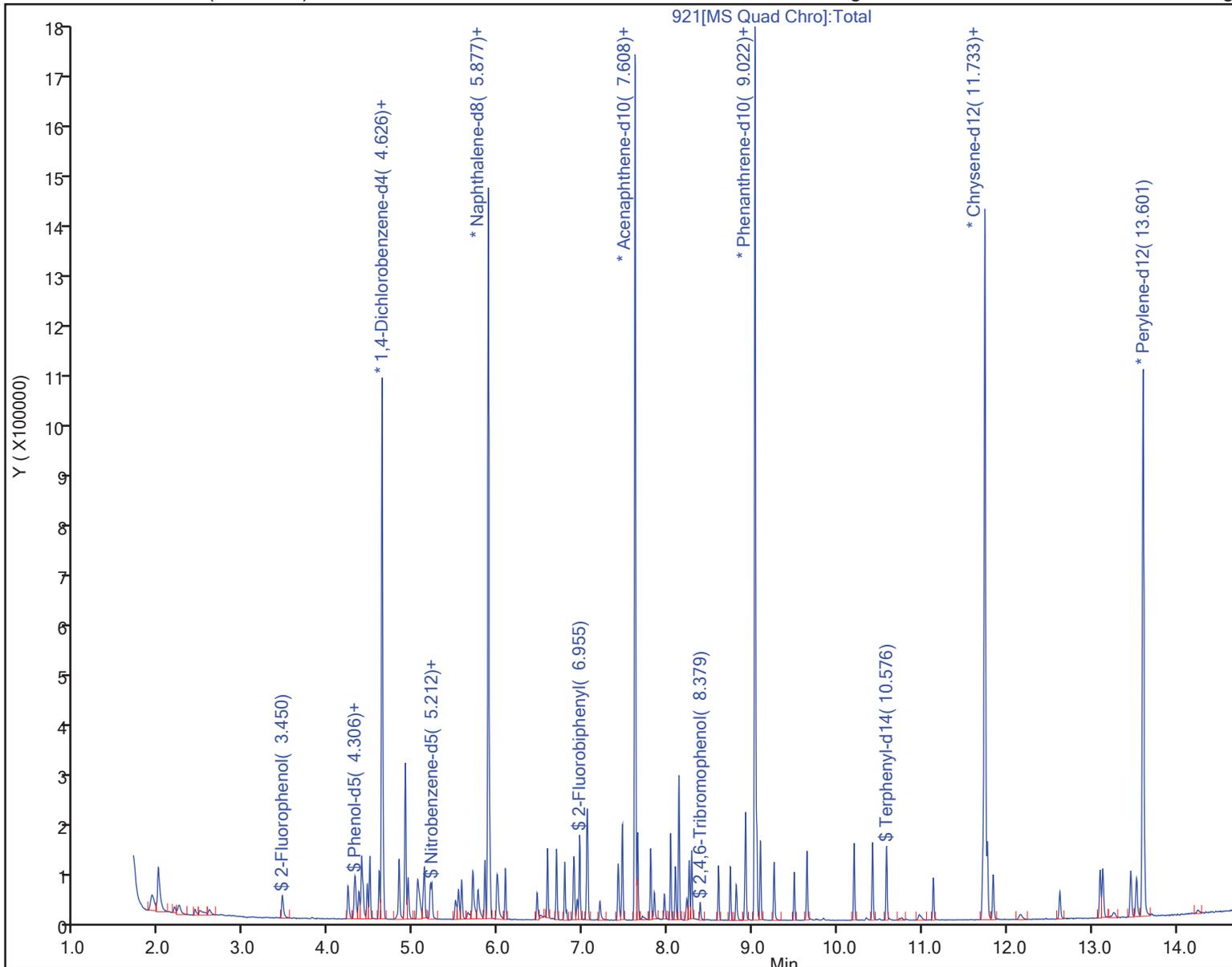
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Larg



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\922.D
 Lims ID: STD0010 HSL
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 07-Nov-2022 21:05:13 ALS Bottle#: 0 Worklist Smp#: 19
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD010 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:03:38 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 08-Nov-2022 10:33:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.623	4.624	-0.001	97	161906	40.0	40.0	
* 2 Naphthalene-d8	136	5.878	5.880	-0.002	99	602745	40.0	40.0	
* 3 Acenaphthene-d10	164	7.610	7.609	0.002	96	348853	40.0	40.0	
* 4 Phenanthrene-d10	188	9.025	9.028	-0.003	97	642005	40.0	40.0	
* 5 Chrysene-d12	240	11.737	11.740	-0.003	98	538574	40.0	40.0	
* 6 Perylene-d12	264	13.603	13.606	-0.003	97	495730	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.443	3.441	0.002	95	67262	10.0	11.9	
\$ 8 Phenol-d5	99	4.294	4.294	0.000	97	86123	10.0	11.7	
\$ 9 Nitrobenzene-d5	82	5.190	5.191	-0.001	90	90376	10.0	12.3	
\$ 10 2-Fluorobiphenyl	172	6.954	6.958	-0.004	99	159664	10.0	12.7	
\$ 11 2,4,6-Tribromophenol	330	8.375	8.379	-0.004	87	16232	10.0	11.0	
\$ 12 Terphenyl-d14	244	10.576	10.575	0.001	97	187346	10.0	12.6	
15 1,4-Dioxane	88	2.168	2.165	0.003	97	33459	10.0	9.92	
17 N-Nitrosodimethylamine	74	2.408	2.398	0.010	91	41512	10.0	11.1	
18 Pyridine	79	2.433	2.411	0.022	97	152934	20.0	23.6	
29 Phenol	94	4.306	4.307	-0.001	99	89976	10.0	12.4	
31 Aniline	93	4.345	4.345	0.000	98	110517	10.0	12.2	
32 Alpha Methyl Styrene	118	4.383	4.384	-0.001	90	68284	10.0	12.3	
33 Bis(2-chloroethyl)ether	93	4.399	4.400	-0.001	96	81804	10.0	12.7	
34 2-Chlorophenol	128	4.447	4.448	-0.001	96	64352	10.0	12.3	
35 n-Decane	43	4.479	4.480	-0.001	91	90710	10.0	9.77	
36 1,3-Dichlorobenzene	146	4.588	4.589	-0.001	93	73501	10.0	12.3	
37 1,4-Dichlorobenzene	146	4.639	4.640	-0.001	92	76763	10.0	12.5	
40 Benzyl alcohol	108	4.780	4.772	0.008	88	37320	10.0	11.1	
43 1,2-Dichlorobenzene	146	4.825	4.823	0.002	92	72432	10.0	12.6	
45 2-Methylphenol	108	4.889	4.890	-0.001	96	62563	10.0	12.0	
46 Indene	116	4.899	4.900	-0.001	89	255755	20.0	25.0	
47 2,2'-oxybis[1-chloropropane]	45	4.931	4.929	0.002	91	114297	10.0	9.69	
49 3-Methylphenol	108	5.033	5.034	-0.001	89	63881	10.0	12.0	
51 4-Methylphenol	108	5.033	5.034	-0.001	96	63881	10.0	12.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.033	5.034	-0.001	0	63881	10.0	12.0	
52 Acetophenone	105	5.043	5.041	0.002	95	107389	10.0	12.5	
54 N-Nitrosodi-n-propylamine	70	5.078	5.070	0.008	86	57001	10.0	9.18	
56 Hexachloroethane	117	5.123	5.121	0.002	93	31925	10.0	12.2	
58 Nitrobenzene	77	5.209	5.211	-0.002	91	86656	10.0	12.5	
60 Isophorone	82	5.462	5.444	0.018	99	155844	10.0	12.7	
61 2-Nitrophenol	139	5.523	5.524	-0.001	93	26468	10.0	10.9	
62 2,4-Dimethylphenol	107	5.558	5.556	0.002	99	65111	10.0	12.2	
66 Bis(2-chloroethoxy)methane	63	5.667	5.659	0.008	97	69106	10.0	8.10	
68 3,5-Dimethylphenol	107	5.686	5.685	0.001	78	70125	10.0	12.5	
69 Benzoic acid	105	5.683	5.704	-0.021	59	13830	20.0	16.1	
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	97	50580	10.0	11.7	
72 1,2,4-Trichlorobenzene	180	5.836	5.839	-0.003	93	64461	10.0	12.4	
75 Naphthalene	128	5.897	5.900	-0.003	98	192533	10.0	12.6	
77 4-Chloroaniline	127	5.977	5.974	0.003	82	76559	10.0	12.0	
78 2,6-Dichlorophenol	162	5.977	5.977	0.000	82	55259	10.0	12.4	
80 Hexachlorobutadiene	225	6.080	6.079	0.001	97	36405	10.0	12.3	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.448	6.444	0.004	95	55729	10.0	11.9	
88 2-Methylnaphthalene	141	6.576	6.576	0.000	91	110832	10.0	12.6	
89 1-Methylnaphthalene	142	6.681	6.685	-0.004	92	118322	10.0	12.6	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	63816	10.0	12.4	
92 Hexachlorocyclopentadiene	237	6.800	6.800	0.000	97	15497	10.0	10.1	
93 2,4,6-Trichlorophenol	196	6.877	6.877	0.000	96	37457	10.0	11.6	
94 2,3-Dichlorobenzenamine	161	6.886	6.887	-0.001	92	63988	10.0	12.2	
95 2,4,5-Trichlorophenol	196	6.915	6.913	0.002	92	42258	10.0	12.0	
97 1,1'-Biphenyl	154	7.040	7.041	-0.001	98	159009	10.0	12.4	
98 2-Chloronaphthalene	162	7.050	7.051	-0.001	98	126841	10.0	12.4	
101 2-Nitroaniline	65	7.184	7.182	0.002	77	38612	10.0	11.3	
104 Dimethyl phthalate	163	7.398	7.397	0.001	97	139407	10.0	12.3	
105 1,3-Dinitrobenzene	168	7.405	7.403	0.002	78	15872	10.0	11.0	
106 2,6-Dinitrotoluene	165	7.453	7.458	-0.005	90	28495	10.0	10.9	
107 Acenaphthylene	152	7.459	7.461	-0.002	98	190924	10.0	12.5	
108 3-Nitroaniline	138	7.594	7.589	0.005	91	27219	10.0	11.4	
109 Acenaphthene	153	7.639	7.641	-0.002	98	130713	10.0	12.5	
111 2,4-Dinitrophenol	184	7.683	7.686	-0.003	79	13882	20.0	18.4	
113 4-Nitrophenol	109	7.754	7.747	0.007	96	25551	20.0	21.5	
114 Dibenzofuran	168	7.792	7.795	-0.003	96	181432	10.0	12.8	
116 2,4-Dinitrotoluene	165	7.831	7.833	-0.002	82	34403	10.0	11.4	
120 2,3,4,6-Tetrachlorophenol	232	7.952	7.955	-0.003	77	29126	10.0	10.8	
122 Hexadecane	57	8.029	8.032	-0.003	94	119390	10.0	9.74	
124 Diethyl phthalate	149	8.077	8.081	-0.004	97	142372	10.0	12.5	
126 4-Chlorophenyl phenyl ether	204	8.125	8.129	-0.004	94	70267	10.0	12.1	
127 Fluorene	166	8.125	8.129	-0.004	93	141316	10.0	12.0	
130 4-Nitroaniline	138	8.186	8.187	-0.001	80	19761	10.0	10.1	
131 4,6-Dinitro-2-methylphenol	198	8.218	8.225	-0.007	83	26866	20.0	20.2	
132 Diphenylamine	169	8.244	8.248	-0.004	94	97508	8.50	10.1	
133 N-Nitrosodiphenylamine	169	8.244	8.248	-0.004	67	98075	10.0	11.8	
136 1,2-Diphenylhydrazine	77	8.276	8.280	-0.004	41	198824	10.1	9.73	
135 Azobenzene	77	8.276	8.280	-0.004	99	198824	10.0	11.2	
145 4-Bromophenyl phenyl ether	248	8.593	8.594	-0.001	76	39072	10.0	12.2	
148 Hexachlorobenzene	284	8.734	8.735	-0.001	93	42988	10.0	12.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200		8.797				ND	ND	U
153 Pentachlorophenol	266	8.903	8.905	-0.002	89	41305	20.0	21.9	
154 n-Octadecane	57	8.913	8.915	-0.002	96	116919	10.0	8.20	
157 Phenanthrene	178	9.045	9.050	-0.005	99	212503	10.0	12.5	
160 Anthracene	178	9.086	9.092	-0.006	99	215218	10.0	12.4	
161 Carbazole	167	9.246	9.246	0.000	96	180514	10.0	11.9	
163 Alachlor	188	9.486	9.483	0.003	93	21794	10.0	10.7	
164 Di-n-butyl phthalate	149	9.636	9.637	-0.001	100	219913	10.0	11.8	
170 Fluoranthene	202	10.192	10.194	-0.002	99	216887	10.0	12.1	
172 Pyrene	202	10.410	10.412	-0.002	96	227676	10.0	9.70	
180 Butyl benzyl phthalate	149	11.126	11.129	-0.003	95	75416	10.0	11.2	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.714	11.718	-0.004	100	206820	10.0	12.1	
185 Chrysene	228	11.766	11.769	-0.003	98	209260	10.0	12.7	
186 Bis(2-ethylhexyl) phthalate	149	11.833	11.834	-0.001	98	113123	10.0	10.8	
189 Di-n-octyl phthalate	149	12.620	12.621	-0.001	99	154551	10.0	10.8	
191 Benzo[b]fluoranthene	252	13.093	13.102	-0.009	97	182195	10.0	11.9	
193 Benzo[k]fluoranthene	252	13.125	13.134	-0.009	100	210683	10.0	12.7	
194 Benzo[a]pyrene	252	13.522	13.532	-0.010	82	162869	10.0	12.1	
198 Indeno[1,2,3-cd]pyrene	276	15.073	15.083	-0.010	99	172029	10.0	11.7	
199 Dibenz(a,h)anthracene	278	15.105	15.112	-0.007	91	144573	10.0	11.7	
200 Benzo[g,h,i]perylene	276	15.464	15.479	-0.015	98	142414	10.0	12.1	
S 211 Total Cresols	108				0			24.0	
S 212 Methyl Phenols, Total	108				0			24.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA010_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\922.D

Injection Date: 07-Nov-2022 21:05:13

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0010 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

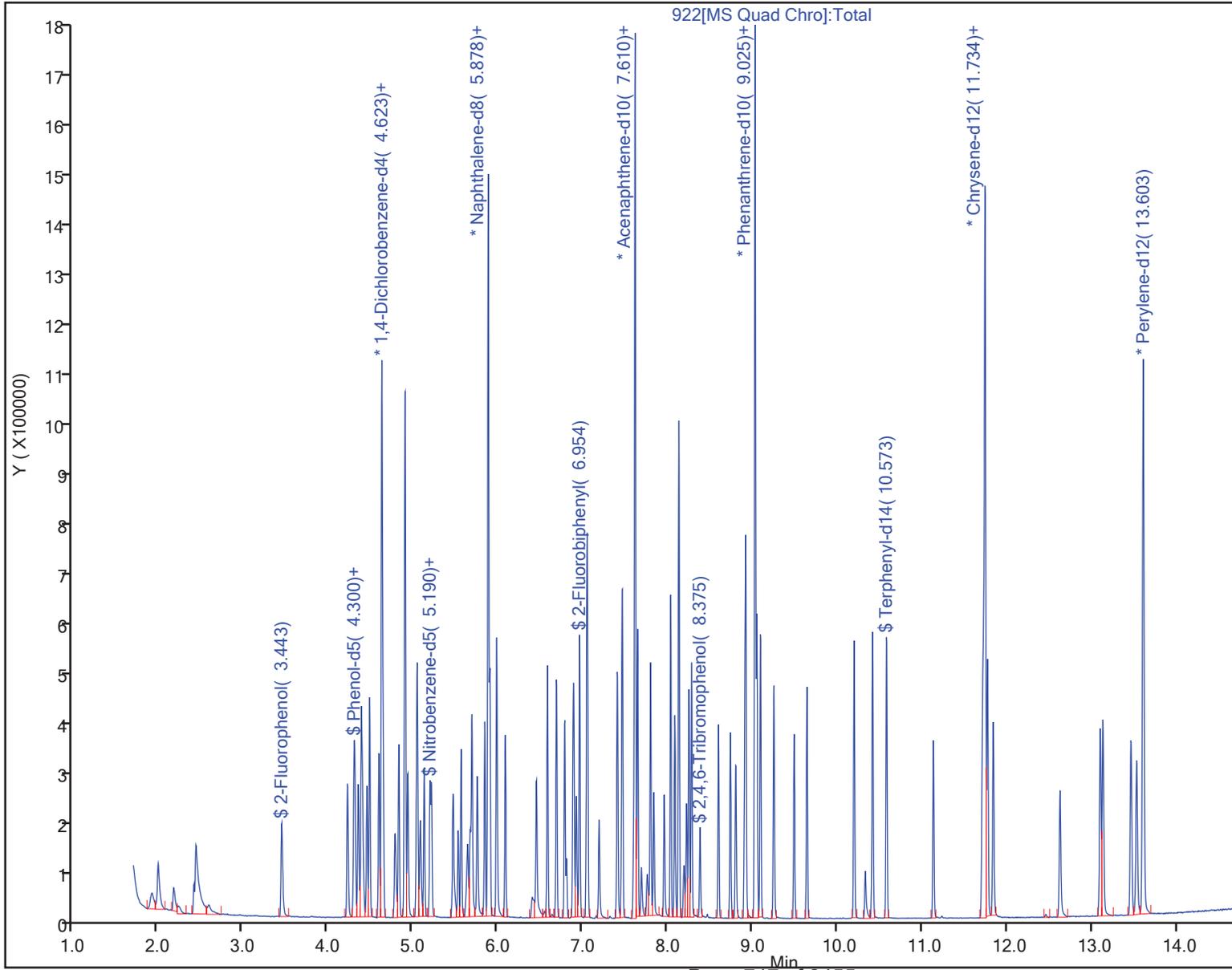
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Larg



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\923.D
 Lims ID: STD0020 HSL
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 07-Nov-2022 21:26:45 ALS Bottle#: 0 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD020 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:03:41 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 08-Nov-2022 10:33:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.623	4.624	-0.001	96	163770	40.0	40.0	
* 2 Naphthalene-d8	136	5.879	5.880	-0.002	99	614273	40.0	40.0	
* 3 Acenaphthene-d10	164	7.608	7.609	0.000	96	351273	40.0	40.0	
* 4 Phenanthrene-d10	188	9.024	9.028	-0.004	97	640108	40.0	40.0	
* 5 Chrysene-d12	240	11.737	11.740	-0.003	99	554547	40.0	40.0	
* 6 Perylene-d12	264	13.603	13.606	-0.003	97	510831	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.443	3.441	0.002	95	120069	20.0	21.0	
\$ 8 Phenol-d5	99	4.294	4.294	0.000	96	162526	20.0	21.8	
\$ 9 Nitrobenzene-d5	82	5.190	5.191	-0.001	91	162866	20.0	21.7	
\$ 10 2-Fluorobiphenyl	172	6.955	6.958	-0.003	99	275901	20.0	21.7	
\$ 11 2,4,6-Tribromophenol	330	8.374	8.379	-0.005	89	31905	20.0	19.9	
\$ 12 Terphenyl-d14	244	10.572	10.575	-0.003	97	332847	20.0	21.7	
15 1,4-Dioxane	88	2.168	2.165	0.003	99	55894	20.0	19.7	
17 N-Nitrosodimethylamine	74	2.404	2.398	0.006	90	76758	20.0	20.4	
18 Pyridine	79	2.424	2.411	0.013	94	275495	40.0	42.0	
29 Phenol	94	4.303	4.307	-0.004	99	158643	20.0	21.7	
31 Aniline	93	4.345	4.345	0.000	97	201546	20.0	21.9	
32 Alpha Methyl Styrene	118	4.383	4.384	-0.001	90	120459	20.0	21.4	
33 Bis(2-chloroethyl)ether	93	4.396	4.400	-0.004	95	140531	20.0	21.6	
34 2-Chlorophenol	128	4.447	4.448	-0.001	94	113733	20.0	21.5	
35 n-Decane	43	4.479	4.480	-0.001	90	157021	20.0	20.2	
36 1,3-Dichlorobenzene	146	4.588	4.589	-0.001	93	130168	20.0	21.6	
37 1,4-Dichlorobenzene	146	4.639	4.640	-0.001	92	132620	20.0	21.4	
40 Benzyl alcohol	108	4.774	4.772	0.002	88	68668	20.0	20.3	
43 1,2-Dichlorobenzene	146	4.825	4.823	0.002	92	125354	20.0	21.5	
45 2-Methylphenol	108	4.889	4.890	-0.001	98	113343	20.0	21.5	
46 Indene	116	4.899	4.900	-0.001	89	449884	40.0	43.5	
47 2,2'-oxybis[1-chloropropane]	45	4.928	4.929	-0.001	92	199611	20.0	20.5	
50 3 & 4 Methylphenol	108	5.033	5.034	-0.001	0	117163	20.0	21.8	
51 4-Methylphenol	108	5.033	5.034	-0.001	94	117163	20.0	21.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
49 3-Methylphenol	108	5.033	5.034	-0.001	88	117163	20.0	21.8	
52 Acetophenone	105	5.040	5.041	-0.001	94	188815	20.0	21.7	
54 N-Nitrosodi-n-propylamine	70	5.072	5.070	0.002	88	100825	20.0	19.5	
56 Hexachloroethane	117	5.123	5.121	0.002	94	57194	20.0	21.7	
58 Nitrobenzene	77	5.206	5.211	-0.005	89	154546	20.0	21.9	
60 Isophorone	82	5.452	5.444	0.008	99	273594	20.0	21.9	
61 2-Nitrophenol	139	5.523	5.524	-0.001	92	49910	20.0	20.1	
62 2,4-Dimethylphenol	107	5.558	5.556	0.002	98	118827	20.0	21.8	
66 Bis(2-chloroethoxy)methane	63	5.661	5.659	0.002	97	131820	20.0	20.6	
68 3,5-Dimethylphenol	107	5.683	5.685	-0.002	78	122621	20.0	21.4	
69 Benzoic acid	105	5.651	5.704	-0.053	91	154248	40.0	45.4	
70 2,4-Dichlorophenol	162	5.747	5.749	-0.002	97	93960	20.0	21.4	
72 1,2,4-Trichlorobenzene	180	5.837	5.839	-0.002	93	115403	20.0	21.8	
75 Naphthalene	128	5.898	5.900	-0.002	98	344964	20.0	22.2	
77 4-Chloroaniline	127	5.975	5.974	0.001	93	139789	20.0	21.5	
78 2,6-Dichlorophenol	162	5.978	5.977	0.001	88	97746	20.0	21.5	
80 Hexachlorobutadiene	225	6.080	6.079	0.001	97	64119	20.0	21.3	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.445	6.444	0.001	95	104616	20.0	22.0	
88 2-Methylnaphthalene	141	6.576	6.576	0.000	91	191186	20.0	21.4	
89 1-Methylnaphthalene	142	6.682	6.685	-0.003	93	205816	20.0	21.5	
90 1,2,4,5-Tetrachlorobenzene	216	6.778	6.781	-0.003	99	112849	20.0	21.5	
92 Hexachlorocyclopentadiene	237	6.801	6.800	0.001	97	33133	20.0	17.9	
93 2,4,6-Trichlorophenol	196	6.877	6.877	0.000	96	69797	20.0	21.4	
94 2,3-Dichlorobenzenamine	161	6.887	6.887	0.000	94	114472	20.0	21.6	
95 2,4,5-Trichlorophenol	196	6.913	6.913	0.000	92	77463	20.0	21.9	
97 1,1'-Biphenyl	154	7.038	7.041	-0.003	97	282955	20.0	21.8	
98 2-Chloronaphthalene	162	7.048	7.051	-0.003	98	224869	20.0	21.8	
101 2-Nitroaniline	65	7.182	7.182	0.000	76	76048	20.0	21.9	
104 Dimethyl phthalate	163	7.396	7.397	-0.001	97	250926	20.0	22.1	
105 1,3-Dinitrobenzene	168	7.403	7.403	0.000	80	32169	20.0	20.0	
106 2,6-Dinitrotoluene	165	7.454	7.458	-0.004	86	52587	20.0	20.0	
107 Acenaphthylene	152	7.460	7.461	-0.001	98	331936	20.0	21.6	
108 3-Nitroaniline	138	7.588	7.589	-0.001	89	53771	20.0	22.0	
109 Acenaphthene	153	7.640	7.641	-0.001	97	229284	20.0	21.8	
111 2,4-Dinitrophenol	184	7.681	7.686	-0.005	82	33657	40.0	34.1	
113 4-Nitrophenol	109	7.742	7.747	-0.005	94	59576	40.0	41.0	
114 Dibenzofuran	168	7.790	7.795	-0.005	96	315996	20.0	22.1	
116 2,4-Dinitrotoluene	165	7.829	7.833	-0.004	85	68681	20.0	21.3	
120 2,3,4,6-Tetrachlorophenol	232	7.954	7.955	-0.001	77	54147	20.0	20.0	
122 Hexadecane	57	8.028	8.032	-0.004	95	209079	20.0	20.3	
124 Diethyl phthalate	149	8.076	8.081	-0.005	97	253057	20.0	22.0	
126 4-Chlorophenyl phenyl ether	204	8.127	8.129	-0.002	75	124396	20.0	21.3	
127 Fluorene	166	8.124	8.129	-0.005	91	256365	20.0	21.6	
130 4-Nitroaniline	138	8.181	8.187	-0.006	80	49892	20.0	21.6	
131 4,6-Dinitro-2-methylphenol	198	8.217	8.225	-0.008	77	57769	40.0	37.3	
132 Diphenylamine	169	8.246	8.248	-0.002	92	179506	17.0	18.6	
133 N-Nitrosodiphenylamine	169	8.246	8.248	-0.002	66	179855	20.0	21.8	
135 Azobenzene	77	8.275	8.280	-0.005	98	348585	20.0	19.5	
136 1,2-Diphenylhydrazine	77	8.275	8.280	-0.005	50	348585	20.2	20.9	
145 4-Bromophenyl phenyl ether	248	8.591	8.594	-0.003	77	66382	20.0	20.8	
148 Hexachlorobenzene	284	8.732	8.735	-0.003	94	73707	20.0	20.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200		8.797				ND	ND	U
153 Pentachlorophenol	266	8.902	8.905	-0.003	90	78855	40.0	38.7	
154 n-Octadecane	57	8.915	8.915	0.000	96	211244	20.0	19.8	
157 Phenanthrene	178	9.047	9.050	-0.003	99	374103	20.0	22.0	
160 Anthracene	178	9.088	9.092	-0.004	99	378400	20.0	21.9	
161 Carbazole	167	9.245	9.246	-0.001	96	329639	20.0	21.8	
163 Alachlor	188	9.485	9.483	0.002	94	42139	20.0	20.8	
164 Di-n-butyl phthalate	149	9.635	9.637	-0.002	100	405707	20.0	21.9	
170 Fluoranthene	202	10.192	10.194	-0.002	99	387570	20.0	21.7	
172 Pyrene	202	10.409	10.412	-0.003	96	408643	20.0	20.4	
180 Butyl benzyl phthalate	149	11.126	11.129	-0.003	96	151279	20.0	20.7	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.714	11.718	-0.004	99	380012	20.0	21.6	
185 Chrysene	228	11.766	11.769	-0.003	97	364420	20.0	21.5	
186 Bis(2-ethylhexyl) phthalate	149	11.833	11.834	-0.001	97	227821	20.0	20.3	
189 Di-n-octyl phthalate	149	12.620	12.621	-0.001	99	326993	20.0	20.1	
191 Benzo[b]fluoranthene	252	13.096	13.102	-0.006	98	328639	20.0	20.9	
193 Benzo[k]fluoranthene	252	13.125	13.134	-0.009	99	385696	20.0	22.6	
194 Benzo[a]pyrene	252	13.523	13.532	-0.009	78	297329	20.0	21.4	
198 Indeno[1,2,3-cd]pyrene	276	15.073	15.083	-0.010	99	320466	20.0	21.2	
199 Dibenz(a,h)anthracene	278	15.105	15.112	-0.007	90	270628	20.0	21.3	
200 Benzo[g,h,i]perylene	276	15.465	15.479	-0.014	97	263404	20.0	21.6	
S 211 Total Cresols	108				0			43.3	
S 212 Methyl Phenols, Total	108				0			43.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA020_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\923.D

Injection Date: 07-Nov-2022 21:26:45

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0020 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

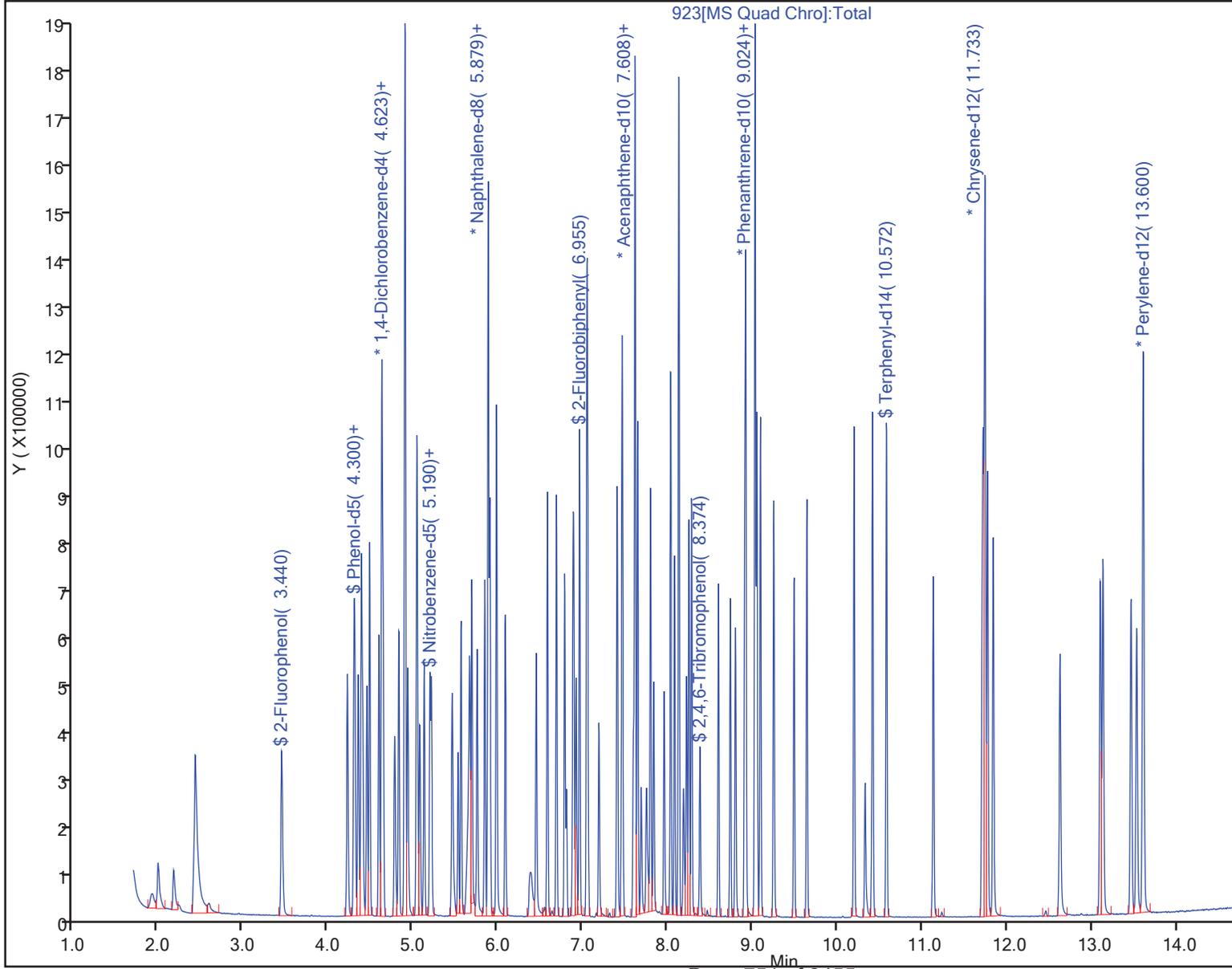
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\924.D
 Lims ID: STD0050 HSL
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 07-Nov-2022 21:48:13 ALS Bottle#: 0 Worklist Smp#: 21
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD050 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:03:46 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 08-Nov-2022 10:34:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.624	4.624	0.000	96	163243	40.0	40.0	
* 2 Naphthalene-d8	136	5.879	5.880	-0.001	99	621431	40.0	40.0	
* 3 Acenaphthene-d10	164	7.610	7.609	0.002	96	355952	40.0	40.0	
* 4 Phenanthrene-d10	188	9.025	9.028	-0.004	97	652396	40.0	40.0	
* 5 Chrysene-d12	240	11.739	11.740	-0.001	99	578787	40.0	40.0	
* 6 Perylene-d12	264	13.603	13.606	-0.003	97	532136	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.440	3.441	-0.001	95	292228	50.0	51.4	
\$ 8 Phenol-d5	99	4.294	4.294	0.000	97	393994	50.0	53.0	
\$ 9 Nitrobenzene-d5	82	5.191	5.191	0.000	91	402877	50.0	53.1	
\$ 10 2-Fluorobiphenyl	172	6.956	6.958	-0.002	99	663391	50.0	51.5	
\$ 11 2,4,6-Tribromophenol	330	8.377	8.379	-0.002	90	84283	50.0	49.2	
\$ 12 Terphenyl-d14	244	10.574	10.575	-0.001	97	835901	50.0	52.3	
15 1,4-Dioxane	88	2.168	2.165	0.003	99	132635	50.0	53.8	
17 N-Nitrosodimethylamine	74	2.401	2.398	0.003	91	197484	50.0	52.6	
18 Pyridine	79	2.414	2.411	0.003	94	678316	100.0	103.7	
29 Phenol	94	4.306	4.307	-0.001	99	385549	50.0	52.8	
31 Aniline	93	4.345	4.345	0.000	96	492444	50.0	53.8	
32 Alpha Methyl Styrene	118	4.383	4.384	-0.001	91	295339	50.0	52.6	
33 Bis(2-chloroethyl)ether	93	4.399	4.400	-0.001	96	332935	50.0	51.2	
34 2-Chlorophenol	128	4.447	4.448	-0.001	95	277513	50.0	52.6	
35 n-Decane	43	4.480	4.480	0.000	89	367160	50.0	54.1	
36 1,3-Dichlorobenzene	146	4.588	4.589	-0.001	93	308763	50.0	51.3	
37 1,4-Dichlorobenzene	146	4.640	4.640	0.000	90	320851	50.0	51.9	
40 Benzyl alcohol	108	4.774	4.772	0.002	89	171147	50.0	50.7	
43 1,2-Dichlorobenzene	146	4.822	4.823	-0.001	92	303776	50.0	52.2	
45 2-Methylphenol	108	4.889	4.890	-0.001	98	274823	50.0	52.3	
46 Indene	116	4.899	4.900	-0.001	89	1086598	100.0	105.4	
47 2,2'-oxybis[1-chloropropane]	45	4.928	4.929	-0.001	92	463439	50.0	54.6	
49 3-Methylphenol	108	5.034	5.034	0.000	89	279070	50.0	52.0	
51 4-Methylphenol	108	5.034	5.034	0.000	96	279070	50.0	52.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.034	5.034	0.000	0	279070	50.0	52.0	
52 Acetophenone	105	5.040	5.041	-0.001	89	450507	50.0	52.0	
54 N-Nitrosodi-n-propylamine	70	5.069	5.070	-0.001	87	243314	50.0	53.9	
56 Hexachloroethane	117	5.123	5.121	0.002	95	137336	50.0	52.2	
58 Nitrobenzene	77	5.207	5.211	-0.004	89	373983	50.0	52.4	
60 Isophorone	82	5.447	5.444	0.003	99	656169	50.0	51.9	
61 2-Nitrophenol	139	5.523	5.524	-0.001	93	131143	50.0	52.3	
62 2,4-Dimethylphenol	107	5.556	5.556	0.000	98	288541	50.0	52.3	
66 Bis(2-chloroethoxy)methane	63	5.661	5.659	0.002	97	321713	50.0	58.3	
68 3,5-Dimethylphenol	107	5.684	5.685	-0.001	84	309393	50.0	53.4	
69 Benzoic acid	105	5.681	5.704	-0.023	77	449020	100.0	105.8	
70 2,4-Dichlorophenol	162	5.748	5.749	-0.001	98	233239	50.0	52.5	
72 1,2,4-Trichlorobenzene	180	5.838	5.839	-0.001	93	274687	50.0	51.4	
75 Naphthalene	128	5.899	5.900	-0.001	99	808826	50.0	51.4	
77 4-Chloroaniline	127	5.972	5.974	-0.002	94	350551	50.0	53.3	
78 2,6-Dichlorophenol	162	5.979	5.977	0.002	92	233825	50.0	50.8	
80 Hexachlorobutadiene	225	6.081	6.079	0.002	97	155010	50.0	50.9	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.443	6.444	-0.001	95	254727	50.0	53.0	
88 2-Methylnaphthalene	141	6.578	6.576	0.002	92	464102	50.0	51.4	
89 1-Methylnaphthalene	142	6.683	6.685	-0.002	93	497911	50.0	51.4	
90 1,2,4,5-Tetrachlorobenzene	216	6.780	6.781	-0.001	99	268150	50.0	50.5	
92 Hexachlorocyclopentadiene	237	6.802	6.800	0.002	97	101276	50.0	48.0	
93 2,4,6-Trichlorophenol	196	6.879	6.877	0.002	96	173597	50.0	52.6	
94 2,3-Dichlorobenzenamine	161	6.889	6.887	0.002	95	277548	50.0	51.7	
95 2,4,5-Trichlorophenol	196	6.911	6.913	-0.002	92	192955	50.0	54.0	
97 1,1'-Biphenyl	154	7.040	7.041	-0.001	97	689795	50.0	52.5	
98 2-Chloronaphthalene	162	7.049	7.051	-0.002	98	542323	50.0	52.0	
101 2-Nitroaniline	65	7.184	7.182	0.002	76	192875	50.0	54.7	
104 Dimethyl phthalate	163	7.395	7.397	-0.002	96	601465	50.0	52.2	
105 1,3-Dinitrobenzene	168	7.405	7.403	0.002	86	88812	50.0	50.8	
106 2,6-Dinitrotoluene	165	7.456	7.458	-0.002	89	135562	50.0	51.0	
107 Acenaphthylene	152	7.462	7.461	0.001	99	817032	50.0	52.5	
108 3-Nitroaniline	138	7.587	7.589	-0.002	89	137019	50.0	54.8	
109 Acenaphthene	153	7.642	7.641	0.001	98	550810	50.0	51.7	
111 2,4-Dinitrophenol	184	7.684	7.686	-0.002	80	111893	100.0	95.1	
113 4-Nitrophenol	109	7.741	7.747	-0.006	94	174610	100.0	106.2	
114 Dibenzofuran	168	7.793	7.795	-0.002	96	751011	50.0	51.9	
116 2,4-Dinitrotoluene	165	7.831	7.833	-0.002	88	178545	50.0	52.5	
120 2,3,4,6-Tetrachlorophenol	232	7.953	7.955	-0.002	78	137756	50.0	50.3	
122 Hexadecane	57	8.030	8.032	-0.002	94	506369	50.0	54.6	
124 Diethyl phthalate	149	8.078	8.081	-0.003	97	613188	50.0	52.6	
126 4-Chlorophenyl phenyl ether	204	8.126	8.129	-0.003	75	306406	50.0	51.7	
127 Fluorene	166	8.126	8.129	-0.003	91	622417	50.0	51.7	
130 4-Nitroaniline	138	8.184	8.187	-0.003	80	137739	50.0	54.5	
131 4,6-Dinitro-2-methylphenol	198	8.219	8.225	-0.006	81	171674	100.0	98.4	
132 Diphenylamine	169	8.245	8.248	-0.003	93	437208	42.5	44.6	
133 N-Nitrosodiphenylamine	169	8.245	8.248	-0.003	72	440934	50.0	52.4	
136 1,2-Diphenylhydrazine	77	8.277	8.280	-0.003	47	820582	50.5	55.8	
135 Azobenzene	77	8.277	8.280	-0.003	99	820582	50.0	48.4	
145 4-Bromophenyl phenyl ether	248	8.595	8.594	0.001	75	166509	50.0	51.3	
148 Hexachlorobenzene	284	8.736	8.735	0.001	93	180230	50.0	50.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200		8.797				ND	ND	U
153 Pentachlorophenol	266	8.902	8.905	-0.003	90	218034	100.0	98.9	
154 n-Octadecane	57	8.915	8.915	0.000	96	514723	50.0	55.9	
157 Phenanthrene	178	9.047	9.050	-0.003	99	897804	50.0	51.8	
160 Anthracene	178	9.089	9.092	-0.003	99	911465	50.0	51.8	
161 Carbazole	167	9.246	9.246	0.000	96	821347	50.0	53.3	
163 Alachlor	188	9.483	9.483	0.000	94	109905	50.0	53.2	
164 Di-n-butyl phthalate	149	9.636	9.637	-0.001	100	1012896	50.0	53.6	
170 Fluoranthene	202	10.193	10.194	-0.001	99	945594	50.0	52.0	
172 Pyrene	202	10.411	10.412	-0.001	96	1013749	50.0	54.8	
180 Butyl benzyl phthalate	149	11.128	11.129	-0.001	96	419639	50.0	52.8	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.716	11.718	-0.002	99	976764	50.0	53.1	
185 Chrysene	228	11.768	11.769	-0.001	97	897689	50.0	50.7	
186 Bis(2-ethylhexyl) phthalate	149	11.832	11.834	-0.002	97	622640	50.0	51.7	
189 Di-n-octyl phthalate	149	12.623	12.621	0.002	99	948501	50.0	52.7	
191 Benzo[b]fluoranthene	252	13.100	13.102	-0.002	97	882267	50.0	53.8	
193 Benzo[k]fluoranthene	252	13.132	13.134	-0.002	99	927204	50.0	52.2	
194 Benzo[a]pyrene	252	13.529	13.532	-0.003	83	768278	50.0	53.1	
198 Indeno[1,2,3-cd]pyrene	276	15.077	15.083	-0.006	99	834504	50.0	52.9	
199 Dibenz(a,h)anthracene	278	15.109	15.112	-0.003	93	704866	50.0	53.3	
200 Benzo[g,h,i]perylene	276	15.472	15.479	-0.007	97	672935	50.0	53.1	
S 211 Total Cresols	108				0			104.4	
S 212 Methyl Phenols, Total	108				0			104.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA050_00068

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\924.D

Injection Date: 07-Nov-2022 21:48:13

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0050 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

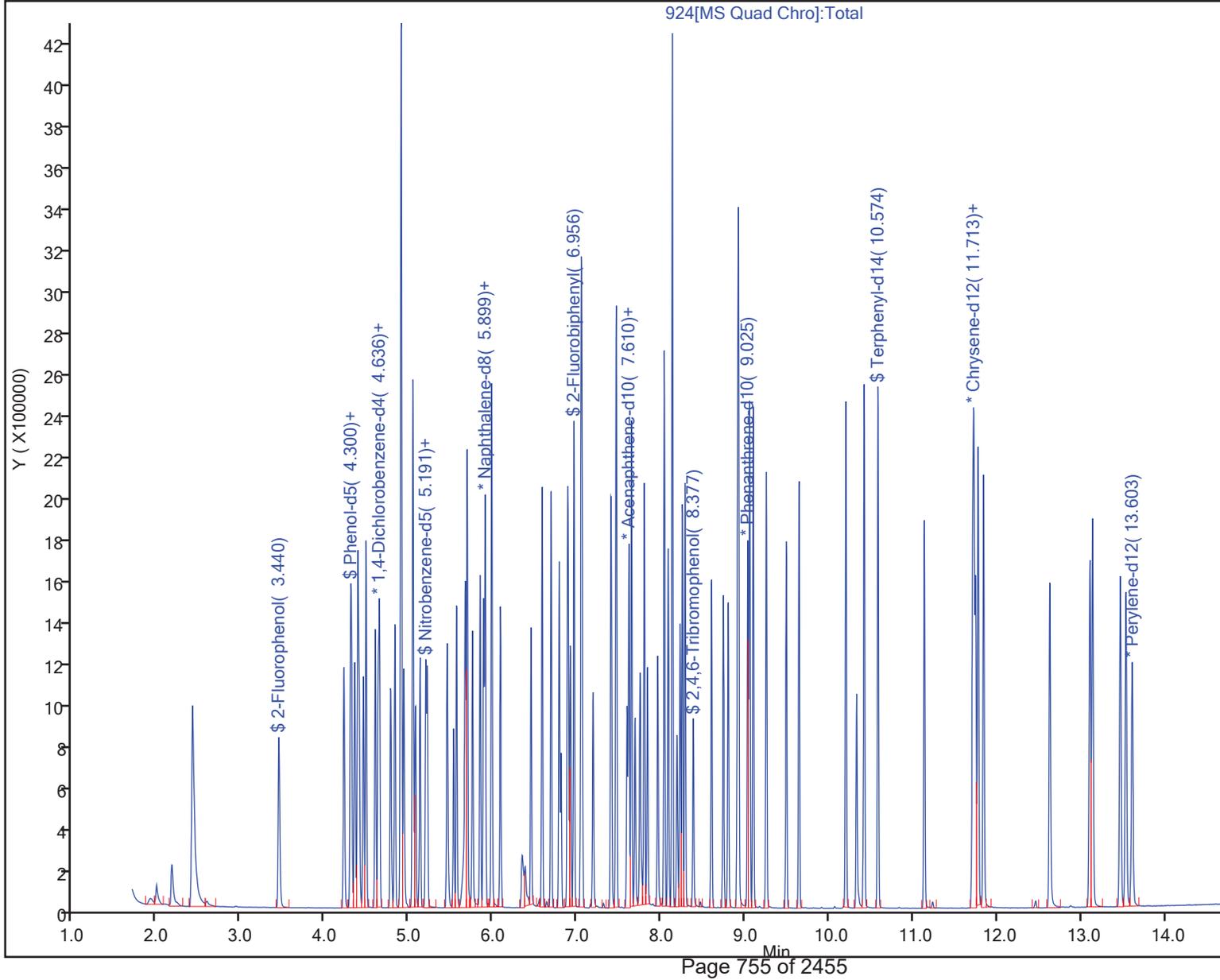
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\925.D
 Lims ID: ICIS HSL
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 07-Nov-2022 22:09:43 ALS Bottle#: 0 Worklist Smp#: 22
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD080 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:03:51 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 08-Nov-2022 10:33:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.624	4.624	0.000	97	167852	40.0	40.0	
* 2 Naphthalene-d8	136	5.880	5.880	0.000	100	638289	40.0	40.0	
* 3 Acenaphthene-d10	164	7.609	7.609	0.000	96	369015	40.0	40.0	
* 4 Phenanthrene-d10	188	9.028	9.028	0.000	97	660340	40.0	40.0	
* 5 Chrysene-d12	240	11.740	11.740	0.000	98	593126	40.0	40.0	
* 6 Perylene-d12	264	13.606	13.606	0.000	98	561720	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.441	3.441	0.000	95	478563	80.0	81.8	
\$ 8 Phenol-d5	99	4.294	4.294	0.000	97	650737	80.0	85.1	
\$ 9 Nitrobenzene-d5	82	5.191	5.191	0.000	91	653278	80.0	83.8	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	99	1089725	80.0	81.7	
\$ 11 2,4,6-Tribromophenol	330	8.379	8.379	0.000	92	147460	80.0	82.0	
\$ 12 Terphenyl-d14	244	10.575	10.575	0.000	97	1393240	80.0	85.1	
15 1,4-Dioxane	88	2.165	2.165	0.000	98	212077	80.0	86.5	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	92	319190	80.0	82.6	
18 Pyridine	79	2.411	2.411	0.000	96	1107791	160.0	164.7	
29 Phenol	94	4.307	4.307	0.000	99	626843	80.0	83.5	
31 Aniline	93	4.345	4.345	0.000	96	790860	80.0	84.0	
32 Alpha Methyl Styrene	118	4.384	4.384	0.000	91	479870	80.0	83.1	
33 Bis(2-chloroethyl)ether	93	4.400	4.400	0.000	96	537658	80.0	80.4	
34 2-Chlorophenol	128	4.448	4.448	0.000	95	448572	80.0	82.7	
35 n-Decane	43	4.480	4.480	0.000	89	590524	80.0	87.5	
36 1,3-Dichlorobenzene	146	4.589	4.589	0.000	94	504638	80.0	81.6	
37 1,4-Dichlorobenzene	146	4.640	4.640	0.000	89	512411	80.0	80.5	
40 Benzyl alcohol	108	4.772	4.772	0.000	89	287407	80.0	82.7	
43 1,2-Dichlorobenzene	146	4.823	4.823	0.000	92	484985	80.0	81.1	
45 2-Methylphenol	108	4.890	4.890	0.000	98	448779	80.0	83.1	
46 Indene	116	4.900	4.900	0.000	89	1752248	160.0	165.4	
47 2,2'-oxybis[1-chloropropane]	45	4.929	4.929	0.000	91	734430	80.0	87.0	
50 3 & 4 Methylphenol	108	5.034	5.034	0.000	0	456980	80.0	82.9	
51 4-Methylphenol	108	5.034	5.034	0.000	94	456980	80.0	82.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
49 3-Methylphenol	108	5.034	5.034	0.000	87	456980	80.0	82.9	
52 Acetophenone	105	5.041	5.041	0.000	97	738020	80.0	82.8	
54 N-Nitrosodi-n-propylamine	70	5.070	5.070	0.000	87	394854	80.0	87.7	
56 Hexachloroethane	117	5.121	5.121	0.000	95	222591	80.0	82.3	
58 Nitrobenzene	77	5.211	5.211	0.000	89	609213	80.0	83.1	
60 Isophorone	82	5.444	5.444	0.000	99	1062625	80.0	81.9	
61 2-Nitrophenol	139	5.524	5.524	0.000	94	226207	80.0	87.8	
62 2,4-Dimethylphenol	107	5.556	5.556	0.000	98	479238	80.0	84.5	
66 Bis(2-chloroethoxy)methane	63	5.659	5.659	0.000	97	474264	80.0	86.4	
68 3,5-Dimethylphenol	107	5.685	5.685	0.000	84	491842	80.0	82.6	
69 Benzoic acid	105	5.704	5.704	0.000	92	778881	160.0	169.6	
70 2,4-Dichlorophenol	162	5.749	5.749	0.000	98	379595	80.0	83.3	
72 1,2,4-Trichlorobenzene	180	5.839	5.839	0.000	93	440475	80.0	80.2	
75 Naphthalene	128	5.900	5.900	0.000	99	1302031	80.0	80.6	
77 4-Chloroaniline	127	5.974	5.974	0.000	94	578802	80.0	85.7	
78 2,6-Dichlorophenol	162	5.977	5.977	0.000	94	391887	80.0	82.9	
80 Hexachlorobutadiene	225	6.079	6.079	0.000	96	258270	80.0	82.5	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.444	6.444	0.000	95	424210	80.0	85.9	
88 2-Methylnaphthalene	141	6.576	6.576	0.000	91	759437	80.0	81.8	
89 1-Methylnaphthalene	142	6.685	6.685	0.000	93	805306	80.0	80.9	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	441904	80.0	81.0	
92 Hexachlorocyclopentadiene	237	6.800	6.800	0.000	97	187711	80.0	83.3	
93 2,4,6-Trichlorophenol	196	6.877	6.877	0.000	96	293683	80.0	85.9	
94 2,3-Dichlorobenzenamine	161	6.887	6.887	0.000	94	463418	80.0	83.3	
95 2,4,5-Trichlorophenol	196	6.913	6.913	0.000	93	319773	80.0	86.4	
97 1,1'-Biphenyl	154	7.041	7.041	0.000	98	1119552	80.0	82.2	
98 2-Chloronaphthalene	162	7.051	7.051	0.000	98	890680	80.0	82.4	
101 2-Nitroaniline	65	7.182	7.182	0.000	76	323740	80.0	88.5	
104 Dimethyl phthalate	163	7.397	7.397	0.000	96	978489	80.0	81.9	
105 1,3-Dinitrobenzene	168	7.403	7.403	0.000	82	153436	80.0	83.3	
106 2,6-Dinitrotoluene	165	7.458	7.458	0.000	90	232675	80.0	84.4	
107 Acenaphthylene	152	7.461	7.461	0.000	99	1328989	80.0	82.4	
108 3-Nitroaniline	138	7.589	7.589	0.000	90	225239	80.0	86.7	
109 Acenaphthene	153	7.641	7.641	0.000	97	900753	80.0	81.6	
111 2,4-Dinitrophenol	184	7.686	7.686	0.000	80	209172	160.0	165.7	
113 4-Nitrophenol	109	7.747	7.747	0.000	94	305926	160.0	174.9	
114 Dibenzofuran	168	7.795	7.795	0.000	96	1216535	80.0	81.0	
116 2,4-Dinitrotoluene	165	7.833	7.833	0.000	88	299247	80.0	84.1	
120 2,3,4,6-Tetrachlorophenol	232	7.955	7.955	0.000	77	237563	80.0	83.7	
122 Hexadecane	57	8.032	8.032	0.000	95	815017	80.0	87.3	
124 Diethyl phthalate	149	8.081	8.081	0.000	97	995161	80.0	82.4	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	74	509259	80.0	82.9	
127 Fluorene	166	8.129	8.129	0.000	91	1038533	80.0	83.3	
130 4-Nitroaniline	138	8.187	8.187	0.000	80	224274	80.0	84.2	
131 4,6-Dinitro-2-methylphenol	198	8.225	8.225	0.000	79	306889	160.0	169.6	
132 Diphenylamine	169	8.248	8.248	0.000	93	715842	68.0	70.4	
133 N-Nitrosodiphenylamine	169	8.248	8.248	0.000	67	715905	80.0	84.0	
135 Azobenzene	77	8.280	8.280	0.000	99	1305522	80.0	82.2	
136 1,2-Diphenylhydrazine	77	8.280	8.280	0.000	46	1305522	80.9	88.5	
145 4-Bromophenyl phenyl ether	248	8.594	8.594	0.000	74	275116	80.0	83.7	
148 Hexachlorobenzene	284	8.735	8.735	0.000	93	297252	80.0	81.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200		8.797				ND	ND	U
153 Pentachlorophenol	266	8.905	8.905	0.000	90	364994	160.0	161.3	
154 n-Octadecane	57	8.915	8.915	0.000	96	833310	80.0	93.1	
157 Phenanthrene	178	9.050	9.050	0.000	99	1433123	80.0	81.7	
160 Anthracene	178	9.092	9.092	0.000	99	1499761	80.0	84.1	
161 Carbazole	167	9.246	9.246	0.000	96	1321587	80.0	84.8	
163 Alachlor	188	9.483	9.483	0.000	95	183965	80.0	87.9	
164 Di-n-butyl phthalate	149	9.637	9.637	0.000	100	1656631	80.0	86.7	
170 Fluoranthene	202	10.194	10.194	0.000	99	1567975	80.0	85.3	
172 Pyrene	202	10.412	10.412	0.000	96	1650351	80.0	89.7	
180 Butyl benzyl phthalate	149	11.129	11.129	0.000	96	707668	80.0	86.1	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.718	11.718	0.000	99	1611568	80.0	85.5	
185 Chrysene	228	11.769	11.769	0.000	97	1462956	80.0	80.6	
186 Bis(2-ethylhexyl) phthalate	149	11.834	11.834	0.000	98	1062216	80.0	86.0	
189 Di-n-octyl phthalate	149	12.621	12.621	0.000	99	1646601	80.0	87.9	
191 Benzo[b]fluoranthene	252	13.102	13.102	0.000	97	1449462	80.0	83.8	
193 Benzo[k]fluoranthene	252	13.134	13.134	0.000	99	1560406	80.0	83.2	
194 Benzo[a]pyrene	252	13.532	13.532	0.000	78	1286499	80.0	84.3	
198 Indeno[1,2,3-cd]pyrene	276	15.083	15.083	0.000	99	1417130	80.0	87.7	
199 Dibenz(a,h)anthracene	278	15.112	15.112	0.000	89	1186932	80.0	85.1	
200 Benzo[g,h,i]perylene	276	15.479	15.479	0.000	99	1131496	80.0	84.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA080_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\925.D

Injection Date: 07-Nov-2022 22:09:43

Instrument ID: SMS_1

Operator ID:

Lims ID: ICIS HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

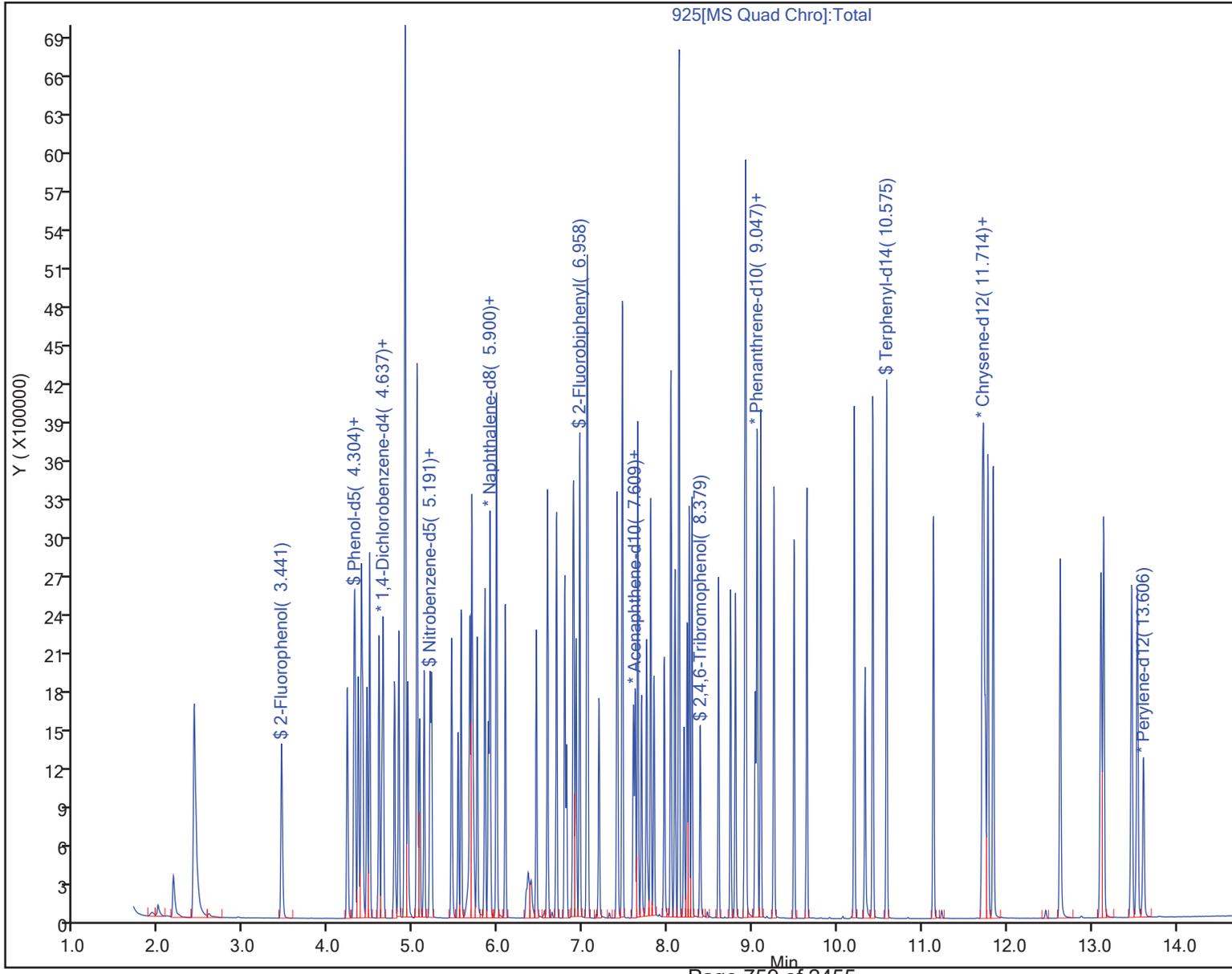
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\926.D
 Lims ID: STD0120 HSL
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 07-Nov-2022 22:31:08 ALS Bottle#: 0 Worklist Smp#: 23
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD120 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 10:57:01 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.625	4.624	0.001	97	190056	40.0	40.0	
* 2 Naphthalene-d8	136	5.881	5.880	0.001	99	712077	40.0	40.0	
* 3 Acenaphthene-d10	164	7.610	7.609	0.002	95	417640	40.0	40.0	
* 4 Phenanthrene-d10	188	9.027	9.028	-0.001	97	754740	40.0	40.0	
* 5 Chrysene-d12	240	11.741	11.740	0.001	99	705891	40.0	40.0	
* 6 Perylene-d12	264	13.607	13.606	0.001	98	647903	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.441	3.441	0.000	95	711338	120.0	107.4	
\$ 8 Phenol-d5	99	4.298	4.294	0.004	97	956911	120.0	110.5	
\$ 9 Nitrobenzene-d5	82	5.192	5.191	0.001	91	971847	120.0	111.7	
\$ 10 2-Fluorobiphenyl	172	6.959	6.958	0.001	99	1618029	120.0	107.1	
\$ 11 2,4,6-Tribromophenol	330	8.381	8.379	0.002	93	231445	120.0	113.0	
\$ 12 Terphenyl-d14	244	10.579	10.575	0.004	97	2101154	120.0	107.8	
15 1,4-Dioxane	88	2.165	2.165	0.000	99	308671	120.0	112.7	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	92	482652	120.0	110.3	
18 Pyridine	79	2.411	2.411	0.000	95	1649445	240.0	216.5	
29 Phenol	94	4.311	4.307	0.003	99	930323	120.0	109.4	
31 Aniline	93	4.346	4.345	0.001	96	1168182	120.0	109.5	
32 Alpha Methyl Styrene	118	4.384	4.384	0.000	91	718473	120.0	109.8	
33 Bis(2-chloroethyl)ether	93	4.400	4.400	0.000	96	794608	120.0	105.0	
34 2-Chlorophenol	128	4.452	4.448	0.004	95	668889	120.0	108.9	
35 n-Decane	43	4.480	4.480	0.000	89	856318	120.0	113.4	
36 1,3-Dichlorobenzene	146	4.593	4.589	0.004	94	748894	120.0	106.9	
37 1,4-Dichlorobenzene	146	4.641	4.640	0.001	90	773578	120.0	107.4	
40 Benzyl alcohol	108	4.775	4.772	0.003	89	434165	120.0	110.4	
43 1,2-Dichlorobenzene	146	4.823	4.823	0.000	92	717064	120.0	105.8	
45 2-Methylphenol	108	4.894	4.890	0.004	97	667829	120.0	109.3	
46 Indene	116	4.900	4.900	0.000	89	2584674	240.0	215.4	
47 2,2'-oxybis[1-chloropropane]	45	4.929	4.929	0.000	92	1067378	120.0	113.2	
49 3-Methylphenol	108	5.038	5.034	0.004	89	697708	120.0	111.7	
51 4-Methylphenol	108	5.038	5.034	0.004	96	697708	120.0	111.7	
50 3 & 4 Methylphenol	108	5.038	5.034	0.004	0	697708	120.0	111.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.041	5.041	0.000	94	1091204	120.0	108.1	
54 N-Nitrosodi-n-propylamine	70	5.073	5.070	0.003	87	583960	120.0	116.0	
56 Hexachloroethane	117	5.121	5.121	0.000	95	332213	120.0	108.5	
58 Nitrobenzene	77	5.211	5.211	0.000	89	892978	120.0	109.2	
60 Isophorone	82	5.448	5.444	0.004	99	1557082	120.0	107.5	
61 2-Nitrophenol	139	5.525	5.524	0.001	95	340303	120.0	118.4	
62 2,4-Dimethylphenol	107	5.560	5.556	0.004	99	714796	120.0	113.0	
66 Bis(2-chloroethoxy)methane	63	5.663	5.659	0.004	97	694717	120.0	115.4	
68 3,5-Dimethylphenol	107	5.685	5.685	0.000	82	739291	120.0	111.3	
69 Benzoic acid	105	5.724	5.704	0.020	91	1210809	240.0	231.1	
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	98	569155	120.0	111.9	
72 1,2,4-Trichlorobenzene	180	5.839	5.839	0.000	93	661621	120.0	108.0	
75 Naphthalene	128	5.900	5.900	0.000	99	1918891	120.0	106.4	
77 4-Chloroaniline	127	5.974	5.974	0.000	94	853903	120.0	113.3	
78 2,6-Dichlorophenol	162	5.978	5.977	0.001	94	578375	120.0	109.7	
80 Hexachlorobutadiene	225	6.080	6.079	0.001	97	379213	120.0	108.6	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.449	6.444	0.005	95	621584	120.0	112.8	
88 2-Methylnaphthalene	141	6.577	6.576	0.001	93	1133996	120.0	109.5	
89 1-Methylnaphthalene	142	6.686	6.685	0.001	93	1191308	120.0	107.3	
90 1,2,4,5-Tetrachlorobenzene	216	6.782	6.781	0.001	99	663972	120.0	109.1	
92 Hexachlorocyclopentadiene	237	6.802	6.800	0.002	96	298753	120.0	115.9	
93 2,4,6-Trichlorophenol	196	6.882	6.877	0.005	95	442619	120.0	114.4	
94 2,3-Dichlorobenzenamine	161	6.888	6.887	0.001	94	689718	120.0	109.5	
95 2,4,5-Trichlorophenol	196	6.914	6.913	0.001	92	486217	120.0	116.1	
97 1,1'-Biphenyl	154	7.043	7.041	0.002	98	1667909	120.0	108.2	
98 2-Chloronaphthalene	162	7.052	7.051	0.001	98	1324869	120.0	108.2	
101 2-Nitroaniline	65	7.187	7.182	0.005	77	482591	120.0	116.6	
104 Dimethyl phthalate	163	7.398	7.397	0.001	96	1467161	120.0	108.5	
105 1,3-Dinitrobenzene	168	7.408	7.403	0.005	83	239903	120.0	114.2	
106 2,6-Dinitrotoluene	165	7.459	7.458	0.001	91	346923	120.0	111.2	
107 Acenaphthylene	152	7.463	7.461	0.002	99	1971479	120.0	108.0	
108 3-Nitroaniline	138	7.591	7.589	0.002	90	342517	120.0	116.4	
109 Acenaphthene	153	7.642	7.641	0.001	97	1328828	120.0	106.4	
111 2,4-Dinitrophenol	184	7.687	7.686	0.001	86	354733	240.0	244.6	
113 4-Nitrophenol	109	7.752	7.747	0.005	94	436115	240.0	218.6	
114 Dibenzofuran	168	7.796	7.795	0.001	96	1799228	120.0	105.9	
116 2,4-Dinitrotoluene	165	7.835	7.833	0.002	88	444621	120.0	109.9	
120 2,3,4,6-Tetrachlorophenol	232	7.957	7.955	0.002	76	358790	120.0	111.6	
122 Hexadecane	57	8.031	8.032	-0.001	95	1189425	120.0	113.9	
124 Diethyl phthalate	149	8.082	8.081	0.001	97	1459808	120.0	106.7	
126 4-Chlorophenyl phenyl ether	204	8.131	8.129	0.002	74	759031	120.0	109.1	
127 Fluorene	166	8.131	8.129	0.002	91	1555899	120.0	110.3	
130 4-Nitroaniline	138	8.192	8.187	0.005	80	337274	120.0	111.0	
131 4,6-Dinitro-2-methylphenol	198	8.230	8.225	0.005	80	482816	240.0	231.4	
132 Diphenylamine	169	8.253	8.248	0.005	93	1085199	102.0	94.4	
133 N-Nitrosodiphenylamine	169	8.253	8.248	0.005	75	1085199	120.0	111.4	
136 1,2-Diphenylhydrazine	77	8.282	8.280	0.002	41	1881394	121.3	114.1	
135 Azobenzene	77	8.282	8.280	0.002	99	1881394	120.0	119.1	
145 4-Bromophenyl phenyl ether	248	8.596	8.594	0.002	73	412290	120.0	109.7	
148 Hexachlorobenzene	284	8.737	8.735	0.002	94	451885	120.0	108.9	
150 Atrazine	200		8.797				ND	ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
153 Pentachlorophenol	266	8.908	8.905	0.003	91	582380	240.0	223.7	
154 n-Octadecane	57	8.917	8.915	0.002	97	1197702	120.0	118.7	
157 Phenanthrene	178	9.049	9.050	-0.001	99	2141455	120.0	106.8	
160 Anthracene	178	9.094	9.092	0.002	99	2191726	120.0	107.6	
161 Carbazole	167	9.248	9.246	0.002	97	1966949	120.0	110.4	
163 Alachlor	188	9.486	9.483	0.003	96	283116	120.0	118.4	
164 Di-n-butyl phthalate	149	9.636	9.637	-0.001	100	2467480	120.0	112.9	
170 Fluoranthene	202	10.197	10.194	0.003	99	2353604	120.0	112.0	
172 Pyrene	202	10.415	10.412	0.003	96	2449586	120.0	113.1	
180 Butyl benzyl phthalate	149	11.129	11.129	0.000	96	1080101	120.0	110.1	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.722	11.718	0.004	99	2466680	120.0	110.0	
185 Chrysene	228	11.773	11.769	0.004	97	2188526	120.0	101.3	
186 Bis(2-ethylhexyl) phthalate	149	11.835	11.834	0.001	98	1599922	120.0	112.9	
189 Di-n-octyl phthalate	149	12.626	12.621	0.005	99	2531314	120.0	113.0	
191 Benzo[b]fluoranthene	252	13.106	13.102	0.004	97	2234861	120.0	112.0	
193 Benzo[k]fluoranthene	252	13.139	13.134	0.005	99	2314477	120.0	107.1	
194 Benzo[a]pyrene	252	13.537	13.532	0.005	78	1971917	120.0	112.0	
198 Indeno[1,2,3-cd]pyrene	276	15.089	15.083	0.006	99	2181548	120.0	113.4	
199 Dibenz(a,h)anthracene	278	15.118	15.112	0.006	92	1833815	120.0	113.9	
200 Benzo[g,h,i]perylene	276	15.488	15.479	0.009	98	1711712	120.0	110.8	
S 211 Total Cresols	108				0			221.0	
S 212 Methyl Phenols,Total	108				0			221.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA120_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\926.D

Injection Date: 07-Nov-2022 22:31:08

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0120 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

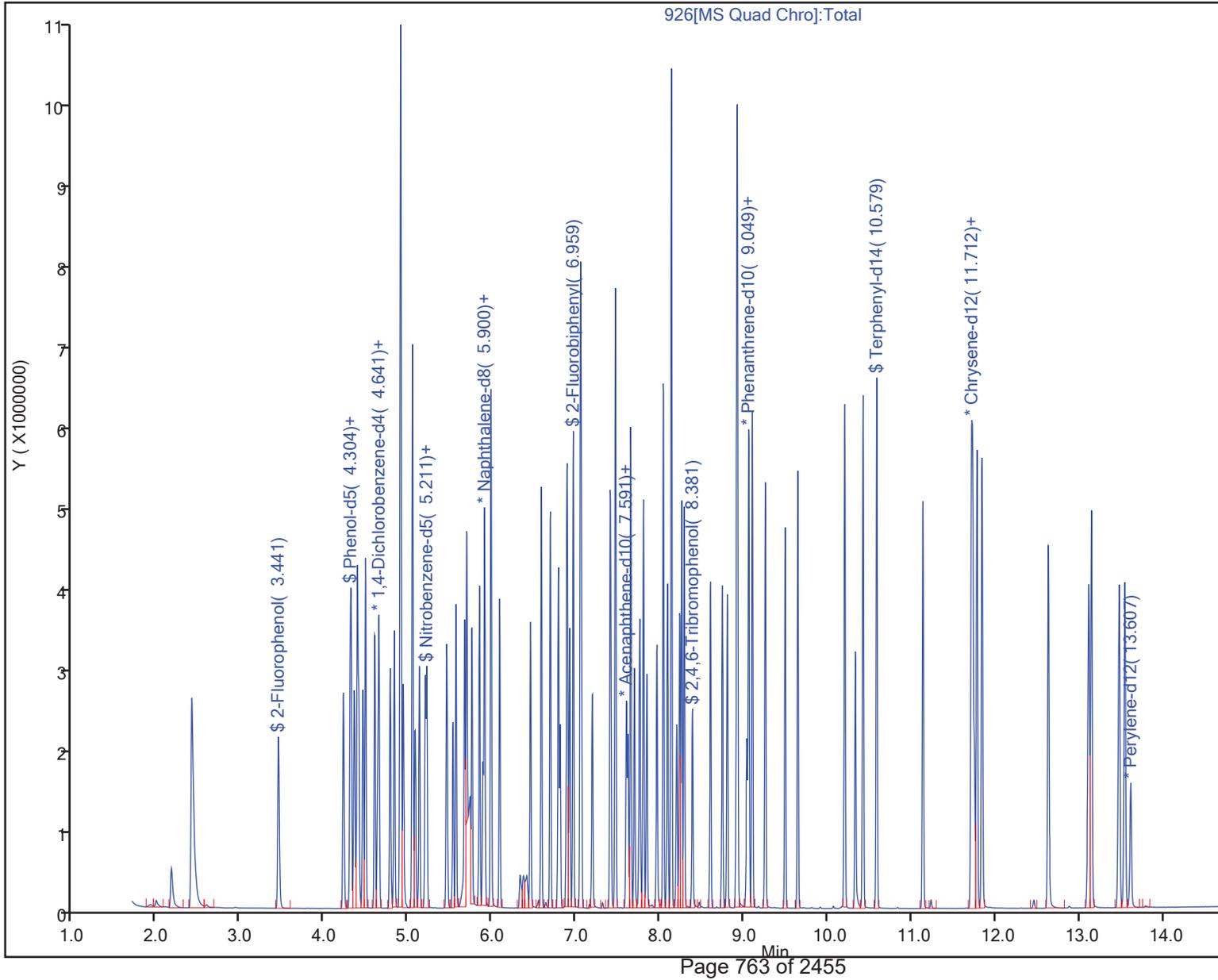
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\927.D
 Lims ID: STD0160 HSL
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 07-Nov-2022 22:52:37 ALS Bottle#: 0 Worklist Smp#: 24
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD160 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 10:57:04 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.625	4.624	0.001	97	188918	40.0	40.0	
* 2 Naphthalene-d8	136	5.882	5.880	0.002	100	713671	40.0	40.0	
* 3 Acenaphthene-d10	164	7.611	7.609	0.003	95	417329	40.0	40.0	
* 4 Phenanthrene-d10	188	9.029	9.028	0.001	98	762922	40.0	40.0	
* 5 Chrysene-d12	240	11.741	11.740	0.001	99	721369	40.0	40.0	
* 6 Perylene-d12	264	13.609	13.606	0.003	98	659234	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.441	3.441	0.000	95	954612	160.0	145.0	
\$ 8 Phenol-d5	99	4.301	4.294	0.007	97	1283105	160.0	149.0	
\$ 9 Nitrobenzene-d5	82	5.196	5.191	0.005	90	1298087	160.0	148.9	
\$ 10 2-Fluorobiphenyl	172	6.960	6.958	0.002	99	2181172	160.0	144.5	
\$ 11 2,4,6-Tribromophenol	330	8.383	8.379	0.004	93	326017	160.0	158.7	
\$ 12 Terphenyl-d14	244	10.578	10.575	0.003	97	2851345	160.0	143.2	
15 1,4-Dioxane	88	2.165	2.165	0.000	98	413233	160.0	153.5	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	95	648130	160.0	149.1	
18 Pyridine	79	2.411	2.411	0.000	95	2190554	320.0	289.3	
29 Phenol	94	4.314	4.307	0.007	99	1240239	160.0	146.8	
31 Aniline	93	4.349	4.345	0.004	97	1569024	160.0	148.0	
32 Alpha Methyl Styrene	118	4.385	4.384	0.000	90	958505	160.0	147.4	
33 Bis(2-chloroethyl)ether	93	4.401	4.400	0.001	96	1042553	160.0	138.6	
34 2-Chlorophenol	128	4.452	4.448	0.004	95	896908	160.0	146.9	
35 n-Decane	43	4.481	4.480	0.001	89	1125224	160.0	151.5	
36 1,3-Dichlorobenzene	146	4.593	4.589	0.004	94	1008399	160.0	144.8	
37 1,4-Dichlorobenzene	146	4.641	4.640	0.001	90	1036676	160.0	144.8	
40 Benzyl alcohol	108	4.776	4.772	0.004	89	591800	160.0	151.4	
43 1,2-Dichlorobenzene	146	4.824	4.823	0.001	92	972026	160.0	144.3	
45 2-Methylphenol	108	4.894	4.890	0.004	97	908858	160.0	149.6	
46 Indene	116	4.904	4.900	0.004	89	3420887	320.0	286.9	
47 2,2'-oxybis[1-chloropropane]	45	4.929	4.929	0.000	92	1403055	160.0	151.3	
49 3-Methylphenol	108	5.042	5.034	0.008	92	930177	160.0	149.9	
51 4-Methylphenol	108	5.042	5.034	0.008	96	930177	160.0	149.9	
50 3 & 4 Methylphenol	108	5.042	5.034	0.008	0	930177	160.0	149.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.045	5.041	0.004	92	1453648	160.0	144.9	
54 N-Nitrosodi-n-propylamine	70	5.077	5.070	0.007	87	780264	160.0	157.5	
56 Hexachloroethane	117	5.122	5.121	0.001	96	447507	160.0	147.0	
58 Nitrobenzene	77	5.212	5.211	0.001	89	1200249	160.0	146.4	
60 Isophorone	82	5.452	5.444	0.008	99	2065576	160.0	142.3	
61 2-Nitrophenol	139	5.526	5.524	0.002	95	463006	160.0	160.8	
62 2,4-Dimethylphenol	107	5.561	5.556	0.005	98	958803	160.0	151.2	
66 Bis(2-chloroethoxy)methane	63	5.664	5.659	0.005	98	936188	160.0	157.3	
68 3,5-Dimethylphenol	107	5.689	5.685	0.004	81	966866	160.0	145.3	
69 Benzoic acid	105	5.747	5.704	0.043	91	1694621	320.0	317.4	
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	97	769281	160.0	150.9	
72 1,2,4-Trichlorobenzene	180	5.840	5.839	0.001	94	887796	160.0	144.6	
75 Naphthalene	128	5.901	5.900	0.001	99	2566227	160.0	142.0	
77 4-Chloroaniline	127	5.978	5.974	0.004	94	1151646	160.0	152.5	
78 2,6-Dichlorophenol	162	5.981	5.977	0.004	94	782865	160.0	148.1	
80 Hexachlorobutadiene	225	6.081	6.079	0.002	97	517619	160.0	147.9	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.453	6.444	0.009	95	845569	160.0	153.1	
88 2-Methylnaphthalene	141	6.578	6.576	0.002	91	1523001	160.0	146.8	
89 1-Methylnaphthalene	142	6.687	6.685	0.002	92	1606402	160.0	144.4	
90 1,2,4,5-Tetrachlorobenzene	216	6.783	6.781	0.002	98	896241	160.0	147.0	
92 Hexachlorocyclopentadiene	237	6.803	6.800	0.003	97	437413	160.0	168.4	
93 2,4,6-Trichlorophenol	196	6.883	6.877	0.006	95	609334	160.0	157.6	
94 2,3-Dichlorobenzenamine	161	6.889	6.887	0.002	94	938351	160.0	149.1	
95 2,4,5-Trichlorophenol	196	6.918	6.913	0.005	93	664039	160.0	158.7	
97 1,1'-Biphenyl	154	7.044	7.041	0.003	98	2217339	160.0	144.0	
98 2-Chloronaphthalene	162	7.053	7.051	0.002	98	1766705	160.0	144.4	
101 2-Nitroaniline	65	7.188	7.182	0.006	77	652890	160.0	157.8	
104 Dimethyl phthalate	163	7.400	7.397	0.003	96	1948997	160.0	144.3	
105 1,3-Dinitrobenzene	168	7.409	7.403	0.006	83	328090	160.0	155.6	
106 2,6-Dinitrotoluene	165	7.461	7.458	0.003	93	481899	160.0	154.5	
107 Acenaphthylene	152	7.464	7.461	0.003	99	2652029	160.0	145.5	
108 3-Nitroaniline	138	7.595	7.589	0.006	90	462450	160.0	157.1	
109 Acenaphthene	153	7.644	7.641	0.003	97	1799627	160.0	144.2	
111 2,4-Dinitrophenol	184	7.692	7.686	0.006	82	500368	320.0	342.3	
113 4-Nitrophenol	109	7.756	7.747	0.009	94	607539	320.0	302.2	
114 Dibenzofuran	168	7.798	7.795	0.003	96	2405172	160.0	141.7	
116 2,4-Dinitrotoluene	165	7.840	7.833	0.007	89	604035	160.0	148.9	
120 2,3,4,6-Tetrachlorophenol	232	7.958	7.955	0.003	76	499817	160.0	155.6	
122 Hexadecane	57	8.032	8.032	0.000	94	1582495	160.0	153.1	
124 Diethyl phthalate	149	8.084	8.081	0.003	97	1967419	160.0	144.0	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	95	1059038	160.0	152.3	
127 Fluorene	166	8.132	8.129	0.003	94	2128814	160.0	151.0	
130 4-Nitroaniline	138	8.200	8.187	0.013	81	460044	160.0	150.6	
131 4,6-Dinitro-2-methylphenol	198	8.235	8.225	0.010	83	688024	320.0	323.9	
132 Diphenylamine	169	8.254	8.248	0.006	93	1479559	136.0	128.7	
133 N-Nitrosodiphenylamine	169	8.254	8.248	0.006	73	1479559	160.0	150.2	
136 1,2-Diphenylhydrazine	77	8.283	8.280	0.003	45	2481571	161.8	152.4	
135 Azobenzene	77	8.283	8.280	0.003	99	2481571	160.0	NQ	
145 4-Bromophenyl phenyl ether	248	8.598	8.594	0.004	72	570138	160.0	150.1	
148 Hexachlorobenzene	284	8.739	8.735	0.004	94	619255	160.0	147.7	
150 Atrazine	200		8.797				ND	ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
153 Pentachlorophenol	266	8.910	8.905	0.005	91	840363	320.0	317.8	
154 n-Octadecane	57	8.916	8.915	0.001	97	1581143	160.0	156.8	
157 Phenanthrene	178	9.051	9.050	0.001	99	2850038	160.0	140.6	
160 Anthracene	178	9.097	9.092	0.004	99	2975587	160.0	144.5	
161 Carbazole	167	9.251	9.246	0.005	97	2645446	160.0	146.9	
163 Alachlor	188	9.488	9.483	0.005	97	391599	160.0	162.0	
164 Di-n-butyl phthalate	149	9.639	9.637	0.002	100	3258925	160.0	147.6	
170 Fluoranthene	202	10.196	10.194	0.002	99	3073414	160.0	144.6	
172 Pyrene	202	10.418	10.412	0.006	96	3300635	160.0	150.6	
180 Butyl benzyl phthalate	149	11.129	11.129	0.000	97	1493909	160.0	148.6	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.722	11.718	0.004	99	3358800	160.0	146.6	
185 Chrysene	228	11.777	11.769	0.008	97	2978038	160.0	134.8	
186 Bis(2-ethylhexyl) phthalate	149	11.835	11.834	0.001	98	2197343	160.0	152.8	
189 Di-n-octyl phthalate	149	12.627	12.621	0.006	99	3456944	160.0	150.4	
191 Benzo[b]fluoranthene	252	13.111	13.102	0.009	97	3114835	160.0	153.4	
193 Benzo[k]fluoranthene	252	13.143	13.134	0.009	99	3114257	160.0	141.6	
194 Benzo[a]pyrene	252	13.541	13.532	0.009	78	2670247	160.0	149.1	
198 Indeno[1,2,3-cd]pyrene	276	15.094	15.083	0.011	99	2985274	160.0	151.9	
199 Dibenz(a,h)anthracene	278	15.123	15.112	0.011	94	2530361	160.0	154.5	
200 Benzo[g,h,i]perylene	276	15.493	15.479	0.014	98	2341403	160.0	149.0	
S 211 Total Cresols	108				0			299.5	
S 212 Methyl Phenols,Total	108				0			299.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

NQ - Not Quantifiable

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA160_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\927.D

Injection Date: 07-Nov-2022 22:52:37

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0160 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

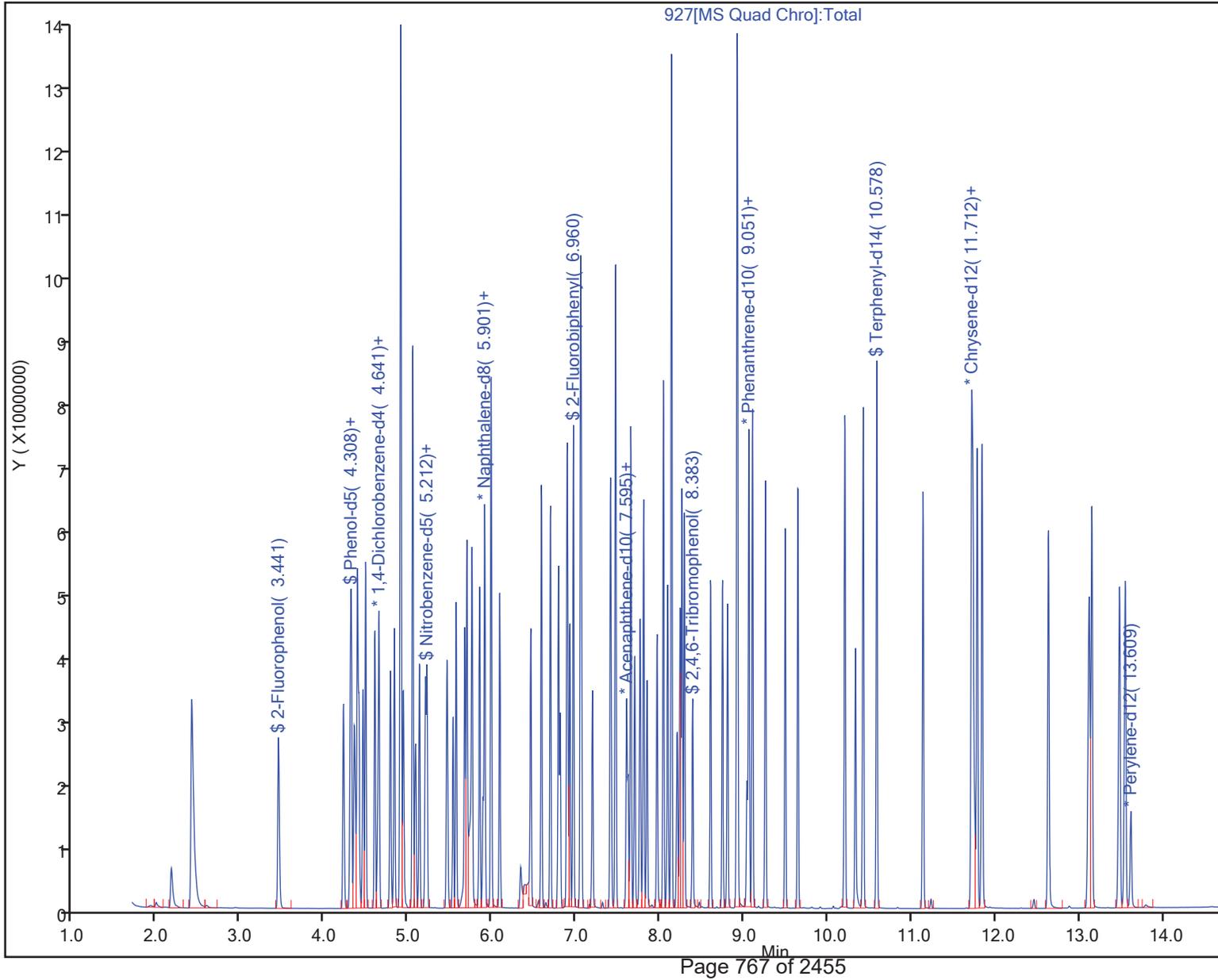
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Lims ID: STD0200 HSL
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 07-Nov-2022 23:14:03 ALS Bottle#: 0 Worklist Smp#: 25
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD200 HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 10:57:06 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.625	4.624	0.001	97	187922	40.0	40.0	
* 2 Naphthalene-d8	136	5.882	5.880	0.002	100	715770	40.0	40.0	
* 3 Acenaphthene-d10	164	7.612	7.609	0.004	95	427626	40.0	40.0	
* 4 Phenanthrene-d10	188	9.030	9.028	0.002	97	769075	40.0	40.0	
* 5 Chrysene-d12	240	11.744	11.740	0.004	98	734088	40.0	40.0	
* 6 Perylene-d12	264	13.612	13.606	0.006	97	671441	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.444	3.441	0.003	95	1182904	200.0	180.7	
\$ 8 Phenol-d5	99	4.304	4.294	0.010	97	1591708	200.0	185.8	
\$ 9 Nitrobenzene-d5	82	5.196	5.191	0.005	91	1597594	200.0	182.7	
\$ 10 2-Fluorobiphenyl	172	6.961	6.958	0.003	99	2703521	200.0	174.8	
\$ 11 2,4,6-Tribromophenol	330	8.384	8.379	0.005	94	421354	200.0	199.7	
\$ 12 Terphenyl-d14	244	10.581	10.575	0.006	97	3549599	200.0	175.1	
15 1,4-Dioxane	88	2.165	2.165	0.000	98	515171	200.0	193.6	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	92	806810	200.0	186.5	
18 Pyridine	79	2.411	2.411	0.000	95	2712440	400.0	360.1	
29 Phenol	94	4.314	4.307	0.007	99	1567253	200.0	186.4	
31 Aniline	93	4.349	4.345	0.004	97	1938542	200.0	183.8	
32 Alpha Methyl Styrene	118	4.384	4.384	0.000	89	1187940	200.0	183.7	
33 Bis(2-chloroethyl)ether	93	4.404	4.400	0.004	96	1301849	200.0	174.0	
34 2-Chlorophenol	128	4.452	4.448	0.004	96	1129014	200.0	185.9	
35 n-Decane	43	4.484	4.480	0.004	89	1384056	200.0	188.6	
36 1,3-Dichlorobenzene	146	4.593	4.589	0.004	94	1257626	200.0	181.6	
37 1,4-Dichlorobenzene	146	4.641	4.640	0.001	90	1293361	200.0	181.6	
40 Benzyl alcohol	108	4.779	4.772	0.007	89	746215	200.0	191.9	
43 1,2-Dichlorobenzene	146	4.827	4.823	0.004	93	1223484	200.0	182.7	
45 2-Methylphenol	108	4.897	4.890	0.007	97	1129915	200.0	187.0	
46 Indene	116	4.904	4.900	0.004	89	4160537	400.0	350.7	
47 2,2'-oxybis[1-chloropropane]	45	4.933	4.929	0.004	92	1715819	200.0	187.2	
49 3-Methylphenol	108	5.045	5.034	0.011	83	1168513	200.0	189.3	
51 4-Methylphenol	108	5.045	5.034	0.011	93	1168513	200.0	189.3	
50 3 & 4 Methylphenol	108	5.045	5.034	0.011	0	1168513	200.0	189.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.048	5.041	0.007	85	1786544	200.0	179.0	
54 N-Nitrosodi-n-propylamine	70	5.080	5.070	0.010	87	962159	200.0	196.3	
56 Hexachloroethane	117	5.125	5.121	0.004	95	560804	200.0	185.2	
58 Nitrobenzene	77	5.215	5.211	0.004	89	1467681	200.0	178.5	
60 Isophorone	82	5.455	5.444	0.011	99	2580871	200.0	177.3	
61 2-Nitrophenol	139	5.526	5.524	0.002	95	586563	200.0	203.1	
62 2,4-Dimethylphenol	107	5.564	5.556	0.008	98	1178524	200.0	185.4	
66 Bis(2-chloroethoxy)methane	63	5.667	5.659	0.008	97	1148164	200.0	193.8	
68 3,5-Dimethylphenol	107	5.693	5.685	0.008	80	1217470	200.0	182.4	
69 Benzoic acid	105	5.760	5.704	0.056	90	2130878	400.0	394.6	
70 2,4-Dichlorophenol	162	5.754	5.749	0.005	97	986989	200.0	193.0	
72 1,2,4-Trichlorobenzene	180	5.843	5.839	0.004	93	1109594	200.0	180.2	
75 Naphthalene	128	5.905	5.900	0.005	99	3175894	200.0	175.2	
77 4-Chloroaniline	127	5.978	5.974	0.004	94	1444234	200.0	190.7	
78 2,6-Dichlorophenol	162	5.982	5.977	0.005	95	1002943	200.0	189.2	
80 Hexachlorobutadiene	225	6.081	6.079	0.002	97	656703	200.0	187.1	
84 Caprolactam	55		6.297				ND	ND	U
85 4-Chloro-3-methylphenol	107	6.453	6.444	0.009	95	1049303	200.0	189.4	
88 2-Methylnaphthalene	141	6.581	6.576	0.005	91	1870533	200.0	179.7	
89 1-Methylnaphthalene	142	6.687	6.685	0.002	92	2008545	200.0	180.0	
90 1,2,4,5-Tetrachlorobenzene	216	6.784	6.781	0.003	99	1133475	200.0	185.3	
92 Hexachlorocyclopentadiene	237	6.803	6.800	0.003	97	565933	200.0	211.9	
93 2,4,6-Trichlorophenol	196	6.883	6.877	0.006	95	766941	200.0	193.5	
94 2,3-Dichlorobenzenamine	161	6.893	6.887	0.006	95	1173819	200.0	182.1	
95 2,4,5-Trichlorophenol	196	6.919	6.913	0.006	93	824571	200.0	192.4	
97 1,1'-Biphenyl	154	7.047	7.041	0.006	97	2781369	200.0	176.3	
98 2-Chloronaphthalene	162	7.057	7.051	0.006	98	2212049	200.0	176.5	
101 2-Nitroaniline	65	7.189	7.182	0.007	77	808159	200.0	190.6	
104 Dimethyl phthalate	163	7.403	7.397	0.006	96	2409281	200.0	174.0	
105 1,3-Dinitrobenzene	168	7.413	7.403	0.010	86	416786	200.0	192.4	
106 2,6-Dinitrotoluene	165	7.465	7.458	0.007	90	599504	200.0	187.6	
107 Acenaphthylene	152	7.465	7.461	0.004	98	3290968	200.0	176.1	
108 3-Nitroaniline	138	7.599	7.589	0.010	90	581962	200.0	192.9	
109 Acenaphthene	153	7.648	7.641	0.007	97	2228341	200.0	174.2	
111 2,4-Dinitrophenol	184	7.696	7.686	0.010	83	657317	400.0	436.8	
113 4-Nitrophenol	109	7.760	7.747	0.013	94	768630	400.0	371.6	
114 Dibenzofuran	168	7.799	7.795	0.004	96	2976892	200.0	171.1	
116 2,4-Dinitrotoluene	165	7.840	7.833	0.007	89	760164	200.0	182.6	
120 2,3,4,6-Tetrachlorophenol	232	7.959	7.955	0.004	78	631111	200.0	191.8	
122 Hexadecane	57	8.033	8.032	0.001	94	1946271	200.0	184.6	
124 Diethyl phthalate	149	8.088	8.081	0.007	97	2460899	200.0	175.7	
126 4-Chlorophenyl phenyl ether	204	8.133	8.129	0.004	95	1327950	200.0	186.4	
127 Fluorene	166	8.133	8.129	0.004	93	2652535	200.0	183.6	
130 4-Nitroaniline	138	8.204	8.187	0.017	81	583845	200.0	186.0	
131 4,6-Dinitro-2-methylphenol	198	8.239	8.225	0.014	85	885458	400.0	412.1	
132 Diphenylamine	169	8.258	8.248	0.010	91	1852310	170.0	157.3	
133 N-Nitrosodiphenylamine	169	8.258	8.248	0.010	64	1861178	200.0	187.5	
136 1,2-Diphenylhydrazine	77	8.287	8.280	0.007	47	3094554	202.2	186.6	
135 Azobenzene	77	8.287	8.280	0.007	99	3094554	200.0	NQ	
145 4-Bromophenyl phenyl ether	248	8.599	8.594	0.005	71	722656	200.0	188.7	
148 Hexachlorobenzene	284	8.740	8.735	0.005	94	793514	200.0	187.7	
150 Atrazine	200		8.797				ND	ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
153 Pentachlorophenol	266	8.914	8.905	0.009	91	1115254	400.0	417.3	
154 n-Octadecane	57	8.917	8.915	0.002	97	1893563	200.0	187.5	
157 Phenanthrene	178	9.056	9.050	0.006	99	3536484	200.0	173.1	
160 Anthracene	178	9.098	9.092	0.006	99	3652026	200.0	175.9	
161 Carbazole	167	9.255	9.246	0.009	97	3297788	200.0	181.7	
163 Alachlor	188	9.490	9.483	0.007	98	501606	200.0	205.9	
164 Di-n-butyl phthalate	149	9.641	9.637	0.003	100	3990090	200.0	179.2	
170 Fluoranthene	202	10.198	10.194	0.004	99	3822171	200.0	178.4	
172 Pyrene	202	10.420	10.412	0.008	95	4049955	200.0	182.5	
180 Butyl benzyl phthalate	149	11.132	11.129	0.003	96	1889047	200.0	184.3	
183 3,3'-Dichlorobenzidine	252		11.708				ND	ND	U
184 Benzo[a]anthracene	228	11.724	11.718	0.006	99	4217783	200.0	180.9	
185 Chrysene	228	11.779	11.769	0.010	96	3678719	200.0	163.7	
186 Bis(2-ethylhexyl) phthalate	149	11.837	11.834	0.003	98	2721546	200.0	187.4	
189 Di-n-octyl phthalate	149	12.626	12.621	0.005	99	4298572	200.0	183.4	
191 Benzo[b]fluoranthene	252	13.114	13.102	0.012	97	3886008	200.0	187.9	
193 Benzo[k]fluoranthene	252	13.149	13.134	0.015	99	3982370	200.0	177.7	
194 Benzo[a]pyrene	252	13.547	13.532	0.015	82	3355406	200.0	184.0	
198 Indeno[1,2,3-cd]pyrene	276	15.101	15.083	0.018	99	3769480	200.0	188.5	
199 Dibenz(a,h)anthracene	278	15.130	15.112	0.018	93	3203413	200.0	192.0	
200 Benzo[g,h,i]perylene	276	15.500	15.479	0.021	98	2938837	200.0	183.6	
S 211 Total Cresols	108				0			376.2	
S 212 Methyl Phenols,Total	108				0			376.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

NQ - Not Quantifiable

Review Flags

U - Marked Undetected

Reagents:

MS-HSLA200_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D

Injection Date: 07-Nov-2022 23:14:03

Instrument ID: SMS_1

Operator ID:

Lims ID: STD0200 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

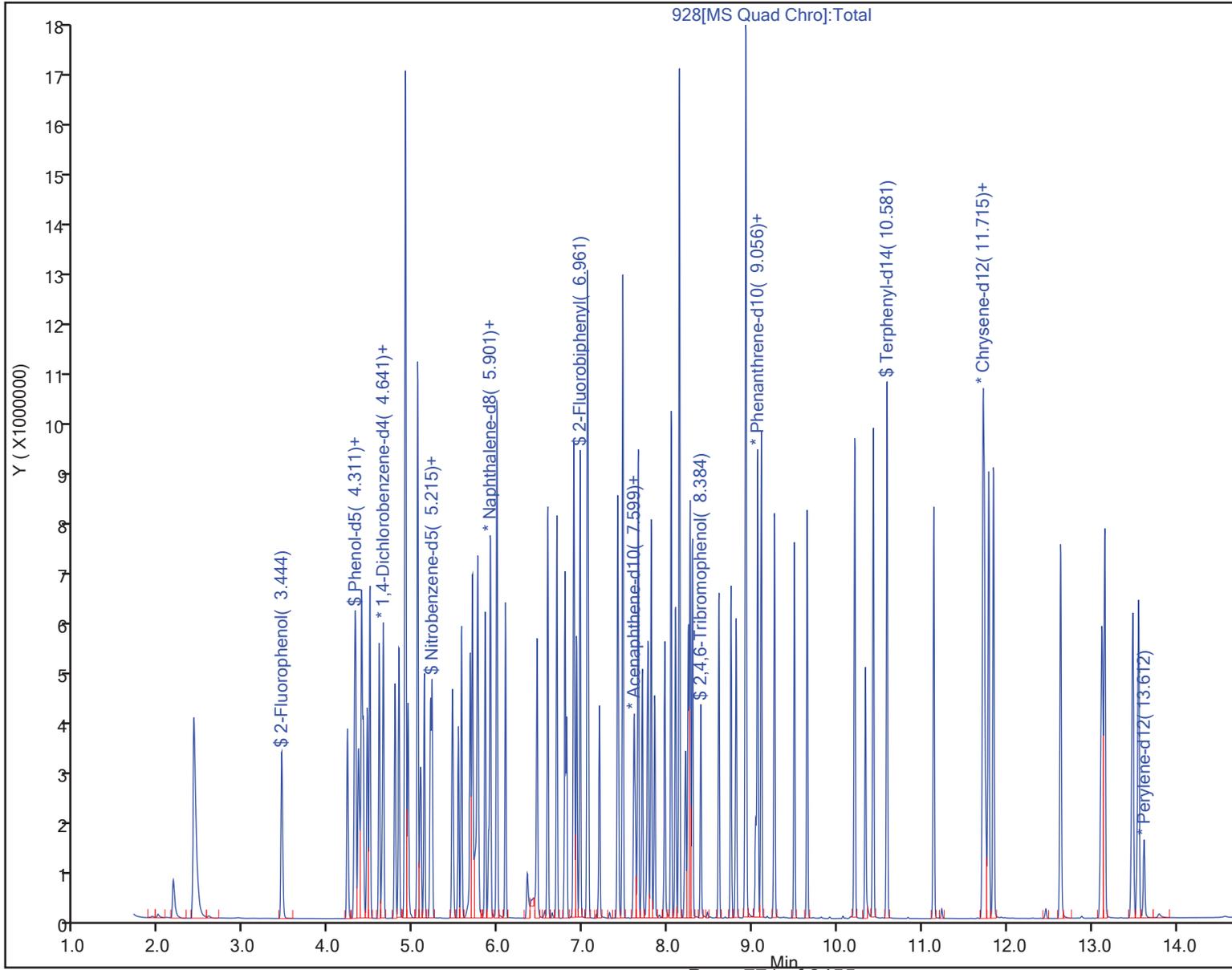
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Calibration

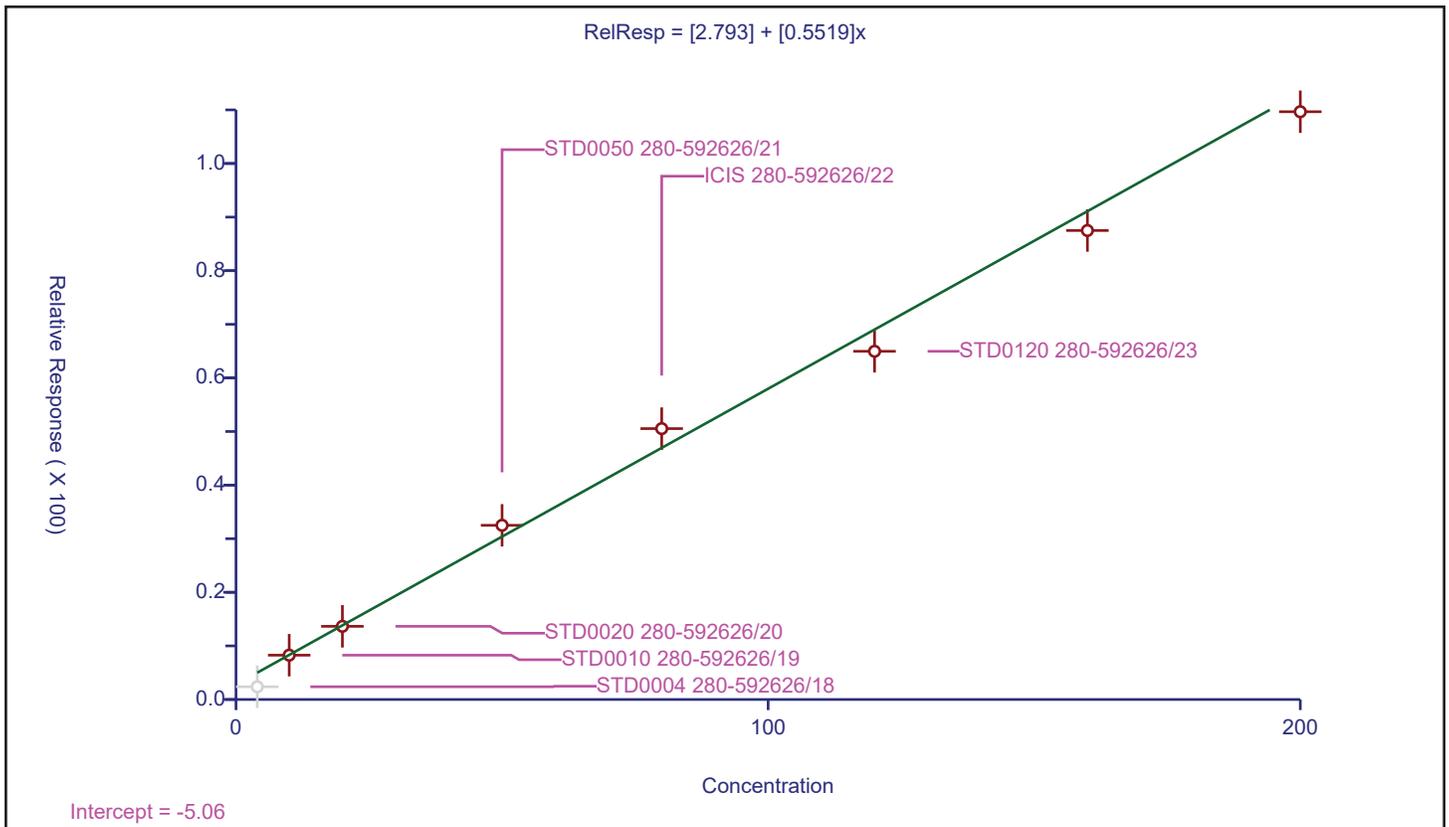
/ 1,4-Dioxane

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	2.793
Slope:	0.5519

Error Coefficients	
Standard Error:	346000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.376462	40.0	160558.0	0.594116	N
2	STD0010 280-592626/19	10.0	8.266278	40.0	161906.0	0.826628	Y
3	STD0020 280-592626/20	20.0	13.651829	40.0	163770.0	0.682591	Y
4	STD0050 280-592626/21	50.0	32.500015	40.0	163243.0	0.65	Y
5	ICIS 280-592626/22	80.0	50.539046	40.0	167852.0	0.631738	Y
6	STD0120 280-592626/23	120.0	64.964221	40.0	190056.0	0.541369	Y
7	STD0160 280-592626/24	160.0	87.49468	40.0	188918.0	0.546842	Y
8	STD0200 280-592626/25	200.0	109.656347	40.0	187922.0	0.548282	Y



Calibration

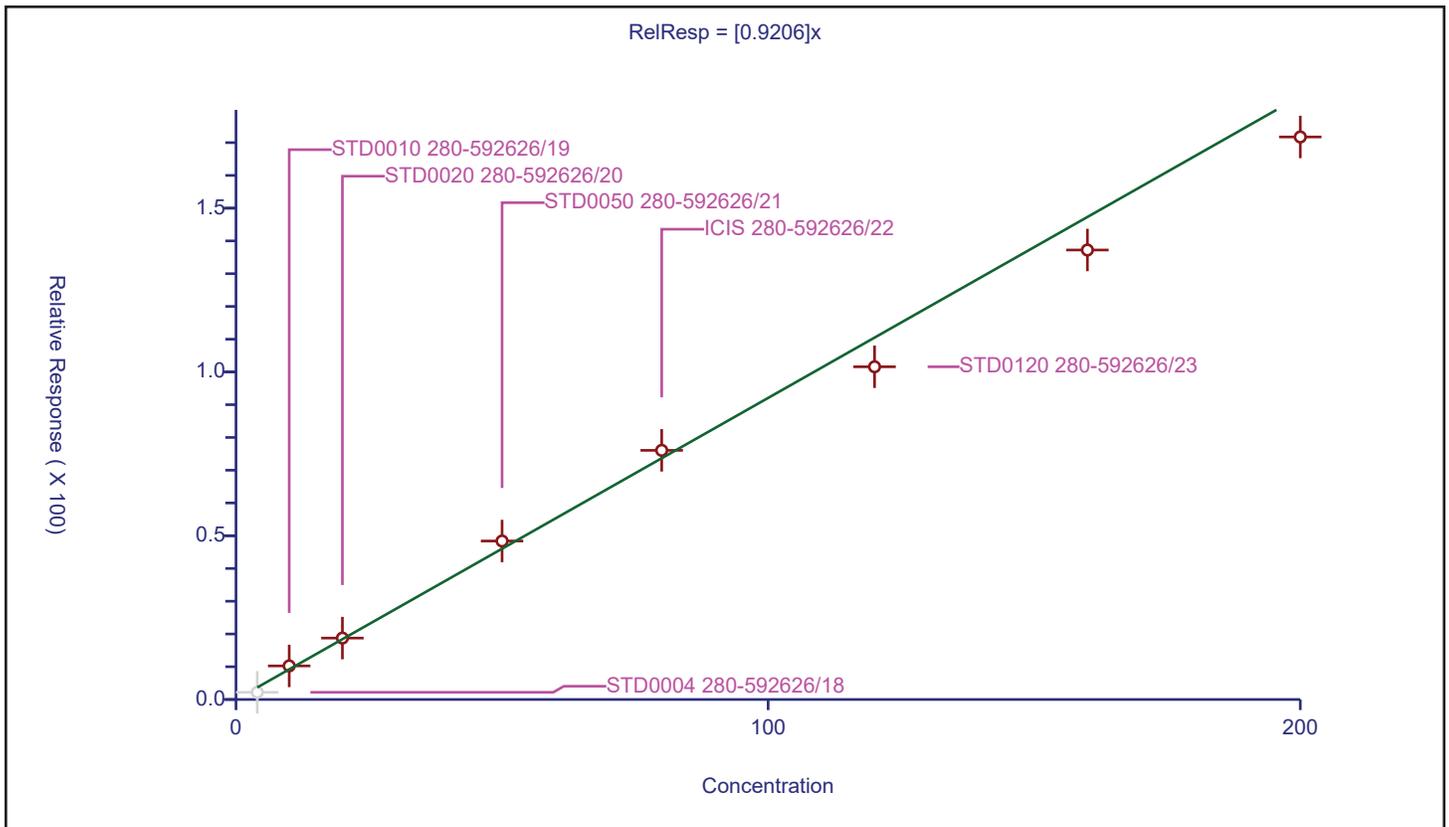
/ N-Nitrosodimethylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9206

Error Coefficients	
Standard Error:	492000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.194596	40.0	160558.0	0.548649	N
2	STD0010 280-592626/19	10.0	10.255827	40.0	161906.0	1.025583	Y
3	STD0020 280-592626/20	20.0	18.747756	40.0	163770.0	0.937388	Y
4	STD0050 280-592626/21	50.0	48.390191	40.0	163243.0	0.967804	Y
5	ICIS 280-592626/22	80.0	76.064628	40.0	167852.0	0.950808	Y
6	STD0120 280-592626/23	120.0	101.581008	40.0	190056.0	0.846508	Y
7	STD0160 280-592626/24	160.0	137.229909	40.0	188918.0	0.857687	Y
8	STD0200 280-592626/25	200.0	171.732953	40.0	187922.0	0.858665	Y



Calibration

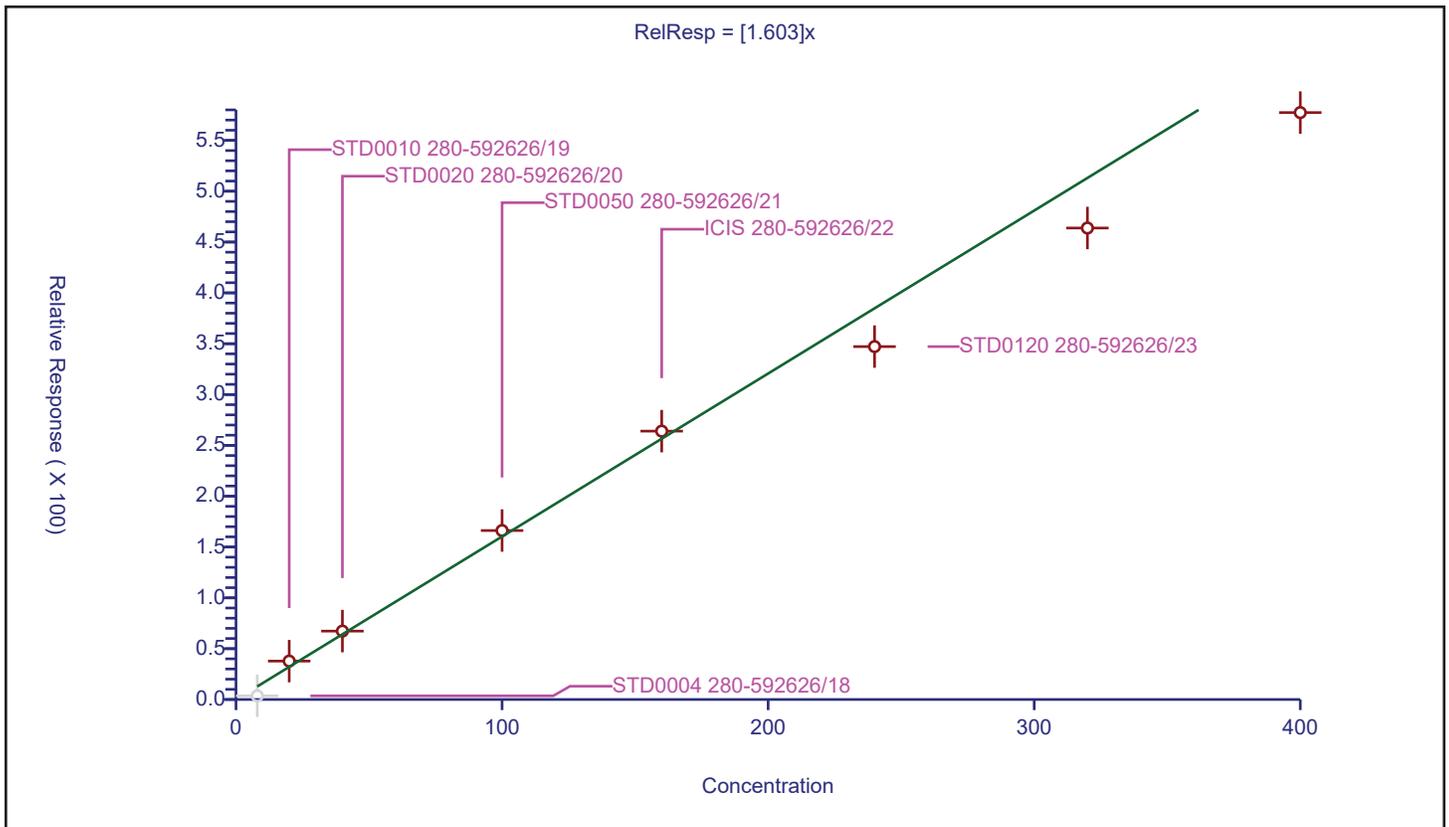
/ Pyridine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.603

Error Coefficients	
Standard Error:	1670000
Relative Standard Error:	10.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	3.591226	40.0	160558.0	0.448903	N
2	STD0010 280-592626/19	20.0	37.783405	40.0	161906.0	1.88917	Y
3	STD0020 280-592626/20	40.0	67.28827	40.0	163770.0	1.682207	Y
4	STD0050 280-592626/21	100.0	166.210128	40.0	163243.0	1.662101	Y
5	ICIS 280-592626/22	160.0	263.992327	40.0	167852.0	1.649952	Y
6	STD0120 280-592626/23	240.0	347.149261	40.0	190056.0	1.446455	Y
7	STD0160 280-592626/24	320.0	463.810542	40.0	188918.0	1.449408	Y
8	STD0200 280-592626/25	400.0	577.354434	40.0	187922.0	1.443386	Y



Calibration

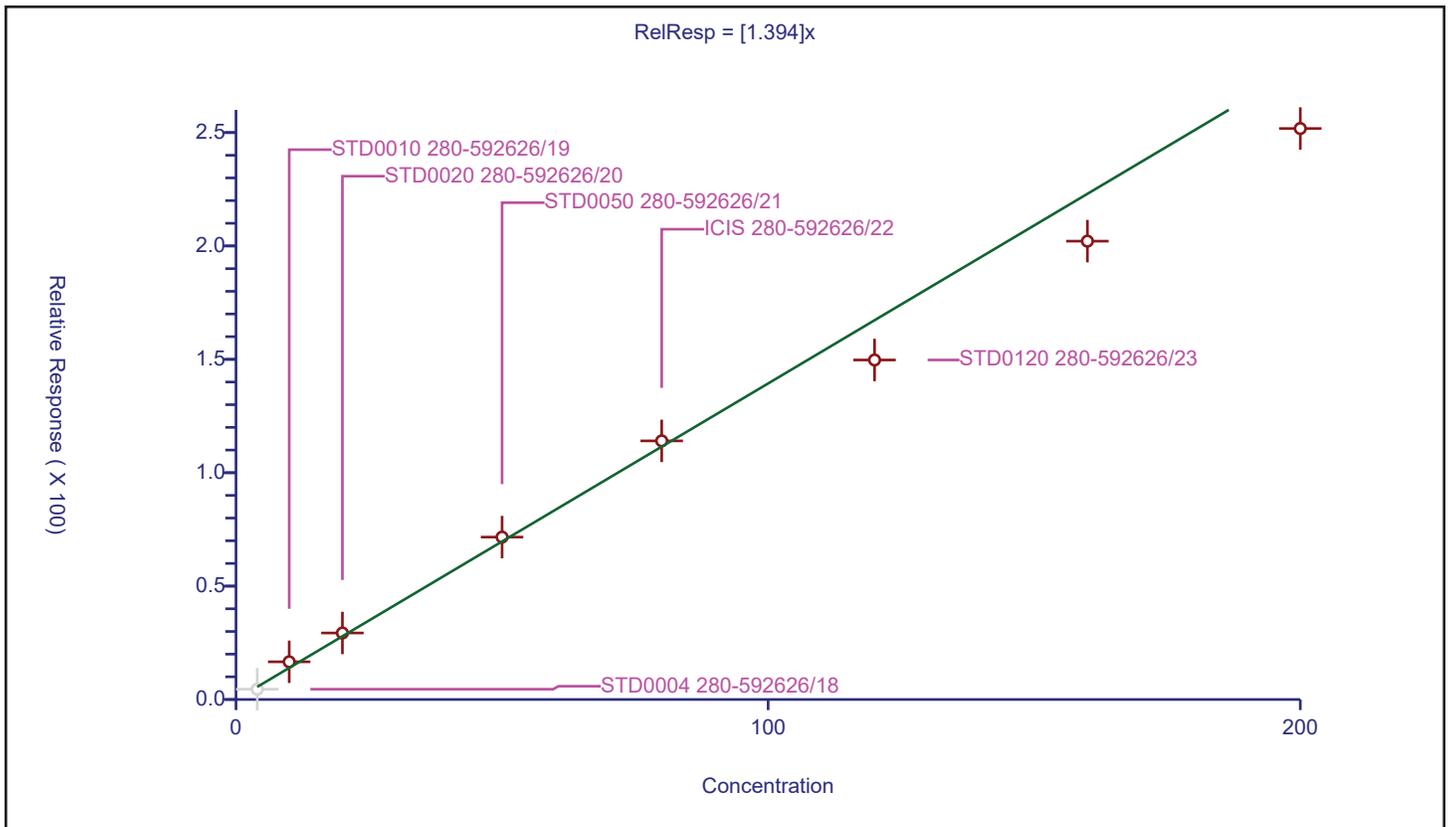
/ 2-Fluorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.394

Error Coefficients	
Standard Error:	724000
Relative Standard Error:	10.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.548138	40.0	160558.0	1.137035	N
2	STD0010 280-592626/19	10.0	16.617544	40.0	161906.0	1.661754	Y
3	STD0020 280-592626/20	20.0	29.32625	40.0	163770.0	1.466313	Y
4	STD0050 280-592626/21	50.0	71.605643	40.0	163243.0	1.432113	Y
5	ICIS 280-592626/22	80.0	114.044039	40.0	167852.0	1.42555	Y
6	STD0120 280-592626/23	120.0	149.711243	40.0	190056.0	1.247594	Y
7	STD0160 280-592626/24	160.0	202.121979	40.0	188918.0	1.263262	Y
8	STD0200 280-592626/25	200.0	251.786167	40.0	187922.0	1.258931	Y



Calibration

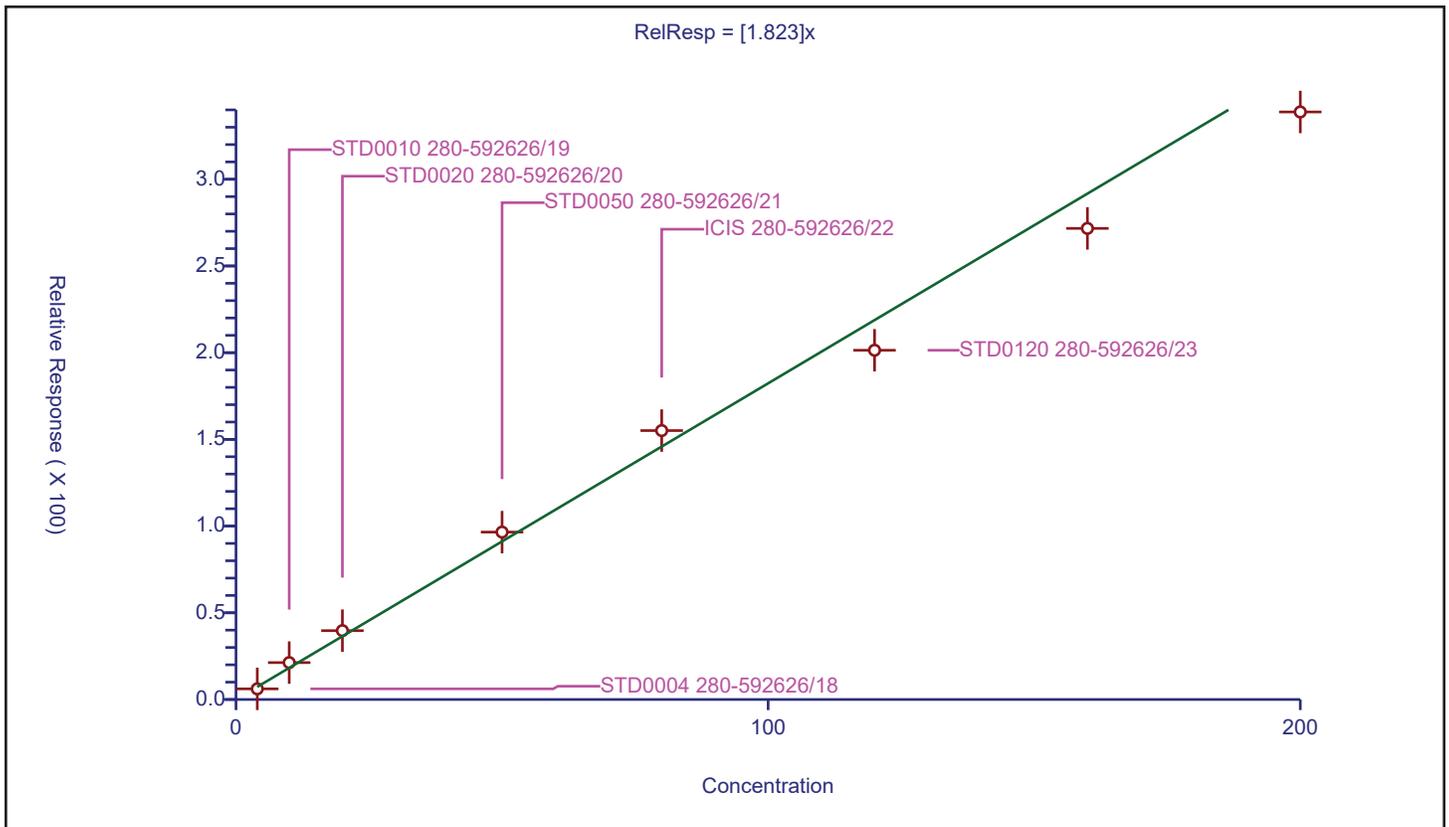
/ Phenol-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.823

Error Coefficients	
Standard Error:	903000
Relative Standard Error:	11.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	6.132114	40.0	160558.0	1.533029	Y
2	STD0010 280-592626/19	10.0	21.277284	40.0	161906.0	2.127728	Y
3	STD0020 280-592626/20	20.0	39.696159	40.0	163770.0	1.984808	Y
4	STD0050 280-592626/21	50.0	96.54172	40.0	163243.0	1.930834	Y
5	ICIS 280-592626/22	80.0	155.073994	40.0	167852.0	1.938425	Y
6	STD0120 280-592626/23	120.0	201.395589	40.0	190056.0	1.678297	Y
7	STD0160 280-592626/24	160.0	271.674483	40.0	188918.0	1.697966	Y
8	STD0200 280-592626/25	200.0	338.801843	40.0	187922.0	1.694009	Y



Calibration

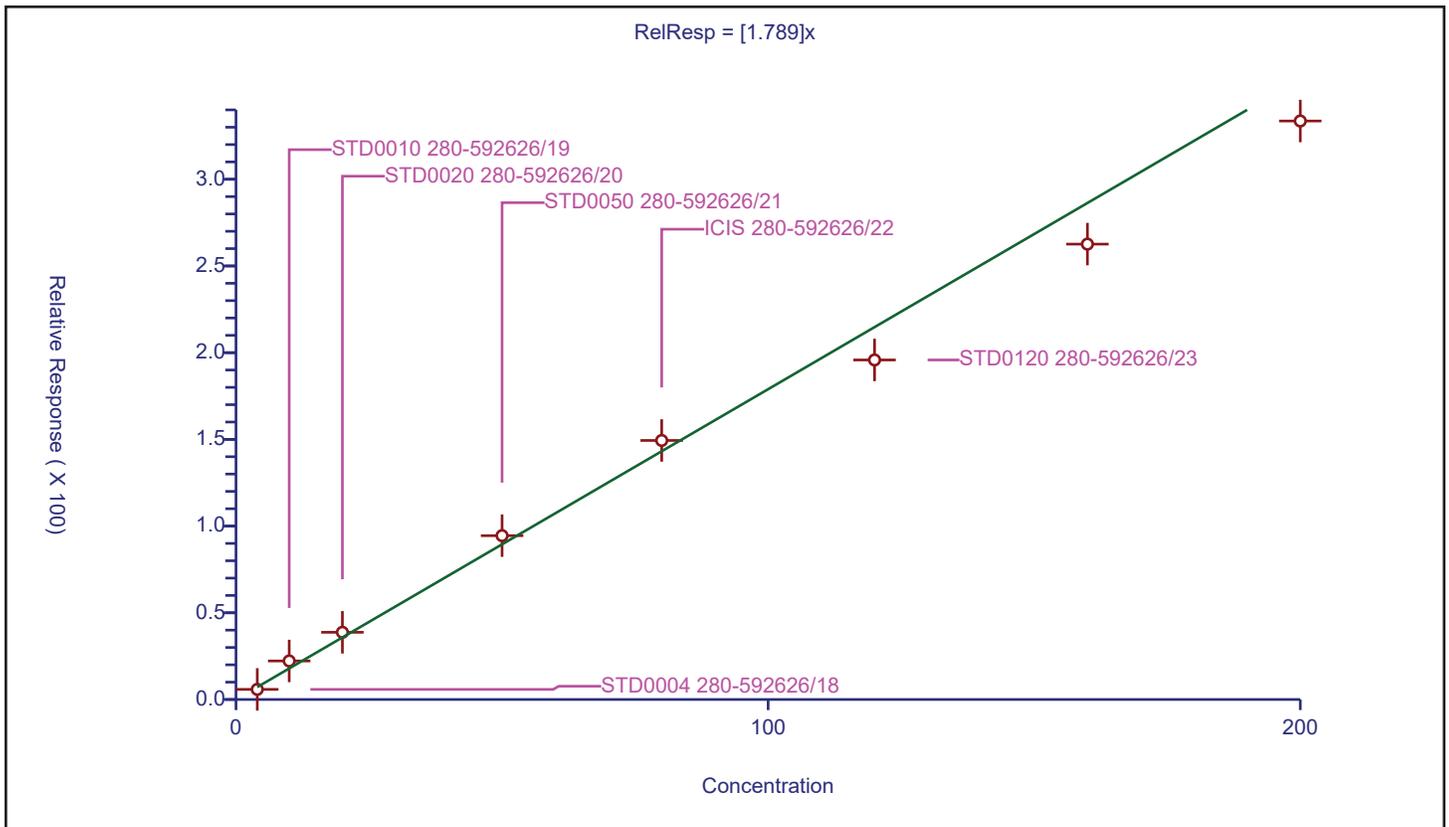
/ Phenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.789

Error Coefficients	
Standard Error:	881000
Relative Standard Error:	13.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.828423	40.0	160558.0	1.457106	Y
2	STD0010 280-592626/19	10.0	22.229195	40.0	161906.0	2.222919	Y
3	STD0020 280-592626/20	20.0	38.747756	40.0	163770.0	1.937388	Y
4	STD0050 280-592626/21	50.0	94.472412	40.0	163243.0	1.889448	Y
5	ICIS 280-592626/22	80.0	149.37993	40.0	167852.0	1.867249	Y
6	STD0120 280-592626/23	120.0	195.799764	40.0	190056.0	1.631665	Y
7	STD0160 280-592626/24	160.0	262.598376	40.0	188918.0	1.64124	Y
8	STD0200 280-592626/25	200.0	333.596492	40.0	187922.0	1.667982	Y



Calibration

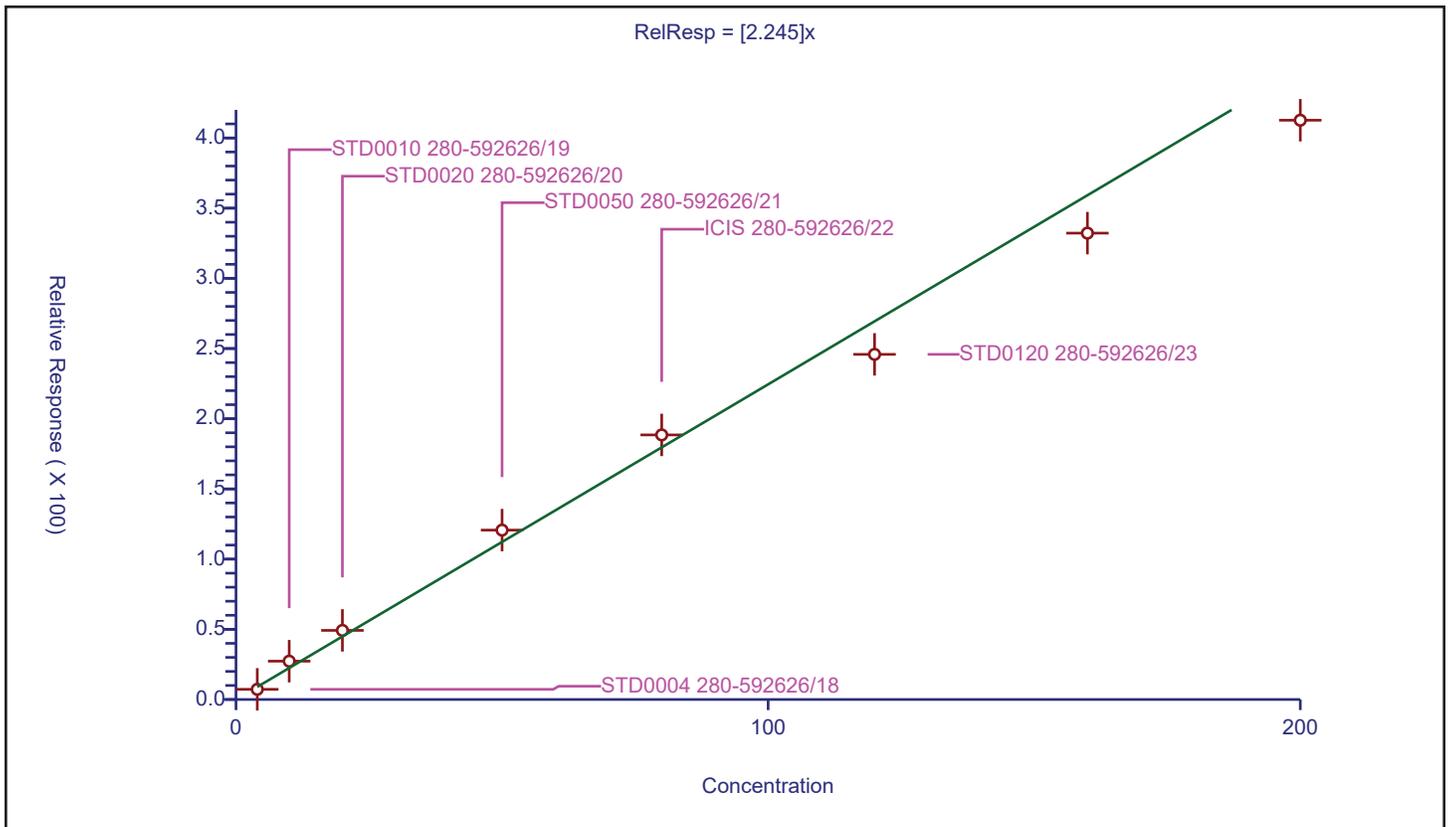
/ Aniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.245

Error Coefficients	
Standard Error:	1100000
Relative Standard Error:	13.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	7.237758	40.0	160558.0	1.80944	Y
2	STD0010 280-592626/19	10.0	27.303991	40.0	161906.0	2.730399	Y
3	STD0020 280-592626/20	20.0	49.226598	40.0	163770.0	2.46133	Y
4	STD0050 280-592626/21	50.0	120.665266	40.0	163243.0	2.413305	Y
5	ICIS 280-592626/22	80.0	188.46603	40.0	167852.0	2.355825	Y
6	STD0120 280-592626/23	120.0	245.860588	40.0	190056.0	2.048838	Y
7	STD0160 280-592626/24	160.0	332.212706	40.0	188918.0	2.076329	Y
8	STD0200 280-592626/25	200.0	412.626941	40.0	187922.0	2.063135	Y



Calibration

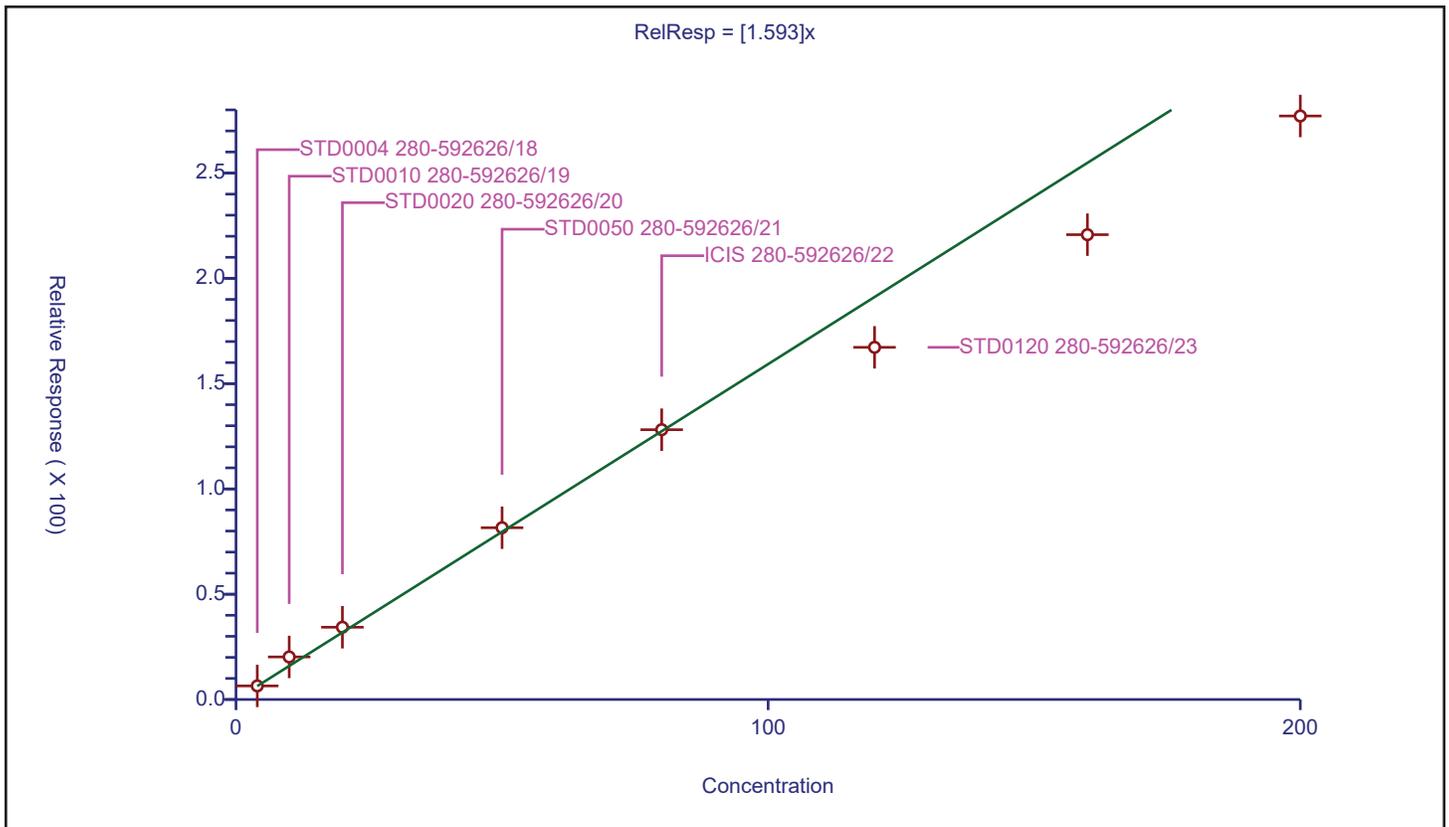
/ Bis(2-chloroethyl)ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.593

Error Coefficients	
Standard Error:	740000
Relative Standard Error:	13.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	6.4515	40.0	160558.0	1.612875	Y
2	STD0010 280-592626/19	10.0	20.210245	40.0	161906.0	2.021025	Y
3	STD0020 280-592626/20	20.0	34.323991	40.0	163770.0	1.7162	Y
4	STD0050 280-592626/21	50.0	81.580221	40.0	163243.0	1.631604	Y
5	ICIS 280-592626/22	80.0	128.126683	40.0	167852.0	1.601584	Y
6	STD0120 280-592626/23	120.0	167.236604	40.0	190056.0	1.393638	Y
7	STD0160 280-592626/24	160.0	220.741909	40.0	188918.0	1.379637	Y
8	STD0200 280-592626/25	200.0	277.104118	40.0	187922.0	1.385521	Y



Calibration

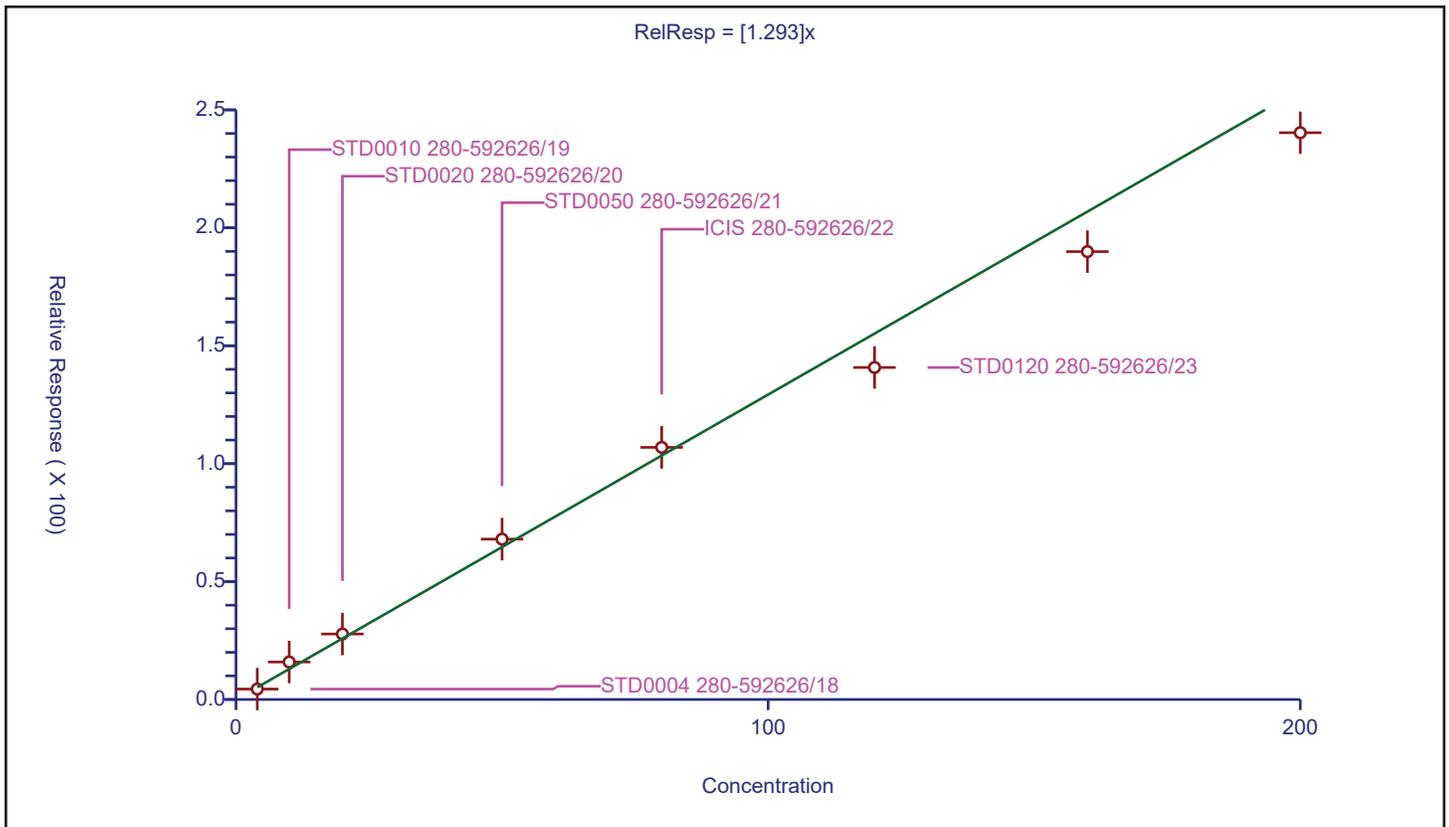
/ 2-Chlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.293

Error Coefficients	
Standard Error:	635000
Relative Standard Error:	12.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.425317	40.0	160558.0	1.106329	Y
2	STD0010 280-592626/19	10.0	15.898608	40.0	161906.0	1.589861	Y
3	STD0020 280-592626/20	20.0	27.778714	40.0	163770.0	1.388936	Y
4	STD0050 280-592626/21	50.0	67.999975	40.0	163243.0	1.36	Y
5	ICIS 280-592626/22	80.0	106.897028	40.0	167852.0	1.336213	Y
6	STD0120 280-592626/23	120.0	140.777245	40.0	190056.0	1.173144	Y
7	STD0160 280-592626/24	160.0	189.904191	40.0	188918.0	1.186901	Y
8	STD0200 280-592626/25	200.0	240.31545	40.0	187922.0	1.201577	Y



Calibration

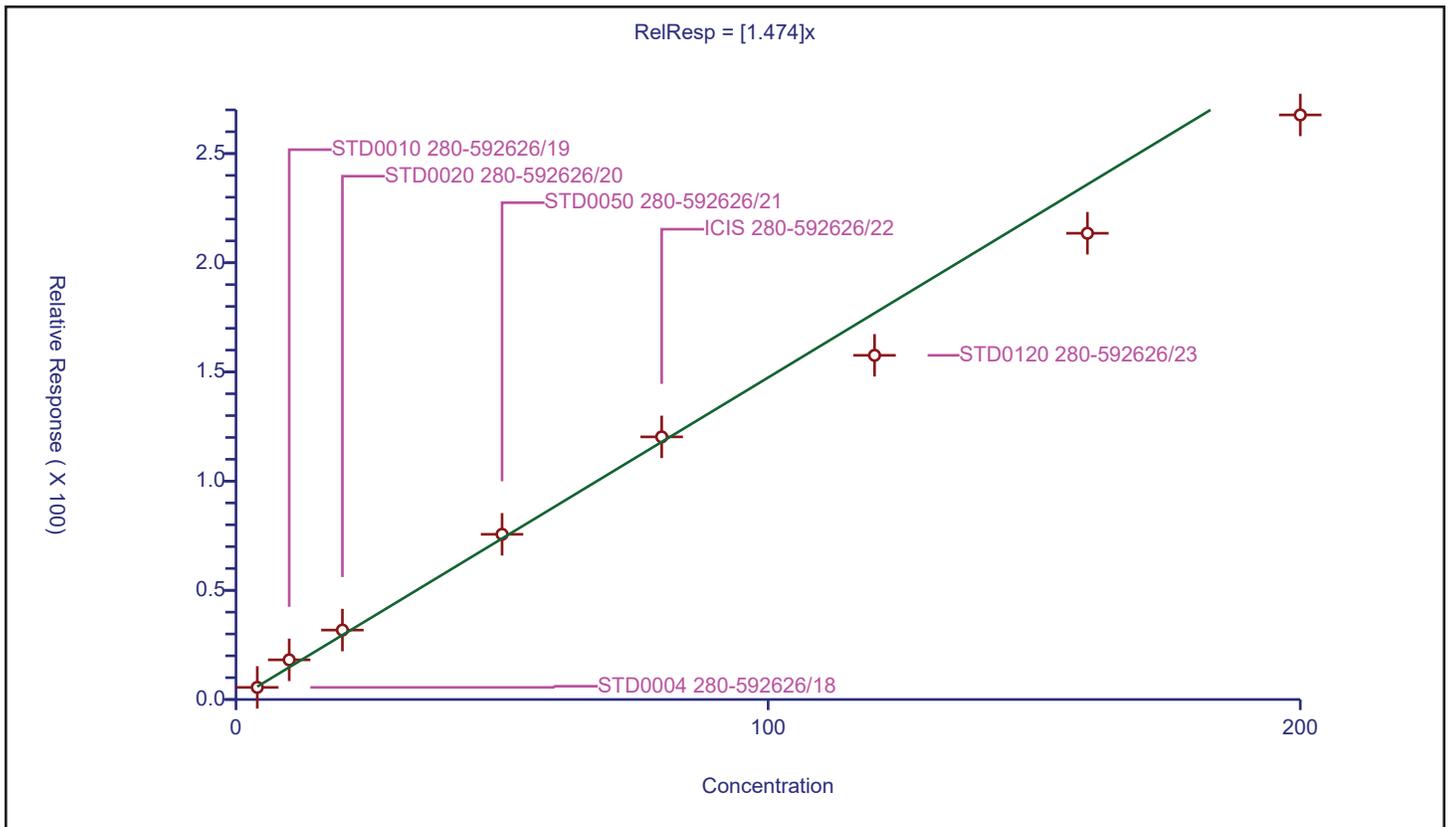
/ 1,3-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.474

Error Coefficients	
Standard Error:	710000
Relative Standard Error:	11.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.545161	40.0	160558.0	1.38629	Y
2	STD0010 280-592626/19	10.0	18.158932	40.0	161906.0	1.815893	Y
3	STD0020 280-592626/20	20.0	31.79288	40.0	163770.0	1.589644	Y
4	STD0050 280-592626/21	50.0	75.657272	40.0	163243.0	1.513145	Y
5	ICIS 280-592626/22	80.0	120.257846	40.0	167852.0	1.503223	Y
6	STD0120 280-592626/23	120.0	157.61544	40.0	190056.0	1.313462	Y
7	STD0160 280-592626/24	160.0	213.510412	40.0	188918.0	1.33444	Y
8	STD0200 280-592626/25	200.0	267.691063	40.0	187922.0	1.338455	Y



Calibration

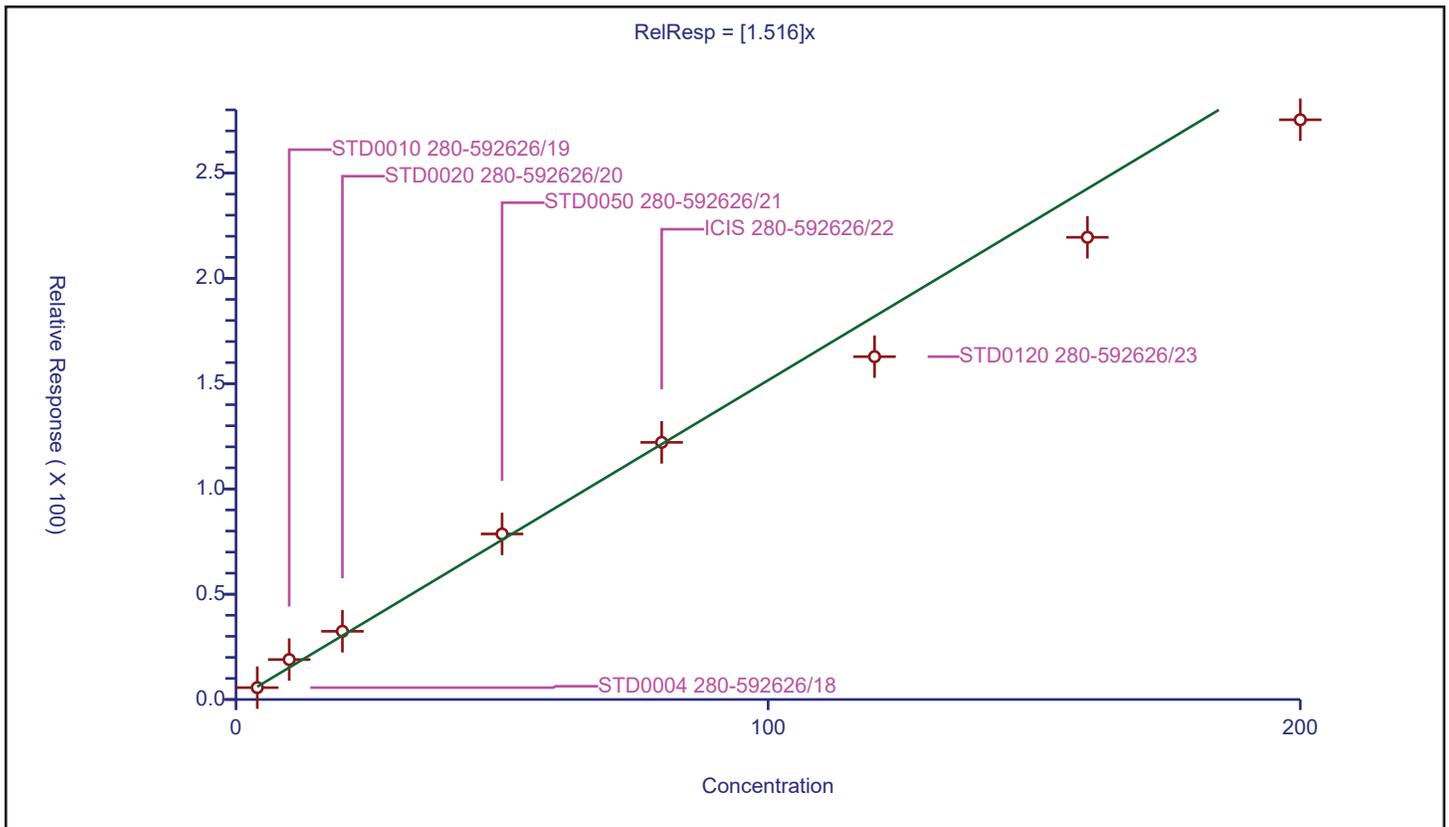
/ 1,4-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.516

Error Coefficients	
Standard Error:	730000
Relative Standard Error:	12.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.634599	40.0	160558.0	1.40865	Y
2	STD0010 280-592626/19	10.0	18.964831	40.0	161906.0	1.896483	Y
3	STD0020 280-592626/20	20.0	32.391769	40.0	163770.0	1.619588	Y
4	STD0050 280-592626/21	50.0	78.619236	40.0	163243.0	1.572385	Y
5	ICIS 280-592626/22	80.0	122.110192	40.0	167852.0	1.526377	Y
6	STD0120 280-592626/23	120.0	162.81054	40.0	190056.0	1.356755	Y
7	STD0160 280-592626/24	160.0	219.49756	40.0	188918.0	1.37186	Y
8	STD0200 280-592626/25	200.0	275.297411	40.0	187922.0	1.376487	Y



Calibration

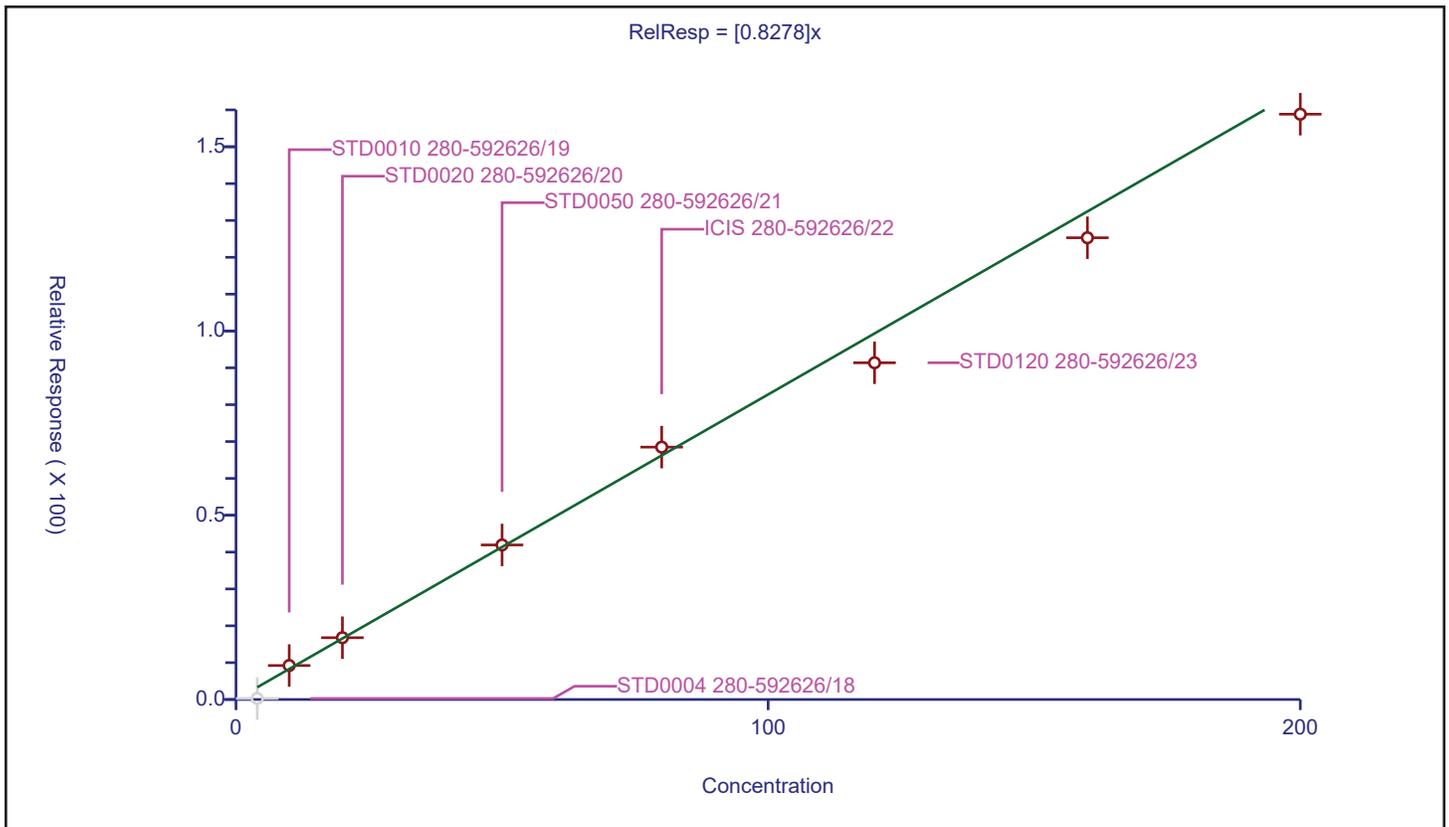
/ Benzyl alcohol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8278

Error Coefficients	
Standard Error:	450000
Relative Standard Error:	6.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.285255	40.0	160558.0	0.071314	N
2	STD0010 280-592626/19	10.0	9.220165	40.0	161906.0	0.922016	Y
3	STD0020 280-592626/20	20.0	16.771814	40.0	163770.0	0.838591	Y
4	STD0050 280-592626/21	50.0	41.936745	40.0	163243.0	0.838735	Y
5	ICIS 280-592626/22	80.0	68.490575	40.0	167852.0	0.856132	Y
6	STD0120 280-592626/23	120.0	91.376226	40.0	190056.0	0.761469	Y
7	STD0160 280-592626/24	160.0	125.303042	40.0	188918.0	0.783144	Y
8	STD0200 280-592626/25	200.0	158.835049	40.0	187922.0	0.794175	Y



Calibration

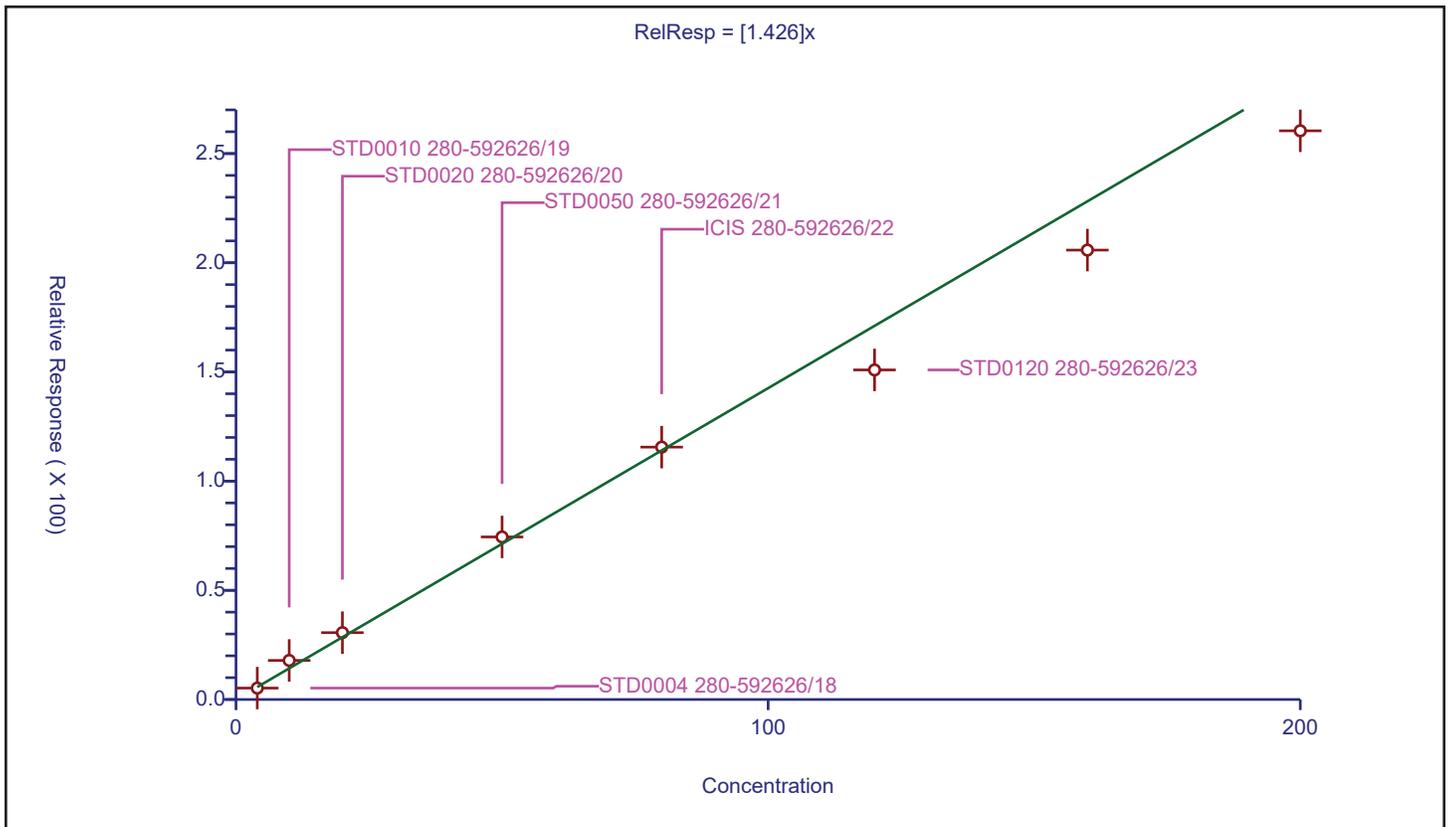
/ 1,2-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.426

Error Coefficients	
Standard Error:	687000
Relative Standard Error:	12.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.225775	40.0	160558.0	1.306444	Y
2	STD0010 280-592626/19	10.0	17.894828	40.0	161906.0	1.789483	Y
3	STD0020 280-592626/20	20.0	30.617085	40.0	163770.0	1.530854	Y
4	STD0050 280-592626/21	50.0	74.43529	40.0	163243.0	1.488706	Y
5	ICIS 280-592626/22	80.0	115.574435	40.0	167852.0	1.44468	Y
6	STD0120 280-592626/23	120.0	150.916361	40.0	190056.0	1.257636	Y
7	STD0160 280-592626/24	160.0	205.809081	40.0	188918.0	1.286307	Y
8	STD0200 280-592626/25	200.0	260.423793	40.0	187922.0	1.302119	Y



Calibration

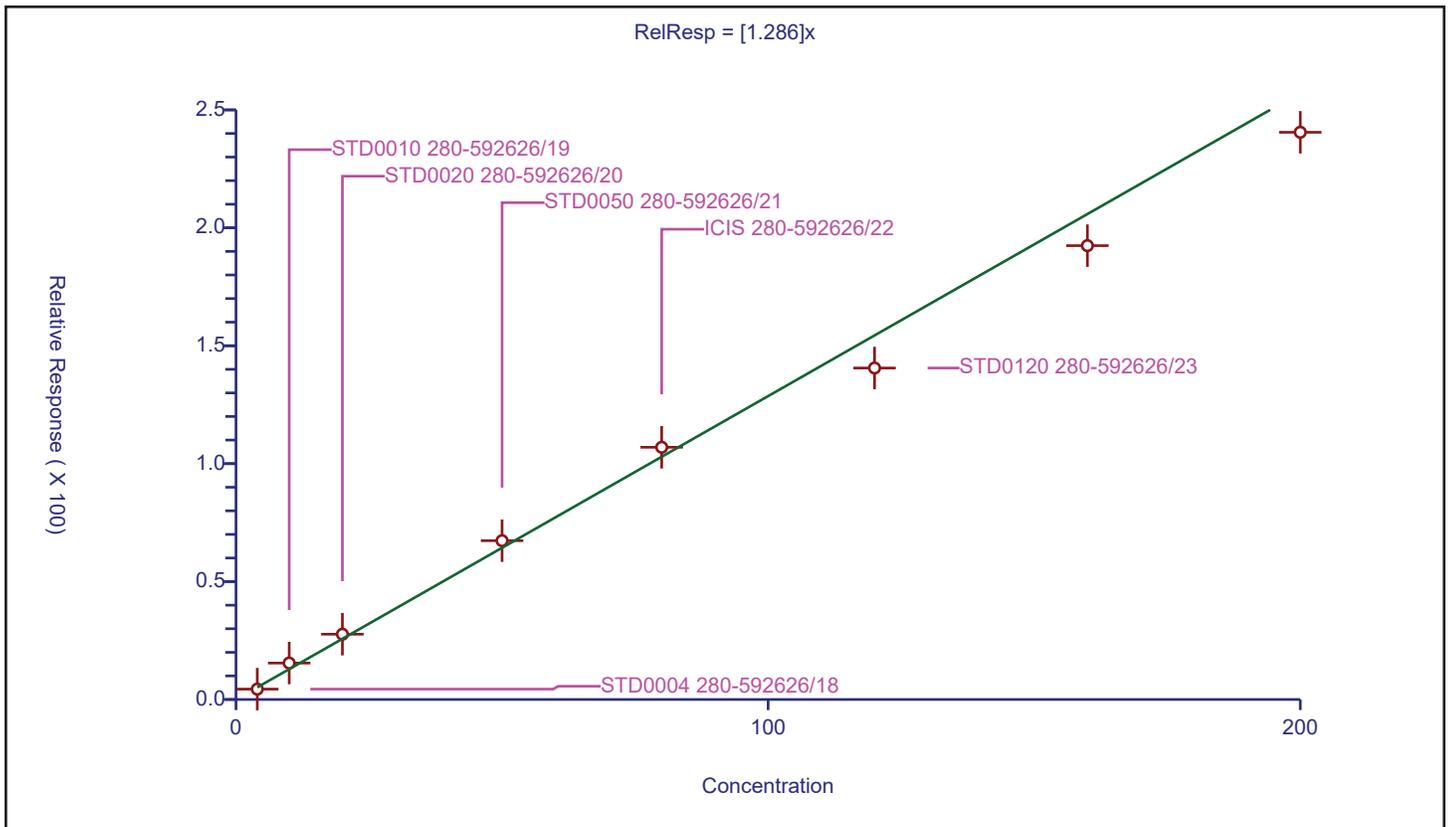
/ 2-Methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.286

Error Coefficients	
Standard Error:	637000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.406134	40.0	160558.0	1.101533	Y
2	STD0010 280-592626/19	10.0	15.456623	40.0	161906.0	1.545662	Y
3	STD0020 280-592626/20	20.0	27.683459	40.0	163770.0	1.384173	Y
4	STD0050 280-592626/21	50.0	67.340835	40.0	163243.0	1.346817	Y
5	ICIS 280-592626/22	80.0	106.946358	40.0	167852.0	1.336829	Y
6	STD0120 280-592626/23	120.0	140.554152	40.0	190056.0	1.171285	Y
7	STD0160 280-592626/24	160.0	192.43439	40.0	188918.0	1.202715	Y
8	STD0200 280-592626/25	200.0	240.507232	40.0	187922.0	1.202536	Y



Calibration

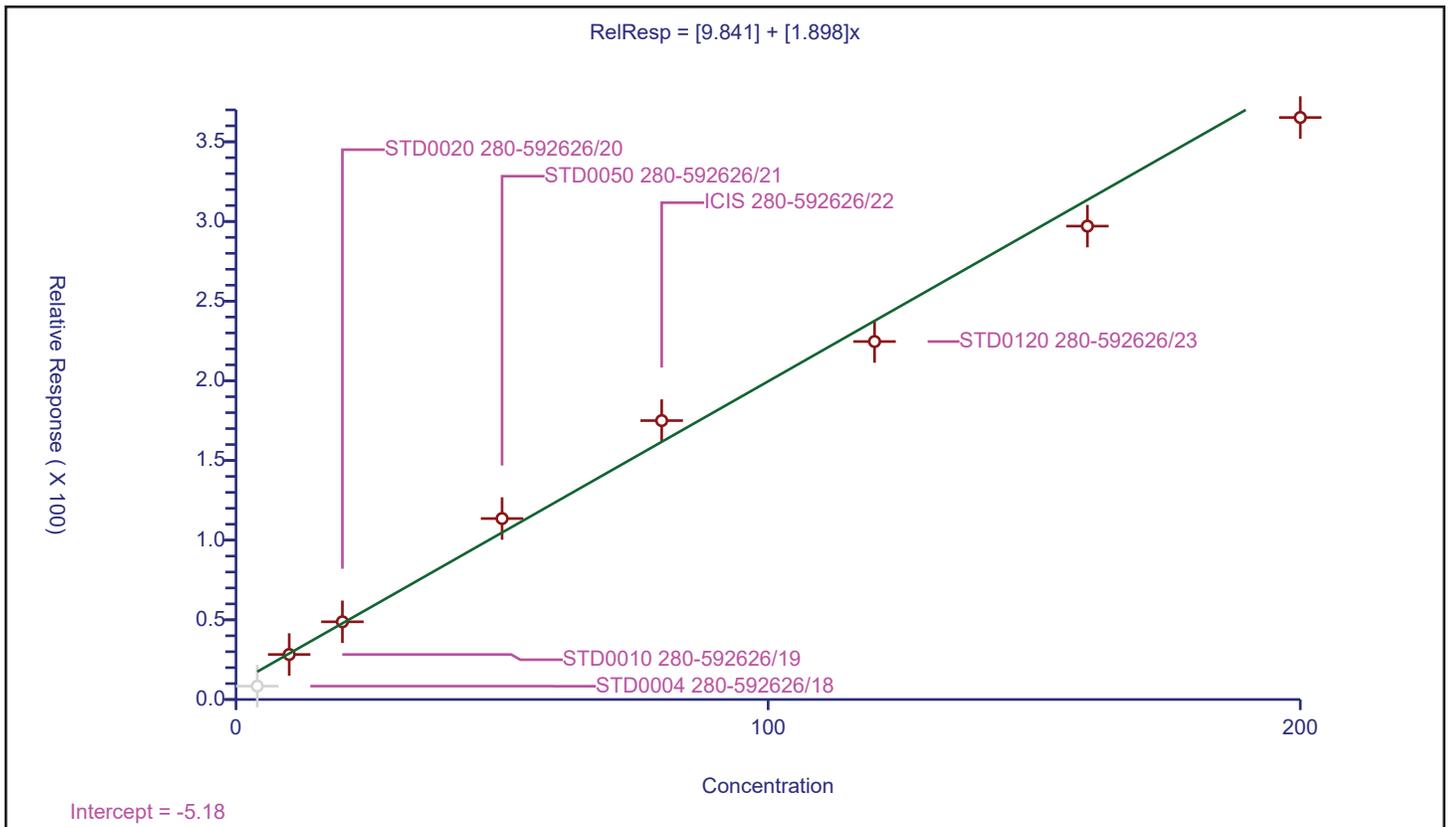
/ 2,2'-oxybis[1-chloropropane]

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	9.841
Slope:	1.898

Error Coefficients	
Standard Error:	1170000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	8.390737	40.0	160558.0	2.097684	N
2	STD0010 280-592626/19	10.0	28.237866	40.0	161906.0	2.823787	Y
3	STD0020 280-592626/20	20.0	48.753984	40.0	163770.0	2.437699	Y
4	STD0050 280-592626/21	50.0	113.55807	40.0	163243.0	2.271161	Y
5	ICIS 280-592626/22	80.0	175.018469	40.0	167852.0	2.187731	Y
6	STD0120 280-592626/23	120.0	224.644947	40.0	190056.0	1.872041	Y
7	STD0160 280-592626/24	160.0	297.071745	40.0	188918.0	1.856698	Y
8	STD0200 280-592626/25	200.0	365.2194	40.0	187922.0	1.826097	Y



Calibration

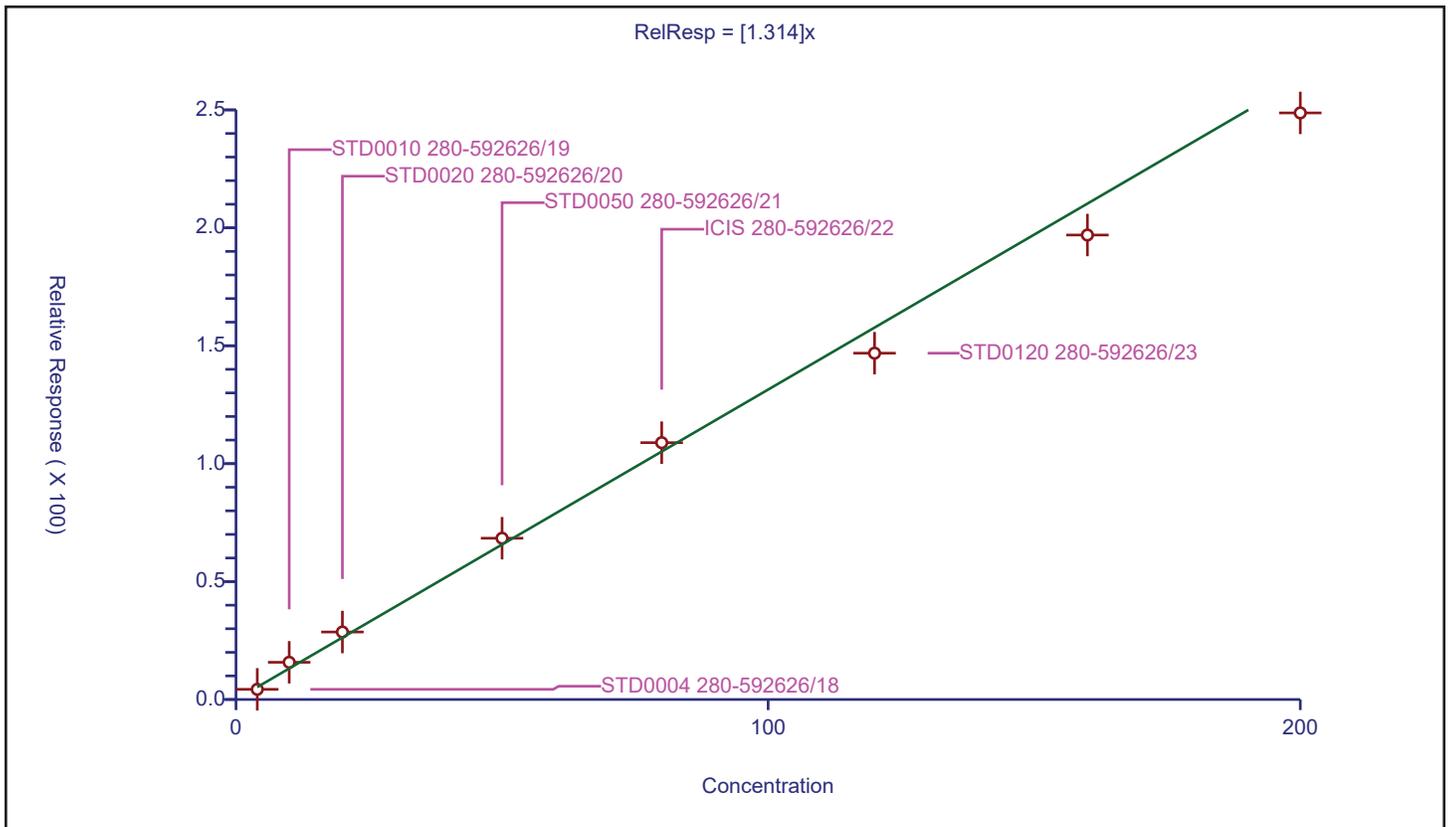
/ 3 & 4 Methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.314

Error Coefficients	
Standard Error:	657000
Relative Standard Error:	11.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.306979	40.0	160558.0	1.076745	Y
2	STD0010 280-592626/19	10.0	15.782244	40.0	161906.0	1.578224	Y
3	STD0020 280-592626/20	20.0	28.616474	40.0	163770.0	1.430824	Y
4	STD0050 280-592626/21	50.0	68.381493	40.0	163243.0	1.36763	Y
5	ICIS 280-592626/22	80.0	108.900698	40.0	167852.0	1.361259	Y
6	STD0120 280-592626/23	120.0	146.842615	40.0	190056.0	1.223688	Y
7	STD0160 280-592626/24	160.0	196.948306	40.0	188918.0	1.230927	Y
8	STD0200 280-592626/25	200.0	248.722981	40.0	187922.0	1.243615	Y



Calibration

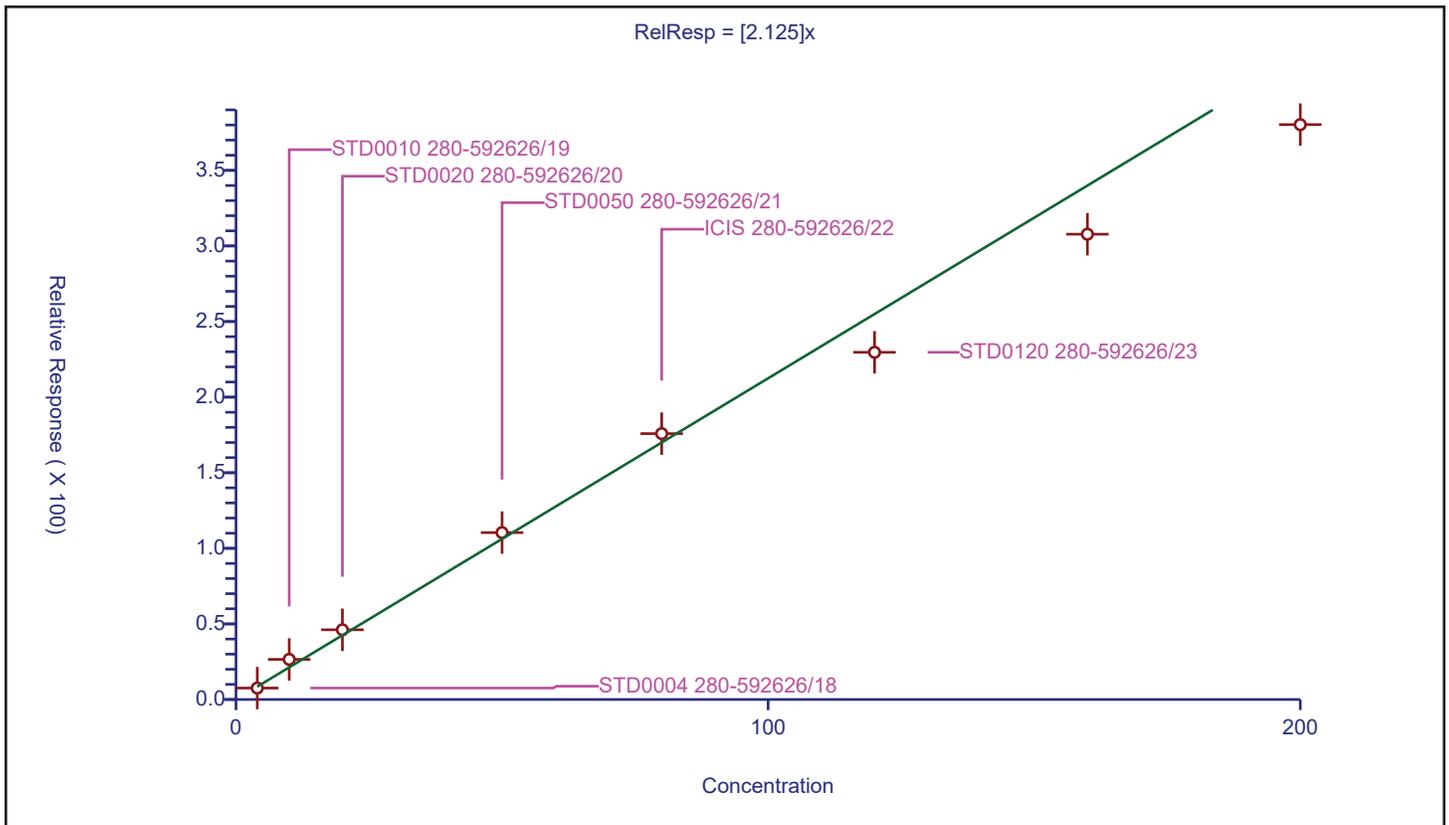
/ Acetophenone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.125

Error Coefficients	
Standard Error:	1020000
Relative Standard Error:	12.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	7.573587	40.0	160558.0	1.893397	Y
2	STD0010 280-592626/19	10.0	26.531197	40.0	161906.0	2.65312	Y
3	STD0020 280-592626/20	20.0	46.117115	40.0	163770.0	2.305856	Y
4	STD0050 280-592626/21	50.0	110.389297	40.0	163243.0	2.207786	Y
5	ICIS 280-592626/22	80.0	175.873984	40.0	167852.0	2.198425	Y
6	STD0120 280-592626/23	120.0	229.659469	40.0	190056.0	1.913829	Y
7	STD0160 280-592626/24	160.0	307.783906	40.0	188918.0	1.923649	Y
8	STD0200 280-592626/25	200.0	380.273518	40.0	187922.0	1.901368	Y



Calibration

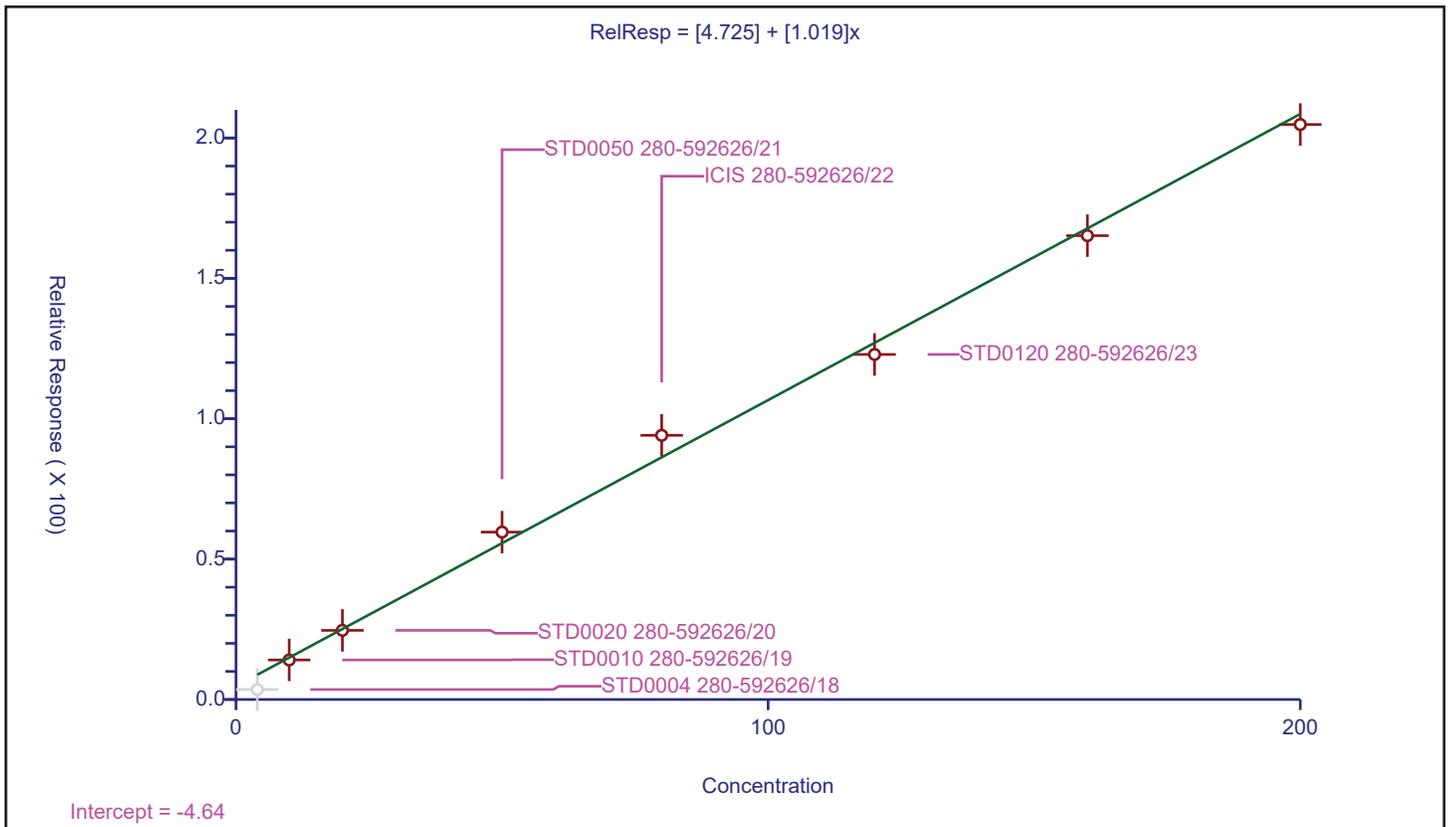
/ N-Nitrosodi-n-propylamine

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	4.725
Slope:	1.019

Error Coefficients	
Standard Error:	649000
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.55834	40.0	160558.0	0.889585	N
2	STD0010 280-592626/19	10.0	14.082492	40.0	161906.0	1.408249	Y
3	STD0020 280-592626/20	20.0	24.626	40.0	163770.0	1.2313	Y
4	STD0050 280-592626/21	50.0	59.620076	40.0	163243.0	1.192402	Y
5	ICIS 280-592626/22	80.0	94.095751	40.0	167852.0	1.176197	Y
6	STD0120 280-592626/23	120.0	122.902723	40.0	190056.0	1.024189	Y
7	STD0160 280-592626/24	160.0	165.206915	40.0	188918.0	1.032543	Y
8	STD0200 280-592626/25	200.0	204.799651	40.0	187922.0	1.023998	Y



Calibration

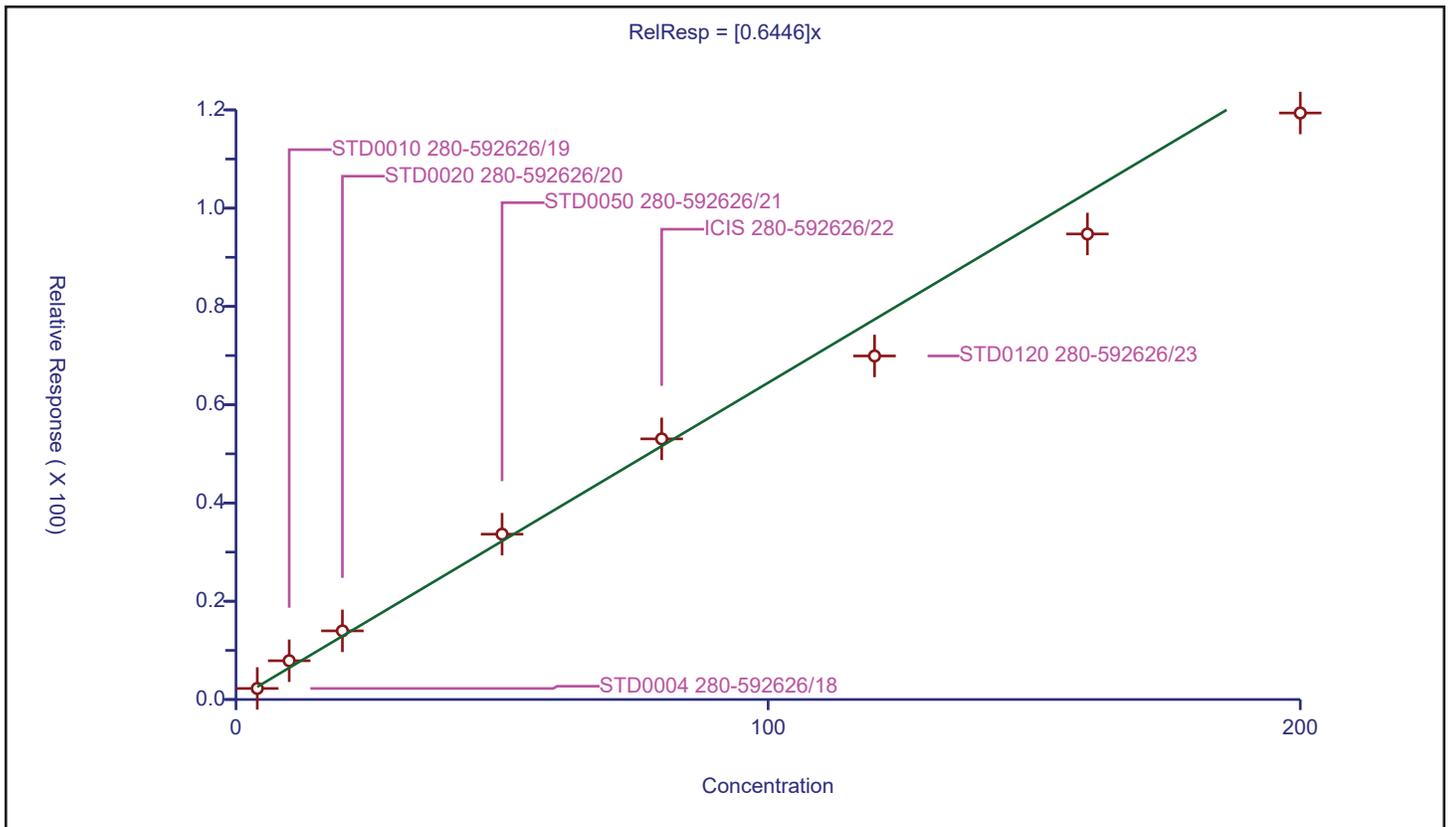
/ Hexachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6446

Error Coefficients	
Standard Error:	316000
Relative Standard Error:	11.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.24791	40.0	160558.0	0.561978	Y
2	STD0010 280-592626/19	10.0	7.887293	40.0	161906.0	0.788729	Y
3	STD0020 280-592626/20	20.0	13.969347	40.0	163770.0	0.698467	Y
4	STD0050 280-592626/21	50.0	33.651918	40.0	163243.0	0.673038	Y
5	ICIS 280-592626/22	80.0	53.044587	40.0	167852.0	0.663057	Y
6	STD0120 280-592626/23	120.0	69.918971	40.0	190056.0	0.582658	Y
7	STD0160 280-592626/24	160.0	94.751585	40.0	188918.0	0.592197	Y
8	STD0200 280-592626/25	200.0	119.369526	40.0	187922.0	0.596848	Y



Calibration

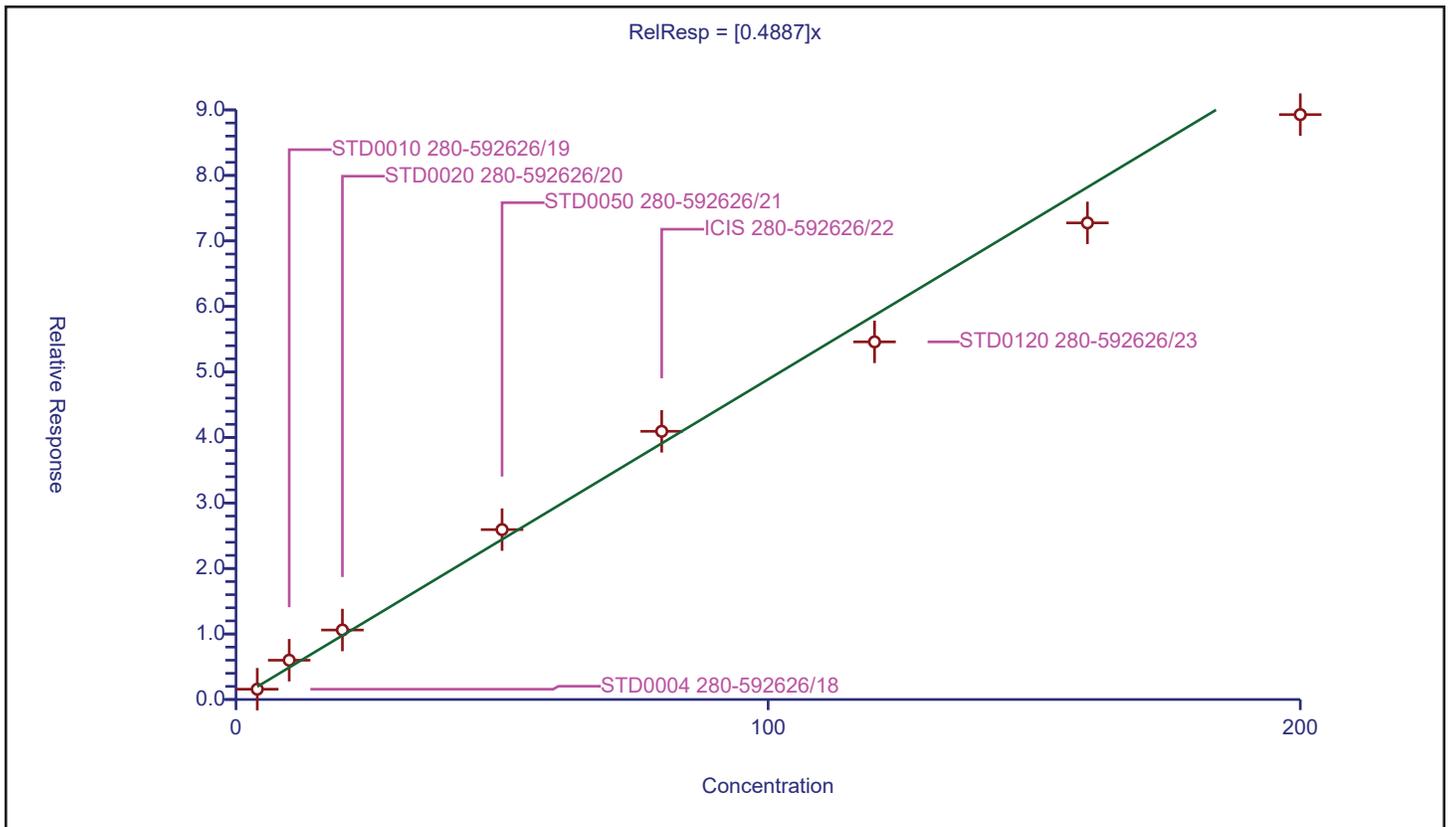
/ Nitrobenzene-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4887

Error Coefficients	
Standard Error:	911000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.572105	40.0	608967.0	0.393026	Y
2	STD0010 280-592626/19	10.0	5.997628	40.0	602745.0	0.599763	Y
3	STD0020 280-592626/20	20.0	10.605447	40.0	614273.0	0.530272	Y
4	STD0050 280-592626/21	50.0	25.932211	40.0	621431.0	0.518644	Y
5	ICIS 280-592626/22	80.0	40.939324	40.0	638289.0	0.511742	Y
6	STD0120 280-592626/23	120.0	54.592242	40.0	712077.0	0.454935	Y
7	STD0160 280-592626/24	160.0	72.755485	40.0	713671.0	0.454722	Y
8	STD0200 280-592626/25	200.0	89.279741	40.0	715770.0	0.446399	Y



Calibration

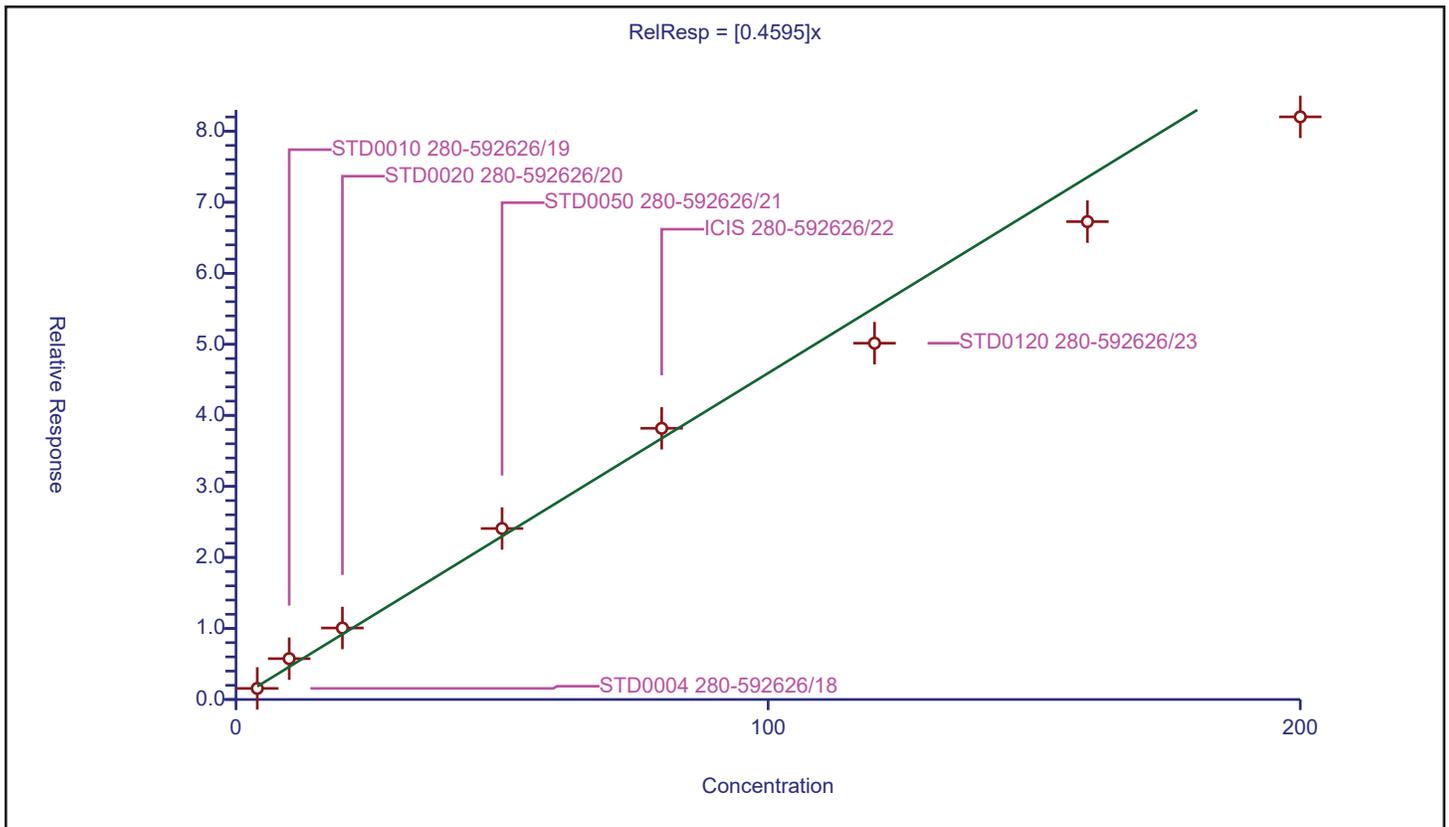
/ Nitrobenzene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4595

Error Coefficients	
Standard Error:	840000
Relative Standard Error:	13.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.561004	40.0	608967.0	0.390251	Y
2	STD0010 280-592626/19	10.0	5.750757	40.0	602745.0	0.575076	Y
3	STD0020 280-592626/20	20.0	10.063669	40.0	614273.0	0.503183	Y
4	STD0050 280-592626/21	50.0	24.072375	40.0	621431.0	0.481447	Y
5	ICIS 280-592626/22	80.0	38.177879	40.0	638289.0	0.477223	Y
6	STD0120 280-592626/23	120.0	50.161879	40.0	712077.0	0.418016	Y
7	STD0160 280-592626/24	160.0	67.271838	40.0	713671.0	0.420449	Y
8	STD0200 280-592626/25	200.0	82.019699	40.0	715770.0	0.410098	Y



Calibration

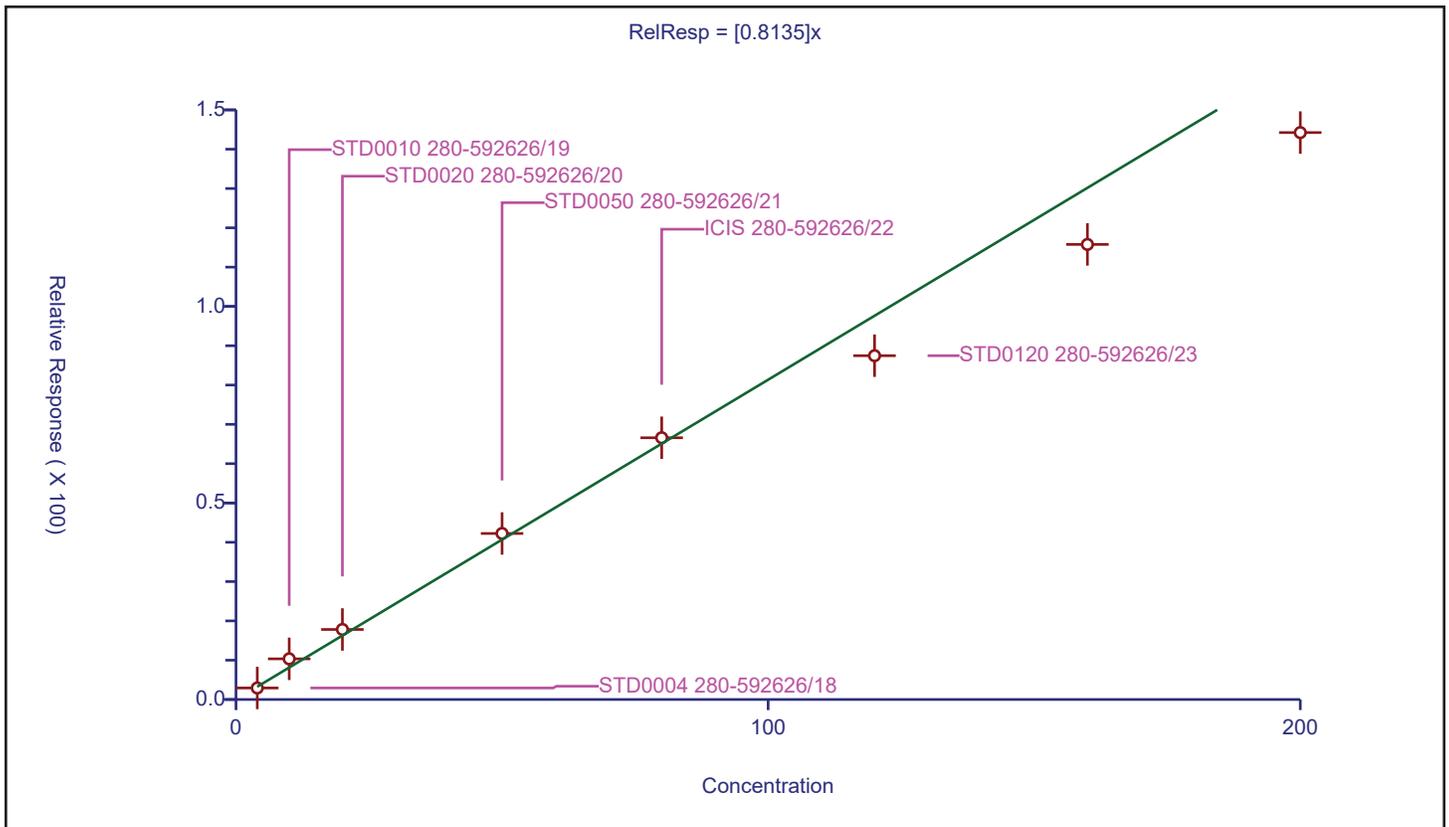
/ Isophorone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8135

Error Coefficients	
Standard Error:	1460000
Relative Standard Error:	13.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.929551	40.0	608967.0	0.732388	Y
2	STD0010 280-592626/19	10.0	10.342284	40.0	602745.0	1.034228	Y
3	STD0020 280-592626/20	20.0	17.815792	40.0	614273.0	0.89079	Y
4	STD0050 280-592626/21	50.0	42.236	40.0	621431.0	0.84472	Y
5	ICIS 280-592626/22	80.0	66.592092	40.0	638289.0	0.832401	Y
6	STD0120 280-592626/23	120.0	87.467058	40.0	712077.0	0.728892	Y
7	STD0160 280-592626/24	160.0	115.771889	40.0	713671.0	0.723574	Y
8	STD0200 280-592626/25	200.0	144.229068	40.0	715770.0	0.721145	Y



Calibration

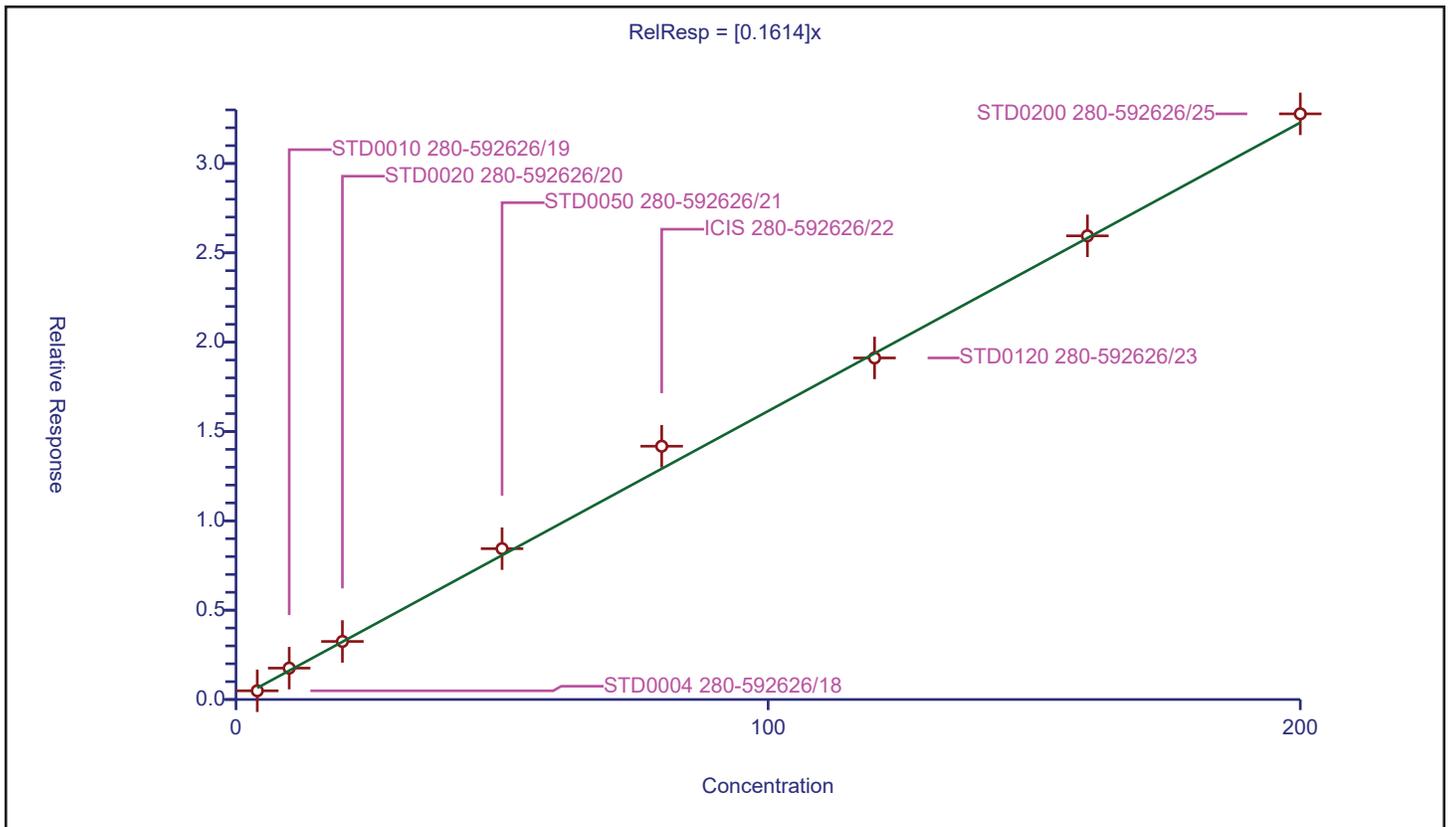
/ 2-Nitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1614

Error Coefficients	
Standard Error:	326000
Relative Standard Error:	10.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.487645	40.0	608967.0	0.121911	Y
2	STD0010 280-592626/19	10.0	1.756497	40.0	602745.0	0.17565	Y
3	STD0020 280-592626/20	20.0	3.250021	40.0	614273.0	0.162501	Y
4	STD0050 280-592626/21	50.0	8.441356	40.0	621431.0	0.168827	Y
5	ICIS 280-592626/22	80.0	14.175836	40.0	638289.0	0.177198	Y
6	STD0120 280-592626/23	120.0	19.116079	40.0	712077.0	0.159301	Y
7	STD0160 280-592626/24	160.0	25.950669	40.0	713671.0	0.162192	Y
8	STD0200 280-592626/25	200.0	32.779412	40.0	715770.0	0.163897	Y



Calibration

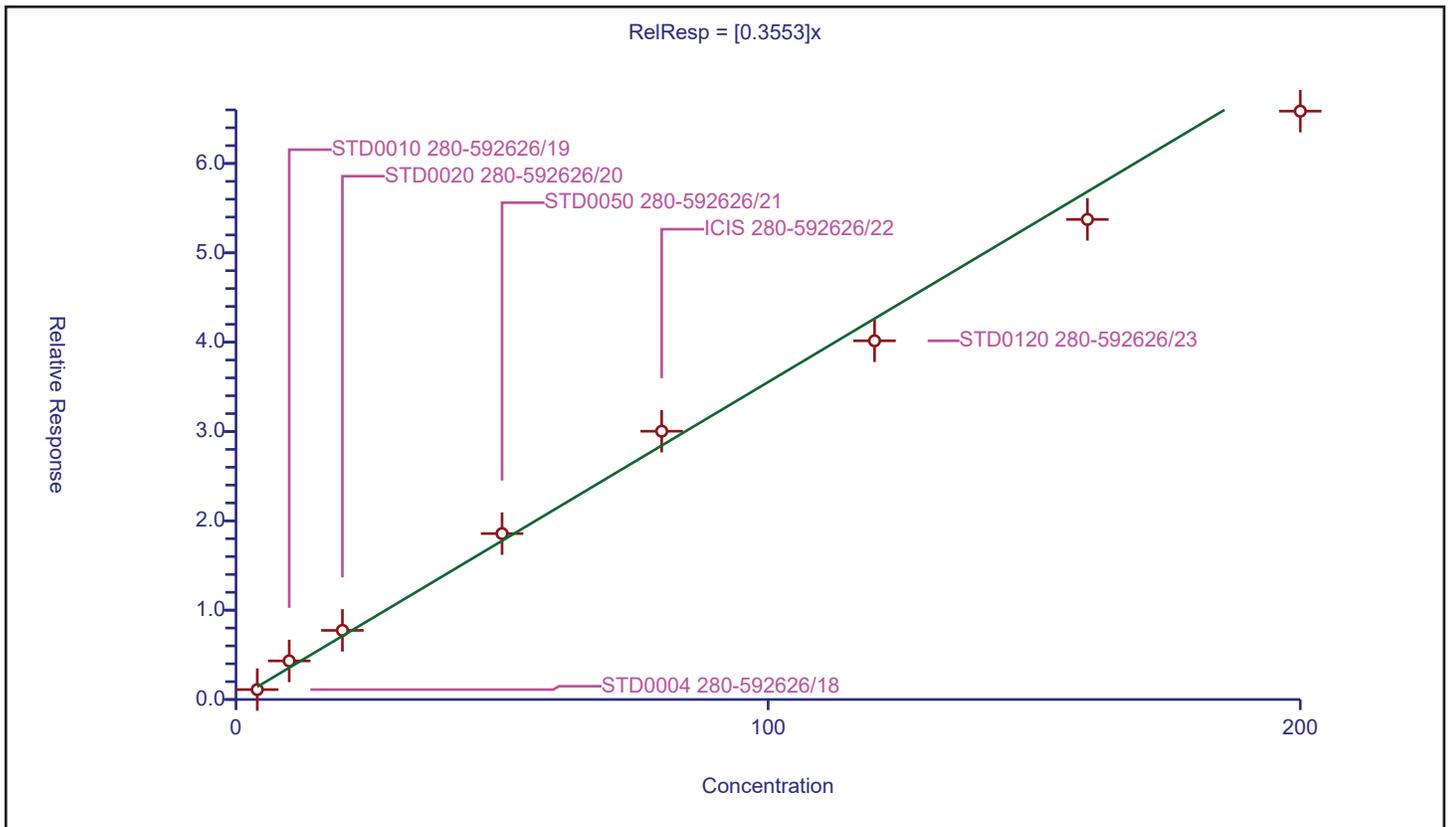
/ 2,4-Dimethylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3553

Error Coefficients	
Standard Error:	671000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.107581	40.0	608967.0	0.276895	Y
2	STD0010 280-592626/19	10.0	4.320965	40.0	602745.0	0.432096	Y
3	STD0020 280-592626/20	20.0	7.737732	40.0	614273.0	0.386887	Y
4	STD0050 280-592626/21	50.0	18.572681	40.0	621431.0	0.371454	Y
5	ICIS 280-592626/22	80.0	30.032665	40.0	638289.0	0.375408	Y
6	STD0120 280-592626/23	120.0	40.152736	40.0	712077.0	0.334606	Y
7	STD0160 280-592626/24	160.0	53.739216	40.0	713671.0	0.33587	Y
8	STD0200 280-592626/25	200.0	65.860486	40.0	715770.0	0.329302	Y



Calibration

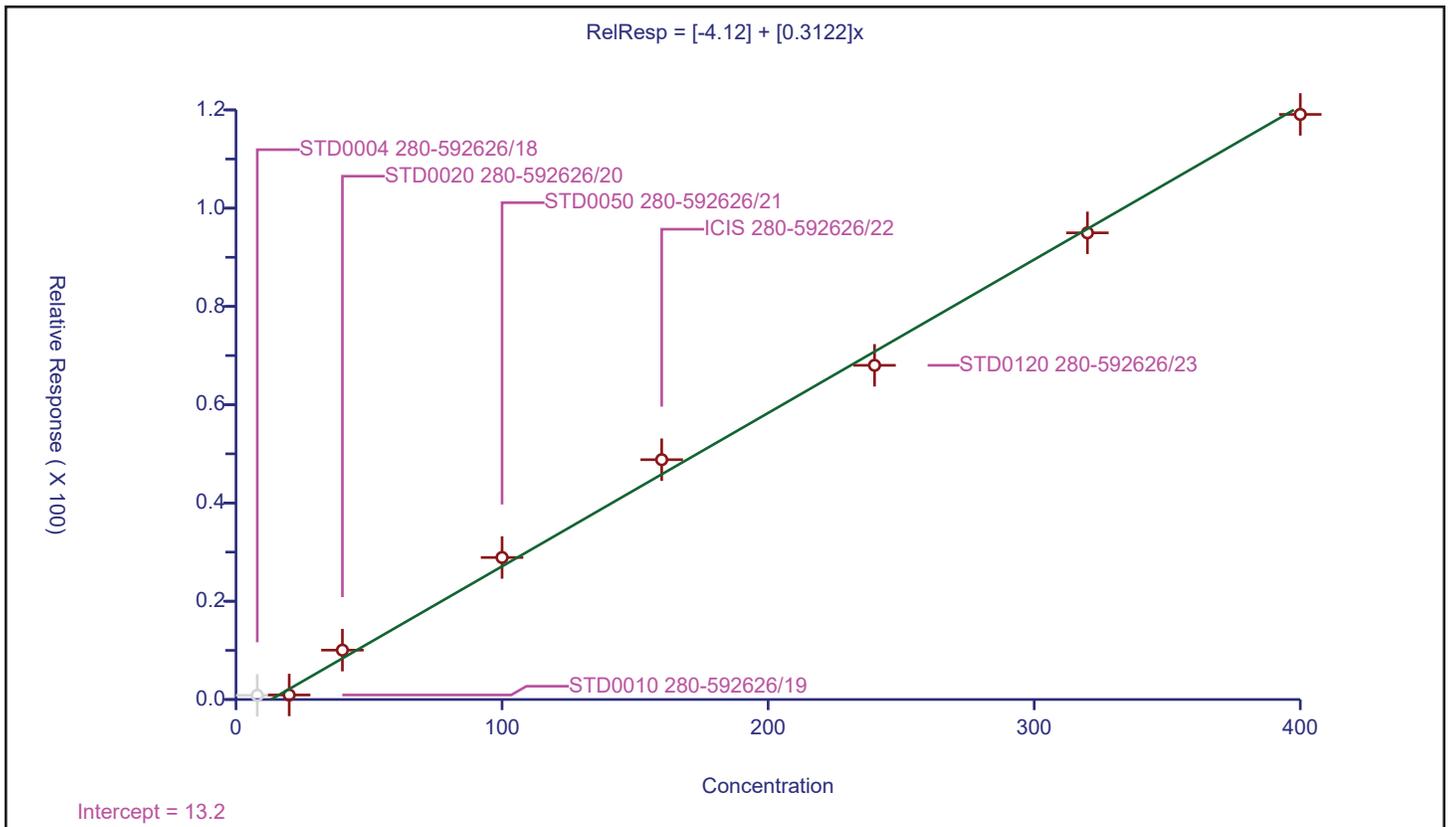
/ Benzoic acid

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-4.12
Slope:	0.3122

Error Coefficients	
Standard Error:	1390000
Relative Standard Error:	11.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	0.856664	40.0	608967.0	0.107083	N
2	STD0010 280-592626/19	20.0	0.917801	40.0	602745.0	0.04589	Y
3	STD0020 280-592626/20	40.0	10.044264	40.0	614273.0	0.251107	Y
4	STD0050 280-592626/21	100.0	28.902324	40.0	621431.0	0.289023	Y
5	ICIS 280-592626/22	160.0	48.810554	40.0	638289.0	0.305066	Y
6	STD0120 280-592626/23	240.0	68.015622	40.0	712077.0	0.283398	Y
7	STD0160 280-592626/24	320.0	94.980516	40.0	713671.0	0.296814	Y
8	STD0200 280-592626/25	400.0	119.081716	40.0	715770.0	0.297704	Y



Calibration

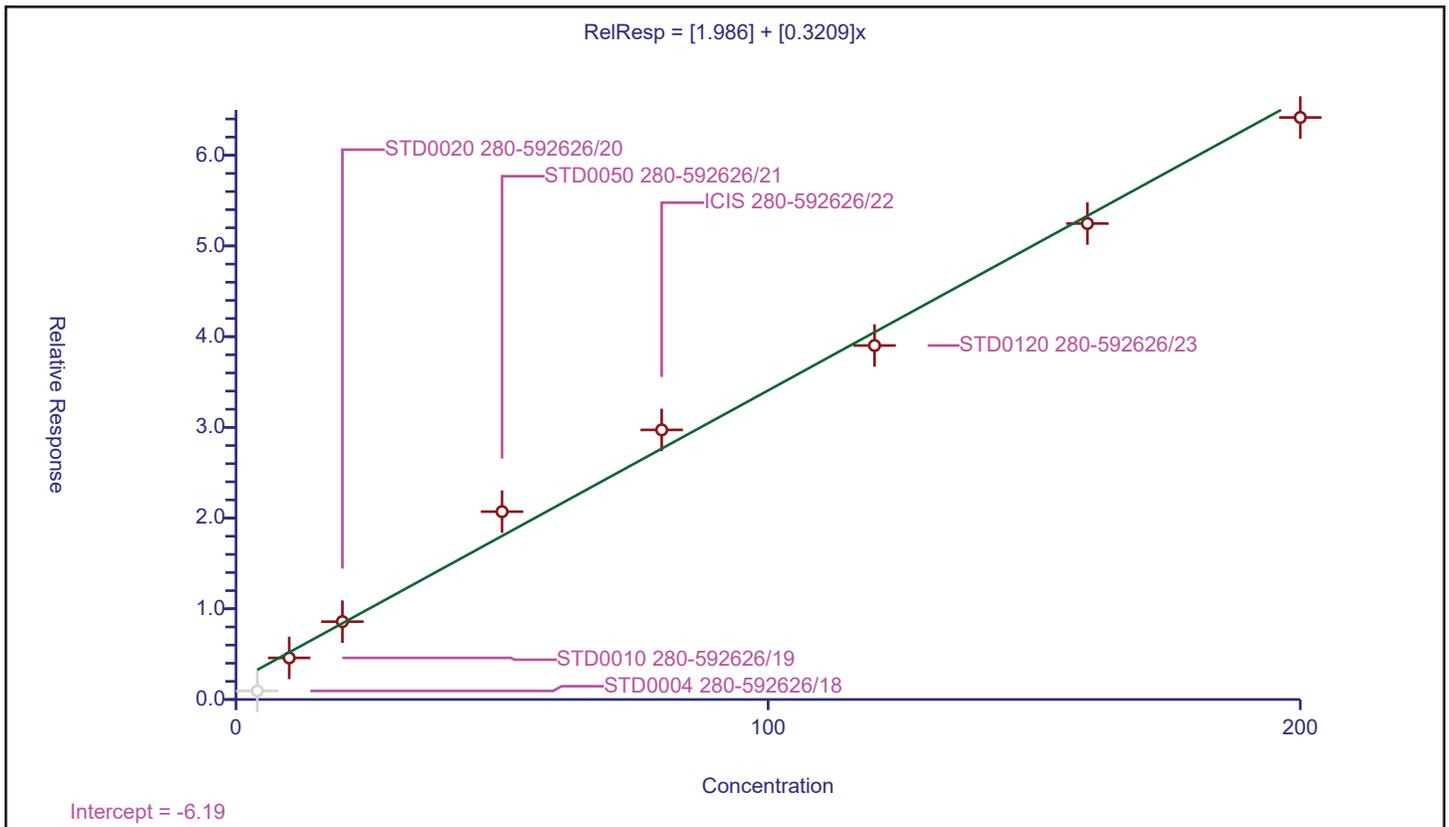
/ Bis(2-chloroethoxy)methane

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	1.986
Slope:	0.3209

Error Coefficients	
Standard Error:	778000
Relative Standard Error:	12.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.941332	40.0	608967.0	0.235333	N
2	STD0010 280-592626/19	10.0	4.586085	40.0	602745.0	0.458609	Y
3	STD0020 280-592626/20	20.0	8.583806	40.0	614273.0	0.42919	Y
4	STD0050 280-592626/21	50.0	20.707882	40.0	621431.0	0.414158	Y
5	ICIS 280-592626/22	80.0	29.720957	40.0	638289.0	0.371512	Y
6	STD0120 280-592626/23	120.0	39.024825	40.0	712077.0	0.325207	Y
7	STD0160 280-592626/24	160.0	52.471685	40.0	713671.0	0.327948	Y
8	STD0200 280-592626/25	200.0	64.163852	40.0	715770.0	0.320819	Y



Calibration

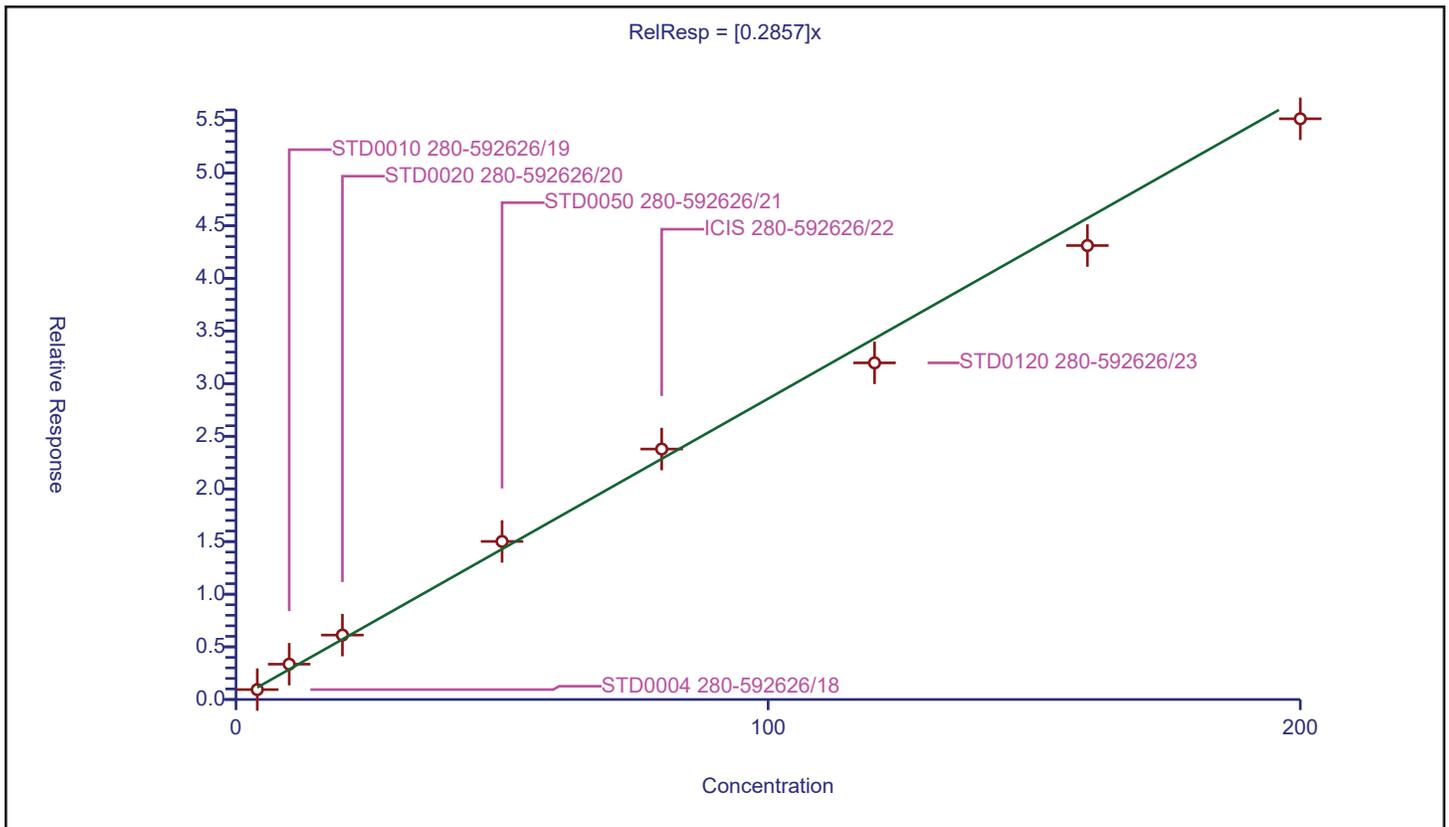
/ 2,4-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2857

Error Coefficients	
Standard Error:	548000
Relative Standard Error:	10.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.939558	40.0	608967.0	0.23489	Y
2	STD0010 280-592626/19	10.0	3.356643	40.0	602745.0	0.335664	Y
3	STD0020 280-592626/20	20.0	6.118452	40.0	614273.0	0.305923	Y
4	STD0050 280-592626/21	50.0	15.013026	40.0	621431.0	0.300261	Y
5	ICIS 280-592626/22	80.0	23.788284	40.0	638289.0	0.297354	Y
6	STD0120 280-592626/23	120.0	31.971542	40.0	712077.0	0.26643	Y
7	STD0160 280-592626/24	160.0	43.116842	40.0	713671.0	0.26948	Y
8	STD0200 280-592626/25	200.0	55.156768	40.0	715770.0	0.275784	Y



Calibration

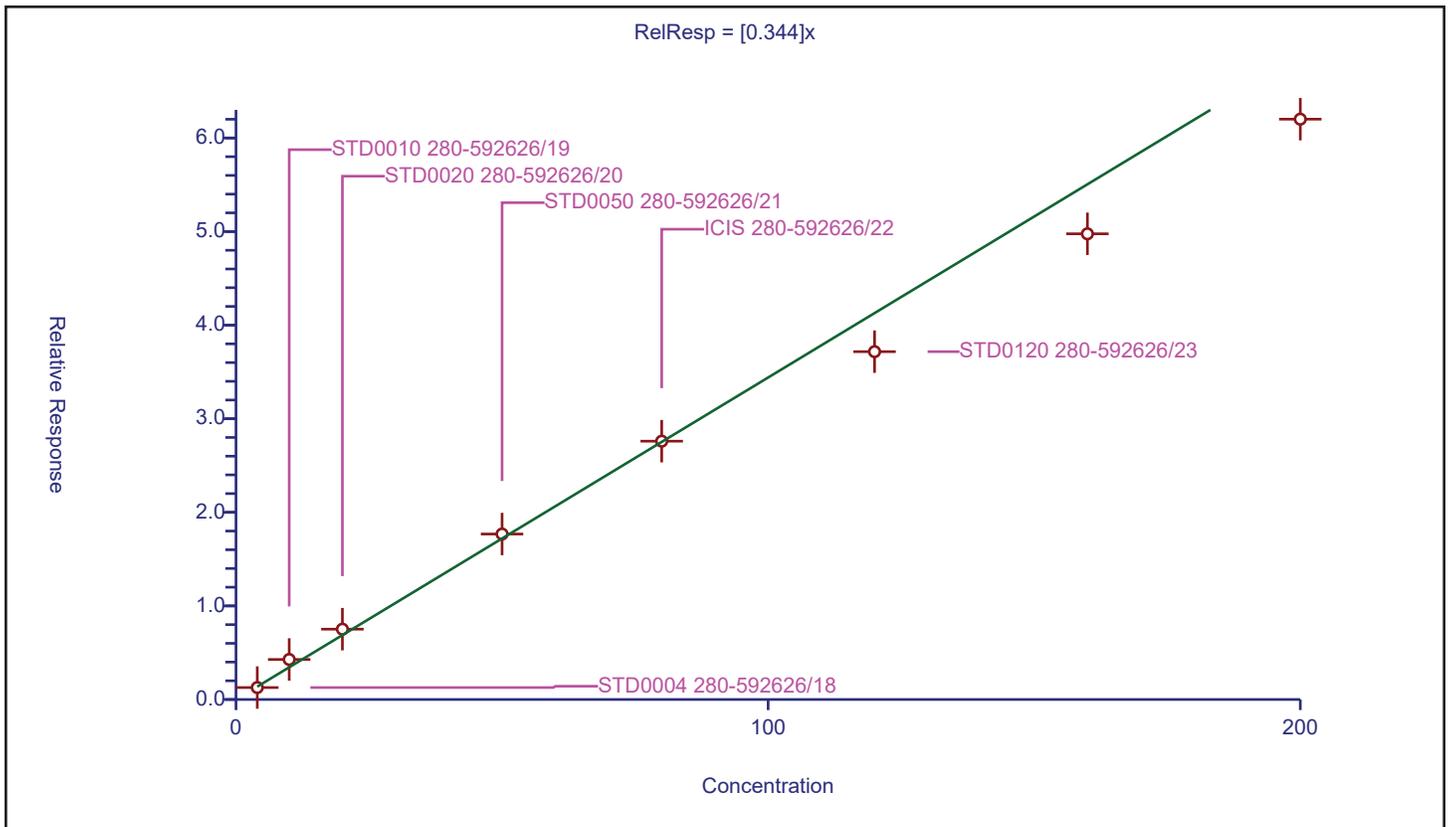
/ 1,2,4-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.344

Error Coefficients	
Standard Error:	626000
Relative Standard Error:	12.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.277639	40.0	608967.0	0.31941	Y
2	STD0010 280-592626/19	10.0	4.277829	40.0	602745.0	0.427783	Y
3	STD0020 280-592626/20	20.0	7.514769	40.0	614273.0	0.375738	Y
4	STD0050 280-592626/21	50.0	17.680933	40.0	621431.0	0.353619	Y
5	ICIS 280-592626/22	80.0	27.603484	40.0	638289.0	0.345044	Y
6	STD0120 280-592626/23	120.0	37.1657	40.0	712077.0	0.309714	Y
7	STD0160 280-592626/24	160.0	49.759399	40.0	713671.0	0.310996	Y
8	STD0200 280-592626/25	200.0	62.008411	40.0	715770.0	0.310042	Y



Calibration

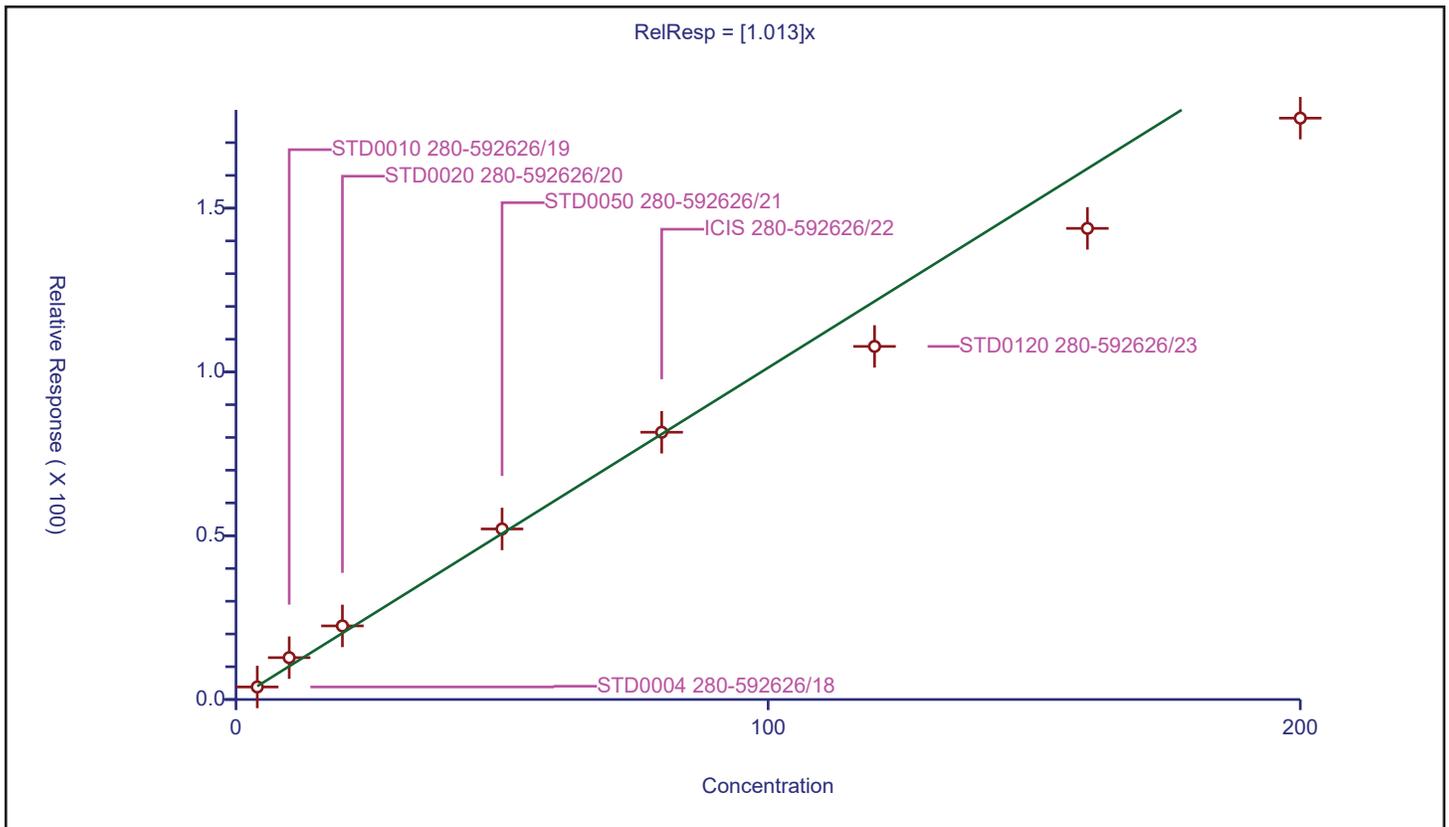
/ Naphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.013

Error Coefficients	
Standard Error:	1810000
Relative Standard Error:	13.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.825823	40.0	608967.0	0.956456	Y
2	STD0010 280-592626/19	10.0	12.777078	40.0	602745.0	1.277708	Y
3	STD0020 280-592626/20	20.0	22.463237	40.0	614273.0	1.123162	Y
4	STD0050 280-592626/21	50.0	52.06216	40.0	621431.0	1.041243	Y
5	ICIS 280-592626/22	80.0	81.595077	40.0	638289.0	1.019938	Y
6	STD0120 280-592626/23	120.0	107.791208	40.0	712077.0	0.89826	Y
7	STD0160 280-592626/24	160.0	143.832494	40.0	713671.0	0.898953	Y
8	STD0200 280-592626/25	200.0	177.481258	40.0	715770.0	0.887406	Y



Calibration

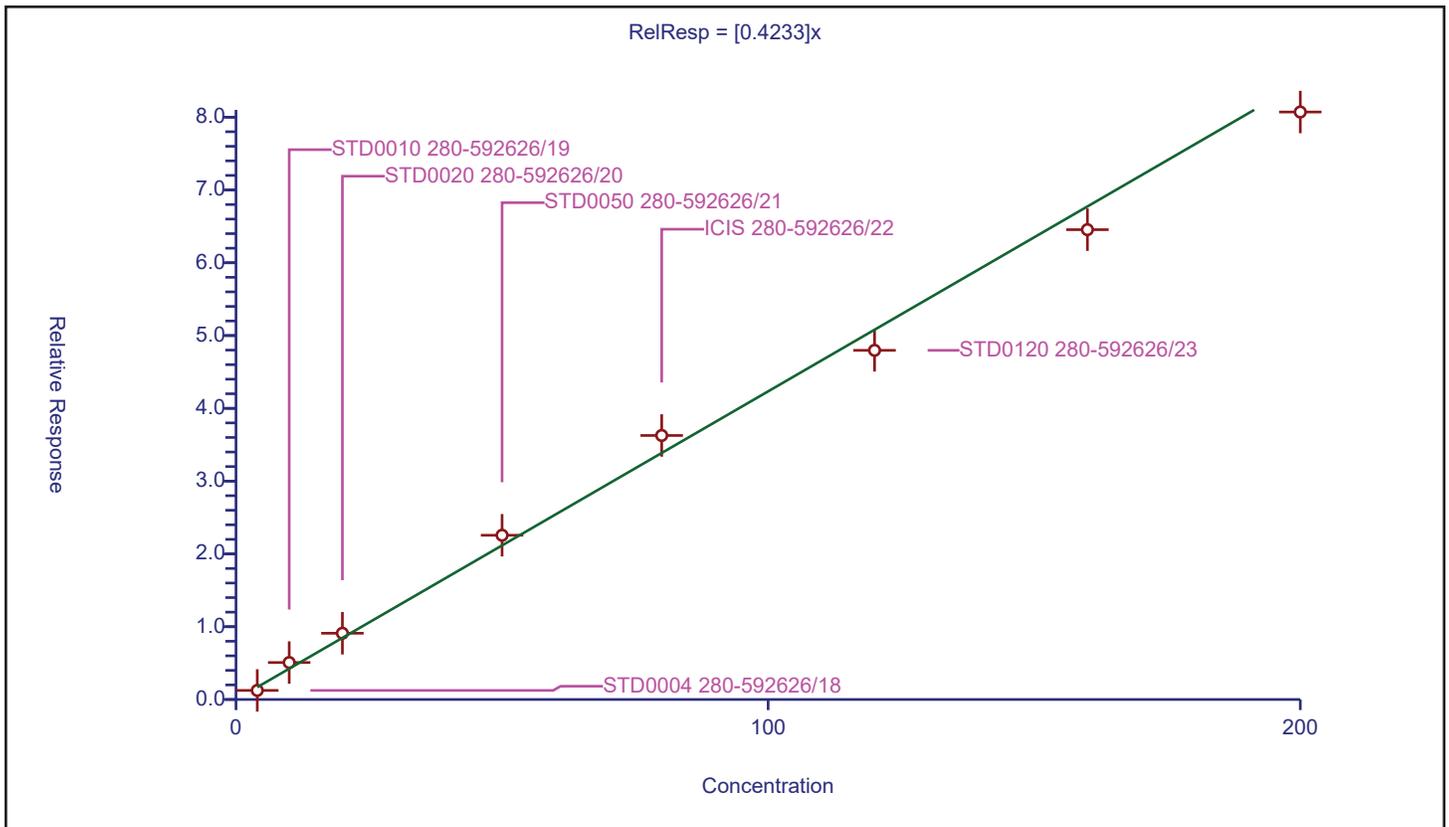
/ 4-Chloroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4233

Error Coefficients	
Standard Error:	813000
Relative Standard Error:	13.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.247818	40.0	608967.0	0.311955	Y
2	STD0010 280-592626/19	10.0	5.080689	40.0	602745.0	0.508069	Y
3	STD0020 280-592626/20	20.0	9.102728	40.0	614273.0	0.455136	Y
4	STD0050 280-592626/21	50.0	22.564114	40.0	621431.0	0.451282	Y
5	ICIS 280-592626/22	80.0	36.272096	40.0	638289.0	0.453401	Y
6	STD0120 280-592626/23	120.0	47.966891	40.0	712077.0	0.399724	Y
7	STD0160 280-592626/24	160.0	64.547726	40.0	713671.0	0.403423	Y
8	STD0200 280-592626/25	200.0	80.70939	40.0	715770.0	0.403547	Y



Calibration

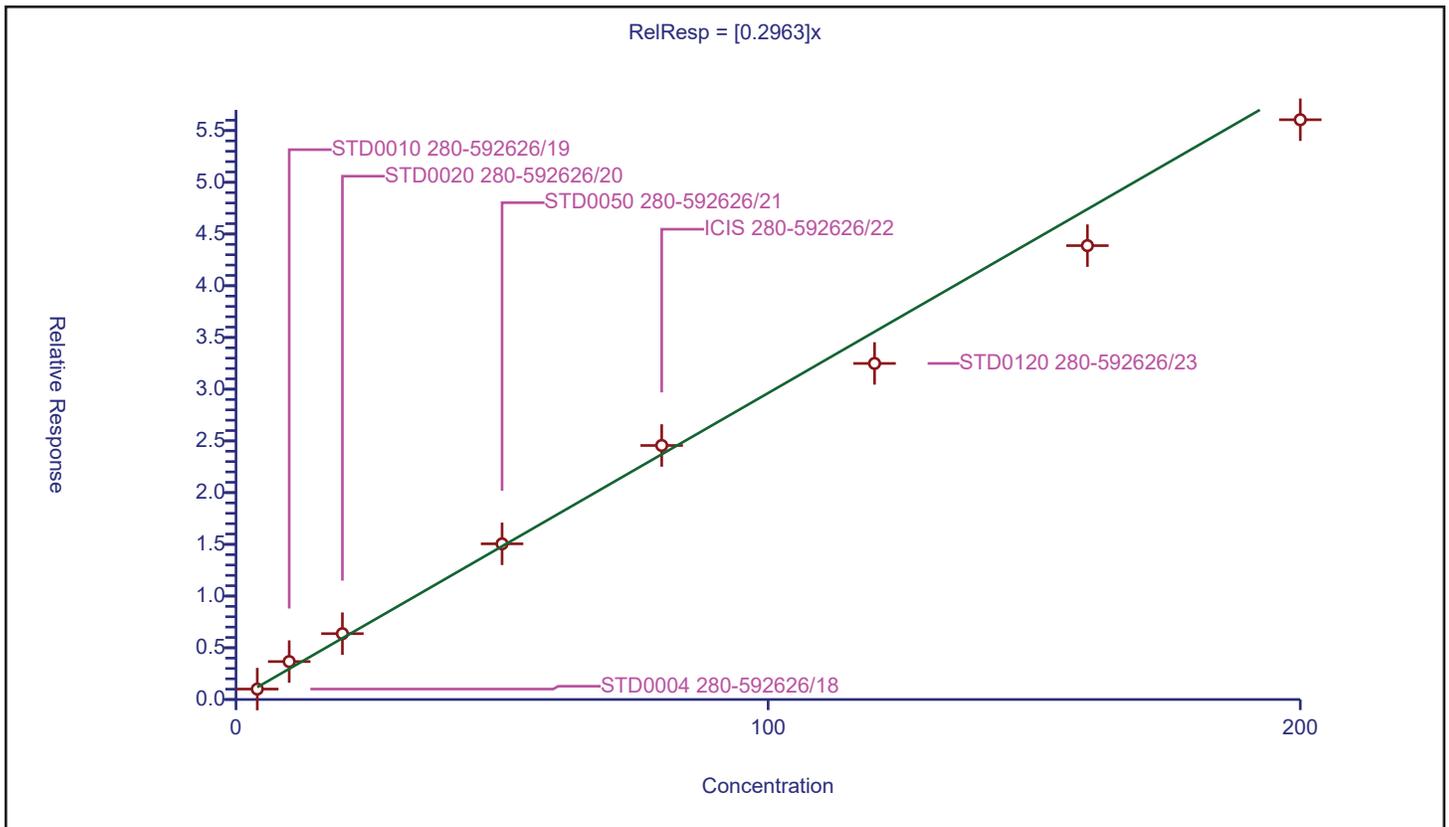
/ 2,6-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2963

Error Coefficients	
Standard Error:	557000
Relative Standard Error:	12.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.007477	40.0	608967.0	0.251869	Y
2	STD0010 280-592626/19	10.0	3.667156	40.0	602745.0	0.366716	Y
3	STD0020 280-592626/20	20.0	6.364988	40.0	614273.0	0.318249	Y
4	STD0050 280-592626/21	50.0	15.050746	40.0	621431.0	0.301015	Y
5	ICIS 280-592626/22	80.0	24.558593	40.0	638289.0	0.306982	Y
6	STD0120 280-592626/23	120.0	32.489464	40.0	712077.0	0.270746	Y
7	STD0160 280-592626/24	160.0	43.878202	40.0	713671.0	0.274239	Y
8	STD0200 280-592626/25	200.0	56.04834	40.0	715770.0	0.280242	Y



Calibration

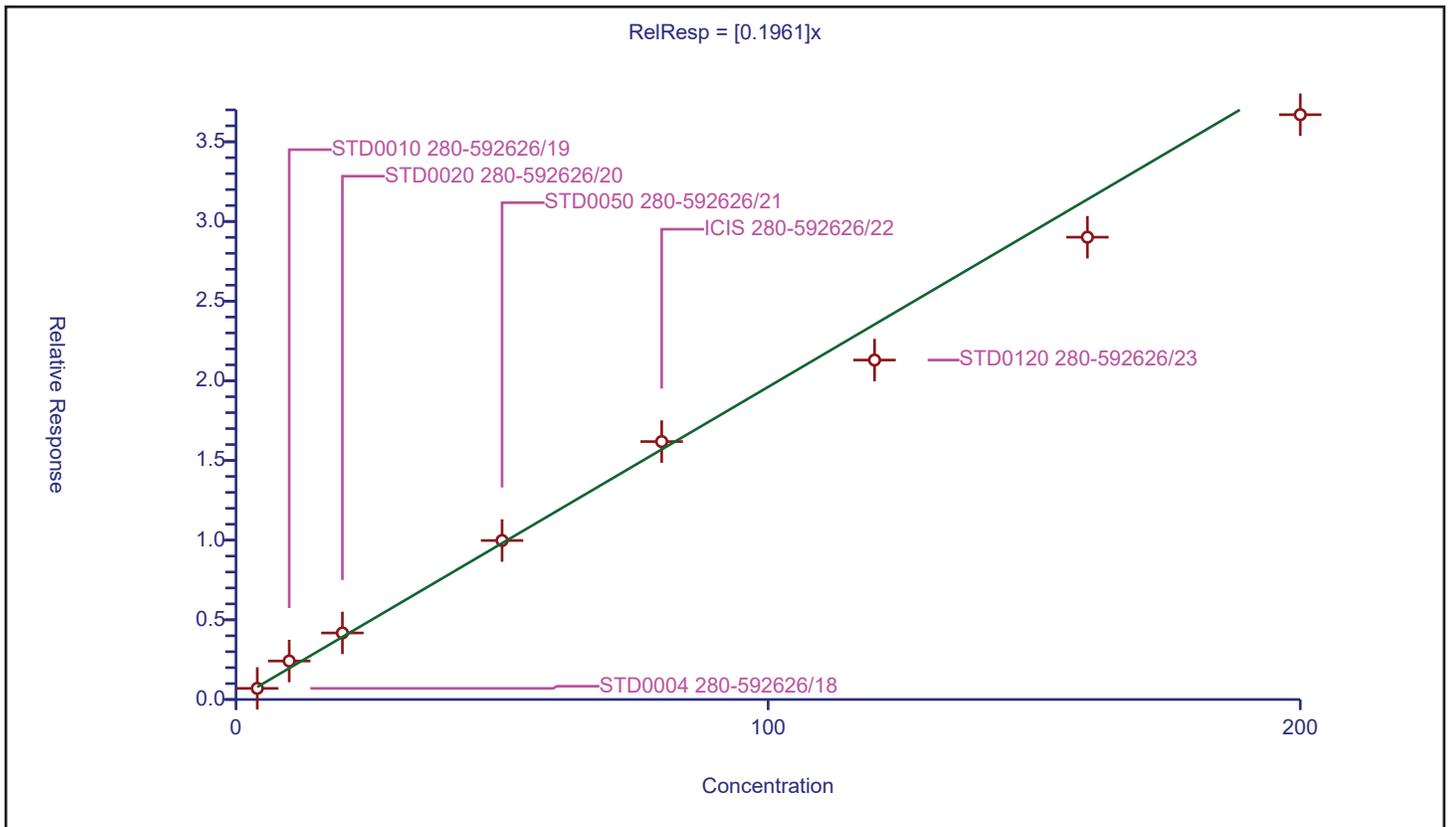
/ Hexachlorobutadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1961

Error Coefficients	
Standard Error:	366000
Relative Standard Error:	11.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.698429	40.0	608967.0	0.174607	Y
2	STD0010 280-592626/19	10.0	2.415947	40.0	602745.0	0.241595	Y
3	STD0020 280-592626/20	20.0	4.175277	40.0	614273.0	0.208764	Y
4	STD0050 280-592626/21	50.0	9.977616	40.0	621431.0	0.199552	Y
5	ICIS 280-592626/22	80.0	16.185145	40.0	638289.0	0.202314	Y
6	STD0120 280-592626/23	120.0	21.301797	40.0	712077.0	0.177515	Y
7	STD0160 280-592626/24	160.0	29.011631	40.0	713671.0	0.181323	Y
8	STD0200 280-592626/25	200.0	36.699107	40.0	715770.0	0.183496	Y



Calibration

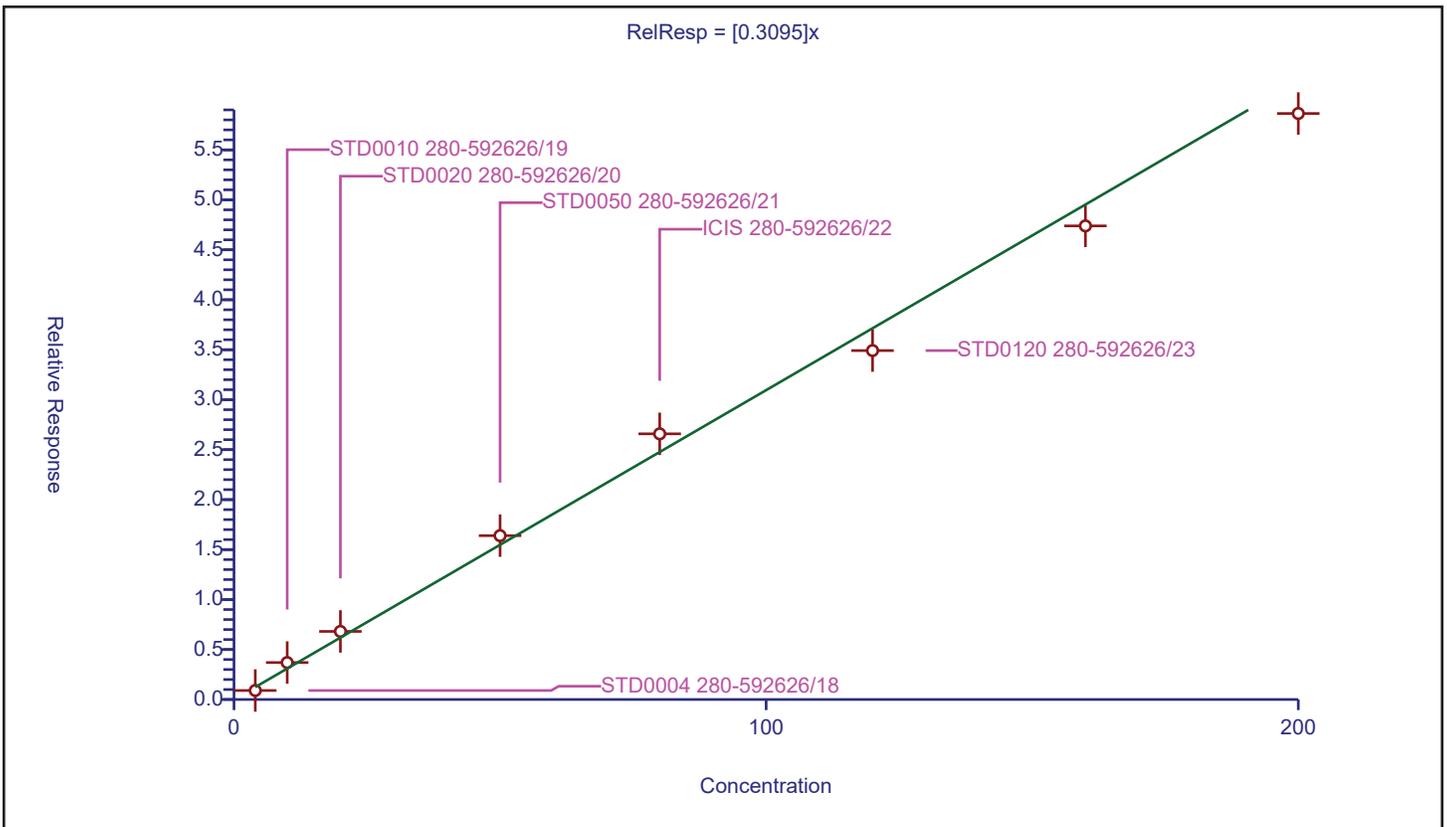
/ 4-Chloro-3-methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3095

Error Coefficients	
Standard Error:	593000
Relative Standard Error:	14.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.901264	40.0	608967.0	0.225316	Y
2	STD0010 280-592626/19	10.0	3.698347	40.0	602745.0	0.369835	Y
3	STD0020 280-592626/20	20.0	6.812346	40.0	614273.0	0.340617	Y
4	STD0050 280-592626/21	50.0	16.396157	40.0	621431.0	0.327923	Y
5	ICIS 280-592626/22	80.0	26.584196	40.0	638289.0	0.332302	Y
6	STD0120 280-592626/23	120.0	34.916673	40.0	712077.0	0.290972	Y
7	STD0160 280-592626/24	160.0	47.39265	40.0	713671.0	0.296204	Y
8	STD0200 280-592626/25	200.0	58.639116	40.0	715770.0	0.293196	Y



Calibration

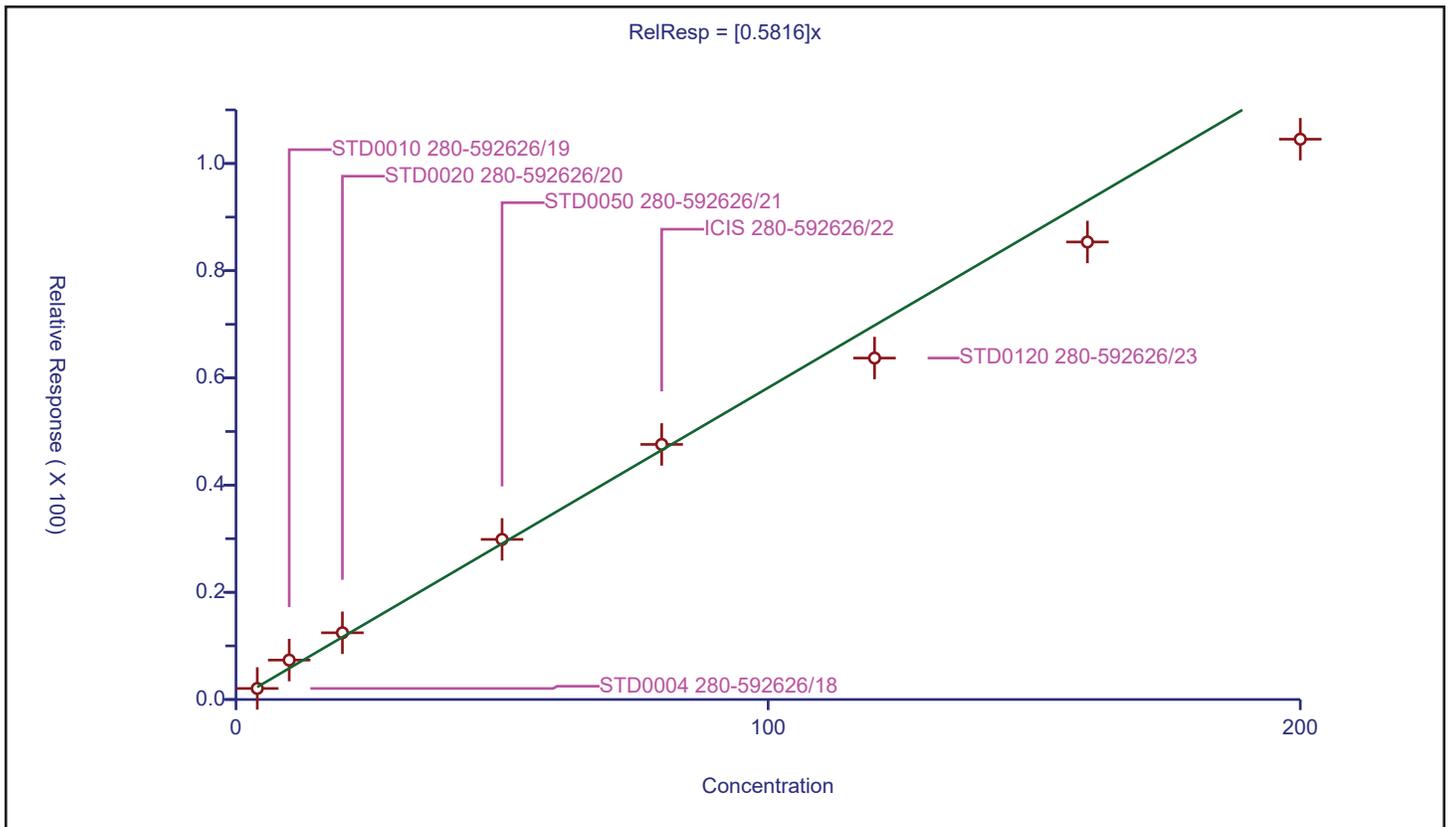
/ 2-Methylnaphthalene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5816

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	12.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.062772	40.0	608967.0	0.515693	Y
2	STD0010 280-592626/19	10.0	7.35515	40.0	602745.0	0.735515	Y
3	STD0020 280-592626/20	20.0	12.449579	40.0	614273.0	0.622479	Y
4	STD0050 280-592626/21	50.0	29.873115	40.0	621431.0	0.597462	Y
5	ICIS 280-592626/22	80.0	47.592047	40.0	638289.0	0.594901	Y
6	STD0120 280-592626/23	120.0	63.700751	40.0	712077.0	0.53084	Y
7	STD0160 280-592626/24	160.0	85.361518	40.0	713671.0	0.533509	Y
8	STD0200 280-592626/25	200.0	104.532629	40.0	715770.0	0.522663	Y



Calibration

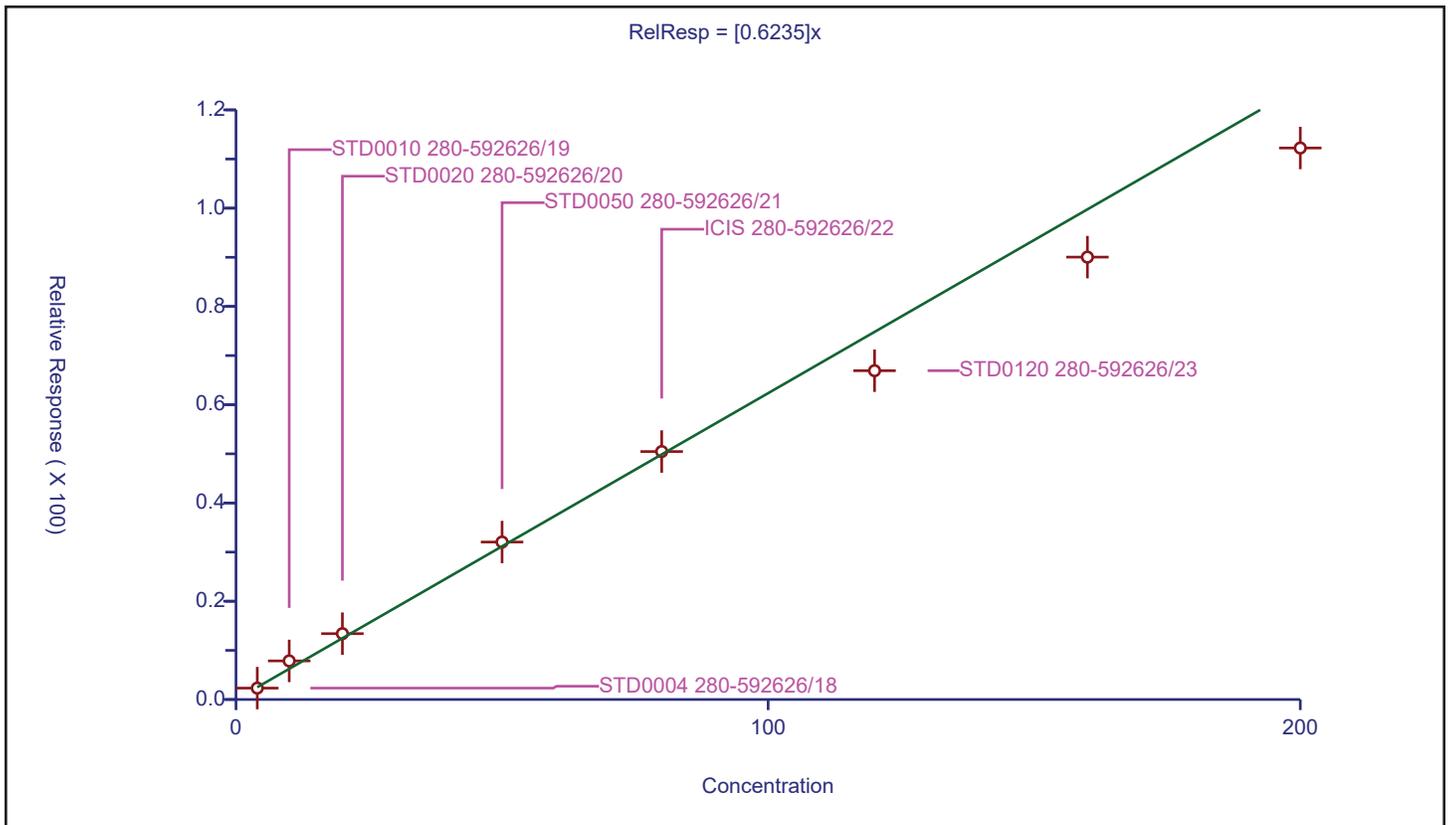
/ 1-Methylnaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6235

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	12.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.315528	40.0	608967.0	0.578882	Y
2	STD0010 280-592626/19	10.0	7.852209	40.0	602745.0	0.785221	Y
3	STD0020 280-592626/20	20.0	13.402249	40.0	614273.0	0.670112	Y
4	STD0050 280-592626/21	50.0	32.049318	40.0	621431.0	0.640986	Y
5	ICIS 280-592626/22	80.0	50.466544	40.0	638289.0	0.630832	Y
6	STD0120 280-592626/23	120.0	66.920179	40.0	712077.0	0.557668	Y
7	STD0160 280-592626/24	160.0	90.035997	40.0	713671.0	0.562725	Y
8	STD0200 280-592626/25	200.0	112.245274	40.0	715770.0	0.561226	Y



Calibration

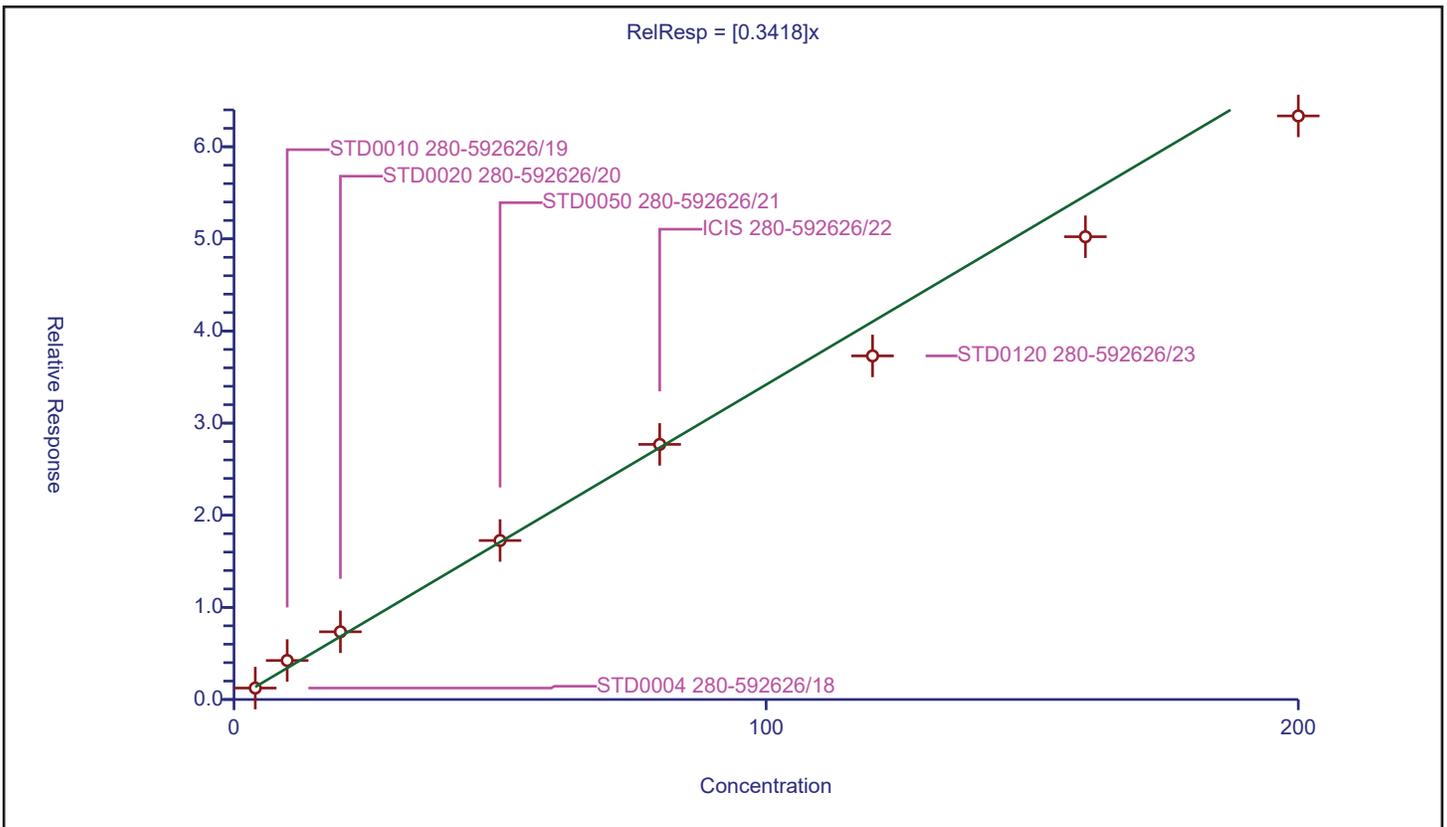
/ 1,2,4,5-Tetrachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3418

Error Coefficients	
Standard Error:	634000
Relative Standard Error:	11.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.24125	40.0	608967.0	0.310312	Y
2	STD0010 280-592626/19	10.0	4.235025	40.0	602745.0	0.423502	Y
3	STD0020 280-592626/20	20.0	7.348459	40.0	614273.0	0.367423	Y
4	STD0050 280-592626/21	50.0	17.260162	40.0	621431.0	0.345203	Y
5	ICIS 280-592626/22	80.0	27.693036	40.0	638289.0	0.346163	Y
6	STD0120 280-592626/23	120.0	37.297764	40.0	712077.0	0.310815	Y
7	STD0160 280-592626/24	160.0	50.232726	40.0	713671.0	0.313955	Y
8	STD0200 280-592626/25	200.0	63.342973	40.0	715770.0	0.316715	Y



Calibration

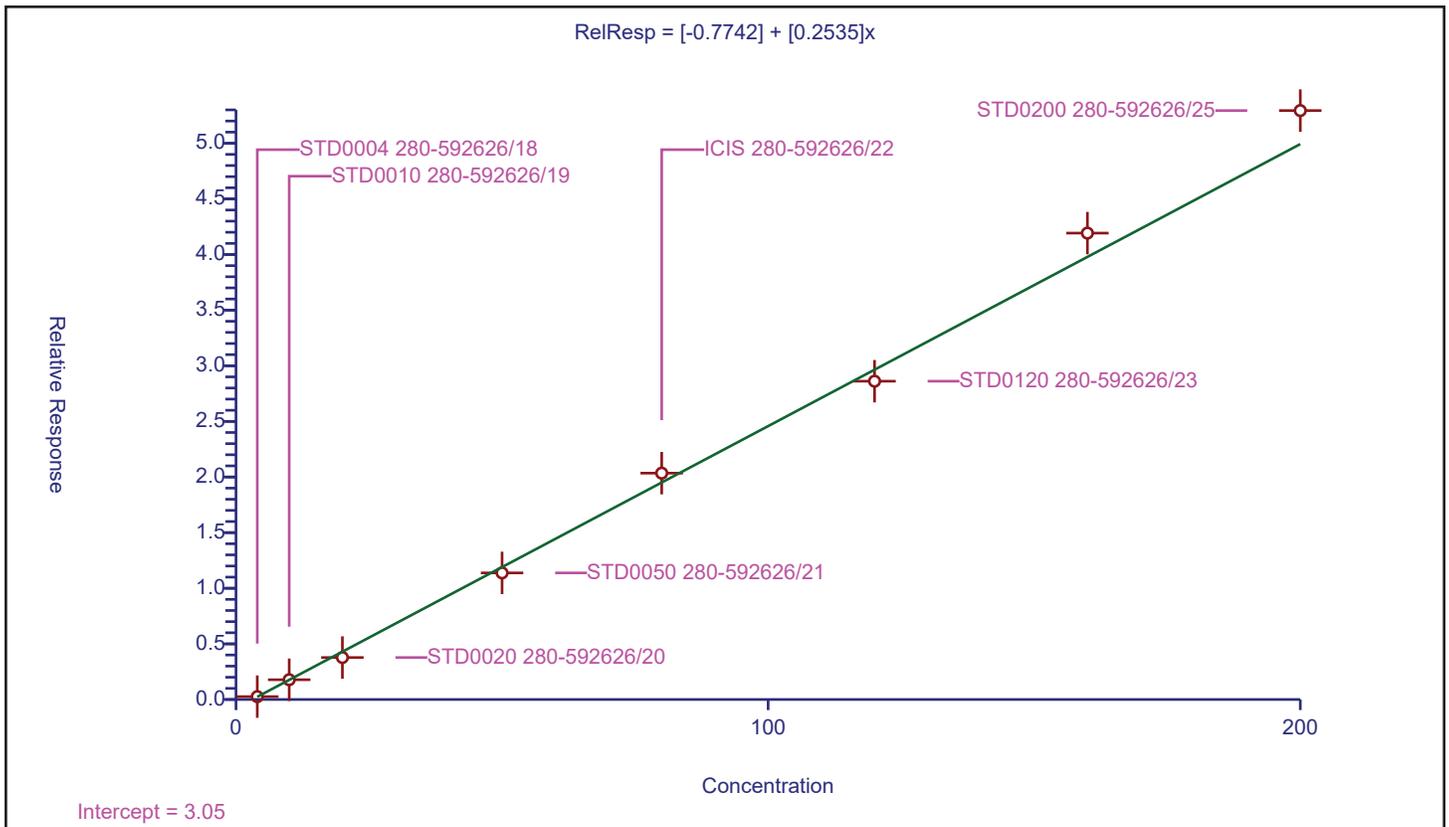
/ Hexachlorocyclopentadiene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.7742
Slope:	0.2535

Error Coefficients	
Standard Error:	329000
Relative Standard Error:	6.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.257941	40.0	345506.0	0.064485	Y
2	STD0010 280-592626/19	10.0	1.776909	40.0	348853.0	0.177691	Y
3	STD0020 280-592626/20	20.0	3.772906	40.0	351273.0	0.188645	Y
4	STD0050 280-592626/21	50.0	11.38086	40.0	355952.0	0.227617	Y
5	ICIS 280-592626/22	80.0	20.347249	40.0	369015.0	0.254341	Y
6	STD0120 280-592626/23	120.0	28.613447	40.0	417640.0	0.238445	Y
7	STD0160 280-592626/24	160.0	41.925004	40.0	417329.0	0.262031	Y
8	STD0200 280-592626/25	200.0	52.937193	40.0	427626.0	0.264686	Y



Calibration

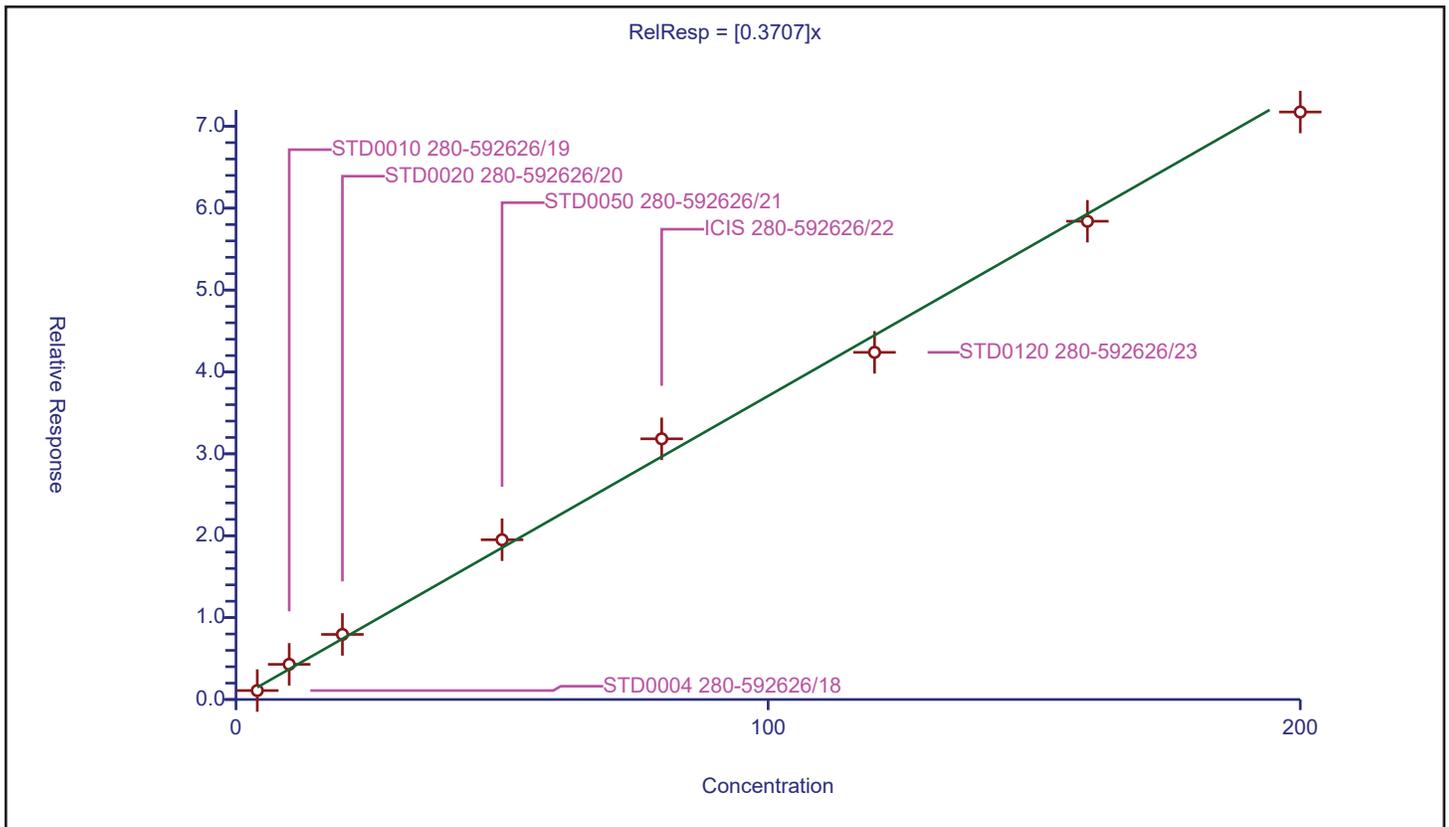
/ 2,4,6-Trichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3707

Error Coefficients	
Standard Error:	427000
Relative Standard Error:	12.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.093469	40.0	345506.0	0.273367	Y
2	STD0010 280-592626/19	10.0	4.294875	40.0	348853.0	0.429487	Y
3	STD0020 280-592626/20	20.0	7.947892	40.0	351273.0	0.397395	Y
4	STD0050 280-592626/21	50.0	19.507911	40.0	355952.0	0.390158	Y
5	ICIS 280-592626/22	80.0	31.834261	40.0	369015.0	0.397928	Y
6	STD0120 280-592626/23	120.0	42.392395	40.0	417640.0	0.35327	Y
7	STD0160 280-592626/24	160.0	58.403226	40.0	417329.0	0.36502	Y
8	STD0200 280-592626/25	200.0	71.739417	40.0	427626.0	0.358697	Y



Calibration

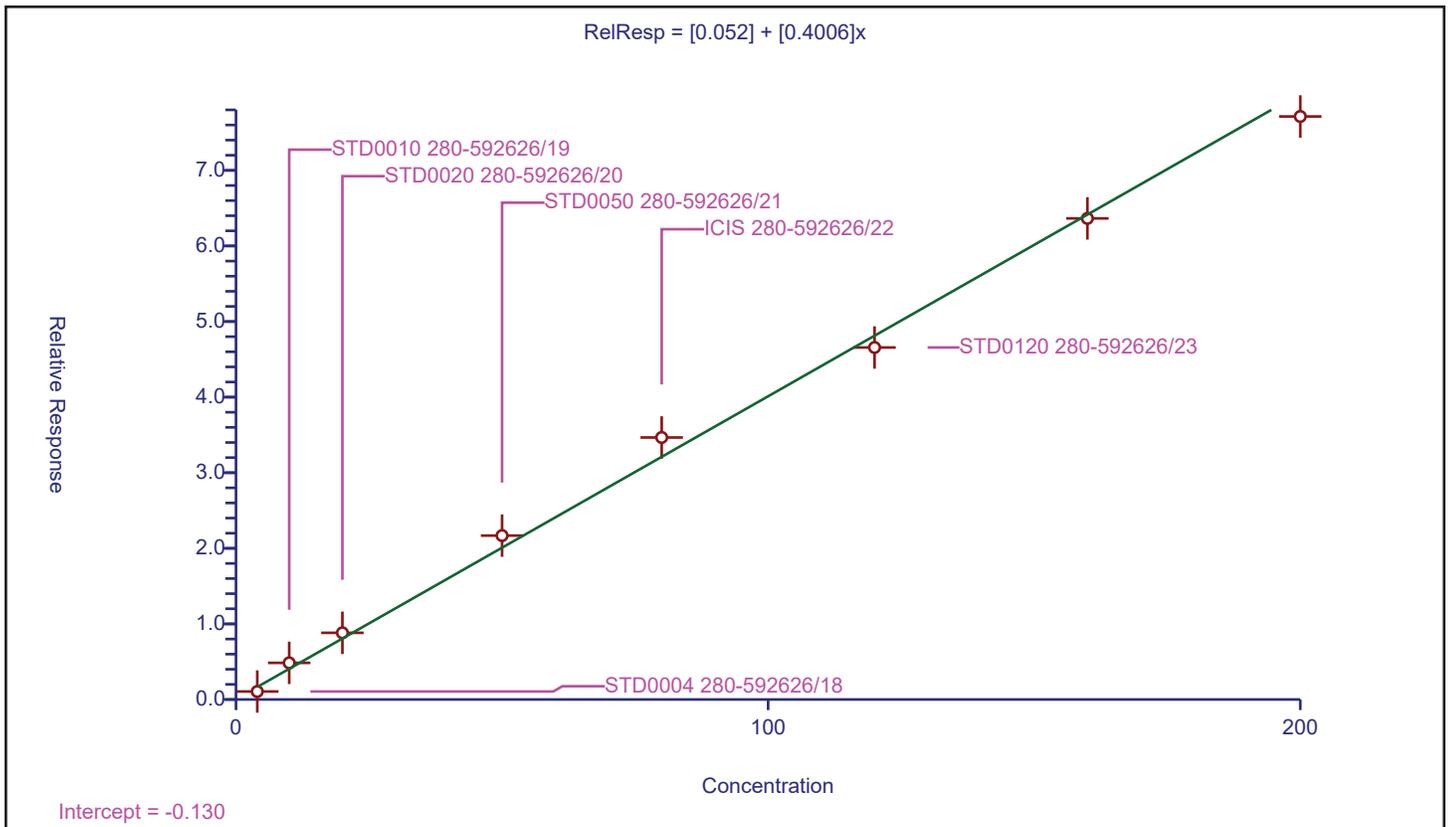
/ 2,4,5-Trichlorophenol

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.052
Slope:	0.4006

Error Coefficients	
Standard Error:	501000
Relative Standard Error:	18.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.057695	40.0	345506.0	0.264424	Y
2	STD0010 280-592626/19	10.0	4.845365	40.0	348853.0	0.484536	Y
3	STD0020 280-592626/20	20.0	8.820832	40.0	351273.0	0.441042	Y
4	STD0050 280-592626/21	50.0	21.683261	40.0	355952.0	0.433665	Y
5	ICIS 280-592626/22	80.0	34.662331	40.0	369015.0	0.433279	Y
6	STD0120 280-592626/23	120.0	46.568049	40.0	417640.0	0.388067	Y
7	STD0160 280-592626/24	160.0	63.646571	40.0	417329.0	0.397791	Y
8	STD0200 280-592626/25	200.0	77.130109	40.0	427626.0	0.385651	Y



Calibration

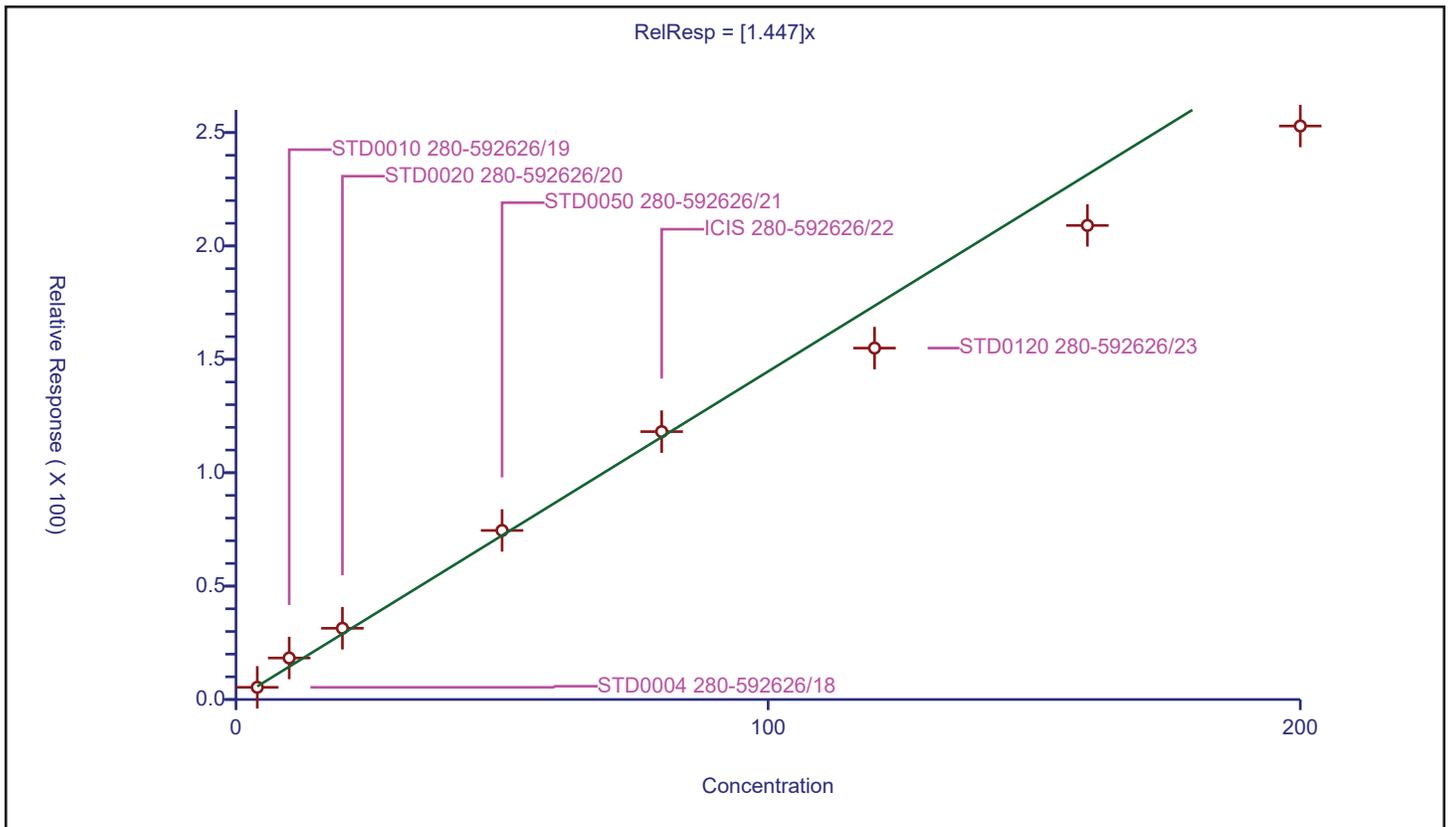
/ 2-Fluorobiphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.447

Error Coefficients	
Standard Error:	1530000
Relative Standard Error:	13.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.367085	40.0	345506.0	1.341771	Y
2	STD0010 280-592626/19	10.0	18.30731	40.0	348853.0	1.830731	Y
3	STD0020 280-592626/20	20.0	31.417274	40.0	351273.0	1.570864	Y
4	STD0050 280-592626/21	50.0	74.548366	40.0	355952.0	1.490967	Y
5	ICIS 280-592626/22	80.0	118.12257	40.0	369015.0	1.476532	Y
6	STD0120 280-592626/23	120.0	154.968777	40.0	417640.0	1.291406	Y
7	STD0160 280-592626/24	160.0	209.06019	40.0	417329.0	1.306626	Y
8	STD0200 280-592626/25	200.0	252.886494	40.0	427626.0	1.264432	Y



Calibration

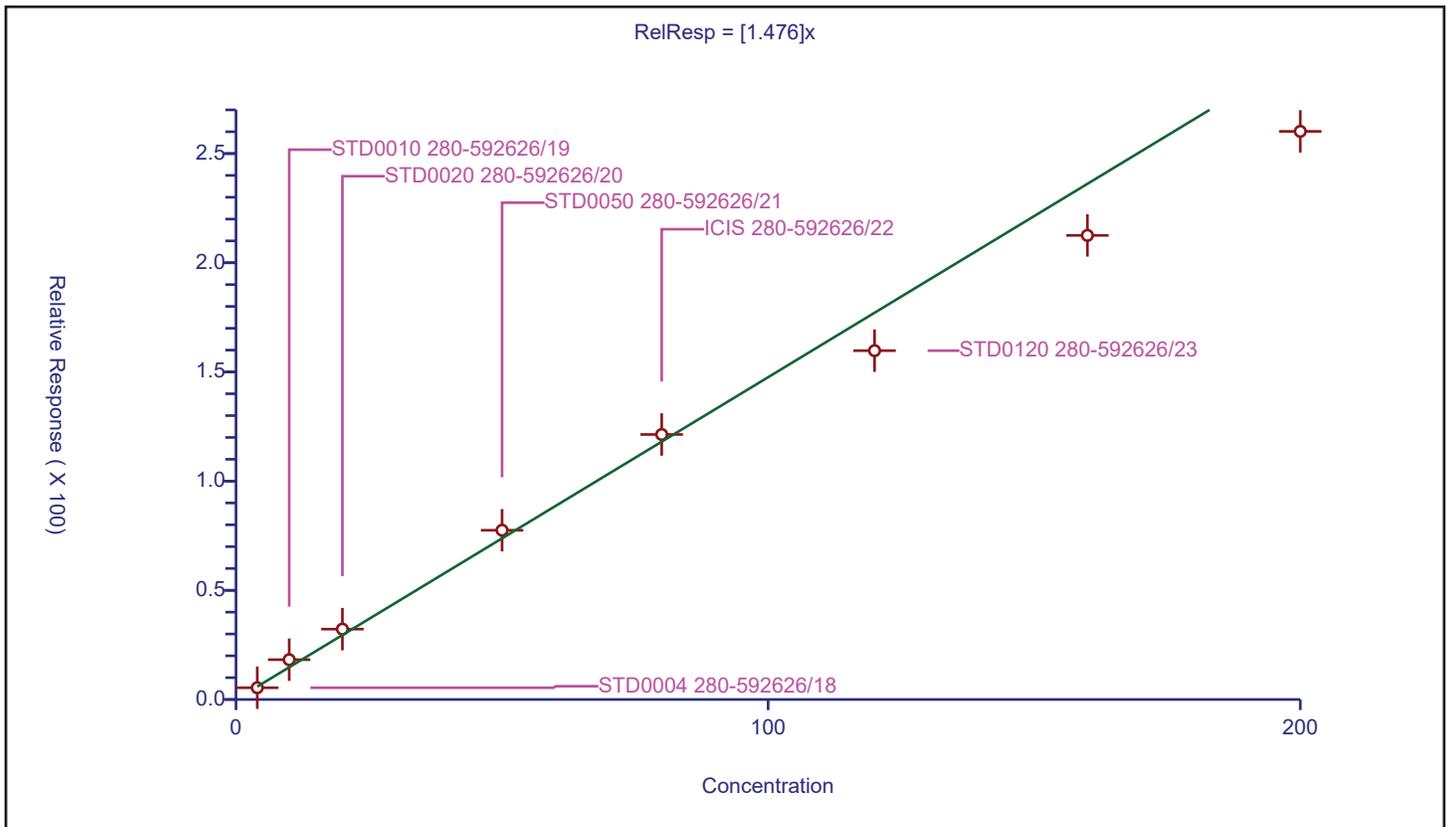
/ 1,1'-Biphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.476

Error Coefficients	
Standard Error:	1570000
Relative Standard Error:	12.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	5.379472	40.0	345506.0	1.344868	Y
2	STD0010 280-592626/19	10.0	18.232207	40.0	348853.0	1.823221	Y
3	STD0020 280-592626/20	20.0	32.220524	40.0	351273.0	1.611026	Y
4	STD0050 280-592626/21	50.0	77.515508	40.0	355952.0	1.55031	Y
5	ICIS 280-592626/22	80.0	121.355717	40.0	369015.0	1.516946	Y
6	STD0120 280-592626/23	120.0	159.746097	40.0	417640.0	1.331217	Y
7	STD0160 280-592626/24	160.0	212.526712	40.0	417329.0	1.328292	Y
8	STD0200 280-592626/25	200.0	260.168371	40.0	427626.0	1.300842	Y



Calibration

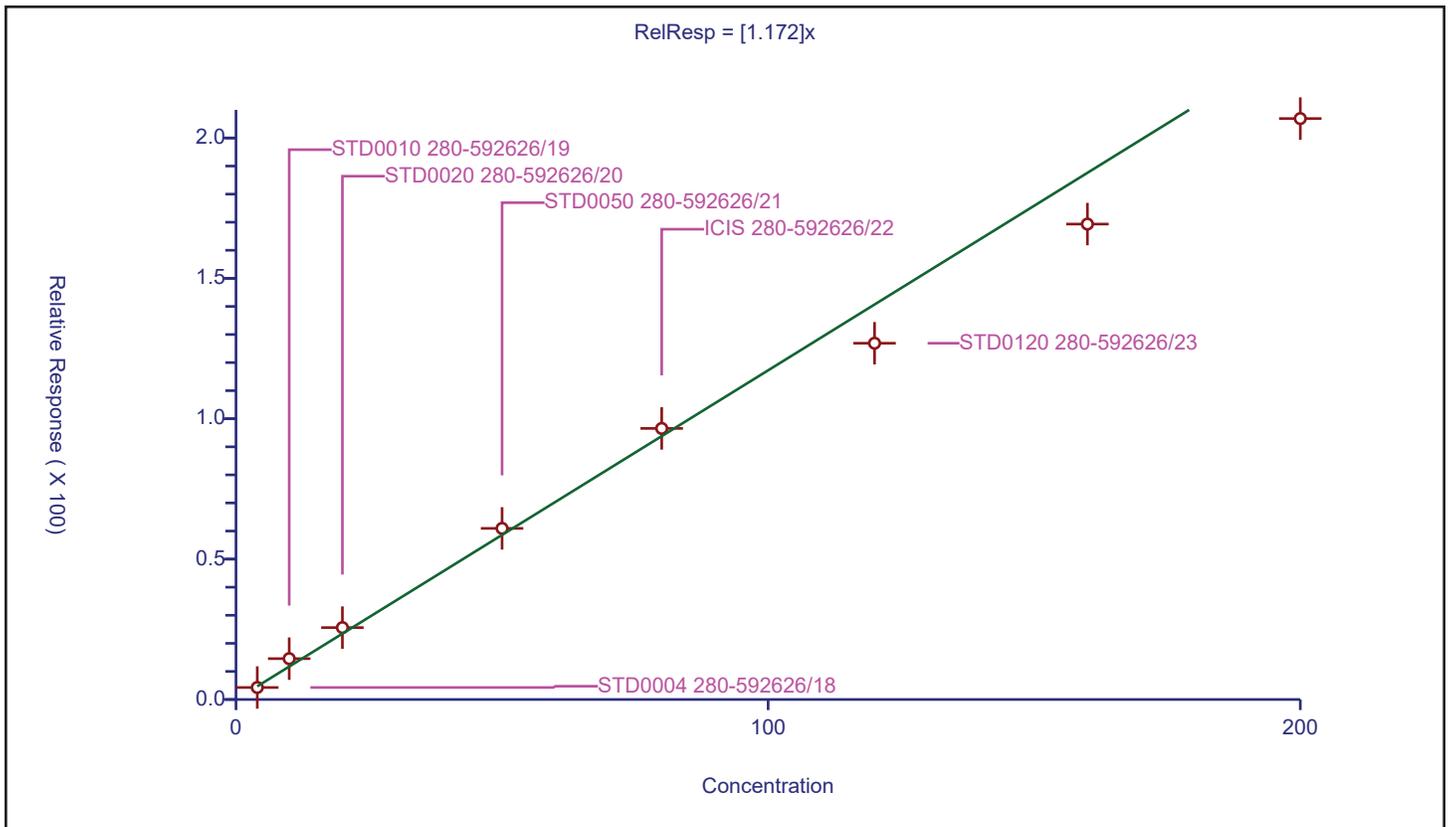
/ 2-Chloronaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.172

Error Coefficients	
Standard Error:	1250000
Relative Standard Error:	12.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.273732	40.0	345506.0	1.068433	Y
2	STD0010 280-592626/19	10.0	14.543776	40.0	348853.0	1.454378	Y
3	STD0020 280-592626/20	20.0	25.606181	40.0	351273.0	1.280309	Y
4	STD0050 280-592626/21	50.0	60.943386	40.0	355952.0	1.218868	Y
5	ICIS 280-592626/22	80.0	96.546753	40.0	369015.0	1.206834	Y
6	STD0120 280-592626/23	120.0	126.891007	40.0	417640.0	1.057425	Y
7	STD0160 280-592626/24	160.0	169.334506	40.0	417329.0	1.058341	Y
8	STD0200 280-592626/25	200.0	206.91436	40.0	427626.0	1.034572	Y



Calibration

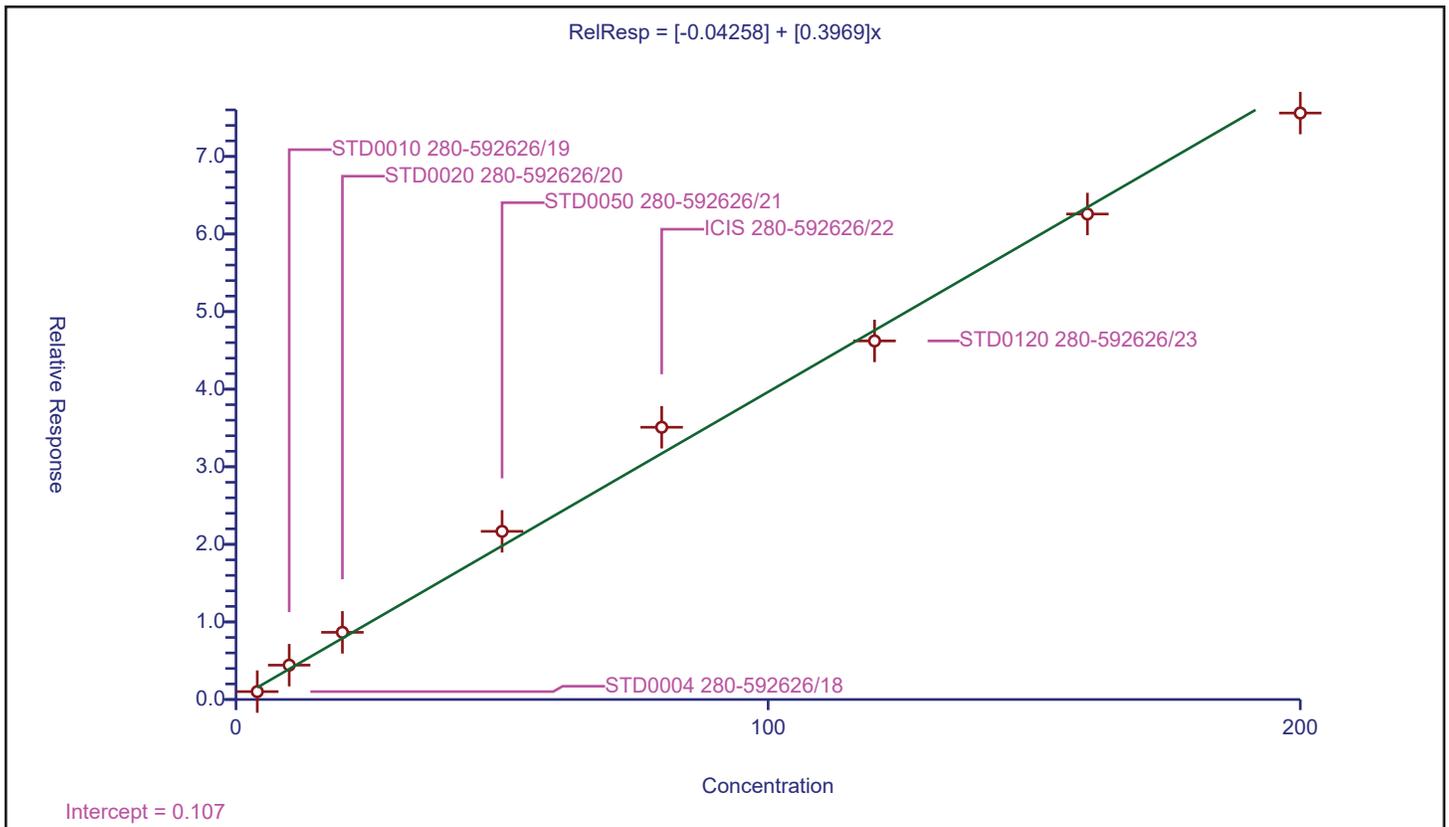
/ 2-Nitroaniline

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.04258
Slope:	0.3969

Error Coefficients	
Standard Error:	494000
Relative Standard Error:	16.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.015322	40.0	345506.0	0.253831	Y
2	STD0010 280-592626/19	10.0	4.427309	40.0	348853.0	0.442731	Y
3	STD0020 280-592626/20	20.0	8.659703	40.0	351273.0	0.432985	Y
4	STD0050 280-592626/21	50.0	21.674271	40.0	355952.0	0.433485	Y
5	ICIS 280-592626/22	80.0	35.09234	40.0	369015.0	0.438654	Y
6	STD0120 280-592626/23	120.0	46.220764	40.0	417640.0	0.385173	Y
7	STD0160 280-592626/24	160.0	62.577966	40.0	417329.0	0.391112	Y
8	STD0200 280-592626/25	200.0	75.594936	40.0	427626.0	0.377975	Y



Calibration

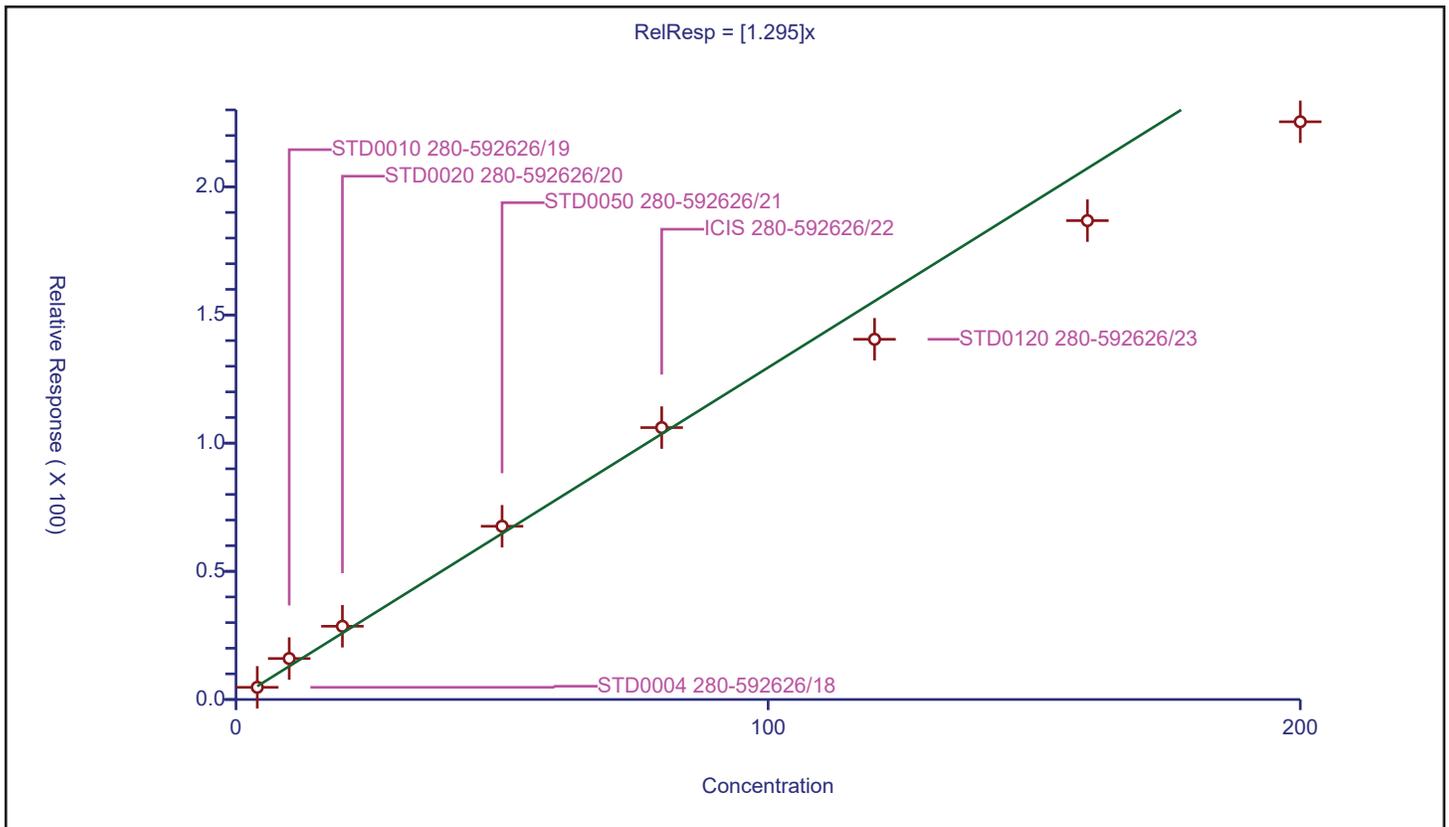
/ Dimethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.295

Error Coefficients	
Standard Error:	1370000
Relative Standard Error:	12.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.757544	40.0	345506.0	1.189386	Y
2	STD0010 280-592626/19	10.0	15.984612	40.0	348853.0	1.598461	Y
3	STD0020 280-592626/20	20.0	28.573332	40.0	351273.0	1.428667	Y
4	STD0050 280-592626/21	50.0	67.58945	40.0	355952.0	1.351789	Y
5	ICIS 280-592626/22	80.0	106.064957	40.0	369015.0	1.325812	Y
6	STD0120 280-592626/23	120.0	140.519203	40.0	417640.0	1.170993	Y
7	STD0160 280-592626/24	160.0	186.806764	40.0	417329.0	1.167542	Y
8	STD0200 280-592626/25	200.0	225.363378	40.0	427626.0	1.126817	Y



Calibration

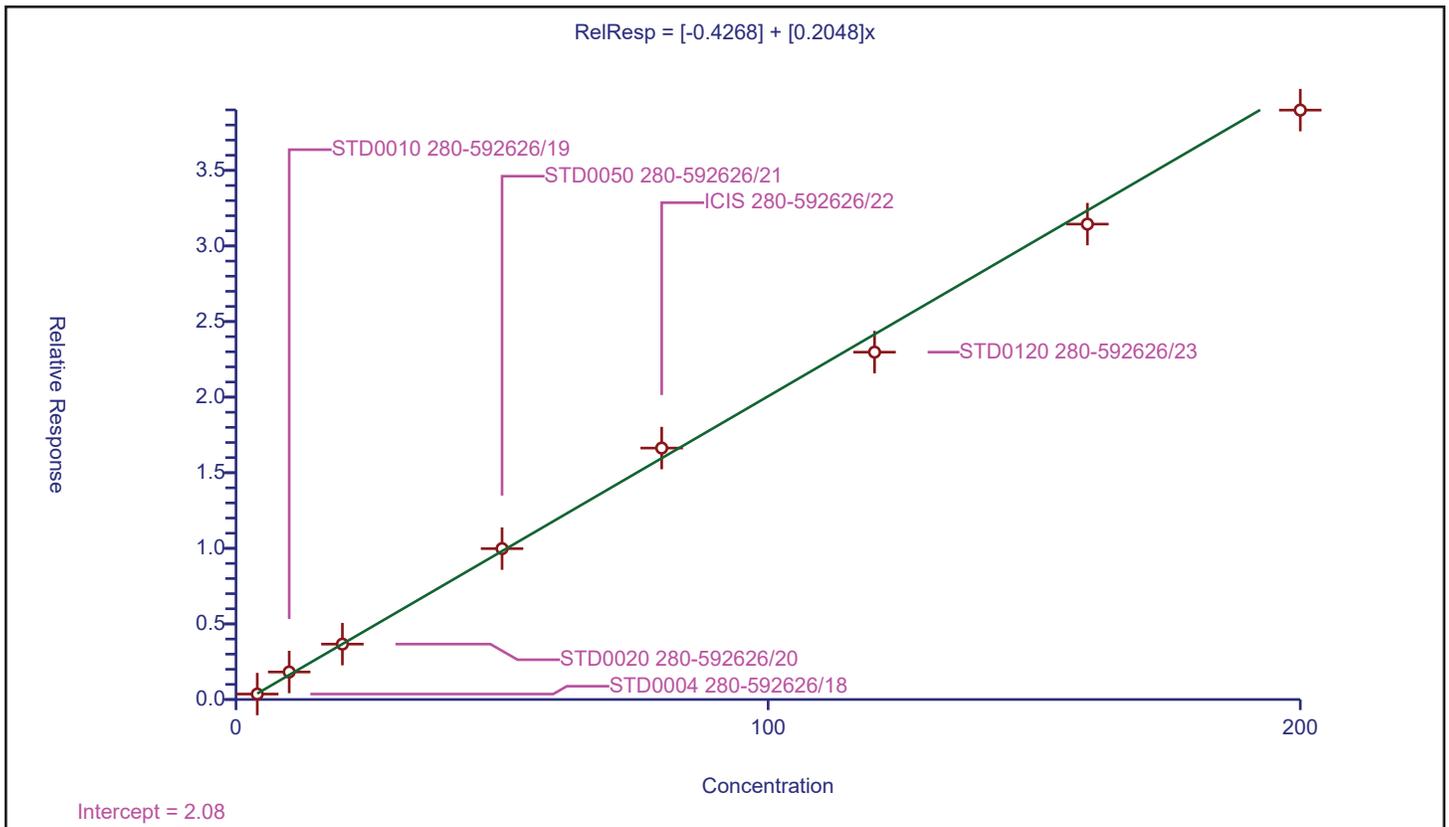
/ 1,3-Dinitrobenzene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.4268
Slope:	0.2048

Error Coefficients	
Standard Error:	249000
Relative Standard Error:	5.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.360862	40.0	345506.0	0.090216	Y
2	STD0010 280-592626/19	10.0	1.819907	40.0	348853.0	0.181991	Y
3	STD0020 280-592626/20	20.0	3.663134	40.0	351273.0	0.183157	Y
4	STD0050 280-592626/21	50.0	9.980222	40.0	355952.0	0.199604	Y
5	ICIS 280-592626/22	80.0	16.631953	40.0	369015.0	0.207899	Y
6	STD0120 280-592626/23	120.0	22.977014	40.0	417640.0	0.191475	Y
7	STD0160 280-592626/24	160.0	31.446652	40.0	417329.0	0.196542	Y
8	STD0200 280-592626/25	200.0	38.98603	40.0	427626.0	0.19493	Y



Calibration

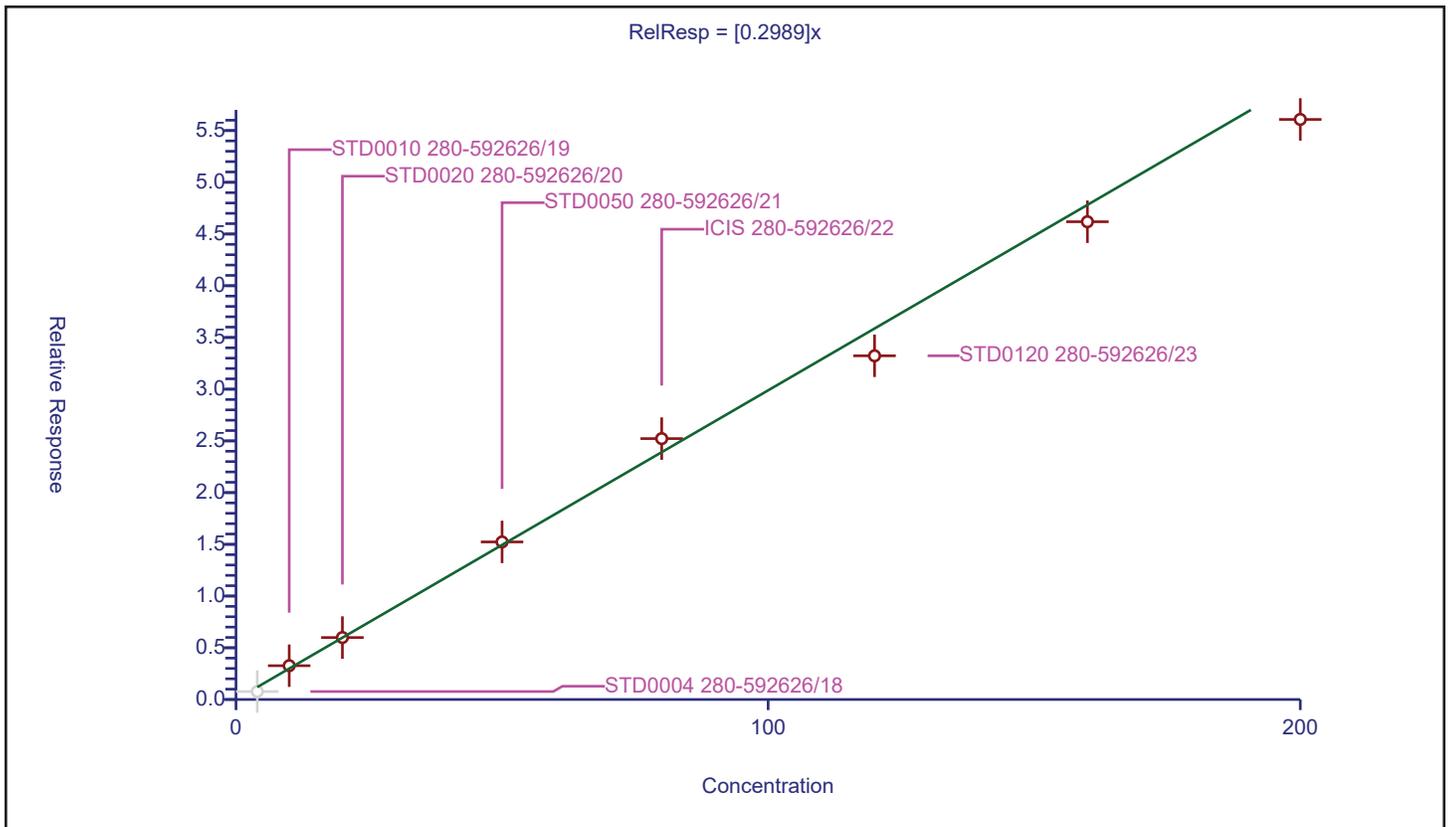
/ 2,6-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2989

Error Coefficients	
Standard Error:	362000
Relative Standard Error:	6.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.771506	40.0	345506.0	0.192877	N
2	STD0010 280-592626/19	10.0	3.267279	40.0	348853.0	0.326728	Y
3	STD0020 280-592626/20	20.0	5.988163	40.0	351273.0	0.299408	Y
4	STD0050 280-592626/21	50.0	15.233739	40.0	355952.0	0.304675	Y
5	ICIS 280-592626/22	80.0	25.221197	40.0	369015.0	0.315265	Y
6	STD0120 280-592626/23	120.0	33.22699	40.0	417640.0	0.276892	Y
7	STD0160 280-592626/24	160.0	46.188882	40.0	417329.0	0.288681	Y
8	STD0200 280-592626/25	200.0	56.077413	40.0	427626.0	0.280387	Y



Calibration

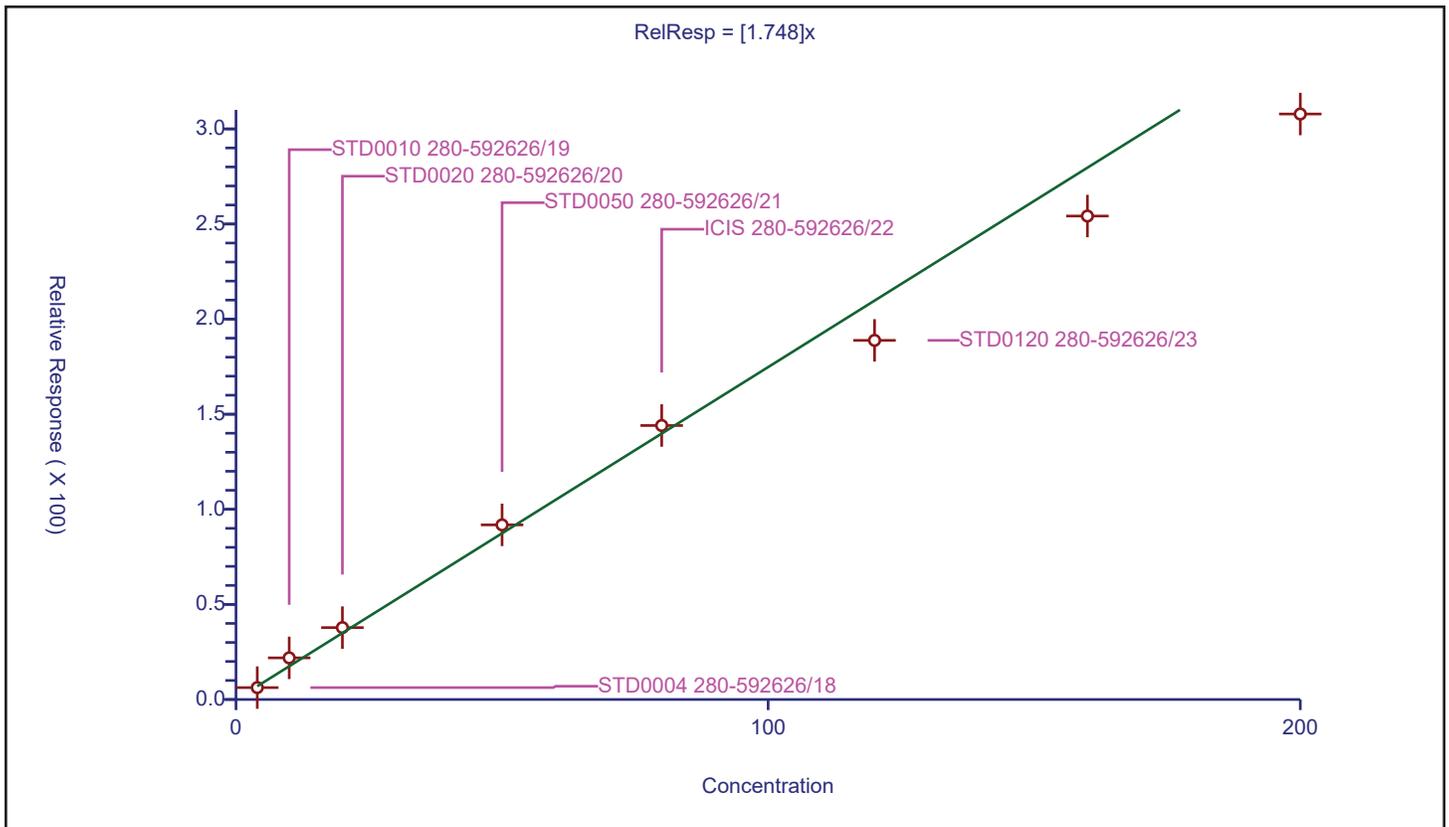
/ Acenaphthylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.748

Error Coefficients	
Standard Error:	1860000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	6.253784	40.0	345506.0	1.563446	Y
2	STD0010 280-592626/19	10.0	21.891628	40.0	348853.0	2.189163	Y
3	STD0020 280-592626/20	20.0	37.798066	40.0	351273.0	1.889903	Y
4	STD0050 280-592626/21	50.0	91.813728	40.0	355952.0	1.836275	Y
5	ICIS 280-592626/22	80.0	144.057992	40.0	369015.0	1.800725	Y
6	STD0120 280-592626/23	120.0	188.820898	40.0	417640.0	1.573507	Y
7	STD0160 280-592626/24	160.0	254.190722	40.0	417329.0	1.588692	Y
8	STD0200 280-592626/25	200.0	307.8361	40.0	427626.0	1.53918	Y



Calibration

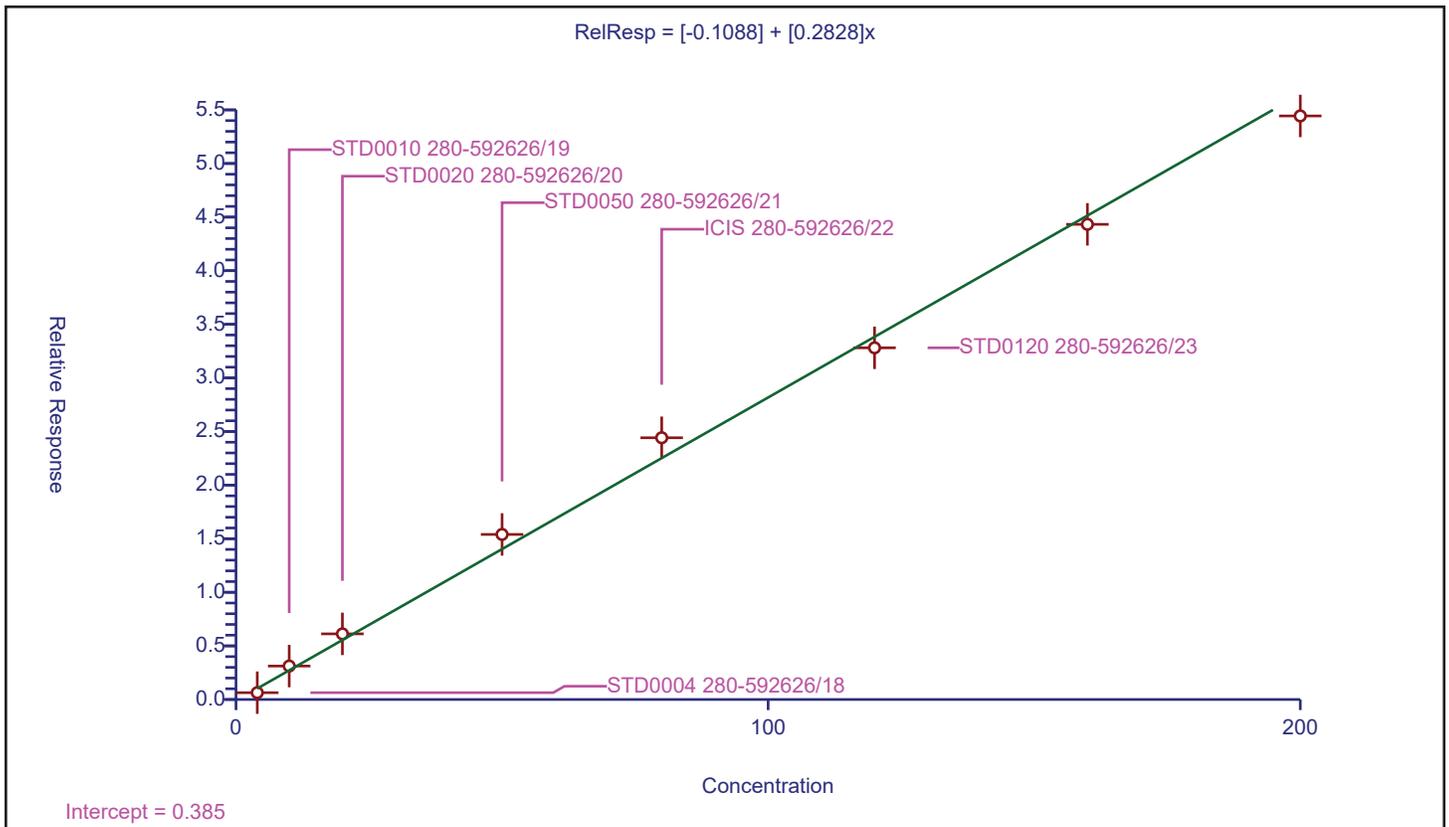
/ 3-Nitroaniline

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.1088
Slope:	0.2828

Error Coefficients	
Standard Error:	352000
Relative Standard Error:	16.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.637326	40.0	345506.0	0.159332	Y
2	STD0010 280-592626/19	10.0	3.120971	40.0	348853.0	0.312097	Y
3	STD0020 280-592626/20	20.0	6.122987	40.0	351273.0	0.306149	Y
4	STD0050 280-592626/21	50.0	15.397469	40.0	355952.0	0.307949	Y
5	ICIS 280-592626/22	80.0	24.415159	40.0	369015.0	0.305189	Y
6	STD0120 280-592626/23	120.0	32.805	40.0	417640.0	0.273375	Y
7	STD0160 280-592626/24	160.0	44.324741	40.0	417329.0	0.27703	Y
8	STD0200 280-592626/25	200.0	54.43654	40.0	427626.0	0.272183	Y



Calibration

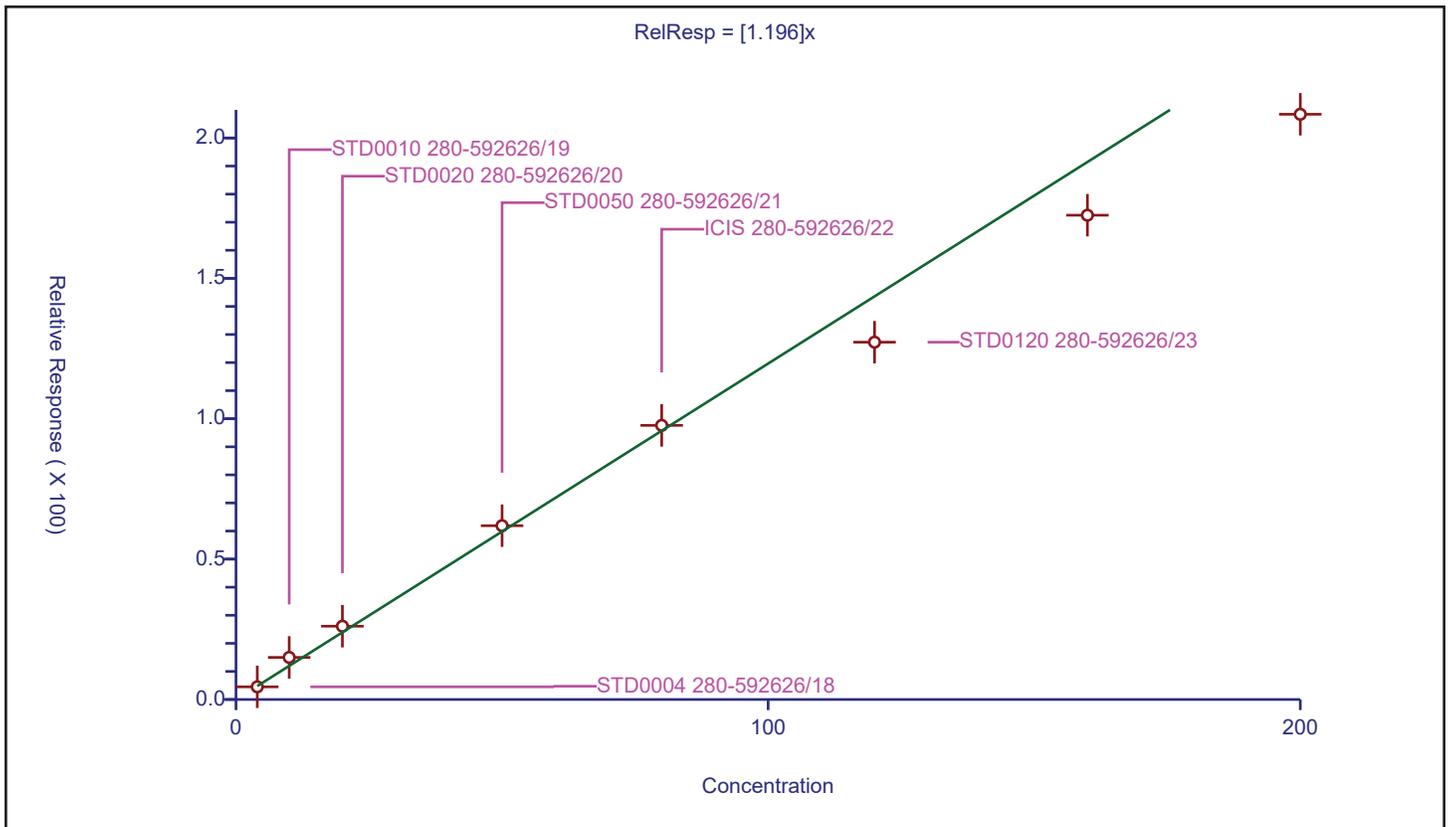
/ Acenaphthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.196

Error Coefficients	
Standard Error:	1260000
Relative Standard Error:	12.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.512686	40.0	345506.0	1.128171	Y
2	STD0010 280-592626/19	10.0	14.987746	40.0	348853.0	1.498775	Y
3	STD0020 280-592626/20	20.0	26.108924	40.0	351273.0	1.305446	Y
4	STD0050 280-592626/21	50.0	61.89711	40.0	355952.0	1.237942	Y
5	ICIS 280-592626/22	80.0	97.638633	40.0	369015.0	1.220483	Y
6	STD0120 280-592626/23	120.0	127.270185	40.0	417640.0	1.060585	Y
7	STD0160 280-592626/24	160.0	172.490002	40.0	417329.0	1.078063	Y
8	STD0200 280-592626/25	200.0	208.438308	40.0	427626.0	1.042192	Y



Calibration

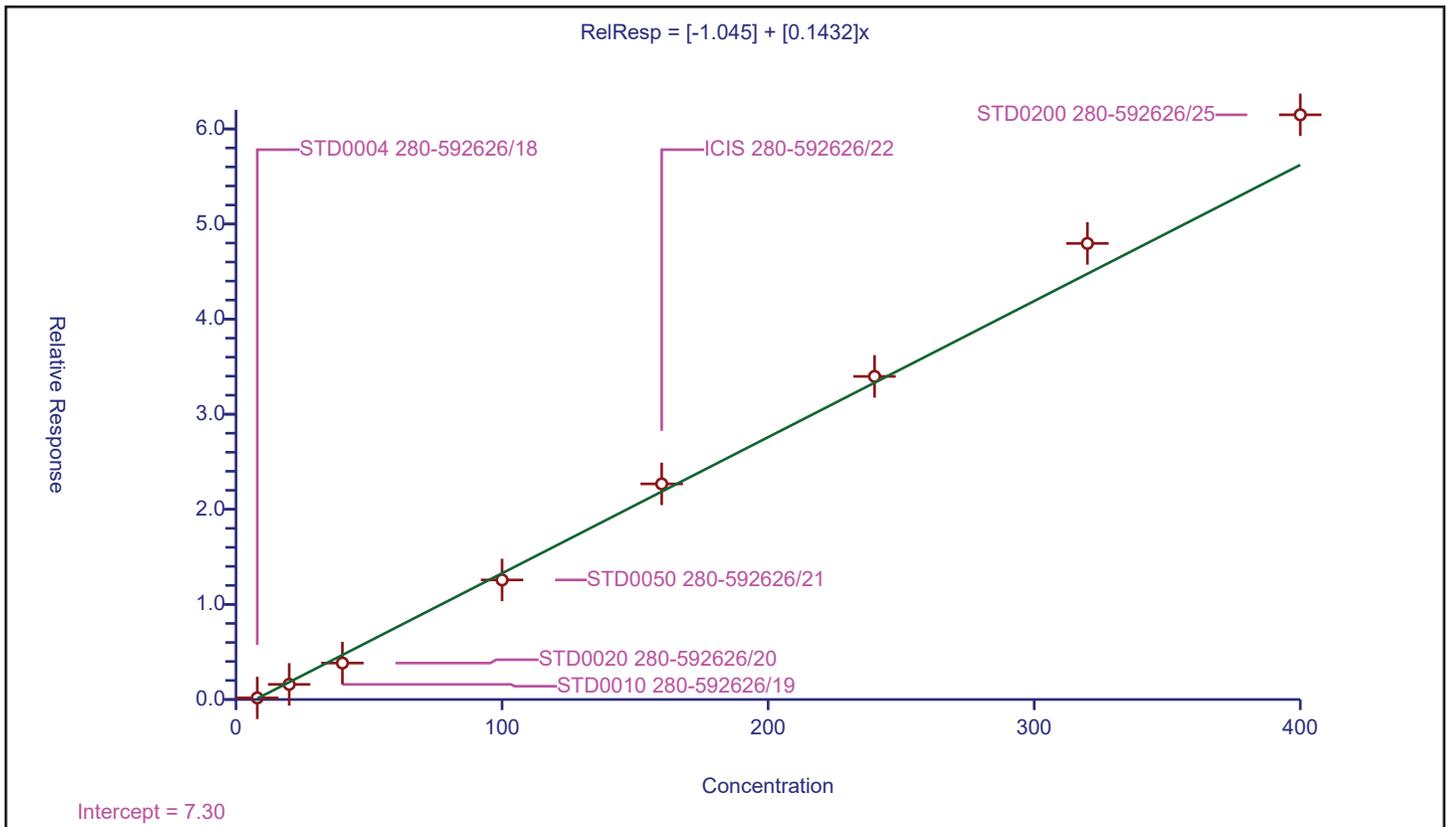
/ 2,4-Dinitrophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.045
Slope:	0.1432

Error Coefficients	
Standard Error:	380000
Relative Standard Error:	9.0
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	0.167754	40.0	345506.0	0.020969	Y
2	STD0010 280-592626/19	20.0	1.591731	40.0	348853.0	0.079587	Y
3	STD0020 280-592626/20	40.0	3.832575	40.0	351273.0	0.095814	Y
4	STD0050 280-592626/21	100.0	12.573943	40.0	355952.0	0.125739	Y
5	ICIS 280-592626/22	160.0	22.67355	40.0	369015.0	0.14171	Y
6	STD0120 280-592626/23	240.0	33.975002	40.0	417640.0	0.141563	Y
7	STD0160 280-592626/24	320.0	47.959092	40.0	417329.0	0.149872	Y
8	STD0200 280-592626/25	400.0	61.485223	40.0	427626.0	0.153713	Y



Calibration

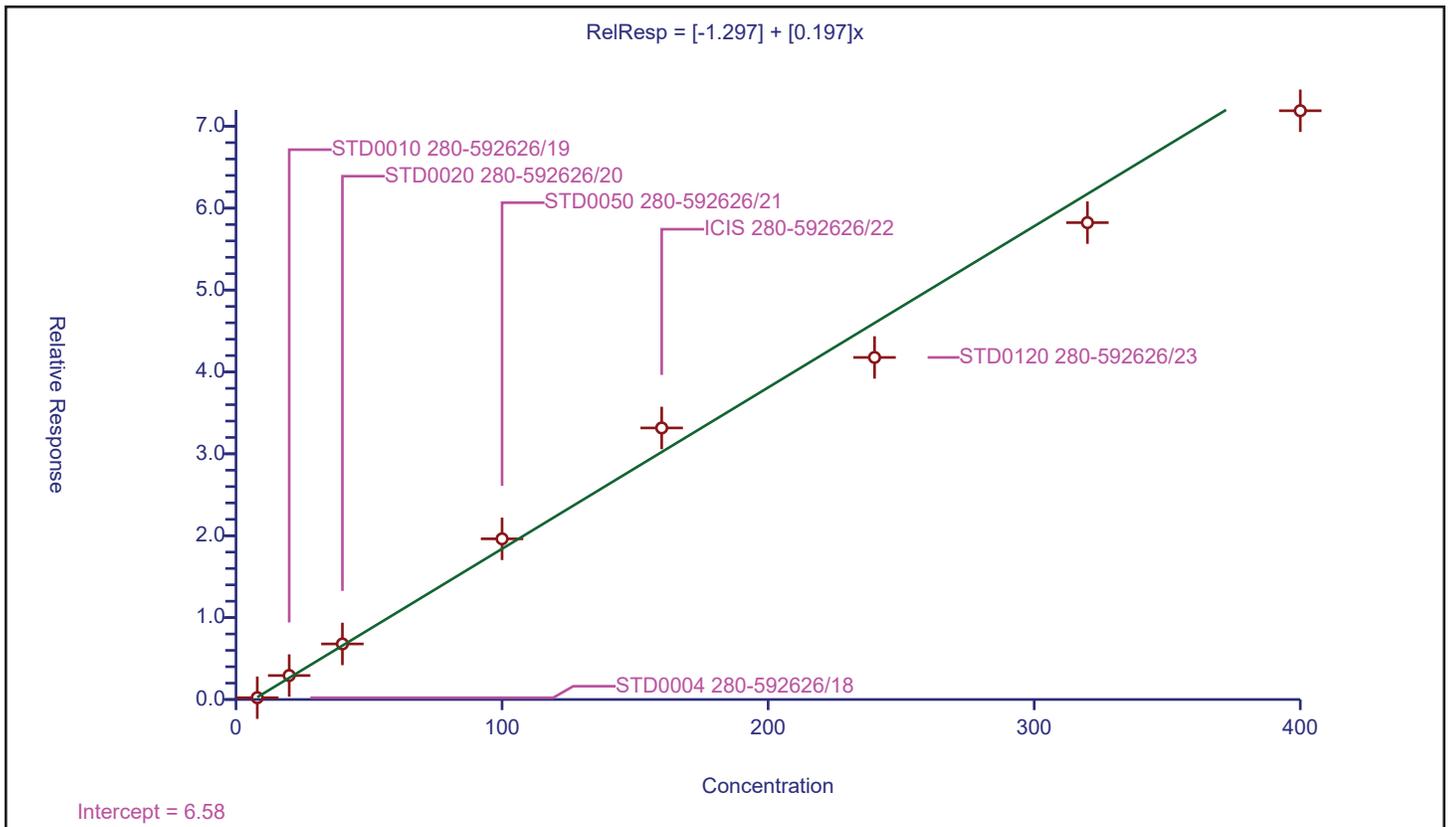
/ 4-Nitrophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.297
Slope:	0.197

Error Coefficients	
Standard Error:	462000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	0.219273	40.0	345506.0	0.027409	Y
2	STD0010 280-592626/19	20.0	2.929715	40.0	348853.0	0.146486	Y
3	STD0020 280-592626/20	40.0	6.784011	40.0	351273.0	0.1696	Y
4	STD0050 280-592626/21	100.0	19.621747	40.0	355952.0	0.196217	Y
5	ICIS 280-592626/22	160.0	33.161362	40.0	369015.0	0.207259	Y
6	STD0120 280-592626/23	240.0	41.769467	40.0	417640.0	0.174039	Y
7	STD0160 280-592626/24	320.0	58.23118	40.0	417329.0	0.181972	Y
8	STD0200 280-592626/25	400.0	71.897406	40.0	427626.0	0.179744	Y



Calibration

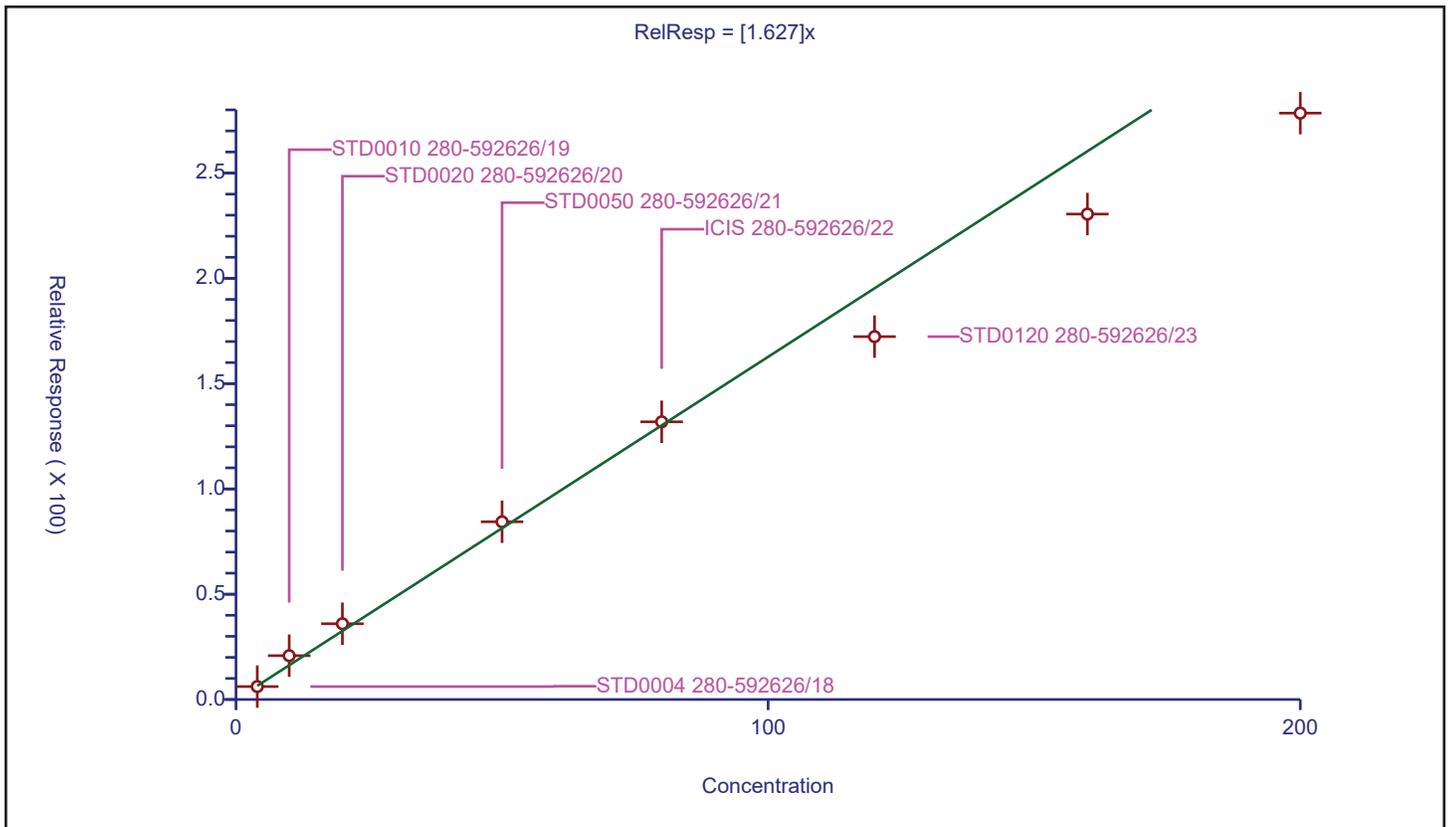
/ Dibenzofuran

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.627

Error Coefficients	
Standard Error:	1690000
Relative Standard Error:	14.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	6.132455	40.0	345506.0	1.533114	Y
2	STD0010 280-592626/19	10.0	20.803261	40.0	348853.0	2.080326	Y
3	STD0020 280-592626/20	20.0	35.982953	40.0	351273.0	1.799148	Y
4	STD0050 280-592626/21	50.0	84.394637	40.0	355952.0	1.687893	Y
5	ICIS 280-592626/22	80.0	131.868352	40.0	369015.0	1.648354	Y
6	STD0120 280-592626/23	120.0	172.323341	40.0	417640.0	1.436028	Y
7	STD0160 280-592626/24	160.0	230.530061	40.0	417329.0	1.440813	Y
8	STD0200 280-592626/25	200.0	278.457531	40.0	427626.0	1.392288	Y



Calibration

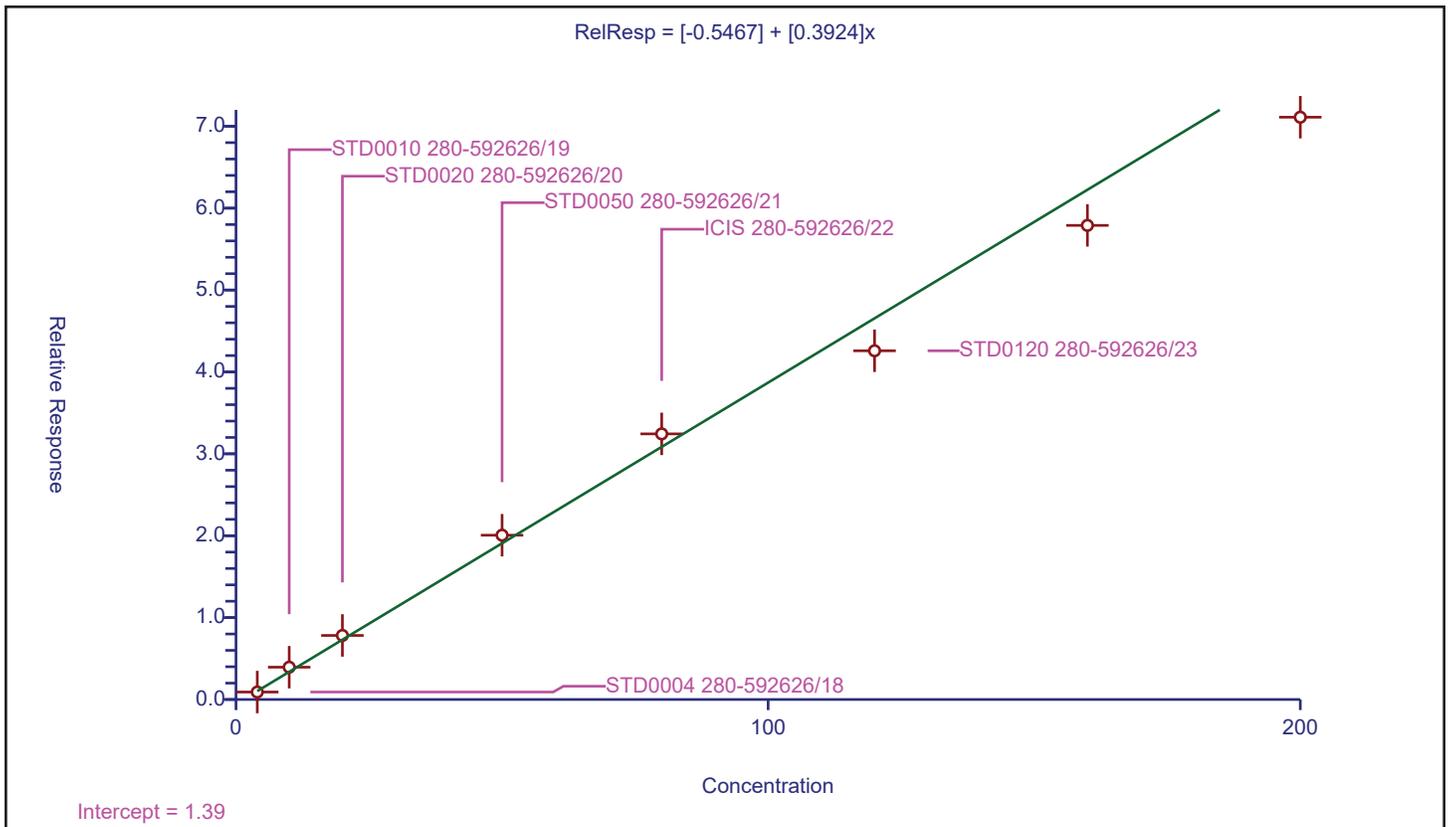
/ 2,4-Dinitrotoluene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.5467
Slope:	0.3924

Error Coefficients	
Standard Error:	460000
Relative Standard Error:	9.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.911012	40.0	345506.0	0.227753	Y
2	STD0010 280-592626/19	10.0	3.944699	40.0	348853.0	0.39447	Y
3	STD0020 280-592626/20	20.0	7.820812	40.0	351273.0	0.391041	Y
4	STD0050 280-592626/21	50.0	20.063941	40.0	355952.0	0.401279	Y
5	ICIS 280-592626/22	80.0	32.437381	40.0	369015.0	0.405467	Y
6	STD0120 280-592626/23	120.0	42.584139	40.0	417640.0	0.354868	Y
7	STD0160 280-592626/24	160.0	57.89533	40.0	417329.0	0.361846	Y
8	STD0200 280-592626/25	200.0	71.105499	40.0	427626.0	0.355527	Y



Calibration

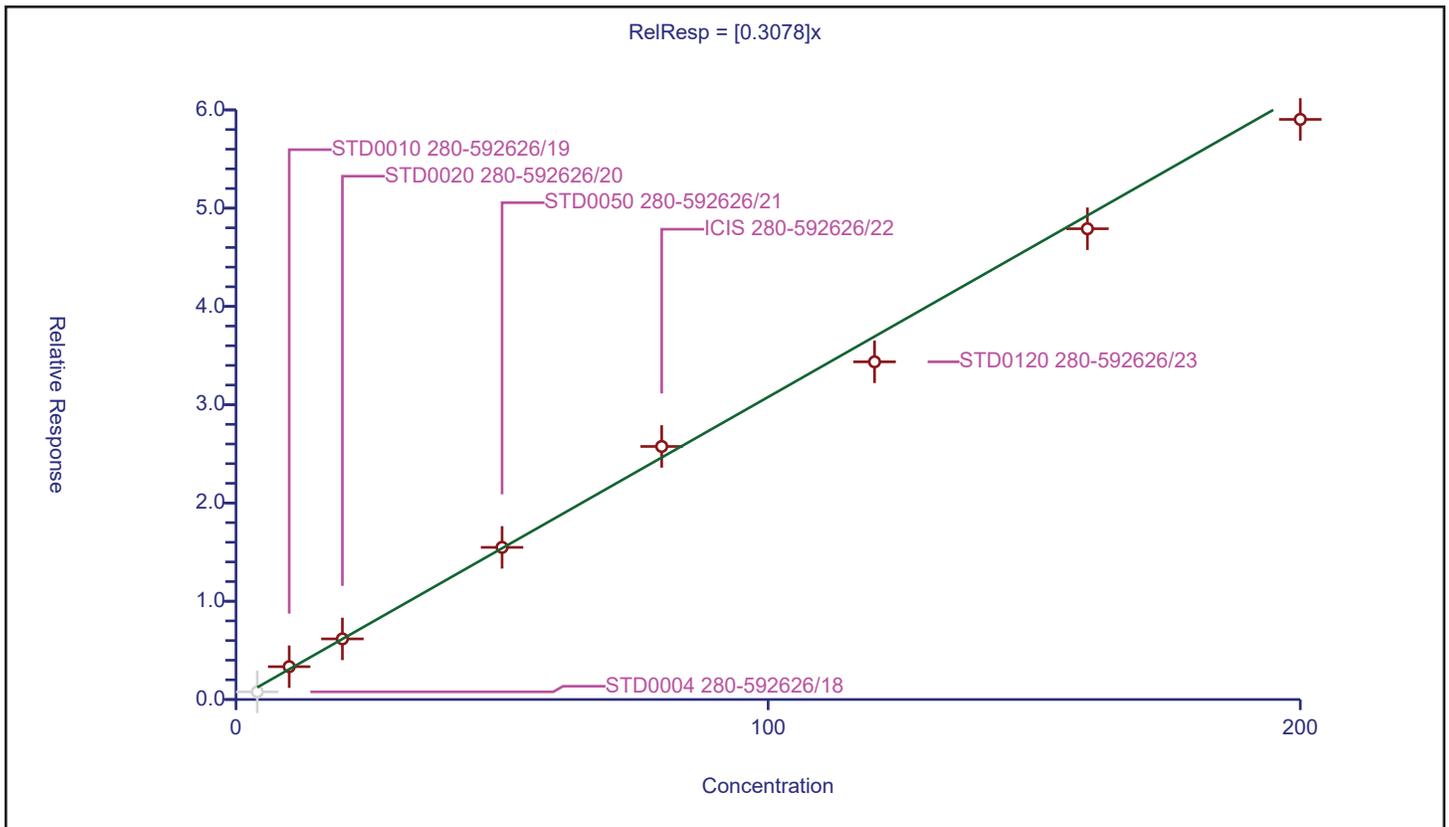
/ 2,3,4,6-Tetrachlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3078

Error Coefficients	
Standard Error:	378000
Relative Standard Error:	5.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.7788	40.0	345506.0	0.1947	N
2	STD0010 280-592626/19	10.0	3.33963	40.0	348853.0	0.333963	Y
3	STD0020 280-592626/20	20.0	6.165803	40.0	351273.0	0.30829	Y
4	STD0050 280-592626/21	50.0	15.480289	40.0	355952.0	0.309606	Y
5	ICIS 280-592626/22	80.0	25.75104	40.0	369015.0	0.321888	Y
6	STD0120 280-592626/23	120.0	34.363567	40.0	417640.0	0.286363	Y
7	STD0160 280-592626/24	160.0	47.90628	40.0	417329.0	0.299414	Y
8	STD0200 280-592626/25	200.0	59.033922	40.0	427626.0	0.29517	Y



Calibration

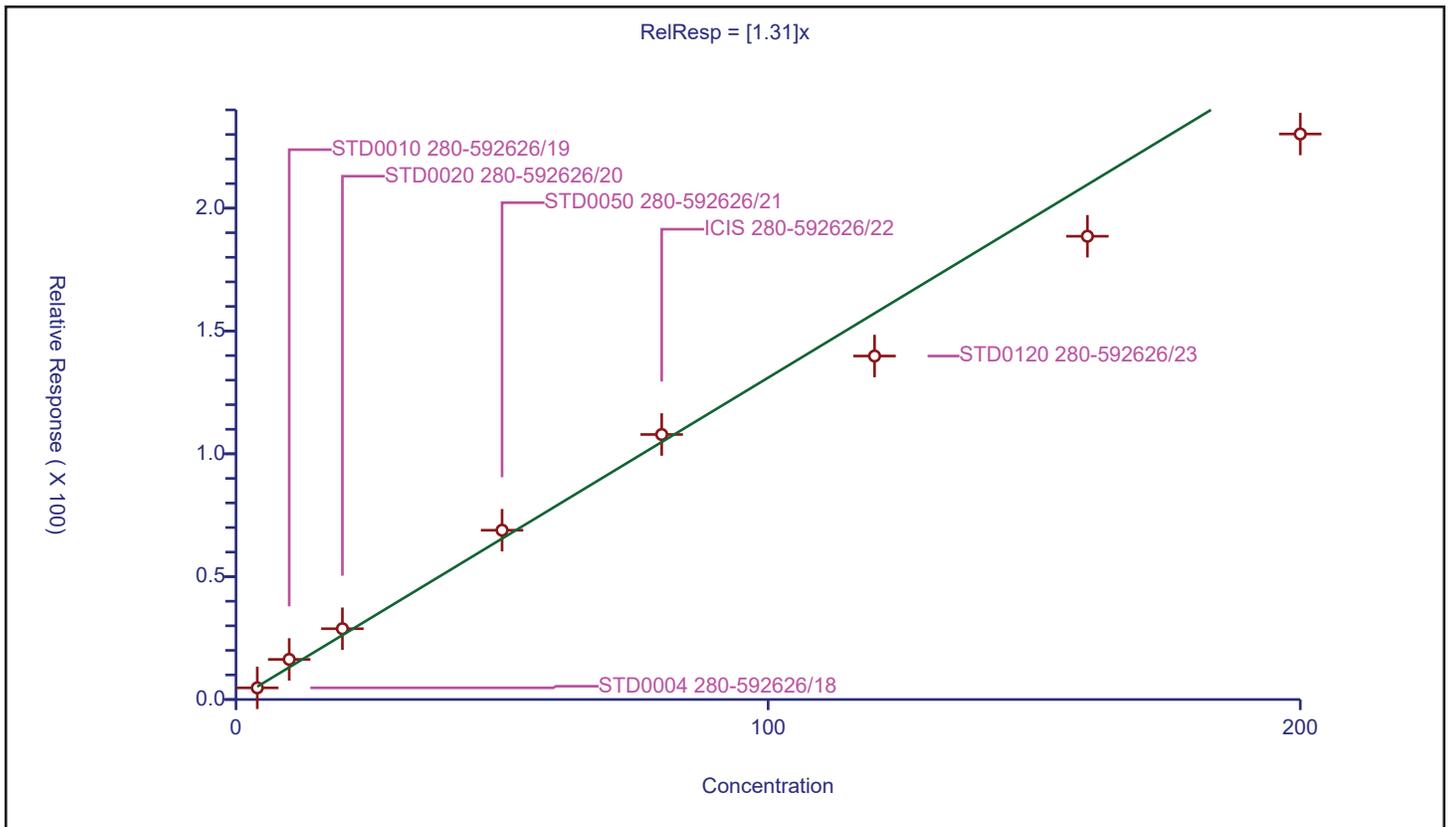
/ Diethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.31

Error Coefficients	
Standard Error:	1390000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.739136	40.0	345506.0	1.184784	Y
2	STD0010 280-592626/19	10.0	16.324584	40.0	348853.0	1.632458	Y
3	STD0020 280-592626/20	20.0	28.815992	40.0	351273.0	1.4408	Y
4	STD0050 280-592626/21	50.0	68.906819	40.0	355952.0	1.378136	Y
5	ICIS 280-592626/22	80.0	107.872146	40.0	369015.0	1.348402	Y
6	STD0120 280-592626/23	120.0	139.81496	40.0	417640.0	1.165125	Y
7	STD0160 280-592626/24	160.0	188.572469	40.0	417329.0	1.178578	Y
8	STD0200 280-592626/25	200.0	230.19171	40.0	427626.0	1.150959	Y



Calibration

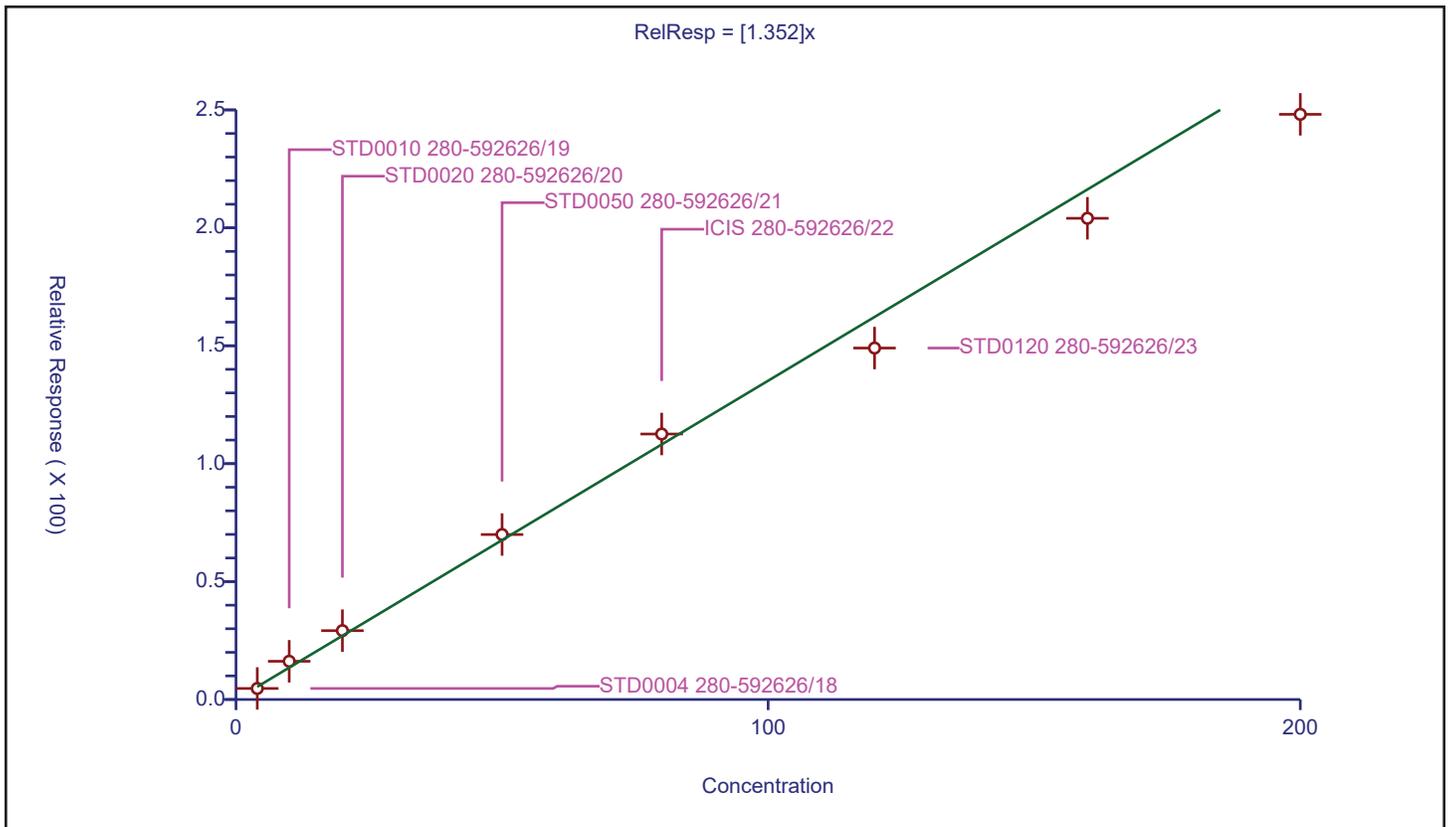
/ Fluorene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.352

Error Coefficients	
Standard Error:	1490000
Relative Standard Error:	10.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.676967	40.0	345506.0	1.169242	Y
2	STD0010 280-592626/19	10.0	16.203501	40.0	348853.0	1.62035	Y
3	STD0020 280-592626/20	20.0	29.192679	40.0	351273.0	1.459634	Y
4	STD0050 280-592626/21	50.0	69.943925	40.0	355952.0	1.398879	Y
5	ICIS 280-592626/22	80.0	112.573527	40.0	369015.0	1.407169	Y
6	STD0120 280-592626/23	120.0	149.018197	40.0	417640.0	1.241818	Y
7	STD0160 280-592626/24	160.0	204.041799	40.0	417329.0	1.275261	Y
8	STD0200 280-592626/25	200.0	248.11728	40.0	427626.0	1.240586	Y



Calibration

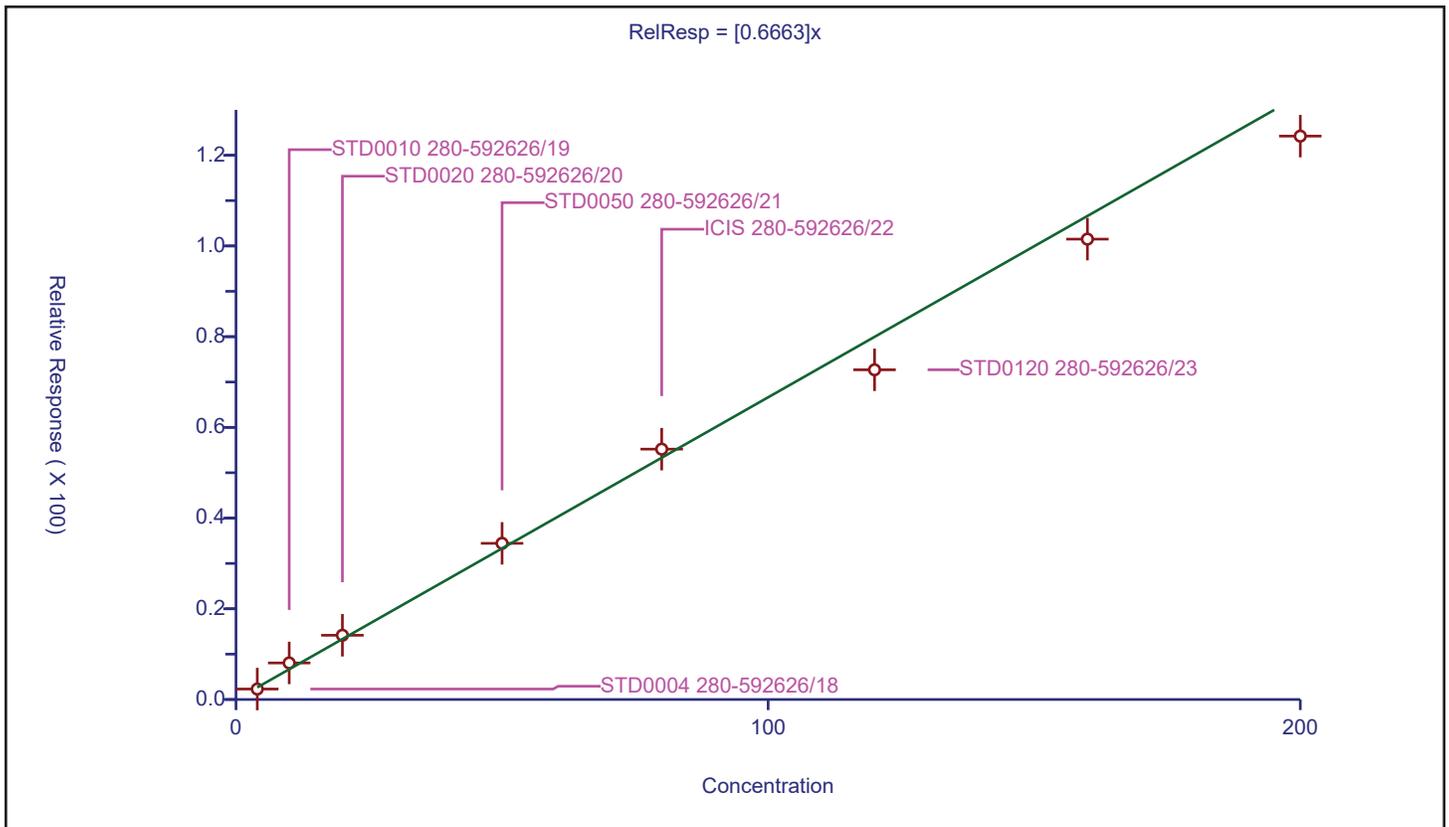
/ 4-Chlorophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6663

Error Coefficients	
Standard Error:	740000
Relative Standard Error:	10.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.305372	40.0	345506.0	0.576343	Y
2	STD0010 280-592626/19	10.0	8.056918	40.0	348853.0	0.805692	Y
3	STD0020 280-592626/20	20.0	14.165165	40.0	351273.0	0.708258	Y
4	STD0050 280-592626/21	50.0	34.432283	40.0	355952.0	0.688646	Y
5	ICIS 280-592626/22	80.0	55.201984	40.0	369015.0	0.690025	Y
6	STD0120 280-592626/23	120.0	72.697155	40.0	417640.0	0.60581	Y
7	STD0160 280-592626/24	160.0	101.506294	40.0	417329.0	0.634414	Y
8	STD0200 280-592626/25	200.0	124.216021	40.0	427626.0	0.62108	Y



Calibration

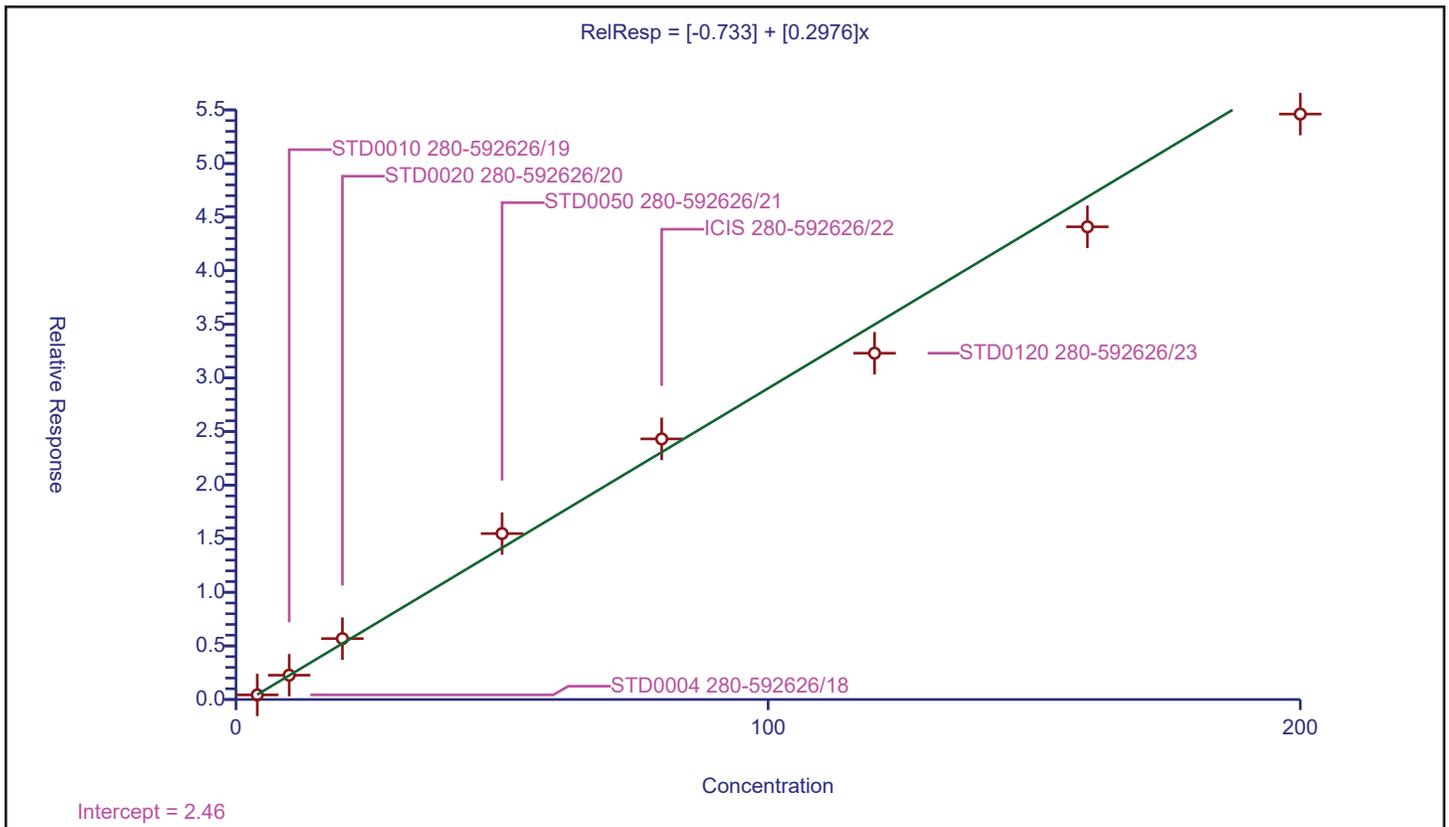
/ 4-Nitroaniline

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.733
Slope:	0.2976

Error Coefficients	
Standard Error:	351000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.430094	40.0	345506.0	0.107523	Y
2	STD0010 280-592626/19	10.0	2.265825	40.0	348853.0	0.226583	Y
3	STD0020 280-592626/20	20.0	5.681279	40.0	351273.0	0.284064	Y
4	STD0050 280-592626/21	50.0	15.478379	40.0	355952.0	0.309568	Y
5	ICIS 280-592626/22	80.0	24.310556	40.0	369015.0	0.303882	Y
6	STD0120 280-592626/23	120.0	32.302845	40.0	417640.0	0.26919	Y
7	STD0160 280-592626/24	160.0	44.094132	40.0	417329.0	0.275588	Y
8	STD0200 280-592626/25	200.0	54.612676	40.0	427626.0	0.273063	Y



Calibration

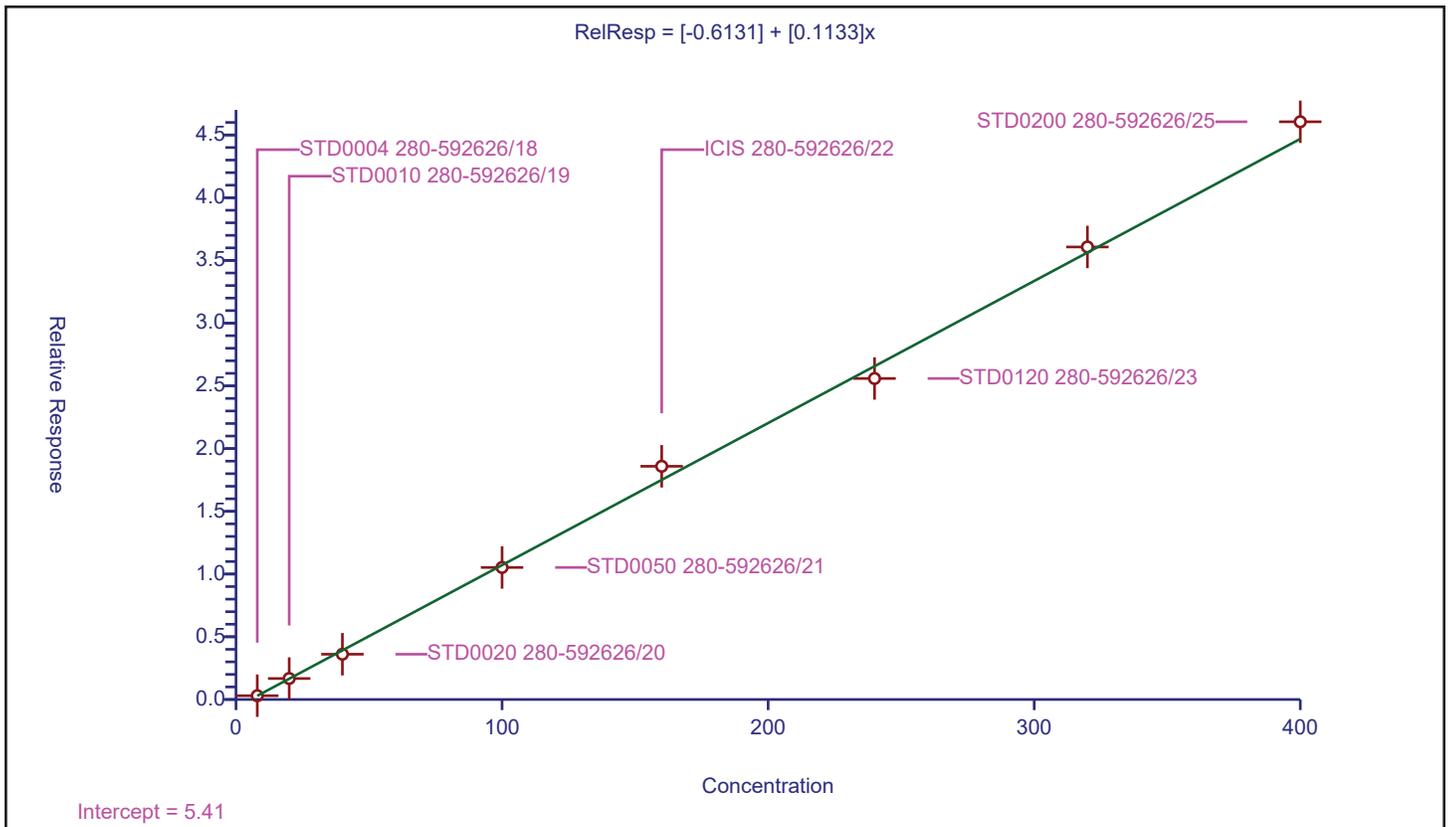
/ 4,6-Dinitro-2-methylphenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.6131
Slope:	0.1133

Error Coefficients	
Standard Error:	519000
Relative Standard Error:	4.3
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	0.300452	40.0	630250.0	0.037557	Y
2	STD0010 280-592626/19	20.0	1.673881	40.0	642005.0	0.083694	Y
3	STD0020 280-592626/20	40.0	3.609953	40.0	640108.0	0.090249	Y
4	STD0050 280-592626/21	100.0	10.525754	40.0	652396.0	0.105258	Y
5	ICIS 280-592626/22	160.0	18.589757	40.0	660340.0	0.116186	Y
6	STD0120 280-592626/23	240.0	25.588468	40.0	754740.0	0.106619	Y
7	STD0160 280-592626/24	320.0	36.073098	40.0	762922.0	0.112728	Y
8	STD0200 280-592626/25	400.0	46.053142	40.0	769075.0	0.115133	Y



Calibration

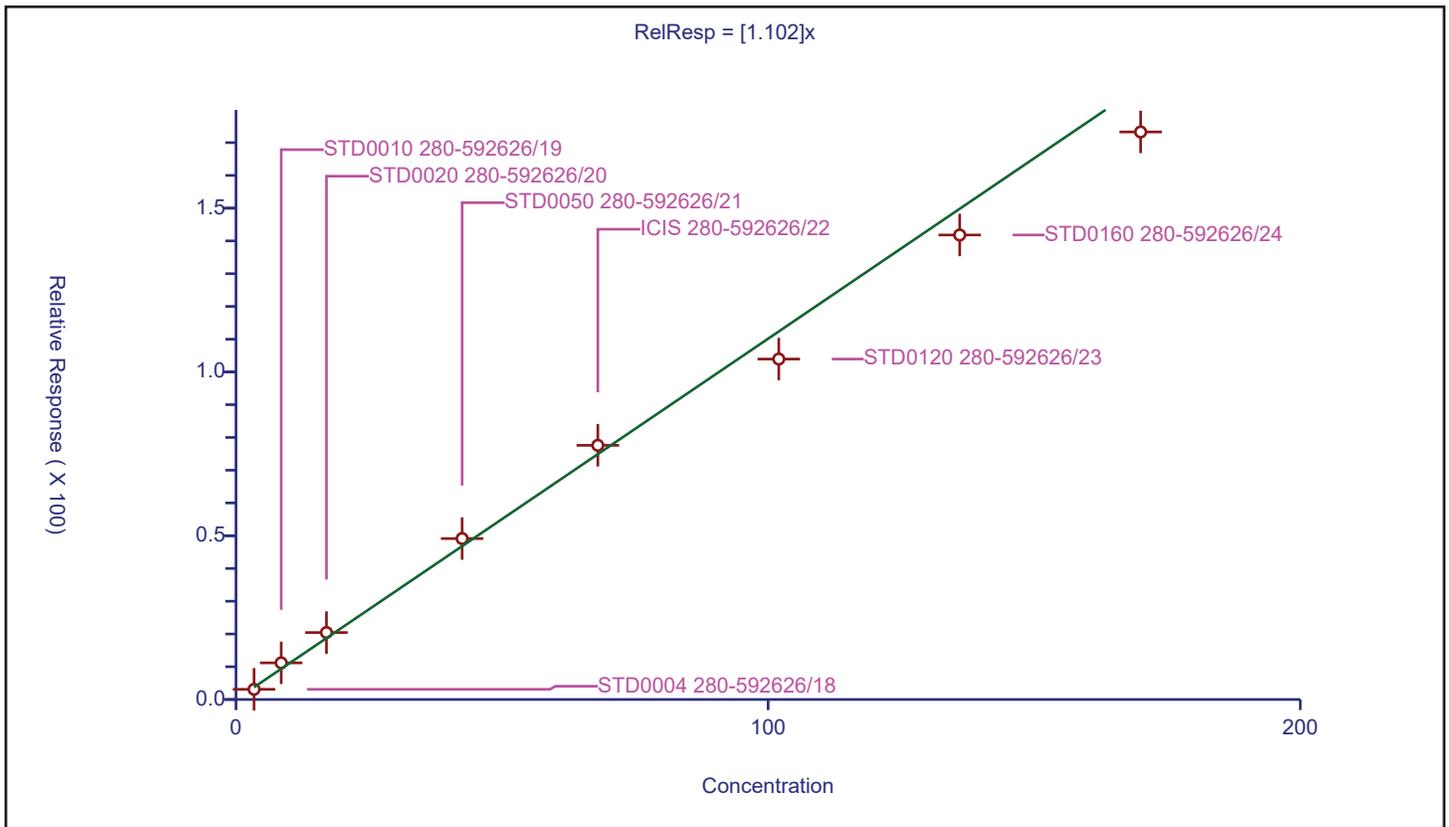
/ Diphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.102

Error Coefficients	
Standard Error:	1040000
Relative Standard Error:	11.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	3.4	3.116357	40.0	345506.0	0.916576	Y
2	STD0010 280-592626/19	8.5	11.180411	40.0	348853.0	1.315342	Y
3	STD0020 280-592626/20	17.0	20.440626	40.0	351273.0	1.20239	Y
4	STD0050 280-592626/21	42.5	49.131119	40.0	355952.0	1.156026	Y
5	ICIS 280-592626/22	68.0	77.594895	40.0	369015.0	1.141101	Y
6	STD0120 280-592626/23	102.0	103.936309	40.0	417640.0	1.018983	Y
7	STD0160 280-592626/24	136.0	141.812239	40.0	417329.0	1.042737	Y
8	STD0200 280-592626/25	170.0	173.264488	40.0	427626.0	1.019203	Y



Calibration

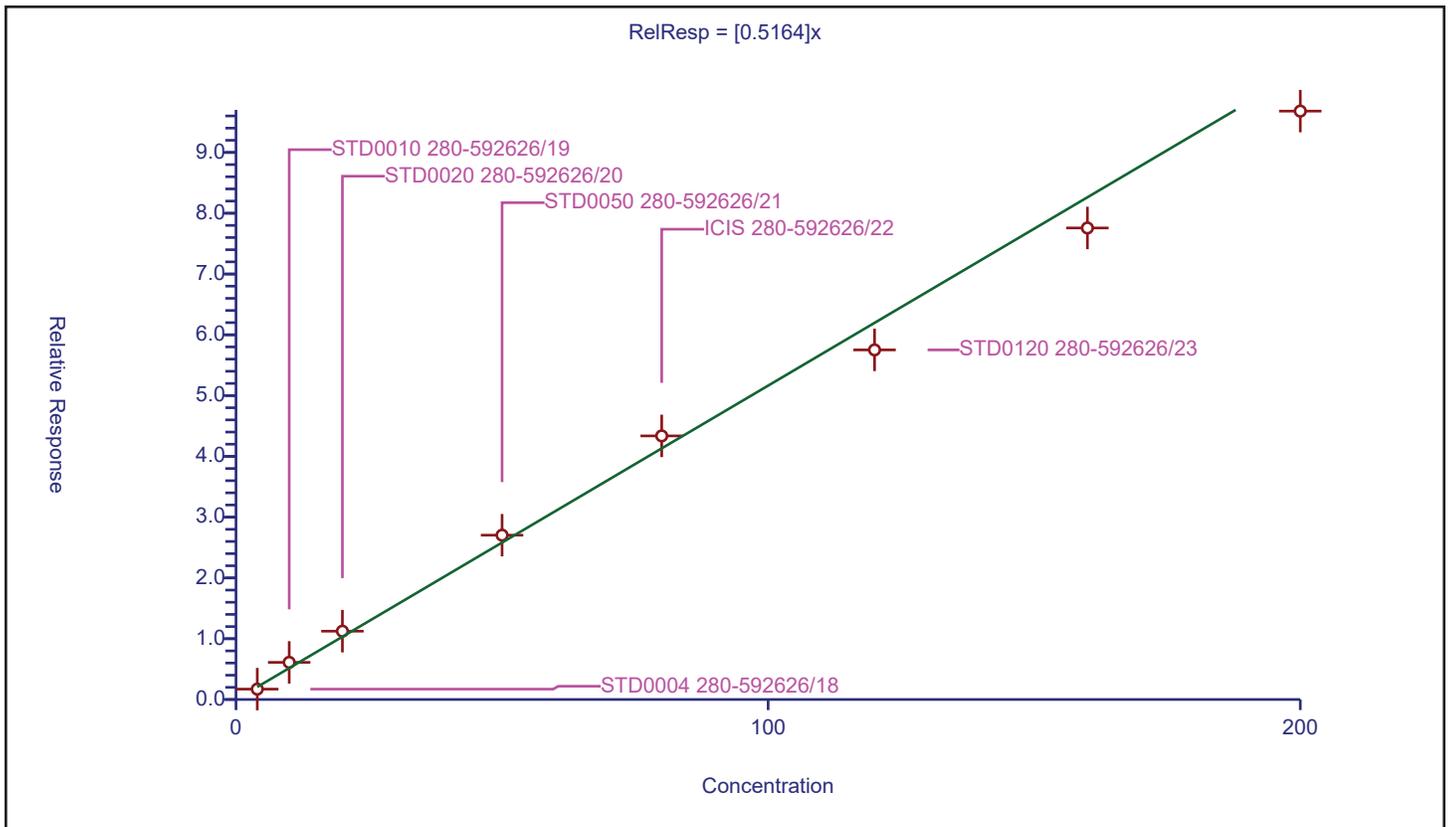
/ N-Nitrosodiphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5164

Error Coefficients	
Standard Error:	1040000
Relative Standard Error:	11.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.708021	40.0	630250.0	0.427005	Y
2	STD0010 280-592626/19	10.0	6.110544	40.0	642005.0	0.611054	Y
3	STD0020 280-592626/20	20.0	11.239041	40.0	640108.0	0.561952	Y
4	STD0050 280-592626/21	50.0	27.034746	40.0	652396.0	0.540695	Y
5	ICIS 280-592626/22	80.0	43.365842	40.0	660340.0	0.542073	Y
6	STD0120 280-592626/23	120.0	57.513793	40.0	754740.0	0.479282	Y
7	STD0160 280-592626/24	160.0	77.573277	40.0	762922.0	0.484833	Y
8	STD0200 280-592626/25	200.0	96.800858	40.0	769075.0	0.484004	Y



Calibration

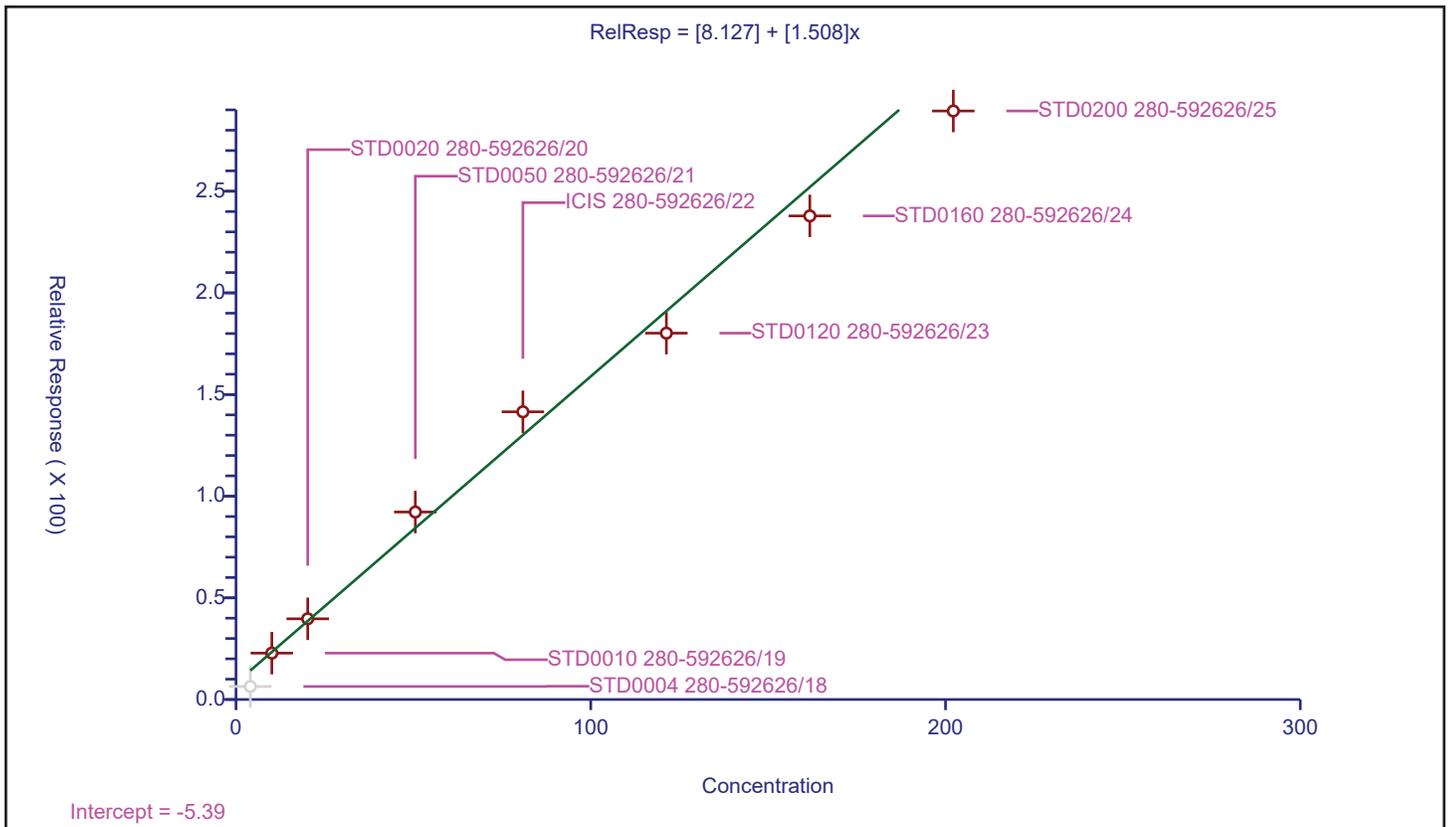
/ 1,2-Diphenylhydrazine

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	8.127
Slope:	1.508

Error Coefficients	
Standard Error:	2090000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.043898	6.391437	40.0	345506.0	1.580514	N
2	STD0010 280-592626/19	10.109745	22.797453	40.0	348853.0	2.254998	Y
3	STD0020 280-592626/20	20.219491	39.693913	40.0	351273.0	1.963151	Y
4	STD0050 280-592626/21	50.548727	92.212658	40.0	355952.0	1.824233	Y
5	ICIS 280-592626/22	80.877963	141.514247	40.0	369015.0	1.749726	Y
6	STD0120 280-592626/23	121.316945	180.192893	40.0	417640.0	1.485307	Y
7	STD0160 280-592626/24	161.755926	237.852725	40.0	417329.0	1.470442	Y
8	STD0200 280-592626/25	202.194908	289.463597	40.0	427626.0	1.431607	Y



Calibration

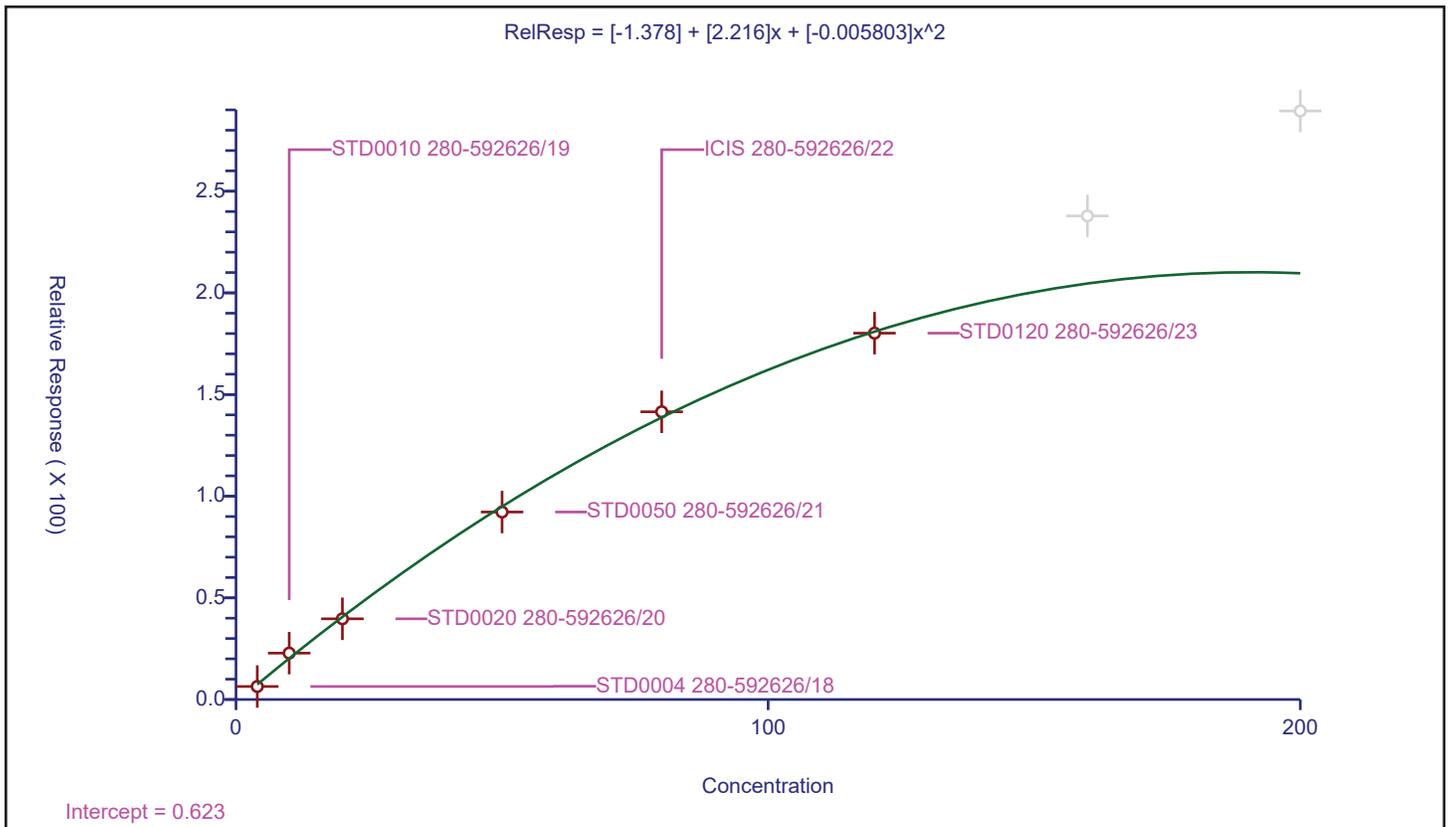
/ Azobenzene

Curve Type: Quadratic
 Weighting: None
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.378
Slope:	2.216
Second Order:	-0.005803

Error Coefficients	
Standard Error:	1420000
Relative Standard Error:	10.2
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	6.391437	40.0	345506.0	1.597859	Y
2	STD0010 280-592626/19	10.0	22.797453	40.0	348853.0	2.279745	Y
3	STD0020 280-592626/20	20.0	39.693913	40.0	351273.0	1.984696	Y
4	STD0050 280-592626/21	50.0	92.212658	40.0	355952.0	1.844253	Y
5	ICIS 280-592626/22	80.0	141.514247	40.0	369015.0	1.768928	Y
6	STD0120 280-592626/23	120.0	180.192893	40.0	417640.0	1.501607	Y
7	STD0160 280-592626/24	160.0	237.852725	40.0	417329.0	1.48658	N
8	STD0200 280-592626/25	200.0	289.463597	40.0	427626.0	1.447318	N



Calibration

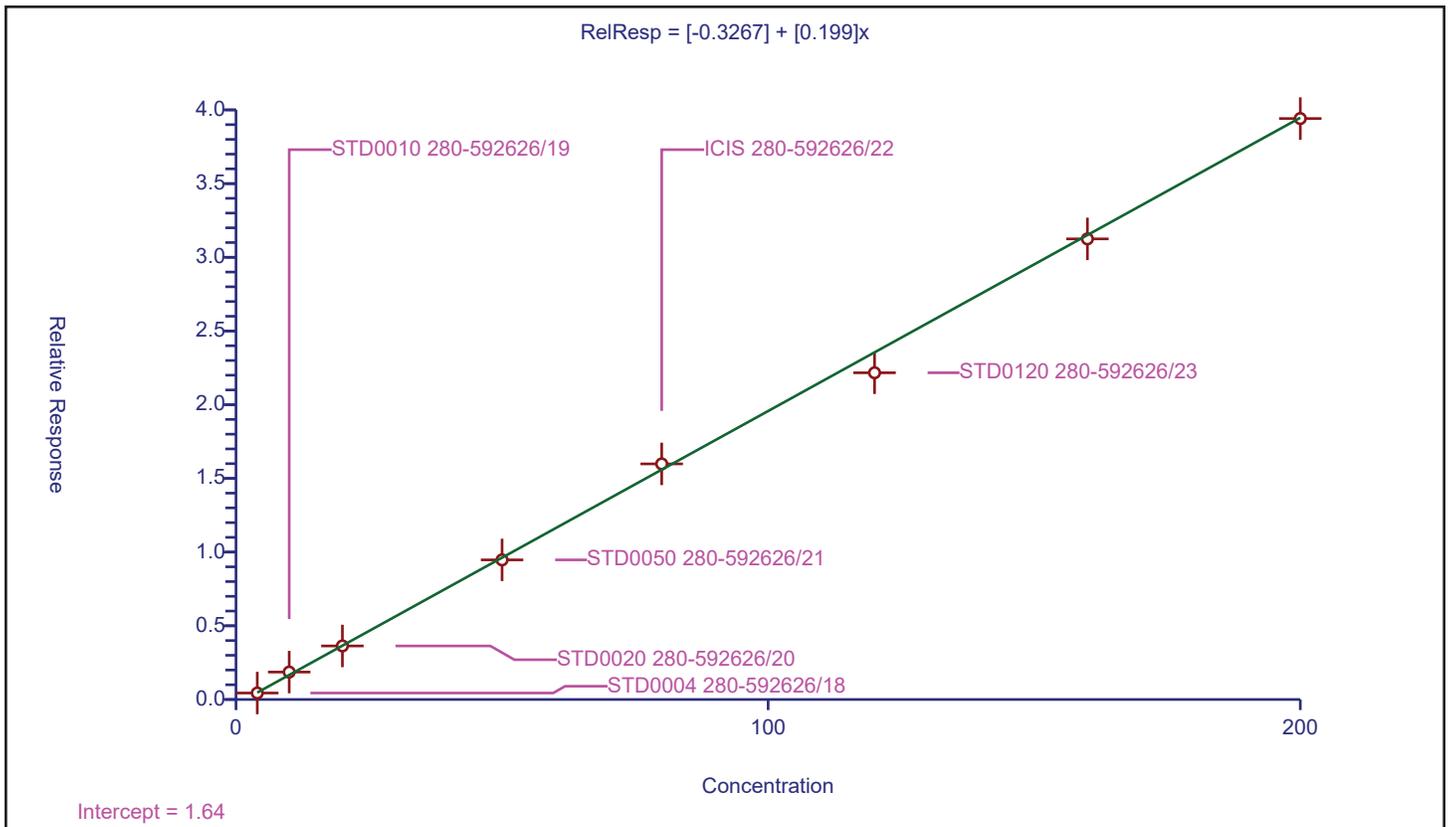
/ 2,4,6-Tribromophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.3267
Slope:	0.199

Error Coefficients	
Standard Error:	247000
Relative Standard Error:	5.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.439934	40.0	345506.0	0.109984	Y
2	STD0010 280-592626/19	10.0	1.861185	40.0	348853.0	0.186119	Y
3	STD0020 280-592626/20	20.0	3.633072	40.0	351273.0	0.181654	Y
4	STD0050 280-592626/21	50.0	9.471277	40.0	355952.0	0.189426	Y
5	ICIS 280-592626/22	80.0	15.984174	40.0	369015.0	0.199802	Y
6	STD0120 280-592626/23	120.0	22.166938	40.0	417640.0	0.184724	Y
7	STD0160 280-592626/24	160.0	31.24796	40.0	417329.0	0.1953	Y
8	STD0200 280-592626/25	200.0	39.413319	40.0	427626.0	0.197067	Y



Calibration

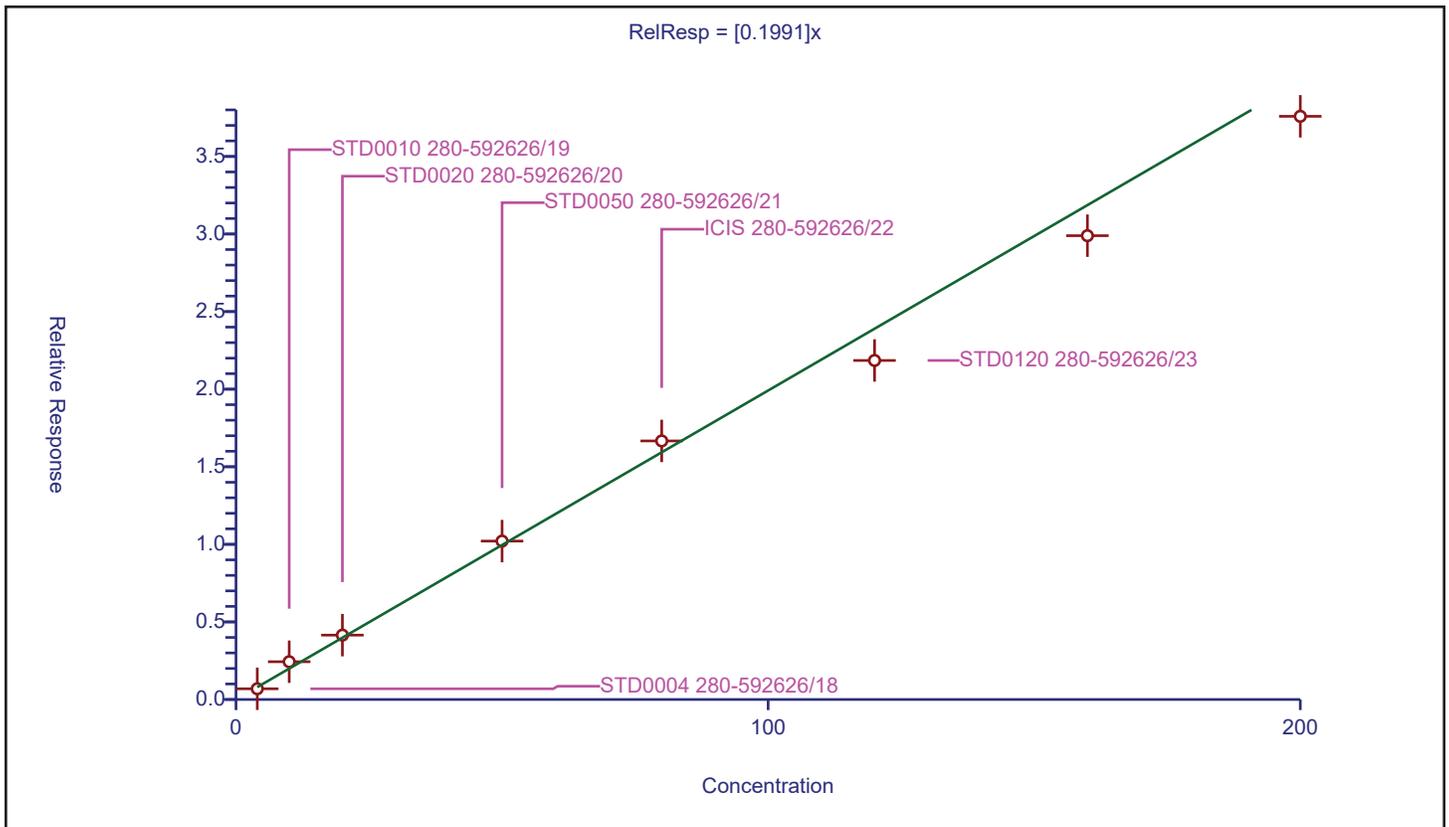
/ 4-Bromophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1991

Error Coefficients	
Standard Error:	401000
Relative Standard Error:	11.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.691408	40.0	630250.0	0.172852	Y
2	STD0010 280-592626/19	10.0	2.434374	40.0	642005.0	0.243437	Y
3	STD0020 280-592626/20	20.0	4.148175	40.0	640108.0	0.207409	Y
4	STD0050 280-592626/21	50.0	10.209075	40.0	652396.0	0.204182	Y
5	ICIS 280-592626/22	80.0	16.665112	40.0	660340.0	0.208314	Y
6	STD0120 280-592626/23	120.0	21.850704	40.0	754740.0	0.182089	Y
7	STD0160 280-592626/24	160.0	29.892335	40.0	762922.0	0.186827	Y
8	STD0200 280-592626/25	200.0	37.585723	40.0	769075.0	0.187929	Y



Calibration

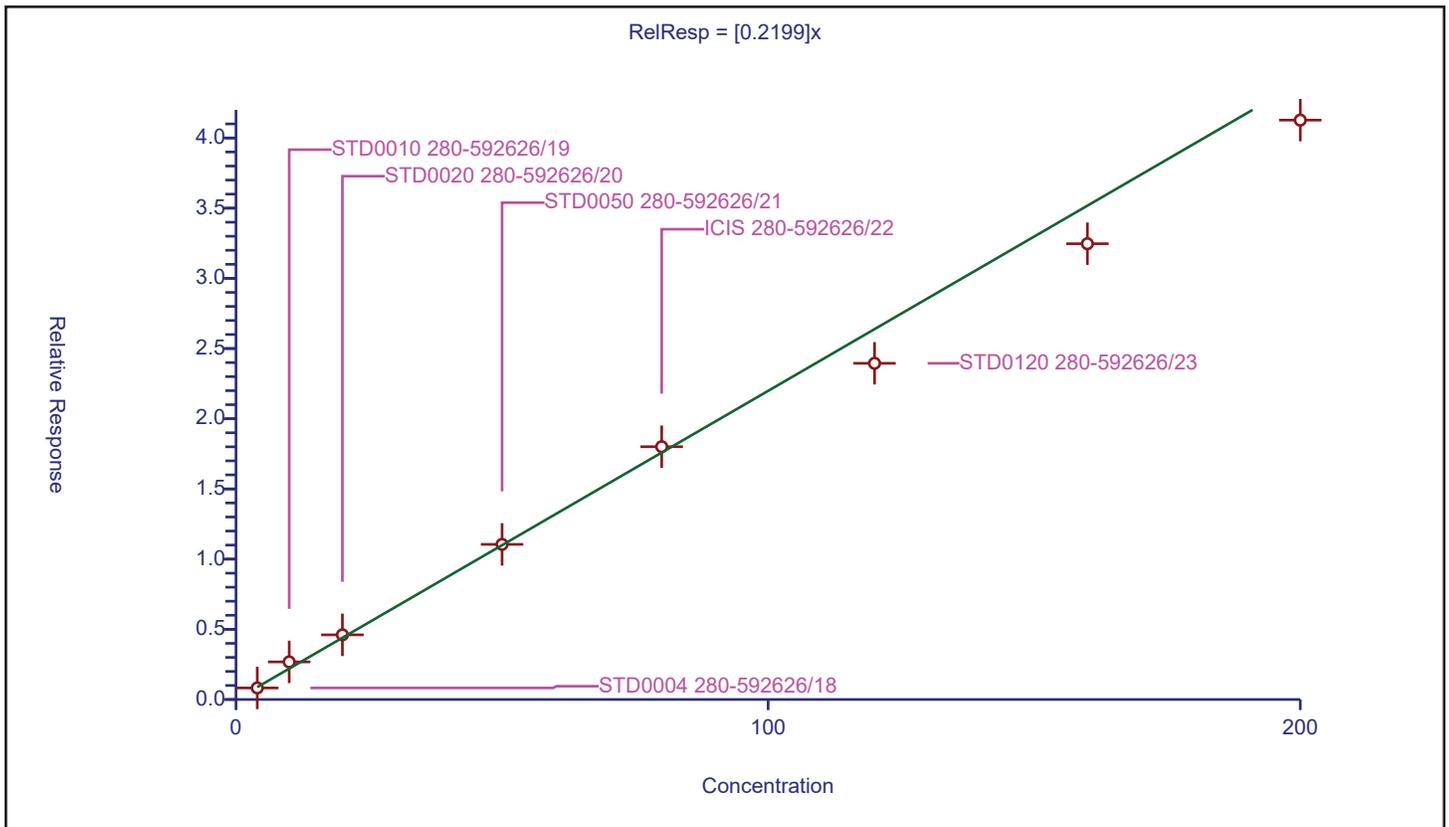
/ Hexachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2199

Error Coefficients	
Standard Error:	438000
Relative Standard Error:	10.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.823038	40.0	630250.0	0.20576	Y
2	STD0010 280-592626/19	10.0	2.678359	40.0	642005.0	0.267836	Y
3	STD0020 280-592626/20	20.0	4.60591	40.0	640108.0	0.230296	Y
4	STD0050 280-592626/21	50.0	11.050344	40.0	652396.0	0.221007	Y
5	ICIS 280-592626/22	80.0	18.005997	40.0	660340.0	0.225075	Y
6	STD0120 280-592626/23	120.0	23.949175	40.0	754740.0	0.199576	Y
7	STD0160 280-592626/24	160.0	32.467539	40.0	762922.0	0.202922	Y
8	STD0200 280-592626/25	200.0	41.271085	40.0	769075.0	0.206355	Y



Calibration

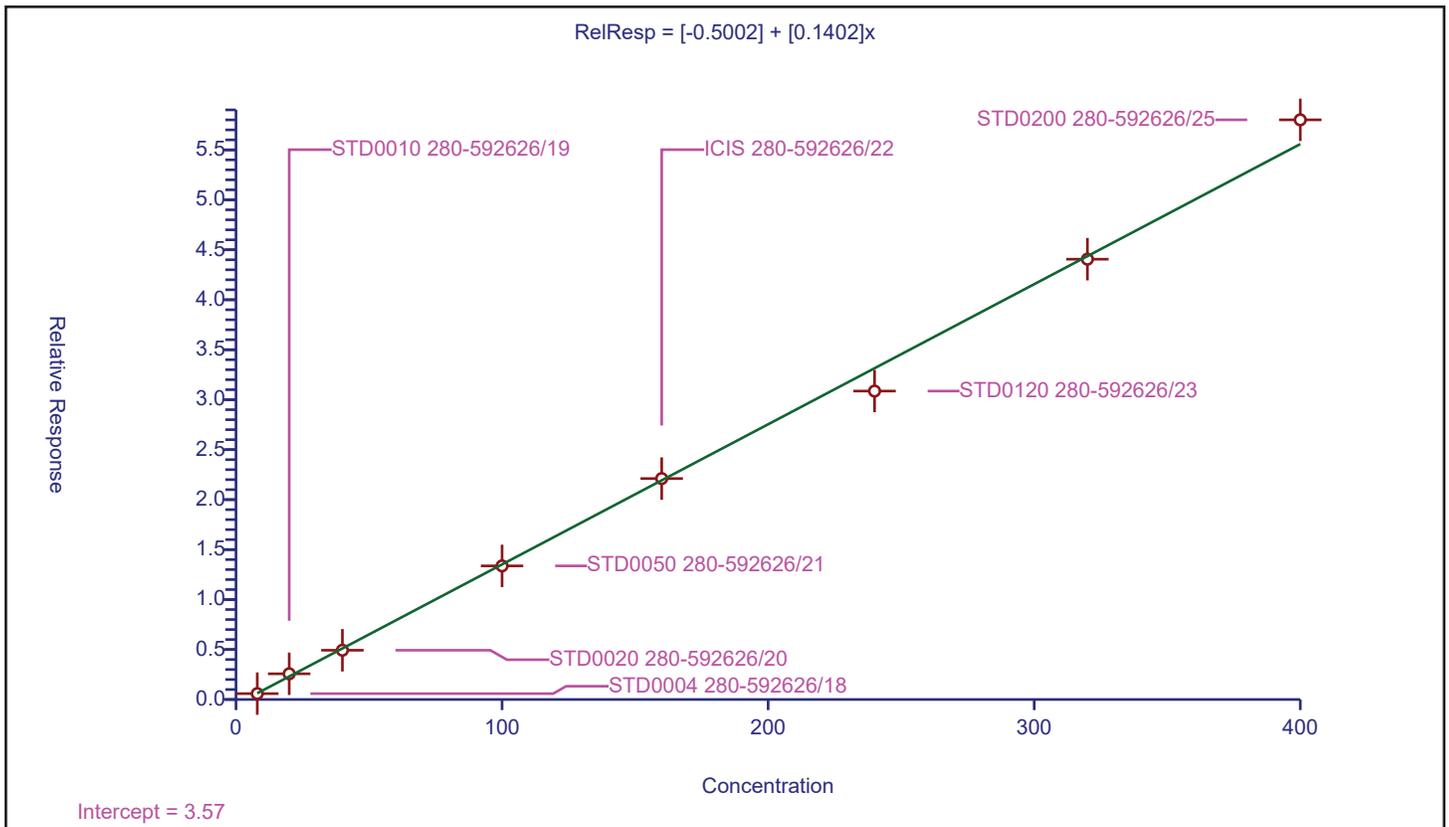
/ Pentachlorophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.5002
Slope:	0.1402

Error Coefficients	
Standard Error:	643000
Relative Standard Error:	5.5
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	8.0	0.58764	40.0	630250.0	0.073455	Y
2	STD0010 280-592626/19	20.0	2.5735	40.0	642005.0	0.128675	Y
3	STD0020 280-592626/20	40.0	4.927606	40.0	640108.0	0.12319	Y
4	STD0050 280-592626/21	100.0	13.3682	40.0	652396.0	0.133682	Y
5	ICIS 280-592626/22	160.0	22.109459	40.0	660340.0	0.138184	Y
6	STD0120 280-592626/23	240.0	30.865199	40.0	754740.0	0.128605	Y
7	STD0160 280-592626/24	320.0	44.060232	40.0	762922.0	0.137688	Y
8	STD0200 280-592626/25	400.0	58.004954	40.0	769075.0	0.145012	Y



Calibration

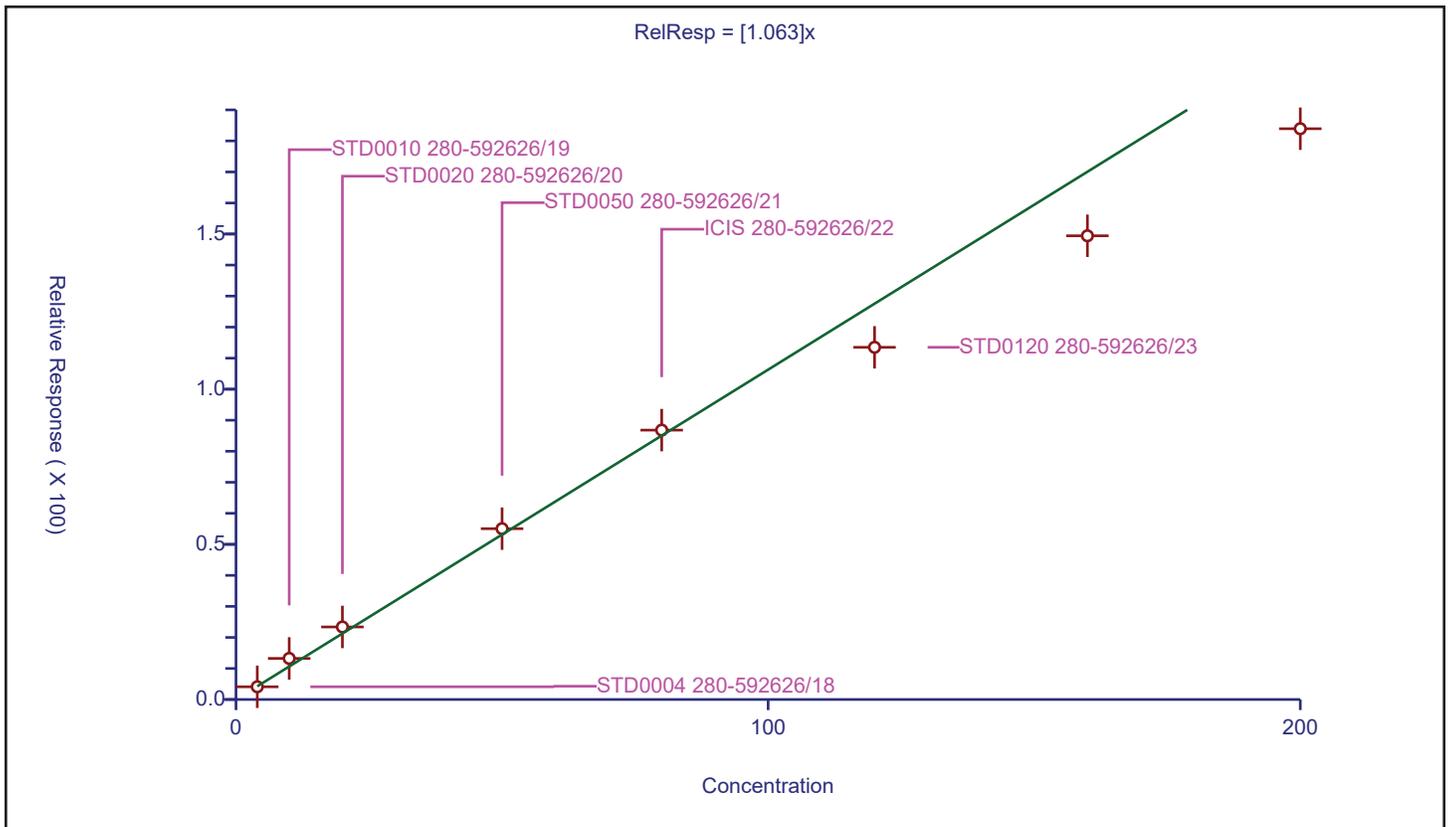
/ Phenanthrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.063

Error Coefficients	
Standard Error:	2010000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.099135	40.0	630250.0	1.024784	Y
2	STD0010 280-592626/19	10.0	13.239959	40.0	642005.0	1.323996	Y
3	STD0020 280-592626/20	20.0	23.377493	40.0	640108.0	1.168875	Y
4	STD0050 280-592626/21	50.0	55.046567	40.0	652396.0	1.100931	Y
5	ICIS 280-592626/22	80.0	86.811218	40.0	660340.0	1.08514	Y
6	STD0120 280-592626/23	120.0	113.493653	40.0	754740.0	0.94578	Y
7	STD0160 280-592626/24	160.0	149.427491	40.0	762922.0	0.933922	Y
8	STD0200 280-592626/25	200.0	183.934415	40.0	769075.0	0.919672	Y



Calibration

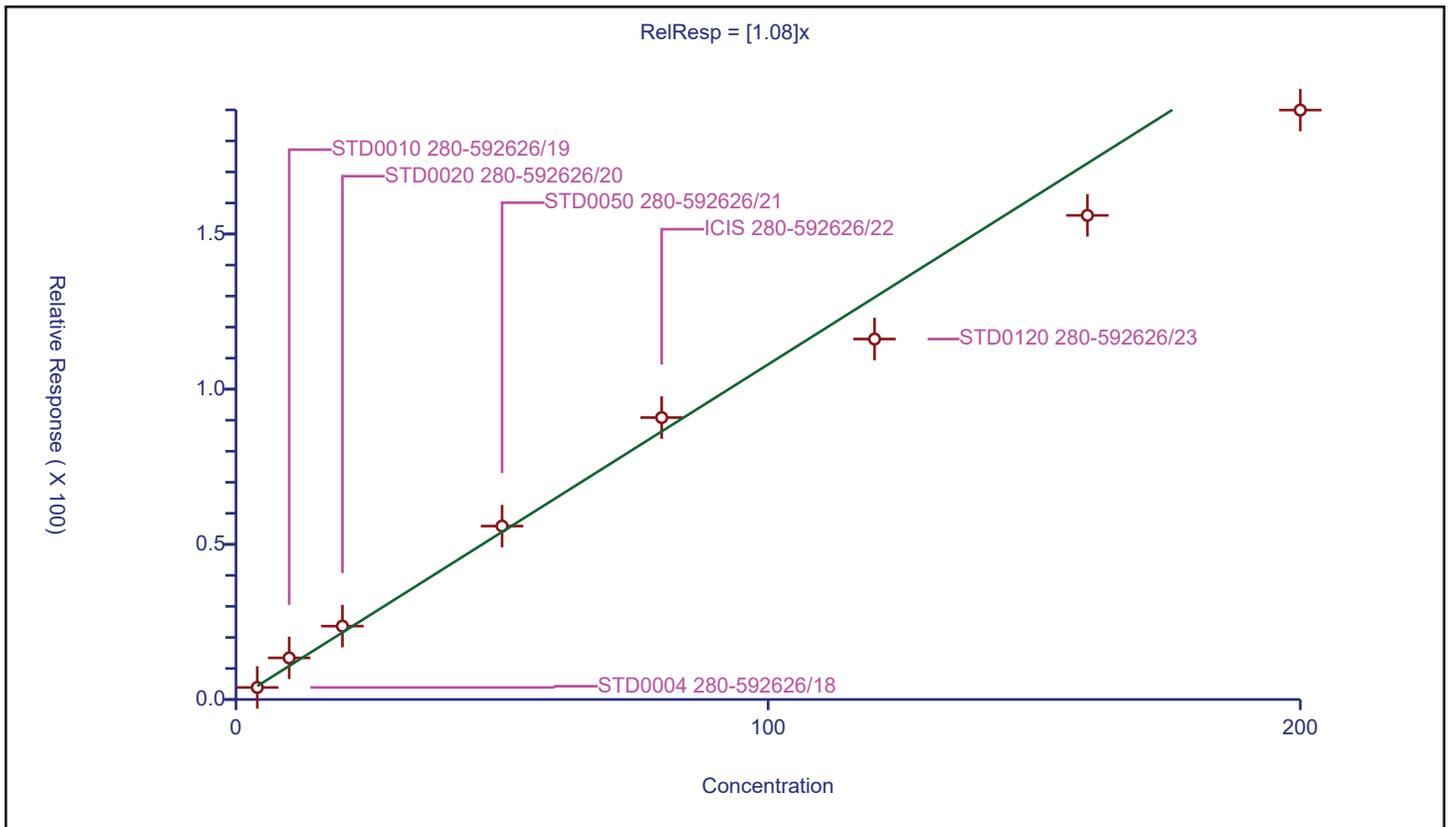
/ Anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.08

Error Coefficients	
Standard Error:	2080000
Relative Standard Error:	12.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.877382	40.0	630250.0	0.969345	Y
2	STD0010 280-592626/19	10.0	13.409117	40.0	642005.0	1.340912	Y
3	STD0020 280-592626/20	20.0	23.64601	40.0	640108.0	1.1823	Y
4	STD0050 280-592626/21	50.0	55.884156	40.0	652396.0	1.117683	Y
5	ICIS 280-592626/22	80.0	90.847806	40.0	660340.0	1.135598	Y
6	STD0120 280-592626/23	120.0	116.157935	40.0	754740.0	0.967983	Y
7	STD0160 280-592626/24	160.0	156.010025	40.0	762922.0	0.975063	Y
8	STD0200 280-592626/25	200.0	189.943816	40.0	769075.0	0.949719	Y



Calibration

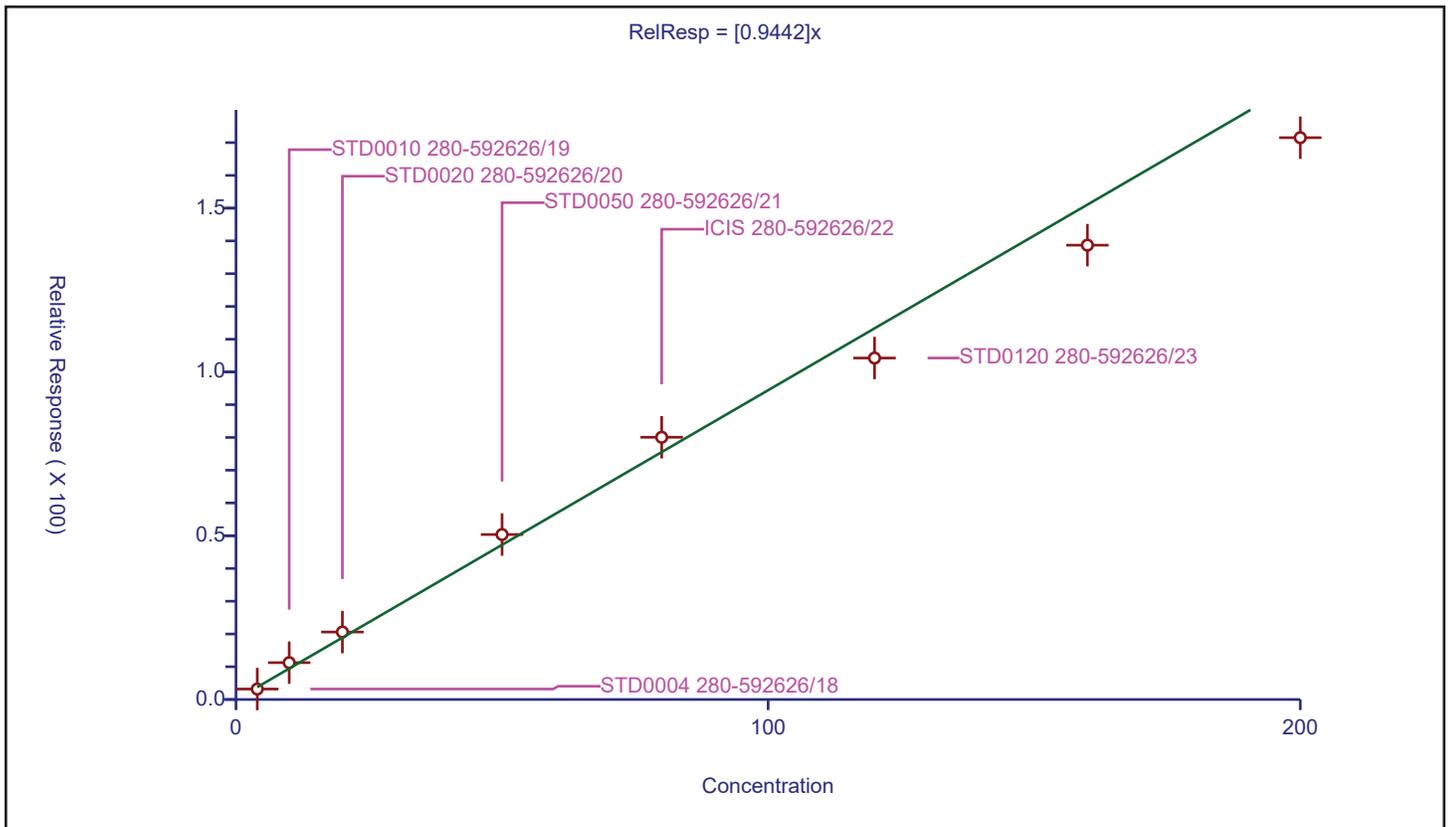
/ Carbazole

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9442

Error Coefficients	
Standard Error:	1860000
Relative Standard Error:	11.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.191622	40.0	630250.0	0.797906	Y
2	STD0010 280-592626/19	10.0	11.246891	40.0	642005.0	1.124689	Y
3	STD0020 280-592626/20	20.0	20.598961	40.0	640108.0	1.029948	Y
4	STD0050 280-592626/21	50.0	50.3588	40.0	652396.0	1.007176	Y
5	ICIS 280-592626/22	80.0	80.054941	40.0	660340.0	1.000687	Y
6	STD0120 280-592626/23	120.0	104.245118	40.0	754740.0	0.868709	Y
7	STD0160 280-592626/24	160.0	138.700732	40.0	762922.0	0.86688	Y
8	STD0200 280-592626/25	200.0	171.519709	40.0	769075.0	0.857599	Y



Calibration

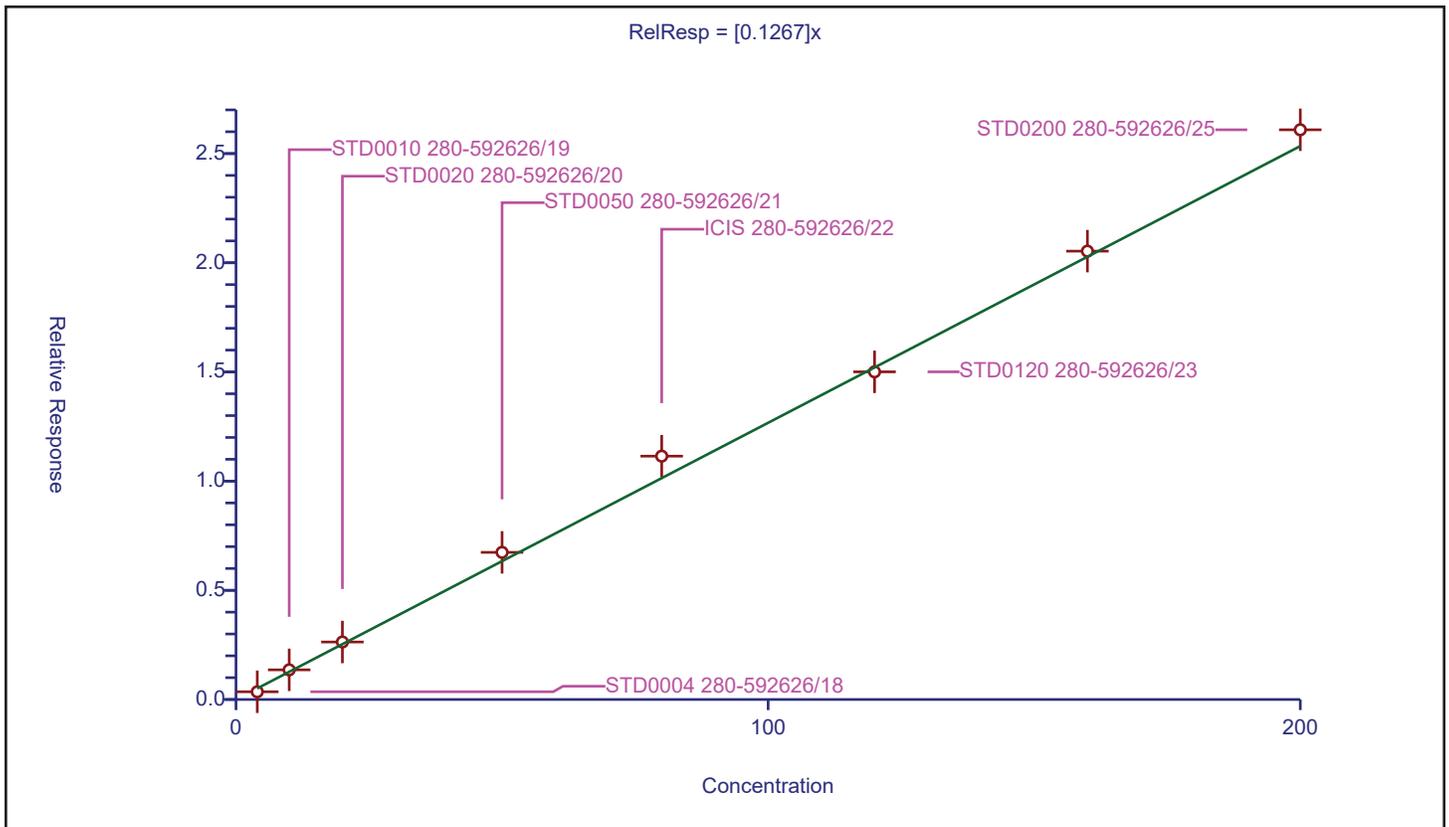
/ Alachlor

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1267

Error Coefficients	
Standard Error:	276000
Relative Standard Error:	12.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	0.353384	40.0	630250.0	0.088346	Y
2	STD0010 280-592626/19	10.0	1.357871	40.0	642005.0	0.135787	Y
3	STD0020 280-592626/20	20.0	2.633243	40.0	640108.0	0.131662	Y
4	STD0050 280-592626/21	50.0	6.738545	40.0	652396.0	0.134771	Y
5	ICIS 280-592626/22	80.0	11.143653	40.0	660340.0	0.139296	Y
6	STD0120 280-592626/23	120.0	15.00469	40.0	754740.0	0.125039	Y
7	STD0160 280-592626/24	160.0	20.531535	40.0	762922.0	0.128322	Y
8	STD0200 280-592626/25	200.0	26.088795	40.0	769075.0	0.130444	Y



Calibration

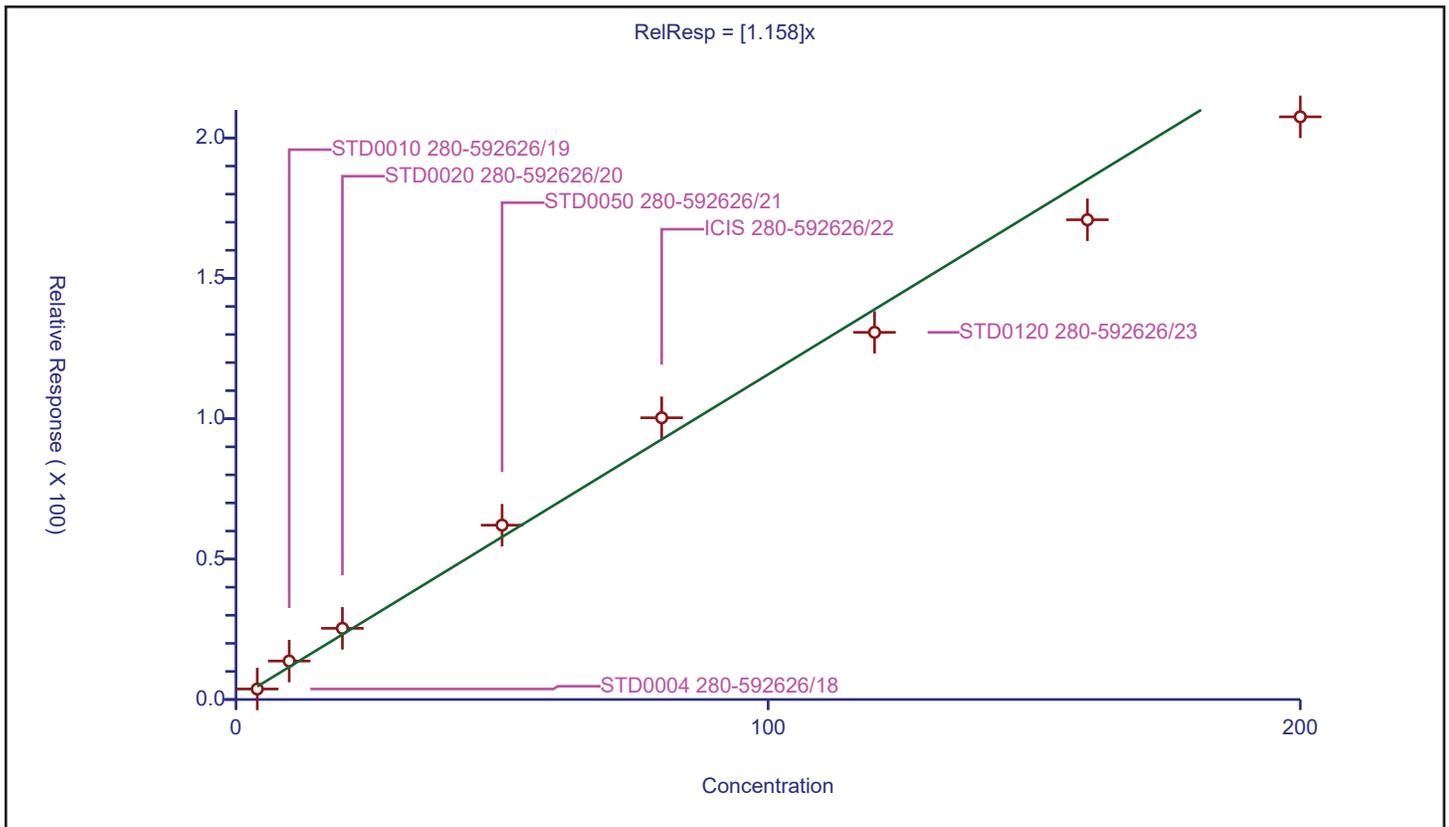
/ Di-n-butyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.158

Error Coefficients	
Standard Error:	2290000
Relative Standard Error:	12.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.733439	40.0	630250.0	0.93336	Y
2	STD0010 280-592626/19	10.0	13.701638	40.0	642005.0	1.370164	Y
3	STD0020 280-592626/20	20.0	25.352409	40.0	640108.0	1.26762	Y
4	STD0050 280-592626/21	50.0	62.10314	40.0	652396.0	1.242063	Y
5	ICIS 280-592626/22	80.0	100.350183	40.0	660340.0	1.254377	Y
6	STD0120 280-592626/23	120.0	130.772451	40.0	754740.0	1.08977	Y
7	STD0160 280-592626/24	160.0	170.865436	40.0	762922.0	1.067909	Y
8	STD0200 280-592626/25	200.0	207.526704	40.0	769075.0	1.037634	Y



Calibration

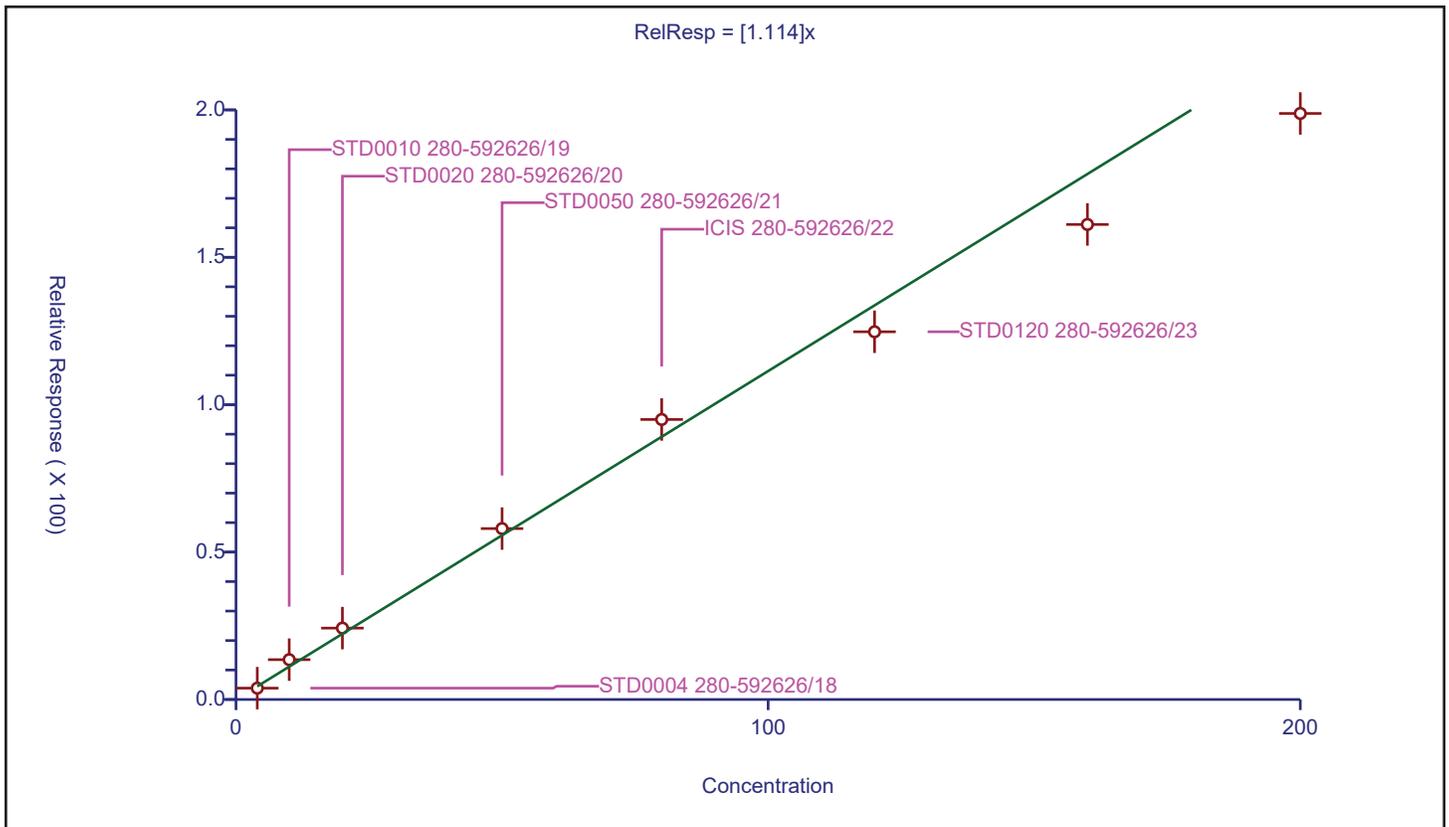
/ Fluoranthene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.114

Error Coefficients	
Standard Error:	2180000
Relative Standard Error:	12.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.851234	40.0	630250.0	0.962808	Y
2	STD0010 280-592626/19	10.0	13.513103	40.0	642005.0	1.35131	Y
3	STD0020 280-592626/20	20.0	24.219038	40.0	640108.0	1.210952	Y
4	STD0050 280-592626/21	50.0	57.976689	40.0	652396.0	1.159534	Y
5	ICIS 280-592626/22	80.0	94.979859	40.0	660340.0	1.187248	Y
6	STD0120 280-592626/23	120.0	124.737208	40.0	754740.0	1.039477	Y
7	STD0160 280-592626/24	160.0	161.139094	40.0	762922.0	1.007119	Y
8	STD0200 280-592626/25	200.0	198.793148	40.0	769075.0	0.993966	Y



Calibration

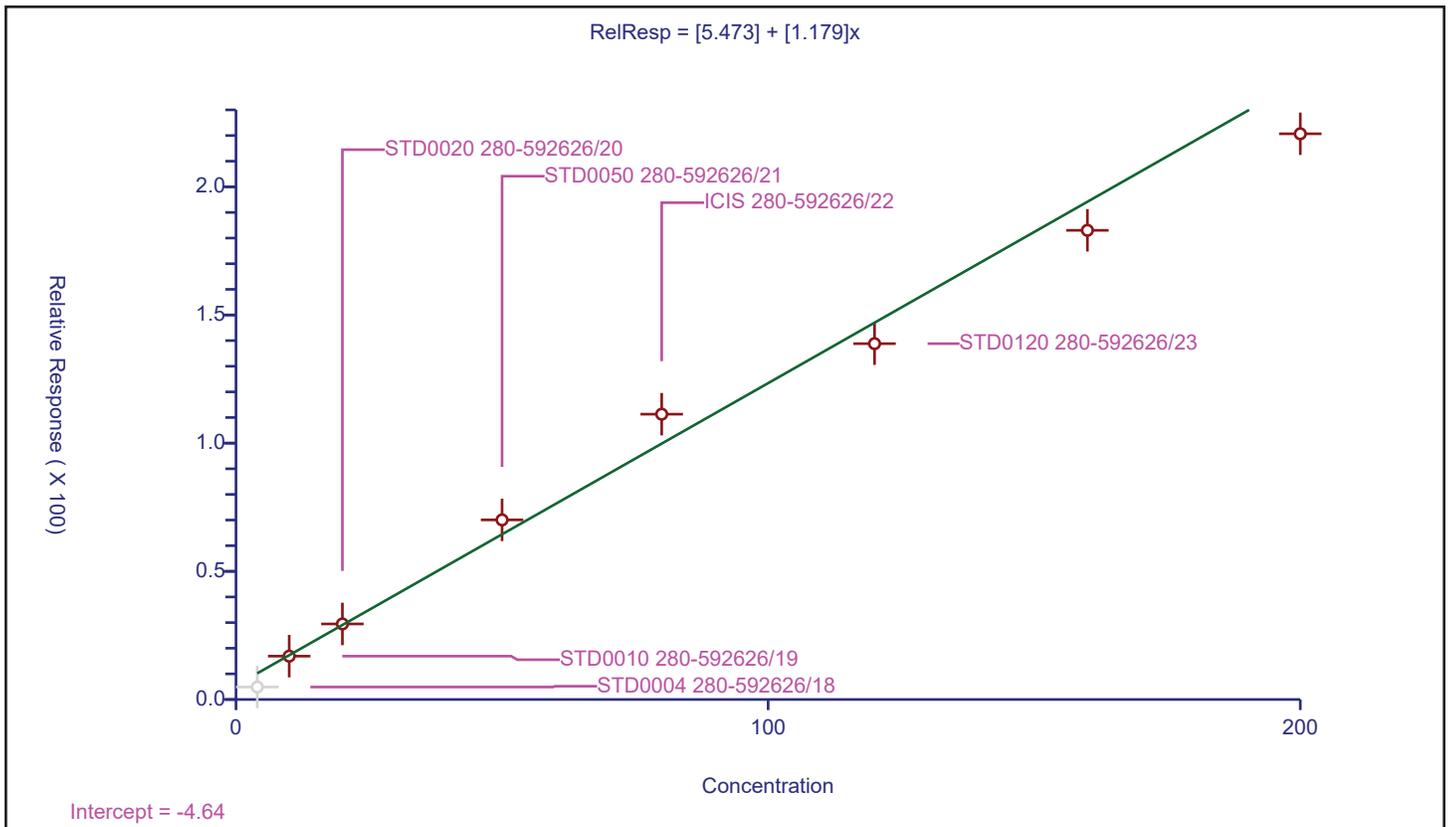
/ Pyrene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	5.473
Slope:	1.179

Error Coefficients	
Standard Error:	2730000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.864016	40.0	529069.0	1.216004	N
2	STD0010 280-592626/19	10.0	16.909543	40.0	538574.0	1.690954	Y
3	STD0020 280-592626/20	20.0	29.475806	40.0	554547.0	1.47379	Y
4	STD0050 280-592626/21	50.0	70.060247	40.0	578787.0	1.401205	Y
5	ICIS 280-592626/22	80.0	111.29851	40.0	593126.0	1.391231	Y
6	STD0120 280-592626/23	120.0	138.808173	40.0	705891.0	1.156735	Y
7	STD0160 280-592626/24	160.0	183.020618	40.0	721369.0	1.143879	Y
8	STD0200 280-592626/25	200.0	220.679537	40.0	734088.0	1.103398	Y



Calibration

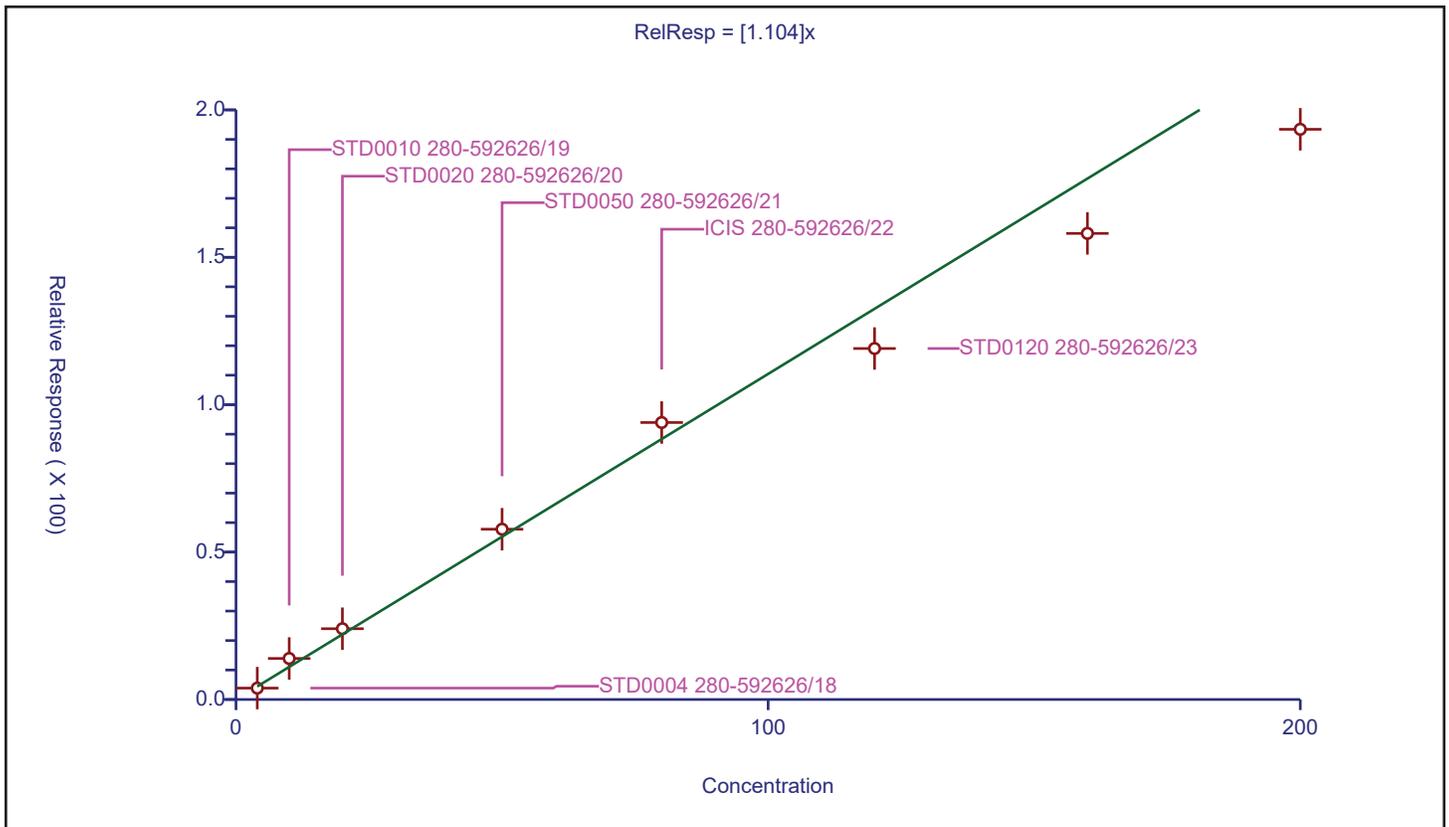
/ Terphenyl-d14

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.104

Error Coefficients	
Standard Error:	2000000
Relative Standard Error:	13.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.862483	40.0	529069.0	0.965621	Y
2	STD0010 280-592626/19	10.0	13.914225	40.0	538574.0	1.391423	Y
3	STD0020 280-592626/20	20.0	24.008569	40.0	554547.0	1.200428	Y
4	STD0050 280-592626/21	50.0	57.769162	40.0	578787.0	1.155383	Y
5	ICIS 280-592626/22	80.0	93.959125	40.0	593126.0	1.174489	Y
6	STD0120 280-592626/23	120.0	119.063935	40.0	705891.0	0.992199	Y
7	STD0160 280-592626/24	160.0	158.107432	40.0	721369.0	0.988171	Y
8	STD0200 280-592626/25	200.0	193.415449	40.0	734088.0	0.967077	Y



Calibration

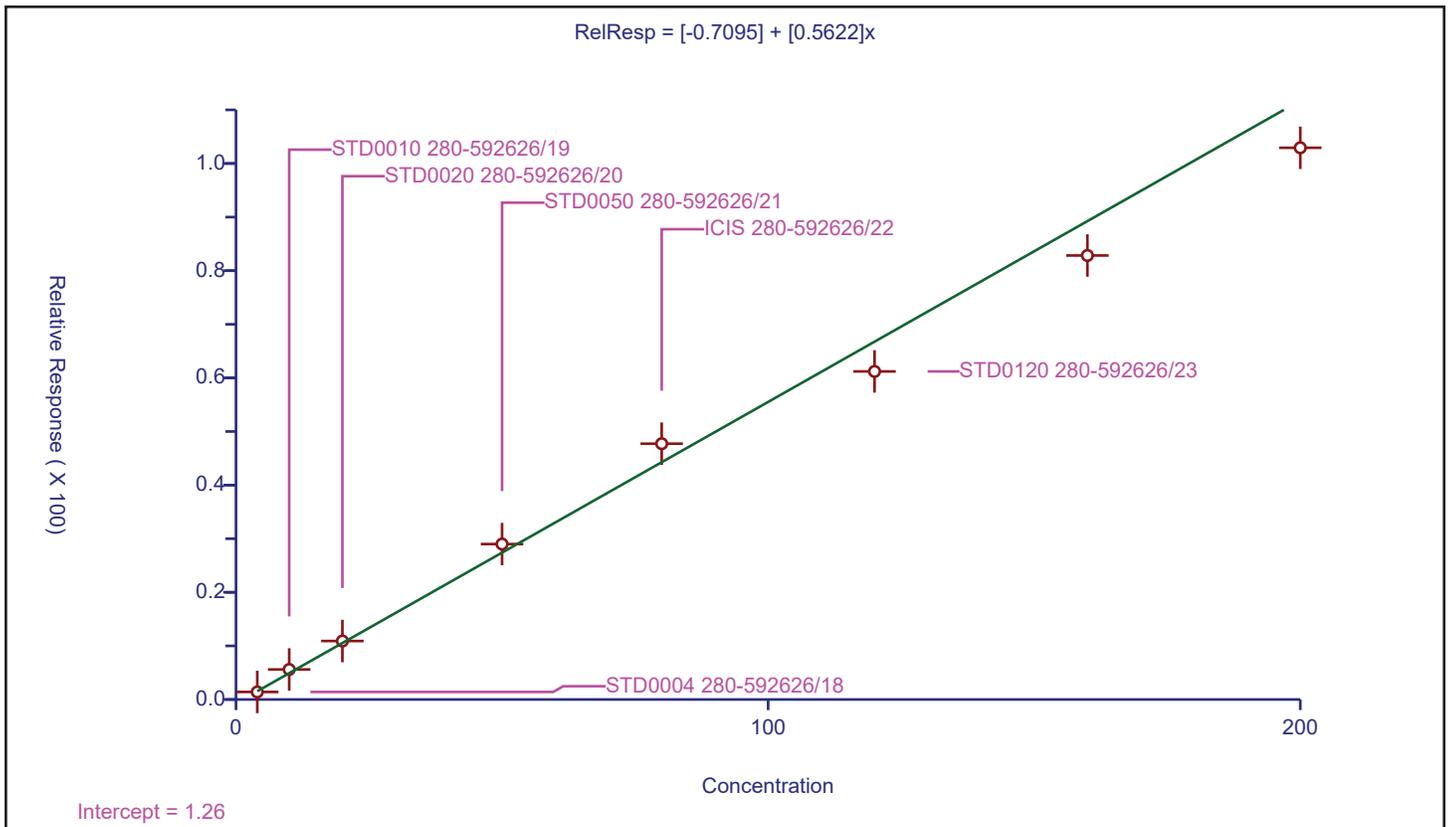
/ Butyl benzyl phthalate

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.7095
Slope:	0.5622

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	8.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.40889	40.0	529069.0	0.352222	Y
2	STD0010 280-592626/19	10.0	5.601162	40.0	538574.0	0.560116	Y
3	STD0020 280-592626/20	20.0	10.911897	40.0	554547.0	0.545595	Y
4	STD0050 280-592626/21	50.0	29.001273	40.0	578787.0	0.580025	Y
5	ICIS 280-592626/22	80.0	47.724632	40.0	593126.0	0.596558	Y
6	STD0120 280-592626/23	120.0	61.204974	40.0	705891.0	0.510041	Y
7	STD0160 280-592626/24	160.0	82.837438	40.0	721369.0	0.517734	Y
8	STD0200 280-592626/25	200.0	102.933	40.0	734088.0	0.514665	Y



Calibration

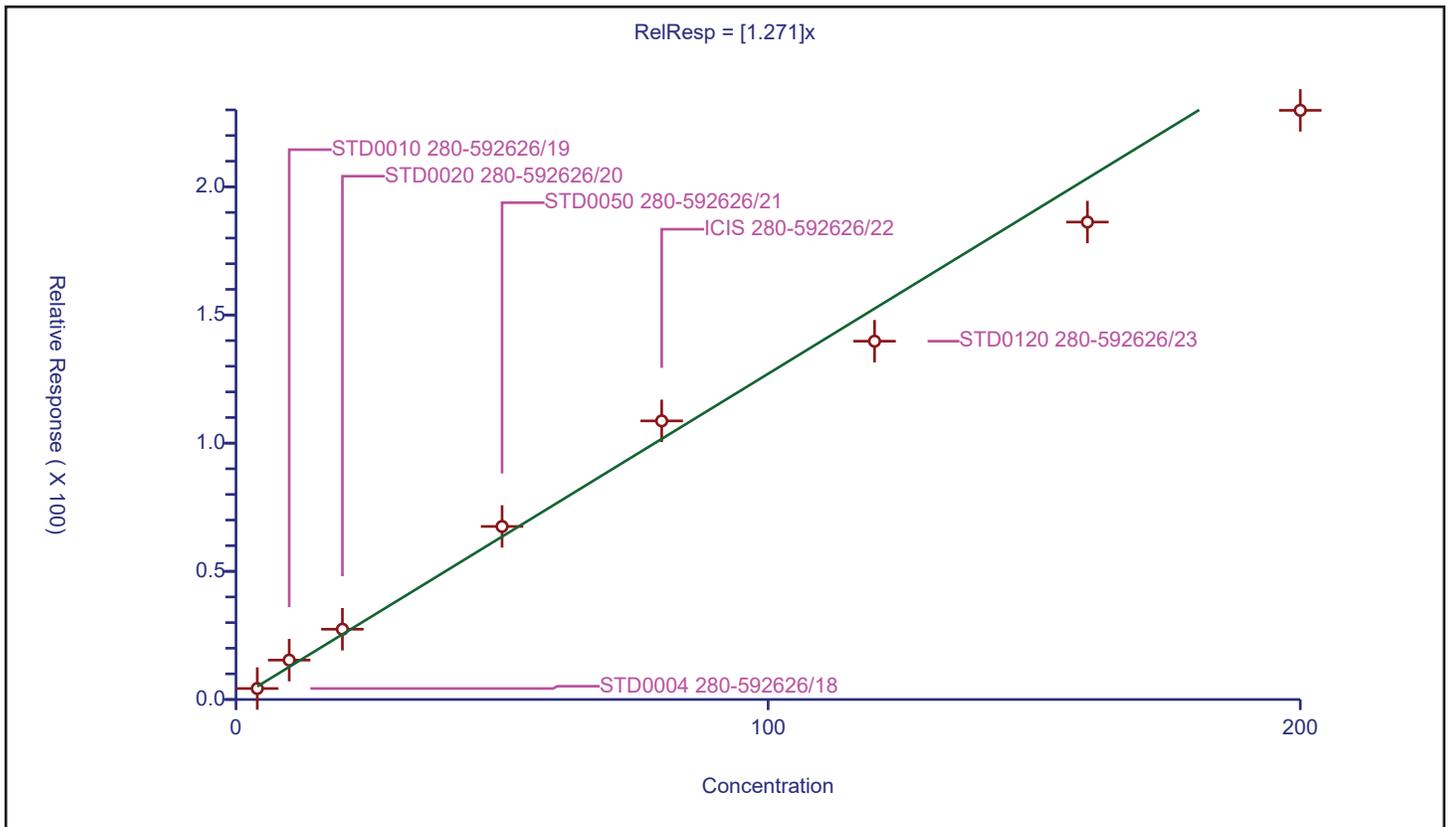
/ Benzo[a]anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.271

Error Coefficients	
Standard Error:	2360000
Relative Standard Error:	12.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.288136	40.0	529069.0	1.072034	Y
2	STD0010 280-592626/19	10.0	15.360563	40.0	538574.0	1.536056	Y
3	STD0020 280-592626/20	20.0	27.410625	40.0	554547.0	1.370531	Y
4	STD0050 280-592626/21	50.0	67.504211	40.0	578787.0	1.350084	Y
5	ICIS 280-592626/22	80.0	108.683012	40.0	593126.0	1.358538	Y
6	STD0120 280-592626/23	120.0	139.776821	40.0	705891.0	1.164807	Y
7	STD0160 280-592626/24	160.0	186.245874	40.0	721369.0	1.164037	Y
8	STD0200 280-592626/25	200.0	229.824381	40.0	734088.0	1.149122	Y



Calibration

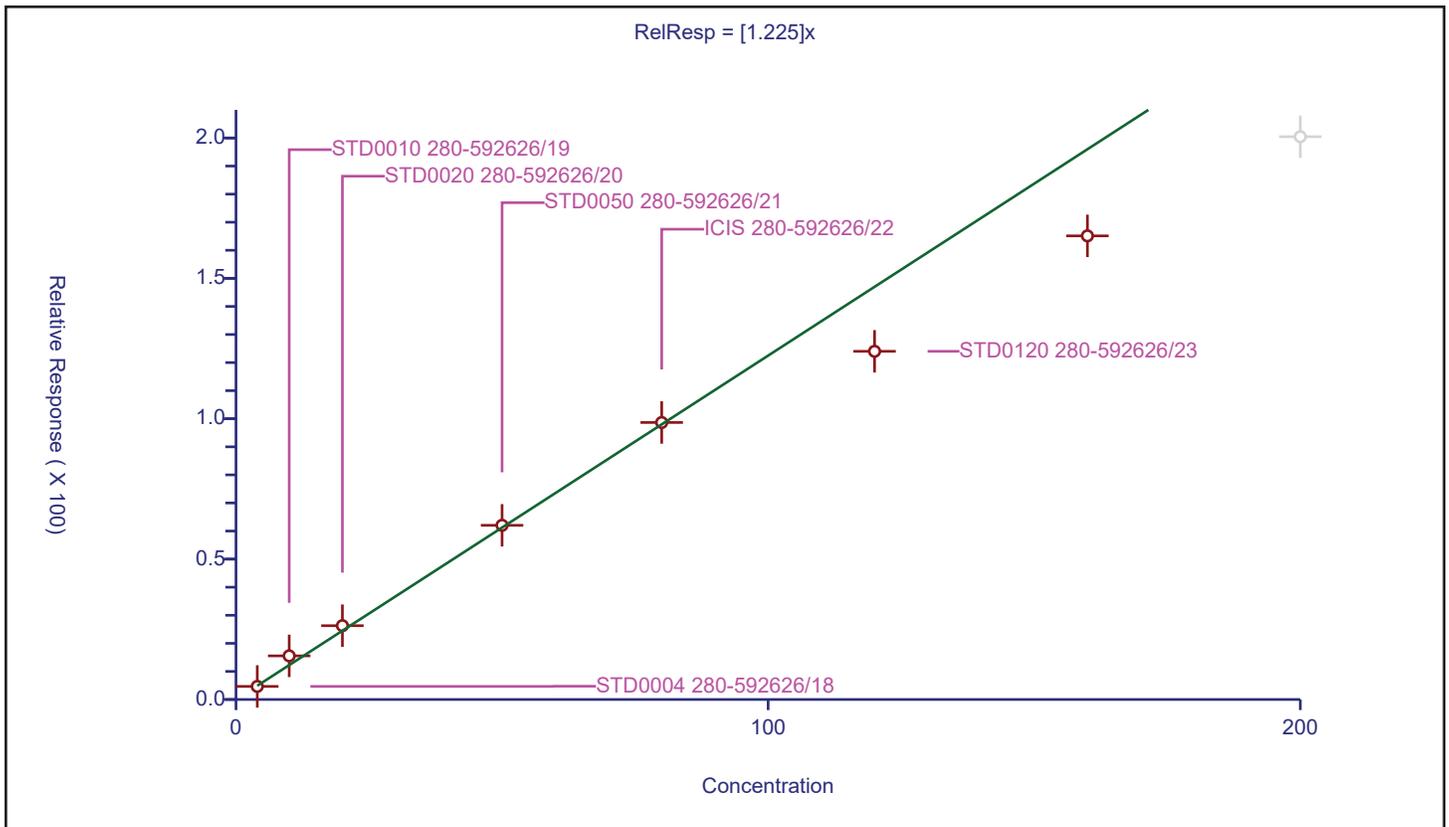
/ Chrysene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.225

Error Coefficients	
Standard Error:	1670000
Relative Standard Error:	14.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.970

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.662908	40.0	529069.0	1.165727	Y
2	STD0010 280-592626/19	10.0	15.541783	40.0	538574.0	1.554178	Y
3	STD0020 280-592626/20	20.0	26.28596	40.0	554547.0	1.314298	Y
4	STD0050 280-592626/21	50.0	62.039334	40.0	578787.0	1.240787	Y
5	ICIS 280-592626/22	80.0	98.660723	40.0	593126.0	1.233259	Y
6	STD0120 280-592626/23	120.0	124.014954	40.0	705891.0	1.033458	Y
7	STD0160 280-592626/24	160.0	165.132574	40.0	721369.0	1.032079	Y
8	STD0200 280-592626/25	200.0	200.451118	40.0	734088.0	1.002256	N



Calibration

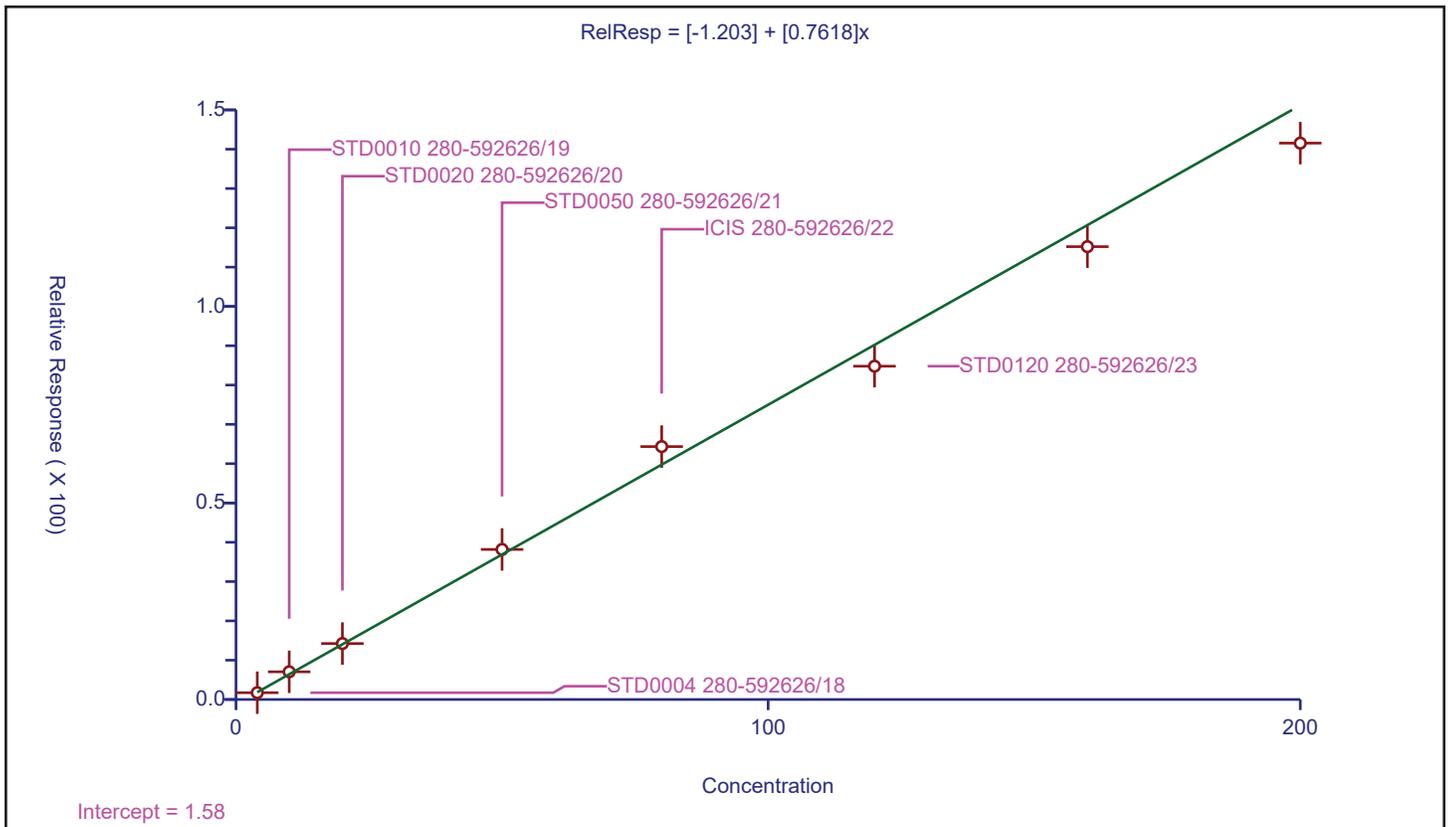
/ Bis(2-ethylhexyl) phthalate

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.203
Slope:	0.7618

Error Coefficients	
Standard Error:	1650000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	1.729219	40.0	630250.0	0.432305	Y
2	STD0010 280-592626/19	10.0	7.048107	40.0	642005.0	0.704811	Y
3	STD0020 280-592626/20	20.0	14.23641	40.0	640108.0	0.711821	Y
4	STD0050 280-592626/21	50.0	38.175587	40.0	652396.0	0.763512	Y
5	ICIS 280-592626/22	80.0	64.343581	40.0	660340.0	0.804295	Y
6	STD0120 280-592626/23	120.0	84.79328	40.0	754740.0	0.706611	Y
7	STD0160 280-592626/24	160.0	115.206692	40.0	762922.0	0.720042	Y
8	STD0200 280-592626/25	200.0	141.549056	40.0	769075.0	0.707745	Y



Calibration

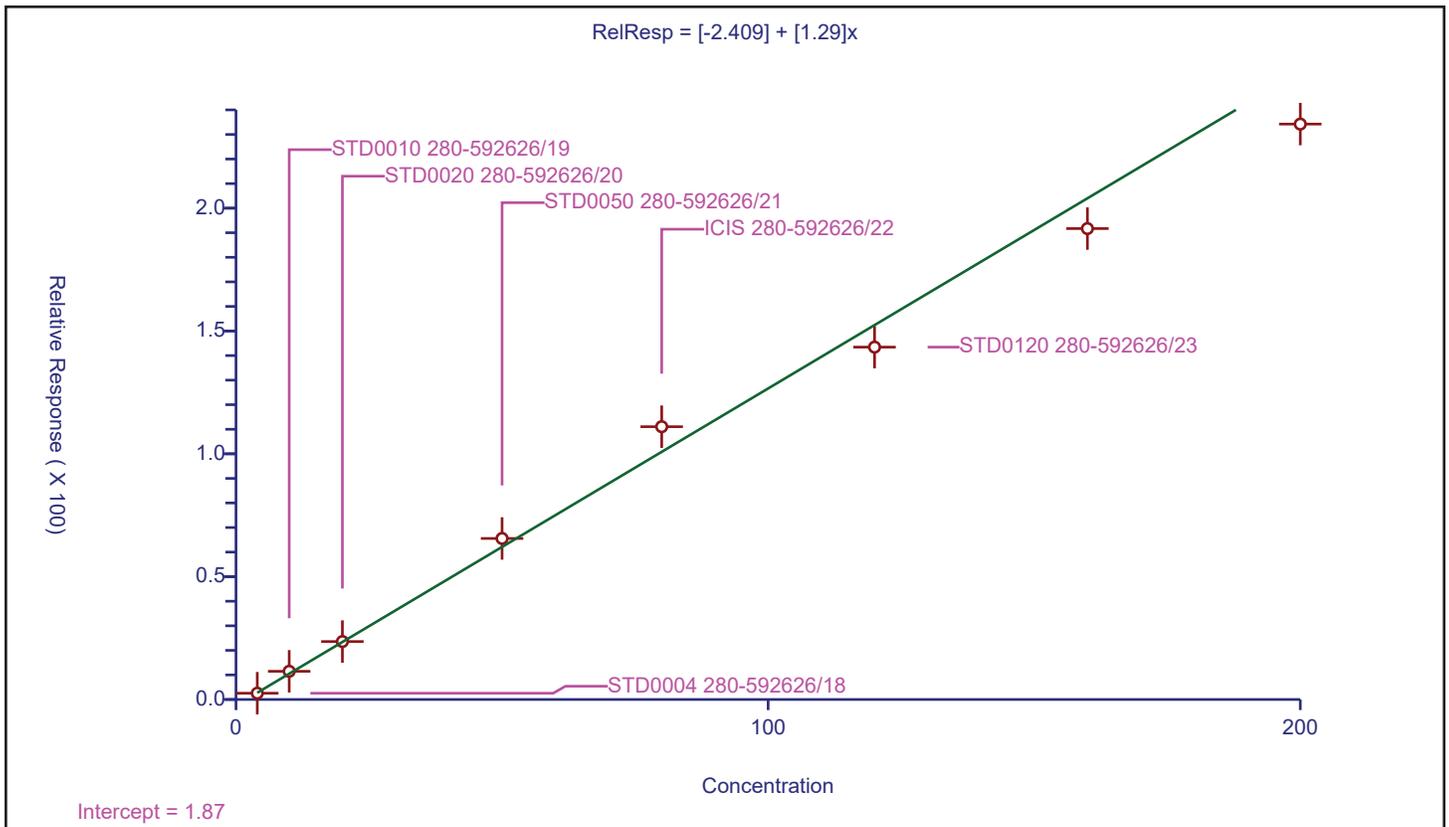
/ Di-n-octyl phthalate

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-2.409
Slope:	1.29

Error Coefficients	
Standard Error:	2600000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	2.563976	40.0	529069.0	0.640994	Y
2	STD0010 280-592626/19	10.0	11.478534	40.0	538574.0	1.147853	Y
3	STD0020 280-592626/20	20.0	23.586315	40.0	554547.0	1.179316	Y
4	STD0050 280-592626/21	50.0	65.550954	40.0	578787.0	1.311019	Y
5	ICIS 280-592626/22	80.0	111.045613	40.0	593126.0	1.38807	Y
6	STD0120 280-592626/23	120.0	143.43937	40.0	705891.0	1.195328	Y
7	STD0160 280-592626/24	160.0	191.687971	40.0	721369.0	1.19805	Y
8	STD0200 280-592626/25	200.0	234.226523	40.0	734088.0	1.171133	Y



Calibration

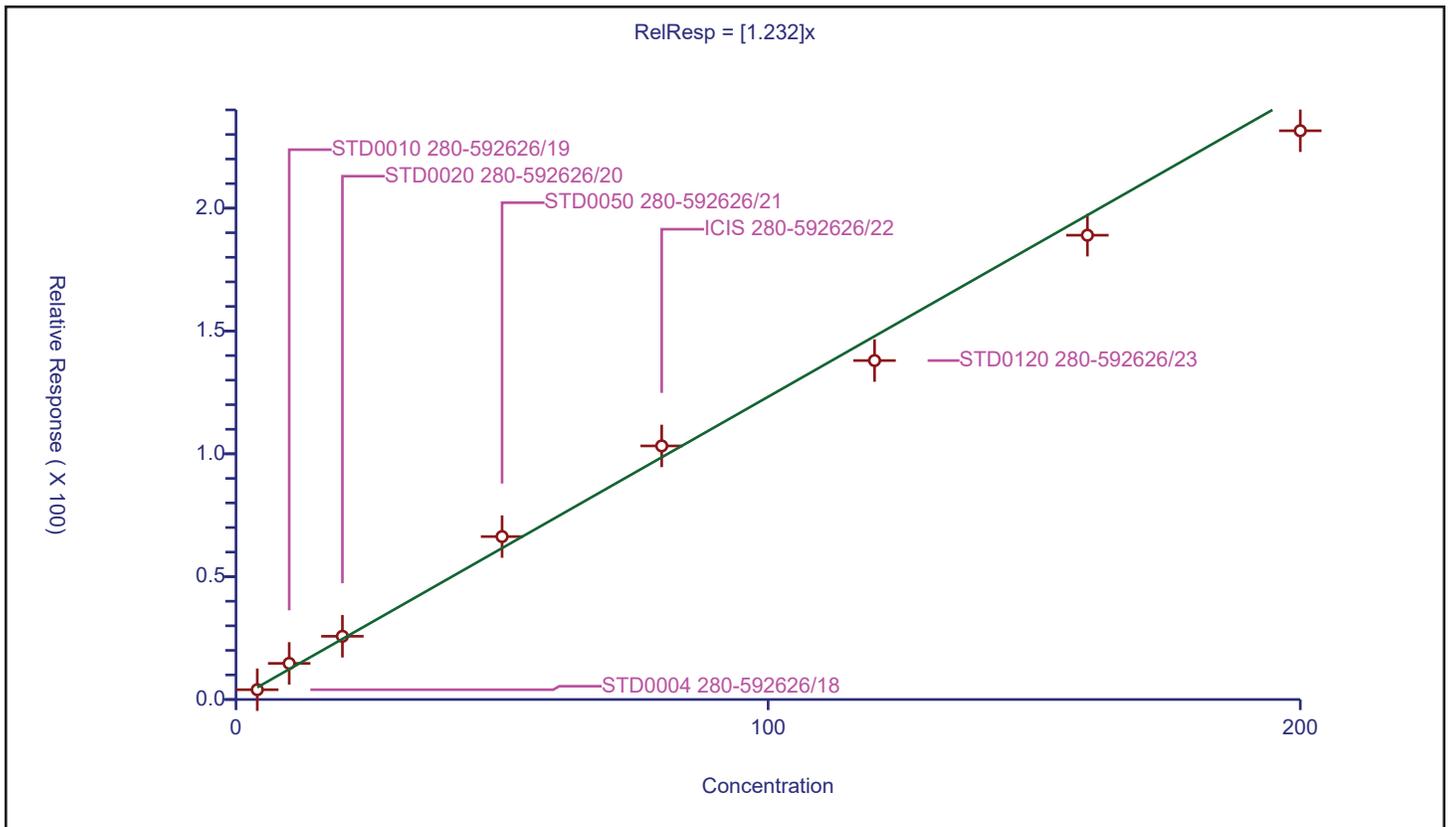
/ Benzo[b]fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.232

Error Coefficients	
Standard Error:	2170000
Relative Standard Error:	11.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.98353	40.0	489375.0	0.995883	Y
2	STD0010 280-592626/19	10.0	14.701148	40.0	495730.0	1.470115	Y
3	STD0020 280-592626/20	20.0	25.733677	40.0	510831.0	1.286684	Y
4	STD0050 280-592626/21	50.0	66.318911	40.0	532136.0	1.326378	Y
5	ICIS 280-592626/22	80.0	103.215979	40.0	561720.0	1.2902	Y
6	STD0120 280-592626/23	120.0	137.975036	40.0	647903.0	1.149792	Y
7	STD0160 280-592626/24	160.0	188.99723	40.0	659234.0	1.181233	Y
8	STD0200 280-592626/25	200.0	231.502574	40.0	671441.0	1.157513	Y



Calibration

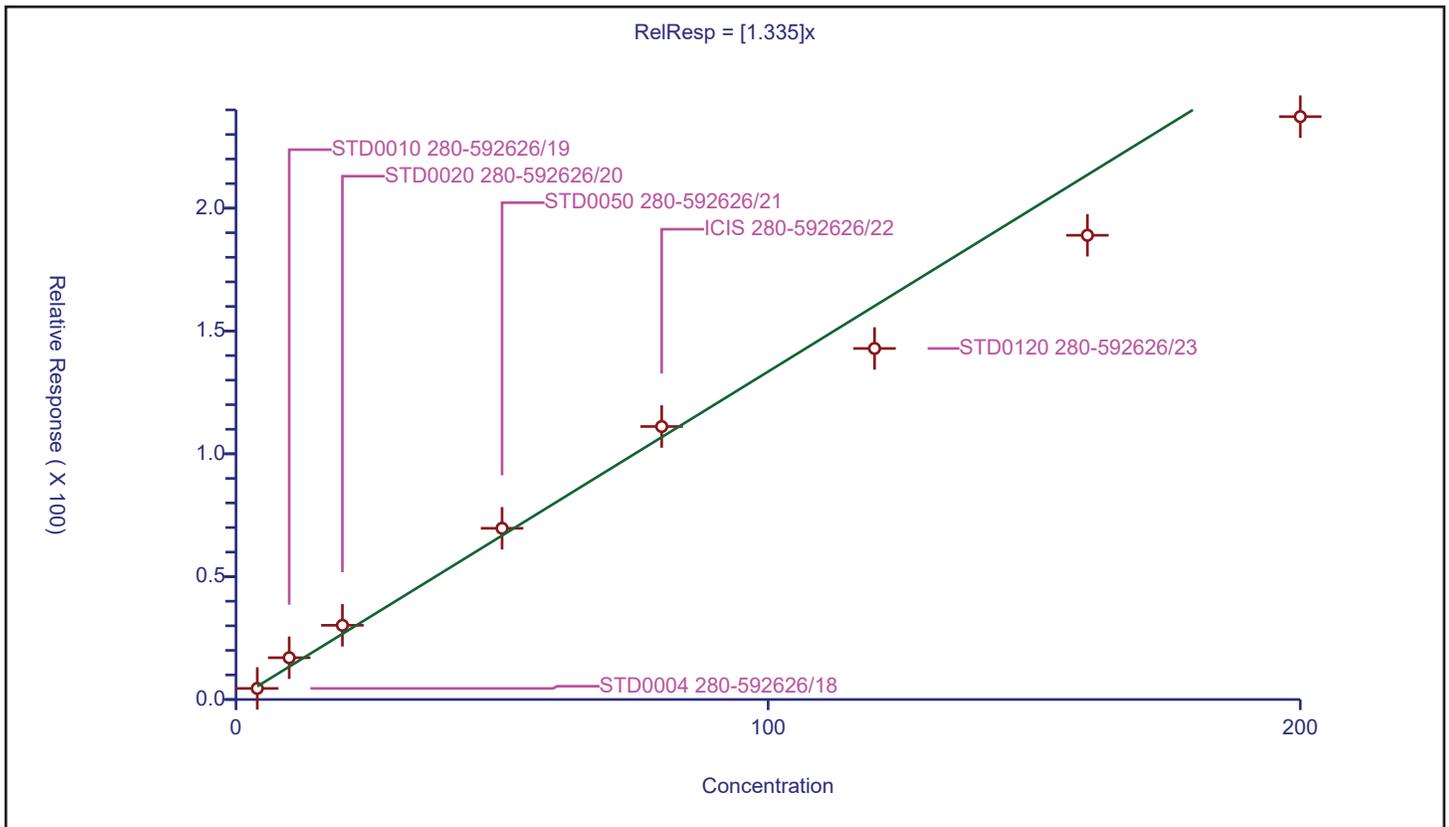
/ Benzo[k]fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.335

Error Coefficients	
Standard Error:	2220000
Relative Standard Error:	15.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	4.507954	40.0	489375.0	1.126989	Y
2	STD0010 280-592626/19	10.0	16.999818	40.0	495730.0	1.699982	Y
3	STD0020 280-592626/20	20.0	30.201456	40.0	510831.0	1.510073	Y
4	STD0050 280-592626/21	50.0	69.696769	40.0	532136.0	1.393935	Y
5	ICIS 280-592626/22	80.0	111.116286	40.0	561720.0	1.388954	Y
6	STD0120 280-592626/23	120.0	142.89034	40.0	647903.0	1.190753	Y
7	STD0160 280-592626/24	160.0	188.962159	40.0	659234.0	1.181013	Y
8	STD0200 280-592626/25	200.0	237.243183	40.0	671441.0	1.186216	Y



Calibration

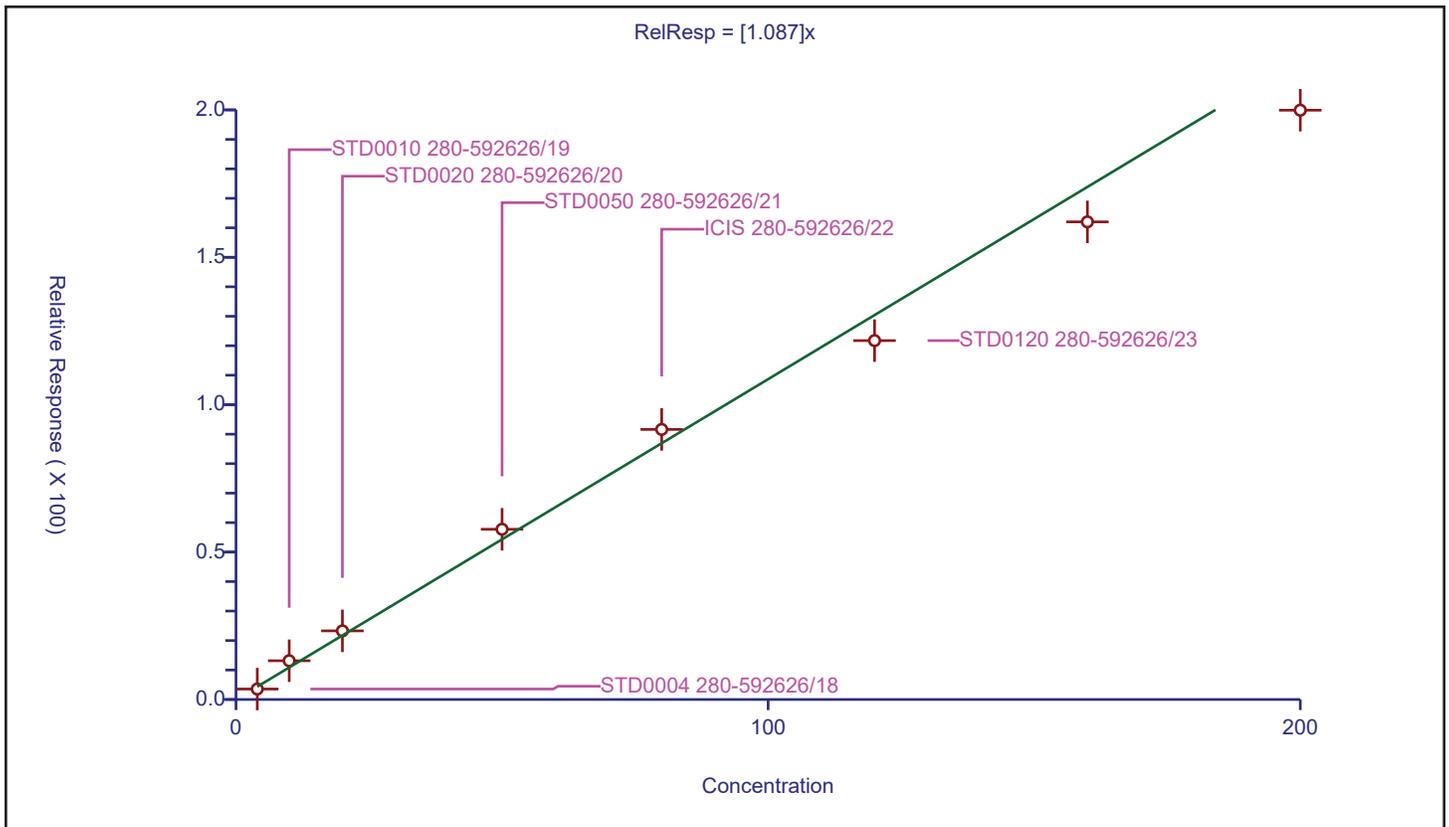
/ Benzo[a]pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.087

Error Coefficients	
Standard Error:	1880000
Relative Standard Error:	12.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.551387	40.0	489375.0	0.887847	Y
2	STD0010 280-592626/19	10.0	13.141751	40.0	495730.0	1.314175	Y
3	STD0020 280-592626/20	20.0	23.281986	40.0	510831.0	1.164099	Y
4	STD0050 280-592626/21	50.0	57.7505	40.0	532136.0	1.15501	Y
5	ICIS 280-592626/22	80.0	91.611408	40.0	561720.0	1.145143	Y
6	STD0120 280-592626/23	120.0	121.741495	40.0	647903.0	1.014512	Y
7	STD0160 280-592626/24	160.0	162.021194	40.0	659234.0	1.012632	Y
8	STD0200 280-592626/25	200.0	199.892828	40.0	671441.0	0.999464	Y



Calibration

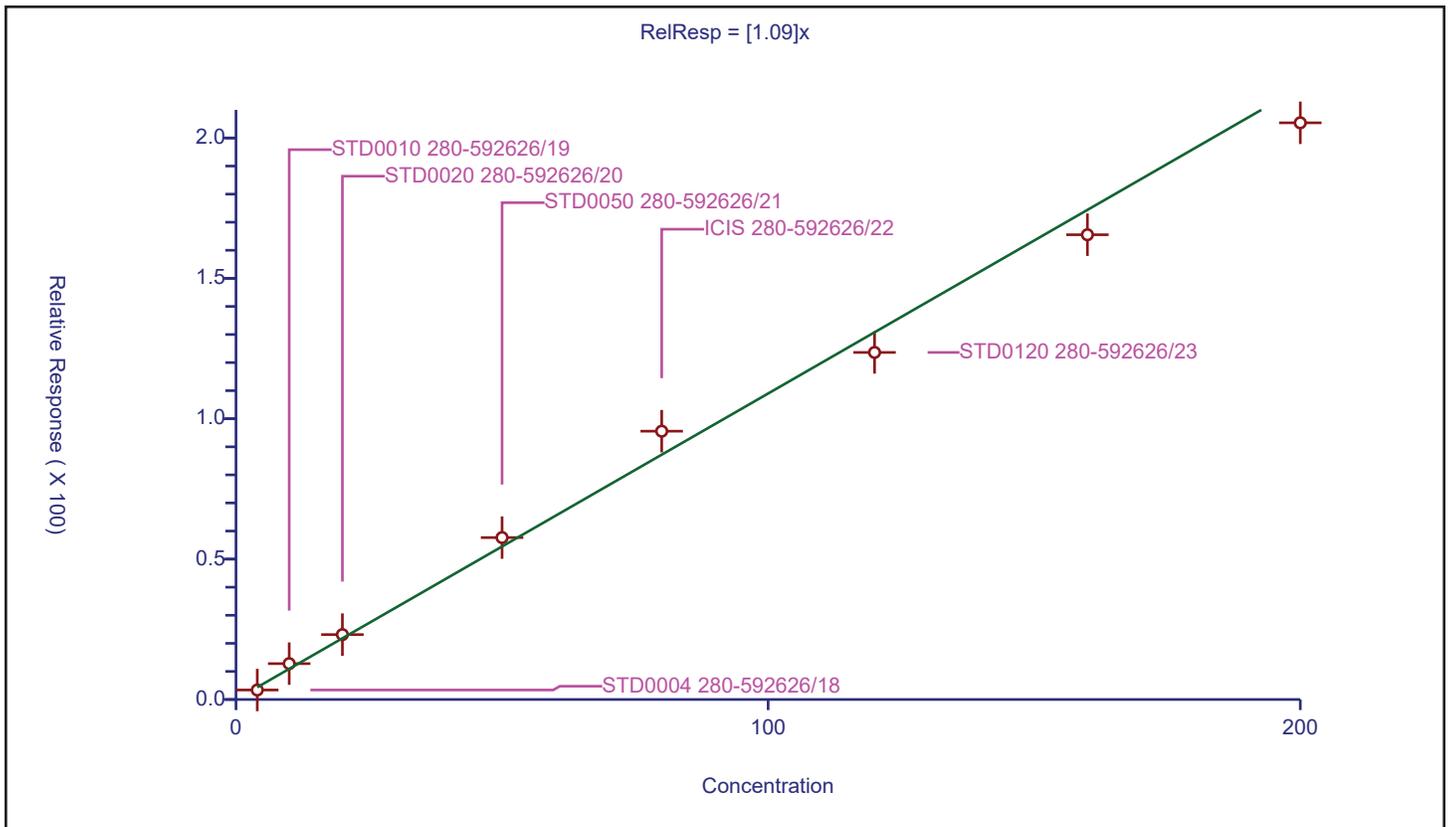
/ Indeno[1,2,3-cd]pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.09

Error Coefficients	
Standard Error:	2090000
Relative Standard Error:	12.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.382772	40.0	529069.0	0.845693	Y
2	STD0010 280-592626/19	10.0	12.776629	40.0	538574.0	1.277663	Y
3	STD0020 280-592626/20	20.0	23.115516	40.0	554547.0	1.155776	Y
4	STD0050 280-592626/21	50.0	57.672615	40.0	578787.0	1.153452	Y
5	ICIS 280-592626/22	80.0	95.57025	40.0	593126.0	1.194628	Y
6	STD0120 280-592626/23	120.0	123.619539	40.0	705891.0	1.030163	Y
7	STD0160 280-592626/24	160.0	165.533811	40.0	721369.0	1.034586	Y
8	STD0200 280-592626/25	200.0	205.396628	40.0	734088.0	1.026983	Y



Calibration

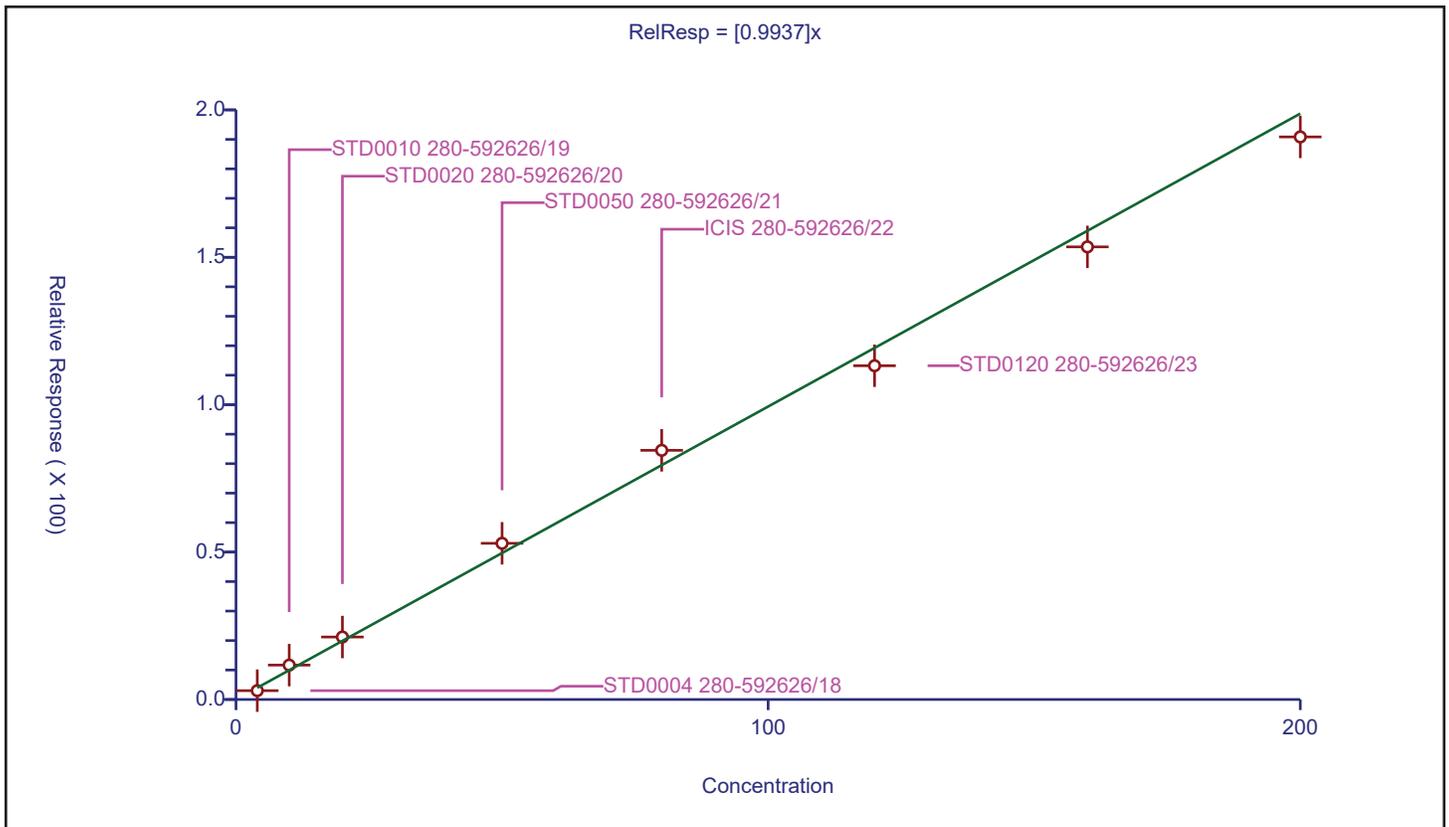
/ Dibenz(a,h)anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9937

Error Coefficients	
Standard Error:	1770000
Relative Standard Error:	12.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.00048	40.0	489375.0	0.75012	Y
2	STD0010 280-592626/19	10.0	11.665463	40.0	495730.0	1.166546	Y
3	STD0020 280-592626/20	20.0	21.191196	40.0	510831.0	1.05956	Y
4	STD0050 280-592626/21	50.0	52.983899	40.0	532136.0	1.059678	Y
5	ICIS 280-592626/22	80.0	84.521256	40.0	561720.0	1.056516	Y
6	STD0120 280-592626/23	120.0	113.215404	40.0	647903.0	0.943462	Y
7	STD0160 280-592626/24	160.0	153.533404	40.0	659234.0	0.959584	Y
8	STD0200 280-592626/25	200.0	190.838093	40.0	671441.0	0.95419	Y



Calibration

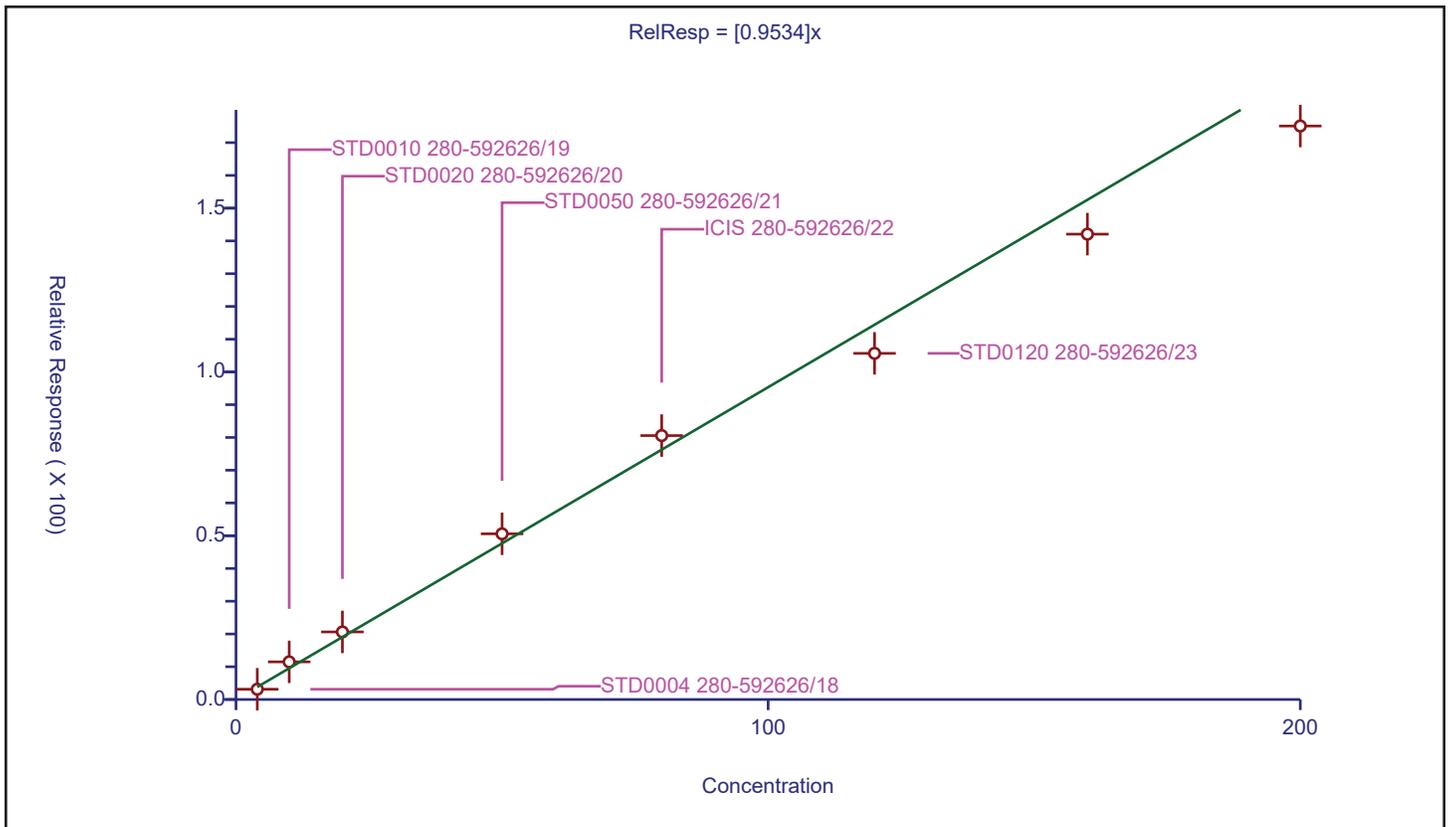
/ Benzo[g,h,i]perylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9534

Error Coefficients	
Standard Error:	1640000
Relative Standard Error:	12.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD0004 280-592626/18	4.0	3.135918	40.0	489375.0	0.78398	Y
2	STD0010 280-592626/19	10.0	11.491255	40.0	495730.0	1.149126	Y
3	STD0020 280-592626/20	20.0	20.62553	40.0	510831.0	1.031276	Y
4	STD0050 280-592626/21	50.0	50.583685	40.0	532136.0	1.011674	Y
5	ICIS 280-592626/22	80.0	80.573667	40.0	561720.0	1.007171	Y
6	STD0120 280-592626/23	120.0	105.677054	40.0	647903.0	0.880642	Y
7	STD0160 280-592626/24	160.0	142.068097	40.0	659234.0	0.887926	Y
8	STD0200 280-592626/25	200.0	175.07641	40.0	671441.0	0.875382	Y



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 10/14/2022 17:09 Calibration End Date: 10/14/2022 19:33 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-590052/10	G6_101022430.D
Level 2	STD010 280-590052/11	G6_101022431.D
Level 3	STD020 280-590052/12	G6_101022432.D
Level 4	STD050 280-590052/13	G6_101022433.D
Level 5	STD80 280-590052/14	G6_101022434.D
Level 6	STD120 280-590052/15	G6_101022435.D
Level 7	STD160 280-590052/16	G6_101022436.D
Level 8	STD200 280-590052/17	G6_101022437.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2		
1,4-Dioxane	0.7331 0.4262	0.5390 0.4570	0.6282 0.5018	0.5219	0.5099	Lin1	1.237 5	0.469 7			
N-Nitrosodimethylamine	0.6540 0.6854	0.7029 0.7543	0.9001 0.8163	0.8199	0.7967	Ave		0.766 2			
Pyridine	1.0775 1.0733	1.1530 1.2025	1.4570 1.1924	1.3064	1.2644	Ave		1.215 8			
Phenol	1.7525 1.5531	1.8036 1.6977	1.9985 1.5825	1.9463	1.8536	Ave		1.773 5			
Aniline	1.9679 1.8148	2.0616 2.0236	2.4078 1.9445	2.2508	2.1385	Ave		2.076 2			
Bis(2-chloroethyl)ether	1.2987 1.2512	1.3226 1.2474	1.4251 1.2660	1.3850	1.3339	Ave		1.316 3			
2-Chlorophenol	1.2787 1.3960	1.3627 1.3318	1.4742 1.3499	1.4438	1.3864	Ave		1.377 9			
1,3-Dichlorobenzene	1.4161 1.4772	1.4843 1.4370	1.7059 1.4117	1.5199	1.4534	Ave		1.488 2			
1,4-Dichlorobenzene	1.4294 1.4738	1.4918 1.4650	1.7272 1.4288	1.5265	1.4883	Ave		1.503 8			
Benzyl alcohol	0.8932 1.0116	0.9064 0.8806	1.0388 0.8650	0.9885	0.9327	Ave		0.939 6			
1,2-Dichlorobenzene	1.3673 1.4860	1.4309 1.3869	1.5054 1.2977	1.4703	1.4056	Ave		1.418 8			
2-Methylphenol	1.2347 1.2412	1.2741 1.1763	1.3407 1.1595	1.3202	1.2222	Ave		1.246 1			
2,2'-oxybis[1-chloropropane]	1.5646 1.4264	1.5434 1.3778	1.6210 1.2718	1.3972	1.3573	Ave		1.444 9			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Acetophenone	1.8340 1.8104	1.8710 1.7230	1.9711 1.7264	1.8998	1.8123	Ave		1.831 0			
N-Nitrosodi-n-propylamine	0.9292 0.9074	0.9270 0.8300	0.9699 0.7652	0.9249	0.8679	Ave		0.890 2		0.0500	
3 & 4 Methylphenol	1.3359 1.2567	1.3222 1.2569	1.5583 1.2546	1.3798	1.3057	Ave		1.333 8			
Hexachloroethane	0.5811 0.6646	0.6158 0.5859	0.6334 0.5732	0.6365	0.6052	Ave		0.612 0			
Nitrobenzene	0.3355 0.3333	0.3523 0.3298	0.4587 0.3218	0.3601	0.3349	Ave		0.353 3			
Isophorone	0.6489 0.6270	0.6719 0.6366	0.8708 0.6370	0.6804	0.6421	Ave		0.676 8			
2-Nitrophenol	0.1708 0.1920	0.1900 0.1973	0.2239 0.1971	0.2026	0.1956	Ave		0.196 2			
2,4-Dimethylphenol	0.3308 0.3488	0.3434 0.3288	0.4313 0.3210	0.3567	0.3326	Ave		0.349 2			
Bis(2-chloroethoxy)methane	0.4184 0.4532	0.4360 0.4118	0.5226 0.3623	0.4454	0.4165	Ave		0.433 3			
Benzoic acid	0.1606 0.2895	0.2188 0.2939	0.2759 0.2665	0.2743	0.2688	Lin2	-1.01 7	0.284 8			
2,4-Dichlorophenol	0.2923 0.3079	0.2991 0.2990	0.3191 0.2786	0.3035	0.2896	Ave		0.298 6			
1,2,4-Trichlorobenzene	0.2966 0.3253	0.3189 0.3046	0.3815 0.2822	0.3095	0.2961	Ave		0.314 3			
Naphthalene	0.9302 0.9884	0.9846 0.9080	1.1435 ++++	1.0138	0.9521	Ave		0.988 7			
4-Chloroaniline	0.4190 0.4619	0.4507 0.4185	0.5087 0.3724	0.4773	0.4453	Ave		0.444 2			
2,6-Dichlorophenol	0.2900 0.2917	0.2985 0.2894	0.3339 0.2562	0.2964	0.2829	Ave		0.292 4			
Hexachlorobutadiene	0.1586 0.1646	0.1641 0.1598	0.1947 0.1338	0.1550	0.1481	Ave		0.159 8			
Caprolactam	0.1611 0.1540	0.1694 0.1605	0.1826 0.1485	0.1547	0.1480	Ave		0.159 9			
4-Chloro-3-methylphenol	0.2972 0.3081	0.3060 0.2969	0.3833 0.2944	0.3145	0.2972	Ave		0.312 2			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
2-Methylnaphthalene	0.6129 0.6930	0.6575 0.6410	0.8184 0.6067	0.6768	0.6470	Ave		0.669 2			
1-Methylnaphthalene	0.5976 0.6433	0.6253 0.5960	0.7815 0.5709	0.6387	0.6040	Ave		0.632 2			
Hexachlorocyclopentadiene	0.3037 0.3716	0.3323 0.3710	0.3334 0.3350	0.3524	0.3452	Ave		0.343 1		0.0500	
1,2,4,5-Tetrachlorobenzene	0.2933 0.2911	0.3058 0.2907	0.3303 0.2620	0.2891	0.2741	Ave		0.292 0			
2,4,6-Trichlorophenol	0.3345 0.3809	0.3834 0.3582	0.3654 0.3303	0.3730	0.3486	Ave		0.359 3			
2,4,5-Trichlorophenol	0.3674 0.4224	0.3985 0.4082	0.4090 0.3854	0.4180	0.3907	Ave		0.400 0			
1,1'-Biphenyl	1.3490 1.3697	1.3636 1.2321	1.4043 1.1306	1.4040	1.3126	Ave		1.320 7			
2-Chloronaphthalene	1.0755 1.1064	1.1080 1.0037	1.1432 0.9327	1.1237	1.0421	Ave		1.066 9			
2-Nitroaniline	0.3191 0.3543	0.3325 0.3393	0.3168 0.3105	0.3522	0.3400	Ave		0.333 1			
Dimethyl phthalate	1.1750 1.1614	1.2316 1.1386	1.1663 1.0836	1.2340	1.1638	Ave		1.169 3			
1,3-Dinitrobenzene	0.1656 0.2256	0.1918 0.2164	0.1898 0.2125	0.2208	0.2140	Ave		0.204 6			
2,6-Dinitrotoluene	0.2573 0.3040	0.2834 0.2969	0.2930 0.2872	0.2989	0.2880	Ave		0.288 6			
Acenaphthylene	1.6502 1.6325	1.7132 1.6590	1.6267 +++++	1.7898	1.6825	Ave		1.679 1			
3-Nitroaniline	0.3285 0.4102	0.3666 0.3801	0.3537 0.3804	0.4000	0.3833	Ave		0.375 4			
Acenaphthene	1.0322 1.1032	1.0696 1.0291	0.9949 0.9621	1.1033	1.0398	Ave		1.041 8			
2,4-Dinitrophenol	0.0880 0.1872	0.1142 0.1870	0.1303 0.1859	0.1640	0.1682	Lin1	-1.17 8	0.186 4		0.0500	
4-Nitrophenol	0.1658 0.1908	0.1818 0.1855	0.1708 0.1836	0.1907	0.1834	Ave		0.181 5		0.0500	
Dibenzofuran	1.5166 1.4930	1.5291 1.4172	1.4646 +++++	1.5513	1.4560	Ave		1.489 7			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
2,4-Dinitrotoluene	0.3329 0.3700	0.3628 0.3647	0.3468 0.3522	0.3868	0.3650	Ave		0.360 1			
2,3,4,6-Tetrachlorophenol	0.2939 0.3338	0.3095 0.3452	0.3046 0.3156	0.3324	0.3185	Ave		0.319 2			
Diethyl phthalate	1.2756 1.2369	1.2602 1.1923	1.2354 1.1356	1.2701	1.1966	Ave		1.225 3			
Fluorene	1.2520 1.2574	1.2813 1.1948	1.2328 1.1127	1.2903	1.2157	Ave		1.229 6			
4-Chlorophenyl phenyl ether	0.5583 0.5471	0.5725 0.5387	0.5416 0.5004	0.5596	0.5238	Ave		0.542 8			
4-Nitroaniline	0.3723 0.3603	0.3584 0.3729	0.3920 0.3668	0.3870	0.3774	Ave		0.373 4			
4,6-Dinitro-2-methylphenol	0.0716 0.1338	0.0941 0.1416	0.1124 0.1361	0.1299	0.1307	Lin2	-0.55 2	0.134 4			
Diphenylamine	1.0564 1.0134	1.0885 1.0495	1.0627 1.0031	1.1129	1.0629	Ave		1.056 2			
N-Nitrosodiphenylamine	0.5387 0.5660	0.5546 0.5553	0.5553 0.5412	0.5850	0.5644	Ave		0.557 6			
1,2-Diphenylhydrazine	1.2477 1.1170	1.3086 1.1722	1.3182 1.1123	1.3180	1.2166	Ave		1.226 3			
Azobenzene	1.2614 1.1293	1.3230 1.1851	1.3327 1.1245	1.3325	1.2299	Ave		1.239 8			
4-Bromophenyl phenyl ether	0.2194 0.2252	0.2221 0.2316	0.2228 0.2153	0.2126	0.2100	Ave		0.219 9			
Hexachlorobenzene	0.2610 0.2601	0.2607 0.2872	0.2553 0.2453	0.2455	0.2404	Ave		0.256 9			
Atrazine	0.1822 0.2029	0.1912 0.1953	0.2144 0.1902	0.2023	0.1941	Ave		0.196 6			
Pentachlorophenol	0.1423 0.1608	0.1514 0.1701	0.1576 0.1486	0.1578	0.1553	Ave		0.155 5			
Phenanthrene	1.0777 1.1098	1.1223 1.0499	1.1600 ++++	1.1290	1.0786	Ave		1.103 9			
Anthracene	1.1162 1.1308	1.1379 1.0819	1.2053 ++++	1.1568	1.0956	Ave		1.132 1			
Carbazole	1.0950 1.1533	1.1196 1.0687	1.2206 ++++	1.1485	1.0781	Ave		1.126 2			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Alachlor	0.1368 0.1661	0.1429 0.1480	0.1697 0.1435	0.1576	0.1526	Ave		0.152 1			
Di-n-butyl phthalate	1.2824 1.3109	1.3563 1.2642	1.4228 ++++	1.3833	1.3089	Ave		1.332 7			
Fluoranthene	1.1162 1.1480	1.1492 1.1215	1.1752 ++++	1.1898	1.1401	Ave		1.148 6			
Pyrene	1.2958 1.2770	1.3489 1.3054	1.4251 ++++	1.4374	1.3951	Ave		1.355 0			
Butyl benzyl phthalate	0.6430 0.6901	0.6586 0.6546	0.6879 0.6863	0.7392	0.7051	Ave		0.683 1			
Benzo[a]anthracene	1.1728 1.1617	1.1921 1.2158	1.1827 1.2122	1.2613	1.2247	Ave		1.202 9			
3,3'-Dichlorobenzidine	0.4663 0.4554	0.4879 0.4606	0.5064 0.4443	0.4726	0.4444	Ave		0.467 2			
Chrysene	1.0640 1.1427	1.1051 1.1266	1.1375 1.1199	1.1816	1.1420	Ave		1.127 4			
Bis(2-ethylhexyl) phthalate	0.8875 0.9533	0.8995 0.8902	0.9577 0.8923	1.0018	0.9576	Ave		0.930 0			
Di-n-octyl phthalate	1.5715 1.7570	1.5793 1.6299	1.7024 1.6936	1.8133	1.7359	Ave		1.685 4			
Benzo[b]fluoranthene	1.0660 1.2951	1.1374 1.3005	1.2736 1.2396	1.2574	1.2236	Ave		1.224 1			
Benzo[k]fluoranthene	1.1719 1.2923	1.2200 1.2434	1.3439 1.2592	1.3353	1.2875	Ave		1.269 2			
Benzo[a]pyrene	0.9872 1.1564	1.0577 1.1319	1.1515 1.1138	1.1609	1.1166	Ave		1.109 5			
Indeno[1,2,3-cd]pyrene	1.0056 1.2439	1.0795 1.3063	1.1046 1.2616	1.1467	1.1408	Ave		1.161 1			
Dibenz(a,h)anthracene	0.9811 1.2316	1.0743 1.2370	1.1580 1.1754	1.1523	1.1404	Ave		1.143 8			
Benzo[g,h,i]perylene	1.0702 1.2976	1.1438 1.3105	1.2352 1.2413	1.2187	1.2064	Ave		1.215 5			
2-Fluorophenol (Surr)	1.2188 1.1892	1.2543 1.3026	1.4967 1.3410	1.4017	1.3524	Ave		1.319 6			
Phenol-d5 (Surr)	1.6272 1.4687	1.6240 1.6246	1.9303 1.6830	1.7731	1.7134	Ave		1.680 6			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy

SDG No.: _____

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 10/14/2022 17:09 Calibration End Date: 10/14/2022 19:33 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Nitrobenzene-d5 (Surr)	0.3459 0.3402	0.3704 0.3551	0.4760 0.3514	0.3766	0.3575	Ave		0.371 6			
2-Fluorobiphenyl	1.1509 1.2233	1.1959 1.1711	1.1895 1.1046	1.2453	1.1833	Ave		1.183 0			
2,4,6-Tribromophenol (Surr)	0.2171 0.2412	0.2360 0.2981	0.2226 ++++	0.2107	0.2095	Ave		0.233 6			
Terphenyl-d14 (Surr)	0.9893 1.0202	1.0354 1.0414	1.0493 0.9921	1.0731	1.0269	Ave		1.028 5			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 10/14/2022 17:09 Calibration End Date: 10/14/2022 19:33 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-590052/10	G6_101022430.D
Level 2	STD010 280-590052/11	G6_101022431.D
Level 3	STD020 280-590052/12	G6_101022432.D
Level 4	STD050 280-590052/13	G6_101022433.D
Level 5	STD80 280-590052/14	G6_101022434.D
Level 6	STD120 280-590052/15	G6_101022435.D
Level 7	STD160 280-590052/16	G6_101022436.D
Level 8	STD200 280-590052/17	G6_101022437.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
1,4-Dioxane	DCBd 4	Lin1	33362	55451	149135	329633	548425	4.00	10
			639748	786461	1361184			120	1
N-Nitrosodimethylamine	DCBd 4	Ave	29761	72315	213683	517891	856831	4.00	10
			1028739	1298147	2214291			120	1
Pyridine	DCBd 4	Ave	98070	237254	691780	1650319	2719771	8.00	20
			3221993	4139215	6469322			240	3
Phenol	DCBd 4	Ave	79753	185560	474421	1229395	1993545	4.00	10
			2331205	2921960	4292804			120	1
Aniline	DCBd 4	Ave	89554	212104	571588	1421688	2299980	4.00	10
			2723950	3482827	5274978			120	1
Bis(2-chloroethyl)ether	DCBd 4	Ave	59101	136076	338302	874865	1434643	4.00	10
			1878018	2146994	3434167			120	1
2-Chlorophenol	DCBd 4	Ave	58191	140198	349967	912001	1491046	4.00	10
			2095397	2292114	3661899			120	1
1,3-Dichlorobenzene	DCBd 4	Ave	64441	152709	404972	960066	1563096	4.00	10
			2217309	2473312	3829621			120	1
1,4-Dichlorobenzene	DCBd 4	Ave	65049	153479	410021	964191	1600654	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			2212087	2521417	3875799			120	1
Benzyl alcohol	DCBd 4	Ave	40648	93251	246593	624368	1003079	4.00	10
			1518397	1515586	2346452			120	1
1,2-Dichlorobenzene	DCBd 4	Ave	62223	147214	357364	928725	1511708	4.00	10
			2230381	2387087	3520403			120	1
2-Methylphenol	DCBd 4	Ave	56187	131085	318266	833918	1314476	4.00	10
			1863042	2024606	3145320			120	1
2,2'-oxybis[1-chloropropane]	DCBd 4	Ave	71202	158787	384816	882541	1459797	4.00	10
			2140956	2371357	3449946			120	1
Acetophenone	DCBd 4	Ave	83460	192497	467923	1200024	1949087	4.00	10
			2717438	2965440	4683223			120	1
N-Nitrosodi-n-propylamine	DCBd 4	Ave	42285	95375	230241	584198	933392	4.00	10
			1361952	1428527	2075724			120	1
3 & 4 Methylphenol	DCBd 4	Ave	60792	136030	369938	871558	1404241	4.00	10
			1886318	2163301	3403382			120	1
Hexachloroethane	DCBd 4	Ave	26443	63360	150371	402043	650911	4.00	10
			997604	1008325	1554871			120	1
Nitrobenzene	NPT	Ave	59168	136770	359434	865770	1380396	4.00	10
			1925913	2129359	3308509			120	1
Isophorone	NPT	Ave	114446	260869	682321	1635915	2646324	4.00	10
			3623122	4110721	6548668			120	1
2-Nitrophenol	NPT	Ave	30125	73774	175450	487057	806277	4.00	10
			1109368	1273913	2026563			120	1
2,4-Dimethylphenol	NPT	Ave	58347	133342	337898	857566	1370906	4.00	10
			2015668	2122741	3300041			120	1
Bis(2-chloroethoxy)methane	NPT	Ave	73796	169268	409457	1070866	1716858	4.00	10
			2619110	2658741	3724373			120	1
Benzoic acid	NPT	Lin2	56657	169902	432350	1319251	2215962	8.00	20

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			3345412	3794987	5478866			240	3
2,4-Dichlorophenol	NPT	Ave	51559 1779343	116124 1930663	250049 2863935	729680	1193661	4.00 120	10 1
1,2,4-Trichlorobenzene	NPT	Ave	52305 1880019	123793 1966447	298926 2901452	744306	1220257	4.00 120	10 1
Naphthalene	NPT	Ave	164056 5712004	382279 5863036	895931 +++++	2437717	3924431	4.00 120	10 1
4-Chloroaniline	NPT	Ave	73898 2669416	174987 2701948	398560 3828186	1147683	1835407	4.00 120	10 1
2,6-Dichlorophenol	NPT	Ave	51148 1685631	115890 1868391	261585 2633550	712683	1165951	4.00 120	10 1
Hexachlorobutadiene	NPT	Ave	27971 951384	63695 1032072	152529 1375384	372805	610457	4.00 120	10 1
Caprolactam	NPT	Ave	28411 890112	65780 1036516	143109 1527056	371944	609905	4.00 120	10 1
4-Chloro-3-methylphenol	NPT	Ave	52409 1780262	118800 1917255	300337 3026121	756224	1225057	4.00 120	10 1
2-Methylnaphthalene	NPT	Ave	108100 4004975	255279 4138944	641240 6237320	1627267	2666701	4.00 120	10 1
1-Methylnaphthalene	NPT	Ave	105388 3717537	242784 3848372	612342 5868737	1535700	2489486	4.00 120	10 1
Hexachlorocyclopentadiene	ANT	Ave	31736 1203073	76710 1383622	176097 1968505	479541	801981	4.00 120	10 1
1,2,4,5-Tetrachlorobenzene	NPT	Ave	51720 1682099	118736 1877087	258769 2693650	695079	1129946	4.00 120	10 1
2,4,6-Trichlorophenol	ANT	Ave	34953 1233341	88512 1336019	193034 1940757	507607	809879	4.00 120	10 1
2,4,5-Trichlorophenol	ANT	Ave	38397 1367619	91997 1522391	216059 2264583	568886	907566	4.00 120	10 1
1,1'-Biphenyl	ANT	Ave	140972 4435093	314761 4595768	741850 6642577	1910552	3049091	4.00 120	10 1
2-Chloronaphthalene	ANT	Ave	112393 3582320	255771 3743900	603876 5480043	1529107	2420904	4.00 120	10 1
2-Nitroaniline	ANT	Ave	33350 1147330	76741 1265740	167373 1824581	479322	789862	4.00 120	10 1
Dimethyl phthalate	ANT	Ave	122792	284304	616096	1679209	2703593	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			3760627	4246744	6366793			120	1
1,3-Dinitrobenzene	ANT	Ave	17301 730446	44273 807270	100287 1248672	300427	497074	4.00 120	10 1
2,6-Dinitrotoluene	ANT	Ave	26888 984173	65420 1107531	154762 1687140	406788	669129	4.00 120	10 1
Acenaphthylene	ANT	Ave	172455 5285831	395465 6188030	859287 +++++	2435676	3908371	4.00 120	10 1
3-Nitroaniline	ANT	Ave	34328 1328274	84623 1417832	186855 2235010	544310	890430	4.00 120	10 1
Acenaphthene	ANT	Ave	107866 3572098	246904 3838650	525565 5652640	1501472	2415496	4.00 120	10 1
2,4-Dinitrophenol	ANT	Lin1	18390 1212518	52726 1395034	137655 2184213	446409	781439	8.00 240	20 3
4-Nitrophenol	ANT	Ave	34648 1235629	83937 1383578	180443 2157473	518994	852264	8.00 240	20 3
Dibenzofuran	ANT	Ave	158484 4834325	352961 5285870	773700 +++++	2111027	3382231	4.00 120	10 1
2,4-Dinitrotoluene	ANT	Ave	34792 1198104	83737 1360237	183201 2069080	526386	847934	4.00 120	10 1
2,3,4,6-Tetrachlorophenol	ANT	Ave	30713 1080962	71440 1287607	160923 1854524	452365	739933	4.00 120	10 1
Diethyl phthalate	ANT	Ave	133299 4004974	290896 4447330	652582 6672272	1728461	2779752	4.00 120	10 1
Fluorene	ANT	Ave	130840 4071315	295775 4456376	651209 6537665	1755892	2824068	4.00 120	10 1
4-Chlorophenyl phenyl ether	ANT	Ave	58344 1771592	132158 2009419	286100 2940182	761558	1216804	4.00 120	10 1
4-Nitroaniline	ANT	Ave	38903 1166761	82730 1390993	207071 2154827	526581	876748	4.00 120	10 1
4,6-Dinitro-2-methylphenol	PHN	Lin2	24939 1318583	72503 1696621	193142 2519045	571658	971967	8.00 240	20 3
Diphenylamine	ANT	Ave	93840 2789149	213576 3327456	477151 5009563	1287257	2098815	3.40 102	8.0 1
N-Nitrosodiphenylamine	PHN	Ave	93840 2789149	213576 3327456	477151 5009563	1287257	2098815	4.00 120	10 1
1,2-Diphenylhydrazine	ANT	Ave	131815	305384	703995	1813268	2857138	4.04	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			3656623	4420299	6607019			121	1
Azobenzene	ANT	Ave	131815 3656623	305384 4420299	703995 6607019	1813268	2857138	4.00 120	10 1
4-Bromophenyl phenyl ether	PHN	Ave	38225 1109545	85537 1387845	191463 1992530	467693	781068	4.00 120	10 1
Hexachlorobenzene	PHN	Ave	45463 1281953	100404 1720982	219385 2270799	540143	893793	4.00 120	10 1
Atrazine	PHN	Ave	31735 999991	73644 1170192	184200 1760386	445105	721825	4.00 120	10 1
Pentachlorophenol	PHN	Ave	49580 1585198	116598 2038499	270895 2751739	694613	1154878	8.00 240	20 3
Phenanthrene	PHN	Ave	187726 5469225	432172 6291066	996755 +++++	2484250	4010876	4.00 120	10 1
Anthracene	PHN	Ave	194434 5572443	438187 6482781	1035684 +++++	2545301	4074017	4.00 120	10 1
Carbazole	PHN	Ave	190735 5683205	431154 6403435	1048842 +++++	2527011	4008850	4.00 120	10 1
Alachlor	PHN	Ave	23837 818376	55042 886757	145779 1327911	346736	567538	4.00 120	10 1
Di-n-butyl phthalate	PHN	Ave	223384 6459925	522298 7574827	1222511 +++++	3043841	4867297	4.00 120	10 1
Fluoranthene	PHN	Ave	194437 5657111	442541 6719988	1009831 +++++	2617988	4239706	4.00 120	10 1
Pyrene	CRY	Ave	205601 5764443	473560 7046925	1058062 +++++	2707063	4411910	4.00 120	10 1
Butyl benzyl phthalate	CRY	Ave	102019 3115149	231203 3533816	510752 5209146	1392135	2229972	4.00 120	10 1
Benzo[a]anthracene	CRY	Ave	186093 5243713	418500 6563367	878099 9200032	2375455	3873013	4.00 120	10 1
3,3'-Dichlorobenzidine	CRY	Ave	73982 2055767	171282 2486463	376008 3372252	889977	1405394	4.00 120	10 1
Chrysene	CRY	Ave	168827 5158241	387970 6081471	844566 8499831	2225271	3611644	4.00 120	10 1
Bis(2-ethylhexyl) phthalate	CRY	Ave	140820 4303011	315766 4805209	711035 6772488	1886657	3028308	4.00 120	10 1
Di-n-octyl phthalate	CRY	Ave	249347	554434	1263942	3414917	5489745	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_G6

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 10/14/2022 17:09

Calibration End Date: 10/14/2022 19:33

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			7931257	8798366	12853829			120	1
Benzo[b]fluoranthene	PRY	Ave	169214 5727155	399973 7092571	897635 9435770	2315509	3792892	4.00 120	10 1
Benzo[k]fluoranthene	PRY	Ave	186027 5714564	429037 6781166	947201 9584840	2459078	3991162	4.00 120	10 1
Benzo[a]pyrene	PRY	Ave	156699 5113694	371954 6172713	811599 8478033	2137792	3461289	4.00 120	10 1
Indeno[1,2,3-cd]pyrene	CRY	Ave	159561 5615074	378990 7051727	820097 9575029	2159468	3607584	4.00 120	10 1
Dibenz(a,h)anthracene	PRY	Ave	155732 5446448	377778 6746062	816174 8947361	2121977	3535103	4.00 120	10 1
Benzo[g,h,i]perylene	PRY	Ave	169878 5738083	402233 7147025	870578 9449209	2244281	3739741	4.00 120	10 1
2-Fluorophenol (Surr)	DCBd 4	Ave	55466 1785035	129042 2241927	355304 3637768	885375	1454543	4.00 120	10 1
Phenol-d5 (Surr)	DCBd 4	Ave	74051 2204542	167083 2796078	458244 4565633	1119977	1842791	4.00 120	10 1
Nitrobenzene-d5 (Surr)	NPT	Ave	60997 1966001	143796 2292527	372930 3613094	905595	1473381	4.00 120	10 1
2-Fluorobiphenyl	ANT	Ave	120276 3960826	276060 4368188	628361 6490161	1694631	2748851	4.00 120	10 1
2,4,6-Tribromophenol (Surr)	ANT	Ave	22688 781094	54477 1111980	117594 +++++	286663	486690	4.00 120	10 1
Terphenyl-d14 (Surr)	CRY	Ave	156976 4605125	363484 5621481	779062 7529931	2020918	3247485	4.00 120	10 1

Curve Type Legend

Ave = Average ISTD Lin1 = Linear 1/conc ISTD Lin2 = Linear 1/conc^2 ISTD
--

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022430.D
 Lims ID: STD004 HSL
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 14-Oct-2022 17:09:30 ALS Bottle#: 13 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD004 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:45 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 17-Oct-2022 09:59:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.785	3.785	0.000	95	455070	40.0	40.0	
* 2 Naphthalene-d8	136	4.999	4.999	0.000	99	1763623	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	90	1045029	40.0	40.0	
* 4 Phenanthrene-d10	188	8.150	8.150	0.000	97	1741910	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	99	1586713	40.0	40.0	
* 6 Perylene-d12	264	13.151	13.151	0.000	98	1587346	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.592	2.592	0.000	89	55466	4.00	3.69	
\$ 8 Phenol-d5	99	3.448	3.448	0.000	97	74051	4.00	3.87	
\$ 9 Nitrobenzene-d5	82	4.309	4.309	0.000	90	60997	4.00	3.72	
\$ 11 2-Fluorobiphenyl	172	6.069	6.069	0.000	99	120276	4.00	3.89	
\$ 12 2,4,6-Tribromophenol	330	7.476	7.476	0.000	93	22688	4.00	3.72	
\$ 13 Terphenyl-d14	244	9.738	9.738	0.000	97	156976	4.00	3.85	
20 1,4-Dioxane	88	1.368	1.368	0.000	99	33362	4.00	3.61	
21 N-Nitrosodimethylamine	74	1.544	1.544	0.000	93	29761	4.00	3.41	
22 Pyridine	79	1.576	1.576	0.000	97	98070	8.00	7.09	
34 Phenol	94	3.459	3.459	0.000	98	79753	4.00	3.95	
35 Aniline	93	3.475	3.475	0.000	98	89554	4.00	3.79	
36 Alpha Methyl Styrene	118	3.528	3.528	0.000	92	57408	4.00	3.72	
37 Bis(2-chloroethyl)ether	93	3.550	3.550	0.000	98	59101	4.00	3.95	
39 n-Decane	43	3.657	3.657	0.000	86	44579	4.00	4.11	
41 2-Chlorophenol	128	3.582	3.582	0.000	97	58191	4.00	3.71	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	64441	4.00	3.81	
43 1,4-Dichlorobenzene	146	3.801	3.801	0.000	94	65049	4.00	3.80	
44 Benzyl alcohol	108	3.924	3.924	0.000	95	40648	4.00	3.80	
45 1,2-Dichlorobenzene	146	3.940	3.940	0.000	98	62223	4.00	3.85	
46 2-Methylphenol	108	4.037	4.037	0.000	92	56187	4.00	3.96	
47 2,2'-oxybis[1-chloropropane]	45	4.063	4.063	0.000	95	71202	4.00	4.33	
48 Indene	116	4.026	4.026	0.000	91	201256	8.00	7.85	
49 3 & 4 Methylphenol	108	4.192	4.192	0.000	95	60792	4.00	4.01	
50 3-Methylphenol	108	4.192	4.192	0.000	93	60792	4.00	4.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.181	4.181	0.000	84	42285	4.00	4.18	
52 4-Methylphenol	108	4.192	4.192	0.000	91	60792	4.00	4.01	
55 Acetophenone	105	4.170	4.170	0.000	99	83460	4.00	4.01	
58 Hexachloroethane	117	4.261	4.261	0.000	98	26443	4.00	3.80	
60 Nitrobenzene	77	4.331	4.331	0.000	87	59168	4.00	3.80	
63 Isophorone	82	4.566	4.566	0.000	99	114446	4.00	3.84	
65 2-Nitrophenol	139	4.636	4.636	0.000	91	30125	4.00	3.48	
66 2,4-Dimethylphenol	107	4.700	4.700	0.000	94	58347	4.00	3.79	
69 Bis(2-chloroethoxy)methane	93	4.796	4.796	0.000	99	73796	4.00	3.86	
70 Benzoic acid	105	4.759	4.759	0.000	89	56657	8.00	8.08	
71 3,5-Dimethylphenol	107	4.833	4.833	0.000	88	61400	4.00	3.79	
75 2,4-Dichlorophenol	162	4.871	4.871	0.000	93	51559	4.00	3.92	
77 1,2,4-Trichlorobenzene	180	4.951	4.951	0.000	94	52305	4.00	3.77	
79 Naphthalene	128	5.021	5.021	0.000	97	164056	4.00	3.76	
80 4-Chloroaniline	127	5.085	5.085	0.000	97	73898	4.00	3.77	
81 2,6-Dichlorophenol	162	5.090	5.090	0.000	98	51148	4.00	3.97	
83 Hexachlorobutadiene	225	5.154	5.154	0.000	96	27971	4.00	3.97	
87 Caprolactam	55	5.395	5.395	0.000	82	28411	4.00	4.03	
90 4-Chloro-3-methylphenol	107	5.577	5.577	0.000	96	52409	4.00	3.81	
94 2-Methylnaphthalene	142	5.700	5.700	0.000	93	108100	4.00	3.66	
96 1-Methylnaphthalene	142	5.791	5.791	0.000	94	105388	4.00	3.78	
97 Hexachlorocyclopentadiene	237	5.860	5.860	0.000	97	31736	4.00	3.54	
98 1,2,4,5-Tetrachlorobenzene	216	5.860	5.860	0.000	96	51720	4.00	4.02	
101 2,4,6-Trichlorophenol	196	5.983	5.983	0.000	92	34953	4.00	3.72	
102 2,3-Dichlorobenzenamine	161	5.978	5.978	0.000	97	66270	4.00	3.97	
103 2,4,5-Trichlorophenol	196	6.010	6.010	0.000	93	38397	4.00	3.67	
105 1,1'-Biphenyl	154	6.160	6.160	0.000	95	140972	4.00	4.09	
107 2-Chloronaphthalene	162	6.171	6.171	0.000	97	112393	4.00	4.03	
109 2-Nitroaniline	65	6.278	6.278	0.000	88	33350	4.00	3.83	
112 Dimethyl phthalate	163	6.481	6.481	0.000	99	122792	4.00	4.02	
113 1,3-Dinitrobenzene	168	6.492	6.492	0.000	87	17301	4.00	3.24	
114 2,6-Dinitrotoluene	165	6.529	6.529	0.000	95	26888	4.00	3.57	
115 Acenaphthylene	152	6.566	6.566	0.000	98	172455	4.00	3.93	
116 3-Nitroaniline	138	6.679	6.679	0.000	97	34328	4.00	3.50	
117 Acenaphthene	153	6.738	6.738	0.000	93	107866	4.00	3.96	
118 2,4-Dinitrophenol	184	6.780	6.780	0.000	86	18390	8.00	10.1	
120 4-Nitrophenol	109	6.861	6.861	0.000	88	34648	8.00	7.30	
122 2,4-Dinitrotoluene	165	6.914	6.914	0.000	91	34792	4.00	3.70	
123 Dibenzofuran	168	6.909	6.909	0.000	97	158484	4.00	4.07	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	73	30713	4.00	3.68	
128 Hexadecane	57	7.214	7.214	0.000	88	82813	4.00	4.26	
130 Diethyl phthalate	149	7.176	7.176	0.000	98	133299	4.00	4.16	
135 4-Chlorophenyl phenyl ether	204	7.262	7.262	0.000	95	58344	4.00	4.11	
136 Fluorene	166	7.246	7.246	0.000	98	130840	4.00	4.07	
139 4-Nitroaniline	138	7.267	7.267	0.000	91	38903	4.00	3.99	
140 4,6-Dinitro-2-methylphenol	198	7.299	7.299	0.000	84	24939	8.00	8.37	
142 Diphenylamine	169	7.379	7.379	0.000	95	93840	3.40	3.40	
143 N-Nitrosodiphenylamine	169	7.379	7.379	0.000	98	93840	4.00	3.86	
144 Azobenzene	77	7.417	7.417	0.000	98	131815	4.00	4.07	
145 1,2-Diphenylhydrazine	77	7.417	7.417	0.000	100	131815	4.04	4.11	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	64	38225	4.00	3.99	
158 Hexachlorobenzene	284	7.770	7.770	0.000	95	45463	4.00	4.06	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.920	7.920	0.000	92	31735	4.00	3.71	
162 n-Octadecane	85	8.123	8.123	0.000	93	36500	4.00	3.79	
164 Pentachlorophenol	266	7.973	7.973	0.000	98	49580	8.00	7.32	
169 Phenanthrene	178	8.171	8.171	0.000	97	187726	4.00	3.91	
170 Anthracene	178	8.225	8.225	0.000	97	194434	4.00	3.94	
171 Carbazole	167	8.390	8.390	0.000	95	190735	4.00	3.89	
172 Alachlor	188	8.556	8.556	0.000	98	23837	4.00	3.60	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	223384	4.00	3.85	
182 Fluoranthene	202	9.332	9.332	0.000	97	194437	4.00	3.89	
185 Pyrene	202	9.546	9.546	0.000	98	205601	4.00	3.83	
193 Butyl benzyl phthalate	149	10.289	10.289	0.000	97	102019	4.00	3.76	
197 3,3'-Dichlorobenzidine	252	10.893	10.893	0.000	61	73982	4.00	3.99	
198 Benzo[a]anthracene	228	10.893	10.893	0.000	99	186093	4.00	3.90	
199 Bis(2-ethylhexyl) phthalate	149	11.070	11.070	0.000	97	140820	4.00	3.82	
200 Chrysene	228	10.942	10.942	0.000	97	168827	4.00	3.77	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	98	249347	4.00	3.73	
204 Benzo[b]fluoranthene	252	12.503	12.503	0.000	98	169214	4.00	3.48	
205 Benzo[k]fluoranthene	252	12.552	12.552	0.000	99	186027	4.00	3.69	
208 Benzo[a]pyrene	252	13.038	13.038	0.000	78	156699	4.00	3.56	
214 Indeno[1,2,3-cd]pyrene	276	15.039	15.039	0.000	98	159561	4.00	3.46	
215 Dibenz(a,h)anthracene	278	15.119	15.119	0.000	93	155732	4.00	3.43	
216 Benzo[g,h,i]perylene	276	15.493	15.493	0.000	98	169878	4.00	3.52	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLA004_00075

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022430.D

Injection Date: 14-Oct-2022 17:09:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD004 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

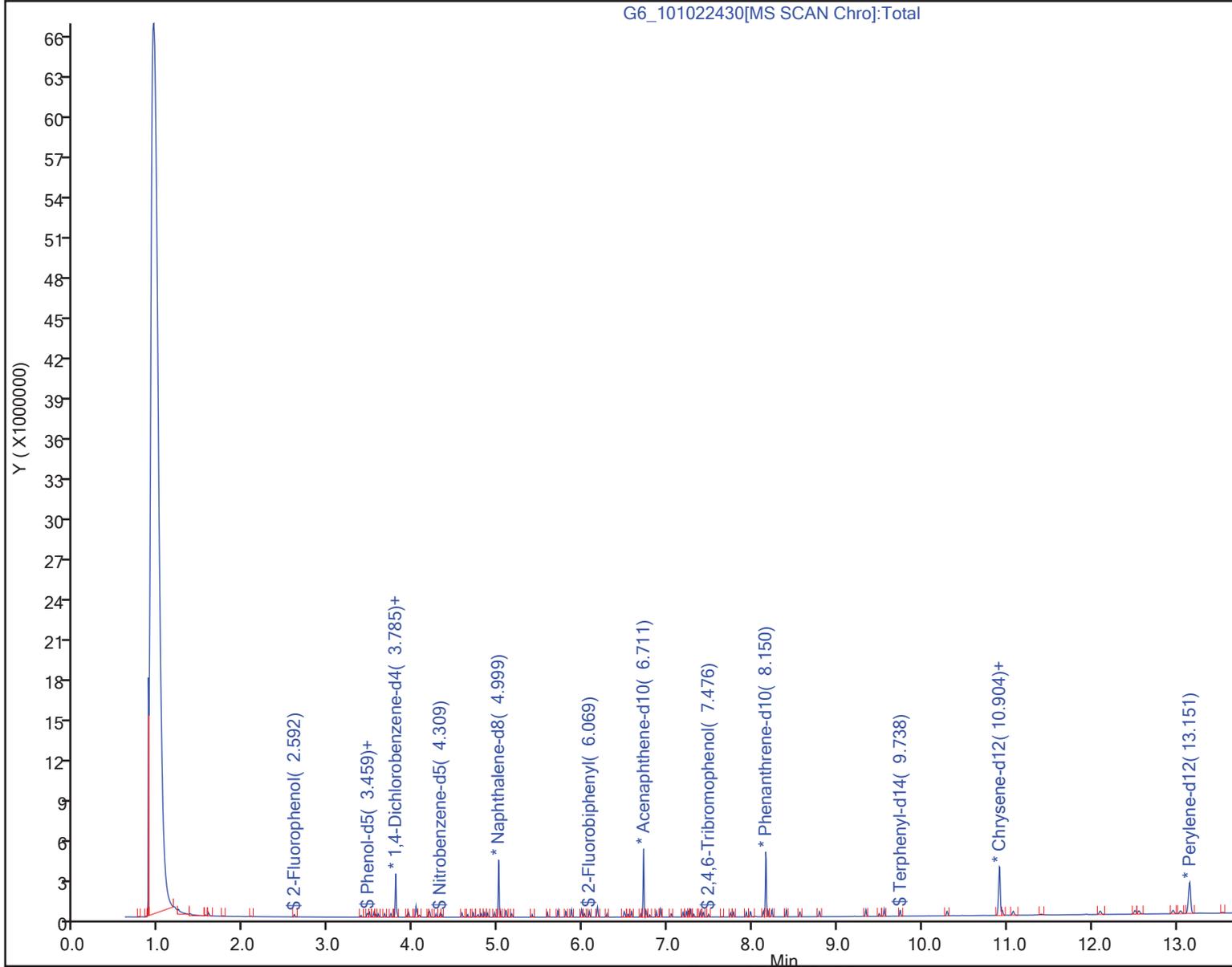
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022430[MS SCAN Chro]:Total



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022431.D
 Lims ID: STD010 HSL
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 14-Oct-2022 17:30:30 ALS Bottle#: 14 Worklist Smp#: 11
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD010 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:47 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 15-Oct-2022 09:56:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.785	3.785	0.000	95	411530	40.0	40.0	
* 2 Naphthalene-d8	136	4.999	4.999	0.000	99	1552983	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	90	923330	40.0	40.0	
* 4 Phenanthrene-d10	188	8.150	8.150	0.000	96	1540349	40.0	40.0	
* 5 Chrysene-d12	240	10.904	10.910	-0.006	99	1404256	40.0	40.0	
* 6 Perylene-d12	264	13.145	13.151	-0.006	98	1406633	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.593	2.592	0.001	90	129042	10.0	9.50	
\$ 8 Phenol-d5	99	3.448	3.448	0.000	97	167083	10.0	9.66	
\$ 9 Nitrobenzene-d5	82	4.310	4.309	0.001	89	143796	10.0	9.97	
\$ 11 2-Fluorobiphenyl	172	6.069	6.069	0.000	99	276060	10.0	10.1	
\$ 12 2,4,6-Tribromophenol	330	7.476	7.476	0.000	93	54477	10.0	10.1	
\$ 13 Terphenyl-d14	244	9.733	9.738	-0.005	97	363484	10.0	10.1	
20 1,4-Dioxane	88	1.368	1.368	0.000	95	55451	10.0	8.84	
21 N-Nitrosodimethylamine	74	1.539	1.544	-0.005	95	72315	10.0	9.17	
22 Pyridine	79	1.576	1.576	0.000	97	237254	20.0	19.0	
34 Phenol	94	3.464	3.459	0.005	97	185560	10.0	10.2	
35 Aniline	93	3.475	3.475	0.000	97	212104	10.0	9.93	
36 Alpha Methyl Styrene	118	3.529	3.528	0.001	91	135600	10.0	9.71	
37 Bis(2-chloroethyl)ether	93	3.550	3.550	0.000	97	136076	10.0	10.0	
39 n-Decane	43	3.657	3.657	0.000	87	104005	10.0	10.6	
41 2-Chlorophenol	128	3.582	3.582	0.000	96	140198	10.0	9.89	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	152709	10.0	9.97	
43 1,4-Dichlorobenzene	146	3.801	3.801	0.000	97	153479	10.0	9.92	
44 Benzyl alcohol	108	3.924	3.924	0.000	95	93251	10.0	9.65	
45 1,2-Dichlorobenzene	146	3.940	3.940	0.000	98	147214	10.0	10.1	
46 2-Methylphenol	108	4.037	4.037	0.000	92	131085	10.0	10.2	
47 2,2'-oxybis[1-chloropropane]	45	4.063	4.063	0.000	95	158787	10.0	10.7	
48 Indene	116	4.026	4.026	0.000	91	477071	20.0	20.6	
49 3 & 4 Methylphenol	108	4.192	4.192	0.000	94	136030	10.0	9.91	
50 3-Methylphenol	108	4.192	4.192	0.000	93	136030	10.0	9.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.181	4.181	0.000	84	95375	10.0	10.4	
52 4-Methylphenol	108	4.192	4.192	0.000	94	136030	10.0	9.91	
55 Acetophenone	105	4.170	4.170	0.000	98	192497	10.0	10.2	
58 Hexachloroethane	117	4.261	4.261	0.000	97	63360	10.0	10.1	
60 Nitrobenzene	77	4.331	4.331	0.000	87	136770	10.0	9.97	
63 Isophorone	82	4.566	4.566	0.000	99	260869	10.0	9.93	
65 2-Nitrophenol	139	4.636	4.636	0.000	92	73774	10.0	9.69	
66 2,4-Dimethylphenol	107	4.700	4.700	0.000	94	133342	10.0	9.84	
69 Bis(2-chloroethoxy)methane	93	4.796	4.796	0.000	98	169268	10.0	10.1	
70 Benzoic acid	105	4.775	4.759	0.016	89	169902	20.0	18.9	
71 3,5-Dimethylphenol	107	4.834	4.833	0.001	88	142945	10.0	10.0	
75 2,4-Dichlorophenol	162	4.871	4.871	0.000	94	116124	10.0	10.0	
77 1,2,4-Trichlorobenzene	180	4.951	4.951	0.000	94	123793	10.0	10.1	
79 Naphthalene	128	5.021	5.021	0.000	97	382279	10.0	9.96	
80 4-Chloroaniline	127	5.085	5.085	0.000	96	174987	10.0	10.1	
81 2,6-Dichlorophenol	162	5.090	5.090	0.000	97	115890	10.0	10.2	
83 Hexachlorobutadiene	225	5.155	5.154	0.001	97	63695	10.0	10.3	
87 Caprolactam	55	5.401	5.395	0.006	82	65780	10.0	10.6	
90 4-Chloro-3-methylphenol	107	5.577	5.577	0.000	95	118800	10.0	9.80	
94 2-Methylnaphthalene	142	5.700	5.700	0.000	94	255279	10.0	9.83	
96 1-Methylnaphthalene	142	5.791	5.791	0.000	94	242784	10.0	9.89	
97 Hexachlorocyclopentadiene	237	5.861	5.860	0.001	96	76710	10.0	9.69	
98 1,2,4,5-Tetrachlorobenzene	216	5.861	5.860	0.001	97	118736	10.0	10.5	
101 2,4,6-Trichlorophenol	196	5.984	5.983	0.001	93	88512	10.0	10.7	
102 2,3-Dichlorobenzenamine	161	5.973	5.978	-0.005	97	151460	10.0	10.3	
103 2,4,5-Trichlorophenol	196	6.010	6.010	0.000	94	91997	10.0	9.96	
105 1,1'-Biphenyl	154	6.160	6.160	0.000	94	314761	10.0	10.3	
107 2-Chloronaphthalene	162	6.171	6.171	0.000	96	255771	10.0	10.4	
109 2-Nitroaniline	65	6.278	6.278	0.000	90	76741	10.0	9.98	
112 Dimethyl phthalate	163	6.481	6.481	0.000	99	284304	10.0	10.5	
113 1,3-Dinitrobenzene	168	6.492	6.492	0.000	86	44273	10.0	9.38	
114 2,6-Dinitrotoluene	165	6.529	6.529	0.000	96	65420	10.0	9.82	
115 Acenaphthylene	152	6.567	6.566	0.001	98	395465	10.0	10.2	
116 3-Nitroaniline	138	6.679	6.679	0.000	96	84623	10.0	9.77	
117 Acenaphthene	153	6.738	6.738	0.000	93	246904	10.0	10.3	
118 2,4-Dinitrophenol	184	6.781	6.780	0.001	86	52726	20.0	18.6	
120 4-Nitrophenol	109	6.861	6.861	0.000	90	83937	20.0	20.0	
122 2,4-Dinitrotoluene	165	6.914	6.914	0.000	94	83737	10.0	10.1	
123 Dibenzofuran	168	6.909	6.909	0.000	97	352961	10.0	10.3	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	73	71440	10.0	9.70	
128 Hexadecane	57	7.214	7.214	0.000	88	185679	10.0	10.8	
130 Diethyl phthalate	149	7.176	7.176	0.000	98	290896	10.0	10.3	
135 4-Chlorophenyl phenyl ether	204	7.262	7.262	0.000	92	132158	10.0	10.5	
136 Fluorene	166	7.246	7.246	0.000	96	295775	10.0	10.4	
139 4-Nitroaniline	138	7.267	7.267	0.000	89	82730	10.0	9.60	
140 4,6-Dinitro-2-methylphenol	198	7.305	7.299	0.006	88	72503	20.0	18.1	
142 Diphenylamine	169	7.380	7.379	0.001	96	213576	8.50	8.76	
143 N-Nitrosodiphenylamine	169	7.380	7.379	0.001	99	213576	10.0	9.95	
144 Azobenzene	77	7.412	7.417	-0.005	98	305384	10.0	10.7	
145 1,2-Diphenylhydrazine	77	7.412	7.417	-0.005	100	305384	10.1	10.8	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	64	85537	10.0	10.1	
158 Hexachlorobenzene	284	7.770	7.770	0.000	95	100404	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.920	7.920	0.000	92	73644	10.0	9.73	
162 n-Octadecane	85	8.123	8.123	0.000	93	84801	10.0	9.95	
164 Pentachlorophenol	266	7.973	7.973	0.000	98	116598	20.0	19.5	
169 Phenanthrene	178	8.171	8.171	0.000	97	432172	10.0	10.2	
170 Anthracene	178	8.225	8.225	0.001	97	438187	10.0	10.1	
171 Carbazole	167	8.391	8.390	0.001	95	431154	10.0	9.94	
172 Alachlor	188	8.551	8.556	-0.005	98	55042	10.0	9.39	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	522298	10.0	10.2	
182 Fluoranthene	202	9.332	9.332	0.000	98	442541	10.0	10.0	
185 Pyrene	202	9.546	9.546	0.000	98	473560	10.0	9.96	
193 Butyl benzyl phthalate	149	10.284	10.289	-0.005	97	231203	10.0	9.64	
197 3,3'-Dichlorobenzidine	252	10.894	10.893	0.001	75	171282	10.0	10.4	
198 Benzo[a]anthracene	228	10.894	10.893	0.001	99	418500	10.0	9.91	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.070	-0.005	98	315766	10.0	9.67	
200 Chrysene	228	10.936	10.942	-0.006	97	387970	10.0	9.80	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	99	554434	10.0	9.37	
204 Benzo[b]fluoranthene	252	12.504	12.503	0.001	97	399973	10.0	9.29	
205 Benzo[k]fluoranthene	252	12.546	12.552	-0.006	98	429037	10.0	9.61	
208 Benzo[a]pyrene	252	13.038	13.038	0.000	77	371954	10.0	9.53	
214 Indeno[1,2,3-cd]pyrene	276	15.034	15.039	-0.005	98	378990	10.0	9.30	
215 Dibenz(a,h)anthracene	278	15.114	15.119	-0.005	95	377778	10.0	9.39	
216 Benzo[g,h,i]perylene	276	15.488	15.493	-0.005	98	402233	10.0	9.41	
S 218 Total Cresols	108				0			20.1	
S 219 Methyl Phenols, Total	108				0			20.1	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLA010_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022431.D

Injection Date: 14-Oct-2022 17:30:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD010 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

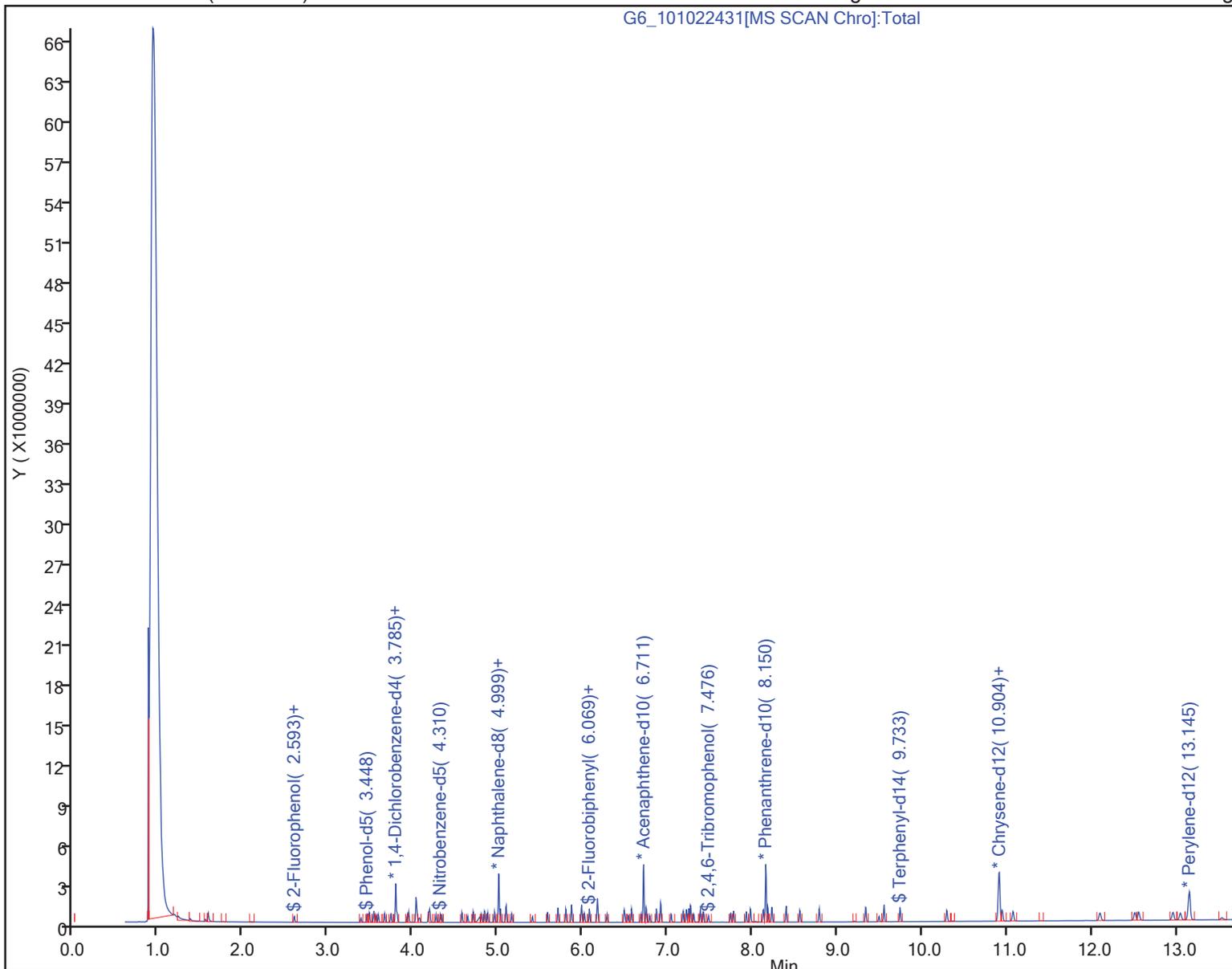
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022431[MS SCAN Chro]:Total



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022432.D
 Lims ID: STD020 HSL
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 14-Oct-2022 17:50:30 ALS Bottle#: 15 Worklist Smp#: 12
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD020 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:49 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 17-Oct-2022 11:44:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	94	474783	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	4.999	0.006	99	1567031	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	86	1056510	40.0	40.0	
* 4 Phenanthrene-d10	188	8.150	8.150	0.000	96	1718516	40.0	40.0	
* 5 Chrysene-d12	240	10.904	10.910	-0.006	99	1484903	40.0	40.0	
* 6 Perylene-d12	264	13.140	13.151	-0.011	98	1409623	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.592	2.592	0.000	89	355304	20.0	22.7	
\$ 8 Phenol-d5	99	3.448	3.448	0.000	97	458244	20.0	23.0	
\$ 9 Nitrobenzene-d5	82	4.309	4.309	0.000	86	372930	20.0	25.6	
\$ 11 2-Fluorobiphenyl	172	6.074	6.069	0.005	98	628361	20.0	20.1	
\$ 12 2,4,6-Tribromophenol	330	7.476	7.476	0.000	92	117594	20.0	19.1	
\$ 13 Terphenyl-d14	244	9.733	9.738	-0.005	97	779062	20.0	20.4	
20 1,4-Dioxane	88	1.362	1.368	-0.006	93	149135	20.0	24.1	
21 N-Nitrosodimethylamine	74	1.539	1.544	-0.005	92	213683	20.0	23.5	
22 Pyridine	79	1.571	1.576	-0.005	98	691780	40.0	47.9	
34 Phenol	94	3.464	3.459	0.005	96	474421	20.0	22.5	
35 Aniline	93	3.480	3.475	0.005	99	571588	20.0	23.2	
36 Alpha Methyl Styrene	118	3.528	3.528	0.000	92	362523	20.0	22.5	
37 Bis(2-chloroethyl)ether	93	3.550	3.550	0.000	93	338302	20.0	21.7	
39 n-Decane	43	3.657	3.657	0.000	88	256417	20.0	22.7	
41 2-Chlorophenol	128	3.582	3.582	0.000	94	349967	20.0	21.4	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	404972	20.0	22.9	
43 1,4-Dichlorobenzene	146	3.801	3.801	0.000	97	410021	20.0	23.0	
44 Benzyl alcohol	108	3.924	3.924	0.000	95	246593	20.0	22.1	
45 1,2-Dichlorobenzene	146	3.940	3.940	0.000	92	357364	20.0	21.2	
46 2-Methylphenol	108	4.037	4.037	0.000	91	318266	20.0	21.5	
47 2,2'-oxybis[1-chloropropane]	45	4.069	4.063	0.006	94	384816	20.0	22.4	
48 Indene	116	4.026	4.026	0.000	93	1192047	40.0	44.6	
49 3 & 4 Methylphenol	108	4.192	4.192	0.000	94	369938	20.0	23.4	
50 3-Methylphenol	108	4.192	4.192	0.000	96	369938	20.0	23.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.186	4.181	0.005	81	230241	20.0	21.8	
52 4-Methylphenol	108	4.192	4.192	0.000	93	369938	20.0	23.4	
55 Acetophenone	105	4.176	4.170	0.006	98	467923	20.0	21.5	
58 Hexachloroethane	117	4.261	4.261	0.000	95	150371	20.0	20.7	
60 Nitrobenzene	77	4.331	4.331	0.000	84	359434	20.0	26.0	
63 Isophorone	82	4.566	4.566	0.000	99	682321	20.0	25.7	
65 2-Nitrophenol	139	4.641	4.636	0.005	92	175450	20.0	22.8	
66 2,4-Dimethylphenol	107	4.700	4.700	0.000	96	337898	20.0	24.7	
69 Bis(2-chloroethoxy)methane	93	4.796	4.796	0.000	98	409457	20.0	24.1	
70 Benzoic acid	105	4.801	4.759	0.042	52	432350	40.0	42.3	
71 3,5-Dimethylphenol	107	4.839	4.833	0.006	91	356118	20.0	24.8	
75 2,4-Dichlorophenol	162	4.871	4.871	0.000	97	250049	20.0	21.4	
77 1,2,4-Trichlorobenzene	180	4.951	4.951	0.000	90	298926	20.0	24.3	
79 Naphthalene	128	5.021	5.021	0.000	96	895931	20.0	23.1	
80 4-Chloroaniline	127	5.085	5.085	0.000	94	398560	20.0	22.9	
81 2,6-Dichlorophenol	162	5.090	5.090	0.000	94	261585	20.0	22.8	
83 Hexachlorobutadiene	225	5.154	5.154	0.000	95	152529	20.0	24.4	
87 Caprolactam	55	5.411	5.395	0.016	84	143109	20.0	22.9	
90 4-Chloro-3-methylphenol	107	5.577	5.577	0.000	96	300337	20.0	24.6	
94 2-Methylnaphthalene	142	5.700	5.700	0.000	98	641240	20.0	24.5	
96 1-Methylnaphthalene	142	5.791	5.791	0.000	95	612342	20.0	24.7	
97 Hexachlorocyclopentadiene	237	5.860	5.860	0.000	95	176097	20.0	19.4	
98 1,2,4,5-Tetrachlorobenzene	216	5.860	5.860	0.000	96	258769	20.0	22.6	
101 2,4,6-Trichlorophenol	196	5.983	5.983	0.000	92	193034	20.0	20.3	
102 2,3-Dichlorobenzenamine	161	5.978	5.978	0.000	97	335276	20.0	19.9	
103 2,4,5-Trichlorophenol	196	6.016	6.010	0.006	94	216059	20.0	20.5	
105 1,1'-Biphenyl	154	6.165	6.160	0.005	95	741850	20.0	21.3	
107 2-Chloronaphthalene	162	6.171	6.171	0.000	96	603876	20.0	21.4	
109 2-Nitroaniline	65	6.278	6.278	0.000	91	167373	20.0	19.0	
112 Dimethyl phthalate	163	6.481	6.481	0.000	97	616096	20.0	19.9	
113 1,3-Dinitrobenzene	168	6.492	6.492	0.000	86	100287	20.0	18.6	
114 2,6-Dinitrotoluene	165	6.529	6.529	0.000	95	154762	20.0	20.3	
115 Acenaphthylene	152	6.566	6.566	0.000	98	859287	20.0	19.4	
116 3-Nitroaniline	138	6.679	6.679	0.000	95	186855	20.0	18.8	
117 Acenaphthene	153	6.738	6.738	0.000	92	525565	20.0	19.1	
118 2,4-Dinitrophenol	184	6.786	6.780	0.006	87	137655	40.0	34.3	
120 4-Nitrophenol	109	6.866	6.861	0.005	79	180443	40.0	37.6	
122 2,4-Dinitrotoluene	165	6.914	6.914	0.000	64	183201	20.0	19.3	
123 Dibenzofuran	168	6.914	6.909	0.005	95	773700	20.0	19.7	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	73	160923	20.0	19.1	
128 Hexadecane	57	7.214	7.214	0.000	89	398647	20.0	20.3	
130 Diethyl phthalate	149	7.176	7.176	0.000	98	652582	20.0	20.2	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	91	286100	20.0	20.0	
136 Fluorene	166	7.246	7.246	0.000	93	651209	20.0	20.1	
139 4-Nitroaniline	138	7.267	7.267	0.000	94	207071	20.0	21.0	
140 4,6-Dinitro-2-methylphenol	198	7.305	7.299	0.006	86	193142	40.0	37.6	
142 Diphenylamine	169	7.379	7.379	0.000	94	477151	17.0	17.1	
143 N-Nitrosodiphenylamine	169	7.379	7.379	0.000	97	477151	20.0	19.9	
144 Azobenzene	77	7.417	7.417	0.000	96	703995	20.0	21.5	
145 1,2-Diphenylhydrazine	77	7.417	7.417	0.000	98	703995	20.2	21.7	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	65	191463	20.0	20.3	
158 Hexachlorobenzene	284	7.770	7.770	0.000	95	219385	20.0	19.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.920	7.920	0.000	92	184200	20.0	21.8	
162 n-Octadecane	85	8.123	8.123	0.000	93	202493	20.0	21.3	
164 Pentachlorophenol	266	7.973	7.973	0.000	99	270895	40.0	40.5	
169 Phenanthrene	178	8.171	8.171	0.000	97	996755	20.0	21.0	
170 Anthracene	178	8.225	8.225	0.001	96	1035684	20.0	21.3	
171 Carbazole	167	8.390	8.390	0.000	94	1048842	20.0	21.7	
172 Alachlor	188	8.551	8.556	-0.005	98	145779	20.0	22.3	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	1222511	20.0	21.4	
182 Fluoranthene	202	9.332	9.332	0.000	97	1009831	20.0	20.5	
185 Pyrene	202	9.546	9.546	0.000	97	1058062	20.0	21.0	
193 Butyl benzyl phthalate	149	10.289	10.289	0.000	96	510752	20.0	20.1	
197 3,3'-Dichlorobenzidine	252	10.894	10.893	0.001	65	376008	20.0	21.7	
198 Benzo[a]anthracene	228	10.894	10.893	0.001	99	878099	20.0	19.7	
199 Bis(2-ethylhexyl) phthalate	149	11.070	11.070	0.000	95	711035	20.0	20.6	
200 Chrysene	228	10.936	10.942	-0.006	98	844566	20.0	20.2	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	98	1263942	20.0	20.2	
204 Benzo[b]fluoranthene	252	12.498	12.503	-0.005	98	897635	20.0	20.8	
205 Benzo[k]fluoranthene	252	12.552	12.552	0.000	98	947201	20.0	21.2	
208 Benzo[a]pyrene	252	13.038	13.038	0.000	79	811599	20.0	20.8	
214 Indeno[1,2,3-cd]pyrene	276	15.039	15.039	0.000	98	820097	20.0	19.0	
215 Dibenz(a,h)anthracene	278	15.119	15.119	0.000	95	816174	20.0	20.2	
216 Benzo[g,h,i]perylene	276	15.499	15.493	0.006	98	870578	20.0	20.3	
S 218 Total Cresols	108				0			44.9	
S 219 Methyl Phenols, Total	108				0			44.9	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLA020_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022432.D

Injection Date: 14-Oct-2022 17:50:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD020 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

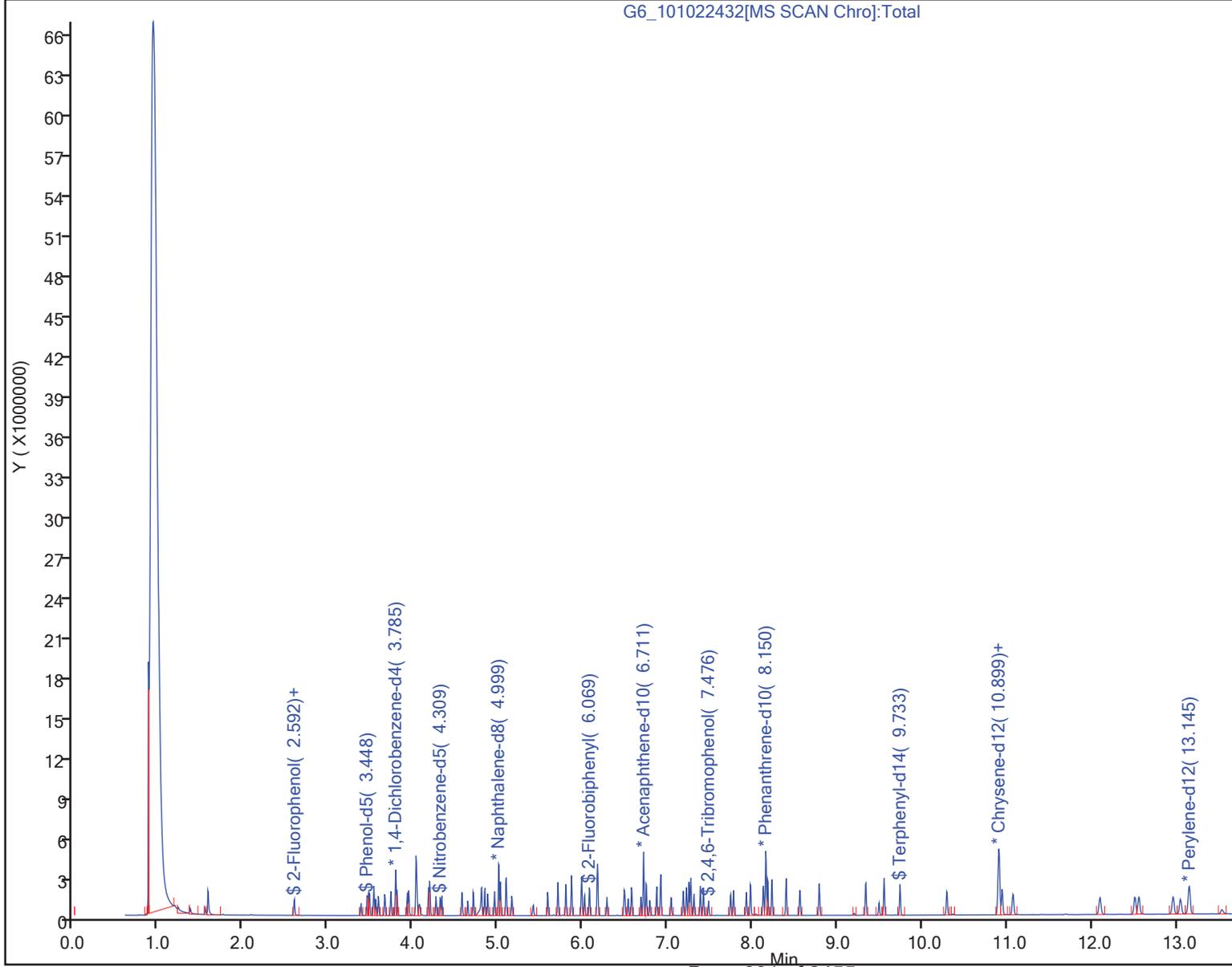
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022432[MS SCAN Chro]:Total



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022433.D
 Lims ID: STD050 HSL
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 14-Oct-2022 18:11:30 ALS Bottle#: 16 Worklist Smp#: 13
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD050 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:51 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 15-Oct-2022 09:55:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	93	505319	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	4.999	0.006	99	1923587	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	91	1088667	40.0	40.0	
* 4 Phenanthrene-d10	188	8.150	8.150	0.000	96	1760292	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	99	1506616	40.0	40.0	
* 6 Perylene-d12	264	13.145	13.151	-0.006	97	1473246	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.593	2.592	0.000	88	885375	50.0	53.1	
\$ 8 Phenol-d5	99	3.454	3.448	0.006	98	1119977	50.0	52.8	
\$ 9 Nitrobenzene-d5	82	4.315	4.309	0.006	87	905595	50.0	50.7	
\$ 11 2-Fluorobiphenyl	172	6.074	6.069	0.005	99	1694631	50.0	52.6	
\$ 12 2,4,6-Tribromophenol	330	7.481	7.476	0.005	93	286663	50.0	45.1	
\$ 13 Terphenyl-d14	244	9.733	9.738	-0.005	97	2020918	50.0	52.2	
20 1,4-Dioxane	88	1.368	1.368	0.000	91	329633	50.0	52.9	
21 N-Nitrosodimethylamine	74	1.539	1.544	-0.005	91	517891	50.0	53.5	
22 Pyridine	79	1.571	1.576	-0.005	98	1650319	100.0	107.4	
34 Phenol	94	3.464	3.459	0.005	98	1229395	50.0	54.9	
35 Aniline	93	3.480	3.475	0.005	99	1421688	50.0	54.2	
36 Alpha Methyl Styrene	118	3.529	3.528	0.001	90	910188	50.0	53.1	
37 Bis(2-chloroethyl)ether	93	3.555	3.550	0.005	98	874865	50.0	52.6	
39 n-Decane	43	3.657	3.657	0.000	85	611057	50.0	50.7	
41 2-Chlorophenol	128	3.587	3.582	0.005	95	912001	50.0	52.4	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	960066	50.0	51.1	
43 1,4-Dichlorobenzene	146	3.801	3.801	0.000	95	964191	50.0	50.8	
44 Benzyl alcohol	108	3.924	3.924	0.000	94	624368	50.0	52.6	
45 1,2-Dichlorobenzene	146	3.940	3.940	0.000	98	928725	50.0	51.8	
46 2-Methylphenol	108	4.042	4.037	0.005	90	833918	50.0	53.0	
47 2,2'-oxybis[1-chloropropane]	45	4.069	4.063	0.006	94	882541	50.0	48.3	
48 Indene	116	4.031	4.026	0.005	91	2972705	100.0	104.4	
49 3 & 4 Methylphenol	108	4.192	4.192	0.000	96	871558	50.0	51.7	
50 3-Methylphenol	108	4.192	4.192	0.000	93	871558	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.186	4.181	0.005	80	584198	50.0	51.9	
52 4-Methylphenol	108	4.192	4.192	0.000	94	871558	50.0	51.7	
55 Acetophenone	105	4.176	4.170	0.006	98	1200024	50.0	51.9	
58 Hexachloroethane	117	4.261	4.261	0.000	96	402043	50.0	52.0	
60 Nitrobenzene	77	4.331	4.331	0.000	85	865770	50.0	51.0	
63 Isophorone	82	4.572	4.566	0.006	98	1635915	50.0	50.3	
65 2-Nitrophenol	139	4.641	4.636	0.005	89	487057	50.0	51.6	
66 2,4-Dimethylphenol	107	4.705	4.700	0.005	93	857566	50.0	51.1	
69 Bis(2-chloroethoxy)methane	93	4.801	4.796	0.005	98	1070866	50.0	51.4	
70 Benzoic acid	105	4.839	4.759	0.080	60	1319251	100.0	99.9	a
71 3,5-Dimethylphenol	107	4.839	4.833	0.006	93	895317	50.0	50.7	
75 2,4-Dichlorophenol	162	4.876	4.871	0.005	92	729680	50.0	50.8	
77 1,2,4-Trichlorobenzene	180	4.951	4.951	0.000	94	744306	50.0	49.2	
79 Naphthalene	128	5.021	5.021	0.000	97	2437717	50.0	51.3	
80 4-Chloroaniline	127	5.090	5.085	0.005	97	1147683	50.0	53.7	
81 2,6-Dichlorophenol	162	5.096	5.090	0.006	95	712683	50.0	50.7	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	98	372805	50.0	48.5	
87 Caprolactam	55	5.433	5.395	0.038	85	371944	50.0	48.4	
90 4-Chloro-3-methylphenol	107	5.582	5.577	0.005	94	756224	50.0	50.4	
94 2-Methylnaphthalene	142	5.700	5.700	0.000	94	1627267	50.0	50.6	
96 1-Methylnaphthalene	142	5.796	5.791	0.005	95	1535700	50.0	50.5	
97 Hexachlorocyclopentadiene	237	5.861	5.860	0.001	95	479541	50.0	51.4	
98 1,2,4,5-Tetrachlorobenzene	216	5.866	5.860	0.006	97	695079	50.0	49.5	
101 2,4,6-Trichlorophenol	196	5.984	5.983	0.001	92	507607	50.0	51.9	
102 2,3-Dichlorobenzenamine	161	5.978	5.978	0.000	97	910227	50.0	52.4	
103 2,4,5-Trichlorophenol	196	6.016	6.010	0.006	95	568886	50.0	52.3	
105 1,1'-Biphenyl	154	6.165	6.160	0.005	95	1910552	50.0	53.2	
107 2-Chloronaphthalene	162	6.171	6.171	0.000	96	1529107	50.0	52.7	
109 2-Nitroaniline	65	6.278	6.278	0.000	90	479322	50.0	52.9	
112 Dimethyl phthalate	163	6.486	6.481	0.005	98	1679209	50.0	52.8	
113 1,3-Dinitrobenzene	168	6.497	6.492	0.005	93	300427	50.0	54.0	
114 2,6-Dinitrotoluene	165	6.529	6.529	0.000	96	406788	50.0	51.8	
115 Acenaphthylene	152	6.572	6.566	0.006	98	2435676	50.0	53.3	
116 3-Nitroaniline	138	6.684	6.679	0.005	96	544310	50.0	53.3	
117 Acenaphthene	153	6.743	6.738	0.005	92	1501472	50.0	53.0	
118 2,4-Dinitrophenol	184	6.786	6.780	0.006	87	446409	100.0	94.3	
120 4-Nitrophenol	109	6.871	6.861	0.010	84	518994	100.0	105.0	
122 2,4-Dinitrotoluene	165	6.914	6.914	0.000	94	526386	50.0	53.7	
123 Dibenzofuran	168	6.914	6.909	0.005	97	2111027	50.0	52.1	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	72	452365	50.0	52.1	
128 Hexadecane	57	7.214	7.214	0.000	90	1056368	50.0	52.2	
130 Diethyl phthalate	149	7.182	7.176	0.006	98	1728461	50.0	51.8	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	90	761558	50.0	51.6	
136 Fluorene	166	7.246	7.246	0.000	95	1755892	50.0	52.5	
139 4-Nitroaniline	138	7.278	7.267	0.011	90	526581	50.0	51.8	
140 4,6-Dinitro-2-methylphenol	198	7.310	7.299	0.011	89	571658	100.0	100.8	
142 Diphenylamine	169	7.380	7.379	0.001	96	1287257	42.5	44.8	
143 N-Nitrosodiphenylamine	169	7.380	7.379	0.001	99	1287257	50.0	52.5	
144 Azobenzene	77	7.417	7.417	0.000	97	1813268	50.0	53.7	
145 1,2-Diphenylhydrazine	77	7.417	7.417	0.000	99	1813268	50.5	54.3	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	64	467693	50.0	48.3	
158 Hexachlorobenzene	284	7.770	7.770	0.000	95	540143	50.0	47.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.925	7.920	0.005	93	445105	50.0	51.5	
162 n-Octadecane	85	8.123	8.123	0.000	92	525738	50.0	54.0	
164 Pentachlorophenol	266	7.973	7.973	0.000	99	694613	100.0	101.5	
169 Phenanthrene	178	8.176	8.171	0.005	97	2484250	50.0	51.1	
170 Anthracene	178	8.225	8.225	0.001	97	2545301	50.0	51.1	
171 Carbazole	167	8.396	8.390	0.006	95	2527011	50.0	51.0	
172 Alachlor	188	8.556	8.556	0.000	95	346736	50.0	51.8	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	3043841	50.0	51.9	
182 Fluoranthene	202	9.332	9.332	0.000	98	2617988	50.0	51.8	
185 Pyrene	202	9.546	9.546	0.000	97	2707063	50.0	53.0	
193 Butyl benzyl phthalate	149	10.284	10.289	-0.005	97	1392135	50.0	54.1	
197 3,3'-Dichlorobenzidine	252	10.899	10.893	0.006	73	889977	50.0	50.6	
198 Benzo[a]anthracene	228	10.894	10.893	0.001	99	2375455	50.0	52.4	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.070	-0.005	96	1886657	50.0	53.9	
200 Chrysene	228	10.942	10.942	0.000	97	2225271	50.0	52.4	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	98	3414917	50.0	53.8	
204 Benzo[b]fluoranthene	252	12.509	12.503	0.006	97	2315509	50.0	51.4	
205 Benzo[k]fluoranthene	252	12.557	12.552	0.005	98	2459078	50.0	52.6	
208 Benzo[a]pyrene	252	13.049	13.038	0.011	78	2137792	50.0	52.3	
214 Indeno[1,2,3-cd]pyrene	276	15.049	15.039	0.010	98	2159468	50.0	49.4	
215 Dibenz(a,h)anthracene	278	15.130	15.119	0.011	95	2121977	50.0	50.4	
216 Benzo[g,h,i]perylene	276	15.509	15.493	0.016	97	2244281	50.0	50.1	
S 218 Total Cresols	108				0			104.7	
S 219 Methyl Phenols, Total	108				0			104.7	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA050_00068

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022433.D

Injection Date: 14-Oct-2022 18:11:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD050 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

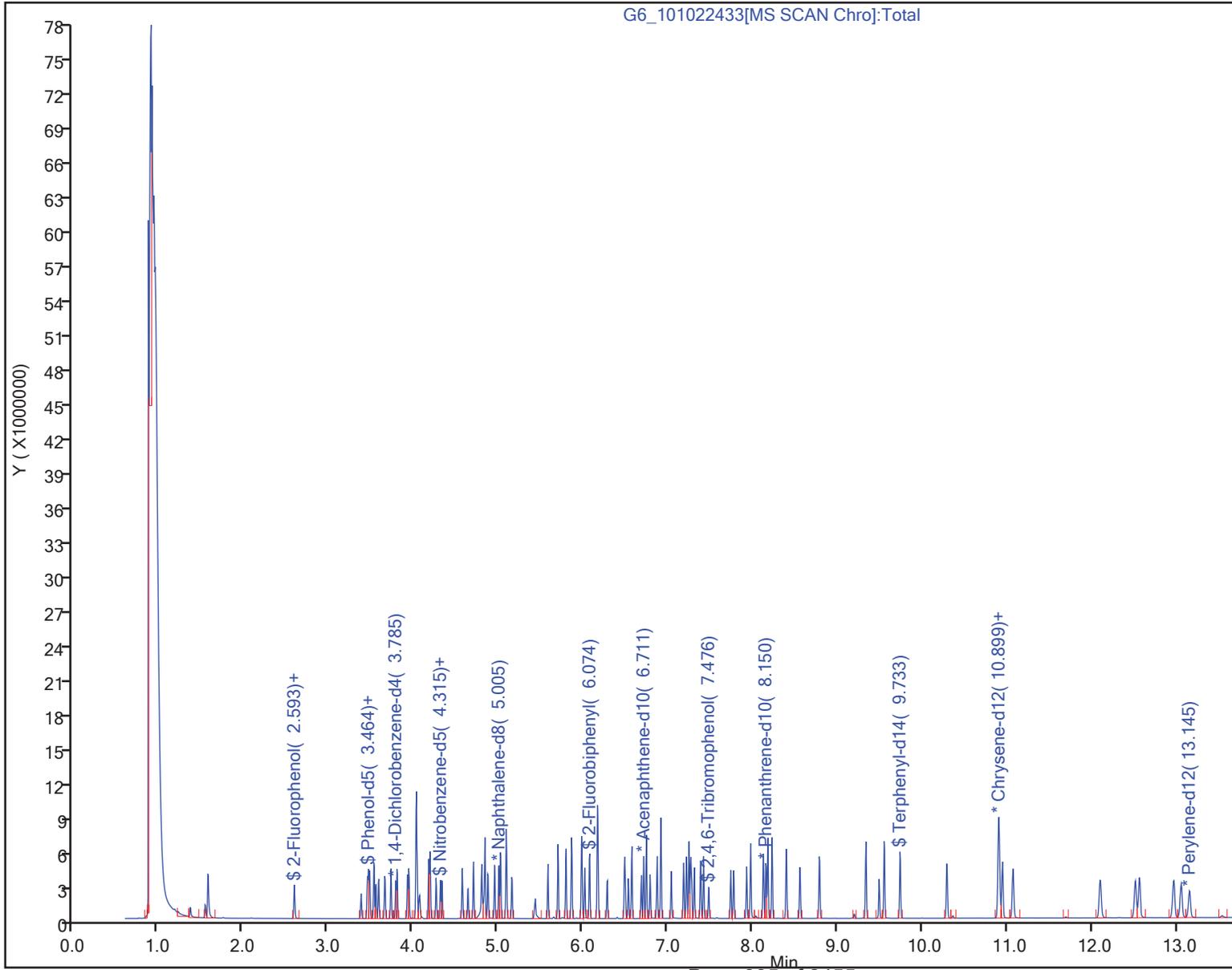
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

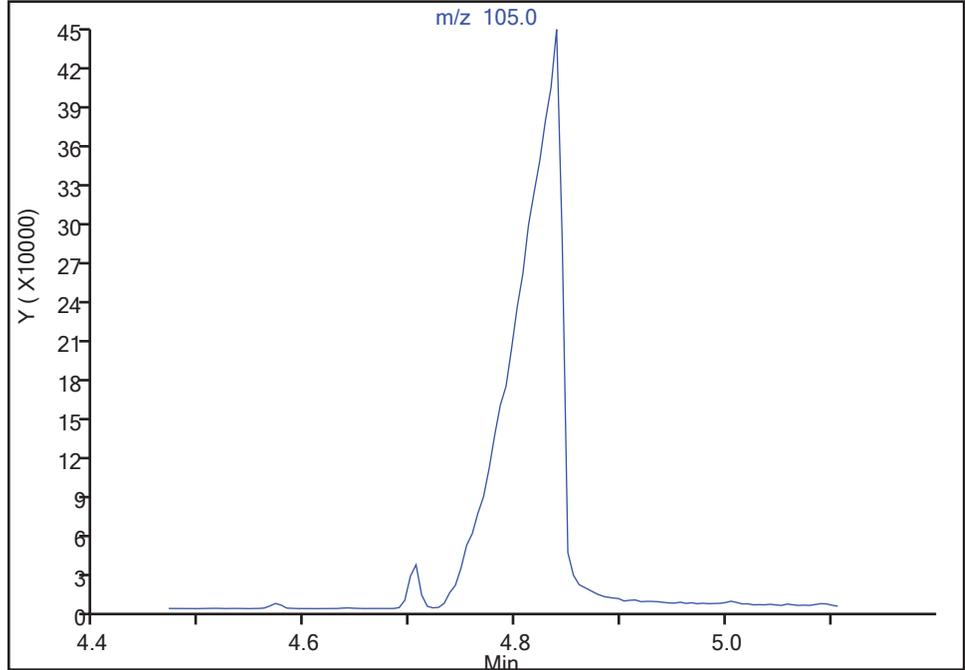
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Injection Date: 14-Oct-2022 18:11:30 Instrument ID: SMS_G6
Lims ID: STD050 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 16 Worklist Smp#: 13
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

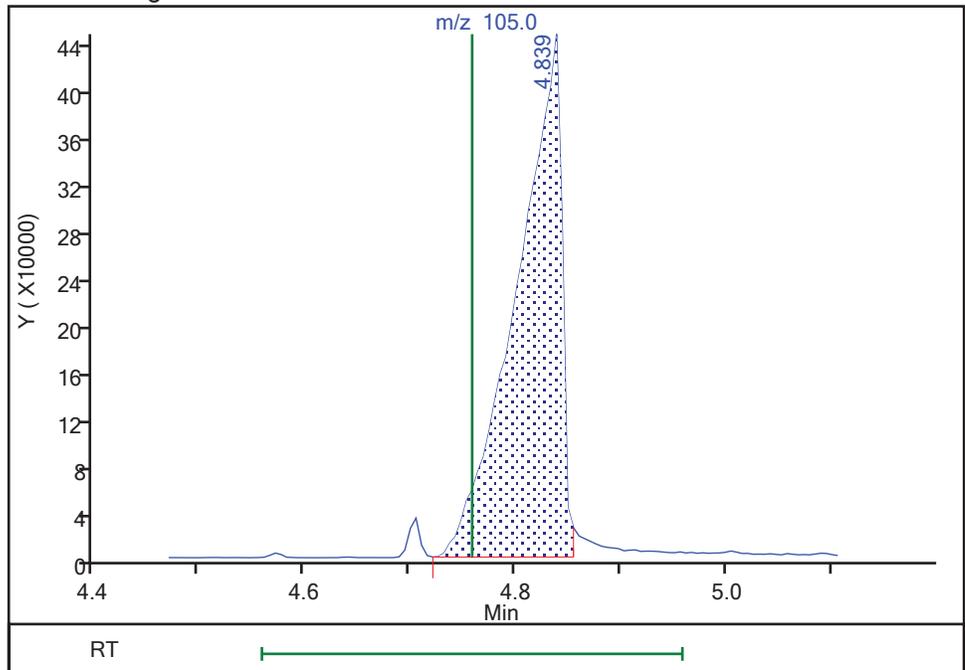
Not Detected
Expected RT: 4.76

Processing Integration Results



Manual Integration Results

RT: 4.84
Area: 1319251
Amount: 99.907916
Amount Units: ug/ml



Reviewer: TRE2, 17-Oct-2022 10:05:13
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022434.D
 Lims ID: STD80 HSL
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 14-Oct-2022 18:31:30 ALS Bottle#: 17 Worklist Smp#: 14
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD080 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:43 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 17-Oct-2022 13:51:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.791	0.000	93	537744	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	5.005	0.000	99	2060836	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	90	1161499	40.0	40.0	
* 4 Phenanthrene-d10	188	8.155	8.155	0.000	96	1859282	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	99	1581212	40.0	40.0	
* 6 Perylene-d12	264	13.151	13.151	0.000	97	1549915	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.593	2.593	0.000	89	1454543	80.0	82.0	
\$ 8 Phenol-d5	99	3.454	3.454	0.000	98	1842791	80.0	81.6	
\$ 9 Nitrobenzene-d5	82	4.315	4.315	0.000	87	1473381	80.0	77.0	
\$ 11 2-Fluorobiphenyl	172	6.075	6.075	0.000	99	2748851	80.0	80.0	
\$ 12 2,4,6-Tribromophenol	330	7.481	7.481	0.000	93	486690	80.0	71.7	
\$ 13 Terphenyl-d14	244	9.738	9.738	0.000	97	3247485	80.0	79.9	
20 1,4-Dioxane	88	1.368	1.368	0.000	92	548425	80.0	84.2	
21 N-Nitrosodimethylamine	74	1.544	1.544	0.000	90	856831	80.0	83.2	
22 Pyridine	79	1.576	1.576	0.000	97	2719771	160.0	166.4	
34 Phenol	94	3.470	3.470	0.000	96	1993545	80.0	83.6	
35 Aniline	93	3.481	3.481	0.000	99	2299980	80.0	82.4	
36 Alpha Methyl Styrene	118	3.534	3.534	0.000	89	1481280	80.0	81.2	
37 Bis(2-chloroethyl)ether	93	3.555	3.555	0.000	98	1434643	80.0	81.1	
39 n-Decane	43	3.662	3.662	0.000	84	976862	80.0	76.2	
41 2-Chlorophenol	128	3.588	3.588	0.000	95	1491046	80.0	80.5	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	1563096	80.0	78.1	
43 1,4-Dichlorobenzene	146	3.807	3.807	0.000	96	1600654	80.0	79.2	
44 Benzyl alcohol	108	3.930	3.930	0.000	96	1003079	80.0	79.4	
45 1,2-Dichlorobenzene	146	3.941	3.941	0.000	98	1511708	80.0	79.3	
46 2-Methylphenol	108	4.042	4.042	0.000	90	1314476	80.0	78.5	
47 2,2'-oxybis[1-chloropropane]	45	4.069	4.069	0.000	94	1459797	80.0	75.1	
48 Indene	116	4.032	4.032	0.000	91	4690780	160.0	154.8	
49 3 & 4 Methylphenol	108	4.197	4.197	0.000	88	1404241	80.0	78.3	
50 3-Methylphenol	108	4.197	4.197	0.000	96	1404241	80.0	78.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.192	4.192	0.000	78	933392	80.0	78.0	
52 4-Methylphenol	108	4.197	4.197	0.000	93	1404241	80.0	78.3	
55 Acetophenone	105	4.176	4.176	0.000	99	1949087	80.0	79.2	
58 Hexachloroethane	117	4.261	4.261	0.000	97	650911	80.0	79.1	
60 Nitrobenzene	77	4.336	4.336	0.000	84	1380396	80.0	75.8	
63 Isophorone	82	4.577	4.577	0.000	98	2646324	80.0	75.9	
65 2-Nitrophenol	139	4.641	4.641	0.000	89	806277	80.0	79.8	
66 2,4-Dimethylphenol	107	4.705	4.705	0.000	93	1370906	80.0	76.2	
69 Bis(2-chloroethoxy)methane	93	4.802	4.802	0.000	99	1716858	80.0	76.9	
70 Benzoic acid	105	4.871	4.871	0.000	88	2215962	160.0	154.6	a
71 3,5-Dimethylphenol	107	4.844	4.844	0.000	93	1422781	80.0	75.2	
75 2,4-Dichlorophenol	162	4.877	4.877	0.000	92	1193661	80.0	77.6	
77 1,2,4-Trichlorobenzene	180	4.957	4.957	0.000	94	1220257	80.0	75.3	
79 Naphthalene	128	5.026	5.026	0.000	96	3924431	80.0	77.0	
80 4-Chloroaniline	127	5.091	5.091	0.000	98	1835407	80.0	80.2	
81 2,6-Dichlorophenol	162	5.096	5.096	0.000	98	1165951	80.0	77.4	
83 Hexachlorobutadiene	225	5.160	5.160	0.000	98	610457	80.0	74.1	
87 Caprolactam	55	5.454	5.454	0.000	86	609905	80.0	74.0	a
90 4-Chloro-3-methylphenol	107	5.588	5.588	0.000	94	1225057	80.0	76.2	
94 2-Methylnaphthalene	142	5.700	5.700	0.000	94	2666701	80.0	77.3	
96 1-Methylnaphthalene	142	5.797	5.797	0.000	95	2489486	80.0	76.4	
97 Hexachlorocyclopentadiene	237	5.861	5.861	0.000	96	801981	80.0	80.5	
98 1,2,4,5-Tetrachlorobenzene	216	5.866	5.866	0.000	97	1129946	80.0	75.1	
101 2,4,6-Trichlorophenol	196	5.984	5.984	0.000	92	809879	80.0	77.6	
102 2,3-Dichlorobenzenamine	161	5.978	5.978	0.000	98	1476228	80.0	79.6	
103 2,4,5-Trichlorophenol	196	6.016	6.016	0.000	95	907566	80.0	78.1	
105 1,1'-Biphenyl	154	6.166	6.166	0.000	95	3049091	80.0	79.5	
107 2-Chloronaphthalene	162	6.171	6.171	0.000	97	2420904	80.0	78.1	
109 2-Nitroaniline	65	6.283	6.283	0.000	89	789862	80.0	81.7	
112 Dimethyl phthalate	163	6.487	6.487	0.000	98	2703593	80.0	79.6	
113 1,3-Dinitrobenzene	168	6.497	6.497	0.000	89	497074	80.0	83.7	
114 2,6-Dinitrotoluene	165	6.535	6.535	0.000	96	669129	80.0	79.9	
115 Acenaphthylene	152	6.572	6.572	0.000	98	3908371	80.0	80.2	
116 3-Nitroaniline	138	6.690	6.690	0.000	96	890430	80.0	81.7	
117 Acenaphthene	153	6.743	6.743	0.000	92	2415496	80.0	79.8	
118 2,4-Dinitrophenol	184	6.791	6.791	0.000	87	781439	160.0	150.7	
120 4-Nitrophenol	109	6.877	6.877	0.000	84	852264	160.0	161.7	
122 2,4-Dinitrotoluene	165	6.920	6.920	0.000	93	847934	80.0	81.1	
123 Dibenzofuran	168	6.914	6.914	0.000	96	3382231	80.0	78.2	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	76	739933	80.0	79.8	
128 Hexadecane	57	7.219	7.219	0.000	89	1685486	80.0	78.1	
130 Diethyl phthalate	149	7.187	7.187	0.000	98	2779752	80.0	78.1	
135 4-Chlorophenyl phenyl ether	204	7.267	7.267	0.000	91	1216804	80.0	77.2	
136 Fluorene	166	7.246	7.246	0.000	96	2824068	80.0	79.1	
139 4-Nitroaniline	138	7.283	7.283	0.000	91	876748	80.0	80.9	
140 4,6-Dinitro-2-methylphenol	198	7.316	7.316	0.000	90	971967	160.0	159.7	
142 Diphenylamine	169	7.385	7.385	0.000	96	2098815	68.0	68.4	
143 N-Nitrosodiphenylamine	169	7.385	7.385	0.000	99	2098815	80.0	81.0	
144 Azobenzene	77	7.417	7.417	0.000	97	2857138	80.0	79.4	
145 1,2-Diphenylhydrazine	77	7.417	7.417	0.000	99	2857138	80.9	80.2	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	63	781068	80.0	76.4	
158 Hexachlorobenzene	284	7.776	7.776	0.000	95	893793	80.0	74.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.931	7.931	0.000	94	721825	80.0	79.0	
162 n-Octadecane	85	8.123	8.123	0.000	92	834821	80.0	81.1	
164 Pentachlorophenol	266	7.973	7.973	0.000	99	1154878	160.0	159.8	
169 Phenanthrene	178	8.177	8.177	0.000	97	4010876	80.0	78.2	
170 Anthracene	178	8.225	8.225	0.000	97	4074017	80.0	77.4	
171 Carbazole	167	8.396	8.396	0.000	95	4008850	80.0	76.6	
172 Alachlor	188	8.556	8.556	0.000	95	567538	80.0	80.3	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	4867297	80.0	78.6	
182 Fluoranthene	202	9.332	9.332	0.000	98	4239706	80.0	79.4	
185 Pyrene	202	9.551	9.551	0.000	98	4411910	80.0	82.4	
193 Butyl benzyl phthalate	149	10.289	10.289	0.000	96	2229972	80.0	82.6	
197 3,3'-Dichlorobenzidine	252	10.899	10.899	0.000	74	1405394	80.0	76.1	
198 Benzo[a]anthracene	228	10.899	10.899	0.000	99	3873013	80.0	81.4	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.065	0.000	96	3028308	80.0	82.4	
200 Chrysene	228	10.947	10.947	0.000	97	3611644	80.0	81.0	
202 Di-n-octyl phthalate	149	12.097	12.097	0.000	98	5489745	80.0	82.4	
204 Benzo[b]fluoranthene	252	12.514	12.514	0.000	97	3792892	80.0	80.0	
205 Benzo[k]fluoranthene	252	12.563	12.563	0.000	98	3991162	80.0	81.2	
208 Benzo[a]pyrene	252	13.055	13.055	0.000	78	3461289	80.0	80.5	
214 Indeno[1,2,3-cd]pyrene	276	15.060	15.060	0.000	98	3607584	80.0	78.6	
215 Dibenz(a,h)anthracene	278	15.135	15.135	0.000	94	3535103	80.0	79.8	
216 Benzo[g,h,i]perylene	276	15.520	15.520	0.000	98	3739741	80.0	79.4	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA080_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022434.D

Injection Date: 14-Oct-2022 18:31:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD80 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

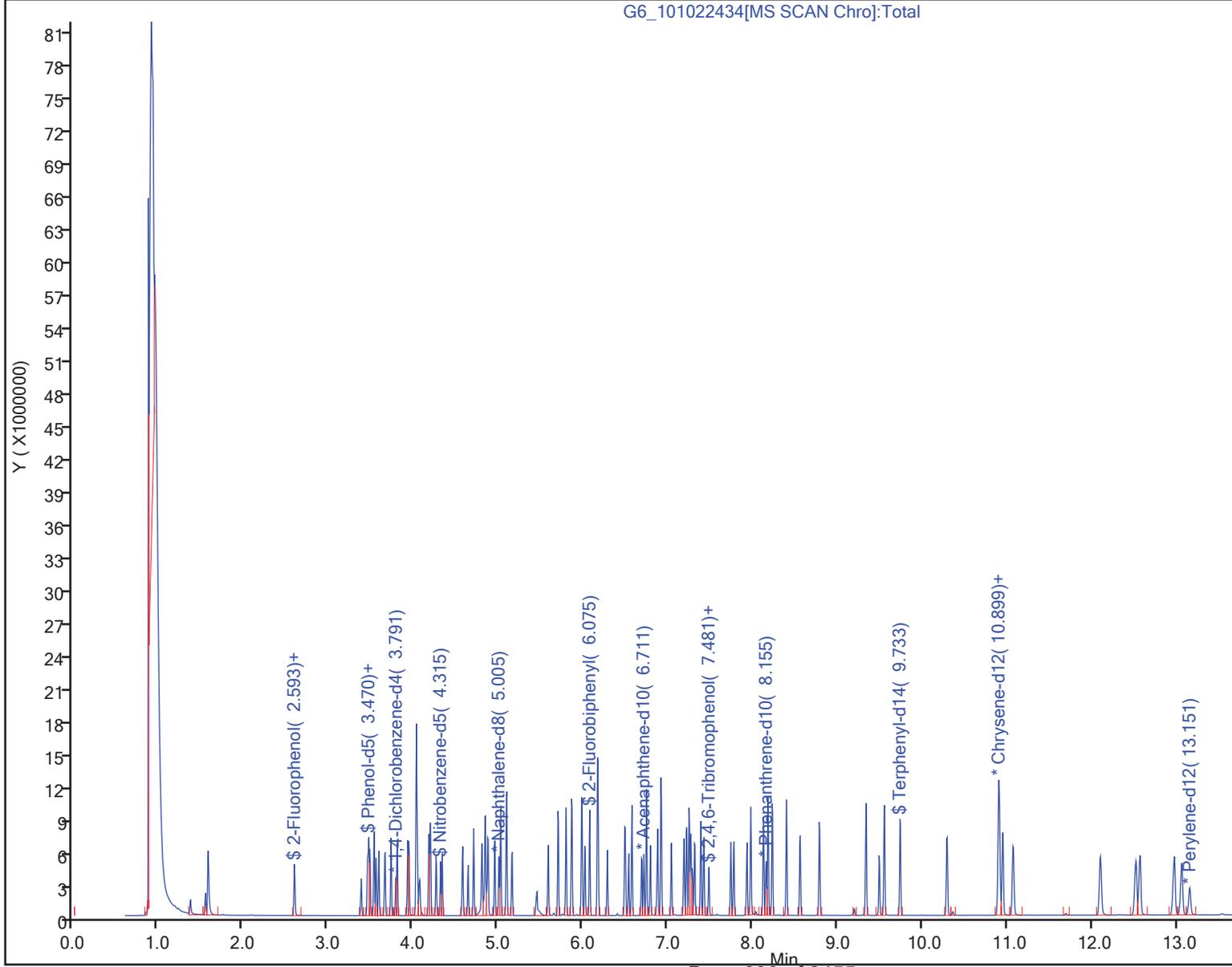
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022434[MS SCAN Chro]:Total



Eurofins Denver

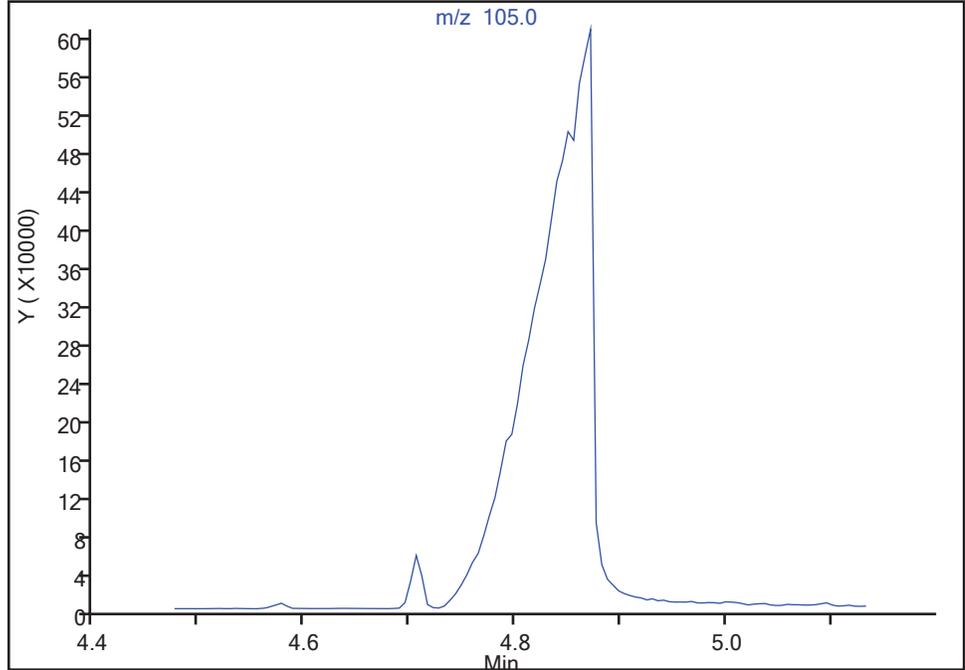
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Injection Date: 14-Oct-2022 18:31:30 Instrument ID: SMS_G6
Lims ID: STD80 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 17 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

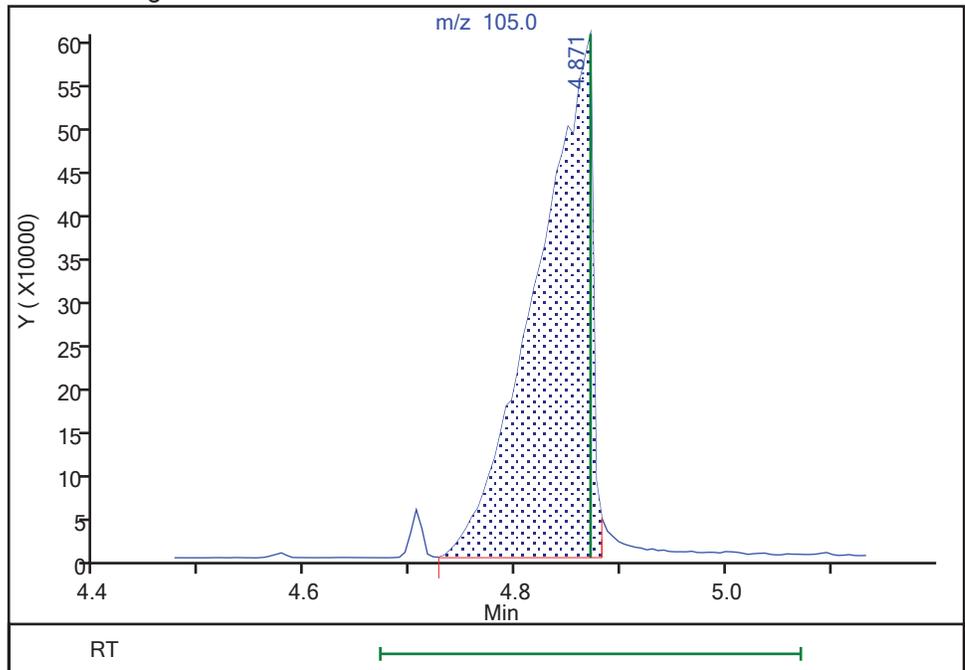
Not Detected
Expected RT: 4.87

Processing Integration Results



Manual Integration Results

RT: 4.87
Area: 2215962
Amount: 154.6129
Amount Units: ug/ml



Eurofins Denver

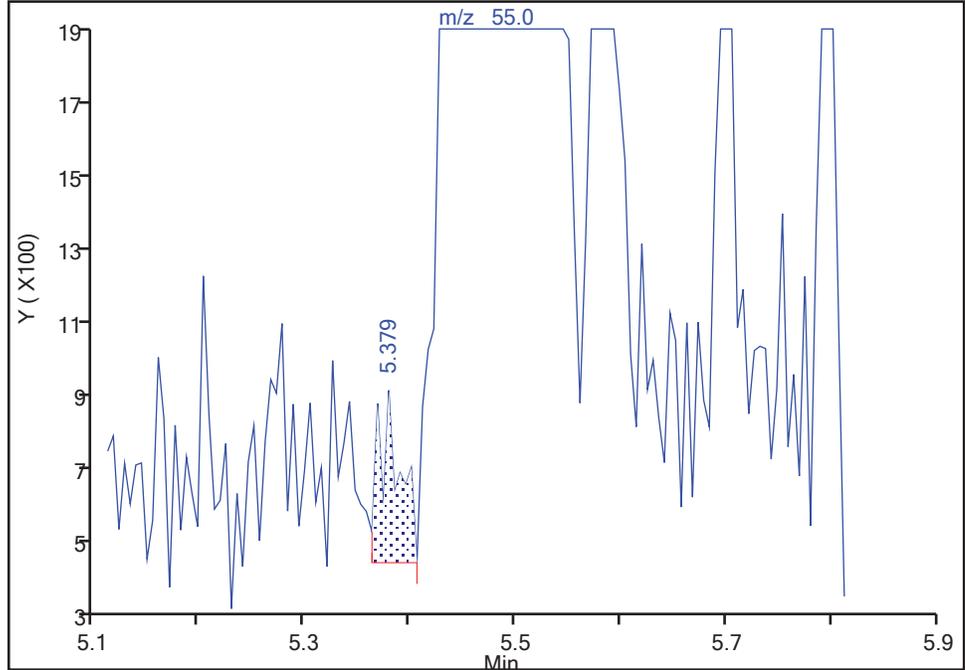
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Injection Date: 14-Oct-2022 18:31:30 Instrument ID: SMS_G6
Lims ID: STD80 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 17 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

87 Caprolactam, CAS: 105-60-2

Signal: 1

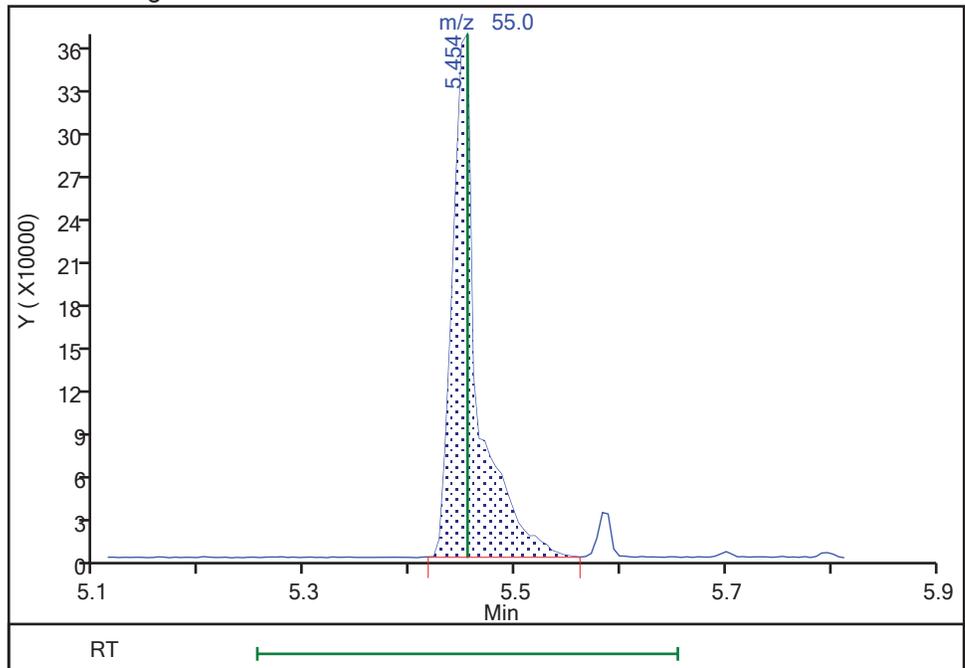
RT: 5.38
Area: 608
Amount: 0.093121
Amount Units: ug/ml

Processing Integration Results



RT: 5.45
Area: 609905
Amount: 74.049412
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022435.D
 Lims ID: STD120 HSL
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 14-Oct-2022 18:52:30 ALS Bottle#: 18 Worklist Smp#: 15
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD120 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:53 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 15-Oct-2022 09:57:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	93	500326	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	4.999	0.006	99	1926298	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	90	1079314	40.0	40.0	
* 4 Phenanthrene-d10	188	8.155	8.150	0.005	96	1642635	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	98	1504656	40.0	40.0	
* 6 Perylene-d12	264	13.151	13.151	0.000	98	1474052	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.598	2.592	0.006	89	1785035	120.0	108.1	
\$ 8 Phenol-d5	99	3.464	3.448	0.016	97	2204542	120.0	104.9	
\$ 9 Nitrobenzene-d5	82	4.320	4.309	0.011	89	1966001	120.0	109.9	
\$ 11 2-Fluorobiphenyl	172	6.074	6.069	0.005	99	3960826	120.0	124.1	
\$ 12 2,4,6-Tribromophenol	330	7.481	7.476	0.005	92	781094	120.0	123.9	
\$ 13 Terphenyl-d14	244	9.738	9.738	0.000	97	4605125	120.0	119.0	
20 1,4-Dioxane	88	1.368	1.368	0.000	94	639748	120.0	106.3	
21 N-Nitrosodimethylamine	74	1.550	1.544	0.006	93	1028739	120.0	107.3	
22 Pyridine	79	1.576	1.576	0.000	98	3221993	240.0	211.9	
34 Phenol	94	3.475	3.459	0.016	97	2331205	120.0	105.1	
35 Aniline	93	3.486	3.475	0.011	98	2723950	120.0	104.9	
36 Alpha Methyl Styrene	118	3.534	3.528	0.006	91	1905301	120.0	112.2	
37 Bis(2-chloroethyl)ether	93	3.561	3.550	0.011	97	1878018	120.0	114.1	
39 n-Decane	43	3.662	3.657	0.005	86	1420190	120.0	119.1	
41 2-Chlorophenol	128	3.593	3.582	0.011	93	2095397	120.0	121.6	
42 1,3-Dichlorobenzene	146	3.737	3.732	0.005	96	2217309	120.0	119.1	
43 1,4-Dichlorobenzene	146	3.807	3.801	0.006	92	2212087	120.0	117.6	
44 Benzyl alcohol	108	3.935	3.924	0.011	96	1518397	120.0	129.2	
45 1,2-Dichlorobenzene	146	3.946	3.940	0.006	97	2230381	120.0	125.7	
46 2-Methylphenol	108	4.047	4.037	0.010	92	1863042	120.0	119.5	
47 2,2'-oxybis[1-chloropropane]	45	4.069	4.063	0.006	96	2140956	120.0	118.5	
48 Indene	116	4.037	4.026	0.011	91	6642070	240.0	235.6	
49 3 & 4 Methylphenol	108	4.202	4.192	0.010	92	1886318	120.0	113.1	
50 3-Methylphenol	108	4.202	4.192	0.010	94	1886318	120.0	113.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.197	4.181	0.016	79	1361952	120.0	122.3	
52 4-Methylphenol	108	4.202	4.192	0.010	94	1886318	120.0	113.1	
55 Acetophenone	105	4.181	4.170	0.011	98	2717438	120.0	118.7	
58 Hexachloroethane	117	4.267	4.261	0.006	95	997604	120.0	130.3	
60 Nitrobenzene	77	4.342	4.331	0.011	85	1925913	120.0	113.2	
63 Isophorone	82	4.582	4.566	0.016	99	3623122	120.0	111.2	
65 2-Nitrophenol	139	4.646	4.636	0.010	88	1109368	120.0	117.4	
66 2,4-Dimethylphenol	107	4.711	4.700	0.011	93	2015668	120.0	119.9	
69 Bis(2-chloroethoxy)methane	93	4.807	4.796	0.011	98	2619110	120.0	125.5	
70 Benzoic acid	105	4.903	4.759	0.144	84	3345412	240.0	247.5	Ma
71 3,5-Dimethylphenol	107	4.850	4.833	0.017	93	2128239	120.0	120.3	
75 2,4-Dichlorophenol	162	4.882	4.871	0.011	91	1779343	120.0	123.7	
77 1,2,4-Trichlorobenzene	180	4.957	4.951	0.006	94	1880019	120.0	124.2	
79 Naphthalene	128	5.031	5.021	0.010	96	5712004	120.0	120.0	
80 4-Chloroaniline	127	5.096	5.085	0.011	97	2669416	120.0	124.8	
81 2,6-Dichlorophenol	162	5.101	5.090	0.011	97	1685631	120.0	119.7	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	97	951384	120.0	123.6	
87 Caprolactam	55	5.470	5.395	0.075	85	890112	120.0	115.6	
90 4-Chloro-3-methylphenol	107	5.593	5.577	0.016	94	1780262	120.0	118.4	
94 2-Methylnaphthalene	142	5.705	5.700	0.005	94	4004975	120.0	124.3	
96 1-Methylnaphthalene	142	5.796	5.791	0.005	96	3717537	120.0	122.1	
97 Hexachlorocyclopentadiene	237	5.861	5.860	0.000	96	1203073	120.0	130.0	
98 1,2,4,5-Tetrachlorobenzene	216	5.866	5.860	0.006	96	1682099	120.0	119.6	
101 2,4,6-Trichlorophenol	196	5.989	5.983	0.006	92	1233341	120.0	127.2	
102 2,3-Dichlorobenzenamine	161	5.984	5.978	0.006	96	2101451	120.0	121.9	
103 2,4,5-Trichlorophenol	196	6.021	6.010	0.011	96	1367619	120.0	126.7	
105 1,1'-Biphenyl	154	6.171	6.160	0.011	93	4435093	120.0	124.5	
107 2-Chloronaphthalene	162	6.176	6.171	0.005	96	3582320	120.0	124.4	
109 2-Nitroaniline	65	6.288	6.278	0.010	91	1147330	120.0	127.6	
112 Dimethyl phthalate	163	6.492	6.481	0.011	98	3760627	120.0	119.2	
113 1,3-Dinitrobenzene	168	6.502	6.492	0.010	93	730446	120.0	132.3	
114 2,6-Dinitrotoluene	165	6.540	6.529	0.011	96	984173	120.0	126.4	
115 Acenaphthylene	152	6.577	6.566	0.011	98	5285831	120.0	116.7	
116 3-Nitroaniline	138	6.690	6.679	0.011	96	1328274	120.0	131.1	
117 Acenaphthene	153	6.748	6.738	0.010	93	3572098	120.0	127.1	
118 2,4-Dinitrophenol	184	6.797	6.780	0.017	86	1212518	240.0	247.4	
120 4-Nitrophenol	109	6.882	6.861	0.021	90	1235629	240.0	252.2	
122 2,4-Dinitrotoluene	165	6.925	6.914	0.011	93	1198104	120.0	123.3	
123 Dibenzofuran	168	6.920	6.909	0.011	97	4834325	120.0	120.3	
127 2,3,4,6-Tetrachlorophenol	232	7.043	7.037	0.006	71	1080962	120.0	125.5	
128 Hexadecane	57	7.219	7.214	0.005	87	2359751	120.0	117.6	
130 Diethyl phthalate	149	7.187	7.176	0.011	98	4004974	120.0	121.1	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	88	1771592	120.0	121.0	
136 Fluorene	166	7.251	7.246	0.005	97	4071315	120.0	122.7	
139 4-Nitroaniline	138	7.294	7.267	0.027	89	1166761	120.0	115.8	
140 4,6-Dinitro-2-methylphenol	198	7.321	7.299	0.022	87	1318583	240.0	243.1	
142 Diphenylamine	169	7.385	7.379	0.006	95	2789149	102.0	97.9	
143 N-Nitrosodiphenylamine	169	7.385	7.379	0.006	99	2789149	120.0	121.8	
144 Azobenzene	77	7.422	7.417	0.005	97	3656623	120.0	109.3	
145 1,2-Diphenylhydrazine	77	7.422	7.417	0.005	98	3656623	121.3	110.5	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	62	1109545	120.0	122.9	
158 Hexachlorobenzene	284	7.775	7.770	0.005	94	1281953	120.0	121.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.936	7.920	0.016	94	999991	120.0	123.9	
162 n-Octadecane	85	8.123	8.123	0.000	92	1170920	120.0	128.8	
164 Pentachlorophenol	266	7.979	7.973	0.006	98	1585198	240.0	248.2	
169 Phenanthrene	178	8.182	8.171	0.011	97	5469225	120.0	120.6	
170 Anthracene	178	8.230	8.225	0.006	97	5572443	120.0	119.9	
171 Carbazole	167	8.396	8.390	0.006	95	5683205	120.0	122.9	
172 Alachlor	188	8.556	8.556	0.000	95	818376	120.0	131.0	
175 Di-n-butyl phthalate	149	8.786	8.781	0.005	99	6459925	120.0	118.0	
182 Fluoranthene	202	9.332	9.332	0.000	97	5657111	120.0	119.9	
185 Pyrene	202	9.551	9.546	0.005	98	5764443	120.0	113.1	
193 Butyl benzyl phthalate	149	10.289	10.289	0.000	95	3115149	120.0	121.2	
197 3,3'-Dichlorobenzidine	252	10.899	10.893	0.006	72	2055767	120.0	117.0	
198 Benzo[a]anthracene	228	10.899	10.893	0.006	98	5243713	120.0	115.9	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.070	-0.005	96	4303011	120.0	123.0	
200 Chrysene	228	10.947	10.942	0.005	97	5158241	120.0	121.6	
202 Di-n-octyl phthalate	149	12.097	12.092	0.005	98	7931257	120.0	125.1	
204 Benzo[b]fluoranthene	252	12.514	12.503	0.011	97	5727155	120.0	127.0	
205 Benzo[k]fluoranthene	252	12.568	12.552	0.016	98	5714564	120.0	122.2	
208 Benzo[a]pyrene	252	13.060	13.038	0.022	77	5113694	120.0	125.1	
214 Indeno[1,2,3-cd]pyrene	276	15.066	15.039	0.027	98	5615074	120.0	128.6	
215 Dibenz(a,h)anthracene	278	15.140	15.119	0.021	93	5446448	120.0	129.2	
216 Benzo[g,h,i]perylene	276	15.526	15.493	0.033	99	5738083	120.0	128.1	
S 218 Total Cresols	108				0			232.6	
S 219 Methyl Phenols, Total	108				0			232.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLA120_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022435.D

Injection Date: 14-Oct-2022 18:52:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD120 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

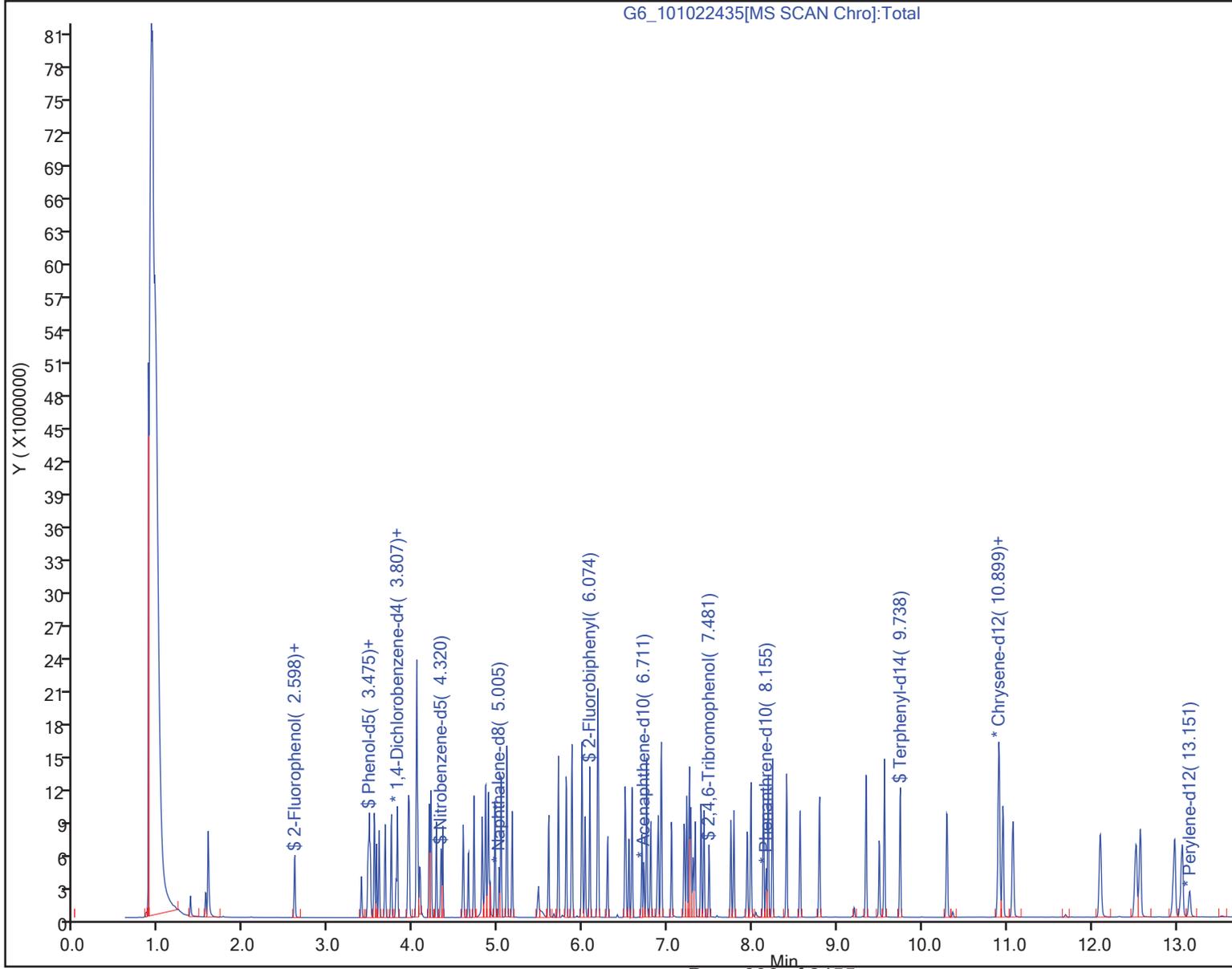
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

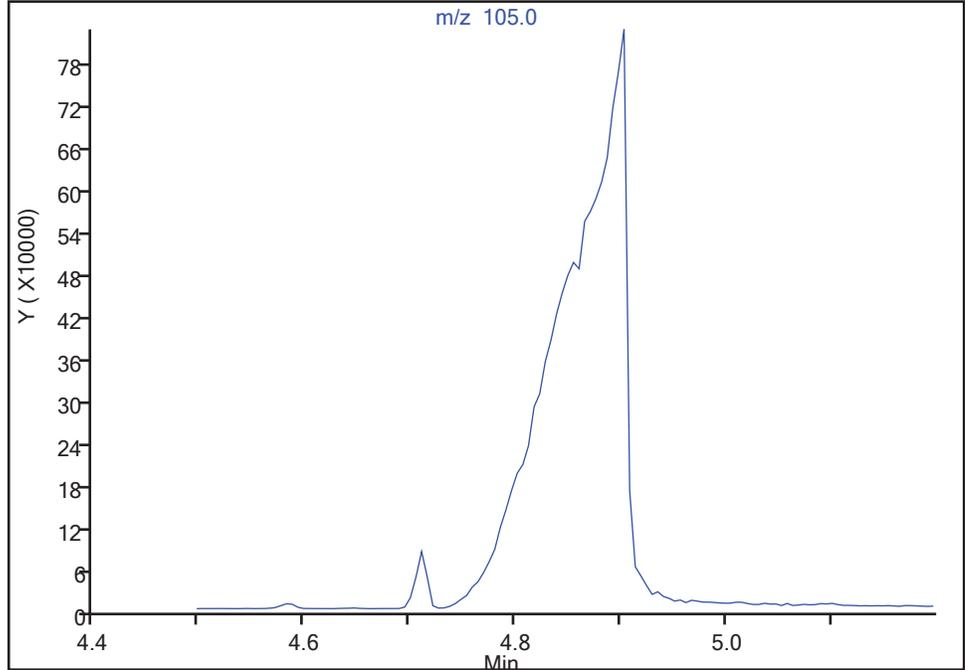
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022435.D
Injection Date: 14-Oct-2022 18:52:30 Instrument ID: SMS_G6
Lims ID: STD120 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 18 Worklist Smp#: 15
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

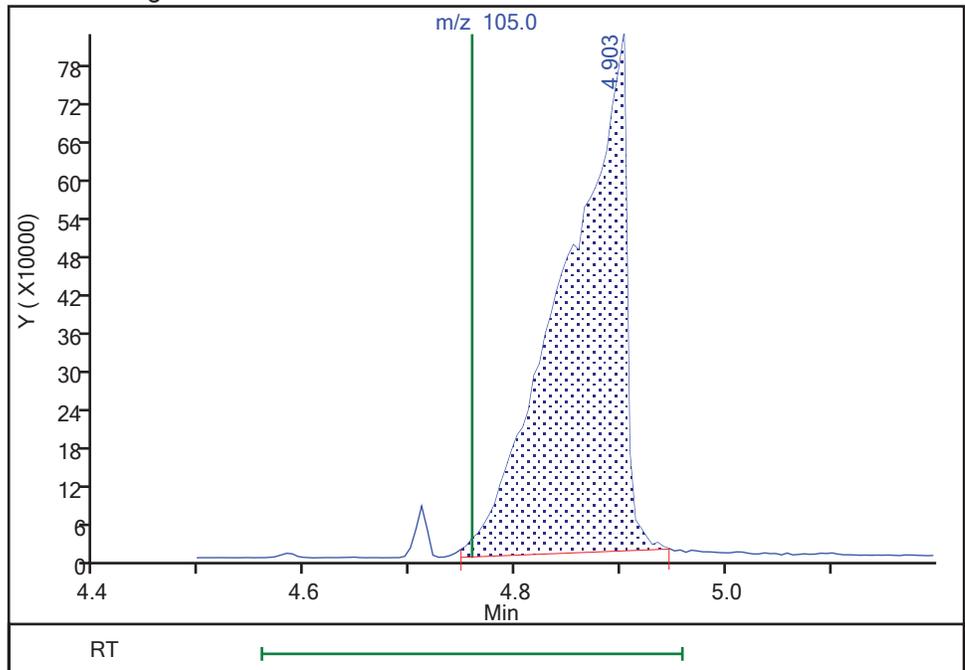
Not Detected
Expected RT: 4.76

Processing Integration Results



Manual Integration Results

RT: 4.90
Area: 3345412
Amount: 247.5236
Amount Units: ug/ml



Reviewer: TRE2, 17-Oct-2022 10:07:13
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022436.D
 Lims ID: STD160 HSL
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 14-Oct-2022 19:12:30 ALS Bottle#: 19 Worklist Smp#: 16
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD160 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:56 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 15-Oct-2022 09:57:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	94	430277	40.0	40.0	
* 2 Naphthalene-d8	136	5.010	4.999	0.011	99	1614218	40.0	40.0	
* 3 Acenaphthene-d10	164	6.716	6.711	0.005	90	932481	40.0	40.0	
* 4 Phenanthrene-d10	188	8.155	8.150	0.005	96	1497985	40.0	40.0	
* 5 Chrysene-d12	240	10.920	10.910	0.010	99	1349543	40.0	40.0	
* 6 Perylene-d12	264	13.156	13.151	0.005	98	1363389	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.598	2.592	0.006	89	2241927	160.0	157.9	
\$ 8 Phenol-d5	99	3.464	3.448	0.016	99	2796078	160.0	154.7	
\$ 9 Nitrobenzene-d5	82	4.326	4.309	0.017	87	2292527	160.0	152.9	
\$ 11 2-Fluorobiphenyl	172	6.080	6.069	0.011	99	4368188	160.0	158.4	
\$ 12 2,4,6-Tribromophenol	330	7.487	7.476	0.011	90	1111980	160.0	204.2	
\$ 13 Terphenyl-d14	244	9.738	9.738	0.000	97	5621481	160.0	162.0	
20 1,4-Dioxane	88	1.368	1.368	0.000	95	786461	160.0	153.0	
21 N-Nitrosodimethylamine	74	1.550	1.544	0.006	93	1298147	160.0	157.5	
22 Pyridine	79	1.576	1.576	0.000	98	4139215	320.0	316.5	
34 Phenol	94	3.480	3.459	0.021	97	2921960	160.0	153.2	
35 Aniline	93	3.491	3.475	0.016	99	3482827	160.0	155.9	
36 Alpha Methyl Styrene	118	3.539	3.528	0.011	90	2268408	160.0	155.4	
37 Bis(2-chloroethyl)ether	93	3.561	3.550	0.011	96	2146994	160.0	151.6	
39 n-Decane	43	3.662	3.657	0.005	85	1576812	160.0	153.7	
41 2-Chlorophenol	128	3.593	3.582	0.011	95	2292114	160.0	154.6	
42 1,3-Dichlorobenzene	146	3.737	3.732	0.005	98	2473312	160.0	154.5	
43 1,4-Dichlorobenzene	146	3.807	3.801	0.006	96	2521417	160.0	155.9	
44 Benzyl alcohol	108	3.940	3.924	0.016	95	1515586	160.0	150.0	
45 1,2-Dichlorobenzene	146	3.946	3.940	0.006	98	2387087	160.0	156.4	
46 2-Methylphenol	108	4.047	4.037	0.010	91	2024606	160.0	151.0	
47 2,2'-oxybis[1-chloropropane]	45	4.074	4.063	0.011	95	2371357	160.0	152.6	
48 Indene	116	4.037	4.026	0.011	91	6841795	320.0	282.2	
49 3 & 4 Methylphenol	108	4.208	4.192	0.016	90	2163301	160.0	150.8	
50 3-Methylphenol	108	4.208	4.192	0.016	94	2163301	160.0	150.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.203	4.181	0.022	81	1428527	160.0	149.2	
52 4-Methylphenol	108	4.208	4.192	0.016	93	2163301	160.0	150.8	
55 Acetophenone	105	4.187	4.170	0.017	98	2965440	160.0	150.6	
58 Hexachloroethane	117	4.267	4.261	0.006	97	1008325	160.0	153.2	
60 Nitrobenzene	77	4.342	4.331	0.011	87	2129359	160.0	149.4	
63 Isophorone	82	4.588	4.566	0.022	99	4110721	160.0	150.5	
65 2-Nitrophenol	139	4.646	4.636	0.010	90	1273913	160.0	160.9	
66 2,4-Dimethylphenol	107	4.711	4.700	0.011	93	2122741	160.0	150.6	
69 Bis(2-chloroethoxy)methane	93	4.812	4.796	0.016	99	2658741	160.0	152.1	
70 Benzoic acid	105	4.925	4.759	0.166	86	3794987	320.0	333.8	Ma
71 3,5-Dimethylphenol	107	4.850	4.833	0.017	89	2230023	160.0	150.5	
75 2,4-Dichlorophenol	162	4.882	4.871	0.011	92	1930663	160.0	160.2	
77 1,2,4-Trichlorobenzene	180	4.962	4.951	0.011	93	1966447	160.0	155.0	
79 Naphthalene	128	5.032	5.021	0.011	97	5863036	160.0	146.9	
80 4-Chloroaniline	127	5.101	5.085	0.016	97	2701948	160.0	150.7	
81 2,6-Dichlorophenol	162	5.101	5.090	0.011	96	1868391	160.0	158.4	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	97	1032072	160.0	160.0	
87 Caprolactam	55	5.486	5.395	0.091	87	1036516	160.0	160.7	
90 4-Chloro-3-methylphenol	107	5.593	5.577	0.016	95	1917255	160.0	152.2	
94 2-Methylnaphthalene	142	5.706	5.700	0.006	94	4138944	160.0	153.3	
96 1-Methylnaphthalene	142	5.802	5.791	0.011	95	3848372	160.0	150.9	
97 Hexachlorocyclopentadiene	237	5.866	5.860	0.006	95	1383622	160.0	173.0	
98 1,2,4,5-Tetrachlorobenzene	216	5.871	5.860	0.011	96	1877087	160.0	159.3	
101 2,4,6-Trichlorophenol	196	5.989	5.983	0.006	92	1336019	160.0	159.5	
102 2,3-Dichlorobenzenamine	161	5.984	5.978	0.006	98	2355589	160.0	158.2	
103 2,4,5-Trichlorophenol	196	6.021	6.010	0.011	95	1522391	160.0	163.3	
105 1,1'-Biphenyl	154	6.171	6.160	0.011	95	4595768	160.0	149.3	
107 2-Chloronaphthalene	162	6.182	6.171	0.011	96	3743900	160.0	150.5	
109 2-Nitroaniline	65	6.289	6.278	0.011	89	1265740	160.0	163.0	
112 Dimethyl phthalate	163	6.497	6.481	0.016	99	4246744	160.0	155.8	
113 1,3-Dinitrobenzene	168	6.508	6.492	0.016	90	807270	160.0	169.3	
114 2,6-Dinitrotoluene	165	6.540	6.529	0.011	96	1107531	160.0	164.6	
115 Acenaphthylene	152	6.577	6.566	0.011	98	6188030	160.0	158.1	
116 3-Nitroaniline	138	6.695	6.679	0.016	97	1417832	160.0	162.0	
117 Acenaphthene	153	6.749	6.738	0.010	93	3838650	160.0	158.1	
118 2,4-Dinitrophenol	184	6.802	6.780	0.022	87	1395034	320.0	327.4	
120 4-Nitrophenol	109	6.893	6.861	0.032	88	1383578	320.0	326.9	
122 2,4-Dinitrotoluene	165	6.930	6.914	0.016	95	1360237	160.0	162.0	
123 Dibenzofuran	168	6.920	6.909	0.011	97	5285870	160.0	152.2	
127 2,3,4,6-Tetrachlorophenol	232	7.043	7.037	0.006	71	1287607	160.0	173.0	
128 Hexadecane	57	7.219	7.214	0.005	88	2718684	160.0	156.8	
130 Diethyl phthalate	149	7.192	7.176	0.016	98	4447330	160.0	155.7	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	92	2009419	160.0	158.8	
136 Fluorene	166	7.251	7.246	0.005	95	4456376	160.0	155.5	
139 4-Nitroaniline	138	7.305	7.267	0.038	90	1390993	160.0	159.8	
140 4,6-Dinitro-2-methylphenol	198	7.326	7.299	0.027	86	1696621	320.0	341.2	
142 Diphenylamine	169	7.390	7.379	0.011	96	3327456	136.0	135.1	
143 N-Nitrosodiphenylamine	169	7.390	7.379	0.011	99	3327456	160.0	159.4	
144 Azobenzene	77	7.428	7.417	0.011	97	4420299	160.0	152.9	
145 1,2-Diphenylhydrazine	77	7.428	7.417	0.011	99	4420299	161.8	154.6	
157 4-Bromophenyl phenyl ether	248	7.743	7.738	0.005	61	1387845	160.0	168.5	
158 Hexachlorobenzene	284	7.781	7.770	0.011	96	1720982	160.0	178.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.941	7.920	0.021	94	1170192	160.0	159.0	
162 n-Octadecane	85	8.123	8.123	0.000	93	1207357	160.0	145.6	
164 Pentachlorophenol	266	7.979	7.973	0.006	97	2038499	320.0	350.0	
169 Phenanthrene	178	8.182	8.171	0.011	97	6291066	160.0	152.2	
170 Anthracene	178	8.235	8.225	0.011	97	6482781	160.0	152.9	
171 Carbazole	167	8.401	8.390	0.011	95	6403435	160.0	151.8	
172 Alachlor	188	8.562	8.556	0.006	95	886757	160.0	155.6	
175 Di-n-butyl phthalate	149	8.786	8.781	0.005	99	7574827	160.0	151.8	
182 Fluoranthene	202	9.337	9.332	0.005	98	6719988	160.0	156.2	
185 Pyrene	202	9.557	9.546	0.011	97	7046925	160.0	154.2	
193 Butyl benzyl phthalate	149	10.289	10.289	0.000	96	3533816	160.0	153.3	
197 3,3'-Dichlorobenzidine	252	10.910	10.893	0.017	72	2486463	160.0	157.7	
198 Benzo[a]anthracene	228	10.904	10.893	0.011	98	6563367	160.0	161.7	
199 Bis(2-ethylhexyl) phthalate	149	11.070	11.070	0.000	95	4805209	160.0	153.1	
200 Chrysene	228	10.958	10.942	0.016	97	6081471	160.0	159.9	
202 Di-n-octyl phthalate	149	12.102	12.092	0.010	98	8798366	160.0	154.7	
204 Benzo[b]fluoranthene	252	12.525	12.503	0.022	96	7092571	160.0	170.0	
205 Benzo[k]fluoranthene	252	12.579	12.552	0.027	98	6781166	160.0	156.8	
208 Benzo[a]pyrene	252	13.076	13.038	0.038	76	6172713	160.0	163.2	
214 Indeno[1,2,3-cd]pyrene	276	15.082	15.039	0.043	98	7051727	160.0	180.0	
215 Dibenz(a,h)anthracene	278	15.157	15.119	0.038	93	6746062	160.0	173.0	
216 Benzo[g,h,i]perylene	276	15.542	15.493	0.049	99	7147025	160.0	172.5	
S 218 Total Cresols	108				0			301.8	
S 219 Methyl Phenols, Total	108				0			301.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLA160_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022436.D

Injection Date: 14-Oct-2022 19:12:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD160 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

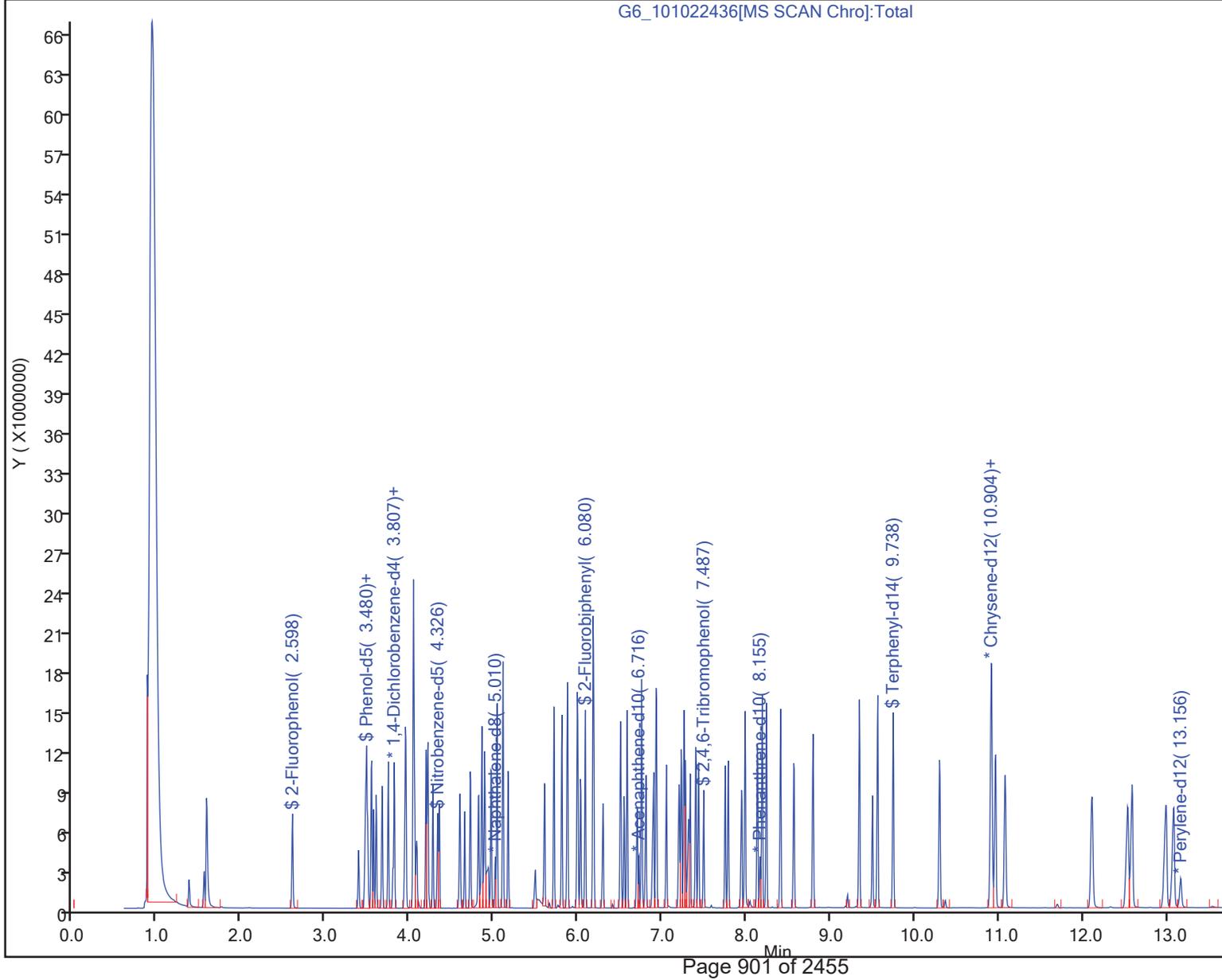
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022436[MS SCAN Chro]:Total



Eurofins Denver

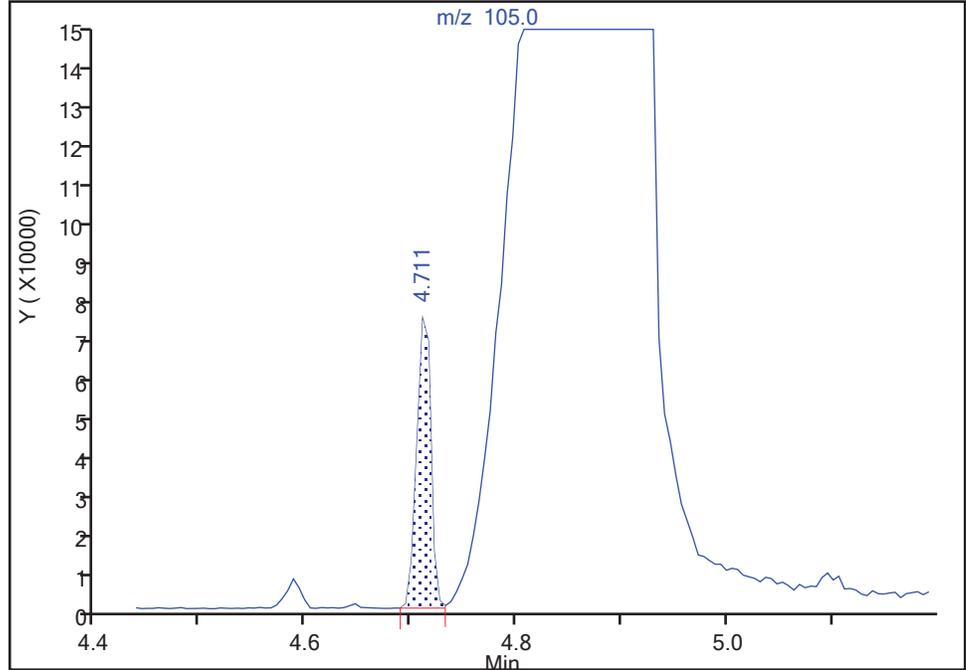
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022436.D
Injection Date: 14-Oct-2022 19:12:30 Instrument ID: SMS_G6
Lims ID: STD160 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 19 Worklist Smp#: 16
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

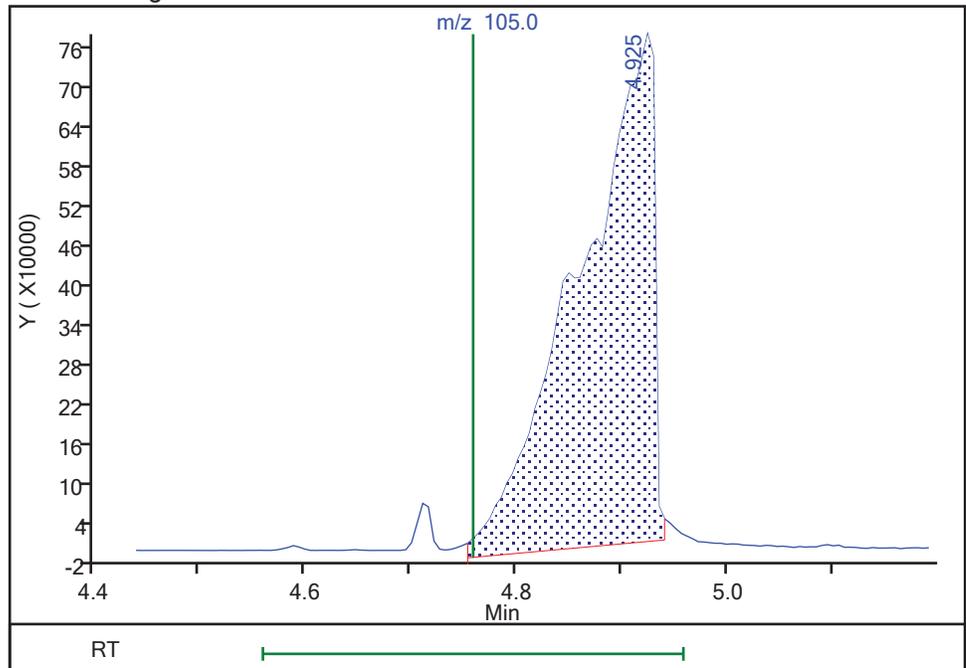
RT: 4.71
Area: 66001
Amount: 7.364742
Amount Units: ug/ml

Processing Integration Results



RT: 4.92
Area: 3794987
Amount: 333.8096
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:08:40
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Lims ID: STD200 HSL
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 14-Oct-2022 19:33:30 ALS Bottle#: 20 Worklist Smp#: 17
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: STD200 HSL
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 13:51:58 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2

Date: 15-Oct-2022 09:57:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	94	542543	40.0	40.0	
* 2 Naphthalene-d8	136	5.010	4.999	0.011	99	2056117	40.0	40.0	
* 3 Acenaphthene-d10	164	6.716	6.711	0.005	90	1175079	40.0	40.0	
* 4 Phenanthrene-d10	188	8.161	8.150	0.011	97	1851187	40.0	40.0	
* 5 Chrysene-d12	240	10.920	10.910	0.010	99	1517955	40.0	40.0	
* 6 Perylene-d12	264	13.156	13.151	0.005	97	1522420	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.598	2.592	0.006	88	3637768	200.0	203.2	
\$ 8 Phenol-d5	99	3.470	3.448	0.022	95	4565633	200.0	200.3	
\$ 9 Nitrobenzene-d5	82	4.326	4.309	0.017	86	3613094	200.0	189.1	
\$ 11 2-Fluorobiphenyl	172	6.080	6.069	0.011	99	6490161	200.0	186.8	
\$ 12 2,4,6-Tribromophenol	330	7.492	7.476	0.016	91	1369272	200.0	199.5	
\$ 13 Terphenyl-d14	244	9.744	9.738	0.006	97	7529931	200.0	192.9	
20 1,4-Dioxane	88	1.368	1.368	0.000	91	1361184	200.0	211.0	
21 N-Nitrosodimethylamine	74	1.550	1.544	0.006	87	2214291	200.0	213.1	
22 Pyridine	79	1.576	1.576	0.000	97	6469322	400.0	392.3	
34 Phenol	94	3.480	3.459	0.021	98	4292804	200.0	178.5	
35 Aniline	93	3.491	3.475	0.016	99	5274978	200.0	187.3	
36 Alpha Methyl Styrene	118	3.539	3.528	0.011	89	3653407	200.0	198.4	
37 Bis(2-chloroethyl)ether	93	3.566	3.550	0.016	98	3434167	200.0	192.4	
39 n-Decane	43	3.662	3.657	0.005	83	2227307	200.0	172.2	
41 2-Chlorophenol	128	3.598	3.582	0.016	94	3661899	200.0	195.9	
42 1,3-Dichlorobenzene	146	3.737	3.732	0.005	98	3829621	200.0	189.7	
43 1,4-Dichlorobenzene	146	3.807	3.801	0.006	96	3875799	200.0	190.0	
44 Benzyl alcohol	108	3.946	3.924	0.022	94	2346452	200.0	184.1	
45 1,2-Dichlorobenzene	146	3.946	3.940	0.006	99	3520403	200.0	182.9	
46 2-Methylphenol	108	4.053	4.037	0.016	89	3145320	200.0	186.1	
47 2,2'-oxybis[1-chloropropane]	45	4.074	4.063	0.011	93	3449946	200.0	176.0	
48 Indene	116	4.037	4.026	0.011	90	9428266	400.0	308.5	e
49 3 & 4 Methylphenol	108	4.213	4.192	0.021	87	3403382	200.0	188.1	
50 3-Methylphenol	108	4.213	4.192	0.021	97	3403382	200.0	188.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.208	4.181	0.027	77	2075724	200.0	171.9	
52 4-Methylphenol	108	4.213	4.192	0.021	93	3403382	200.0	188.1	
55 Acetophenone	105	4.186	4.170	0.016	98	4683223	200.0	188.6	
58 Hexachloroethane	117	4.267	4.261	0.006	97	1554871	200.0	187.3	
60 Nitrobenzene	77	4.347	4.331	0.016	84	3308509	200.0	182.2	
63 Isophorone	82	4.593	4.566	0.027	98	6548668	200.0	188.2	
65 2-Nitrophenol	139	4.646	4.636	0.010	89	2026563	200.0	201.0	
66 2,4-Dimethylphenol	107	4.716	4.700	0.016	92	3300041	200.0	183.9	
69 Bis(2-chloroethoxy)methane	93	4.812	4.796	0.016	97	3724373	200.0	167.2	
70 Benzoic acid	105	4.946	4.759	0.187	83	5478866	400.0	377.9	Ma
71 3,5-Dimethylphenol	107	4.855	4.833	0.022	92	3450665	200.0	182.8	
75 2,4-Dichlorophenol	162	4.887	4.871	0.016	89	2863935	200.0	186.6	
77 1,2,4-Trichlorobenzene	180	4.962	4.951	0.011	92	2901452	200.0	179.6	
79 Naphthalene	128	5.032	5.021	0.011	98	8311953	200.0	163.6	e
80 4-Chloroaniline	127	5.101	5.085	0.016	95	3828186	200.0	167.7	
81 2,6-Dichlorophenol	162	5.101	5.090	0.011	92	2633550	200.0	175.2	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	96	1375384	200.0	167.4	
87 Caprolactam	55	5.497	5.395	0.102	88	1527056	200.0	185.8	Ma
90 4-Chloro-3-methylphenol	107	5.599	5.577	0.022	94	3026121	200.0	188.6	
94 2-Methylnaphthalene	142	5.711	5.700	0.011	94	6237320	200.0	181.3	
96 1-Methylnaphthalene	142	5.802	5.791	0.011	95	5868737	200.0	180.6	
97 Hexachlorocyclopentadiene	237	5.866	5.860	0.006	95	1968505	200.0	195.3	
98 1,2,4,5-Tetrachlorobenzene	216	5.871	5.860	0.011	96	2693650	200.0	179.4	
101 2,4,6-Trichlorophenol	196	5.994	5.983	0.011	91	1940757	200.0	183.9	
102 2,3-Dichlorobenzenamine	161	5.984	5.978	0.006	98	3527316	200.0	188.0	
103 2,4,5-Trichlorophenol	196	6.026	6.010	0.016	95	2264583	200.0	192.7	
105 1,1'-Biphenyl	154	6.171	6.160	0.011	94	6642577	200.0	171.2	
107 2-Chloronaphthalene	162	6.182	6.171	0.011	97	5480043	200.0	174.8	
109 2-Nitroaniline	65	6.294	6.278	0.016	86	1824581	200.0	186.5	
112 Dimethyl phthalate	163	6.502	6.481	0.021	99	6366793	200.0	185.3	
113 1,3-Dinitrobenzene	168	6.513	6.492	0.021	93	1248672	200.0	207.8	
114 2,6-Dinitrotoluene	165	6.545	6.529	0.016	96	1687140	200.0	199.0	
115 Acenaphthylene	152	6.577	6.566	0.011	98	8723892	200.0	176.9	e
116 3-Nitroaniline	138	6.700	6.679	0.021	96	2235010	200.0	202.7	
117 Acenaphthene	153	6.754	6.738	0.016	91	5652640	200.0	184.7	a
118 2,4-Dinitrophenol	184	6.807	6.780	0.027	88	2184213	400.0	405.2	
120 4-Nitrophenol	109	6.898	6.861	0.037	88	2157473	400.0	404.5	
122 2,4-Dinitrotoluene	165	6.936	6.914	0.022	95	2069080	200.0	195.6	
123 Dibenzofuran	168	6.925	6.909	0.016	98	7725434	200.0	176.5	e
127 2,3,4,6-Tetrachlorophenol	232	7.048	7.037	0.011	71	1854524	200.0	197.8	
128 Hexadecane	57	7.225	7.214	0.011	88	3746549	200.0	171.5	
130 Diethyl phthalate	149	7.198	7.176	0.022	98	6672272	200.0	185.4	
135 4-Chlorophenyl phenyl ether	204	7.273	7.262	0.011	88	2940182	200.0	184.4	
136 Fluorene	166	7.257	7.246	0.011	96	6537665	200.0	181.0	
139 4-Nitroaniline	138	7.315	7.267	0.048	89	2154827	200.0	196.5	a
140 4,6-Dinitro-2-methylphenol	198	7.337	7.299	0.038	92	2519045	400.0	409.2	
142 Diphenylamine	169	7.396	7.379	0.017	95	5009563	170.0	161.5	
143 N-Nitrosodiphenylamine	169	7.396	7.379	0.017	99	5009563	200.0	194.1	
144 Azobenzene	77	7.428	7.417	0.011	97	6607019	200.0	181.4	
145 1,2-Diphenylhydrazine	77	7.428	7.417	0.011	98	6607019	202.2	183.4	
157 4-Bromophenyl phenyl ether	248	7.743	7.738	0.005	60	1992530	200.0	195.8	
158 Hexachlorobenzene	284	7.781	7.770	0.011	96	2270799	200.0	191.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.941	7.920	0.021	94	1760386	200.0	193.5	
162 n-Octadecane	85	8.128	8.123	0.005	92	1877519	200.0	183.3	
164 Pentachlorophenol	266	7.984	7.973	0.011	97	2751739	400.0	382.4	
169 Phenanthrene	178	8.187	8.171	0.016	97	8789138	200.0	172.0	e
170 Anthracene	178	8.235	8.225	0.011	97	8847962	200.0	168.9	e
171 Carbazole	167	8.407	8.390	0.017	96	8979498	200.0	172.3	e
172 Alachlor	188	8.562	8.556	0.006	91	1327911	200.0	188.6	
175 Di-n-butyl phthalate	149	8.786	8.781	0.005	99	9662495	200.0	156.7	e
182 Fluoranthene	202	9.343	9.332	0.011	97	9219583	200.0	173.4	e
185 Pyrene	202	9.557	9.546	0.011	99	9615324	200.0	187.0	e
193 Butyl benzyl phthalate	149	10.295	10.289	0.006	96	5209146	200.0	200.9	
197 3,3'-Dichlorobenzidine	252	10.910	10.893	0.017	72	3372252	200.0	190.2	
198 Benzo[a]anthracene	228	10.910	10.893	0.017	98	9200032	200.0	201.5	
199 Bis(2-ethylhexyl) phthalate	149	11.070	11.070	0.000	95	6772488	200.0	191.9	
200 Chrysene	228	10.963	10.942	0.021	97	8499831	200.0	198.7	
202 Di-n-octyl phthalate	149	12.102	12.092	0.010	98	12853829	200.0	201.0	
204 Benzo[b]fluoranthene	252	12.530	12.503	0.027	97	9435770	200.0	202.5	
205 Benzo[k]fluoranthene	252	12.589	12.552	0.037	98	9584840	200.0	198.4	
208 Benzo[a]pyrene	252	13.081	13.038	0.043	79	8478033	200.0	200.8	
214 Indeno[1,2,3-cd]pyrene	276	15.087	15.039	0.048	98	9575029	200.0	217.3	
215 Dibenz(a,h)anthracene	278	15.167	15.119	0.048	93	8947361	200.0	205.5	
216 Benzo[g,h,i]perylene	276	15.558	15.493	0.065	99	9449209	200.0	204.3	
S 218 Total Cresols	108				0			374.2	
S 219 Methyl Phenols,Total	108				0			374.2	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLA200_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D

Injection Date: 14-Oct-2022 19:33:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: STD200 HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

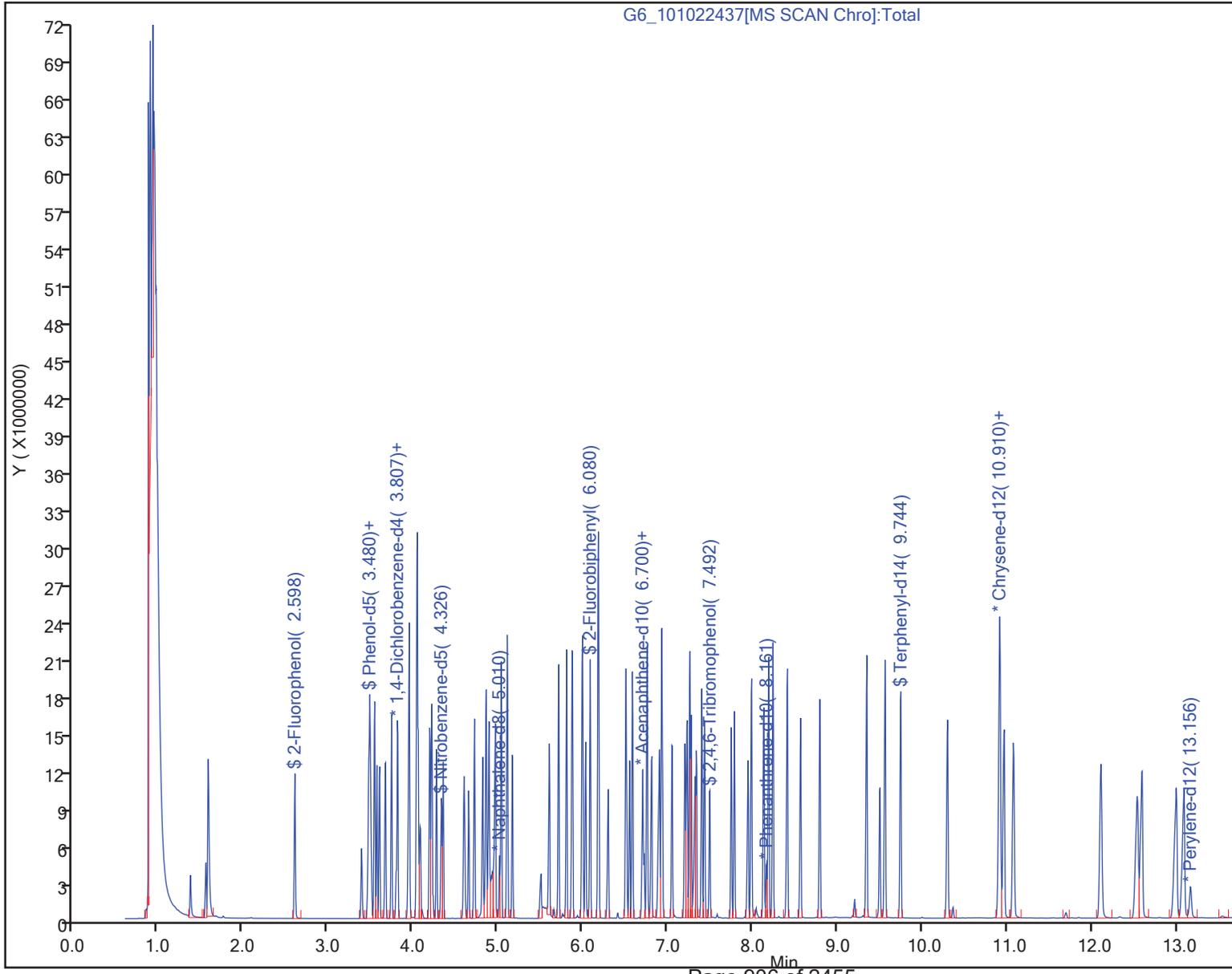
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

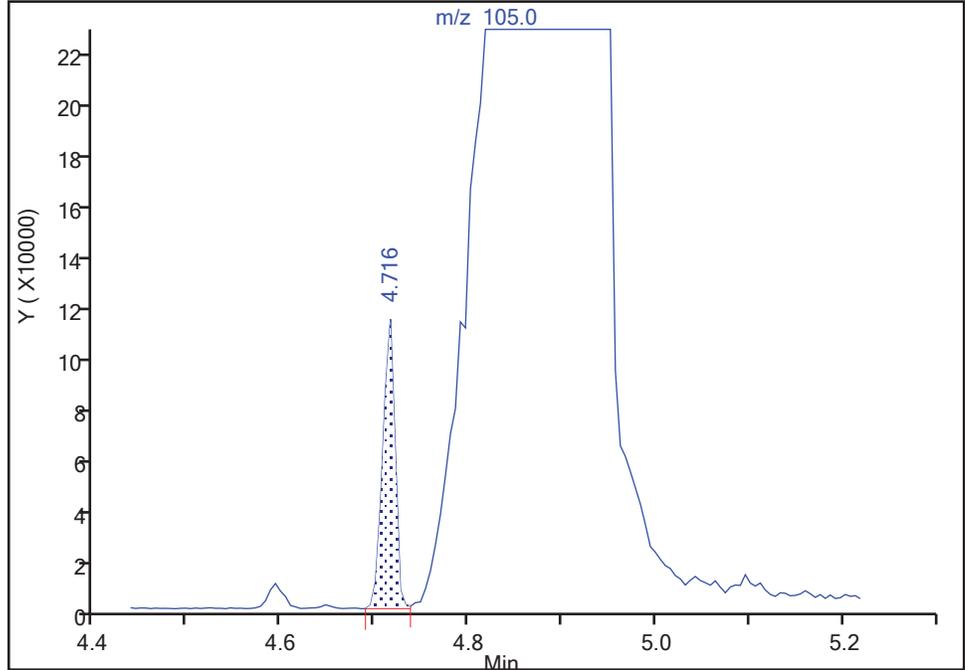
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Injection Date: 14-Oct-2022 19:33:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 20 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

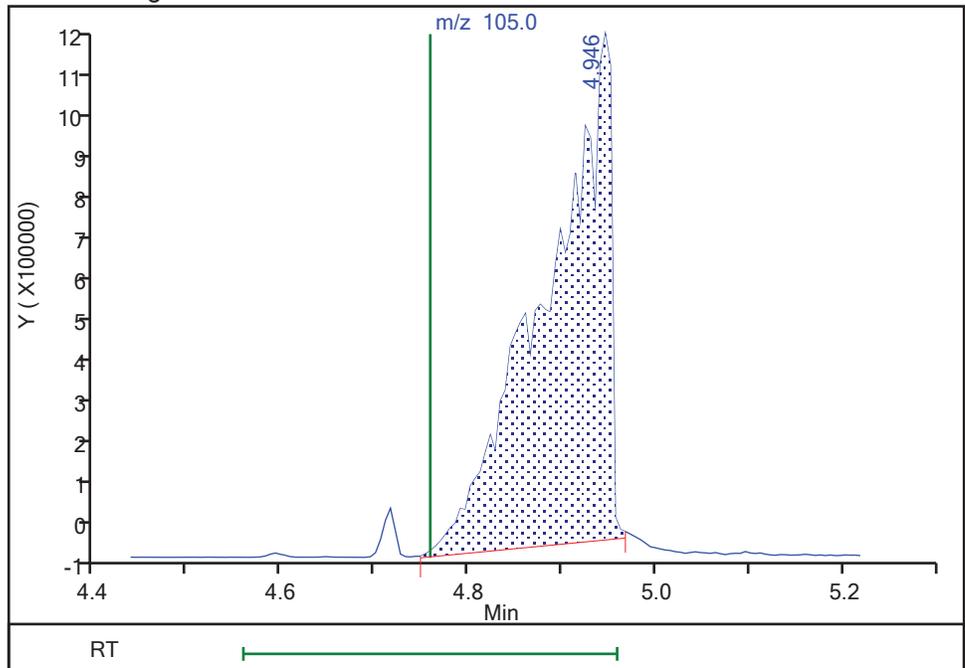
RT: 4.72
Area: 100963
Amount: 8.455256
Amount Units: ug/ml

Processing Integration Results



RT: 4.95
Area: 5478866
Amount: 377.8735
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:09:43
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

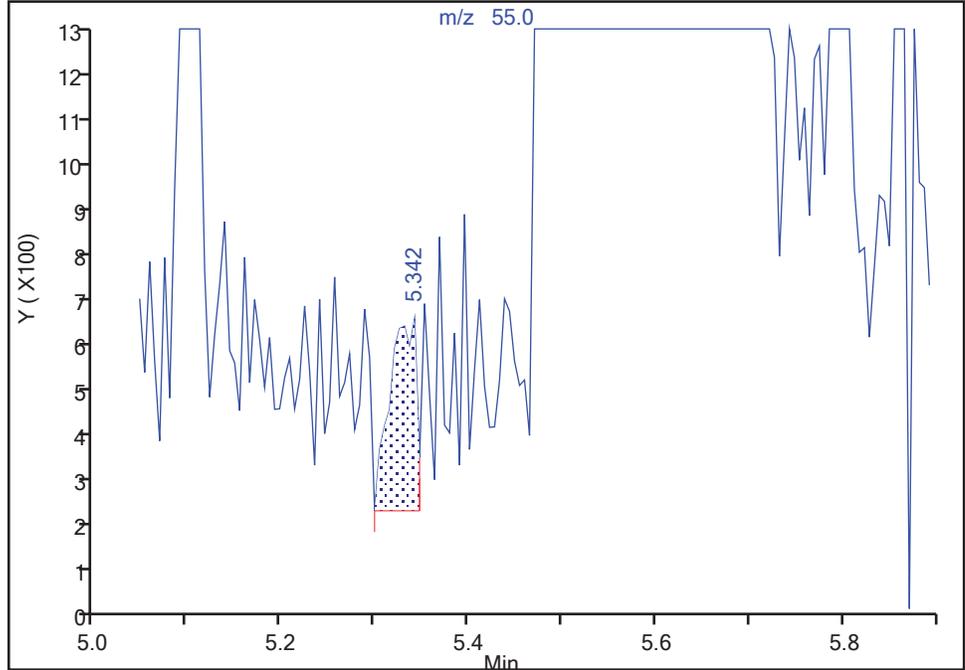
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Injection Date: 14-Oct-2022 19:33:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 20 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

87 Caprolactam, CAS: 105-60-2

Signal: 1

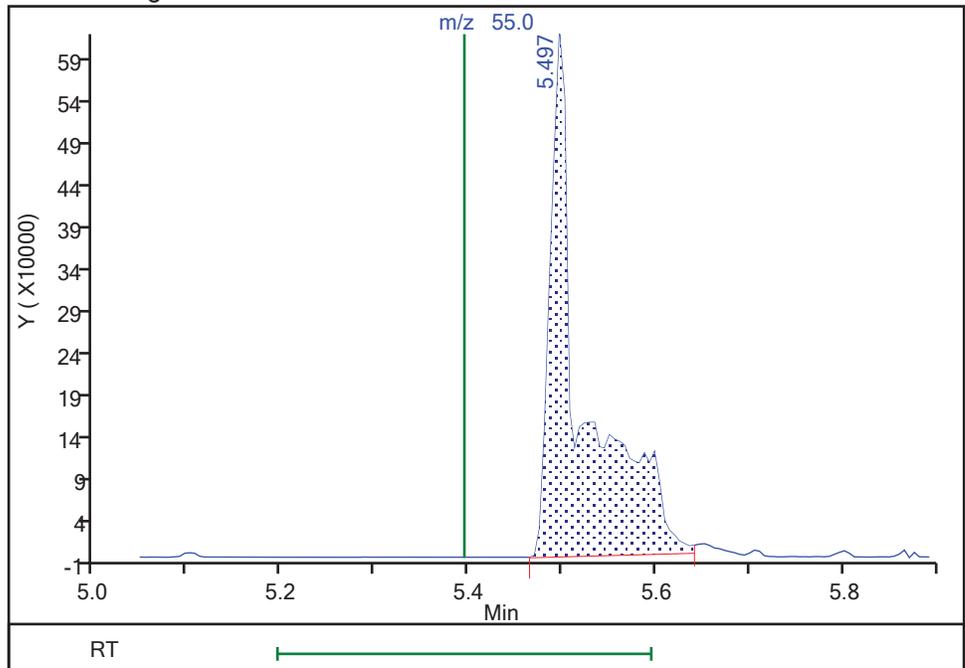
RT: 5.34
Area: 842
Amount: 0.118285
Amount Units: ug/ml

Processing Integration Results



RT: 5.50
Area: 1527056
Amount: 185.8275
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:10:48
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

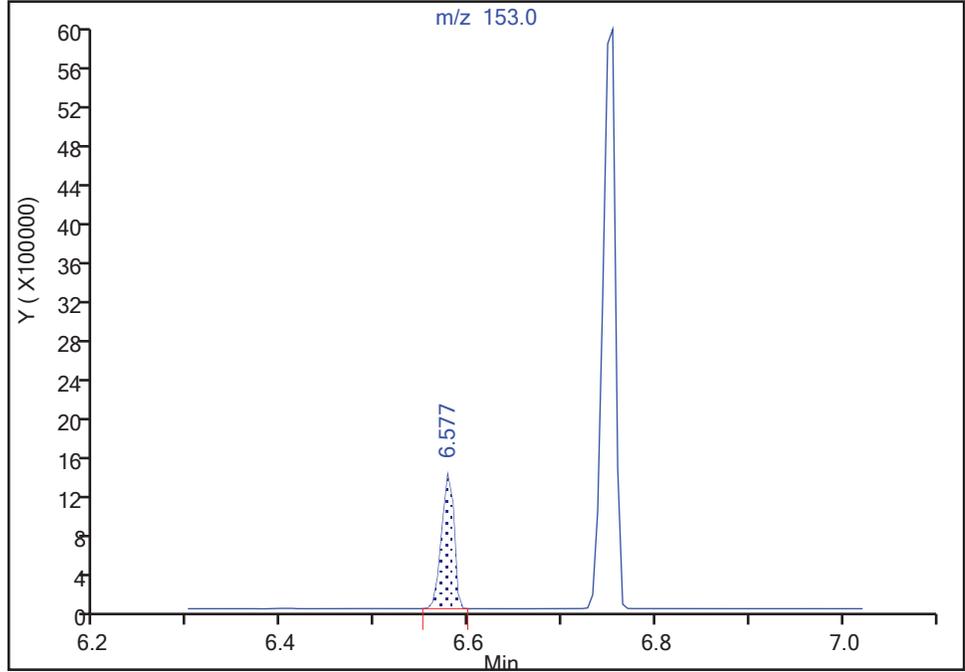
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Injection Date: 14-Oct-2022 19:33:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 20 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

117 Acenaphthene, CAS: 83-32-9

Signal: 1

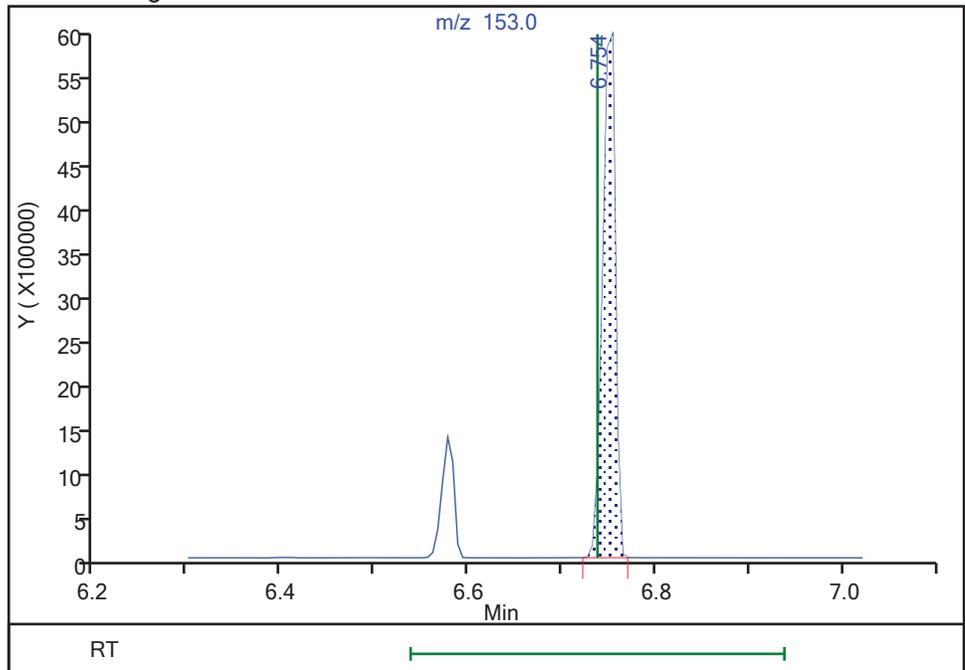
RT: 6.58
Area: 1252327
Amount: 45.536079
Amount Units: ug/ml

Processing Integration Results



RT: 6.75
Area: 5652640
Amount: 184.6989
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:11:00
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

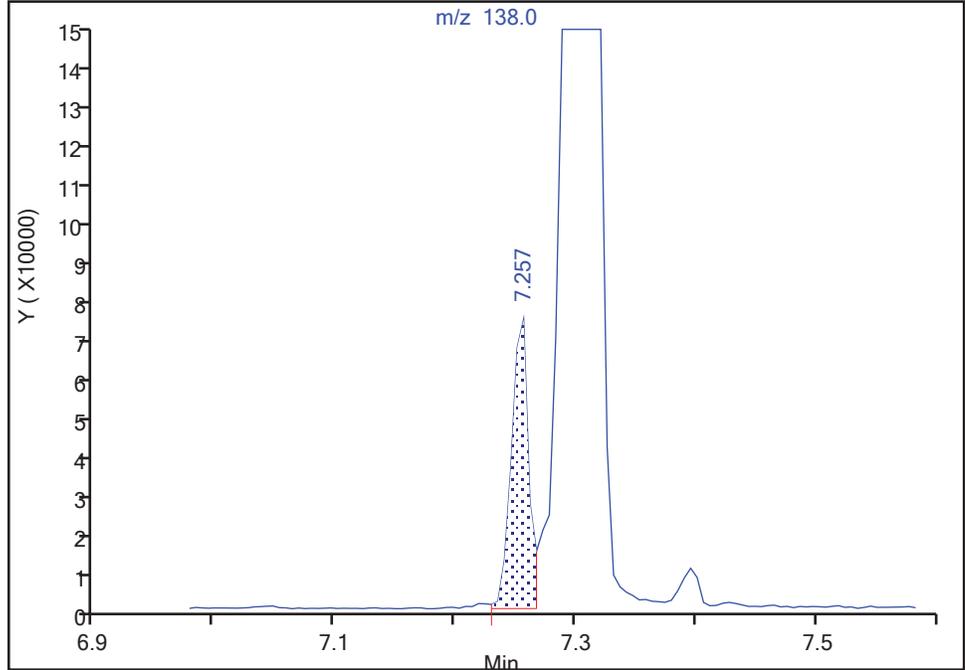
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Injection Date: 14-Oct-2022 19:33:30 Instrument ID: SMS_G6
Lims ID: STD200 HSL
Client ID:
Operator ID: tessiern ALS Bottle#: 20 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

139 4-Nitroaniline, CAS: 100-01-6

Signal: 1

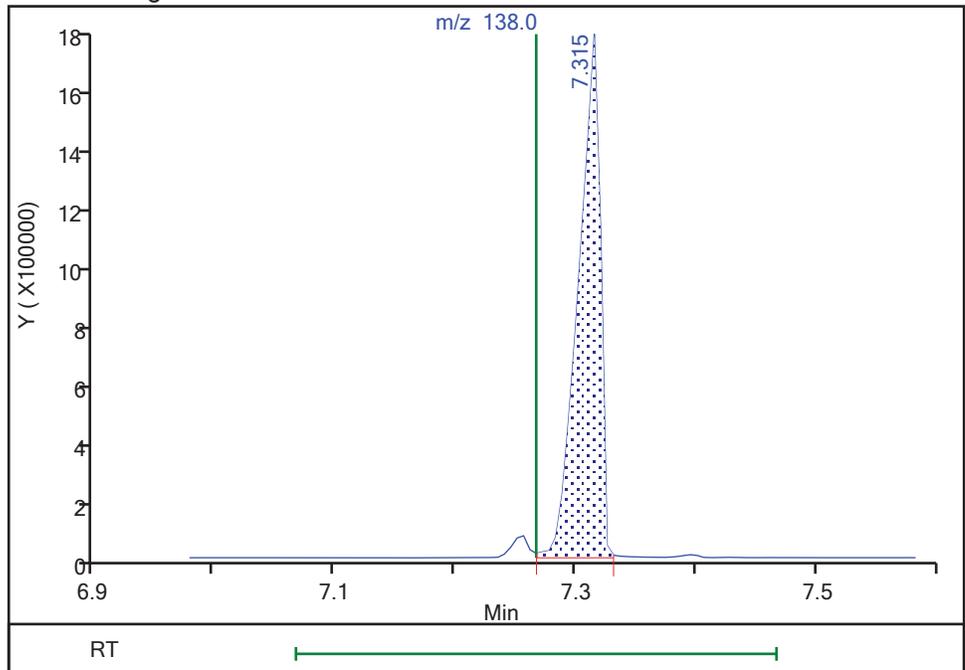
RT: 7.26
Area: 72446
Amount: 7.637076
Amount Units: ug/ml

Processing Integration Results



RT: 7.32
Area: 2154827
Amount: 196.4501
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:11:19
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Calibration

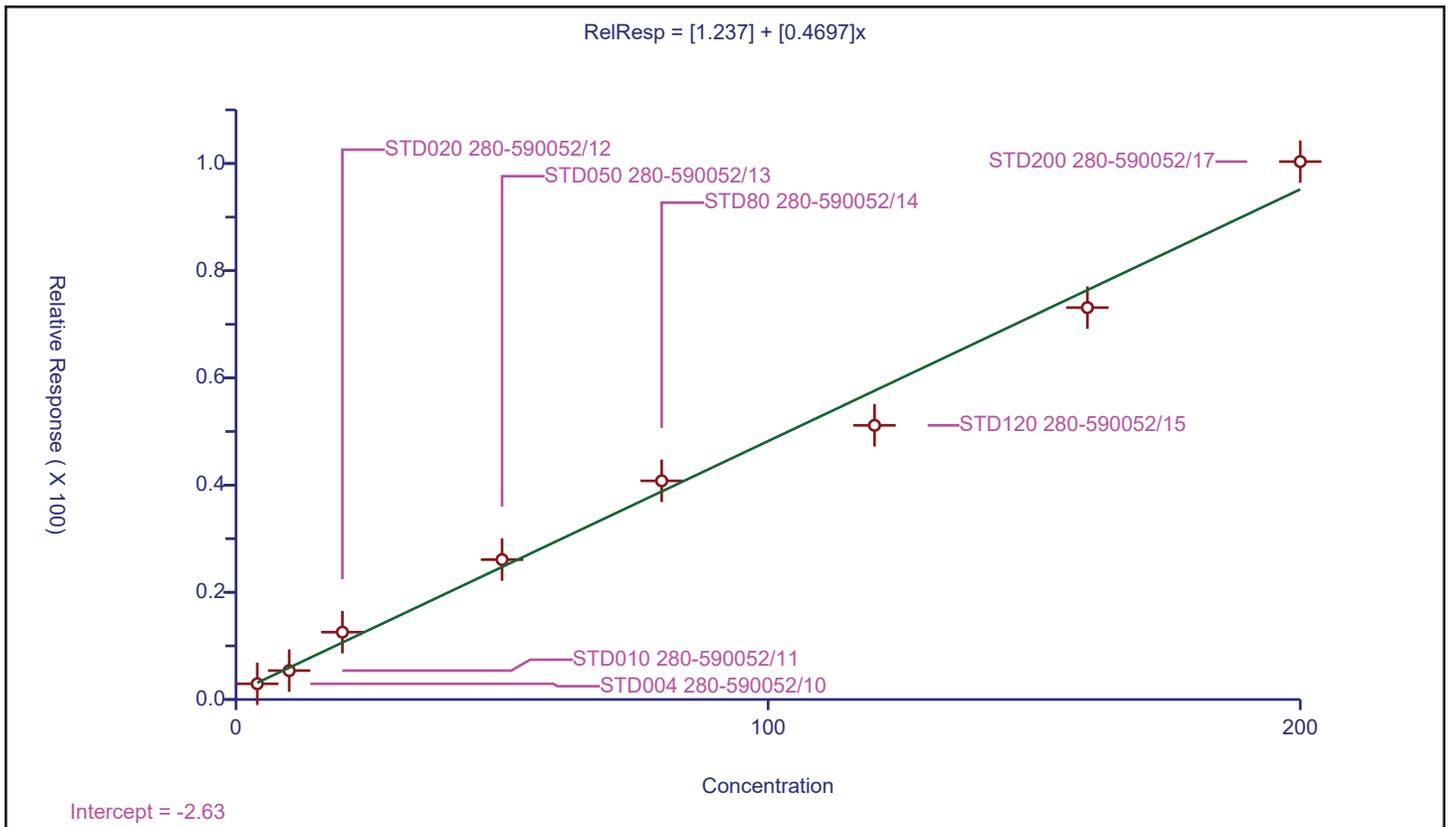
/ 1,4-Dioxane

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	1.237
Slope:	0.4697

Error Coefficients	
Standard Error:	743000
Relative Standard Error:	12.2
Correlation Coefficient:	0.951
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.932472	40.0	455070.0	0.733118	Y
2	STD010 280-590052/11	10.0	5.389741	40.0	411530.0	0.538974	Y
3	STD020 280-590052/12	20.0	12.564477	40.0	474783.0	0.628224	Y
4	STD050 280-590052/13	50.0	26.093062	40.0	505319.0	0.521861	Y
5	STD80 280-590052/14	80.0	40.794504	40.0	537744.0	0.509931	Y
6	STD120 280-590052/15	120.0	51.146492	40.0	500326.0	0.426221	Y
7	STD160 280-590052/16	160.0	73.112065	40.0	430277.0	0.45695	Y
8	STD200 280-590052/17	200.0	100.355843	40.0	542543.0	0.501779	Y



Calibration

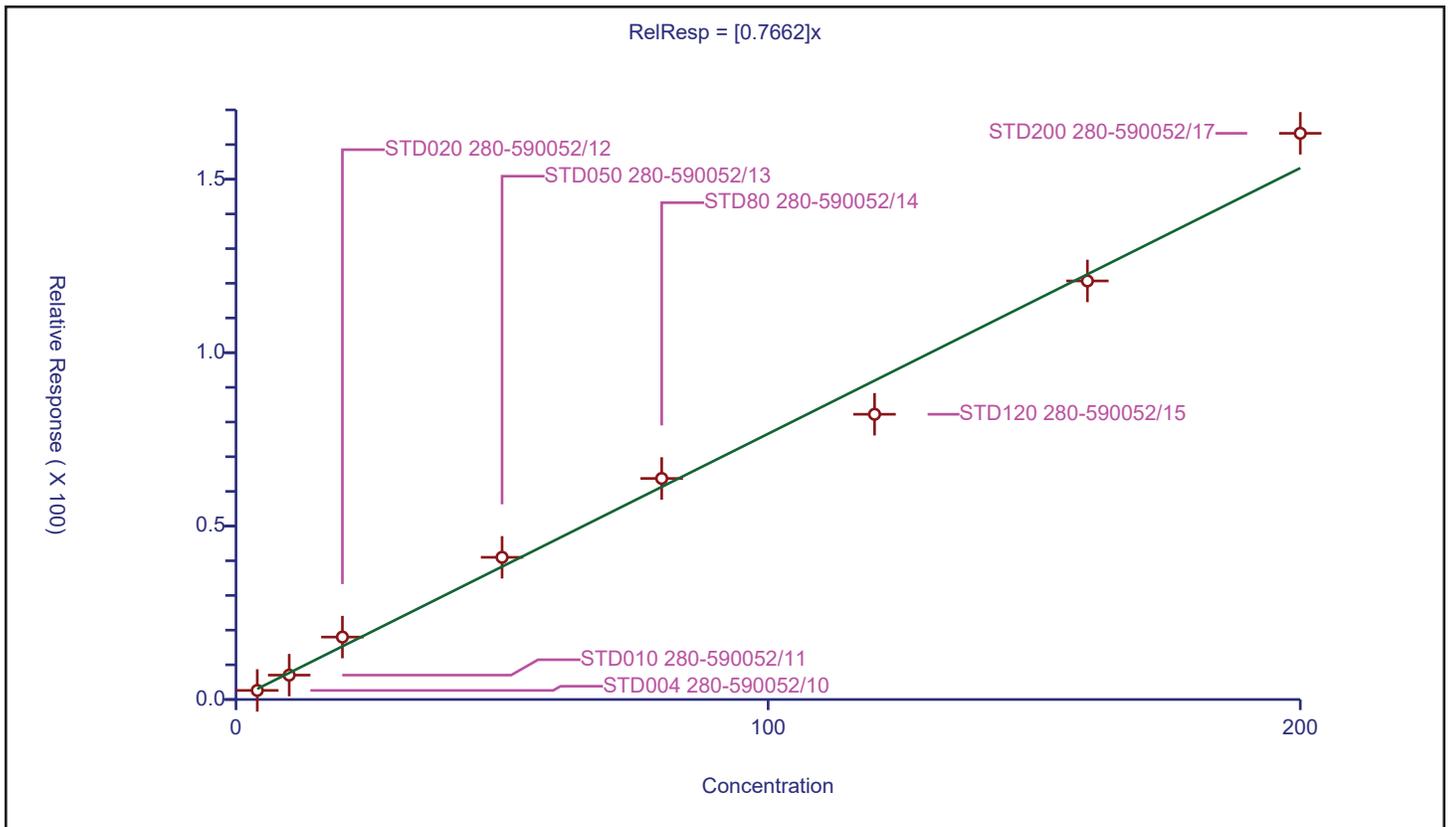
/ N-Nitrosodimethylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7662

Error Coefficients	
Standard Error:	1110000
Relative Standard Error:	10.8
Correlation Coefficient:	0.957
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.615949	40.0	455070.0	0.653987	Y
2	STD010 280-590052/11	10.0	7.028892	40.0	411530.0	0.702889	Y
3	STD020 280-590052/12	20.0	18.002582	40.0	474783.0	0.900129	Y
4	STD050 280-590052/13	50.0	40.995173	40.0	505319.0	0.819903	Y
5	STD80 280-590052/14	80.0	63.735235	40.0	537744.0	0.79669	Y
6	STD120 280-590052/15	120.0	82.245496	40.0	500326.0	0.685379	Y
7	STD160 280-590052/16	160.0	120.68012	40.0	430277.0	0.754251	Y
8	STD200 280-590052/17	200.0	163.252756	40.0	542543.0	0.816264	Y



Calibration

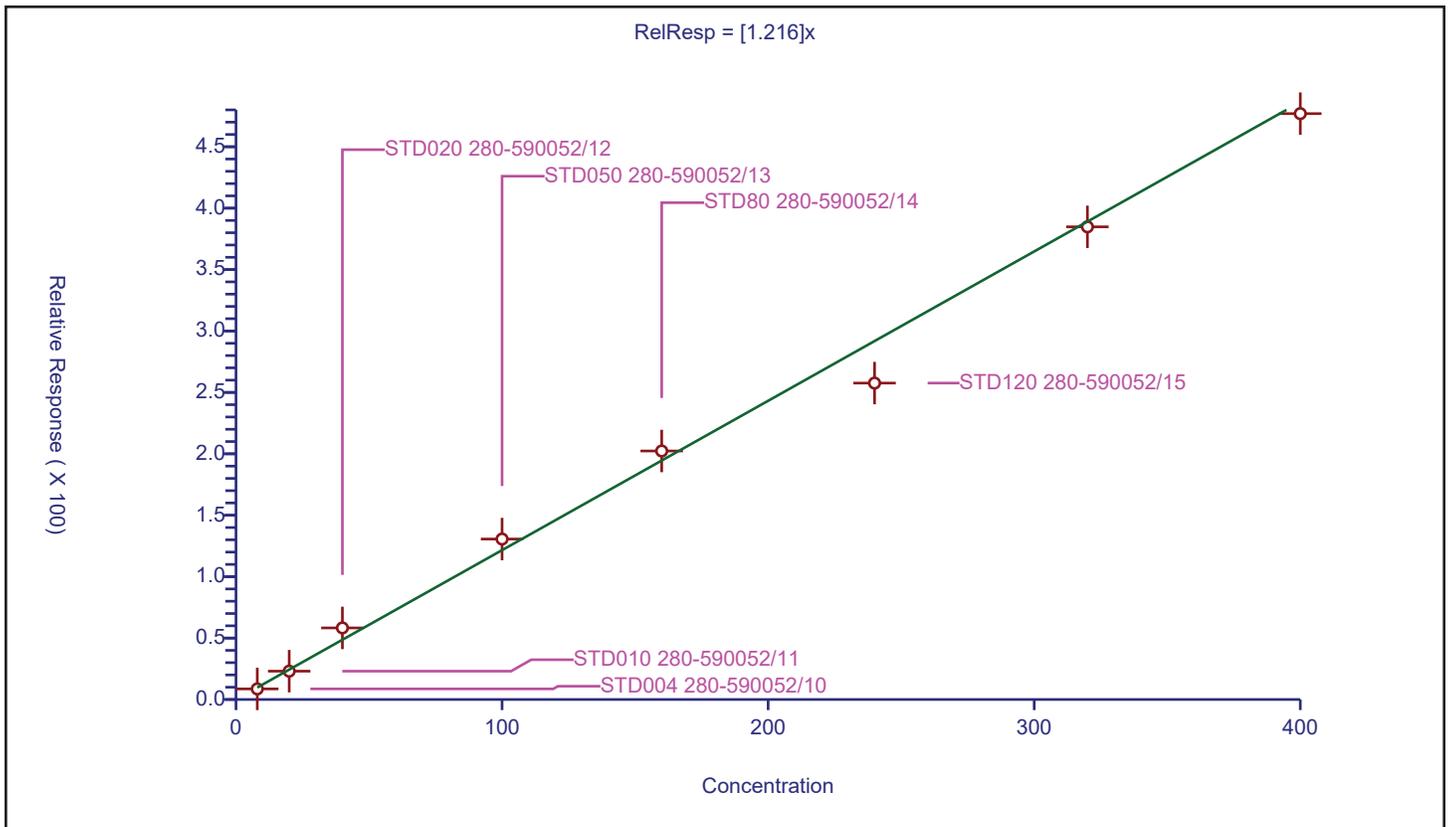
/ Pyridine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.216

Error Coefficients	
Standard Error:	3380000
Relative Standard Error:	10.4
Correlation Coefficient:	0.973
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	8.620212	40.0	455070.0	1.077527	Y
2	STD010 280-590052/11	20.0	23.060676	40.0	411530.0	1.153034	Y
3	STD020 280-590052/12	40.0	58.281783	40.0	474783.0	1.457045	Y
4	STD050 280-590052/13	100.0	130.635816	40.0	505319.0	1.306358	Y
5	STD80 280-590052/14	160.0	202.309724	40.0	537744.0	1.264436	Y
6	STD120 280-590052/15	240.0	257.59149	40.0	500326.0	1.073298	Y
7	STD160 280-590052/16	320.0	384.795376	40.0	430277.0	1.202486	Y
8	STD200 280-590052/17	400.0	476.962895	40.0	542543.0	1.192407	Y



Calibration

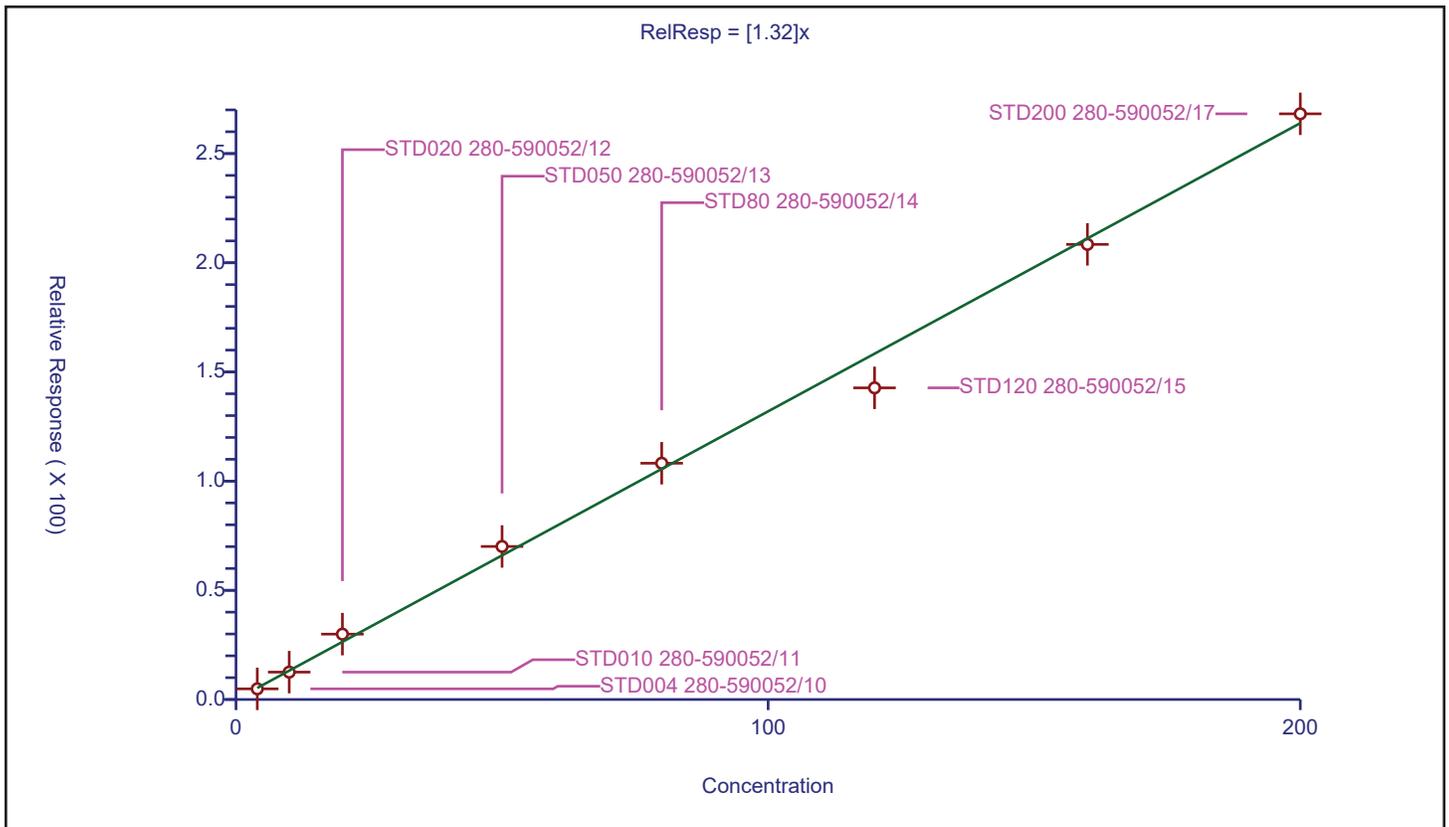
/ 2-Fluorophenol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.32

Error Coefficients	
Standard Error:	1870000
Relative Standard Error:	7.7
Correlation Coefficient:	0.969
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.875382	40.0	455070.0	1.218845	Y
2	STD010 280-590052/11	10.0	12.542658	40.0	411530.0	1.254266	Y
3	STD020 280-590052/12	20.0	29.934012	40.0	474783.0	1.496701	Y
4	STD050 280-590052/13	50.0	70.084442	40.0	505319.0	1.401689	Y
5	STD80 280-590052/14	80.0	108.195945	40.0	537744.0	1.352449	Y
6	STD120 280-590052/15	120.0	142.709753	40.0	500326.0	1.189248	Y
7	STD160 280-590052/16	160.0	208.417089	40.0	430277.0	1.302607	Y
8	STD200 280-590052/17	200.0	268.201267	40.0	542543.0	1.341006	Y



Calibration

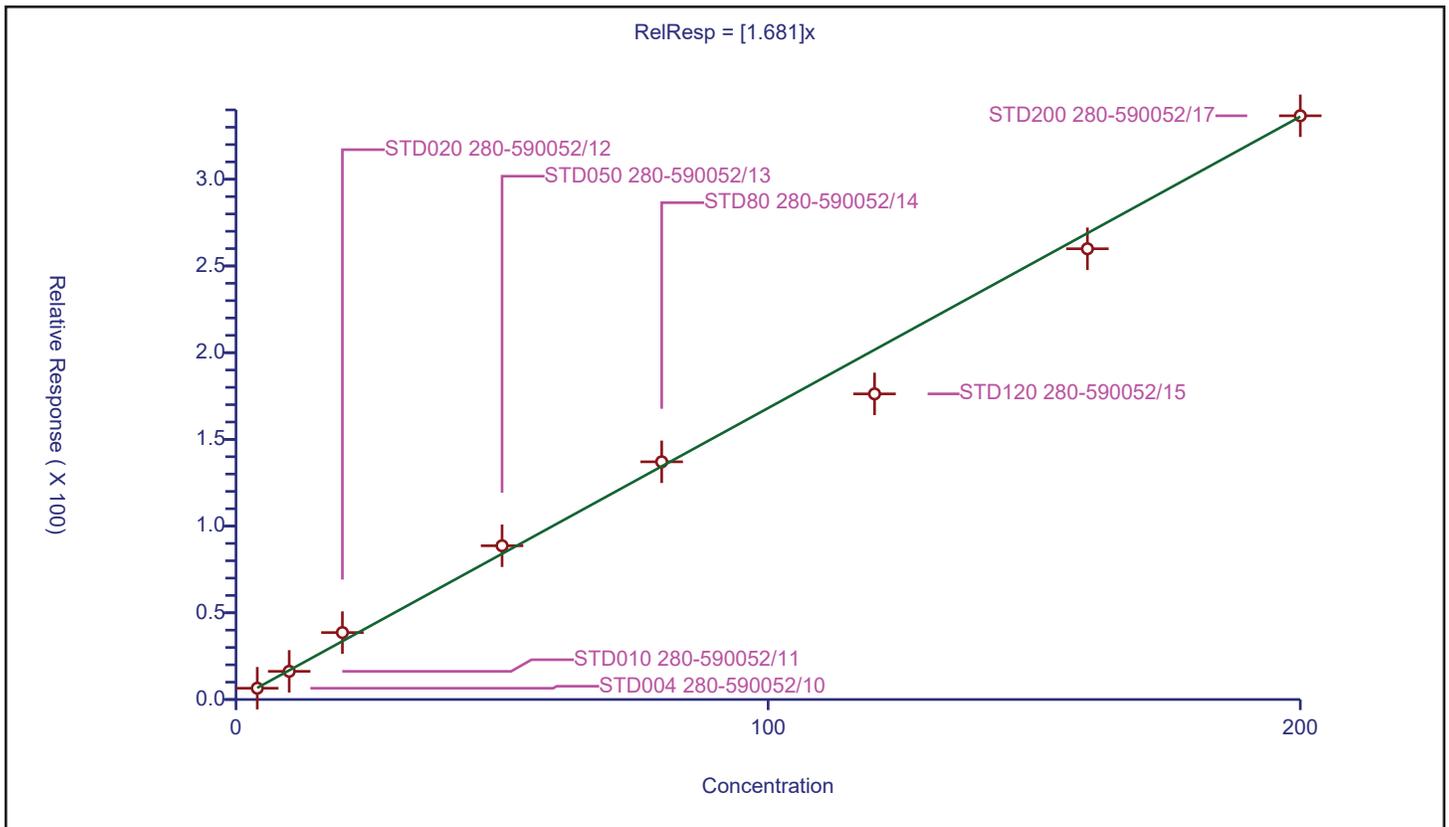
/ Phenol-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.681

Error Coefficients	
Standard Error:	2340000
Relative Standard Error:	8.0
Correlation Coefficient:	0.966
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	6.508977	40.0	455070.0	1.627244	Y
2	STD010 280-590052/11	10.0	16.240177	40.0	411530.0	1.624018	Y
3	STD020 280-590052/12	20.0	38.606606	40.0	474783.0	1.93033	Y
4	STD050 280-590052/13	50.0	88.655048	40.0	505319.0	1.773101	Y
5	STD80 280-590052/14	80.0	137.075709	40.0	537744.0	1.713446	Y
6	STD120 280-590052/15	120.0	176.248446	40.0	500326.0	1.468737	Y
7	STD160 280-590052/16	160.0	259.932834	40.0	430277.0	1.62458	Y
8	STD200 280-590052/17	200.0	336.609854	40.0	542543.0	1.683049	Y



Calibration

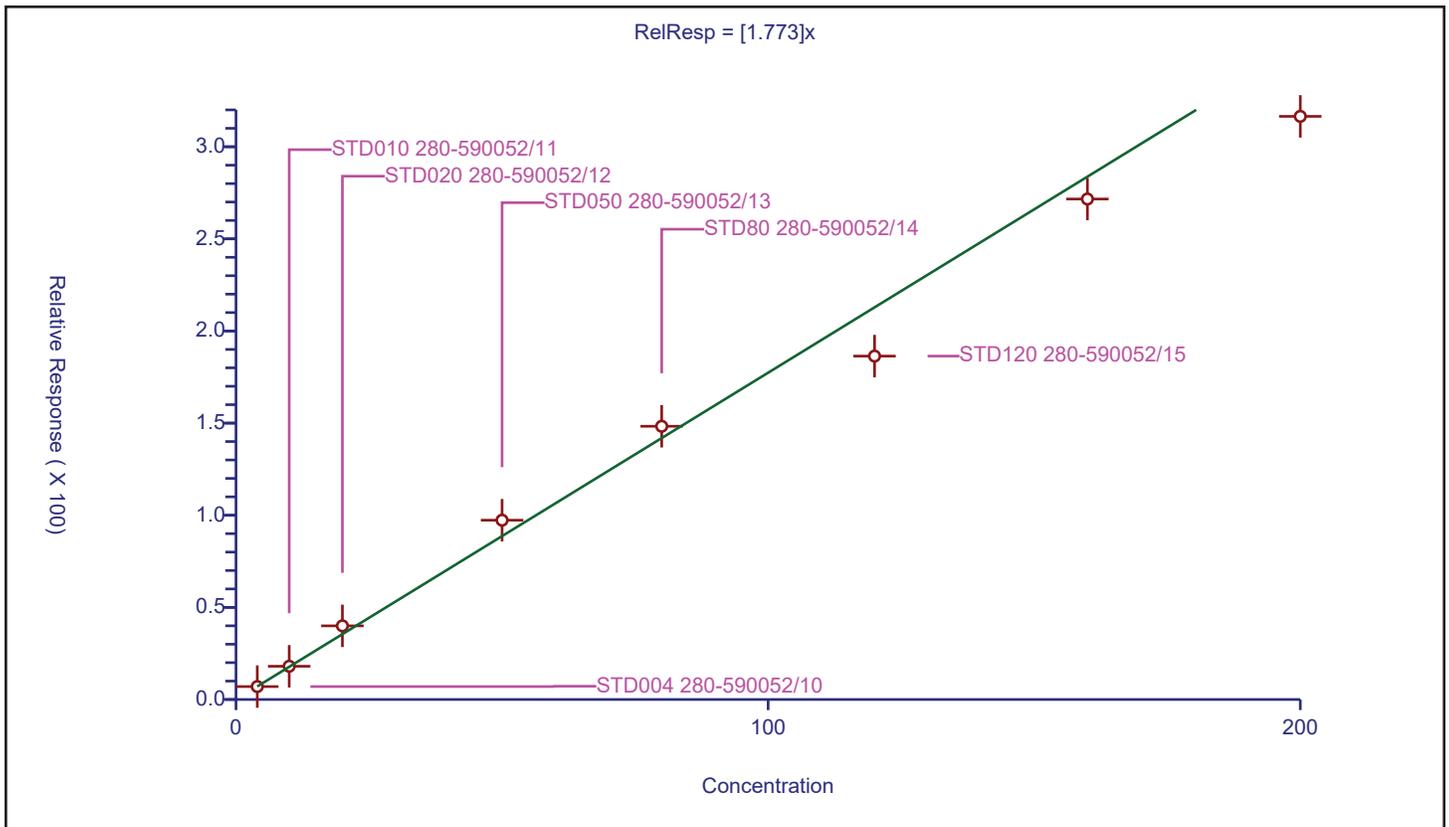
/ Phenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.773

Error Coefficients	
Standard Error:	2330000
Relative Standard Error:	9.0
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	7.010174	40.0	455070.0	1.752544	Y
2	STD010 280-590052/11	10.0	18.036109	40.0	411530.0	1.803611	Y
3	STD020 280-590052/12	20.0	39.969502	40.0	474783.0	1.998475	Y
4	STD050 280-590052/13	50.0	97.316349	40.0	505319.0	1.946327	Y
5	STD80 280-590052/14	80.0	148.289521	40.0	537744.0	1.853619	Y
6	STD120 280-590052/15	120.0	186.374884	40.0	500326.0	1.553124	Y
7	STD160 280-590052/16	160.0	271.635249	40.0	430277.0	1.69772	Y
8	STD200 280-590052/17	200.0	316.495024	40.0	542543.0	1.582475	Y



Calibration

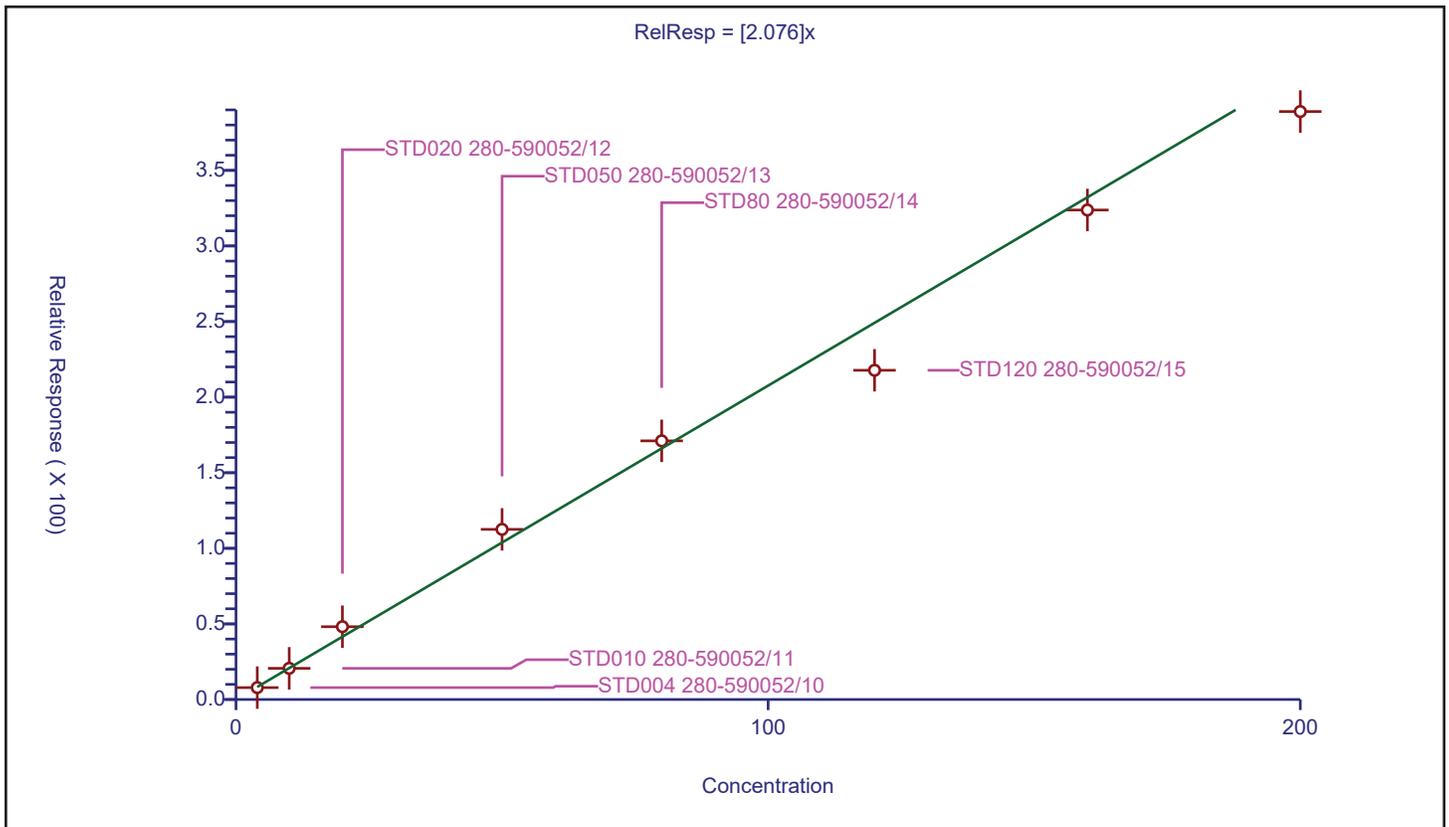
/ Aniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.076

Error Coefficients	
Standard Error:	2800000
Relative Standard Error:	9.0
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	7.871668	40.0	455070.0	1.967917	Y
2	STD010 280-590052/11	10.0	20.61614	40.0	411530.0	2.061614	Y
3	STD020 280-590052/12	20.0	48.155726	40.0	474783.0	2.407786	Y
4	STD050 280-590052/13	50.0	112.537862	40.0	505319.0	2.250757	Y
5	STD80 280-590052/14	80.0	171.083638	40.0	537744.0	2.138545	Y
6	STD120 280-590052/15	120.0	217.774011	40.0	500326.0	1.814783	Y
7	STD160 280-590052/16	160.0	323.775335	40.0	430277.0	2.023596	Y
8	STD200 280-590052/17	200.0	388.907644	40.0	542543.0	1.944538	Y



Calibration

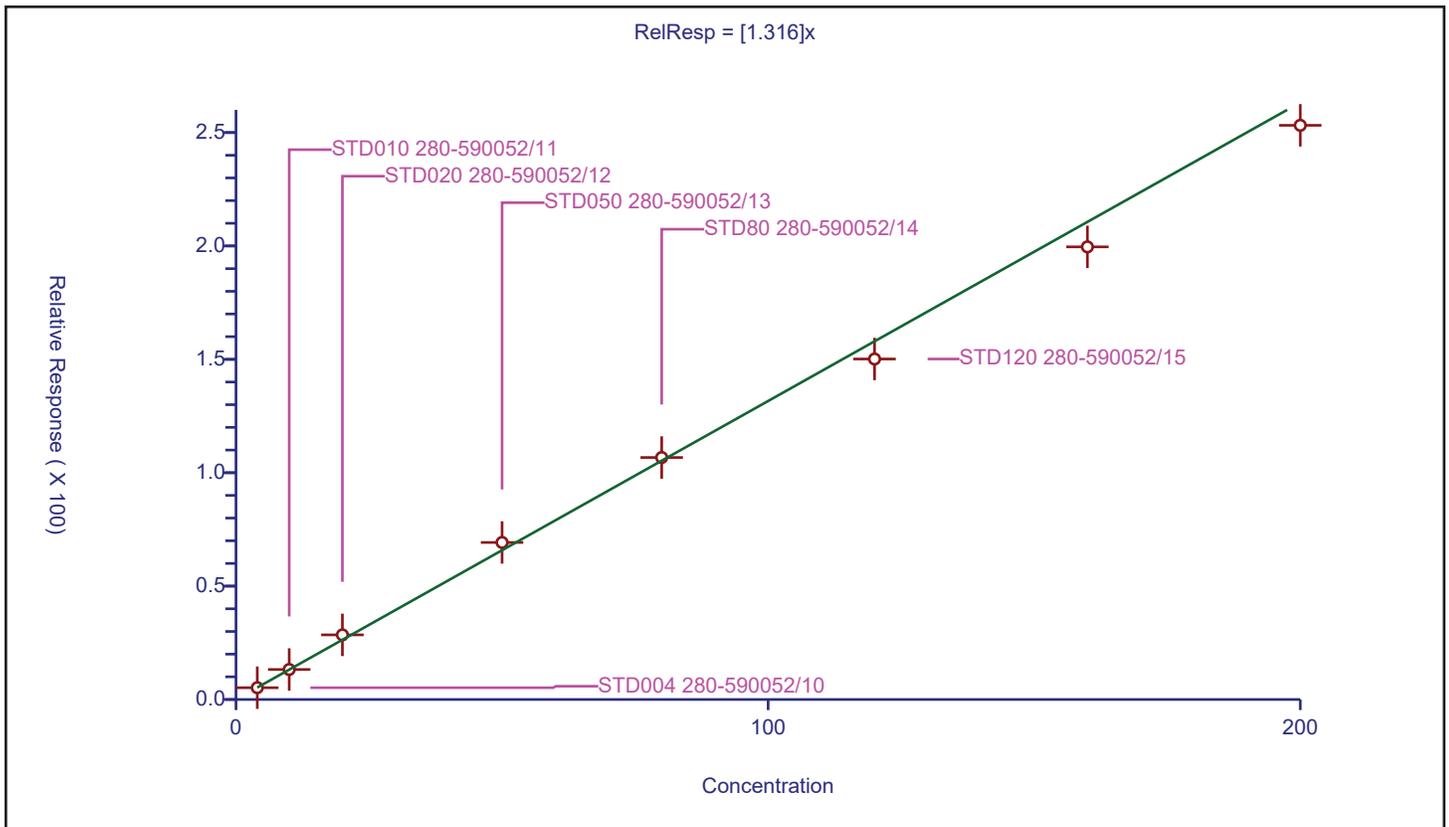
/ Bis(2-chloroethyl)ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.316

Error Coefficients	
Standard Error:	1810000
Relative Standard Error:	4.9
Correlation Coefficient:	0.973
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.194893	40.0	455070.0	1.298723	Y
2	STD010 280-590052/11	10.0	13.22635	40.0	411530.0	1.322635	Y
3	STD020 280-590052/12	20.0	28.50161	40.0	474783.0	1.425081	Y
4	STD050 280-590052/13	50.0	69.252492	40.0	505319.0	1.38505	Y
5	STD80 280-590052/14	80.0	106.715686	40.0	537744.0	1.333946	Y
6	STD120 280-590052/15	120.0	150.143546	40.0	500326.0	1.251196	Y
7	STD160 280-590052/16	160.0	199.591798	40.0	430277.0	1.247449	Y
8	STD200 280-590052/17	200.0	253.190401	40.0	542543.0	1.265952	Y



Calibration

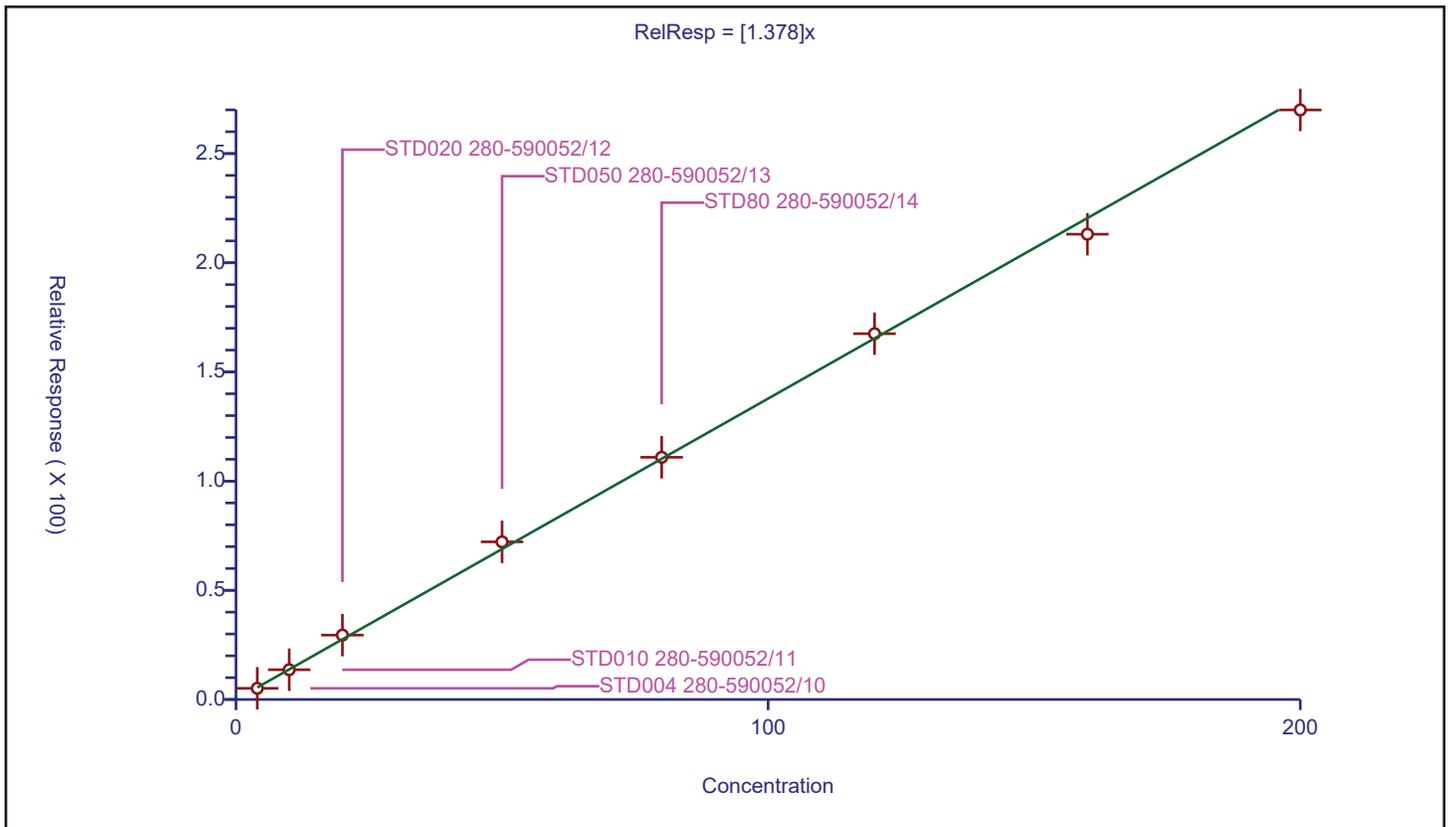
/ 2-Chlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.378

Error Coefficients	
Standard Error:	1940000
Relative Standard Error:	4.5
Correlation Coefficient:	0.975
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.114905	40.0	455070.0	1.278726	Y
2	STD010 280-590052/11	10.0	13.627002	40.0	411530.0	1.3627	Y
3	STD020 280-590052/12	20.0	29.484375	40.0	474783.0	1.474219	Y
4	STD050 280-590052/13	50.0	72.1921	40.0	505319.0	1.443842	Y
5	STD80 280-590052/14	80.0	110.911214	40.0	537744.0	1.38639	Y
6	STD120 280-590052/15	120.0	167.522535	40.0	500326.0	1.396021	Y
7	STD160 280-590052/16	160.0	213.082642	40.0	430277.0	1.331767	Y
8	STD200 280-590052/17	200.0	269.98037	40.0	542543.0	1.349902	Y



Calibration

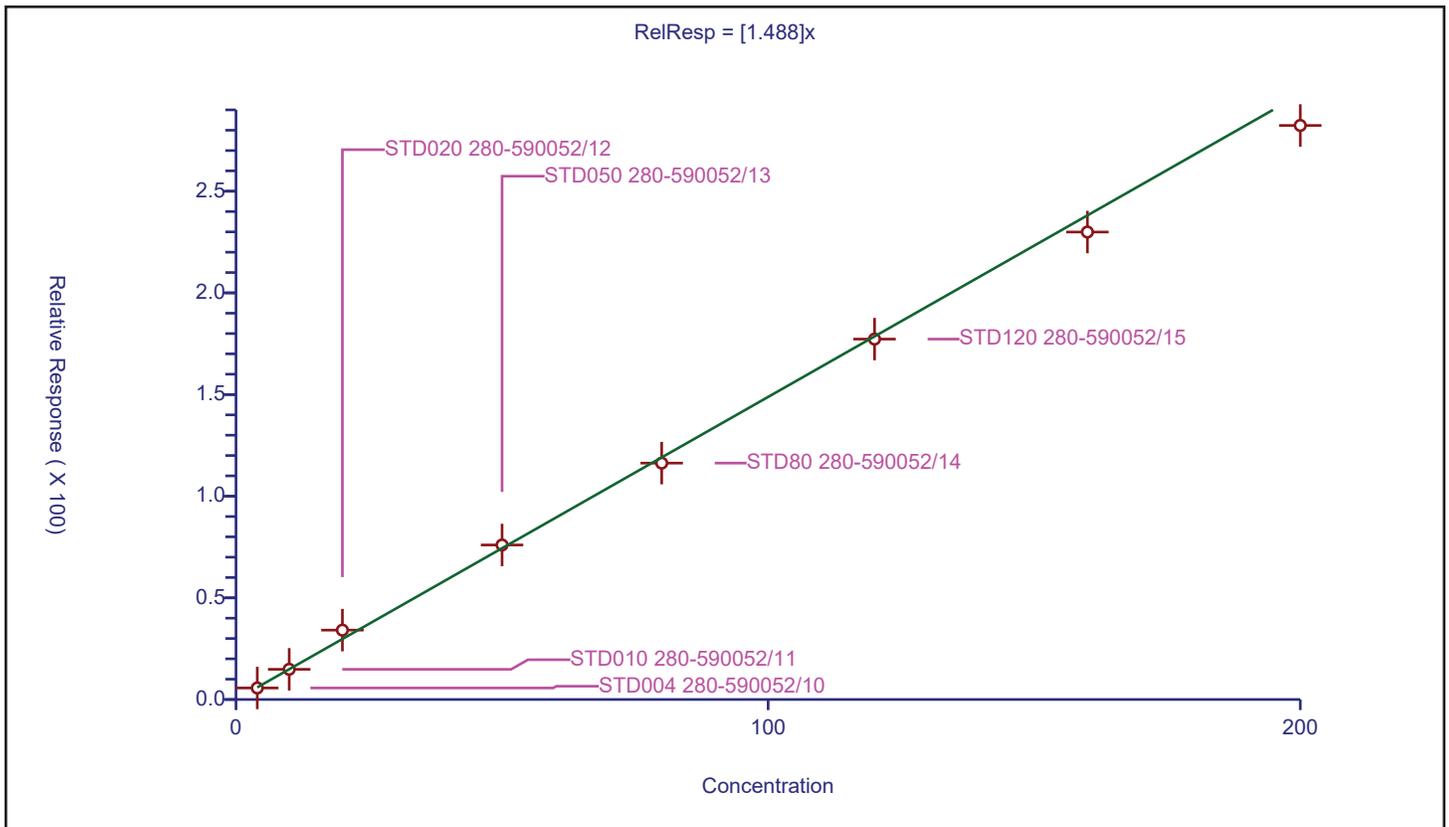
/ 1,3-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.488

Error Coefficients	
Standard Error:	2040000
Relative Standard Error:	6.4
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.664271	40.0	455070.0	1.416068	Y
2	STD010 280-590052/11	10.0	14.843049	40.0	411530.0	1.484305	Y
3	STD020 280-590052/12	20.0	34.118492	40.0	474783.0	1.705925	Y
4	STD050 280-590052/13	50.0	75.996826	40.0	505319.0	1.519937	Y
5	STD80 280-590052/14	80.0	116.270642	40.0	537744.0	1.453383	Y
6	STD120 280-590052/15	120.0	177.269141	40.0	500326.0	1.477243	Y
7	STD160 280-590052/16	160.0	229.927419	40.0	430277.0	1.437046	Y
8	STD200 280-590052/17	200.0	282.345989	40.0	542543.0	1.41173	Y



Calibration

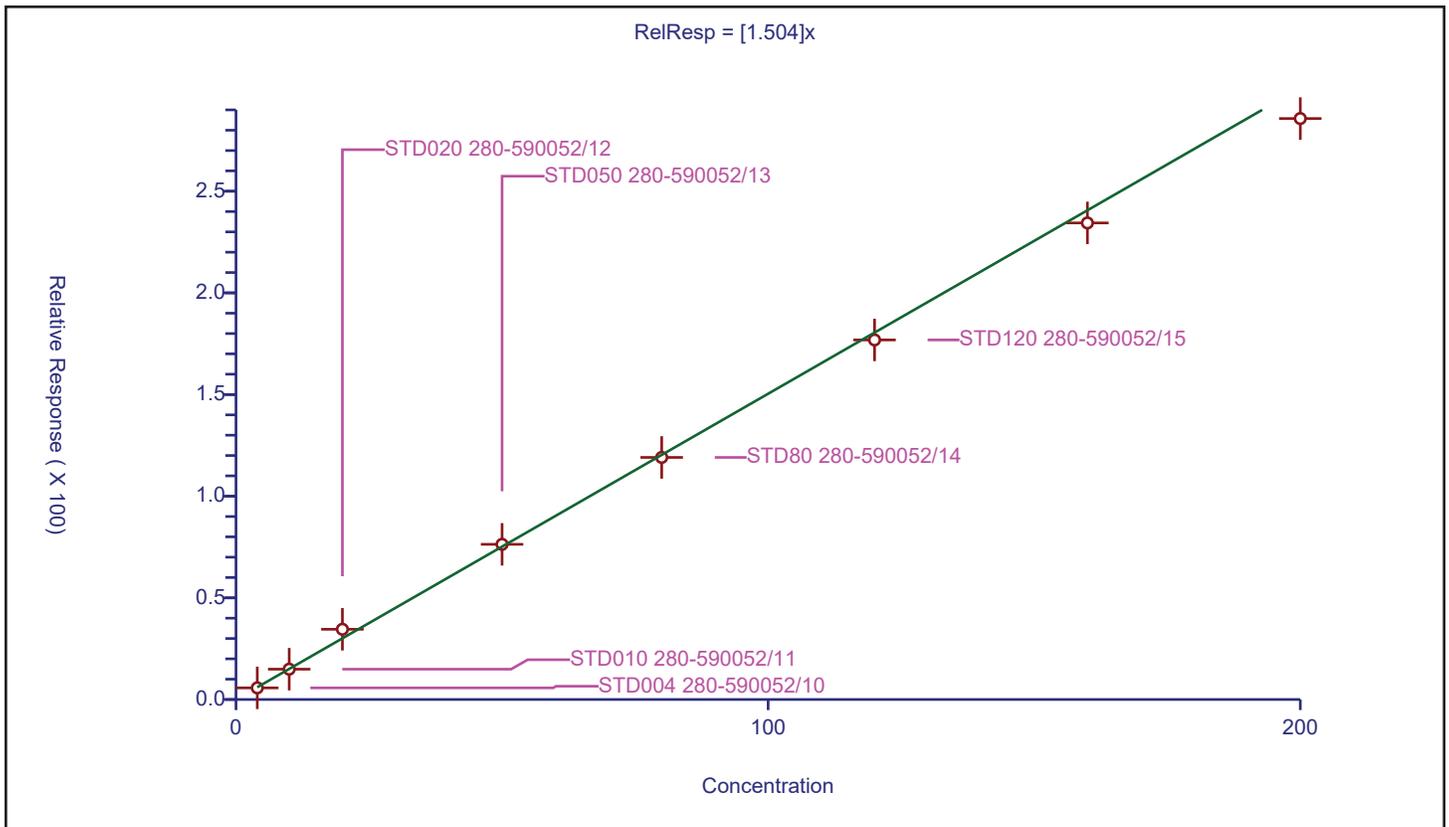
/ 1,4-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.504

Error Coefficients	
Standard Error:	2070000
Relative Standard Error:	6.4
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.717714	40.0	455070.0	1.429428	Y
2	STD010 280-590052/11	10.0	14.917892	40.0	411530.0	1.491789	Y
3	STD020 280-590052/12	20.0	34.543865	40.0	474783.0	1.727193	Y
4	STD050 280-590052/13	50.0	76.323352	40.0	505319.0	1.526467	Y
5	STD80 280-590052/14	80.0	119.064388	40.0	537744.0	1.488305	Y
6	STD120 280-590052/15	120.0	176.851653	40.0	500326.0	1.473764	Y
7	STD160 280-590052/16	160.0	234.399422	40.0	430277.0	1.464996	Y
8	STD200 280-590052/17	200.0	285.750549	40.0	542543.0	1.428753	Y



Calibration

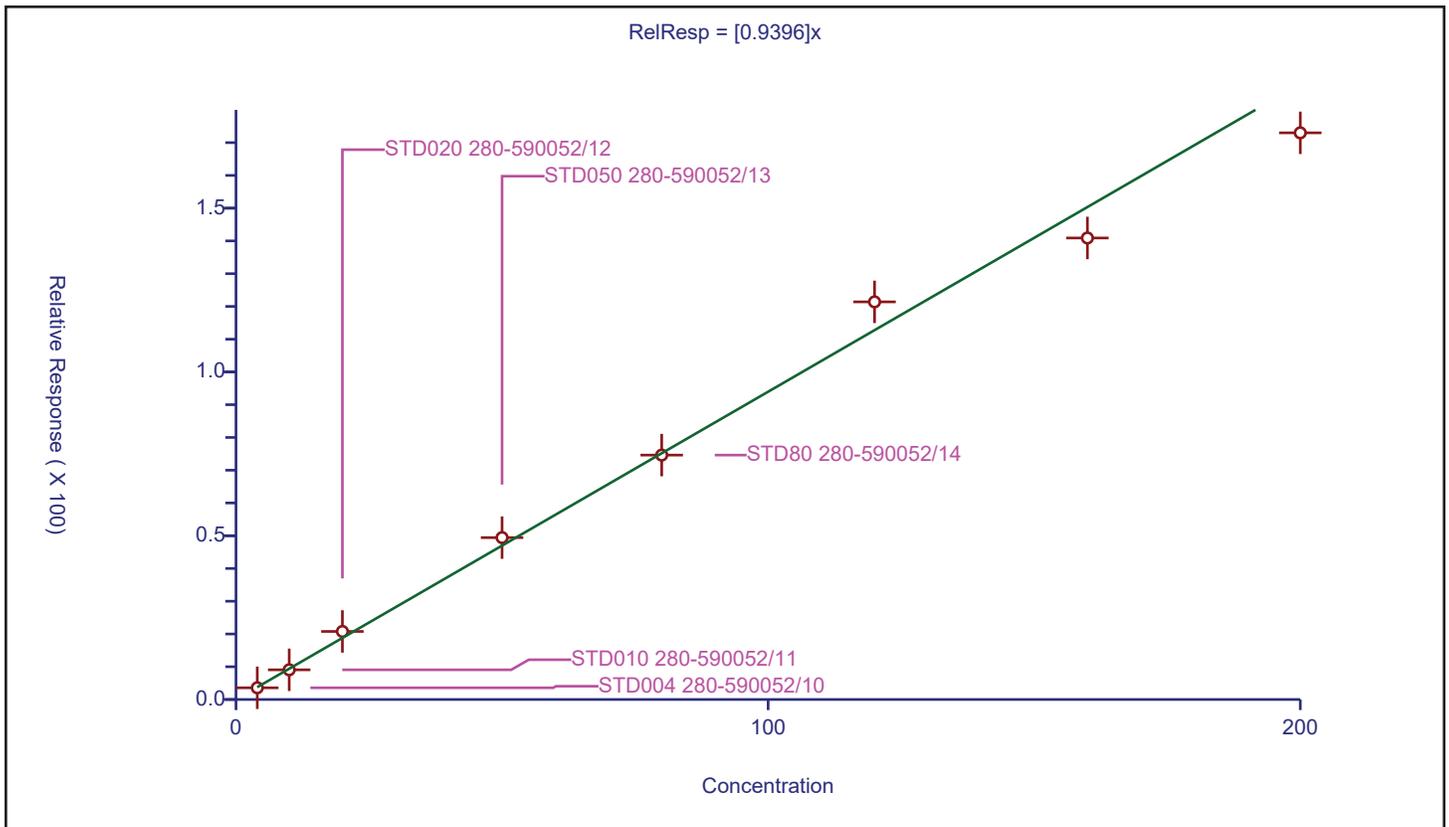
/ Benzyl alcohol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9396

Error Coefficients	
Standard Error:	1290000
Relative Standard Error:	6.9
Correlation Coefficient:	0.973
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.572901	40.0	455070.0	0.893225	Y
2	STD010 280-590052/11	10.0	9.063835	40.0	411530.0	0.906383	Y
3	STD020 280-590052/12	20.0	20.775217	40.0	474783.0	1.038761	Y
4	STD050 280-590052/13	50.0	49.423671	40.0	505319.0	0.988473	Y
5	STD80 280-590052/14	80.0	74.613868	40.0	537744.0	0.932673	Y
6	STD120 280-590052/15	120.0	121.392612	40.0	500326.0	1.011605	Y
7	STD160 280-590052/16	160.0	140.893982	40.0	430277.0	0.880587	Y
8	STD200 280-590052/17	200.0	172.996574	40.0	542543.0	0.864983	Y



Calibration

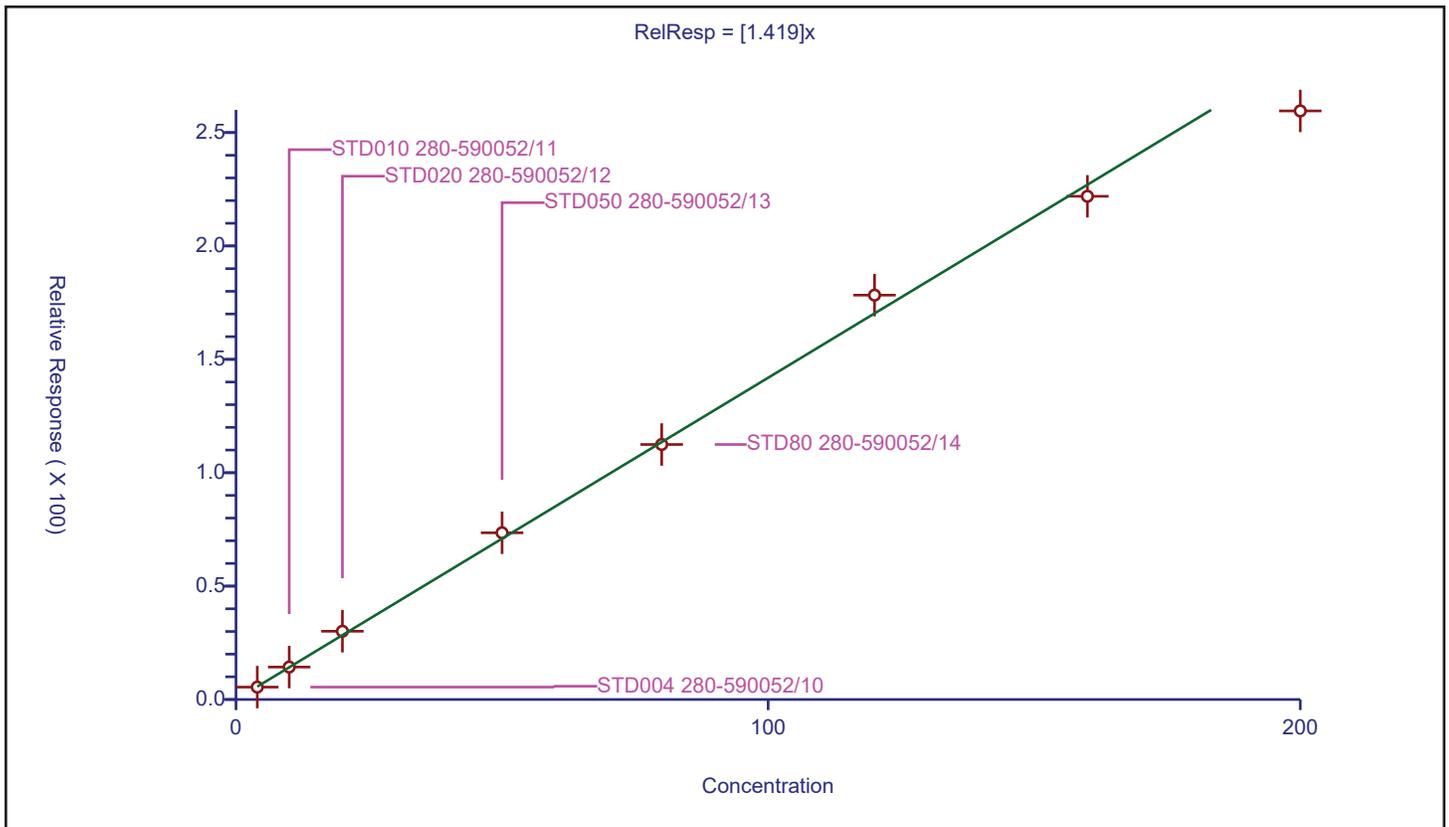
/ 1,2-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.419

Error Coefficients	
Standard Error:	1940000
Relative Standard Error:	4.9
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.469312	40.0	455070.0	1.367328	Y
2	STD010 280-590052/11	10.0	14.308945	40.0	411530.0	1.430894	Y
3	STD020 280-590052/12	20.0	30.107565	40.0	474783.0	1.505378	Y
4	STD050 280-590052/13	50.0	73.515937	40.0	505319.0	1.470319	Y
5	STD80 280-590052/14	80.0	112.448154	40.0	537744.0	1.405602	Y
6	STD120 280-590052/15	120.0	178.314219	40.0	500326.0	1.485952	Y
7	STD160 280-590052/16	160.0	221.911652	40.0	430277.0	1.386948	Y
8	STD200 280-590052/17	200.0	259.548312	40.0	542543.0	1.297742	Y



Calibration

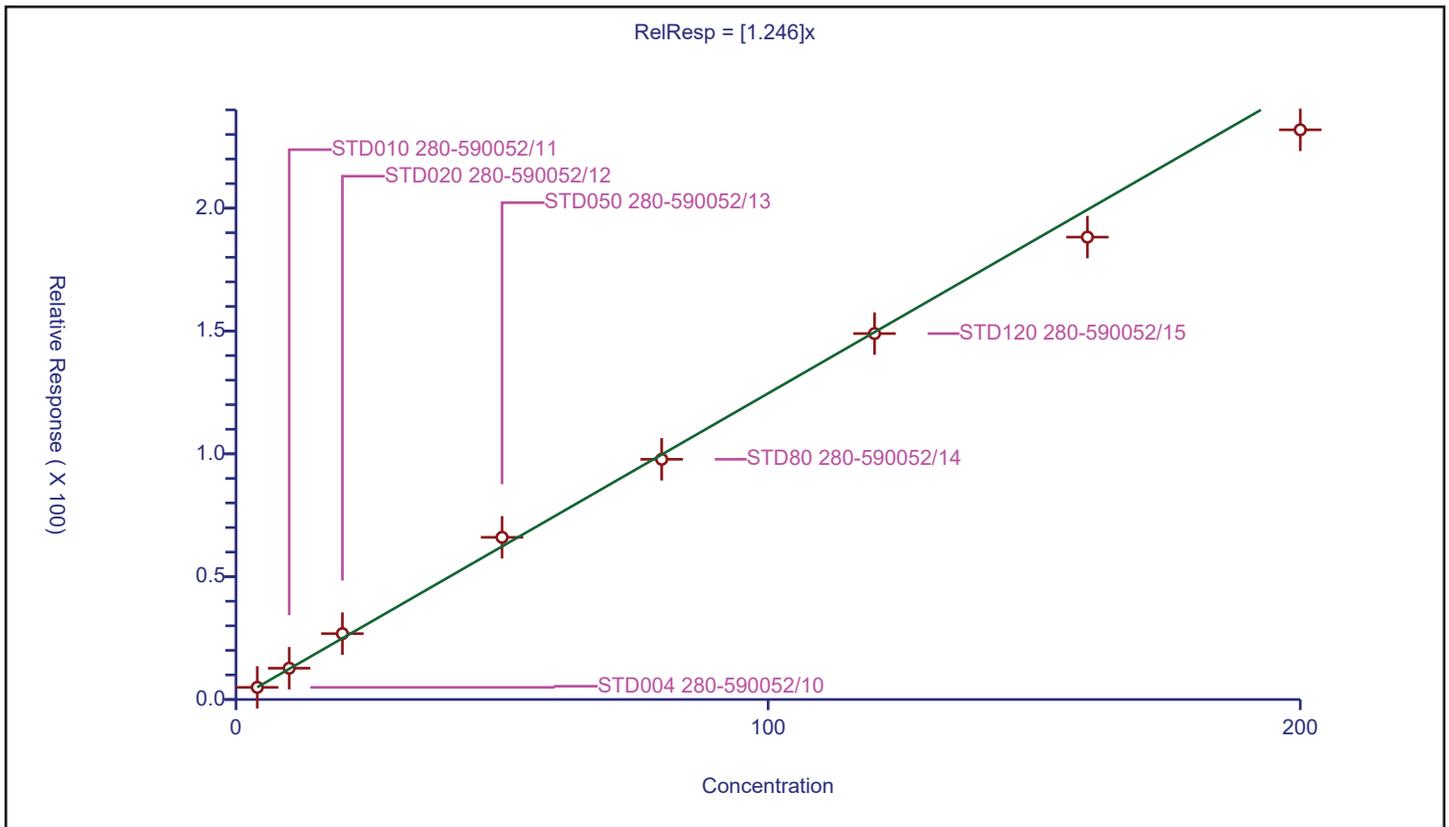
/ 2-Methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.246

Error Coefficients	
Standard Error:	1690000
Relative Standard Error:	5.1
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.938757	40.0	455070.0	1.234689	Y
2	STD010 280-590052/11	10.0	12.741234	40.0	411530.0	1.274123	Y
3	STD020 280-590052/12	20.0	26.813597	40.0	474783.0	1.34068	Y
4	STD050 280-590052/13	50.0	66.011213	40.0	505319.0	1.320224	Y
5	STD80 280-590052/14	80.0	97.777084	40.0	537744.0	1.222214	Y
6	STD120 280-590052/15	120.0	148.946247	40.0	500326.0	1.241219	Y
7	STD160 280-590052/16	160.0	188.214197	40.0	430277.0	1.176339	Y
8	STD200 280-590052/17	200.0	231.894615	40.0	542543.0	1.159473	Y



Calibration

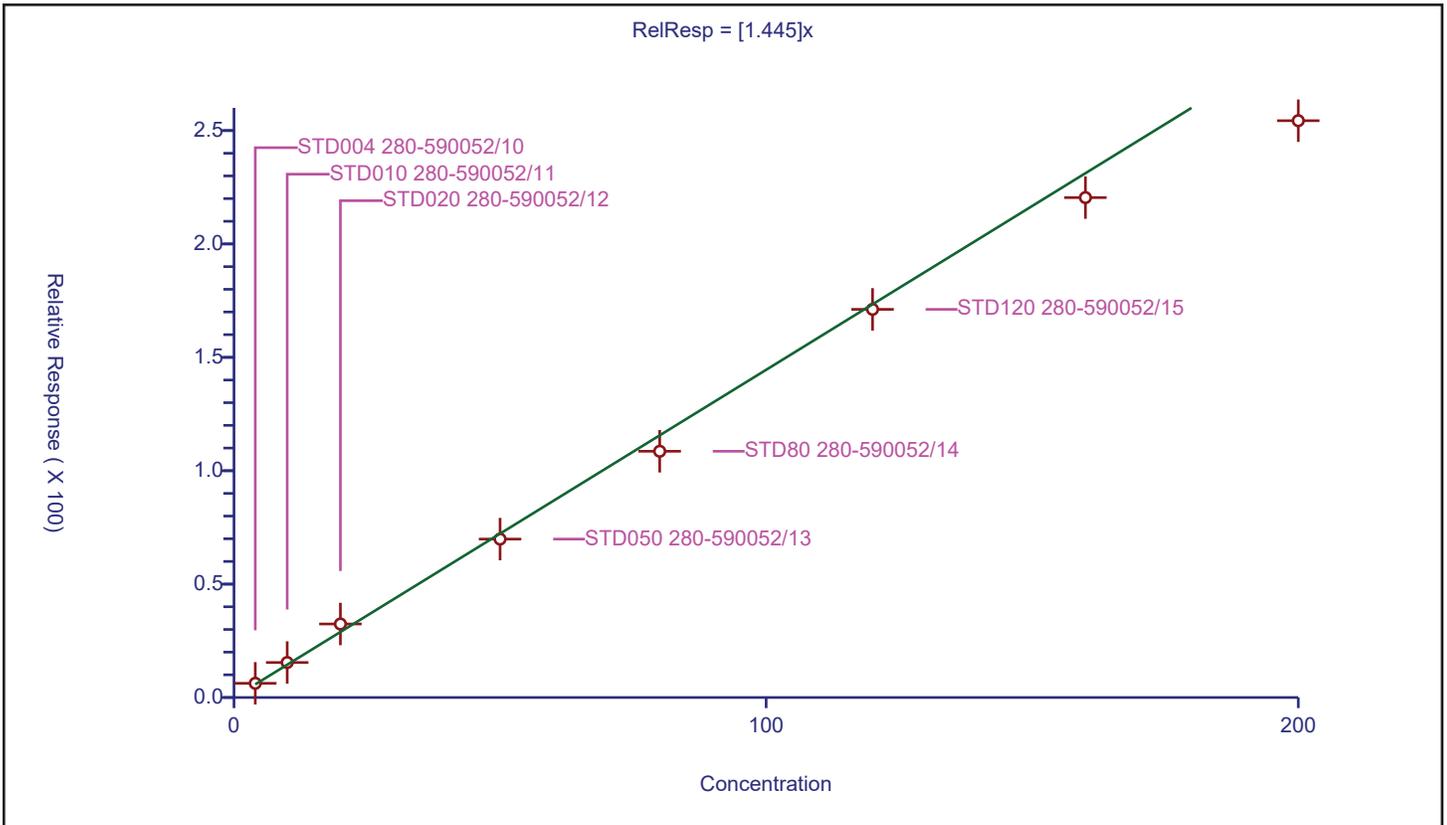
/ 2,2'-oxybis[1-chloropropane]

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.445

Error Coefficients	
Standard Error:	1900000
Relative Standard Error:	8.3
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	6.258554	40.0	455070.0	1.564638	Y
2	STD010 280-590052/11	10.0	15.43382	40.0	411530.0	1.543382	Y
3	STD020 280-590052/12	20.0	32.420369	40.0	474783.0	1.621018	Y
4	STD050 280-590052/13	50.0	69.860108	40.0	505319.0	1.397202	Y
5	STD80 280-590052/14	80.0	108.586762	40.0	537744.0	1.357335	Y
6	STD120 280-590052/15	120.0	171.16488	40.0	500326.0	1.426374	Y
7	STD160 280-590052/16	160.0	220.449338	40.0	430277.0	1.377808	Y
8	STD200 280-590052/17	200.0	254.353738	40.0	542543.0	1.271769	Y



Calibration

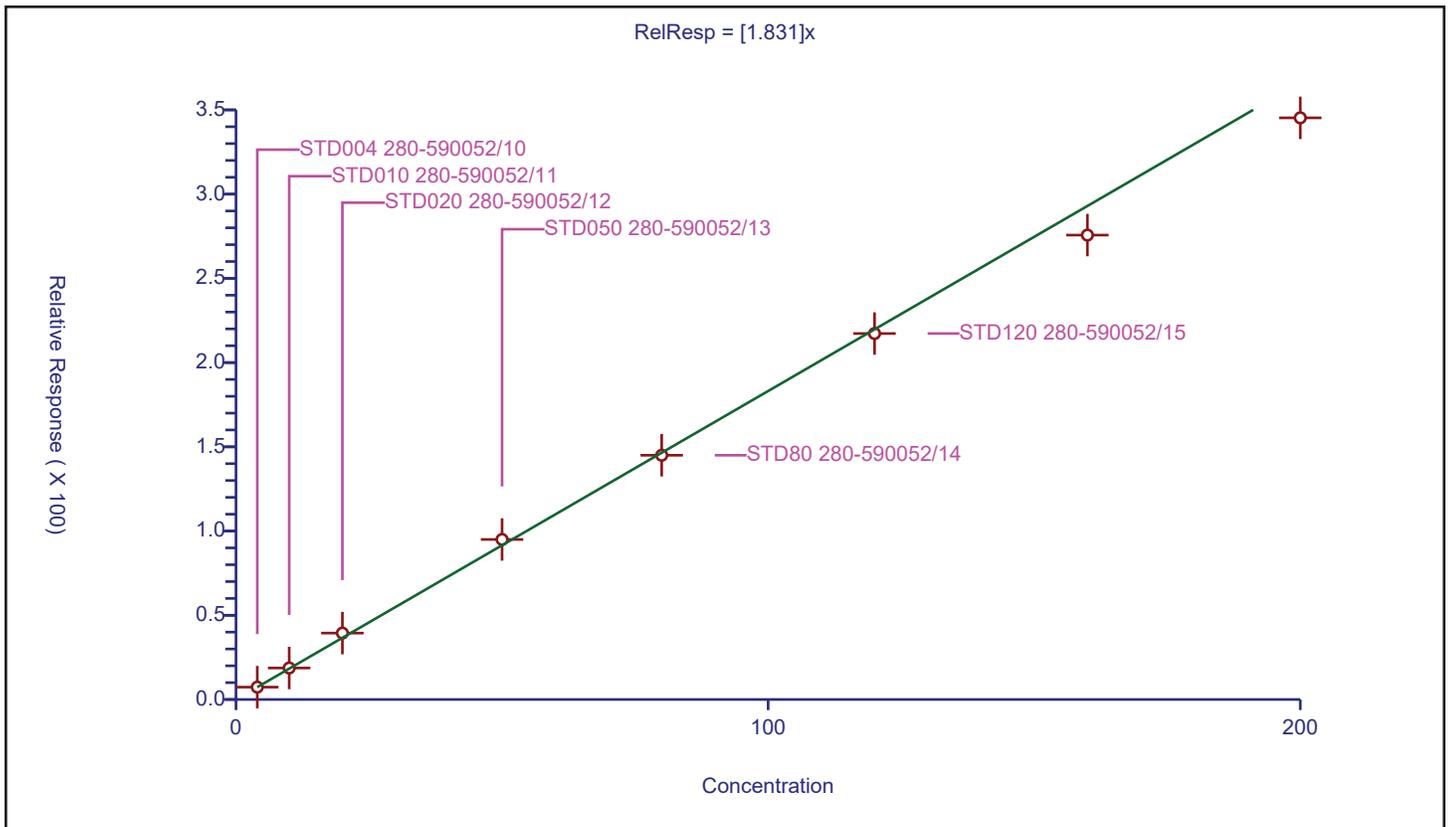
/ Acetophenone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.831

Error Coefficients	
Standard Error:	2500000
Relative Standard Error:	4.6
Correlation Coefficient:	0.976
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	7.336014	40.0	455070.0	1.834004	Y
2	STD010 280-590052/11	10.0	18.710373	40.0	411530.0	1.871037	Y
3	STD020 280-590052/12	20.0	39.422052	40.0	474783.0	1.971103	Y
4	STD050 280-590052/13	50.0	94.991401	40.0	505319.0	1.899828	Y
5	STD80 280-590052/14	80.0	144.98252	40.0	537744.0	1.812281	Y
6	STD120 280-590052/15	120.0	217.253391	40.0	500326.0	1.810445	Y
7	STD160 280-590052/16	160.0	275.677296	40.0	430277.0	1.722983	Y
8	STD200 280-590052/17	200.0	345.279397	40.0	542543.0	1.726397	Y



Calibration

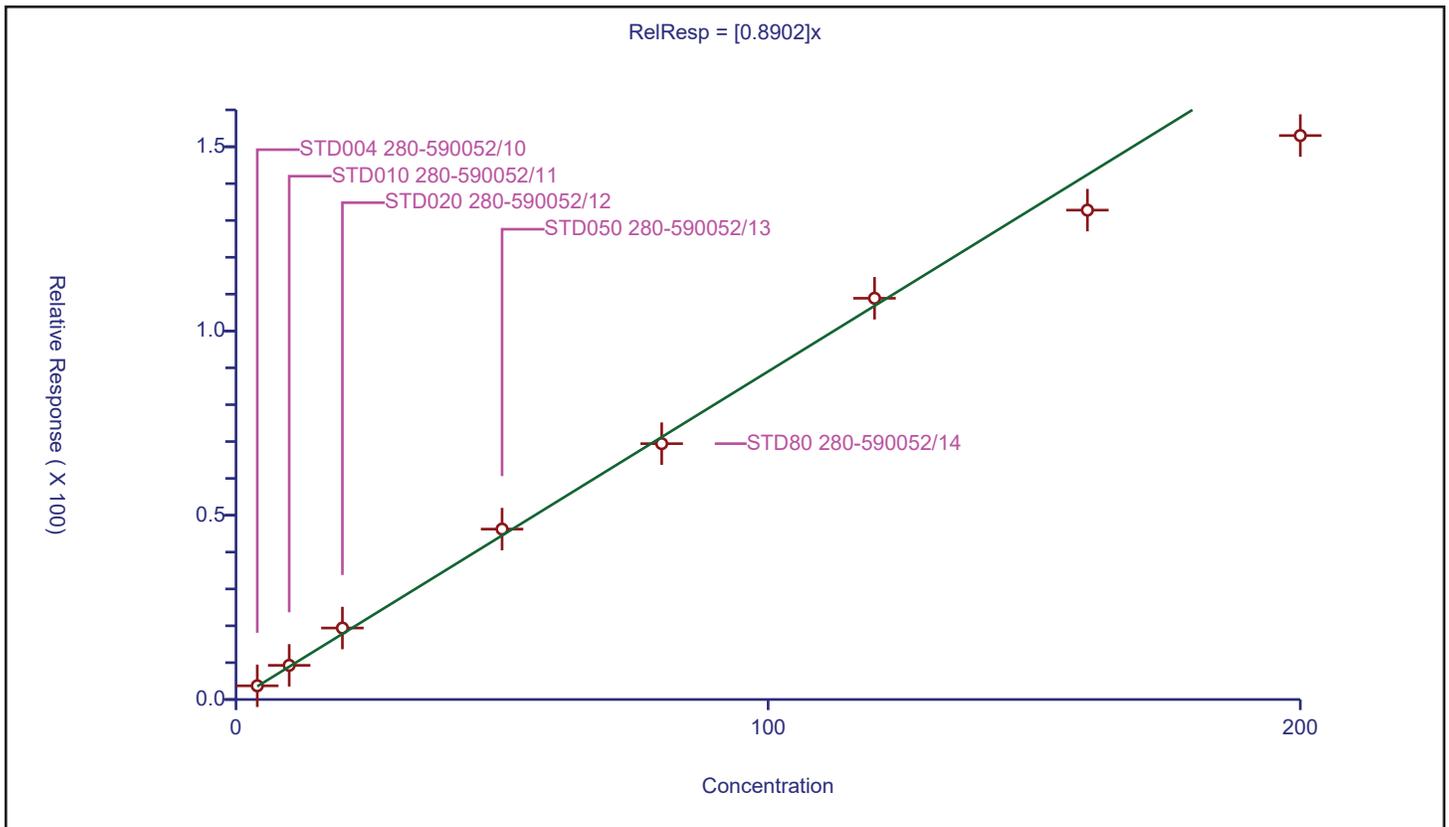
/ N-Nitrosodi-n-propylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8902

Error Coefficients	
Standard Error:	1160000
Relative Standard Error:	7.4
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.716791	40.0	455070.0	0.929198	Y
2	STD010 280-590052/11	10.0	9.270284	40.0	411530.0	0.927028	Y
3	STD020 280-590052/12	20.0	19.397577	40.0	474783.0	0.969879	Y
4	STD050 280-590052/13	50.0	46.243897	40.0	505319.0	0.924878	Y
5	STD80 280-590052/14	80.0	69.430212	40.0	537744.0	0.867878	Y
6	STD120 280-590052/15	120.0	108.885167	40.0	500326.0	0.907376	Y
7	STD160 280-590052/16	160.0	132.800684	40.0	430277.0	0.830004	Y
8	STD200 280-590052/17	200.0	153.036644	40.0	542543.0	0.765183	Y



Calibration

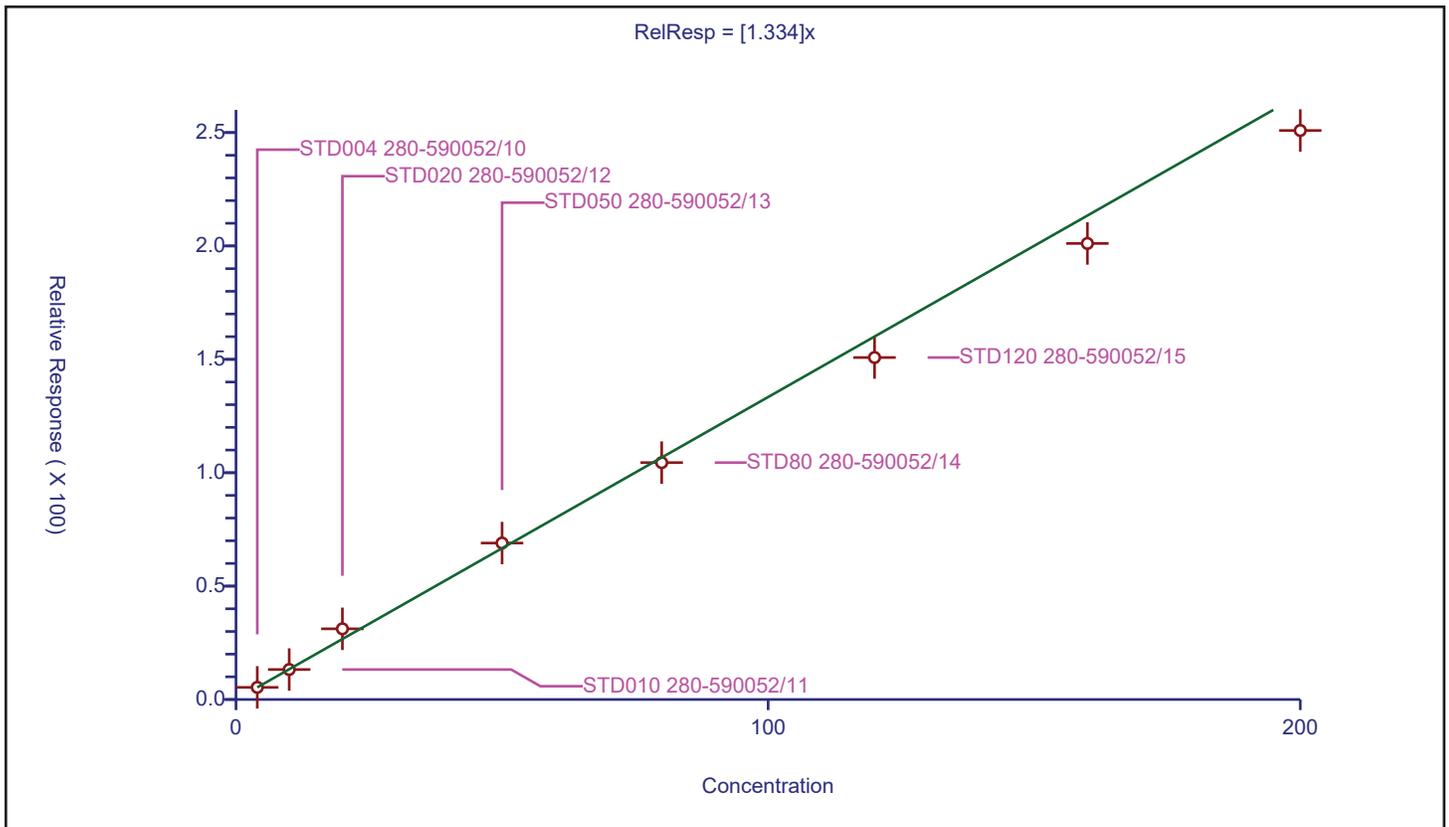
/ 3 & 4 Methylphenol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.334

Error Coefficients	
Standard Error:	1800000
Relative Standard Error:	7.6
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.34353	40.0	455070.0	1.335882	Y
2	STD010 280-590052/11	10.0	13.221879	40.0	411530.0	1.322188	Y
3	STD020 280-590052/12	20.0	31.166912	40.0	474783.0	1.558346	Y
4	STD050 280-590052/13	50.0	68.990717	40.0	505319.0	1.379814	Y
5	STD80 280-590052/14	80.0	104.454238	40.0	537744.0	1.305678	Y
6	STD120 280-590052/15	120.0	150.807114	40.0	500326.0	1.256726	Y
7	STD160 280-590052/16	160.0	201.107752	40.0	430277.0	1.256923	Y
8	STD200 280-590052/17	200.0	250.92072	40.0	542543.0	1.254604	Y



Calibration

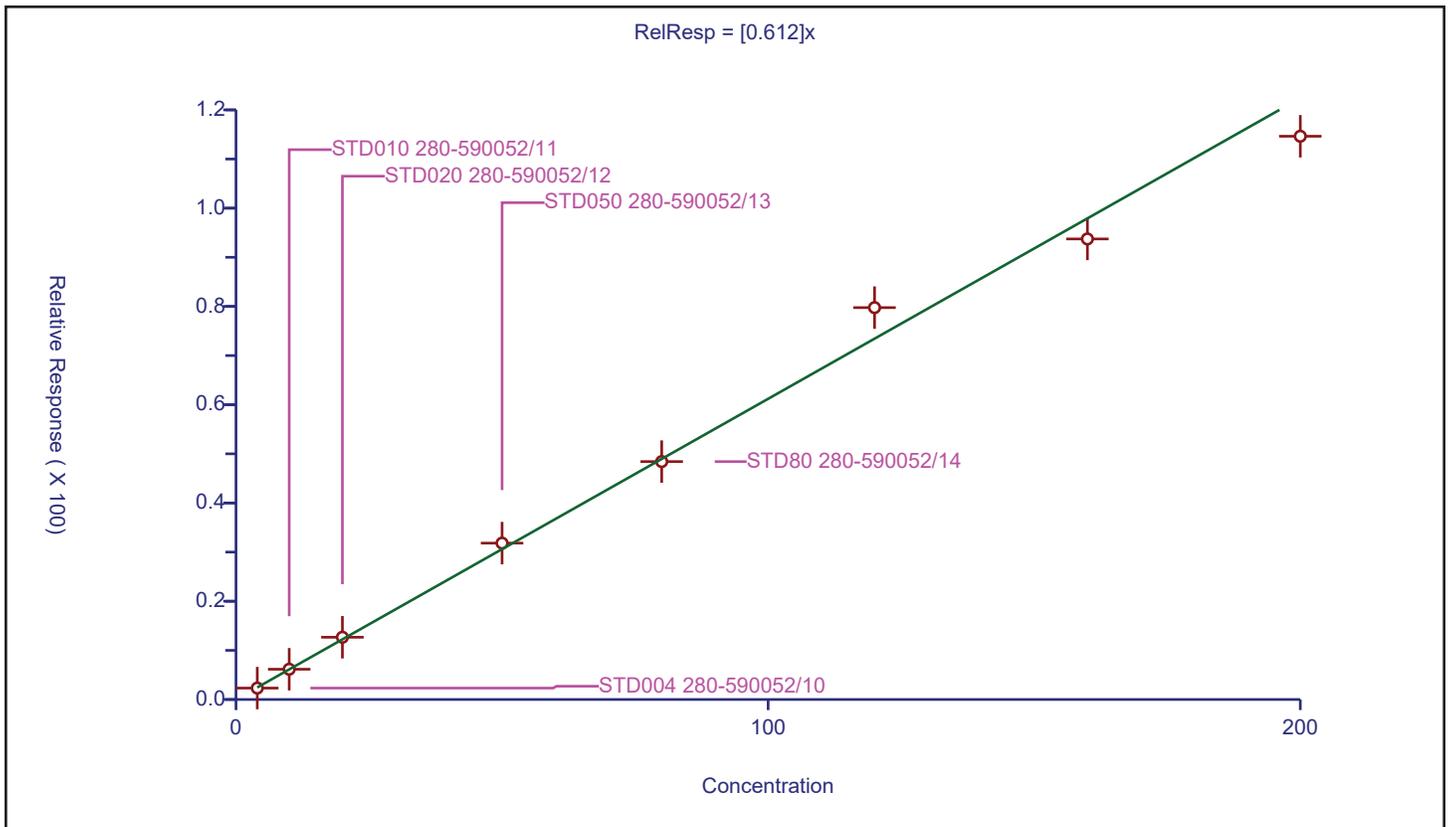
/ Hexachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.612

Error Coefficients	
Standard Error:	849000
Relative Standard Error:	5.2
Correlation Coefficient:	0.975
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.324302	40.0	455070.0	0.581075	Y
2	STD010 280-590052/11	10.0	6.158482	40.0	411530.0	0.615848	Y
3	STD020 280-590052/12	20.0	12.668609	40.0	474783.0	0.63343	Y
4	STD050 280-590052/13	50.0	31.824887	40.0	505319.0	0.636498	Y
5	STD80 280-590052/14	80.0	48.417909	40.0	537744.0	0.605224	Y
6	STD120 280-590052/15	120.0	79.756319	40.0	500326.0	0.664636	Y
7	STD160 280-590052/16	160.0	93.73729	40.0	430277.0	0.585858	Y
8	STD200 280-590052/17	200.0	114.63578	40.0	542543.0	0.573179	Y



Calibration

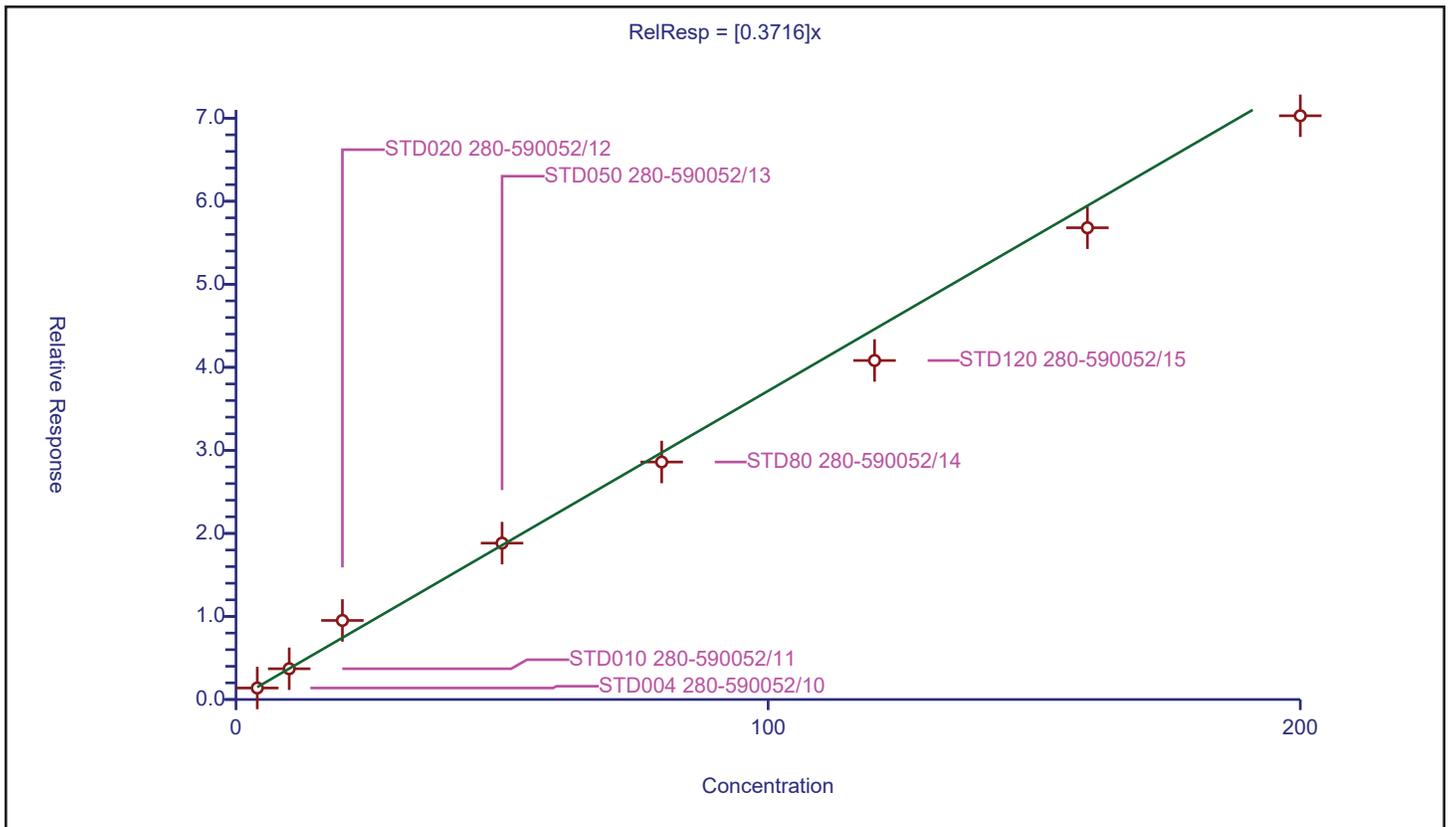
/ Nitrobenzene-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3716

Error Coefficients	
Standard Error:	1900000
Relative Standard Error:	11.8
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.383448	40.0	1763623.0	0.345862	Y
2	STD010 280-590052/11	10.0	3.703737	40.0	1552983.0	0.370374	Y
3	STD020 280-590052/12	20.0	9.519403	40.0	1567031.0	0.47597	Y
4	STD050 280-590052/13	50.0	18.831381	40.0	1923587.0	0.376628	Y
5	STD80 280-590052/14	80.0	28.597734	40.0	2060836.0	0.357472	Y
6	STD120 280-590052/15	120.0	40.824441	40.0	1926298.0	0.340204	Y
7	STD160 280-590052/16	160.0	56.808362	40.0	1614218.0	0.355052	Y
8	STD200 280-590052/17	200.0	70.289658	40.0	2056117.0	0.351448	Y



Calibration

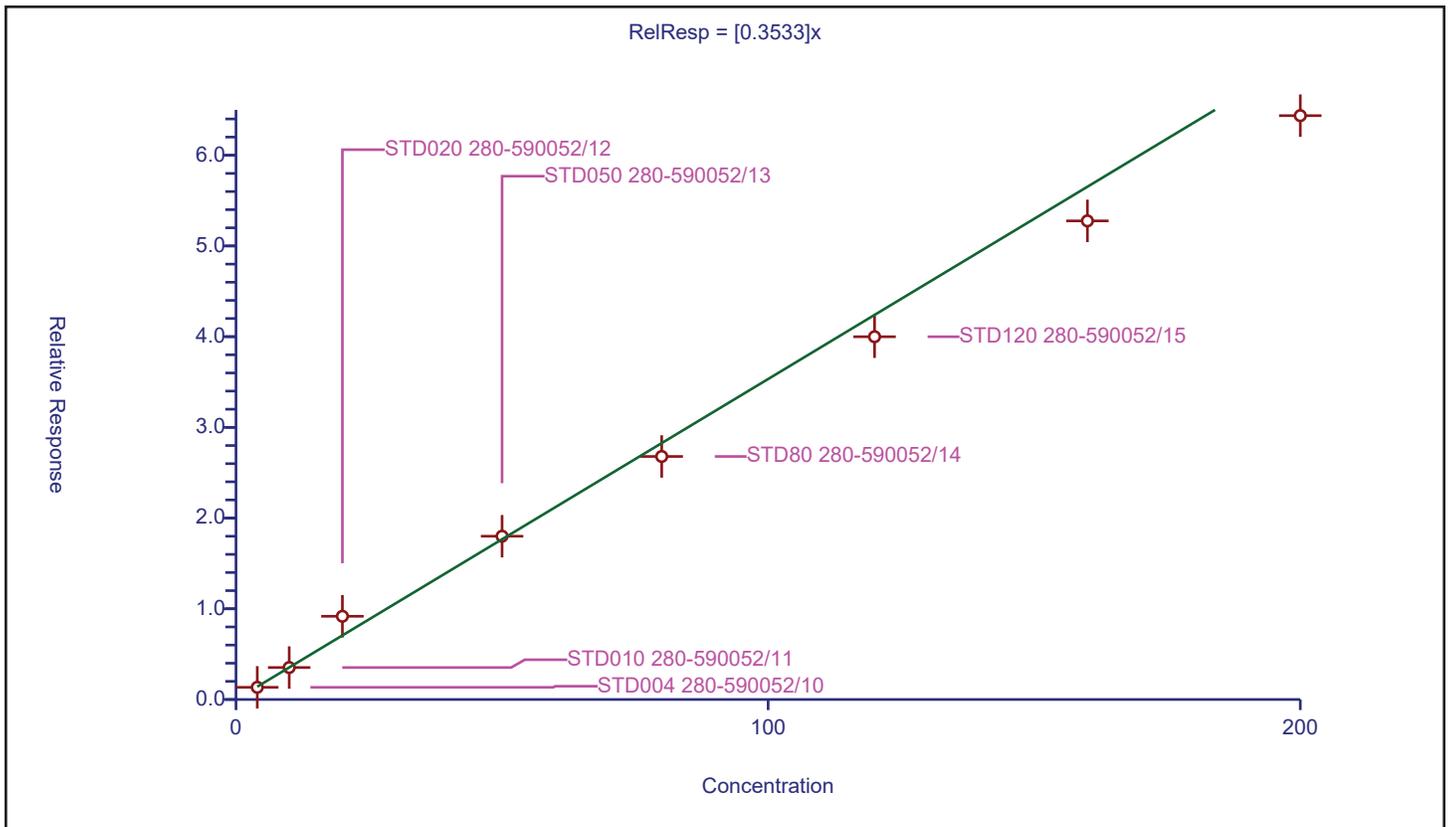
/ Nitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3533

Error Coefficients	
Standard Error:	1770000
Relative Standard Error:	12.6
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.341965	40.0	1763623.0	0.335491	Y
2	STD010 280-590052/11	10.0	3.522769	40.0	1552983.0	0.352277	Y
3	STD020 280-590052/12	20.0	9.174905	40.0	1567031.0	0.458745	Y
4	STD050 280-590052/13	50.0	18.003241	40.0	1923587.0	0.360065	Y
5	STD80 280-590052/14	80.0	26.792933	40.0	2060836.0	0.334912	Y
6	STD120 280-590052/15	120.0	39.992005	40.0	1926298.0	0.333267	Y
7	STD160 280-590052/16	160.0	52.765091	40.0	1614218.0	0.329782	Y
8	STD200 280-590052/17	200.0	64.364217	40.0	2056117.0	0.321821	Y



Calibration

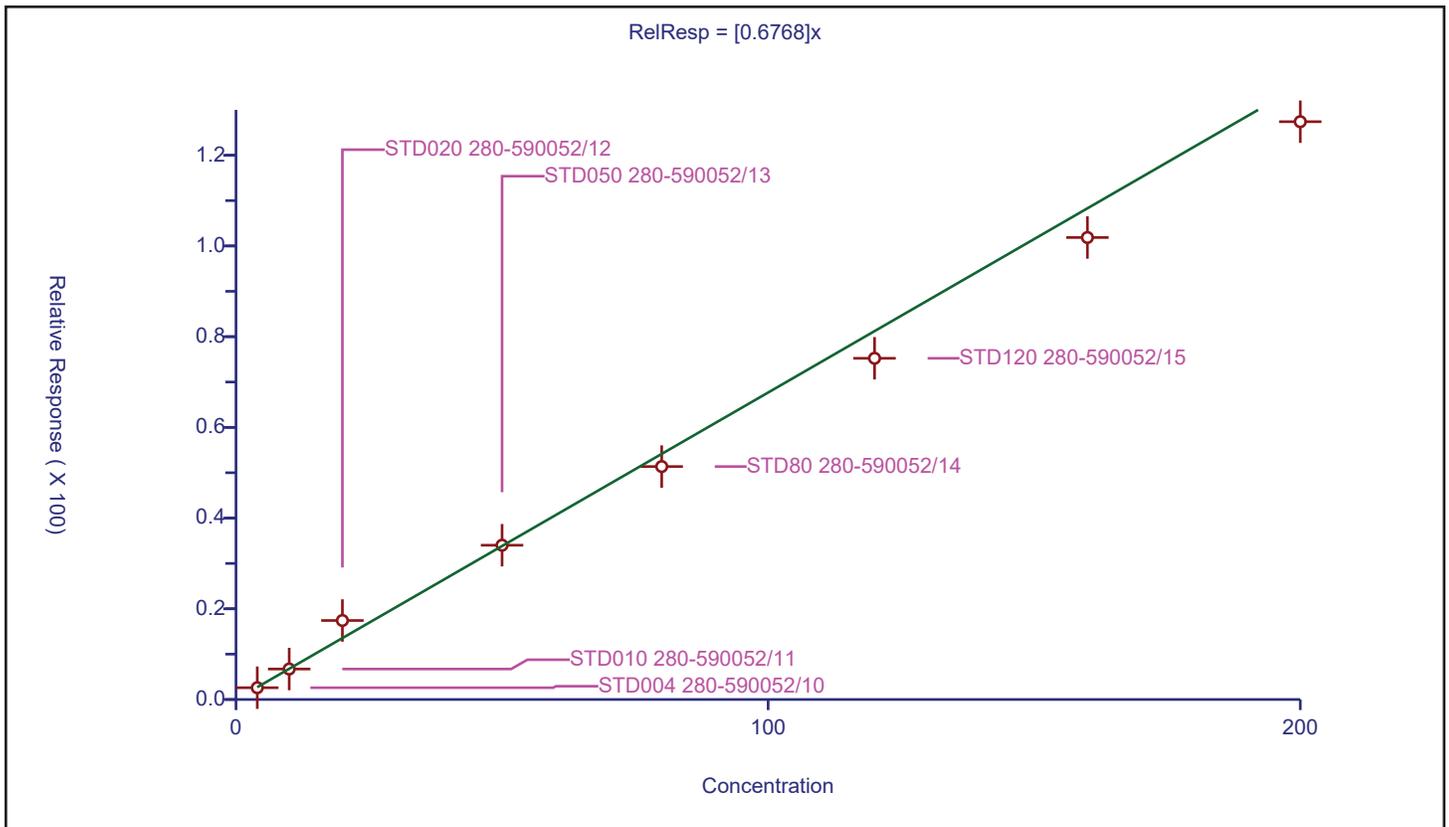
/ Isophorone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6768

Error Coefficients	
Standard Error:	3450000
Relative Standard Error:	11.9
Correlation Coefficient:	0.976
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.595702	40.0	1763623.0	0.648926	Y
2	STD010 280-590052/11	10.0	6.719172	40.0	1552983.0	0.671917	Y
3	STD020 280-590052/12	20.0	17.416911	40.0	1567031.0	0.870846	Y
4	STD050 280-590052/13	50.0	34.018009	40.0	1923587.0	0.68036	Y
5	STD80 280-590052/14	80.0	51.364087	40.0	2060836.0	0.642051	Y
6	STD120 280-590052/15	120.0	75.234922	40.0	1926298.0	0.626958	Y
7	STD160 280-590052/16	160.0	101.862846	40.0	1614218.0	0.636643	Y
8	STD200 280-590052/17	200.0	127.398742	40.0	2056117.0	0.636994	Y



Calibration

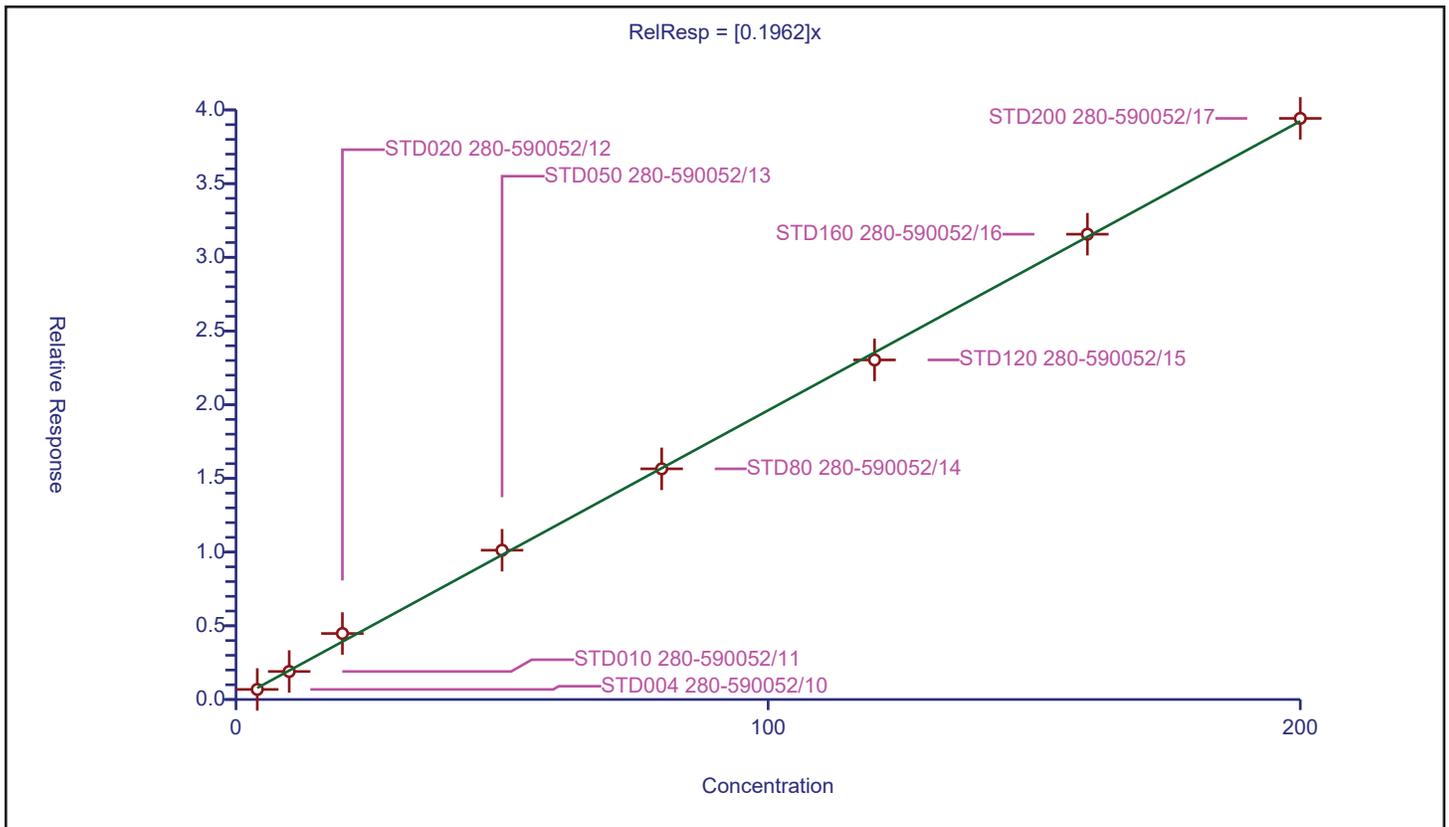
/ 2-Nitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1962

Error Coefficients	
Standard Error:	1060000
Relative Standard Error:	7.5
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.683253	40.0	1763623.0	0.170813	Y
2	STD010 280-590052/11	10.0	1.900188	40.0	1552983.0	0.190019	Y
3	STD020 280-590052/12	20.0	4.478533	40.0	1567031.0	0.223927	Y
4	STD050 280-590052/13	50.0	10.128099	40.0	1923587.0	0.202562	Y
5	STD80 280-590052/14	80.0	15.649513	40.0	2060836.0	0.195619	Y
6	STD120 280-590052/15	120.0	23.03627	40.0	1926298.0	0.191969	Y
7	STD160 280-590052/16	160.0	31.56731	40.0	1614218.0	0.197296	Y
8	STD200 280-590052/17	200.0	39.425052	40.0	2056117.0	0.197125	Y



Calibration

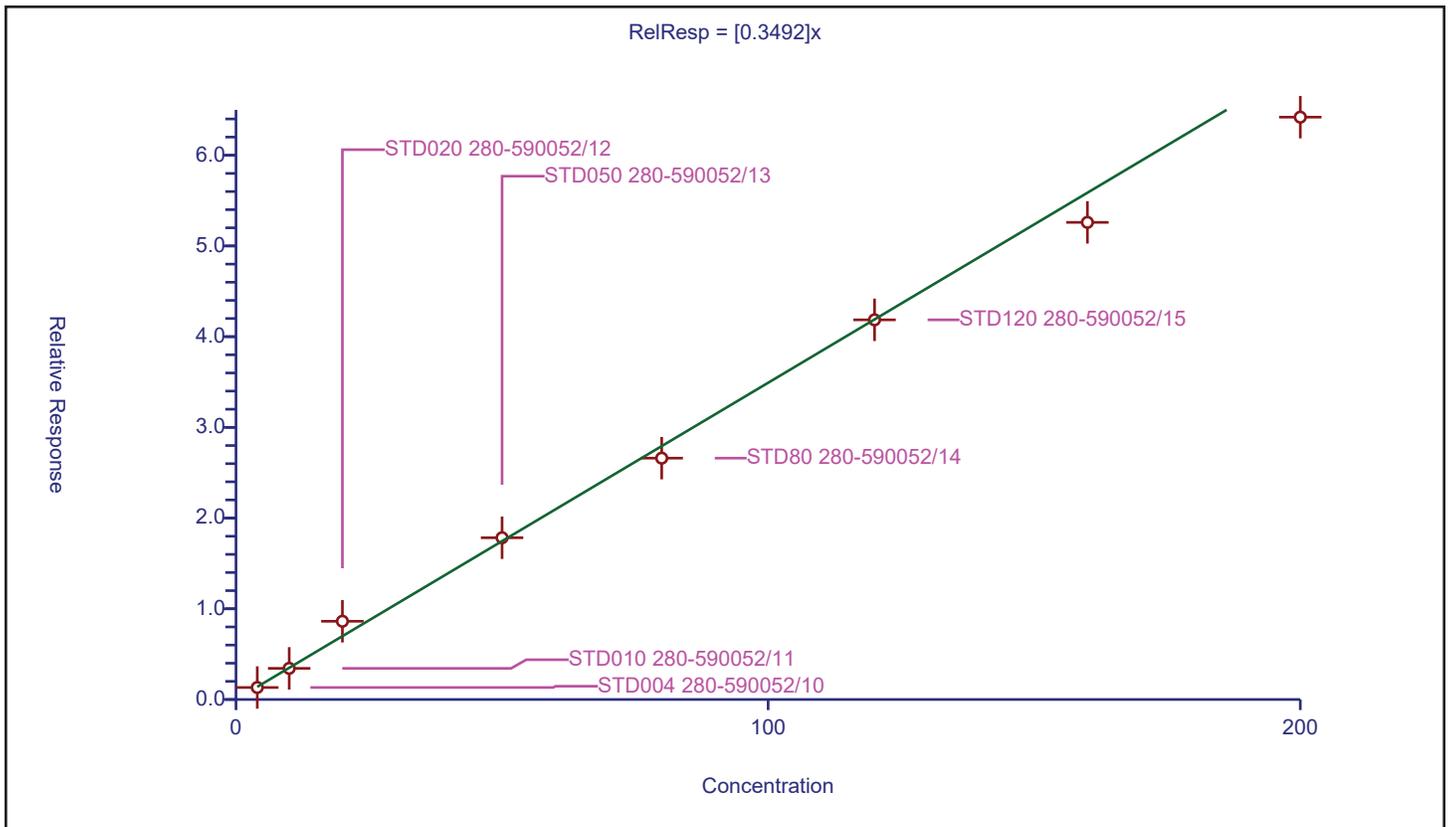
/ 2,4-Dimethylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3492

Error Coefficients	
Standard Error:	1780000
Relative Standard Error:	10.1
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.323344	40.0	1763623.0	0.330836	Y
2	STD010 280-590052/11	10.0	3.434474	40.0	1552983.0	0.343447	Y
3	STD020 280-590052/12	20.0	8.625177	40.0	1567031.0	0.431259	Y
4	STD050 280-590052/13	50.0	17.832643	40.0	1923587.0	0.356653	Y
5	STD80 280-590052/14	80.0	26.608735	40.0	2060836.0	0.332609	Y
6	STD120 280-590052/15	120.0	41.855788	40.0	1926298.0	0.348798	Y
7	STD160 280-590052/16	160.0	52.601098	40.0	1614218.0	0.328757	Y
8	STD200 280-590052/17	200.0	64.199479	40.0	2056117.0	0.320997	Y



Calibration

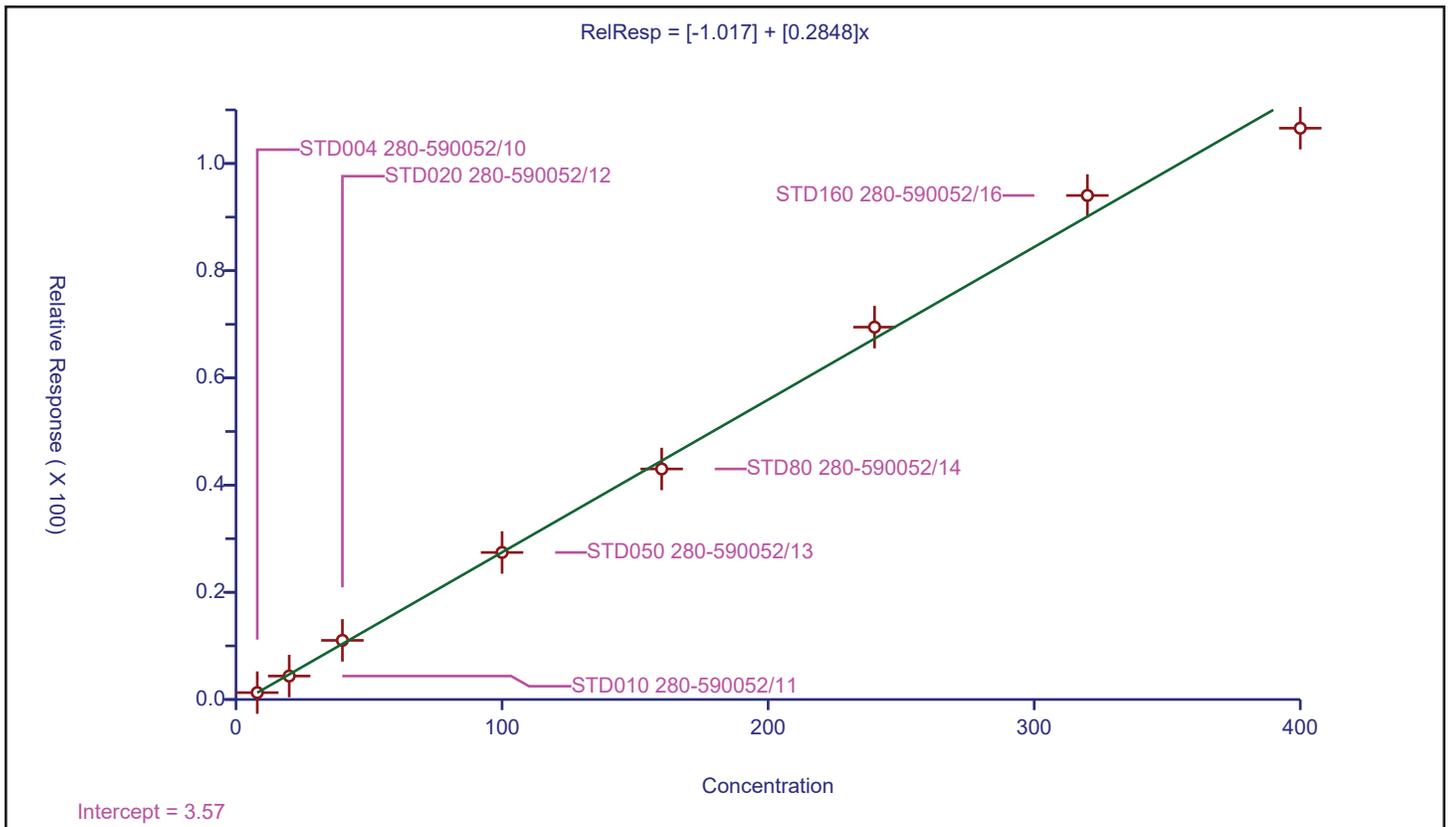
/ Benzoic acid

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.017
Slope:	0.2848

Error Coefficients	
Standard Error:	3230000
Relative Standard Error:	4.7
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	1.285014	40.0	1763623.0	0.160627	Y
2	STD010 280-590052/11	20.0	4.376146	40.0	1552983.0	0.218807	Y
3	STD020 280-590052/12	40.0	11.036157	40.0	1567031.0	0.275904	Y
4	STD050 280-590052/13	100.0	27.433144	40.0	1923587.0	0.274331	Y
5	STD80 280-590052/14	160.0	43.010933	40.0	2060836.0	0.268818	Y
6	STD120 280-590052/15	240.0	69.468213	40.0	1926298.0	0.289451	Y
7	STD160 280-590052/16	320.0	94.039021	40.0	1614218.0	0.293872	Y
8	STD200 280-590052/17	400.0	106.586658	40.0	2056117.0	0.266467	Y



Calibration

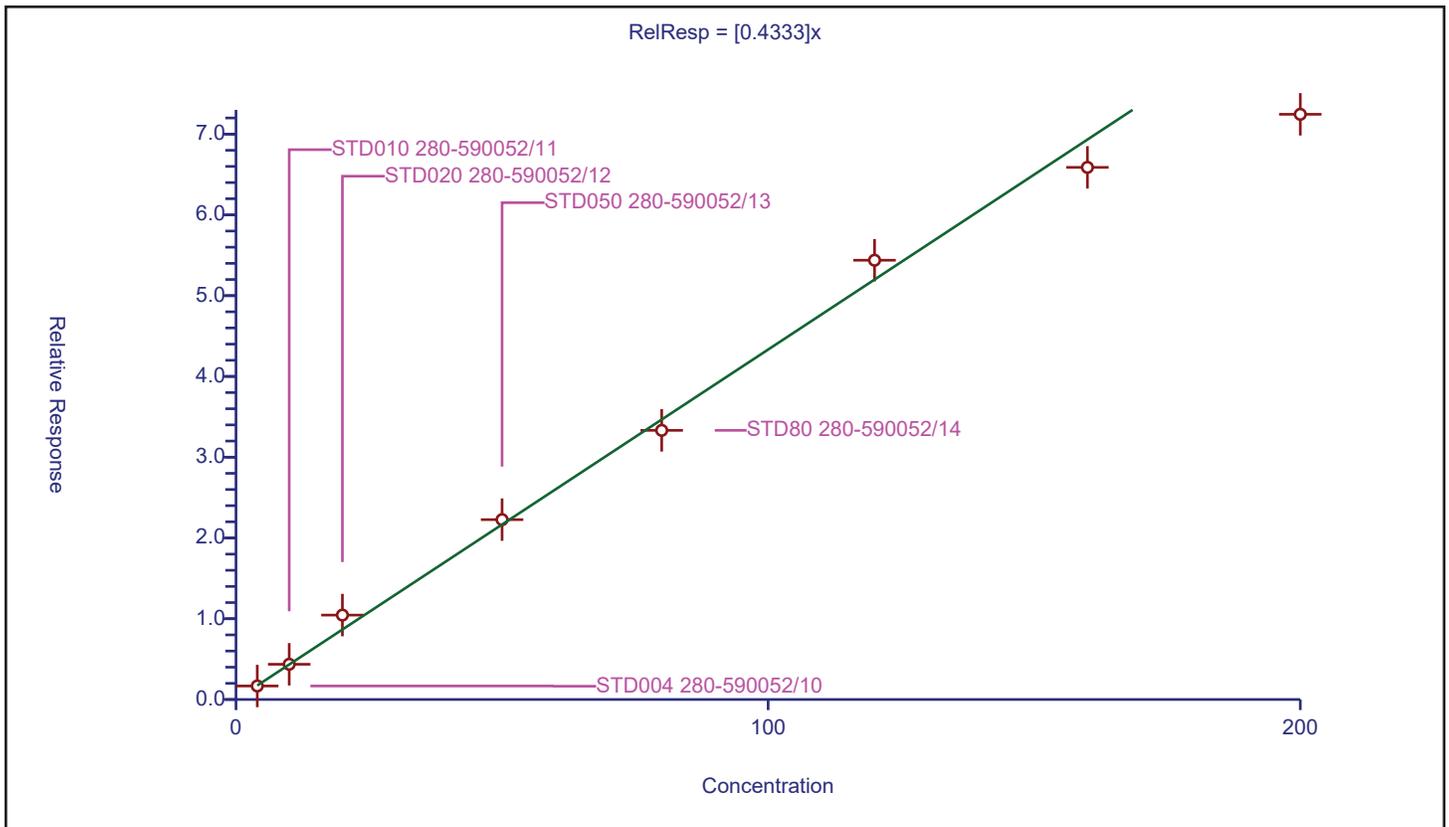
/ Bis(2-chloroethoxy)methane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4333

Error Coefficients	
Standard Error:	2140000
Relative Standard Error:	10.5
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.673736	40.0	1763623.0	0.418434	Y
2	STD010 280-590052/11	10.0	4.359816	40.0	1552983.0	0.435982	Y
3	STD020 280-590052/12	20.0	10.451791	40.0	1567031.0	0.52259	Y
4	STD050 280-590052/13	50.0	22.268106	40.0	1923587.0	0.445362	Y
5	STD80 280-590052/14	80.0	33.323525	40.0	2060836.0	0.416544	Y
6	STD120 280-590052/15	120.0	54.386393	40.0	1926298.0	0.45322	Y
7	STD160 280-590052/16	160.0	65.883072	40.0	1614218.0	0.411769	Y
8	STD200 280-590052/17	200.0	72.454496	40.0	2056117.0	0.362272	Y



Calibration

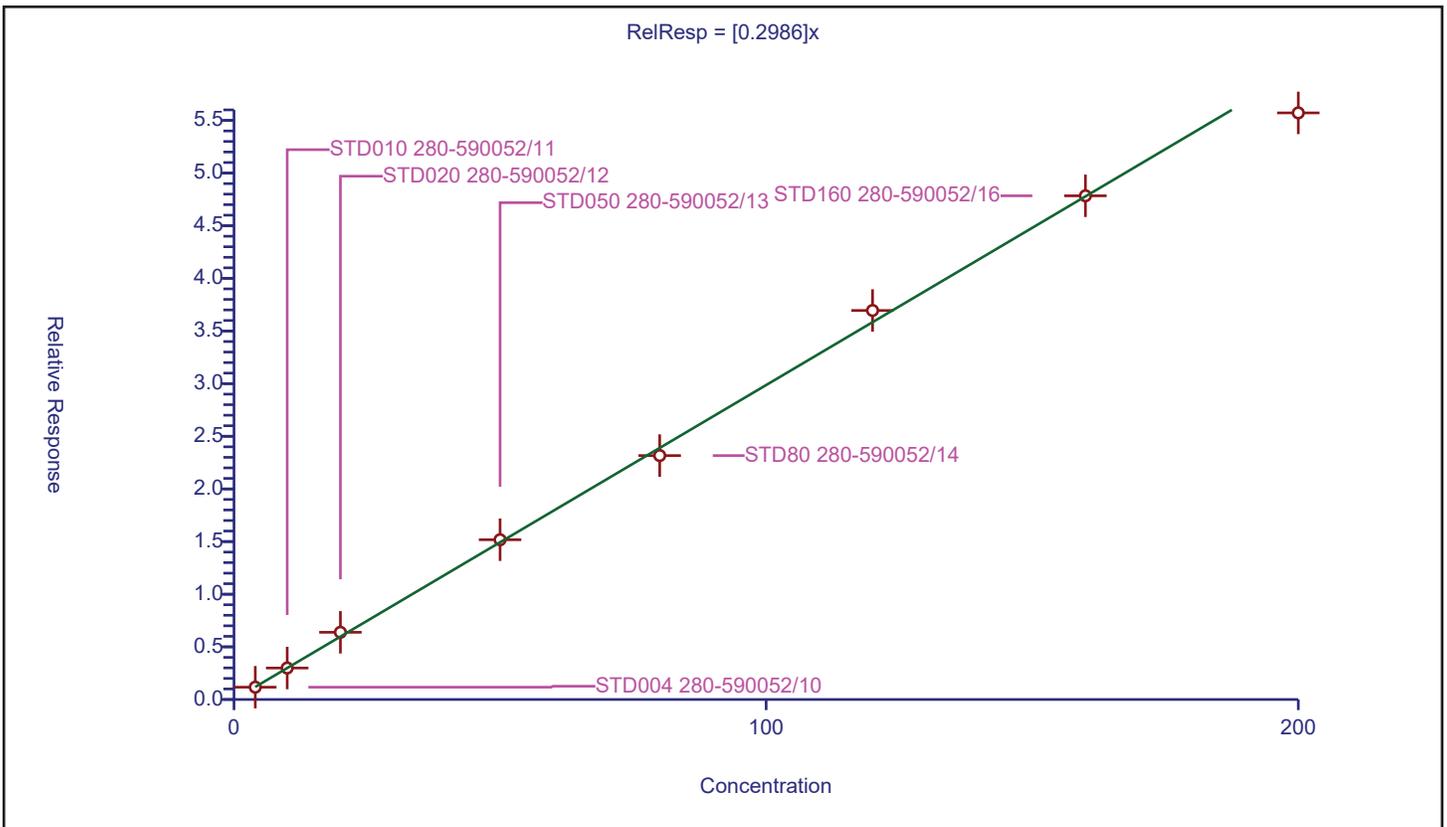
/ 2,4-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2986

Error Coefficients	
Standard Error:	1560000
Relative Standard Error:	4.1
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.169388	40.0	1763623.0	0.292347	Y
2	STD010 280-590052/11	10.0	2.990992	40.0	1552983.0	0.299099	Y
3	STD020 280-590052/12	20.0	6.382745	40.0	1567031.0	0.319137	Y
4	STD050 280-590052/13	50.0	15.173319	40.0	1923587.0	0.303466	Y
5	STD80 280-590052/14	80.0	23.168481	40.0	2060836.0	0.289606	Y
6	STD120 280-590052/15	120.0	36.948447	40.0	1926298.0	0.307904	Y
7	STD160 280-590052/16	160.0	47.841444	40.0	1614218.0	0.299009	Y
8	STD200 280-590052/17	200.0	55.715409	40.0	2056117.0	0.278577	Y



Calibration

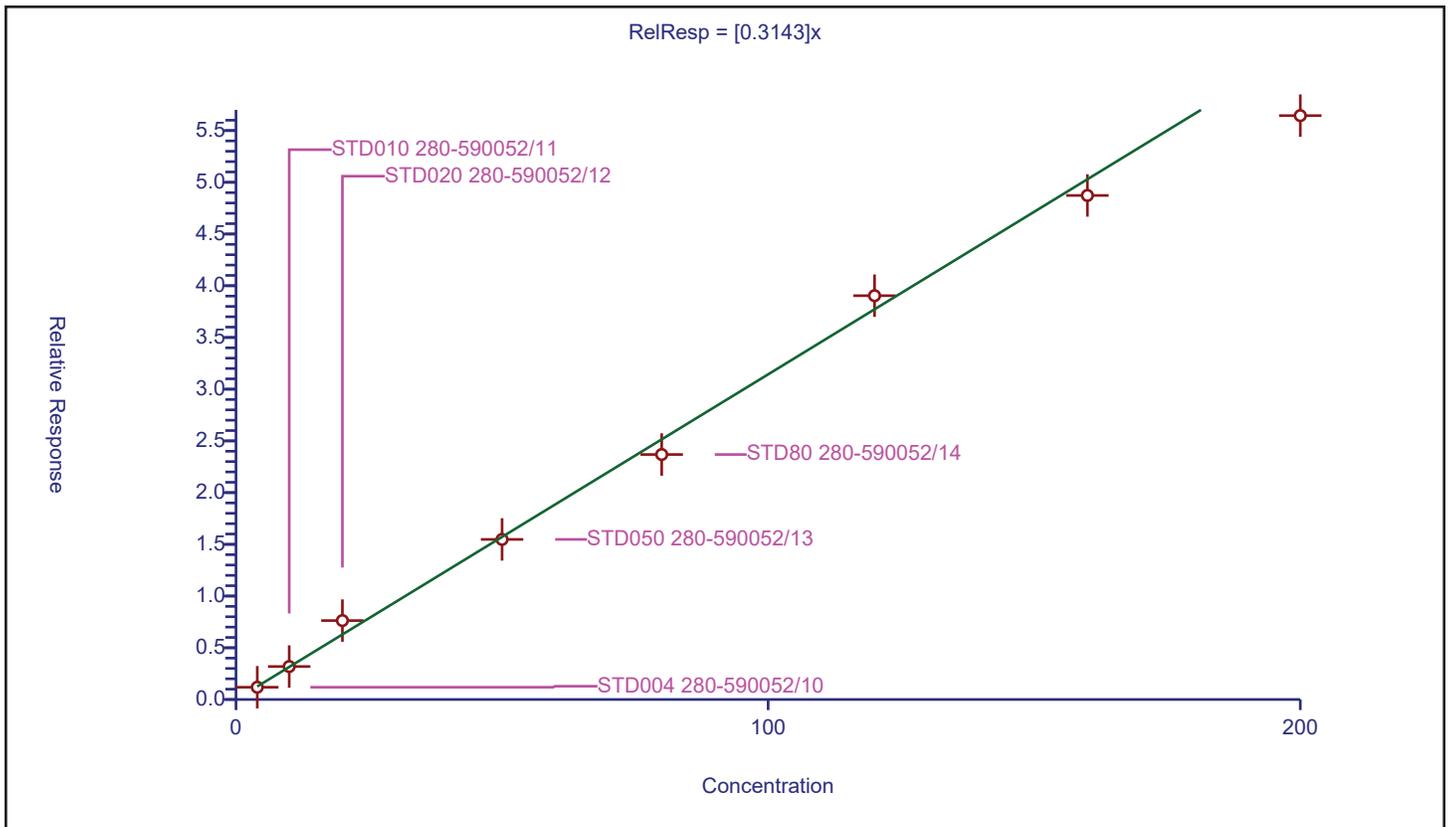
/ 1,2,4-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3143

Error Coefficients	
Standard Error:	1600000
Relative Standard Error:	9.7
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.186308	40.0	1763623.0	0.296577	Y
2	STD010 280-590052/11	10.0	3.188522	40.0	1552983.0	0.318852	Y
3	STD020 280-590052/12	20.0	7.630379	40.0	1567031.0	0.381519	Y
4	STD050 280-590052/13	50.0	15.47746	40.0	1923587.0	0.309549	Y
5	STD80 280-590052/14	80.0	23.684699	40.0	2060836.0	0.296059	Y
6	STD120 280-590052/15	120.0	39.039006	40.0	1926298.0	0.325325	Y
7	STD160 280-590052/16	160.0	48.728164	40.0	1614218.0	0.304551	Y
8	STD200 280-590052/17	200.0	56.44527	40.0	2056117.0	0.282226	Y



Calibration

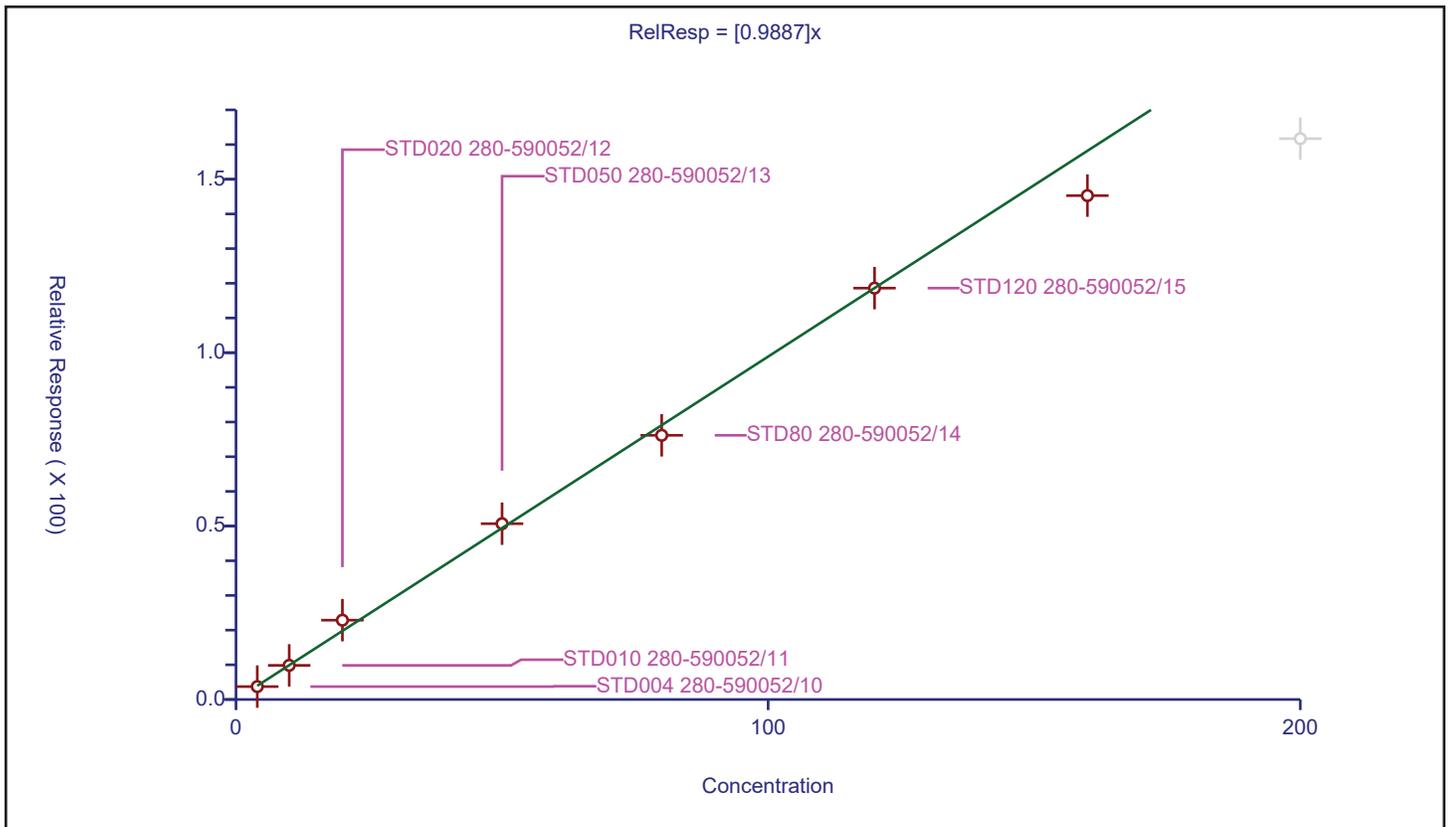
/ Naphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9887

Error Coefficients	
Standard Error:	3860000
Relative Standard Error:	7.8
Correlation Coefficient:	0.959
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.720886	40.0	1763623.0	0.930221	Y
2	STD010 280-590052/11	10.0	9.846315	40.0	1552983.0	0.984632	Y
3	STD020 280-590052/12	20.0	22.869516	40.0	1567031.0	1.143476	Y
4	STD050 280-590052/13	50.0	50.691068	40.0	1923587.0	1.013821	Y
5	STD80 280-590052/14	80.0	76.171631	40.0	2060836.0	0.952145	Y
6	STD120 280-590052/15	120.0	118.611014	40.0	1926298.0	0.988425	Y
7	STD160 280-590052/16	160.0	145.284862	40.0	1614218.0	0.90803	Y
8	STD200 280-590052/17	200.0	161.701946	40.0	2056117.0	0.80851	N



Calibration

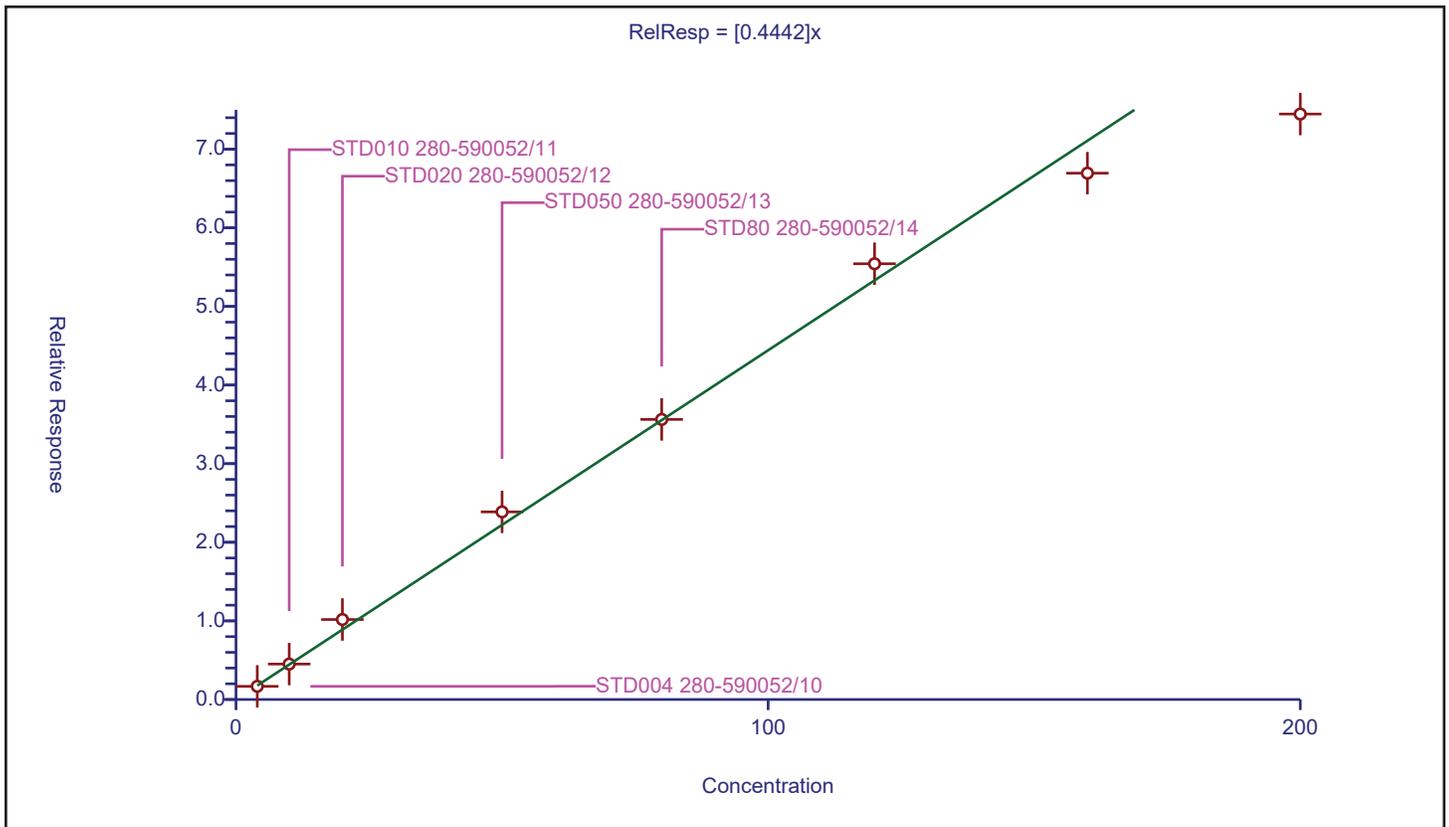
/ 4-Chloroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4442

Error Coefficients	
Standard Error:	2200000
Relative Standard Error:	9.3
Correlation Coefficient:	0.973
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.67605	40.0	1763623.0	0.419012	Y
2	STD010 280-590052/11	10.0	4.50712	40.0	1552983.0	0.450712	Y
3	STD020 280-590052/12	20.0	10.173634	40.0	1567031.0	0.508682	Y
4	STD050 280-590052/13	50.0	23.865476	40.0	1923587.0	0.47731	Y
5	STD80 280-590052/14	80.0	35.624514	40.0	2060836.0	0.445306	Y
6	STD120 280-590052/15	120.0	55.431008	40.0	1926298.0	0.461925	Y
7	STD160 280-590052/16	160.0	66.953732	40.0	1614218.0	0.418461	Y
8	STD200 280-590052/17	200.0	74.474089	40.0	2056117.0	0.37237	Y



Calibration

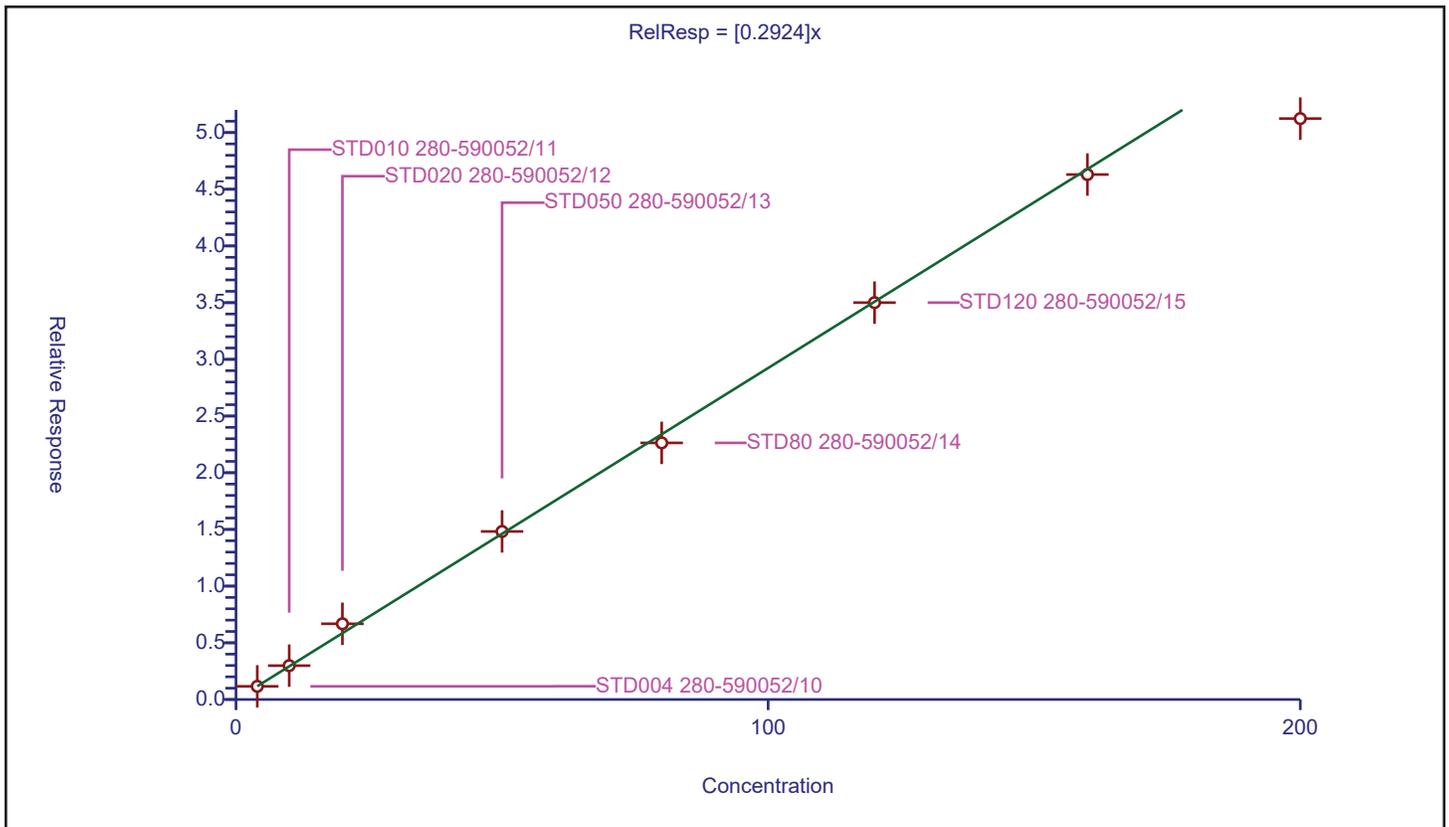
/ 2,6-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2924

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	7.3
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.160067	40.0	1763623.0	0.290017	Y
2	STD010 280-590052/11	10.0	2.984965	40.0	1552983.0	0.298497	Y
3	STD020 280-590052/12	20.0	6.677213	40.0	1567031.0	0.333861	Y
4	STD050 280-590052/13	50.0	14.819876	40.0	1923587.0	0.296398	Y
5	STD80 280-590052/14	80.0	22.630641	40.0	2060836.0	0.282883	Y
6	STD120 280-590052/15	120.0	35.002497	40.0	1926298.0	0.291687	Y
7	STD160 280-590052/16	160.0	46.298356	40.0	1614218.0	0.289365	Y
8	STD200 280-590052/17	200.0	51.233466	40.0	2056117.0	0.256167	Y



Calibration

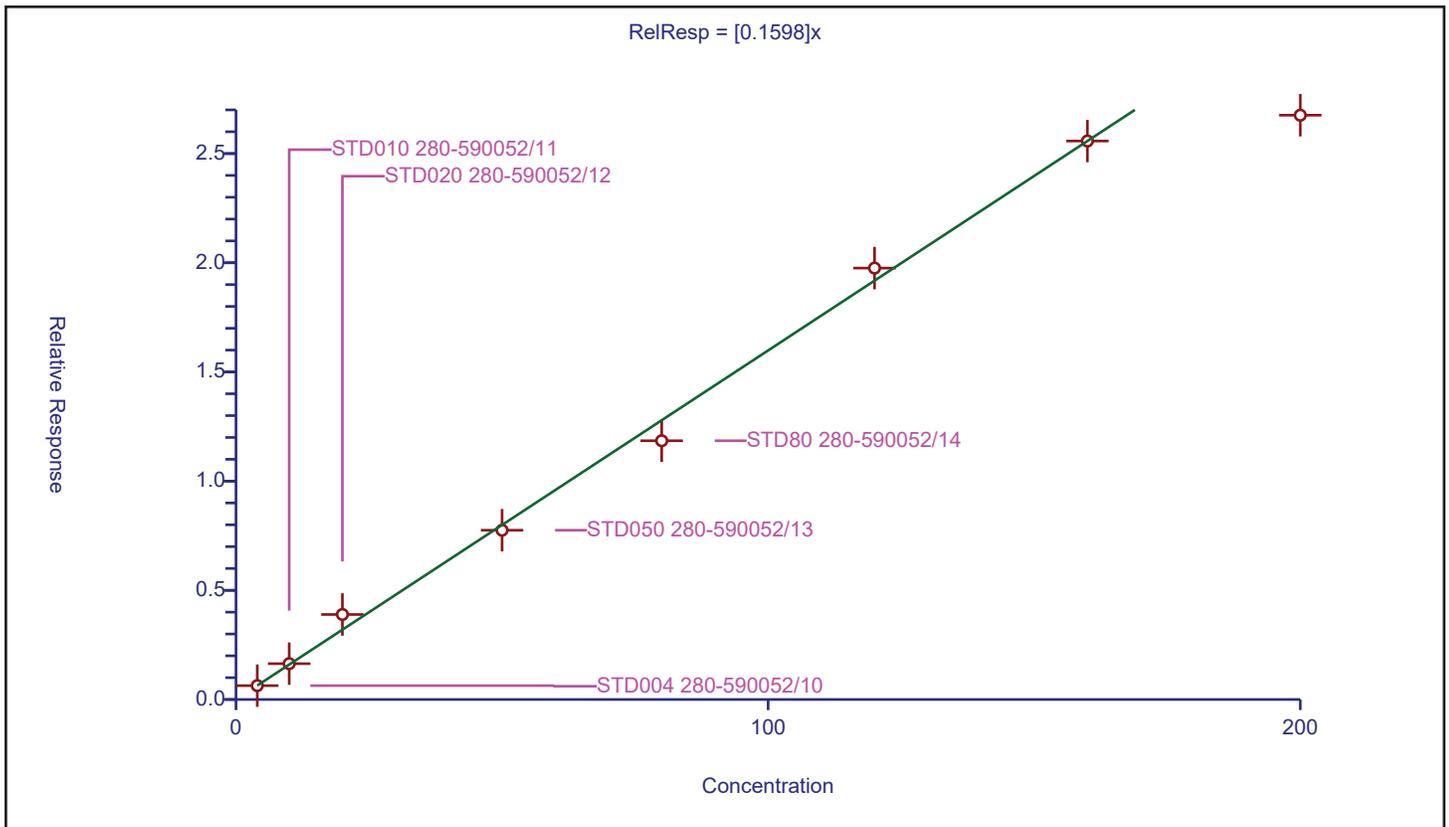
/ Hexachlorobutadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1598

Error Coefficients	
Standard Error:	793000
Relative Standard Error:	10.8
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.634399	40.0	1763623.0	0.1586	Y
2	STD010 280-590052/11	10.0	1.640585	40.0	1552983.0	0.164058	Y
3	STD020 280-590052/12	20.0	3.893452	40.0	1567031.0	0.194673	Y
4	STD050 280-590052/13	50.0	7.752288	40.0	1923587.0	0.155046	Y
5	STD80 280-590052/14	80.0	11.848725	40.0	2060836.0	0.148109	Y
6	STD120 280-590052/15	120.0	19.755697	40.0	1926298.0	0.164631	Y
7	STD160 280-590052/16	160.0	25.574538	40.0	1614218.0	0.159841	Y
8	STD200 280-590052/17	200.0	26.756921	40.0	2056117.0	0.133785	Y



Calibration

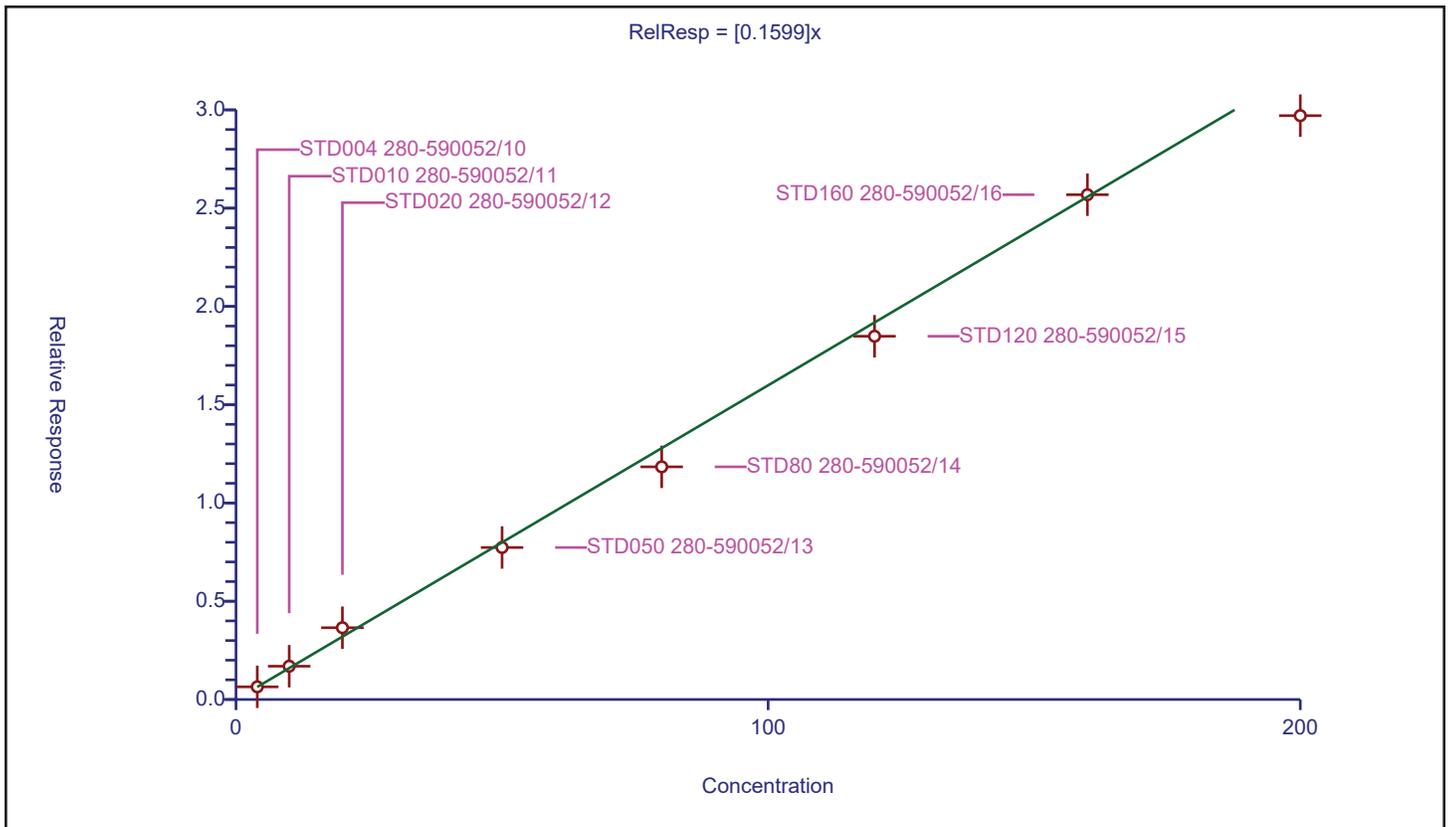
/ Caprolactam

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1599

Error Coefficients	
Standard Error:	822000
Relative Standard Error:	7.3
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.644378	40.0	1763623.0	0.161095	Y
2	STD010 280-590052/11	10.0	1.694288	40.0	1552983.0	0.169429	Y
3	STD020 280-590052/12	20.0	3.652997	40.0	1567031.0	0.18265	Y
4	STD050 280-590052/13	50.0	7.734384	40.0	1923587.0	0.154688	Y
5	STD80 280-590052/14	80.0	11.838011	40.0	2060836.0	0.147975	Y
6	STD120 280-590052/15	120.0	18.483371	40.0	1926298.0	0.154028	Y
7	STD160 280-590052/16	160.0	25.68466	40.0	1614218.0	0.160529	Y
8	STD200 280-590052/17	200.0	29.70757	40.0	2056117.0	0.148538	Y



Calibration

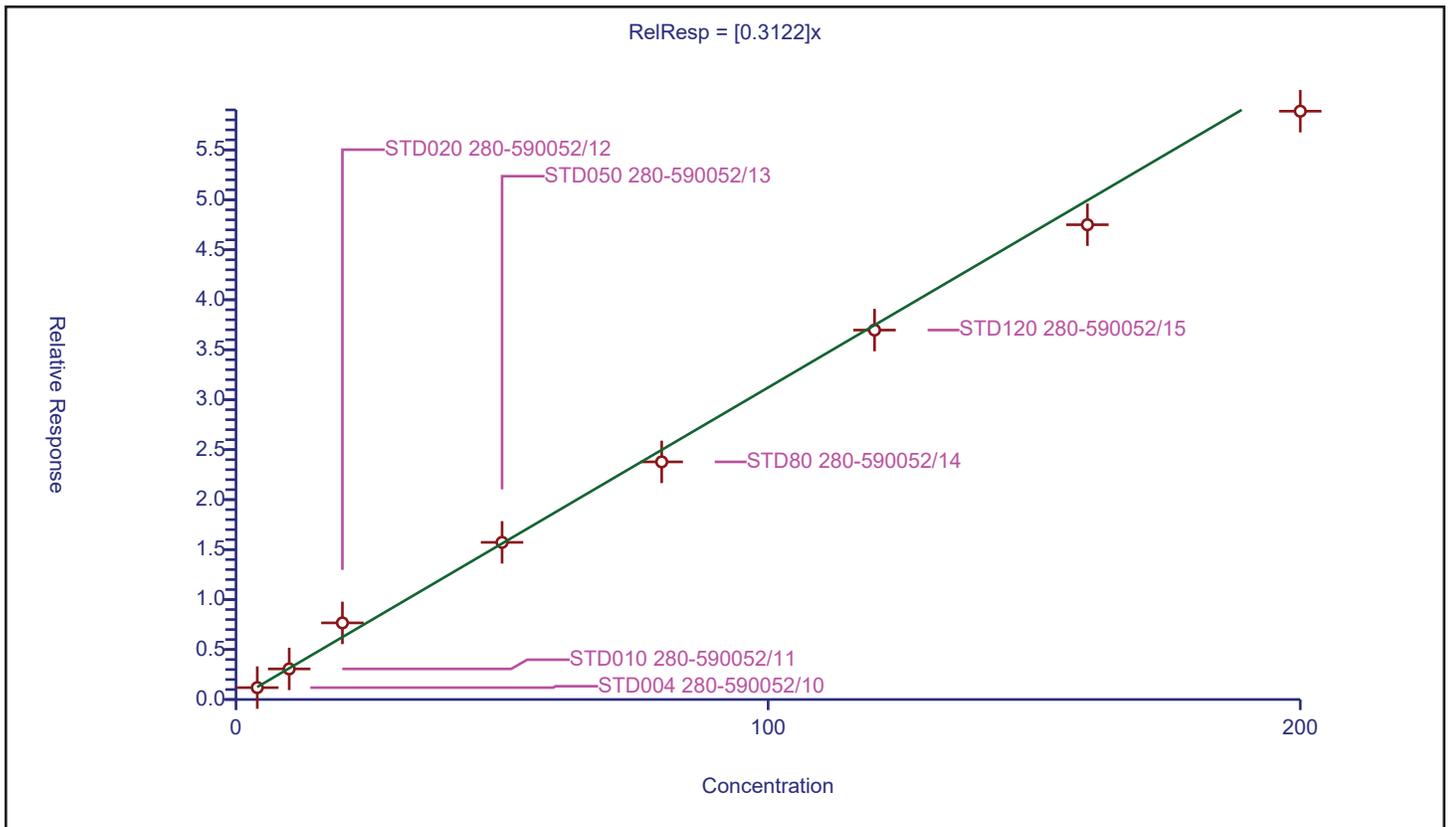
/ 4-Chloro-3-methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3122

Error Coefficients	
Standard Error:	1610000
Relative Standard Error:	9.5
Correlation Coefficient:	0.977
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.188667	40.0	1763623.0	0.297167	Y
2	STD010 280-590052/11	10.0	3.059918	40.0	1552983.0	0.305992	Y
3	STD020 280-590052/12	20.0	7.666396	40.0	1567031.0	0.38332	Y
4	STD050 280-590052/13	50.0	15.725288	40.0	1923587.0	0.314506	Y
5	STD80 280-590052/14	80.0	23.777865	40.0	2060836.0	0.297223	Y
6	STD120 280-590052/15	120.0	36.96753	40.0	1926298.0	0.308063	Y
7	STD160 280-590052/16	160.0	47.509196	40.0	1614218.0	0.296932	Y
8	STD200 280-590052/17	200.0	58.870599	40.0	2056117.0	0.294353	Y



Calibration

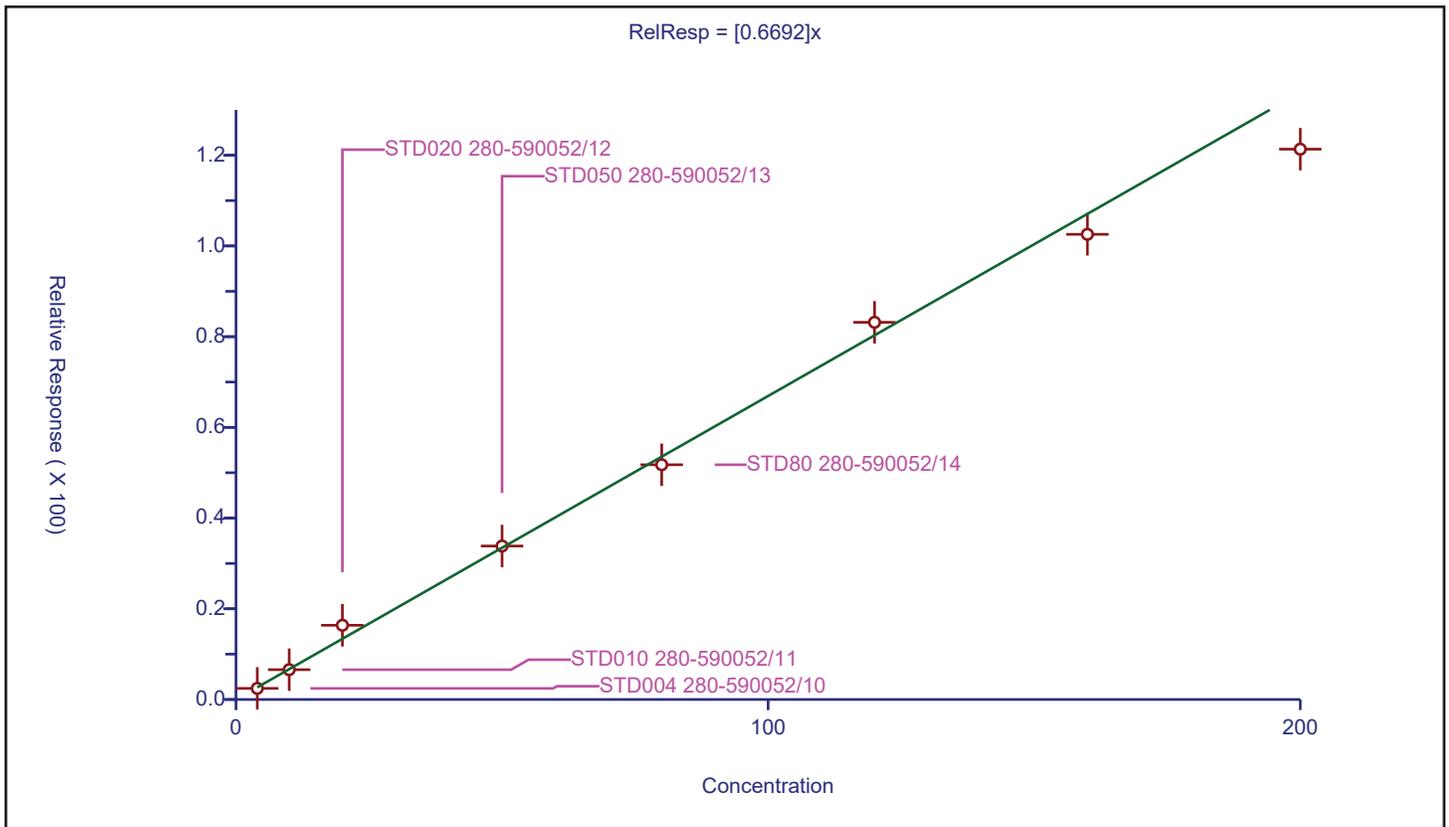
/ 2-Methylnaphthalene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6692

Error Coefficients	
Standard Error:	3430000
Relative Standard Error:	10.0
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.451771	40.0	1763623.0	0.612943	Y
2	STD010 280-590052/11	10.0	6.575191	40.0	1552983.0	0.657519	Y
3	STD020 280-590052/12	20.0	16.368279	40.0	1567031.0	0.818414	Y
4	STD050 280-590052/13	50.0	33.838178	40.0	1923587.0	0.676764	Y
5	STD80 280-590052/14	80.0	51.759597	40.0	2060836.0	0.646995	Y
6	STD120 280-590052/15	120.0	83.164183	40.0	1926298.0	0.693035	Y
7	STD160 280-590052/16	160.0	102.562207	40.0	1614218.0	0.641014	Y
8	STD200 280-590052/17	200.0	121.341733	40.0	2056117.0	0.606709	Y



Calibration

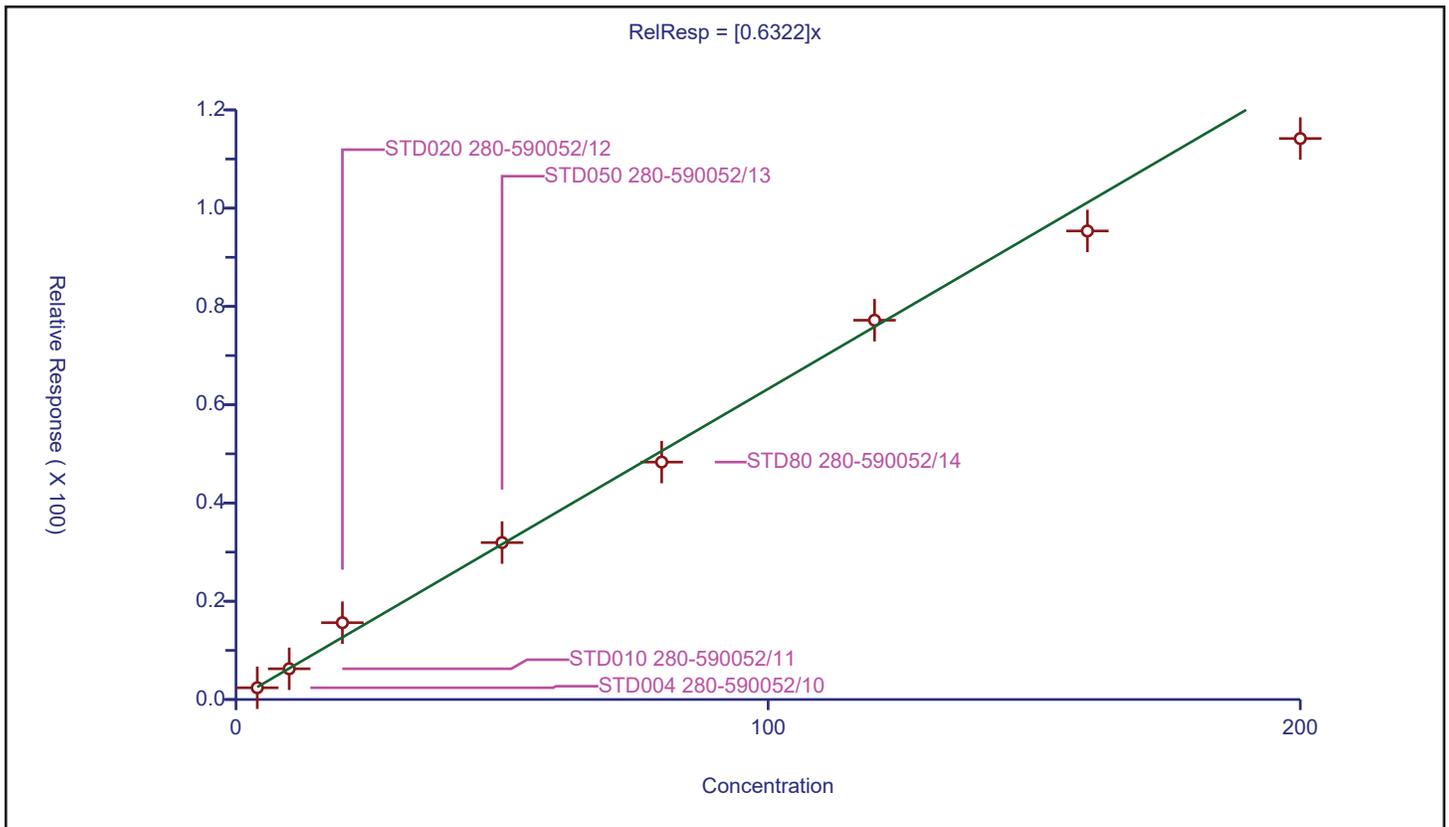
/ 1-Methylnaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6322

Error Coefficients	
Standard Error:	3210000
Relative Standard Error:	10.3
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.390261	40.0	1763623.0	0.597565	Y
2	STD010 280-590052/11	10.0	6.253359	40.0	1552983.0	0.625336	Y
3	STD020 280-590052/12	20.0	15.630629	40.0	1567031.0	0.781531	Y
4	STD050 280-590052/13	50.0	31.93409	40.0	1923587.0	0.638682	Y
5	STD80 280-590052/14	80.0	48.319925	40.0	2060836.0	0.603999	Y
6	STD120 280-590052/15	120.0	77.19547	40.0	1926298.0	0.643296	Y
7	STD160 280-590052/16	160.0	95.36189	40.0	1614218.0	0.596012	Y
8	STD200 280-590052/17	200.0	114.171266	40.0	2056117.0	0.570856	Y



Calibration

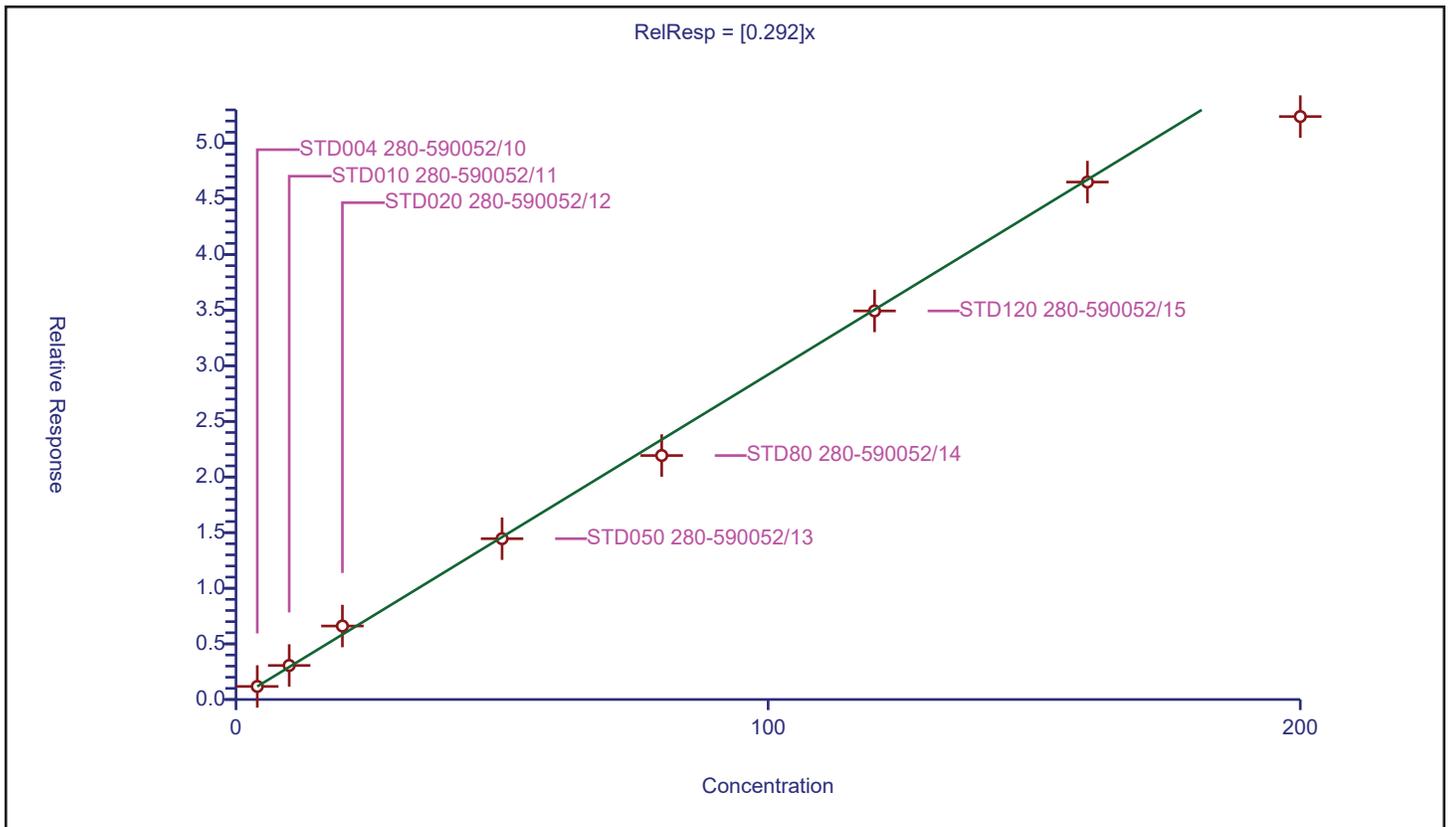
/ 1,2,4,5-Tetrachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.292

Error Coefficients	
Standard Error:	1490000
Relative Standard Error:	7.0
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.17304	40.0	1763623.0	0.29326	Y
2	STD010 280-590052/11	10.0	3.058269	40.0	1552983.0	0.305827	Y
3	STD020 280-590052/12	20.0	6.605332	40.0	1567031.0	0.330267	Y
4	STD050 280-590052/13	50.0	14.453809	40.0	1923587.0	0.289076	Y
5	STD80 280-590052/14	80.0	21.931799	40.0	2060836.0	0.274147	Y
6	STD120 280-590052/15	120.0	34.929154	40.0	1926298.0	0.291076	Y
7	STD160 280-590052/16	160.0	46.513841	40.0	1614218.0	0.290712	Y
8	STD200 280-590052/17	200.0	52.40266	40.0	2056117.0	0.262013	Y



Calibration

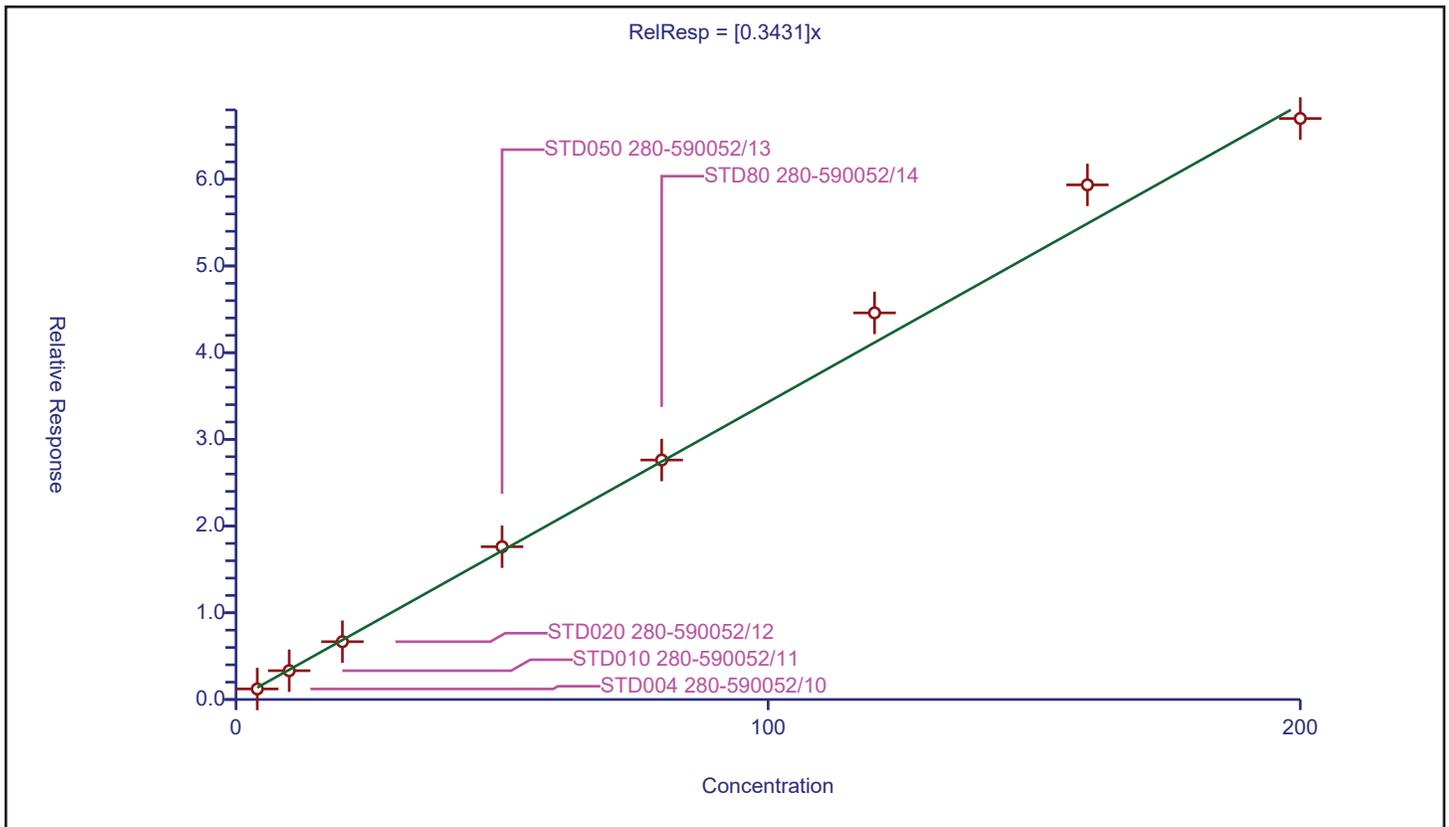
/ Hexachlorocyclopentadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3431

Error Coefficients	
Standard Error:	1080000
Relative Standard Error:	6.5
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.214741	40.0	1045029.0	0.303685	Y
2	STD010 280-590052/11	10.0	3.323189	40.0	923330.0	0.332319	Y
3	STD020 280-590052/12	20.0	6.667121	40.0	1056510.0	0.333356	Y
4	STD050 280-590052/13	50.0	17.619382	40.0	1088667.0	0.352388	Y
5	STD80 280-590052/14	80.0	27.618827	40.0	1161499.0	0.345235	Y
6	STD120 280-590052/15	120.0	44.58658	40.0	1079314.0	0.371555	Y
7	STD160 280-590052/16	160.0	59.352287	40.0	932481.0	0.370952	Y
8	STD200 280-590052/17	200.0	67.008431	40.0	1175079.0	0.335042	Y



Calibration

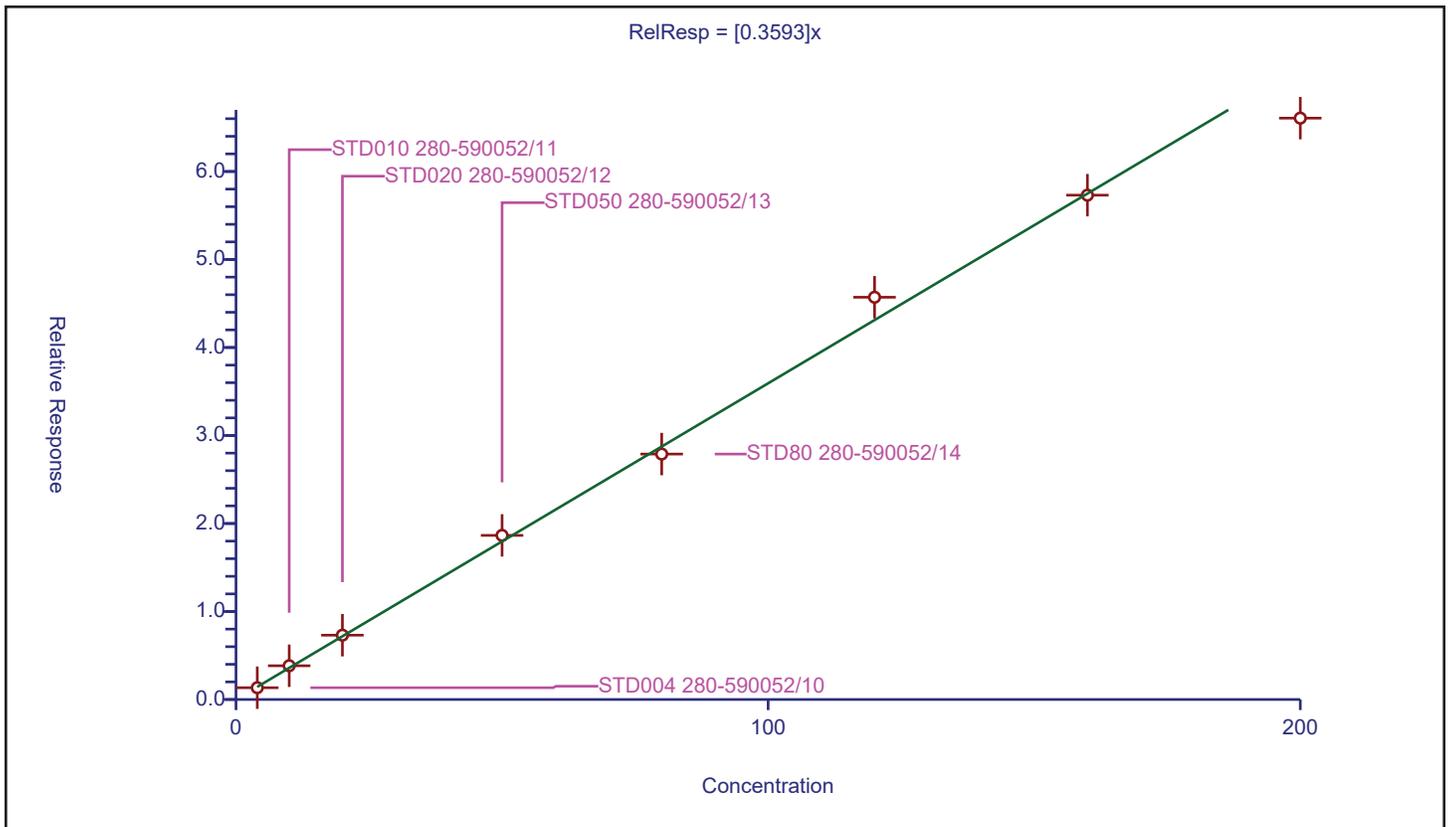
/ 2,4,6-Trichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3593

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	5.6
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.337877	40.0	1045029.0	0.334469	Y
2	STD010 280-590052/11	10.0	3.834469	40.0	923330.0	0.383447	Y
3	STD020 280-590052/12	20.0	7.308364	40.0	1056510.0	0.365418	Y
4	STD050 280-590052/13	50.0	18.650588	40.0	1088667.0	0.373012	Y
5	STD80 280-590052/14	80.0	27.89082	40.0	1161499.0	0.348635	Y
6	STD120 280-590052/15	120.0	45.70833	40.0	1079314.0	0.380903	Y
7	STD160 280-590052/16	160.0	57.310294	40.0	932481.0	0.358189	Y
8	STD200 280-590052/17	200.0	66.063882	40.0	1175079.0	0.330319	Y



Calibration

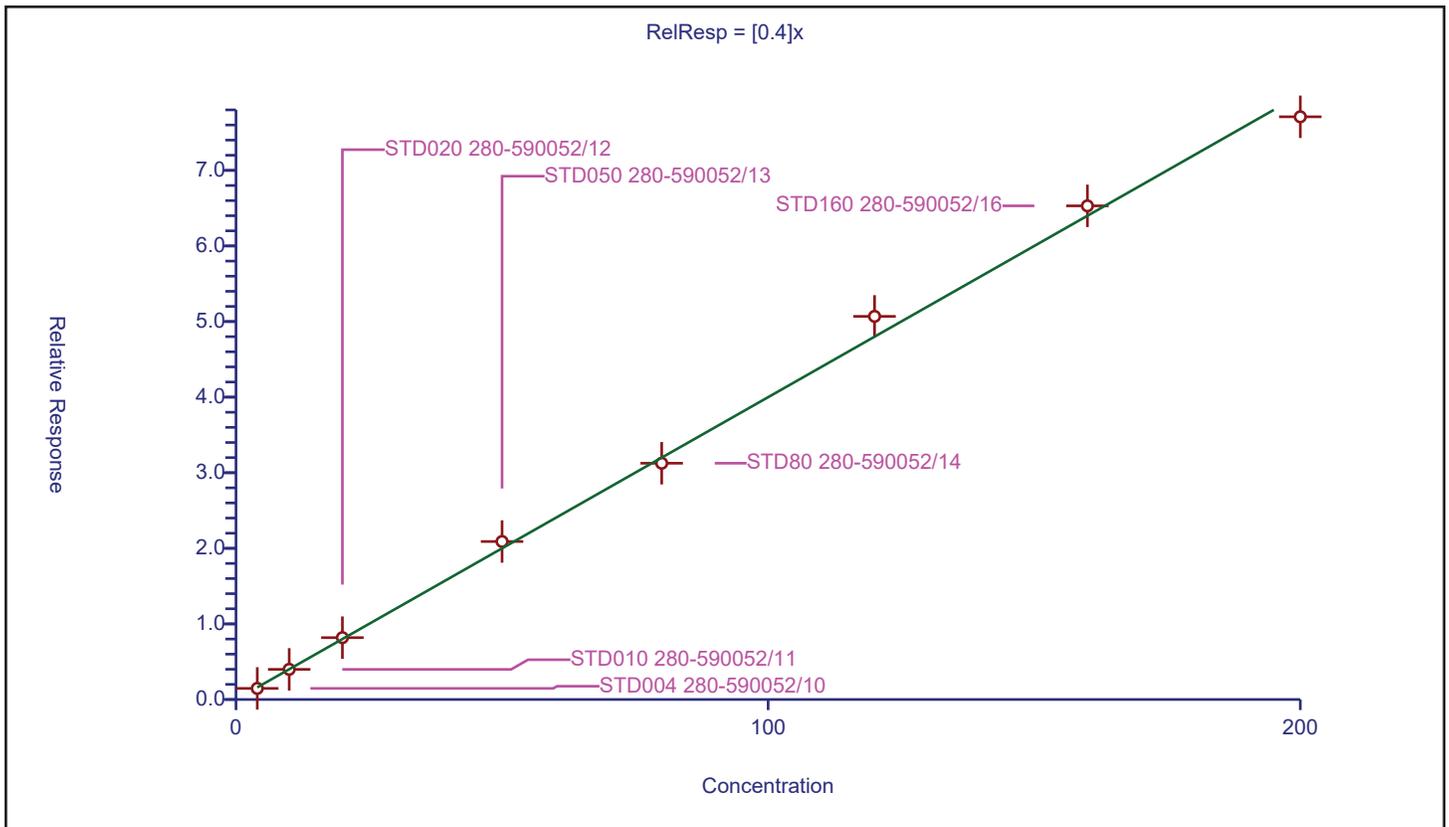
/ 2,4,5-Trichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4

Error Coefficients	
Standard Error:	1230000
Relative Standard Error:	4.6
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.469701	40.0	1045029.0	0.367425	Y
2	STD010 280-590052/11	10.0	3.985444	40.0	923330.0	0.398544	Y
3	STD020 280-590052/12	20.0	8.180102	40.0	1056510.0	0.409005	Y
4	STD050 280-590052/13	50.0	20.902112	40.0	1088667.0	0.418042	Y
5	STD80 280-590052/14	80.0	31.25499	40.0	1161499.0	0.390687	Y
6	STD120 280-590052/15	120.0	50.68475	40.0	1079314.0	0.422373	Y
7	STD160 280-590052/16	160.0	65.304966	40.0	932481.0	0.408156	Y
8	STD200 280-590052/17	200.0	77.087004	40.0	1175079.0	0.385435	Y



Calibration

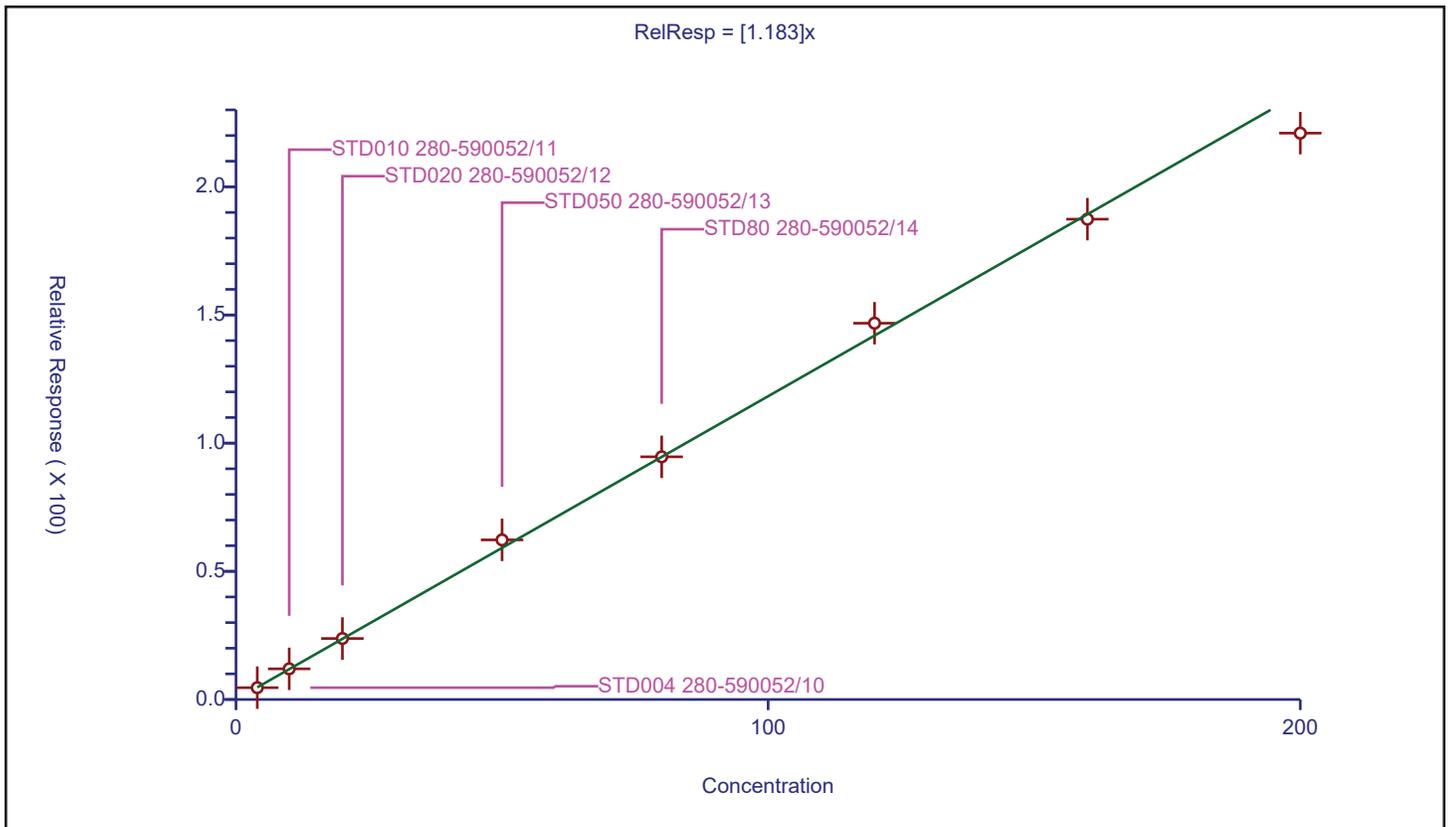
/ 2-Fluorobiphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.183

Error Coefficients	
Standard Error:	3540000
Relative Standard Error:	3.6
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.603738	40.0	1045029.0	1.150935	Y
2	STD010 280-590052/11	10.0	11.959321	40.0	923330.0	1.195932	Y
3	STD020 280-590052/12	20.0	23.790064	40.0	1056510.0	1.189503	Y
4	STD050 280-590052/13	50.0	62.264439	40.0	1088667.0	1.245289	Y
5	STD80 280-590052/14	80.0	94.665635	40.0	1161499.0	1.18332	Y
6	STD120 280-590052/15	120.0	146.790498	40.0	1079314.0	1.223254	Y
7	STD160 280-590052/16	160.0	187.379174	40.0	932481.0	1.17112	Y
8	STD200 280-590052/17	200.0	220.926797	40.0	1175079.0	1.104634	Y



Calibration

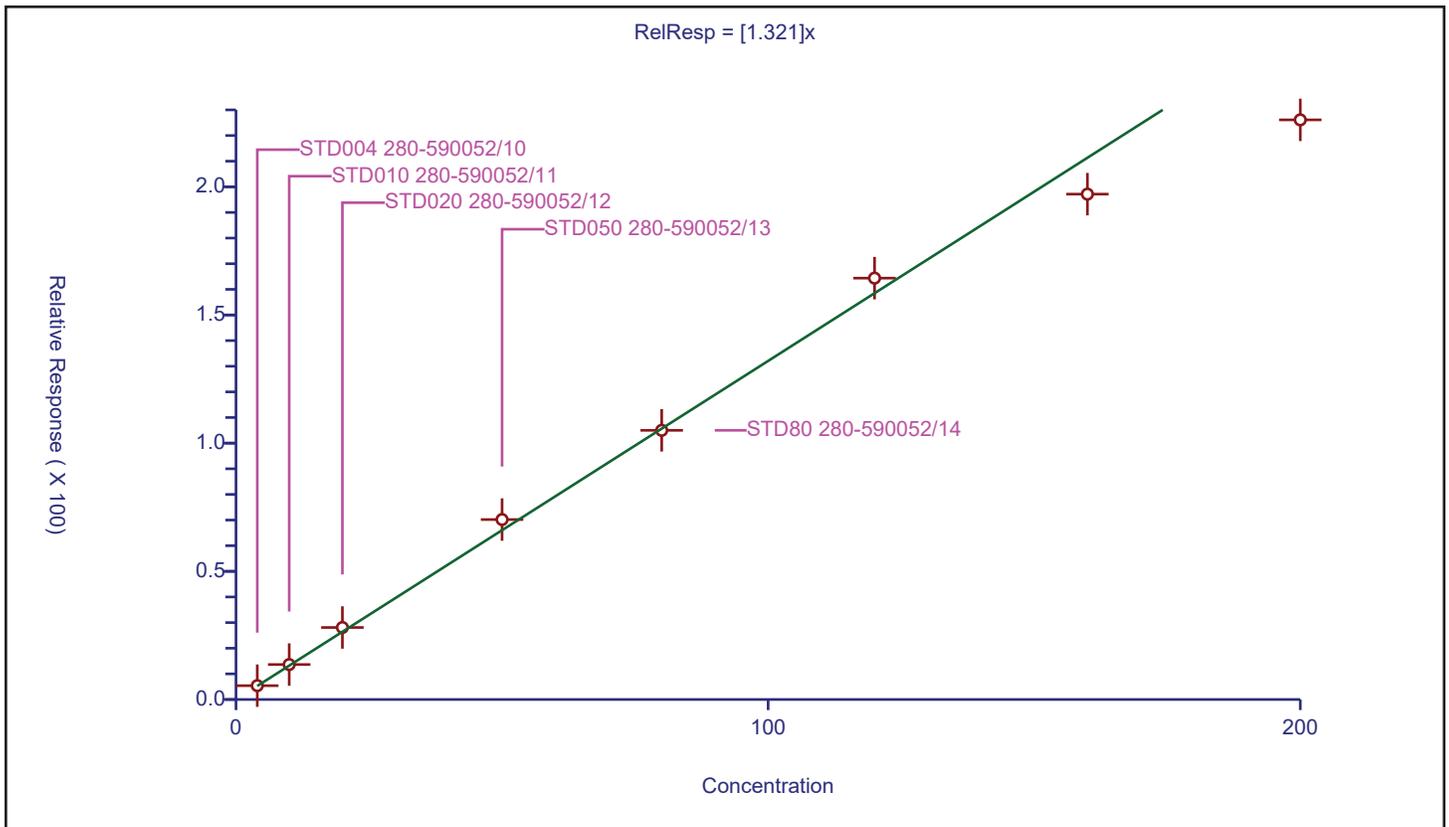
/ 1,1'-Biphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.321

Error Coefficients	
Standard Error:	3750000
Relative Standard Error:	7.2
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.395908	40.0	1045029.0	1.348977	Y
2	STD010 280-590052/11	10.0	13.635905	40.0	923330.0	1.36359	Y
3	STD020 280-590052/12	20.0	28.086814	40.0	1056510.0	1.404341	Y
4	STD050 280-590052/13	50.0	70.197847	40.0	1088667.0	1.403957	Y
5	STD80 280-590052/14	80.0	105.005377	40.0	1161499.0	1.312567	Y
6	STD120 280-590052/15	120.0	164.367107	40.0	1079314.0	1.369726	Y
7	STD160 280-590052/16	160.0	197.141518	40.0	932481.0	1.232134	Y
8	STD200 280-590052/17	200.0	226.115078	40.0	1175079.0	1.130575	Y



Calibration

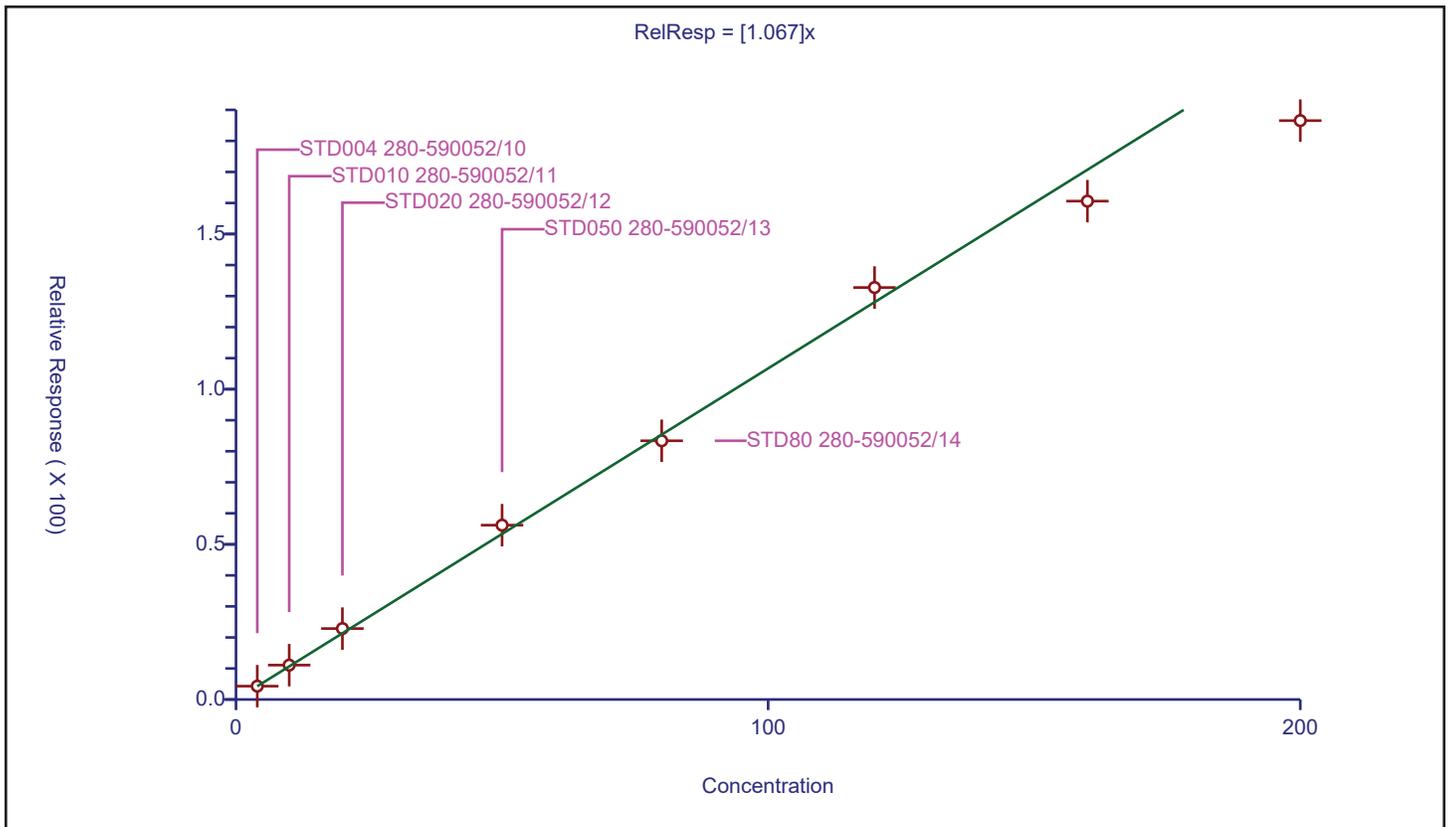
/ 2-Chloronaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.067

Error Coefficients	
Standard Error:	3060000
Relative Standard Error:	6.6
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.302005	40.0	1045029.0	1.075501	Y
2	STD010 280-590052/11	10.0	11.080372	40.0	923330.0	1.108037	Y
3	STD020 280-590052/12	20.0	22.863049	40.0	1056510.0	1.143152	Y
4	STD050 280-590052/13	50.0	56.182726	40.0	1088667.0	1.123655	Y
5	STD80 280-590052/14	80.0	83.371712	40.0	1161499.0	1.042146	Y
6	STD120 280-590052/15	120.0	132.762848	40.0	1079314.0	1.106357	Y
7	STD160 280-590052/16	160.0	160.599519	40.0	932481.0	1.003747	Y
8	STD200 280-590052/17	200.0	186.542113	40.0	1175079.0	0.932711	Y



Calibration

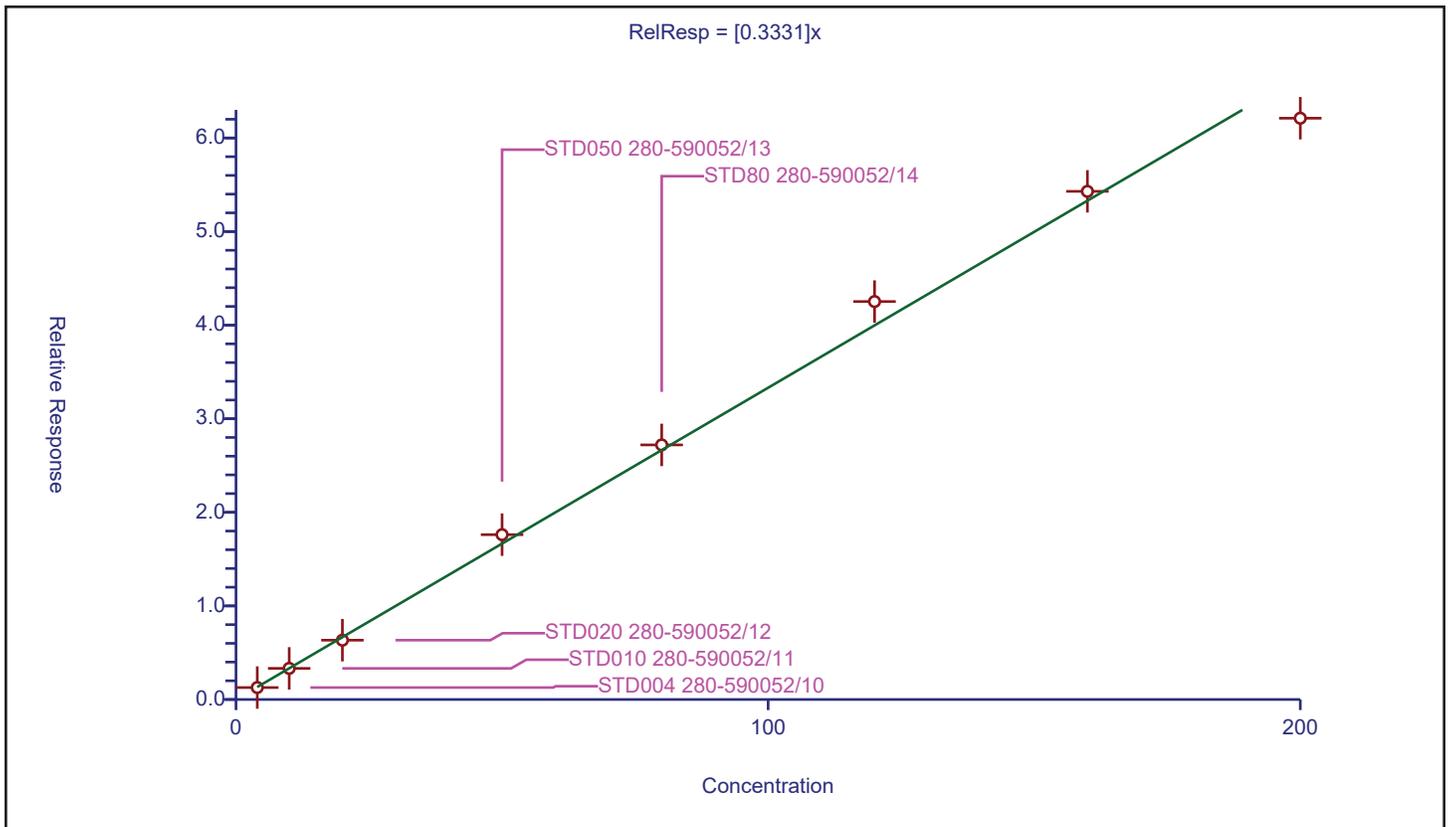
/ 2-Nitroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3331

Error Coefficients	
Standard Error:	1010000
Relative Standard Error:	4.9
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.27652	40.0	1045029.0	0.31913	Y
2	STD010 280-590052/11	10.0	3.324532	40.0	923330.0	0.332453	Y
3	STD020 280-590052/12	20.0	6.336826	40.0	1056510.0	0.316841	Y
4	STD050 280-590052/13	50.0	17.611336	40.0	1088667.0	0.352227	Y
5	STD80 280-590052/14	80.0	27.20147	40.0	1161499.0	0.340018	Y
6	STD120 280-590052/15	120.0	42.520712	40.0	1079314.0	0.354339	Y
7	STD160 280-590052/16	160.0	54.295584	40.0	932481.0	0.339347	Y
8	STD200 280-590052/17	200.0	62.10922	40.0	1175079.0	0.310546	Y



Calibration

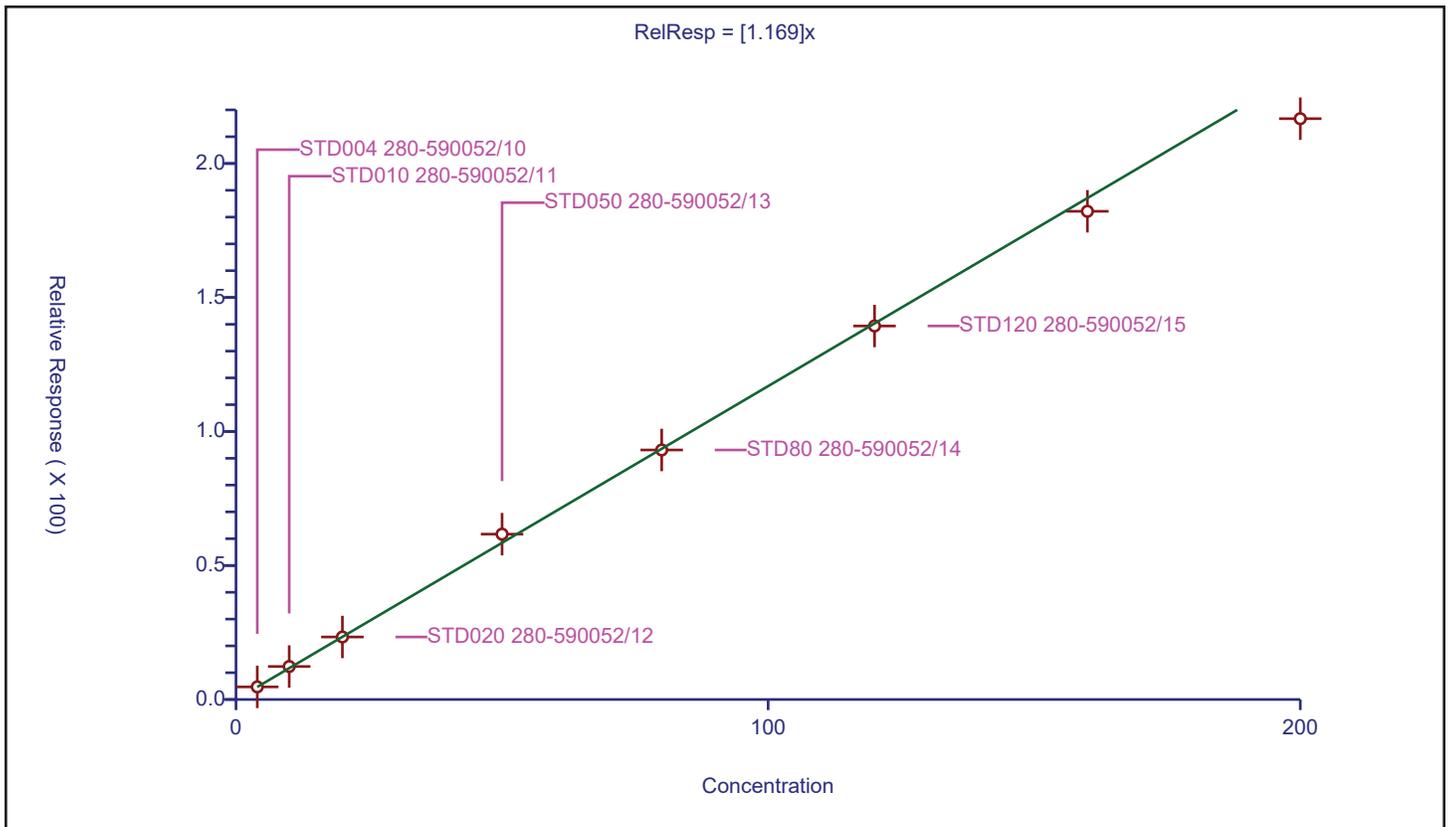
/ Dimethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.169

Error Coefficients	
Standard Error:	3450000
Relative Standard Error:	4.2
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.700042	40.0	1045029.0	1.17501	Y
2	STD010 280-590052/11	10.0	12.316463	40.0	923330.0	1.231646	Y
3	STD020 280-590052/12	20.0	23.325704	40.0	1056510.0	1.166285	Y
4	STD050 280-590052/13	50.0	61.697801	40.0	1088667.0	1.233956	Y
5	STD80 280-590052/14	80.0	93.107028	40.0	1161499.0	1.163838	Y
6	STD120 280-590052/15	120.0	139.371008	40.0	1079314.0	1.161425	Y
7	STD160 280-590052/16	160.0	182.169674	40.0	932481.0	1.13856	Y
8	STD200 280-590052/17	200.0	216.727318	40.0	1175079.0	1.083637	Y



Calibration

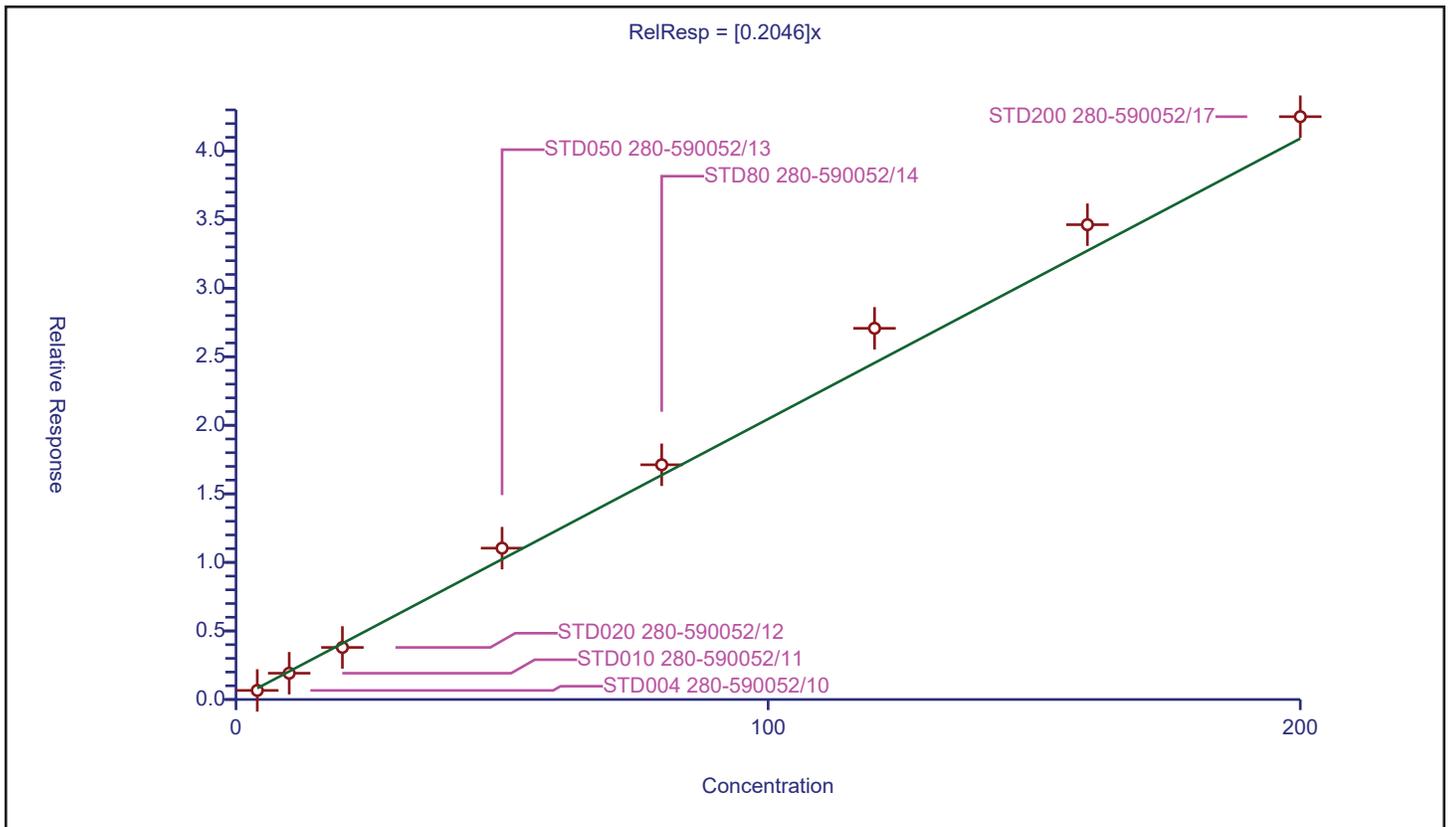
/ 1,3-Dinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2046

Error Coefficients	
Standard Error:	665000
Relative Standard Error:	9.9
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.662221	40.0	1045029.0	0.165555	Y
2	STD010 280-590052/11	10.0	1.917971	40.0	923330.0	0.191797	Y
3	STD020 280-590052/12	20.0	3.796916	40.0	1056510.0	0.189846	Y
4	STD050 280-590052/13	50.0	11.038343	40.0	1088667.0	0.220767	Y
5	STD80 280-590052/14	80.0	17.118362	40.0	1161499.0	0.21398	Y
6	STD120 280-590052/15	120.0	27.07075	40.0	1079314.0	0.22559	Y
7	STD160 280-590052/16	160.0	34.628909	40.0	932481.0	0.216431	Y
8	STD200 280-590052/17	200.0	42.505125	40.0	1175079.0	0.212526	Y



Calibration

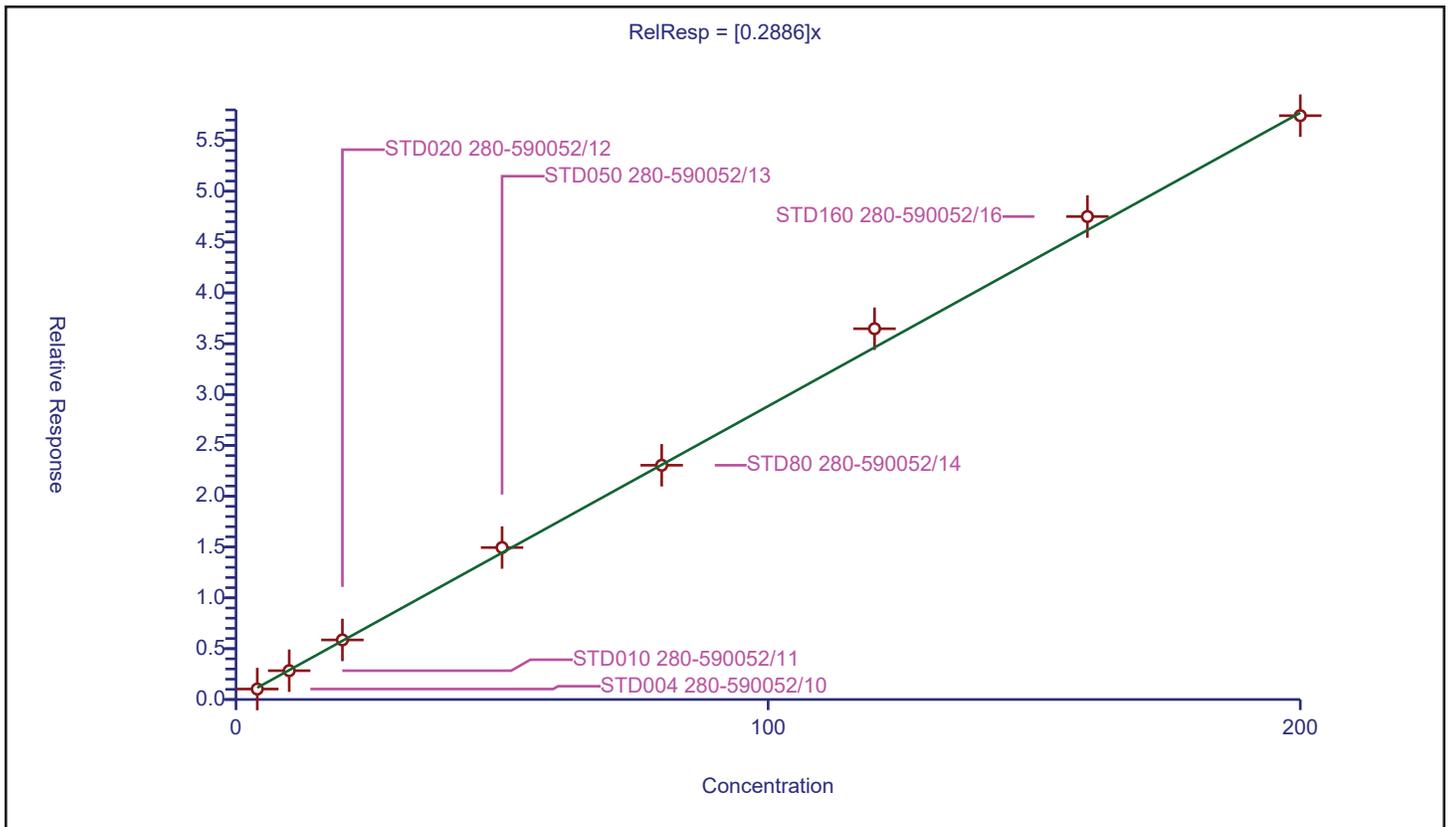
/ 2,6-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2886

Error Coefficients	
Standard Error:	901000
Relative Standard Error:	5.0
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.029177	40.0	1045029.0	0.257294	Y
2	STD010 280-590052/11	10.0	2.83409	40.0	923330.0	0.283409	Y
3	STD020 280-590052/12	20.0	5.859367	40.0	1056510.0	0.292968	Y
4	STD050 280-590052/13	50.0	14.946278	40.0	1088667.0	0.298926	Y
5	STD80 280-590052/14	80.0	23.043636	40.0	1161499.0	0.288045	Y
6	STD120 280-590052/15	120.0	36.47402	40.0	1079314.0	0.30395	Y
7	STD160 280-590052/16	160.0	47.509	40.0	932481.0	0.296931	Y
8	STD200 280-590052/17	200.0	57.430692	40.0	1175079.0	0.287153	Y



Calibration

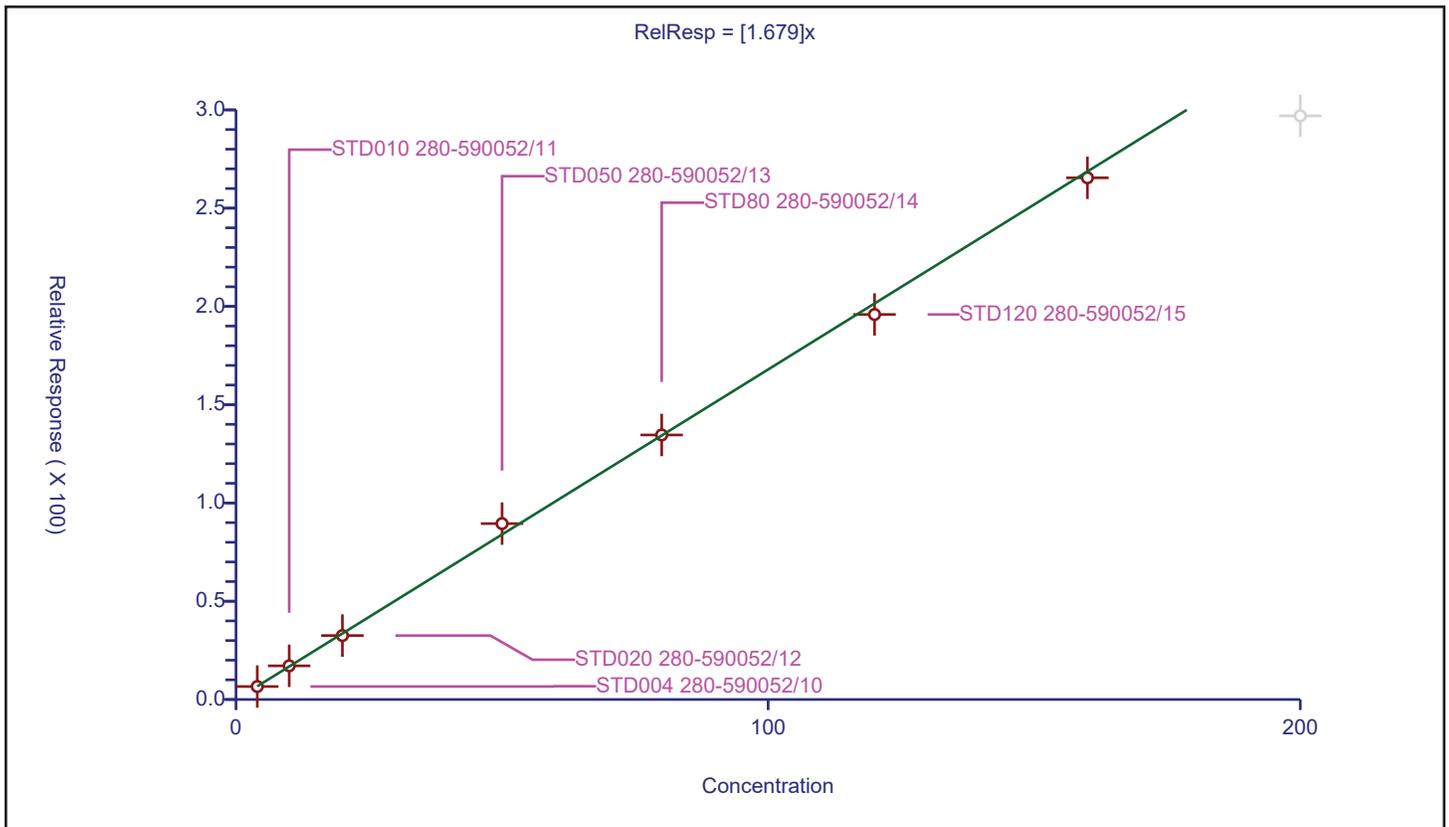
/ Acenaphthylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.679

Error Coefficients	
Standard Error:	3840000
Relative Standard Error:	3.4
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	6.600965	40.0	1045029.0	1.650241	Y
2	STD010 280-590052/11	10.0	17.13212	40.0	923330.0	1.713212	Y
3	STD020 280-590052/12	20.0	32.533038	40.0	1056510.0	1.626652	Y
4	STD050 280-590052/13	50.0	89.492049	40.0	1088667.0	1.789841	Y
5	STD80 280-590052/14	80.0	134.597481	40.0	1161499.0	1.682469	Y
6	STD120 280-590052/15	120.0	195.895949	40.0	1079314.0	1.632466	Y
7	STD160 280-590052/16	160.0	265.443693	40.0	932481.0	1.659023	Y
8	STD200 280-590052/17	200.0	296.963591	40.0	1175079.0	1.484818	N



Calibration

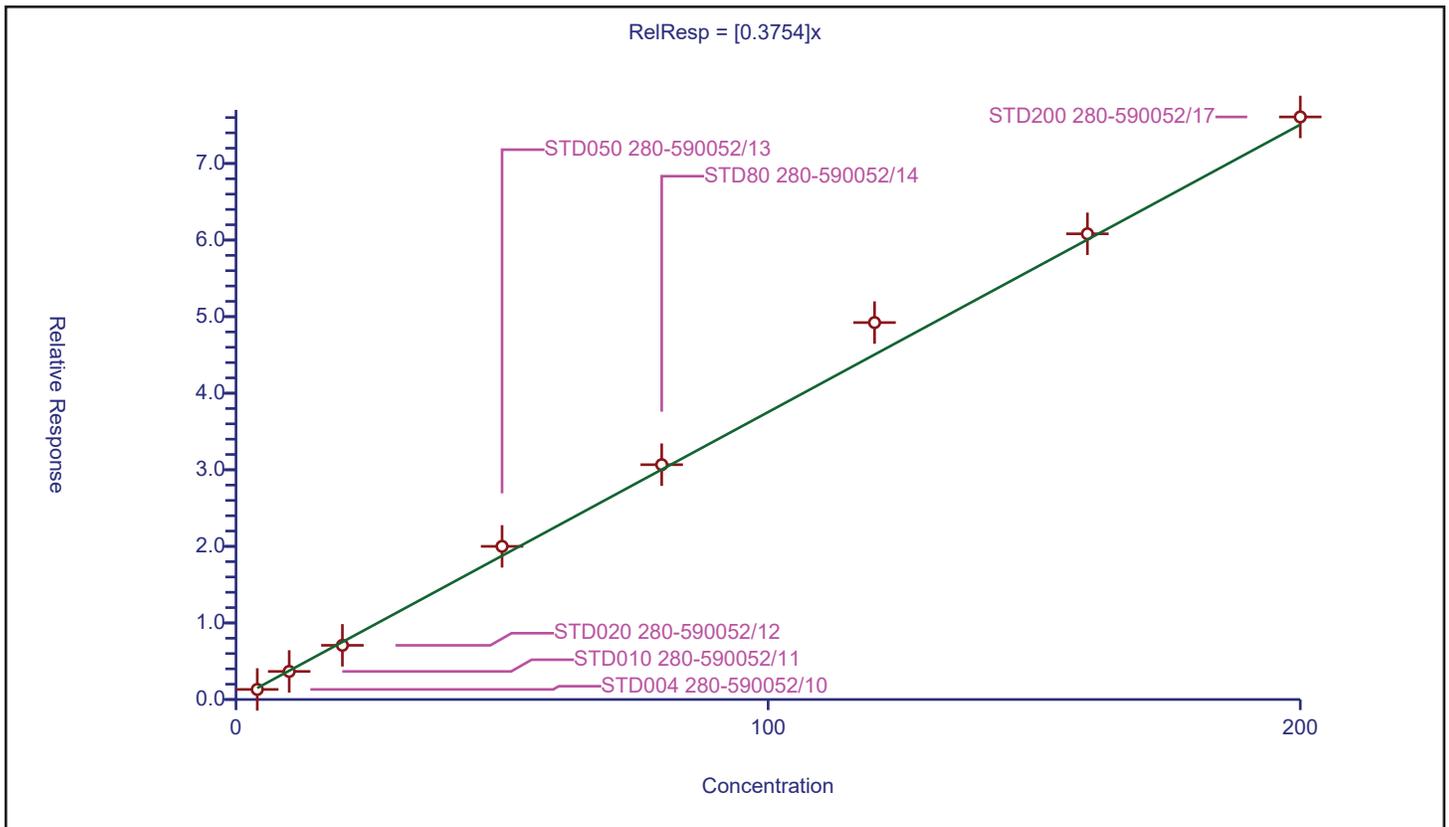
/ 3-Nitroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3754

Error Coefficients	
Standard Error:	1190000
Relative Standard Error:	6.9
Correlation Coefficient:	0.978
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.313954	40.0	1045029.0	0.328488	Y
2	STD010 280-590052/11	10.0	3.665992	40.0	923330.0	0.366599	Y
3	STD020 280-590052/12	20.0	7.074424	40.0	1056510.0	0.353721	Y
4	STD050 280-590052/13	50.0	19.999137	40.0	1088667.0	0.399983	Y
5	STD80 280-590052/14	80.0	30.664856	40.0	1161499.0	0.383311	Y
6	STD120 280-590052/15	120.0	49.226601	40.0	1079314.0	0.410222	Y
7	STD160 280-590052/16	160.0	60.81977	40.0	932481.0	0.380124	Y
8	STD200 280-590052/17	200.0	76.080332	40.0	1175079.0	0.380402	Y



Calibration

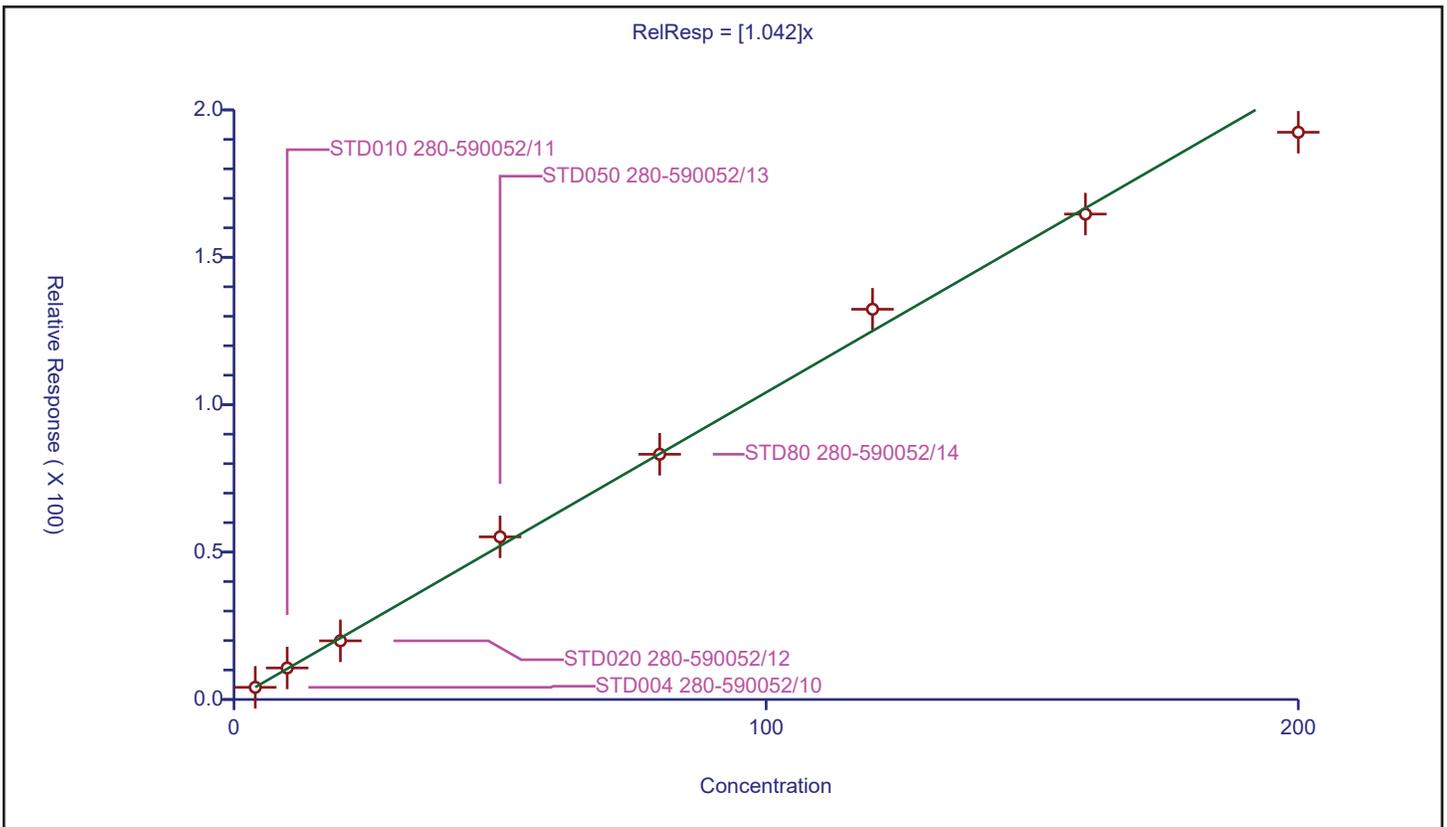
/ Acenaphthene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.042

Error Coefficients	
Standard Error:	3110000
Relative Standard Error:	4.8
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.128728	40.0	1045029.0	1.032182	Y
2	STD010 280-590052/11	10.0	10.696241	40.0	923330.0	1.069624	Y
3	STD020 280-590052/12	20.0	19.898155	40.0	1056510.0	0.994908	Y
4	STD050 280-590052/13	50.0	55.167356	40.0	1088667.0	1.103347	Y
5	STD80 280-590052/14	80.0	83.18547	40.0	1161499.0	1.039818	Y
6	STD120 280-590052/15	120.0	132.384014	40.0	1079314.0	1.1032	Y
7	STD160 280-590052/16	160.0	164.663945	40.0	932481.0	1.02915	Y
8	STD200 280-590052/17	200.0	192.417361	40.0	1175079.0	0.962087	Y



Calibration

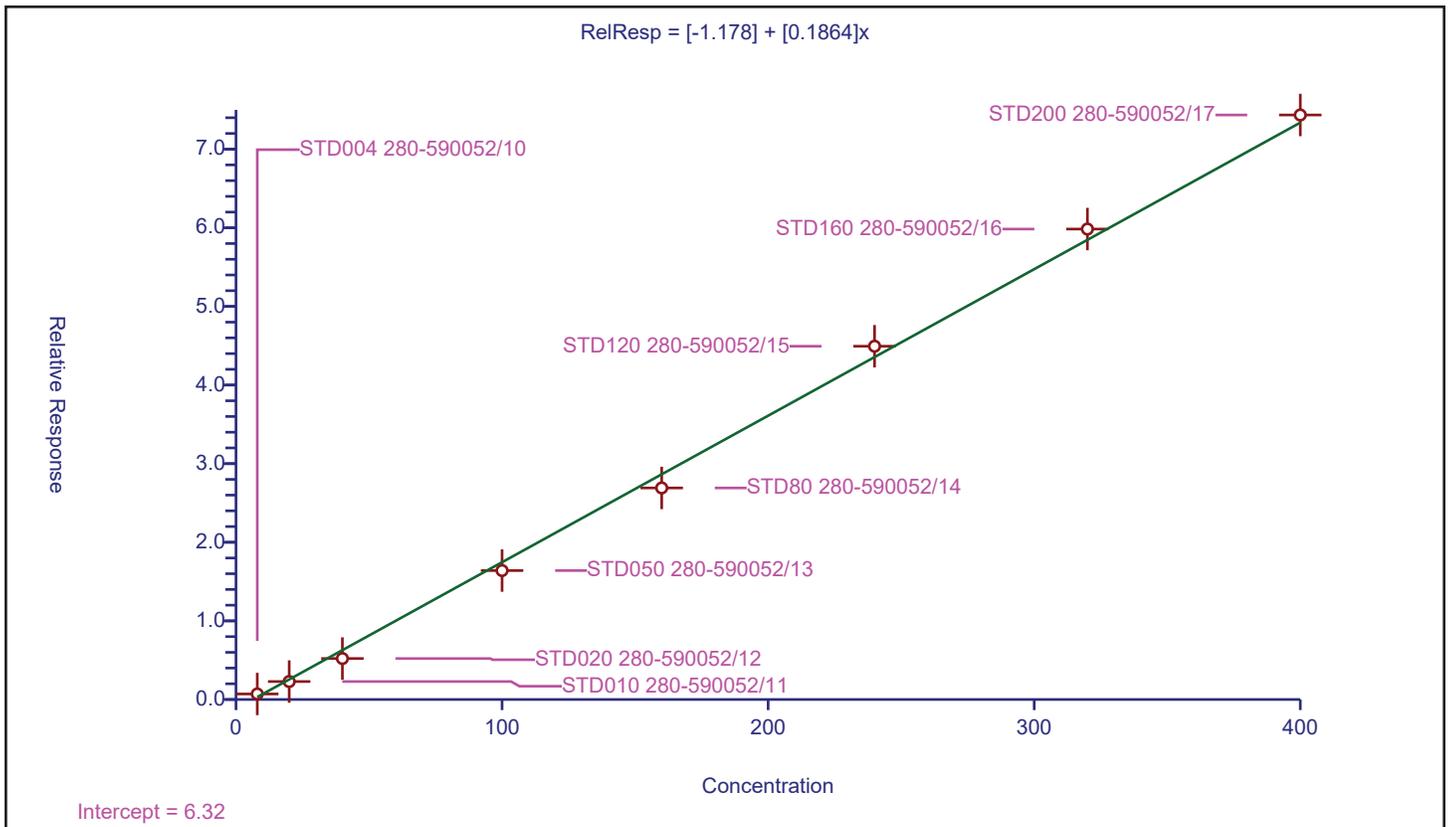
/ 2,4-Dinitrophenol

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.178
Slope:	0.1864

Error Coefficients	
Standard Error:	1230000
Relative Standard Error:	13.1
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	0.703904	40.0	1045029.0	0.087988	Y
2	STD010 280-590052/11	20.0	2.284167	40.0	923330.0	0.114208	Y
3	STD020 280-590052/12	40.0	5.211688	40.0	1056510.0	0.130292	Y
4	STD050 280-590052/13	100.0	16.40204	40.0	1088667.0	0.16402	Y
5	STD80 280-590052/14	160.0	26.911396	40.0	1161499.0	0.168196	Y
6	STD120 280-590052/15	240.0	44.936617	40.0	1079314.0	0.187236	Y
7	STD160 280-590052/16	320.0	59.84182	40.0	932481.0	0.187006	Y
8	STD200 280-590052/17	400.0	74.351188	40.0	1175079.0	0.185878	Y



Calibration

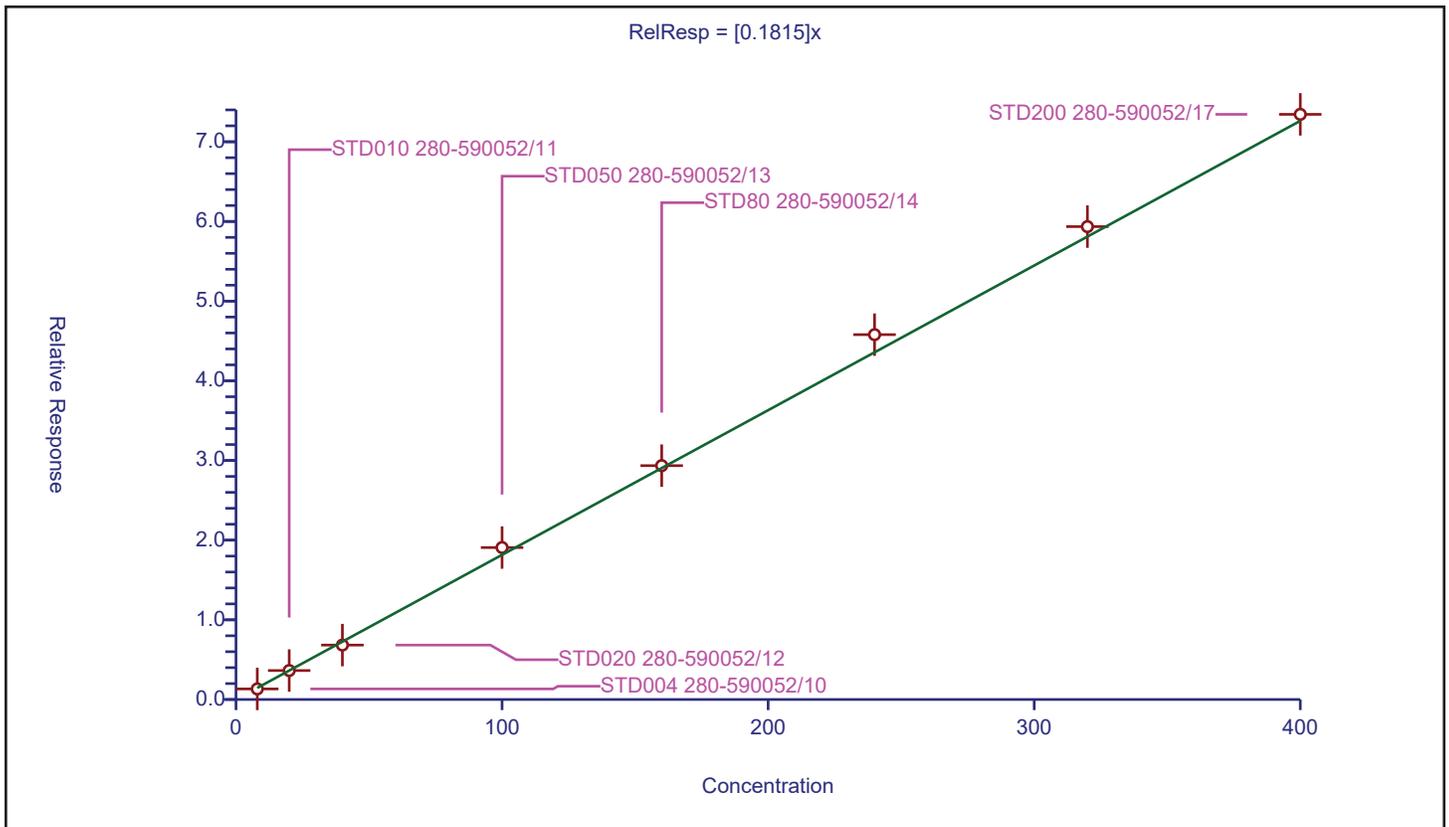
/ 4-Nitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1815

Error Coefficients	
Standard Error:	1140000
Relative Standard Error:	4.9
Correlation Coefficient:	0.981
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	1.326202	40.0	1045029.0	0.165775	Y
2	STD010 280-590052/11	20.0	3.636273	40.0	923330.0	0.181814	Y
3	STD020 280-590052/12	40.0	6.831663	40.0	1056510.0	0.170792	Y
4	STD050 280-590052/13	100.0	19.068972	40.0	1088667.0	0.19069	Y
5	STD80 280-590052/14	160.0	29.350486	40.0	1161499.0	0.183441	Y
6	STD120 280-590052/15	240.0	45.793124	40.0	1079314.0	0.190805	Y
7	STD160 280-590052/16	320.0	59.3504	40.0	932481.0	0.18547	Y
8	STD200 280-590052/17	400.0	73.440952	40.0	1175079.0	0.183602	Y



Calibration

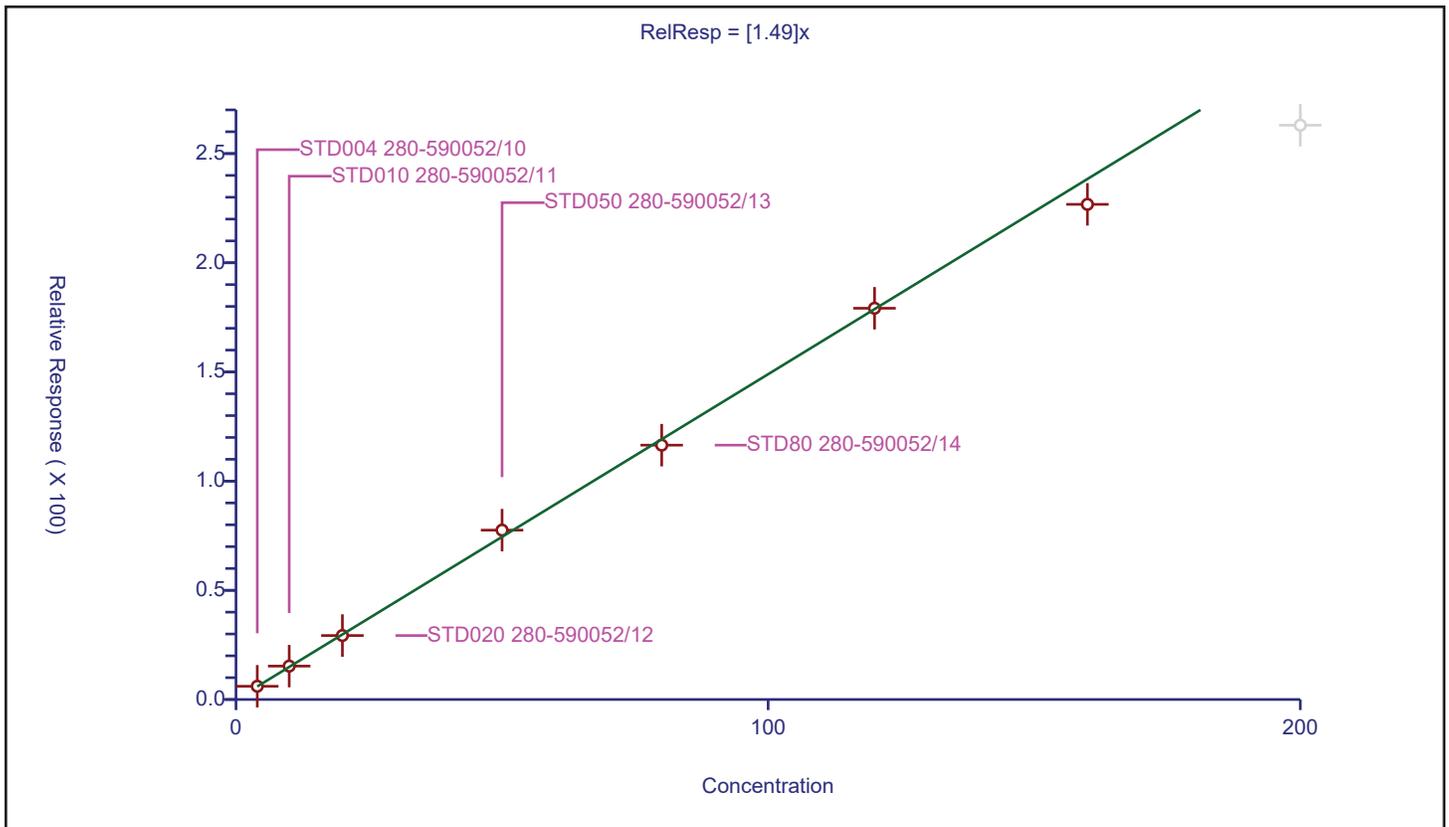
/ Dibenzofuran

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.49

Error Coefficients	
Standard Error:	3370000
Relative Standard Error:	3.1
Correlation Coefficient:	0.974
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	6.066205	40.0	1045029.0	1.516551	Y
2	STD010 280-590052/11	10.0	15.290784	40.0	923330.0	1.529078	Y
3	STD020 280-590052/12	20.0	29.292671	40.0	1056510.0	1.464634	Y
4	STD050 280-590052/13	50.0	77.563736	40.0	1088667.0	1.551275	Y
5	STD80 280-590052/14	80.0	116.478137	40.0	1161499.0	1.455977	Y
6	STD120 280-590052/15	120.0	179.162876	40.0	1079314.0	1.493024	Y
7	STD160 280-590052/16	160.0	226.744352	40.0	932481.0	1.417152	Y
8	STD200 280-590052/17	200.0	262.975817	40.0	1175079.0	1.314879	N



Calibration

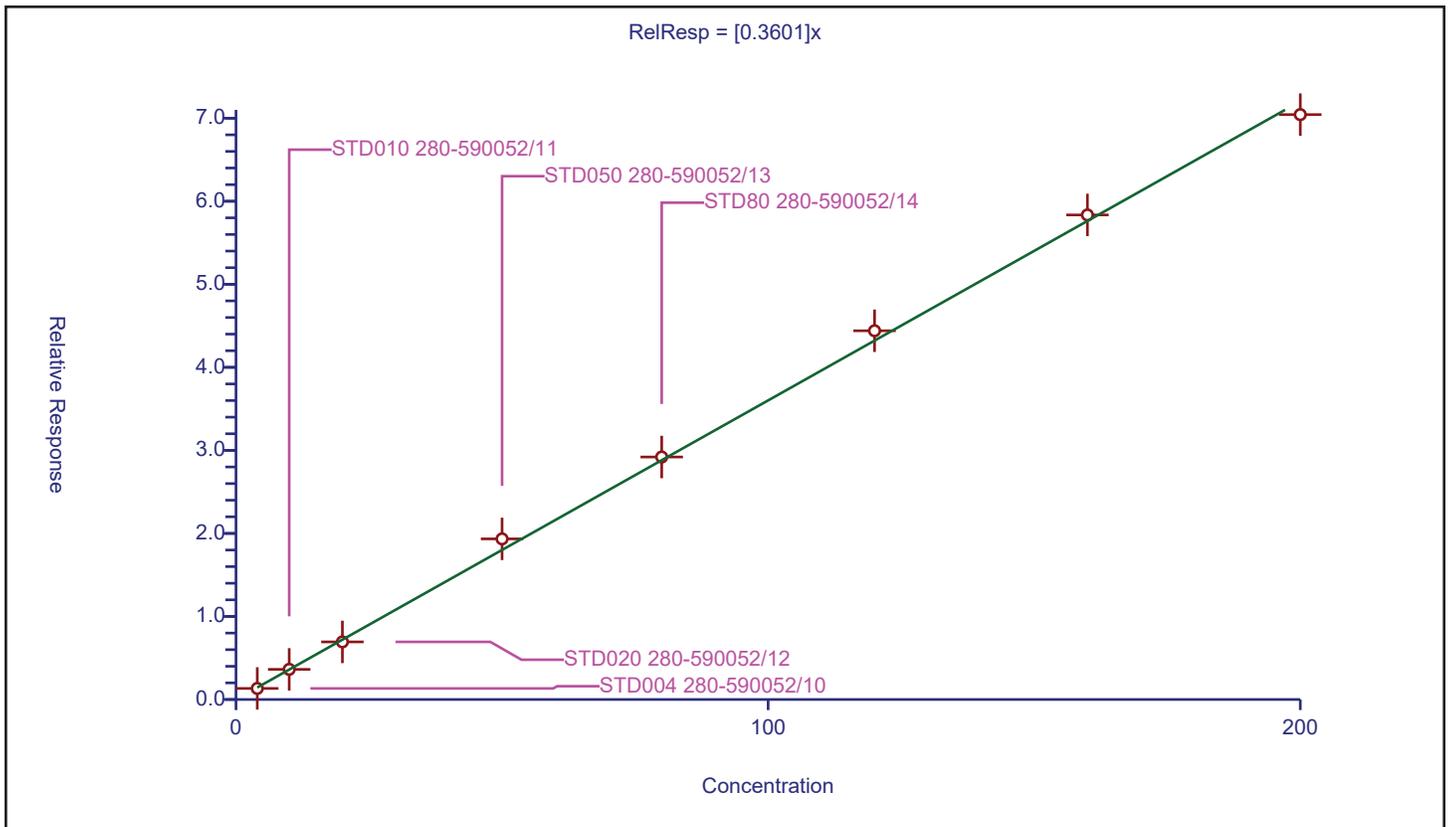
/ 2,4-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3601

Error Coefficients	
Standard Error:	1110000
Relative Standard Error:	4.5
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.331714	40.0	1045029.0	0.332929	Y
2	STD010 280-590052/11	10.0	3.627609	40.0	923330.0	0.362761	Y
3	STD020 280-590052/12	20.0	6.936082	40.0	1056510.0	0.346804	Y
4	STD050 280-590052/13	50.0	19.34057	40.0	1088667.0	0.386811	Y
5	STD80 280-590052/14	80.0	29.201368	40.0	1161499.0	0.365017	Y
6	STD120 280-590052/15	120.0	44.402426	40.0	1079314.0	0.37002	Y
7	STD160 280-590052/16	160.0	58.349157	40.0	932481.0	0.364682	Y
8	STD200 280-590052/17	200.0	70.432031	40.0	1175079.0	0.35216	Y



Calibration

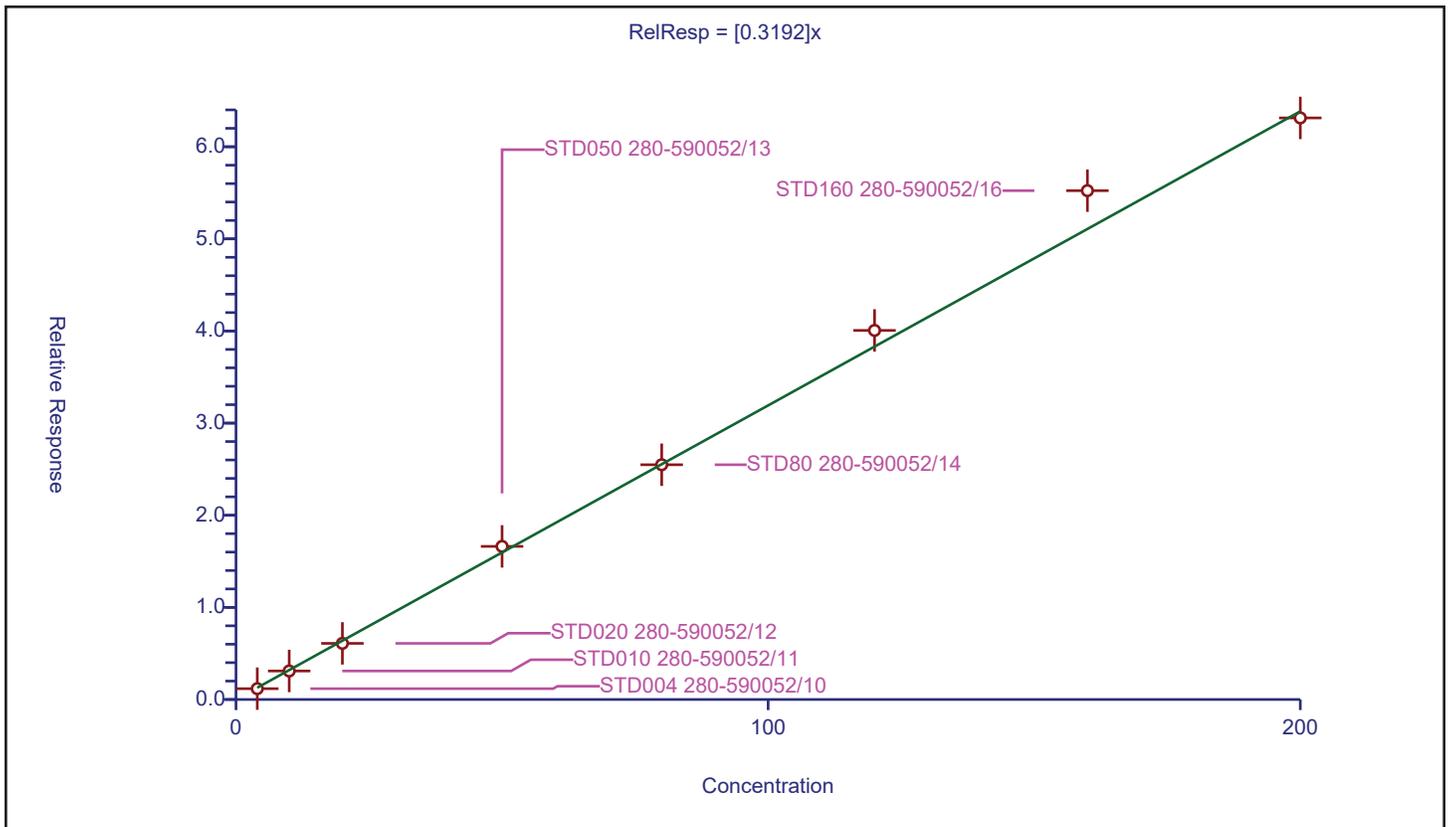
/ 2,3,4,6-Tetrachlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3192

Error Coefficients	
Standard Error:	1000000
Relative Standard Error:	5.3
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.175585	40.0	1045029.0	0.293896	Y
2	STD010 280-590052/11	10.0	3.094885	40.0	923330.0	0.309488	Y
3	STD020 280-590052/12	20.0	6.092626	40.0	1056510.0	0.304631	Y
4	STD050 280-590052/13	50.0	16.620877	40.0	1088667.0	0.332418	Y
5	STD80 280-590052/14	80.0	25.482002	40.0	1161499.0	0.318525	Y
6	STD120 280-590052/15	120.0	40.061076	40.0	1079314.0	0.333842	Y
7	STD160 280-590052/16	160.0	55.233597	40.0	932481.0	0.34521	Y
8	STD200 280-590052/17	200.0	63.128488	40.0	1175079.0	0.315642	Y



Calibration

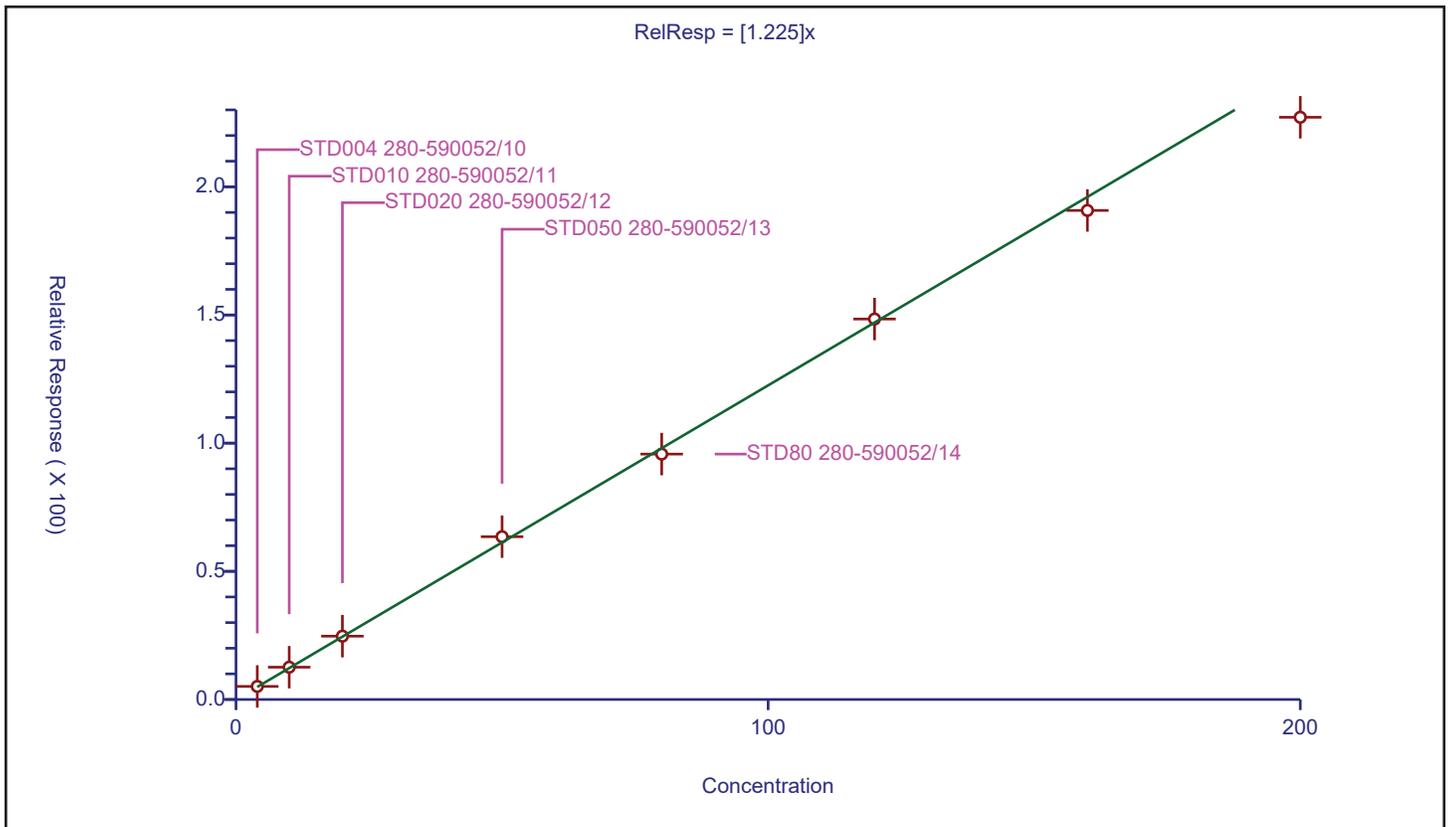
/ Diethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.225

Error Coefficients	
Standard Error:	3620000
Relative Standard Error:	3.9
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.102212	40.0	1045029.0	1.275553	Y
2	STD010 280-590052/11	10.0	12.602038	40.0	923330.0	1.260204	Y
3	STD020 280-590052/12	20.0	24.707083	40.0	1056510.0	1.235354	Y
4	STD050 280-590052/13	50.0	63.507427	40.0	1088667.0	1.270149	Y
5	STD80 280-590052/14	80.0	95.729811	40.0	1161499.0	1.196623	Y
6	STD120 280-590052/15	120.0	148.426649	40.0	1079314.0	1.236889	Y
7	STD160 280-590052/16	160.0	190.774075	40.0	932481.0	1.192338	Y
8	STD200 280-590052/17	200.0	227.125904	40.0	1175079.0	1.13563	Y



Calibration

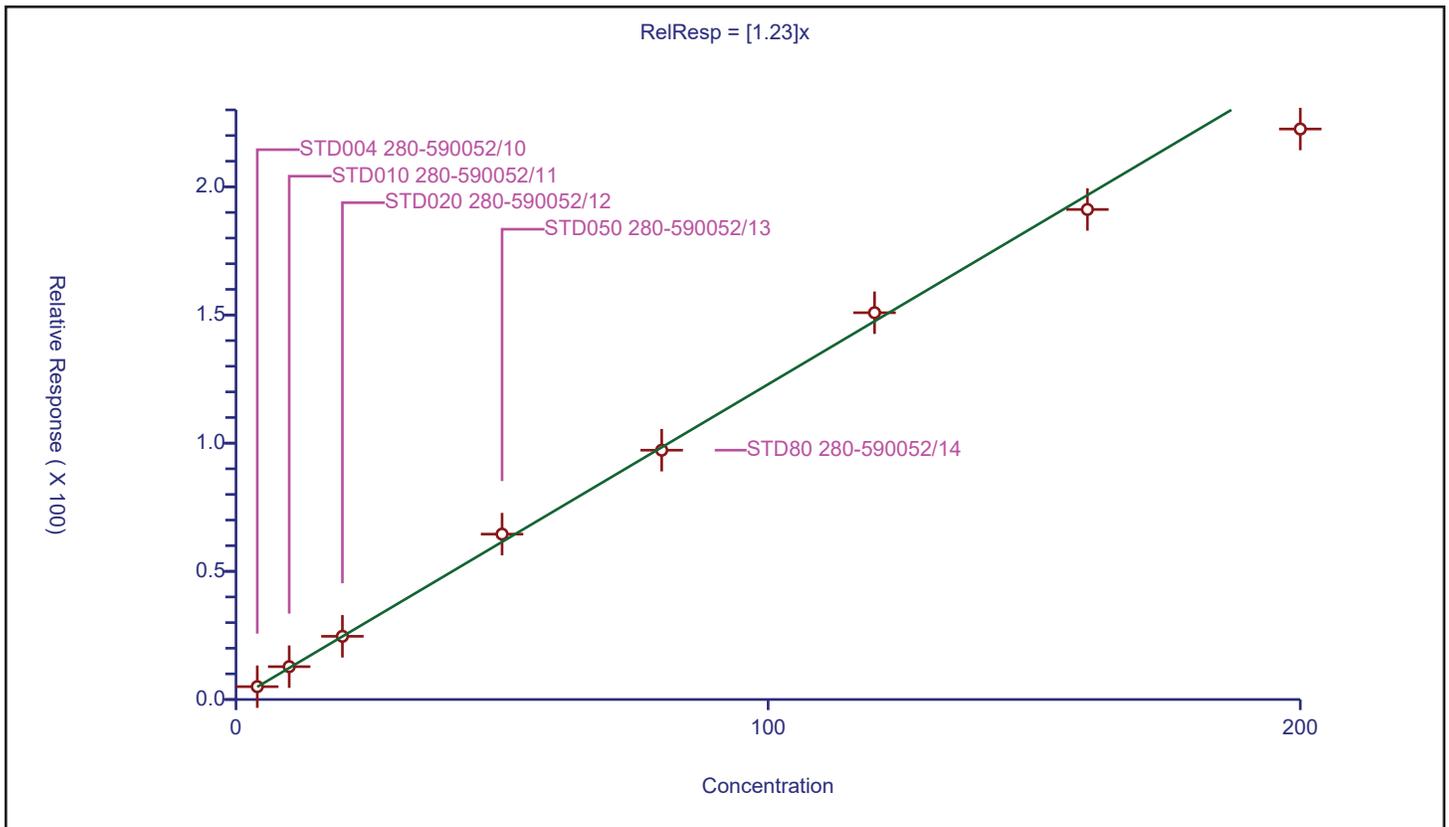
/ Fluorene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.23

Error Coefficients	
Standard Error:	3600000
Relative Standard Error:	4.6
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.008091	40.0	1045029.0	1.252023	Y
2	STD010 280-590052/11	10.0	12.813404	40.0	923330.0	1.28134	Y
3	STD020 280-590052/12	20.0	24.6551	40.0	1056510.0	1.232755	Y
4	STD050 280-590052/13	50.0	64.515302	40.0	1088667.0	1.290306	Y
5	STD80 280-590052/14	80.0	97.255977	40.0	1161499.0	1.2157	Y
6	STD120 280-590052/15	120.0	150.885285	40.0	1079314.0	1.257377	Y
7	STD160 280-590052/16	160.0	191.162115	40.0	932481.0	1.194763	Y
8	STD200 280-590052/17	200.0	222.543846	40.0	1175079.0	1.112719	Y



Calibration

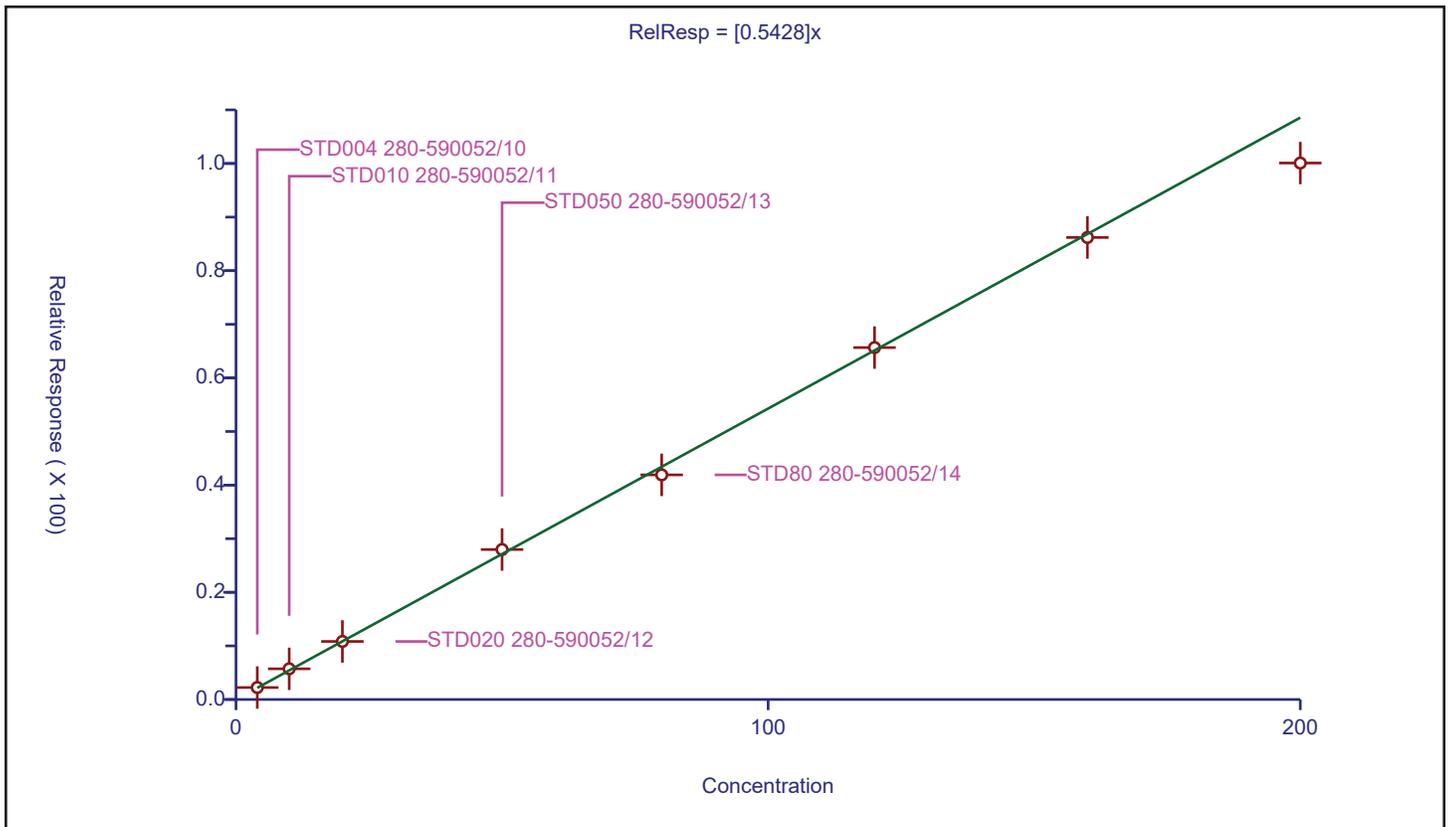
/ 4-Chlorophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5428

Error Coefficients	
Standard Error:	1600000
Relative Standard Error:	4.2
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.233201	40.0	1045029.0	0.5583	Y
2	STD010 280-590052/11	10.0	5.725277	40.0	923330.0	0.572528	Y
3	STD020 280-590052/12	20.0	10.83189	40.0	1056510.0	0.541594	Y
4	STD050 280-590052/13	50.0	27.981302	40.0	1088667.0	0.559626	Y
5	STD80 280-590052/14	80.0	41.904608	40.0	1161499.0	0.523808	Y
6	STD120 280-590052/15	120.0	65.656222	40.0	1079314.0	0.547135	Y
7	STD160 280-590052/16	160.0	86.196673	40.0	932481.0	0.538729	Y
8	STD200 280-590052/17	200.0	100.084573	40.0	1175079.0	0.500423	Y



Calibration

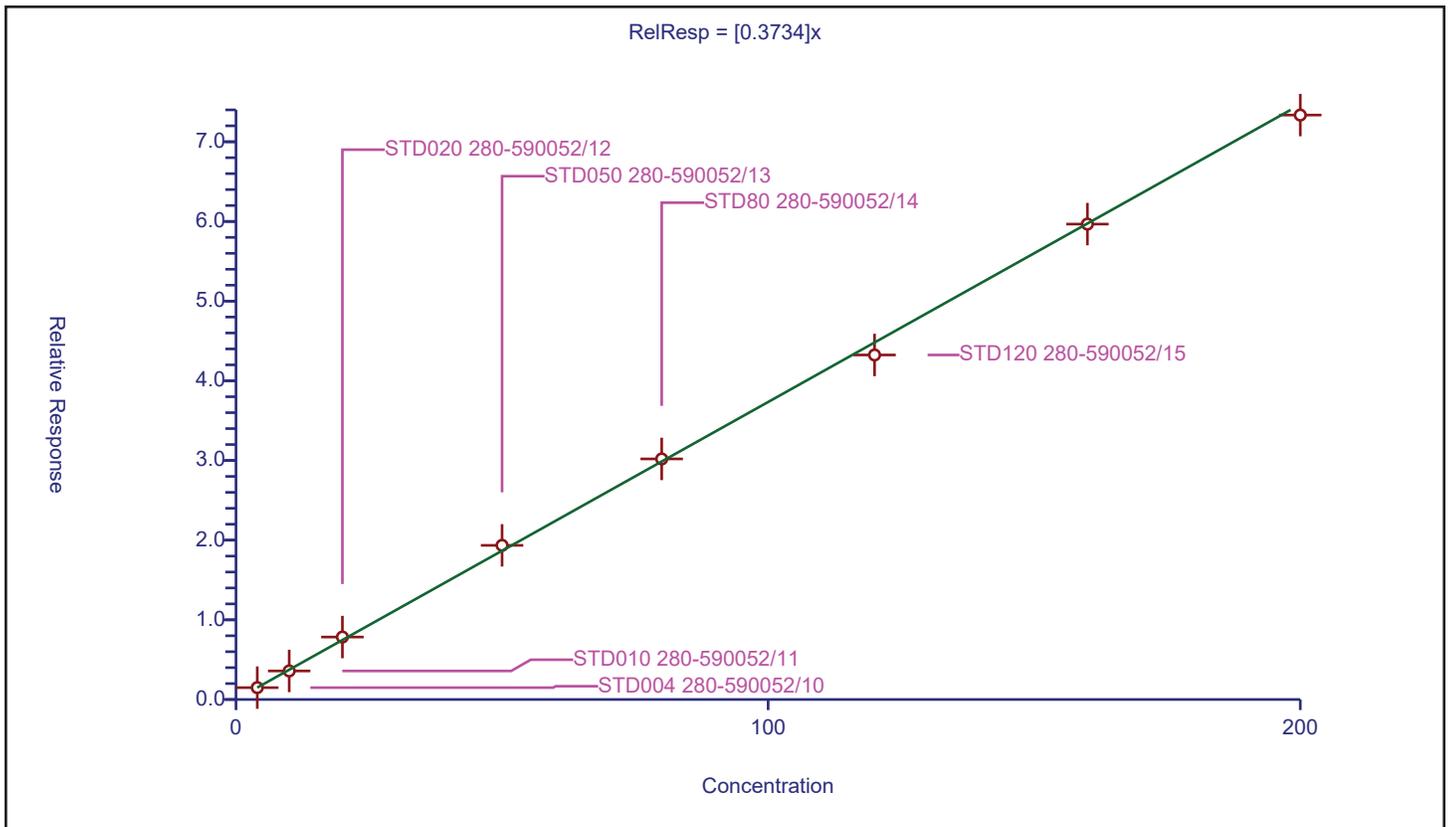
/ 4-Nitroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3734

Error Coefficients	
Standard Error:	1140000
Relative Standard Error:	3.2
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.489069	40.0	1045029.0	0.372267	Y
2	STD010 280-590052/11	10.0	3.583984	40.0	923330.0	0.358398	Y
3	STD020 280-590052/12	20.0	7.839812	40.0	1056510.0	0.391991	Y
4	STD050 280-590052/13	50.0	19.347734	40.0	1088667.0	0.386955	Y
5	STD80 280-590052/14	80.0	30.193672	40.0	1161499.0	0.377421	Y
6	STD120 280-590052/15	120.0	43.240836	40.0	1079314.0	0.36034	Y
7	STD160 280-590052/16	160.0	59.668476	40.0	932481.0	0.372928	Y
8	STD200 280-590052/17	200.0	73.350881	40.0	1175079.0	0.366754	Y



Calibration

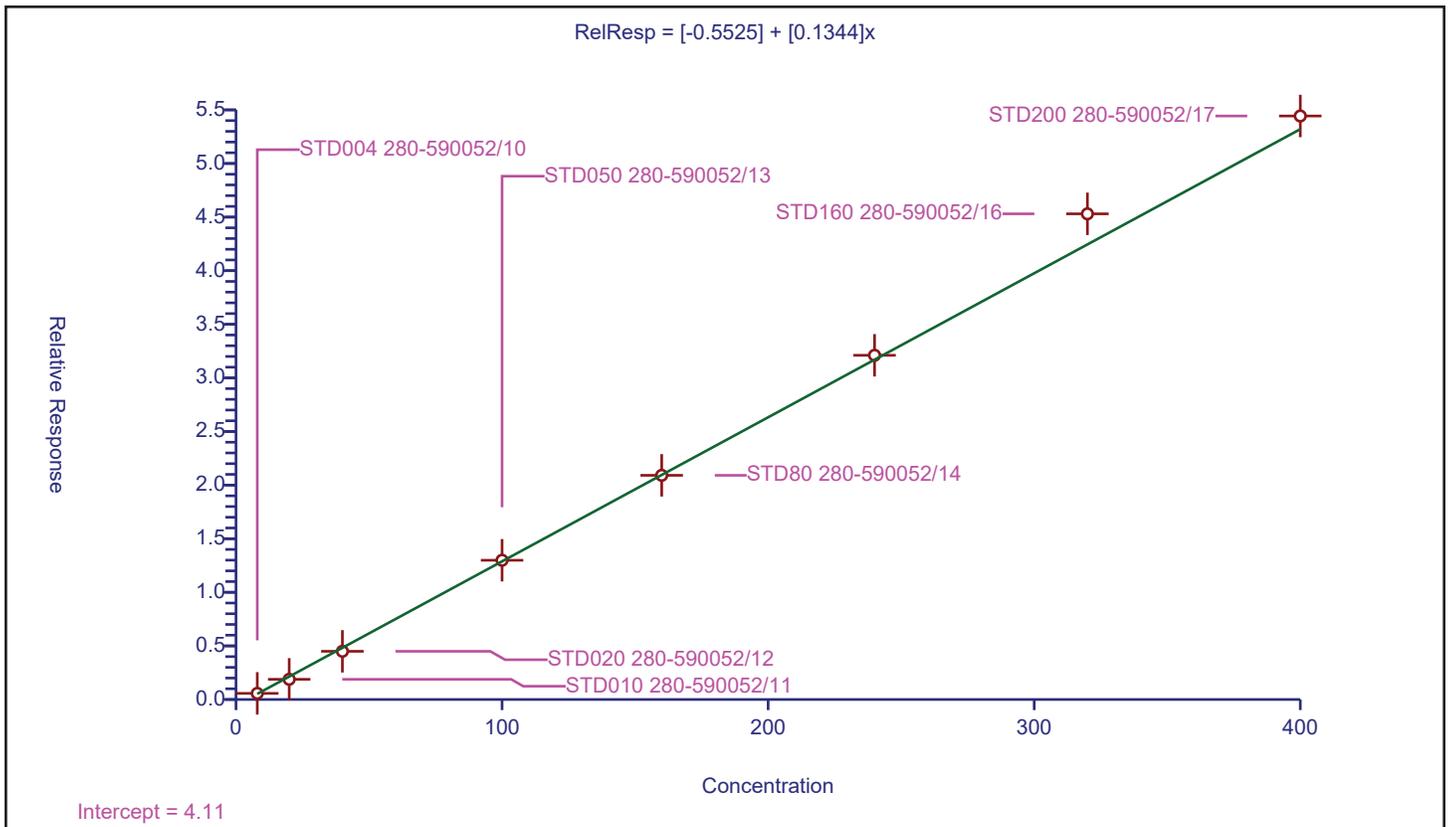
/ 4,6-Dinitro-2-methylphenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.5525
Slope:	0.1344

Error Coefficients	
Standard Error:	1430000
Relative Standard Error:	5.8
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	0.572682	40.0	1741910.0	0.071585	Y
2	STD010 280-590052/11	20.0	1.882768	40.0	1540349.0	0.094138	Y
3	STD020 280-590052/12	40.0	4.495553	40.0	1718516.0	0.112389	Y
4	STD050 280-590052/13	100.0	12.990072	40.0	1760292.0	0.129901	Y
5	STD80 280-590052/14	160.0	20.910588	40.0	1859282.0	0.130691	Y
6	STD120 280-590052/15	240.0	32.108971	40.0	1642635.0	0.133787	Y
7	STD160 280-590052/16	320.0	45.304085	40.0	1497985.0	0.141575	Y
8	STD200 280-590052/17	400.0	54.430914	40.0	1851187.0	0.136077	Y



Calibration

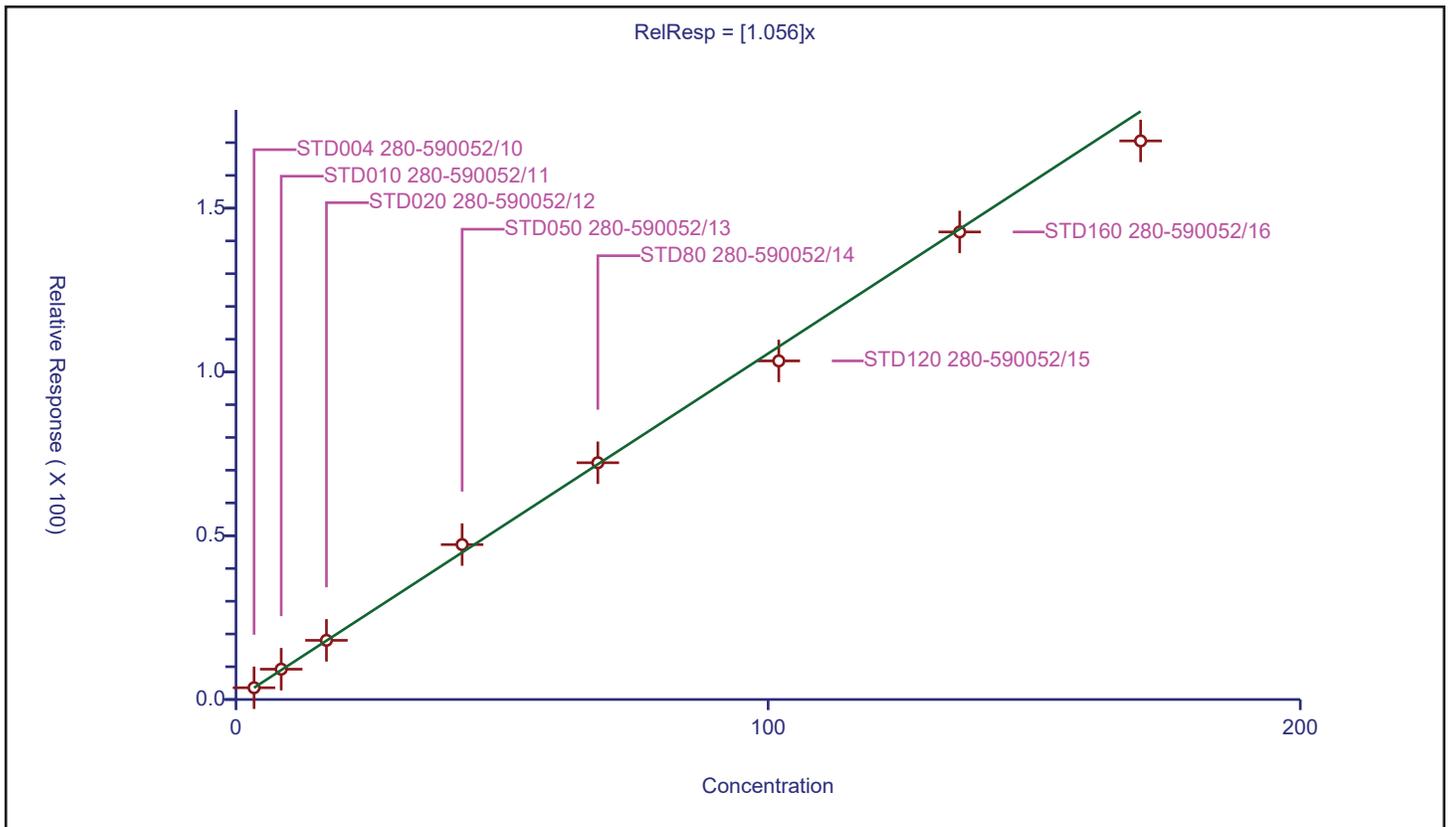
/ Diphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.056

Error Coefficients	
Standard Error:	2680000
Relative Standard Error:	3.4
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	3.4	3.591862	40.0	1045029.0	1.05643	Y
2	STD010 280-590052/11	8.5	9.252423	40.0	923330.0	1.08852	Y
3	STD020 280-590052/12	17.0	18.065177	40.0	1056510.0	1.062657	Y
4	STD050 280-590052/13	42.5	47.29663	40.0	1088667.0	1.112862	Y
5	STD80 280-590052/14	68.0	72.279528	40.0	1161499.0	1.062934	Y
6	STD120 280-590052/15	102.0	103.367472	40.0	1079314.0	1.013407	Y
7	STD160 280-590052/16	136.0	142.735605	40.0	932481.0	1.049527	Y
8	STD200 280-590052/17	170.0	170.52685	40.0	1175079.0	1.003099	Y



Calibration

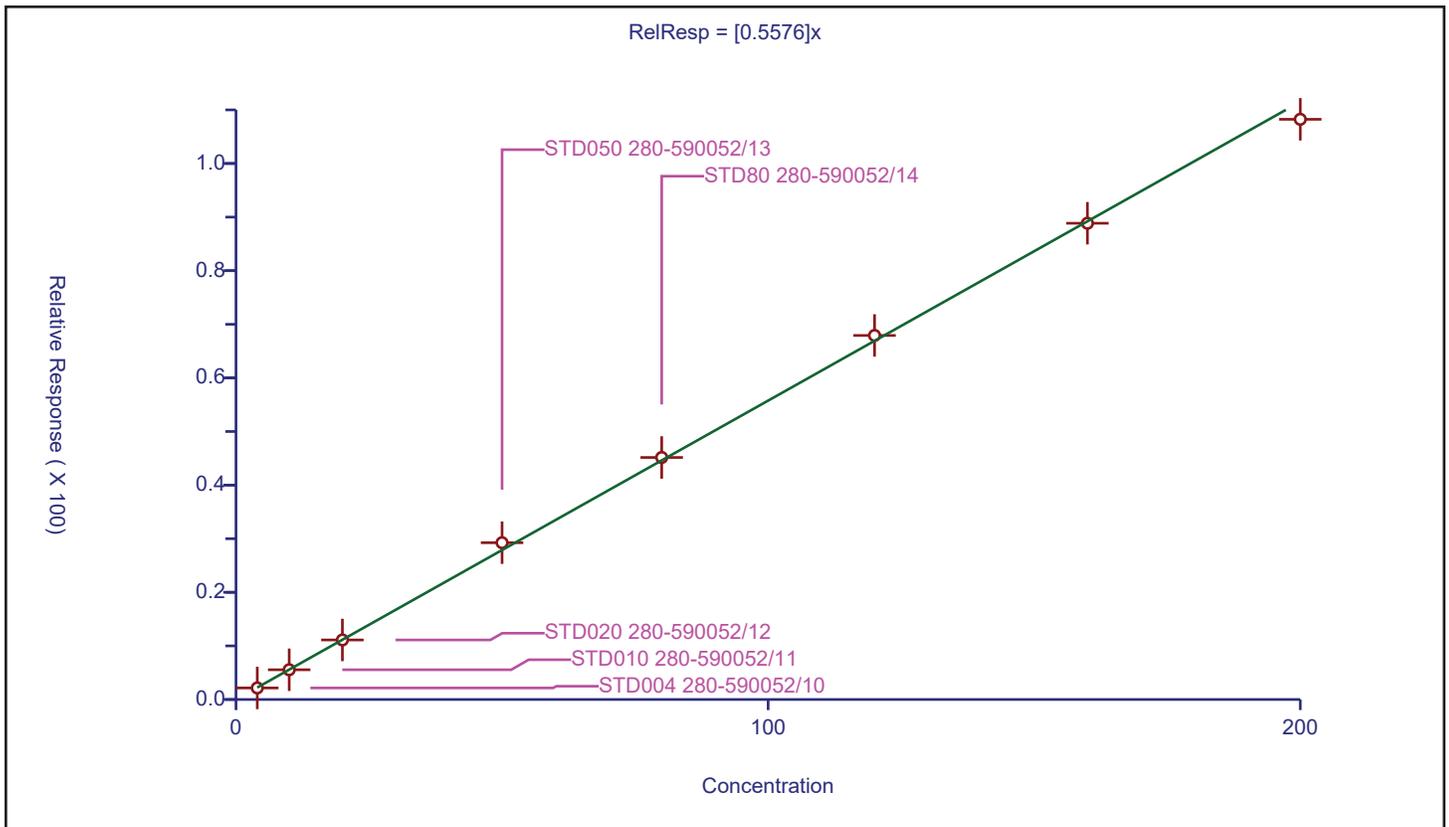
/ N-Nitrosodiphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5576

Error Coefficients	
Standard Error:	2680000
Relative Standard Error:	2.6
Correlation Coefficient:	0.984
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.154876	40.0	1741910.0	0.538719	Y
2	STD010 280-590052/11	10.0	5.546172	40.0	1540349.0	0.554617	Y
3	STD020 280-590052/12	20.0	11.106117	40.0	1718516.0	0.555306	Y
4	STD050 280-590052/13	50.0	29.250988	40.0	1760292.0	0.58502	Y
5	STD80 280-590052/14	80.0	45.153237	40.0	1859282.0	0.564415	Y
6	STD120 280-590052/15	120.0	67.918899	40.0	1642635.0	0.565991	Y
7	STD160 280-590052/16	160.0	88.851517	40.0	1497985.0	0.555322	Y
8	STD200 280-590052/17	200.0	108.245423	40.0	1851187.0	0.541227	Y



Calibration

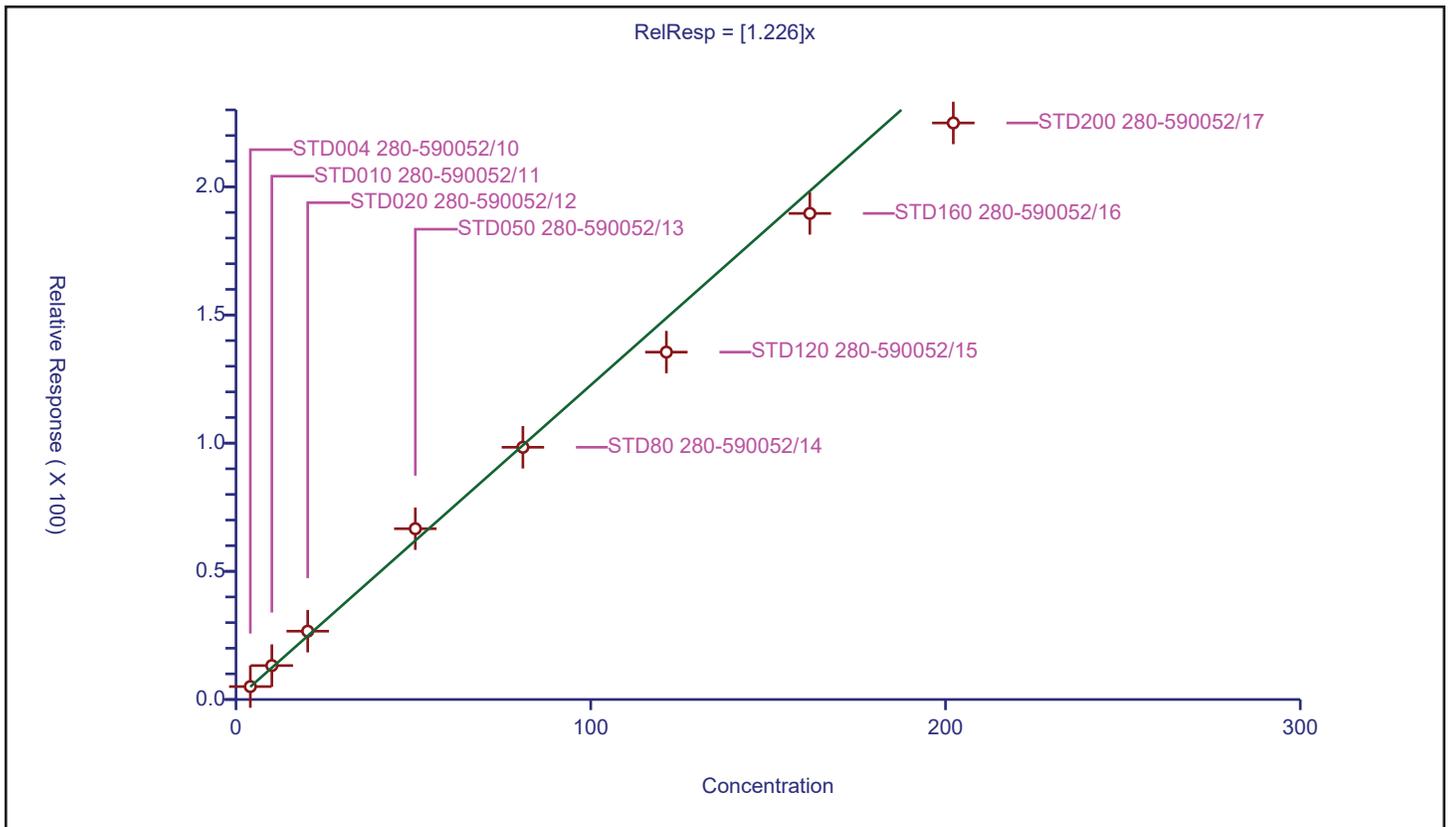
/ 1,2-Diphenylhydrazine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.226

Error Coefficients	
Standard Error:	3560000
Relative Standard Error:	7.0
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.043898	5.04541	40.0	1045029.0	1.24766	Y
2	STD010 280-590052/11	10.109745	13.22968	40.0	923330.0	1.308607	Y
3	STD020 280-590052/12	20.219491	26.653605	40.0	1056510.0	1.318213	Y
4	STD050 280-590052/13	50.548727	66.623421	40.0	1088667.0	1.318004	Y
5	STD80 280-590052/14	80.877963	98.39485	40.0	1161499.0	1.216584	Y
6	STD120 280-590052/15	121.316945	135.51656	40.0	1079314.0	1.117046	Y
7	STD160 280-590052/16	161.755926	189.614544	40.0	932481.0	1.172226	Y
8	STD200 280-590052/17	202.194908	224.904674	40.0	1175079.0	1.112316	Y



Calibration

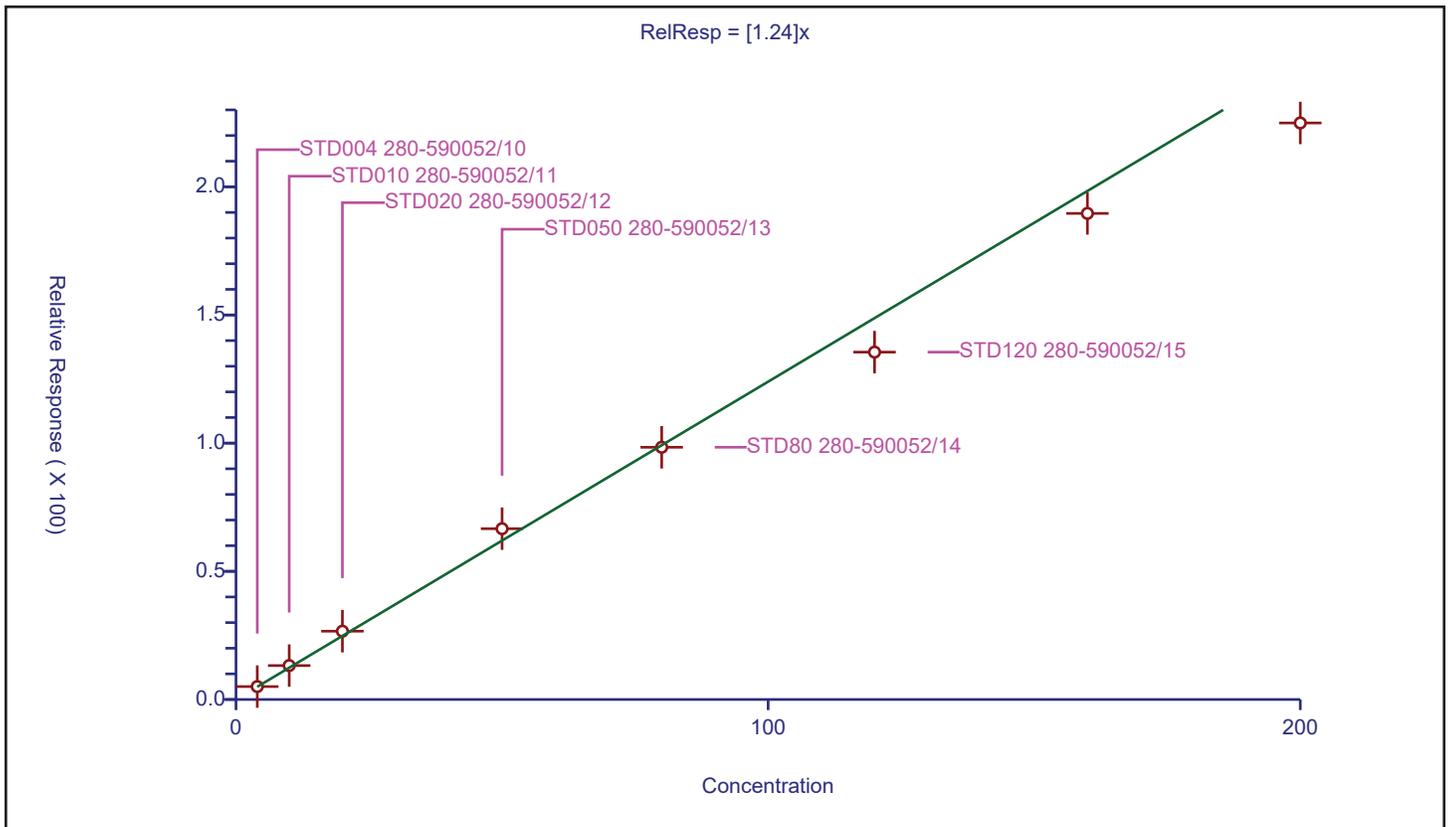
/ Azobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.24

Error Coefficients	
Standard Error:	3560000
Relative Standard Error:	7.0
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.04541	40.0	1045029.0	1.261353	Y
2	STD010 280-590052/11	10.0	13.22968	40.0	923330.0	1.322968	Y
3	STD020 280-590052/12	20.0	26.653605	40.0	1056510.0	1.33268	Y
4	STD050 280-590052/13	50.0	66.623421	40.0	1088667.0	1.332468	Y
5	STD80 280-590052/14	80.0	98.39485	40.0	1161499.0	1.229936	Y
6	STD120 280-590052/15	120.0	135.51656	40.0	1079314.0	1.129305	Y
7	STD160 280-590052/16	160.0	189.614544	40.0	932481.0	1.185091	Y
8	STD200 280-590052/17	200.0	224.904674	40.0	1175079.0	1.124523	Y



Calibration

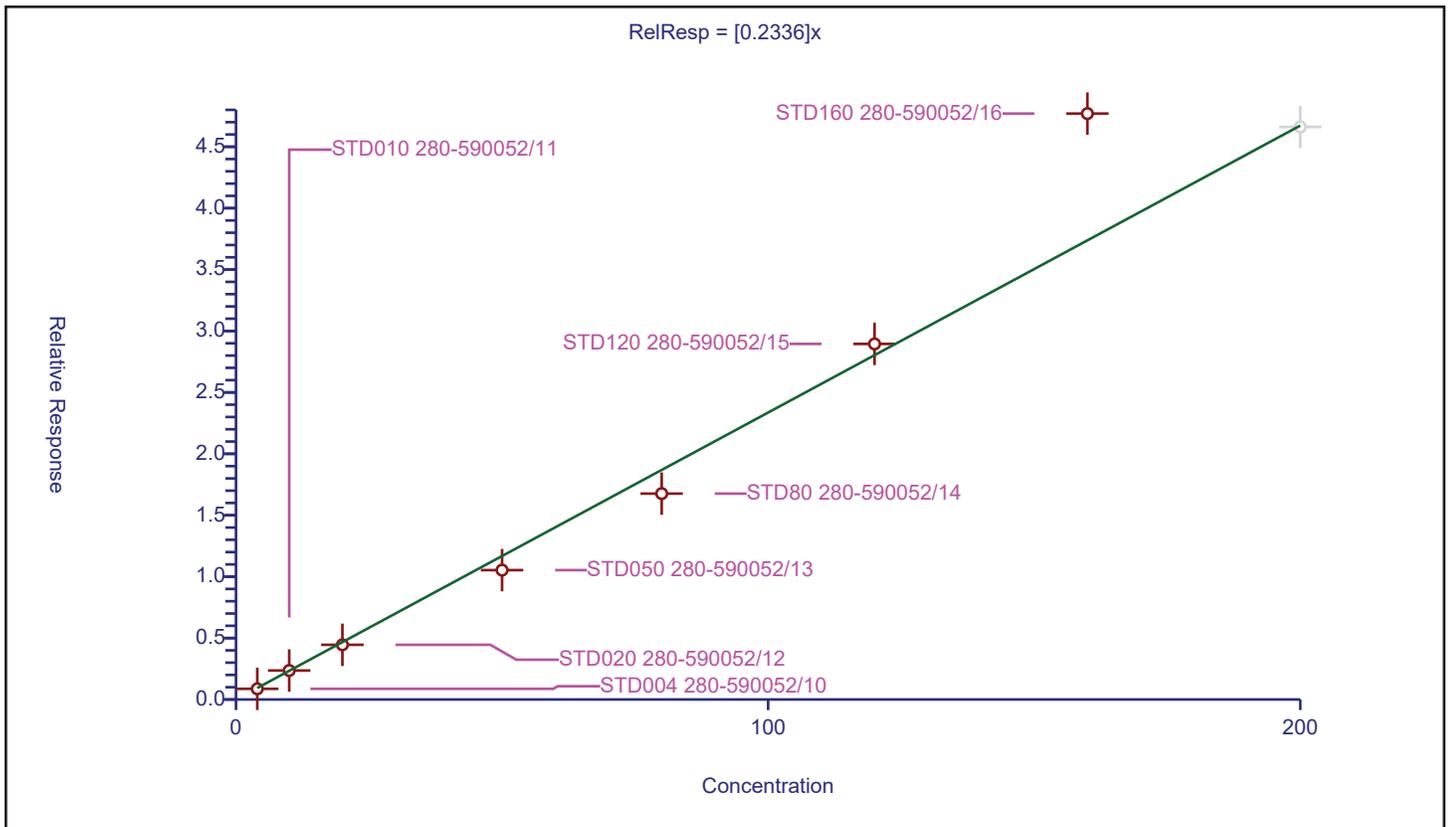
/ 2,4,6-Tribromophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2336

Error Coefficients	
Standard Error:	603000
Relative Standard Error:	13.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.868416	40.0	1045029.0	0.217104	Y
2	STD010 280-590052/11	10.0	2.360023	40.0	923330.0	0.236002	Y
3	STD020 280-590052/12	20.0	4.452168	40.0	1056510.0	0.222608	Y
4	STD050 280-590052/13	50.0	10.532624	40.0	1088667.0	0.210652	Y
5	STD80 280-590052/14	80.0	16.760755	40.0	1161499.0	0.209509	Y
6	STD120 280-590052/15	120.0	28.947795	40.0	1079314.0	0.241232	Y
7	STD160 280-590052/16	160.0	47.699846	40.0	932481.0	0.298124	Y
8	STD200 280-590052/17	200.0	46.610381	40.0	1175079.0	0.233052	N



Calibration

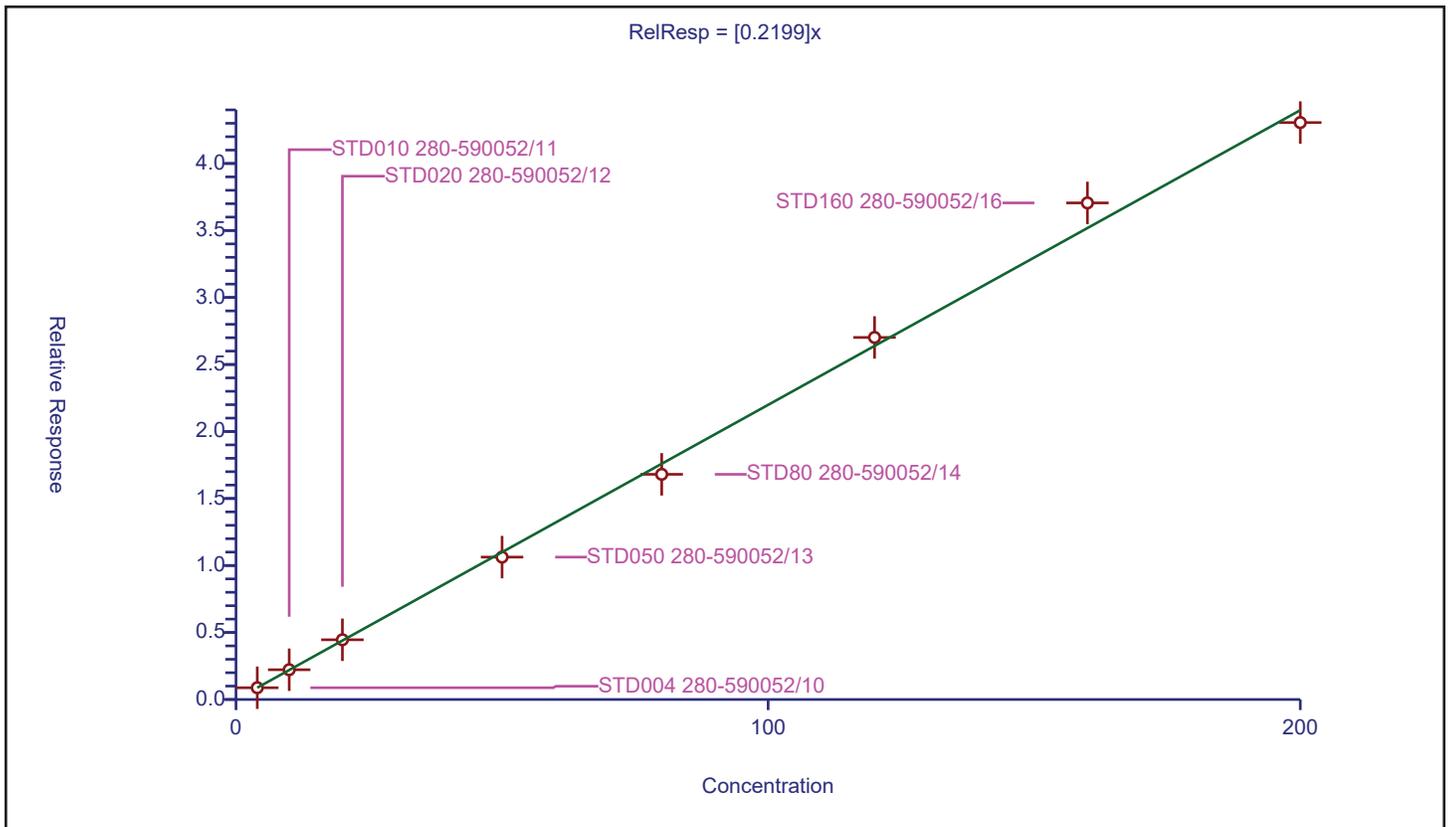
/ 4-Bromophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2199

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	3.2
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.877772	40.0	1741910.0	0.219443	Y
2	STD010 280-590052/11	10.0	2.221237	40.0	1540349.0	0.222124	Y
3	STD020 280-590052/12	20.0	4.456473	40.0	1718516.0	0.222824	Y
4	STD050 280-590052/13	50.0	10.627623	40.0	1760292.0	0.212552	Y
5	STD80 280-590052/14	80.0	16.803648	40.0	1859282.0	0.210046	Y
6	STD120 280-590052/15	120.0	27.018662	40.0	1642635.0	0.225156	Y
7	STD160 280-590052/16	160.0	37.058983	40.0	1497985.0	0.231619	Y
8	STD200 280-590052/17	200.0	43.054105	40.0	1851187.0	0.215271	Y



Calibration

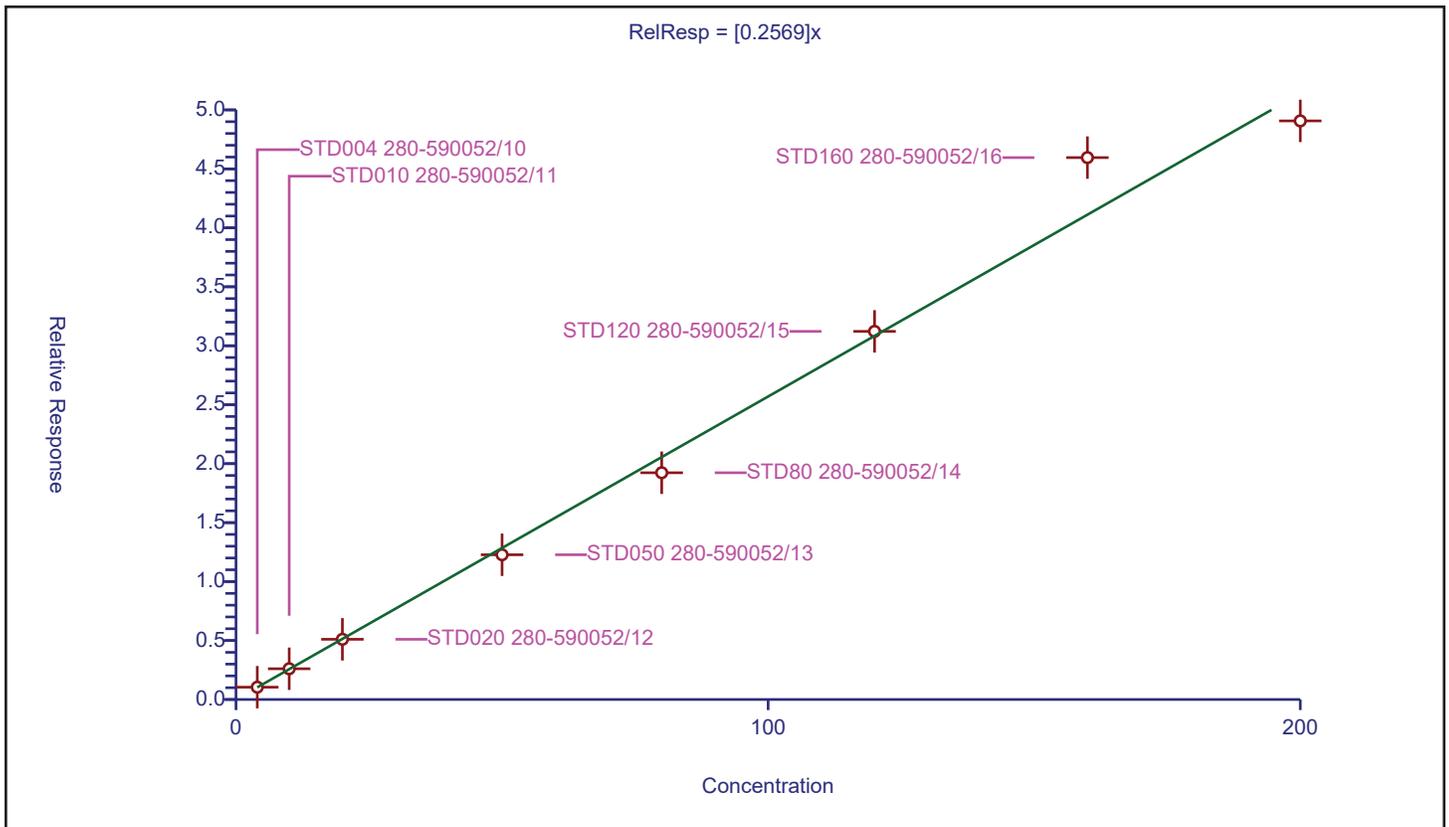
/ Hexachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2569

Error Coefficients	
Standard Error:	1250000
Relative Standard Error:	5.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.04398	40.0	1741910.0	0.260995	Y
2	STD010 280-590052/11	10.0	2.607305	40.0	1540349.0	0.260731	Y
3	STD020 280-590052/12	20.0	5.106382	40.0	1718516.0	0.255319	Y
4	STD050 280-590052/13	50.0	12.273941	40.0	1760292.0	0.245479	Y
5	STD80 280-590052/14	80.0	19.228778	40.0	1859282.0	0.24036	Y
6	STD120 280-590052/15	120.0	31.21699	40.0	1642635.0	0.260142	Y
7	STD160 280-590052/16	160.0	45.954586	40.0	1497985.0	0.287216	Y
8	STD200 280-590052/17	200.0	49.066874	40.0	1851187.0	0.245334	Y



Calibration

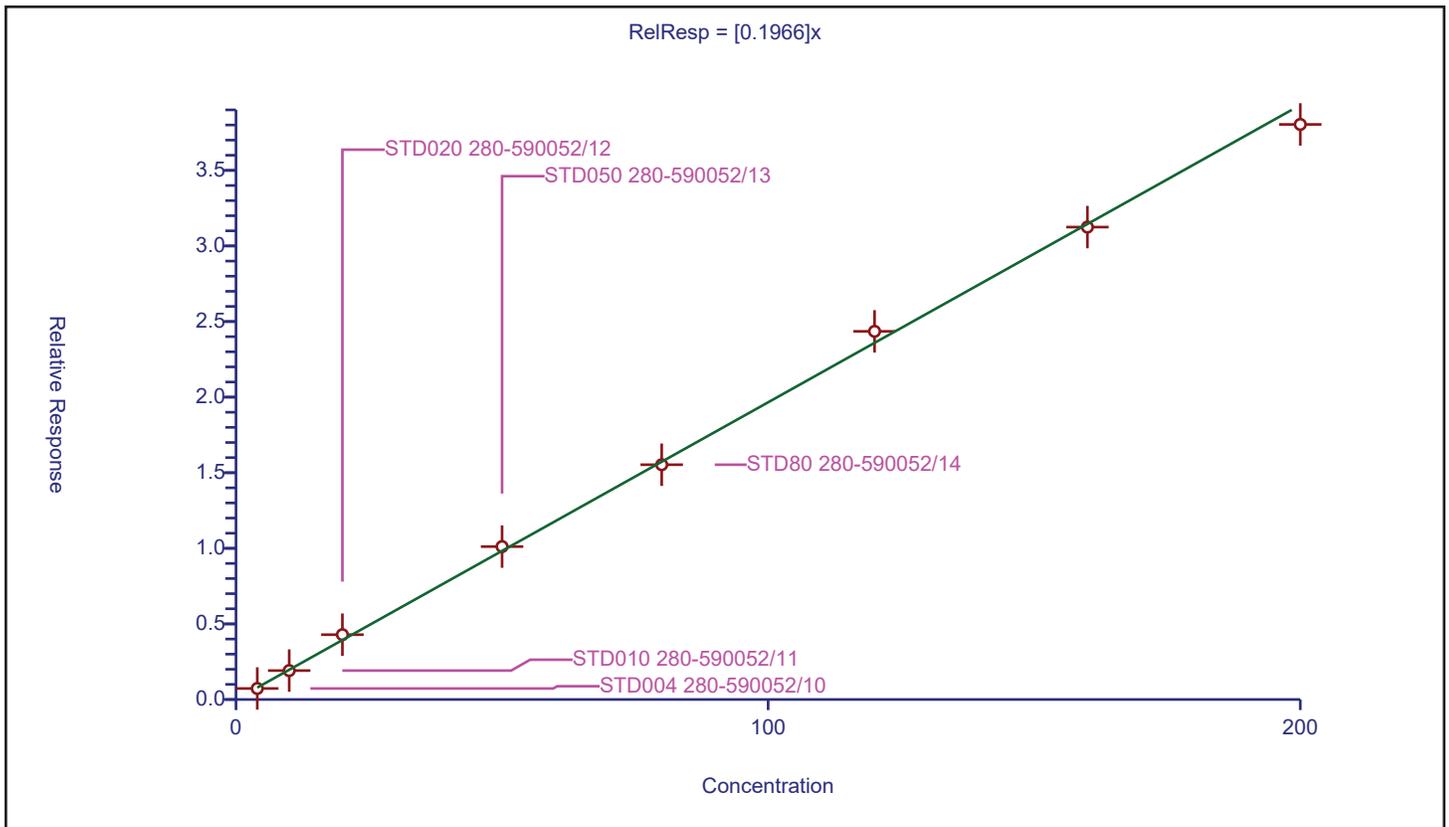
/ Atrazine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1966

Error Coefficients	
Standard Error:	943000
Relative Standard Error:	5.0
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.72874	40.0	1741910.0	0.182185	Y
2	STD010 280-590052/11	10.0	1.912398	40.0	1540349.0	0.19124	Y
3	STD020 280-590052/12	20.0	4.28742	40.0	1718516.0	0.214371	Y
4	STD050 280-590052/13	50.0	10.114345	40.0	1760292.0	0.202287	Y
5	STD80 280-590052/14	80.0	15.529113	40.0	1859282.0	0.194114	Y
6	STD120 280-590052/15	120.0	24.3509	40.0	1642635.0	0.202924	Y
7	STD160 280-590052/16	160.0	31.247095	40.0	1497985.0	0.195294	Y
8	STD200 280-590052/17	200.0	38.037994	40.0	1851187.0	0.19019	Y



Calibration

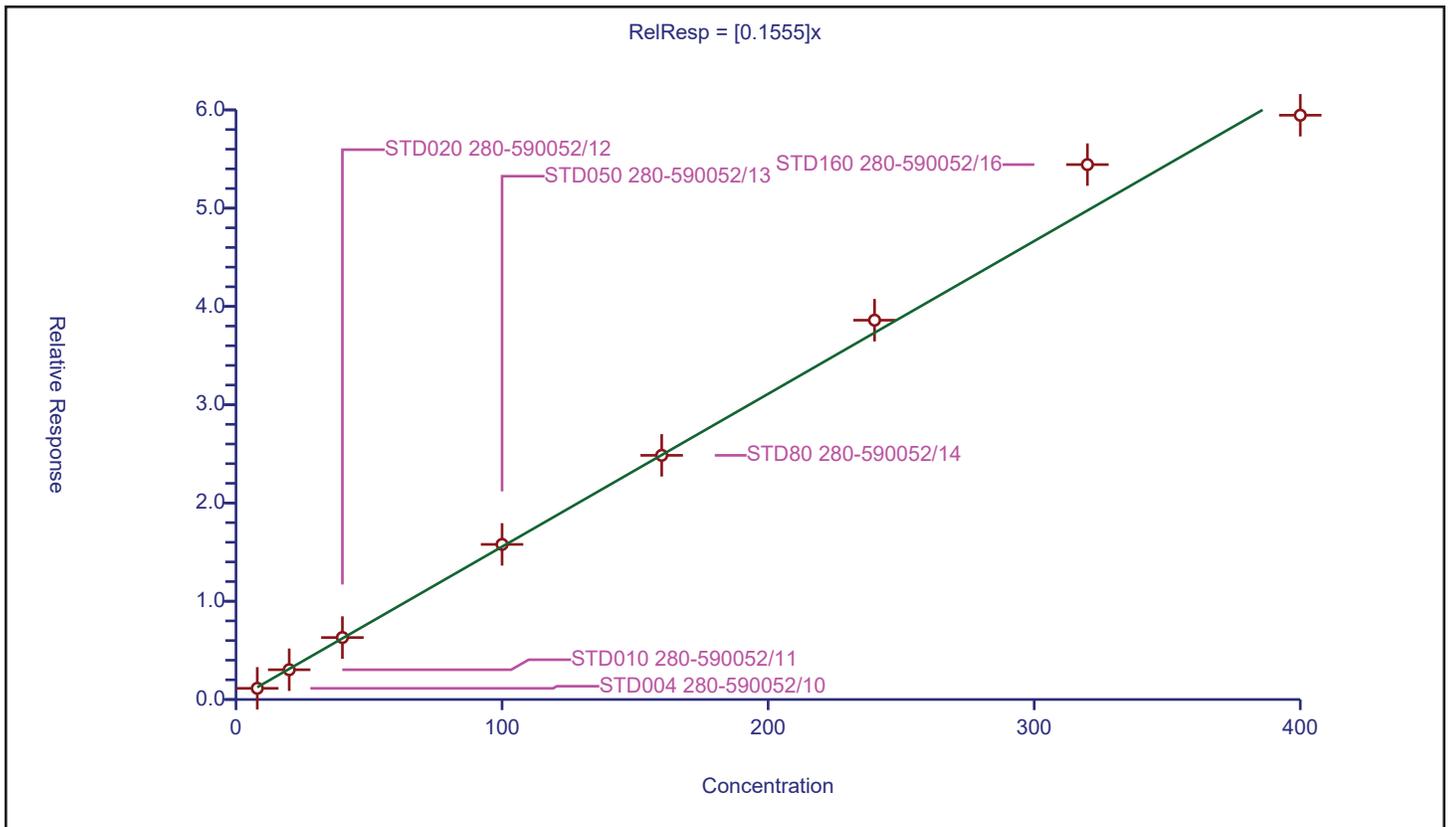
/ Pentachlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1555

Error Coefficients	
Standard Error:	1520000
Relative Standard Error:	5.4
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	8.0	1.13852	40.0	1741910.0	0.142315	Y
2	STD010 280-590052/11	20.0	3.027833	40.0	1540349.0	0.151392	Y
3	STD020 280-590052/12	40.0	6.305324	40.0	1718516.0	0.157633	Y
4	STD050 280-590052/13	100.0	15.78404	40.0	1760292.0	0.15784	Y
5	STD80 280-590052/14	160.0	24.845677	40.0	1859282.0	0.155285	Y
6	STD120 280-590052/15	240.0	38.601345	40.0	1642635.0	0.160839	Y
7	STD160 280-590052/16	320.0	54.433095	40.0	1497985.0	0.170103	Y
8	STD200 280-590052/17	400.0	59.458909	40.0	1851187.0	0.148647	Y



Calibration

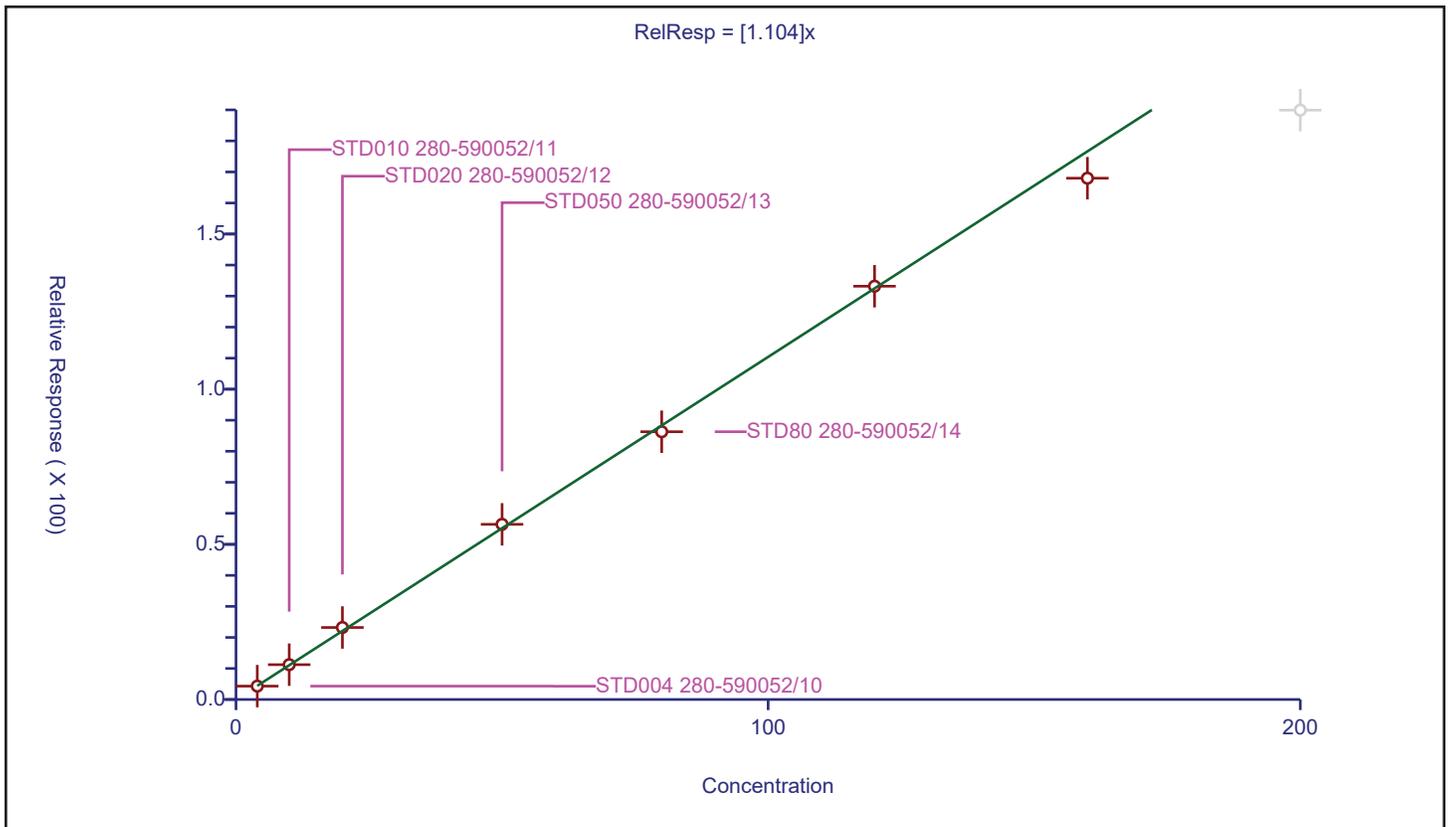
/ Phenanthrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.104

Error Coefficients	
Standard Error:	3940000
Relative Standard Error:	3.4
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.310808	40.0	1741910.0	1.077702	Y
2	STD010 280-590052/11	10.0	11.222703	40.0	1540349.0	1.12227	Y
3	STD020 280-590052/12	20.0	23.200366	40.0	1718516.0	1.160018	Y
4	STD050 280-590052/13	50.0	56.450862	40.0	1760292.0	1.129017	Y
5	STD80 280-590052/14	80.0	86.288707	40.0	1859282.0	1.078609	Y
6	STD120 280-590052/15	120.0	133.181748	40.0	1642635.0	1.109848	Y
7	STD160 280-590052/16	160.0	167.987423	40.0	1497985.0	1.049921	Y
8	STD200 280-590052/17	200.0	189.913564	40.0	1851187.0	0.949568	N



Calibration

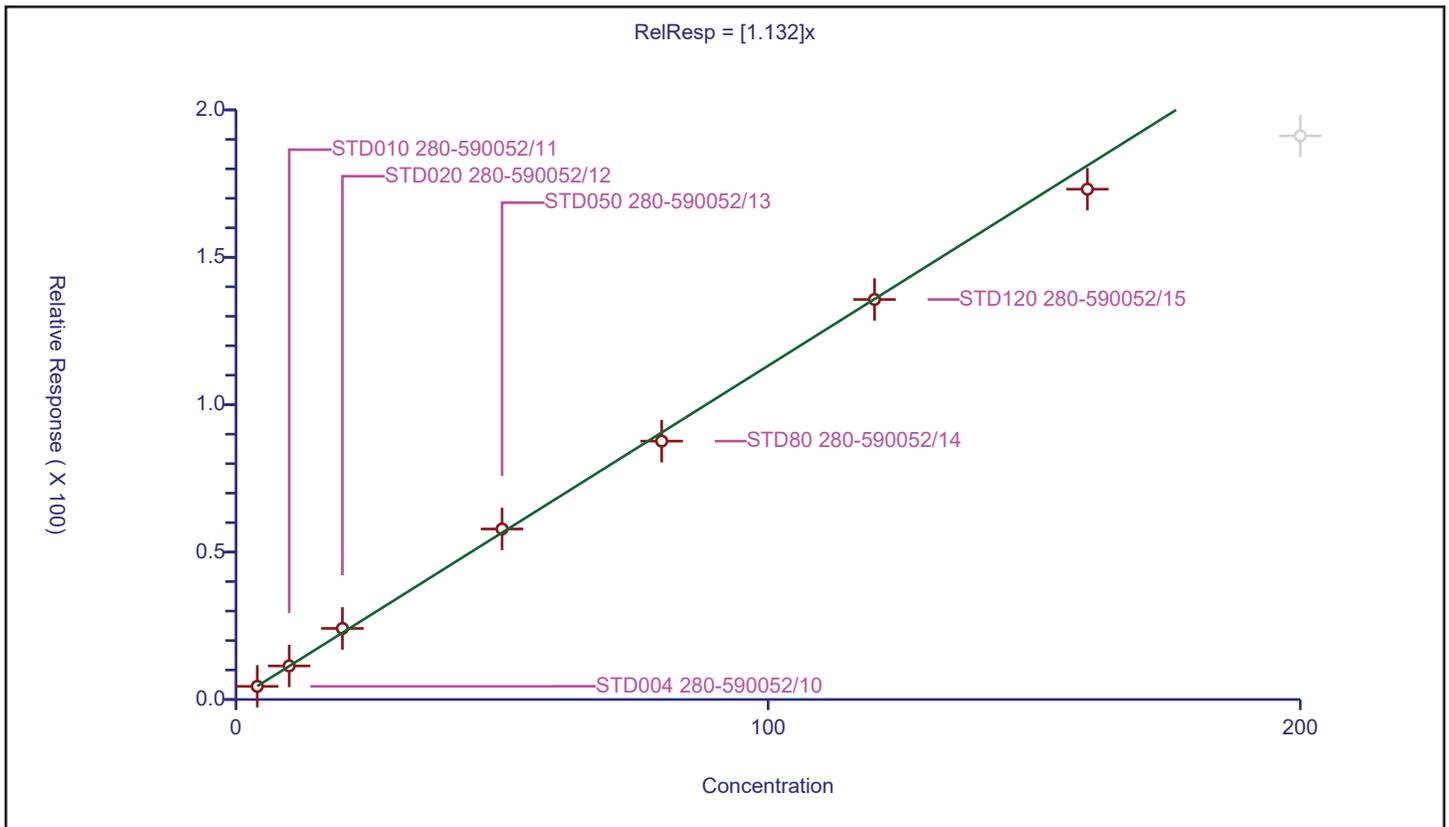
/ Anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.132

Error Coefficients	
Standard Error:	4030000
Relative Standard Error:	3.6
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.464846	40.0	1741910.0	1.116212	Y
2	STD010 280-590052/11	10.0	11.378902	40.0	1540349.0	1.13789	Y
3	STD020 280-590052/12	20.0	24.106473	40.0	1718516.0	1.205324	Y
4	STD050 280-590052/13	50.0	57.838154	40.0	1760292.0	1.156763	Y
5	STD80 280-590052/14	80.0	87.647102	40.0	1859282.0	1.095589	Y
6	STD120 280-590052/15	120.0	135.695221	40.0	1642635.0	1.130794	Y
7	STD160 280-590052/16	160.0	173.1067	40.0	1497985.0	1.081917	Y
8	STD200 280-590052/17	200.0	191.184618	40.0	1851187.0	0.955923	N



Calibration

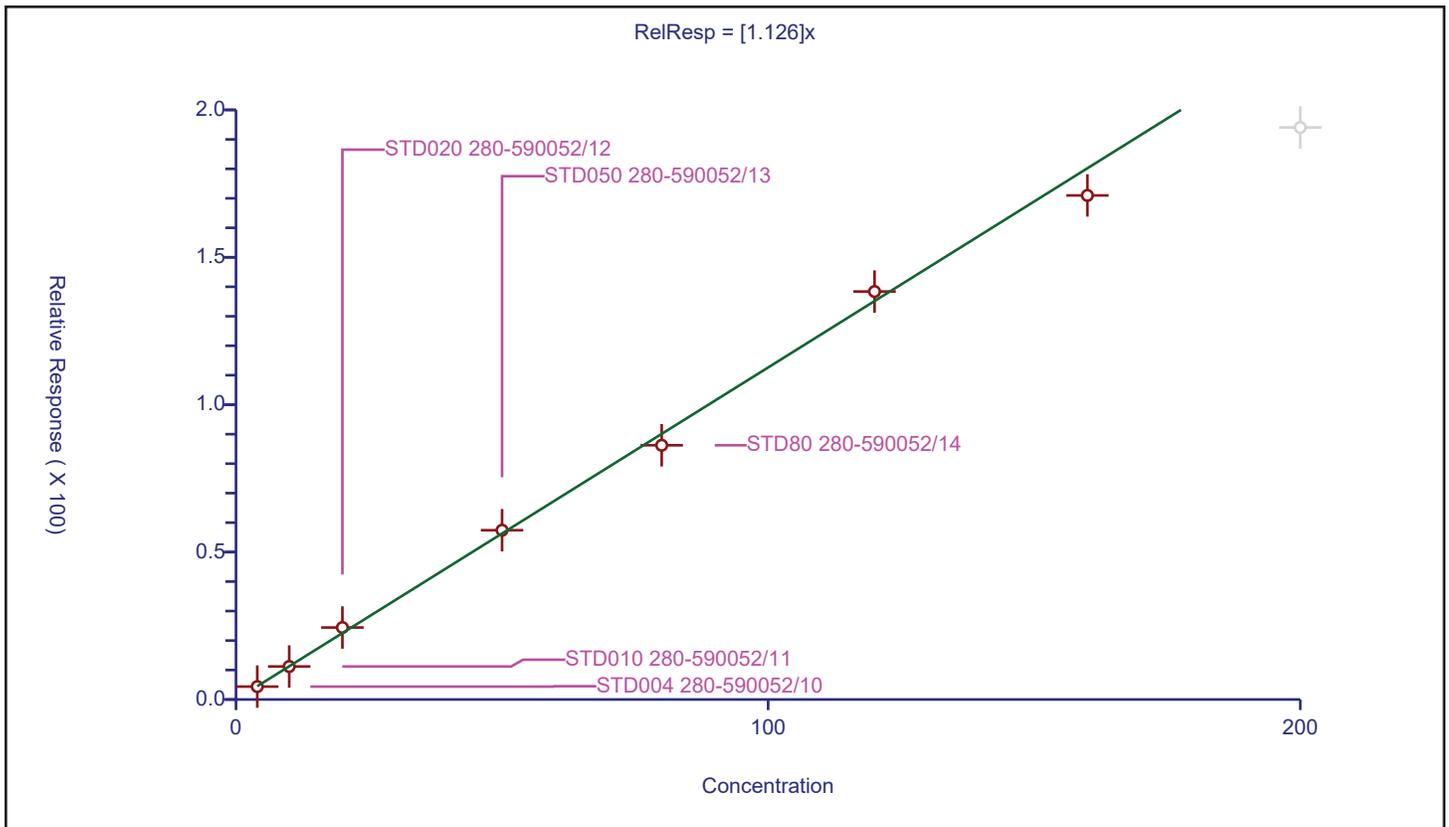
/ Carbazole

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.126

Error Coefficients	
Standard Error:	4020000
Relative Standard Error:	4.7
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.379905	40.0	1741910.0	1.094976	Y
2	STD010 280-590052/11	10.0	11.196268	40.0	1540349.0	1.119627	Y
3	STD020 280-590052/12	20.0	24.412738	40.0	1718516.0	1.220637	Y
4	STD050 280-590052/13	50.0	57.422541	40.0	1760292.0	1.148451	Y
5	STD80 280-590052/14	80.0	86.24512	40.0	1859282.0	1.078064	Y
6	STD120 280-590052/15	120.0	138.3924	40.0	1642635.0	1.15327	Y
7	STD160 280-590052/16	160.0	170.98796	40.0	1497985.0	1.068675	Y
8	STD200 280-590052/17	200.0	194.026816	40.0	1851187.0	0.970134	N



Calibration

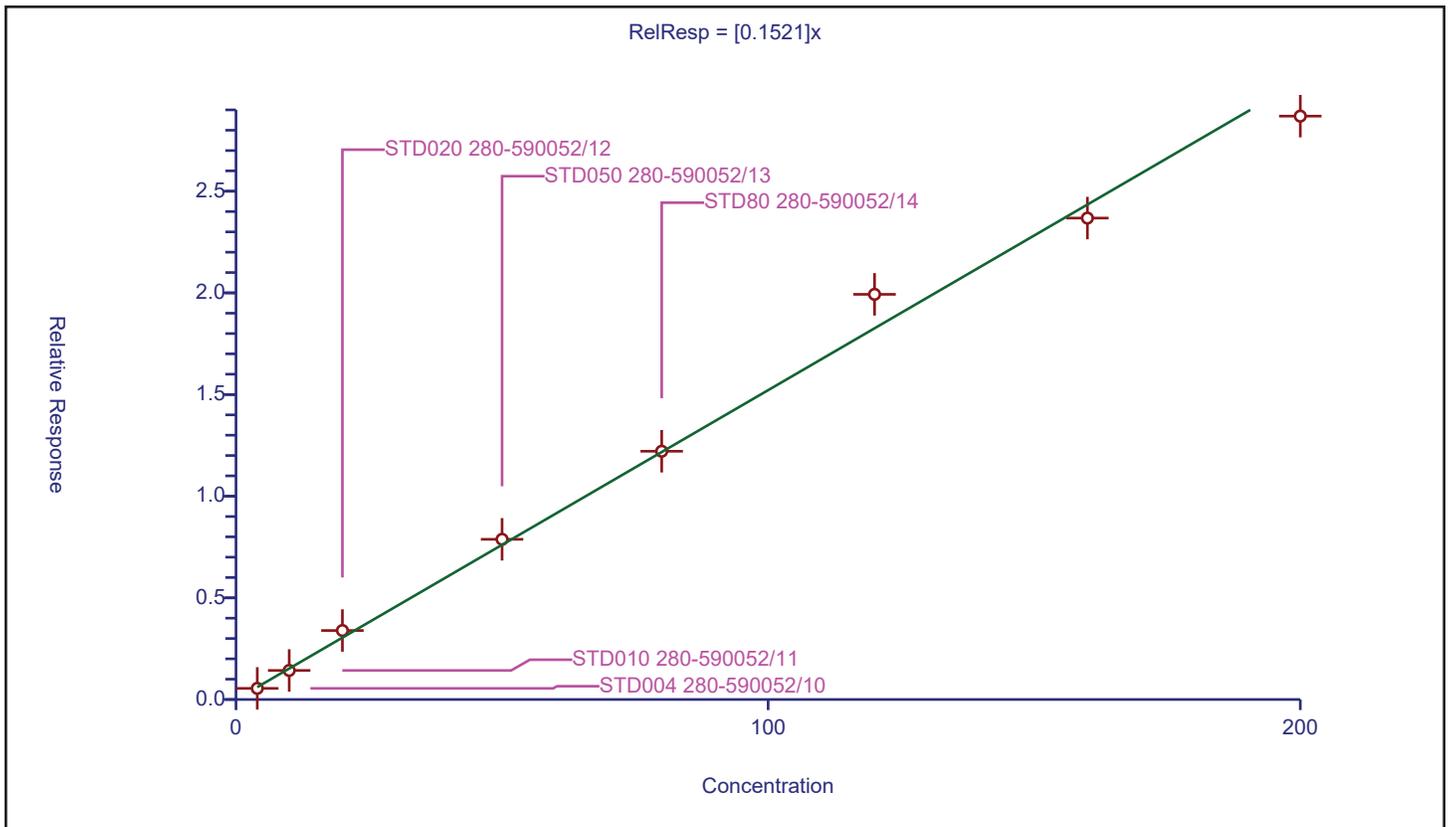
/ Alachlor

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1521

Error Coefficients	
Standard Error:	726000
Relative Standard Error:	7.6
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	0.547376	40.0	1741910.0	0.136844	Y
2	STD010 280-590052/11	10.0	1.429338	40.0	1540349.0	0.142934	Y
3	STD020 280-590052/12	20.0	3.393137	40.0	1718516.0	0.169657	Y
4	STD050 280-590052/13	50.0	7.879056	40.0	1760292.0	0.157581	Y
5	STD80 280-590052/14	80.0	12.209832	40.0	1859282.0	0.152623	Y
6	STD120 280-590052/15	120.0	19.928371	40.0	1642635.0	0.16607	Y
7	STD160 280-590052/16	160.0	23.678662	40.0	1497985.0	0.147992	Y
8	STD200 280-590052/17	200.0	28.693179	40.0	1851187.0	0.143466	Y



Calibration

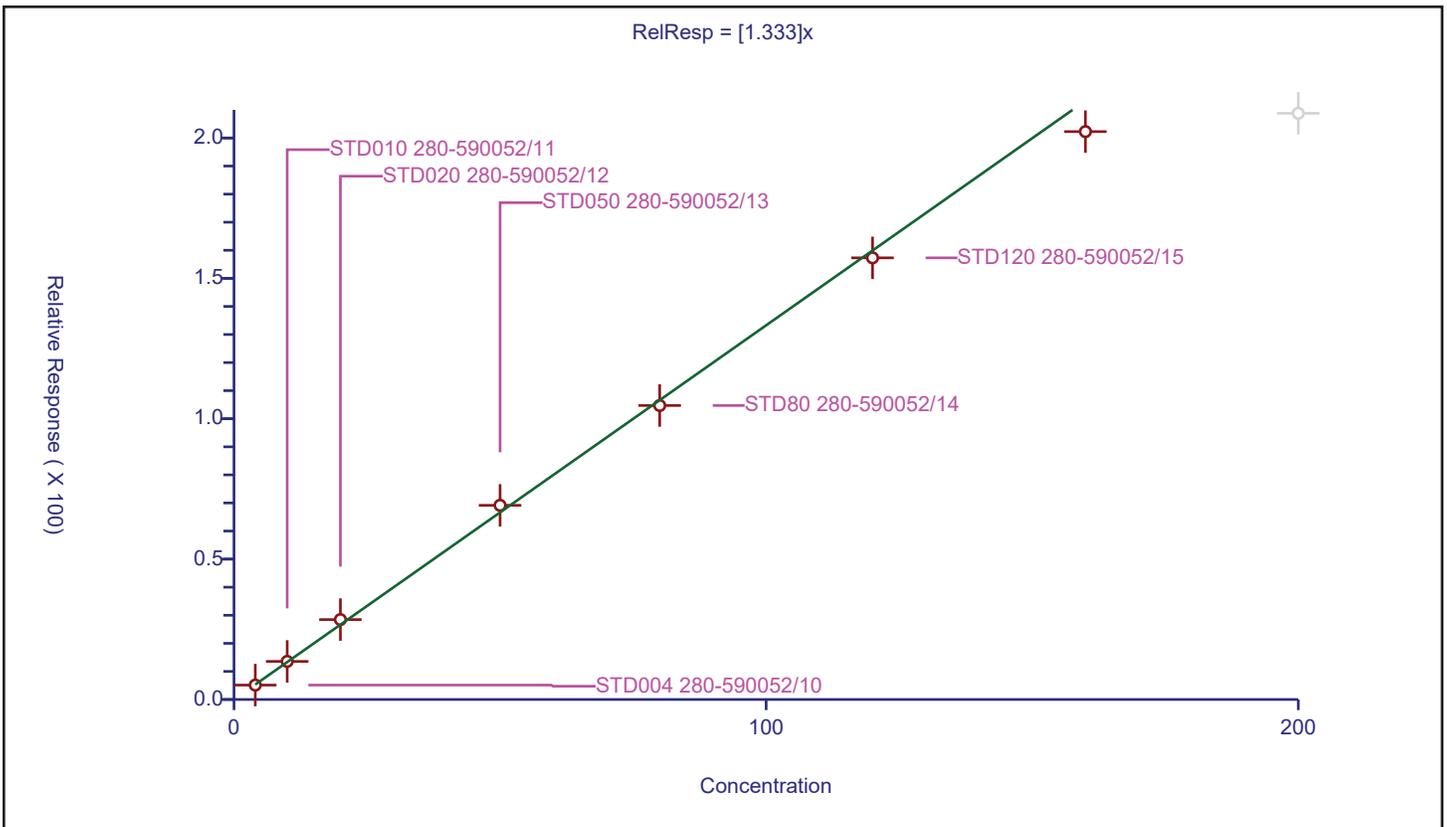
/ Di-n-butyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.333

Error Coefficients	
Standard Error:	4720000
Relative Standard Error:	4.3
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.129634	40.0	1741910.0	1.282408	Y
2	STD010 280-590052/11	10.0	13.563108	40.0	1540349.0	1.356311	Y
3	STD020 280-590052/12	20.0	28.455039	40.0	1718516.0	1.422752	Y
4	STD050 280-590052/13	50.0	69.166729	40.0	1760292.0	1.383335	Y
5	STD80 280-590052/14	80.0	104.713475	40.0	1859282.0	1.308918	Y
6	STD120 280-590052/15	120.0	157.306401	40.0	1642635.0	1.310887	Y
7	STD160 280-590052/16	160.0	202.267099	40.0	1497985.0	1.264169	Y
8	STD200 280-590052/17	200.0	208.78485	40.0	1851187.0	1.043924	N



Calibration

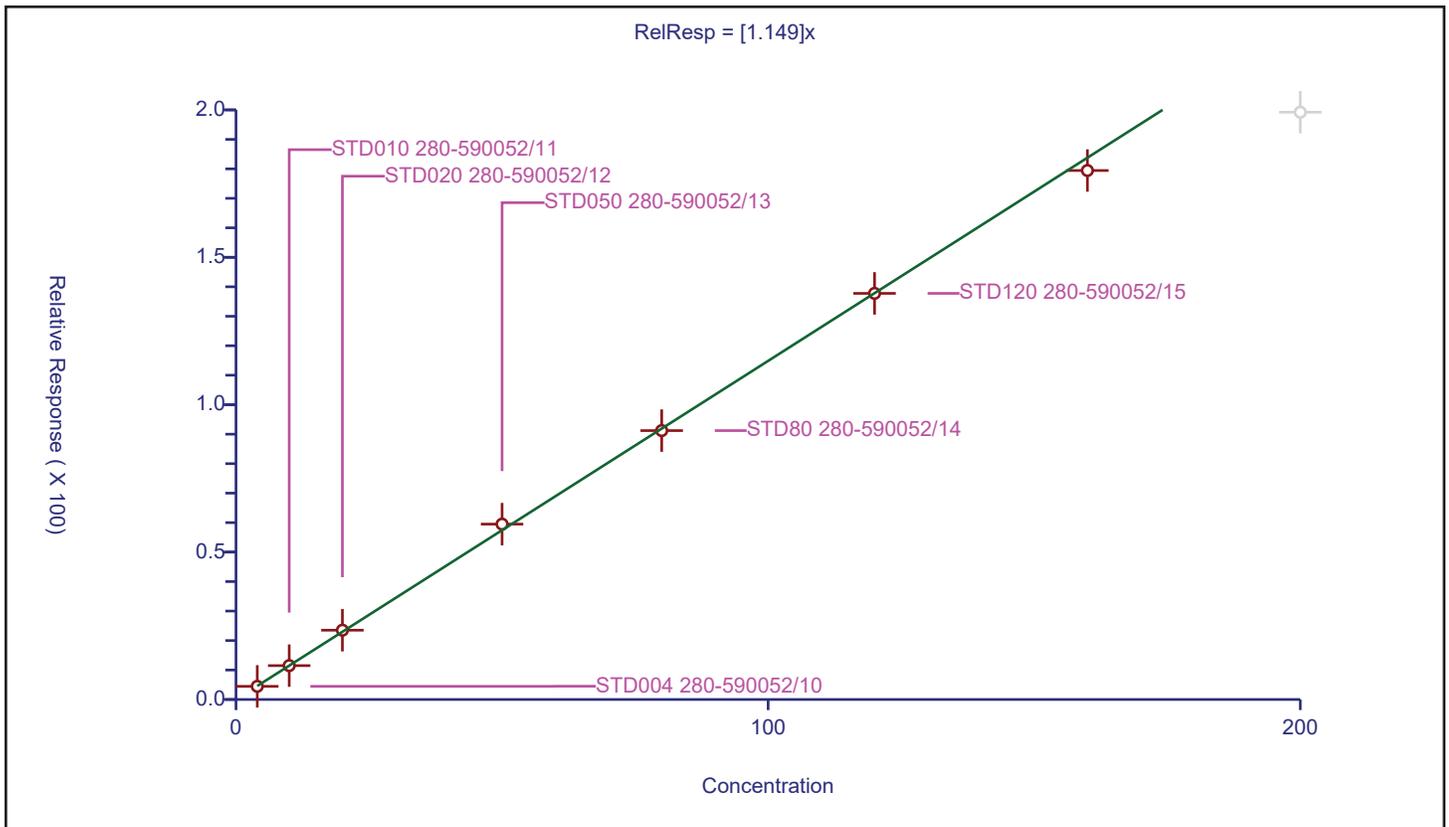
/ Fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.149

Error Coefficients	
Standard Error:	4150000
Relative Standard Error:	2.3
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.464915	40.0	1741910.0	1.116229	Y
2	STD010 280-590052/11	10.0	11.491967	40.0	1540349.0	1.149197	Y
3	STD020 280-590052/12	20.0	23.504722	40.0	1718516.0	1.175236	Y
4	STD050 280-590052/13	50.0	59.489857	40.0	1760292.0	1.189797	Y
5	STD80 280-590052/14	80.0	91.211683	40.0	1859282.0	1.140146	Y
6	STD120 280-590052/15	120.0	137.756982	40.0	1642635.0	1.147975	Y
7	STD160 280-590052/16	160.0	179.440729	40.0	1497985.0	1.121505	Y
8	STD200 280-590052/17	200.0	199.214515	40.0	1851187.0	0.996073	N



Calibration

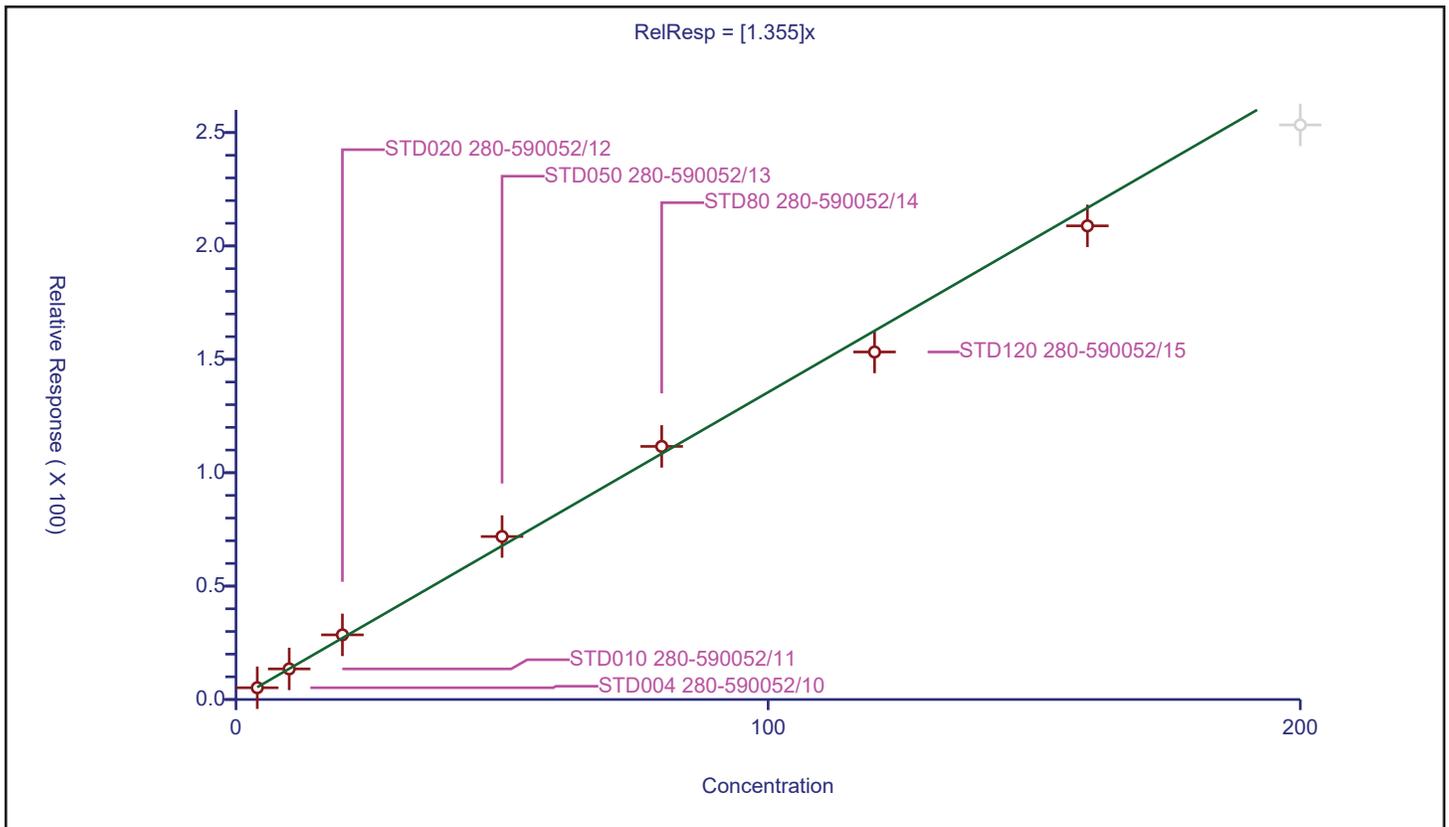
/ Pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.355

Error Coefficients	
Standard Error:	4300000
Relative Standard Error:	4.8
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	5.183067	40.0	1586713.0	1.295767	Y
2	STD010 280-590052/11	10.0	13.489278	40.0	1404256.0	1.348928	Y
3	STD020 280-590052/12	20.0	28.501848	40.0	1484903.0	1.425092	Y
4	STD050 280-590052/13	50.0	71.871346	40.0	1506616.0	1.437427	Y
5	STD80 280-590052/14	80.0	111.608311	40.0	1581212.0	1.395104	Y
6	STD120 280-590052/15	120.0	153.242814	40.0	1504656.0	1.277023	Y
7	STD160 280-590052/16	160.0	208.868484	40.0	1349543.0	1.305428	Y
8	STD200 280-590052/17	200.0	253.375732	40.0	1517955.0	1.266879	N



Calibration

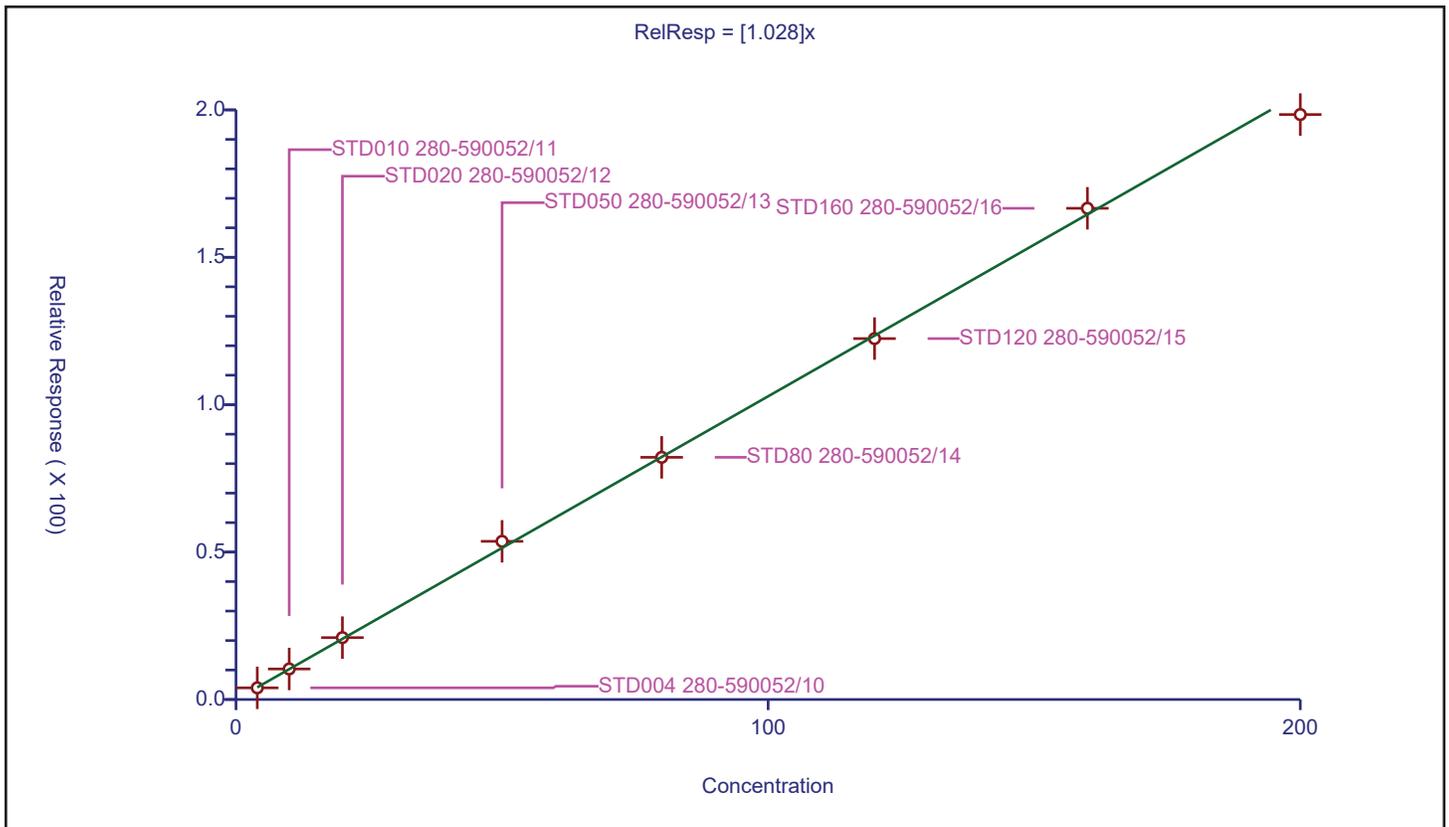
/ Terphenyl-d14

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.028

Error Coefficients	
Standard Error:	4220000
Relative Standard Error:	2.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.957263	40.0	1586713.0	0.989316	Y
2	STD010 280-590052/11	10.0	10.353782	40.0	1404256.0	1.035378	Y
3	STD020 280-590052/12	20.0	20.986206	40.0	1484903.0	1.04931	Y
4	STD050 280-590052/13	50.0	53.654495	40.0	1506616.0	1.07309	Y
5	STD80 280-590052/14	80.0	82.151792	40.0	1581212.0	1.026897	Y
6	STD120 280-590052/15	120.0	122.423331	40.0	1504656.0	1.020194	Y
7	STD160 280-590052/16	160.0	166.618804	40.0	1349543.0	1.041368	Y
8	STD200 280-590052/17	200.0	198.423036	40.0	1517955.0	0.992115	Y



Calibration

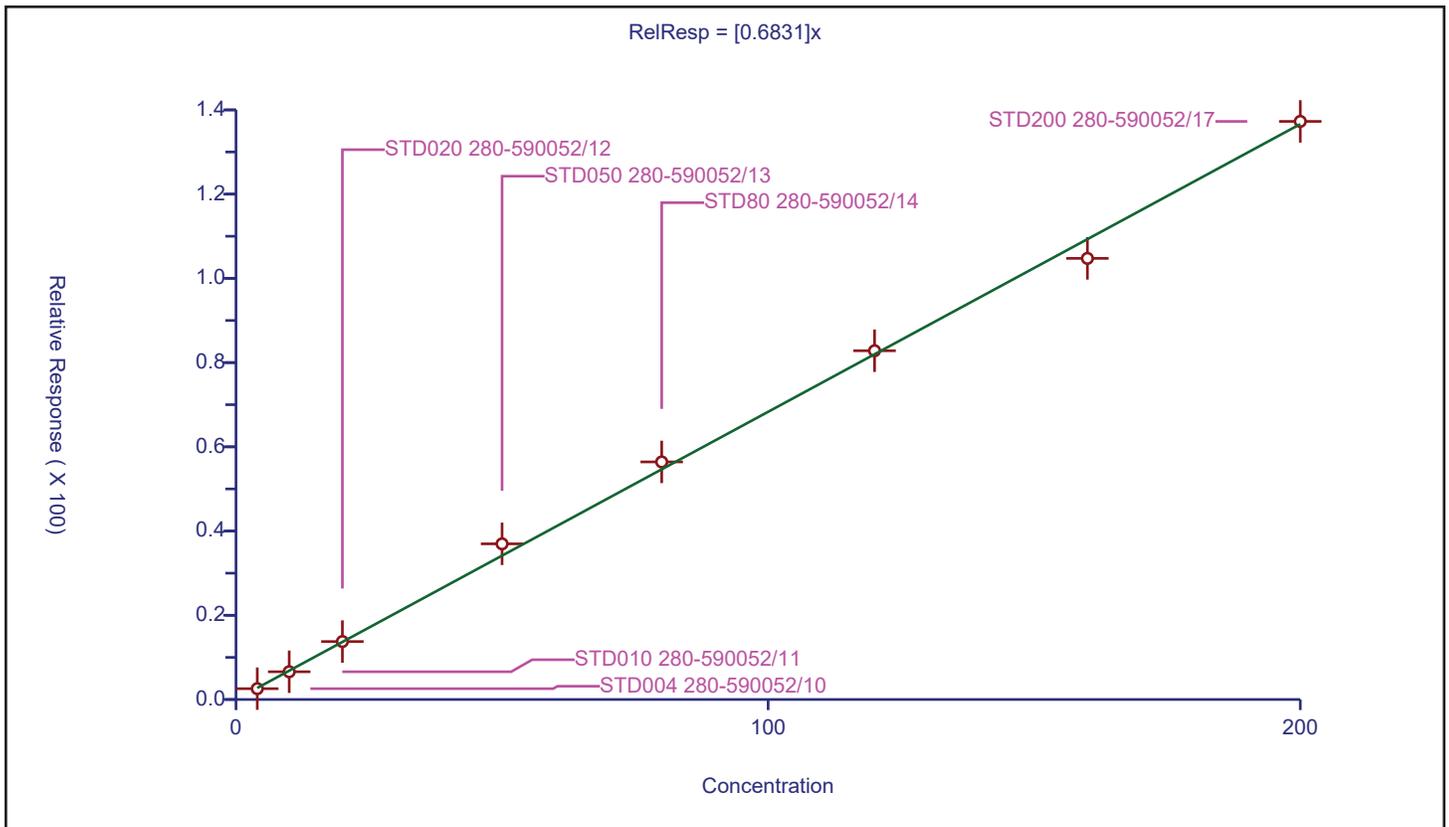
/ Butyl benzyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6831

Error Coefficients	
Standard Error:	2840000
Relative Standard Error:	4.5
Correlation Coefficient:	0.985
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	2.571832	40.0	1586713.0	0.642958	Y
2	STD010 280-590052/11	10.0	6.585779	40.0	1404256.0	0.658578	Y
3	STD020 280-590052/12	20.0	13.758528	40.0	1484903.0	0.687926	Y
4	STD050 280-590052/13	50.0	36.960579	40.0	1506616.0	0.739212	Y
5	STD80 280-590052/14	80.0	56.411715	40.0	1581212.0	0.705146	Y
6	STD120 280-590052/15	120.0	82.813587	40.0	1504656.0	0.690113	Y
7	STD160 280-590052/16	160.0	104.741116	40.0	1349543.0	0.654632	Y
8	STD200 280-590052/17	200.0	137.267468	40.0	1517955.0	0.686337	Y



Calibration

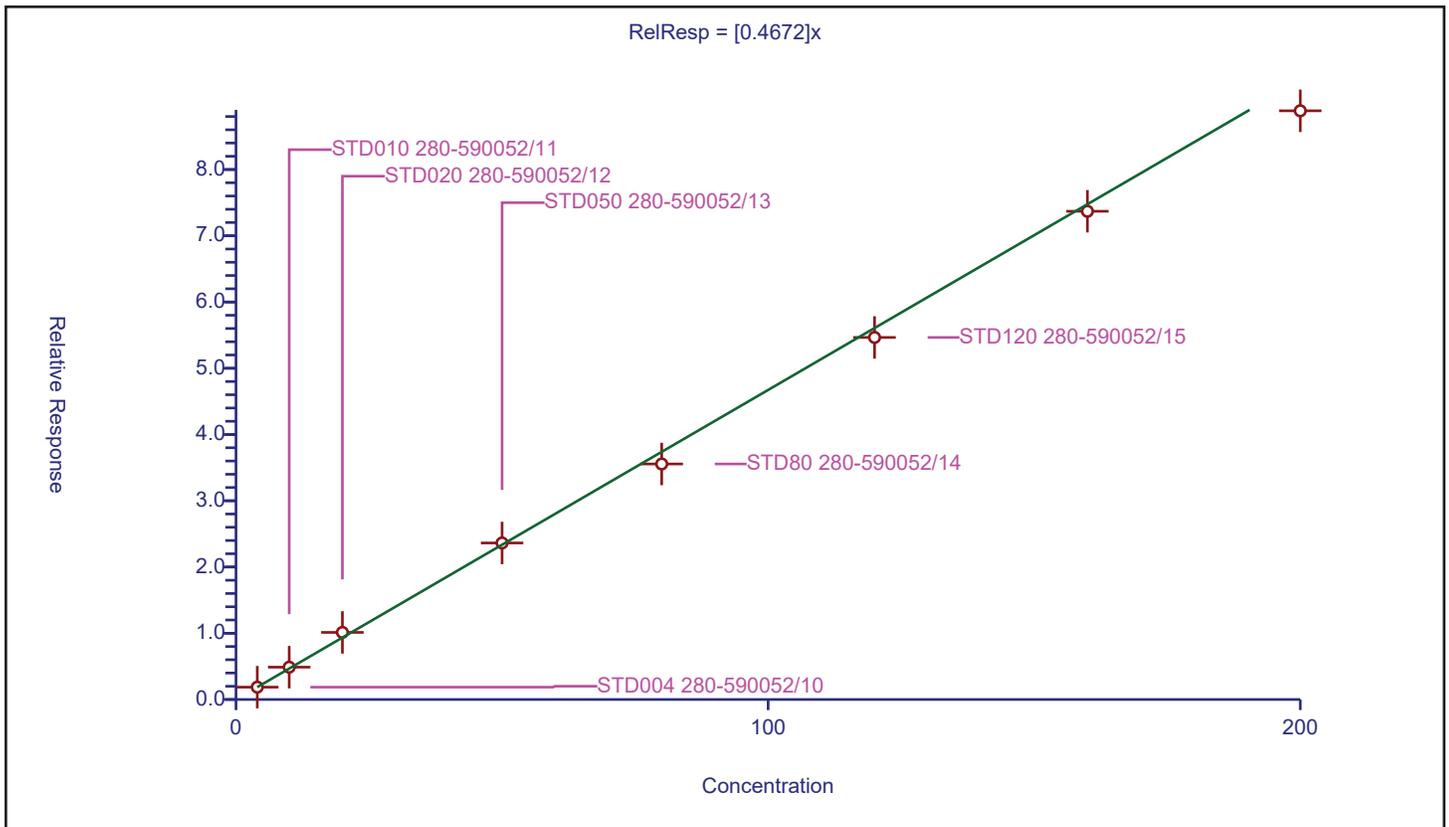
/ 3,3'-Dichlorobenzidine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4672

Error Coefficients	
Standard Error:	1880000
Relative Standard Error:	4.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	1.865038	40.0	1586713.0	0.466259	Y
2	STD010 280-590052/11	10.0	4.878939	40.0	1404256.0	0.487894	Y
3	STD020 280-590052/12	20.0	10.128823	40.0	1484903.0	0.506441	Y
4	STD050 280-590052/13	50.0	23.628503	40.0	1506616.0	0.47257	Y
5	STD80 280-590052/14	80.0	35.552323	40.0	1581212.0	0.444404	Y
6	STD120 280-590052/15	120.0	54.650817	40.0	1504656.0	0.455423	Y
7	STD160 280-590052/16	160.0	73.697926	40.0	1349543.0	0.460612	Y
8	STD200 280-590052/17	200.0	88.86303	40.0	1517955.0	0.444315	Y



Calibration

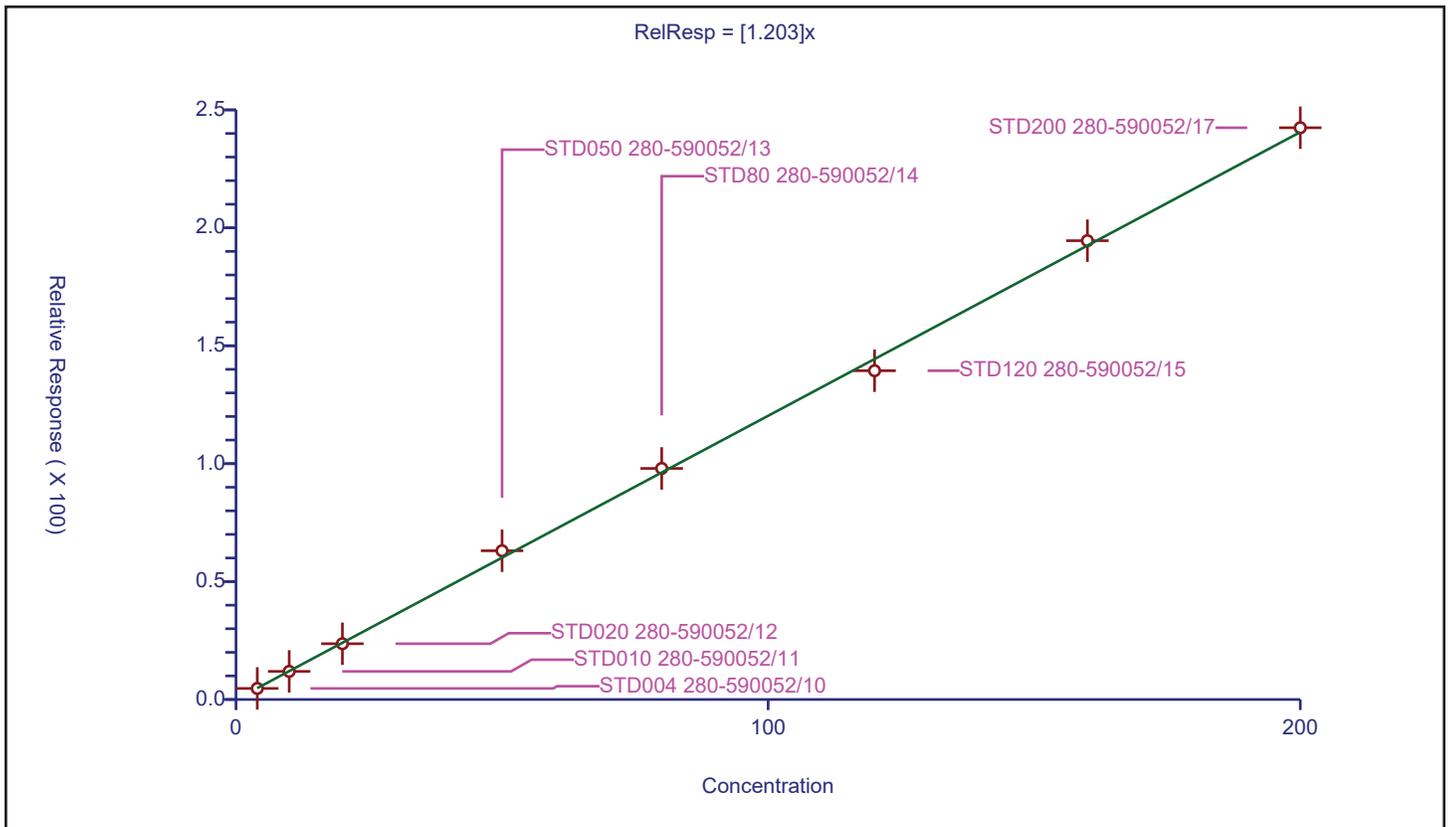
/ Benzo[a]anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.203

Error Coefficients	
Standard Error:	5030000
Relative Standard Error:	2.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.691283	40.0	1586713.0	1.172821	Y
2	STD010 280-590052/11	10.0	11.920903	40.0	1404256.0	1.19209	Y
3	STD020 280-590052/12	20.0	23.654043	40.0	1484903.0	1.182702	Y
4	STD050 280-590052/13	50.0	63.067298	40.0	1506616.0	1.261346	Y
5	STD80 280-590052/14	80.0	97.975806	40.0	1581212.0	1.224698	Y
6	STD120 280-590052/15	120.0	139.39965	40.0	1504656.0	1.161664	Y
7	STD160 280-590052/16	160.0	194.535987	40.0	1349543.0	1.21585	Y
8	STD200 280-590052/17	200.0	242.432272	40.0	1517955.0	1.212161	Y



Calibration

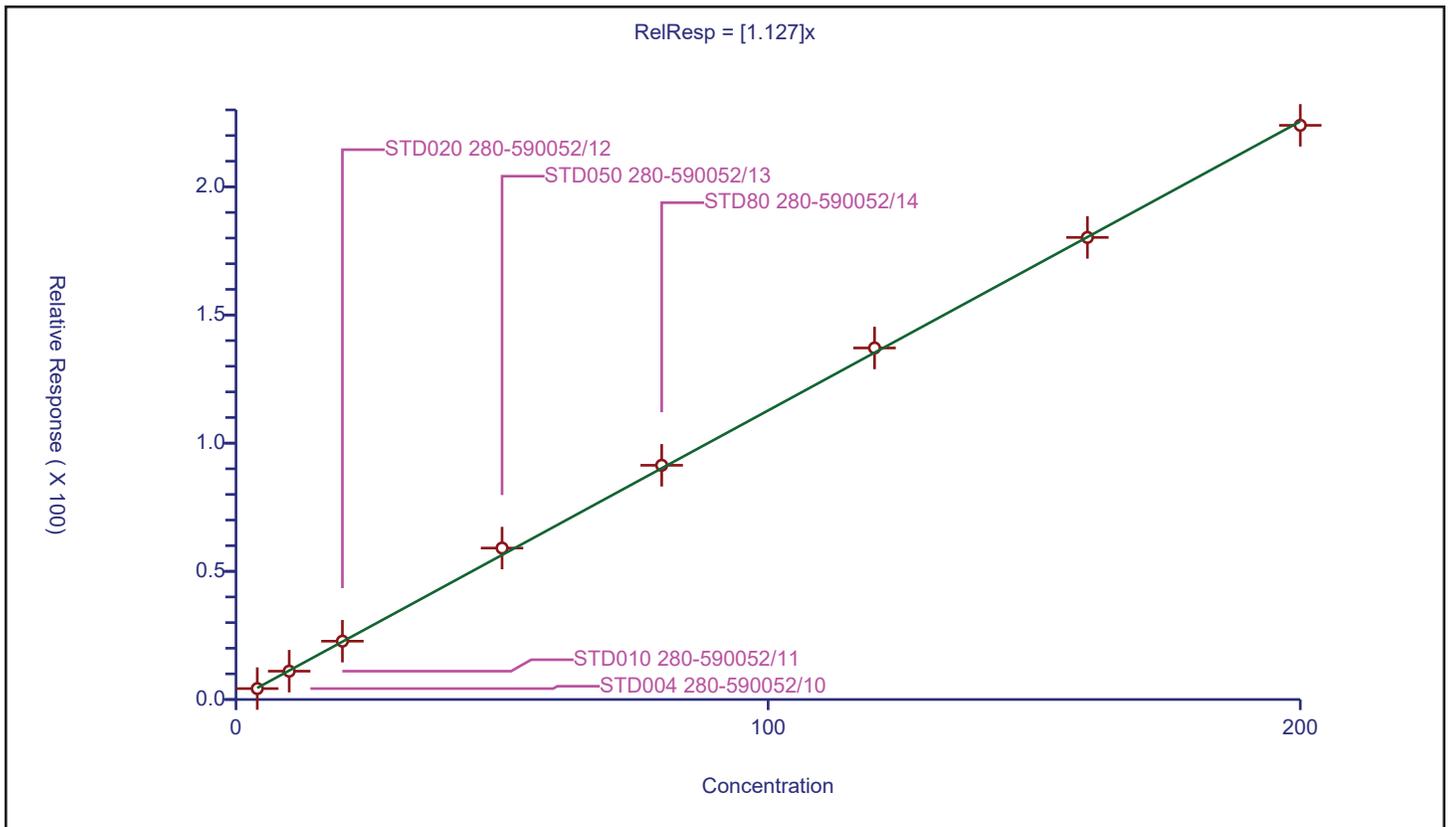
/ Chrysene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.127

Error Coefficients	
Standard Error:	4700000
Relative Standard Error:	3.0
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.256019	40.0	1586713.0	1.064005	Y
2	STD010 280-590052/11	10.0	11.051261	40.0	1404256.0	1.105126	Y
3	STD020 280-590052/12	20.0	22.750739	40.0	1484903.0	1.137537	Y
4	STD050 280-590052/13	50.0	59.079978	40.0	1506616.0	1.1816	Y
5	STD80 280-590052/14	80.0	91.363941	40.0	1581212.0	1.142049	Y
6	STD120 280-590052/15	120.0	137.12745	40.0	1504656.0	1.142729	Y
7	STD160 280-590052/16	160.0	180.252752	40.0	1349543.0	1.12658	Y
8	STD200 280-590052/17	200.0	223.981106	40.0	1517955.0	1.119906	Y



Calibration

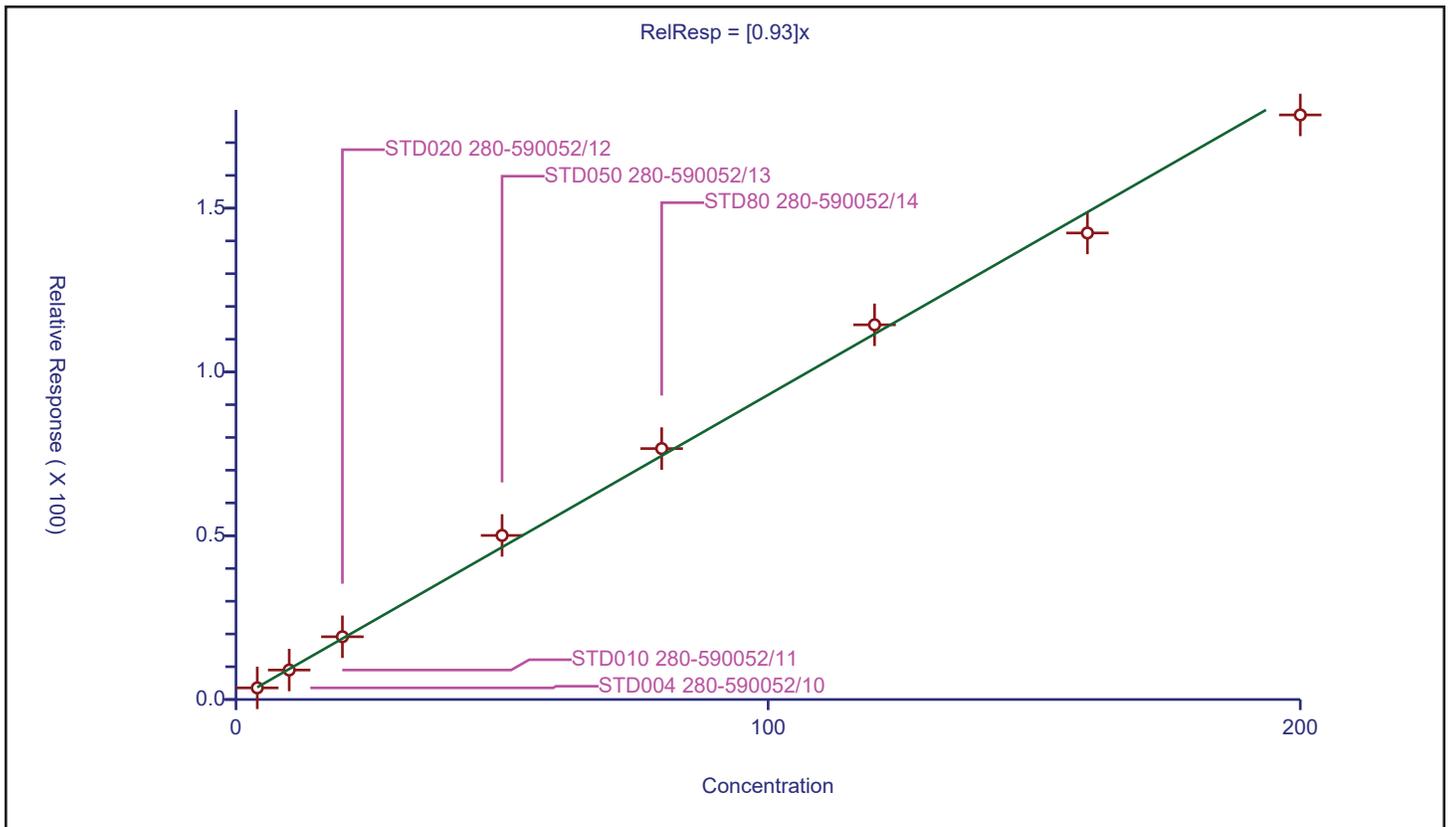
/ Bis(2-ethylhexyl) phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.93

Error Coefficients	
Standard Error:	3800000
Relative Standard Error:	4.6
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.54998	40.0	1586713.0	0.887495	Y
2	STD010 280-590052/11	10.0	8.994542	40.0	1404256.0	0.899454	Y
3	STD020 280-590052/12	20.0	19.153709	40.0	1484903.0	0.957685	Y
4	STD050 280-590052/13	50.0	50.089923	40.0	1506616.0	1.001798	Y
5	STD80 280-590052/14	80.0	76.607261	40.0	1581212.0	0.957591	Y
6	STD120 280-590052/15	120.0	114.391888	40.0	1504656.0	0.953266	Y
7	STD160 280-590052/16	160.0	142.424776	40.0	1349543.0	0.890155	Y
8	STD200 280-590052/17	200.0	178.463472	40.0	1517955.0	0.892317	Y



Calibration

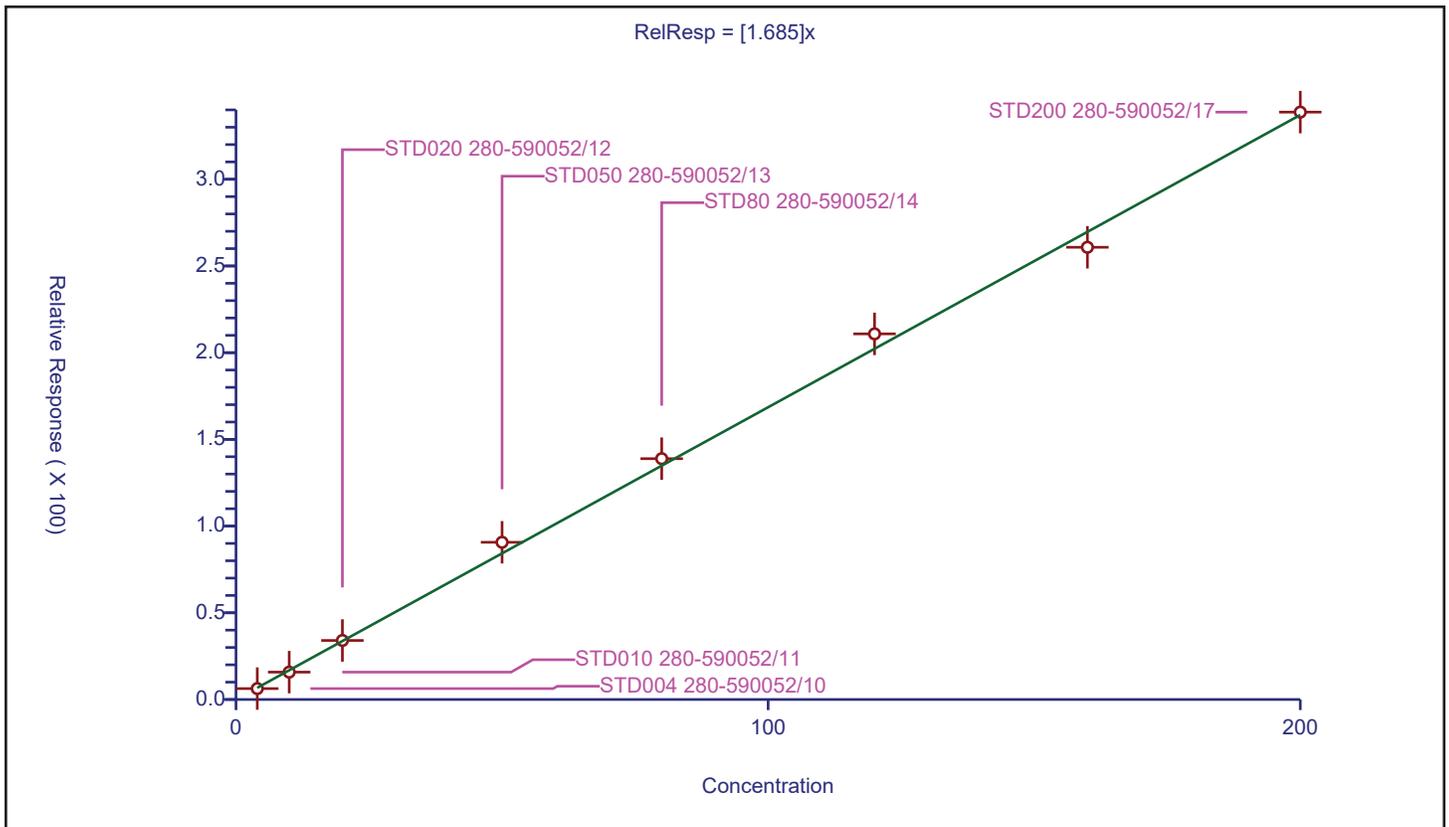
/ Di-n-octyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.685

Error Coefficients	
Standard Error:	7060000
Relative Standard Error:	5.1
Correlation Coefficient:	0.986
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	6.285875	40.0	1586713.0	1.571469	Y
2	STD010 280-590052/11	10.0	15.792961	40.0	1404256.0	1.579296	Y
3	STD020 280-590052/12	20.0	34.0478	40.0	1484903.0	1.70239	Y
4	STD050 280-590052/13	50.0	90.664562	40.0	1506616.0	1.813291	Y
5	STD80 280-590052/14	80.0	138.874357	40.0	1581212.0	1.735929	Y
6	STD120 280-590052/15	120.0	210.845722	40.0	1504656.0	1.757048	Y
7	STD160 280-590052/16	160.0	260.780605	40.0	1349543.0	1.629879	Y
8	STD200 280-590052/17	200.0	338.714362	40.0	1517955.0	1.693572	Y



Calibration

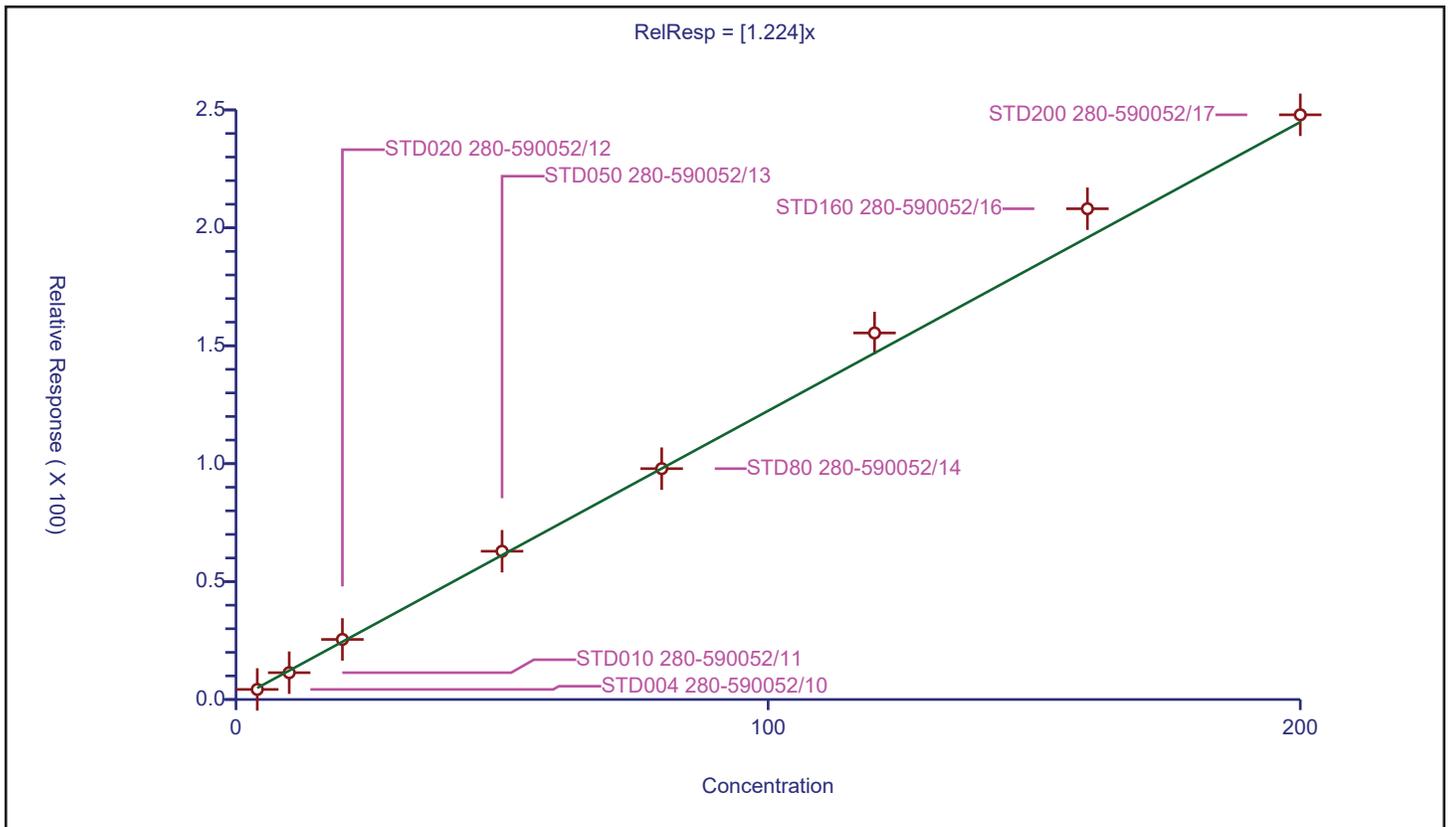
/ Benzo[b]fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.224

Error Coefficients	
Standard Error:	5250000
Relative Standard Error:	6.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.264073	40.0	1587346.0	1.066018	Y
2	STD010 280-590052/11	10.0	11.373912	40.0	1406633.0	1.137391	Y
3	STD020 280-590052/12	20.0	25.471633	40.0	1409623.0	1.273582	Y
4	STD050 280-590052/13	50.0	62.868224	40.0	1473246.0	1.257364	Y
5	STD80 280-590052/14	80.0	97.886452	40.0	1549915.0	1.223581	Y
6	STD120 280-590052/15	120.0	155.412563	40.0	1474052.0	1.295105	Y
7	STD160 280-590052/16	160.0	208.086496	40.0	1363389.0	1.300541	Y
8	STD200 280-590052/17	200.0	247.91503	40.0	1522420.0	1.239575	Y



Calibration

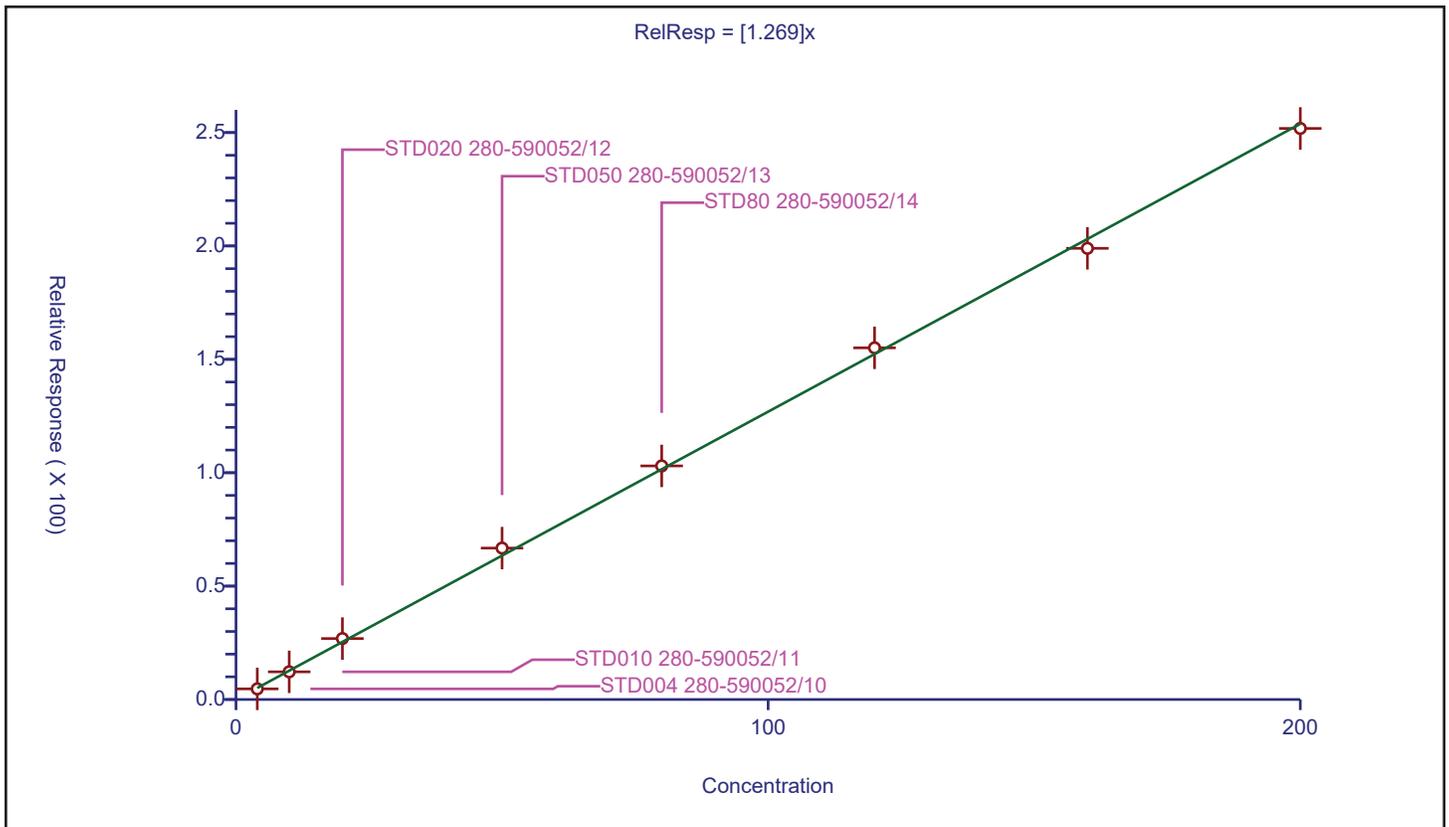
/ Benzo[k]fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.269

Error Coefficients	
Standard Error:	5260000
Relative Standard Error:	4.6
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.687749	40.0	1587346.0	1.171937	Y
2	STD010 280-590052/11	10.0	12.200396	40.0	1406633.0	1.22004	Y
3	STD020 280-590052/12	20.0	26.878137	40.0	1409623.0	1.343907	Y
4	STD050 280-590052/13	50.0	66.766256	40.0	1473246.0	1.335325	Y
5	STD80 280-590052/14	80.0	103.003378	40.0	1549915.0	1.287542	Y
6	STD120 280-590052/15	120.0	155.070893	40.0	1474052.0	1.292257	Y
7	STD160 280-590052/16	160.0	198.950292	40.0	1363389.0	1.243439	Y
8	STD200 280-590052/17	200.0	251.831689	40.0	1522420.0	1.259158	Y



Calibration

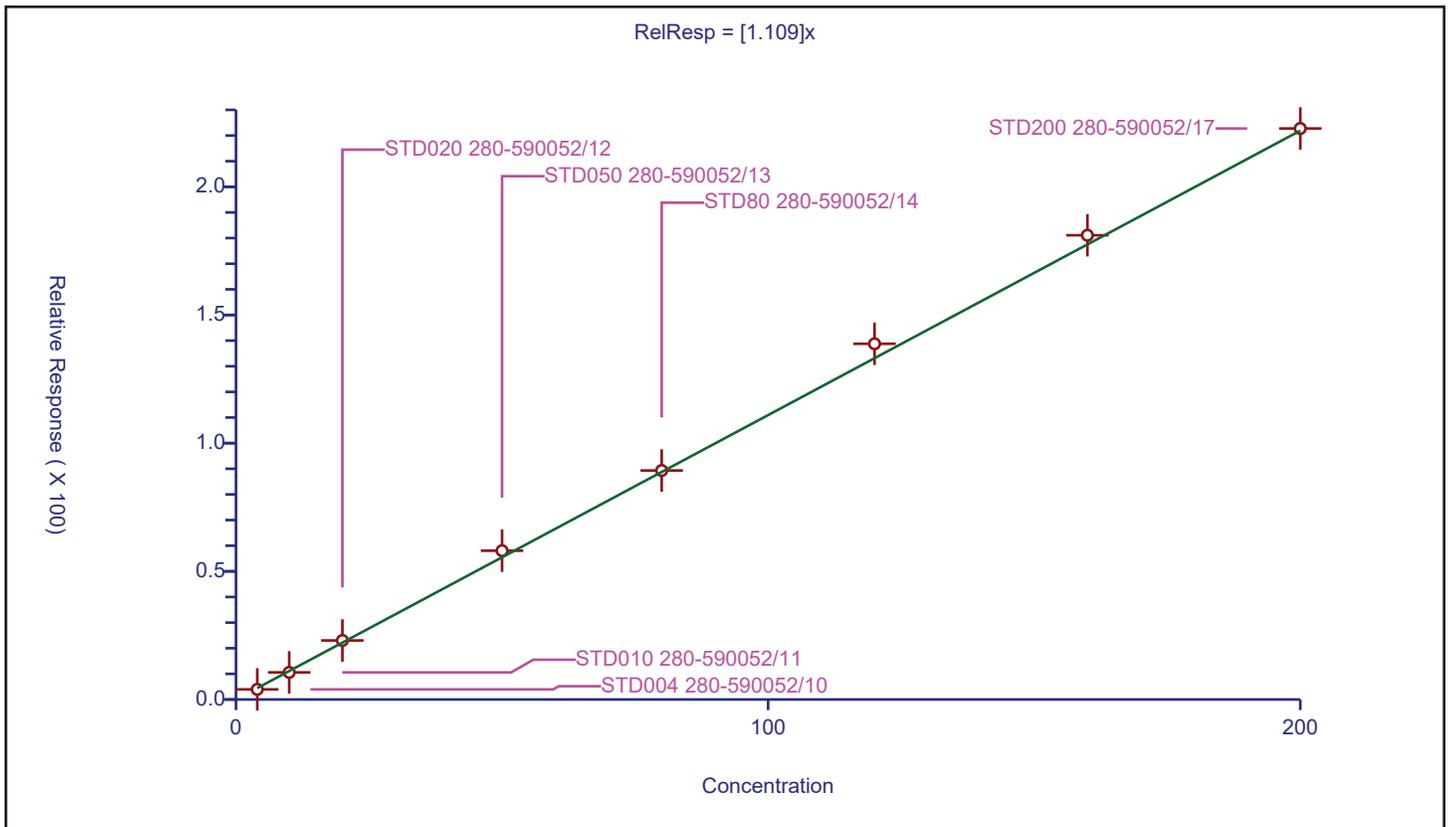
/ Benzo[a]pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.109

Error Coefficients	
Standard Error:	4680000
Relative Standard Error:	5.4
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.948704	40.0	1587346.0	0.987176	Y
2	STD010 280-590052/11	10.0	10.577144	40.0	1406633.0	1.057714	Y
3	STD020 280-590052/12	20.0	23.030243	40.0	1409623.0	1.151512	Y
4	STD050 280-590052/13	50.0	58.043042	40.0	1473246.0	1.160861	Y
5	STD80 280-590052/14	80.0	89.328486	40.0	1549915.0	1.116606	Y
6	STD120 280-590052/15	120.0	138.765634	40.0	1474052.0	1.15638	Y
7	STD160 280-590052/16	160.0	181.099099	40.0	1363389.0	1.131869	Y
8	STD200 280-590052/17	200.0	222.751488	40.0	1522420.0	1.113757	Y



Calibration

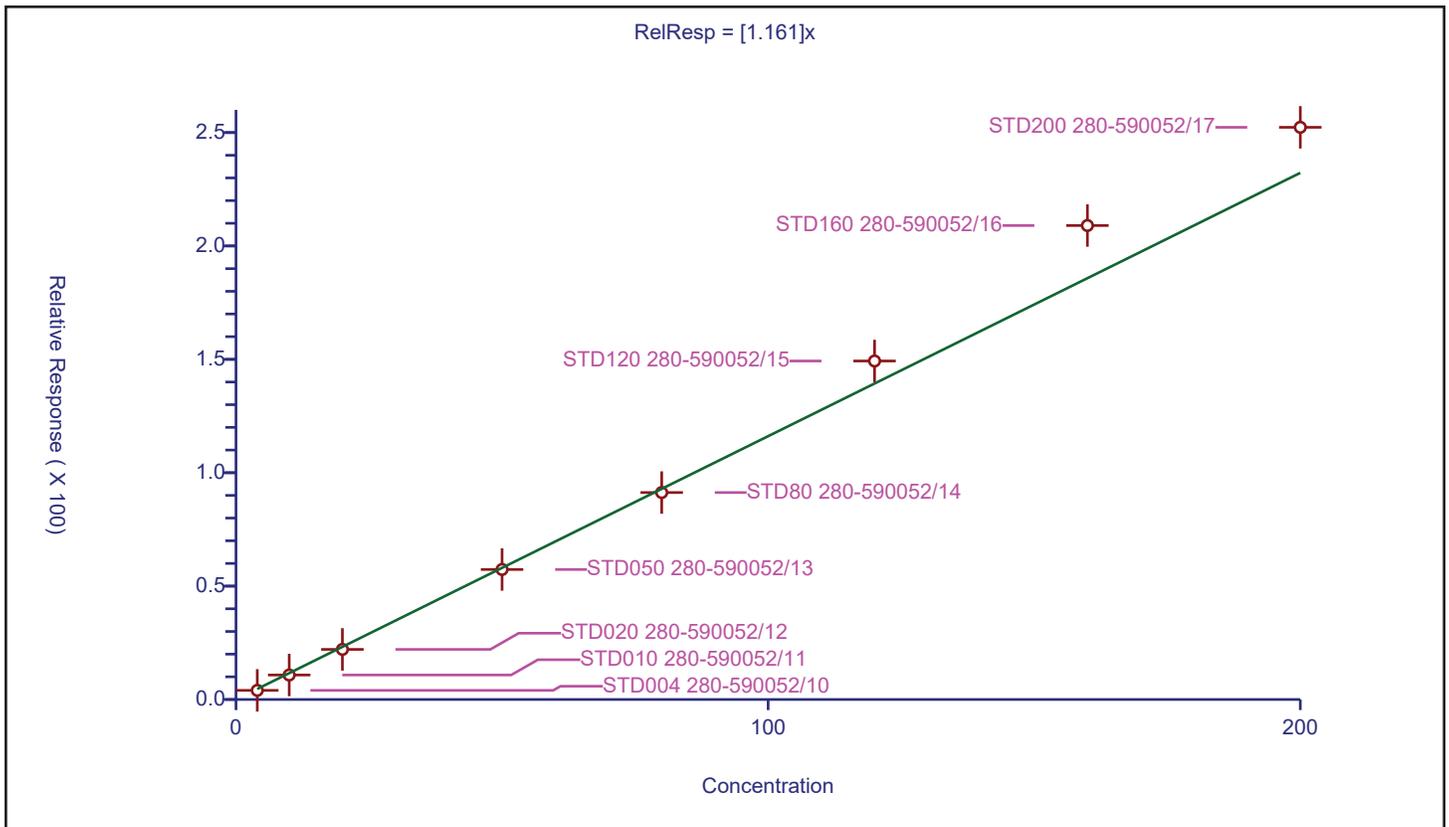
/ Indeno[1,2,3-cd]pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.161

Error Coefficients	
Standard Error:	5230000
Relative Standard Error:	8.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.022429	40.0	1586713.0	1.005607	Y
2	STD010 280-590052/11	10.0	10.795467	40.0	1404256.0	1.079547	Y
3	STD020 280-590052/12	20.0	22.091598	40.0	1484903.0	1.10458	Y
4	STD050 280-590052/13	50.0	57.332937	40.0	1506616.0	1.146659	Y
5	STD80 280-590052/14	80.0	91.261235	40.0	1581212.0	1.140765	Y
6	STD120 280-590052/15	120.0	149.271966	40.0	1504656.0	1.243933	Y
7	STD160 280-590052/16	160.0	209.010813	40.0	1349543.0	1.306318	Y
8	STD200 280-590052/17	200.0	252.313909	40.0	1517955.0	1.26157	Y



Calibration

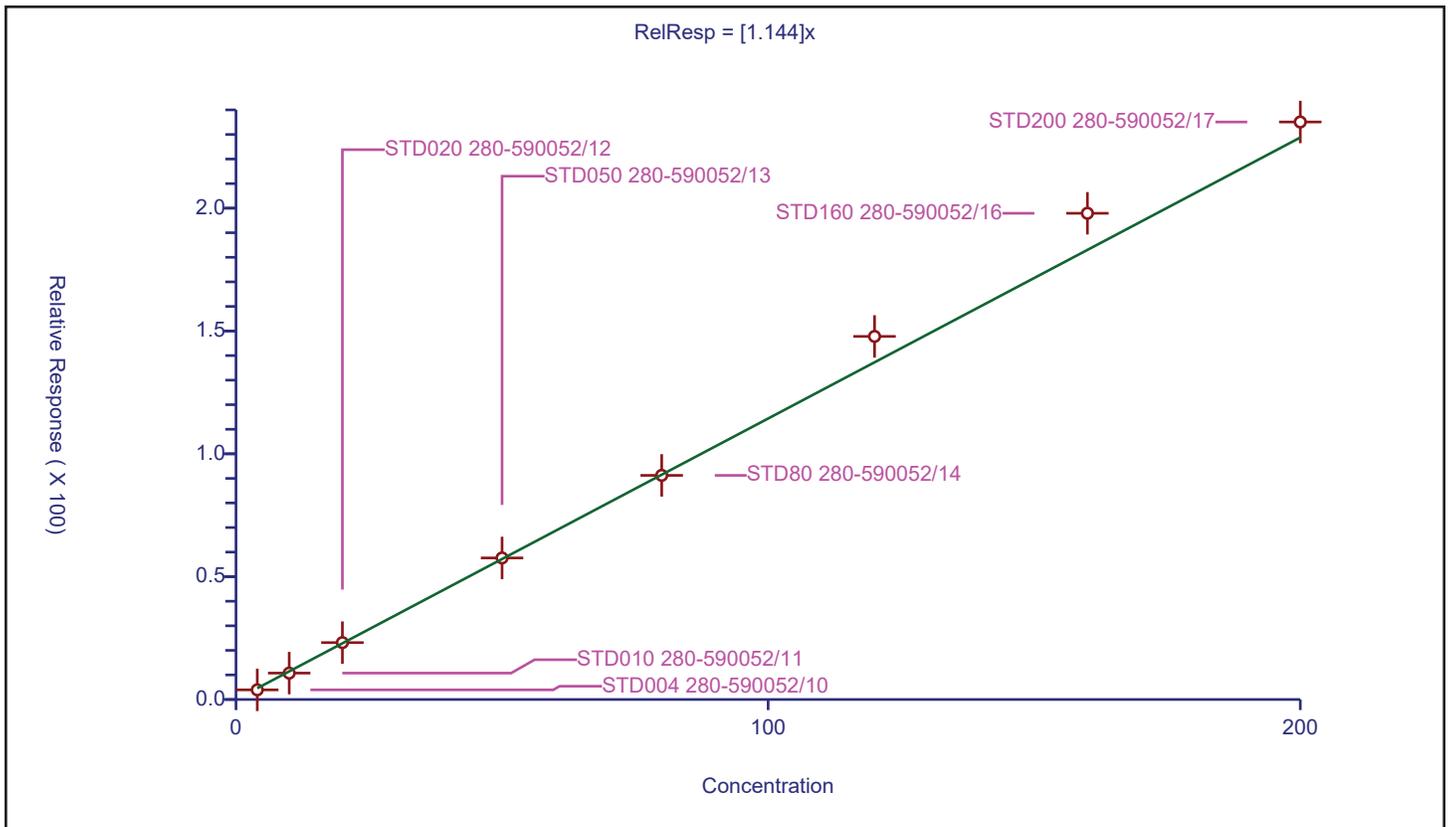
/ Dibenz(a,h)anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.144

Error Coefficients	
Standard Error:	4970000
Relative Standard Error:	7.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	3.924337	40.0	1587346.0	0.981084	Y
2	STD010 280-590052/11	10.0	10.742759	40.0	1406633.0	1.074276	Y
3	STD020 280-590052/12	20.0	23.160065	40.0	1409623.0	1.158003	Y
4	STD050 280-590052/13	50.0	57.61365	40.0	1473246.0	1.152273	Y
5	STD80 280-590052/14	80.0	91.233468	40.0	1549915.0	1.140418	Y
6	STD120 280-590052/15	120.0	147.795275	40.0	1474052.0	1.231627	Y
7	STD160 280-590052/16	160.0	197.920388	40.0	1363389.0	1.237002	Y
8	STD200 280-590052/17	200.0	235.082592	40.0	1522420.0	1.175413	Y



Calibration

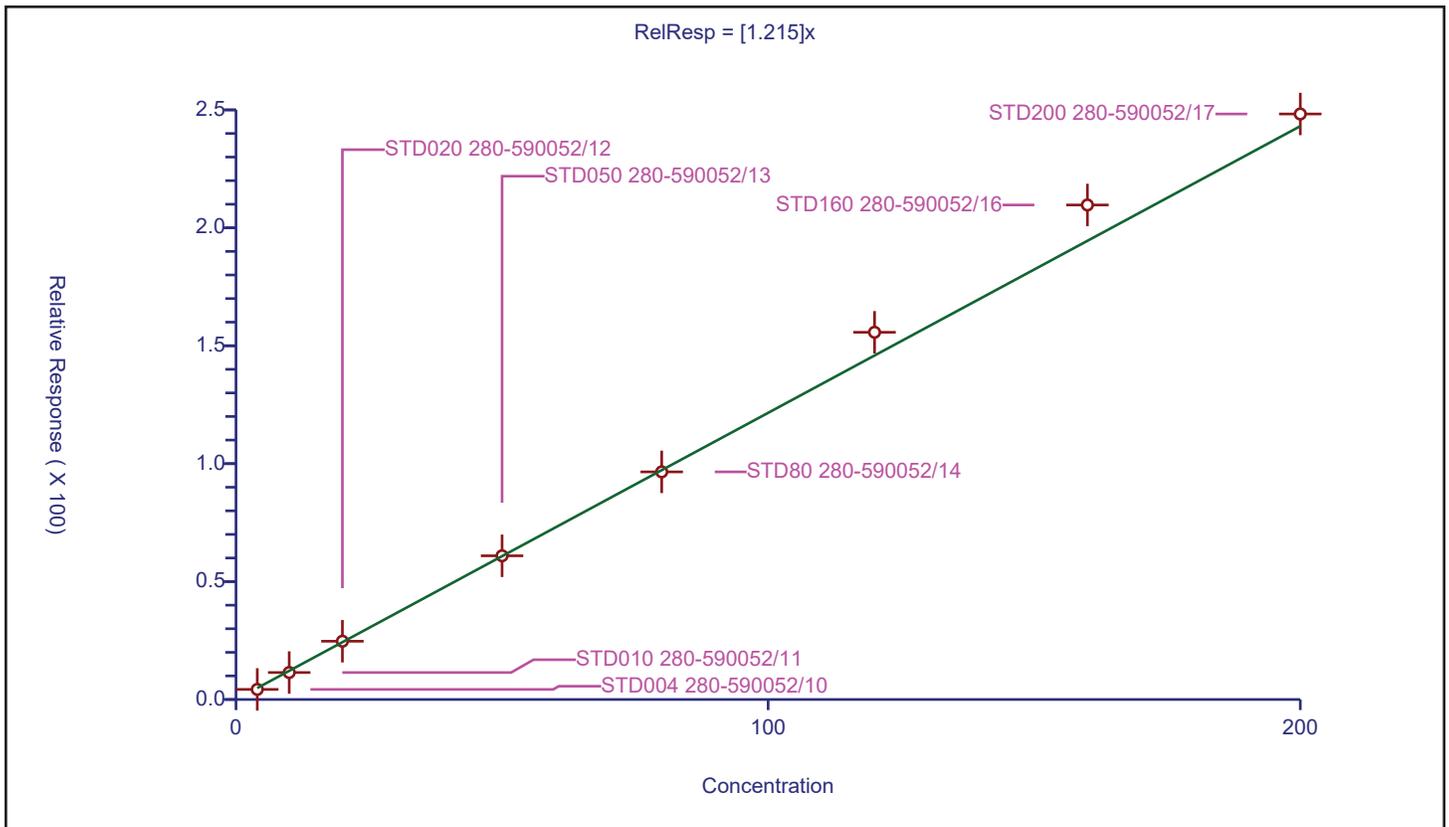
/ Benzo[g,h,i]perylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.215

Error Coefficients	
Standard Error:	5250000
Relative Standard Error:	6.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-590052/10	4.0	4.280806	40.0	1587346.0	1.070201	Y
2	STD010 280-590052/11	10.0	11.438179	40.0	1406633.0	1.143818	Y
3	STD020 280-590052/12	20.0	24.703853	40.0	1409623.0	1.235193	Y
4	STD050 280-590052/13	50.0	60.934318	40.0	1473246.0	1.218686	Y
5	STD80 280-590052/14	80.0	96.514738	40.0	1549915.0	1.206434	Y
6	STD120 280-590052/15	120.0	155.709107	40.0	1474052.0	1.297576	Y
7	STD160 280-590052/16	160.0	209.684103	40.0	1363389.0	1.310526	Y
8	STD200 280-590052/17	200.0	248.268126	40.0	1522420.0	1.241341	Y



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/15/2022 13:59 Calibration End Date: 11/15/2022 16:57 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-593534/32	Y19305982.D
Level 2	STD010 280-593534/33	Y19305983.D
Level 3	STD020 280-593534/34	Y19305984.D
Level 4	STD050 280-593534/35	Y19305985.D
Level 5	ICIS 280-593534/36	Y19305986.D
Level 6	STD120 280-593534/37	Y19305987.D
Level 7	STD160 280-593534/38	Y19305988c.D
Level 8	STD200 280-593534/39	Y19305989.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2		
1,4-Dioxane	0.7300 0.5161	0.6520 0.5610	0.8012 0.5163	0.6116	0.5616	Lin1	1.498 5	0.534 0			
N-Nitrosodimethylamine	0.9788 0.8637	0.9581 0.9362	1.1294 0.8788	1.0113	0.9481	Ave		0.963 0			
Pyridine	1.5463 1.3777	1.4250 1.4717	1.7773 1.3516	1.6275	1.5403	Ave		1.514 7			
Phenol	2.2026 1.9501	2.1246 1.9619	2.5861 1.8290	2.2321	2.1269	Ave		2.126 7			
Aniline	2.5830 2.3059	2.4988 2.3376	3.0521 2.1726	2.6718	2.4961	Ave		2.514 7			
Bis(2-chloroethyl)ether	1.6136 1.4304	1.5568 1.4606	1.8169 1.3990	1.6184	1.5476	Ave		1.555 4			
2-Chlorophenol	1.4141 1.3169	1.3983 1.3847	1.6982 1.3630	1.5029	1.4400	Ave		1.439 8			
1,3-Dichlorobenzene	1.5325 1.3652	1.4751 1.4220	1.7915 1.3737	1.5639	1.4741	Ave		1.499 7			
1,4-Dichlorobenzene	1.6150 1.3790	1.4900 1.4537	1.8029 1.3878	1.5876	1.5061	Ave		1.527 8			
Benzyl alcohol	1.0335 0.9988	1.0264 1.0023	1.2583 0.9714	1.1181	1.0805	Ave		1.061 2			
1,2-Dichlorobenzene	1.5333 1.3286	1.4210 1.3684	1.7330 1.2987	1.5150	1.4369	Ave		1.454 4			
2-Methylphenol	1.4215 1.3323	1.3816 1.3626	1.7008 1.3440	1.4929	1.4361	Ave		1.434 0			
2,2'-oxybis[1-chloropropane]	1.8212 1.5491	1.7257 1.5742	2.0436 1.5305	1.8011	1.6851	Ave		1.716 3			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Acetophenone	2.3009 1.9964	2.1598 2.0242	2.5578 2.0045	2.2625	2.1520	Ave		2.182 2			
N-Nitrosodi-n-propylamine	1.2078 1.0896	1.1729 1.1087	1.4318 1.1107	1.2588	1.1960	Ave		1.197 0		0.0500	
3 & 4 Methylphenol	1.5354 1.4100	1.4896 1.4624	1.8228 1.4180	1.6100	1.5392	Ave		1.535 9			
Hexachloroethane	0.6439 0.5591	0.5868 0.5842	0.7166 0.5622	0.6261	0.5993	Ave		0.609 8			
Nitrobenzene	0.4632 0.3803	0.4193 0.3938	0.4812 0.3852	0.4242	0.4075	Ave		0.419 3			
Isophorone	0.7809 0.7309	0.7757 0.7541	0.9285 0.7456	0.8121	0.7908	Ave		0.789 8			
2-Nitrophenol	0.1611 0.1820	0.1714 0.1958	0.2130 0.1869	0.2000	0.1943	Ave		0.188 1			
2,4-Dimethylphenol	0.3749 0.3466	0.3651 0.3663	0.4438 0.3533	0.3908	0.3797	Ave		0.377 6			
Bis(2-chloroethoxy)methane	0.4891 0.4263	0.4685 0.4447	0.5540 0.4312	0.4799	0.4665	Ave		0.470 0			
Benzoic acid	0.1303 0.3071	0.1785 0.3341	0.2683 0.3419	0.3107	0.3150	Lin2	-1.72 2	0.321 9			
2,4-Dichlorophenol	0.2706 0.2528	0.2754 0.2703	0.3318 0.2545	0.2897	0.2804	Ave		0.278 2			
1,2,4-Trichlorobenzene	0.3070 0.2593	0.2844 0.2742	0.3414 0.2623	0.3001	0.2845	Ave		0.289 2			
Naphthalene	1.0719 0.9190	1.0296 0.9689	1.2234 0.9117	1.0585	1.0058	Ave		1.023 6			
4-Chloroaniline	0.4398 0.4032	0.4530 0.4212	0.5286 0.3884	0.4739	0.4447	Ave		0.444 1			
2,6-Dichlorophenol	0.2648 0.2458	0.2781 0.2617	0.3255 0.2413	0.2842	0.2734	Ave		0.271 8			
Hexachlorobutadiene	0.1568 0.1378	0.1546 0.1500	0.1856 0.1381	0.1587	0.1529	Ave		0.154 3			
Caprolactam	0.6791 0.6823	0.6751 0.7396	0.8246 0.7070	0.7445	0.7084	Ave		0.720 1			
4-Chloro-3-methylphenol	0.3187 0.3158	0.3202 0.3457	0.3847 0.3163	0.3431	0.3405	Ave		0.335 6			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/15/2022 13:59 Calibration End Date: 11/15/2022 16:57 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
2-Methylnaphthalene	0.6806 0.6126	0.6639 0.6650	0.8086 0.6065	0.7003	0.6697	Ave		0.675 9			
1-Methylnaphthalene	0.6471 0.5753	0.6251 0.6301	0.7715 0.5724	0.6590	0.6295	Ave		0.638 8			
Hexachlorocyclopentadiene	0.2696 0.2918	0.2795 0.3114	0.3547 0.2856	0.3224	0.3191	Ave		0.304 3		0.0500	
1,2,4,5-Tetrachlorobenzene	0.2729 0.2322	0.2659 0.2493	0.3268 0.2268	0.2739	0.2611	Ave		0.263 6			
2,4,6-Trichlorophenol	0.3237 0.3032	0.3194 0.3199	0.3925 0.2971	0.3458	0.3282	Ave		0.328 7			
2,4,5-Trichlorophenol	0.3438 0.3396	0.3472 0.3558	0.4249 0.3422	0.3787	0.3600	Ave		0.361 5			
1,1'-Biphenyl	1.5213 1.2127	1.4503 1.2583	1.6756 1.1391	1.4293	1.3455	Ave		1.379 0			
2-Chloronaphthalene	1.1498 0.9198	1.1001 0.9556	1.2976 0.8856	1.1022	1.0288	Ave		1.054 9			
2-Nitroaniline	0.3499 0.3767	0.3520 0.3976	0.4588 0.3829	0.4098	0.3953	Ave		0.390 4			
Dimethyl phthalate	1.2651 1.0862	1.2301 1.1280	1.4581 1.0569	1.2675	1.1776	Ave		1.208 7			
1,3-Dinitrobenzene	0.1659 0.2069	0.1859 0.2191	0.2513 0.2046	0.2304	0.2196	Ave		0.210 5			
2,6-Dinitrotoluene	0.2609 0.2772	0.2783 0.2953	0.3481 0.2796	0.3097	0.2975	Ave		0.293 3			
Acenaphthylene	1.8055 1.6025	1.7206 1.6778	2.0731 1.5702	1.8270	1.7288	Ave		1.750 7			
3-Nitroaniline	0.2978 0.3557	0.3475 0.3791	0.4371 0.3605	0.3917	0.3794	Ave		0.368 6			
Acenaphthene	1.2244 1.0099	1.1210 1.0563	1.3459 0.9847	1.1668	1.0917	Ave		1.125 1			
2,4-Dinitrophenol	0.0436 0.1717	0.0730 0.1860	0.1382 0.1855	0.1536	0.1708	Lin1	-1.55 8	0.184 3		0.0500	
4-Nitrophenol	0.1218 0.1868	0.1320 0.1963	0.2050 0.1872	0.1963	0.1893	Lin2	-0.63 9	0.194 9		0.0500	
Dibenzofuran	1.6892 1.3407	1.5711 1.4054	1.8520 1.3065	1.6034	1.4748	Ave		1.530 4			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/15/2022 13:59 Calibration End Date: 11/15/2022 16:57 Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
2,4-Dinitrotoluene	0.3331 0.3512	0.3688 0.3651	0.4630 0.3498	0.4072	0.3806	Ave		0.377 4			
2,3,4,6-Tetrachlorophenol	0.2437 0.2813	0.2569 0.3054	0.3412 0.2909	0.3120	0.2999	Ave		0.291 4			
Diethyl phthalate	1.2611 1.1662	1.2502 1.2487	1.4986 1.1743	1.3011	1.2482	Ave		1.268 5			
Fluorene	1.3939 1.1626	1.3273 1.2291	1.5653 1.1426	1.3613	1.2781	Ave		1.307 5			
4-Chlorophenyl phenyl ether	0.6149 0.4986	0.5701 0.5217	0.6722 0.4885	0.5750	0.5446	Ave		0.560 7			
4-Nitroaniline	0.3346 0.3703	0.3564 0.3992	0.4441 0.3771	0.3995	0.3891	Ave		0.383 8			
4,6-Dinitro-2-methylphenol	0.0457 0.1205	0.0749 0.1334	0.1213 0.1278	0.1242	0.1266	Lin2	-0.71 3	0.129 5			
Diphenylamine	1.1326 1.0272	1.1014 1.1013	1.3436 1.0196	1.1703	1.0972	Ave		1.124 2			
N-Nitrosodiphenylamine	0.5368 0.4887	0.5380 0.5304	0.6431 0.4962	0.5643	0.5340	Ave		0.541 4			
1,2-Diphenylhydrazine	0.3461 0.3131	0.3361 0.3324	0.4028 0.3102	0.3476	0.3391	Ave		0.340 9			
Azobenzene	1.5432 1.4343	1.5198 1.5262	1.8268 1.4224	1.6215	1.5405	Ave		1.554 3			
4-Bromophenyl phenyl ether	0.1972 0.1775	0.2003 0.1929	0.2336 0.1827	0.2074	0.1986	Ave		0.198 8			
Hexachlorobenzene	0.2376 0.1978	0.2290 0.2102	0.2638 0.2022	0.2291	0.2205	Ave		0.223 8			
Atrazine	0.1771 0.1732	0.1848 0.1869	0.2171 0.1762	0.1972	0.1875	Ave		0.187 5			
Pentachlorophenol	0.0839 0.1250	0.0977 0.1356	0.1354 0.1336	0.1359	0.1354	Lin2	-0.44 0	0.135 2			
Phenanthrene	1.1313 0.9437	1.1097 1.0080	1.2851 0.9419	1.1077	1.0452	Ave		1.071 6			
Anthracene	1.0837 0.9692	1.0983 1.0445	1.3085 0.9734	1.1366	1.0671	Ave		1.085 2			
Carbazole	1.0941 0.9694	1.0732 1.0432	1.2951 0.9780	1.1295	1.0575	Ave		1.080 0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Alachlor	0.1175 0.1281	0.1268 0.1390	0.1639 0.1286	0.1454	0.1385	Ave		0.136 0			
Di-n-butyl phthalate	1.2145 1.1834	1.1917 1.2775	1.4986 1.1762	1.3509	1.2914	Ave		1.273 0			
Fluoranthene	1.1292 1.0278	1.0849 1.0972	1.3288 1.0220	1.1851	1.1108	Ave		1.123 2			
Pyrene	1.2299 1.1146	1.2203 1.2170	1.4511 1.1677	1.2724	1.2306	Ave		1.238 0			
Butyl benzyl phthalate	0.4972 0.5821	0.4867 0.6542	0.6286 0.6309	0.6097	0.6214	Ave		0.588 8			
Benzo[a]anthracene	1.0839 1.0970	1.0349 1.2214	1.2995 1.1831	1.1862	1.1743	Ave		1.160 0			
3,3'-Dichlorobenzidine	0.4155 0.4220	0.4117 0.4619	0.5223 0.4347	0.4737	0.4618	Ave		0.450 4			
Chrysene	1.2285 1.1053	1.1762 1.2203	1.4074 1.1811	1.2447	1.1936	Ave		1.219 6			
Bis(2-ethylhexyl) phthalate	0.6511 0.8163	0.6002 0.9169	0.8405 0.8890	0.8295	0.8673	Ave		0.801 3			
Di-n-octyl phthalate	0.8188 1.4035	0.7964 1.6134	1.1820 1.5986	1.3163	1.4333	Lin1	-5.05 7	1.556 0			
Benzo[b]fluoranthene	0.6911 1.0711	0.7665 1.2077	1.1300 1.1841	1.1285	1.0909	Lin2	-2.05 0	1.149 6			
Benzo[k]fluoranthene	1.0888 1.2464	1.3263 1.3627	1.6488 1.2954	1.4742	1.3907	Ave		1.354 2			
Benzo[a]pyrene	0.8399 1.0830	0.8873 1.1983	1.2178 1.1345	1.1458	1.1611	Ave		1.083 5			
Indeno[1,2,3-cd]pyrene	0.4910 0.9075	0.5583 1.0564	0.8191 1.0863	0.8497	0.9461	Lin1	-3.40 8	1.031 9			
Dibenz(a,h)anthracene	0.4902 0.9755	0.6093 1.0924	0.9106 1.0540	0.9853	1.0370	Lin2	-2.44 1	1.032 2			
Benzo[g,h,i]perylene	0.8553 1.0281	0.8282 1.1684	1.1715 1.1172	1.1031	1.1420	Ave		1.051 7			
2-Fluorophenol (Surr)	1.5909 1.4527	1.5055 1.5170	1.8299 1.4207	1.6259	1.5578	Ave		1.562 5			
Phenol-d5 (Surr)	2.1015 1.9897	2.0855 2.0229	2.5478 1.8850	2.2443	2.1445	Ave		2.127 7			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analyte: _____

SDG No.: _____

Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated _____

Calibration Start Date: 11/15/2022 13:59 Calibration End Date: 11/15/2022 16:57 Calibra _____

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2		
	LVL 6	LVL 7	LVL 8								
Nitrobenzene-d5 (Surr)	0.4484 0.4272	0.4450 0.4383	0.5375 0.4334	0.4739	0.4543	Ave		0.457 3			
2-Fluorobiphenyl	1.3928 1.1844	1.3593 1.2422	1.5972 1.1559	1.3596	1.3002	Ave		1.324 0			
2,4,6-Tribromophenol (Surr)	0.1737 0.1946	0.1721 0.2098	0.2302 0.1977	0.2098	0.2040	Ave		0.199 0			
Terphenyl-d14 (Surr)	0.9863 0.9533	1.0014 1.0517	1.1980 1.0159	1.0626	1.0447	Ave		1.039 2			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-168718-1 Analy E

SDG No.: _____

Instrument ID: SMS_Y GC Column: Rxi-5Sil MS ID: 0.25 (mm) Heated

Calibration Start Date: 11/15/2022 13:59 Calibration End Date: 11/15/2022 16:57 Calibra

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-593534/32	Y19305982.D
Level 2	STD010 280-593534/33	Y19305983.D
Level 3	STD020 280-593534/34	Y19305984.D
Level 4	STD050 280-593534/35	Y19305985.D
Level 5	ICIS 280-593534/36	Y19305986.D
Level 6	STD120 280-593534/37	Y19305987.D
Level 7	STD160 280-593534/38	Y19305988c.D
Level 8	STD200 280-593534/39	Y19305989.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
1,4-Dioxane	DCBd 4	Lin1	6971	17063	38931	75889	121817	4.00	10
			174481	218043	274822			120	1
N-Nitrosodimethylamine	DCBd 4	Ave	9346	25074	54878	125480	205647	4.00	10
			292017	363874	467839			120	1
Pyridine	DCBd 4	Ave	29531	74584	172722	403870	668175	8.00	20
			931561	1144066	1439023			240	3
Phenol	DCBd 4	Ave	21032	55598	125663	276963	461316	4.00	10
			659320	762575	973638			120	1
Aniline	DCBd 4	Ave	24665	65393	148308	331517	541394	4.00	10
			779598	908604	1156555			120	1
Bis(2-chloroethyl)ether	DCBd 4	Ave	15408	40739	88289	200817	335664	4.00	10
			483594	567694	744751			120	1
2-Chlorophenol	DCBd 4	Ave	13503	36593	82518	186482	312333	4.00	10
			445247	538230	725593			120	1
1,3-Dichlorobenzene	DCBd 4	Ave	14634	38601	87051	194049	319729	4.00	10
			461552	552705	731283			120	1
1,4-Dichlorobenzene	DCBd 4	Ave	15421	38992	87607	196987	326666	4.00	10

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			466243	565049	738749			120	1
Benzyl alcohol	DCBd 4	Ave	9869	26860	61143	138739	234369	4.00	10
			337676	389587	517084			120	1
1,2-Dichlorobenzene	DCBd 4	Ave	14641	37186	84211	187981	311666	4.00	10
			449178	531889	691335			120	1
2-Methylphenol	DCBd 4	Ave	13574	36155	82643	185237	311489	4.00	10
			450423	529629	715470			120	1
2,2'-oxybis[1-chloropropane]	DCBd 4	Ave	17390	45160	99305	223480	365497	4.00	10
			523741	611876	814759			120	1
Acetophenone	DCBd 4	Ave	21971	56521	124288	280727	466761	4.00	10
			674953	786756	1067080			120	1
N-Nitrosodi-n-propylamine	DCBd 4	Ave	11533	30693	69572	156192	259405	4.00	10
			368378	430936	591283			120	1
3 & 4 Methylphenol	DCBd 4	Ave	14661	38983	88573	199775	333856	4.00	10
			476698	568404	754832			120	1
Hexachloroethane	DCBd 4	Ave	6149	15357	34821	77691	129982	4.00	10
			189030	227055	299283			120	1
Nitrobenzene	NPT	Ave	18216	44710	95974	217537	365102	4.00	10
			535211	627935	854798			120	1
Isophorone	NPT	Ave	30712	82721	185176	416471	708591	4.00	10
			1028541	1202262	1654635			120	1
2-Nitrophenol	NPT	Ave	6335	18277	42485	102585	174121	4.00	10
			256086	312137	414653			120	1
2,4-Dimethylphenol	NPT	Ave	14746	38930	88504	200439	340189	4.00	10
			487797	583937	783941			120	1
Bis(2-chloroethoxy)methane	NPT	Ave	19237	49956	110481	246123	418011	4.00	10
			599925	708988	956932			120	1
Benzoic acid	NPT	Lin2	10249	38061	107028	318737	564557	8.00	20

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.: _____

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
			864400	1065280	1517423			240	3
2,4-Dichlorophenol	NPT	Ave	10643 355803	29365 430924	66169 564713	148595	251219	4.00 120	10 1
1,2,4-Trichlorobenzene	NPT	Ave	12074 364904	30323 437227	68081 582057	153922	254967	4.00 120	10 1
Naphthalene	NPT	Ave	42156 1293265	109795 1544703	243996 2023288	542854	901286	4.00 120	10 1
4-Chloroaniline	NPT	Ave	17299 567403	48305 671535	105418 861985	243026	398508	4.00 120	10 1
2,6-Dichlorophenol	NPT	Ave	10413 345840	29655 417256	64921 535386	145769	245012	4.00 120	10 1
Hexachlorobutadiene	NPT	Ave	6166 193958	16491 239075	37014 306546	81375	137041	4.00 120	10 1
Caprolactam	DCBd 4	Ave	6485 230692	17667 287455	40068 376365	92377	153652	4.00 120	10 1
4-Chloro-3-methylphenol	NPT	Ave	12536 444395	34149 551183	76727 702023	175977	305103	4.00 120	10 1
2-Methylnaphthalene	NPT	Ave	26770 862045	70794 1060284	161262 1345854	359171	600064	4.00 120	10 1
1-Methylnaphthalene	NPT	Ave	25450 809597	66662 1004676	153860 1270311	337983	564060	4.00 120	10 1
Hexachlorocyclopentadiene	ANT	Ave	5899 237355	17034 296541	40848 372064	96118	167105	4.00 120	10 1
1,2,4,5-Tetrachlorobenzene	NPT	Ave	10732 326782	28360 397401	65181 503209	140467	233947	4.00 120	10 1
2,4,6-Trichlorophenol	ANT	Ave	7083 246617	19465 304665	45202 386964	103099	171859	4.00 120	10 1
2,4,5-Trichlorophenol	ANT	Ave	7523 276266	21162 338839	48937 445707	112900	188527	4.00 120	10 1
1,1'-Biphenyl	ANT	Ave	33286 986454	88396 1198203	192978 1483765	426147	704633	4.00 120	10 1
2-Chloronaphthalene	ANT	Ave	25158 748184	67053 910039	149448 1153550	328619	538762	4.00 120	10 1
2-Nitroaniline	ANT	Ave	7656 306434	21455 378627	52846 498772	122185	207043	4.00 120	10 1

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
Dimethyl phthalate	ANT	Ave	27681 883572	74976 1074147	167927 1376763	377925	616690	4.00 120	10 1
1,3-Dinitrobenzene	ANT	Ave	3631 168298	11331 208645	28946 266561	68695	115011	4.00 120	10 1
2,6-Dinitrotoluene	ANT	Ave	5709 225449	16960 281212	40096 364212	92330	155781	4.00 120	10 1
Acenaphthylene	ANT	Ave	39505 1303527	104871 1597718	238766 2045286	544720	905385	4.00 120	10 1
3-Nitroaniline	ANT	Ave	6515 289325	21181 361025	50342 469645	116783	198700	4.00 120	10 1
Acenaphthene	ANT	Ave	26791 821437	68327 1005896	155008 1282601	347877	571717	4.00 120	10 1
2,4-Dinitrophenol	ANT	Lin1	1906 279327	8895 354156	31828 483162	91618	178916	8.00 240	20 3
4-Nitrophenol	ANT	Lin2	5330 303884	16090 373832	47212 487617	117057	198233	8.00 240	20 3
Dibenzofuran	ANT	Ave	36960 1090562	95756 1338294	213299 1701772	478075	772326	4.00 120	10 1
2,4-Dinitrotoluene	ANT	Ave	7288 285688	22478 347718	53330 455676	121409	199315	4.00 120	10 1
2,3,4,6-Tetrachlorophenol	ANT	Ave	5332 228829	15655 290863	39294 378922	93031	157036	4.00 120	10 1
Diethyl phthalate	ANT	Ave	27594 948631	76199 1189092	172594 1529567	387935	653659	4.00 120	10 1
Fluorene	ANT	Ave	30498 945672	80901 1170431	180279 1488350	405887	669315	4.00 120	10 1
4-Chlorophenyl phenyl ether	ANT	Ave	13455 405601	34745 496840	77416 636289	171433	285208	4.00 120	10 1
4-Nitroaniline	ANT	Ave	7322 301194	21724 380195	51144 491217	119116	203766	4.00 120	10 1
4,6-Dinitro-2-methylphenol	PHN	Lin2	3589 350269	15895 448506	49620 581697	130556	231523	8.00 240	20 3
Diphenylamine	ANT	Ave	21065 710203	57058 891442	131533 1128939	296597	488433	3.40 102	8.0 1
N-Nitrosodiphenylamine	PHN	Ave	21065 710203	57058 891442	131533 1128939	296597	488433	4.00 120	10 1

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CON	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
1,2-Diphenylhydrazine	ANT	Ave	7656 257490	20708 320036	46895 408561	104775	179561	4.04 121	10 1
Azobenzene	ANT	Ave	33765 1166731	92630 1453329	210397 1852804	483476	806779	4.00 120	10 1
4-Bromophenyl phenyl ether	PHN	Ave	7741 257998	21246 324172	47774 415724	109005	181631	4.00 120	10 1
Hexachlorobenzene	PHN	Ave	9325 287431	24291 353372	53944 459911	120407	201679	4.00 120	10 1
Atrazine	PHN	Ave	6950 251684	19602 314210	44403 400916	103627	171493	4.00 120	10 1
Pentachlorophenol	PHN	Lin2	6589 363422	20726 455826	55370 607751	142899	247668	8.00 240	20 3
Phenanthrene	PHN	Ave	44398 1371405	117697 1694267	262825 2142871	582158	956089	4.00 120	10 1
Anthracene	PHN	Ave	42531 1408473	116489 1755518	267604 2214501	597361	976091	4.00 120	10 1
Carbazole	PHN	Ave	42937 1408814	113834 1753475	264865 2224978	593631	967367	4.00 120	10 1
Alachlor	PHN	Ave	4610 186177	13449 233554	33512 292577	76419	126737	4.00 120	10 1
Di-n-butyl phthalate	PHN	Ave	47663 1719819	126399 2147190	306482 2675996	709966	1181338	4.00 120	10 1
Fluoranthene	PHN	Ave	44315 1493566	115065 1844252	271762 2325185	622852	1016124	4.00 120	10 1
Pyrene	CRY	Ave	47907 1585448	127162 1960634	296523 2470507	672897	1089409	4.00 120	10 1
Butyl benzyl phthalate	CRY	Ave	19368 827979	50710 1053962	128446 1334812	322447	550102	4.00 120	10 1
Benzo[a]anthracene	CRY	Ave	42220 1560378	107838 1967698	265546 2503124	627312	1039575	4.00 120	10 1
3,3'-Dichlorobenzidine	CRY	Ave	16185 600274	42904 744066	106726 919761	250498	408808	4.00 120	10 1
Chrysene	CRY	Ave	47853 1572163	122563 1965921	287596 2498883	658280	1056683	4.00 120	10 1
Bis(2-ethylhexyl) phthalate	CRY	Ave	25361 1161093	62539 1477050	171745 1880813	438707	767840	4.00 120	10 1

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver

Job No.: 280-168718-1

Analy E

SDG No.:

Instrument ID: SMS_Y

GC Column: Rxi-5Sil MS ID: 0.25 (mm)

Heated

Calibration Start Date: 11/15/2022 13:59

Calibration End Date: 11/15/2022 16:57

Calibra

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONC	
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7
Di-n-octyl phthalate	CRY	Lin1	31894 1996298	82986 2599203	241539 3382090	696114	1268872	4.00 120	10 1
Benzo[b]fluoranthene	PRY	Lin2	28204 1572395	79484 2019335	227841 2602625	595647	999524	4.00 120	10 1
Benzo[k]fluoranthene	PRY	Ave	44436 1829689	137538 2278533	332432 2847306	778087	1274145	4.00 120	10 1
Benzo[a]pyrene	PRY	Ave	34275 1589882	92012 2003662	245540 2493719	604747	1063821	4.00 120	10 1
Indeno[1,2,3-cd]pyrene	CRY	Lin1	19126 1290838	58180 1701844	167373 2298321	449378	837565	4.00 120	10 1
Dibenz(a,h)anthracene	PRY	Lin2	20005 1432086	63178 1826622	183608 2316676	520045	950108	4.00 120	10 1
Benzo[g,h,i]perylene	PRY	Ave	34907 1509274	85885 1953638	236195 2455700	582227	1046340	4.00 120	10 1
2-Fluorophenol (Surr)	DCBd 4	Ave	15191 491156	39397 589631	88917 756281	201747	337890	4.00 120	10 1
Phenol-d5 (Surr)	DCBd 4	Ave	20067 672716	54576 786283	123805 1003471	278472	465133	4.00 120	10 1
Nitrobenzene-d5 (Surr)	NPT	Ave	17637 601241	47457 698850	107204 961750	243065	407067	4.00 120	10 1
2-Fluorobiphenyl	ANT	Ave	30475 963439	82846 1182949	183956 1505605	405384	680917	4.00 120	10 1
2,4,6-Tribromophenol (Surr)	ANT	Ave	3801 158328	10487 199817	26508 257545	62543	106814	4.00 120	10 1
Terphenyl-d14 (Surr)	CRY	Ave	38419 1356050	104349 1694243	244796 2149332	561989	924828	4.00 120	10 1

Curve Type Legend

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305982.D
 Lims ID: STD004 HSL
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-Nov-2022 13:59:30 ALS Bottle#: 7 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD004 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:13:54 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 15-Nov-2022 14:48:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.813	3.813	0.000	97	95489	40.0	40.0	
* 2 Naphthalene-d8	136	5.031	5.031	0.000	99	393301	40.0	40.0	
* 3 Acenaphthene-d10	164	6.740	6.740	0.000	92	218803	40.0	40.0	
* 4 Phenanthrene-d10	188	8.183	8.183	0.000	97	392448	40.0	40.0	
* 5 Chrysene-d12	240	11.228	11.228	0.000	98	389524	40.0	40.0	
* 6 Perylene-d12	264	14.166	14.166	0.000	97	408104	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.632	2.632	0.000	91	15191	4.00	4.07	
\$ 8 Phenol-d5	99	3.492	3.492	0.000	95	20067	4.00	3.95	
\$ 9 Nitrobenzene-d5	82	4.336	4.336	0.000	87	17637	4.00	3.92	
\$ 11 2-Fluorobiphenyl	172	6.099	6.099	0.000	99	30475	4.00	4.21	
\$ 12 2,4,6-Tribromophenol	330	7.509	7.509	0.000	92	3801	4.00	3.49	
\$ 13 Terphenyl-d14	244	9.807	9.807	0.000	97	38419	4.00	3.80	
15 1,4-Dioxane	88	1.403	1.403	0.000	92	6971	4.00	2.66	
17 N-Nitrosodimethylamine	74	1.585	1.585	0.000	88	9346	4.00	4.07	
18 Pyridine	79	1.622	1.622	0.000	96	29531	8.00	8.17	
28 Phenol	94	3.503	3.503	0.000	92	21032	4.00	4.14	
30 Aniline	93	3.503	3.503	0.000	94	24665	4.00	4.11	
31 Bis(2-chloroethyl)ether	93	3.572	3.572	0.000	98	15408	4.00	4.15	
32 Alpha Methyl Styrene	118	3.556	3.556	0.000	90	14544	4.00	4.14	
34 2-Chlorophenol	128	3.620	3.620	0.000	95	13503	4.00	3.93	
35 n-Decane	43	3.690	3.690	0.000	87	11917	4.00	4.39	
37 1,3-Dichlorobenzene	146	3.759	3.759	0.000	96	14634	4.00	4.09	
38 1,4-Dichlorobenzene	146	3.829	3.829	0.000	94	15421	4.00	4.23	
39 Benzyl alcohol	108	3.952	3.952	0.000	93	9869	4.00	3.90	
40 1,2-Dichlorobenzene	146	3.973	3.973	0.000	96	14641	4.00	4.22	
41 2-Methylphenol	108	4.074	4.074	0.000	95	13574	4.00	3.97	
43 2,2'-oxybis[1-chloropropane]	45	4.096	4.096	0.000	95	17390	4.00	4.24	
44 Indene	116	4.058	4.058	0.000	89	52630	8.00	8.67	
46 3-Methylphenol	108	4.229	4.229	0.000	90	14661	4.00	4.00	
47 4-Methylphenol	108	4.229	4.229	0.000	95	14661	4.00	4.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.229	4.229	0.000	98	14661	4.00	4.00	
50 N-Nitrosodi-n-propylamine	70	4.208	4.208	0.000	79	11533	4.00	4.04	
51 Acetophenone	105	4.197	4.197	0.000	98	21971	4.00	4.22	
53 Hexachloroethane	117	4.293	4.293	0.000	96	6149	4.00	4.22	
54 Nitrobenzene	77	4.358	4.358	0.000	85	18216	4.00	4.42	
57 Isophorone	82	4.593	4.593	0.000	98	30712	4.00	3.95	
58 2-Nitrophenol	139	4.667	4.667	0.000	92	6335	4.00	3.43	
59 2,4-Dimethylphenol	107	4.737	4.737	0.000	95	14746	4.00	3.97	
63 Bis(2-chloroethoxy)methane	93	4.822	4.822	0.000	97	19237	4.00	4.16	
64 Benzoic acid	105	4.796	4.796	0.000	85	10249	8.00	8.59	a
66 3,5-Dimethylphenol	107	4.870	4.870	0.000	84	14545	4.00	3.95	
68 2,4-Dichlorophenol	162	4.913	4.913	0.000	95	10643	4.00	3.89	
69 1,2,4-Trichlorobenzene	180	4.983	4.983	0.000	93	12074	4.00	4.25	
71 Naphthalene	128	5.052	5.052	0.000	97	42156	4.00	4.19	
72 4-Chloroaniline	127	5.116	5.116	0.000	96	17299	4.00	3.96	
73 2,6-Dichlorophenol	162	5.121	5.121	0.000	96	10413	4.00	3.90	
75 Hexachlorobutadiene	225	5.191	5.191	0.000	95	6166	4.00	4.06	
79 Caprolactam	55	5.421	5.421	0.000	86	6485	4.00	3.77	
83 4-Chloro-3-methylphenol	107	5.618	5.618	0.000	96	12536	4.00	3.80	
86 2-Methylnaphthalene	142	5.730	5.730	0.000	94	26770	4.00	4.03	
88 1-Methylnaphthalene	142	5.827	5.827	0.000	95	25450	4.00	4.05	
89 1,2,4,5-Tetrachlorobenzene	216	5.896	5.896	0.000	97	10732	4.00	4.14	
90 Hexachlorocyclopentadiene	237	5.896	5.896	0.000	78	5899	4.00	3.54	
92 2,4,6-Trichlorophenol	196	6.014	6.014	0.000	94	7083	4.00	3.94	
93 2,3-Dichlorobenzenamine	161	6.003	6.003	0.000	95	13477	4.00	4.19	
94 2,4,5-Trichlorophenol	196	6.062	6.062	0.000	91	7523	4.00	3.80	
98 1,1'-Biphenyl	154	6.195	6.195	0.000	95	33286	4.00	4.41	
99 2-Chloronaphthalene	162	6.201	6.201	0.000	97	25158	4.00	4.36	
101 2-Nitroaniline	65	6.307	6.307	0.000	79	7656	4.00	3.59	
104 Dimethyl phthalate	163	6.510	6.510	0.000	96	27681	4.00	4.19	
105 1,3-Dinitrobenzene	168	6.516	6.516	0.000	86	3631	4.00	3.15	
106 2,6-Dinitrotoluene	165	6.553	6.553	0.000	94	5709	4.00	3.56	
107 Acenaphthylene	152	6.601	6.601	0.000	99	39505	4.00	4.13	
108 3-Nitroaniline	138	6.708	6.708	0.000	92	6515	4.00	3.23	
109 Acenaphthene	153	6.772	6.772	0.000	95	26791	4.00	4.35	
111 2,4-Dinitrophenol	184	6.810	6.810	0.000	80	1906	8.00	10.3	
112 4-Nitrophenol	109	6.927	6.927	0.000	91	5330	8.00	8.28	
114 2,4-Dinitrotoluene	165	6.938	6.938	0.000	83	7288	4.00	3.53	
116 Dibenzofuran	168	6.943	6.943	0.000	97	36960	4.00	4.42	
119 2,3,4,6-Tetrachlorophenol	232	7.071	7.071	0.000	75	5332	4.00	3.35	
123 Diethyl phthalate	149	7.205	7.205	0.000	98	27594	4.00	3.98	
124 Hexadecane	57	7.253	7.253	0.000	90	19368	4.00	4.23	
127 4-Chlorophenyl phenyl ether	204	7.296	7.296	0.000	92	13455	4.00	4.39	
129 Fluorene	166	7.274	7.274	0.000	95	30498	4.00	4.26	
130 4-Nitroaniline	138	7.296	7.296	0.000	79	7322	4.00	3.49	
131 4,6-Dinitro-2-methylphenol	198	7.333	7.333	0.000	77	3589	8.00	8.34	
134 Diphenylamine	169	7.408	7.408	0.000	95	21065	3.40	3.43	
135 N-Nitrosodiphenylamine	169	7.408	7.408	0.000	98	21065	4.00	3.97	
136 1,2-Diphenylhydrazine	182	7.445	7.445	0.000	98	7656	4.04	4.11	
137 Azobenzene	77	7.445	7.445	0.000	97	33765	4.00	3.97	
148 4-Bromophenyl phenyl ether	248	7.771	7.771	0.000	67	7741	4.00	3.97	
151 Hexachlorobenzene	284	7.809	7.809	0.000	95	9325	4.00	4.25	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.953	7.953	0.000	89	6950	4.00	3.78	
155 Pentachlorophenol	266	8.012	8.012	0.000	92	6589	8.00	8.22	
158 n-Octadecane	85	8.156	8.156	0.000	95	9298	4.00	3.84	
161 Phenanthrene	178	8.204	8.204	0.000	98	44398	4.00	4.22	
162 Anthracene	178	8.257	8.257	0.000	98	42531	4.00	3.99	
164 Carbazole	167	8.423	8.423	0.000	95	42937	4.00	4.05	
166 Alachlor	188	8.589	8.589	0.000	97	4610	4.00	3.46	
168 Di-n-butyl phthalate	149	8.818	8.818	0.000	100	47663	4.00	3.82	
175 Fluoranthene	202	9.363	9.363	0.000	99	44315	4.00	4.02	
178 Pyrene	202	9.593	9.593	0.000	96	47907	4.00	3.97	
187 Butyl benzyl phthalate	149	10.469	10.469	0.000	96	19368	4.00	3.38	
189 3,3'-Dichlorobenzidine	252	11.222	11.222	0.000	60	16185	4.00	3.69	
191 Benzo[a]anthracene	228	11.217	11.217	0.000	98	42220	4.00	3.74	
192 Chrysene	228	11.270	11.270	0.000	98	47853	4.00	4.03	
193 Bis(2-ethylhexyl) phthalate	149	11.484	11.484	0.000	98	25361	4.00	3.25	
195 Di-n-octyl phthalate	149	12.852	12.852	0.000	99	31894	4.00	5.35	
196 Benzo[b]fluoranthene	252	13.311	13.311	0.000	98	28204	4.00	4.19	a
198 Benzo[k]fluoranthene	252	13.375	13.375	0.000	98	44436	4.00	3.22	a
201 Benzo[a]pyrene	252	14.027	14.027	0.000	79	34275	4.00	3.10	
207 Indeno[1,2,3-cd]pyrene	276	16.746	16.746	0.000	97	19126	4.00	5.21	a
208 Dibenz(a,h)anthracene	278	16.874	16.874	0.000	93	20005	4.00	4.26	
209 Benzo[g,h,i]perylene	276	17.355	17.355	0.000	97	34907	4.00	3.25	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA004_00075

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305982.D

Injection Date: 15-Nov-2022 13:59:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD004 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

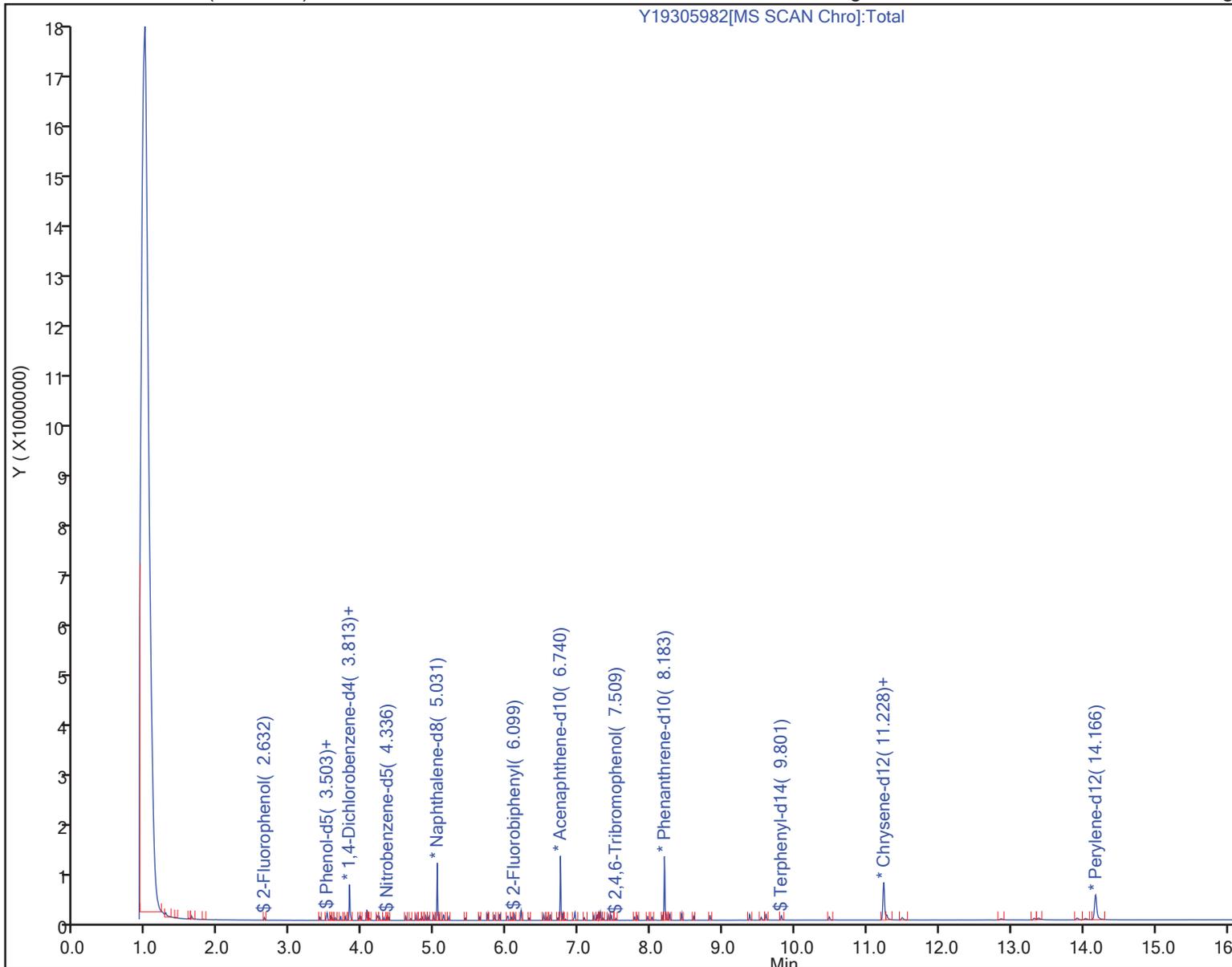
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

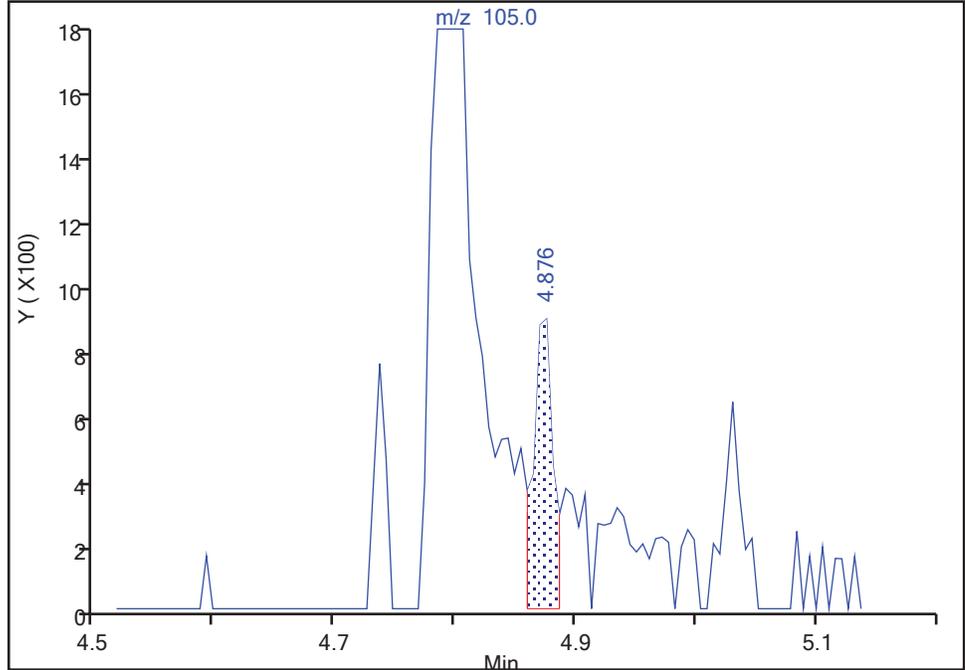
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Injection Date: 15-Nov-2022 13:59:30 Instrument ID: SMS_Y
Lims ID: STD004 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

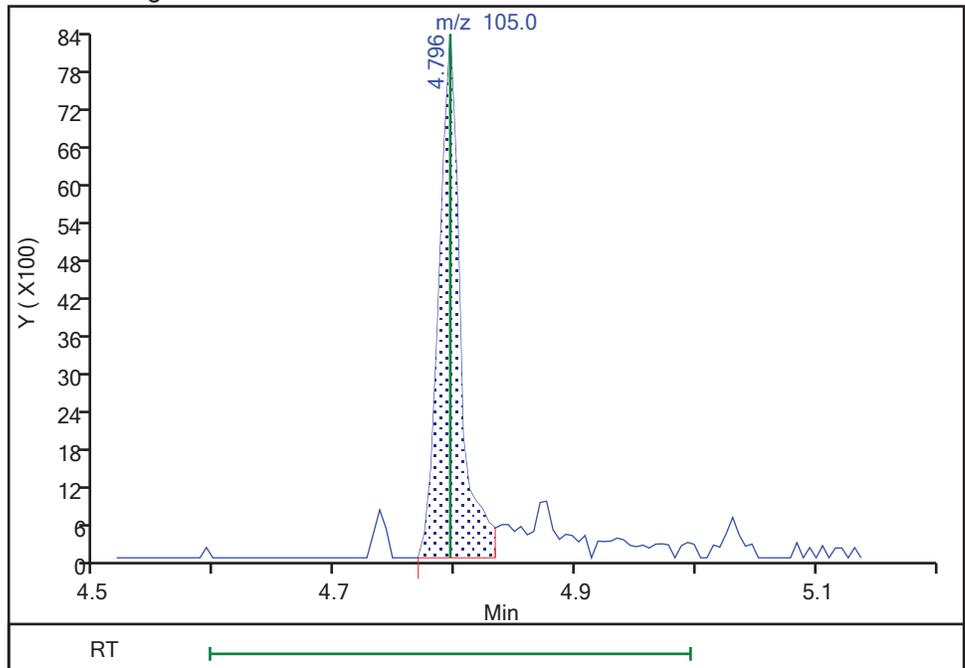
RT: 4.88
Area: 1058
Amount: 0.820980
Amount Units: ug/ml

Processing Integration Results



RT: 4.80
Area: 10249
Amount: 8.588653
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

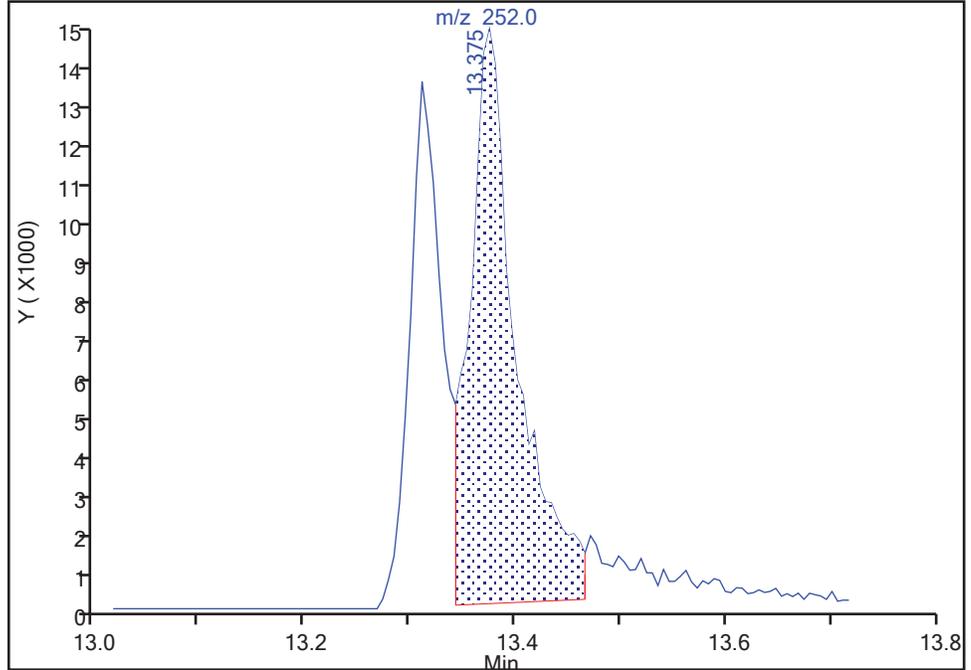
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305982.D
Injection Date: 15-Nov-2022 13:59:30 Instrument ID: SMS_Y
Lims ID: STD004 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

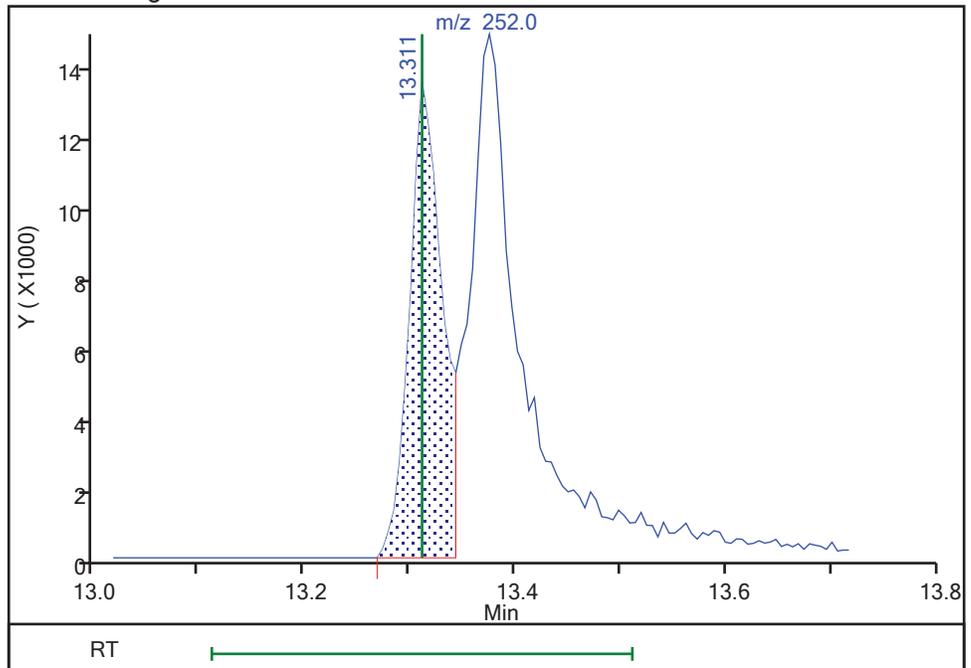
RT: 13.38
Area: 44436
Amount: 3.216287
Amount Units: ug/ml

Processing Integration Results



RT: 13.31
Area: 28204
Amount: 4.188176
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:37:47
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

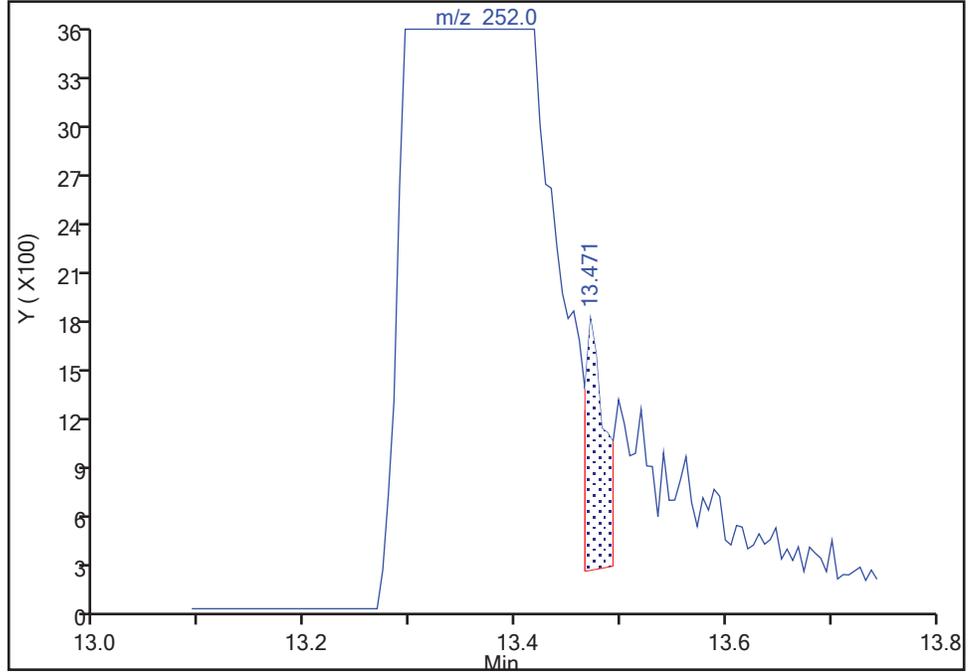
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305982.D
Injection Date: 15-Nov-2022 13:59:30 Instrument ID: SMS_Y
Lims ID: STD004 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

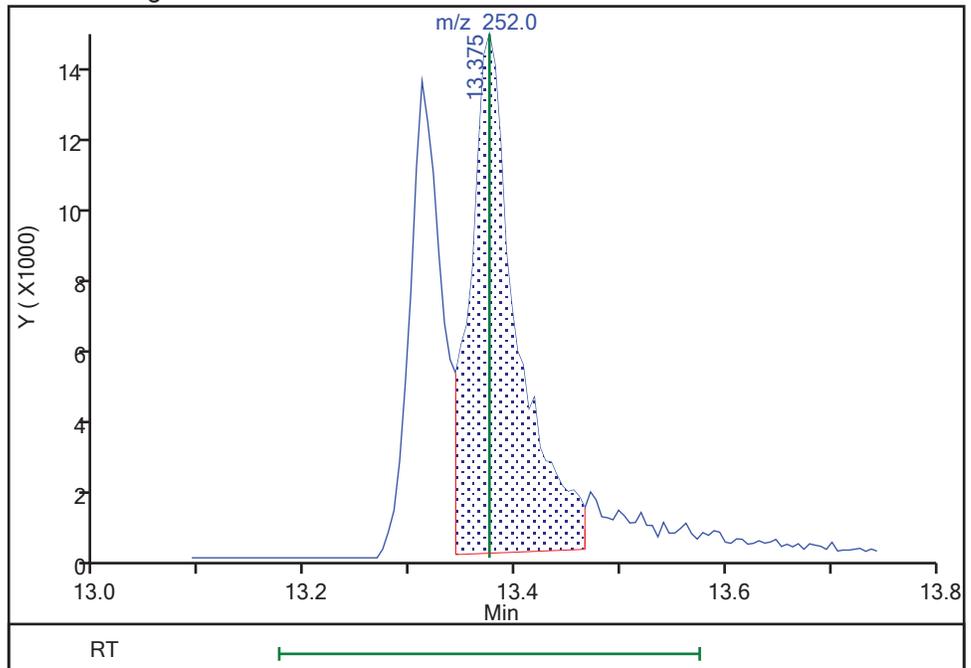
RT: 13.47
Area: 2086
Amount: 13.276788
Amount Units: ug/ml

Processing Integration Results



RT: 13.38
Area: 44436
Amount: 3.216287
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:37:50
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

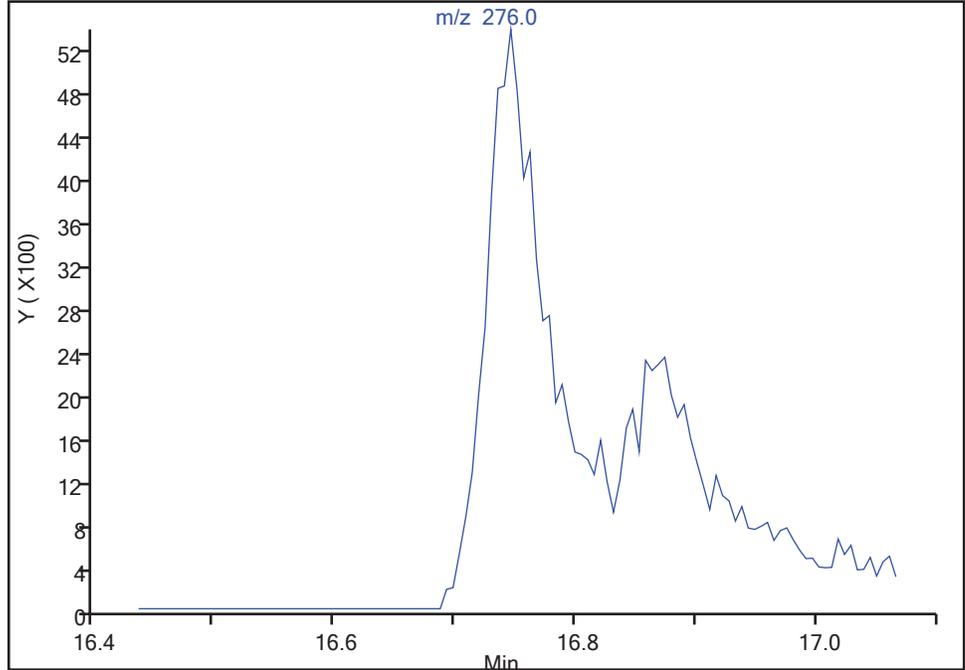
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305982.D
Injection Date: 15-Nov-2022 13:59:30 Instrument ID: SMS_Y
Lims ID: STD004 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 7 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

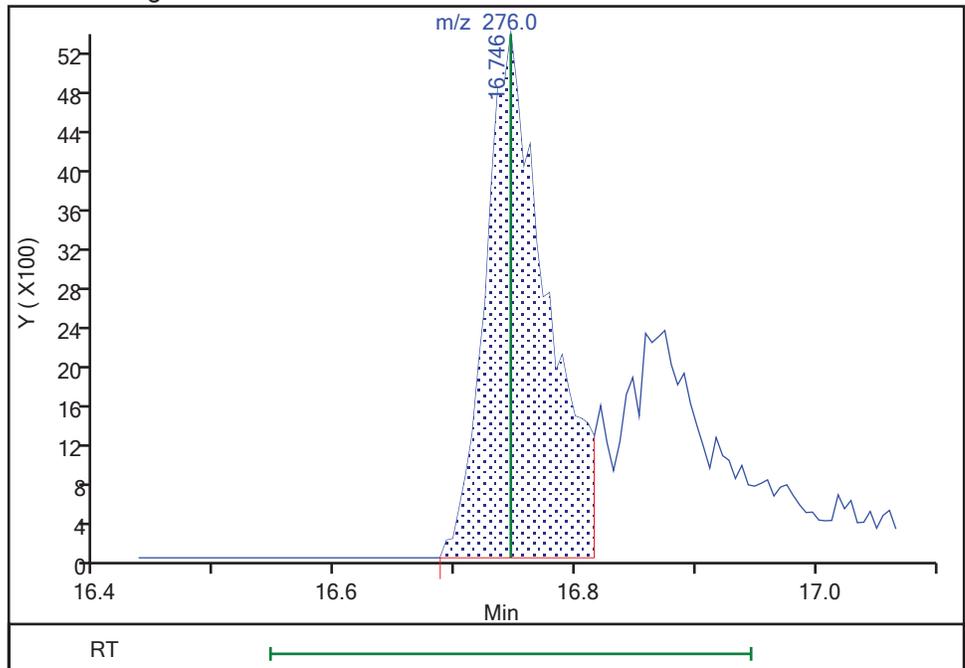
Not Detected
Expected RT: 16.75

Processing Integration Results



Manual Integration Results

RT: 16.75
Area: 19126
Amount: 5.206327
Amount Units: ug/ml



Reviewer: NBC9, 16-Nov-2022 12:37:56
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305983.D
 Lims ID: STD010 HSL
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-Nov-2022 14:23:30 ALS Bottle#: 8 Worklist Smp#: 33
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD010 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:00 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305983.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 15-Nov-2022 15:08:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.815	3.813	0.002	97	104677	40.0	40.0	
* 2 Naphthalene-d8	136	5.033	5.031	0.002	99	426549	40.0	40.0	
* 3 Acenaphthene-d10	164	6.743	6.740	0.003	92	243799	40.0	40.0	
* 4 Phenanthrene-d10	188	8.185	8.183	0.003	97	424260	40.0	40.0	
* 5 Chrysene-d12	240	11.225	11.228	-0.003	98	416807	40.0	40.0	
* 6 Perylene-d12	264	14.163	14.166	-0.003	97	414789	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.635	2.632	0.003	90	39397	10.0	9.63	
\$ 8 Phenol-d5	99	3.495	3.492	0.003	94	54576	10.0	9.80	
\$ 9 Nitrobenzene-d5	82	4.339	4.336	0.003	85	47457	10.0	9.73	
\$ 11 2-Fluorobiphenyl	172	6.102	6.099	0.003	99	82846	10.0	10.3	
\$ 12 2,4,6-Tribromophenol	330	7.512	7.509	0.003	93	10487	10.0	8.65	
\$ 13 Terphenyl-d14	244	9.804	9.807	-0.002	97	104349	10.0	9.64	
15 1,4-Dioxane	88	1.412	1.403	0.009	89	17063	10.0	9.40	
17 N-Nitrosodimethylamine	74	1.582	1.585	-0.003	86	25074	10.0	9.95	
18 Pyridine	79	1.625	1.622	0.003	97	74584	20.0	18.8	
28 Phenol	94	3.506	3.503	0.003	85	55598	10.0	10.0	
30 Aniline	93	3.506	3.503	0.003	81	65393	10.0	9.94	
31 Bis(2-chloroethyl)ether	93	3.575	3.572	0.003	99	40739	10.0	10.0	
32 Alpha Methyl Styrene	118	3.559	3.556	0.003	91	37905	10.0	9.85	
34 2-Chlorophenol	128	3.618	3.620	-0.002	97	36593	10.0	9.71	
35 n-Decane	43	3.693	3.690	0.003	86	30622	10.0	10.3	
37 1,3-Dichlorobenzene	146	3.762	3.759	0.003	97	38601	10.0	9.84	
38 1,4-Dichlorobenzene	146	3.832	3.829	0.003	96	38992	10.0	9.75	
39 Benzyl alcohol	108	3.954	3.952	0.002	93	26860	10.0	9.67	
40 1,2-Dichlorobenzene	146	3.970	3.973	-0.003	96	37186	10.0	9.77	
41 2-Methylphenol	108	4.077	4.074	0.003	96	36155	10.0	9.63	
43 2,2'-oxybis[1-chloropropane]	45	4.093	4.096	-0.003	95	45160	10.0	10.1	
44 Indene	116	4.056	4.058	-0.002	89	135359	20.0	20.3	
46 3-Methylphenol	108	4.227	4.229	-0.002	90	38983	10.0	9.70	
47 4-Methylphenol	108	4.227	4.229	-0.002	95	38983	10.0	9.70	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.227	4.229	-0.002	98	38983	10.0	9.70	
50 N-Nitrosodi-n-propylamine	70	4.211	4.208	0.003	78	30693	10.0	9.80	
51 Acetophenone	105	4.200	4.197	0.003	98	56521	10.0	9.90	
53 Hexachloroethane	117	4.296	4.293	0.003	97	15357	10.0	9.62	
54 Nitrobenzene	77	4.355	4.358	-0.003	85	44710	10.0	10.0	
57 Isophorone	82	4.595	4.593	0.002	98	82721	10.0	9.82	
58 2-Nitrophenol	139	4.665	4.667	-0.002	94	18277	10.0	9.11	
59 2,4-Dimethylphenol	107	4.740	4.737	0.003	94	38930	10.0	9.67	
63 Bis(2-chloroethoxy)methane	93	4.825	4.822	0.003	99	49956	10.0	9.97	
64 Benzoic acid	105	4.814	4.796	0.018	87	38061	20.0	16.4	a
66 3,5-Dimethylphenol	107	4.873	4.870	0.003	85	39158	10.0	9.80	
68 2,4-Dichlorophenol	162	4.911	4.913	-0.002	95	29365	10.0	9.90	
69 1,2,4-Trichlorobenzene	180	4.985	4.983	0.002	94	30323	10.0	9.83	
71 Naphthalene	128	5.050	5.052	-0.002	97	109795	10.0	10.1	
72 4-Chloroaniline	127	5.114	5.116	-0.002	96	48305	10.0	10.2	
73 2,6-Dichlorophenol	162	5.124	5.121	0.003	96	29655	10.0	10.2	
75 Hexachlorobutadiene	225	5.194	5.191	0.003	96	16491	10.0	10.0	
79 Caprolactam	55	5.423	5.421	0.002	85	17667	10.0	9.38	
83 4-Chloro-3-methylphenol	107	5.621	5.618	0.003	96	34149	10.0	9.54	
86 2-Methylnaphthalene	142	5.728	5.730	-0.002	93	70794	10.0	9.82	
88 1-Methylnaphthalene	142	5.824	5.827	-0.003	93	66662	10.0	9.79	
89 1,2,4,5-Tetrachlorobenzene	216	5.894	5.896	-0.002	97	28360	10.0	10.1	
90 Hexachlorocyclopentadiene	237	5.894	5.896	-0.002	79	17034	10.0	9.19	
92 2,4,6-Trichlorophenol	196	6.016	6.014	0.002	94	19465	10.0	9.72	
93 2,3-Dichlorobenzenamine	161	6.006	6.003	0.003	96	35905	10.0	10.0	
94 2,4,5-Trichlorophenol	196	6.059	6.062	-0.003	93	21162	10.0	9.60	
98 1,1'-Biphenyl	154	6.193	6.195	-0.002	95	88396	10.0	10.5	
99 2-Chloronaphthalene	162	6.198	6.201	-0.003	97	67053	10.0	10.4	
101 2-Nitroaniline	65	6.305	6.307	-0.002	85	21455	10.0	9.02	
104 Dimethyl phthalate	163	6.508	6.510	-0.002	98	74976	10.0	10.2	
105 1,3-Dinitrobenzene	168	6.519	6.516	0.003	86	11331	10.0	8.83	
106 2,6-Dinitrotoluene	165	6.556	6.553	0.003	95	16960	10.0	9.49	
107 Acenaphthylene	152	6.599	6.601	-0.002	99	104871	10.0	9.83	
108 3-Nitroaniline	138	6.706	6.708	-0.002	94	21181	10.0	9.43	
109 Acenaphthene	153	6.770	6.772	-0.002	95	68327	10.0	9.96	
111 2,4-Dinitrophenol	184	6.812	6.810	0.002	83	8895	20.0	16.4	
112 4-Nitrophenol	109	6.925	6.927	-0.002	89	16090	20.0	16.8	
114 2,4-Dinitrotoluene	165	6.941	6.938	0.003	88	22478	10.0	9.77	
116 Dibenzofuran	168	6.941	6.943	-0.002	97	95756	10.0	10.3	
119 2,3,4,6-Tetrachlorophenol	232	7.074	7.071	0.003	73	15655	10.0	8.81	
123 Diethyl phthalate	149	7.208	7.205	0.003	98	76199	10.0	9.86	
124 Hexadecane	57	7.250	7.253	-0.003	90	49702	10.0	9.74	
127 4-Chlorophenyl phenyl ether	204	7.299	7.296	0.003	91	34745	10.0	10.2	
129 Fluorene	166	7.277	7.274	0.003	95	80901	10.0	10.2	
130 4-Nitroaniline	138	7.299	7.296	0.003	85	21724	10.0	9.29	
131 4,6-Dinitro-2-methylphenol	198	7.336	7.333	0.003	85	15895	20.0	17.1	
134 Diphenylamine	169	7.411	7.408	0.003	96	57058	8.50	8.33	
135 N-Nitrosodiphenylamine	169	7.411	7.408	0.003	99	57058	10.0	9.94	
136 1,2-Diphenylhydrazine	182	7.448	7.445	0.003	99	20708	10.1	9.97	
137 Azobenzene	77	7.448	7.445	0.003	97	92630	10.0	9.78	
148 4-Bromophenyl phenyl ether	248	7.769	7.771	-0.002	66	21246	10.0	10.1	
151 Hexachlorobenzene	284	7.811	7.809	0.002	95	24291	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.950	7.953	-0.003	91	19602	10.0	9.86	
155 Pentachlorophenol	266	8.009	8.012	-0.003	94	20726	20.0	17.7	
158 n-Octadecane	85	8.159	8.156	0.003	95	24771	10.0	9.45	
161 Phenanthrene	178	8.207	8.204	0.003	98	117697	10.0	10.4	
162 Anthracene	178	8.255	8.257	-0.002	98	116489	10.0	10.1	
164 Carbazole	167	8.420	8.423	-0.003	96	113834	10.0	9.94	
166 Alachlor	188	8.591	8.589	0.003	97	13449	10.0	9.33	
168 Di-n-butyl phthalate	149	8.816	8.818	-0.002	100	126399	10.0	9.36	
175 Fluoranthene	202	9.366	9.363	0.003	99	115065	10.0	9.66	
178 Pyrene	202	9.590	9.593	-0.003	96	127162	10.0	9.86	
187 Butyl benzyl phthalate	149	10.466	10.469	-0.003	96	50710	10.0	8.26	
189 3,3'-Dichlorobenzidine	252	11.220	11.222	-0.002	75	42904	10.0	9.14	
191 Benzo[a]anthracene	228	11.214	11.217	-0.003	99	107838	10.0	8.92	
192 Chrysene	228	11.268	11.270	-0.002	98	122563	10.0	9.64	
193 Bis(2-ethylhexyl) phthalate	149	11.481	11.484	-0.003	98	62539	10.0	7.49	
195 Di-n-octyl phthalate	149	12.854	12.852	0.002	99	82986	10.0	8.37	
196 Benzo[b]fluoranthene	252	13.314	13.311	0.003	98	79484	10.0	8.45	a
198 Benzo[k]fluoranthene	252	13.373	13.375	-0.002	99	137538	10.0	9.79	a
201 Benzo[a]pyrene	252	14.024	14.027	-0.003	80	92012	10.0	8.19	
207 Indeno[1,2,3-cd]pyrene	276	16.749	16.746	0.003	98	58180	10.0	8.71	a
208 Dibenz(a,h)anthracene	278	16.866	16.874	-0.008	95	63178	10.0	8.27	
209 Benzo[g,h,i]perylene	276	17.363	17.355	0.008	98	85885	10.0	7.87	
S 211 Total Cresols	108				0			19.3	
S 212 Methyl Phenols, Total	108				0			19.3	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA010_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305983.D

Injection Date: 15-Nov-2022 14:23:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD010 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

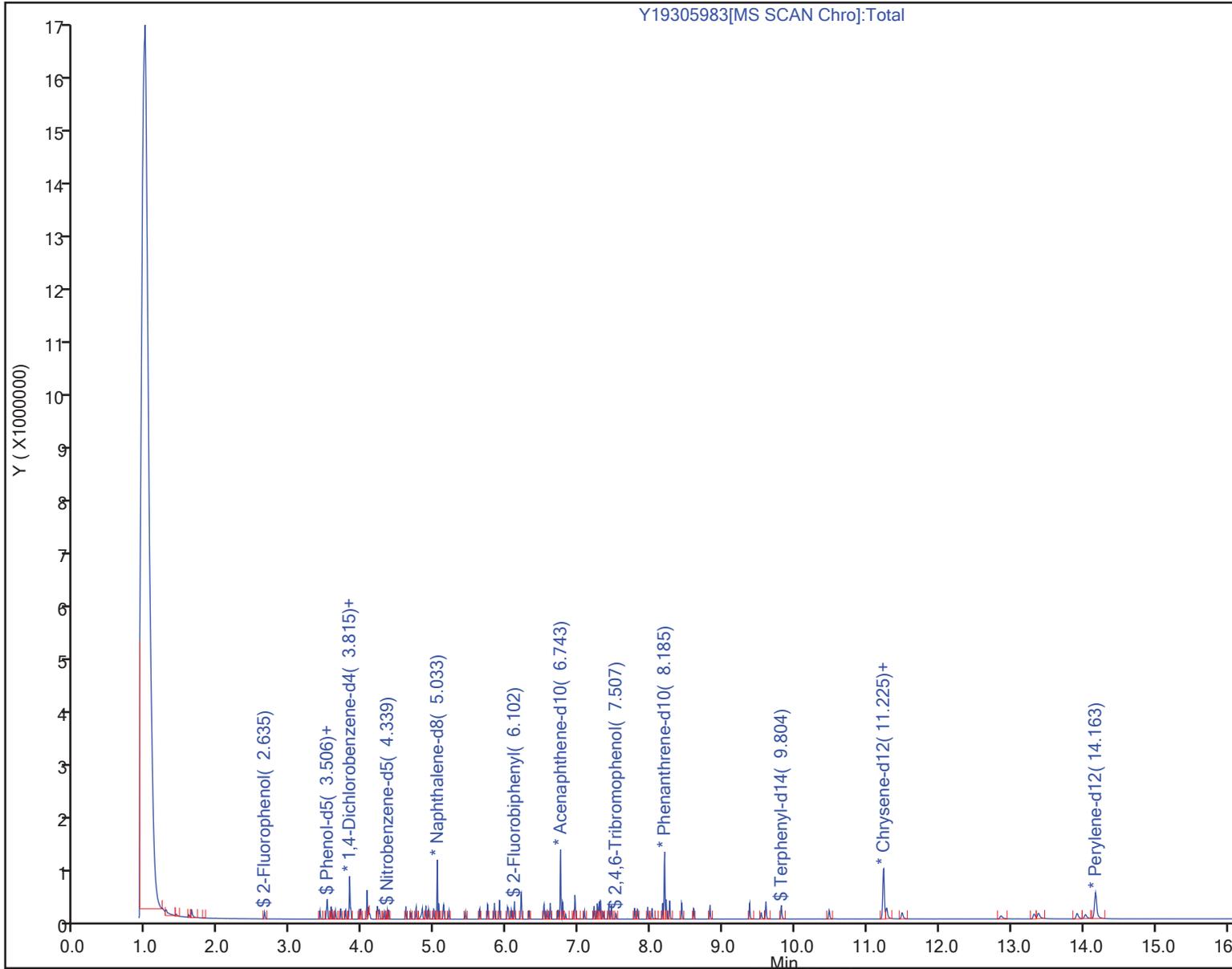
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

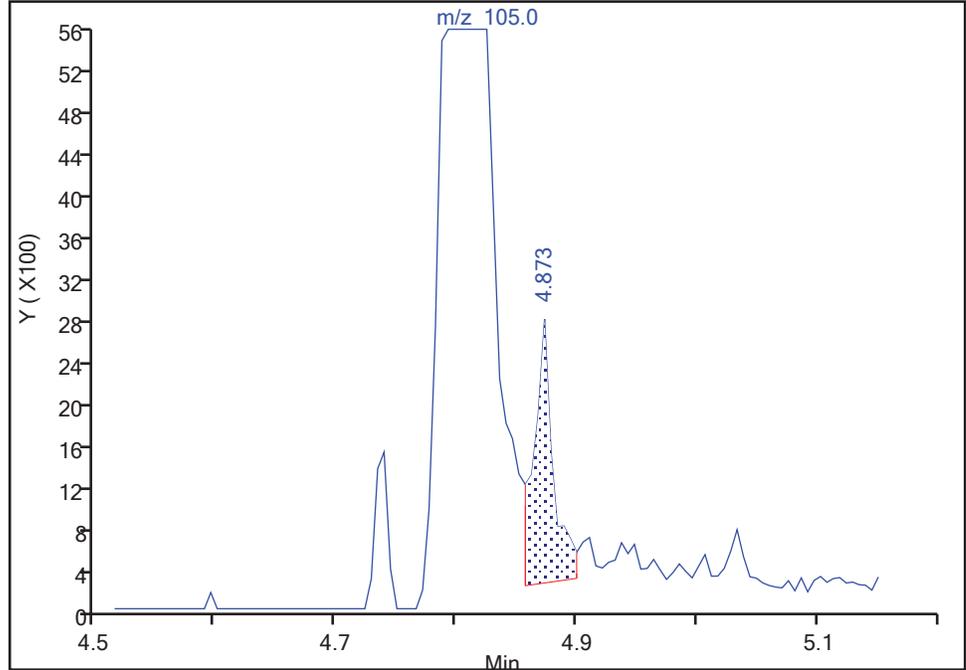
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Injection Date: 15-Nov-2022 14:23:30 Instrument ID: SMS_Y
Lims ID: STD010 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 8 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

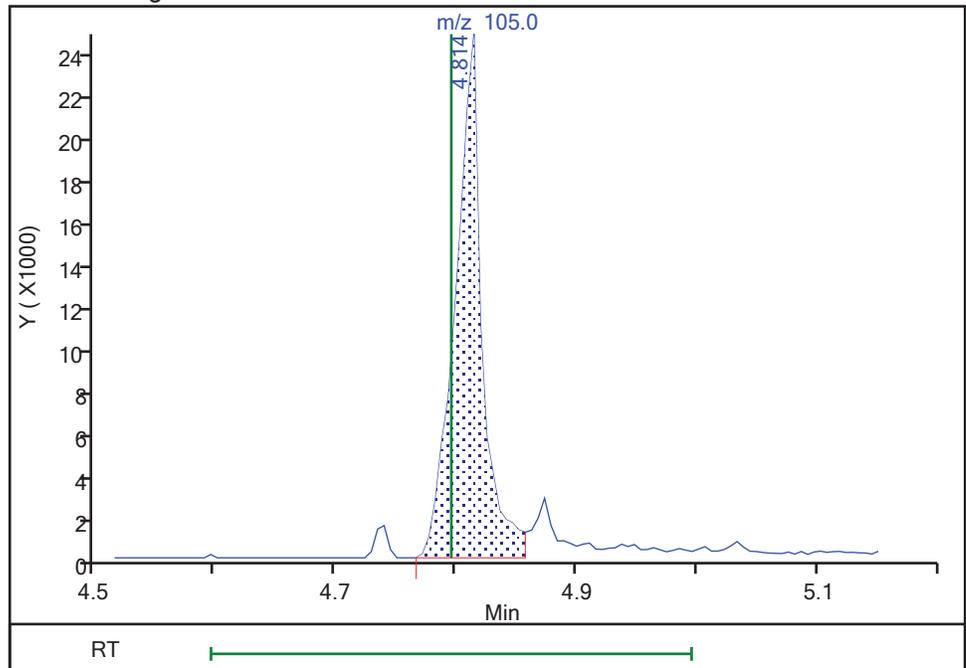
RT: 4.87
Area: 2942
Amount: 1.893917
Amount Units: ug/ml

Processing Integration Results



RT: 4.81
Area: 38061
Amount: 16.438140
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

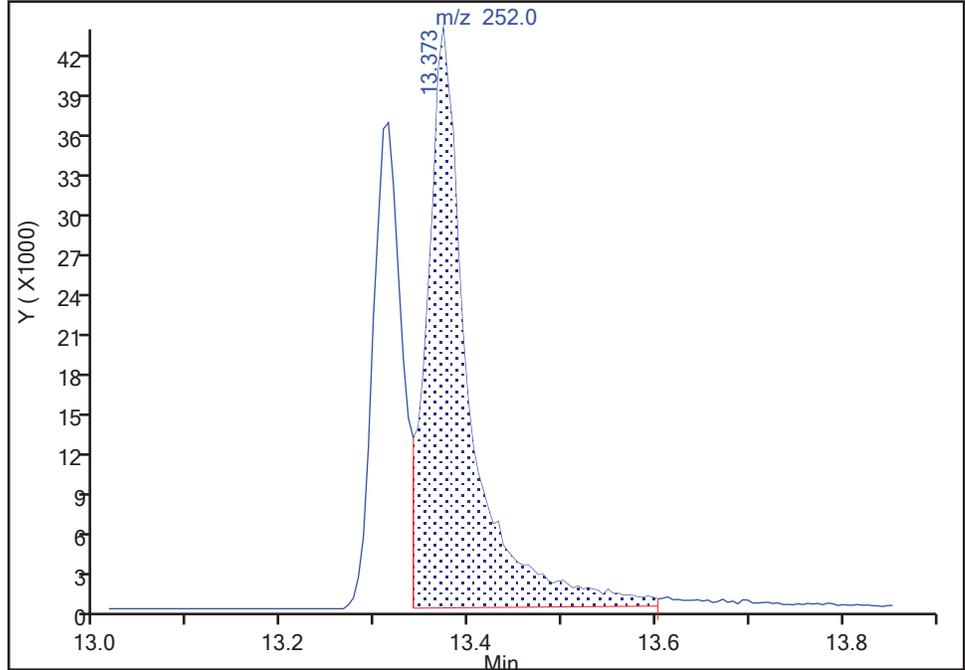
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Injection Date: 15-Nov-2022 14:23:30 Instrument ID: SMS_Y
Lims ID: STD010 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 8 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

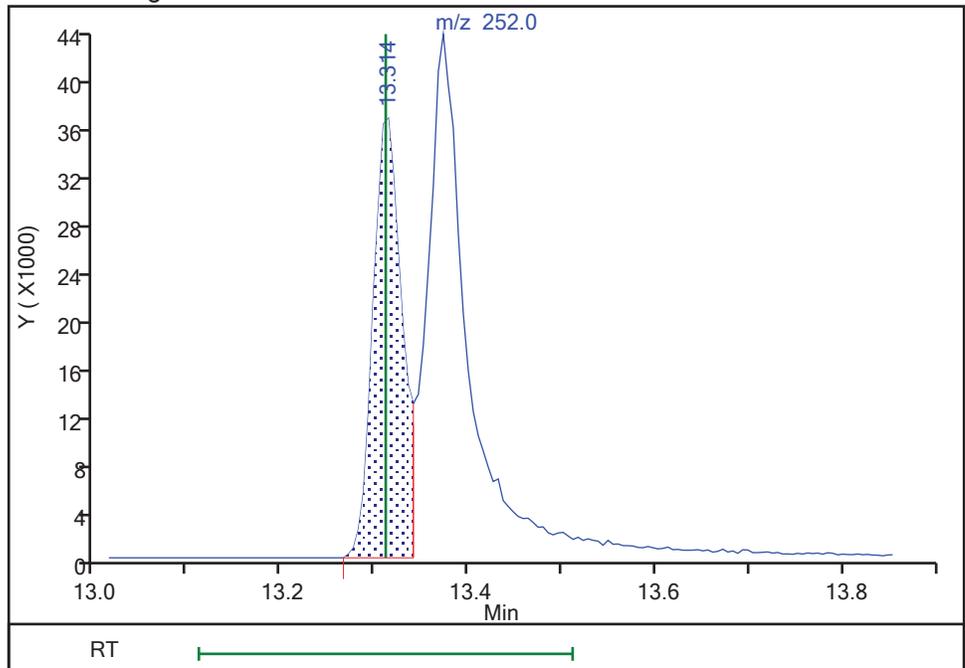
RT: 13.37
Area: 137538
Amount: 10.397100
Amount Units: ug/ml

Processing Integration Results



RT: 13.31
Area: 79484
Amount: 8.451019
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:40:35
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

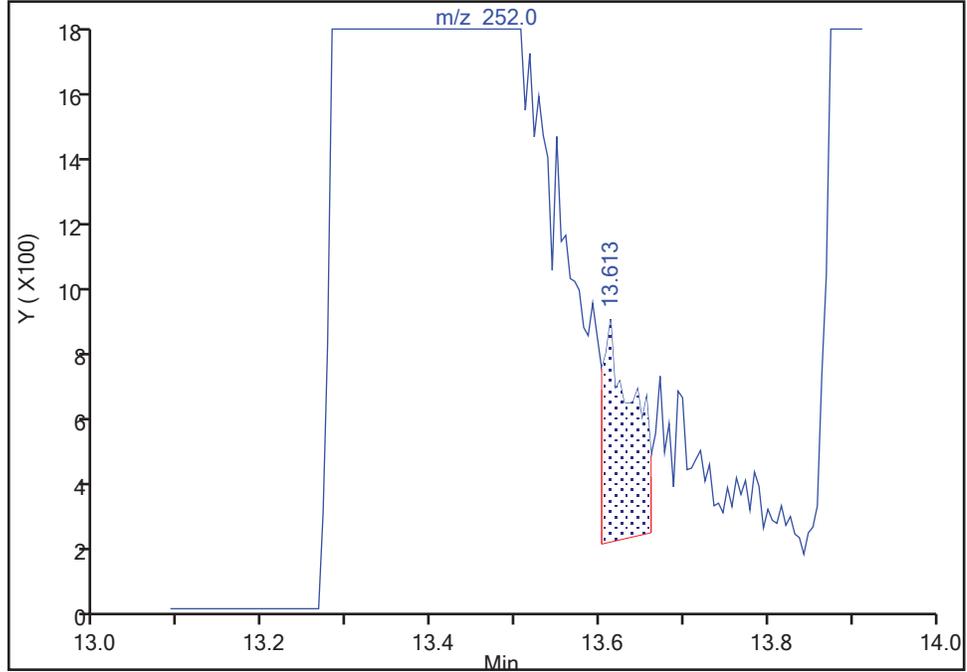
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305983.D
Injection Date: 15-Nov-2022 14:23:30 Instrument ID: SMS_Y
Lims ID: STD010 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 8 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

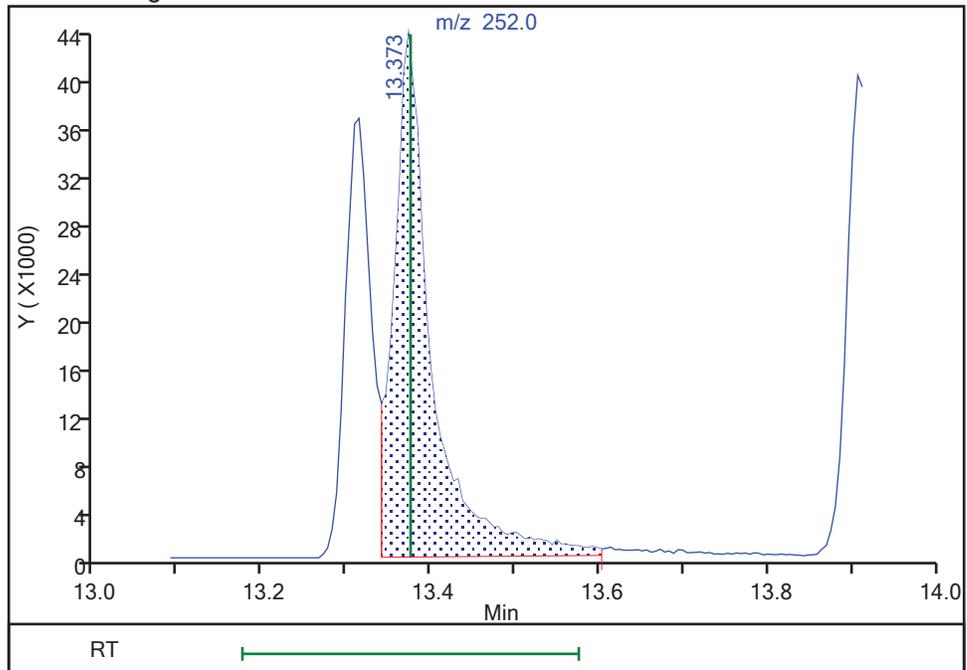
RT: 13.61
Area: 1756
Amount: 1.034788
Amount Units: ug/ml

Processing Integration Results



RT: 13.37
Area: 137538
Amount: 9.794589
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:40:38
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

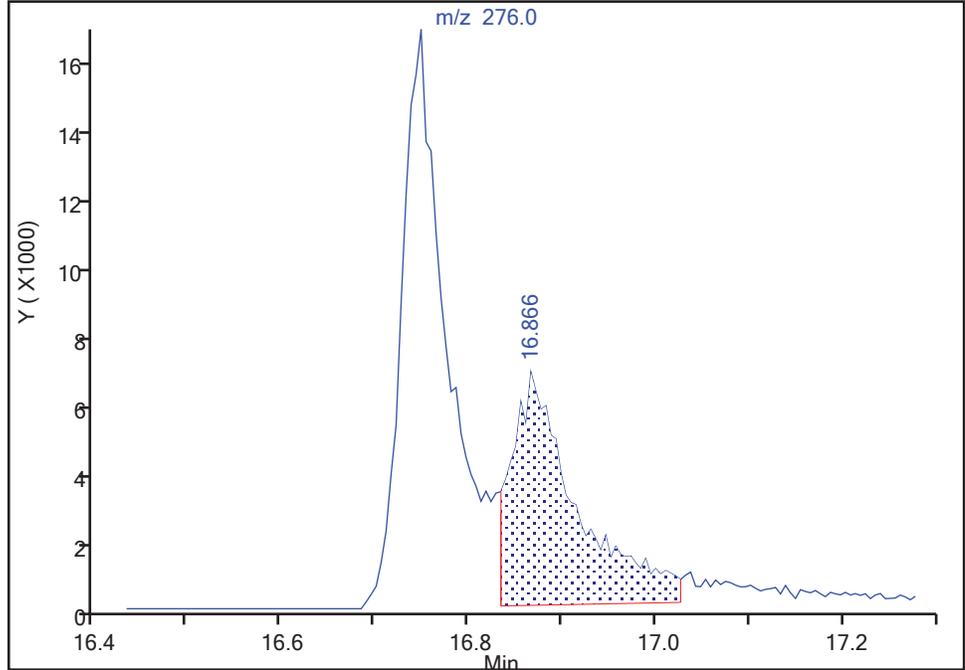
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305983.D
Injection Date: 15-Nov-2022 14:23:30 Instrument ID: SMS_Y
Lims ID: STD010 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 8 Worklist Smp#: 33
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

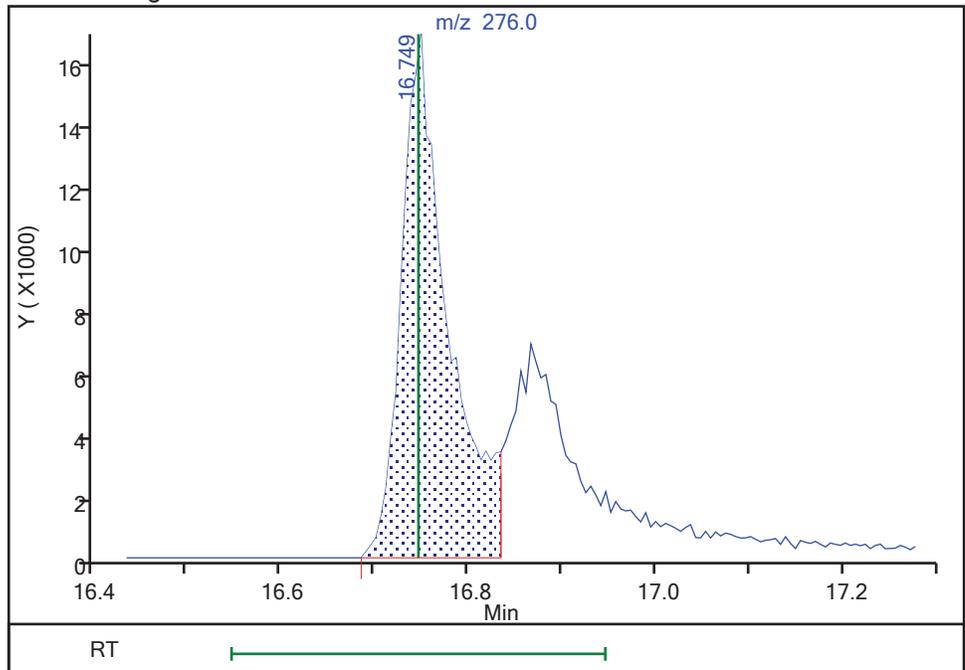
RT: 16.87
Area: 32611
Amount: 8.440453
Amount Units: ug/ml

Processing Integration Results



RT: 16.75
Area: 58180
Amount: 8.713725
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:40:47
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305984.D
 Lims ID: STD020 HSL
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-Nov-2022 14:49:30 ALS Bottle#: 9 Worklist Smp#: 34
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD020 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:05 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 15-Nov-2022 16:27:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.816	3.813	0.003	96	97184	40.0	40.0	
* 2 Naphthalene-d8	136	5.034	5.031	0.003	99	398867	40.0	40.0	
* 3 Acenaphthene-d10	164	6.744	6.740	0.004	92	230343	40.0	40.0	
* 4 Phenanthrene-d10	188	8.186	8.183	0.004	97	409030	40.0	40.0	
* 5 Chrysene-d12	240	11.226	11.228	-0.002	98	408679	40.0	40.0	
* 6 Perylene-d12	264	14.164	14.166	-0.002	97	403252	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.636	2.632	0.004	90	88917	20.0	23.4	
\$ 8 Phenol-d5	99	3.490	3.492	-0.002	94	123805	20.0	23.9	
\$ 9 Nitrobenzene-d5	82	4.340	4.336	0.004	85	107204	20.0	23.5	
\$ 11 2-Fluorobiphenyl	172	6.103	6.099	0.004	99	183956	20.0	24.1	
\$ 12 2,4,6-Tribromophenol	330	7.513	7.509	0.004	93	26508	20.0	23.1	
\$ 13 Terphenyl-d14	244	9.805	9.807	-0.001	97	244796	20.0	23.1	
15 1,4-Dioxane	88	1.407	1.403	0.004	90	38931	20.0	27.2	
17 N-Nitrosodimethylamine	74	1.578	1.585	-0.007	87	54878	20.0	23.5	
18 Pyridine	79	1.615	1.622	-0.007	96	172722	40.0	46.9	
28 Phenol	94	3.506	3.503	0.003	87	125663	20.0	24.3	
30 Aniline	93	3.506	3.503	0.003	81	148308	20.0	24.3	
31 Bis(2-chloroethyl)ether	93	3.576	3.572	0.004	99	88289	20.0	23.4	
32 Alpha Methyl Styrene	118	3.560	3.556	0.004	91	83649	20.0	23.4	
34 2-Chlorophenol	128	3.619	3.620	-0.001	96	82518	20.0	23.6	
35 n-Decane	43	3.693	3.690	0.003	85	66714	20.0	24.2	
37 1,3-Dichlorobenzene	146	3.757	3.759	-0.002	96	87051	20.0	23.9	
38 1,4-Dichlorobenzene	146	3.832	3.829	0.003	94	87607	20.0	23.6	
39 Benzyl alcohol	108	3.950	3.952	-0.002	93	61143	20.0	23.7	
40 1,2-Dichlorobenzene	146	3.971	3.973	-0.002	97	84211	20.0	23.8	
41 2-Methylphenol	108	4.078	4.074	0.004	94	82643	20.0	23.7	
43 2,2'-oxybis[1-chloropropane]	45	4.094	4.096	-0.002	95	99305	20.0	23.8	
44 Indene	116	4.057	4.058	-0.001	88	300386	40.0	48.6	
46 3-Methylphenol	108	4.228	4.229	-0.001	90	88573	20.0	23.7	
47 4-Methylphenol	108	4.228	4.229	-0.001	96	88573	20.0	23.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.228	4.229	-0.001	96	88573	20.0	23.7	
50 N-Nitrosodi-n-propylamine	70	4.212	4.208	0.004	77	69572	20.0	23.9	
51 Acetophenone	105	4.201	4.197	0.004	99	124288	20.0	23.4	
53 Hexachloroethane	117	4.292	4.293	-0.001	97	34821	20.0	23.5	
54 Nitrobenzene	77	4.356	4.358	-0.002	85	95974	20.0	23.0	
57 Isophorone	82	4.596	4.593	0.003	98	185176	20.0	23.5	
58 2-Nitrophenol	139	4.666	4.667	-0.001	94	42485	20.0	22.7	
59 2,4-Dimethylphenol	107	4.735	4.737	-0.002	96	88504	20.0	23.5	
63 Bis(2-chloroethoxy)methane	93	4.826	4.822	0.004	98	110481	20.0	23.6	
64 Benzoic acid	105	4.837	4.796	0.041	87	107028	40.0	38.7	a
66 3,5-Dimethylphenol	107	4.874	4.870	0.004	85	89261	20.0	23.9	
68 2,4-Dichlorophenol	162	4.911	4.913	-0.002	95	66169	20.0	23.9	
69 1,2,4-Trichlorobenzene	180	4.981	4.983	-0.002	94	68081	20.0	23.6	
71 Naphthalene	128	5.050	5.052	-0.002	97	243996	20.0	23.9	
72 4-Chloroaniline	127	5.114	5.116	-0.002	96	105418	20.0	23.8	
73 2,6-Dichlorophenol	162	5.125	5.121	0.004	97	64921	20.0	23.9	
75 Hexachlorobutadiene	225	5.195	5.191	0.003	96	37014	20.0	24.1	
79 Caprolactam	55	5.435	5.421	0.014	86	40068	20.0	22.9	
83 4-Chloro-3-methylphenol	107	5.622	5.618	0.004	96	76727	20.0	22.9	
86 2-Methylnaphthalene	142	5.729	5.730	-0.001	93	161262	20.0	23.9	
88 1-Methylnaphthalene	142	5.825	5.827	-0.002	94	153860	20.0	24.2	
89 1,2,4,5-Tetrachlorobenzene	216	5.894	5.896	-0.002	97	65181	20.0	24.8	
90 Hexachlorocyclopentadiene	237	5.894	5.896	-0.002	79	40848	20.0	23.3	
92 2,4,6-Trichlorophenol	196	6.017	6.014	0.003	94	45202	20.0	23.9	
93 2,3-Dichlorobenzenamine	161	6.007	6.003	0.004	96	81248	20.0	24.0	
94 2,4,5-Trichlorophenol	196	6.060	6.062	-0.002	93	48937	20.0	23.5	
98 1,1'-Biphenyl	154	6.193	6.195	-0.002	95	192978	20.0	24.3	
99 2-Chloronaphthalene	162	6.199	6.201	-0.002	98	149448	20.0	24.6	
101 2-Nitroaniline	65	6.306	6.307	-0.001	84	52846	20.0	23.5	
104 Dimethyl phthalate	163	6.509	6.510	-0.001	96	167927	20.0	24.1	
105 1,3-Dinitrobenzene	168	6.519	6.516	0.003	88	28946	20.0	23.9	
106 2,6-Dinitrotoluene	165	6.557	6.553	0.004	96	40096	20.0	23.7	
107 Acenaphthylene	152	6.599	6.601	-0.002	99	238766	20.0	23.7	
108 3-Nitroaniline	138	6.706	6.708	-0.002	94	50342	20.0	23.7	
109 Acenaphthene	153	6.770	6.772	-0.002	94	155008	20.0	23.9	
111 2,4-Dinitrophenol	184	6.813	6.810	0.003	86	31828	40.0	38.4	
112 4-Nitrophenol	109	6.920	6.927	-0.007	87	47212	40.0	45.3	
114 2,4-Dinitrotoluene	165	6.941	6.938	0.003	65	53330	20.0	24.5	
116 Dibenzofuran	168	6.941	6.943	-0.002	95	213299	20.0	24.2	
119 2,3,4,6-Tetrachlorophenol	232	7.075	7.071	0.004	74	39294	20.0	23.4	
123 Diethyl phthalate	149	7.208	7.205	0.003	98	172594	20.0	23.6	
124 Hexadecane	57	7.251	7.253	-0.002	90	116115	20.0	24.1	
127 4-Chlorophenyl phenyl ether	204	7.294	7.296	-0.002	93	77416	20.0	24.0	
129 Fluorene	166	7.278	7.274	0.004	95	180279	20.0	23.9	
130 4-Nitroaniline	138	7.299	7.296	0.003	87	51144	20.0	23.1	
131 4,6-Dinitro-2-methylphenol	198	7.337	7.333	0.004	86	49620	40.0	43.0	
134 Diphenylamine	169	7.411	7.408	0.003	95	131533	17.0	20.3	
135 N-Nitrosodiphenylamine	169	7.411	7.408	0.003	99	131533	20.0	23.8	
136 1,2-Diphenylhydrazine	182	7.449	7.445	0.004	99	46895	20.2	23.9	
137 Azobenzene	77	7.449	7.445	0.004	97	210397	20.0	23.5	
148 4-Bromophenyl phenyl ether	248	7.769	7.771	-0.002	66	47774	20.0	23.5	
151 Hexachlorobenzene	284	7.807	7.809	-0.002	95	53944	20.0	23.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.951	7.953	-0.002	90	44403	20.0	23.2	
155 Pentachlorophenol	266	8.010	8.012	-0.002	93	55370	40.0	43.3	
158 n-Octadecane	85	8.159	8.156	0.003	94	59897	20.0	23.7	
161 Phenanthrene	178	8.207	8.204	0.003	98	262825	20.0	24.0	
162 Anthracene	178	8.256	8.257	-0.001	98	267604	20.0	24.1	
164 Carbazole	167	8.421	8.423	-0.002	95	264865	20.0	24.0	
166 Alachlor	188	8.587	8.589	-0.001	98	33512	20.0	24.1	
168 Di-n-butyl phthalate	149	8.816	8.818	-0.002	100	306482	20.0	23.5	
175 Fluoranthene	202	9.367	9.363	0.004	99	271762	20.0	23.7	
178 Pyrene	202	9.591	9.593	-0.002	97	296523	20.0	23.4	
187 Butyl benzyl phthalate	149	10.467	10.469	-0.002	96	128446	20.0	21.3	
189 3,3'-Dichlorobenzidine	252	11.220	11.222	-0.002	74	106726	20.0	23.2	
191 Benzo[a]anthracene	228	11.215	11.217	-0.002	99	265546	20.0	22.4	
192 Chrysene	228	11.269	11.270	-0.001	98	287596	20.0	23.1	
193 Bis(2-ethylhexyl) phthalate	149	11.482	11.484	-0.002	97	171745	20.0	21.0	
195 Di-n-octyl phthalate	149	12.855	12.852	0.003	99	241539	20.0	18.4	
196 Benzo[b]fluoranthene	252	13.315	13.311	0.004	98	227841	20.0	21.4	a
198 Benzo[k]fluoranthene	252	13.373	13.375	-0.002	99	332432	20.0	24.4	a
201 Benzo[a]pyrene	252	13.908	14.027	-0.119	79	245540	20.0	22.5	
207 Indeno[1,2,3-cd]pyrene	276	16.744	16.746	-0.002	98	167373	20.0	19.2	a
208 Dibenz(a,h)anthracene	278	16.872	16.874	-0.002	94	183608	20.0	20.0	
209 Benzo[g,h,i]perylene	276	17.364	17.355	0.009	97	236195	20.0	22.3	
S 211 Total Cresols	108				0			47.5	
S 212 Methyl Phenols, Total	108				0			47.5	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA020_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305984.D

Injection Date: 15-Nov-2022 14:49:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD020 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

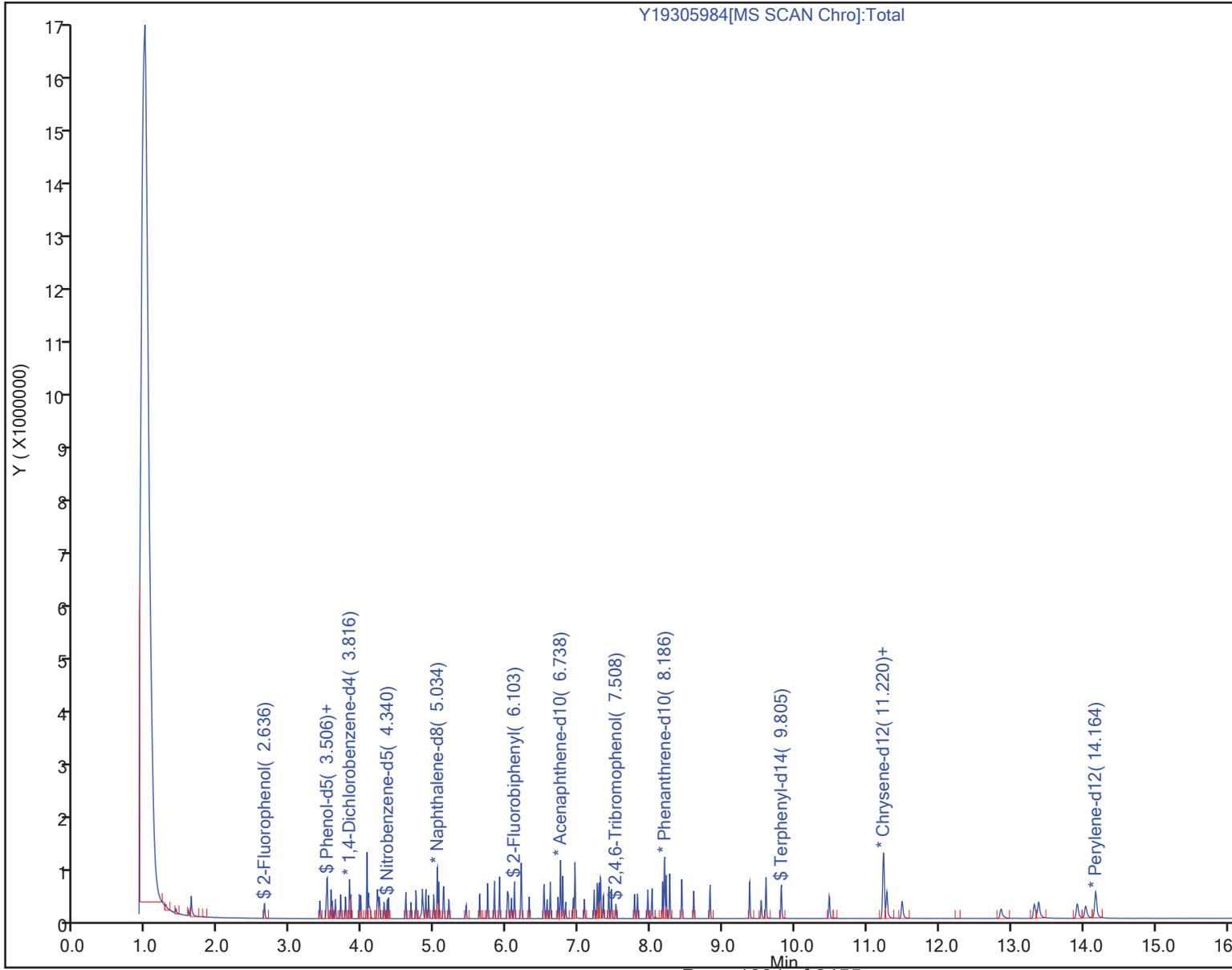
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

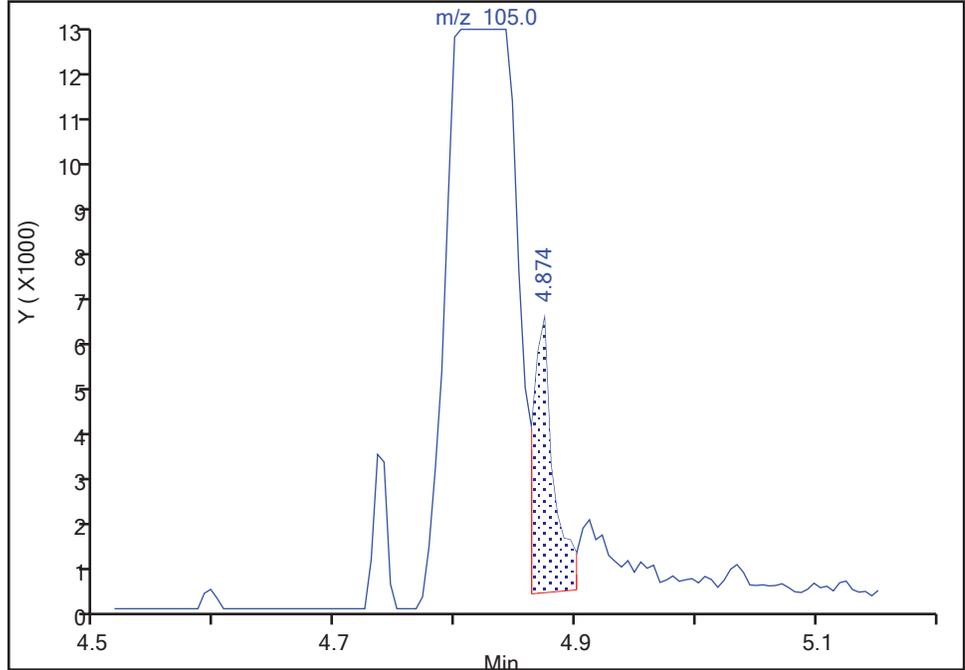
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Injection Date: 15-Nov-2022 14:49:30 Instrument ID: SMS_Y
Lims ID: STD020 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 9 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

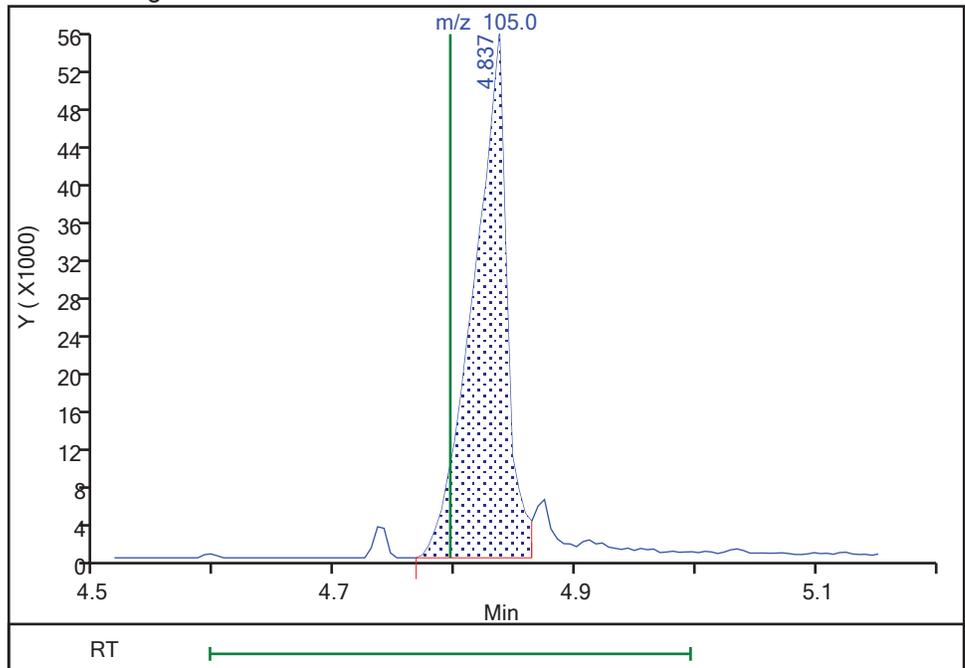
RT: 4.87
Area: 6948
Amount: 4.191016
Amount Units: ug/ml

Processing Integration Results



RT: 4.84
Area: 107028
Amount: 38.692646
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

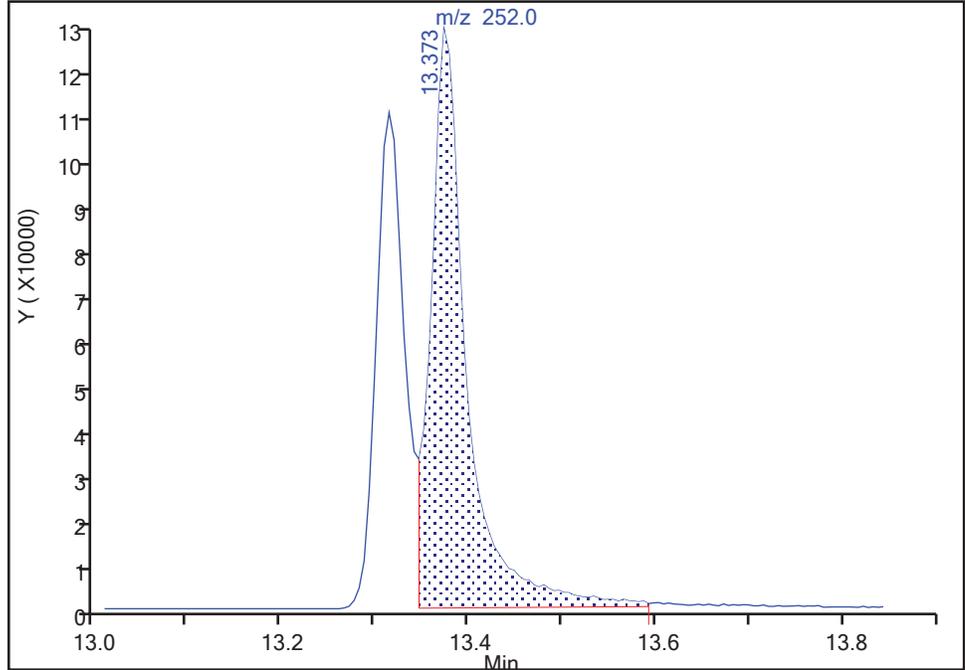
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Injection Date: 15-Nov-2022 14:49:30 Instrument ID: SMS_Y
Lims ID: STD020 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 9 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

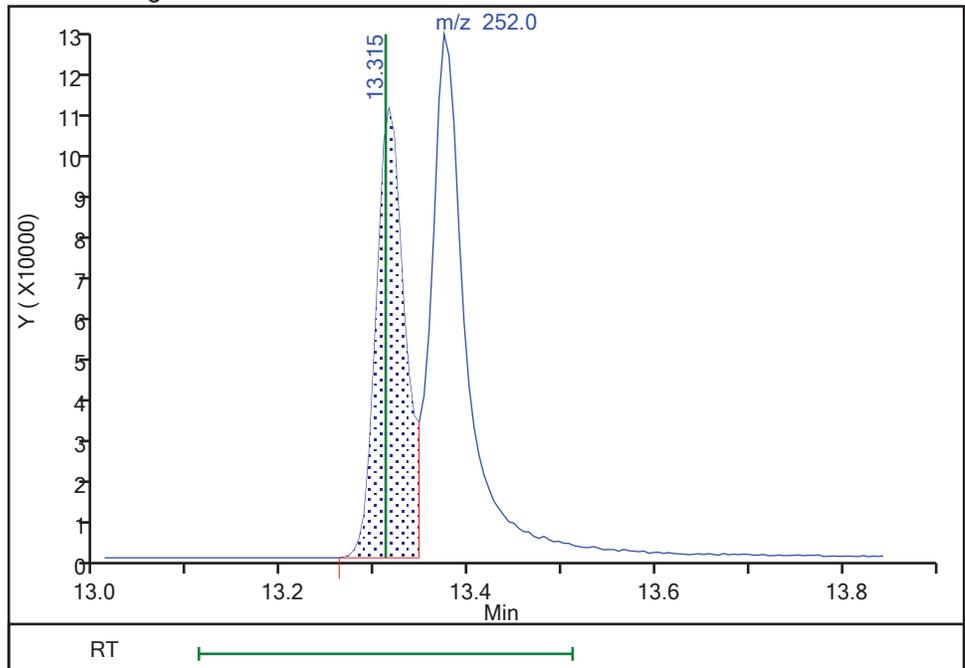
RT: 13.37
Area: 332432
Amount: 25.916292
Amount Units: ug/ml

Processing Integration Results



RT: 13.31
Area: 227841
Amount: 21.442676
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

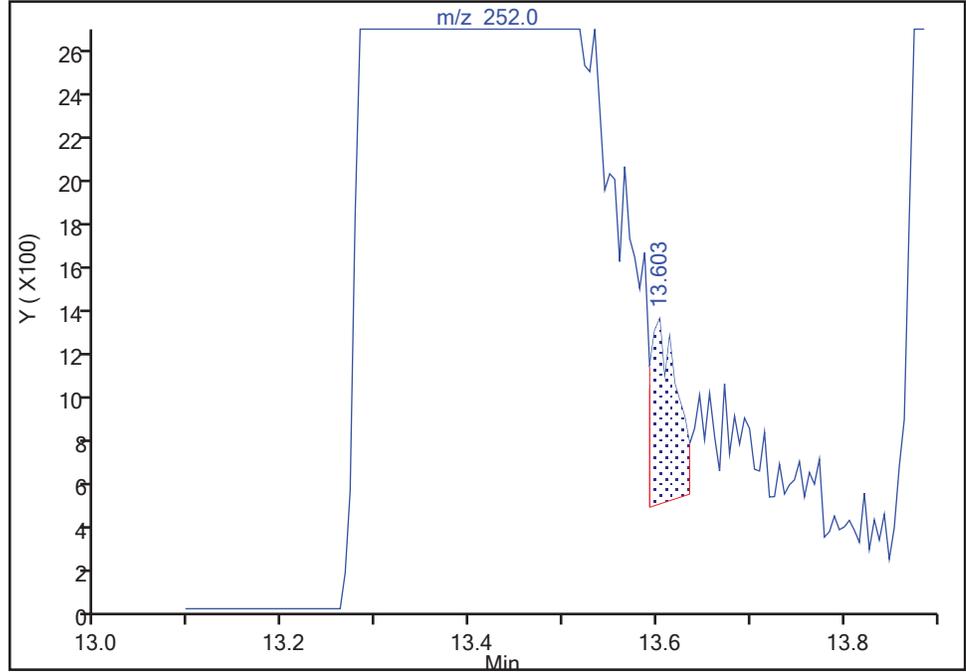
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Injection Date: 15-Nov-2022 14:49:30 Instrument ID: SMS_Y
Lims ID: STD020 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 9 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

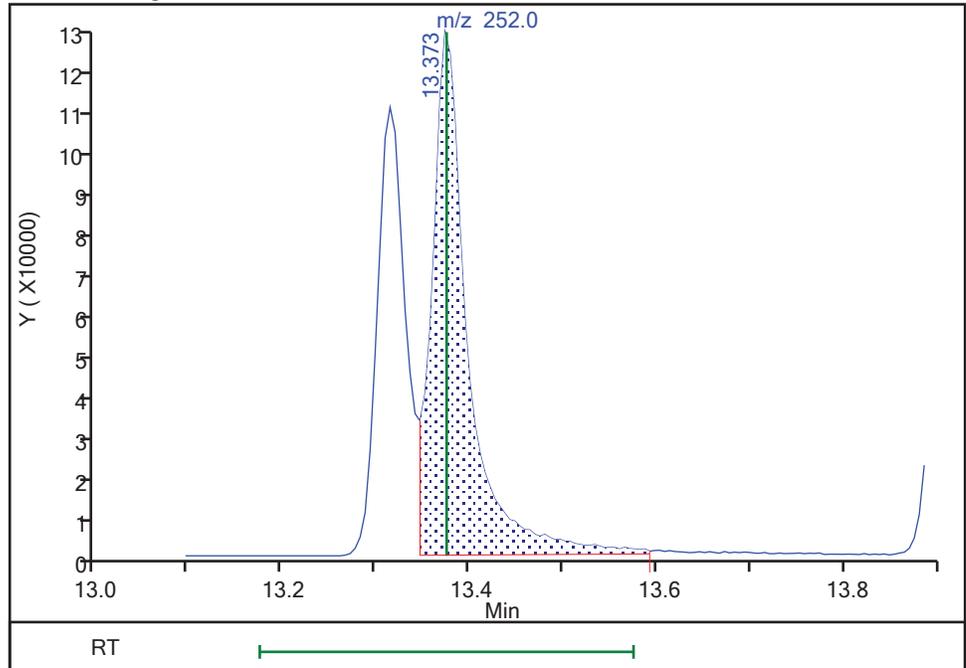
RT: 13.60
Area: 1626
Amount: 0.459899
Amount Units: ug/ml

Processing Integration Results



RT: 13.37
Area: 332432
Amount: 24.351012
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:42:35
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

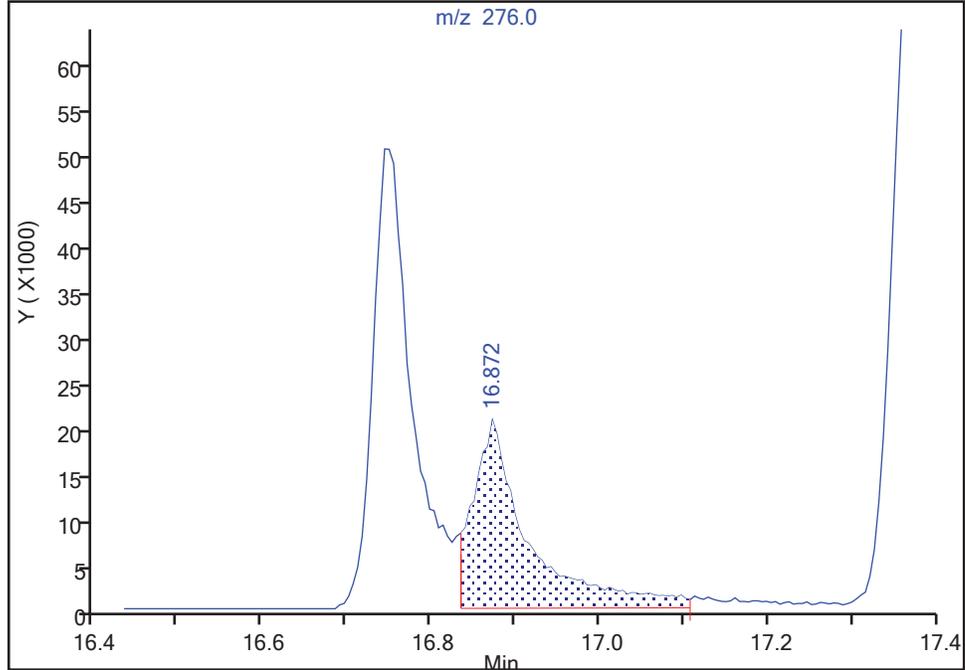
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Injection Date: 15-Nov-2022 14:49:30 Instrument ID: SMS_Y
Lims ID: STD020 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 9 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

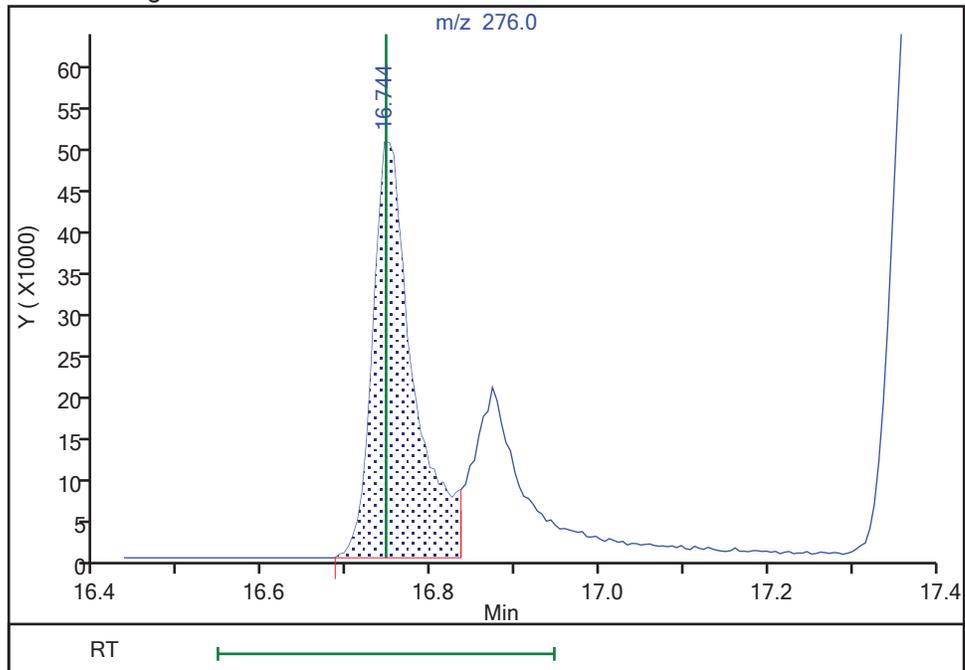
RT: 16.87
Area: 94011
Amount: 21.884852
Amount Units: ug/ml

Processing Integration Results



RT: 16.74
Area: 167373
Amount: 19.178137
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:42:40
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305985.D
 Lims ID: STD050 HSL
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-Nov-2022 15:14:30 ALS Bottle#: 10 Worklist Smp#: 35
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD050 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:10 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 15-Nov-2022 16:27:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.815	3.813	0.002	97	99264	40.0	40.0	
* 2 Naphthalene-d8	136	5.033	5.031	0.002	99	410282	40.0	40.0	
* 3 Acenaphthene-d10	164	6.743	6.740	0.003	92	238526	40.0	40.0	
* 4 Phenanthrene-d10	188	8.185	8.183	0.003	97	420447	40.0	40.0	
* 5 Chrysene-d12	240	11.230	11.228	0.002	98	423086	40.0	40.0	
* 6 Perylene-d12	264	14.168	14.166	0.002	97	422240	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.634	2.632	0.002	91	201747	50.0	52.0	
\$ 8 Phenol-d5	99	3.495	3.492	0.003	94	278472	50.0	52.7	
\$ 9 Nitrobenzene-d5	82	4.339	4.336	0.003	86	243065	50.0	51.8	
\$ 11 2-Fluorobiphenyl	172	6.102	6.099	0.003	99	405384	50.0	51.3	
\$ 12 2,4,6-Tribromophenol	330	7.512	7.509	0.003	93	62543	50.0	52.7	
\$ 13 Terphenyl-d14	244	9.804	9.807	-0.002	97	561989	50.0	51.1	
15 1,4-Dioxane	88	1.406	1.403	0.003	89	75889	50.0	54.5	
17 N-Nitrosodimethylamine	74	1.582	1.585	-0.003	87	125480	50.0	52.5	
18 Pyridine	79	1.614	1.622	-0.008	97	403870	100.0	107.4	
28 Phenol	94	3.505	3.503	0.002	87	276963	50.0	52.5	
30 Aniline	93	3.505	3.503	0.002	88	331517	50.0	53.1	
31 Bis(2-chloroethyl)ether	93	3.580	3.572	0.008	99	200817	50.0	52.0	
32 Alpha Methyl Styrene	118	3.559	3.556	0.003	90	190192	50.0	52.1	
34 2-Chlorophenol	128	3.623	3.620	0.003	96	186482	50.0	52.2	
35 n-Decane	43	3.692	3.690	0.002	85	147416	50.0	52.3	
37 1,3-Dichlorobenzene	146	3.762	3.759	0.003	97	194049	50.0	52.1	
38 1,4-Dichlorobenzene	146	3.831	3.829	0.002	94	196987	50.0	52.0	
39 Benzyl alcohol	108	3.954	3.952	0.002	92	138739	50.0	52.7	
40 1,2-Dichlorobenzene	146	3.970	3.973	-0.003	96	187981	50.0	52.1	
41 2-Methylphenol	108	4.077	4.074	0.003	94	185237	50.0	52.1	
43 2,2'-oxybis[1-chloropropane]	45	4.098	4.096	0.002	97	223480	50.0	52.5	
44 Indene	116	4.061	4.058	0.003	88	668768	100.0	106.0	
46 3-Methylphenol	108	4.232	4.229	0.003	91	199775	50.0	52.4	
47 4-Methylphenol	108	4.232	4.229	0.003	94	199775	50.0	52.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.232	4.229	0.003	98	199775	50.0	52.4	
50 N-Nitrosodi-n-propylamine	70	4.216	4.208	0.008	78	156192	50.0	52.6	
51 Acetophenone	105	4.200	4.197	0.003	97	280727	50.0	51.8	
53 Hexachloroethane	117	4.296	4.293	0.003	97	77691	50.0	51.3	
54 Nitrobenzene	77	4.360	4.358	0.002	84	217537	50.0	50.6	
57 Isophorone	82	4.600	4.593	0.007	98	416471	50.0	51.4	
58 2-Nitrophenol	139	4.670	4.667	0.003	92	102585	50.0	53.2	
59 2,4-Dimethylphenol	107	4.739	4.737	0.002	95	200439	50.0	51.8	
63 Bis(2-chloroethoxy)methane	93	4.825	4.822	0.003	98	246123	50.0	51.1	
64 Benzoic acid	105	4.873	4.796	0.077	66	318737	100.0	101.9	
66 3,5-Dimethylphenol	107	4.873	4.870	0.003	90	197443	50.0	51.4	
68 2,4-Dichlorophenol	162	4.910	4.913	-0.003	96	148595	50.0	52.1	
69 1,2,4-Trichlorobenzene	180	4.985	4.983	0.002	94	153922	50.0	51.9	
71 Naphthalene	128	5.054	5.052	0.002	97	542854	50.0	51.7	
72 4-Chloroaniline	127	5.119	5.116	0.003	96	243026	50.0	53.4	
73 2,6-Dichlorophenol	162	5.124	5.121	0.003	96	145769	50.0	52.3	
75 Hexachlorobutadiene	225	5.193	5.191	0.002	97	81375	50.0	51.4	
79 Caprolactam	55	5.455	5.421	0.034	86	92377	50.0	51.7	
83 4-Chloro-3-methylphenol	107	5.621	5.618	0.003	96	175977	50.0	51.1	
86 2-Methylnaphthalene	142	5.733	5.730	0.003	93	359171	50.0	51.8	
88 1-Methylnaphthalene	142	5.824	5.827	-0.003	94	337983	50.0	51.6	
89 1,2,4,5-Tetrachlorobenzene	216	5.899	5.896	0.002	98	140467	50.0	52.0	
90 Hexachlorocyclopentadiene	237	5.893	5.896	-0.003	97	96118	50.0	53.0	
92 2,4,6-Trichlorophenol	196	6.016	6.014	0.002	94	103099	50.0	52.6	
93 2,3-Dichlorobenzenamine	161	6.005	6.003	0.002	98	182780	50.0	52.2	
94 2,4,5-Trichlorophenol	196	6.059	6.062	-0.003	93	112900	50.0	52.4	
98 1,1'-Biphenyl	154	6.192	6.195	-0.003	96	426147	50.0	51.8	
99 2-Chloronaphthalene	162	6.203	6.201	0.002	98	328619	50.0	52.2	
101 2-Nitroaniline	65	6.310	6.307	0.003	85	122185	50.0	52.5	
104 Dimethyl phthalate	163	6.513	6.510	0.003	97	377925	50.0	52.4	
105 1,3-Dinitrobenzene	168	6.518	6.516	0.002	86	68695	50.0	54.7	
106 2,6-Dinitrotoluene	165	6.556	6.553	0.003	96	92330	50.0	52.8	
107 Acenaphthylene	152	6.604	6.601	0.003	99	544720	50.0	52.2	
108 3-Nitroaniline	138	6.711	6.708	0.003	94	116783	50.0	53.1	
109 Acenaphthene	153	6.775	6.772	0.003	94	347877	50.0	51.9	
111 2,4-Dinitrophenol	184	6.817	6.810	0.007	86	91618	100.0	91.8	
112 4-Nitrophenol	109	6.914	6.927	-0.013	91	117057	100.0	104.0	
114 2,4-Dinitrotoluene	165	6.946	6.938	0.008	65	121409	50.0	54.0	
116 Dibenzofuran	168	6.946	6.943	0.003	96	478075	50.0	52.4	
119 2,3,4,6-Tetrachlorophenol	232	7.074	7.071	0.003	74	93031	50.0	53.5	
123 Diethyl phthalate	149	7.213	7.205	0.008	98	387935	50.0	51.3	
124 Hexadecane	57	7.250	7.253	-0.003	90	261225	50.0	52.3	
127 4-Chlorophenyl phenyl ether	204	7.298	7.296	0.002	93	171433	50.0	51.3	
129 Fluorene	166	7.277	7.274	0.003	95	405887	50.0	52.1	
130 4-Nitroaniline	138	7.303	7.296	0.007	86	119116	50.0	52.0	
131 4,6-Dinitro-2-methylphenol	198	7.341	7.333	0.008	84	130556	100.0	101.4	
134 Diphenylamine	169	7.416	7.408	0.008	95	296597	42.5	44.2	
135 N-Nitrosodiphenylamine	169	7.416	7.408	0.008	99	296597	50.0	52.1	
136 1,2-Diphenylhydrazine	182	7.448	7.445	0.003	98	104775	50.5	51.5	
137 Azobenzene	77	7.448	7.445	0.003	96	483476	50.0	52.2	
148 4-Bromophenyl phenyl ether	248	7.768	7.771	-0.003	67	109005	50.0	52.2	
151 Hexachlorobenzene	284	7.811	7.809	0.002	95	120407	50.0	51.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.955	7.953	0.002	91	103627	50.0	52.6	
155 Pentachlorophenol	266	8.014	8.012	0.002	94	142899	100.0	103.8	
158 n-Octadecane	85	8.158	8.156	0.002	95	136746	50.0	52.7	
161 Phenanthrene	178	8.206	8.204	0.002	98	582158	50.0	51.7	
162 Anthracene	178	8.260	8.257	0.003	98	597361	50.0	52.4	
164 Carbazole	167	8.425	8.423	0.002	95	593631	50.0	52.3	
166 Alachlor	188	8.591	8.589	0.003	98	76419	50.0	53.5	
168 Di-n-butyl phthalate	149	8.815	8.818	-0.003	100	709966	50.0	53.1	
175 Fluoranthene	202	9.366	9.363	0.003	99	622852	50.0	52.8	
178 Pyrene	202	9.595	9.593	0.002	97	672897	50.0	51.4	
187 Butyl benzyl phthalate	149	10.466	10.469	-0.003	96	322447	50.0	51.8	
189 3,3'-Dichlorobenzidine	252	11.225	11.222	0.003	75	250498	50.0	52.6	
191 Benzo[a]anthracene	228	11.214	11.217	-0.003	99	627312	50.0	51.1	
192 Chrysene	228	11.273	11.270	0.003	98	658280	50.0	51.0	
193 Bis(2-ethylhexyl) phthalate	149	11.481	11.484	-0.003	97	438707	50.0	51.8	
195 Di-n-octyl phthalate	149	12.854	12.852	0.002	99	696114	50.0	45.5	
196 Benzo[b]fluoranthene	252	13.319	13.311	0.008	98	595647	50.0	50.9	a
198 Benzo[k]fluoranthene	252	13.383	13.375	0.008	99	778087	50.0	54.4	a
201 Benzo[a]pyrene	252	13.917	14.027	-0.110	81	604747	50.0	52.9	
207 Indeno[1,2,3-cd]pyrene	276	16.764	16.746	0.018	98	449378	50.0	44.5	a
208 Dibenz(a,h)anthracene	278	16.882	16.874	0.008	94	520045	50.0	50.1	
209 Benzo[g,h,i]perylene	276	17.384	17.355	0.029	97	582227	50.0	52.4	
S 211 Total Cresols	108				0			104.5	
S 212 Methyl Phenols, Total	108				0			104.5	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA050_00068

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305985.D

Injection Date: 15-Nov-2022 15:14:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD050 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

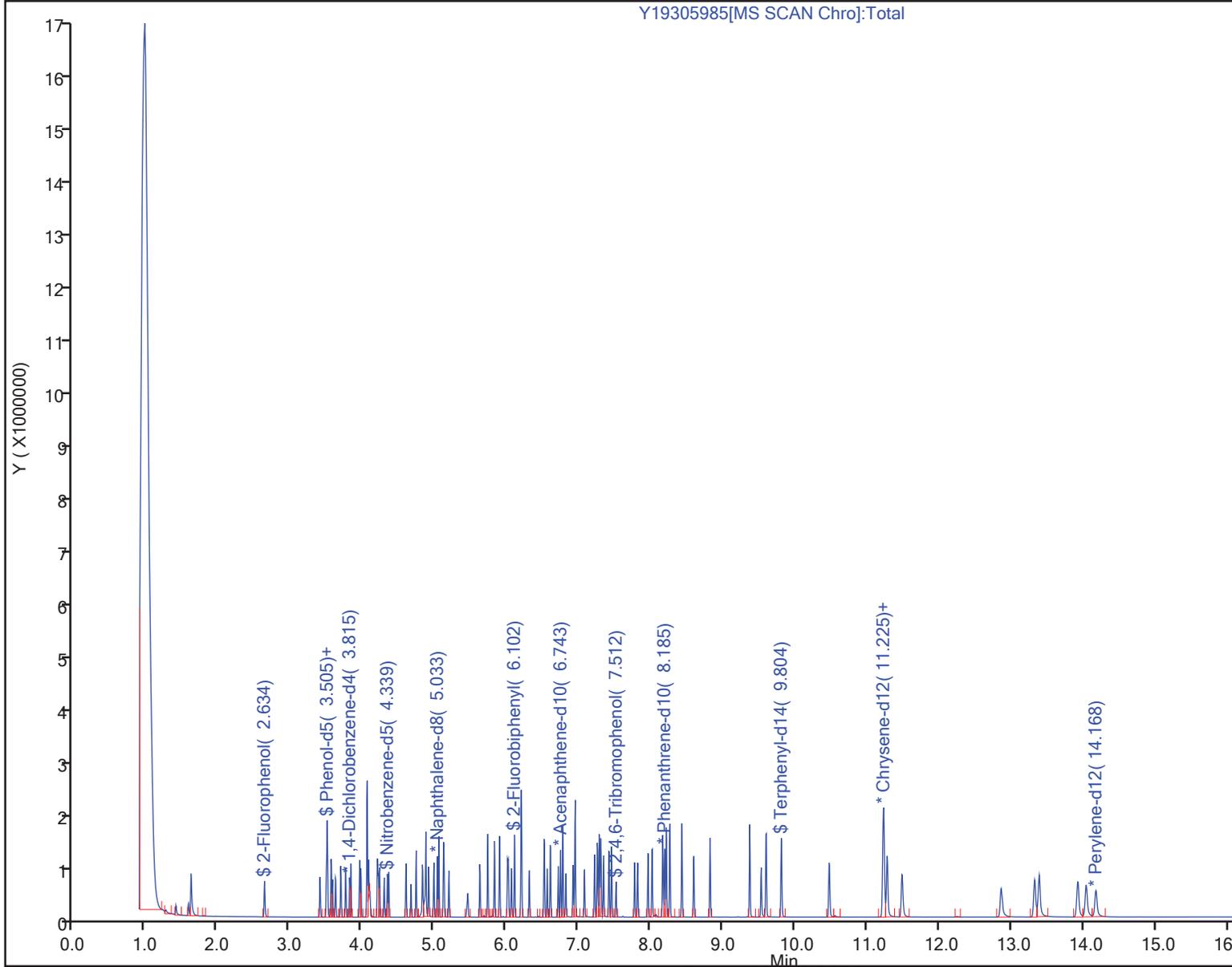
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

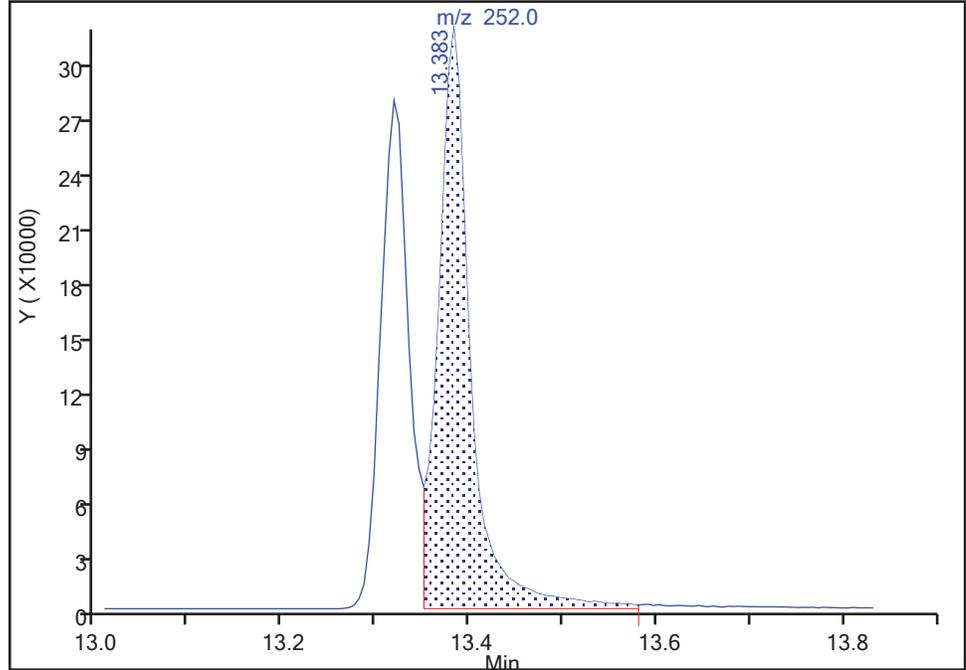
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Injection Date: 15-Nov-2022 15:14:30 Instrument ID: SMS_Y
Lims ID: STD050 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 10 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

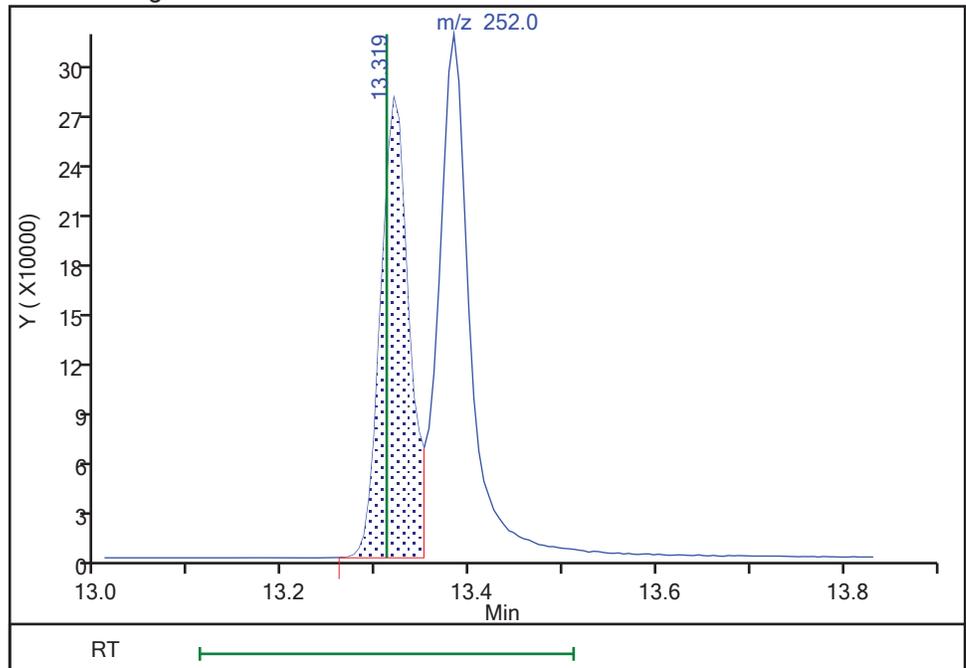
RT: 13.38
Area: 778087
Amount: 56.918303
Amount Units: ug/ml

Processing Integration Results



RT: 13.32
Area: 595647
Amount: 50.867391
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:43:41
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

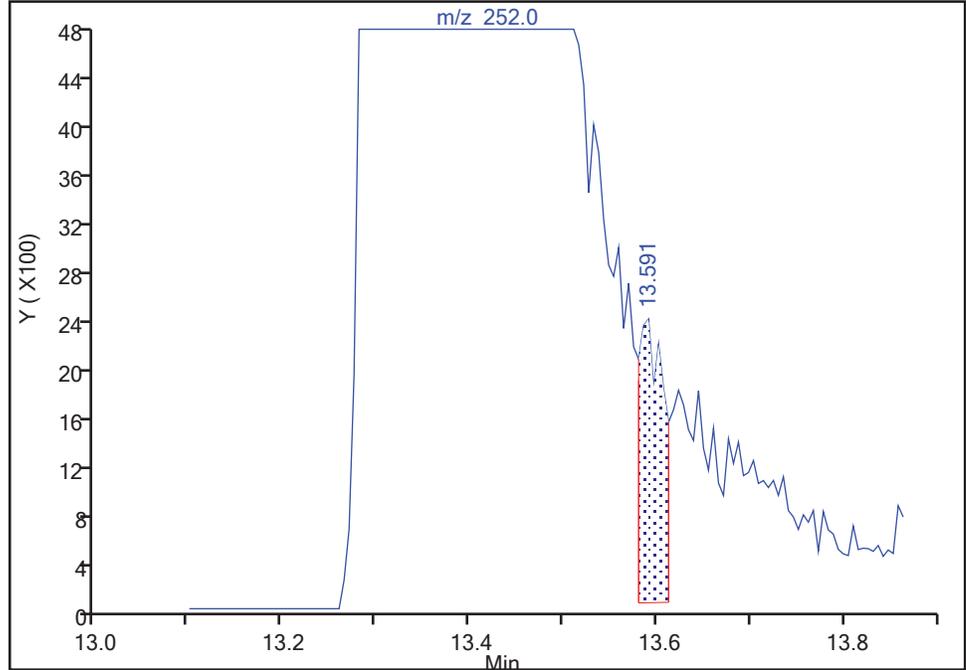
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Injection Date: 15-Nov-2022 15:14:30 Instrument ID: SMS_Y
Lims ID: STD050 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 10 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

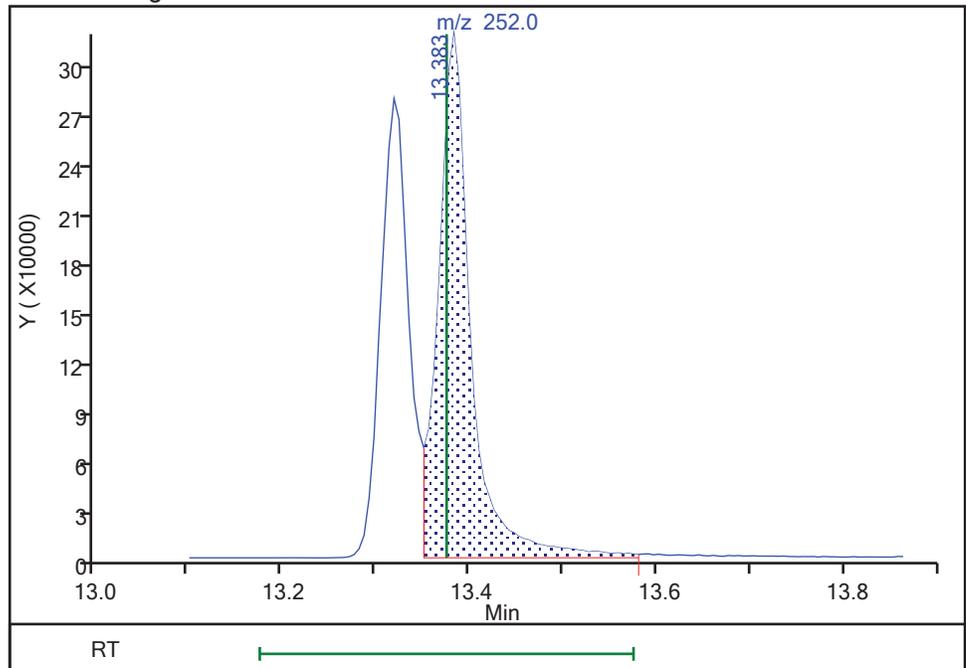
RT: 13.59
Area: 4436
Amount: 0.718241
Amount Units: ug/ml

Processing Integration Results



RT: 13.38
Area: 778087
Amount: 54.432654
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

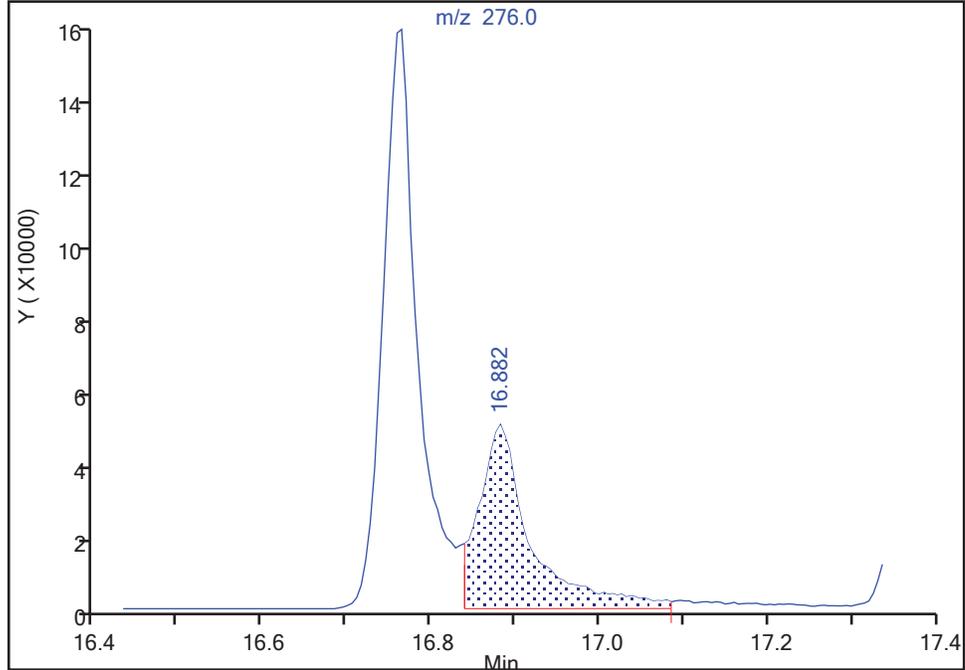
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Injection Date: 15-Nov-2022 15:14:30 Instrument ID: SMS_Y
Lims ID: STD050 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 10 Worklist Smp#: 35
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

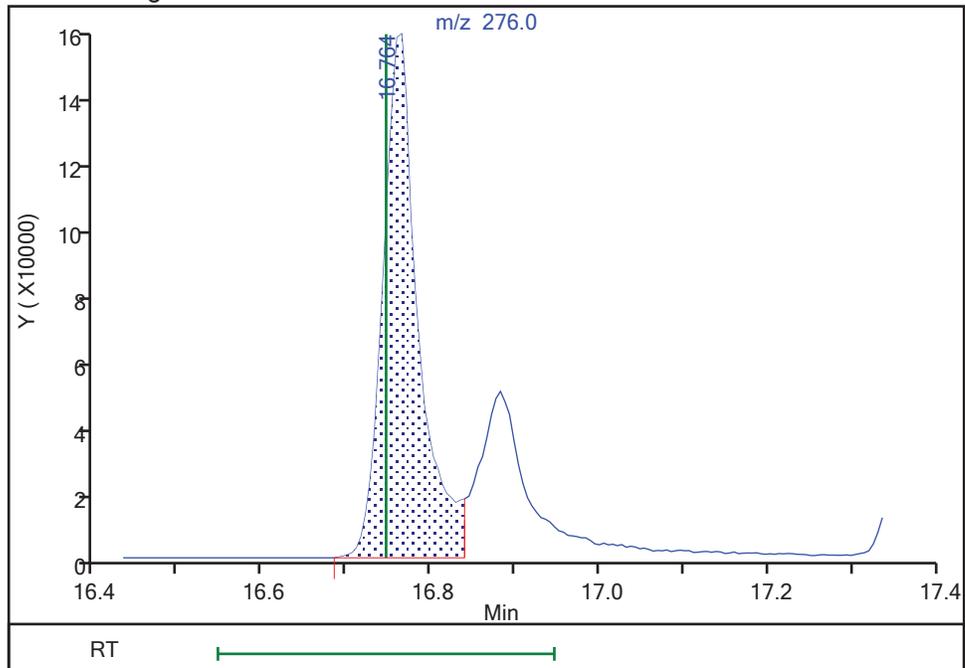
RT: 16.88
Area: 208989
Amount: 42.461711
Amount Units: ug/ml

Processing Integration Results



RT: 16.76
Area: 449378
Amount: 44.474511
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:43:48
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305986.D
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 15-Nov-2022 15:40:30 ALS Bottle#: 11 Worklist Smp#: 36
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD080 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:15 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 15-Nov-2022 16:28:04

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.815	3.815	0.000	97	108450	40.0	40.0	
* 2 Naphthalene-d8	136	5.033	5.033	0.000	99	448027	40.0	40.0	
* 3 Acenaphthene-d10	164	6.743	6.743	0.000	92	261849	40.0	40.0	
* 4 Phenanthrene-d10	188	8.185	8.185	0.000	97	457374	40.0	40.0	
* 5 Chrysene-d12	240	11.235	11.235	0.000	98	442649	40.0	40.0	
* 6 Perylene-d12	264	14.174	14.174	0.000	98	458111	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.635	2.635	0.000	91	337890	80.0	79.8	
\$ 8 Phenol-d5	99	3.495	3.495	0.000	94	465133	80.0	80.6	
\$ 9 Nitrobenzene-d5	82	4.344	4.344	0.000	85	407067	80.0	79.5	
\$ 11 2-Fluorobiphenyl	172	6.107	6.107	0.000	99	680917	80.0	78.6	
\$ 12 2,4,6-Tribromophenol	330	7.517	7.517	0.000	93	106814	80.0	82.0	
\$ 13 Terphenyl-d14	244	9.809	9.809	0.000	97	924828	80.0	80.4	
15 1,4-Dioxane	88	1.406	1.406	0.000	89	121817	80.0	81.3	
17 N-Nitrosodimethylamine	74	1.582	1.582	0.000	89	205647	80.0	78.8	
18 Pyridine	79	1.614	1.614	0.000	96	668175	160.0	162.7	
28 Phenol	94	3.505	3.505	0.000	91	461316	80.0	80.0	
30 Aniline	93	3.511	3.511	0.000	90	541394	80.0	79.4	
31 Bis(2-chloroethyl)ether	93	3.580	3.580	0.000	99	335664	80.0	79.6	
32 Alpha Methyl Styrene	118	3.564	3.564	0.000	91	315129	80.0	79.0	
34 2-Chlorophenol	128	3.623	3.623	0.000	96	312333	80.0	80.0	
35 n-Decane	43	3.692	3.692	0.000	85	238495	80.0	77.4	
37 1,3-Dichlorobenzene	146	3.762	3.762	0.000	96	319729	80.0	78.6	
38 1,4-Dichlorobenzene	146	3.831	3.831	0.000	93	326666	80.0	78.9	
39 Benzyl alcohol	108	3.959	3.959	0.000	92	234369	80.0	81.5	
40 1,2-Dichlorobenzene	146	3.975	3.975	0.000	97	311666	80.0	79.0	
41 2-Methylphenol	108	4.077	4.077	0.000	94	311489	80.0	80.1	
43 2,2'-oxybis[1-chloropropane]	45	4.098	4.098	0.000	95	365497	80.0	78.5	
44 Indene	116	4.061	4.061	0.000	88	1082334	160.0	157.0	
46 3-Methylphenol	108	4.232	4.232	0.000	91	333856	80.0	80.2	
47 4-Methylphenol	108	4.232	4.232	0.000	96	333856	80.0	80.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.232	4.232	0.000	99	333856	80.0	80.2	
50 N-Nitrosodi-n-propylamine	70	4.216	4.216	0.000	78	259405	80.0	79.9	
51 Acetophenone	105	4.205	4.205	0.000	98	466761	80.0	78.9	
53 Hexachloroethane	117	4.296	4.296	0.000	97	129982	80.0	78.6	
54 Nitrobenzene	77	4.360	4.360	0.000	85	365102	80.0	77.7	
57 Isophorone	82	4.600	4.600	0.000	98	708591	80.0	80.1	
58 2-Nitrophenol	139	4.670	4.670	0.000	93	174121	80.0	82.7	
59 2,4-Dimethylphenol	107	4.739	4.739	0.000	96	340189	80.0	80.4	
63 Bis(2-chloroethoxy)methane	93	4.830	4.830	0.000	98	418011	80.0	79.4	
64 Benzoic acid	105	4.900	4.900	0.000	85	564557	160.0	161.9	
66 3,5-Dimethylphenol	107	4.878	4.878	0.000	89	337251	80.0	80.3	
68 2,4-Dichlorophenol	162	4.916	4.916	0.000	95	251219	80.0	80.6	
69 1,2,4-Trichlorobenzene	180	4.985	4.985	0.000	94	254967	80.0	78.7	
71 Naphthalene	128	5.055	5.055	0.000	97	901286	80.0	78.6	
72 4-Chloroaniline	127	5.119	5.119	0.000	96	398508	80.0	80.1	
73 2,6-Dichlorophenol	162	5.129	5.129	0.000	97	245012	80.0	80.5	
75 Hexachlorobutadiene	225	5.193	5.193	0.000	97	137041	80.0	79.3	
79 Caprolactam	55	5.477	5.477	0.000	86	153652	80.0	78.7	
83 4-Chloro-3-methylphenol	107	5.626	5.626	0.000	96	305103	80.0	81.2	
86 2-Methylnaphthalene	142	5.733	5.733	0.000	93	600064	80.0	79.3	
88 1-Methylnaphthalene	142	5.829	5.829	0.000	94	564060	80.0	78.8	
89 1,2,4,5-Tetrachlorobenzene	216	5.899	5.899	0.000	98	233947	80.0	79.2	
90 Hexachlorocyclopentadiene	237	5.899	5.899	0.000	96	167105	80.0	83.9	
92 2,4,6-Trichlorophenol	196	6.021	6.021	0.000	94	171859	80.0	79.9	
93 2,3-Dichlorobenzenamine	161	6.011	6.011	0.000	96	302136	80.0	78.5	
94 2,4,5-Trichlorophenol	196	6.064	6.064	0.000	94	188527	80.0	79.7	
98 1,1'-Biphenyl	154	6.198	6.198	0.000	95	704633	80.0	78.1	
99 2-Chloronaphthalene	162	6.203	6.203	0.000	98	538762	80.0	78.0	
101 2-Nitroaniline	65	6.310	6.310	0.000	83	207043	80.0	81.0	
104 Dimethyl phthalate	163	6.518	6.518	0.000	96	616690	80.0	77.9	
105 1,3-Dinitrobenzene	168	6.524	6.524	0.000	87	115011	80.0	83.5	
106 2,6-Dinitrotoluene	165	6.561	6.561	0.000	95	155781	80.0	81.1	
107 Acenaphthylene	152	6.604	6.604	0.000	99	905385	80.0	79.0	
108 3-Nitroaniline	138	6.716	6.716	0.000	94	198700	80.0	82.3	
109 Acenaphthene	153	6.775	6.775	0.000	95	571717	80.0	77.6	
111 2,4-Dinitrophenol	184	6.817	6.817	0.000	86	178916	160.0	156.7	
112 4-Nitrophenol	109	6.919	6.919	0.000	90	198233	160.0	158.7	
114 2,4-Dinitrotoluene	165	6.946	6.946	0.000	64	199315	80.0	80.7	
116 Dibenzofuran	168	6.946	6.946	0.000	96	772326	80.0	77.1	
119 2,3,4,6-Tetrachlorophenol	232	7.074	7.074	0.000	74	157036	80.0	82.3	
123 Diethyl phthalate	149	7.218	7.218	0.000	98	653659	80.0	78.7	
124 Hexadecane	57	7.256	7.256	0.000	89	439544	80.0	80.2	
127 4-Chlorophenyl phenyl ether	204	7.298	7.298	0.000	95	285208	80.0	77.7	
129 Fluorene	166	7.282	7.282	0.000	95	669315	80.0	78.2	
130 4-Nitroaniline	138	7.314	7.314	0.000	86	203766	80.0	81.1	
131 4,6-Dinitro-2-methylphenol	198	7.346	7.346	0.000	83	231523	160.0	161.9	
134 Diphenylamine	169	7.416	7.416	0.000	95	488433	68.0	66.4	
135 N-Nitrosodiphenylamine	169	7.416	7.416	0.000	99	488433	80.0	78.9	
136 1,2-Diphenylhydrazine	182	7.453	7.453	0.000	98	179561	80.9	80.5	
137 Azobenzene	77	7.453	7.453	0.000	97	806779	80.0	79.3	
148 4-Bromophenyl phenyl ether	248	7.774	7.774	0.000	66	181631	80.0	79.9	
151 Hexachlorobenzene	284	7.811	7.811	0.000	95	201679	80.0	78.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.961	7.961	0.000	90	171493	80.0	80.0	
155 Pentachlorophenol	266	8.014	8.014	0.000	93	247668	160.0	163.4	
158 n-Octadecane	85	8.158	8.158	0.000	95	234308	80.0	82.9	
161 Phenanthrene	178	8.212	8.212	0.000	98	956089	80.0	78.0	
162 Anthracene	178	8.260	8.260	0.000	98	976091	80.0	78.7	
164 Carbazole	167	8.425	8.425	0.000	95	967367	80.0	78.3	
166 Alachlor	188	8.591	8.591	0.000	97	126737	80.0	81.5	
168 Di-n-butyl phthalate	149	8.815	8.815	0.000	100	1181338	80.0	81.2	
175 Fluoranthene	202	9.371	9.371	0.000	98	1016124	80.0	79.1	
178 Pyrene	202	9.595	9.595	0.000	97	1089409	80.0	79.5	
187 Butyl benzyl phthalate	149	10.471	10.471	0.000	96	550102	80.0	84.4	
189 3,3'-Dichlorobenzidine	252	11.230	11.230	0.000	75	408808	80.0	82.0	
191 Benzo[a]anthracene	228	11.219	11.219	0.000	99	1039575	80.0	81.0	
192 Chrysene	228	11.278	11.278	0.000	98	1056683	80.0	78.3	
193 Bis(2-ethylhexyl) phthalate	149	11.481	11.481	0.000	97	767840	80.0	86.6	
195 Di-n-octyl phthalate	149	12.859	12.859	0.000	99	1268872	80.0	76.9	
196 Benzo[b]fluoranthene	252	13.330	13.330	0.000	98	999524	80.0	77.7	a
198 Benzo[k]fluoranthene	252	13.394	13.394	0.000	99	1274145	80.0	82.2	a
201 Benzo[a]pyrene	252	14.045	14.045	0.000	78	1063821	80.0	85.7	a
207 Indeno[1,2,3-cd]pyrene	276	16.775	16.775	0.000	98	837565	80.0	76.6	a
208 Dibenz(a,h)anthracene	278	16.898	16.898	0.000	94	950108	80.0	82.7	
209 Benzo[g,h,i]perylene	276	17.400	17.400	0.000	98	1046340	80.0	86.9	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA080_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305986.D

Injection Date: 15-Nov-2022 15:40:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: ICIS

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

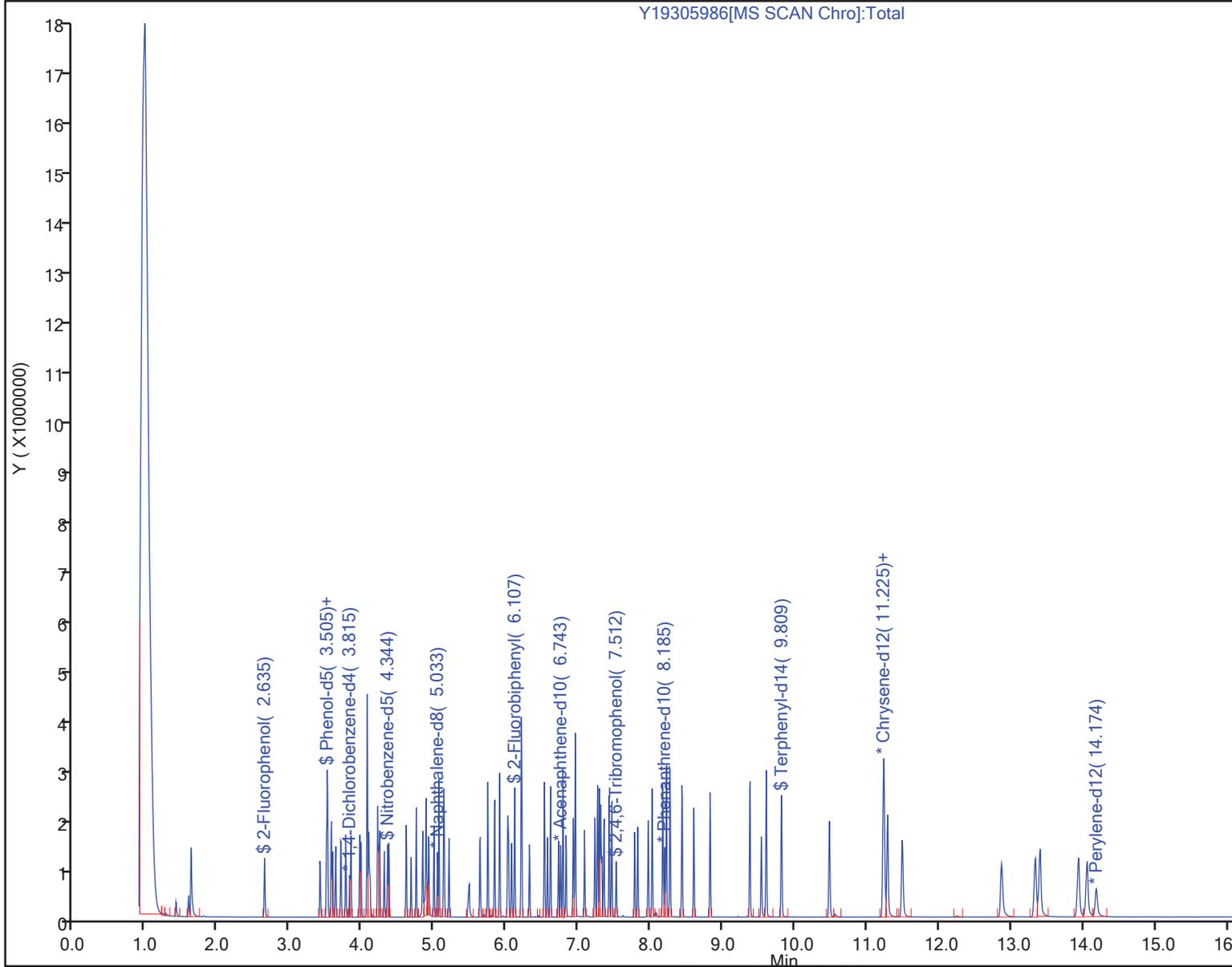
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

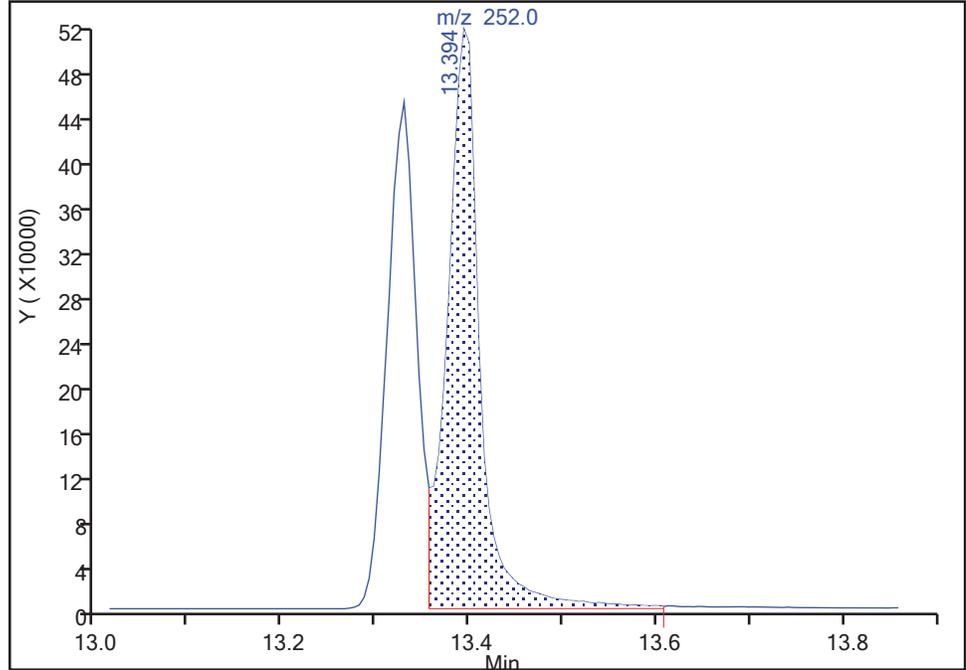
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Lims ID: ICIS
Client ID:
Operator ID: TESSIERN ALS Bottle#: 11 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

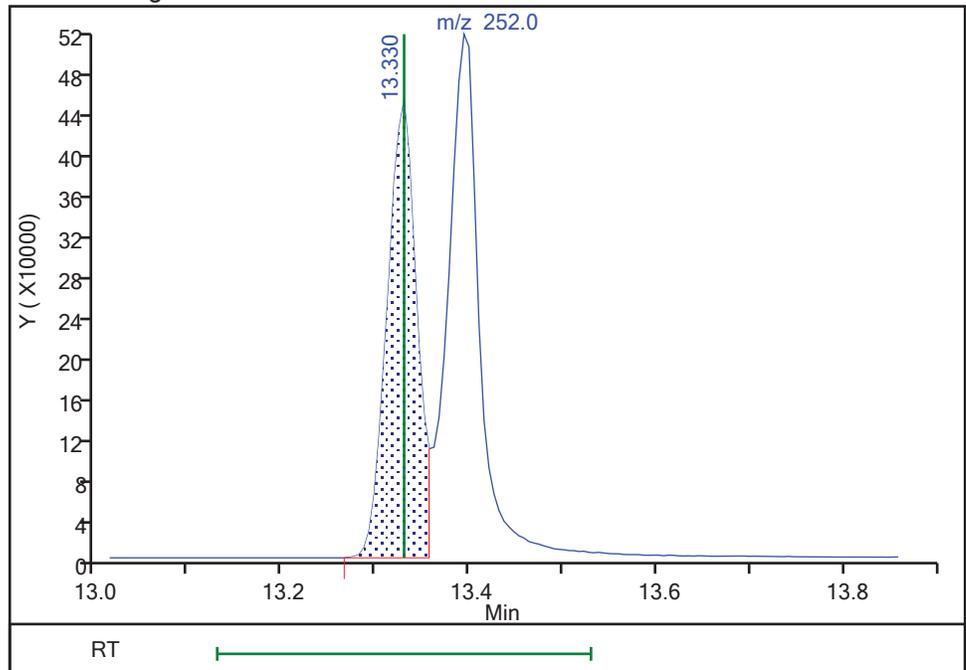
RT: 13.39
Area: 1274145
Amount: 86.389283
Amount Units: ug/ml

Processing Integration Results



RT: 13.33
Area: 999524
Amount: 77.699229
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:44:42
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

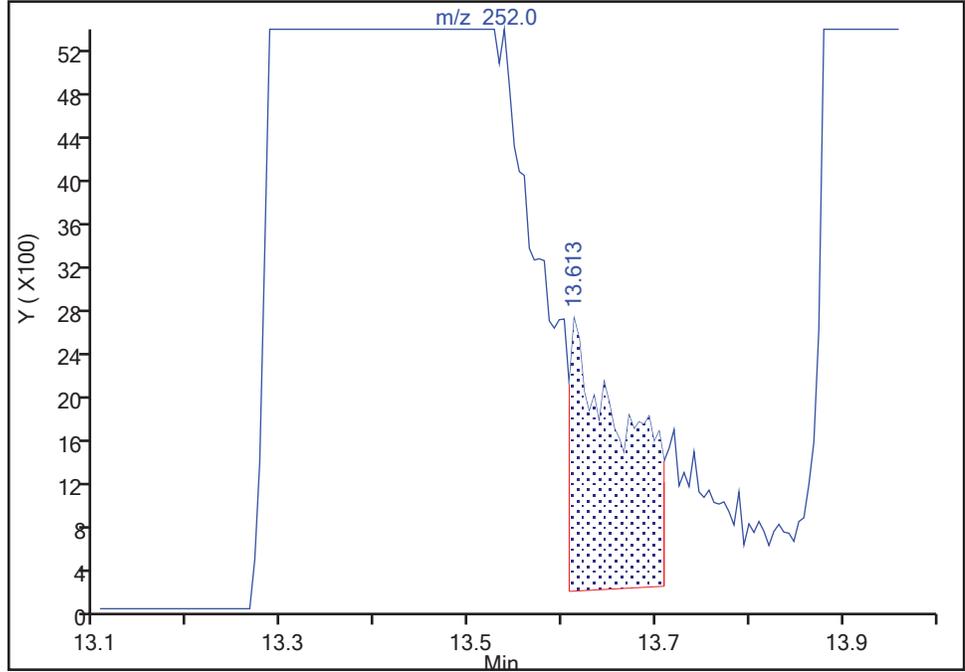
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Injection Date: 15-Nov-2022 15:40:30 Instrument ID: SMS_Y
Lims ID: ICIS
Client ID:
Operator ID: TESSIERN ALS Bottle#: 11 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

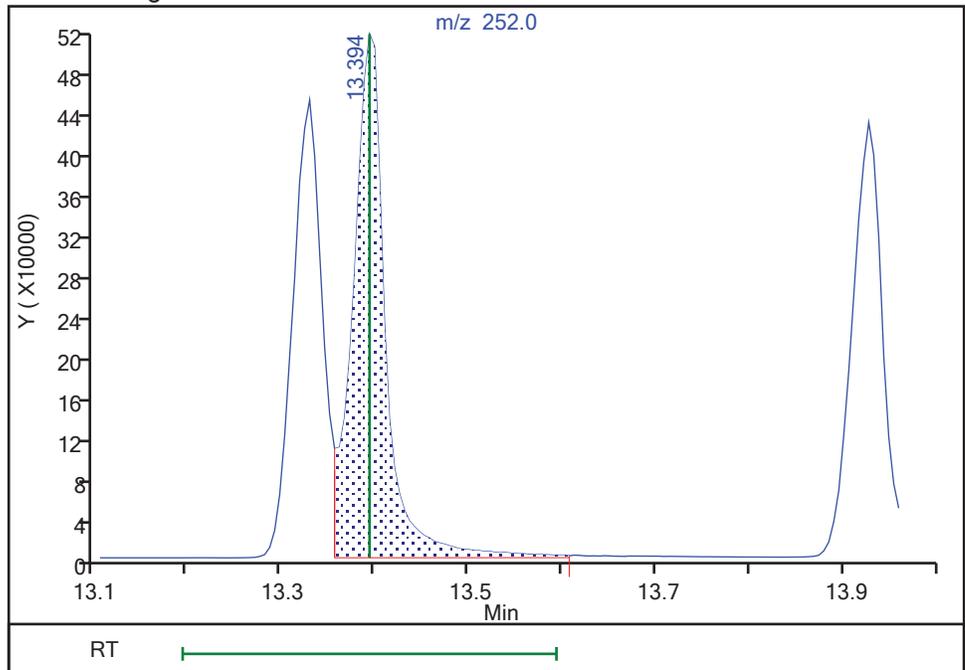
RT: 13.61
Area: 10463
Amount: 1.149893
Amount Units: ug/ml

Processing Integration Results



RT: 13.39
Area: 1274145
Amount: 82.155918
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

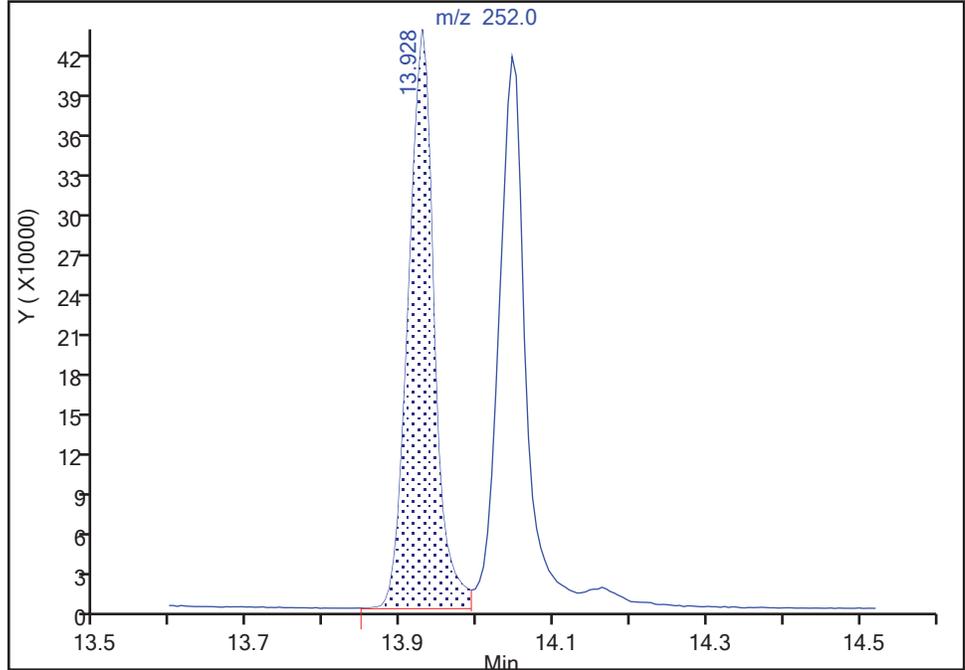
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Lims ID: ICIS
Client ID:
Operator ID: TESSIERN ALS Bottle#: 11 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

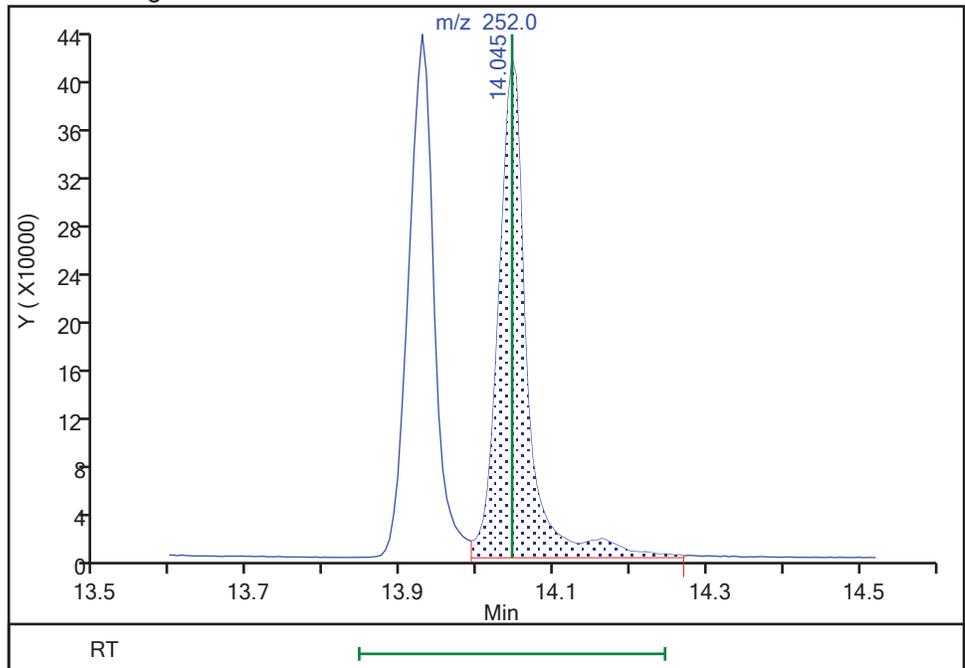
RT: 13.93
Area: 1007904
Amount: 83.318038
Amount Units: ug/ml

Processing Integration Results



RT: 14.05
Area: 1063821
Amount: 85.732081
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:44:50
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

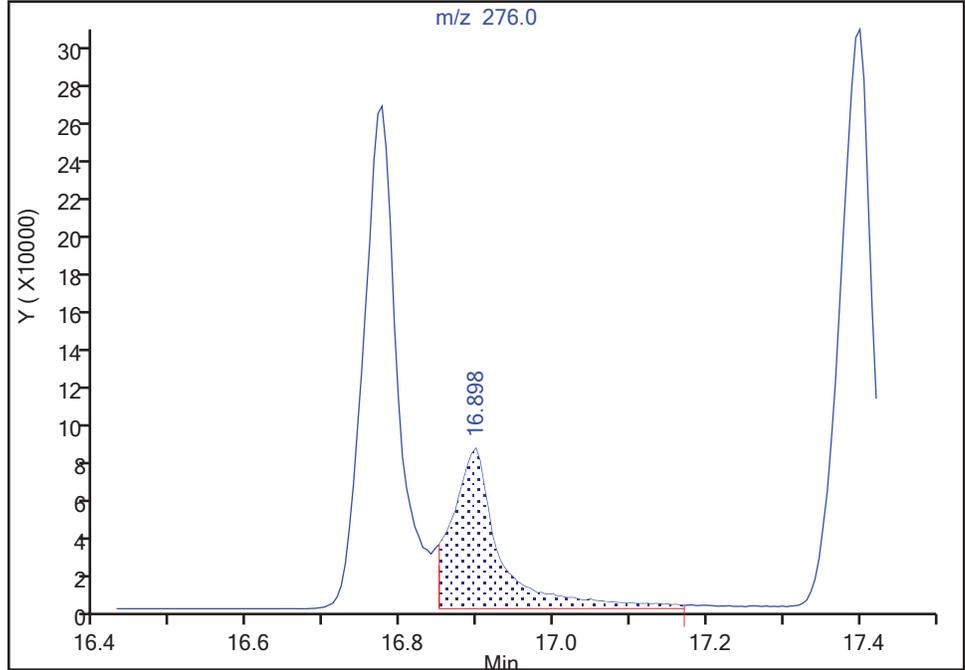
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Injection Date: 15-Nov-2022 15:40:30 Instrument ID: SMS_Y
Lims ID: ICIS
Client ID:
Operator ID: TESSIERN ALS Bottle#: 11 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

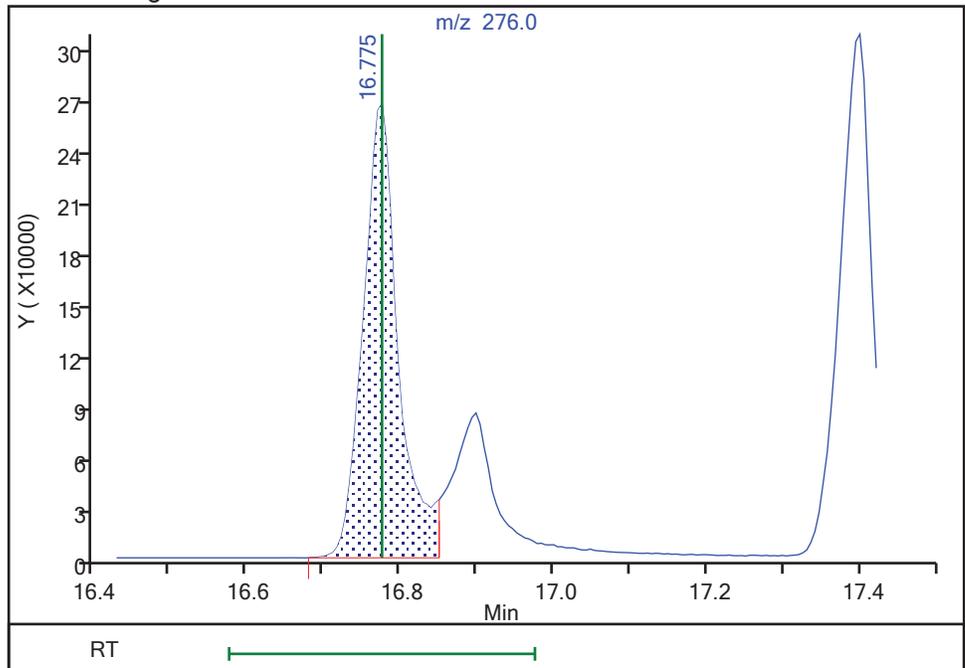
RT: 16.90
Area: 361800
Amount: 62.615063
Amount Units: ug/ml

Processing Integration Results



RT: 16.78
Area: 837565
Amount: 76.648331
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:44:53
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305987.D
 Lims ID: STD120 HSL
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-Nov-2022 16:05:30 ALS Bottle#: 12 Worklist Smp#: 37
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD120 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
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 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:21 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 16-Nov-2022 12:46:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.820	3.815	0.005	95	112697	40.0	40.0	
* 2 Naphthalene-d8	136	5.038	5.033	0.005	99	469079	40.0	40.0	
* 3 Acenaphthene-d10	164	6.742	6.743	-0.001	92	271141	40.0	40.0	
* 4 Phenanthrene-d10	188	8.190	8.185	0.005	97	484412	40.0	40.0	
* 5 Chrysene-d12	240	11.240	11.235	0.005	99	474140	40.0	40.0	
* 6 Perylene-d12	264	14.179	14.174	0.005	97	489339	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.634	2.635	-0.001	91	491156	120.0	111.6	
\$ 8 Phenol-d5	99	3.494	3.495	-0.001	94	672716	120.0	112.2	
\$ 9 Nitrobenzene-d5	82	4.344	4.344	0.000	86	601241	120.0	112.1	
\$ 11 2-Fluorobiphenyl	172	6.107	6.107	0.000	99	963439	120.0	107.4	
\$ 12 2,4,6-Tribromophenol	330	7.517	7.517	0.000	94	158328	120.0	117.4	
\$ 13 Terphenyl-d14	244	9.809	9.809	0.000	97	1356050	120.0	110.1	
15 1,4-Dioxane	88	1.405	1.406	-0.001	89	174481	120.0	113.2	
17 N-Nitrosodimethylamine	74	1.582	1.582	0.000	87	292017	120.0	107.6	
18 Pyridine	79	1.614	1.614	0.000	96	931561	240.0	218.3	
28 Phenol	94	3.510	3.505	0.005	90	659320	120.0	110.0	
30 Aniline	93	3.510	3.511	-0.001	77	779598	120.0	110.0	
31 Bis(2-chloroethyl)ether	93	3.585	3.580	0.005	99	483594	120.0	110.4	
32 Alpha Methyl Styrene	118	3.564	3.564	0.000	91	457821	120.0	110.5	
34 2-Chlorophenol	128	3.622	3.623	-0.001	96	445247	120.0	109.8	
35 n-Decane	43	3.697	3.692	0.005	84	338928	120.0	105.9	
37 1,3-Dichlorobenzene	146	3.761	3.762	-0.001	97	461552	120.0	109.2	
38 1,4-Dichlorobenzene	146	3.836	3.831	0.005	93	466243	120.0	108.3	
39 Benzyl alcohol	108	3.959	3.959	0.000	92	337676	120.0	112.9	
40 1,2-Dichlorobenzene	146	3.975	3.975	0.000	96	449178	120.0	109.6	
41 2-Methylphenol	108	4.082	4.077	0.005	94	450423	120.0	111.5	
43 2,2'-oxybis[1-chloropropane]	45	4.098	4.098	0.000	94	523741	120.0	108.3	
44 Indene	116	4.061	4.061	0.000	88	1529967	240.0	213.5	
46 3-Methylphenol	108	4.237	4.232	0.005	91	476698	120.0	110.2	
47 4-Methylphenol	108	4.237	4.232	0.005	95	476698	120.0	110.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.237	4.232	0.005	99	476698	120.0	110.2	
50 N-Nitrosodi-n-propylamine	70	4.221	4.216	0.005	78	368378	120.0	109.2	
51 Acetophenone	105	4.205	4.205	0.000	97	674953	120.0	109.8	
53 Hexachloroethane	117	4.296	4.296	0.000	97	189030	120.0	110.0	
54 Nitrobenzene	77	4.365	4.360	0.005	84	535211	120.0	108.8	
57 Isophorone	82	4.605	4.600	0.005	98	1028541	120.0	111.0	
58 2-Nitrophenol	139	4.670	4.670	0.000	94	256086	120.0	116.1	
59 2,4-Dimethylphenol	107	4.744	4.739	0.005	95	487797	120.0	110.2	
63 Bis(2-chloroethoxy)methane	93	4.830	4.830	0.000	98	599925	120.0	108.8	
64 Benzoic acid	105	4.926	4.900	0.026	86	864400	240.0	234.3	
66 3,5-Dimethylphenol	107	4.878	4.878	0.000	86	486108	120.0	110.6	
68 2,4-Dichlorophenol	162	4.915	4.916	-0.001	95	355803	120.0	109.1	
69 1,2,4-Trichlorobenzene	180	4.990	4.985	0.005	94	364904	120.0	107.6	
71 Naphthalene	128	5.054	5.055	-0.001	97	1293265	120.0	107.7	
72 4-Chloroaniline	127	5.124	5.119	0.005	95	567403	120.0	108.9	
73 2,6-Dichlorophenol	162	5.129	5.129	0.000	96	345840	120.0	108.5	
75 Hexachlorobutadiene	225	5.193	5.193	0.000	98	193958	120.0	107.2	
79 Caprolactam	55	5.492	5.477	0.015	86	230692	120.0	113.7	
83 4-Chloro-3-methylphenol	107	5.626	5.626	0.000	95	444395	120.0	112.9	
86 2-Methylnaphthalene	142	5.733	5.733	0.000	93	862045	120.0	108.8	
88 1-Methylnaphthalene	142	5.829	5.829	0.000	94	809597	120.0	108.1	
89 1,2,4,5-Tetrachlorobenzene	216	5.898	5.899	-0.001	98	326782	120.0	105.7	
90 Hexachlorocyclopentadiene	237	5.898	5.899	-0.001	96	237355	120.0	115.1	
92 2,4,6-Trichlorophenol	196	6.021	6.021	0.000	93	246617	120.0	110.7	
93 2,3-Dichlorobenzenamine	161	6.010	6.011	-0.001	97	426347	120.0	107.0	
94 2,4,5-Trichlorophenol	196	6.064	6.064	0.000	93	276266	120.0	112.7	
98 1,1'-Biphenyl	154	6.197	6.198	-0.001	95	986454	120.0	105.5	
99 2-Chloronaphthalene	162	6.208	6.203	0.005	97	748184	120.0	104.6	
101 2-Nitroaniline	65	6.315	6.310	0.005	84	306434	120.0	115.8	
104 Dimethyl phthalate	163	6.523	6.518	0.005	97	883572	120.0	107.8	
105 1,3-Dinitrobenzene	168	6.529	6.524	0.005	87	168298	120.0	118.0	
106 2,6-Dinitrotoluene	165	6.566	6.561	0.005	95	225449	120.0	113.4	
107 Acenaphthylene	152	6.603	6.604	-0.001	99	1303527	120.0	109.8	
108 3-Nitroaniline	138	6.721	6.716	0.005	95	289325	120.0	115.8	
109 Acenaphthene	153	6.780	6.775	0.005	94	821437	120.0	107.7	
111 2,4-Dinitrophenol	184	6.822	6.817	0.005	86	279327	240.0	232.0	
112 4-Nitrophenol	109	6.924	6.919	0.005	91	303884	240.0	233.3	
114 2,4-Dinitrotoluene	165	6.951	6.946	0.005	65	285688	120.0	111.7	
116 Dibenzofuran	168	6.951	6.946	0.005	95	1090562	120.0	105.1	
119 2,3,4,6-Tetrachlorophenol	232	7.079	7.074	0.005	74	228829	120.0	115.8	
123 Diethyl phthalate	149	7.223	7.218	0.005	98	948631	120.0	110.3	
124 Hexadecane	57	7.255	7.256	-0.001	89	610205	120.0	107.5	
127 4-Chlorophenyl phenyl ether	204	7.298	7.298	0.000	96	405601	120.0	106.7	
129 Fluorene	166	7.282	7.282	0.000	94	945672	120.0	106.7	
130 4-Nitroaniline	138	7.325	7.314	0.011	86	301194	120.0	115.8	
131 4,6-Dinitro-2-methylphenol	198	7.351	7.346	0.005	81	350269	240.0	228.9	
134 Diphenylamine	169	7.421	7.416	0.005	96	710203	102.0	93.2	
135 N-Nitrosodiphenylamine	169	7.421	7.416	0.005	99	710203	120.0	108.3	
136 1,2-Diphenylhydrazine	182	7.453	7.453	0.000	98	257490	121.3	111.4	
137 Azobenzene	77	7.453	7.453	0.000	96	1166731	120.0	110.7	
148 4-Bromophenyl phenyl ether	248	7.773	7.774	-0.001	66	257998	120.0	107.2	
151 Hexachlorobenzene	284	7.816	7.811	0.005	95	287431	120.0	106.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.966	7.961	0.005	92	251684	120.0	110.8	
155 Pentachlorophenol	266	8.019	8.014	0.005	93	363422	240.0	225.1	
158 n-Octadecane	85	8.163	8.158	0.005	95	329164	120.0	110.0	
161 Phenanthrene	178	8.211	8.212	-0.001	98	1371405	120.0	105.7	
162 Anthracene	178	8.265	8.260	0.005	98	1408473	120.0	107.2	
164 Carbazole	167	8.430	8.425	0.005	95	1408814	120.0	107.7	
166 Alachlor	188	8.596	8.591	0.005	97	186177	120.0	113.1	
168 Di-n-butyl phthalate	149	8.820	8.815	0.005	100	1719819	120.0	111.6	
175 Fluoranthene	202	9.371	9.371	0.000	99	1493566	120.0	109.8	
178 Pyrene	202	9.600	9.595	0.005	97	1585448	120.0	108.0	
187 Butyl benzyl phthalate	149	10.471	10.471	0.000	96	827979	120.0	118.6	
189 3,3'-Dichlorobenzidine	252	11.235	11.230	0.005	75	600274	120.0	112.4	
191 Benzo[a]anthracene	228	11.224	11.219	0.005	99	1560378	120.0	113.5	
192 Chrysene	228	11.283	11.278	0.005	98	1572163	120.0	108.7	
193 Bis(2-ethylhexyl) phthalate	149	11.481	11.481	0.000	97	1161093	120.0	122.2	
195 Di-n-octyl phthalate	149	12.864	12.859	0.005	99	1996298	120.0	111.5	
196 Benzo[b]fluoranthene	252	13.334	13.330	0.004	98	1572395	120.0	113.6	a
198 Benzo[k]fluoranthene	252	13.404	13.394	0.010	99	1829689	120.0	110.4	a
201 Benzo[a]pyrene	252	14.056	14.045	0.011	78	1589882	120.0	120.0	a
207 Indeno[1,2,3-cd]pyrene	276	16.791	16.775	0.016	98	1290838	120.0	108.8	a
208 Dibenz(a,h)anthracene	278	16.914	16.898	0.016	94	1432086	120.0	115.8	
209 Benzo[g,h,i]perylene	276	17.416	17.400	0.016	98	1509274	120.0	117.3	
S 211 Total Cresols	108				0			221.6	
S 212 Methyl Phenols, Total	108				0			221.6	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLA120_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305987.D

Injection Date: 15-Nov-2022 16:05:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD120 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

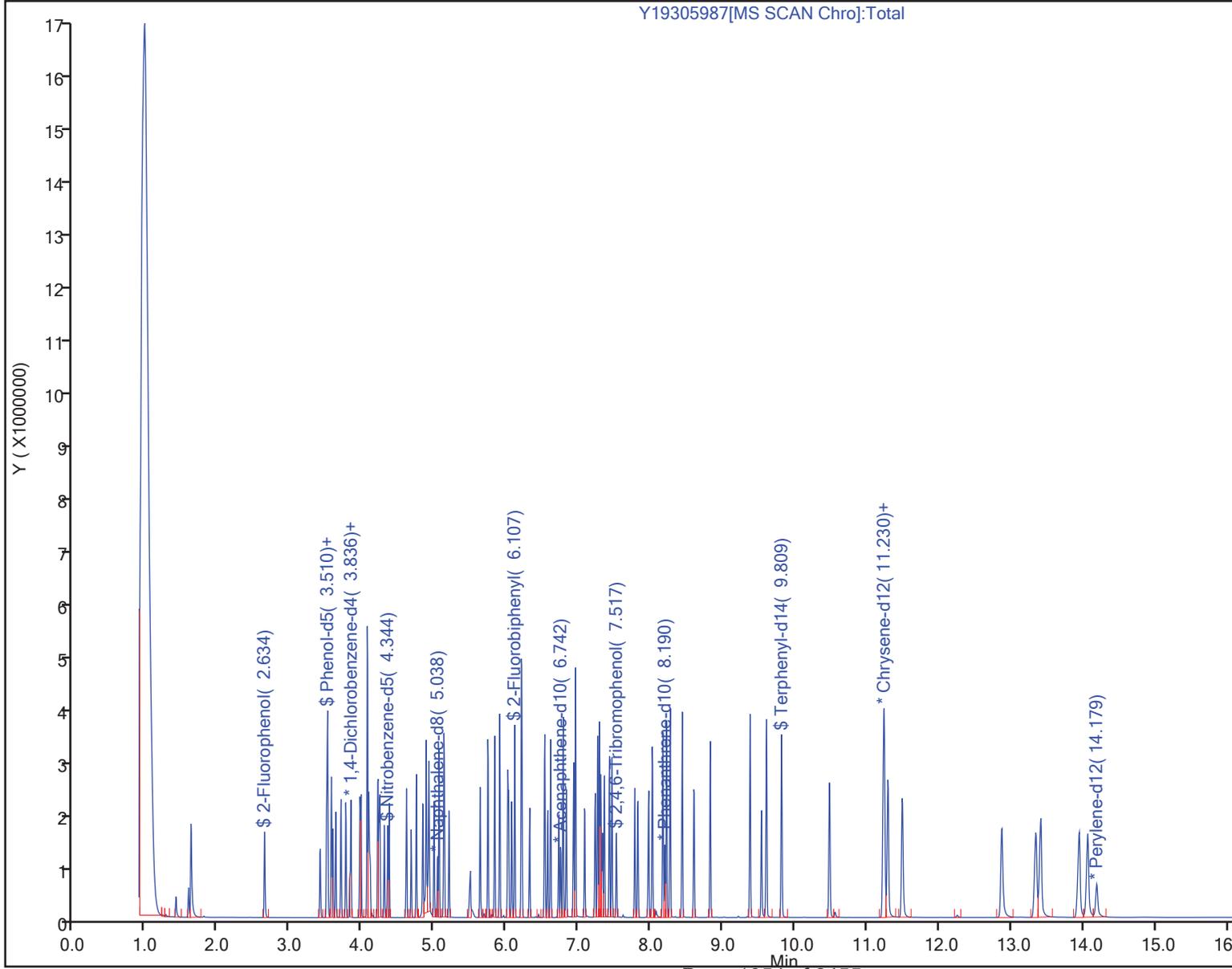
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

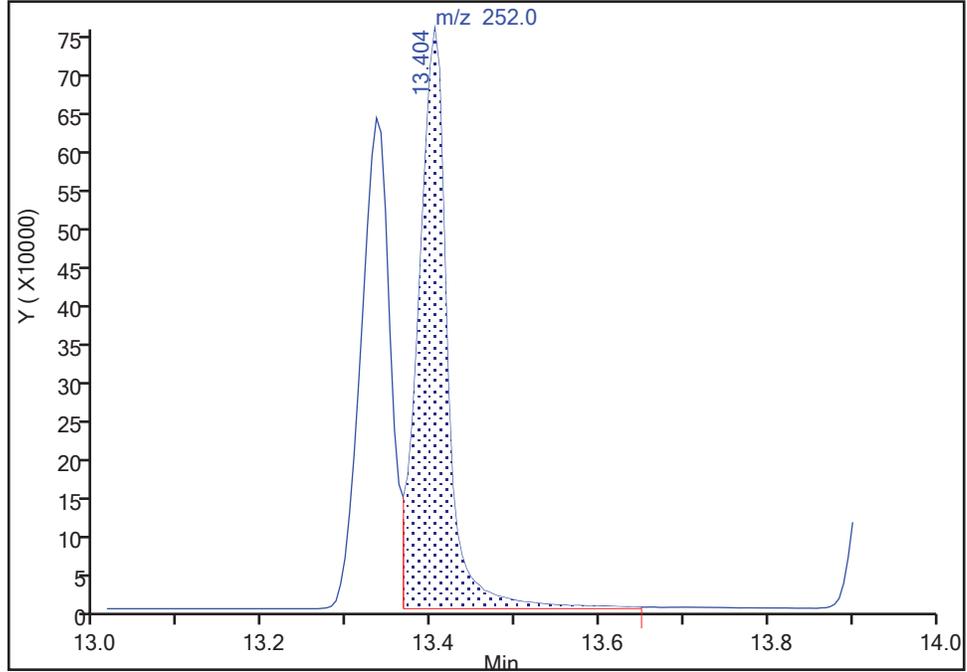
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305987.D
Injection Date: 15-Nov-2022 16:05:30 Instrument ID: SMS_Y
Lims ID: STD120 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 12 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

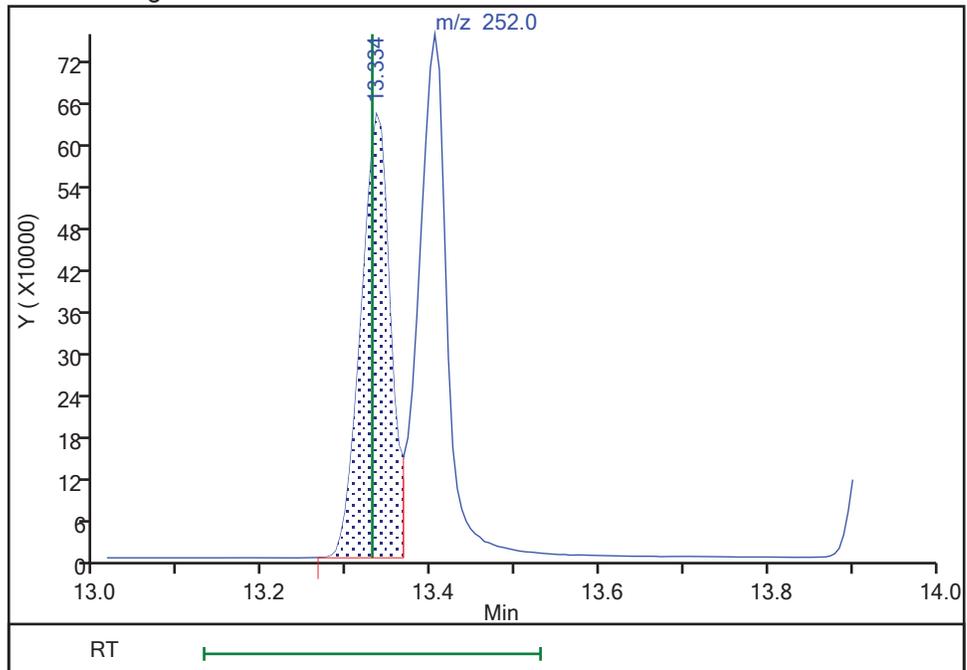
RT: 13.40
Area: 1829689
Amount: 118.5268
Amount Units: ug/ml

Processing Integration Results



RT: 13.33
Area: 1572395
Amount: 113.5884
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:45:50
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

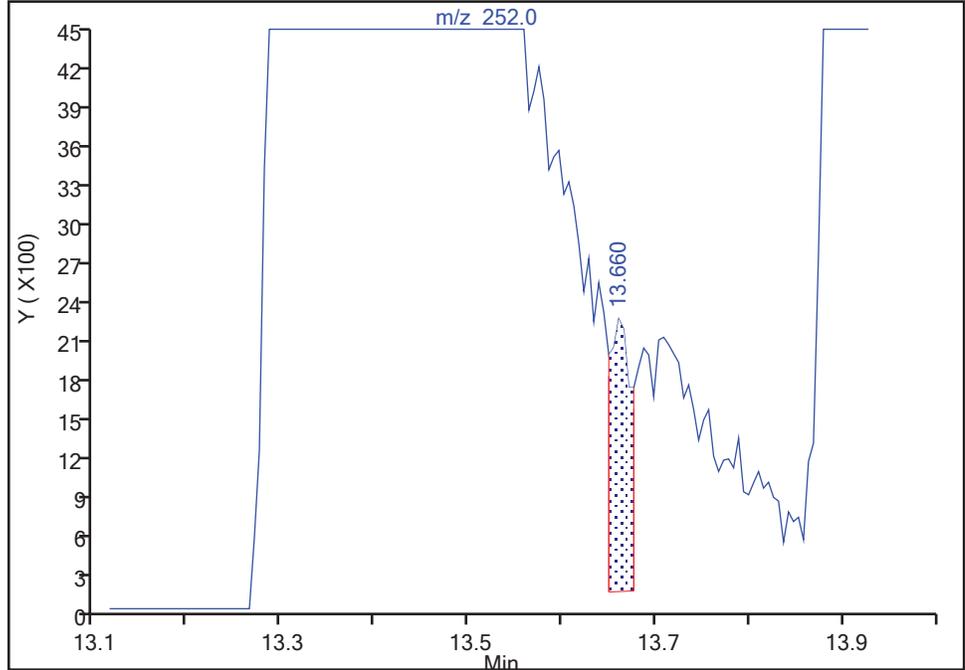
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305987.D
Injection Date: 15-Nov-2022 16:05:30 Instrument ID: SMS_Y
Lims ID: STD120 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 12 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

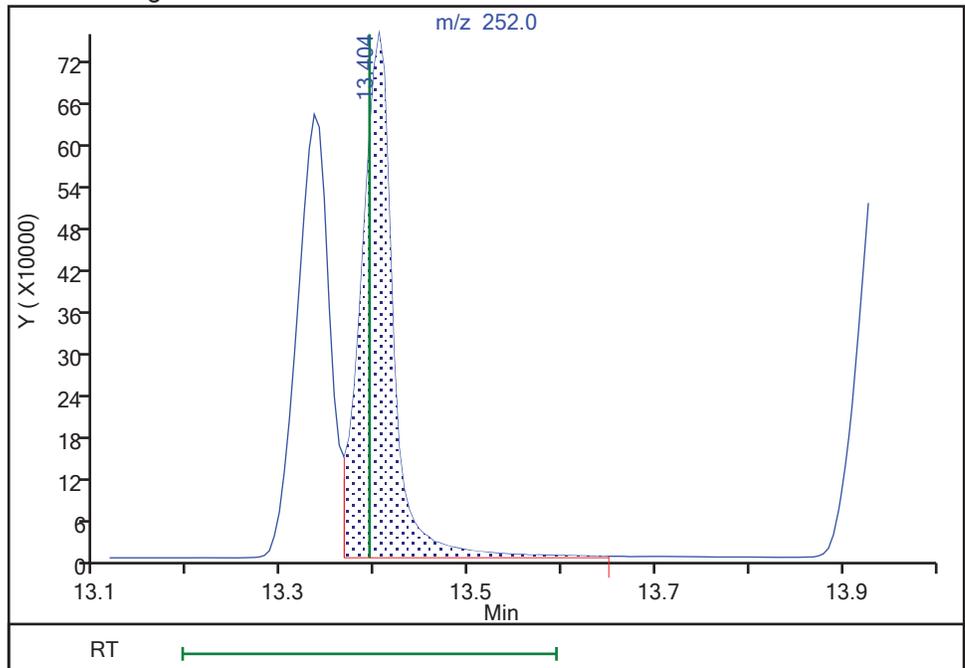
RT: 13.66
Area: 3525
Amount: 0.290607
Amount Units: ug/ml

Processing Integration Results



RT: 13.40
Area: 1829689
Amount: 110.4481
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:45:53
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

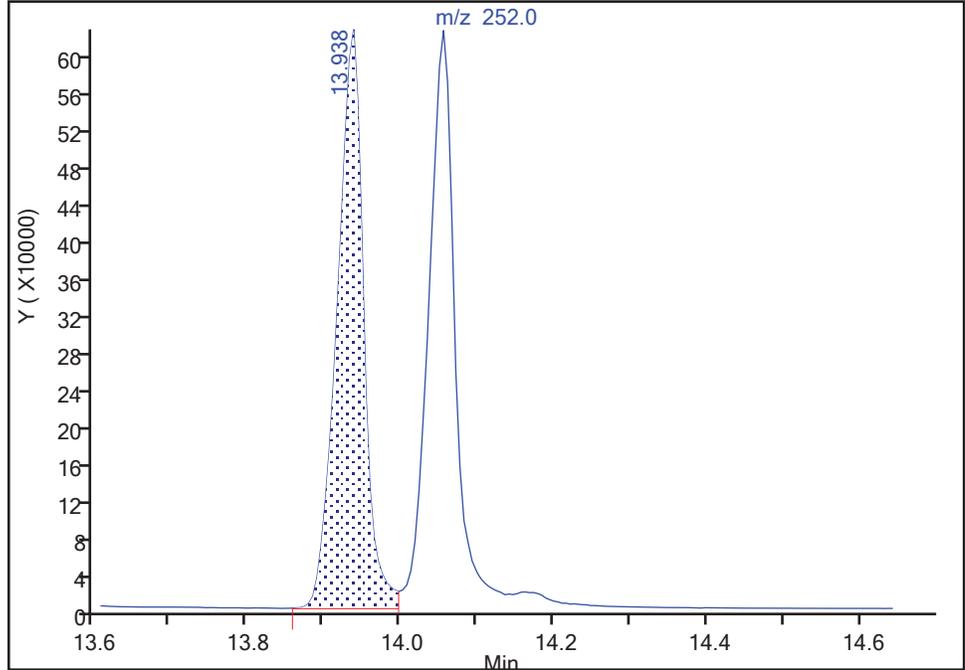
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Injection Date: 15-Nov-2022 16:05:30 Instrument ID: SMS_Y
Lims ID: STD120 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 12 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

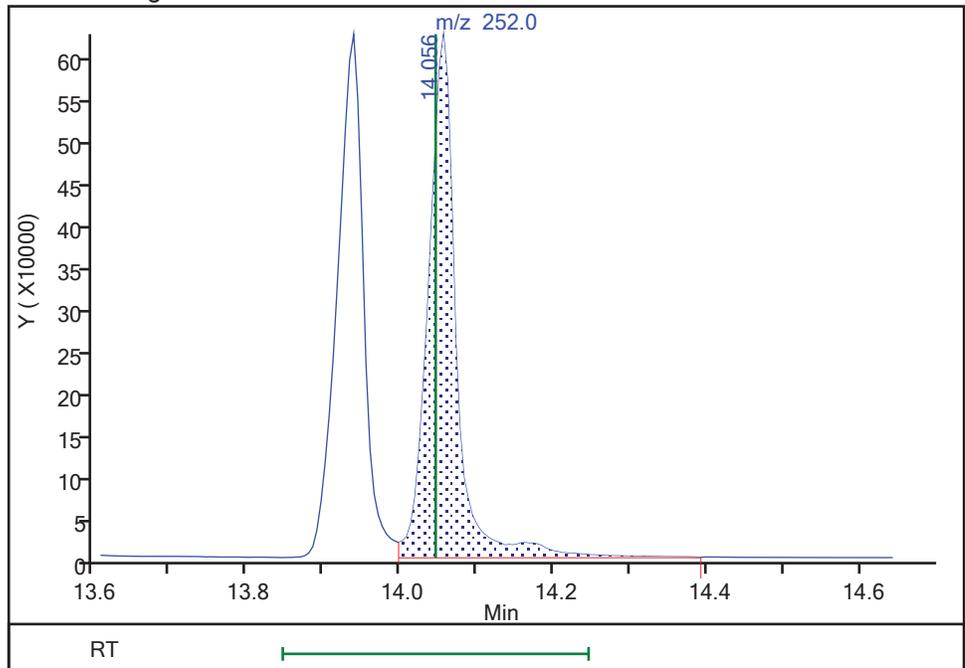
RT: 13.94
Area: 1499145
Amount: 115.1858
Amount Units: ug/ml

Processing Integration Results



RT: 14.06
Area: 1589882
Amount: 119.9501
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

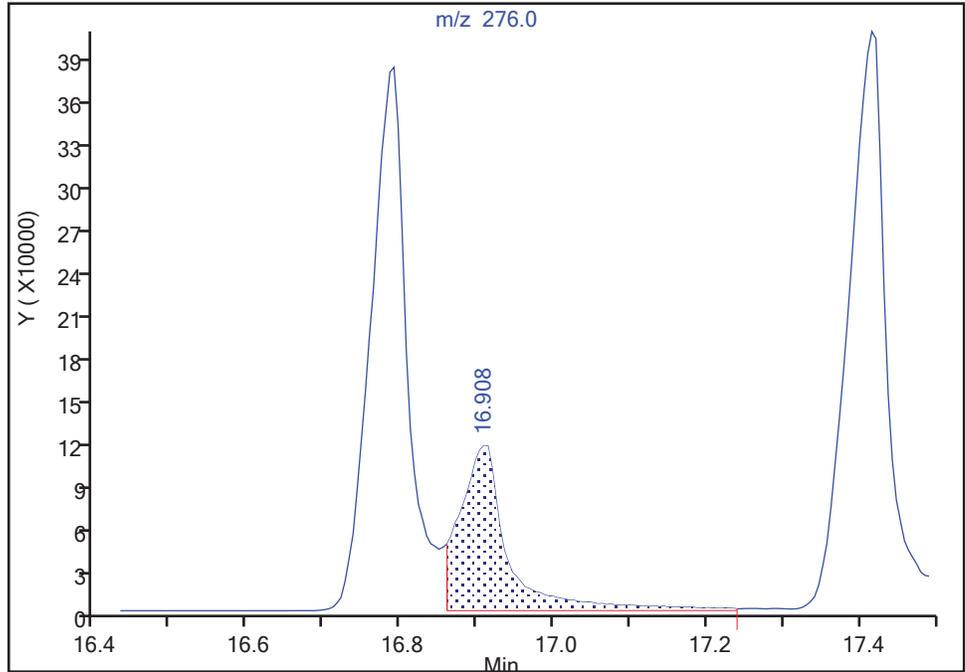
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Injection Date: 15-Nov-2022 16:05:30 Instrument ID: SMS_Y
Lims ID: STD120 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 12 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

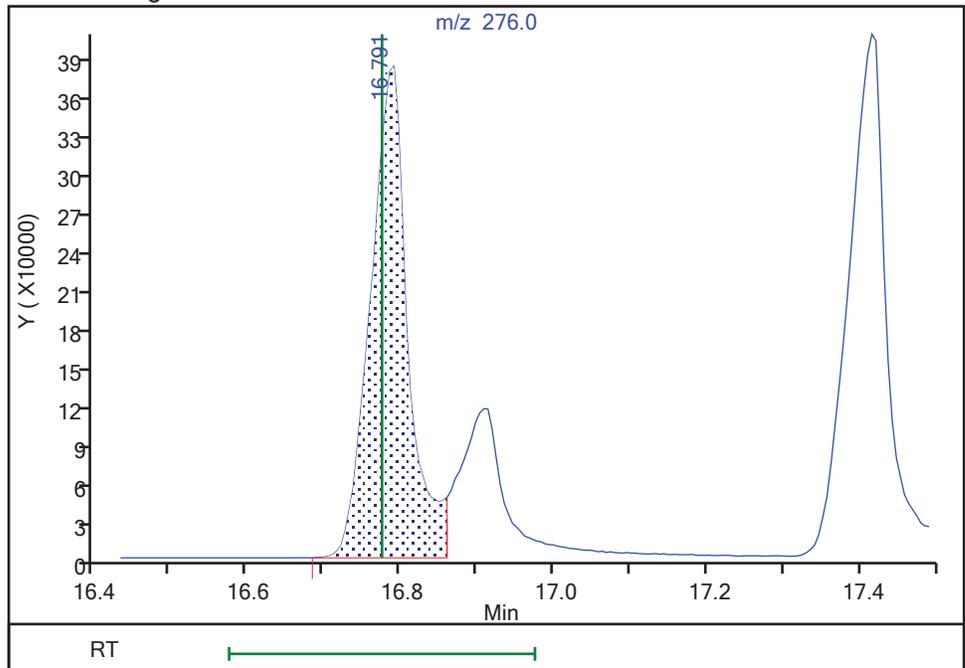
RT: 16.91
Area: 504035
Amount: 72.154443
Amount Units: ug/ml

Processing Integration Results



RT: 16.79
Area: 1290838
Amount: 108.8336
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:46:00
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305988c.D
 Lims ID: STD160 HSL
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 15-Nov-2022 16:31:30 ALS Bottle#: 13 Worklist Smp#: 38
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD160 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:13:46 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 16-Nov-2022 13:13:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.820	3.815	0.005	94	97171	40.0	40.0	
* 2 Naphthalene-d8	136	5.038	5.033	0.005	99	398589	40.0	40.0	
* 3 Acenaphthene-d10	164	6.747	6.743	0.004	92	238069	40.0	40.0	
* 4 Phenanthrene-d10	188	8.190	8.185	0.005	97	420201	40.0	40.0	
* 5 Chrysene-d12	240	11.240	11.235	0.005	98	402750	40.0	40.0	
* 6 Perylene-d12	264	14.184	14.174	0.010	97	418012	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.634	2.635	-0.001	90	589631	160.0	155.3	
\$ 8 Phenol-d5	99	3.499	3.495	0.004	97	786283	160.0	152.1	
\$ 9 Nitrobenzene-d5	82	4.349	4.344	0.005	85	698850	160.0	153.4	
\$ 11 2-Fluorobiphenyl	172	6.106	6.107	-0.001	99	1182949	160.0	150.1	
\$ 12 2,4,6-Tribromophenol	330	7.522	7.517	0.005	94	199817	160.0	168.7	
\$ 13 Terphenyl-d14	244	9.809	9.809	0.000	97	1694243	160.0	161.9	
15 1,4-Dioxane	88	1.405	1.406	-0.001	90	218043	160.0	165.3	
17 N-Nitrosodimethylamine	74	1.582	1.582	0.000	87	363874	160.0	155.5	
18 Pyridine	79	1.614	1.614	0.000	96	1144066	320.0	310.9	
28 Phenol	94	3.510	3.505	0.005	91	762575	160.0	147.6	
30 Aniline	93	3.510	3.511	-0.001	91	908604	160.0	148.7	
31 Bis(2-chloroethyl)ether	93	3.585	3.580	0.005	99	567694	160.0	150.2	
32 Alpha Methyl Styrene	118	3.564	3.564	0.000	90	544217	160.0	152.3	
34 2-Chlorophenol	128	3.622	3.623	-0.001	96	538230	160.0	153.9	
35 n-Decane	43	3.697	3.692	0.005	84	397436	160.0	144.0	
37 1,3-Dichlorobenzene	146	3.761	3.762	-0.001	97	552705	160.0	151.7	
38 1,4-Dichlorobenzene	146	3.836	3.831	0.005	94	565049	160.0	152.2	
39 Benzyl alcohol	108	3.964	3.959	0.005	92	389587	160.0	151.1	
40 1,2-Dichlorobenzene	146	3.975	3.975	0.000	97	531889	160.0	150.5	
41 2-Methylphenol	108	4.082	4.077	0.005	95	529629	160.0	152.0	
43 2,2'-oxybis[1-chloropropane]	45	4.098	4.098	0.000	95	611876	160.0	146.8	
44 Indene	116	4.066	4.061	0.005	88	1784602	320.0	288.9	
46 3-Methylphenol	108	4.237	4.232	0.005	91	568404	160.0	152.3	
47 4-Methylphenol	108	4.237	4.232	0.005	96	568404	160.0	152.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.237	4.232	0.005	98	568404	160.0	152.3	
50 N-Nitrosodi-n-propylamine	70	4.226	4.216	0.010	76	430936	160.0	148.2	
51 Acetophenone	105	4.210	4.205	0.005	98	786756	160.0	148.4	
53 Hexachloroethane	117	4.295	4.296	-0.001	97	227055	160.0	153.3	
54 Nitrobenzene	77	4.365	4.360	0.005	85	627935	160.0	150.3	
57 Isophorone	82	4.611	4.600	0.011	98	1202262	160.0	152.8	
58 2-Nitrophenol	139	4.669	4.670	-0.001	94	312137	160.0	166.6	
59 2,4-Dimethylphenol	107	4.744	4.739	0.005	95	583937	160.0	155.2	
63 Bis(2-chloroethoxy)methane	93	4.835	4.830	0.005	98	708988	160.0	151.4	
64 Benzoic acid	105	4.942	4.900	0.042	90	1065280	320.0	337.4	M
66 3,5-Dimethylphenol	107	4.878	4.878	0.000	86	573437	160.0	153.5	
68 2,4-Dichlorophenol	162	4.915	4.916	-0.001	95	430924	160.0	155.5	
69 1,2,4-Trichlorobenzene	180	4.990	4.985	0.005	94	437227	160.0	151.7	
71 Naphthalene	128	5.059	5.055	0.004	97	1544703	160.0	151.4	
72 4-Chloroaniline	127	5.123	5.119	0.004	95	671535	160.0	151.7	
73 2,6-Dichlorophenol	162	5.134	5.129	0.005	98	417256	160.0	154.0	
75 Hexachlorobutadiene	225	5.193	5.193	0.000	97	239075	160.0	155.5	
79 Caprolactam	55	5.503	5.477	0.026	86	287455	160.0	164.3	M
83 4-Chloro-3-methylphenol	107	5.631	5.626	0.005	96	551183	160.0	164.8	
86 2-Methylnaphthalene	142	5.738	5.733	0.005	93	1060284	160.0	157.4	
88 1-Methylnaphthalene	142	5.829	5.829	0.000	94	1004676	160.0	157.8	
89 1,2,4,5-Tetrachlorobenzene	216	5.903	5.899	0.004	99	397401	160.0	151.3	
90 Hexachlorocyclopentadiene	237	5.898	5.899	-0.001	96	296541	160.0	163.8	
92 2,4,6-Trichlorophenol	196	6.021	6.021	0.000	94	304665	160.0	155.7	
93 2,3-Dichlorobenzenamine	161	6.010	6.011	-0.001	96	527827	160.0	150.9	
94 2,4,5-Trichlorophenol	196	6.064	6.064	0.000	93	338839	160.0	157.5	
98 1,1'-Biphenyl	154	6.197	6.198	-0.001	96	1198203	160.0	146.0	
99 2-Chloronaphthalene	162	6.208	6.203	0.005	98	910039	160.0	144.9	
101 2-Nitroaniline	65	6.315	6.310	0.005	83	378627	160.0	163.0	
104 Dimethyl phthalate	163	6.523	6.518	0.005	96	1074147	160.0	149.3	
105 1,3-Dinitrobenzene	168	6.528	6.524	0.004	88	208645	160.0	166.6	
106 2,6-Dinitrotoluene	165	6.566	6.561	0.005	94	281212	160.0	161.1	
107 Acenaphthylene	152	6.609	6.604	0.005	99	1597718	160.0	153.3	
108 3-Nitroaniline	138	6.721	6.716	0.005	94	361025	160.0	164.6	
109 Acenaphthene	153	6.780	6.775	0.005	94	1005896	160.0	150.2	
111 2,4-Dinitrophenol	184	6.828	6.817	0.011	86	354156	320.0	331.3	
112 4-Nitrophenol	109	6.929	6.919	0.010	91	373832	320.0	325.6	
114 2,4-Dinitrotoluene	165	6.956	6.946	0.010	91	347718	160.0	154.8	
116 Dibenzofuran	168	6.950	6.946	0.004	98	1338294	160.0	146.9	
119 2,3,4,6-Tetrachlorophenol	232	7.079	7.074	0.005	73	290863	160.0	167.7	
123 Diethyl phthalate	149	7.223	7.218	0.005	98	1189092	160.0	157.5	
124 Hexadecane	57	7.255	7.256	-0.001	89	761008	160.0	152.7	
127 4-Chlorophenyl phenyl ether	204	7.303	7.298	0.005	94	496840	160.0	148.9	
129 Fluorene	166	7.282	7.282	0.000	94	1170431	160.0	150.4	
130 4-Nitroaniline	138	7.330	7.314	0.016	87	380195	160.0	166.4	
131 4,6-Dinitro-2-methylphenol	198	7.357	7.346	0.010	83	448506	320.0	335.3	
134 Diphenylamine	169	7.421	7.416	0.005	96	891442	136.0	133.2	
135 N-Nitrosodiphenylamine	169	7.421	7.416	0.005	99	891442	160.0	156.7	
136 1,2-Diphenylhydrazine	182	7.458	7.453	0.005	98	320036	161.8	157.7	
137 Azobenzene	77	7.458	7.453	0.005	96	1453329	160.0	157.1	
148 4-Bromophenyl phenyl ether	248	7.773	7.774	-0.001	65	324172	160.0	155.2	
151 Hexachlorobenzene	284	7.816	7.811	0.005	95	353372	160.0	150.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.971	7.961	0.010	91	314210	160.0	159.5	
155 Pentachlorophenol	266	8.019	8.014	0.005	93	455826	320.0	324.1	
158 n-Octadecane	85	8.163	8.158	0.005	95	409956	160.0	157.9	
161 Phenanthrene	178	8.217	8.212	0.005	98	1694267	160.0	150.5	
162 Anthracene	178	8.265	8.260	0.005	98	1755518	160.0	154.0	
164 Carbazole	167	8.430	8.425	0.005	95	1753475	160.0	154.6	
166 Alachlor	188	8.596	8.591	0.005	96	233554	160.0	163.5	
168 Di-n-butyl phthalate	149	8.820	8.815	0.005	100	2147190	160.0	160.6	
175 Fluoranthene	202	9.376	9.371	0.005	99	1844252	160.0	156.3	
178 Pyrene	202	9.600	9.595	0.005	96	1960634	160.0	157.3	
187 Butyl benzyl phthalate	149	10.476	10.471	0.005	96	1053962	160.0	177.8	
189 3,3'-Dichlorobenzidine	252	11.235	11.230	0.005	75	744066	160.0	164.1	
191 Benzo[a]anthracene	228	11.224	11.219	0.005	99	1967698	160.0	168.5	
192 Chrysene	228	11.288	11.278	0.010	98	1965921	160.0	160.1	
193 Bis(2-ethylhexyl) phthalate	149	11.486	11.481	0.005	97	1477050	160.0	183.1	
195 Di-n-octyl phthalate	149	12.864	12.859	0.005	99	2599203	160.0	169.1	
196 Benzo[b]fluoranthene	252	13.345	13.330	0.015	98	2019335	160.0	169.9	a
198 Benzo[k]fluoranthene	252	13.414	13.394	0.020	99	2278533	160.0	161.0	a
201 Benzo[a]pyrene	252	14.066	14.045	0.021	78	2003662	160.0	177.0	a
207 Indeno[1,2,3-cd]pyrene	276	16.801	16.775	0.026	99	1701844	160.0	167.1	a
208 Dibenz(a,h)anthracene	278	16.919	16.898	0.021	94	1826622	160.0	171.7	
209 Benzo[g,h,i]perylene	276	17.426	17.400	0.026	98	1953638	160.0	177.7	
S 211 Total Cresols	108				0			304.4	
S 212 Methyl Phenols, Total	108				0			304.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLA160_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305988c.D

Injection Date: 15-Nov-2022 16:31:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD160 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

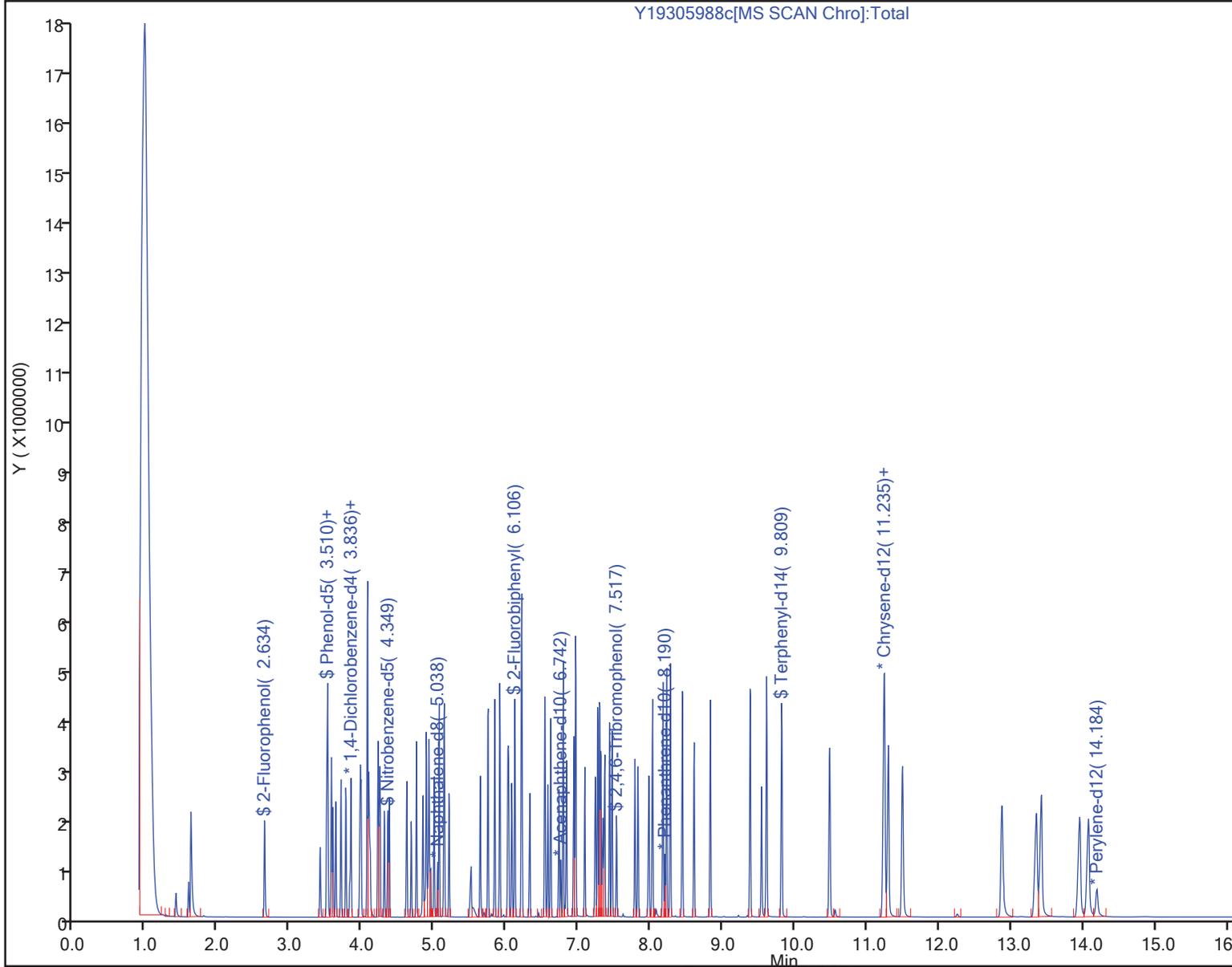
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

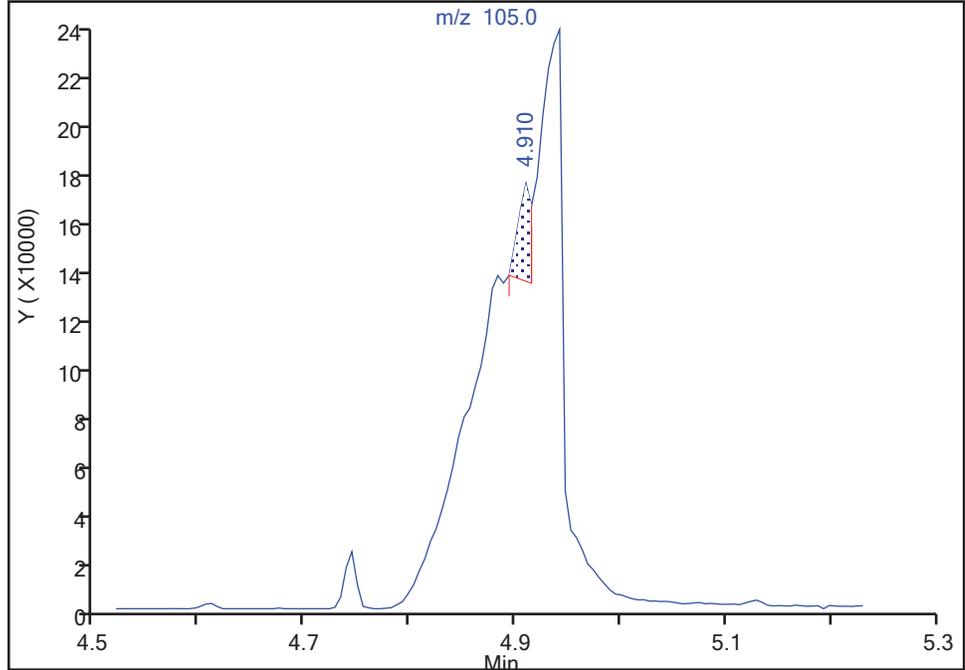
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Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

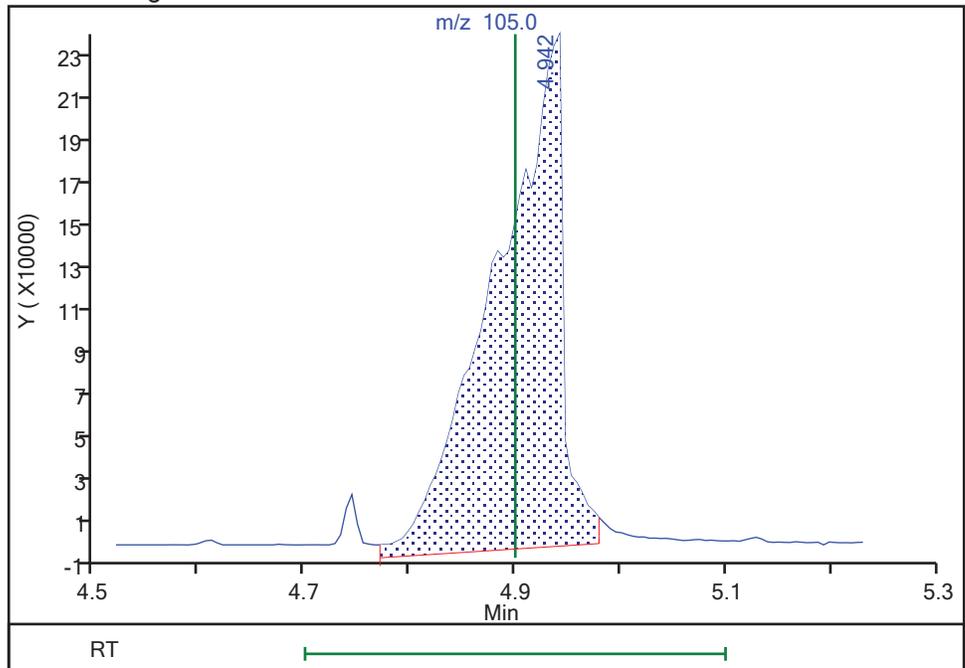
RT: 4.91
Area: 36162
Amount: 15.581649
Amount Units: ug/ml

Processing Integration Results



RT: 4.94
Area: 1065280
Amount: 337.4445
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:50:53
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

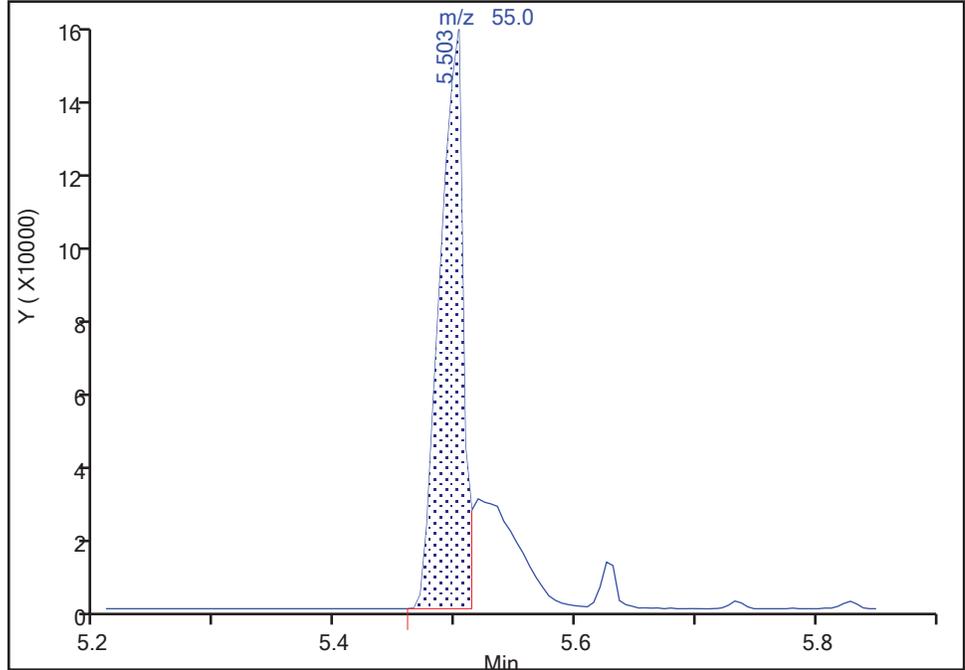
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Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

79 Caprolactam, CAS: 105-60-2

Signal: 1

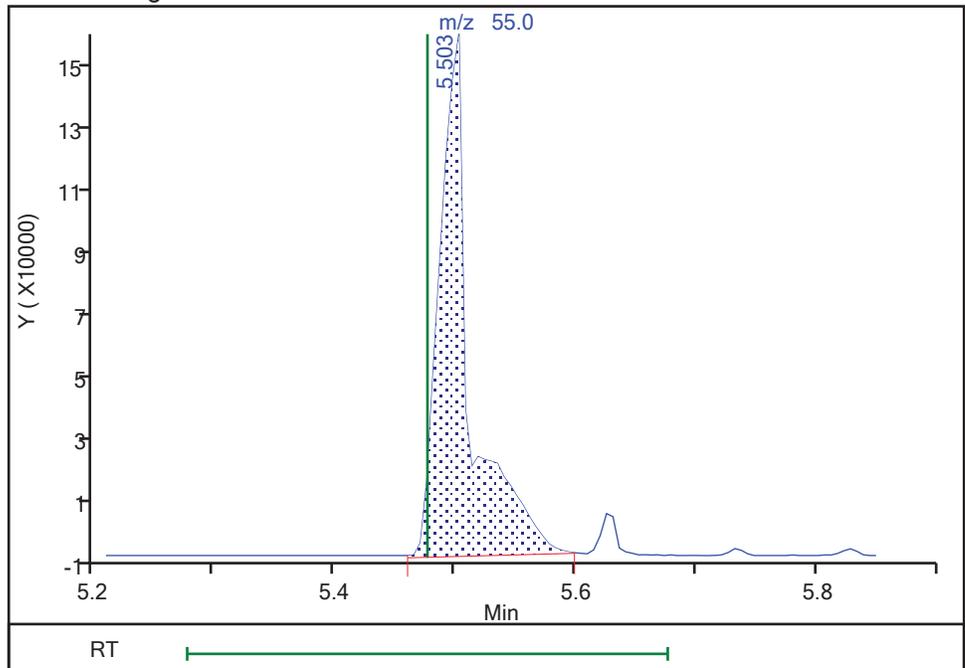
RT: 5.50
Area: 213650
Amount: 126.3001
Amount Units: ug/ml

Processing Integration Results



RT: 5.50
Area: 287455
Amount: 164.3289
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 13:03:45
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

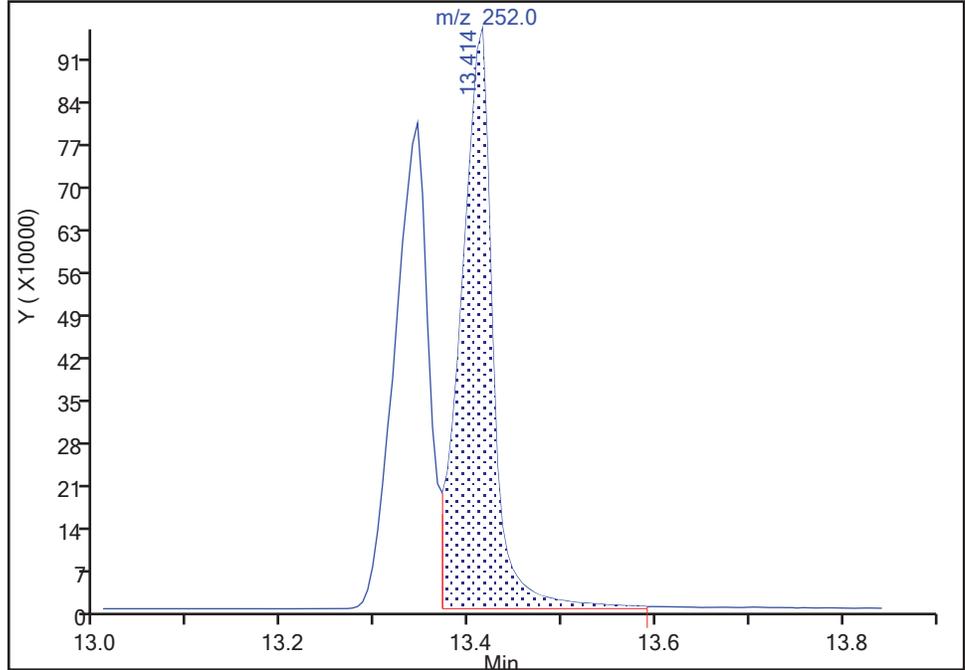
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Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

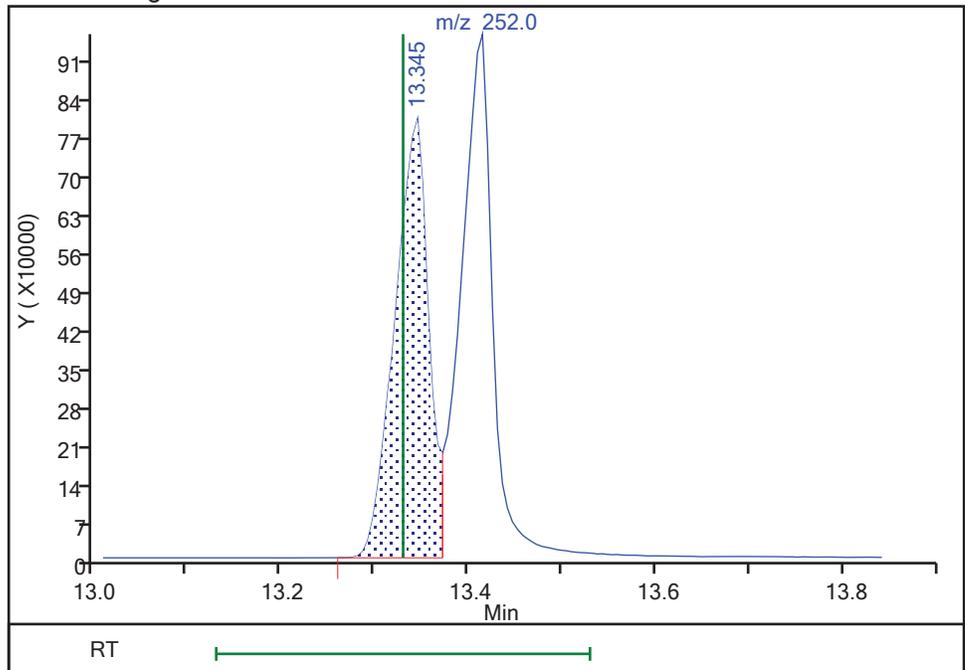
RT: 13.41
Area: 2278533
Amount: 181.6583
Amount Units: ug/ml

Processing Integration Results



RT: 13.35
Area: 2019335
Amount: 169.8684
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:52:11
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

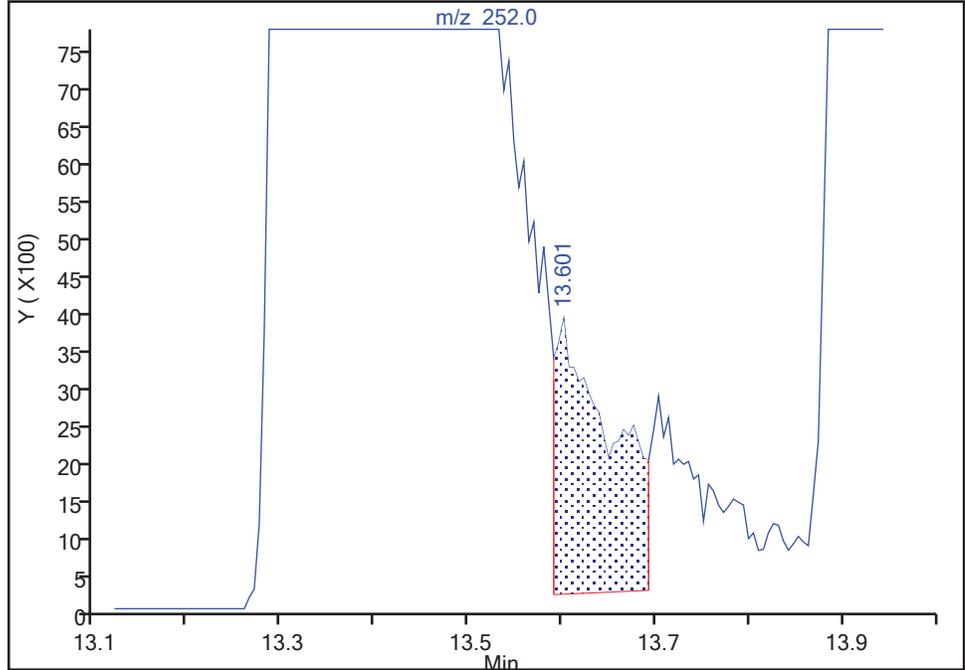
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Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

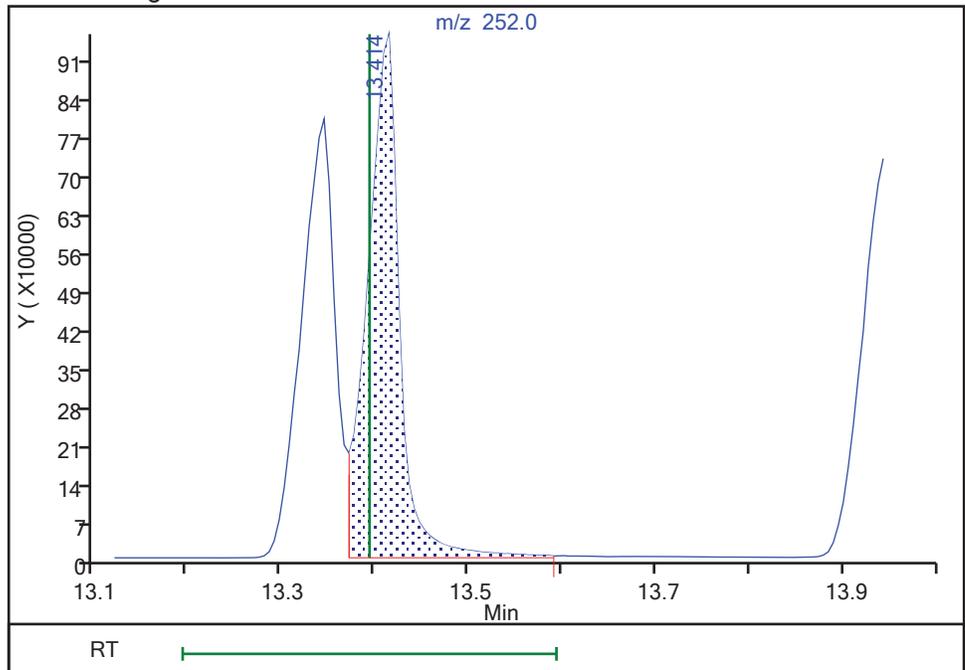
RT: 13.60
Area: 15816
Amount: 1.277172
Amount Units: ug/ml

Processing Integration Results



RT: 13.41
Area: 2278533
Amount: 161.0116
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:52:02
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

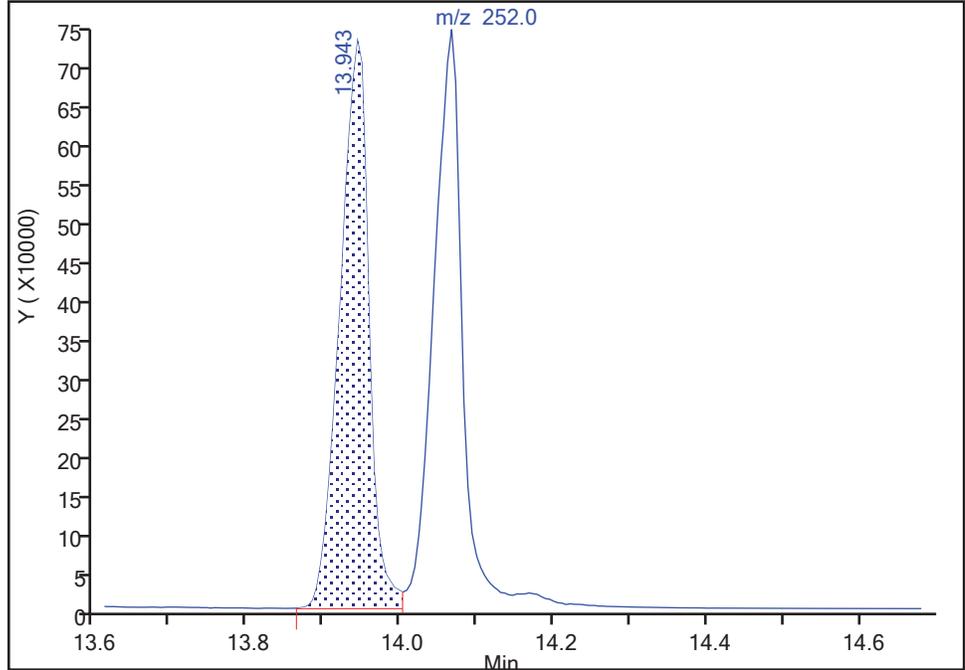
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305988c.D
Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

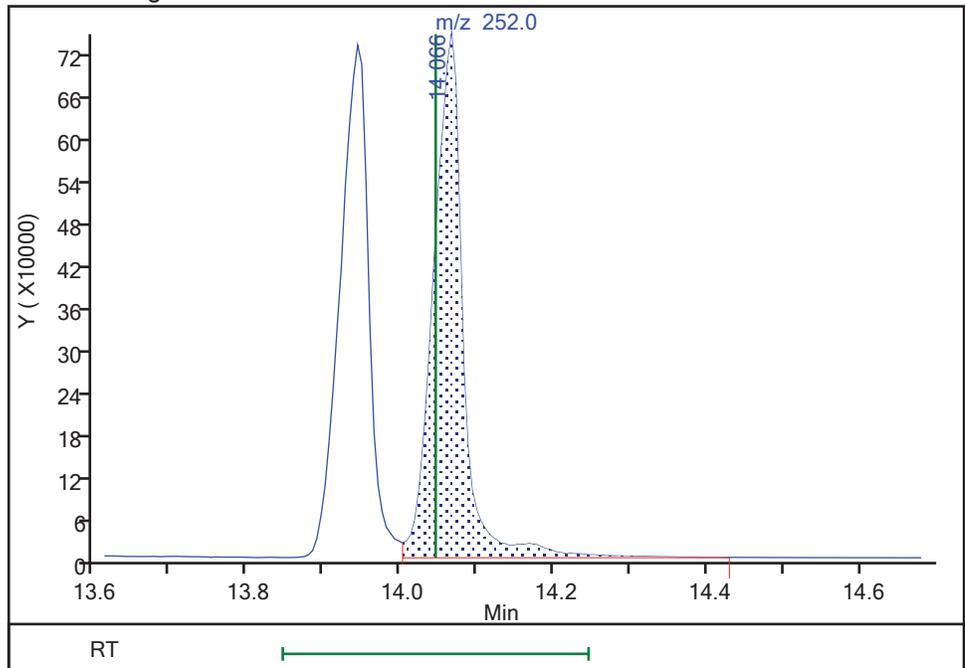
RT: 13.94
Area: 1907801
Amount: 169.6180
Amount Units: ug/ml

Processing Integration Results



RT: 14.07
Area: 2003662
Amount: 176.9625
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:52:16
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

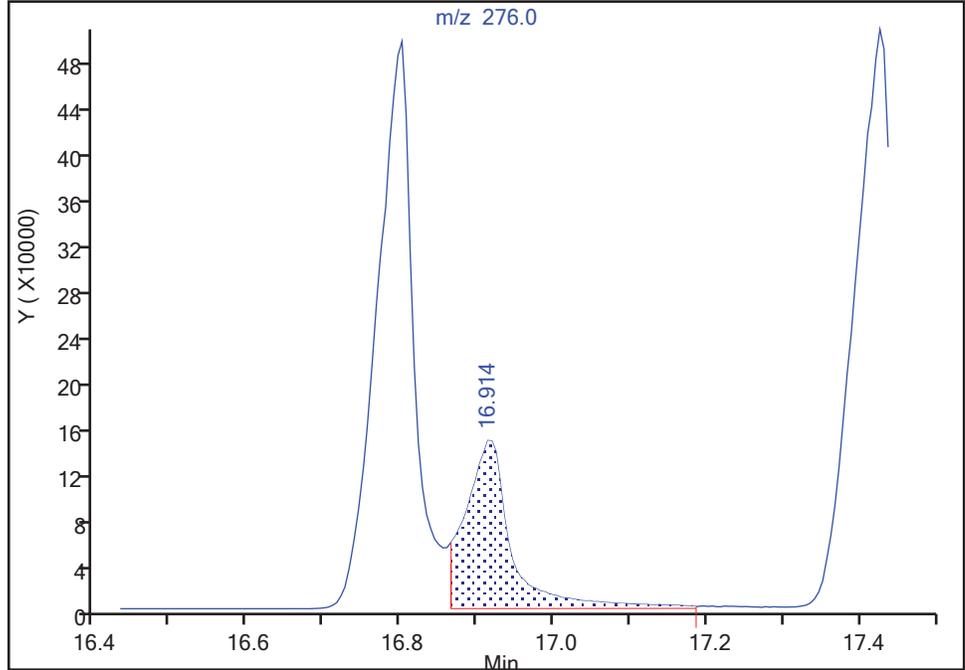
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Injection Date: 15-Nov-2022 16:31:30 Instrument ID: SMS_Y
Lims ID: STD160 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 13 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

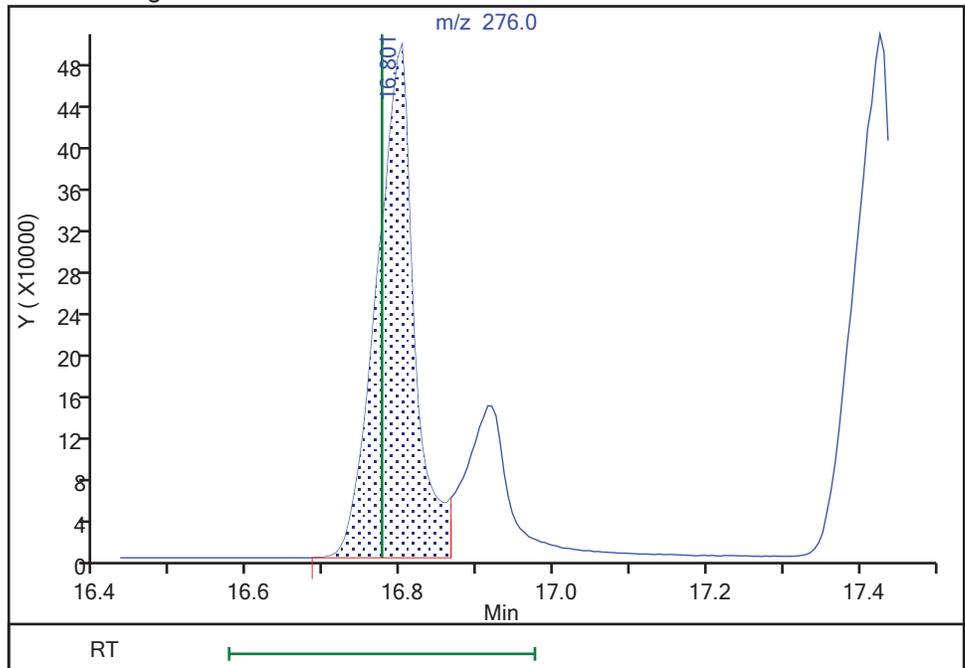
RT: 16.91
Area: 618388
Amount: 81.320592
Amount Units: ug/ml

Processing Integration Results



RT: 16.80
Area: 1701844
Amount: 167.0968
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:52:20
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Lims ID: STD200 HSL
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 15-Nov-2022 16:57:30 ALS Bottle#: 14 Worklist Smp#: 39
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: STD200 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:27 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 16-Nov-2022 12:50:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.821	3.815	0.006	95	106467	40.0	40.0	
* 2 Naphthalene-d8	136	5.039	5.033	0.006	99	443830	40.0	40.0	
* 3 Acenaphthene-d10	164	6.744	6.743	0.001	92	260518	40.0	40.0	
* 4 Phenanthrene-d10	188	8.191	8.185	0.006	97	455014	40.0	40.0	
* 5 Chrysene-d12	240	11.247	11.235	0.012	99	423134	40.0	40.0	
* 6 Perylene-d12	264	14.185	14.174	0.011	97	439610	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.635	2.635	0.000	90	756281	200.0	181.8	
\$ 8 Phenol-d5	99	3.501	3.495	0.006	97	1003471	200.0	177.2	
\$ 9 Nitrobenzene-d5	82	4.350	4.344	0.006	86	961750	200.0	189.6	
\$ 11 2-Fluorobiphenyl	172	6.108	6.107	0.001	99	1505605	200.0	174.6	
\$ 12 2,4,6-Tribromophenol	330	7.523	7.517	0.006	94	257545	200.0	198.7	
\$ 13 Terphenyl-d14	244	9.815	9.809	0.006	97	2149332	200.0	195.5	
15 1,4-Dioxane	88	1.407	1.406	0.001	89	274822	200.0	190.5	
17 N-Nitrosodimethylamine	74	1.583	1.582	0.001	87	467839	200.0	182.5	
18 Pyridine	79	1.615	1.614	0.001	96	1439023	400.0	356.9	
28 Phenol	94	3.512	3.505	0.007	92	973638	200.0	172.0	
30 Aniline	93	3.512	3.511	0.001	88	1156555	200.0	172.8	
31 Bis(2-chloroethyl)ether	93	3.586	3.580	0.006	99	744751	200.0	179.9	
32 Alpha Methyl Styrene	118	3.565	3.564	0.001	91	710655	200.0	181.5	
34 2-Chlorophenol	128	3.629	3.623	0.006	96	725593	200.0	189.3	
35 n-Decane	43	3.698	3.692	0.006	83	525745	200.0	173.8	
37 1,3-Dichlorobenzene	146	3.768	3.762	0.006	96	731283	200.0	183.2	
38 1,4-Dichlorobenzene	146	3.837	3.831	0.006	93	738749	200.0	181.7	
39 Benzyl alcohol	108	3.966	3.959	0.007	92	517084	200.0	183.1	
40 1,2-Dichlorobenzene	146	3.976	3.975	0.001	96	691335	200.0	178.6	
41 2-Methylphenol	108	4.083	4.077	0.006	94	715470	200.0	187.5	
43 2,2'-oxybis[1-chloropropane]	45	4.099	4.098	0.001	95	814759	200.0	178.4	
44 Indene	116	4.067	4.061	0.006	88	2303398	400.0	340.3	
46 3-Methylphenol	108	4.243	4.232	0.011	91	754832	200.0	184.6	
47 4-Methylphenol	108	4.243	4.232	0.011	95	754832	200.0	184.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.243	4.232	0.011	98	754832	200.0	184.6	
50 N-Nitrosodi-n-propylamine	70	4.227	4.216	0.011	85	591283	200.0	185.6	
51 Acetophenone	105	4.211	4.205	0.006	97	1067080	200.0	183.7	
53 Hexachloroethane	117	4.297	4.296	0.001	97	299283	200.0	184.4	
54 Nitrobenzene	77	4.372	4.360	0.012	84	854798	200.0	183.7	
57 Isophorone	82	4.612	4.600	0.012	98	1654635	200.0	188.8	
58 2-Nitrophenol	139	4.676	4.670	0.006	93	414653	200.0	198.7	
59 2,4-Dimethylphenol	107	4.746	4.739	0.007	95	783941	200.0	187.1	
63 Bis(2-chloroethoxy)methane	93	4.836	4.830	0.006	98	956932	200.0	183.5	
64 Benzoic acid	105	4.965	4.900	0.065	86	1517423	400.0	430.2	M
66 3,5-Dimethylphenol	107	4.884	4.878	0.006	85	771265	200.0	185.4	
68 2,4-Dichlorophenol	162	4.916	4.916	0.000	96	564713	200.0	183.0	
69 1,2,4-Trichlorobenzene	180	4.991	4.985	0.006	93	582057	200.0	181.4	
71 Naphthalene	128	5.061	5.055	0.006	97	2023288	200.0	178.1	
72 4-Chloroaniline	127	5.130	5.119	0.011	95	861985	200.0	174.9	
73 2,6-Dichlorophenol	162	5.136	5.129	0.007	97	535386	200.0	177.5	
75 Hexachlorobutadiene	225	5.194	5.193	0.001	98	306546	200.0	179.0	
79 Caprolactam	55	5.515	5.477	0.038	87	376365	200.0	196.4	M
83 4-Chloro-3-methylphenol	107	5.632	5.626	0.006	95	702023	200.0	188.5	
86 2-Methylnaphthalene	142	5.739	5.733	0.006	93	1345854	200.0	179.5	
88 1-Methylnaphthalene	142	5.830	5.829	0.001	94	1270311	200.0	179.2	
89 1,2,4,5-Tetrachlorobenzene	216	5.905	5.899	0.006	99	503209	200.0	172.0	
90 Hexachlorocyclopentadiene	237	5.899	5.899	0.000	97	372064	200.0	187.8	
92 2,4,6-Trichlorophenol	196	6.022	6.021	0.001	94	386964	200.0	180.7	
93 2,3-Dichlorobenzenamine	161	6.012	6.011	0.001	96	680734	200.0	177.9	
94 2,4,5-Trichlorophenol	196	6.065	6.064	0.001	93	445707	200.0	189.3	
98 1,1'-Biphenyl	154	6.204	6.198	0.006	95	1483765	200.0	165.2	
99 2-Chloronaphthalene	162	6.209	6.203	0.006	98	1153550	200.0	167.9	
101 2-Nitroaniline	65	6.321	6.310	0.011	84	498772	200.0	196.2	
104 Dimethyl phthalate	163	6.524	6.518	0.006	97	1376763	200.0	174.9	
105 1,3-Dinitrobenzene	168	6.535	6.524	0.011	87	266561	200.0	194.5	
106 2,6-Dinitrotoluene	165	6.573	6.561	0.012	95	364212	200.0	190.7	
107 Acenaphthylene	152	6.610	6.604	0.006	99	2045286	200.0	179.4	
108 3-Nitroaniline	138	6.727	6.716	0.011	95	469645	200.0	195.6	
109 Acenaphthene	153	6.781	6.775	0.006	94	1282601	200.0	175.0	
111 2,4-Dinitrophenol	184	6.834	6.817	0.017	87	483162	400.0	411.0	
112 4-Nitrophenol	109	6.936	6.919	0.017	90	487617	400.0	387.4	
114 2,4-Dinitrotoluene	165	6.957	6.946	0.011	90	455676	200.0	185.4	
116 Dibenzofuran	168	6.952	6.946	0.006	97	1701772	200.0	170.7	
119 2,3,4,6-Tetrachlorophenol	232	7.080	7.074	0.006	74	378922	200.0	199.7	
123 Diethyl phthalate	149	7.230	7.218	0.012	97	1529567	200.0	185.1	
124 Hexadecane	57	7.262	7.256	0.006	88	946110	200.0	173.5	
127 4-Chlorophenyl phenyl ether	204	7.304	7.298	0.006	94	636289	200.0	174.2	
129 Fluorene	166	7.288	7.282	0.006	95	1488350	200.0	174.8	
130 4-Nitroaniline	138	7.342	7.314	0.028	85	491217	200.0	196.5	
131 4,6-Dinitro-2-methylphenol	198	7.363	7.346	0.017	84	581697	400.0	400.5	
134 Diphenylamine	169	7.427	7.416	0.011	95	1128939	170.0	154.2	
135 N-Nitrosodiphenylamine	169	7.427	7.416	0.011	99	1128939	200.0	183.3	
136 1,2-Diphenylhydrazine	182	7.459	7.453	0.006	98	408561	202.2	184.0	
137 Azobenzene	77	7.459	7.453	0.006	96	1852804	200.0	183.0	
148 4-Bromophenyl phenyl ether	248	7.775	7.774	0.001	65	415724	200.0	183.9	
151 Hexachlorobenzene	284	7.817	7.811	0.006	95	459911	200.0	180.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.972	7.961	0.011	91	400916	200.0	188.0	
155 Pentachlorophenol	266	8.020	8.014	0.006	94	607751	400.0	398.3	
158 n-Octadecane	85	8.165	8.158	0.006	95	515390	200.0	183.4	
161 Phenanthrene	178	8.218	8.212	0.006	98	2142871	200.0	175.8	
162 Anthracene	178	8.271	8.260	0.011	98	2214501	200.0	179.4	
164 Carbazole	167	8.437	8.425	0.012	95	2224978	200.0	181.1	
166 Alachlor	188	8.597	8.591	0.006	95	292577	200.0	189.2	
168 Di-n-butyl phthalate	149	8.822	8.815	0.007	100	2675996	200.0	184.8	
175 Fluoranthene	202	9.377	9.371	0.006	98	2325185	200.0	182.0	
178 Pyrene	202	9.602	9.595	0.007	97	2470507	200.0	188.7	
187 Butyl benzyl phthalate	149	10.478	10.471	0.007	96	1334812	200.0	214.3	
189 3,3'-Dichlorobenzidine	252	11.242	11.230	0.012	74	919761	200.0	193.0	
191 Benzo[a]anthracene	228	11.231	11.219	0.012	99	2503124	200.0	204.0	
192 Chrysene	228	11.295	11.278	0.017	98	2498883	200.0	193.7	
193 Bis(2-ethylhexyl) phthalate	149	11.487	11.481	0.006	97	1880813	200.0	221.9	
195 Di-n-octyl phthalate	149	12.871	12.859	0.012	99	3382090	200.0	208.7	
196 Benzo[b]fluoranthene	252	13.352	13.330	0.022	98	2602625	200.0	207.8	a
198 Benzo[k]fluoranthene	252	13.421	13.394	0.027	99	2847306	200.0	191.3	a
201 Benzo[a]pyrene	252	14.078	14.045	0.033	79	2493719	200.0	209.4	a
207 Indeno[1,2,3-cd]pyrene	276	16.808	16.775	0.033	98	2298321	200.0	213.8	a
208 Dibenz(a,h)anthracene	278	16.936	16.898	0.038	94	2316676	200.0	206.6	
209 Benzo[g,h,i]perylene	276	17.444	17.400	0.044	98	2455700	200.0	212.5	
S 211 Total Cresols	108				0			372.1	
S 212 Methyl Phenols, Total	108				0			372.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLA200_00067

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D

Injection Date: 15-Nov-2022 16:57:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: STD200 HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

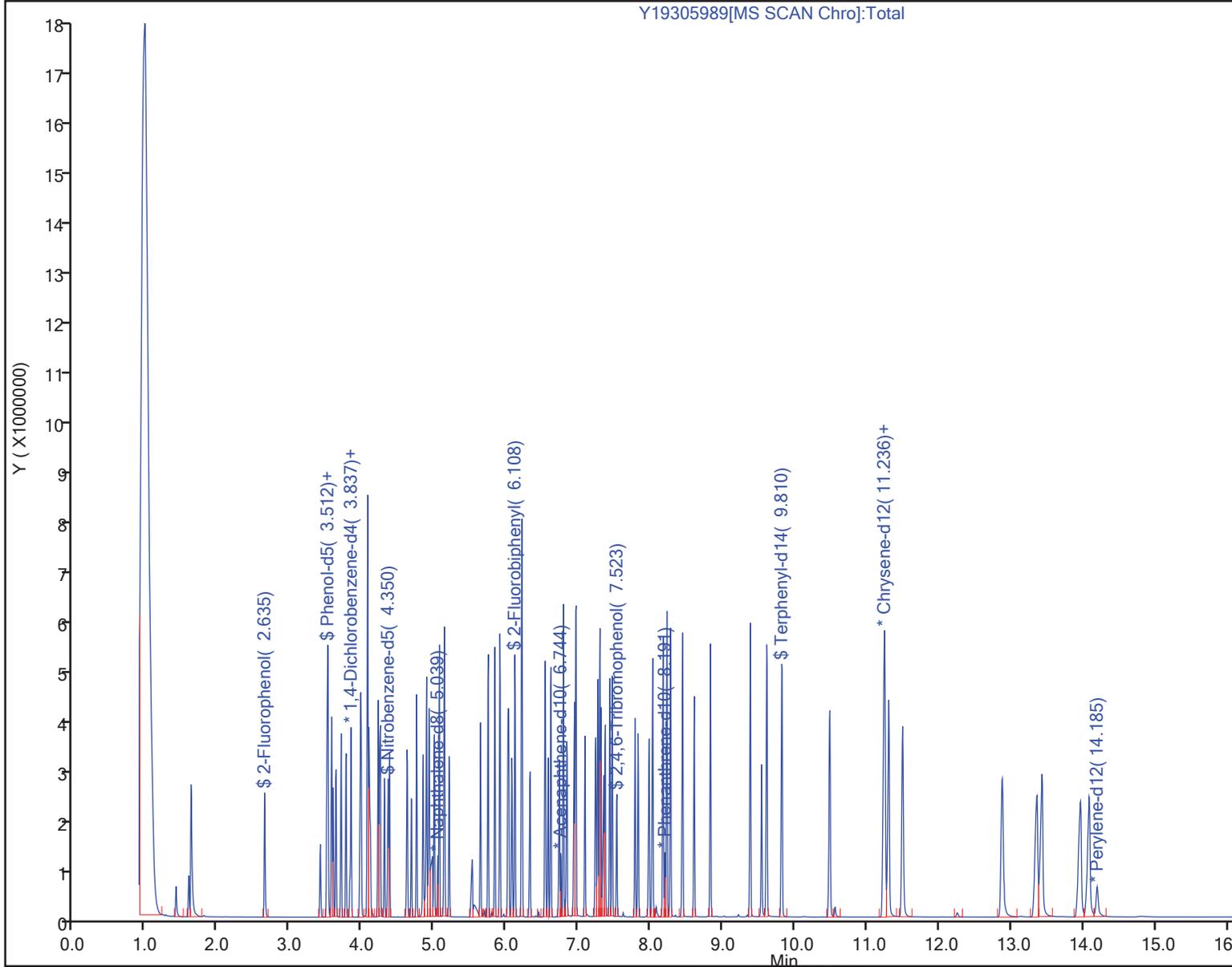
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

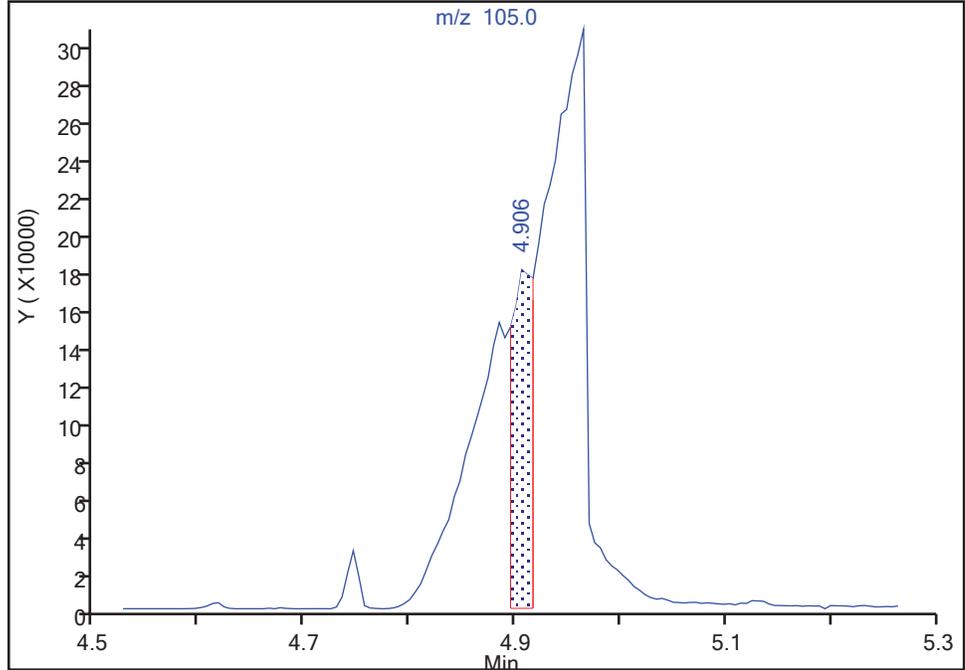
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Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

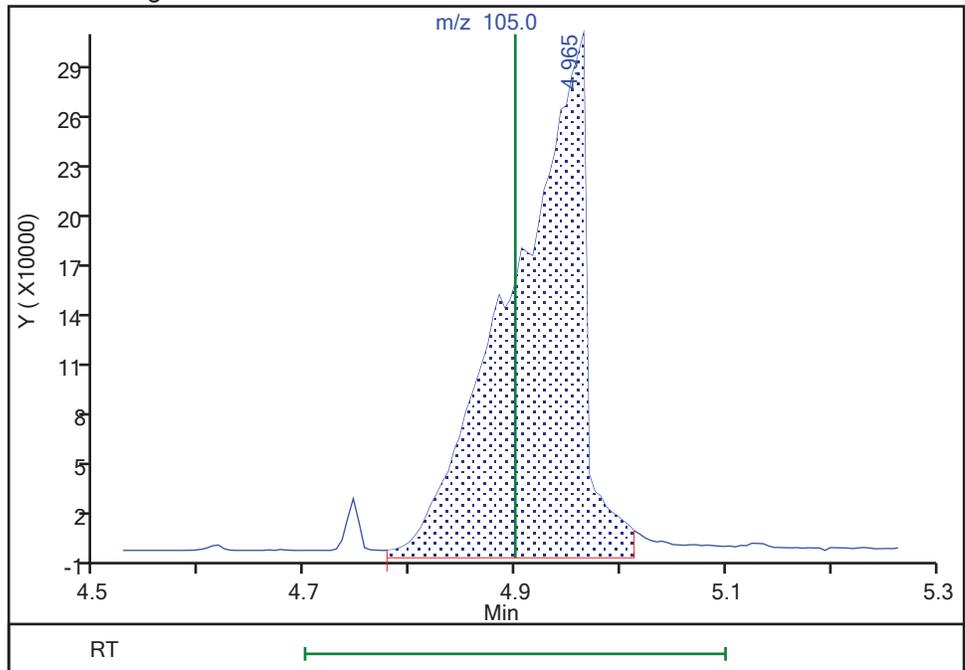
RT: 4.91
Area: 264604
Amount: 120.6739
Amount Units: ug/ml

Processing Integration Results



RT: 4.96
Area: 1517423
Amount: 430.1780
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:47:18
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

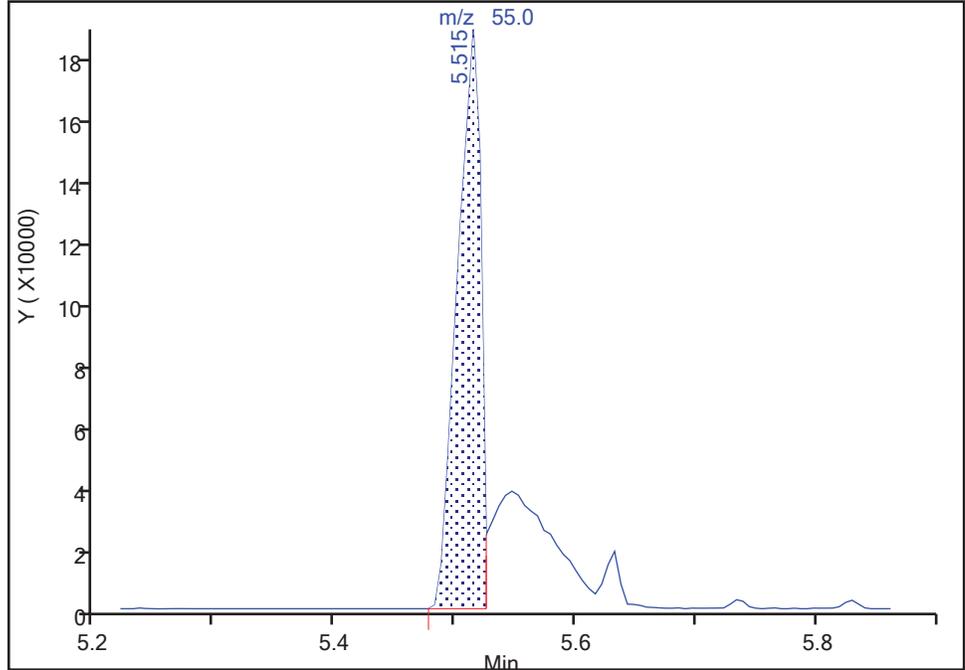
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Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

79 Caprolactam, CAS: 105-60-2

Signal: 1

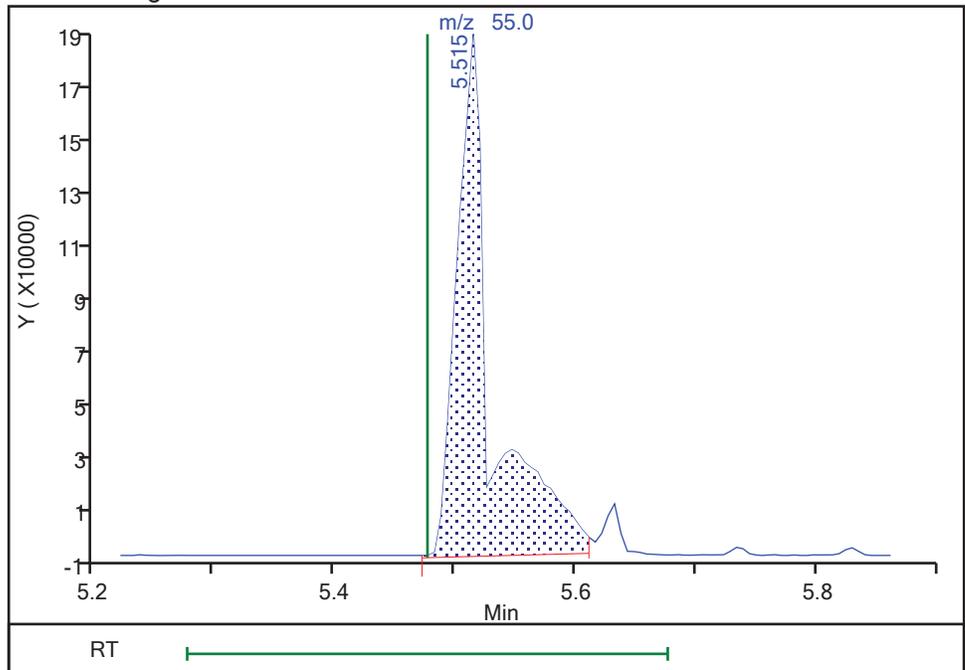
RT: 5.51
Area: 249874
Amount: 196.6038
Amount Units: ug/ml

Processing Integration Results



RT: 5.51
Area: 376365
Amount: 196.3699
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:47:37
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

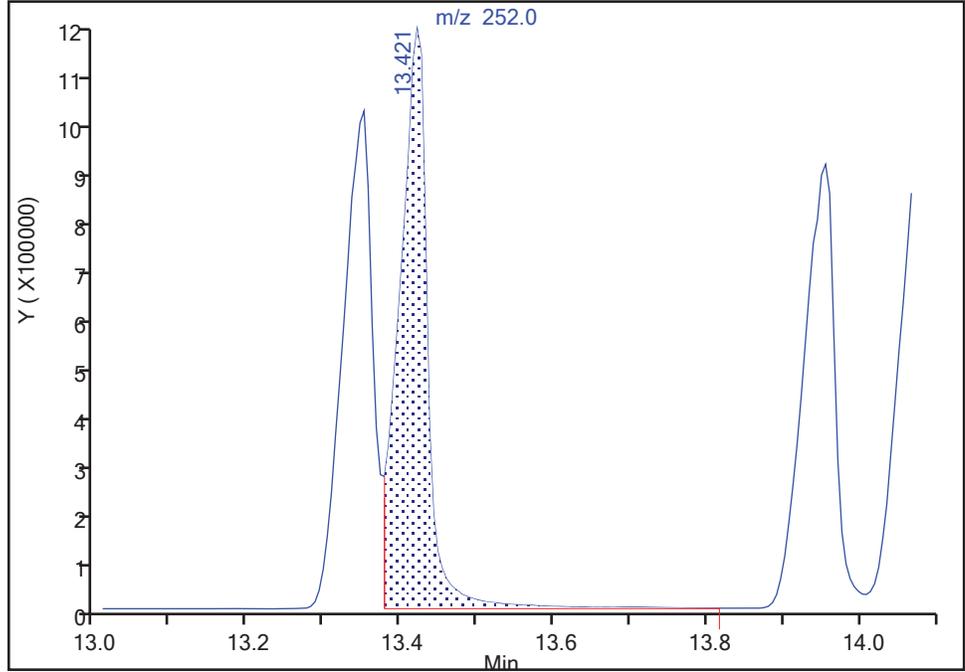
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Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

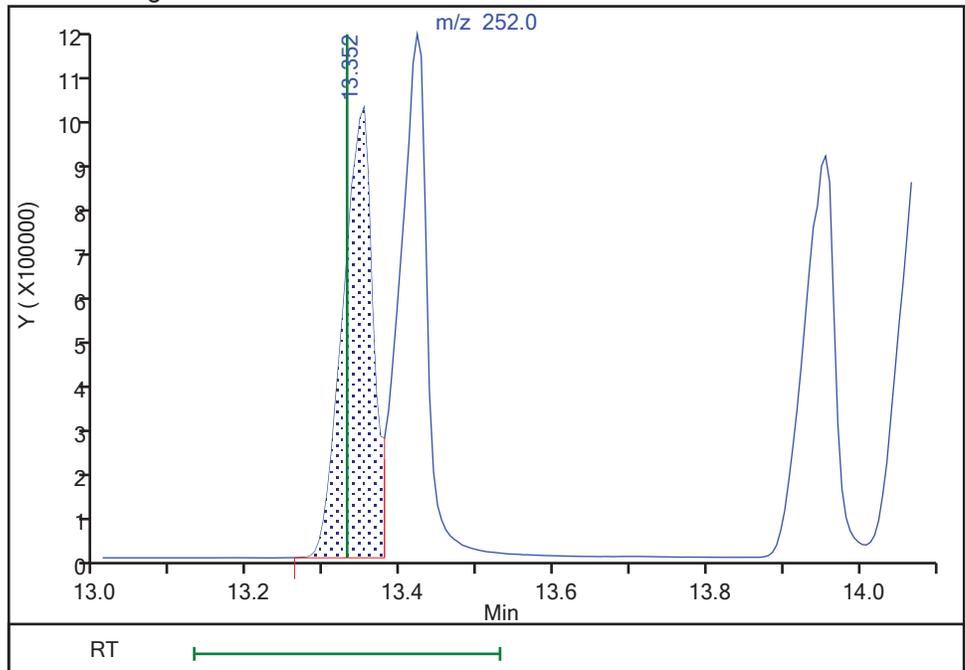
RT: 13.42
Area: 2847306
Amount: 208.8538
Amount Units: ug/ml

Processing Integration Results



RT: 13.35
Area: 2602625
Amount: 207.7768
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:47:57
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

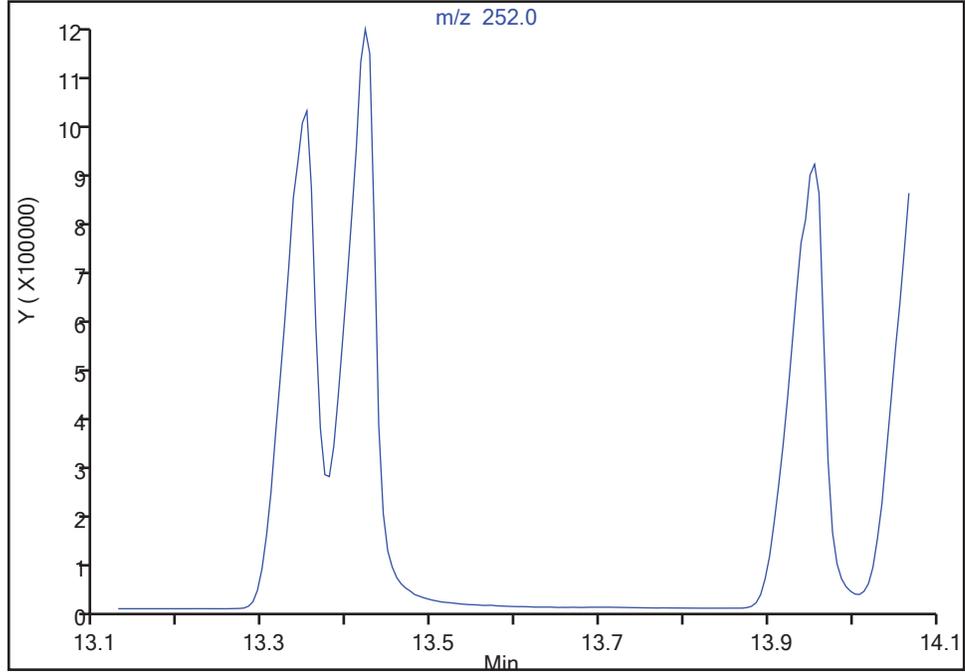
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Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

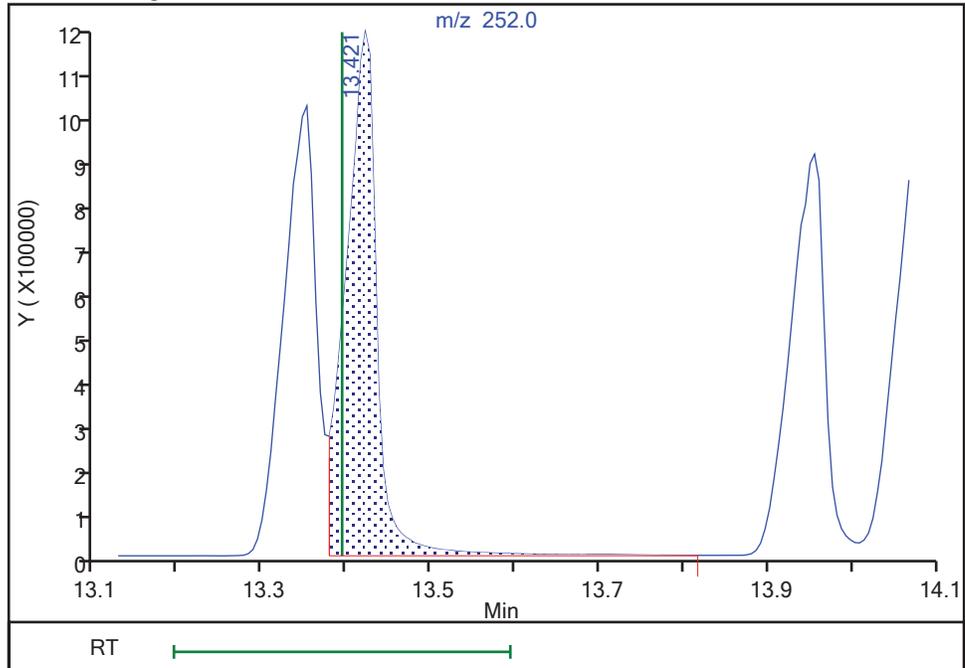
Not Detected
Expected RT: 13.39

Processing Integration Results



Manual Integration Results

RT: 13.42
Area: 2847306
Amount: 191.3186
Amount Units: ug/ml



Eurofins Denver

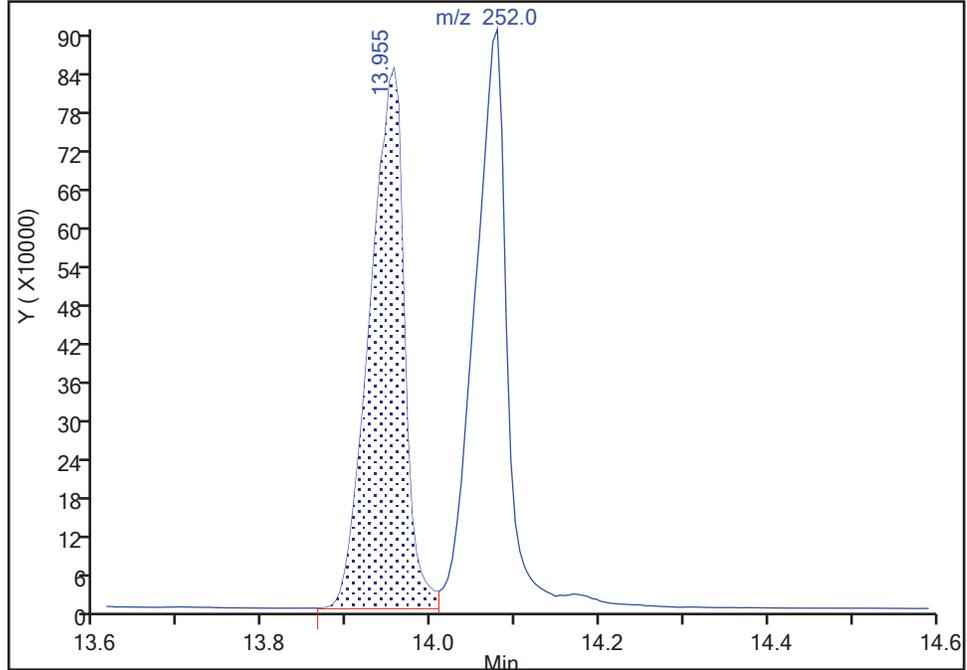
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Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

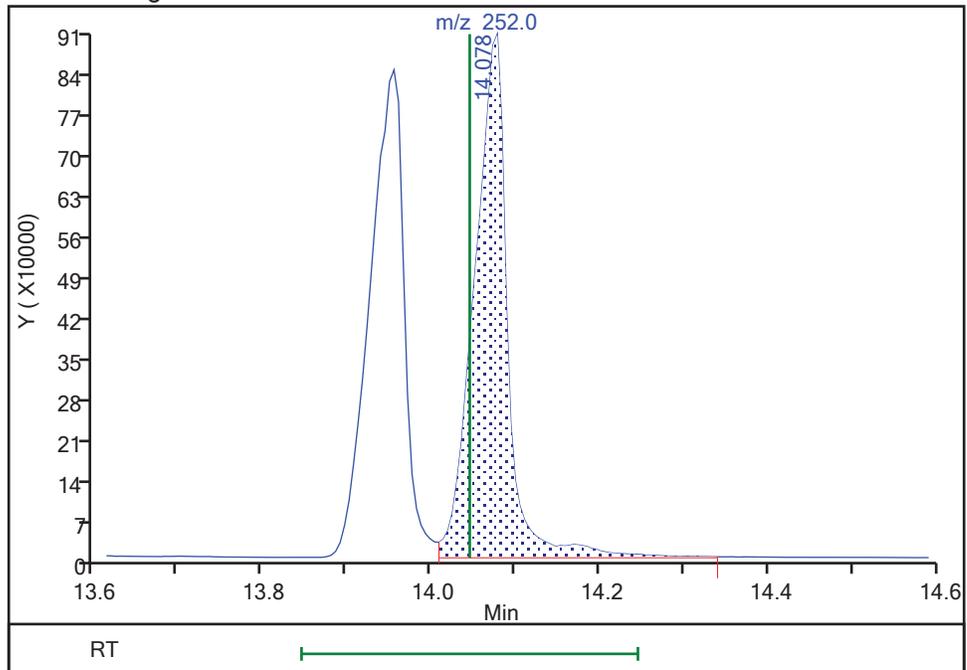
RT: 13.96
Area: 2411317
Amount: 204.7432
Amount Units: ug/ml

Processing Integration Results



RT: 14.08
Area: 2493719
Amount: 209.4235
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:48:02
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

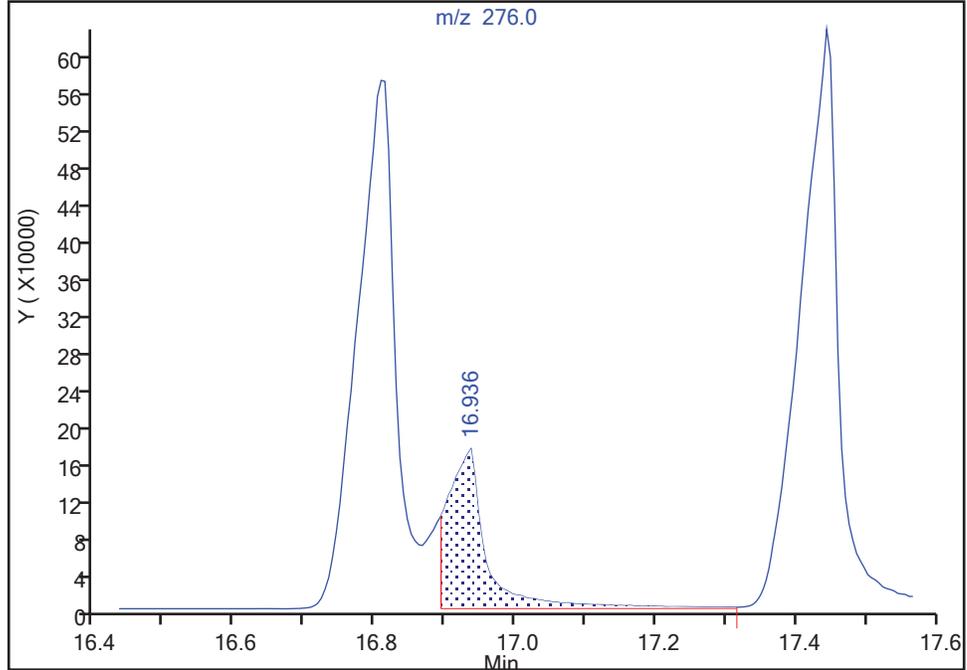
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
Injection Date: 15-Nov-2022 16:57:30 Instrument ID: SMS_Y
Lims ID: STD200 HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 14 Worklist Smp#: 39
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

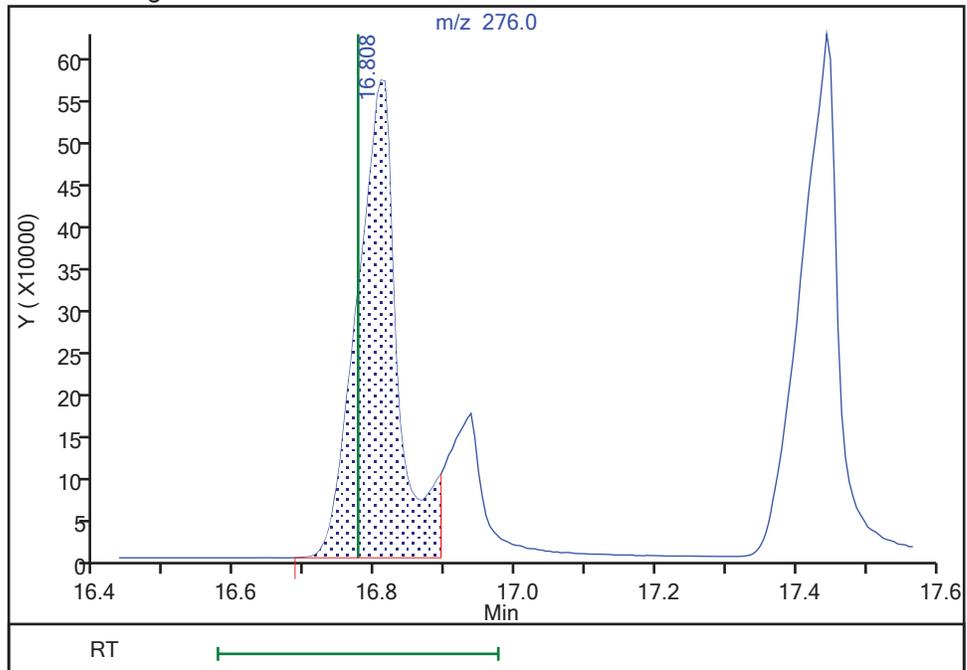
RT: 16.94
Area: 660332
Amount: 94.801059
Amount Units: ug/ml

Processing Integration Results



RT: 16.81
Area: 2298321
Amount: 213.8485
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:48:05
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Calibration

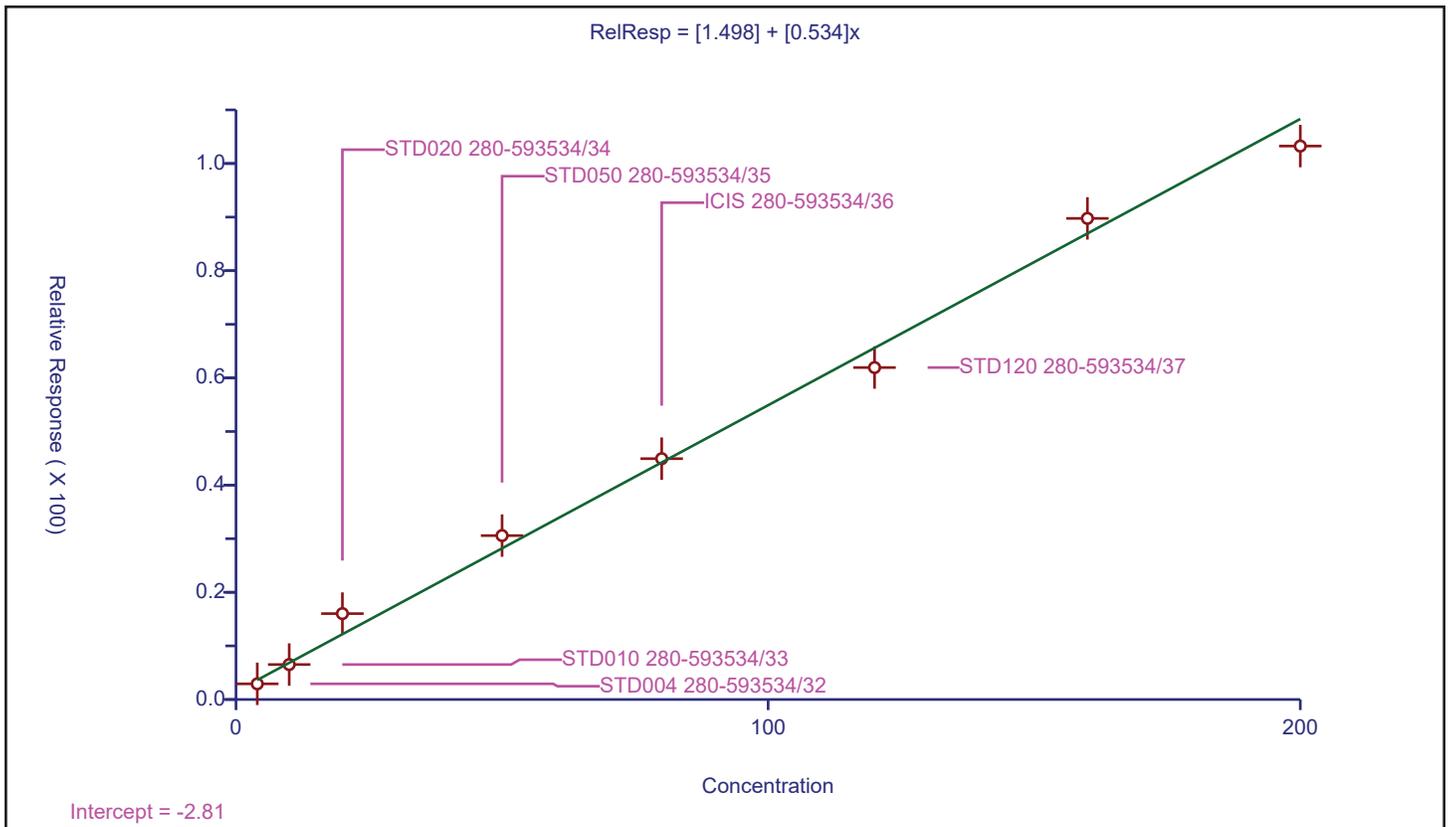
/ 1,4-Dioxane

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	1.498
Slope:	0.534

Error Coefficients	
Standard Error:	171000
Relative Standard Error:	20.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.920127	40.0	95489.0	0.730032	Y
2	STD010 280-593534/33	10.0	6.520248	40.0	104677.0	0.652025	Y
3	STD020 280-593534/34	20.0	16.023625	40.0	97184.0	0.801181	Y
4	STD050 280-593534/35	50.0	30.580674	40.0	99264.0	0.611613	Y
5	ICIS 280-593534/36	80.0	44.930198	40.0	108450.0	0.561627	Y
6	STD120 280-593534/37	120.0	61.929244	40.0	112697.0	0.516077	Y
7	STD160 280-593534/38	160.0	89.756409	40.0	97171.0	0.560978	Y
8	STD200 280-593534/39	200.0	103.251524	40.0	106467.0	0.516258	Y



Calibration

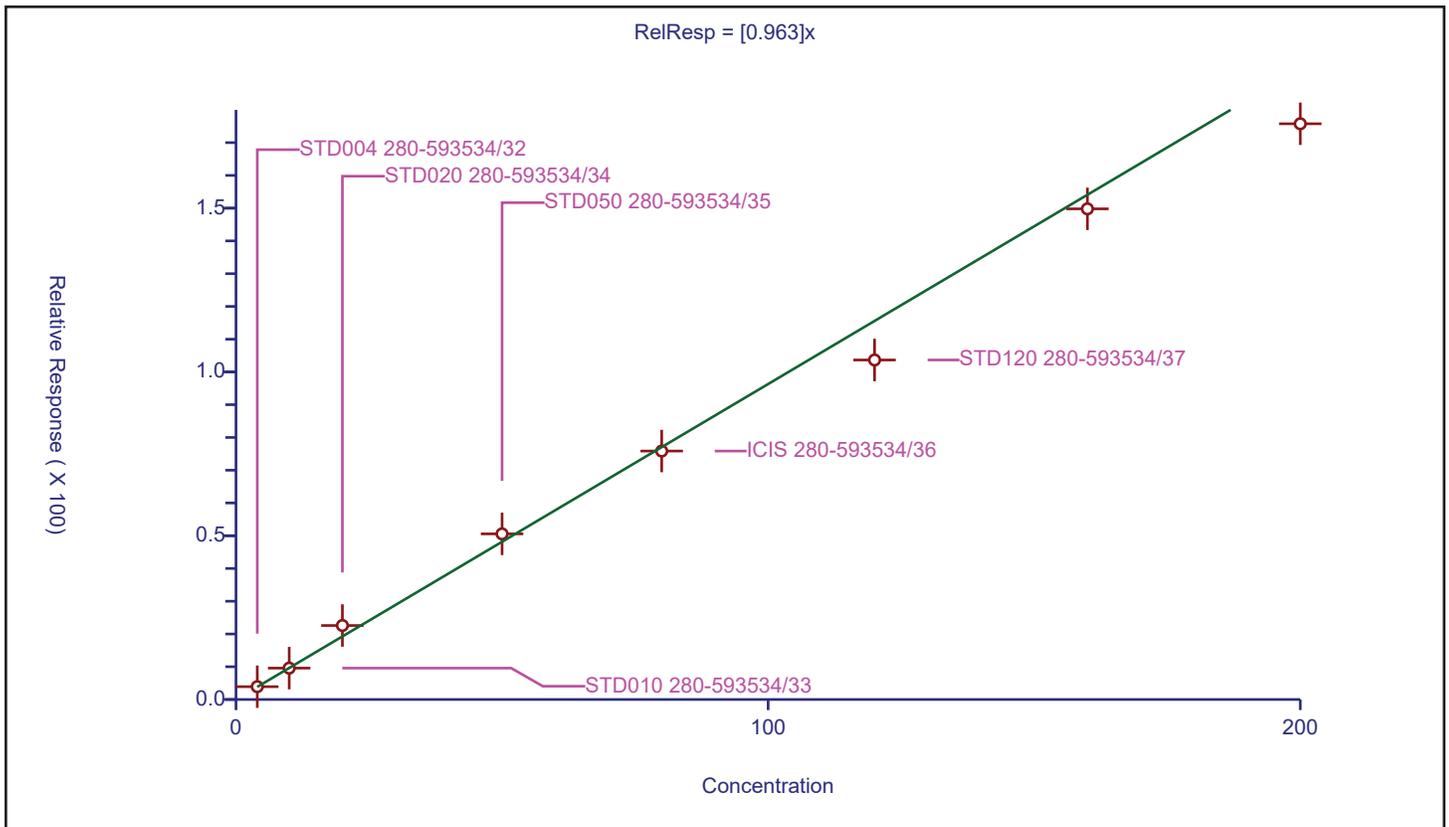
/ N-Nitrosodimethylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.963

Error Coefficients	
Standard Error:	267000
Relative Standard Error:	8.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.915006	40.0	95489.0	0.978751	Y
2	STD010 280-593534/33	10.0	9.581474	40.0	104677.0	0.958147	Y
3	STD020 280-593534/34	20.0	22.587257	40.0	97184.0	1.129363	Y
4	STD050 280-593534/35	50.0	50.564152	40.0	99264.0	1.011283	Y
5	ICIS 280-593534/36	80.0	75.849516	40.0	108450.0	0.948119	Y
6	STD120 280-593534/37	120.0	103.64677	40.0	112697.0	0.863723	Y
7	STD160 280-593534/38	160.0	149.787076	40.0	97171.0	0.936169	Y
8	STD200 280-593534/39	200.0	175.768642	40.0	106467.0	0.878843	Y



Calibration

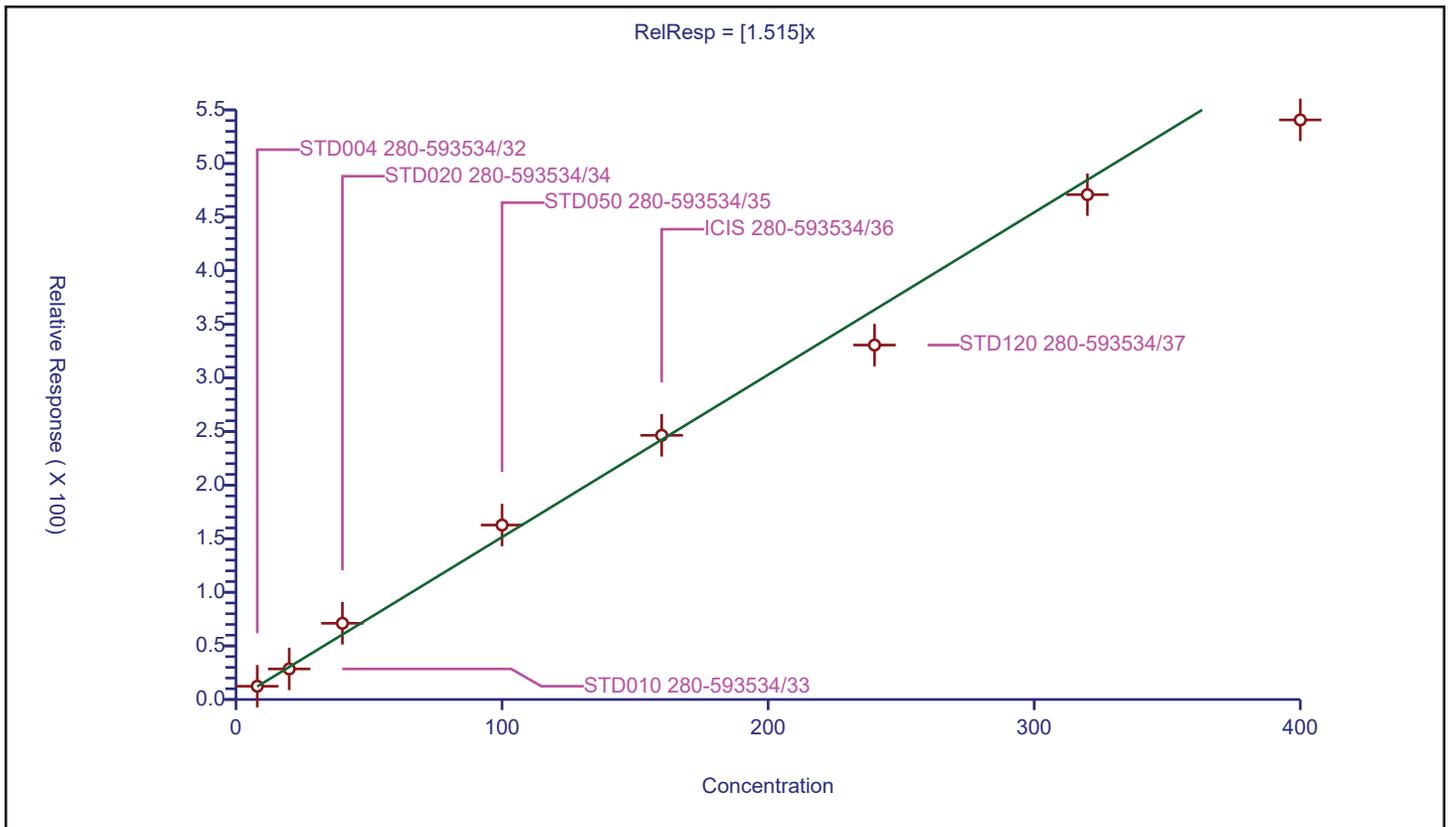
/ Pyridine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.515

Error Coefficients	
Standard Error:	836000
Relative Standard Error:	9.3
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	12.37043	40.0	95489.0	1.546304	Y
2	STD010 280-593534/33	20.0	28.500626	40.0	104677.0	1.425031	Y
3	STD020 280-593534/34	40.0	71.090715	40.0	97184.0	1.777268	Y
4	STD050 280-593534/35	100.0	162.745809	40.0	99264.0	1.627458	Y
5	ICIS 280-593534/36	160.0	246.445367	40.0	108450.0	1.540284	Y
6	STD120 280-593534/37	240.0	330.642697	40.0	112697.0	1.377678	Y
7	STD160 280-593534/38	320.0	470.949563	40.0	97171.0	1.471717	Y
8	STD200 280-593534/39	400.0	540.645646	40.0	106467.0	1.351614	Y



Calibration

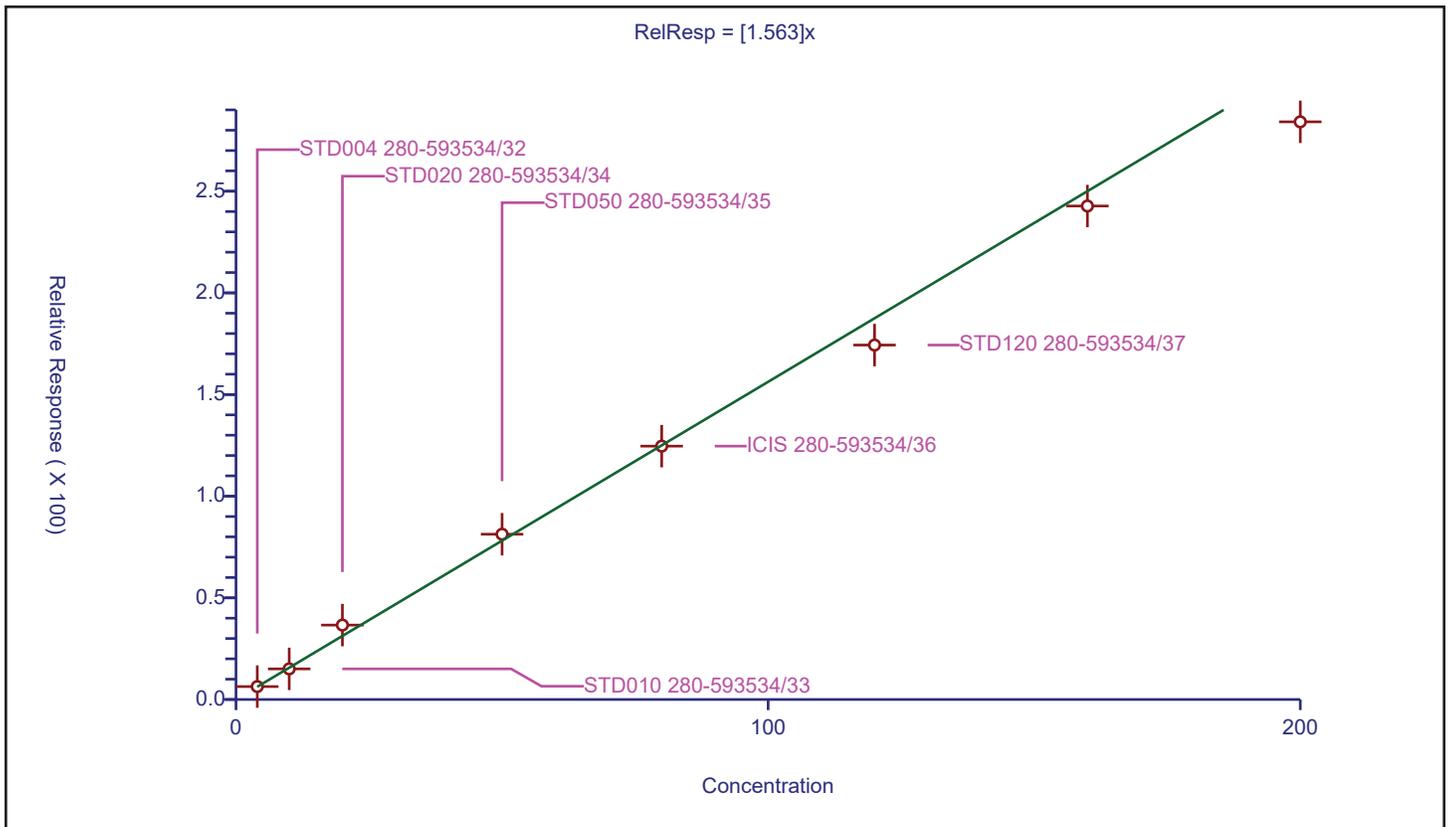
/ 2-Fluorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.563

Error Coefficients	
Standard Error:	435000
Relative Standard Error:	8.2
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.363455	40.0	95489.0	1.590864	Y
2	STD010 280-593534/33	10.0	15.054692	40.0	104677.0	1.505469	Y
3	STD020 280-593534/34	20.0	36.597382	40.0	97184.0	1.829869	Y
4	STD050 280-593534/35	50.0	81.297147	40.0	99264.0	1.625943	Y
5	ICIS 280-593534/36	80.0	124.625173	40.0	108450.0	1.557815	Y
6	STD120 280-593534/37	120.0	174.327977	40.0	112697.0	1.452733	Y
7	STD160 280-593534/38	160.0	242.718918	40.0	97171.0	1.516993	Y
8	STD200 280-593534/39	200.0	284.137244	40.0	106467.0	1.420686	Y



Calibration

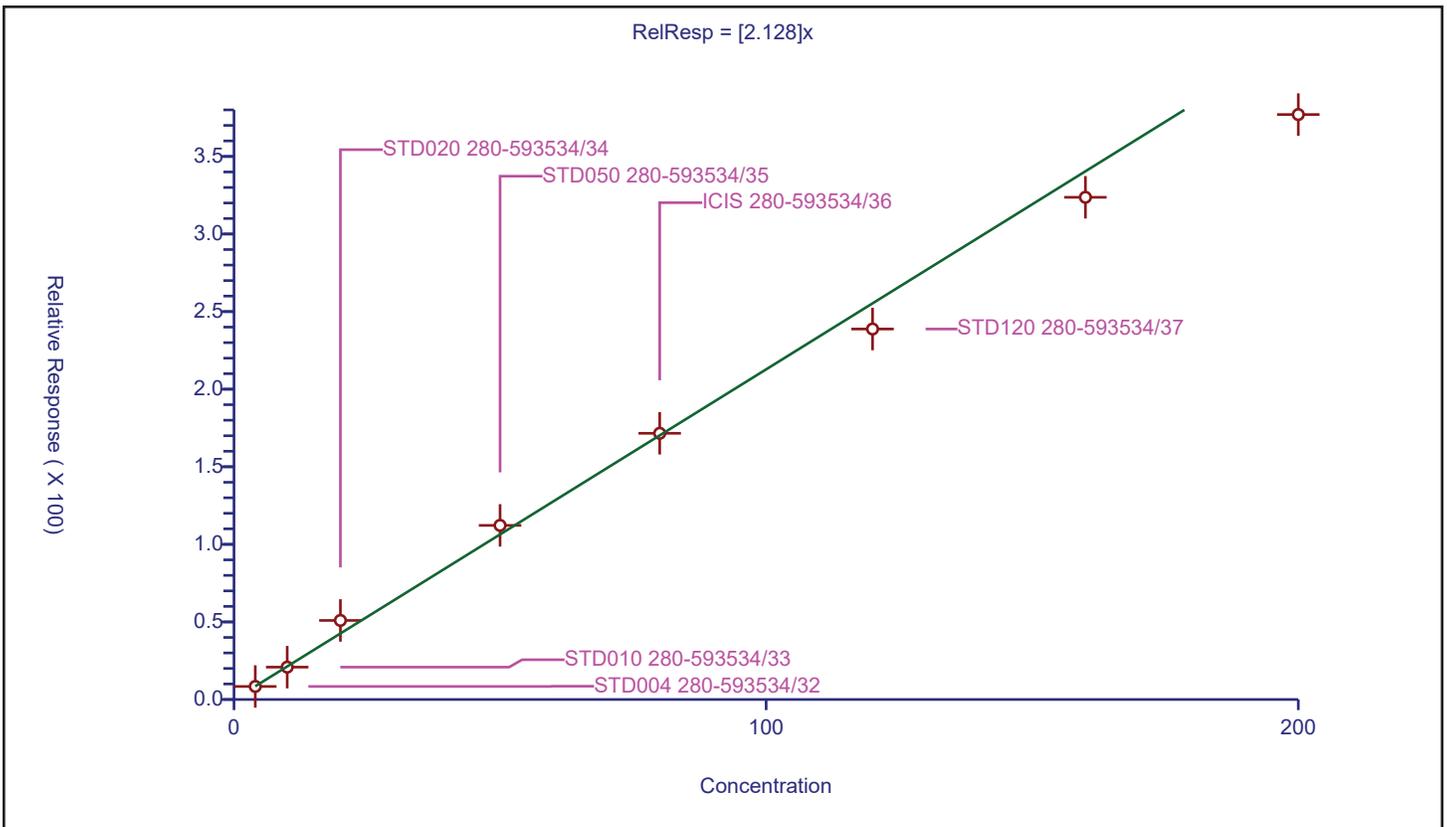
/ Phenol-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.128

Error Coefficients	
Standard Error:	584000
Relative Standard Error:	9.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	8.405994	40.0	95489.0	2.101499	Y
2	STD010 280-593534/33	10.0	20.855011	40.0	104677.0	2.085501	Y
3	STD020 280-593534/34	20.0	50.956948	40.0	97184.0	2.547847	Y
4	STD050 280-593534/35	50.0	112.2147	40.0	99264.0	2.244294	Y
5	ICIS 280-593534/36	80.0	171.556662	40.0	108450.0	2.144458	Y
6	STD120 280-593534/37	120.0	238.769799	40.0	112697.0	1.989748	Y
7	STD160 280-593534/38	160.0	323.669819	40.0	97171.0	2.022936	Y
8	STD200 280-593534/39	200.0	377.007336	40.0	106467.0	1.885037	Y



Calibration

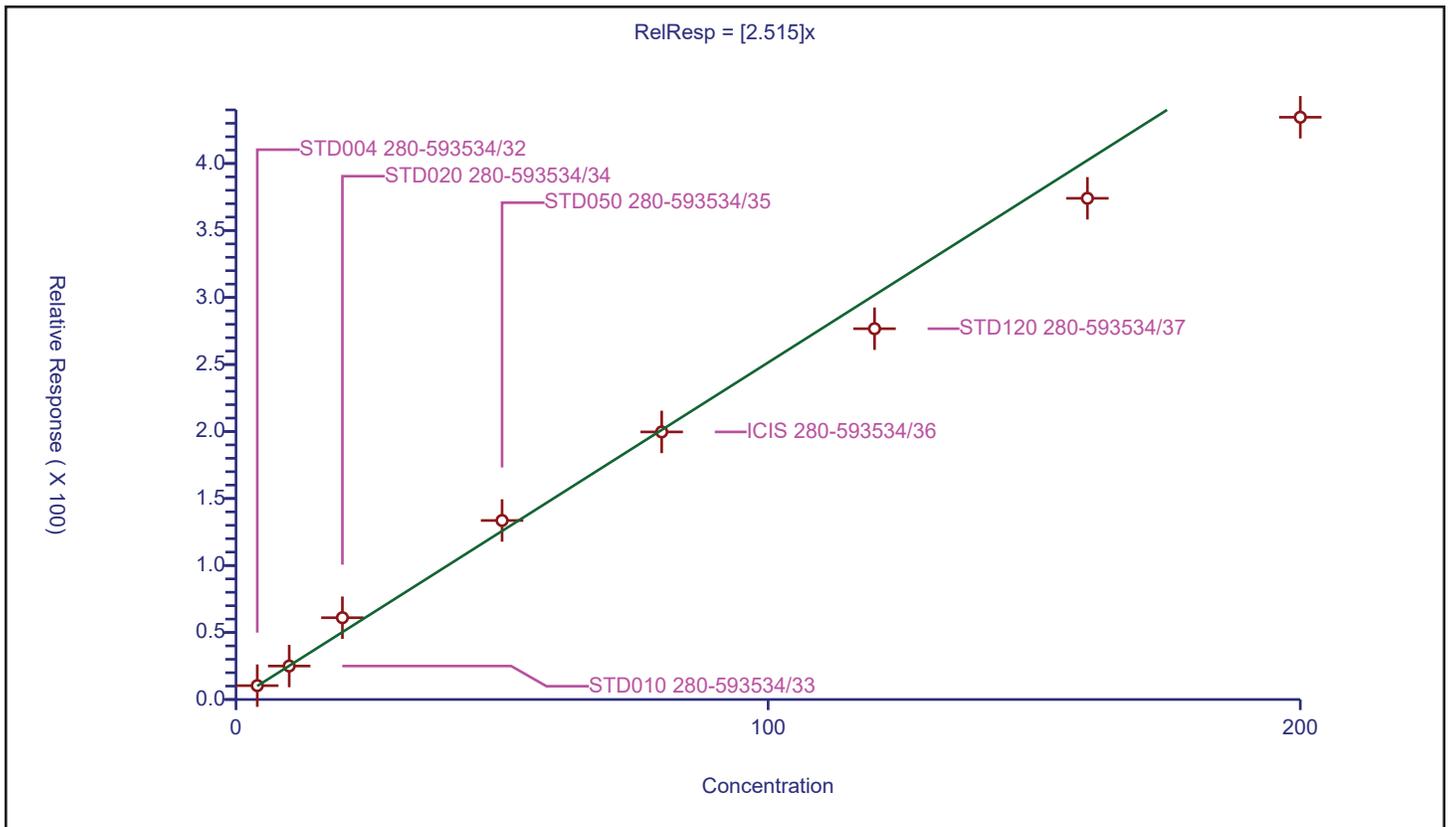
/ Aniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.515

Error Coefficients	
Standard Error:	676000
Relative Standard Error:	10.7
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	10.33208	40.0	95489.0	2.58302	Y
2	STD010 280-593534/33	10.0	24.988488	40.0	104677.0	2.498849	Y
3	STD020 280-593534/34	20.0	61.042147	40.0	97184.0	3.052107	Y
4	STD050 280-593534/35	50.0	133.590023	40.0	99264.0	2.6718	Y
5	ICIS 280-593534/36	80.0	199.684278	40.0	108450.0	2.496053	Y
6	STD120 280-593534/37	120.0	276.705857	40.0	112697.0	2.305882	Y
7	STD160 280-593534/38	160.0	374.022702	40.0	97171.0	2.337642	Y
8	STD200 280-593534/39	200.0	434.521495	40.0	106467.0	2.172607	Y



Calibration

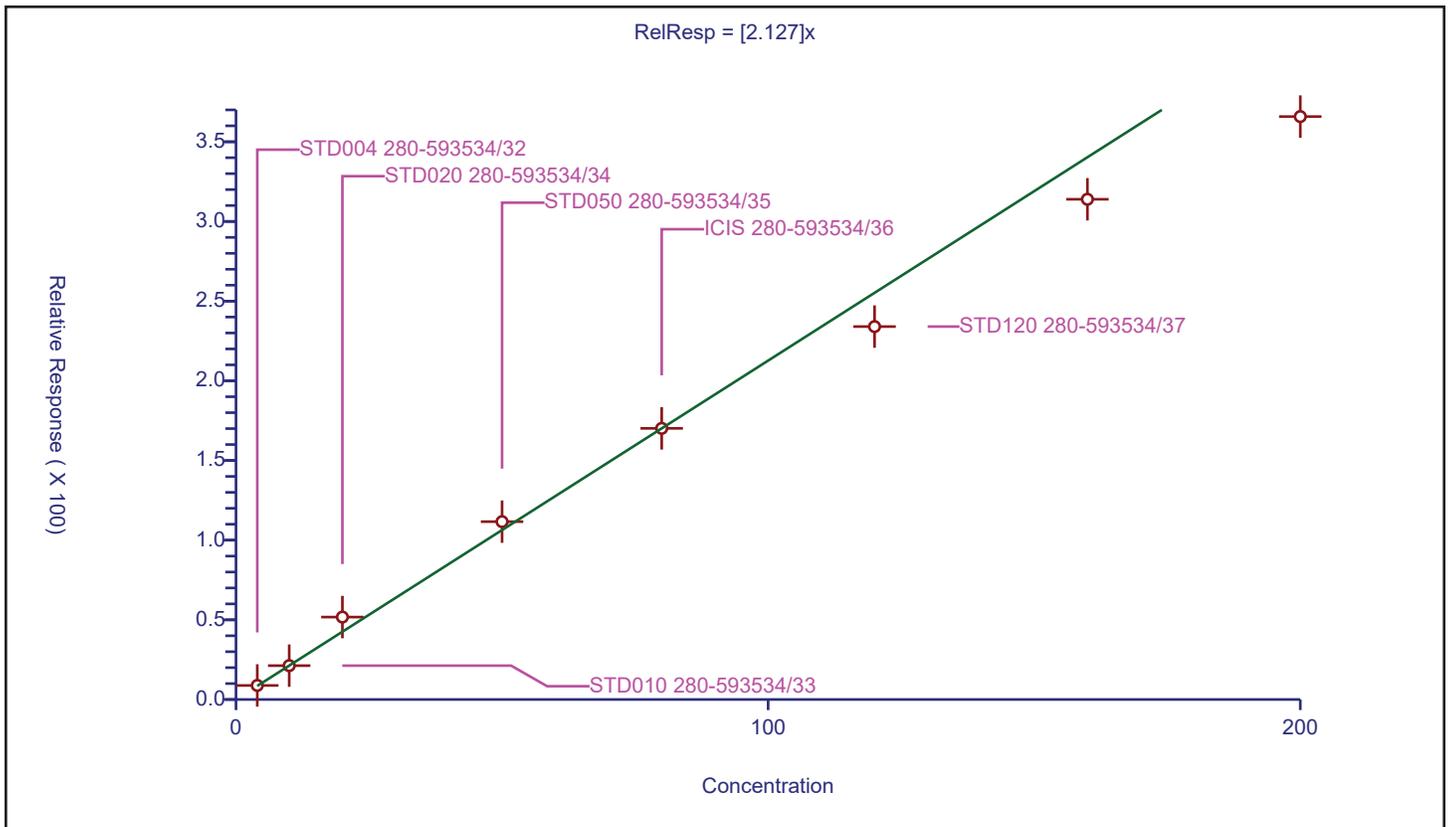
/ Phenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.127

Error Coefficients	
Standard Error:	570000
Relative Standard Error:	10.9
Correlation Coefficient:	0.991
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	8.810229	40.0	95489.0	2.202557	Y
2	STD010 280-593534/33	10.0	21.245546	40.0	104677.0	2.124555	Y
3	STD020 280-593534/34	20.0	51.721683	40.0	97184.0	2.586084	Y
4	STD050 280-593534/35	50.0	111.606625	40.0	99264.0	2.232132	Y
5	ICIS 280-593534/36	80.0	170.148824	40.0	108450.0	2.12686	Y
6	STD120 280-593534/37	120.0	234.015102	40.0	112697.0	1.950126	Y
7	STD160 280-593534/38	160.0	313.910529	40.0	97171.0	1.961941	Y
8	STD200 280-593534/39	200.0	365.79898	40.0	106467.0	1.828995	Y



Calibration

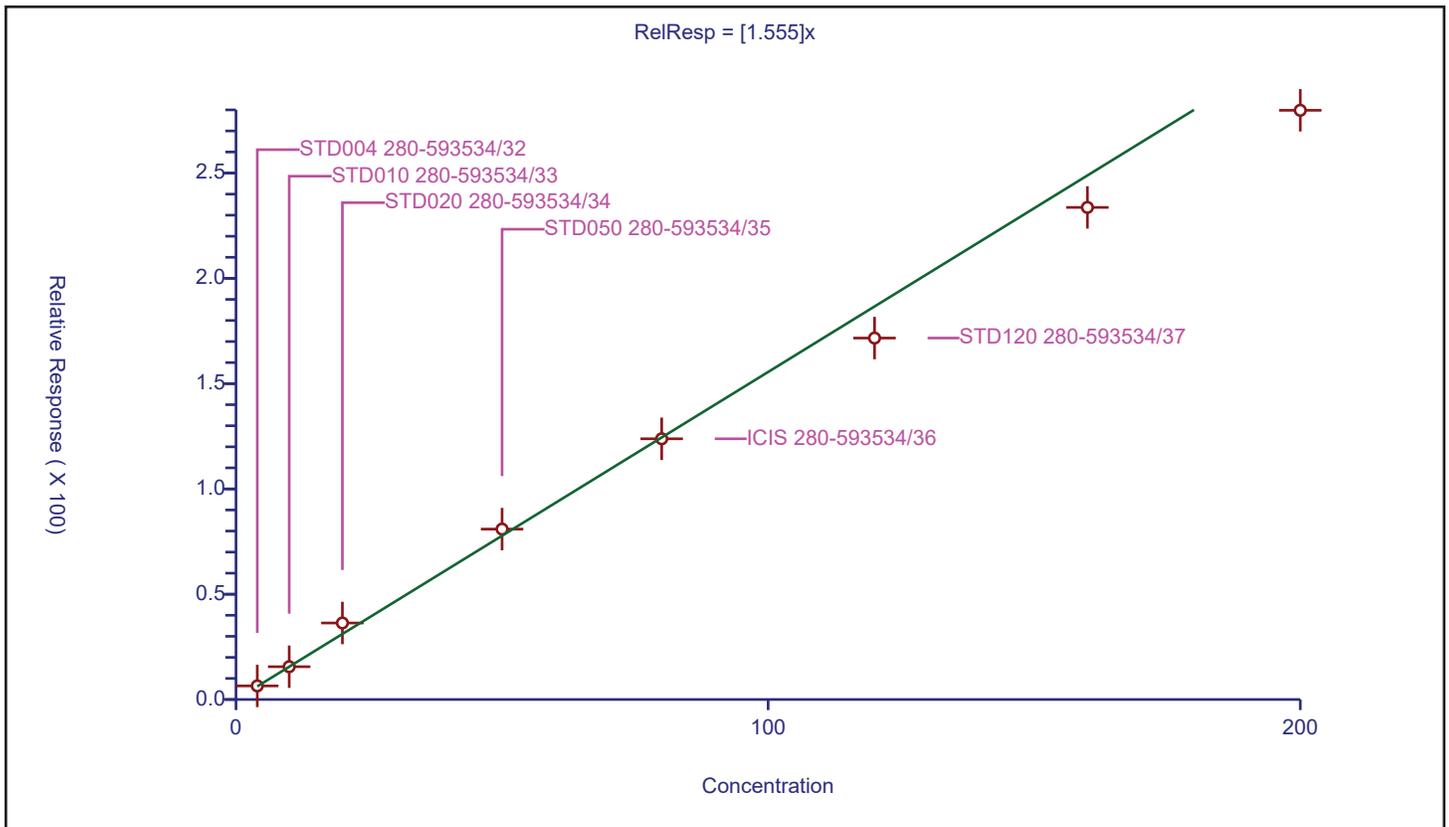
/ Bis(2-chloroethyl)ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.555

Error Coefficients	
Standard Error:	426000
Relative Standard Error:	8.6
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.454356	40.0	95489.0	1.613589	Y
2	STD010 280-593534/33	10.0	15.567508	40.0	104677.0	1.556751	Y
3	STD020 280-593534/34	20.0	36.338904	40.0	97184.0	1.816945	Y
4	STD050 280-593534/35	50.0	80.922389	40.0	99264.0	1.618448	Y
5	ICIS 280-593534/36	80.0	123.804149	40.0	108450.0	1.547552	Y
6	STD120 280-593534/37	120.0	171.643966	40.0	112697.0	1.430366	Y
7	STD160 280-593534/38	160.0	233.688652	40.0	97171.0	1.460554	Y
8	STD200 280-593534/39	200.0	279.805386	40.0	106467.0	1.399027	Y



Calibration

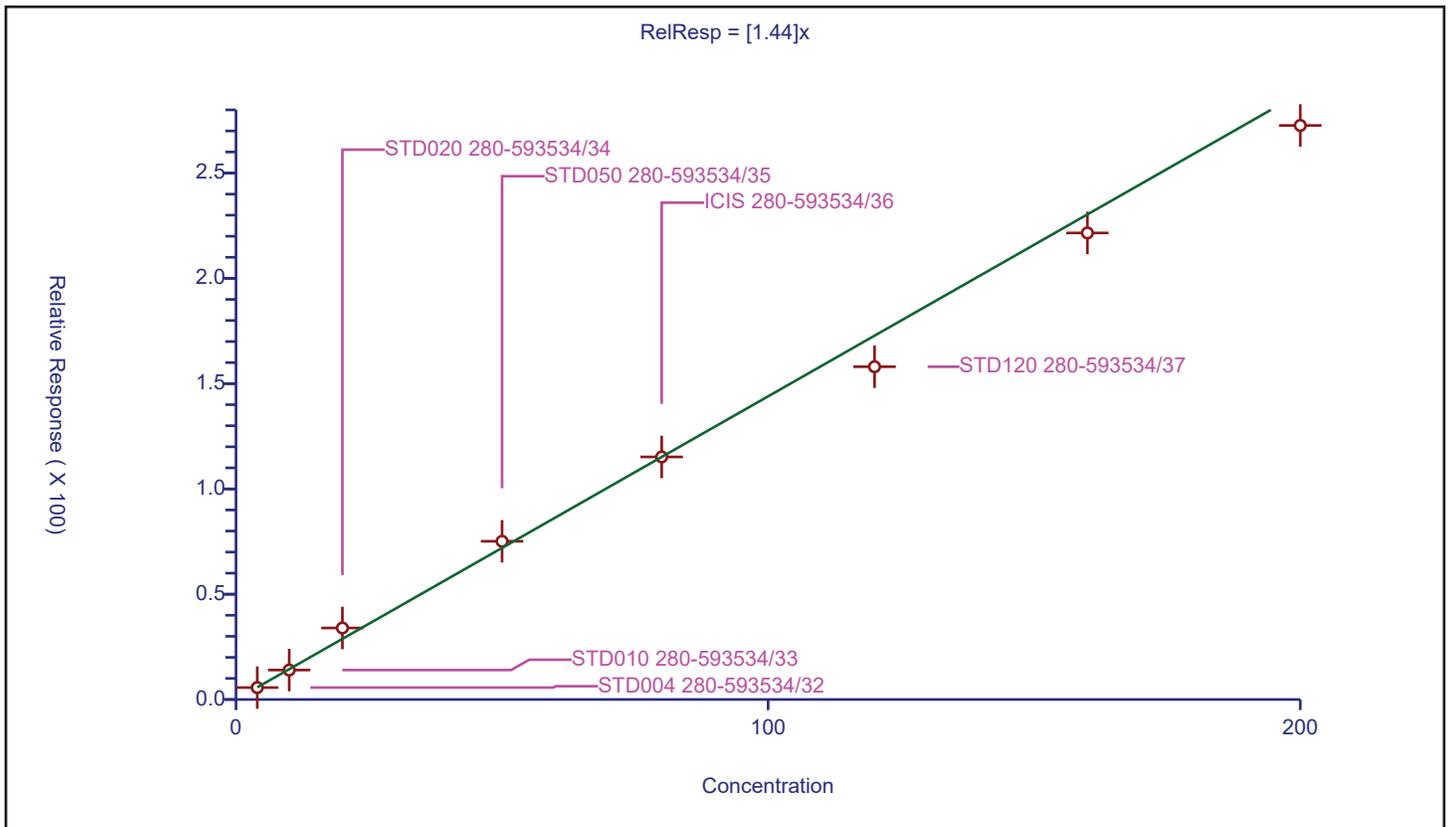
/ 2-Chlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.44

Error Coefficients	
Standard Error:	406000
Relative Standard Error:	8.2
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.656358	40.0	95489.0	1.41409	Y
2	STD010 280-593534/33	10.0	13.983205	40.0	104677.0	1.398321	Y
3	STD020 280-593534/34	20.0	33.963615	40.0	97184.0	1.698181	Y
4	STD050 280-593534/35	50.0	75.145874	40.0	99264.0	1.502917	Y
5	ICIS 280-593534/36	80.0	115.198893	40.0	108450.0	1.439986	Y
6	STD120 280-593534/37	120.0	158.033311	40.0	112697.0	1.316944	Y
7	STD160 280-593534/38	160.0	221.55993	40.0	97171.0	1.38475	Y
8	STD200 280-593534/39	200.0	272.607662	40.0	106467.0	1.363038	Y



Calibration

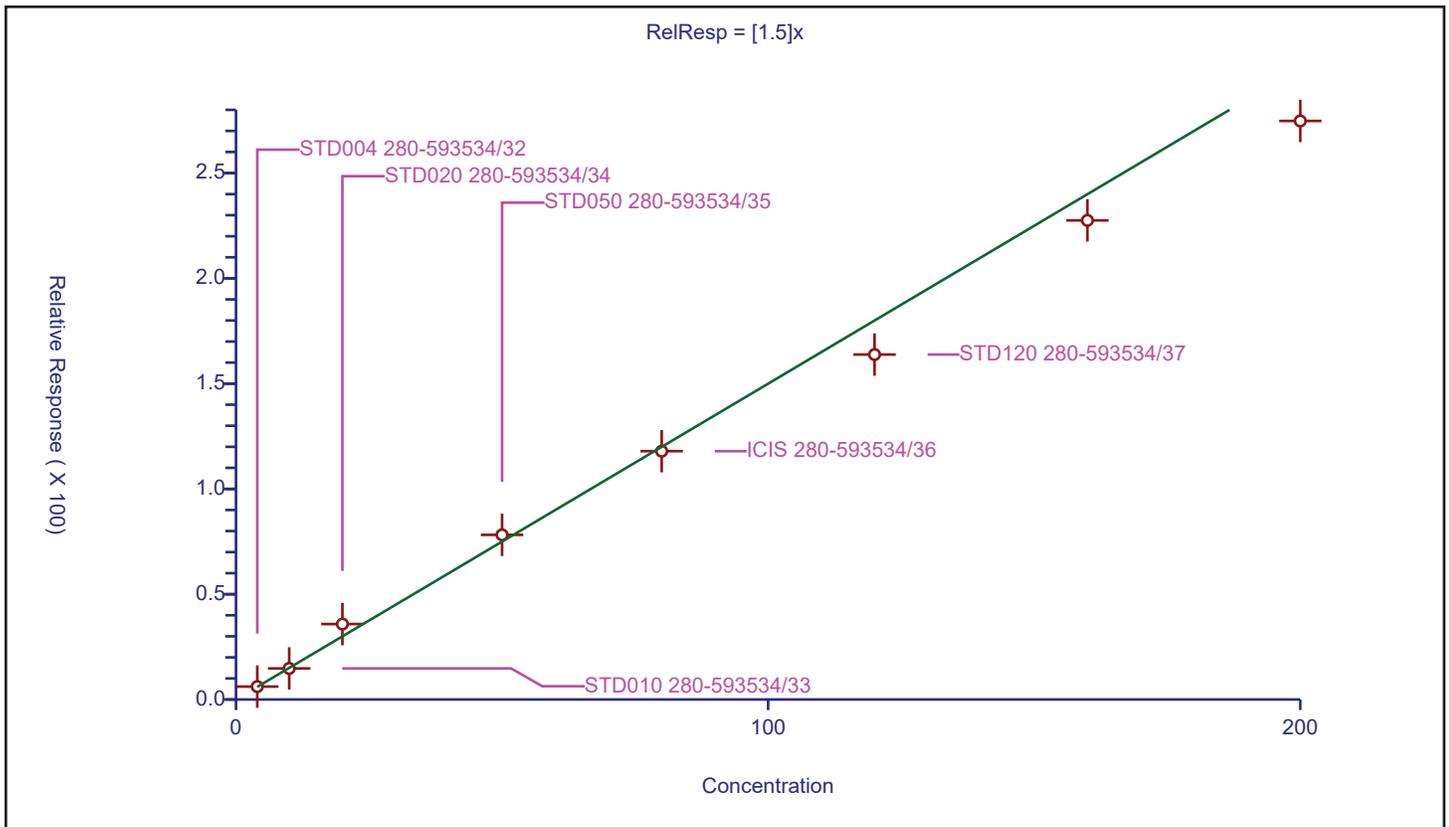
/ 1,3-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.5

Error Coefficients	
Standard Error:	414000
Relative Standard Error:	9.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.13013	40.0	95489.0	1.532533	Y
2	STD010 280-593534/33	10.0	14.750518	40.0	104677.0	1.475052	Y
3	STD020 280-593534/34	20.0	35.829355	40.0	97184.0	1.791468	Y
4	STD050 280-593534/35	50.0	78.195116	40.0	99264.0	1.563902	Y
5	ICIS 280-593534/36	80.0	117.926787	40.0	108450.0	1.474085	Y
6	STD120 280-593534/37	120.0	163.82051	40.0	112697.0	1.365171	Y
7	STD160 280-593534/38	160.0	227.518498	40.0	97171.0	1.421991	Y
8	STD200 280-593534/39	200.0	274.745414	40.0	106467.0	1.373727	Y



Calibration

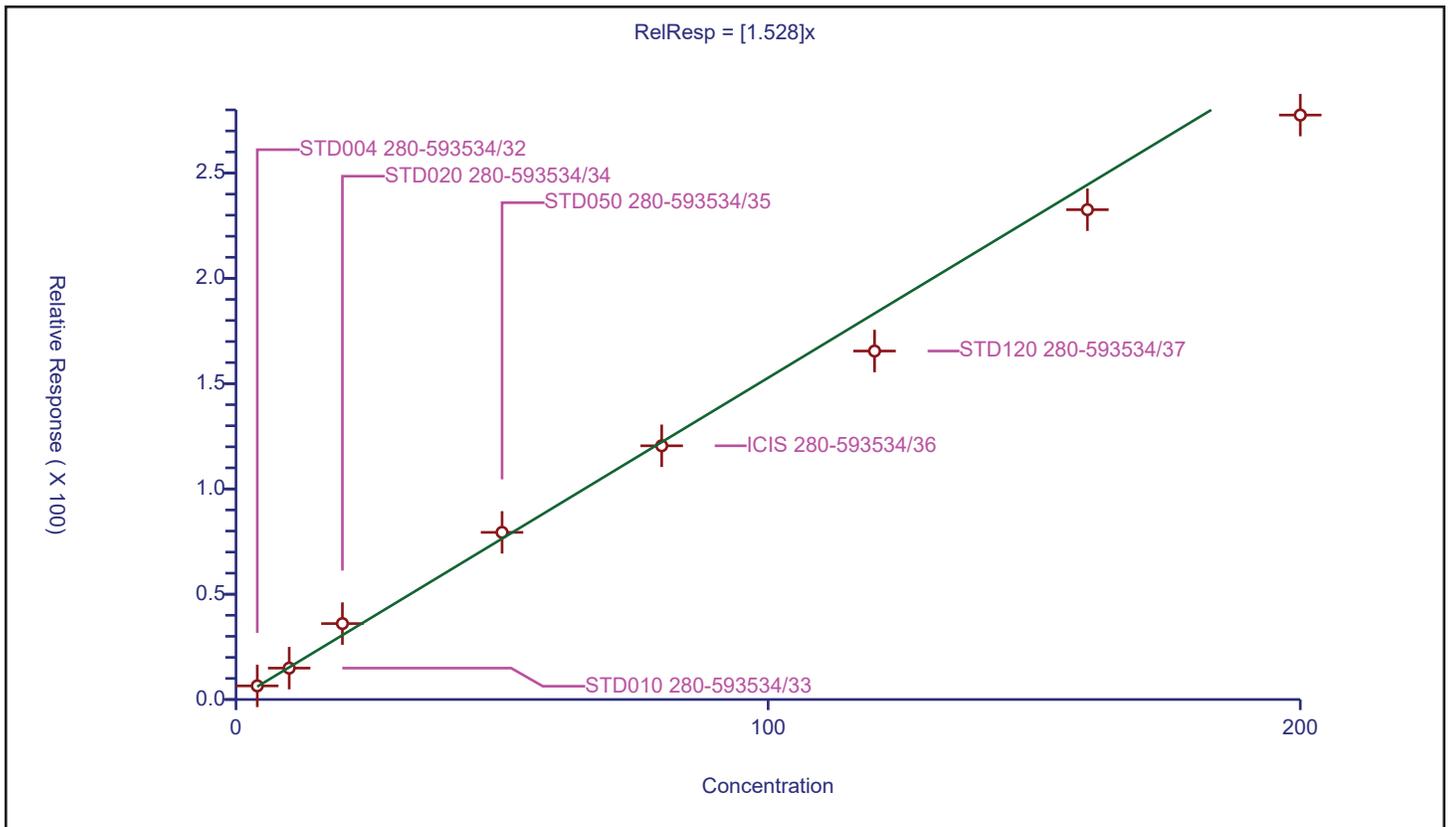
/ 1,4-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.528

Error Coefficients	
Standard Error:	420000
Relative Standard Error:	9.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.459802	40.0	95489.0	1.61495	Y
2	STD010 280-593534/33	10.0	14.89993	40.0	104677.0	1.489993	Y
3	STD020 280-593534/34	20.0	36.058199	40.0	97184.0	1.80291	Y
4	STD050 280-593534/35	50.0	79.37903	40.0	99264.0	1.587581	Y
5	ICIS 280-593534/36	80.0	120.485385	40.0	108450.0	1.506067	Y
6	STD120 280-593534/37	120.0	165.485505	40.0	112697.0	1.379046	Y
7	STD160 280-593534/38	160.0	232.59985	40.0	97171.0	1.453749	Y
8	STD200 280-593534/39	200.0	277.550415	40.0	106467.0	1.387752	Y



Calibration

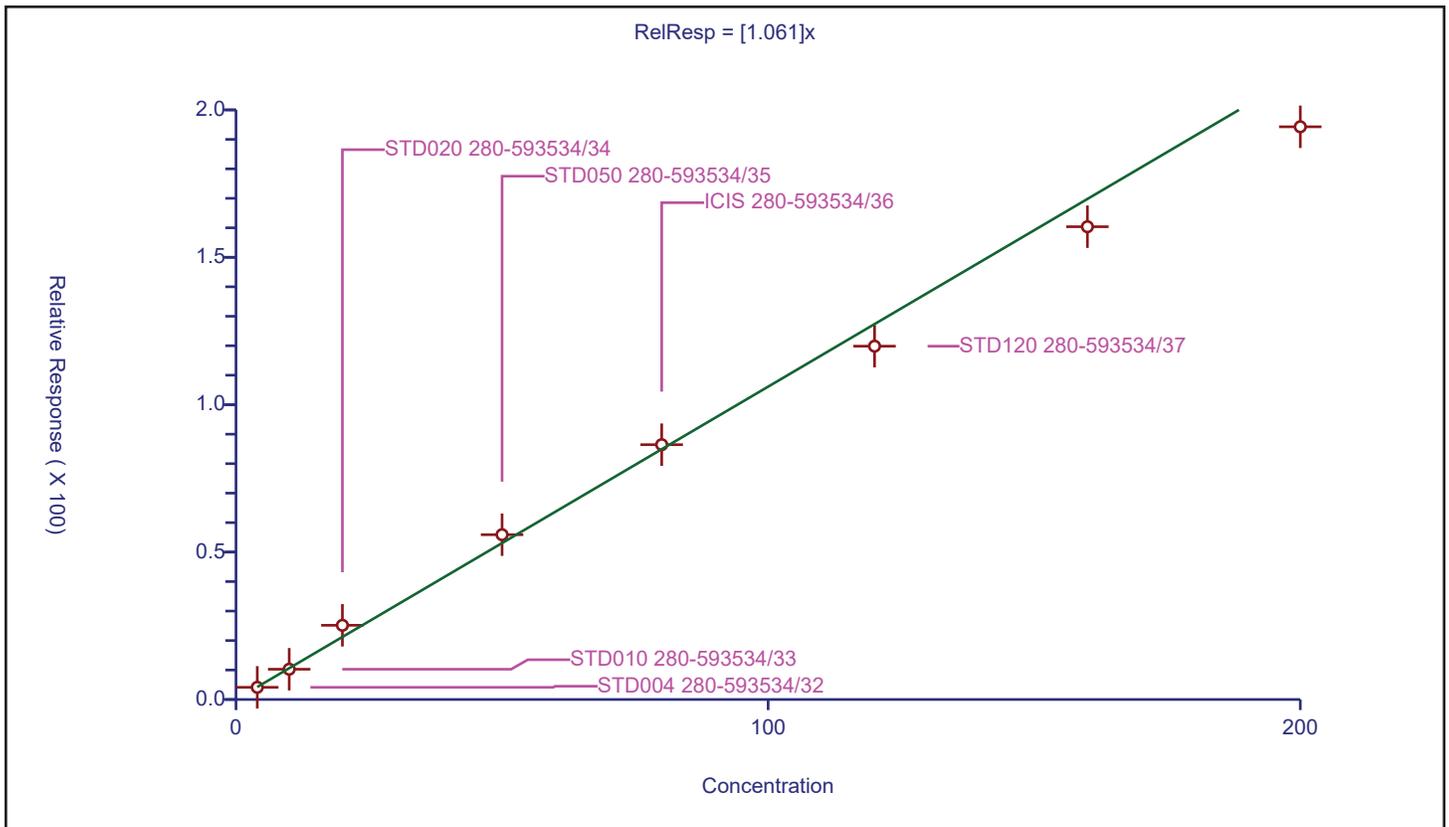
/ Benzyl alcohol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.061

Error Coefficients	
Standard Error:	296000
Relative Standard Error:	8.7
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.134089	40.0	95489.0	1.033522	Y
2	STD010 280-593534/33	10.0	10.263955	40.0	104677.0	1.026395	Y
3	STD020 280-593534/34	20.0	25.165871	40.0	97184.0	1.258294	Y
4	STD050 280-593534/35	50.0	55.907076	40.0	99264.0	1.118142	Y
5	ICIS 280-593534/36	80.0	86.443154	40.0	108450.0	1.080539	Y
6	STD120 280-593534/37	120.0	119.852702	40.0	112697.0	0.998773	Y
7	STD160 280-593534/38	160.0	160.371716	40.0	97171.0	1.002323	Y
8	STD200 280-593534/39	200.0	194.270149	40.0	106467.0	0.971351	Y



Calibration

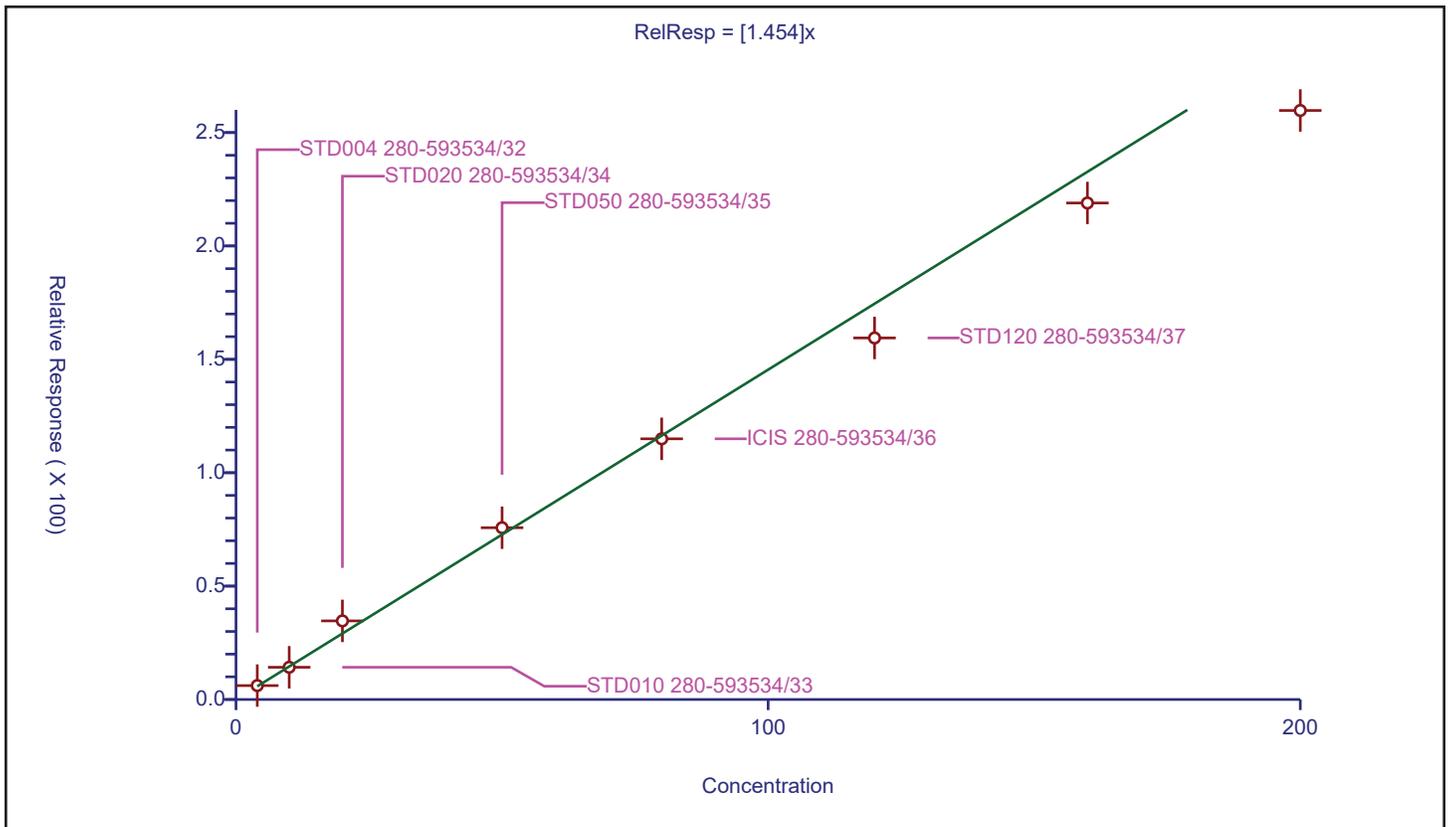
/ 1,2-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.454

Error Coefficients	
Standard Error:	397000
Relative Standard Error:	9.6
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.133062	40.0	95489.0	1.533266	Y
2	STD010 280-593534/33	10.0	14.209807	40.0	104677.0	1.420981	Y
3	STD020 280-593534/34	20.0	34.660438	40.0	97184.0	1.733022	Y
4	STD050 280-593534/35	50.0	75.749919	40.0	99264.0	1.514998	Y
5	ICIS 280-593534/36	80.0	114.952882	40.0	108450.0	1.436911	Y
6	STD120 280-593534/37	120.0	159.428556	40.0	112697.0	1.328571	Y
7	STD160 280-593534/38	160.0	218.949687	40.0	97171.0	1.368436	Y
8	STD200 280-593534/39	200.0	259.73682	40.0	106467.0	1.298684	Y



Calibration

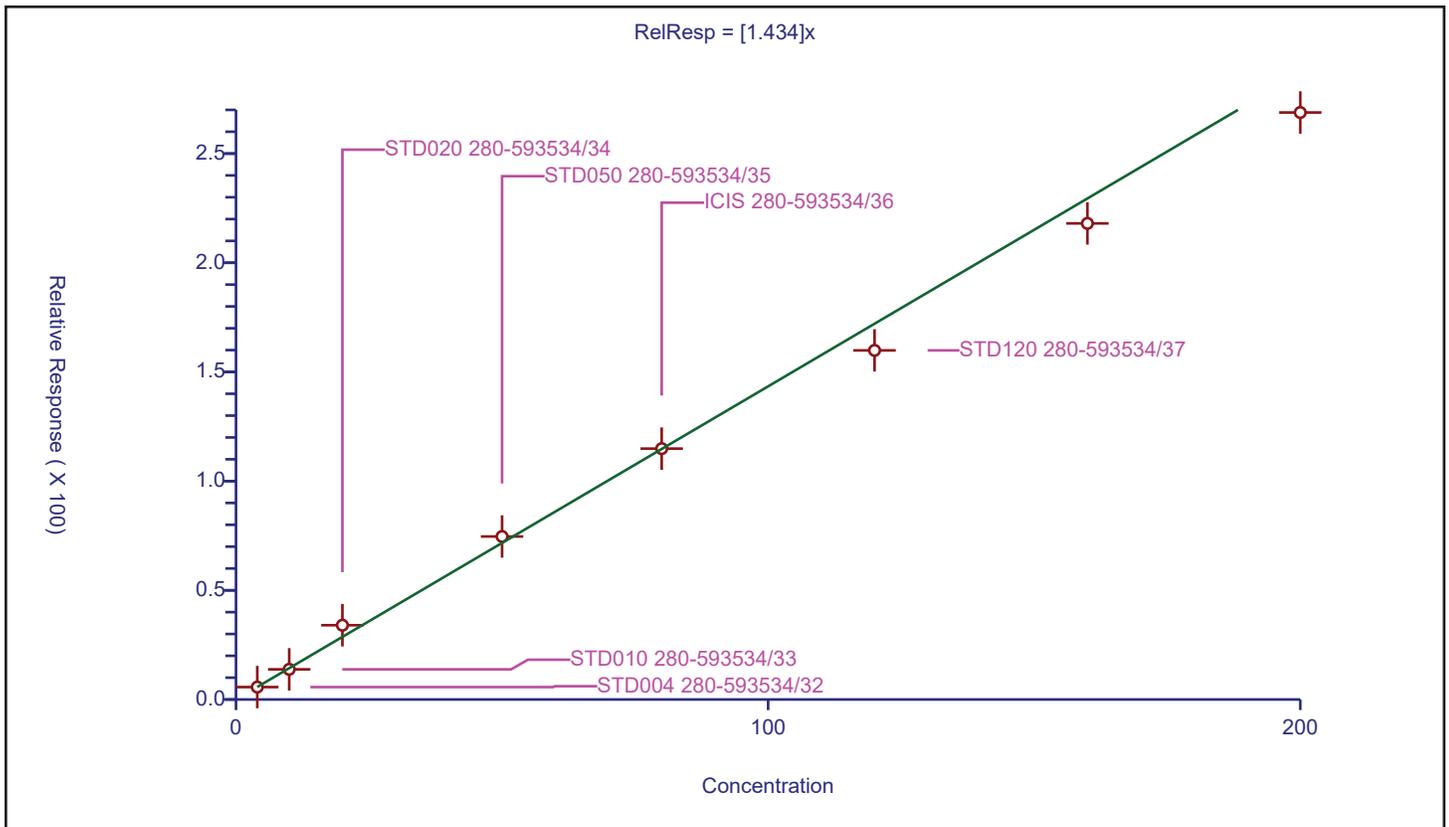
/ 2-Methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.434

Error Coefficients	
Standard Error:	402000
Relative Standard Error:	8.4
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.6861	40.0	95489.0	1.421525	Y
2	STD010 280-593534/33	10.0	13.815833	40.0	104677.0	1.381583	Y
3	STD020 280-593534/34	20.0	34.015064	40.0	97184.0	1.700753	Y
4	STD050 280-593534/35	50.0	74.644181	40.0	99264.0	1.492884	Y
5	ICIS 280-593534/36	80.0	114.887598	40.0	108450.0	1.436095	Y
6	STD120 280-593534/37	120.0	159.870449	40.0	112697.0	1.332254	Y
7	STD160 280-593534/38	160.0	218.019368	40.0	97171.0	1.362621	Y
8	STD200 280-593534/39	200.0	268.804418	40.0	106467.0	1.344022	Y



Calibration

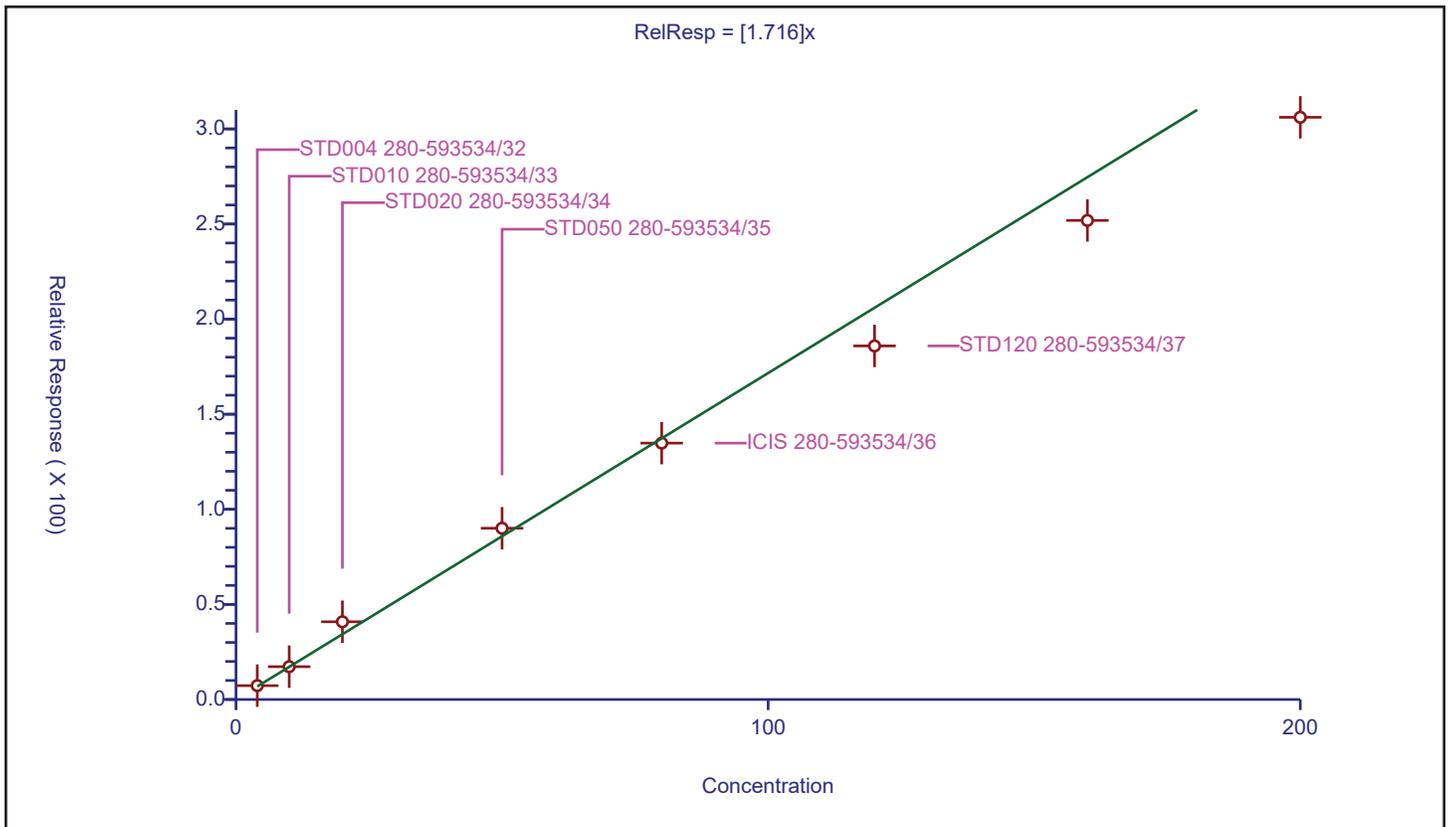
/ 2,2'-oxybis[1-chloropropane]

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.716

Error Coefficients	
Standard Error:	464000
Relative Standard Error:	10.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	7.284609	40.0	95489.0	1.821152	Y
2	STD010 280-593534/33	10.0	17.256895	40.0	104677.0	1.72569	Y
3	STD020 280-593534/34	20.0	40.872983	40.0	97184.0	2.043649	Y
4	STD050 280-593534/35	50.0	90.054803	40.0	99264.0	1.801096	Y
5	ICIS 280-593534/36	80.0	134.807561	40.0	108450.0	1.685095	Y
6	STD120 280-593534/37	120.0	185.893502	40.0	112697.0	1.549113	Y
7	STD160 280-593534/38	160.0	251.875971	40.0	97171.0	1.574225	Y
8	STD200 280-593534/39	200.0	306.10762	40.0	106467.0	1.530538	Y



Calibration

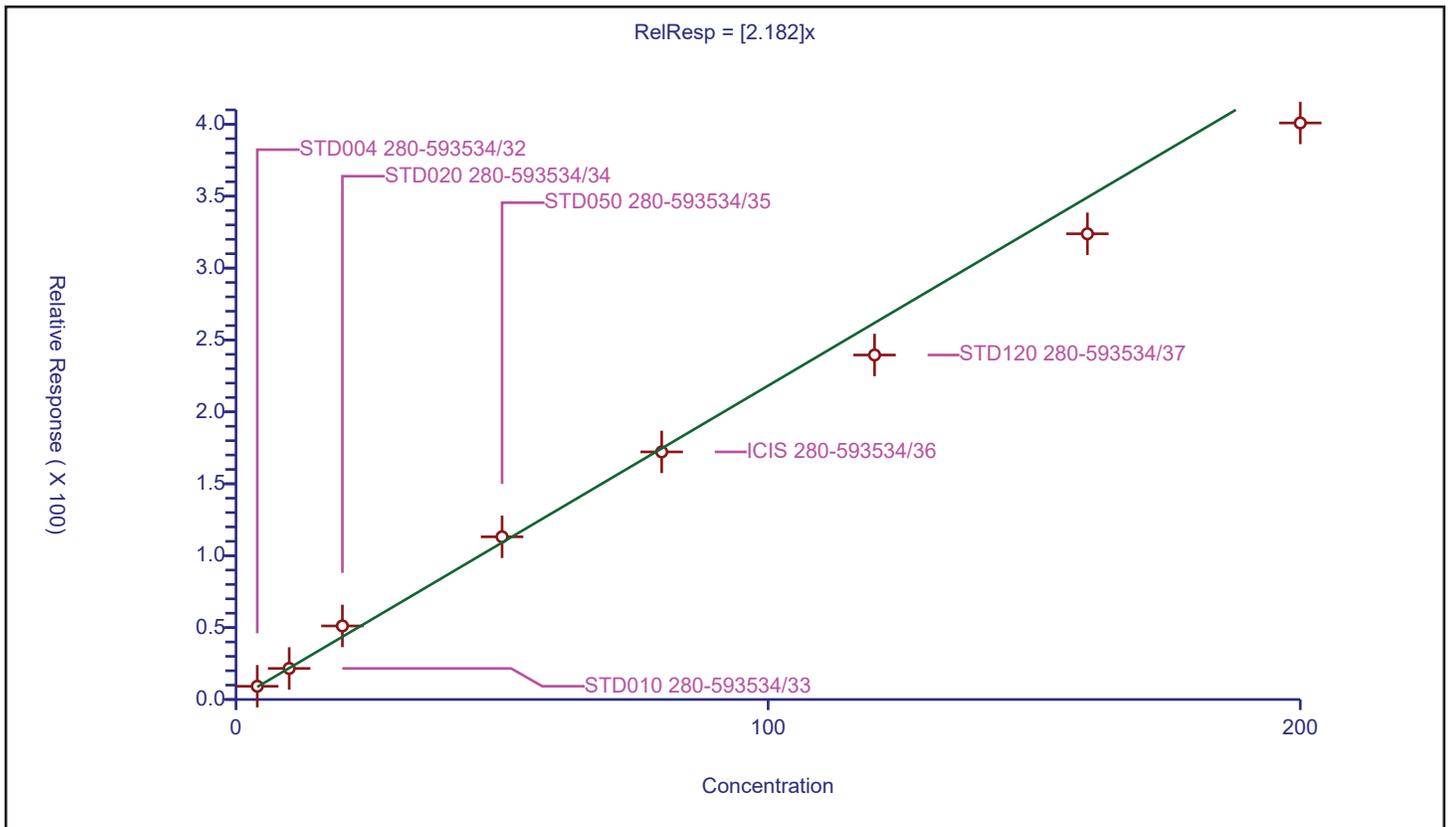
/ Acetophenone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.182

Error Coefficients	
Standard Error:	601000
Relative Standard Error:	8.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	9.203573	40.0	95489.0	2.300893	Y
2	STD010 280-593534/33	10.0	21.59825	40.0	104677.0	2.159825	Y
3	STD020 280-593534/34	20.0	51.155746	40.0	97184.0	2.557787	Y
4	STD050 280-593534/35	50.0	113.123388	40.0	99264.0	2.262468	Y
5	ICIS 280-593534/36	80.0	172.157123	40.0	108450.0	2.151964	Y
6	STD120 280-593534/37	120.0	239.563786	40.0	112697.0	1.996365	Y
7	STD160 280-593534/38	160.0	323.864527	40.0	97171.0	2.024153	Y
8	STD200 280-593534/39	200.0	400.905445	40.0	106467.0	2.004527	Y



Calibration

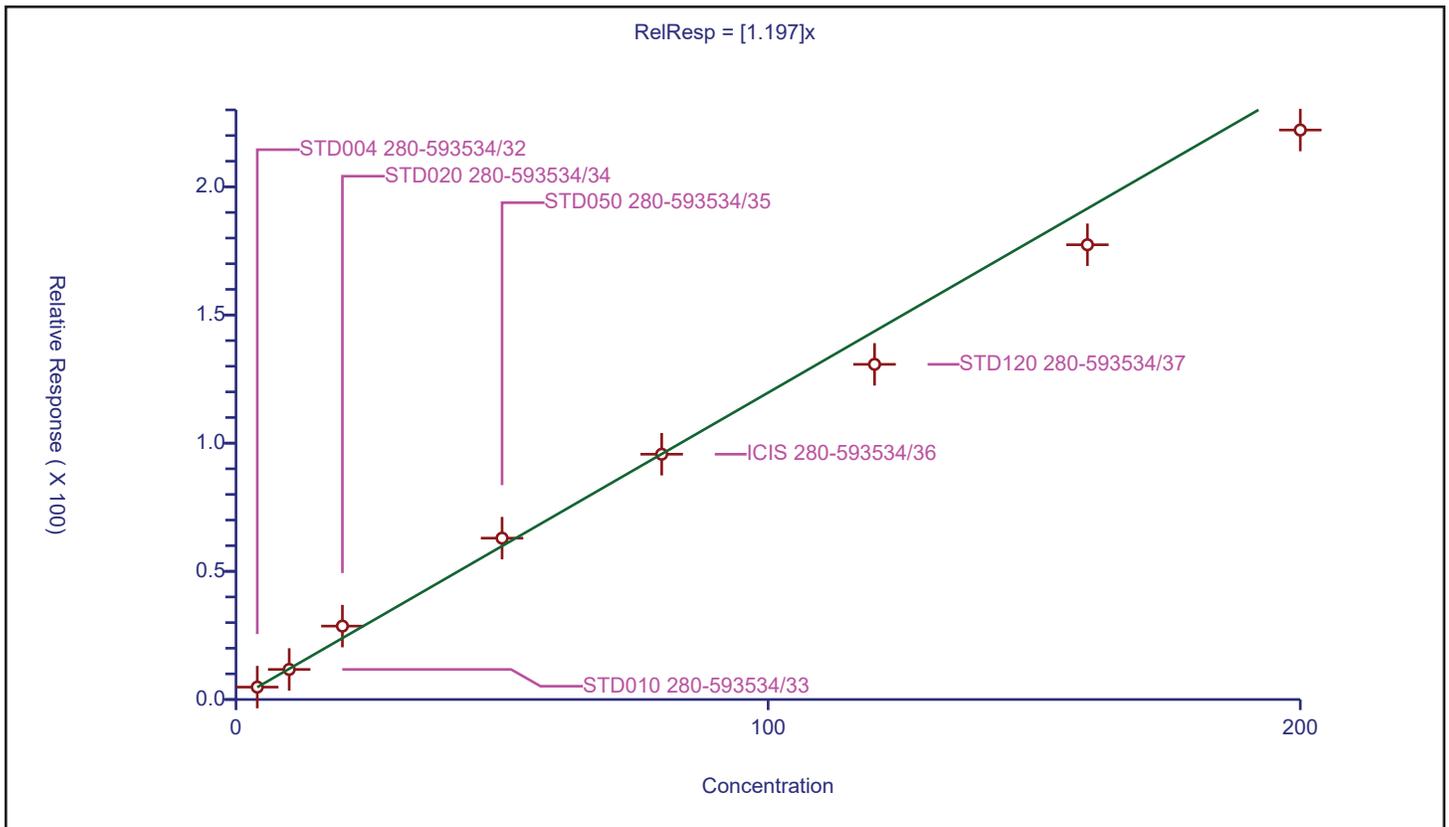
/ N-Nitrosodi-n-propylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.197

Error Coefficients	
Standard Error:	331000
Relative Standard Error:	9.3
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.831132	40.0	95489.0	1.207783	Y
2	STD010 280-593534/33	10.0	11.728651	40.0	104677.0	1.172865	Y
3	STD020 280-593534/34	20.0	28.635166	40.0	97184.0	1.431758	Y
4	STD050 280-593534/35	50.0	62.940039	40.0	99264.0	1.258801	Y
5	ICIS 280-593534/36	80.0	95.677271	40.0	108450.0	1.195966	Y
6	STD120 280-593534/37	120.0	130.749887	40.0	112697.0	1.089582	Y
7	STD160 280-593534/38	160.0	177.392844	40.0	97171.0	1.108705	Y
8	STD200 280-593534/39	200.0	222.146956	40.0	106467.0	1.110735	Y



Calibration

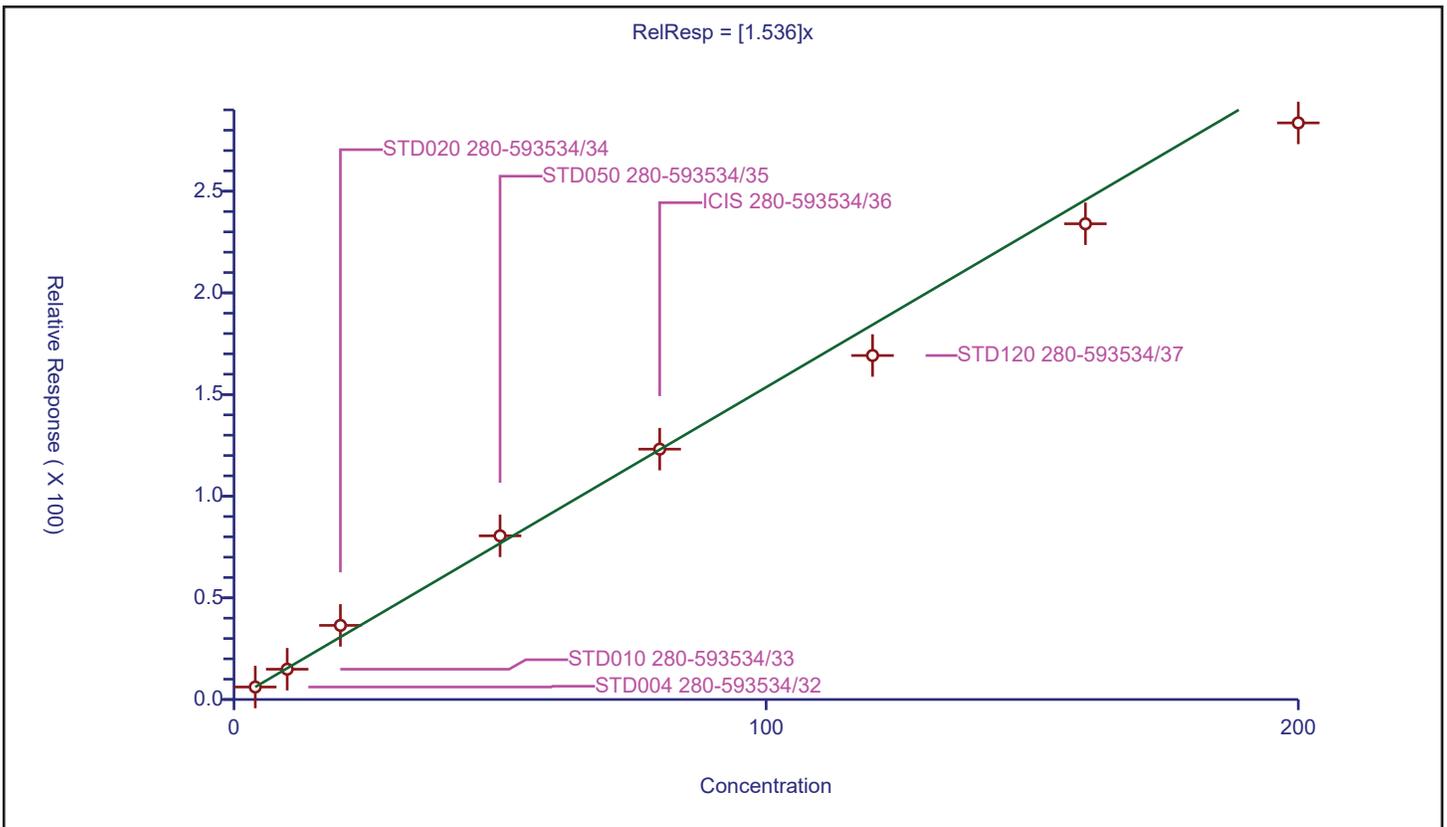
/ 3 & 4 Methylphenol

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.536

Error Coefficients	
Standard Error:	428000
Relative Standard Error:	8.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.14144	40.0	95489.0	1.53536	Y
2	STD010 280-593534/33	10.0	14.896491	40.0	104677.0	1.489649	Y
3	STD020 280-593534/34	20.0	36.455795	40.0	97184.0	1.82279	Y
4	STD050 280-593534/35	50.0	80.502498	40.0	99264.0	1.61005	Y
5	ICIS 280-593534/36	80.0	123.137298	40.0	108450.0	1.539216	Y
6	STD120 280-593534/37	120.0	169.196341	40.0	112697.0	1.40997	Y
7	STD160 280-593534/38	160.0	233.98092	40.0	97171.0	1.462381	Y
8	STD200 280-593534/39	200.0	283.59285	40.0	106467.0	1.417964	Y



Calibration

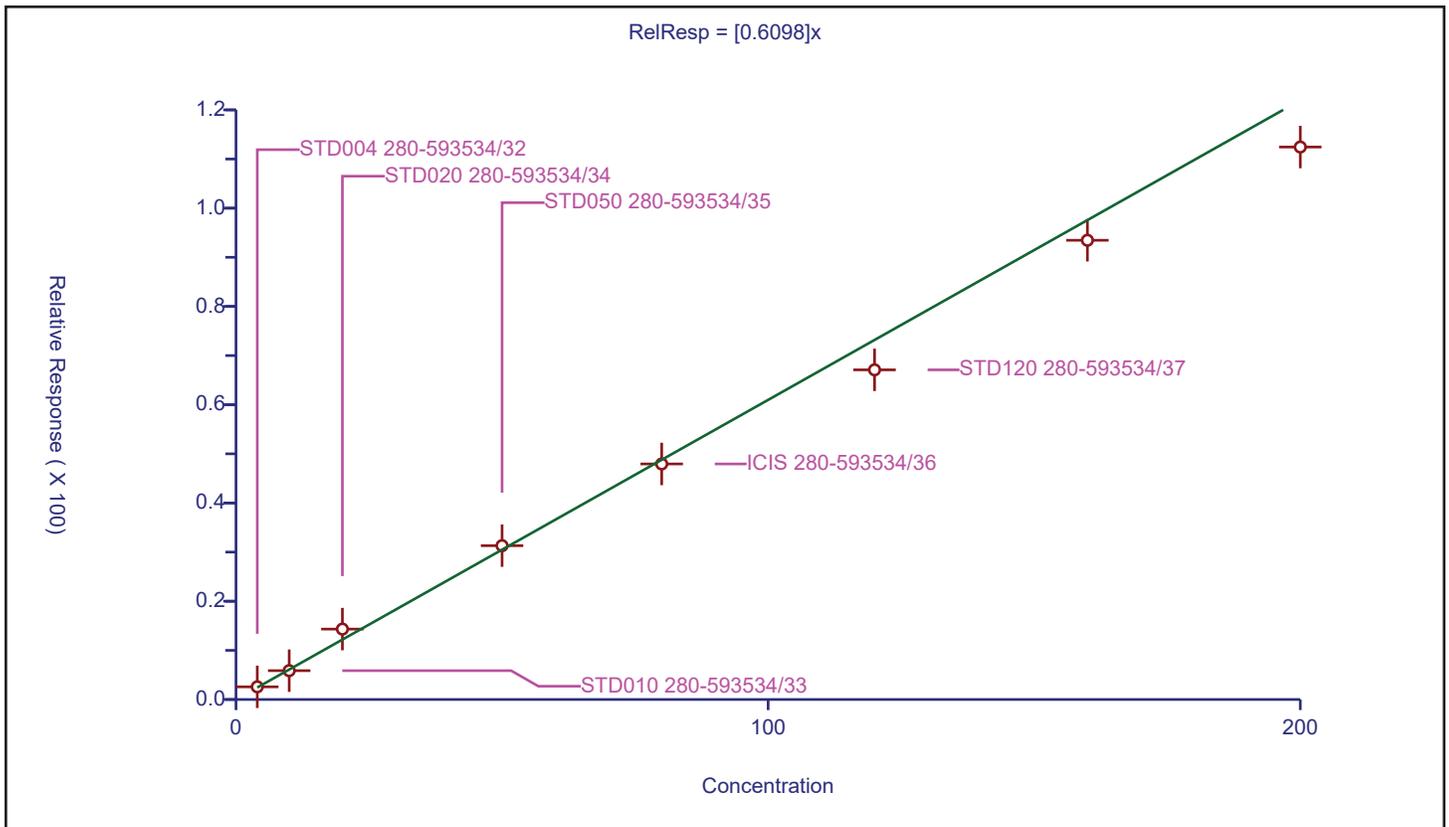
/ Hexachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6098

Error Coefficients	
Standard Error:	169000
Relative Standard Error:	8.5
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.575794	40.0	95489.0	0.643949	Y
2	STD010 280-593534/33	10.0	5.868338	40.0	104677.0	0.586834	Y
3	STD020 280-593534/34	20.0	14.331989	40.0	97184.0	0.716599	Y
4	STD050 280-593534/35	50.0	31.306818	40.0	99264.0	0.626136	Y
5	ICIS 280-593534/36	80.0	47.941724	40.0	108450.0	0.599272	Y
6	STD120 280-593534/37	120.0	67.093179	40.0	112697.0	0.55911	Y
7	STD160 280-593534/38	160.0	93.466158	40.0	97171.0	0.584163	Y
8	STD200 280-593534/39	200.0	112.441602	40.0	106467.0	0.562208	Y



Calibration

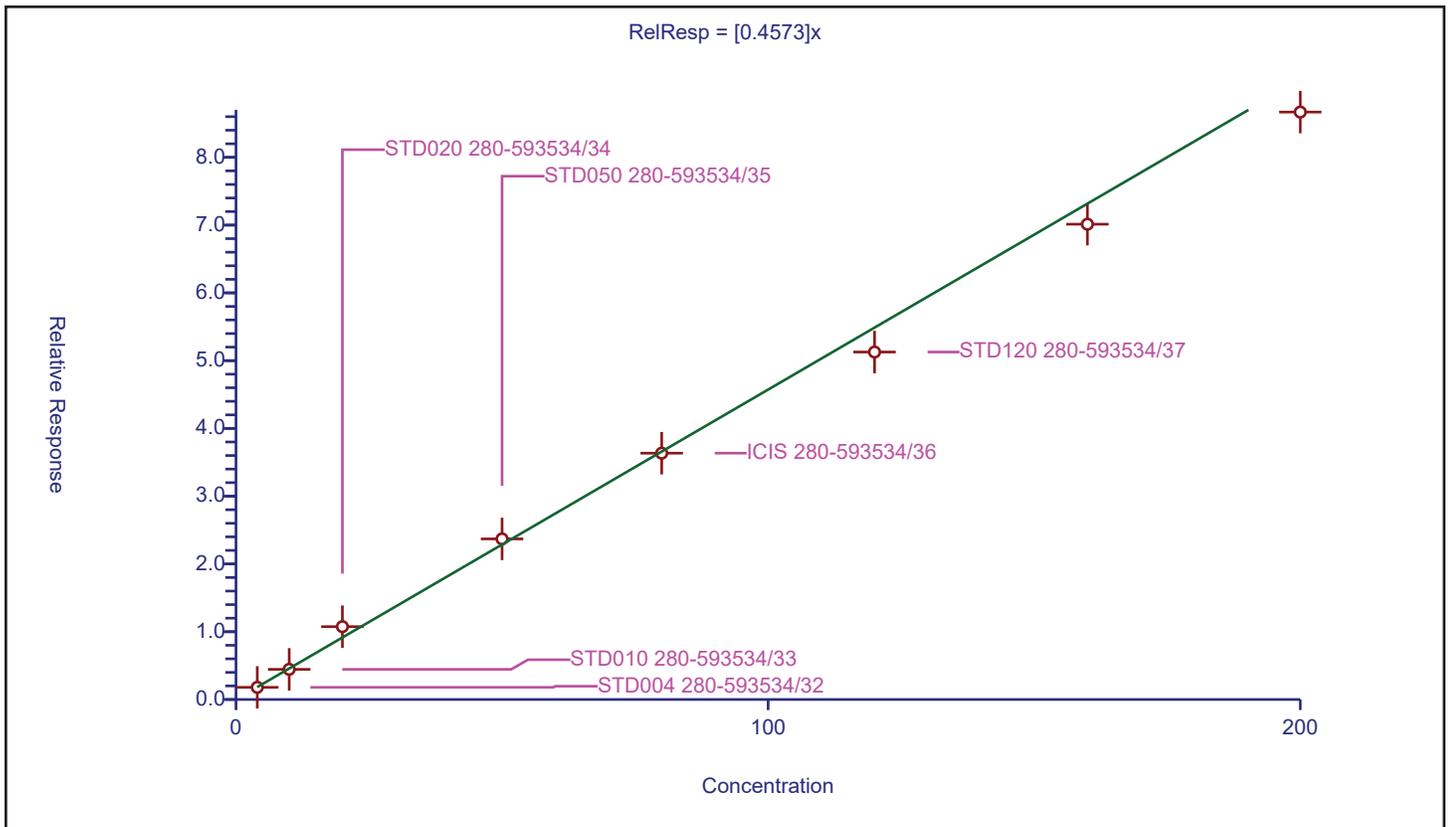
/ Nitrobenzene-d5

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4573

Error Coefficients	
Standard Error:	536000
Relative Standard Error:	7.7
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.793741	40.0	393301.0	0.448435	Y
2	STD010 280-593534/33	10.0	4.450321	40.0	426549.0	0.445032	Y
3	STD020 280-593534/34	20.0	10.750852	40.0	398867.0	0.537543	Y
4	STD050 280-593534/35	50.0	23.697359	40.0	410282.0	0.473947	Y
5	ICIS 280-593534/36	80.0	36.343078	40.0	448027.0	0.454288	Y
6	STD120 280-593534/37	120.0	51.269914	40.0	469079.0	0.427249	Y
7	STD160 280-593534/38	160.0	70.132392	40.0	398589.0	0.438327	Y
8	STD200 280-593534/39	200.0	86.677331	40.0	443830.0	0.433387	Y



Calibration

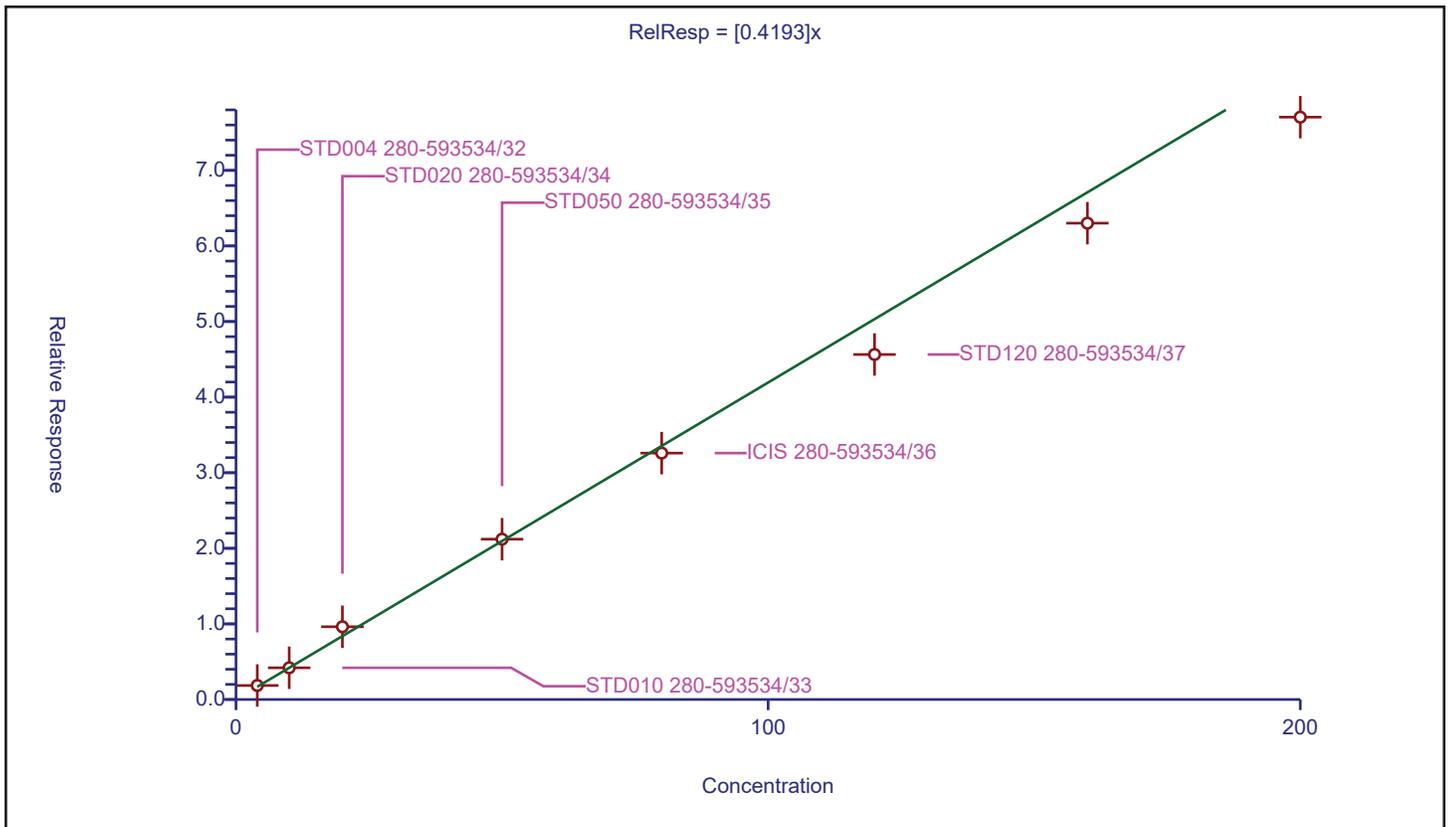
/ Nitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4193

Error Coefficients	
Standard Error:	479000
Relative Standard Error:	8.7
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.852627	40.0	393301.0	0.463157	Y
2	STD010 280-593534/33	10.0	4.192719	40.0	426549.0	0.419272	Y
3	STD020 280-593534/34	20.0	9.624662	40.0	398867.0	0.481233	Y
4	STD050 280-593534/35	50.0	21.208535	40.0	410282.0	0.424171	Y
5	ICIS 280-593534/36	80.0	32.596428	40.0	448027.0	0.407455	Y
6	STD120 280-593534/37	120.0	45.639306	40.0	469079.0	0.380328	Y
7	STD160 280-593534/38	160.0	63.015788	40.0	398589.0	0.393849	Y
8	STD200 280-593534/39	200.0	77.038325	40.0	443830.0	0.385192	Y



Calibration

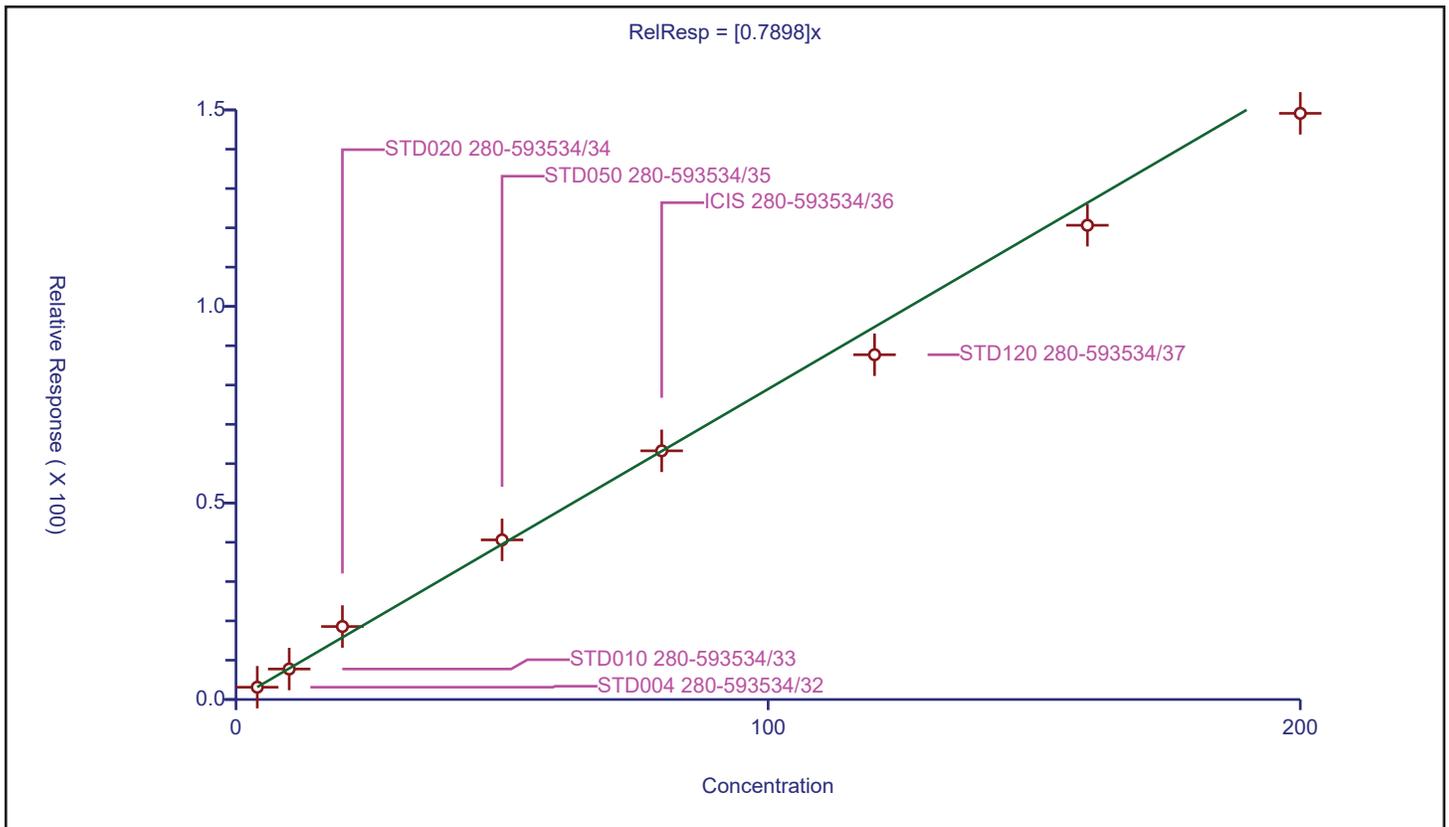
/ Isophorone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7898

Error Coefficients	
Standard Error:	923000
Relative Standard Error:	7.8
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.123511	40.0	393301.0	0.780878	Y
2	STD010 280-593534/33	10.0	7.757233	40.0	426549.0	0.775723	Y
3	STD020 280-593534/34	20.0	18.5702	40.0	398867.0	0.92851	Y
4	STD050 280-593534/35	50.0	40.60339	40.0	410282.0	0.812068	Y
5	ICIS 280-593534/36	80.0	63.263241	40.0	448027.0	0.790791	Y
6	STD120 280-593534/37	120.0	87.707273	40.0	469079.0	0.730894	Y
7	STD160 280-593534/38	160.0	120.651799	40.0	398589.0	0.754074	Y
8	STD200 280-593534/39	200.0	149.123313	40.0	443830.0	0.745617	Y



Calibration

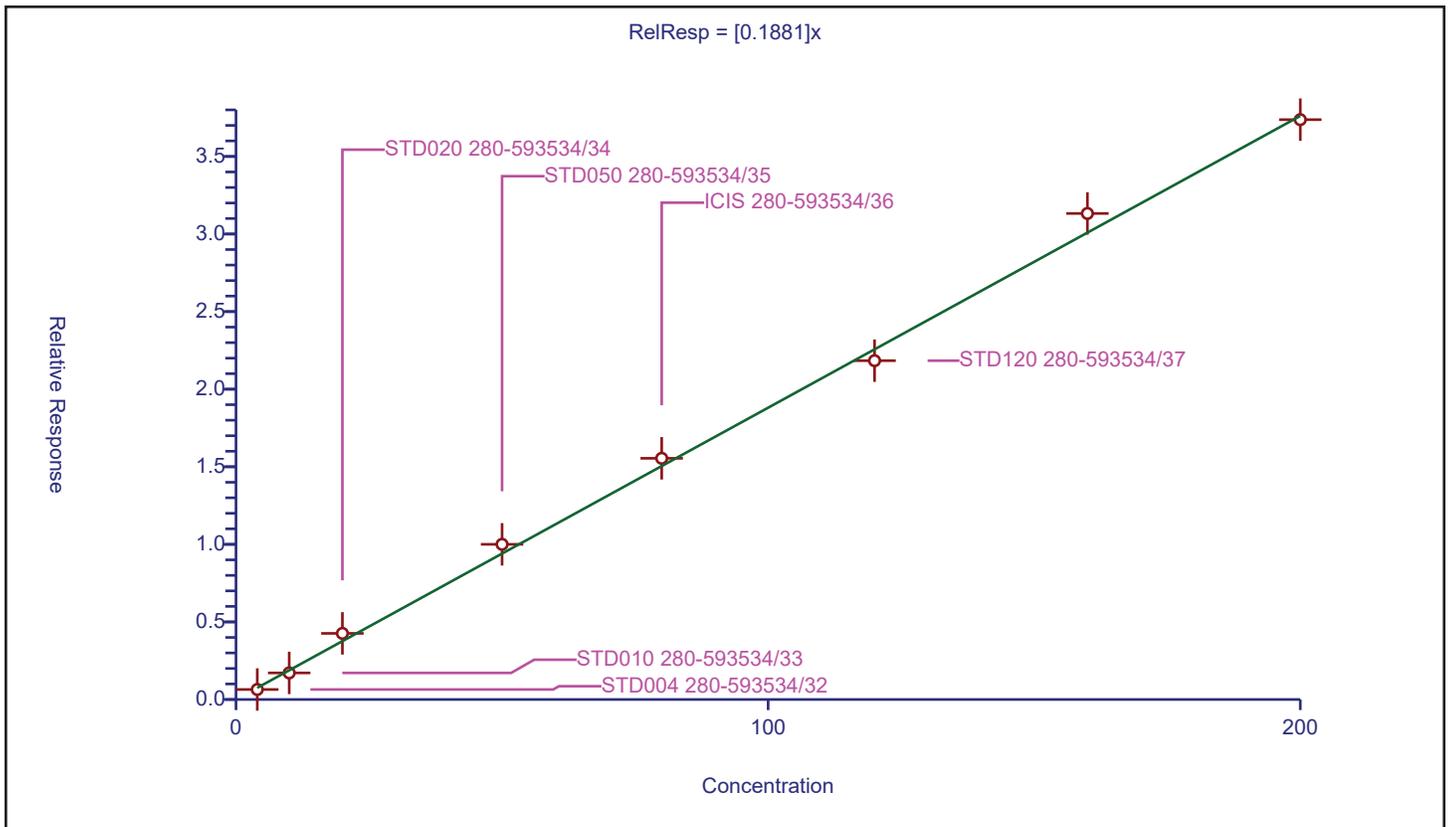
/ 2-Nitrophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1881

Error Coefficients	
Standard Error:	232000
Relative Standard Error:	8.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.64429	40.0	393301.0	0.161073	Y
2	STD010 280-593534/33	10.0	1.713941	40.0	426549.0	0.171394	Y
3	STD020 280-593534/34	20.0	4.260568	40.0	398867.0	0.213028	Y
4	STD050 280-593534/35	50.0	10.001414	40.0	410282.0	0.200028	Y
5	ICIS 280-593534/36	80.0	15.545581	40.0	448027.0	0.19432	Y
6	STD120 280-593534/37	120.0	21.837345	40.0	469079.0	0.181978	Y
7	STD160 280-593534/38	160.0	31.324196	40.0	398589.0	0.195776	Y
8	STD200 280-593534/39	200.0	37.370435	40.0	443830.0	0.186852	Y



Calibration

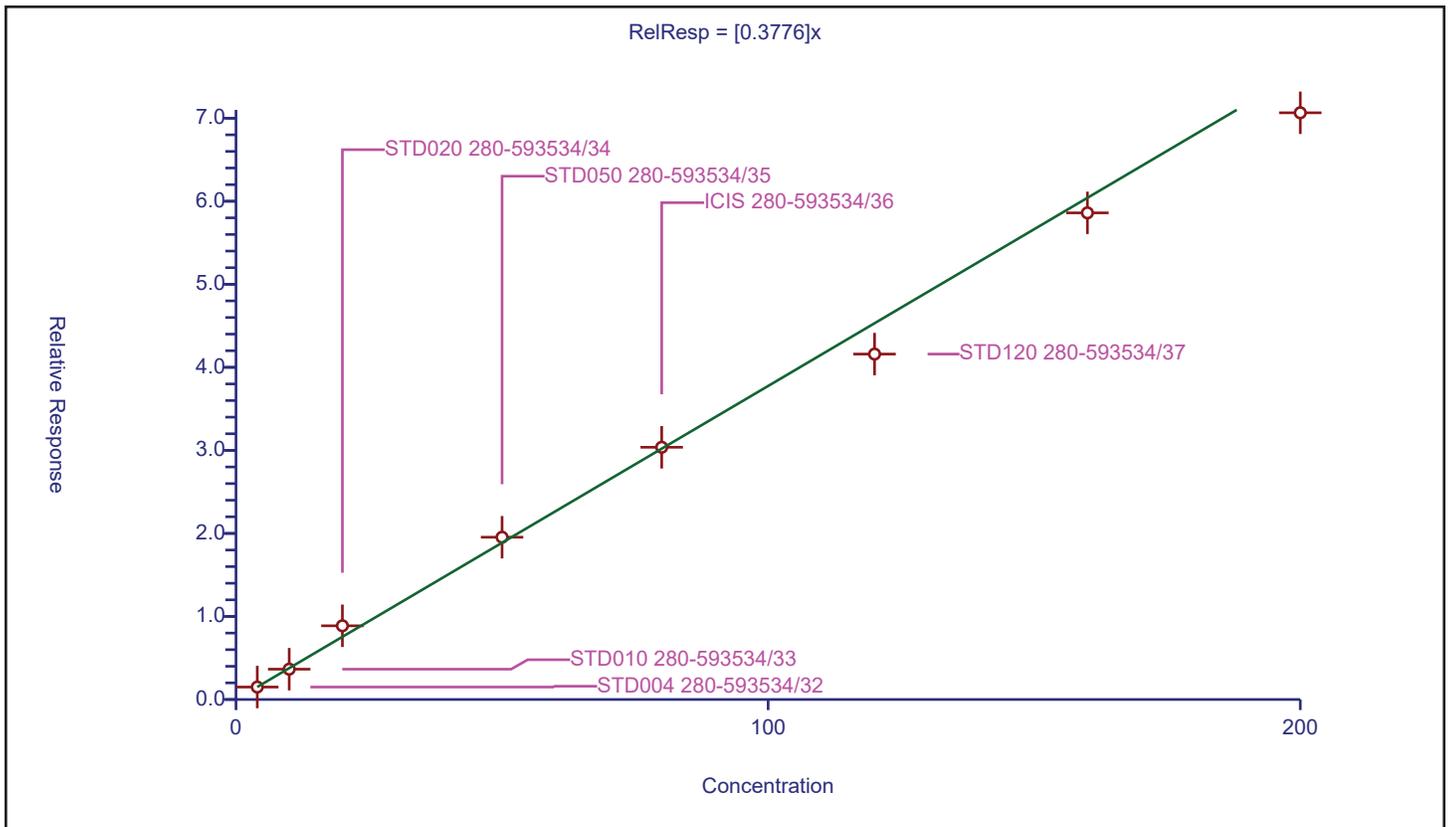
/ 2,4-Dimethylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3776

Error Coefficients	
Standard Error:	441000
Relative Standard Error:	8.0
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.499717	40.0	393301.0	0.374929	Y
2	STD010 280-593534/33	10.0	3.650694	40.0	426549.0	0.365069	Y
3	STD020 280-593534/34	20.0	8.87554	40.0	398867.0	0.443777	Y
4	STD050 280-593534/35	50.0	19.541584	40.0	410282.0	0.390832	Y
5	ICIS 280-593534/36	80.0	30.372187	40.0	448027.0	0.379652	Y
6	STD120 280-593534/37	120.0	41.596149	40.0	469079.0	0.346635	Y
7	STD160 280-593534/38	160.0	58.600413	40.0	398589.0	0.366253	Y
8	STD200 280-593534/39	200.0	70.652367	40.0	443830.0	0.353262	Y



Calibration

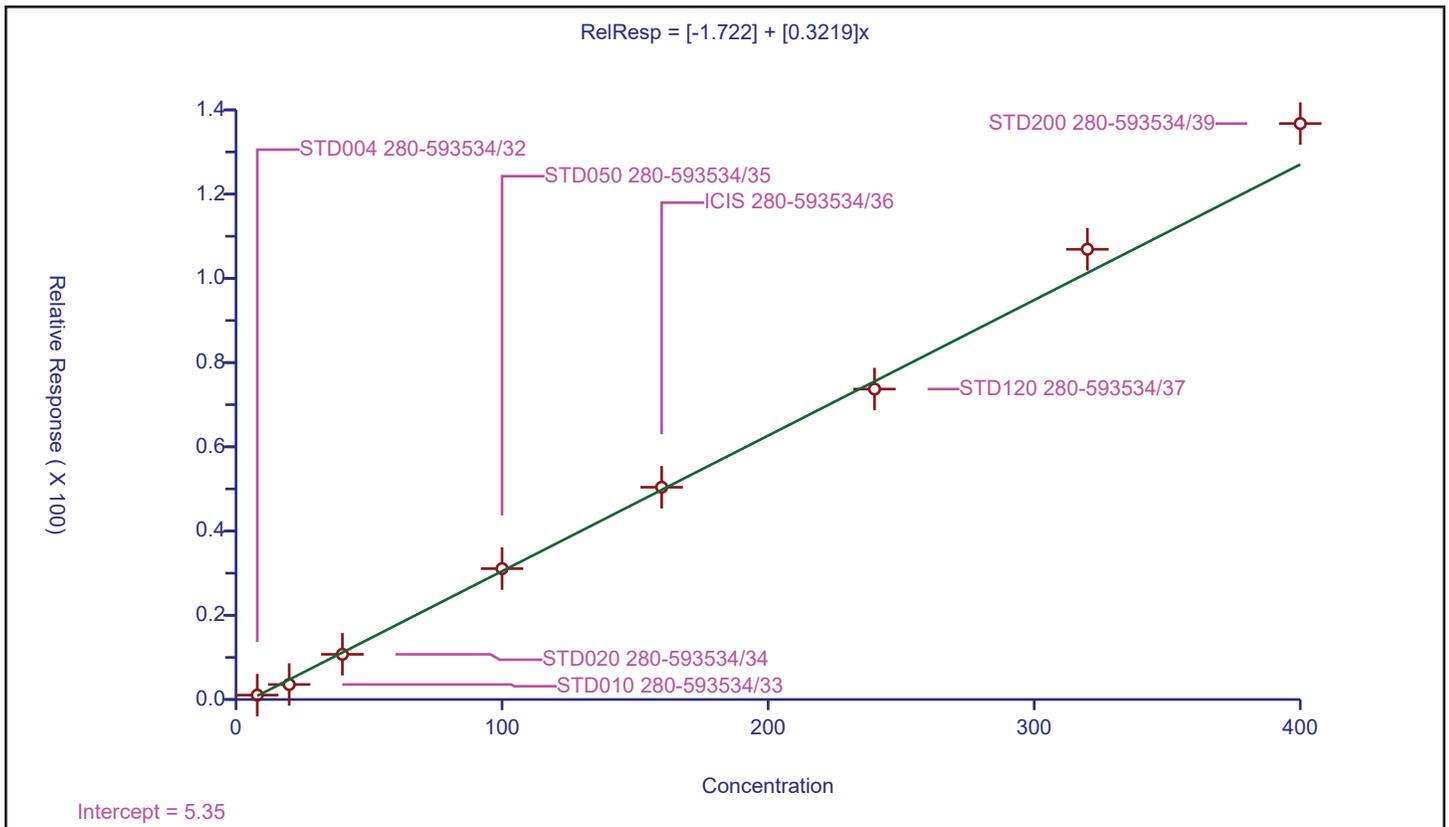
/ Benzoic acid

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.722
Slope:	0.3219

Error Coefficients	
Standard Error:	877000
Relative Standard Error:	8.9
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	1.042357	40.0	393301.0	0.130295	Y
2	STD010 280-593534/33	20.0	3.569203	40.0	426549.0	0.17846	Y
3	STD020 280-593534/34	40.0	10.733202	40.0	398867.0	0.26833	Y
4	STD050 280-593534/35	100.0	31.074919	40.0	410282.0	0.310749	Y
5	ICIS 280-593534/36	160.0	50.403837	40.0	448027.0	0.315024	Y
6	STD120 280-593534/37	240.0	73.710398	40.0	469079.0	0.307127	Y
7	STD160 280-593534/38	320.0	106.905108	40.0	398589.0	0.334078	Y
8	STD200 280-593534/39	400.0	136.757137	40.0	443830.0	0.341893	Y



Calibration

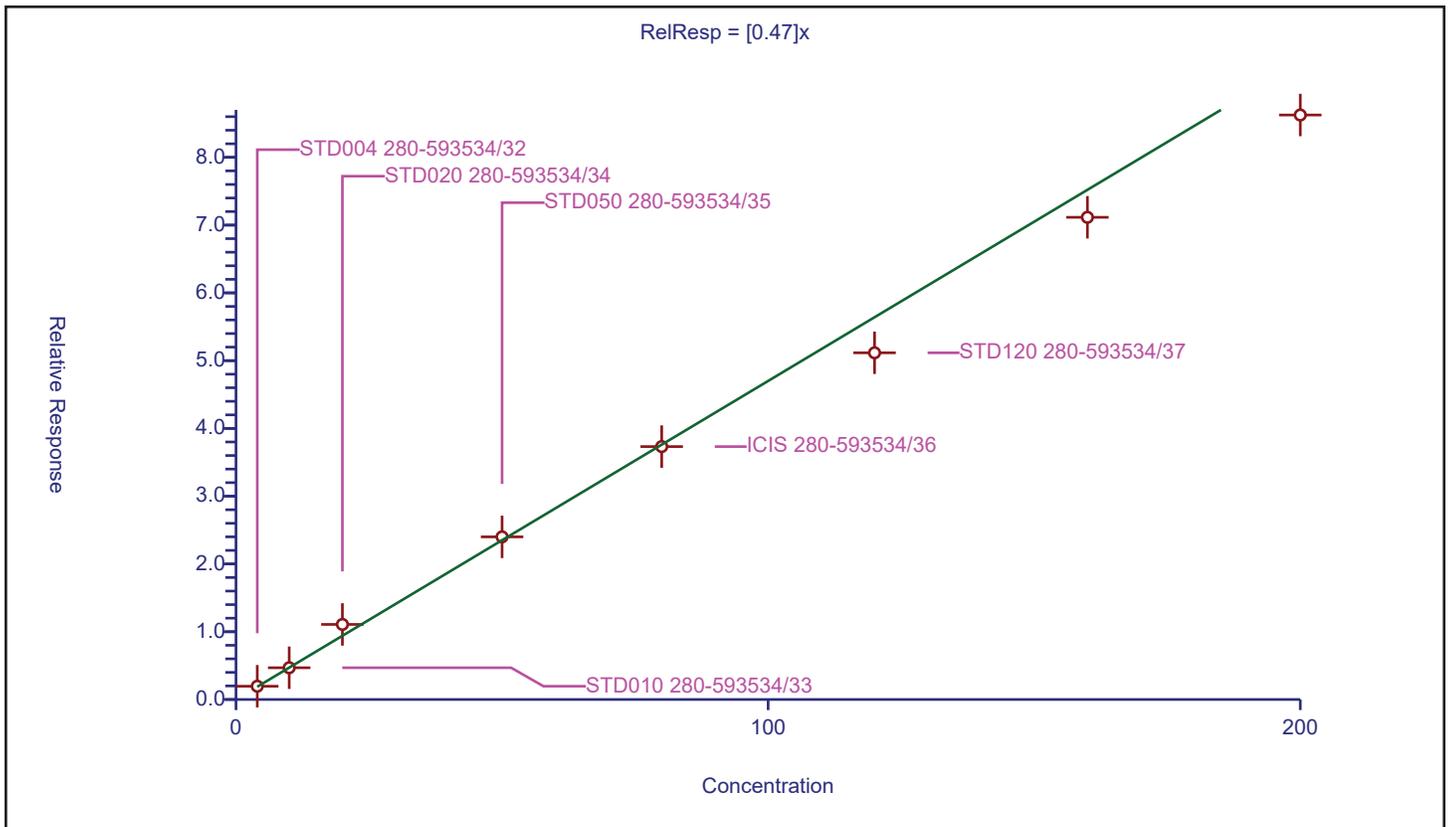
/ Bis(2-chloroethoxy)methane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.47

Error Coefficients	
Standard Error:	538000
Relative Standard Error:	8.7
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.956466	40.0	393301.0	0.489116	Y
2	STD010 280-593534/33	10.0	4.684667	40.0	426549.0	0.468467	Y
3	STD020 280-593534/34	20.0	11.079483	40.0	398867.0	0.553974	Y
4	STD050 280-593534/35	50.0	23.995496	40.0	410282.0	0.47991	Y
5	ICIS 280-593534/36	80.0	37.320162	40.0	448027.0	0.466502	Y
6	STD120 280-593534/37	120.0	51.157694	40.0	469079.0	0.426314	Y
7	STD160 280-593534/38	160.0	71.149781	40.0	398589.0	0.444686	Y
8	STD200 280-593534/39	200.0	86.243111	40.0	443830.0	0.431216	Y



Calibration

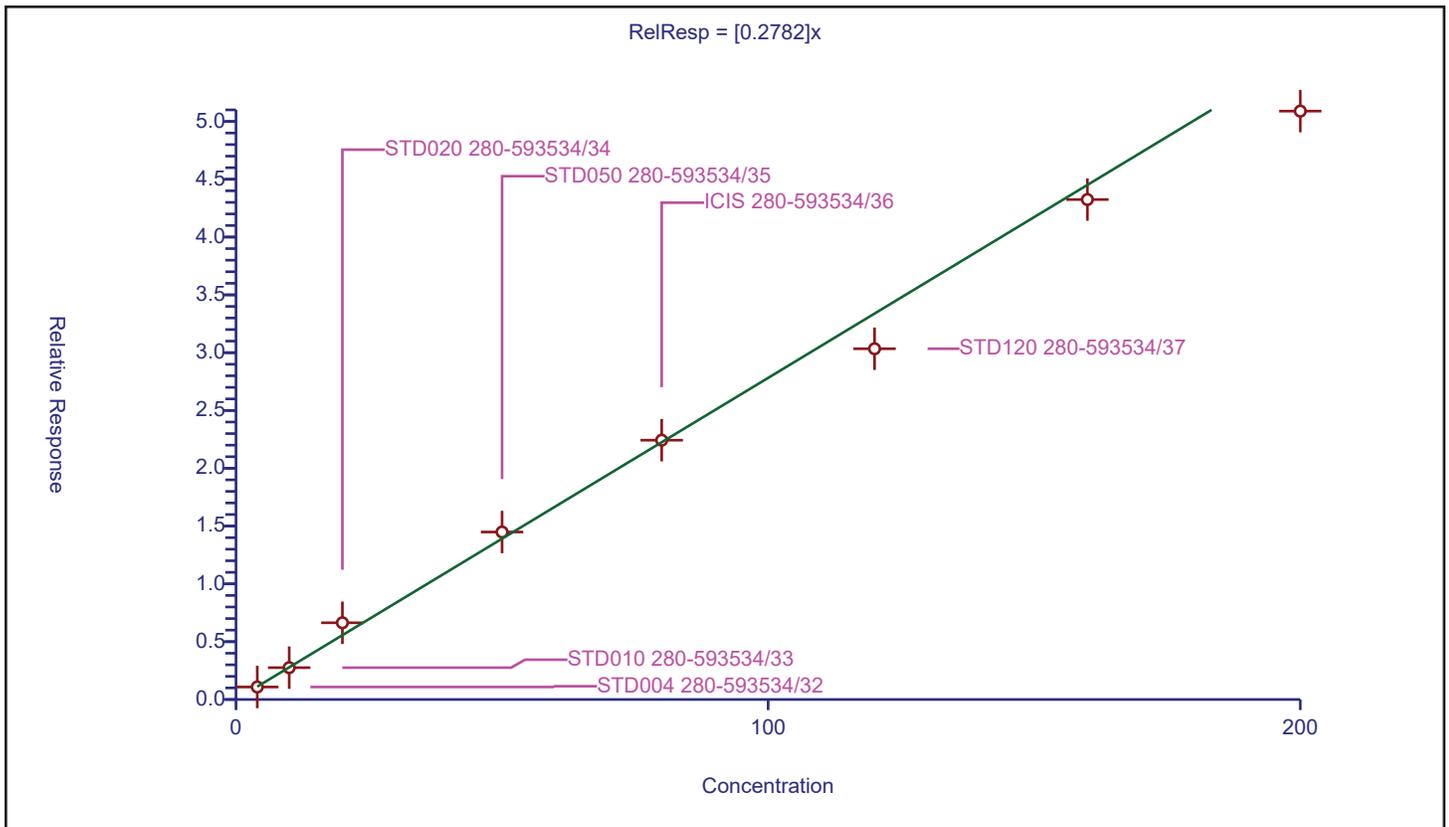
/ 2,4-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2782

Error Coefficients	
Standard Error:	321000
Relative Standard Error:	9.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.082428	40.0	393301.0	0.270607	Y
2	STD010 280-593534/33	10.0	2.753728	40.0	426549.0	0.275373	Y
3	STD020 280-593534/34	20.0	6.635696	40.0	398867.0	0.331785	Y
4	STD050 280-593534/35	50.0	14.487109	40.0	410282.0	0.289742	Y
5	ICIS 280-593534/36	80.0	22.428916	40.0	448027.0	0.280361	Y
6	STD120 280-593534/37	120.0	30.340561	40.0	469079.0	0.252838	Y
7	STD160 280-593534/38	160.0	43.244947	40.0	398589.0	0.270281	Y
8	STD200 280-593534/39	200.0	50.894532	40.0	443830.0	0.254473	Y



Calibration

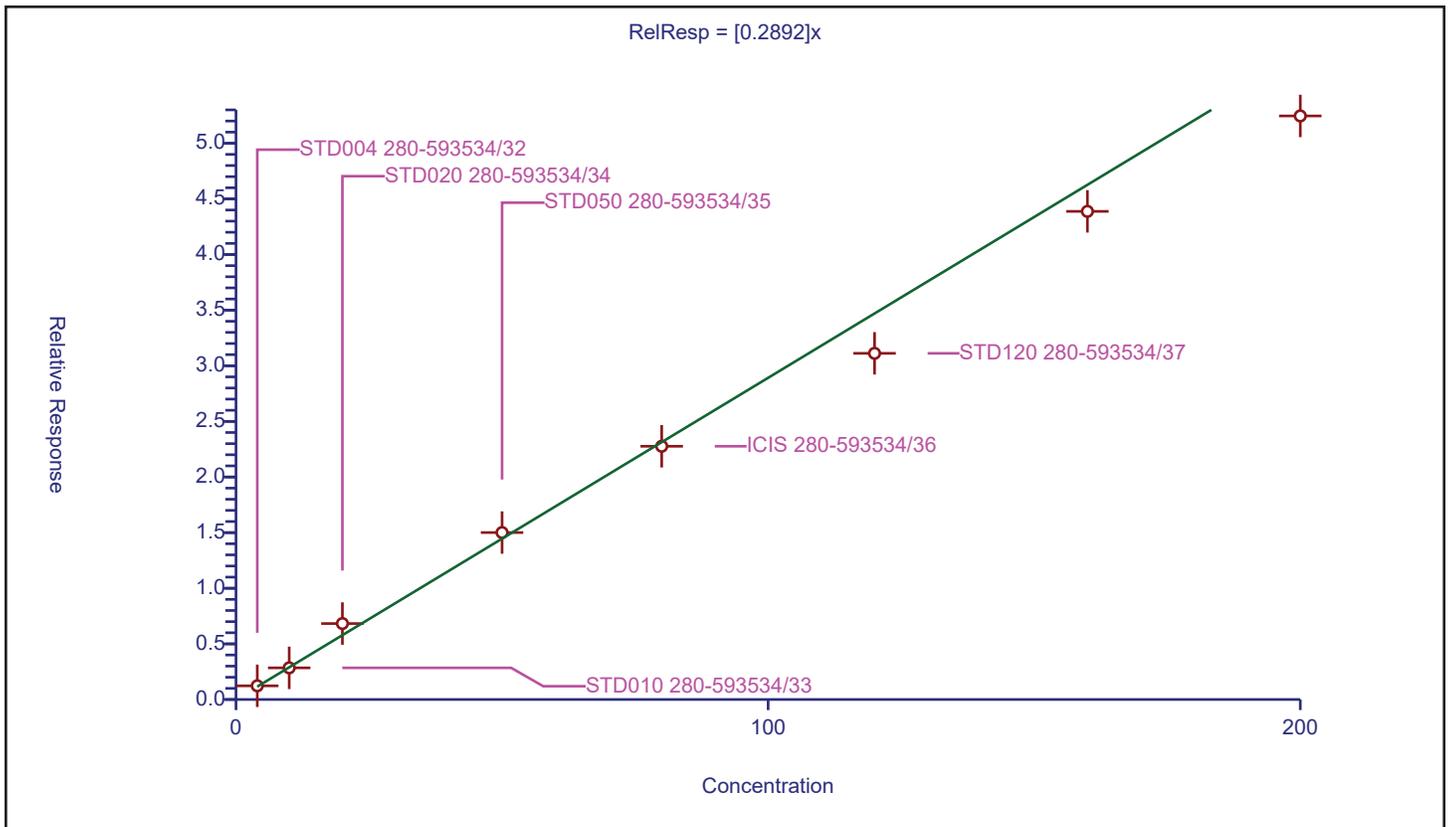
/ 1,2,4-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2892

Error Coefficients	
Standard Error:	329000
Relative Standard Error:	9.3
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.227965	40.0	393301.0	0.306991	Y
2	STD010 280-593534/33	10.0	2.843565	40.0	426549.0	0.284357	Y
3	STD020 280-593534/34	20.0	6.827439	40.0	398867.0	0.341372	Y
4	STD050 280-593534/35	50.0	15.006459	40.0	410282.0	0.300129	Y
5	ICIS 280-593534/36	80.0	22.763539	40.0	448027.0	0.284544	Y
6	STD120 280-593534/37	120.0	31.116635	40.0	469079.0	0.259305	Y
7	STD160 280-593534/38	160.0	43.877478	40.0	398589.0	0.274234	Y
8	STD200 280-593534/39	200.0	52.457653	40.0	443830.0	0.262288	Y



Calibration

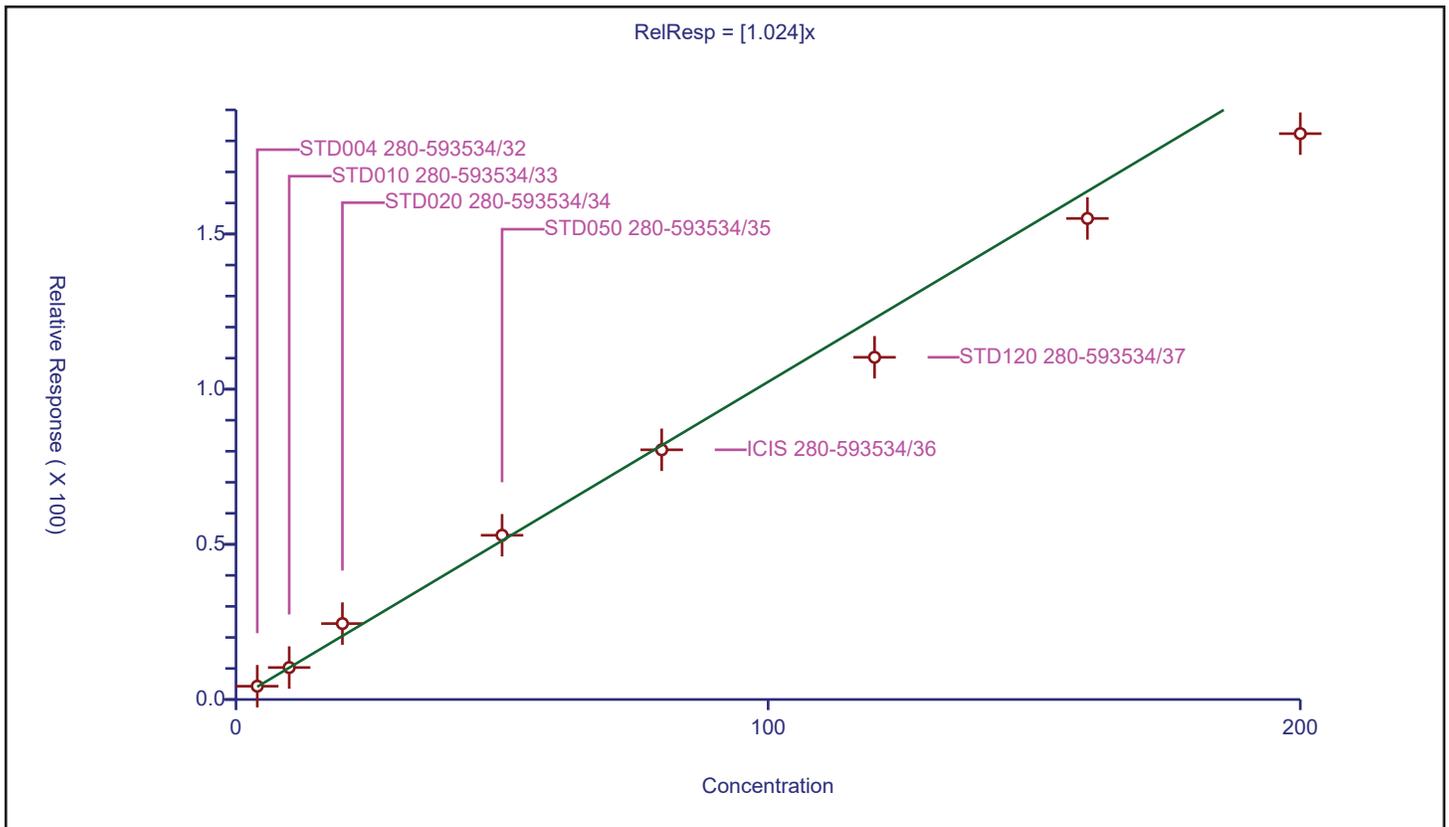
/ Naphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.024

Error Coefficients	
Standard Error:	1150000
Relative Standard Error:	9.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.287403	40.0	393301.0	1.071851	Y
2	STD010 280-593534/33	10.0	10.296121	40.0	426549.0	1.029612	Y
3	STD020 280-593534/34	20.0	24.468908	40.0	398867.0	1.223445	Y
4	STD050 280-593534/35	50.0	52.924964	40.0	410282.0	1.058499	Y
5	ICIS 280-593534/36	80.0	80.467115	40.0	448027.0	1.005839	Y
6	STD120 280-593534/37	120.0	110.281211	40.0	469079.0	0.91901	Y
7	STD160 280-593534/38	160.0	155.017123	40.0	398589.0	0.968857	Y
8	STD200 280-593534/39	200.0	182.348016	40.0	443830.0	0.91174	Y



Calibration

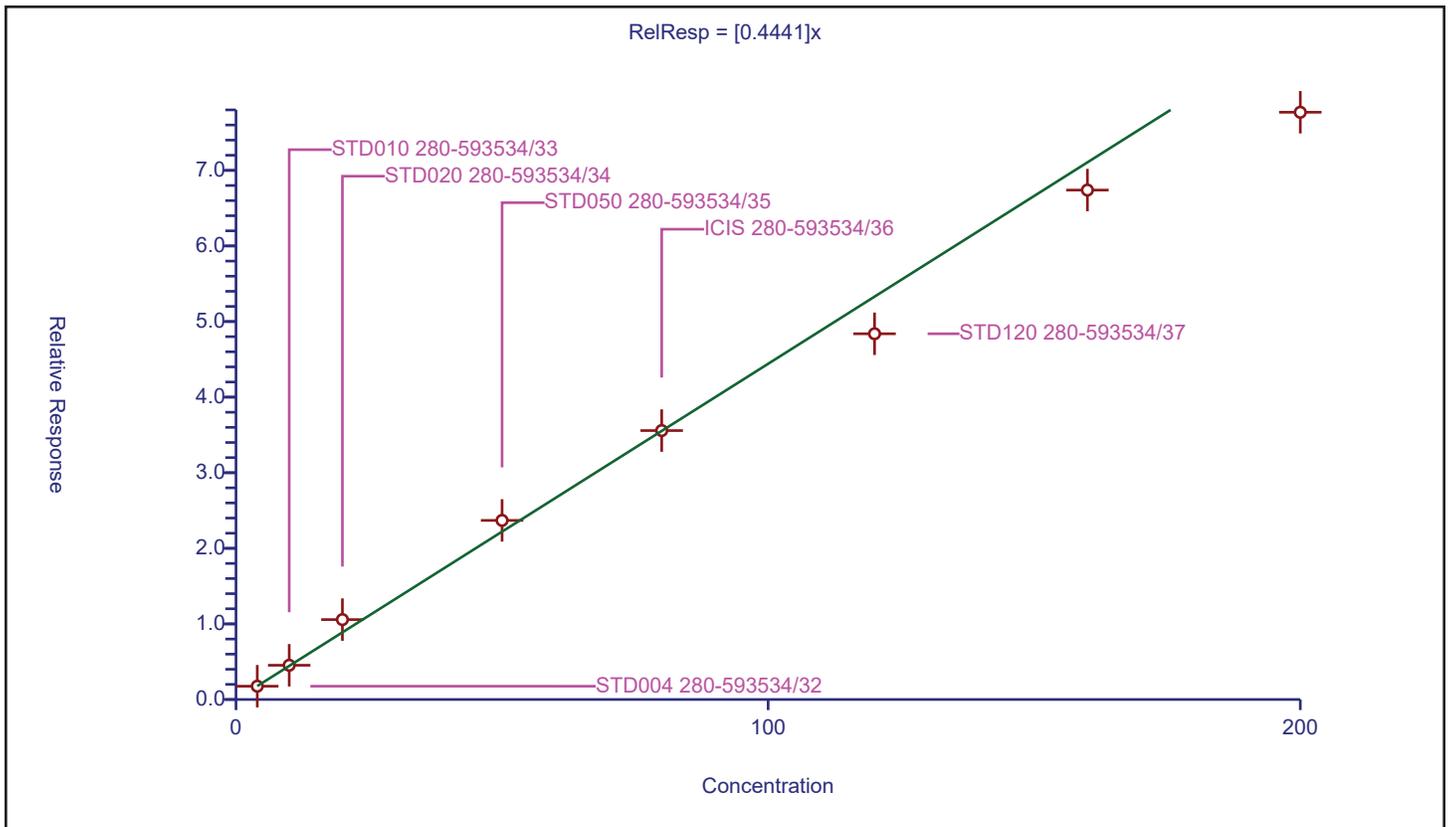
/ 4-Chloroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4441

Error Coefficients	
Standard Error:	500000
Relative Standard Error:	9.9
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.759365	40.0	393301.0	0.439841	Y
2	STD010 280-593534/33	10.0	4.529843	40.0	426549.0	0.452984	Y
3	STD020 280-593534/34	20.0	10.571744	40.0	398867.0	0.528587	Y
4	STD050 280-593534/35	50.0	23.693557	40.0	410282.0	0.473871	Y
5	ICIS 280-593534/36	80.0	35.578927	40.0	448027.0	0.444737	Y
6	STD120 280-593534/37	120.0	48.38443	40.0	469079.0	0.403204	Y
7	STD160 280-593534/38	160.0	67.391223	40.0	398589.0	0.421195	Y
8	STD200 280-593534/39	200.0	77.686051	40.0	443830.0	0.38843	Y



Calibration

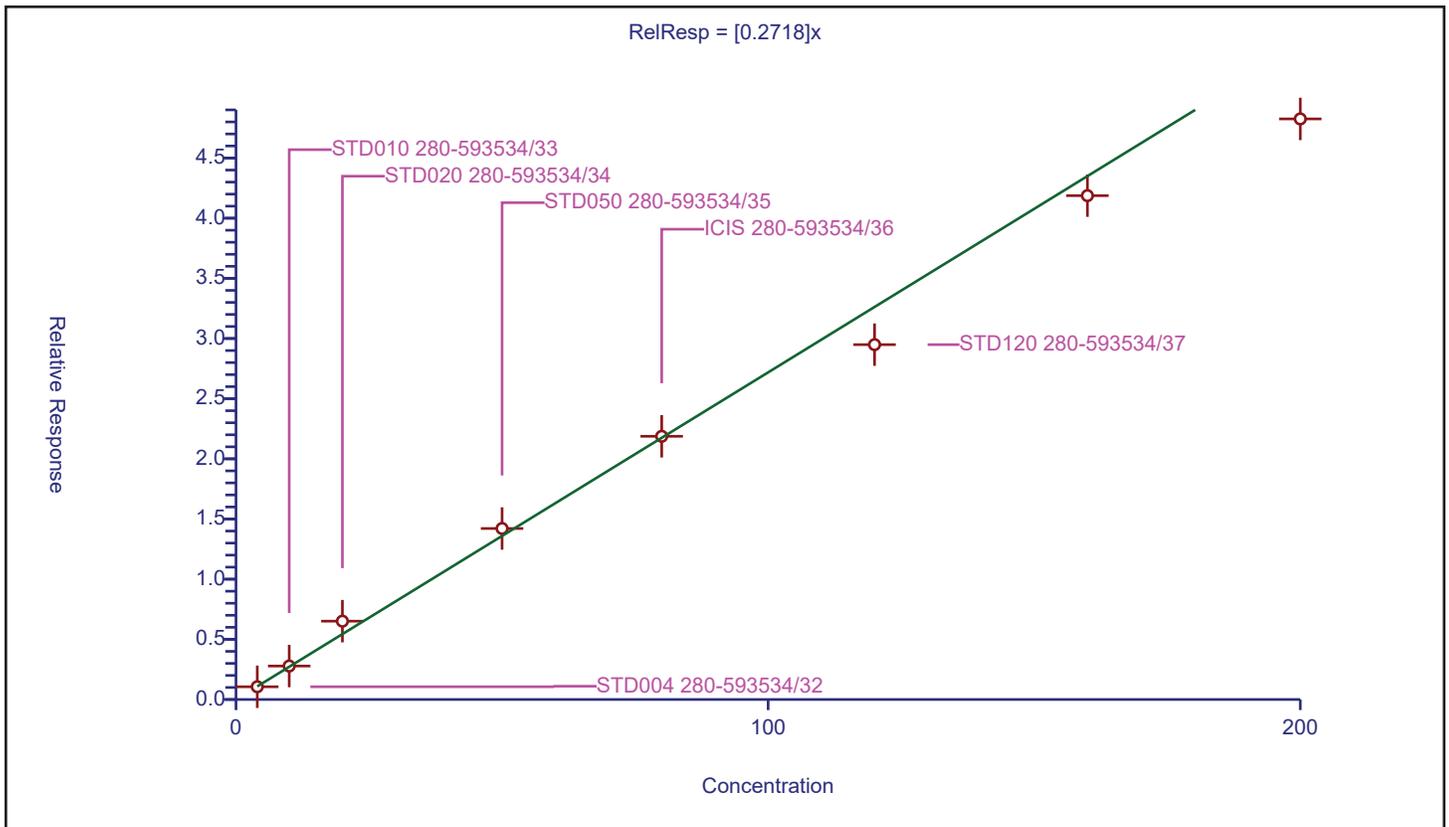
/ 2,6-Dichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2718

Error Coefficients	
Standard Error:	309000
Relative Standard Error:	9.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.059036	40.0	393301.0	0.264759	Y
2	STD010 280-593534/33	10.0	2.780923	40.0	426549.0	0.278092	Y
3	STD020 280-593534/34	20.0	6.510541	40.0	398867.0	0.325527	Y
4	STD050 280-593534/35	50.0	14.211591	40.0	410282.0	0.284232	Y
5	ICIS 280-593534/36	80.0	21.874753	40.0	448027.0	0.273434	Y
6	STD120 280-593534/37	120.0	29.490981	40.0	469079.0	0.245758	Y
7	STD160 280-593534/38	160.0	41.873308	40.0	398589.0	0.261708	Y
8	STD200 280-593534/39	200.0	48.251448	40.0	443830.0	0.241257	Y



Calibration

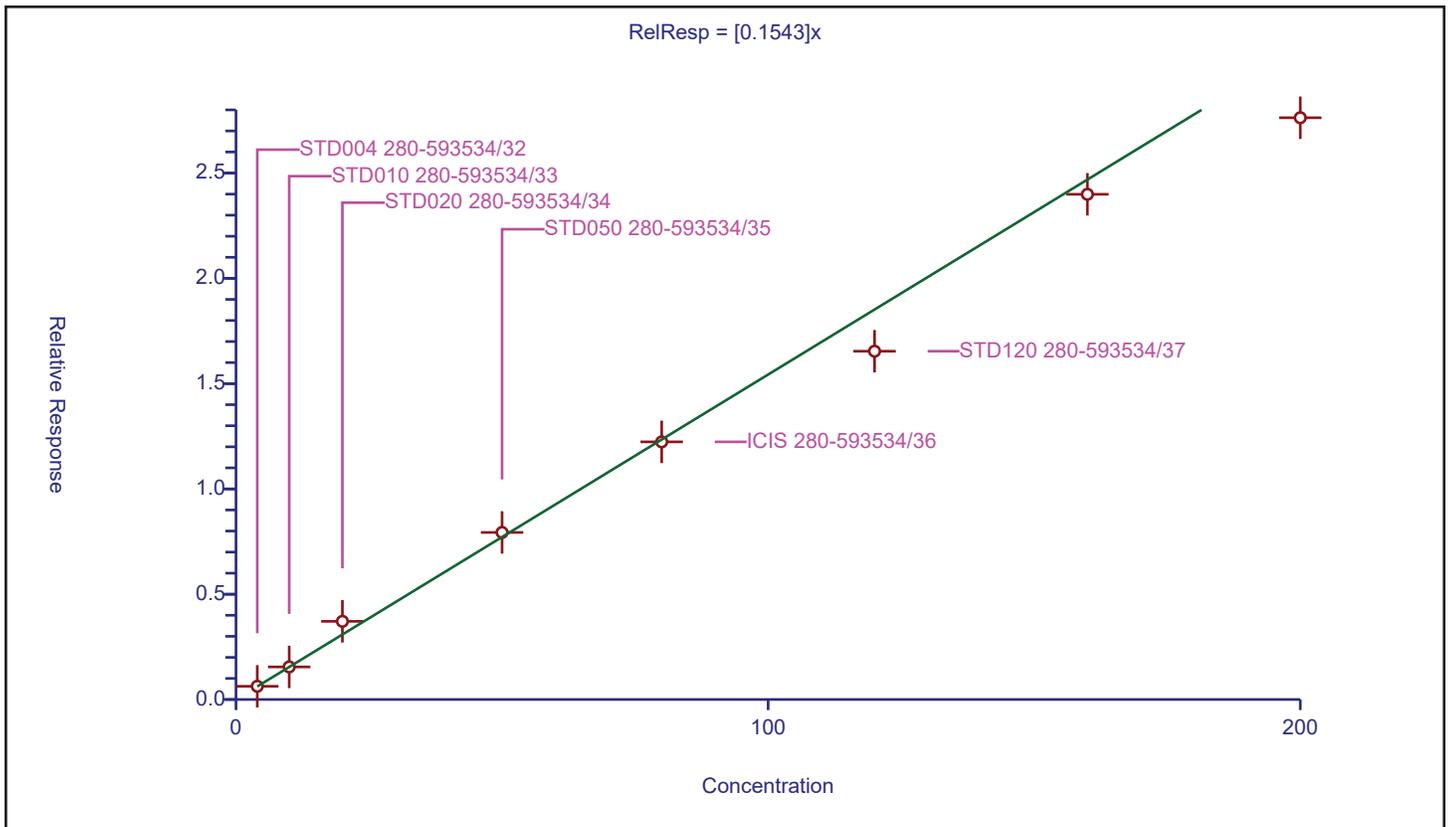
/ Hexachlorobutadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1543

Error Coefficients	
Standard Error:	176000
Relative Standard Error:	9.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.627102	40.0	393301.0	0.156776	Y
2	STD010 280-593534/33	10.0	1.546458	40.0	426549.0	0.154646	Y
3	STD020 280-593534/34	20.0	3.711914	40.0	398867.0	0.185596	Y
4	STD050 280-593534/35	50.0	7.933568	40.0	410282.0	0.158671	Y
5	ICIS 280-593534/36	80.0	12.235066	40.0	448027.0	0.152938	Y
6	STD120 280-593534/37	120.0	16.539474	40.0	469079.0	0.137829	Y
7	STD160 280-593534/38	160.0	23.992132	40.0	398589.0	0.149951	Y
8	STD200 280-593534/39	200.0	27.627335	40.0	443830.0	0.138137	Y



Calibration

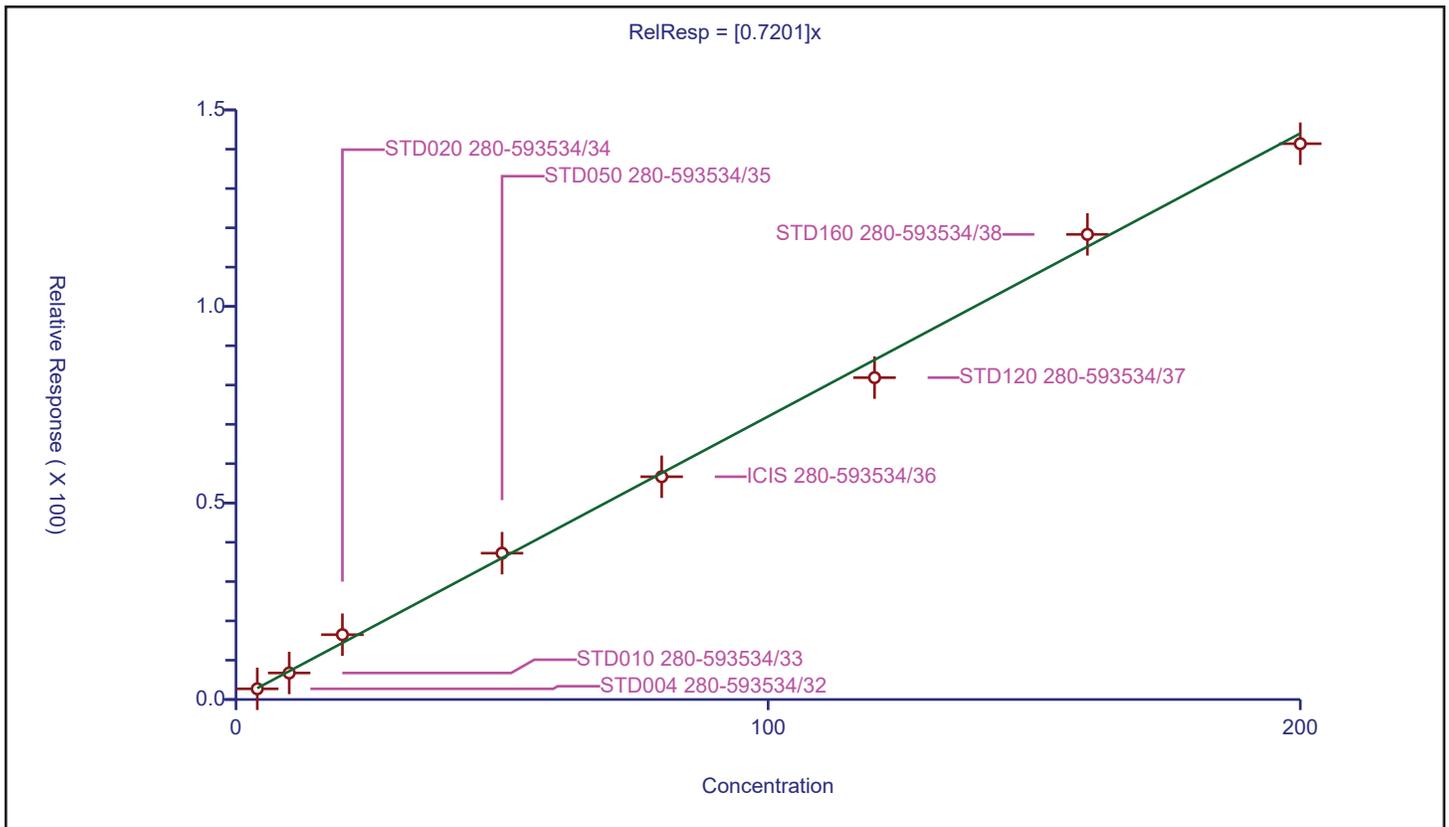
/ Caprolactam

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7201

Error Coefficients	
Standard Error:	211000
Relative Standard Error:	6.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.716543	40.0	95489.0	0.679136	Y
2	STD010 280-593534/33	10.0	6.751053	40.0	104677.0	0.675105	Y
3	STD020 280-593534/34	20.0	16.491604	40.0	97184.0	0.82458	Y
4	STD050 280-593534/35	50.0	37.224774	40.0	99264.0	0.744495	Y
5	ICIS 280-593534/36	80.0	56.672015	40.0	108450.0	0.7084	Y
6	STD120 280-593534/37	120.0	81.88044	40.0	112697.0	0.682337	Y
7	STD160 280-593534/38	160.0	118.329543	40.0	97171.0	0.73956	Y
8	STD200 280-593534/39	200.0	141.401561	40.0	106467.0	0.707008	Y



Calibration

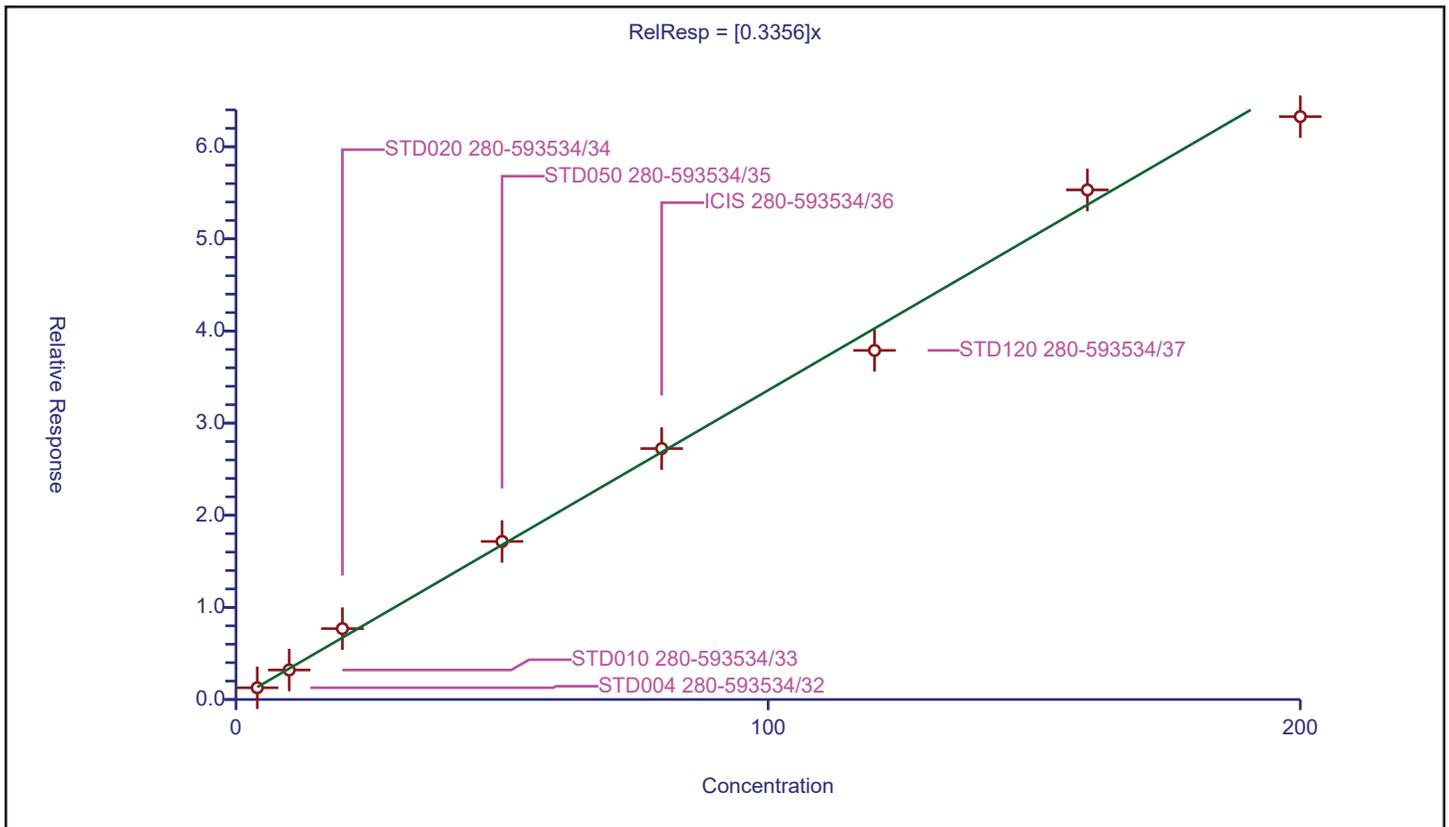
/ 4-Chloro-3-methylphenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3356

Error Coefficients	
Standard Error:	401000
Relative Standard Error:	7.0
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.274952	40.0	393301.0	0.318738	Y
2	STD010 280-593534/33	10.0	3.202352	40.0	426549.0	0.320235	Y
3	STD020 280-593534/34	20.0	7.694495	40.0	398867.0	0.384725	Y
4	STD050 280-593534/35	50.0	17.156687	40.0	410282.0	0.343134	Y
5	ICIS 280-593534/36	80.0	27.239698	40.0	448027.0	0.340496	Y
6	STD120 280-593534/37	120.0	37.895109	40.0	469079.0	0.315793	Y
7	STD160 280-593534/38	160.0	55.313418	40.0	398589.0	0.345709	Y
8	STD200 280-593534/39	200.0	63.26954	40.0	443830.0	0.316348	Y



Calibration

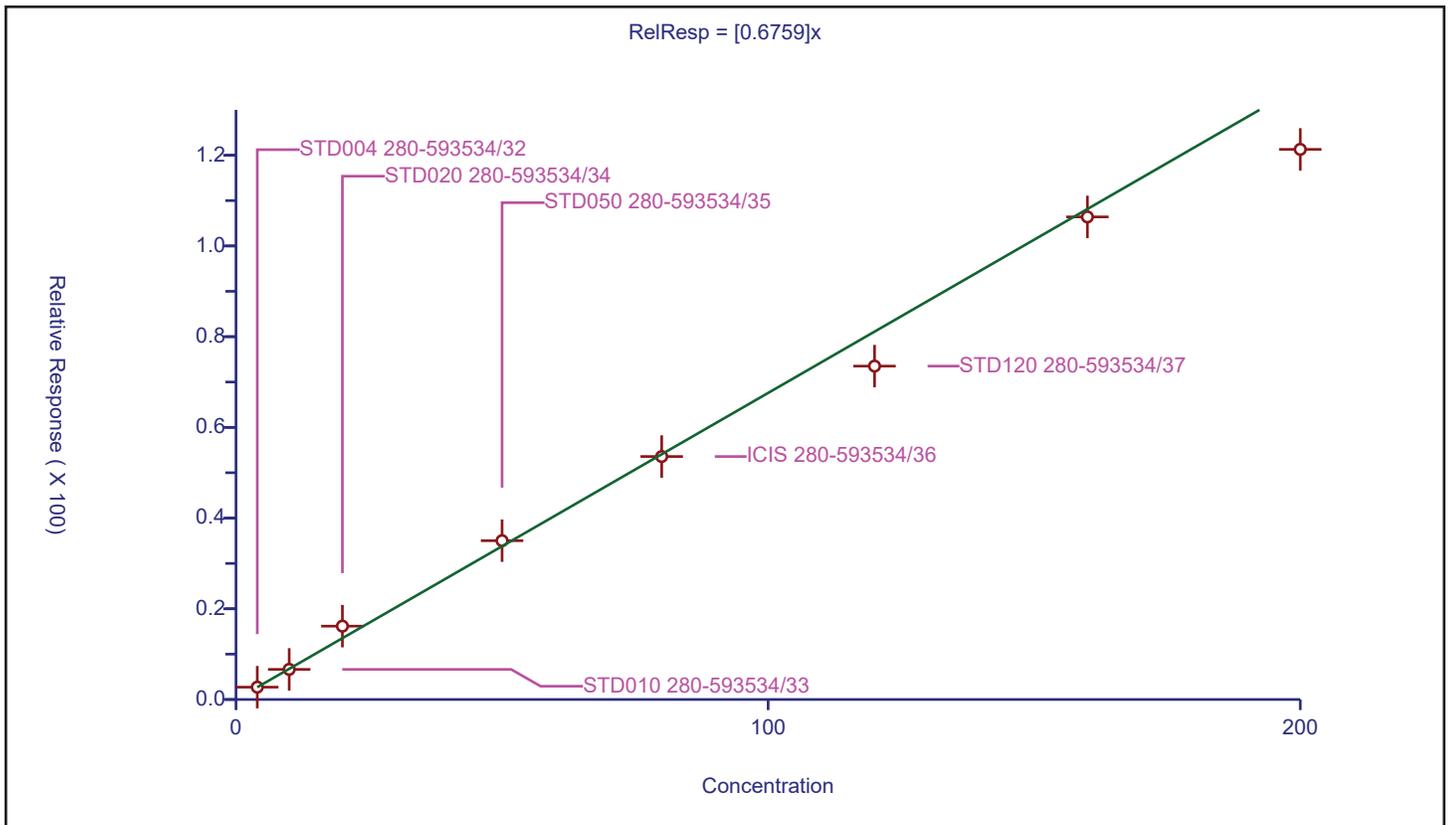
/ 2-Methylnaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6759

Error Coefficients	
Standard Error:	774000
Relative Standard Error:	9.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.722597	40.0	393301.0	0.680649	Y
2	STD010 280-593534/33	10.0	6.638768	40.0	426549.0	0.663877	Y
3	STD020 280-593534/34	20.0	16.172007	40.0	398867.0	0.8086	Y
4	STD050 280-593534/35	50.0	35.016988	40.0	410282.0	0.70034	Y
5	ICIS 280-593534/36	80.0	53.573914	40.0	448027.0	0.669674	Y
6	STD120 280-593534/37	120.0	73.509579	40.0	469079.0	0.61258	Y
7	STD160 280-593534/38	160.0	106.403739	40.0	398589.0	0.665023	Y
8	STD200 280-593534/39	200.0	121.29455	40.0	443830.0	0.606473	Y



Calibration

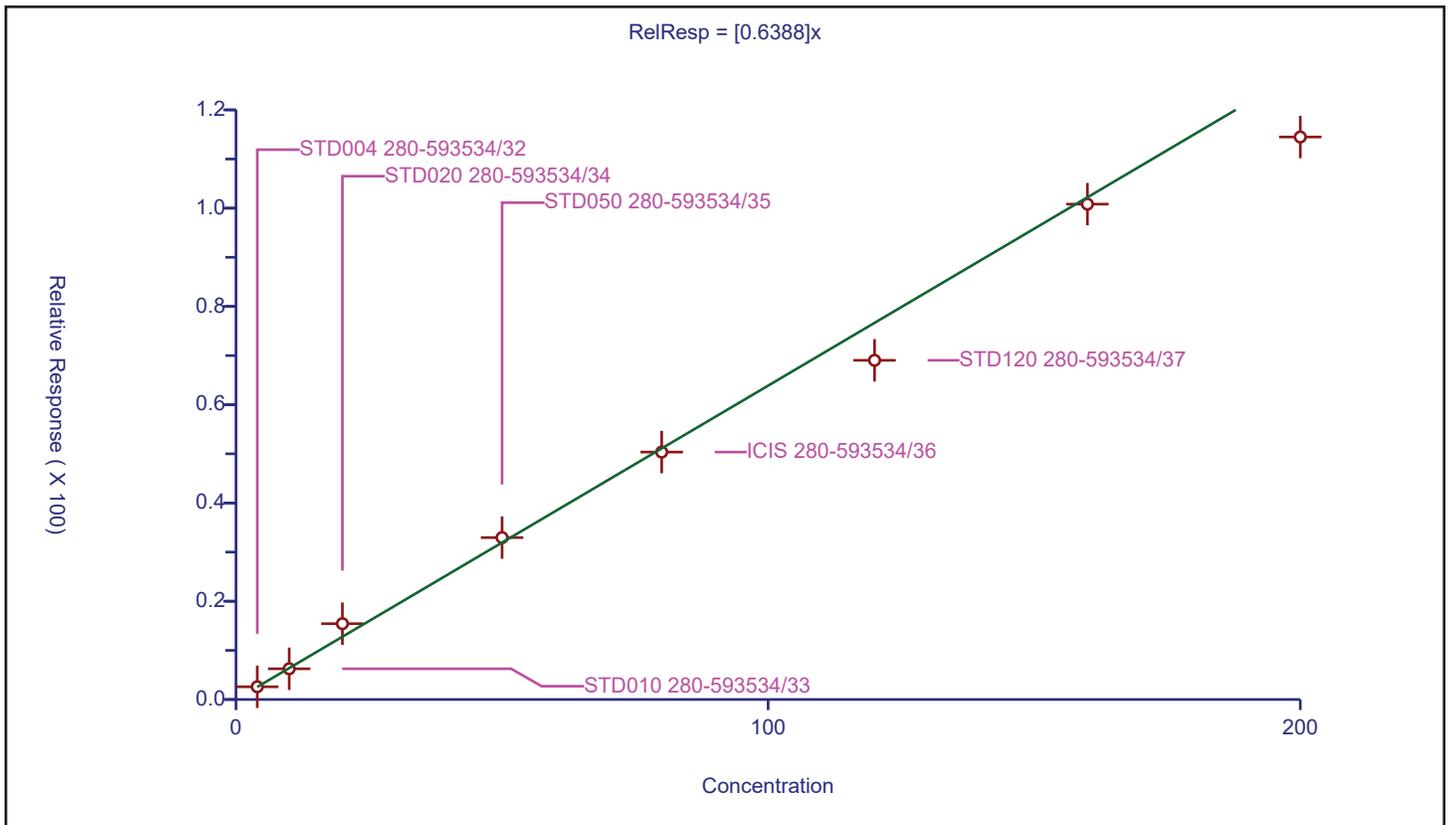
/ 1-Methylnaphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6388

Error Coefficients	
Standard Error:	731000
Relative Standard Error:	9.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.588348	40.0	393301.0	0.647087	Y
2	STD010 280-593534/33	10.0	6.251286	40.0	426549.0	0.625129	Y
3	STD020 280-593534/34	20.0	15.429705	40.0	398867.0	0.771485	Y
4	STD050 280-593534/35	50.0	32.951287	40.0	410282.0	0.659026	Y
5	ICIS 280-593534/36	80.0	50.359465	40.0	448027.0	0.629493	Y
6	STD120 280-593534/37	120.0	69.037156	40.0	469079.0	0.57531	Y
7	STD160 280-593534/38	160.0	100.823254	40.0	398589.0	0.630145	Y
8	STD200 280-593534/39	200.0	114.486267	40.0	443830.0	0.572431	Y



Calibration

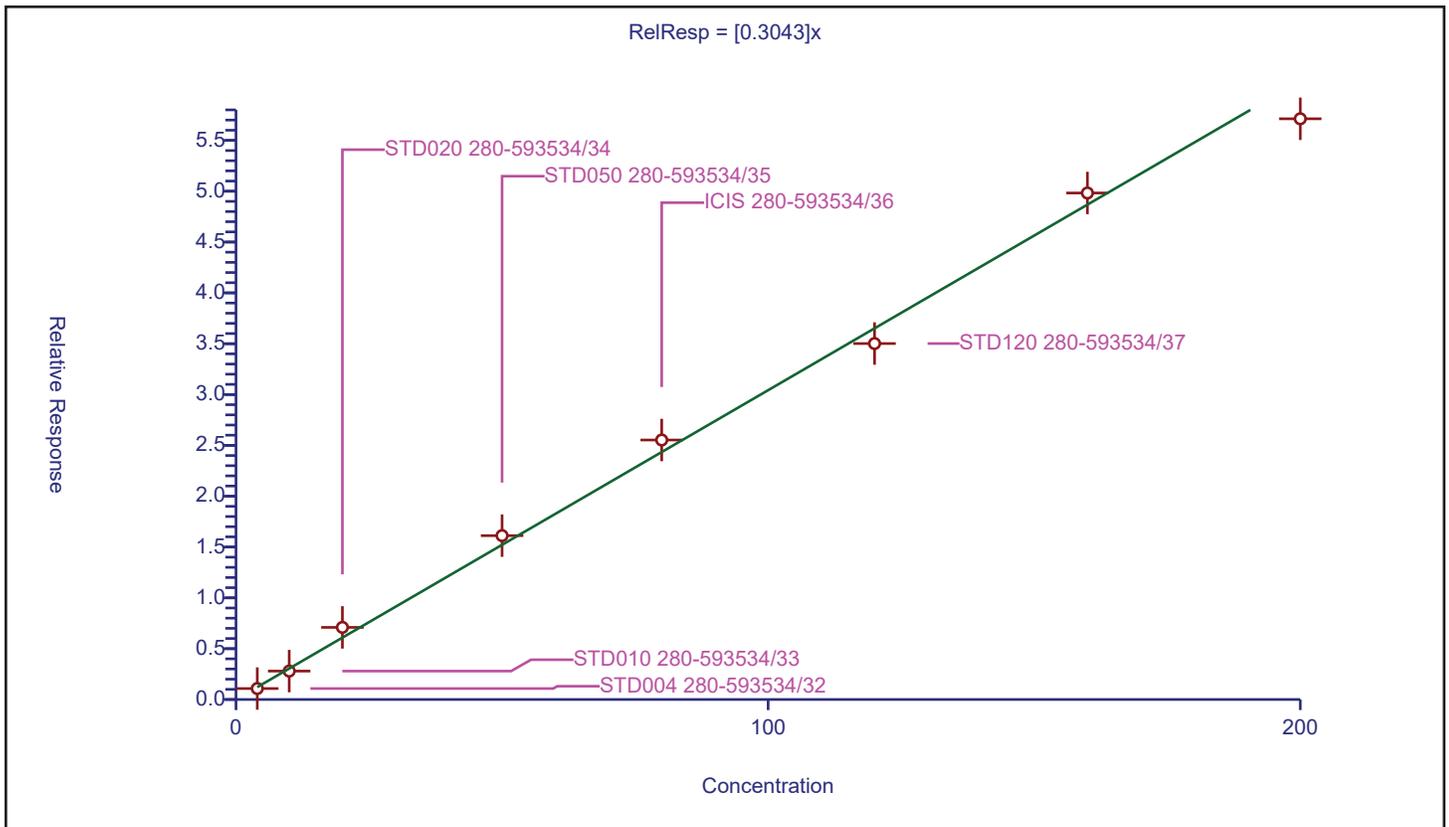
/ Hexachlorocyclopentadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3043

Error Coefficients	
Standard Error:	214000
Relative Standard Error:	9.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.078413	40.0	218803.0	0.269603	Y
2	STD010 280-593534/33	10.0	2.794761	40.0	243799.0	0.279476	Y
3	STD020 280-593534/34	20.0	7.093422	40.0	230343.0	0.354671	Y
4	STD050 280-593534/35	50.0	16.118662	40.0	238526.0	0.322373	Y
5	ICIS 280-593534/36	80.0	25.526926	40.0	261849.0	0.319087	Y
6	STD120 280-593534/37	120.0	35.01573	40.0	271141.0	0.291798	Y
7	STD160 280-593534/38	160.0	49.824379	40.0	238069.0	0.311402	Y
8	STD200 280-593534/39	200.0	57.126801	40.0	260518.0	0.285634	Y



Calibration

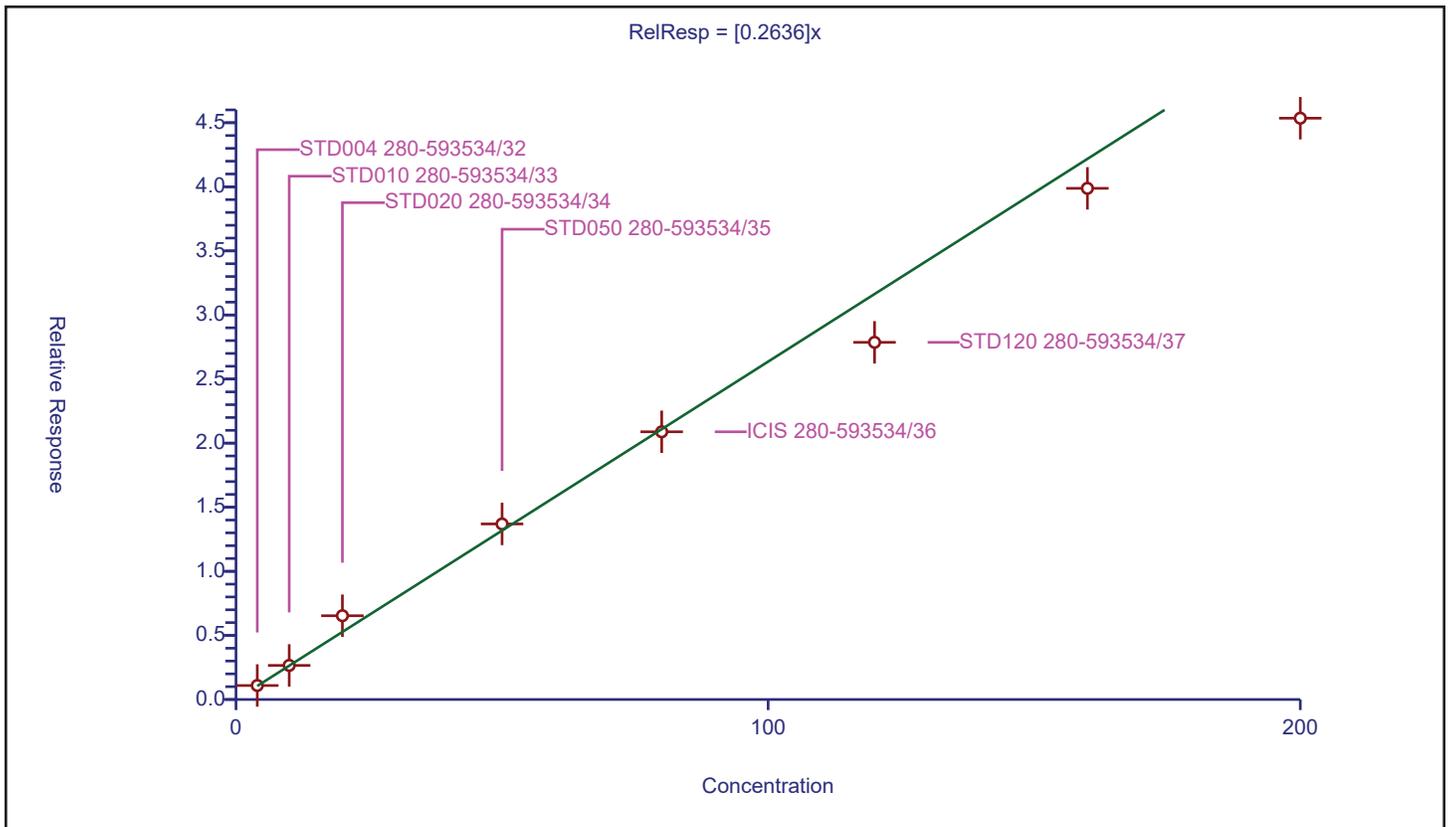
/ 1,2,4,5-Tetrachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2636

Error Coefficients	
Standard Error:	292000
Relative Standard Error:	11.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.09148	40.0	393301.0	0.27287	Y
2	STD010 280-593534/33	10.0	2.659483	40.0	426549.0	0.265948	Y
3	STD020 280-593534/34	20.0	6.536615	40.0	398867.0	0.326831	Y
4	STD050 280-593534/35	50.0	13.694678	40.0	410282.0	0.273894	Y
5	ICIS 280-593534/36	80.0	20.886866	40.0	448027.0	0.261086	Y
6	STD120 280-593534/37	120.0	27.865839	40.0	469079.0	0.232215	Y
7	STD160 280-593534/38	160.0	39.880779	40.0	398589.0	0.249255	Y
8	STD200 280-593534/39	200.0	45.351508	40.0	443830.0	0.226758	Y



Calibration

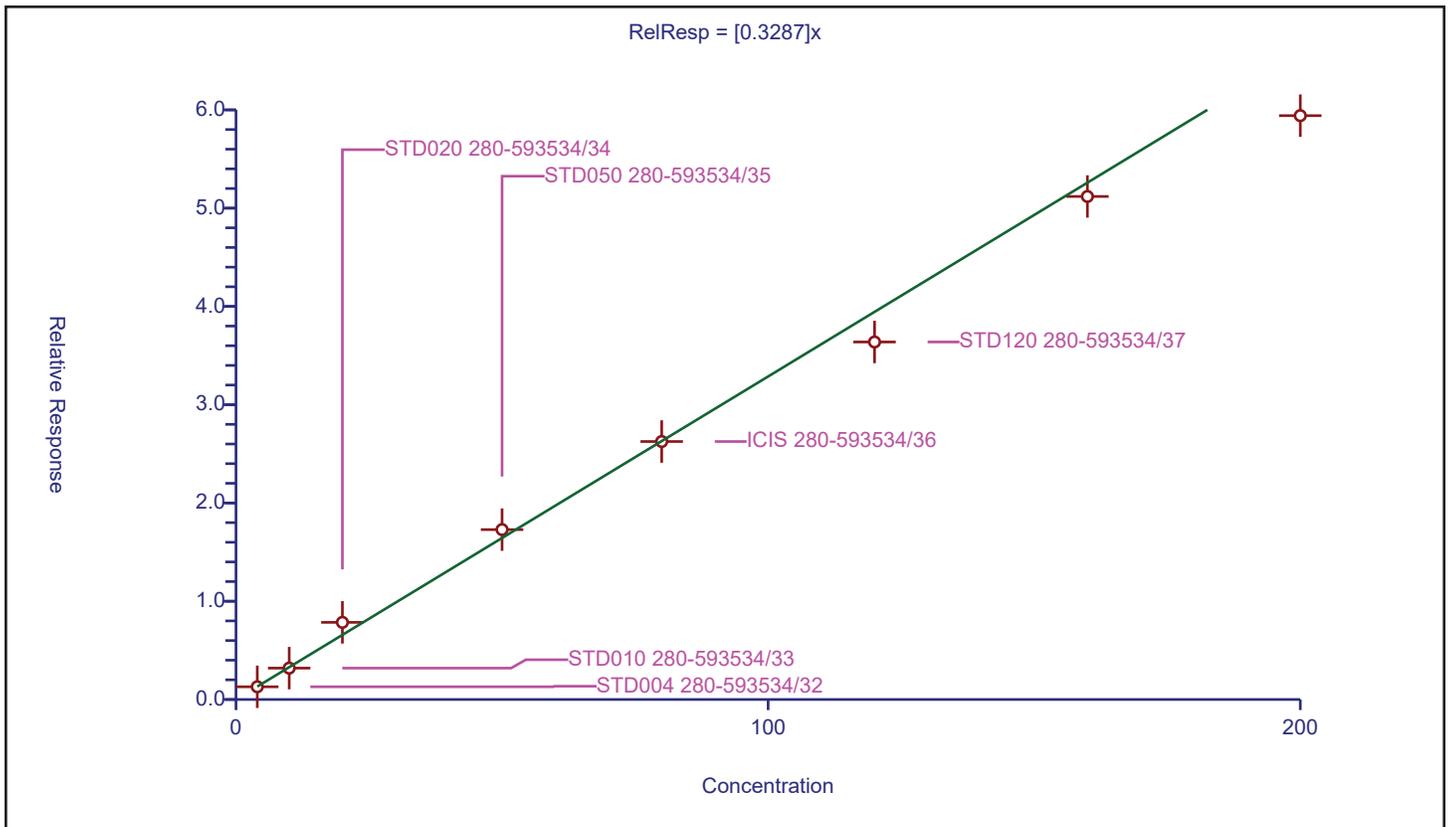
/ 2,4,6-Trichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3287

Error Coefficients	
Standard Error:	222000
Relative Standard Error:	9.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.294863	40.0	218803.0	0.323716	Y
2	STD010 280-593534/33	10.0	3.193614	40.0	243799.0	0.319361	Y
3	STD020 280-593534/34	20.0	7.849511	40.0	230343.0	0.392476	Y
4	STD050 280-593534/35	50.0	17.289352	40.0	238526.0	0.345787	Y
5	ICIS 280-593534/36	80.0	26.253146	40.0	261849.0	0.328164	Y
6	STD120 280-593534/37	120.0	36.382104	40.0	271141.0	0.303184	Y
7	STD160 280-593534/38	160.0	51.189361	40.0	238069.0	0.319934	Y
8	STD200 280-593534/39	200.0	59.414551	40.0	260518.0	0.297073	Y



Calibration

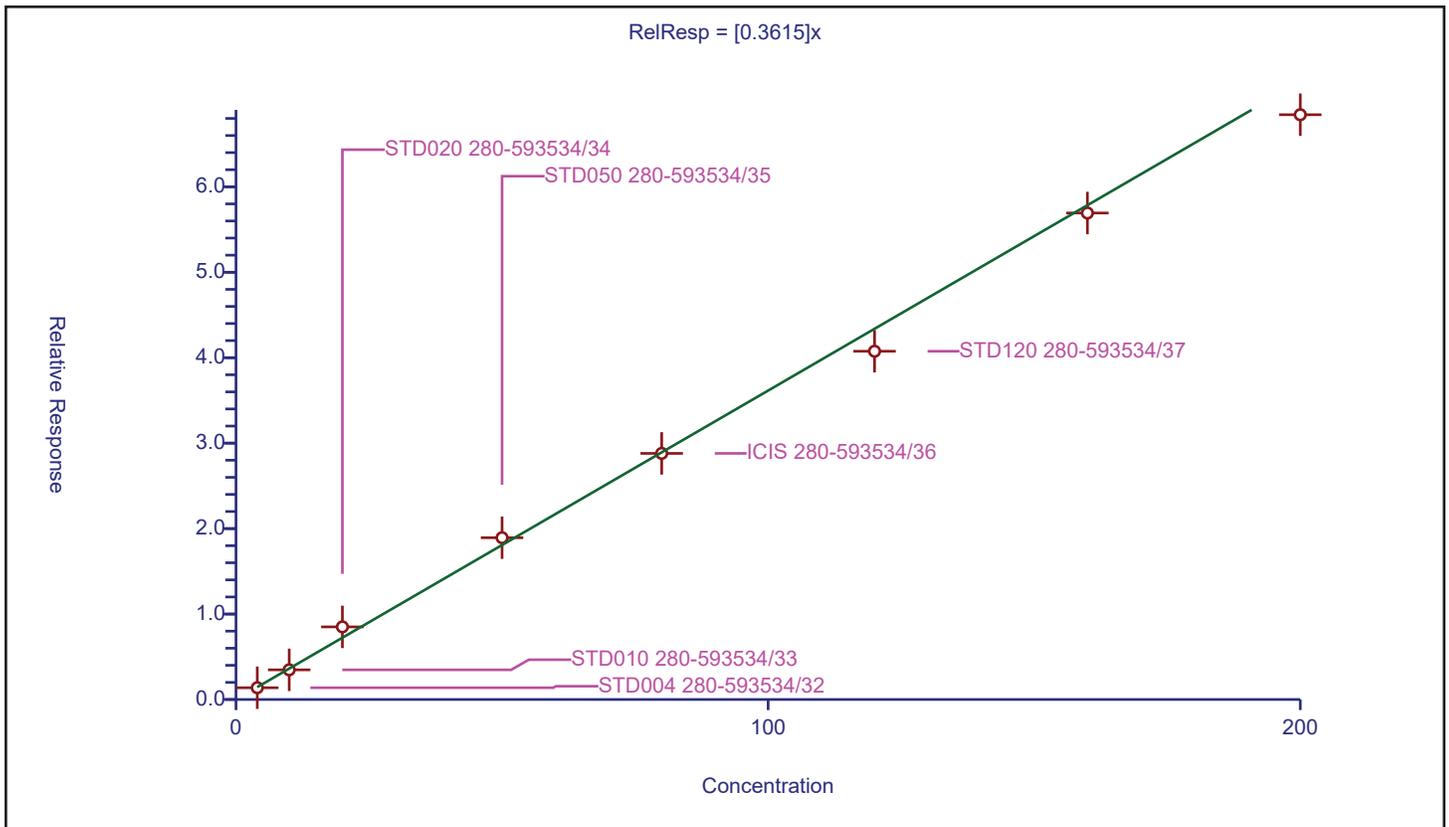
/ 2,4,5-Trichlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3615

Error Coefficients	
Standard Error:	251000
Relative Standard Error:	7.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.375301	40.0	218803.0	0.343825	Y
2	STD010 280-593534/33	10.0	3.47204	40.0	243799.0	0.347204	Y
3	STD020 280-593534/34	20.0	8.498109	40.0	230343.0	0.424905	Y
4	STD050 280-593534/35	50.0	18.932947	40.0	238526.0	0.378659	Y
5	ICIS 280-593534/36	80.0	28.799346	40.0	261849.0	0.359992	Y
6	STD120 280-593534/37	120.0	40.756064	40.0	271141.0	0.339634	Y
7	STD160 280-593534/38	160.0	56.931226	40.0	238069.0	0.35582	Y
8	STD200 280-593534/39	200.0	68.433966	40.0	260518.0	0.34217	Y



Calibration

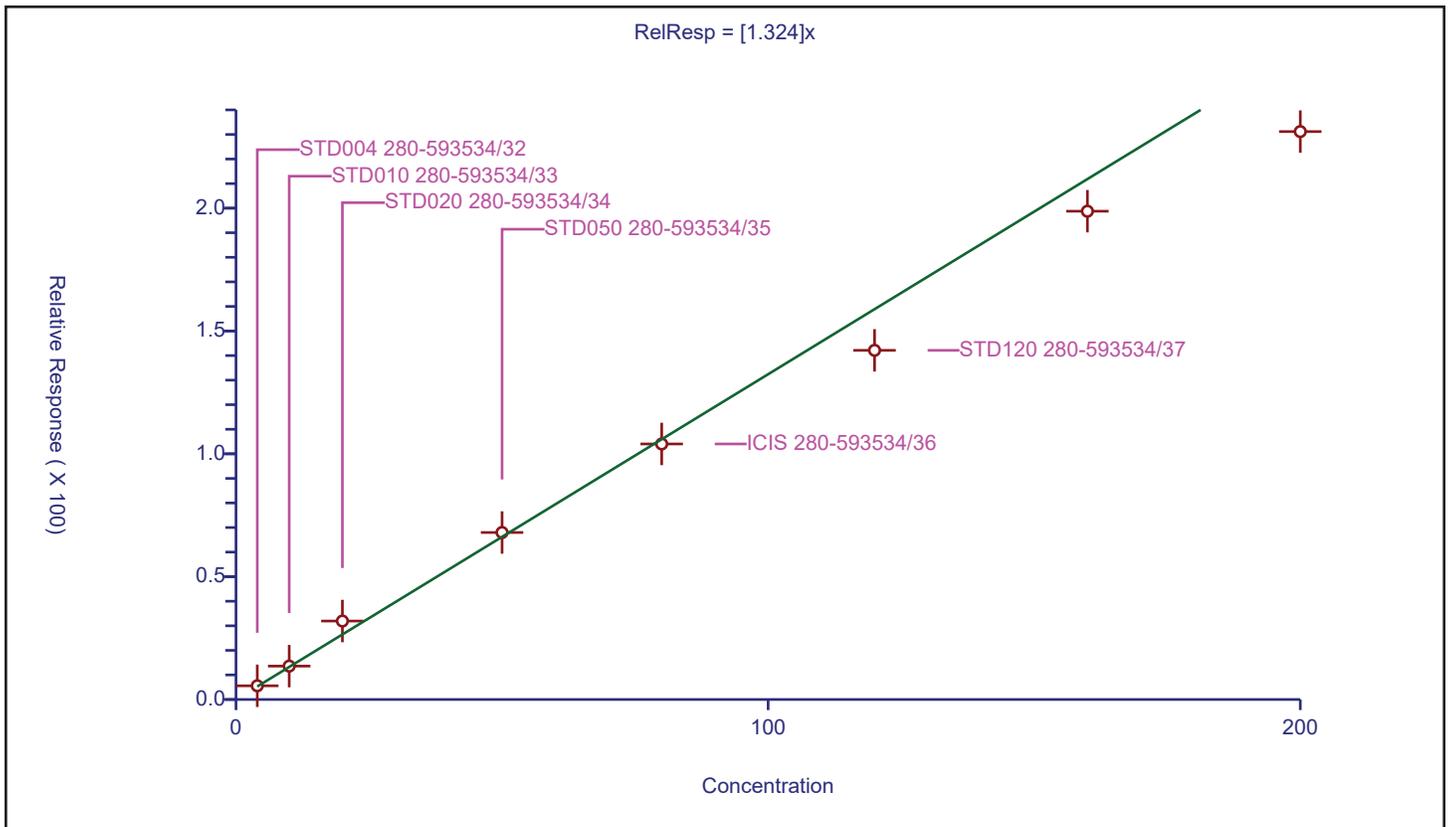
/ 2-Fluorobiphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.324

Error Coefficients	
Standard Error:	867000
Relative Standard Error:	10.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.571222	40.0	218803.0	1.392805	Y
2	STD010 280-593534/33	10.0	13.592509	40.0	243799.0	1.359251	Y
3	STD020 280-593534/34	20.0	31.944709	40.0	230343.0	1.597235	Y
4	STD050 280-593534/35	50.0	67.98152	40.0	238526.0	1.35963	Y
5	ICIS 280-593534/36	80.0	104.016742	40.0	261849.0	1.300209	Y
6	STD120 280-593534/37	120.0	142.131068	40.0	271141.0	1.184426	Y
7	STD160 280-593534/38	160.0	198.757335	40.0	238069.0	1.242233	Y
8	STD200 280-593534/39	200.0	231.170975	40.0	260518.0	1.155855	Y



Calibration

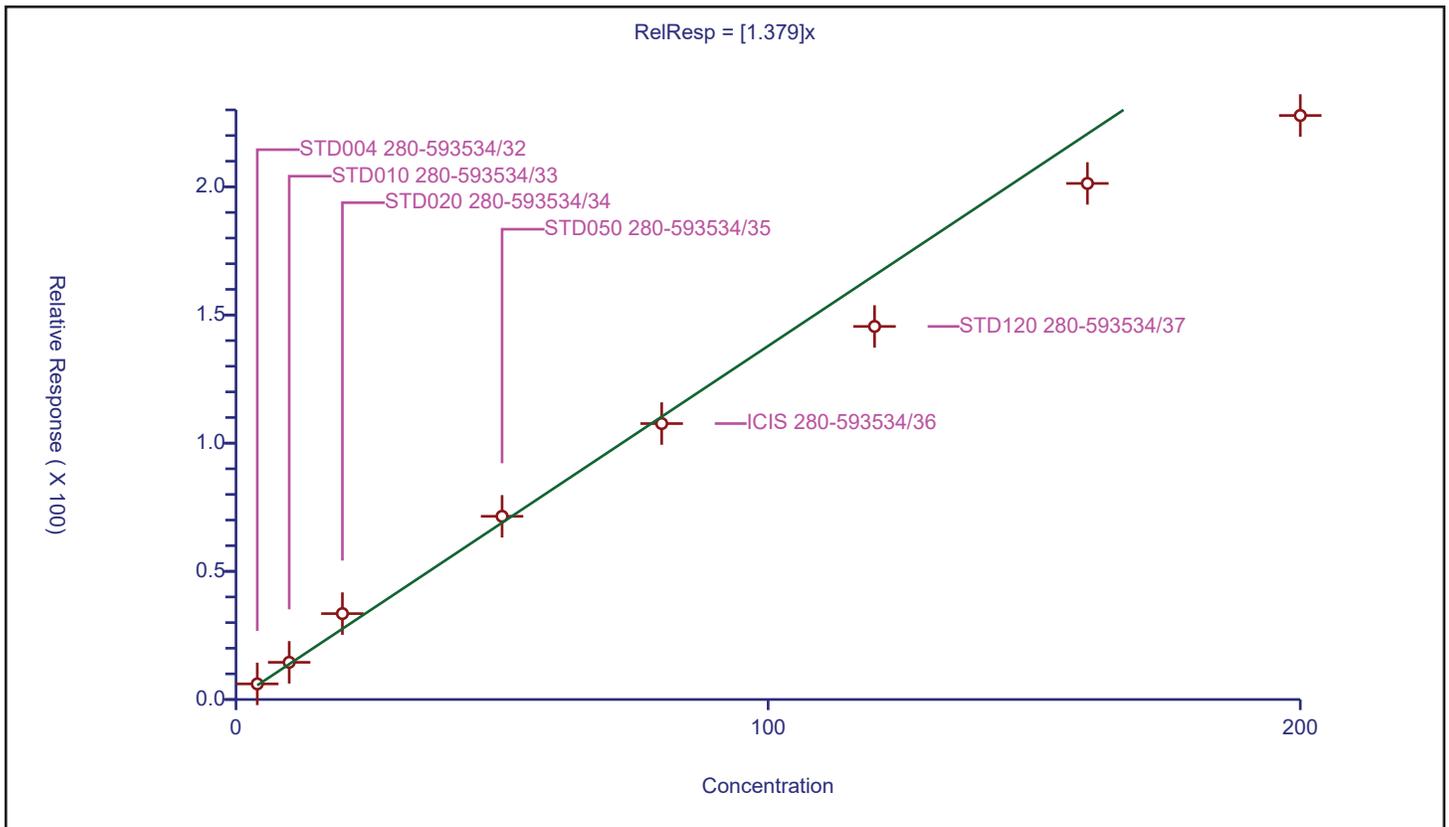
/ 1,1'-Biphenyl

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.379

Error Coefficients	
Standard Error:	873000
Relative Standard Error:	12.8
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.085109	40.0	218803.0	1.521277	Y
2	STD010 280-593534/33	10.0	14.503095	40.0	243799.0	1.450309	Y
3	STD020 280-593534/34	20.0	33.511416	40.0	230343.0	1.675571	Y
4	STD050 280-593534/35	50.0	71.463404	40.0	238526.0	1.429268	Y
5	ICIS 280-593534/36	80.0	107.639594	40.0	261849.0	1.345495	Y
6	STD120 280-593534/37	120.0	145.52635	40.0	271141.0	1.21272	Y
7	STD160 280-593534/38	160.0	201.320289	40.0	238069.0	1.258252	Y
8	STD200 280-593534/39	200.0	227.817656	40.0	260518.0	1.139088	Y



Calibration

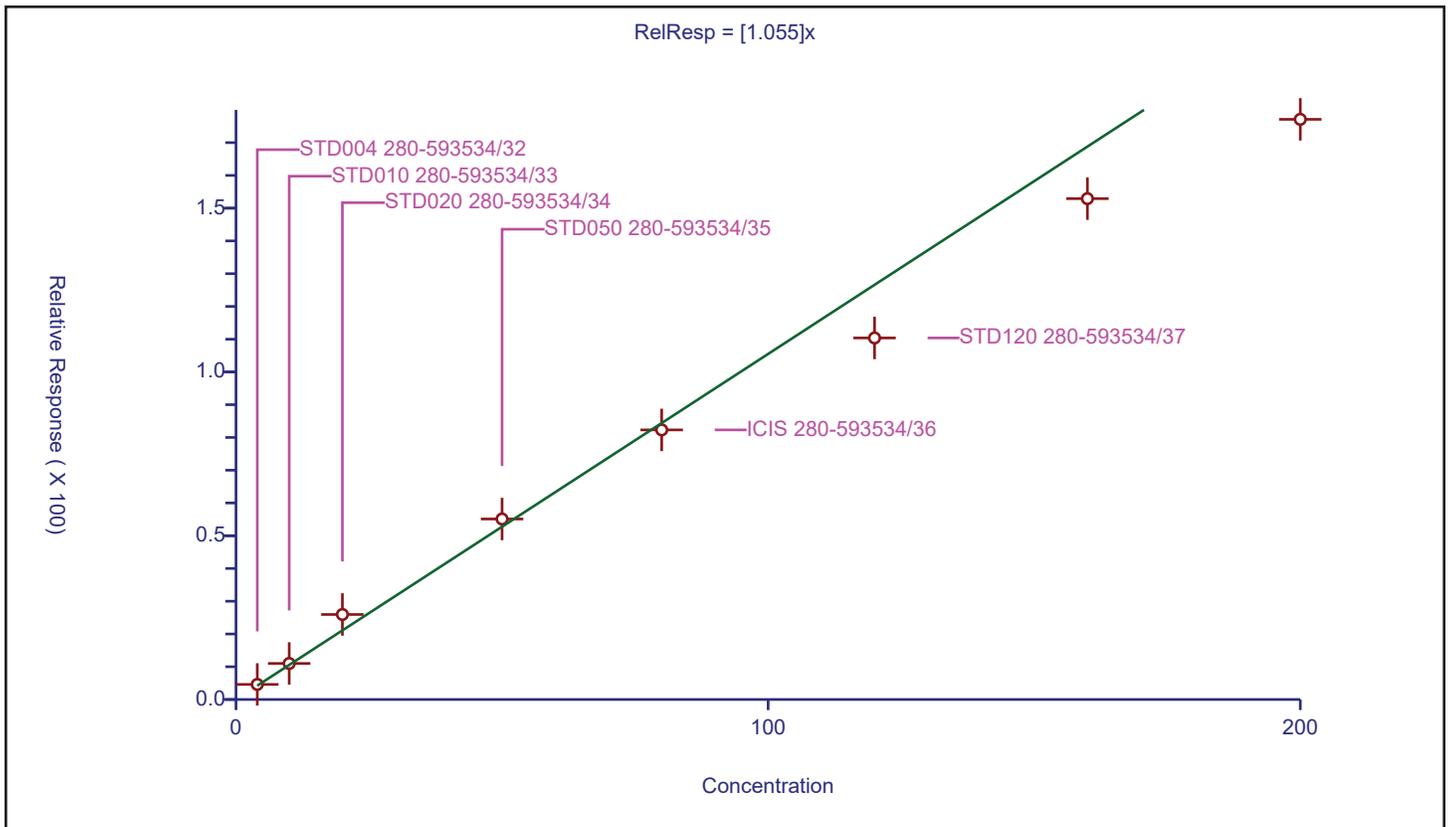
/ 2-Chloronaphthalene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.055

Error Coefficients	
Standard Error:	670000
Relative Standard Error:	12.9
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.599206	40.0	218803.0	1.149801	Y
2	STD010 280-593534/33	10.0	11.001358	40.0	243799.0	1.100136	Y
3	STD020 280-593534/34	20.0	25.952254	40.0	230343.0	1.297613	Y
4	STD050 280-593534/35	50.0	55.10829	40.0	238526.0	1.102166	Y
5	ICIS 280-593534/36	80.0	82.301174	40.0	261849.0	1.028765	Y
6	STD120 280-593534/37	120.0	110.375635	40.0	271141.0	0.919797	Y
7	STD160 280-593534/38	160.0	152.903402	40.0	238069.0	0.955646	Y
8	STD200 280-593534/39	200.0	177.11636	40.0	260518.0	0.885582	Y



Calibration

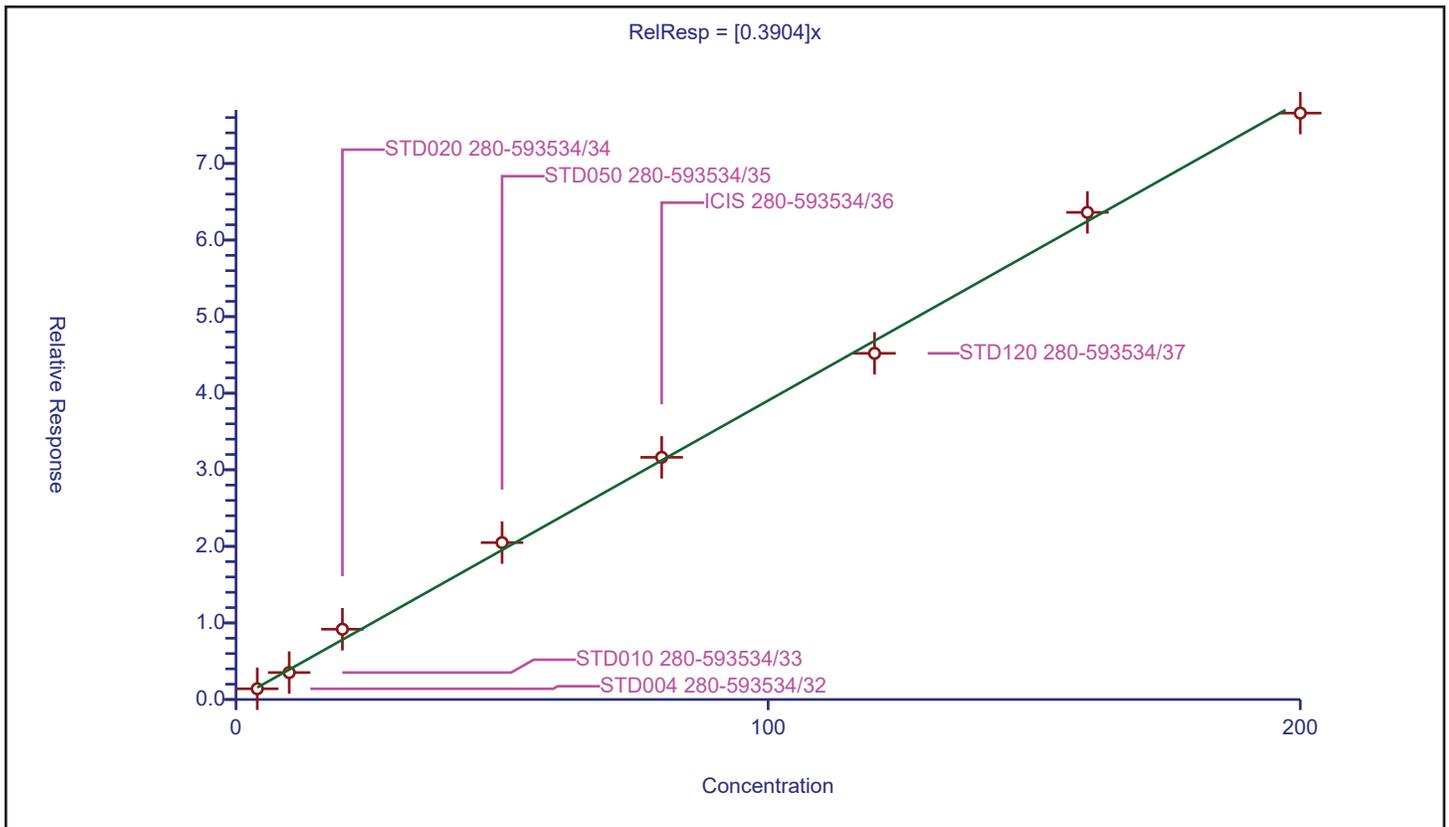
/ 2-Nitroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3904

Error Coefficients	
Standard Error:	280000
Relative Standard Error:	8.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.399615	40.0	218803.0	0.349904	Y
2	STD010 280-593534/33	10.0	3.520113	40.0	243799.0	0.352011	Y
3	STD020 280-593534/34	20.0	9.176923	40.0	230343.0	0.458846	Y
4	STD050 280-593534/35	50.0	20.490009	40.0	238526.0	0.4098	Y
5	ICIS 280-593534/36	80.0	31.627847	40.0	261849.0	0.395348	Y
6	STD120 280-593534/37	120.0	45.20659	40.0	271141.0	0.376722	Y
7	STD160 280-593534/38	160.0	63.616347	40.0	238069.0	0.397602	Y
8	STD200 280-593534/39	200.0	76.58158	40.0	260518.0	0.382908	Y



Calibration

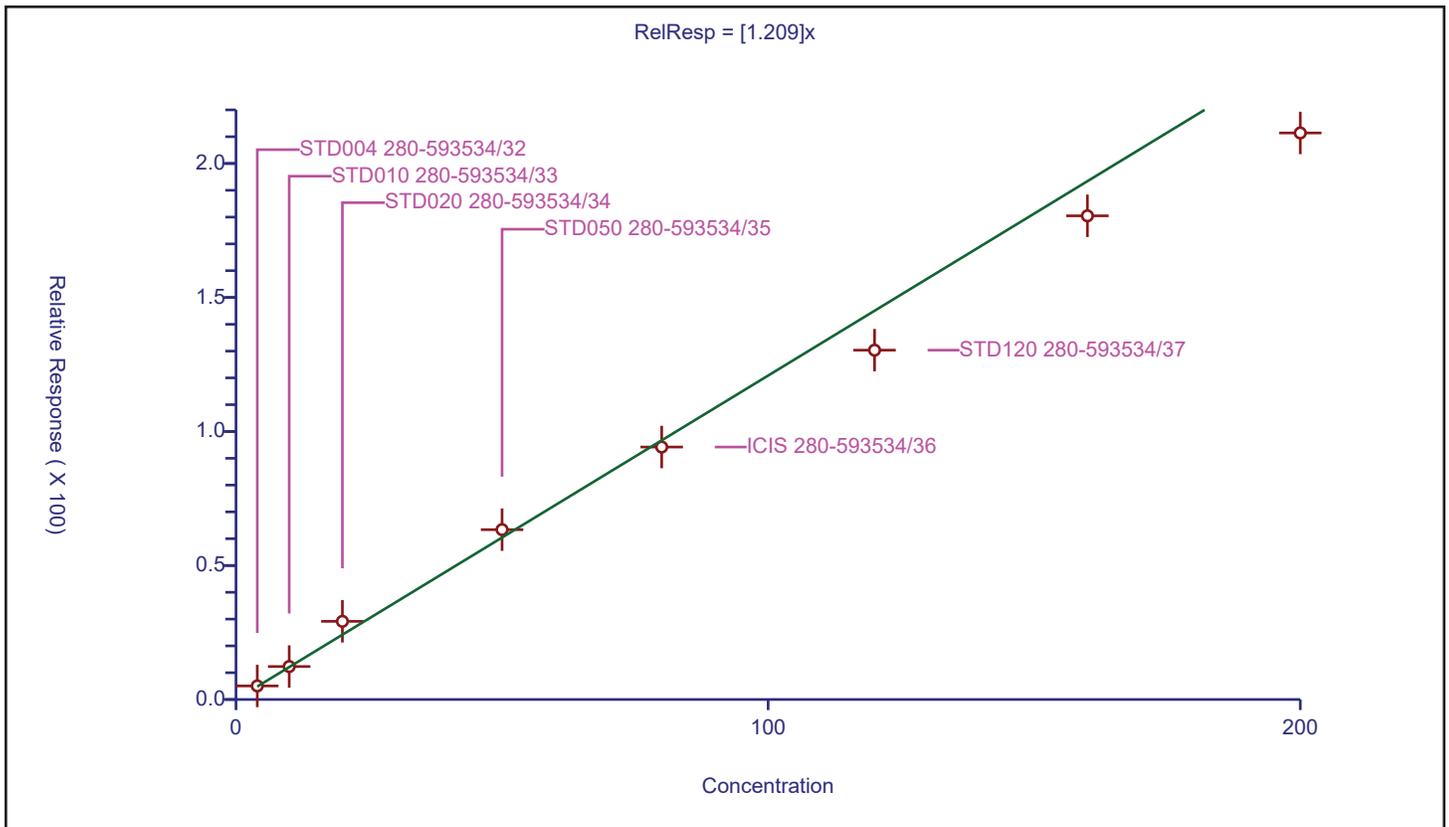
/ Dimethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.209

Error Coefficients	
Standard Error:	792000
Relative Standard Error:	10.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.060442	40.0	218803.0	1.265111	Y
2	STD010 280-593534/33	10.0	12.301281	40.0	243799.0	1.230128	Y
3	STD020 280-593534/34	20.0	29.161207	40.0	230343.0	1.45806	Y
4	STD050 280-593534/35	50.0	63.376739	40.0	238526.0	1.267535	Y
5	ICIS 280-593534/36	80.0	94.205439	40.0	261849.0	1.177568	Y
6	STD120 280-593534/37	120.0	130.348712	40.0	271141.0	1.086239	Y
7	STD160 280-593534/38	160.0	180.476585	40.0	238069.0	1.127979	Y
8	STD200 280-593534/39	200.0	211.388541	40.0	260518.0	1.056943	Y



Calibration

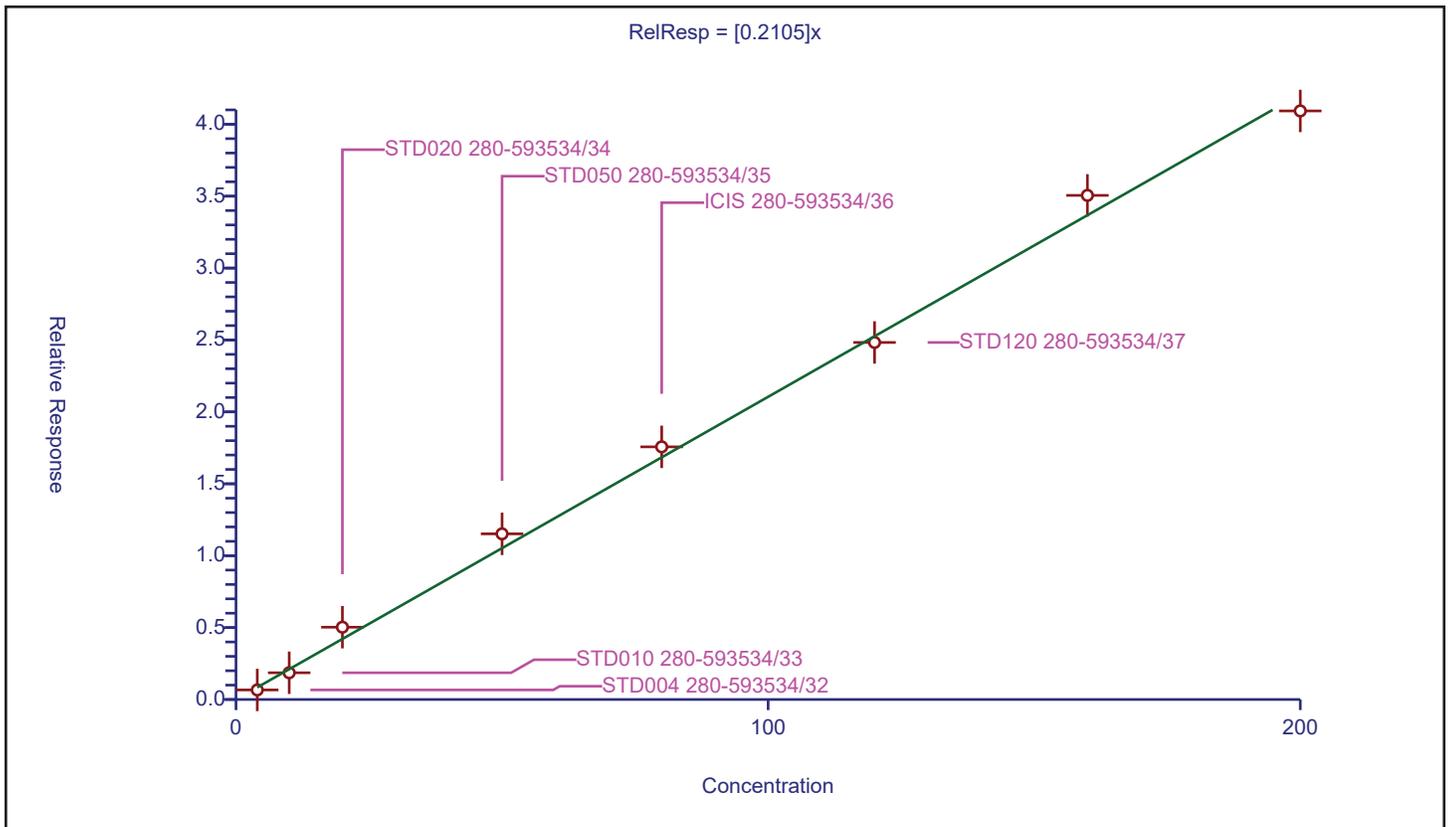
/ 1,3-Dinitrobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2105

Error Coefficients	
Standard Error:	152000
Relative Standard Error:	12.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.663793	40.0	218803.0	0.165948	Y
2	STD010 280-593534/33	10.0	1.859072	40.0	243799.0	0.185907	Y
3	STD020 280-593534/34	20.0	5.026591	40.0	230343.0	0.25133	Y
4	STD050 280-593534/35	50.0	11.519918	40.0	238526.0	0.230398	Y
5	ICIS 280-593534/36	80.0	17.569057	40.0	261849.0	0.219613	Y
6	STD120 280-593534/37	120.0	24.828115	40.0	271141.0	0.206901	Y
7	STD160 280-593534/38	160.0	35.056223	40.0	238069.0	0.219101	Y
8	STD200 280-593534/39	200.0	40.927844	40.0	260518.0	0.204639	Y



Calibration

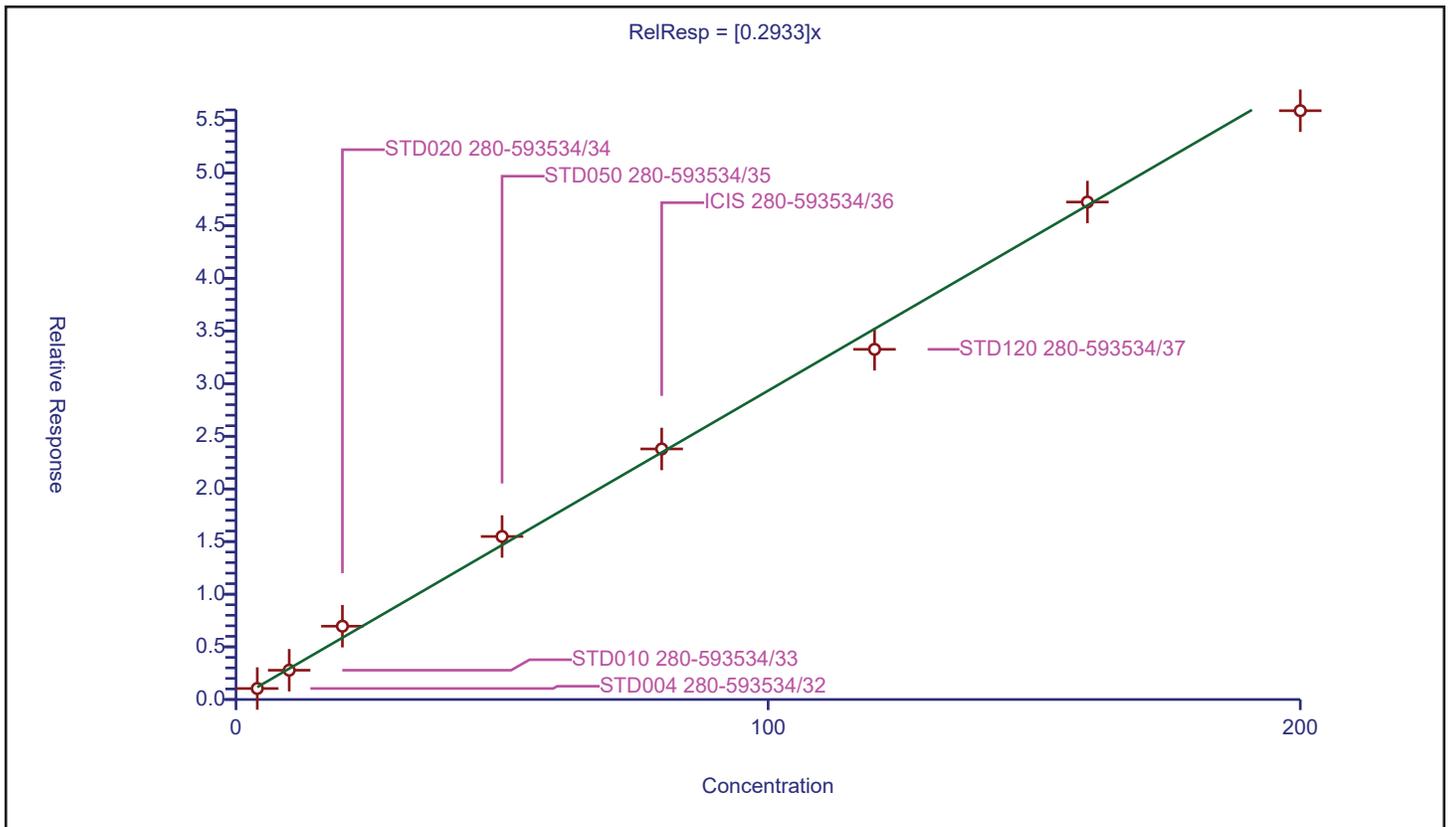
/ 2,6-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2933

Error Coefficients	
Standard Error:	206000
Relative Standard Error:	9.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.043679	40.0	218803.0	0.26092	Y
2	STD010 280-593534/33	10.0	2.78262	40.0	243799.0	0.278262	Y
3	STD020 280-593534/34	20.0	6.962834	40.0	230343.0	0.348142	Y
4	STD050 280-593534/35	50.0	15.483427	40.0	238526.0	0.309669	Y
5	ICIS 280-593534/36	80.0	23.797074	40.0	261849.0	0.297463	Y
6	STD120 280-593534/37	120.0	33.259301	40.0	271141.0	0.277161	Y
7	STD160 280-593534/38	160.0	47.248823	40.0	238069.0	0.295305	Y
8	STD200 280-593534/39	200.0	55.921203	40.0	260518.0	0.279606	Y



Calibration

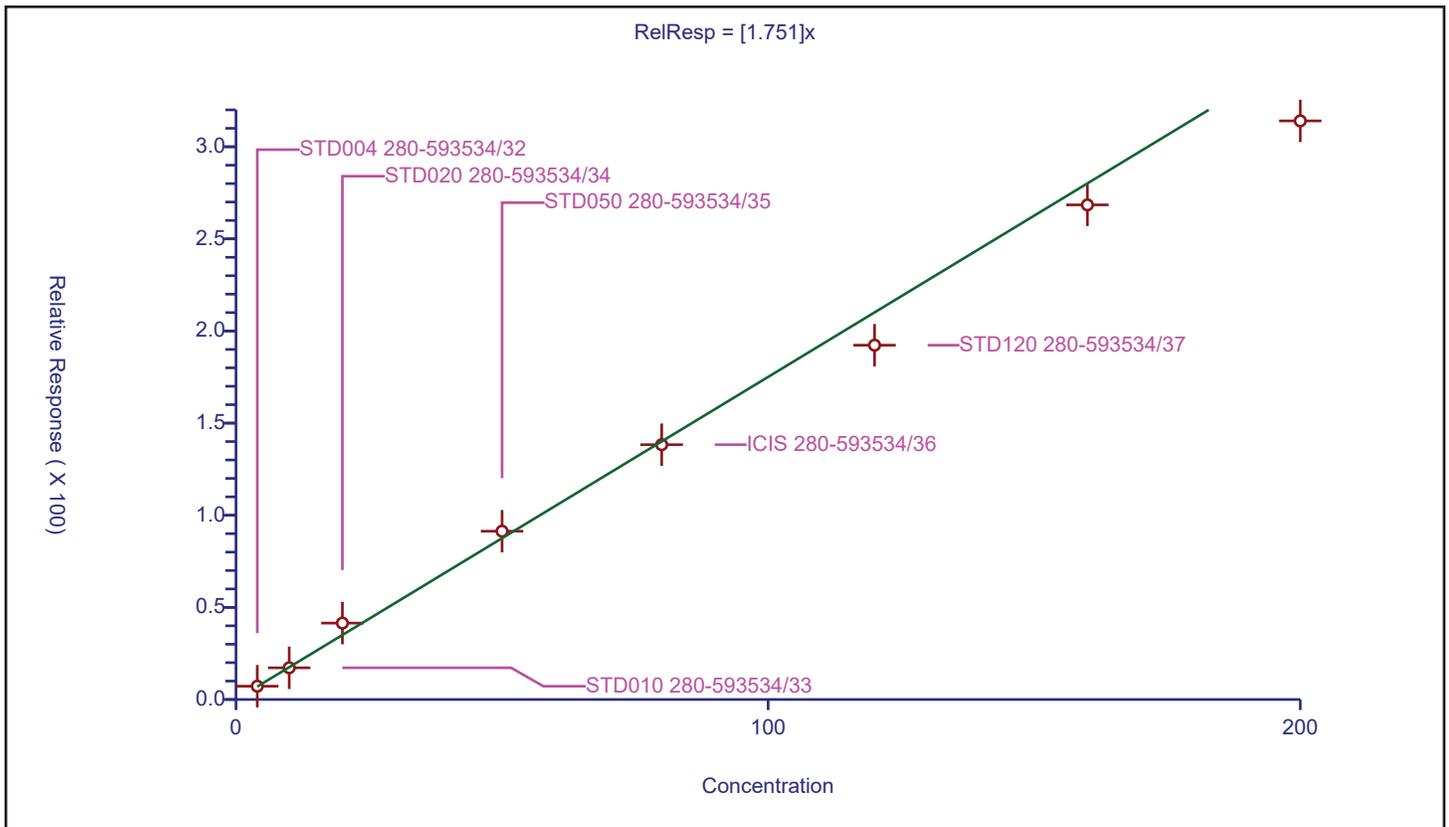
/ Acenaphthylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.751

Error Coefficients	
Standard Error:	1170000
Relative Standard Error:	9.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	7.222022	40.0	218803.0	1.805505	Y
2	STD010 280-593534/33	10.0	17.206141	40.0	243799.0	1.720614	Y
3	STD020 280-593534/34	20.0	41.462688	40.0	230343.0	2.073134	Y
4	STD050 280-593534/35	50.0	91.347694	40.0	238526.0	1.826954	Y
5	ICIS 280-593534/36	80.0	138.306429	40.0	261849.0	1.72883	Y
6	STD120 280-593534/37	120.0	192.302455	40.0	271141.0	1.60252	Y
7	STD160 280-593534/38	160.0	268.446207	40.0	238069.0	1.677789	Y
8	STD200 280-593534/39	200.0	314.033733	40.0	260518.0	1.570169	Y



Calibration

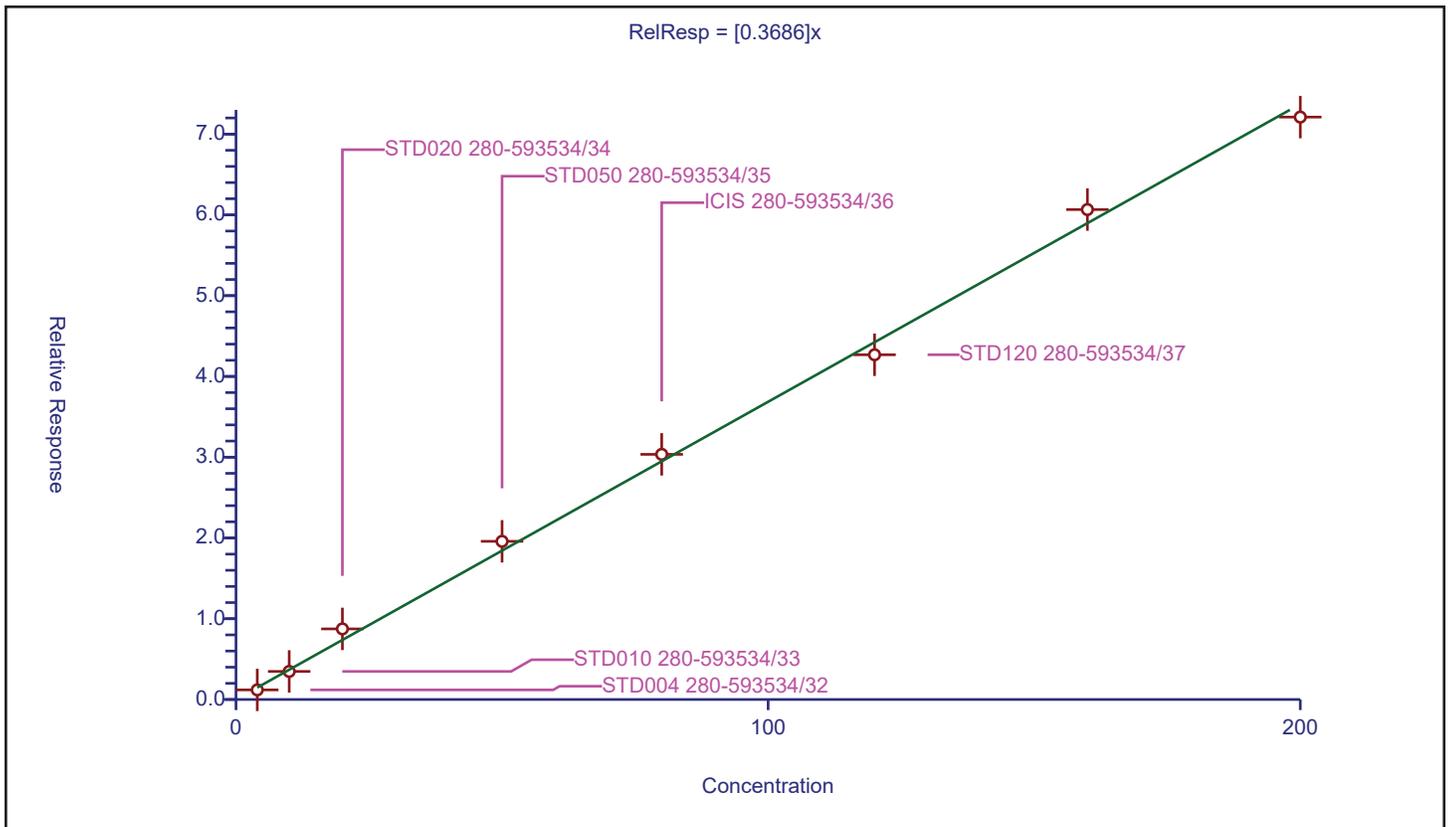
/ 3-Nitroaniline

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3686

Error Coefficients	
Standard Error:	265000
Relative Standard Error:	10.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.191026	40.0	218803.0	0.297756	Y
2	STD010 280-593534/33	10.0	3.475158	40.0	243799.0	0.347516	Y
3	STD020 280-593534/34	20.0	8.742093	40.0	230343.0	0.437105	Y
4	STD050 280-593534/35	50.0	19.584112	40.0	238526.0	0.391682	Y
5	ICIS 280-593534/36	80.0	30.353372	40.0	261849.0	0.379417	Y
6	STD120 280-593534/37	120.0	42.68259	40.0	271141.0	0.355688	Y
7	STD160 280-593534/38	160.0	60.658885	40.0	238069.0	0.379118	Y
8	STD200 280-593534/39	200.0	72.109413	40.0	260518.0	0.360547	Y



Calibration

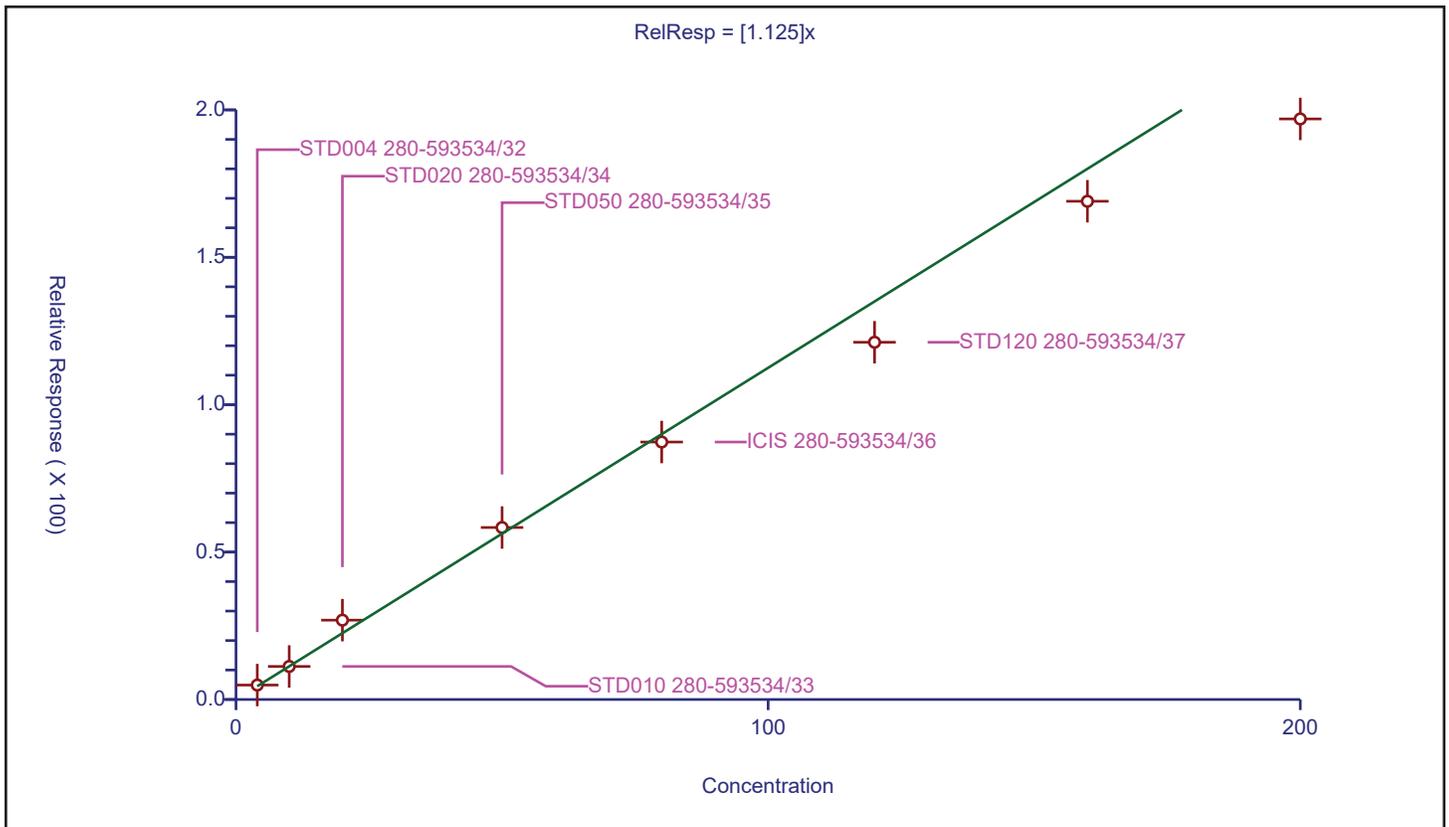
/ Acenaphthene

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.125

Error Coefficients	
Standard Error:	738000
Relative Standard Error:	10.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.897739	40.0	218803.0	1.224435	Y
2	STD010 280-593534/33	10.0	11.210382	40.0	243799.0	1.121038	Y
3	STD020 280-593534/34	20.0	26.91777	40.0	230343.0	1.345889	Y
4	STD050 280-593534/35	50.0	58.337791	40.0	238526.0	1.166756	Y
5	ICIS 280-593534/36	80.0	87.335373	40.0	261849.0	1.091692	Y
6	STD120 280-593534/37	120.0	121.182263	40.0	271141.0	1.009852	Y
7	STD160 280-593534/38	160.0	169.009153	40.0	238069.0	1.056307	Y
8	STD200 280-593534/39	200.0	196.930884	40.0	260518.0	0.984654	Y



Calibration

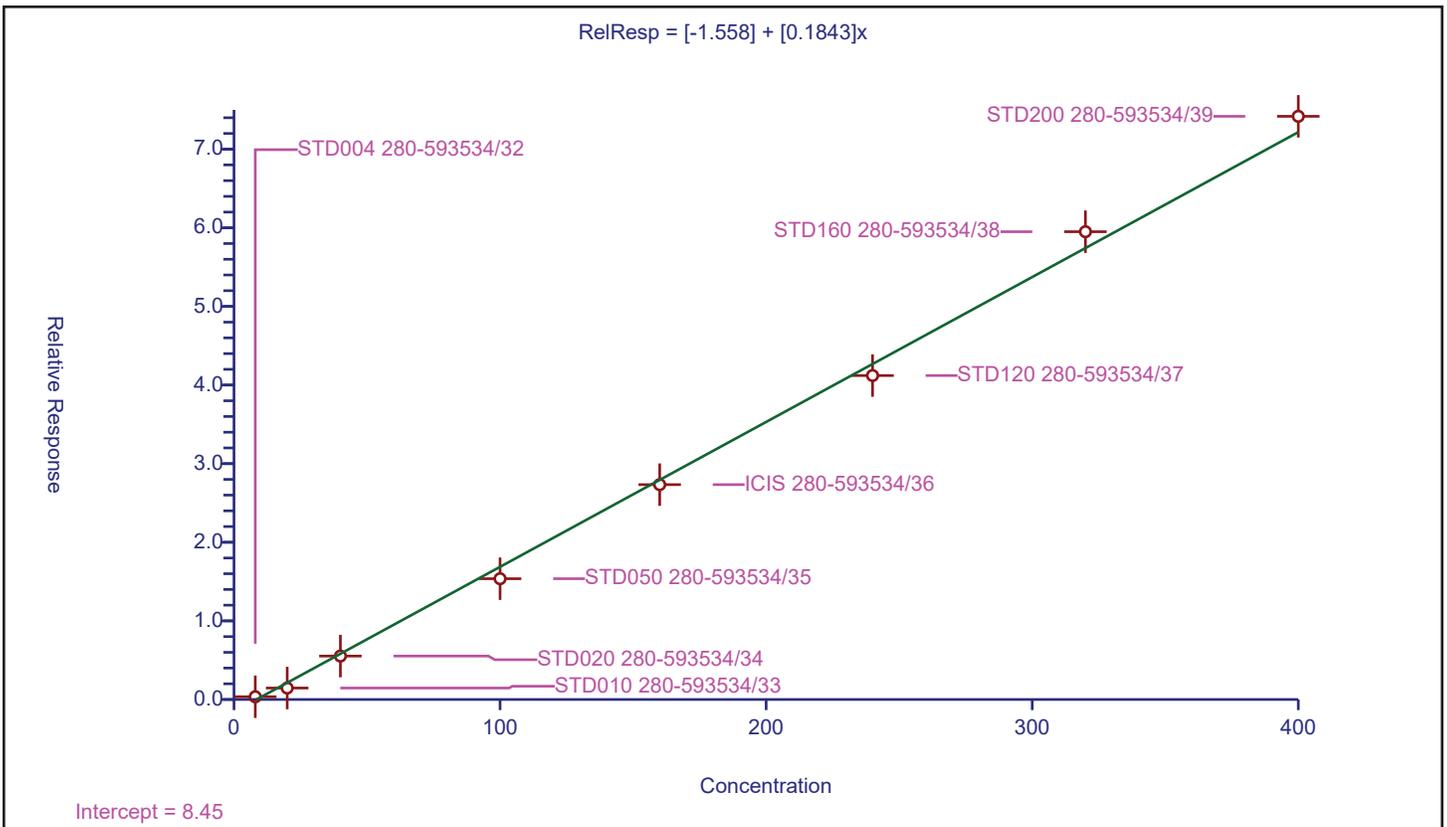
/ 2,4-Dinitrophenol

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-1.558
Slope:	0.1843

Error Coefficients	
Standard Error:	282000
Relative Standard Error:	14.7
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	0.348441	40.0	218803.0	0.043555	Y
2	STD010 280-593534/33	20.0	1.459399	40.0	243799.0	0.07297	Y
3	STD020 280-593534/34	40.0	5.527062	40.0	230343.0	0.138177	Y
4	STD050 280-593534/35	100.0	15.364027	40.0	238526.0	0.15364	Y
5	ICIS 280-593534/36	160.0	27.331172	40.0	261849.0	0.17082	Y
6	STD120 280-593534/37	240.0	41.207637	40.0	271141.0	0.171698	Y
7	STD160 280-593534/38	320.0	59.504765	40.0	238069.0	0.185952	Y
8	STD200 280-593534/39	400.0	74.184816	40.0	260518.0	0.185462	Y



Calibration

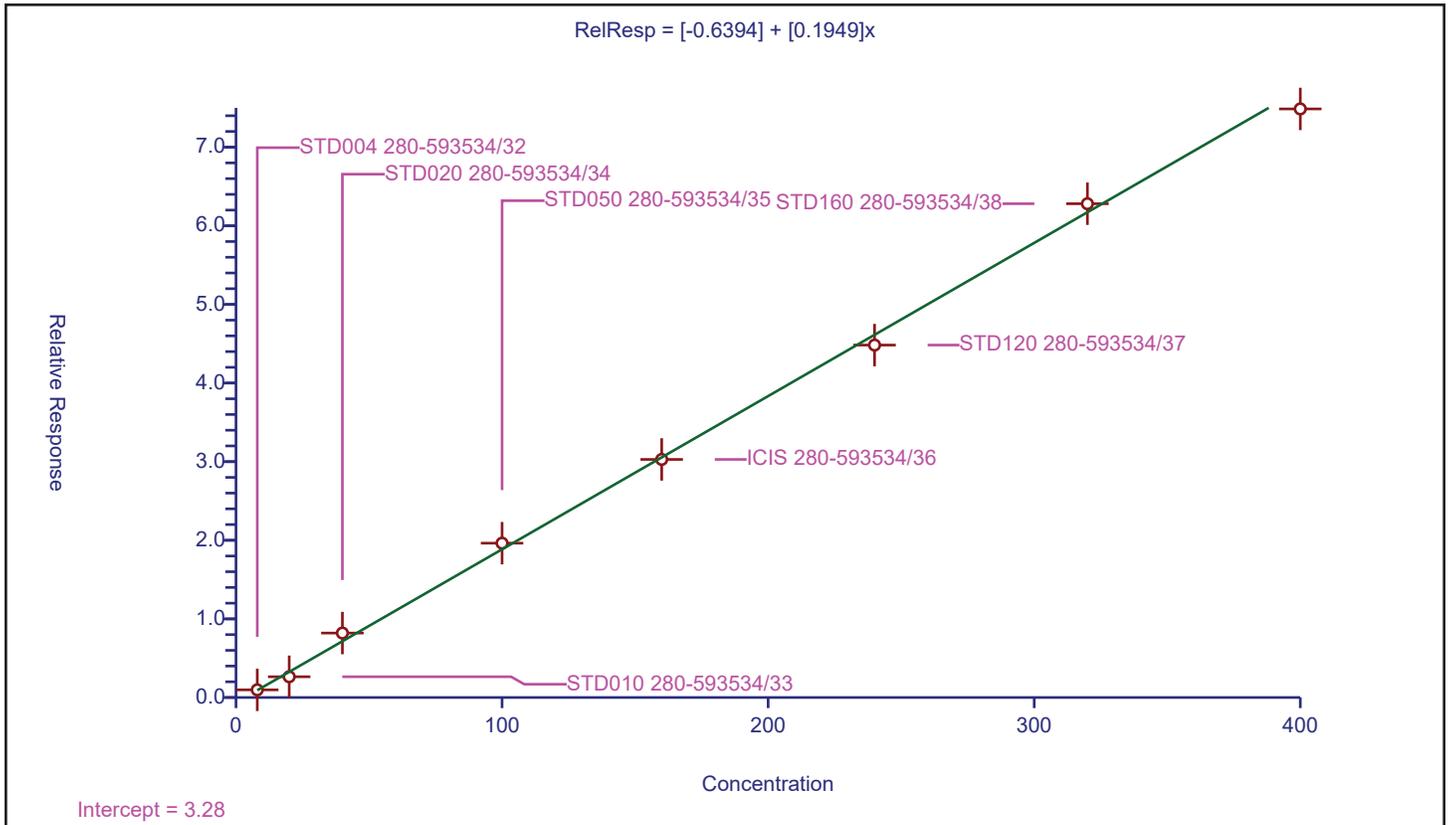
/ 4-Nitrophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.6394
Slope:	0.1949

Error Coefficients	
Standard Error:	296000
Relative Standard Error:	8.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	0.974392	40.0	218803.0	0.121799	Y
2	STD010 280-593534/33	20.0	2.63988	40.0	243799.0	0.131994	Y
3	STD020 280-593534/34	40.0	8.198556	40.0	230343.0	0.204964	Y
4	STD050 280-593534/35	100.0	19.630061	40.0	238526.0	0.196301	Y
5	ICIS 280-593534/36	160.0	30.282033	40.0	261849.0	0.189263	Y
6	STD120 280-593534/37	240.0	44.830402	40.0	271141.0	0.186793	Y
7	STD160 280-593534/38	320.0	62.810698	40.0	238069.0	0.196283	Y
8	STD200 280-593534/39	400.0	74.868838	40.0	260518.0	0.187172	Y



Calibration

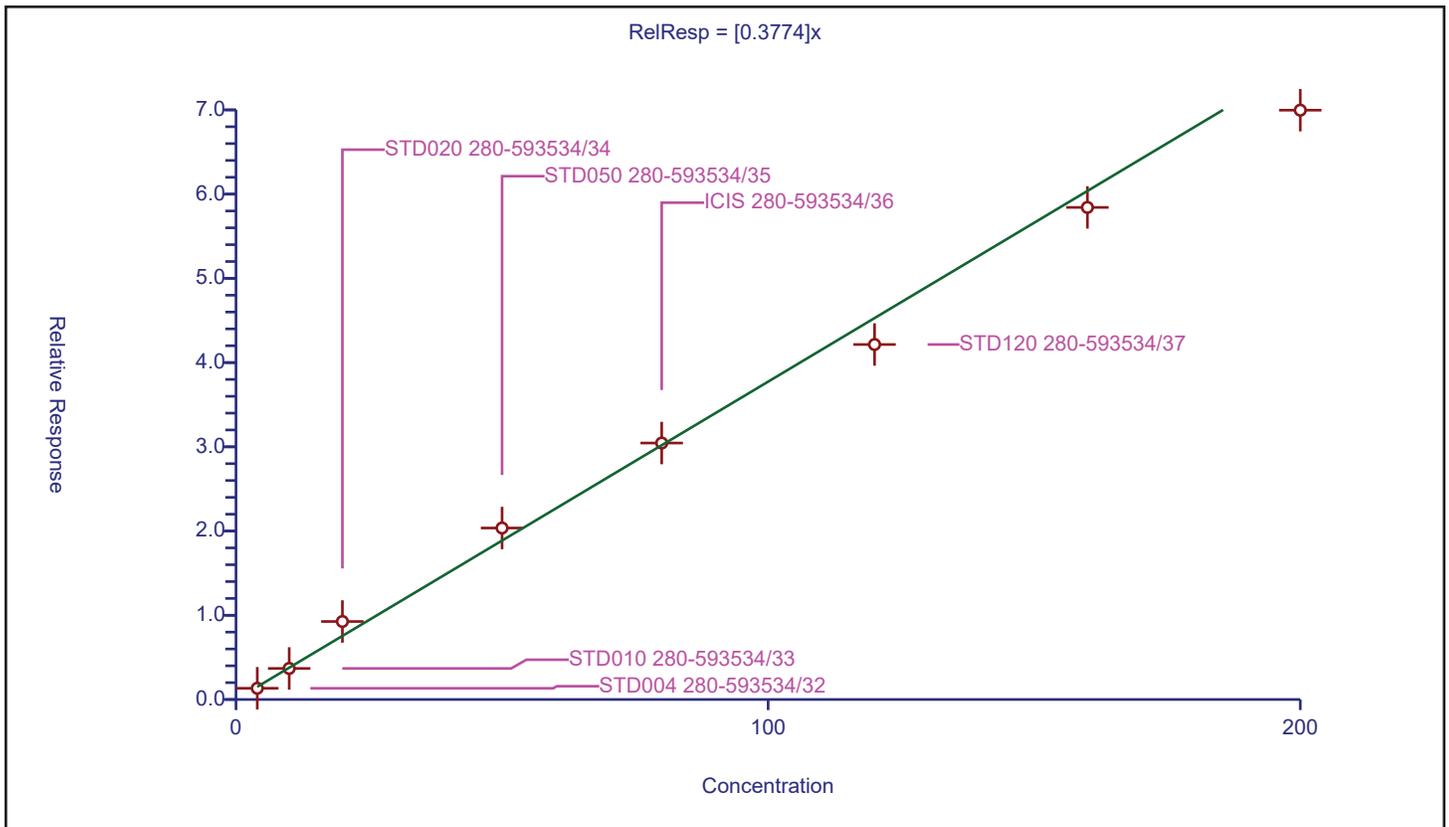
/ 2,4-Dinitrotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3774

Error Coefficients	
Standard Error:	259000
Relative Standard Error:	10.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.33234	40.0	218803.0	0.333085	Y
2	STD010 280-593534/33	10.0	3.687956	40.0	243799.0	0.368796	Y
3	STD020 280-593534/34	20.0	9.260972	40.0	230343.0	0.463049	Y
4	STD050 280-593534/35	50.0	20.359877	40.0	238526.0	0.407198	Y
5	ICIS 280-593534/36	80.0	30.447319	40.0	261849.0	0.380591	Y
6	STD120 280-593534/37	120.0	42.146042	40.0	271141.0	0.351217	Y
7	STD160 280-593534/38	160.0	58.423062	40.0	238069.0	0.365144	Y
8	STD200 280-593534/39	200.0	69.964609	40.0	260518.0	0.349823	Y



Calibration

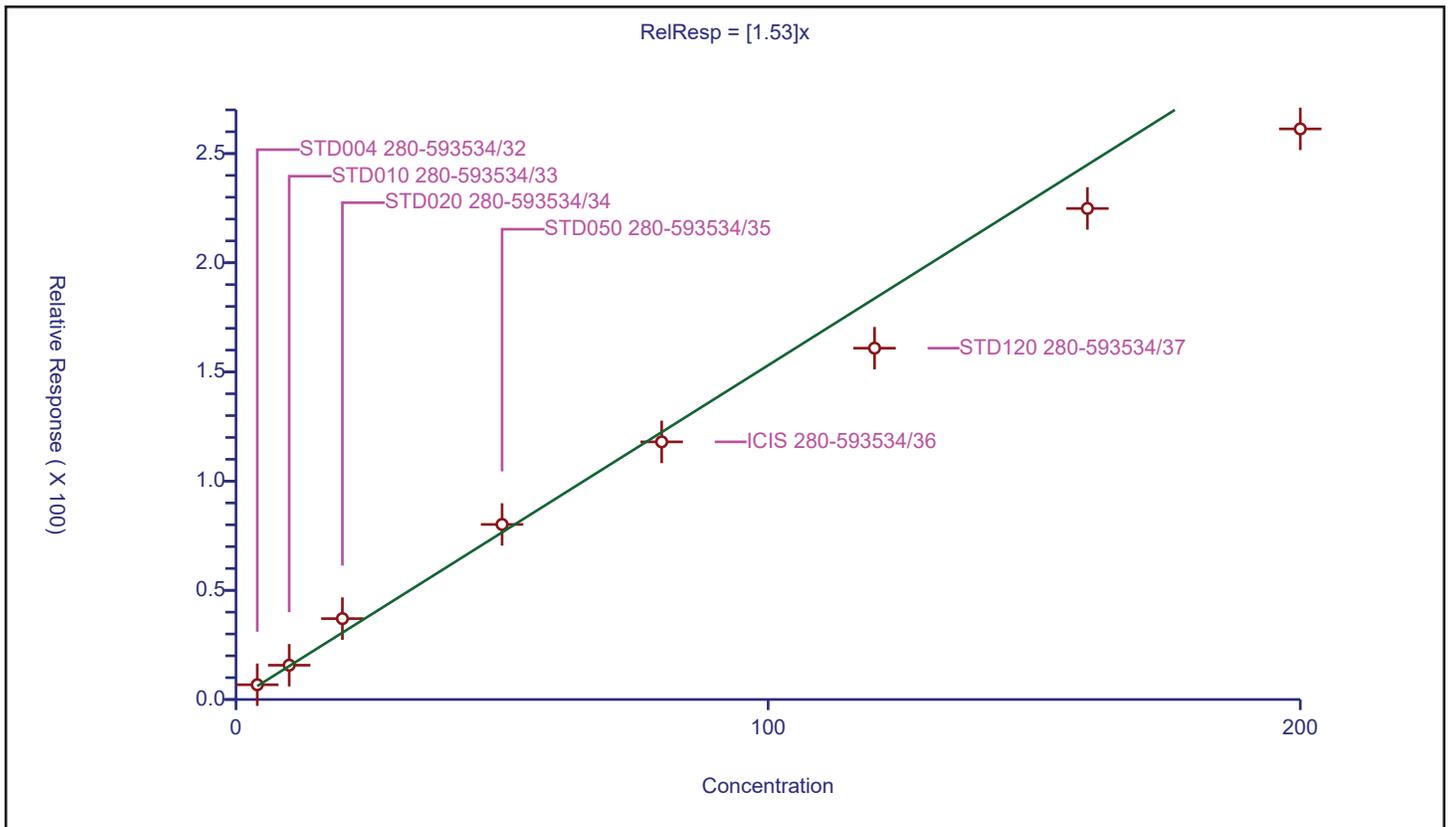
/ Dibenzofuran

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.53

Error Coefficients	
Standard Error:	982000
Relative Standard Error:	12.1
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.756763	40.0	218803.0	1.689191	Y
2	STD010 280-593534/33	10.0	15.710647	40.0	243799.0	1.571065	Y
3	STD020 280-593534/34	20.0	37.04024	40.0	230343.0	1.852012	Y
4	STD050 280-593534/35	50.0	80.171554	40.0	238526.0	1.603431	Y
5	ICIS 280-593534/36	80.0	117.980363	40.0	261849.0	1.474755	Y
6	STD120 280-593534/37	120.0	160.884853	40.0	271141.0	1.340707	Y
7	STD160 280-593534/38	160.0	224.858171	40.0	238069.0	1.405364	Y
8	STD200 280-593534/39	200.0	261.290506	40.0	260518.0	1.306453	Y



Calibration

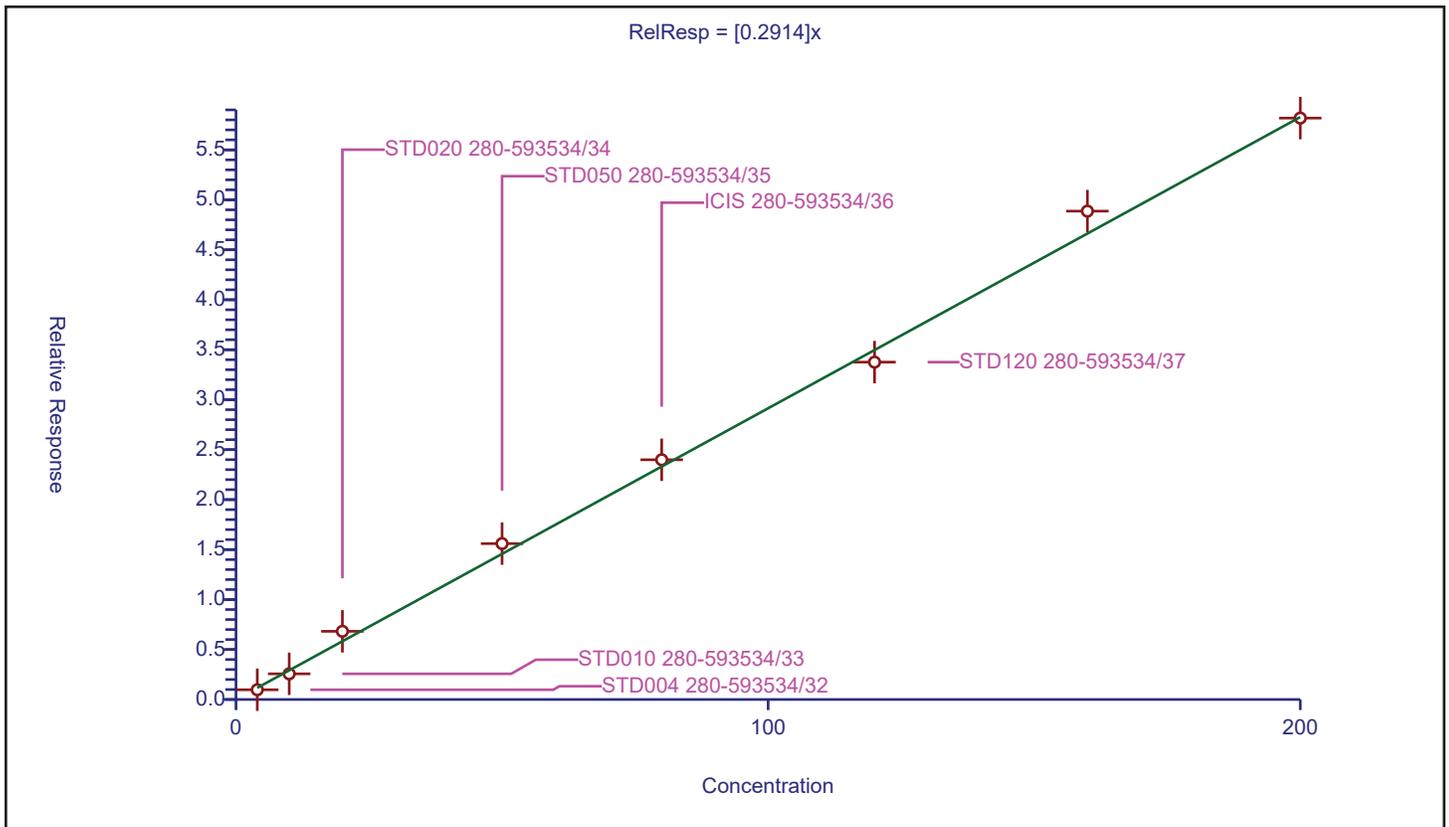
/ 2,3,4,6-Tetrachlorophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2914

Error Coefficients	
Standard Error:	212000
Relative Standard Error:	10.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.974758	40.0	218803.0	0.24369	Y
2	STD010 280-593534/33	10.0	2.568509	40.0	243799.0	0.256851	Y
3	STD020 280-593534/34	20.0	6.823563	40.0	230343.0	0.341178	Y
4	STD050 280-593534/35	50.0	15.600983	40.0	238526.0	0.31202	Y
5	ICIS 280-593534/36	80.0	23.988787	40.0	261849.0	0.29986	Y
6	STD120 280-593534/37	120.0	33.757934	40.0	271141.0	0.281316	Y
7	STD160 280-593534/38	160.0	48.87037	40.0	238069.0	0.30544	Y
8	STD200 280-593534/39	200.0	58.17978	40.0	260518.0	0.290899	Y



Calibration

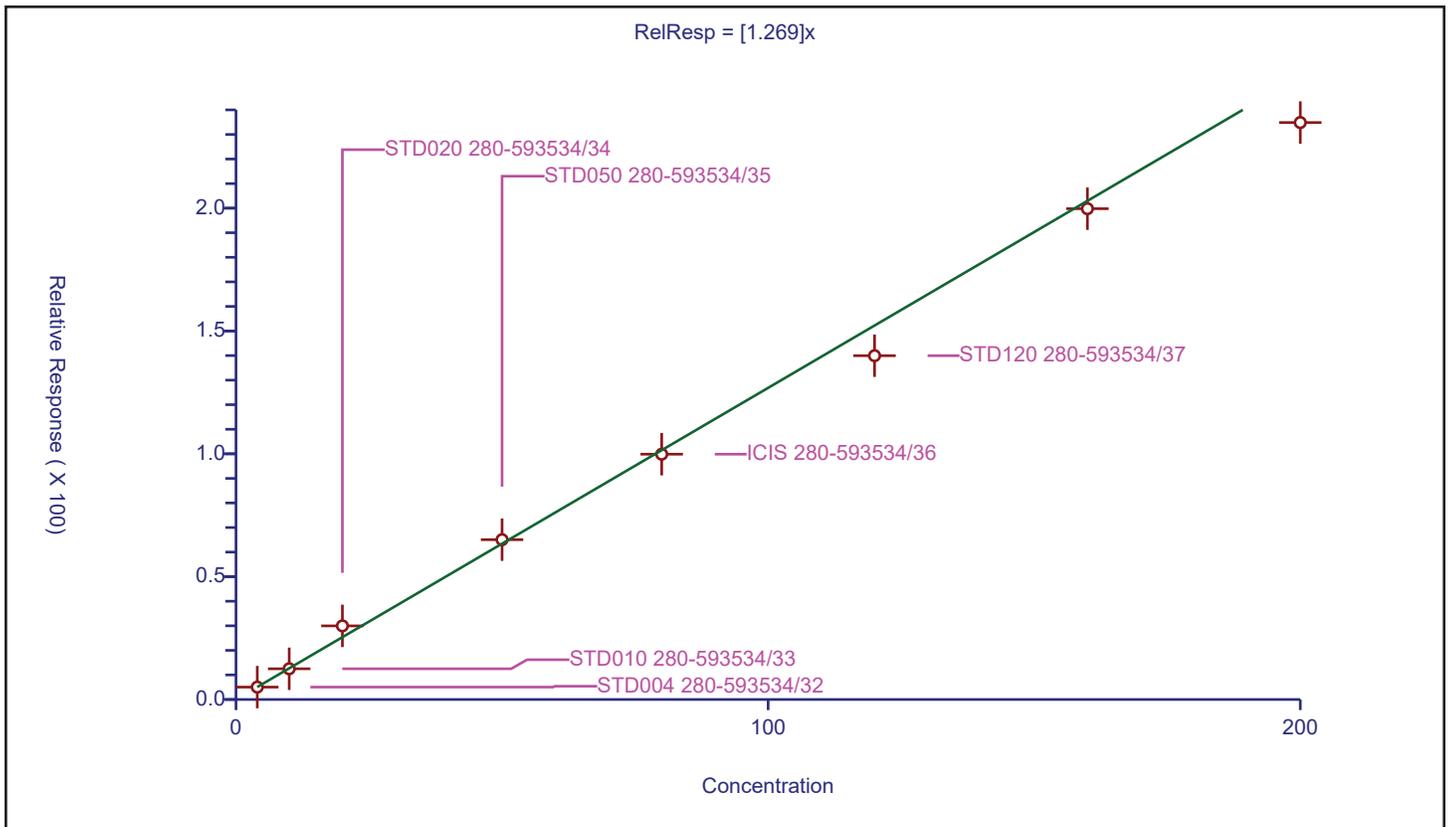
/ Diethyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.269

Error Coefficients	
Standard Error:	867000
Relative Standard Error:	8.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.044538	40.0	218803.0	1.261134	Y
2	STD010 280-593534/33	10.0	12.501938	40.0	243799.0	1.250194	Y
3	STD020 280-593534/34	20.0	29.971651	40.0	230343.0	1.498583	Y
4	STD050 280-593534/35	50.0	65.055382	40.0	238526.0	1.301108	Y
5	ICIS 280-593534/36	80.0	99.852816	40.0	261849.0	1.24816	Y
6	STD120 280-593534/37	120.0	139.946522	40.0	271141.0	1.166221	Y
7	STD160 280-593534/38	160.0	199.789473	40.0	238069.0	1.248684	Y
8	STD200 280-593534/39	200.0	234.850106	40.0	260518.0	1.174251	Y



Calibration

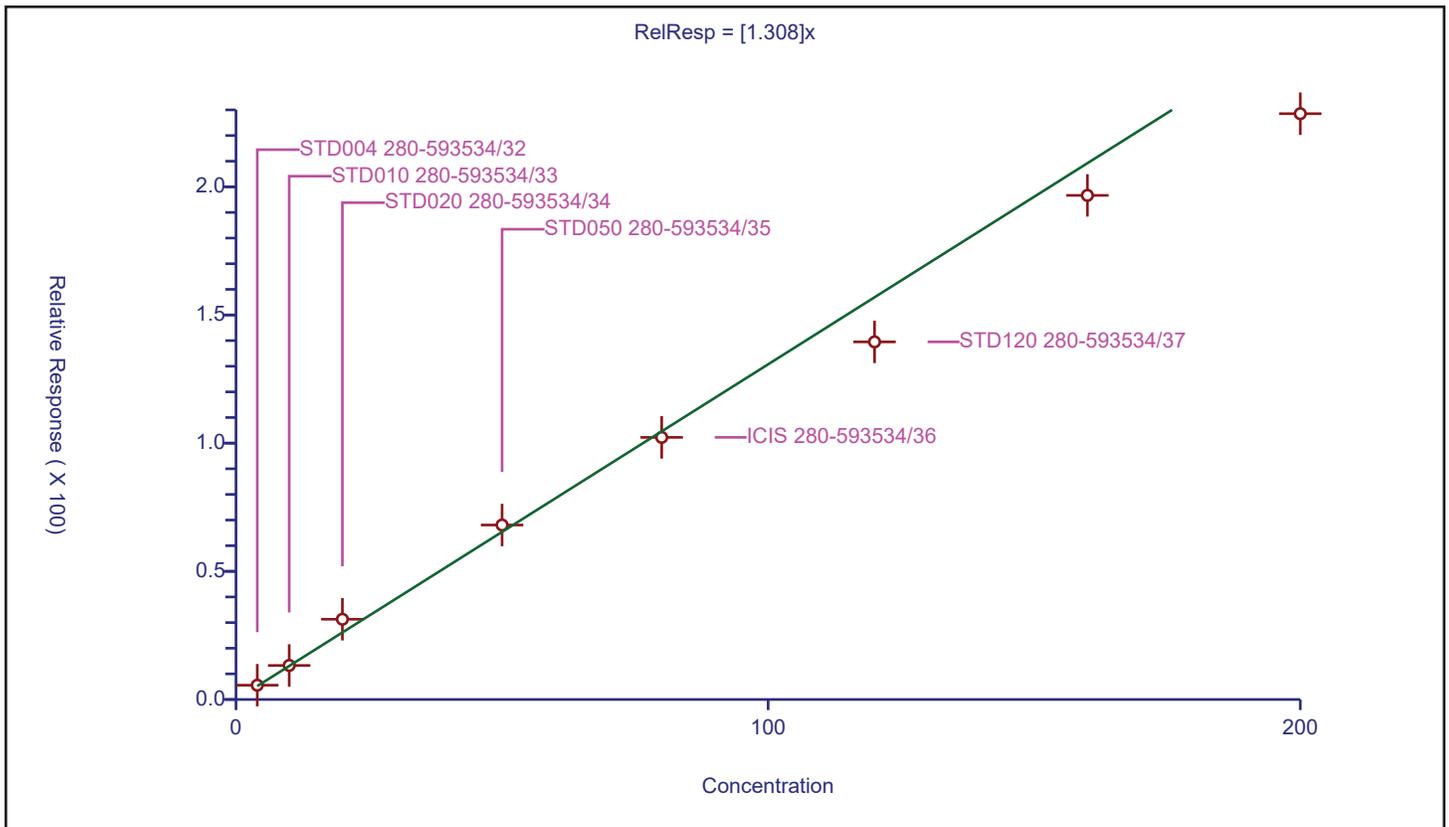
/ Fluorene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.308

Error Coefficients	
Standard Error:	856000
Relative Standard Error:	10.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	5.575426	40.0	218803.0	1.393857	Y
2	STD010 280-593534/33	10.0	13.273393	40.0	243799.0	1.327339	Y
3	STD020 280-593534/34	20.0	31.306183	40.0	230343.0	1.565309	Y
4	STD050 280-593534/35	50.0	68.065871	40.0	238526.0	1.361317	Y
5	ICIS 280-593534/36	80.0	102.244423	40.0	261849.0	1.278055	Y
6	STD120 280-593534/37	120.0	139.509997	40.0	271141.0	1.162583	Y
7	STD160 280-593534/38	160.0	196.654079	40.0	238069.0	1.229088	Y
8	STD200 280-593534/39	200.0	228.521638	40.0	260518.0	1.142608	Y



Calibration

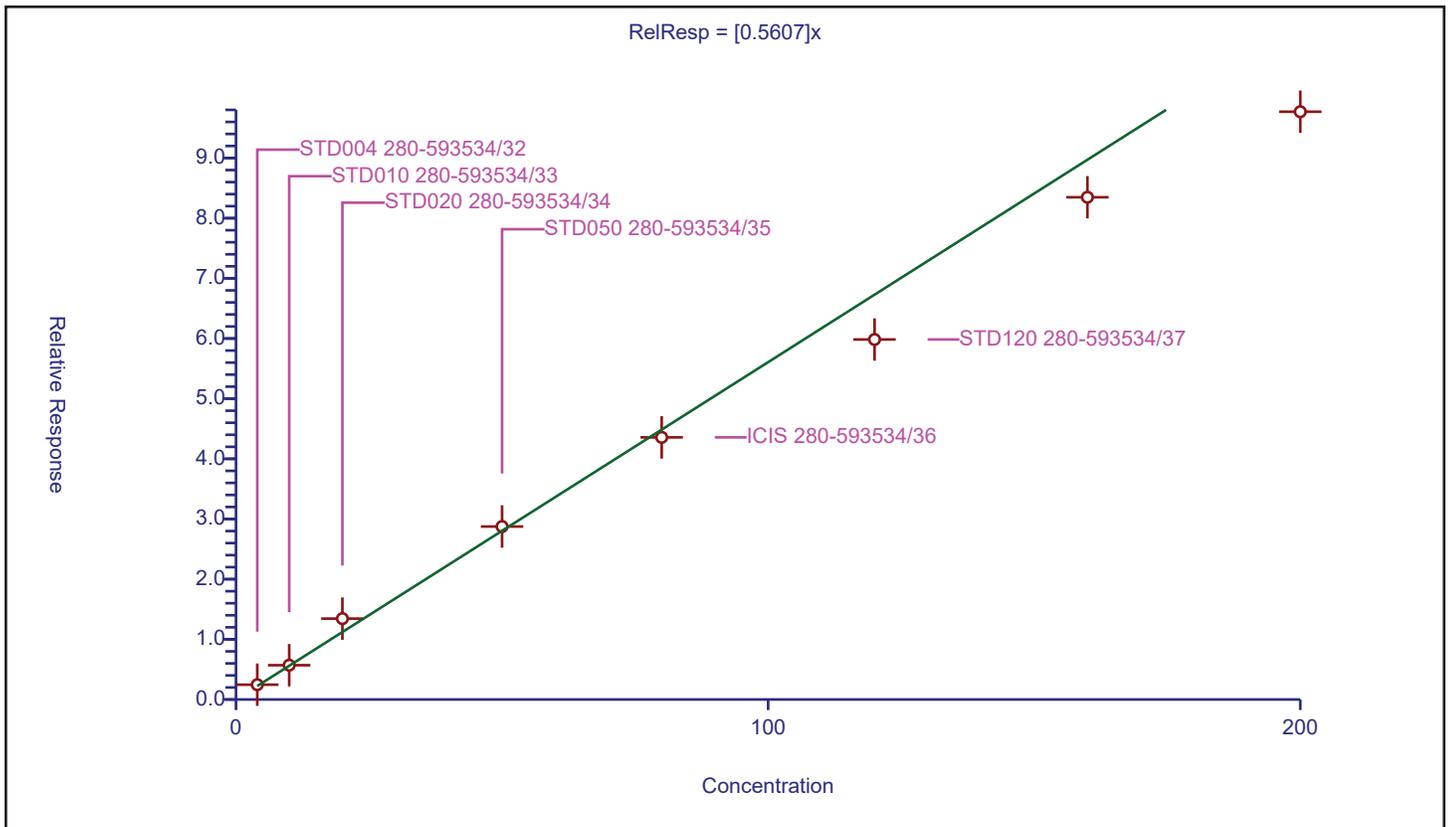
/ 4-Chlorophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5607

Error Coefficients	
Standard Error:	365000
Relative Standard Error:	11.0
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.459747	40.0	218803.0	0.614937	Y
2	STD010 280-593534/33	10.0	5.700598	40.0	243799.0	0.57006	Y
3	STD020 280-593534/34	20.0	13.443604	40.0	230343.0	0.67218	Y
4	STD050 280-593534/35	50.0	28.748732	40.0	238526.0	0.574975	Y
5	ICIS 280-593534/36	80.0	43.568316	40.0	261849.0	0.544604	Y
6	STD120 280-593534/37	120.0	59.836174	40.0	271141.0	0.498635	Y
7	STD160 280-593534/38	160.0	83.478319	40.0	238069.0	0.521739	Y
8	STD200 280-593534/39	200.0	97.695975	40.0	260518.0	0.48848	Y



Calibration

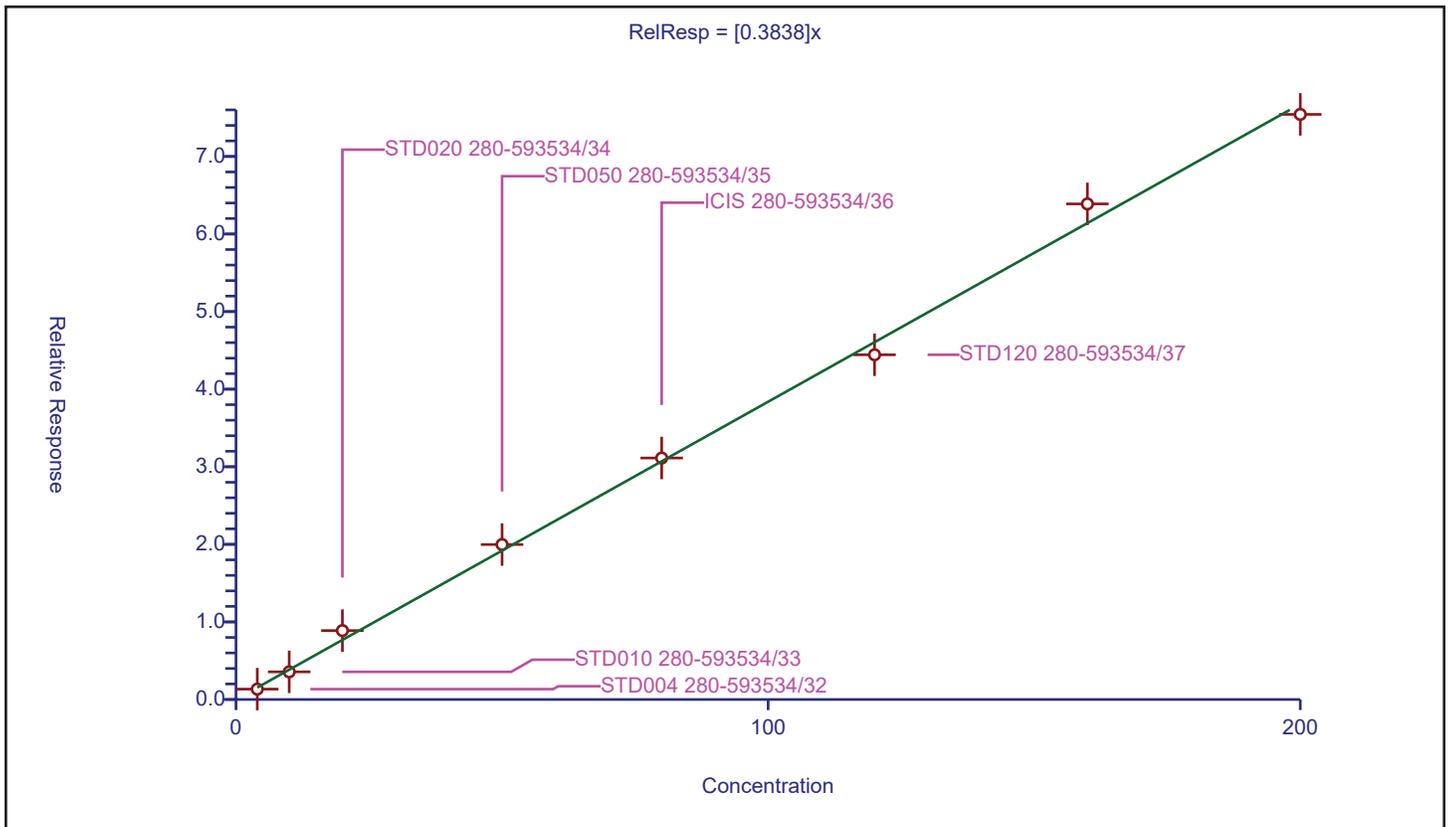
/ 4-Nitroaniline

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3838

Error Coefficients	
Standard Error:	277000
Relative Standard Error:	8.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.338556	40.0	218803.0	0.334639	Y
2	STD010 280-593534/33	10.0	3.564248	40.0	243799.0	0.356425	Y
3	STD020 280-593534/34	20.0	8.881364	40.0	230343.0	0.444068	Y
4	STD050 280-593534/35	50.0	19.975349	40.0	238526.0	0.399507	Y
5	ICIS 280-593534/36	80.0	31.127253	40.0	261849.0	0.389091	Y
6	STD120 280-593534/37	120.0	44.43356	40.0	271141.0	0.37028	Y
7	STD160 280-593534/38	160.0	63.8798	40.0	238069.0	0.399249	Y
8	STD200 280-593534/39	200.0	75.421583	40.0	260518.0	0.377108	Y



Calibration

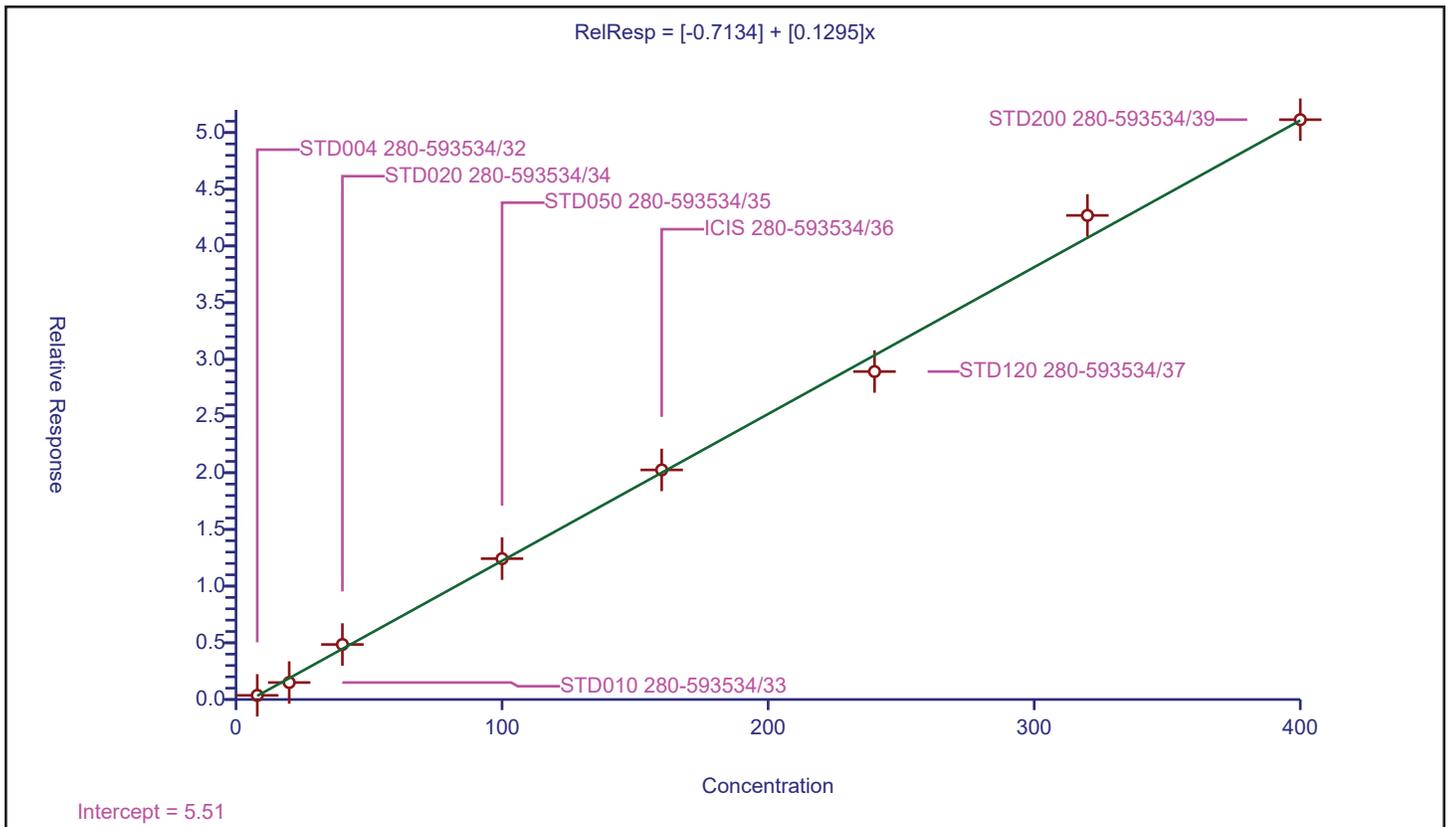
/ 4,6-Dinitro-2-methylphenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.7134
Slope:	0.1295

Error Coefficients	
Standard Error:	350000
Relative Standard Error:	7.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	0.365806	40.0	392448.0	0.045726	Y
2	STD010 280-593534/33	20.0	1.498609	40.0	424260.0	0.07493	Y
3	STD020 280-593534/34	40.0	4.852456	40.0	409030.0	0.121311	Y
4	STD050 280-593534/35	100.0	12.420686	40.0	420447.0	0.124207	Y
5	ICIS 280-593534/36	160.0	20.248025	40.0	457374.0	0.12655	Y
6	STD120 280-593534/37	240.0	28.923231	40.0	484412.0	0.120513	Y
7	STD160 280-593534/38	320.0	42.694425	40.0	420201.0	0.13342	Y
8	STD200 280-593534/39	400.0	51.136624	40.0	455014.0	0.127842	Y



Calibration

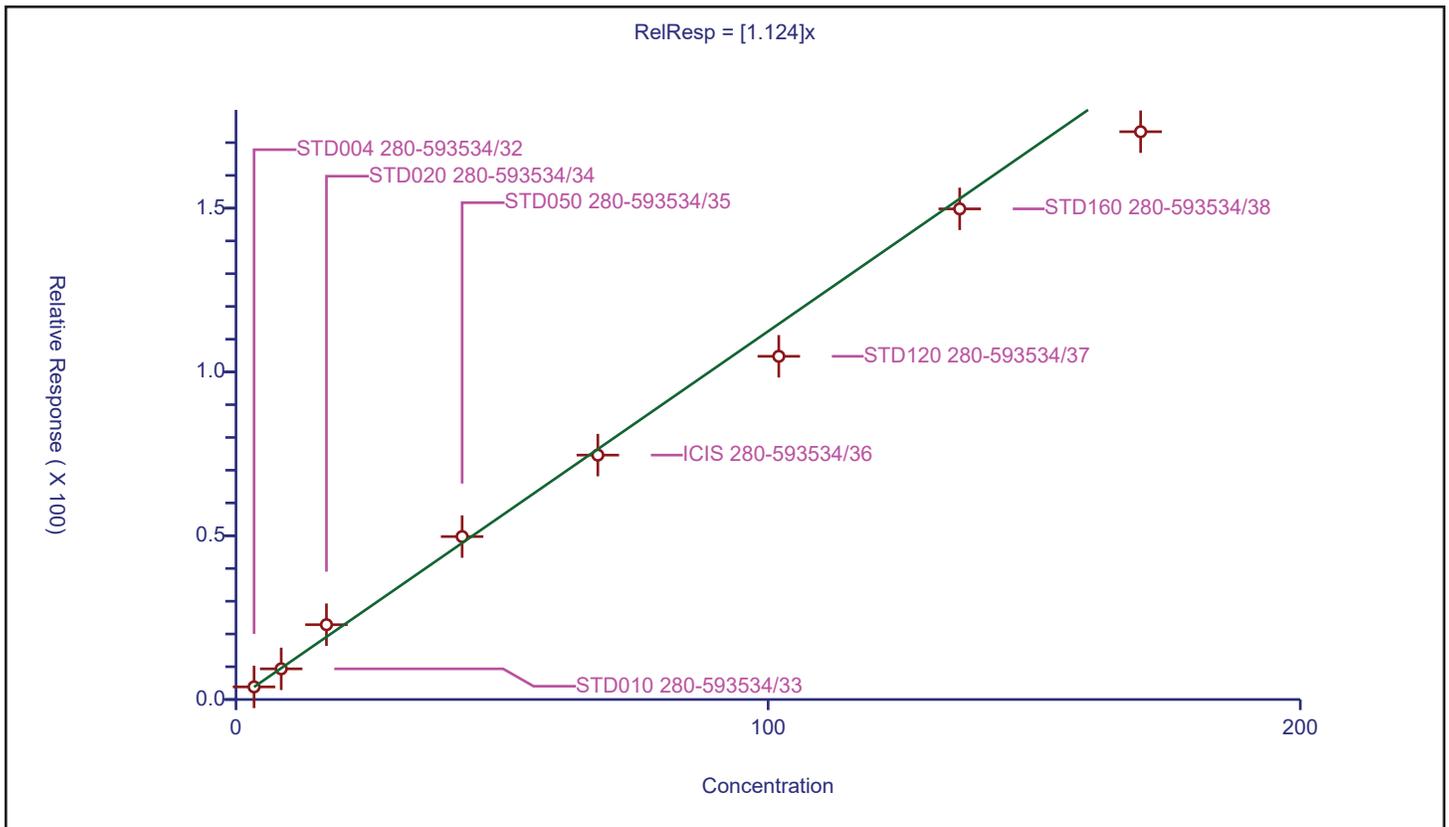
/ Diphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.124

Error Coefficients	
Standard Error:	646000
Relative Standard Error:	9.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	3.4	3.850953	40.0	218803.0	1.132633	Y
2	STD010 280-593534/33	8.5	9.361482	40.0	243799.0	1.101351	Y
3	STD020 280-593534/34	17.0	22.841241	40.0	230343.0	1.343602	Y
4	STD050 280-593534/35	42.5	49.738309	40.0	238526.0	1.170313	Y
5	ICIS 280-593534/36	68.0	74.612926	40.0	261849.0	1.097249	Y
6	STD120 280-593534/37	102.0	104.772498	40.0	271141.0	1.027181	Y
7	STD160 280-593534/38	136.0	149.778762	40.0	238069.0	1.101314	Y
8	STD200 280-593534/39	170.0	173.337581	40.0	260518.0	1.019633	Y



Calibration

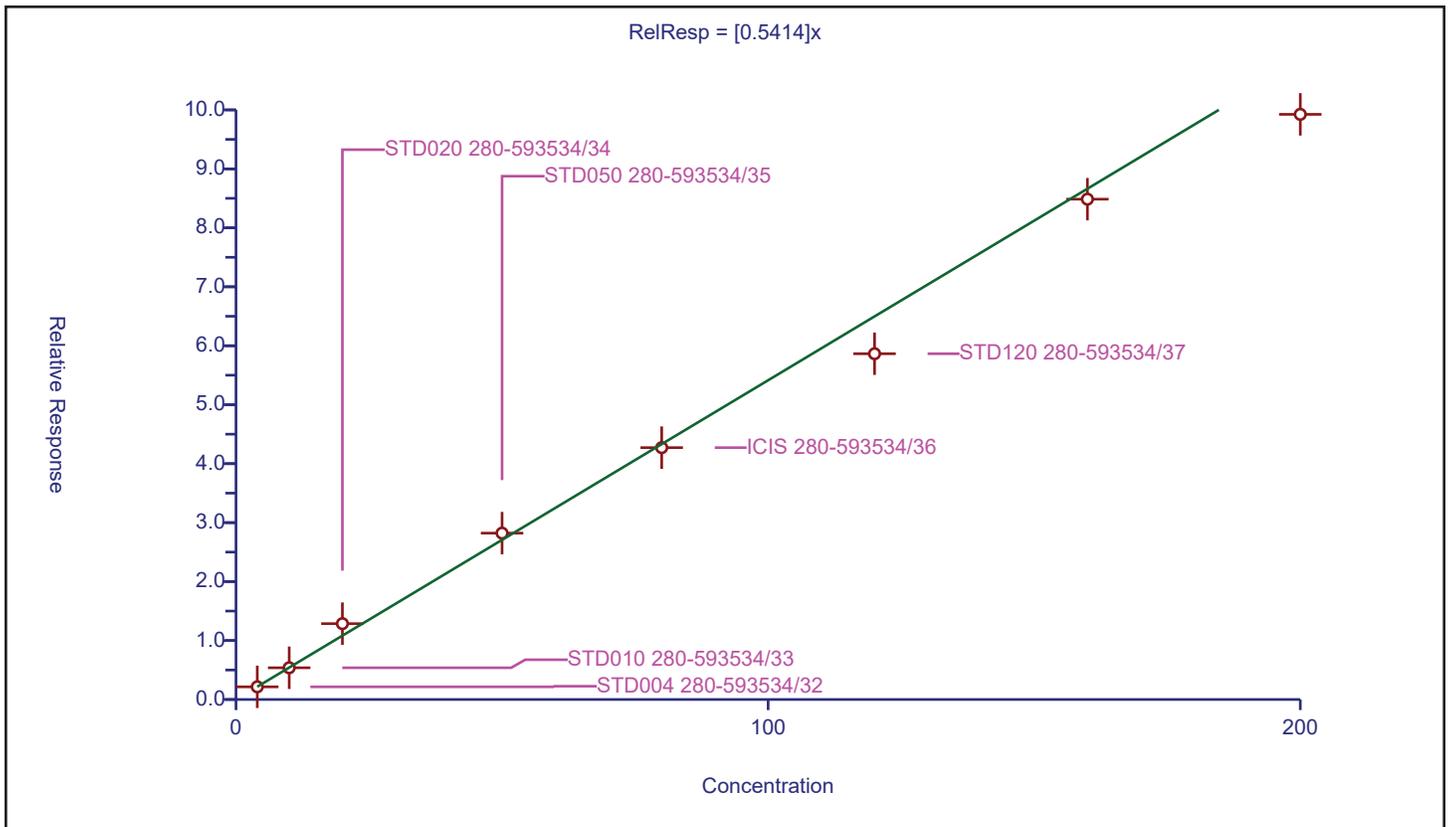
/ N-Nitrosodiphenylamine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5414

Error Coefficients	
Standard Error:	646000
Relative Standard Error:	8.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.147036	40.0	392448.0	0.536759	Y
2	STD010 280-593534/33	10.0	5.379531	40.0	424260.0	0.537953	Y
3	STD020 280-593534/34	20.0	12.86292	40.0	409030.0	0.643146	Y
4	STD050 280-593534/35	50.0	28.217302	40.0	420447.0	0.564346	Y
5	ICIS 280-593534/36	80.0	42.716289	40.0	457374.0	0.533954	Y
6	STD120 280-593534/37	120.0	58.644542	40.0	484412.0	0.488705	Y
7	STD160 280-593534/38	160.0	84.858627	40.0	420201.0	0.530366	Y
8	STD200 280-593534/39	200.0	99.244331	40.0	455014.0	0.496222	Y



Calibration

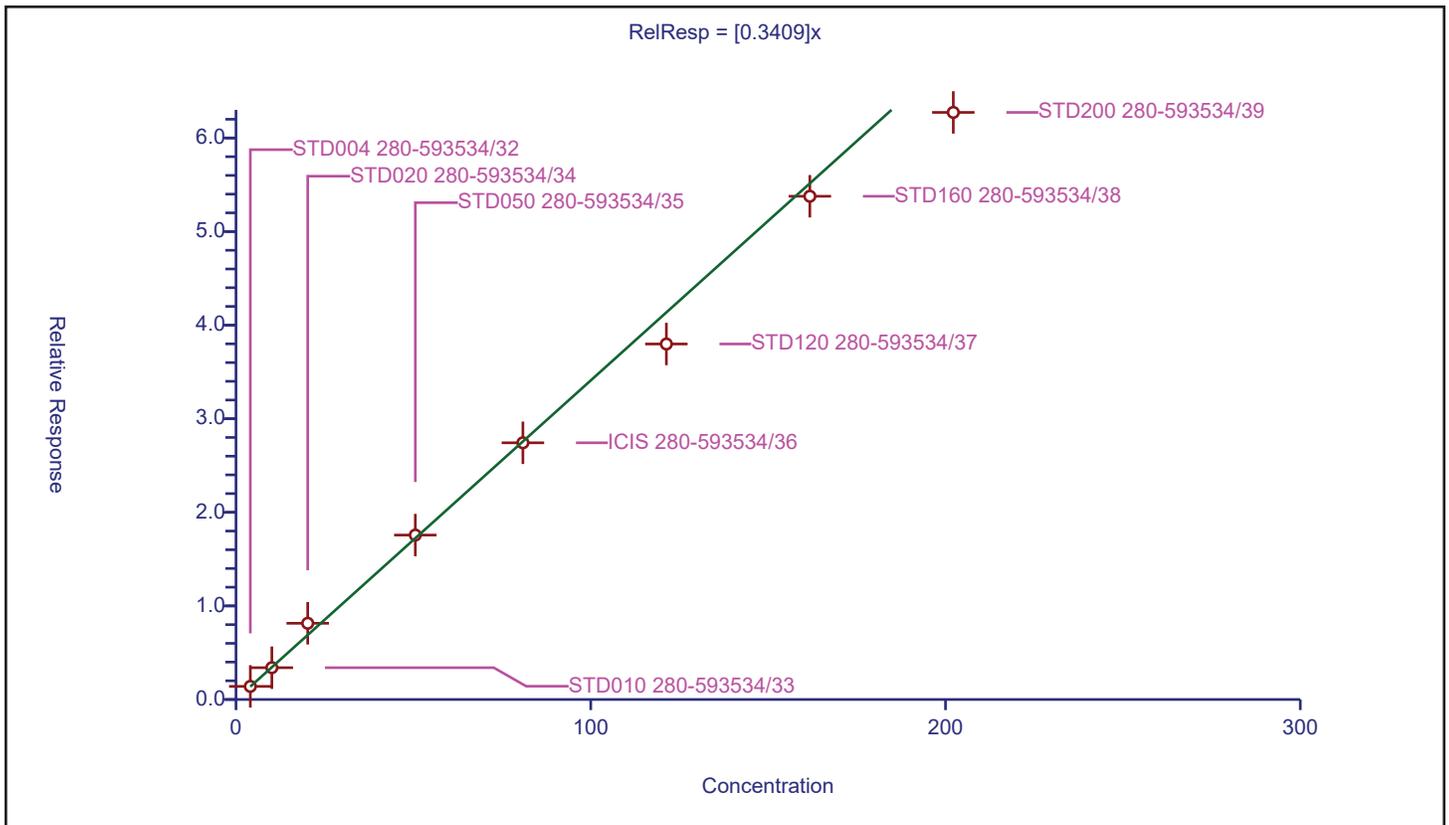
/ 1,2-Diphenylhydrazine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3409

Error Coefficients	
Standard Error:	233000
Relative Standard Error:	8.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.043898	1.399615	40.0	218803.0	0.346105	Y
2	STD010 280-593534/33	10.109745	3.397553	40.0	243799.0	0.336067	Y
3	STD020 280-593534/34	20.219491	8.143508	40.0	230343.0	0.402755	Y
4	STD050 280-593534/35	50.548727	17.570412	40.0	238526.0	0.347594	Y
5	ICIS 280-593534/36	80.877963	27.429702	40.0	261849.0	0.339149	Y
6	STD120 280-593534/37	121.316945	37.98614	40.0	271141.0	0.313115	Y
7	STD160 280-593534/38	161.755926	53.771974	40.0	238069.0	0.332427	Y
8	STD200 280-593534/39	202.194908	62.73056	40.0	260518.0	0.310248	Y



Calibration

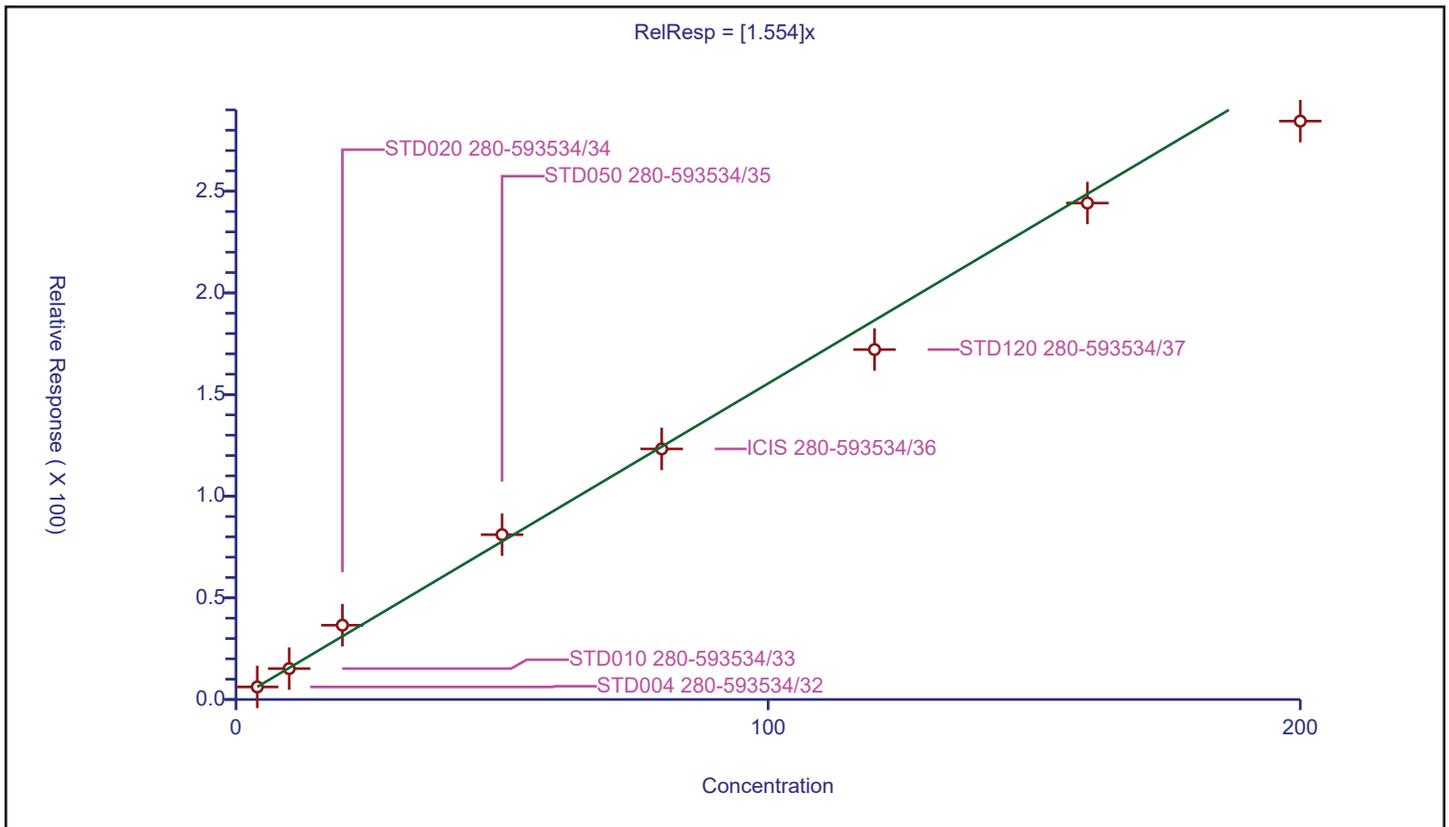
/ Azobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.554

Error Coefficients	
Standard Error:	1060000
Relative Standard Error:	8.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	6.172676	40.0	218803.0	1.543169	Y
2	STD010 280-593534/33	10.0	15.197765	40.0	243799.0	1.519777	Y
3	STD020 280-593534/34	20.0	36.536296	40.0	230343.0	1.826815	Y
4	STD050 280-593534/35	50.0	81.077283	40.0	238526.0	1.621546	Y
5	ICIS 280-593534/36	80.0	123.243396	40.0	261849.0	1.540542	Y
6	STD120 280-593534/37	120.0	172.121664	40.0	271141.0	1.434347	Y
7	STD160 280-593534/38	160.0	244.186181	40.0	238069.0	1.526164	Y
8	STD200 280-593534/39	200.0	284.479998	40.0	260518.0	1.4224	Y



Calibration

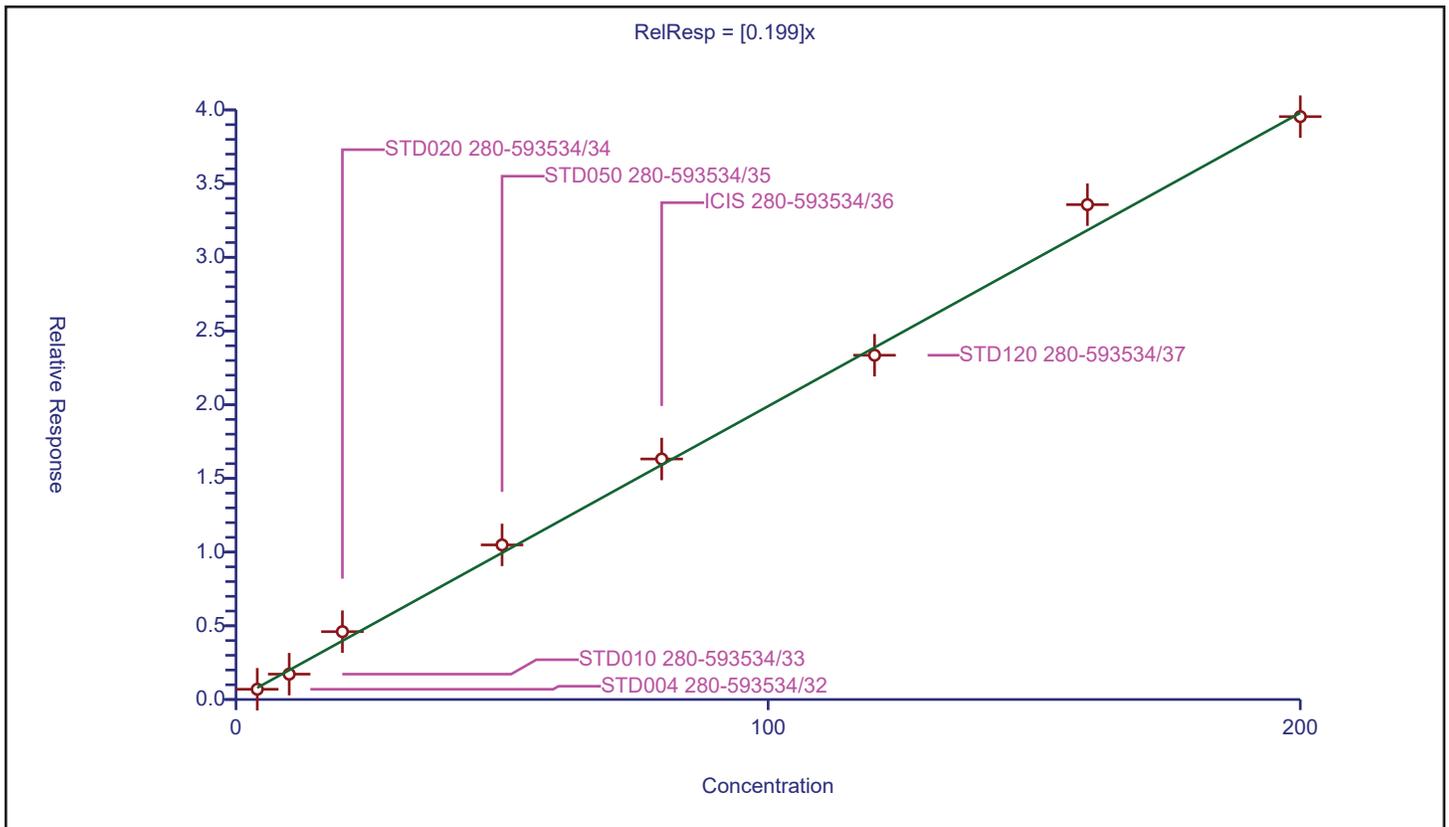
/ 2,4,6-Tribromophenol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.199

Error Coefficients	
Standard Error:	145000
Relative Standard Error:	9.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.694872	40.0	218803.0	0.173718	Y
2	STD010 280-593534/33	10.0	1.720598	40.0	243799.0	0.17206	Y
3	STD020 280-593534/34	20.0	4.603222	40.0	230343.0	0.230161	Y
4	STD050 280-593534/35	50.0	10.488249	40.0	238526.0	0.209765	Y
5	ICIS 280-593534/36	80.0	16.316885	40.0	261849.0	0.203961	Y
6	STD120 280-593534/37	120.0	23.357294	40.0	271141.0	0.194644	Y
7	STD160 280-593534/38	160.0	33.572956	40.0	238069.0	0.209831	Y
8	STD200 280-593534/39	200.0	39.543525	40.0	260518.0	0.197718	Y



Calibration

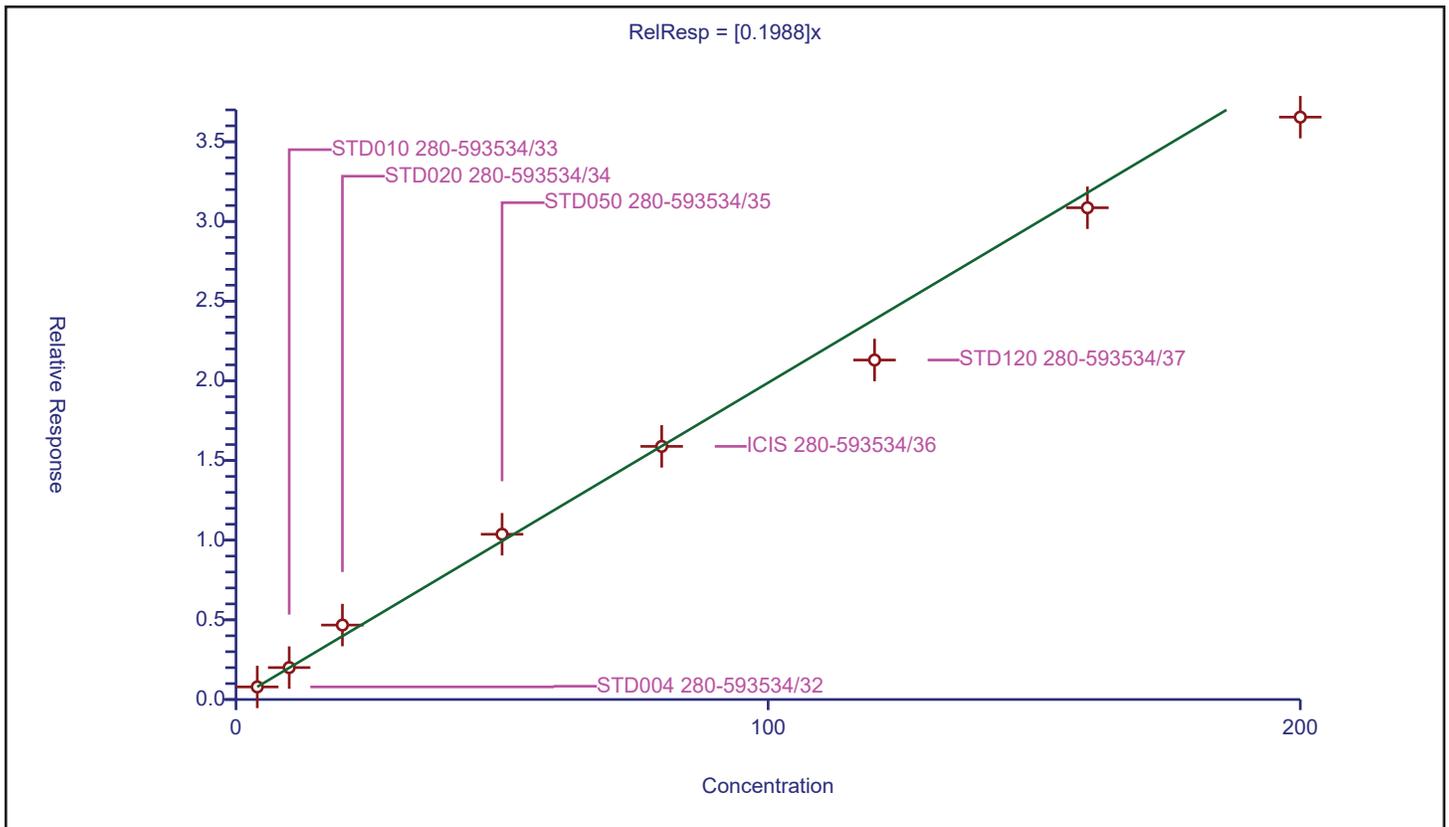
/ 4-Bromophenyl phenyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1988

Error Coefficients	
Standard Error:	237000
Relative Standard Error:	8.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.788996	40.0	392448.0	0.197249	Y
2	STD010 280-593534/33	10.0	2.003111	40.0	424260.0	0.200311	Y
3	STD020 280-593534/34	20.0	4.671931	40.0	409030.0	0.233597	Y
4	STD050 280-593534/35	50.0	10.370392	40.0	420447.0	0.207408	Y
5	ICIS 280-593534/36	80.0	15.884681	40.0	457374.0	0.198559	Y
6	STD120 280-593534/37	120.0	21.304014	40.0	484412.0	0.177533	Y
7	STD160 280-593534/38	160.0	30.858756	40.0	420201.0	0.192867	Y
8	STD200 280-593534/39	200.0	36.54604	40.0	455014.0	0.18273	Y



Calibration

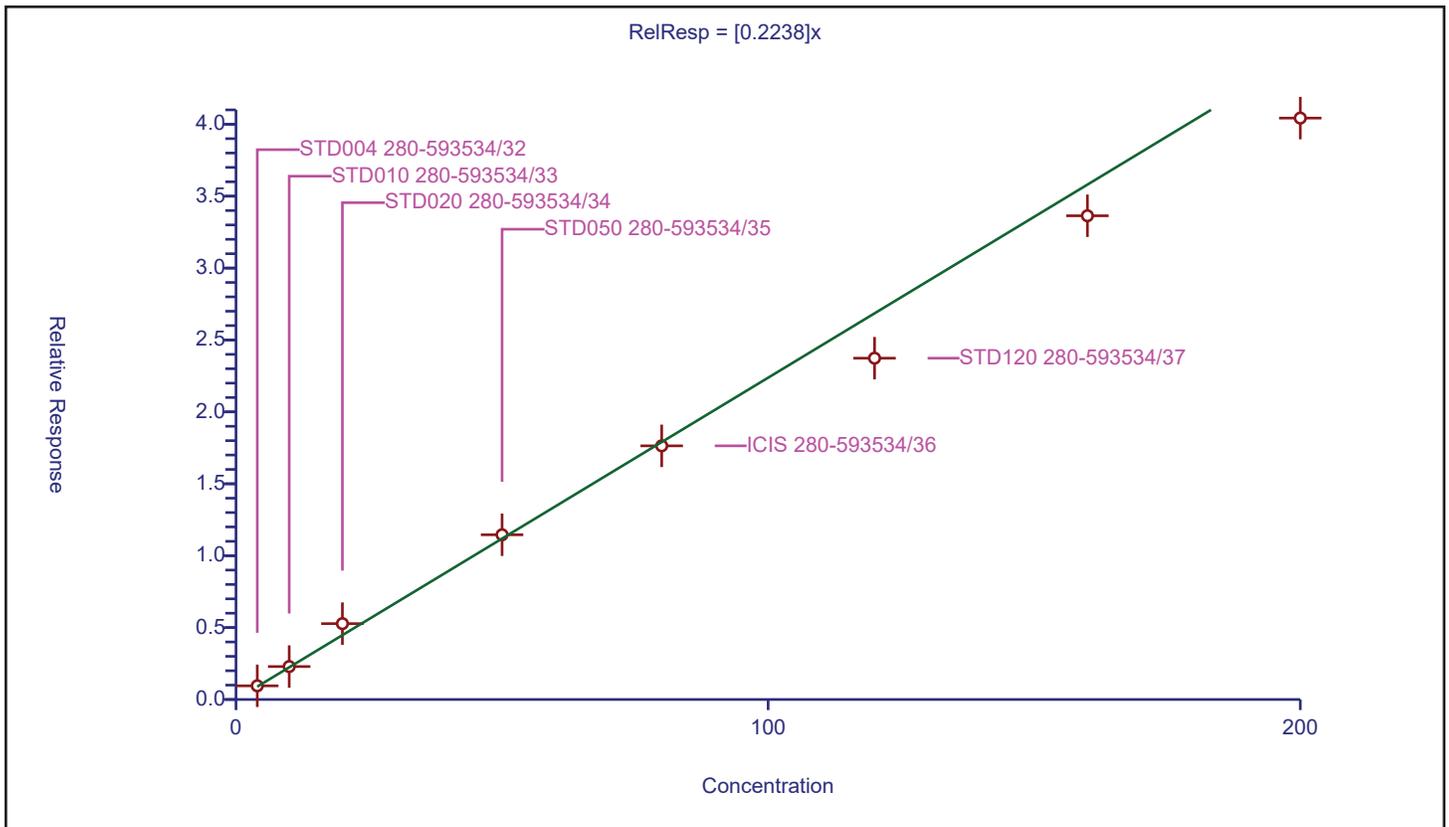
/ Hexachlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2238

Error Coefficients	
Standard Error:	261000
Relative Standard Error:	9.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.950444	40.0	392448.0	0.237611	Y
2	STD010 280-593534/33	10.0	2.290199	40.0	424260.0	0.22902	Y
3	STD020 280-593534/34	20.0	5.27531	40.0	409030.0	0.263765	Y
4	STD050 280-593534/35	50.0	11.455142	40.0	420447.0	0.229103	Y
5	ICIS 280-593534/36	80.0	17.637994	40.0	457374.0	0.220475	Y
6	STD120 280-593534/37	120.0	23.734424	40.0	484412.0	0.197787	Y
7	STD160 280-593534/38	160.0	33.638378	40.0	420201.0	0.21024	Y
8	STD200 280-593534/39	200.0	40.430492	40.0	455014.0	0.202152	Y



Calibration

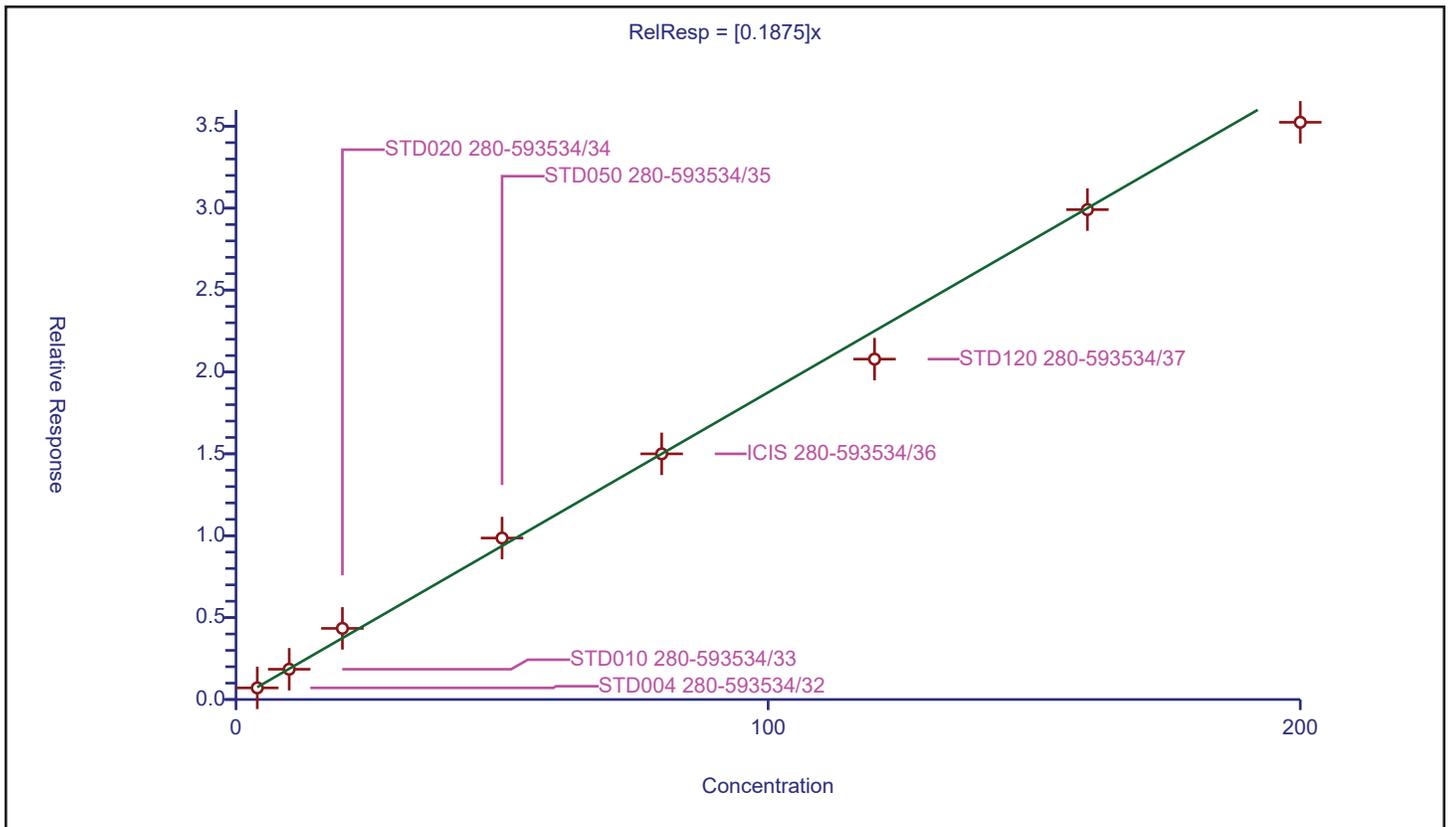
/ Atrazine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1875

Error Coefficients	
Standard Error:	228000
Relative Standard Error:	7.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.708374	40.0	392448.0	0.177094	Y
2	STD010 280-593534/33	10.0	1.848112	40.0	424260.0	0.184811	Y
3	STD020 280-593534/34	20.0	4.342273	40.0	409030.0	0.217114	Y
4	STD050 280-593534/35	50.0	9.858746	40.0	420447.0	0.197175	Y
5	ICIS 280-593534/36	80.0	14.998054	40.0	457374.0	0.187476	Y
6	STD120 280-593534/37	120.0	20.78264	40.0	484412.0	0.173189	Y
7	STD160 280-593534/38	160.0	29.910448	40.0	420201.0	0.18694	Y
8	STD200 280-593534/39	200.0	35.244278	40.0	455014.0	0.176221	Y



Calibration

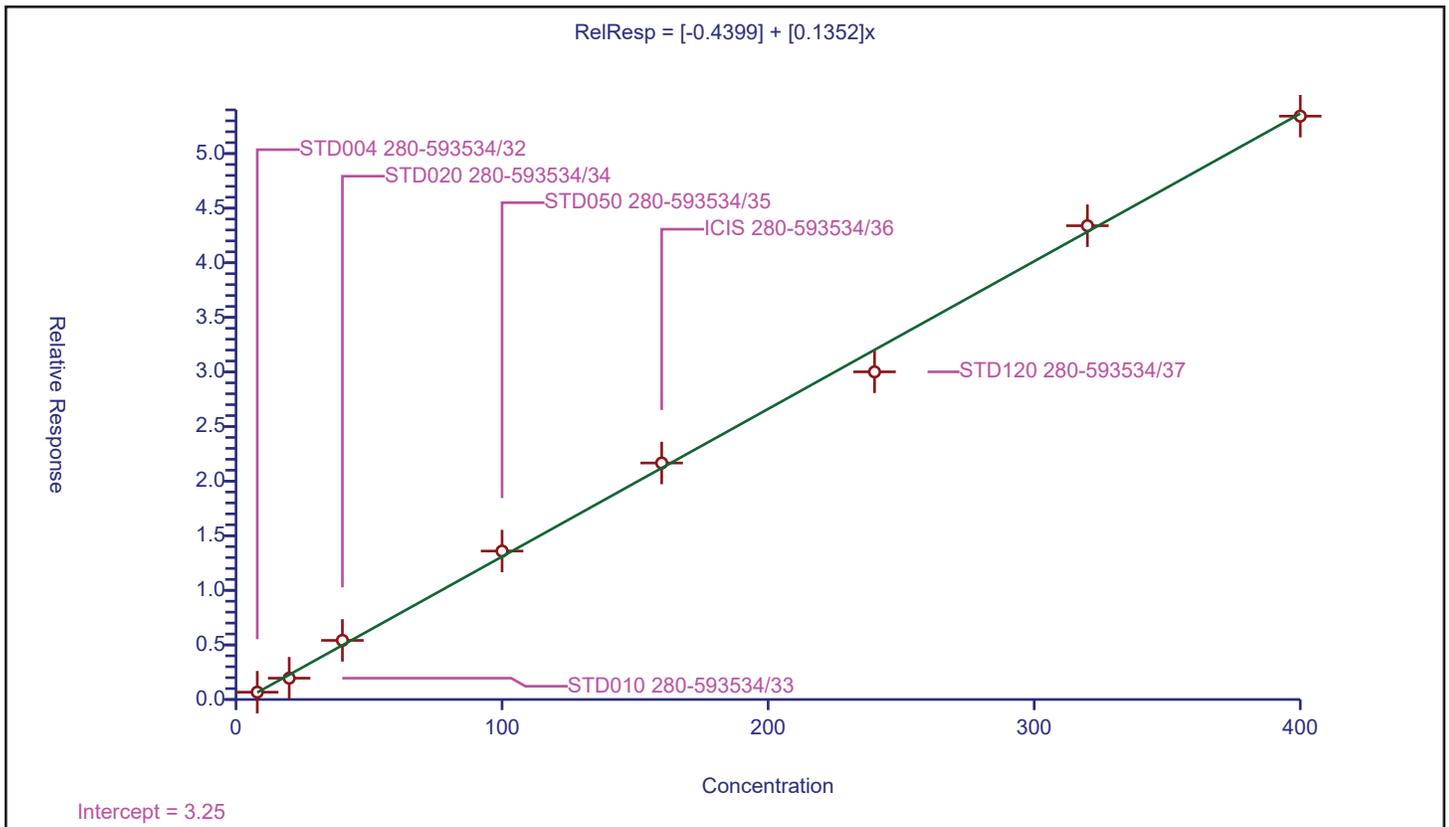
/ Pentachlorophenol

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.4399
Slope:	0.1352

Error Coefficients	
Standard Error:	364000
Relative Standard Error:	6.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	8.0	0.671579	40.0	392448.0	0.083947	Y
2	STD010 280-593534/33	20.0	1.954085	40.0	424260.0	0.097704	Y
3	STD020 280-593534/34	40.0	5.414762	40.0	409030.0	0.135369	Y
4	STD050 280-593534/35	100.0	13.59496	40.0	420447.0	0.13595	Y
5	ICIS 280-593534/36	160.0	21.659998	40.0	457374.0	0.135375	Y
6	STD120 280-593534/37	240.0	30.009331	40.0	484412.0	0.125039	Y
7	STD160 280-593534/38	320.0	43.391234	40.0	420201.0	0.135598	Y
8	STD200 280-593534/39	400.0	53.427015	40.0	455014.0	0.133568	Y



Calibration

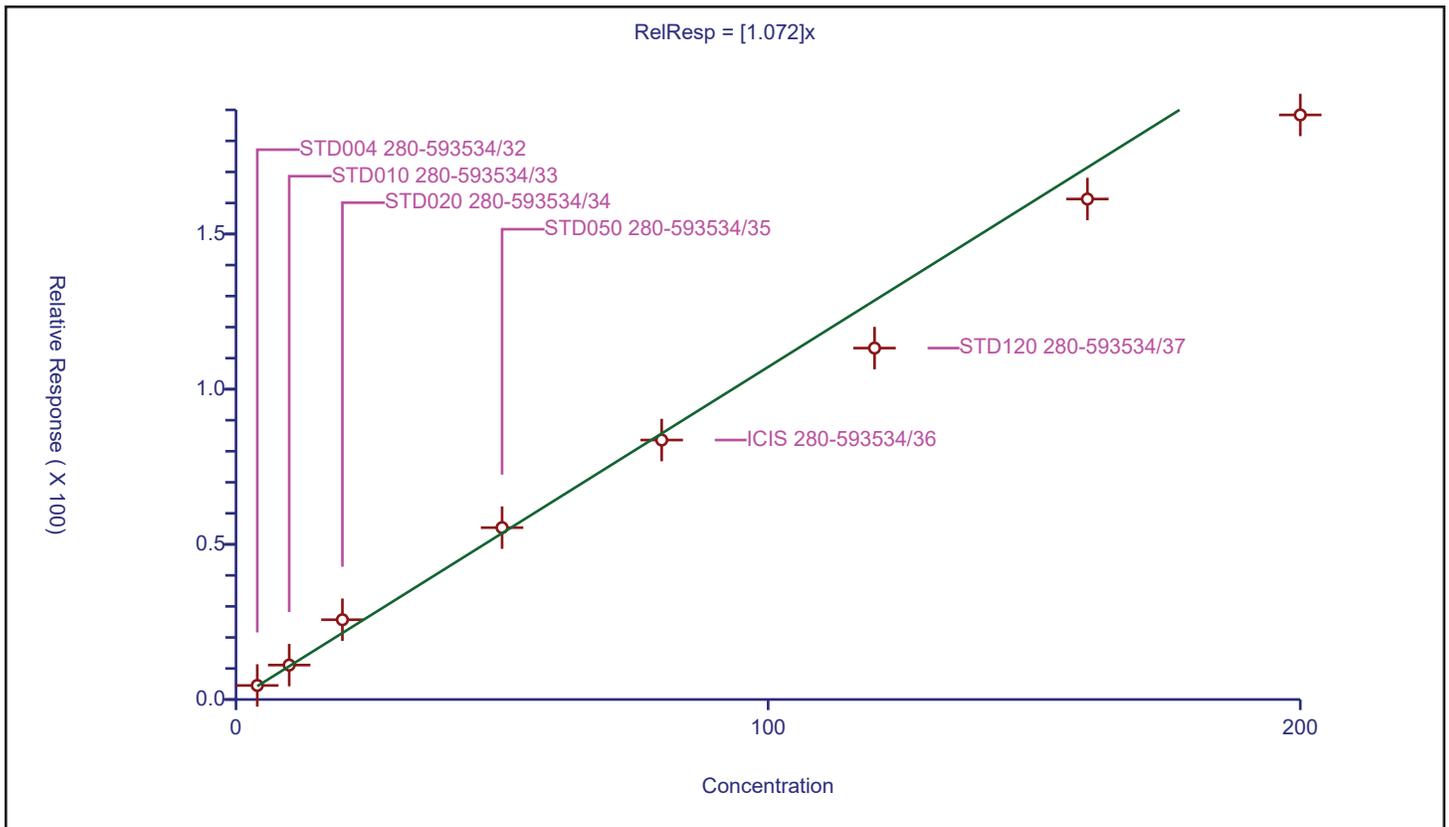
/ Phenanthrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.072

Error Coefficients	
Standard Error:	1240000
Relative Standard Error:	10.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.525236	40.0	392448.0	1.131309	Y
2	STD010 280-593534/33	10.0	11.096686	40.0	424260.0	1.109669	Y
3	STD020 280-593534/34	20.0	25.702271	40.0	409030.0	1.285114	Y
4	STD050 280-593534/35	50.0	55.384674	40.0	420447.0	1.107693	Y
5	ICIS 280-593534/36	80.0	83.615509	40.0	457374.0	1.045194	Y
6	STD120 280-593534/37	120.0	113.242859	40.0	484412.0	0.94369	Y
7	STD160 280-593534/38	160.0	161.281577	40.0	420201.0	1.00801	Y
8	STD200 280-593534/39	200.0	188.378467	40.0	455014.0	0.941892	Y



Calibration

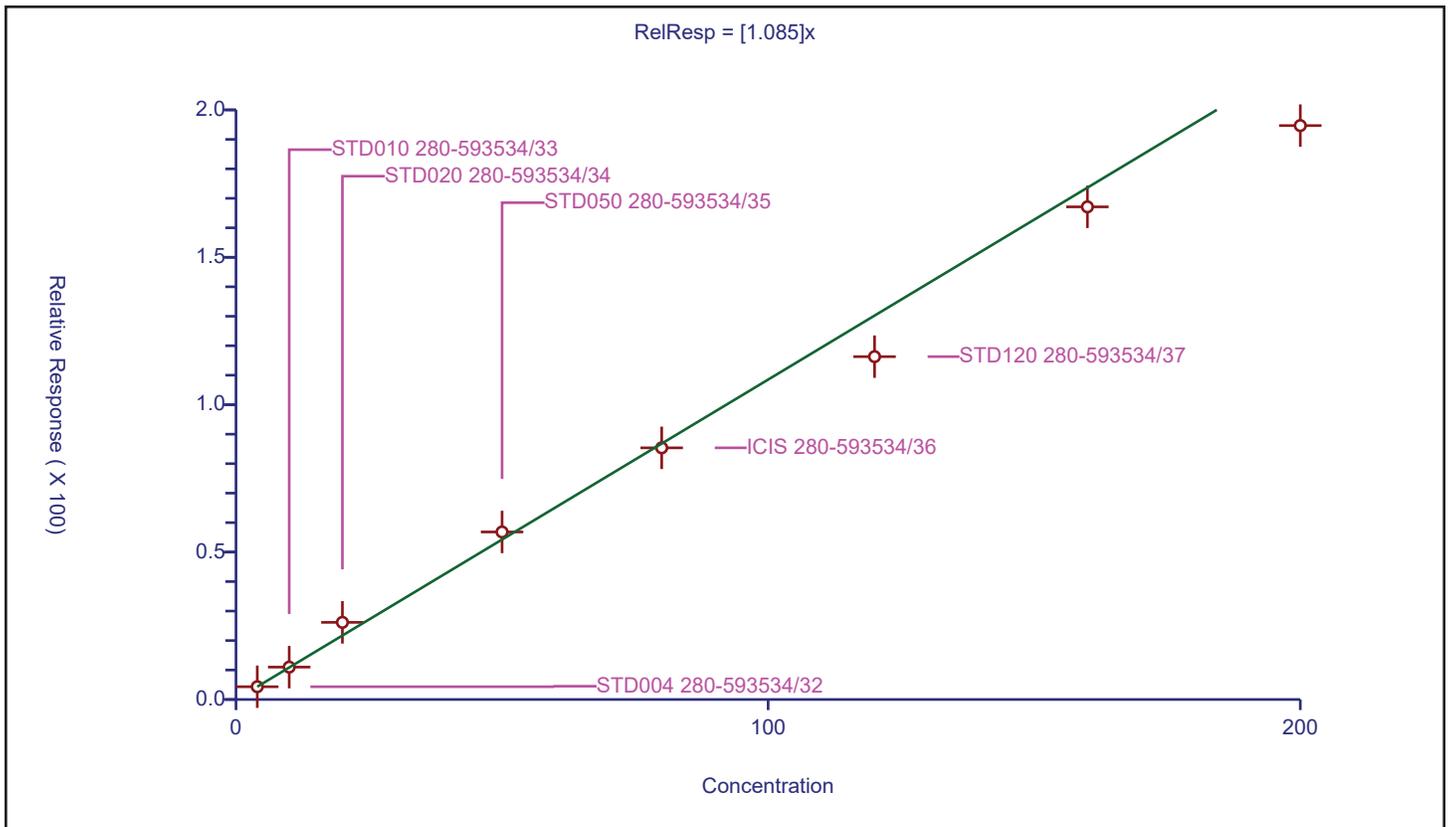
/ Anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.085

Error Coefficients	
Standard Error:	1270000
Relative Standard Error:	9.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.334944	40.0	392448.0	1.083736	Y
2	STD010 280-593534/33	10.0	10.982794	40.0	424260.0	1.098279	Y
3	STD020 280-593534/34	20.0	26.169621	40.0	409030.0	1.308481	Y
4	STD050 280-593534/35	50.0	56.831039	40.0	420447.0	1.136621	Y
5	ICIS 280-593534/36	80.0	85.3648	40.0	457374.0	1.06706	Y
6	STD120 280-593534/37	120.0	116.303725	40.0	484412.0	0.969198	Y
7	STD160 280-593534/38	160.0	167.112215	40.0	420201.0	1.044451	Y
8	STD200 280-593534/39	200.0	194.675417	40.0	455014.0	0.973377	Y



Calibration

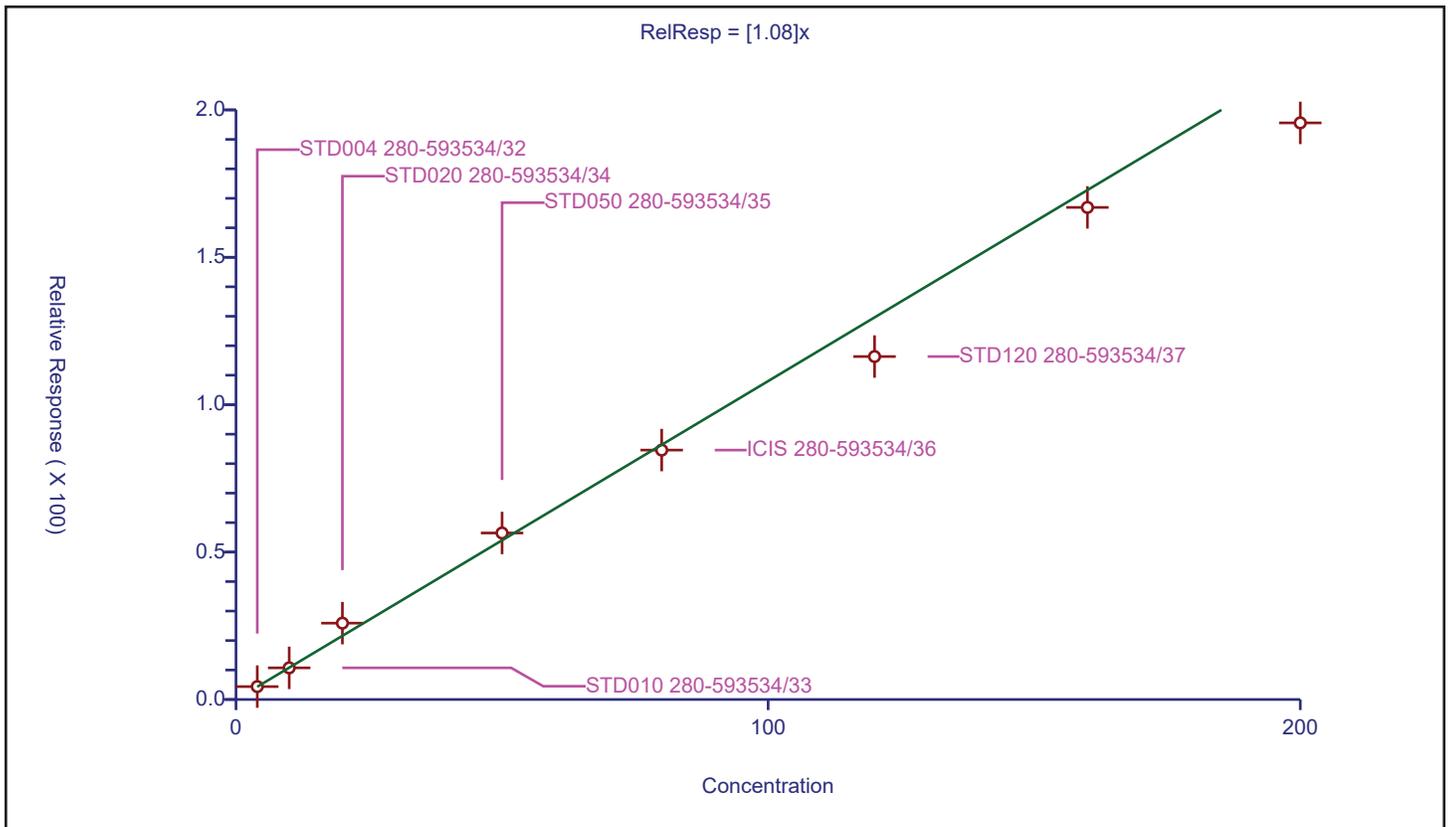
/ Carbazole

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.08

Error Coefficients	
Standard Error:	1280000
Relative Standard Error:	9.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.376325	40.0	392448.0	1.094081	Y
2	STD010 280-593534/33	10.0	10.732475	40.0	424260.0	1.073248	Y
3	STD020 280-593534/34	20.0	25.901768	40.0	409030.0	1.295088	Y
4	STD050 280-593534/35	50.0	56.476179	40.0	420447.0	1.129524	Y
5	ICIS 280-593534/36	80.0	84.601836	40.0	457374.0	1.057523	Y
6	STD120 280-593534/37	120.0	116.331883	40.0	484412.0	0.969432	Y
7	STD160 280-593534/38	160.0	166.917737	40.0	420201.0	1.043236	Y
8	STD200 280-593534/39	200.0	195.596443	40.0	455014.0	0.977982	Y



Calibration

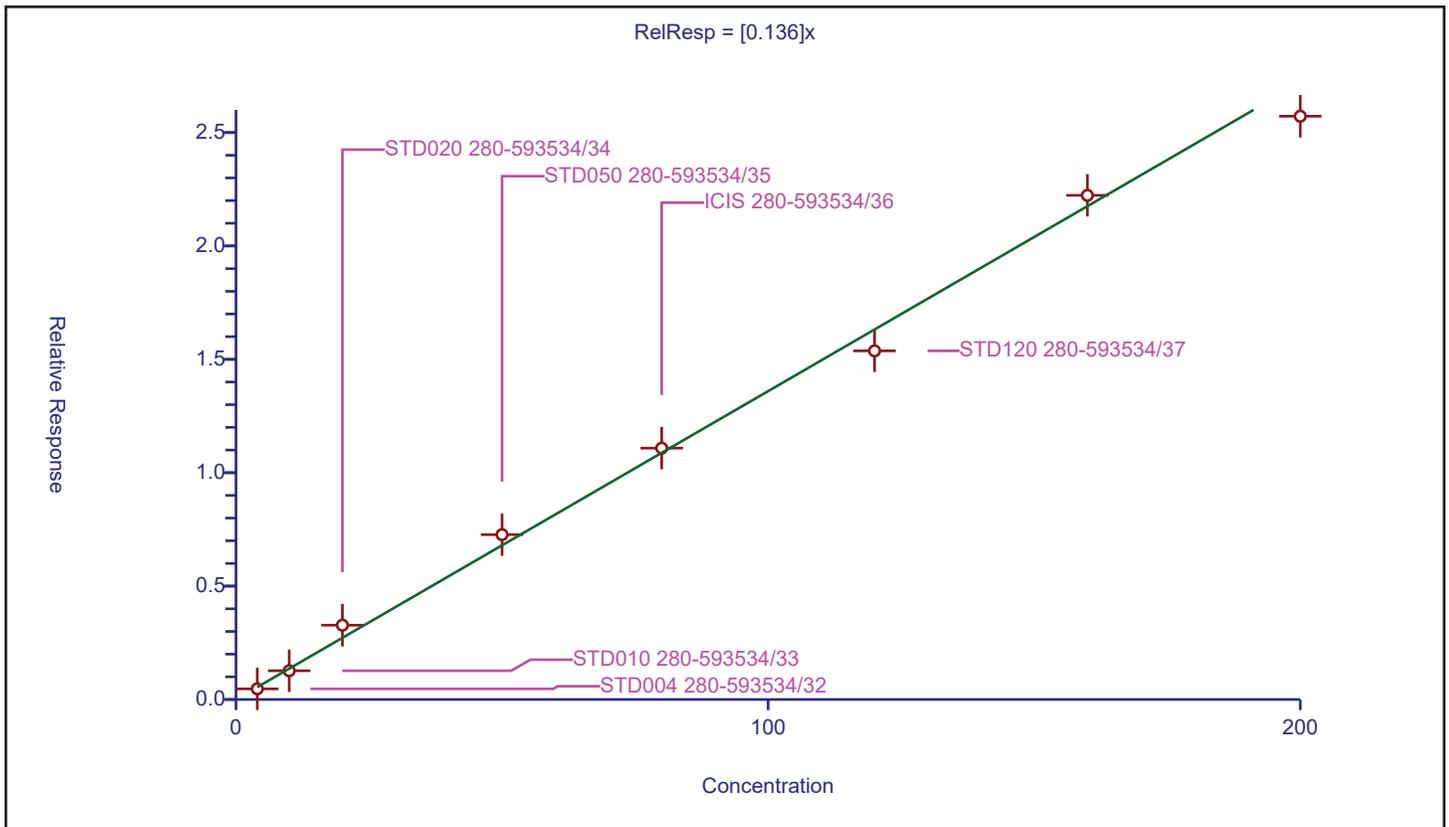
/ Alachlor

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.136

Error Coefficients	
Standard Error:	168000
Relative Standard Error:	10.5
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	0.469871	40.0	392448.0	0.117468	Y
2	STD010 280-593534/33	10.0	1.267996	40.0	424260.0	0.1268	Y
3	STD020 280-593534/34	20.0	3.277217	40.0	409030.0	0.163861	Y
4	STD050 280-593534/35	50.0	7.270262	40.0	420447.0	0.145405	Y
5	ICIS 280-593534/36	80.0	11.083883	40.0	457374.0	0.138549	Y
6	STD120 280-593534/37	120.0	15.373442	40.0	484412.0	0.128112	Y
7	STD160 280-593534/38	160.0	22.232598	40.0	420201.0	0.138954	Y
8	STD200 280-593534/39	200.0	25.720264	40.0	455014.0	0.128601	Y



Calibration

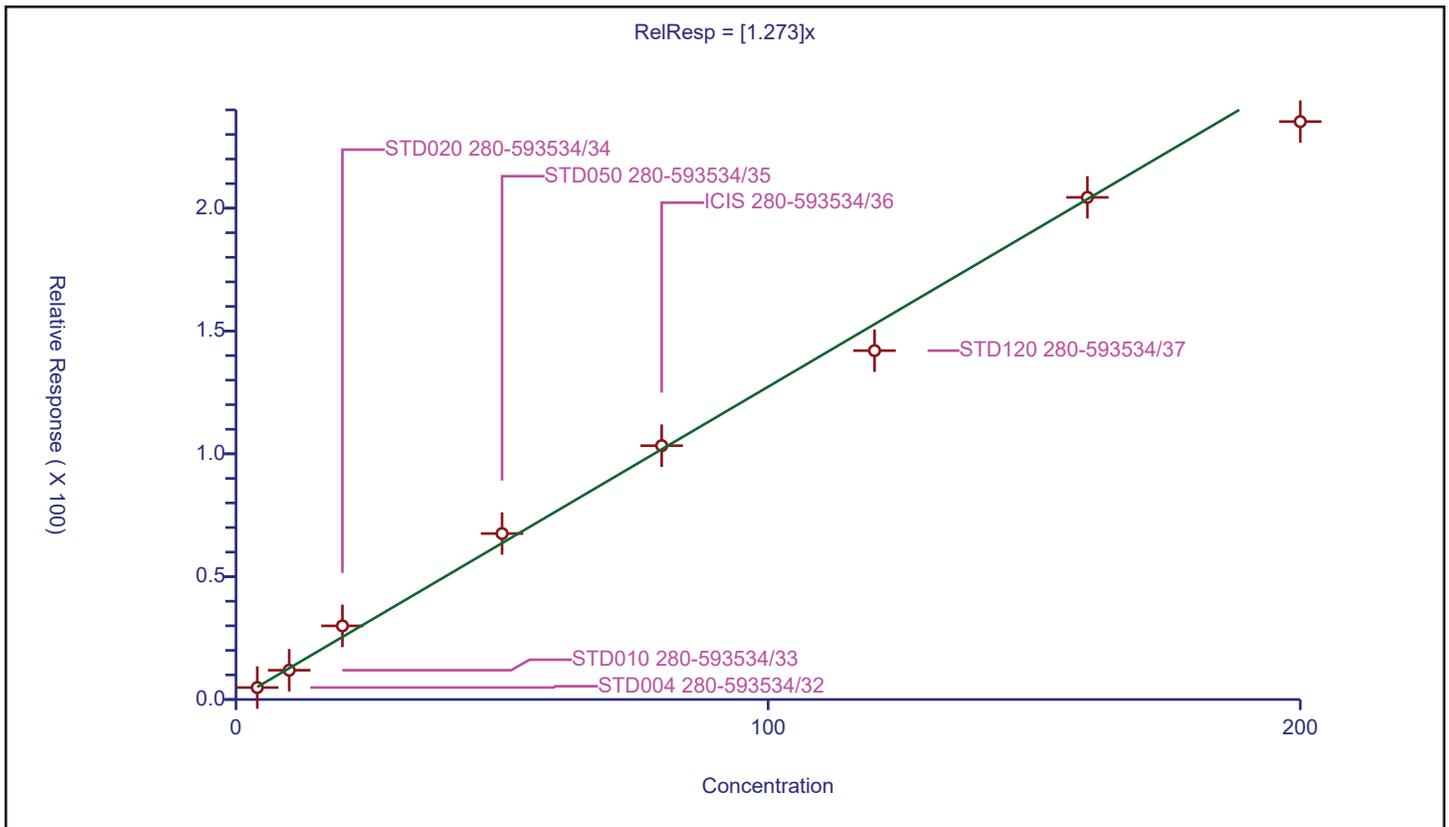
/ Di-n-butyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.273

Error Coefficients	
Standard Error:	1550000
Relative Standard Error:	8.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.858019	40.0	392448.0	1.214505	Y
2	STD010 280-593534/33	10.0	11.917126	40.0	424260.0	1.191713	Y
3	STD020 280-593534/34	20.0	29.971591	40.0	409030.0	1.49858	Y
4	STD050 280-593534/35	50.0	67.543923	40.0	420447.0	1.350878	Y
5	ICIS 280-593534/36	80.0	103.314836	40.0	457374.0	1.291435	Y
6	STD120 280-593534/37	120.0	142.012915	40.0	484412.0	1.183441	Y
7	STD160 280-593534/38	160.0	204.396467	40.0	420201.0	1.277478	Y
8	STD200 280-593534/39	200.0	235.245157	40.0	455014.0	1.176226	Y



Calibration

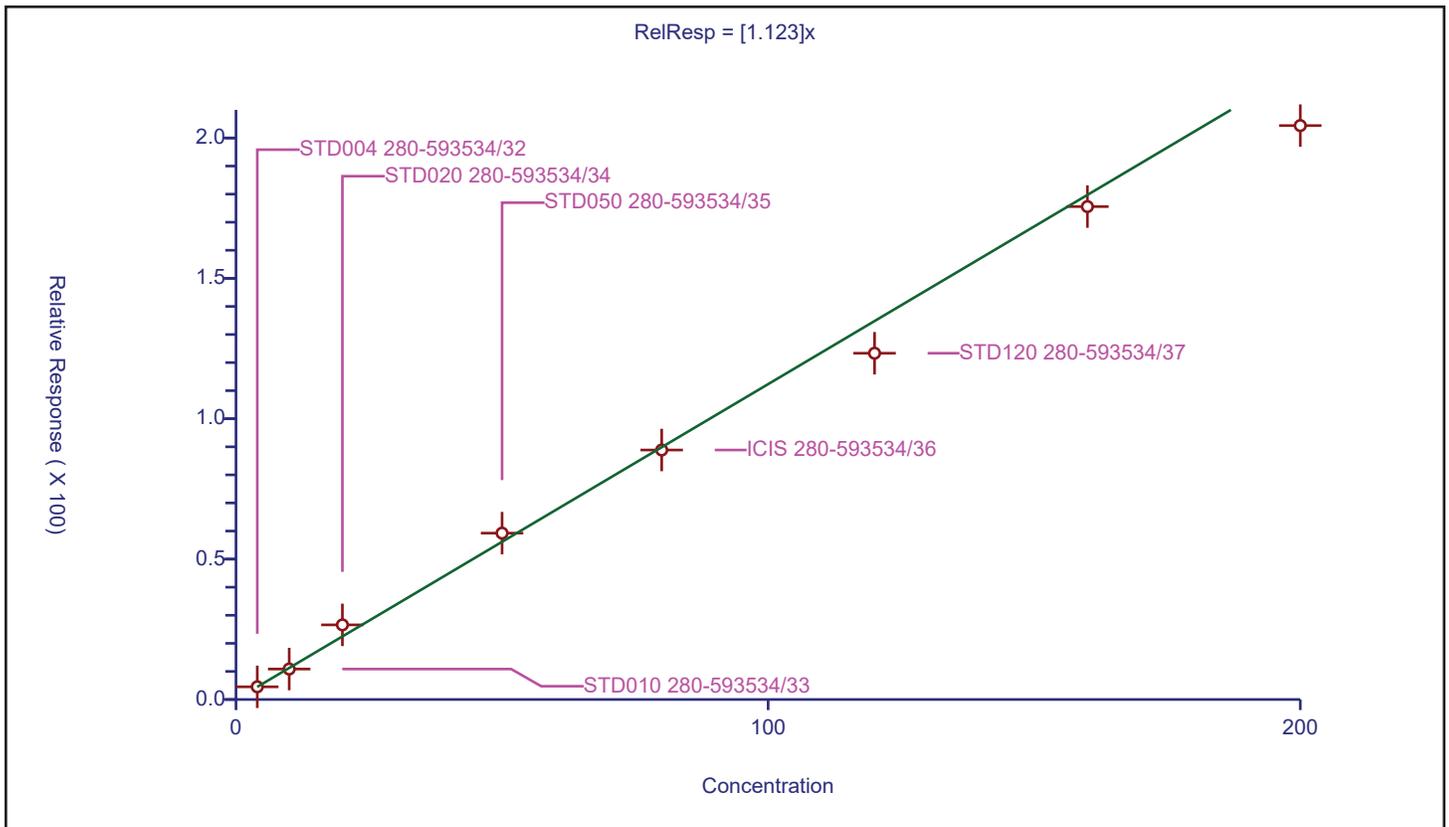
/ Fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.123

Error Coefficients	
Standard Error:	1340000
Relative Standard Error:	8.8
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.516777	40.0	392448.0	1.129194	Y
2	STD010 280-593534/33	10.0	10.848536	40.0	424260.0	1.084854	Y
3	STD020 280-593534/34	20.0	26.576241	40.0	409030.0	1.328812	Y
4	STD050 280-593534/35	50.0	59.256173	40.0	420447.0	1.185123	Y
5	ICIS 280-593534/36	80.0	88.865917	40.0	457374.0	1.110824	Y
6	STD120 280-593534/37	120.0	123.330223	40.0	484412.0	1.027752	Y
7	STD160 280-593534/38	160.0	175.55903	40.0	420201.0	1.097244	Y
8	STD200 280-593534/39	200.0	204.405579	40.0	455014.0	1.022028	Y



Calibration

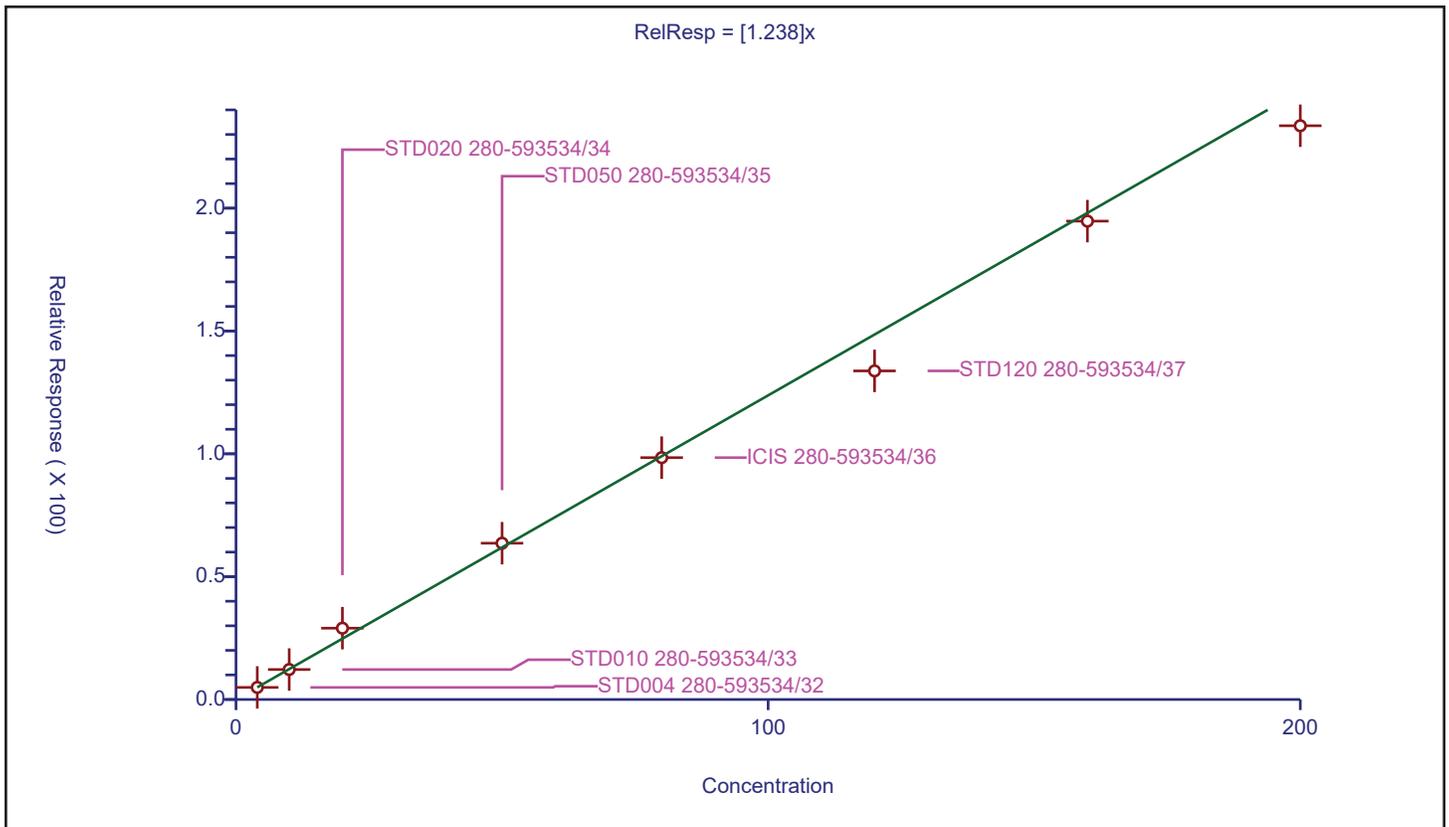
/ Pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.238

Error Coefficients	
Standard Error:	1420000
Relative Standard Error:	7.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.919543	40.0	389524.0	1.229886	Y
2	STD010 280-593534/33	10.0	12.203442	40.0	416807.0	1.220344	Y
3	STD020 280-593534/34	20.0	29.022583	40.0	408679.0	1.451129	Y
4	STD050 280-593534/35	50.0	63.617988	40.0	423086.0	1.27236	Y
5	ICIS 280-593534/36	80.0	98.444501	40.0	442649.0	1.230556	Y
6	STD120 280-593534/37	120.0	133.753575	40.0	474140.0	1.114613	Y
7	STD160 280-593534/38	160.0	194.724668	40.0	402750.0	1.217029	Y
8	STD200 280-593534/39	200.0	233.5437	40.0	423134.0	1.167719	Y



Calibration

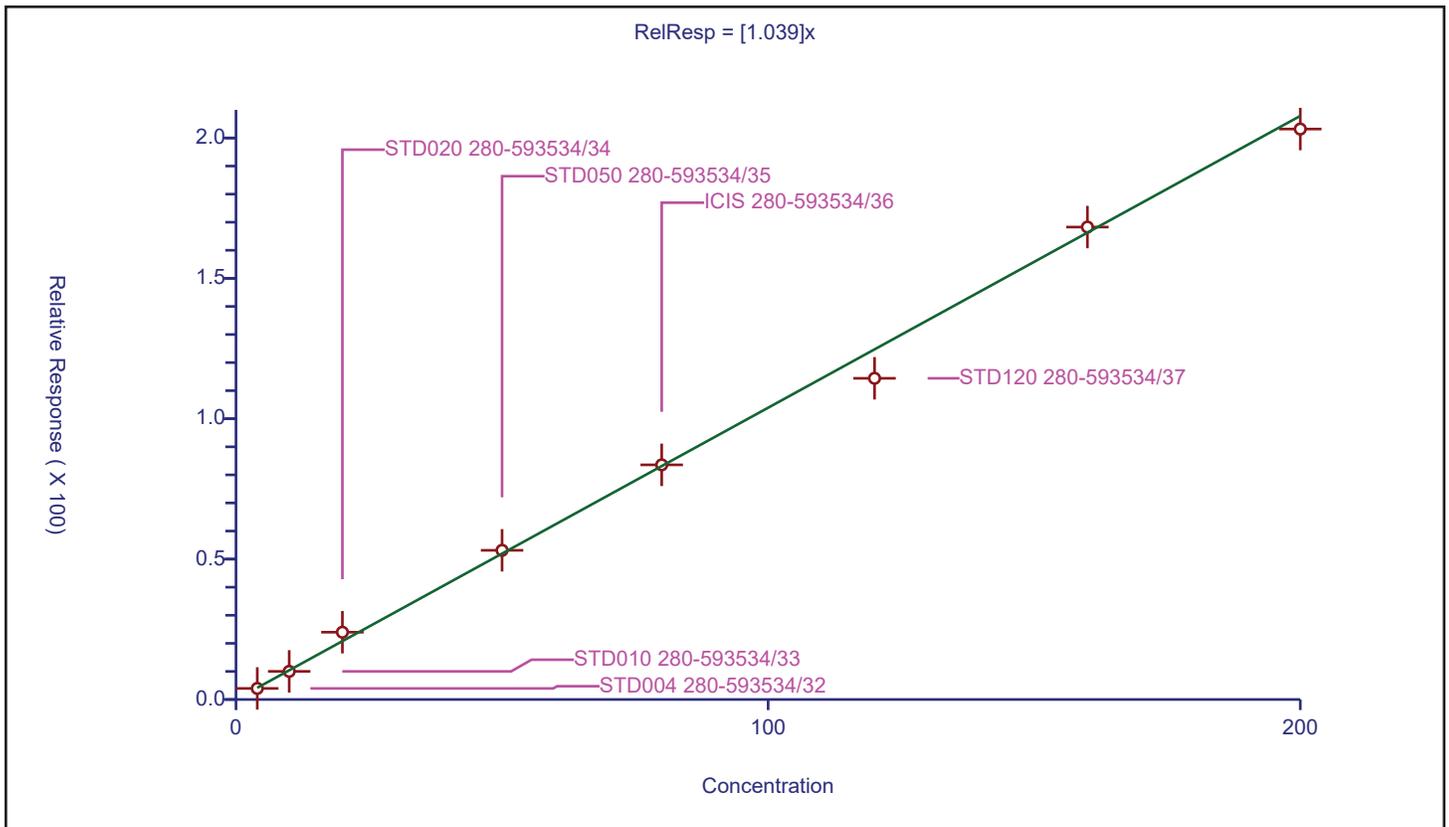
/ Terphenyl-d14

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.039

Error Coefficients	
Standard Error:	1230000
Relative Standard Error:	7.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.945225	40.0	389524.0	0.986306	Y
2	STD010 280-593534/33	10.0	10.014131	40.0	416807.0	1.001413	Y
3	STD020 280-593534/34	20.0	23.959734	40.0	408679.0	1.197987	Y
4	STD050 280-593534/35	50.0	53.132366	40.0	423086.0	1.062647	Y
5	ICIS 280-593534/36	80.0	83.572131	40.0	442649.0	1.044652	Y
6	STD120 280-593534/37	120.0	114.40081	40.0	474140.0	0.95334	Y
7	STD160 280-593534/38	160.0	168.267461	40.0	402750.0	1.051672	Y
8	STD200 280-593534/39	200.0	203.18216	40.0	423134.0	1.015911	Y



Calibration

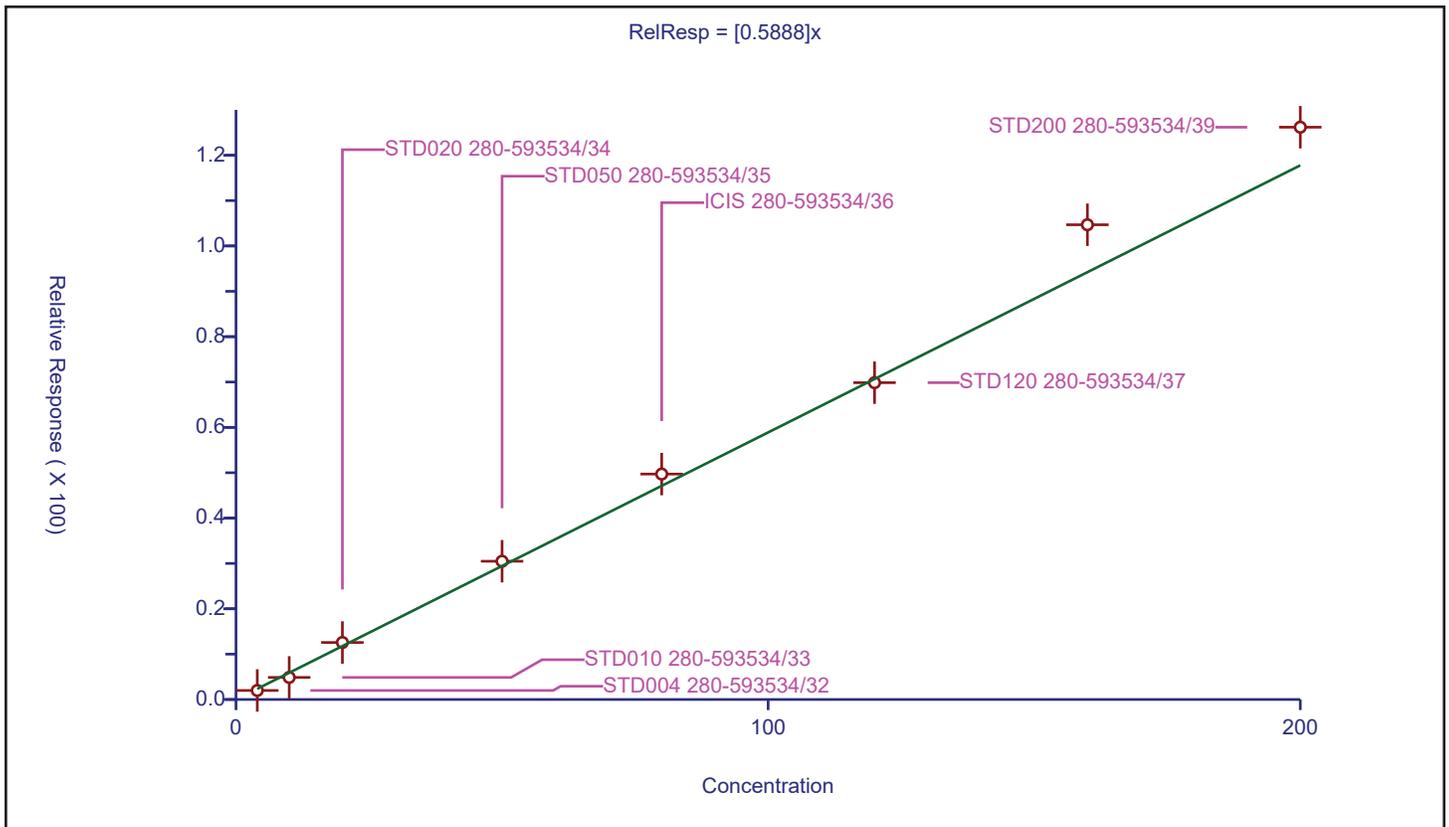
/ Butyl benzyl phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5888

Error Coefficients	
Standard Error:	756000
Relative Standard Error:	10.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.988889	40.0	389524.0	0.497222	Y
2	STD010 280-593534/33	10.0	4.866521	40.0	416807.0	0.486652	Y
3	STD020 280-593534/34	20.0	12.571823	40.0	408679.0	0.628591	Y
4	STD050 280-593534/35	50.0	30.485244	40.0	423086.0	0.609705	Y
5	ICIS 280-593534/36	80.0	49.709996	40.0	442649.0	0.621375	Y
6	STD120 280-593534/37	120.0	69.851014	40.0	474140.0	0.582092	Y
7	STD160 280-593534/38	160.0	104.676549	40.0	402750.0	0.654228	Y
8	STD200 280-593534/39	200.0	126.183384	40.0	423134.0	0.630917	Y



Calibration

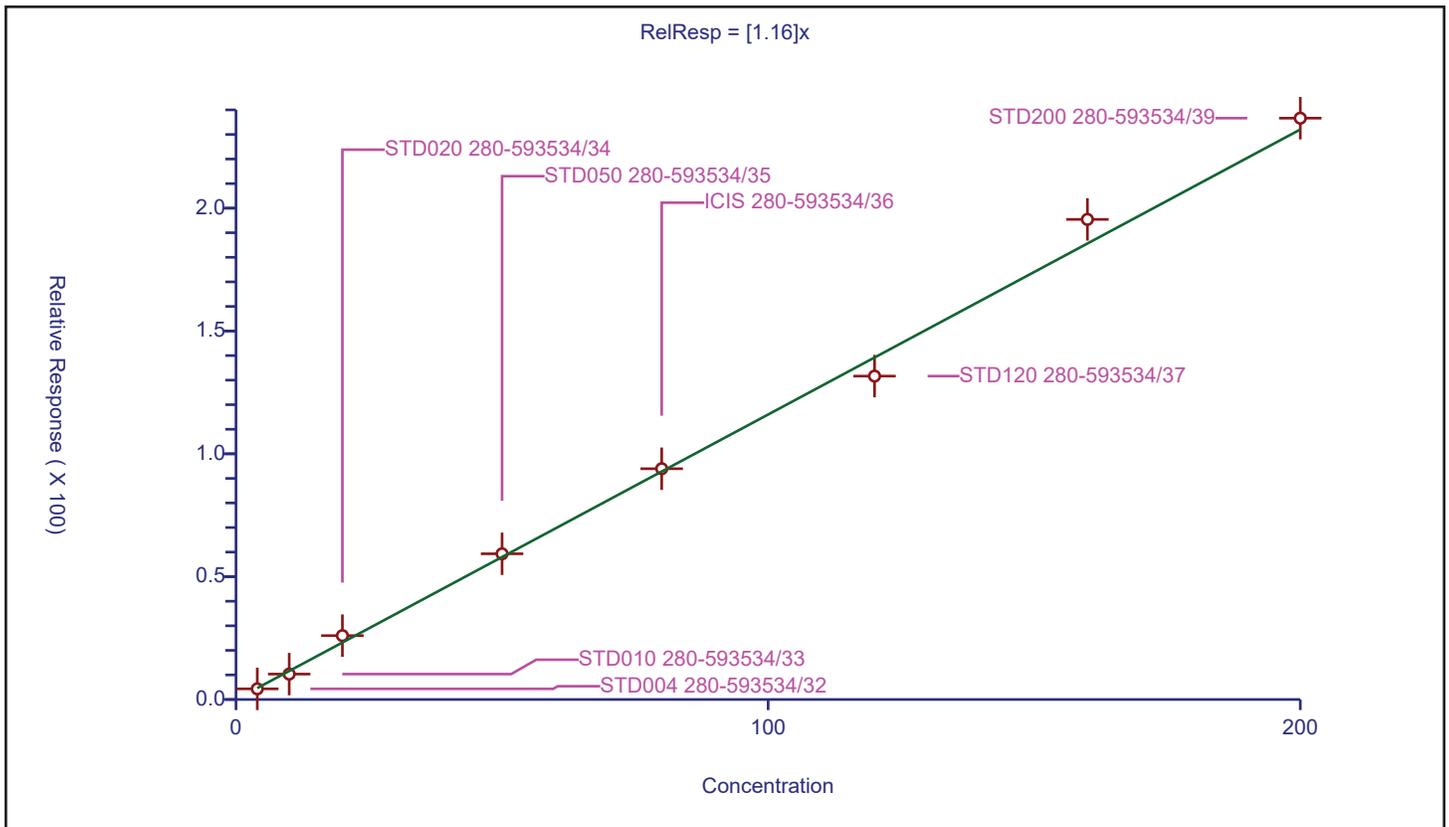
/ Benzo[a]anthracene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.16

Error Coefficients	
Standard Error:	1420000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.335548	40.0	389524.0	1.083887	Y
2	STD010 280-593534/33	10.0	10.348962	40.0	416807.0	1.034896	Y
3	STD020 280-593534/34	20.0	25.990667	40.0	408679.0	1.299533	Y
4	STD050 280-593534/35	50.0	59.308226	40.0	423086.0	1.186165	Y
5	ICIS 280-593534/36	80.0	93.941249	40.0	442649.0	1.174266	Y
6	STD120 280-593534/37	120.0	131.638588	40.0	474140.0	1.096988	Y
7	STD160 280-593534/38	160.0	195.426245	40.0	402750.0	1.221414	Y
8	STD200 280-593534/39	200.0	236.627073	40.0	423134.0	1.183135	Y



Calibration

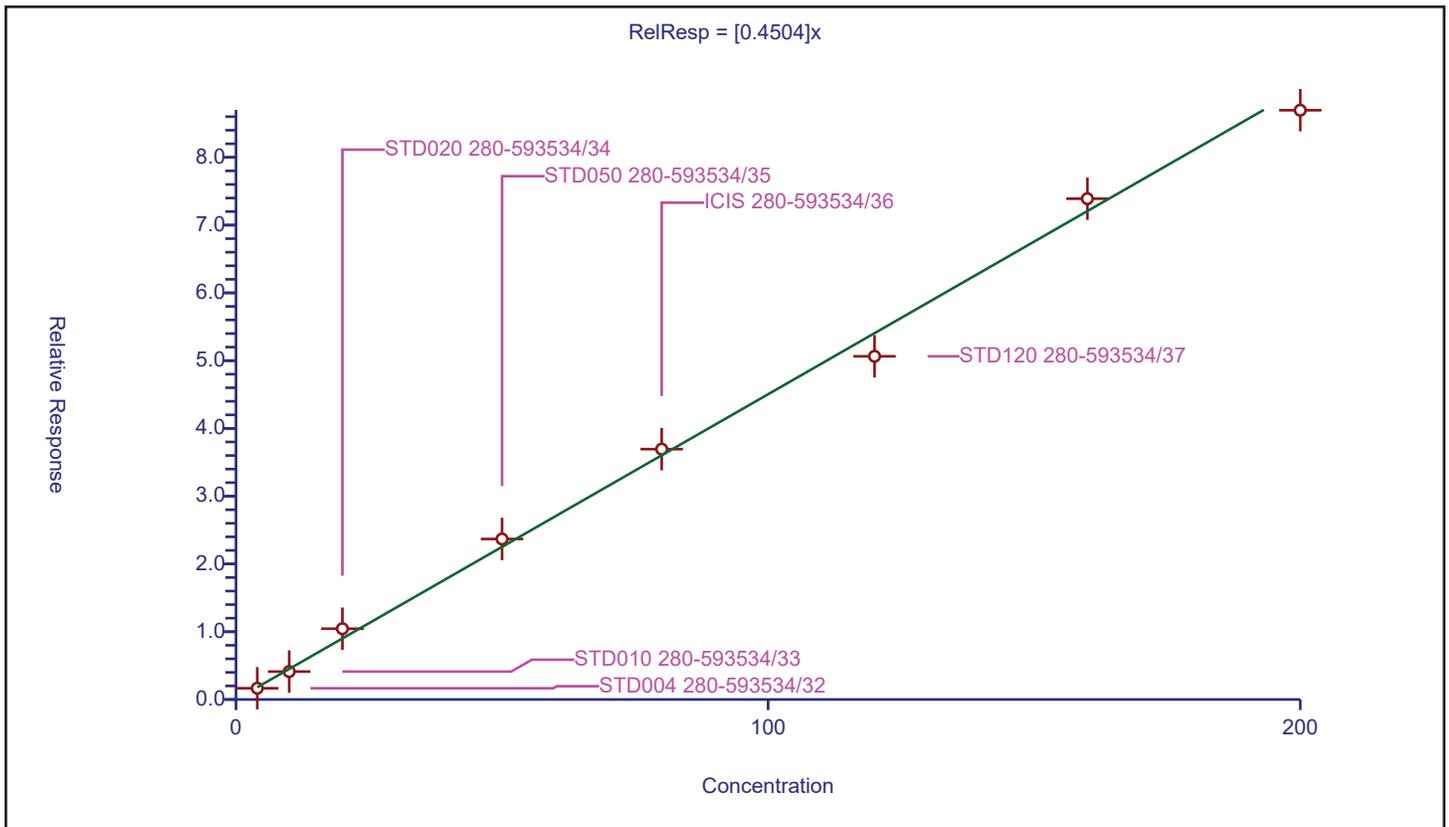
/ 3,3'-Dichlorobenzidine

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4504

Error Coefficients	
Standard Error:	535000
Relative Standard Error:	8.3
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.662029	40.0	389524.0	0.415507	Y
2	STD010 280-593534/33	10.0	4.117397	40.0	416807.0	0.41174	Y
3	STD020 280-593534/34	20.0	10.445949	40.0	408679.0	0.522297	Y
4	STD050 280-593534/35	50.0	23.682939	40.0	423086.0	0.473659	Y
5	ICIS 280-593534/36	80.0	36.941956	40.0	442649.0	0.461774	Y
6	STD120 280-593534/37	120.0	50.641076	40.0	474140.0	0.422009	Y
7	STD160 280-593534/38	160.0	73.898547	40.0	402750.0	0.461866	Y
8	STD200 280-593534/39	200.0	86.947492	40.0	423134.0	0.434737	Y



Calibration

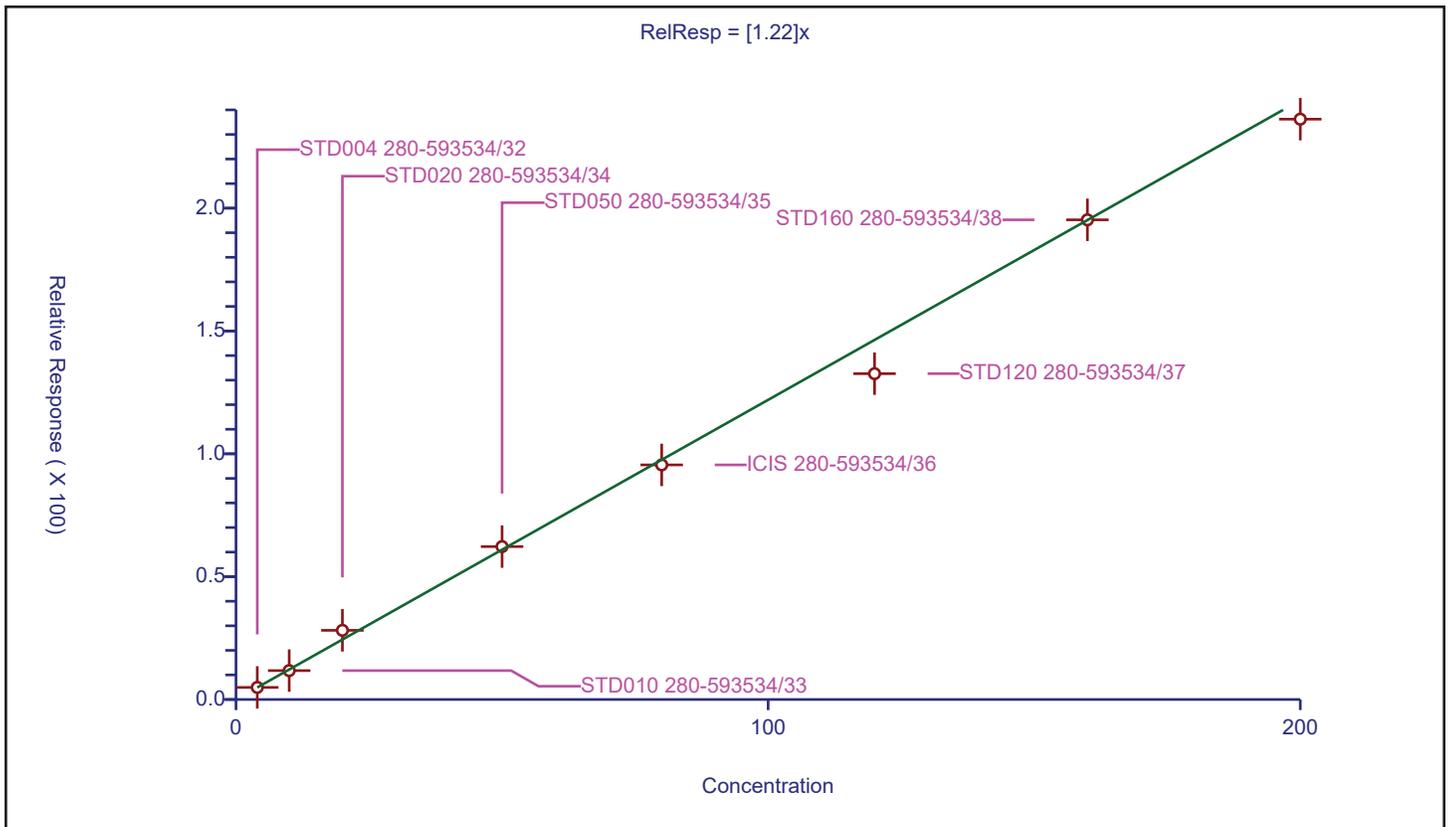
/ Chrysene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.22

Error Coefficients	
Standard Error:	1430000
Relative Standard Error:	7.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.913998	40.0	389524.0	1.228499	Y
2	STD010 280-593534/33	10.0	11.762087	40.0	416807.0	1.176209	Y
3	STD020 280-593534/34	20.0	28.148841	40.0	408679.0	1.407442	Y
4	STD050 280-593534/35	50.0	62.236047	40.0	423086.0	1.244721	Y
5	ICIS 280-593534/36	80.0	95.487214	40.0	442649.0	1.19359	Y
6	STD120 280-593534/37	120.0	132.632809	40.0	474140.0	1.105273	Y
7	STD160 280-593534/38	160.0	195.249758	40.0	402750.0	1.220311	Y
8	STD200 280-593534/39	200.0	236.22616	40.0	423134.0	1.181131	Y



Calibration

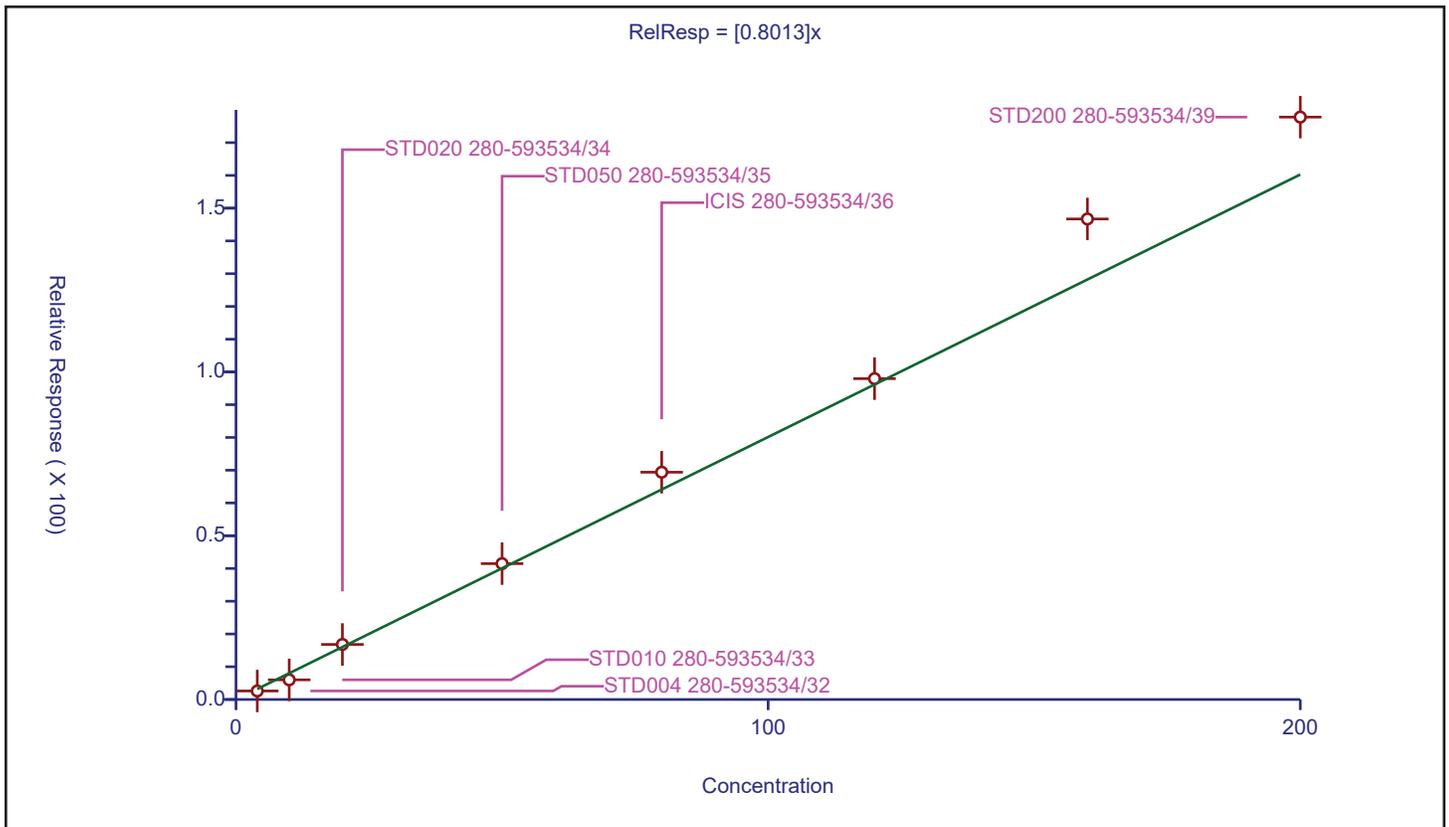
/ Bis(2-ethylhexyl) phthalate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8013

Error Coefficients	
Standard Error:	1060000
Relative Standard Error:	14.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.604307	40.0	389524.0	0.651077	Y
2	STD010 280-593534/33	10.0	6.001723	40.0	416807.0	0.600172	Y
3	STD020 280-593534/34	20.0	16.80977	40.0	408679.0	0.840489	Y
4	STD050 280-593534/35	50.0	41.476863	40.0	423086.0	0.829537	Y
5	ICIS 280-593534/36	80.0	69.385902	40.0	442649.0	0.867324	Y
6	STD120 280-593534/37	120.0	97.9536	40.0	474140.0	0.81628	Y
7	STD160 280-593534/38	160.0	146.696462	40.0	402750.0	0.916853	Y
8	STD200 280-593534/39	200.0	177.798333	40.0	423134.0	0.888992	Y



Calibration

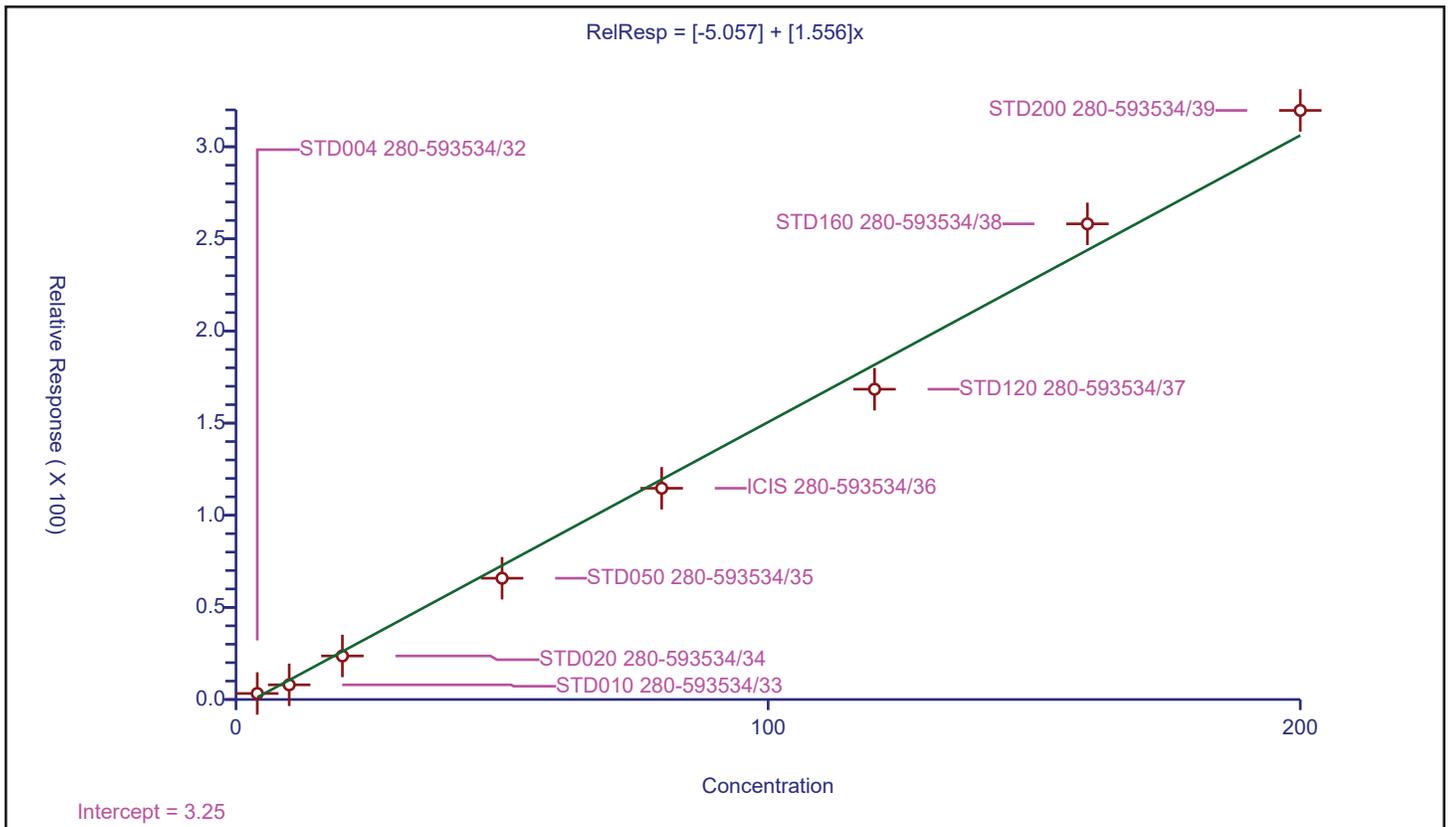
/ Di-n-octyl phthalate

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-5.057
Slope:	1.556

Error Coefficients	
Standard Error:	2010000
Relative Standard Error:	16.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.275177	40.0	389524.0	0.818794	Y
2	STD010 280-593534/33	10.0	7.963974	40.0	416807.0	0.796397	Y
3	STD020 280-593534/34	20.0	23.64095	40.0	408679.0	1.182048	Y
4	STD050 280-593534/35	50.0	65.813003	40.0	423086.0	1.31626	Y
5	ICIS 280-593534/36	80.0	114.661685	40.0	442649.0	1.433271	Y
6	STD120 280-593534/37	120.0	168.414224	40.0	474140.0	1.403452	Y
7	STD160 280-593534/38	160.0	258.145549	40.0	402750.0	1.61341	Y
8	STD200 280-593534/39	200.0	319.718103	40.0	423134.0	1.598591	Y



Calibration

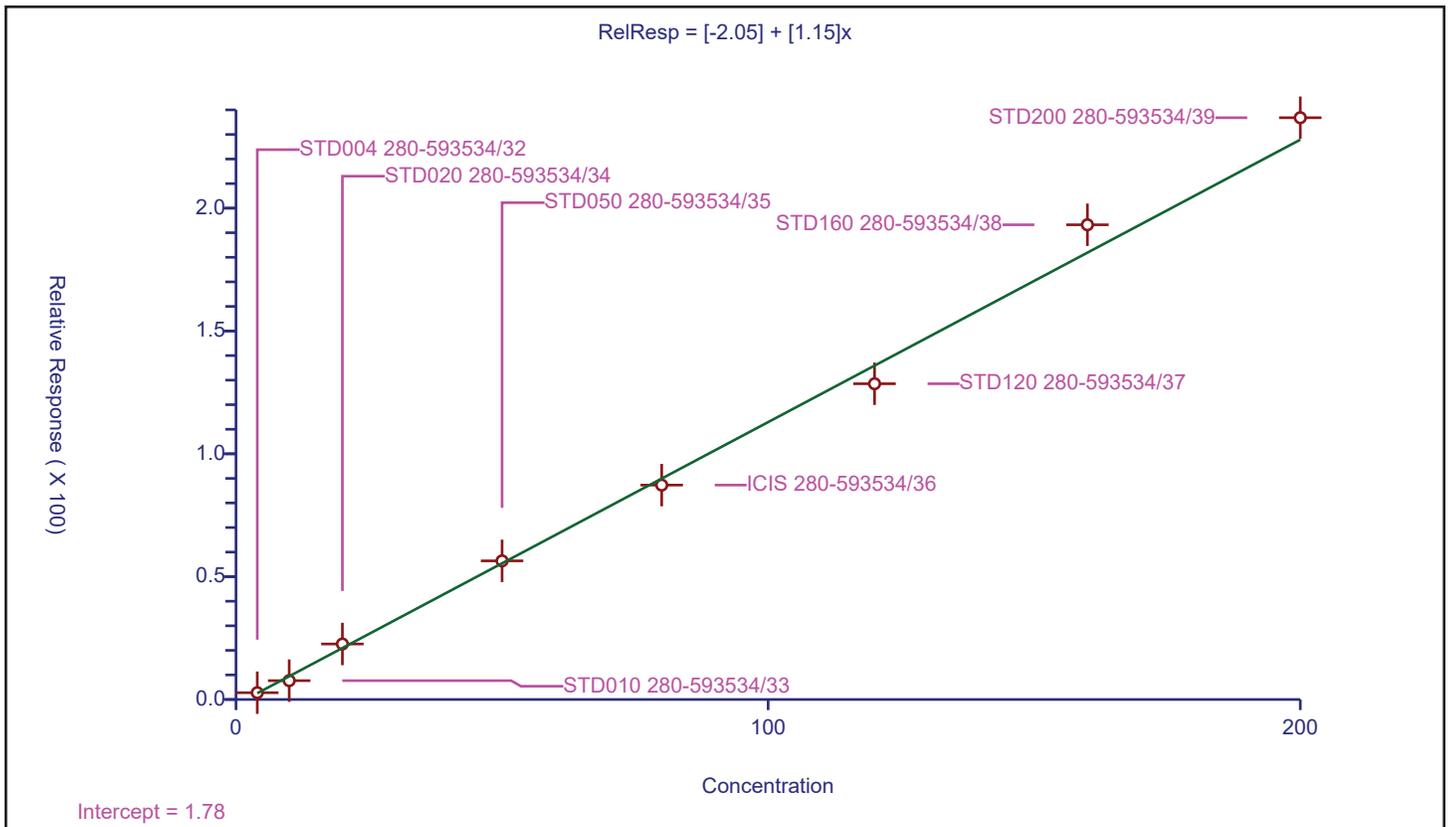
/ Benzo[b]fluoranthene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-2.05
Slope:	1.15

Error Coefficients	
Standard Error:	1570000
Relative Standard Error:	8.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	2.764393	40.0	408104.0	0.691098	Y
2	STD010 280-593534/33	10.0	7.665006	40.0	414789.0	0.766501	Y
3	STD020 280-593534/34	20.0	22.600359	40.0	403252.0	1.130018	Y
4	STD050 280-593534/35	50.0	56.42734	40.0	422240.0	1.128547	Y
5	ICIS 280-593534/36	80.0	87.273521	40.0	458111.0	1.090919	Y
6	STD120 280-593534/37	120.0	128.532163	40.0	489339.0	1.071101	Y
7	STD160 280-593534/38	160.0	193.232252	40.0	418012.0	1.207702	Y
8	STD200 280-593534/39	200.0	236.812174	40.0	439610.0	1.184061	Y



Calibration

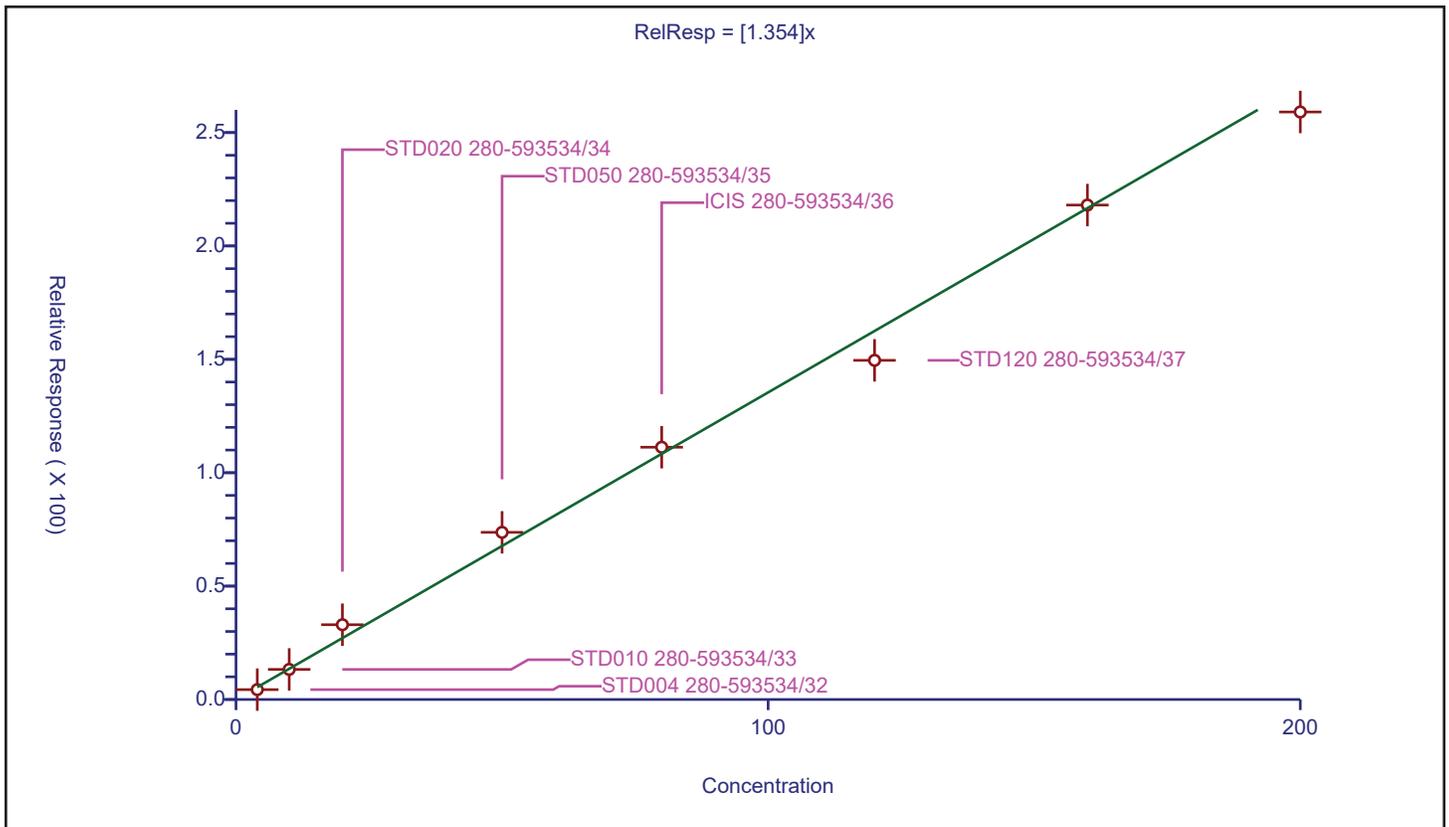
/ Benzo[k]fluoranthene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.354

Error Coefficients	
Standard Error:	1650000
Relative Standard Error:	12.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	4.35536	40.0	408104.0	1.08884	Y
2	STD010 280-593534/33	10.0	13.263418	40.0	414789.0	1.326342	Y
3	STD020 280-593534/34	20.0	32.975112	40.0	403252.0	1.648756	Y
4	STD050 280-593534/35	50.0	73.710402	40.0	422240.0	1.474208	Y
5	ICIS 280-593534/36	80.0	111.252076	40.0	458111.0	1.390651	Y
6	STD120 280-593534/37	120.0	149.564126	40.0	489339.0	1.246368	Y
7	STD160 280-593534/38	160.0	218.035176	40.0	418012.0	1.36272	Y
8	STD200 280-593534/39	200.0	259.075635	40.0	439610.0	1.295378	Y



Calibration

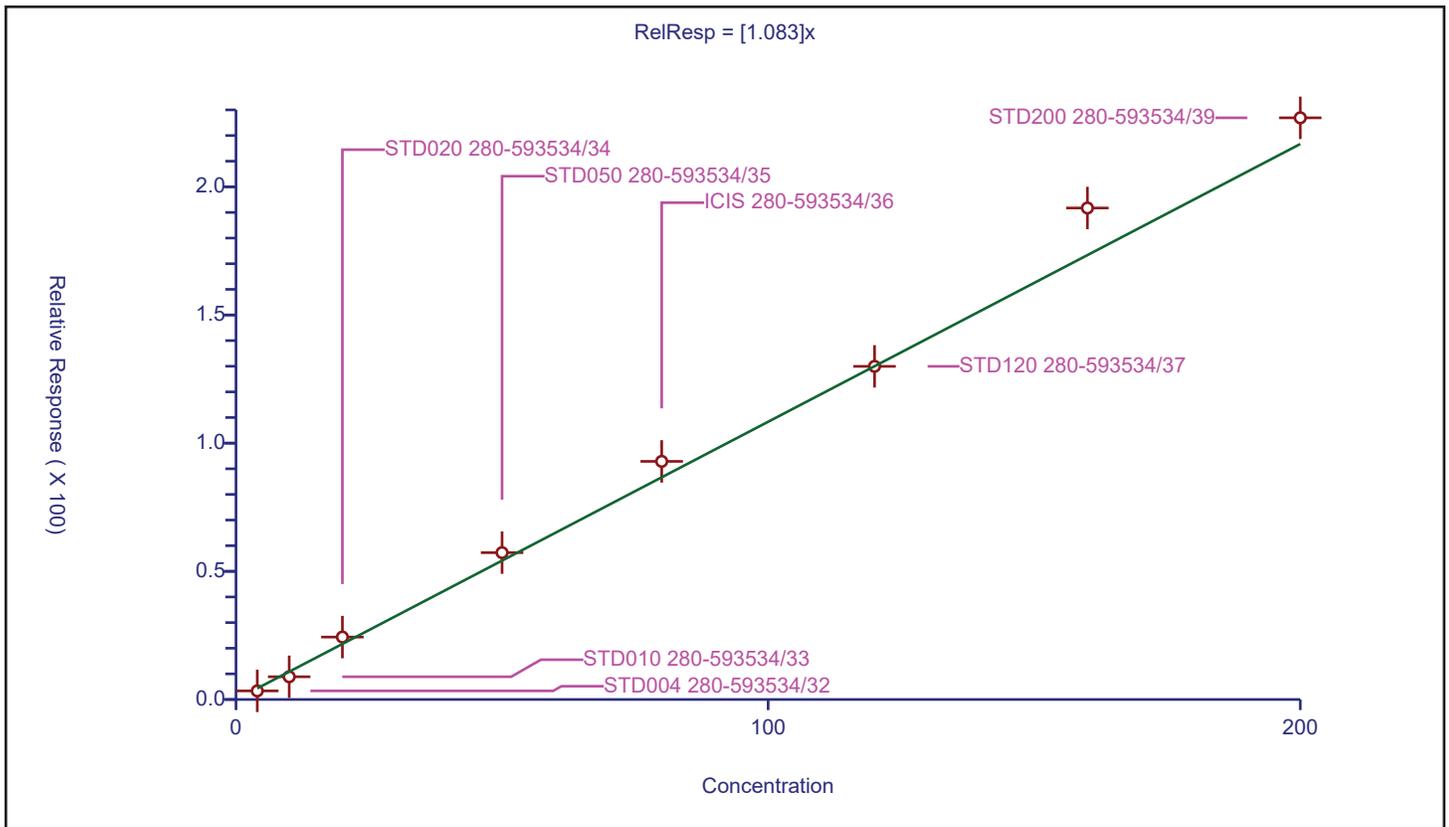
/ Benzo[a]pyrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.083

Error Coefficients	
Standard Error:	1430000
Relative Standard Error:	13.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.359438	40.0	408104.0	0.839859	Y
2	STD010 280-593534/33	10.0	8.873138	40.0	414789.0	0.887314	Y
3	STD020 280-593534/34	20.0	24.355986	40.0	403252.0	1.217799	Y
4	STD050 280-593534/35	50.0	57.289409	40.0	422240.0	1.145788	Y
5	ICIS 280-593534/36	80.0	92.887619	40.0	458111.0	1.161095	Y
6	STD120 280-593534/37	120.0	129.961601	40.0	489339.0	1.083013	Y
7	STD160 280-593534/38	160.0	191.732486	40.0	418012.0	1.198328	Y
8	STD200 280-593534/39	200.0	226.902846	40.0	439610.0	1.134514	Y



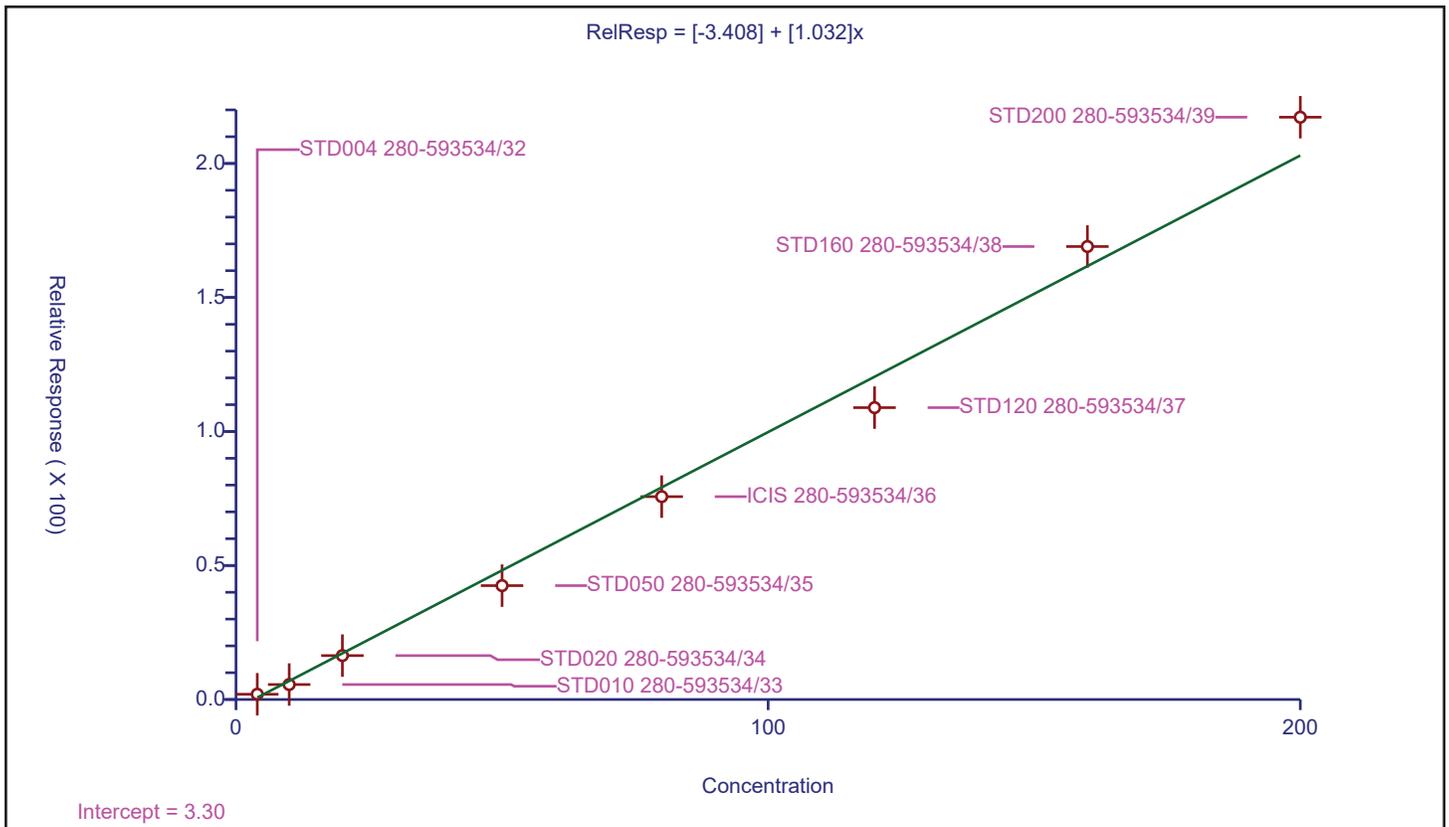
Calibration

/ Indeno[1,2,3-cd]pyrene

Curve Type: Linear
 Weighting: Conc
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-3.408
Slope:	1.032
Error Coefficients	
Standard Error:	1340000
Relative Standard Error:	15.2
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.964038	40.0	389524.0	0.49101	Y
2	STD010 280-593534/33	10.0	5.5834	40.0	416807.0	0.55834	Y
3	STD020 280-593534/34	20.0	16.381855	40.0	408679.0	0.819093	Y
4	STD050 280-593534/35	50.0	42.485736	40.0	423086.0	0.849715	Y
5	ICIS 280-593534/36	80.0	75.686605	40.0	442649.0	0.946083	Y
6	STD120 280-593534/37	120.0	108.899312	40.0	474140.0	0.907494	Y
7	STD160 280-593534/38	160.0	169.022371	40.0	402750.0	1.05639	Y
8	STD200 280-593534/39	200.0	217.266492	40.0	423134.0	1.086332	Y



Calibration

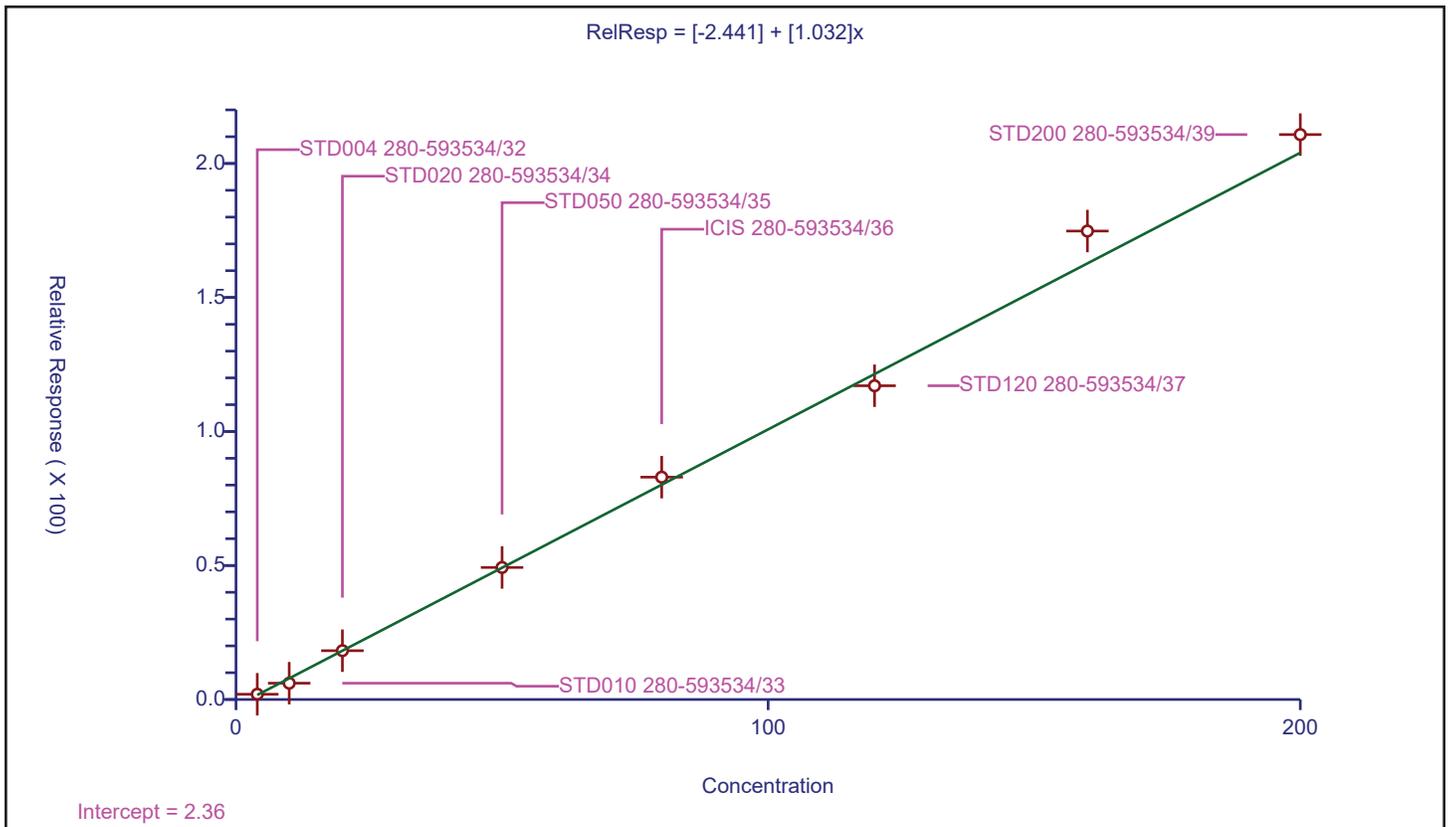
/ Dibenz(a,h)anthracene

Curve Type: Linear
 Weighting: Conc_Sq
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	-2.441
Slope:	1.032

Error Coefficients	
Standard Error:	1410000
Relative Standard Error:	8.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	1.960775	40.0	408104.0	0.490194	Y
2	STD010 280-593534/33	10.0	6.092543	40.0	414789.0	0.609254	Y
3	STD020 280-593534/34	20.0	18.212731	40.0	403252.0	0.910637	Y
4	STD050 280-593534/35	50.0	49.265347	40.0	422240.0	0.985307	Y
5	ICIS 280-593534/36	80.0	82.958759	40.0	458111.0	1.036984	Y
6	STD120 280-593534/37	120.0	117.062895	40.0	489339.0	0.975524	Y
7	STD160 280-593534/38	160.0	174.791346	40.0	418012.0	1.092446	Y
8	STD200 280-593534/39	200.0	210.793749	40.0	439610.0	1.053969	Y



Calibration

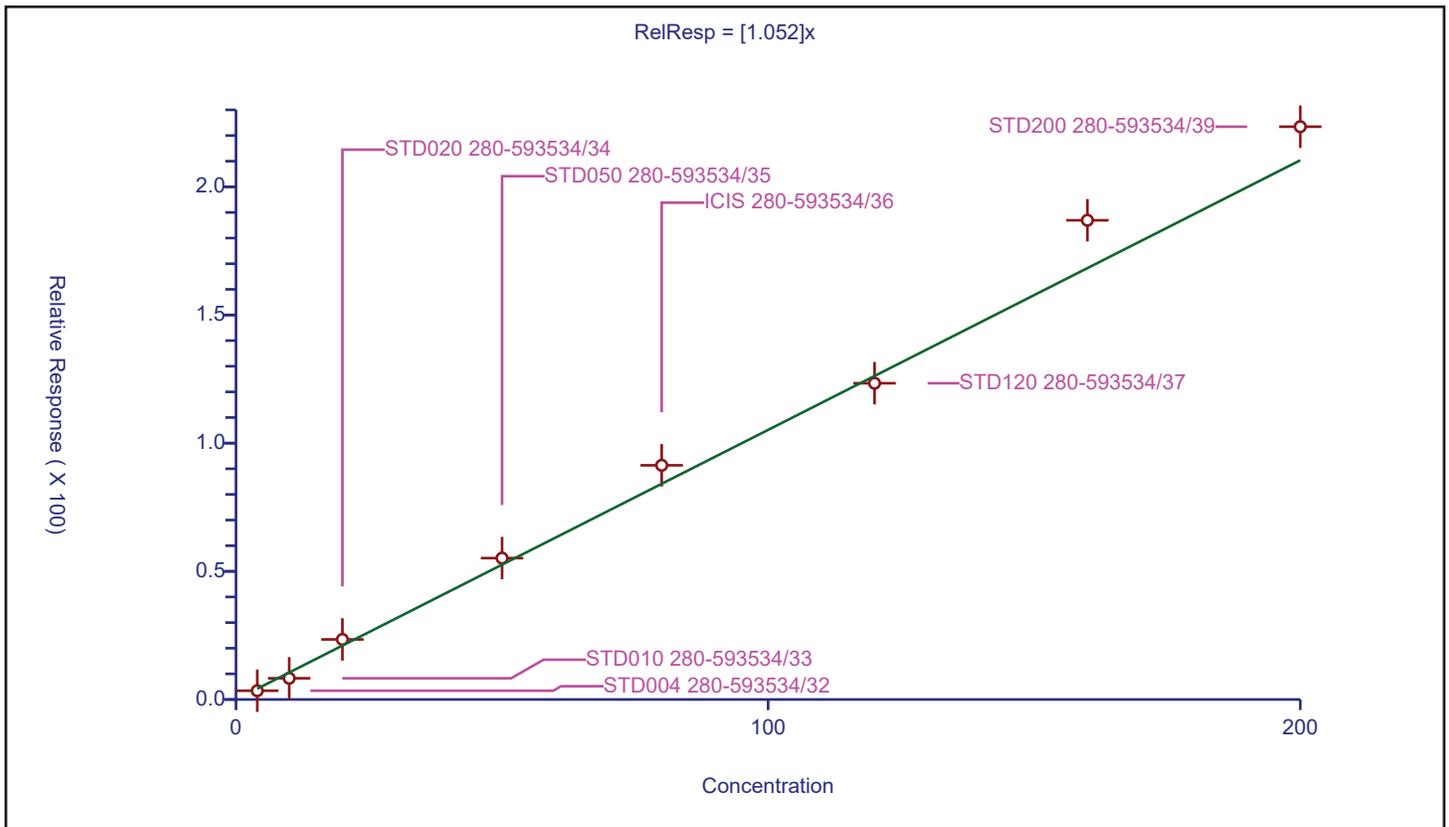
/ Benzo[g,h,i]perylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.052

Error Coefficients	
Standard Error:	1390000
Relative Standard Error:	13.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-593534/32	4.0	3.421383	40.0	408104.0	0.855346	Y
2	STD010 280-593534/33	10.0	8.282283	40.0	414789.0	0.828228	Y
3	STD020 280-593534/34	20.0	23.429022	40.0	403252.0	1.171451	Y
4	STD050 280-593534/35	50.0	55.156025	40.0	422240.0	1.103121	Y
5	ICIS 280-593534/36	80.0	91.361264	40.0	458111.0	1.142016	Y
6	STD120 280-593534/37	120.0	123.372468	40.0	489339.0	1.028104	Y
7	STD160 280-593534/38	160.0	186.945638	40.0	418012.0	1.16841	Y
8	STD200 280-593534/39	200.0	223.443507	40.0	439610.0	1.117218	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-592626/26 Calibration Date: 11/07/2022 23:35
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 14:48
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 16:57
 Lab File ID: 929.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzaldehyde	Ave	1.082	0.9798	0.0100	90500	100000	-9.5	20.0
Caprolactam	Ave	0.1505	0.1322	0.0100	87800	100000	-12.2	20.0
Atrazine	Ave	0.1894	0.1962	0.0100	104000	100000	3.6	20.0
Benzidine	Lin2		0.5521		105000	100000	4.7	20.0
3,3'-Dichlorobenzidine	Lin2		0.4380	0.0100	107000	100000	7.0	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\929.D
 Lims ID: ICV HSL
 Client ID:
 Sample Type: ICV
 Inject. Date: 07-Nov-2022 23:35:31 ALS Bottle#: 0 Worklist Smp#: 26
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: ICV HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist:

Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:06:37 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 17-Nov-2022 11:06:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.624	4.624	0.000	97	171409	40.0	40.0	
* 2 Naphthalene-d8	136	5.881	5.880	0.001	100	649774	40.0	40.0	
* 3 Acenaphthene-d10	164	7.609	7.609	0.001	95	368668	40.0	40.0	
* 4 Phenanthrene-d10	188	9.028	9.028	0.000	97	661571	40.0	40.0	
* 5 Chrysene-d12	240	11.740	11.740	0.000	98	609707	40.0	40.0	
* 6 Perylene-d12	264	13.603	13.606	-0.003	98	554894	40.0	40.0	
15 1,4-Dioxane	88	2.165	2.165	0.000	98	250499	100.0	100.9	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	93	381531	100.0	96.7	
18 Pyridine	79	2.411	2.411	0.000	95	1316078	200.0	191.6	
28 Benzaldehyde	106	4.217	4.216	0.001	92	419884	100.0	90.5	
29 Phenol	94	4.307	4.307	0.000	99	718996	100.0	93.8	
31 Aniline	93	4.346	4.345	0.001	96	918975	100.0	95.5	
33 Bis(2-chloroethyl)ether	93	4.397	4.400	-0.003	94	623152	100.0	91.3	
34 2-Chlorophenol	128	4.448	4.448	0.000	95	529471	100.0	95.6	
35 n-Decane	43	4.480	4.480	0.000	90	698171	100.0	102.1	
36 1,3-Dichlorobenzene	146	4.589	4.589	0.000	94	593588	100.0	94.0	
37 1,4-Dichlorobenzene	146	4.640	4.640	0.000	89	608155	100.0	93.6	
40 Benzyl alcohol	108	4.775	4.772	0.003	89	347838	100.0	98.1	
43 1,2-Dichlorobenzene	146	4.823	4.823	0.000	93	574769	100.0	94.1	
45 2-Methylphenol	108	4.893	4.890	0.003	98	525731	100.0	95.4	
46 Indene	116	4.900	4.900	0.000	89	1986698	200.0	183.6	
47 2,2'-oxybis[1-chloropropane]	45	4.929	4.929	0.000	92	862492	100.0	100.9	
49 3-Methylphenol	108	5.038	5.034	0.004	89	546972	100.0	97.1	
51 4-Methylphenol	108	5.038	5.034	0.004	95	546972	100.0	97.1	
50 3 & 4 Methylphenol	108	5.038	5.034	0.004	0	546972	100.0	97.1	
52 Acetophenone	105	5.041	5.041	0.000	92	862787	100.0	94.8	
54 N-Nitrosodi-n-propylamine	70	5.070	5.070	0.000	87	468232	100.0	102.6	
56 Hexachloroethane	117	5.124	5.121	0.003	95	262608	100.0	95.1	
58 Nitrobenzene	77	5.208	5.211	-0.003	89	706081	100.0	94.6	
60 Isophorone	82	5.444	5.444	0.000	99	1248760	100.0	94.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
61 2-Nitrophenol	139	5.524	5.524	0.000	95	274850	100.0	104.8	
62 2,4-Dimethylphenol	107	5.560	5.556	0.004	98	558591	100.0	96.8	
66 Bis(2-chloroethoxy)methane	63	5.662	5.659	0.003	98	562557	100.0	101.7	
69 Benzoic acid	105	5.710	5.704	0.006	92	916946	200.0	194.0	
70 2,4-Dichlorophenol	162	5.749	5.749	0.000	98	450714	100.0	97.1	
72 1,2,4-Trichlorobenzene	180	5.839	5.839	0.000	93	515255	100.0	92.2	
75 Naphthalene	128	5.900	5.900	0.000	99	1537806	100.0	93.5	
77 4-Chloroaniline	127	5.974	5.974	0.000	94	669752	100.0	97.4	
78 2,6-Dichlorophenol	162	5.977	5.977	0.000	94	460614	100.0	95.7	
80 Hexachlorobutadiene	225	6.079	6.079	0.000	97	299326	100.0	93.9	
84 Caprolactam	55	6.355	6.297	0.058	78	214697	100.0	87.8	
85 4-Chloro-3-methylphenol	107	6.448	6.444	0.004	95	495305	100.0	98.5	
88 2-Methylnaphthalene	141	6.576	6.576	0.000	93	895984	100.0	94.8	
89 1-Methylnaphthalene	142	6.685	6.685	0.000	92	942826	100.0	93.1	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	526527	100.0	94.8	
92 Hexachlorocyclopentadiene	237	6.801	6.800	0.001	97	236162	100.0	104.1	
93 2,4,6-Trichlorophenol	196	6.878	6.877	0.001	96	346212	100.0	101.3	
95 2,4,5-Trichlorophenol	196	6.913	6.913	0.000	92	383634	100.0	103.8	
97 1,1'-Biphenyl	154	7.041	7.041	0.000	98	1323800	100.0	97.3	
98 2-Chloronaphthalene	162	7.051	7.051	0.000	98	1041319	100.0	96.4	
101 2-Nitroaniline	65	7.182	7.182	0.000	76	384286	100.0	105.2	
104 Dimethyl phthalate	163	7.397	7.397	0.000	96	1151204	100.0	96.5	
105 1,3-Dinitrobenzene	168	7.407	7.403	0.004	82	186498	100.0	100.9	
106 2,6-Dinitrotoluene	165	7.458	7.458	0.000	91	274923	100.0	99.8	
107 Acenaphthylene	152	7.461	7.461	0.000	99	1564080	100.0	97.1	
108 3-Nitroaniline	138	7.589	7.589	0.000	90	274587	100.0	105.7	
109 Acenaphthene	153	7.641	7.641	0.000	97	1055509	100.0	95.7	
111 2,4-Dinitrophenol	184	7.686	7.686	0.000	81	279672	200.0	219.3	
113 4-Nitrophenol	109	7.747	7.747	0.000	94	371289	200.0	211.1	
114 Dibenzofuran	168	7.795	7.795	0.000	96	1413286	100.0	94.2	
116 2,4-Dinitrotoluene	165	7.834	7.833	0.001	88	354671	100.0	99.5	
120 2,3,4,6-Tetrachlorophenol	232	7.956	7.955	0.001	76	284777	100.0	100.4	
122 Hexadecane	57	8.033	8.032	0.001	94	951424	100.0	102.8	
124 Diethyl phthalate	149	8.081	8.081	0.000	97	1162785	100.0	96.3	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	75	607044	100.0	98.9	
127 Fluorene	166	8.129	8.129	0.000	90	1208120	100.0	97.0	
130 4-Nitroaniline	138	8.190	8.187	0.003	80	266962	100.0	99.8	
131 4,6-Dinitro-2-methylphenol	198	8.225	8.225	0.000	81	392635	200.0	215.0	
132 Diphenylamine	169	8.248	8.248	0.000	94	857787	85.0	84.5	
133 N-Nitrosodiphenylamine	169	8.248	8.248	0.000	65	854311	100.0	100.0	
136 1,2-Diphenylhydrazine	77	8.280	8.280	0.000	45	1519896	101.1	104.0	
135 Azobenzene	77	8.280	8.280	0.000	99	1519896	100.0	102.6	
145 4-Bromophenyl phenyl ether	248	8.594	8.594	0.000	73	328642	100.0	99.8	
148 Hexachlorobenzene	284	8.735	8.735	0.000	94	360387	100.0	99.1	
150 Atrazine	200	8.793	8.797	-0.004	90	324576	100.0	103.6	
154 n-Octadecane	57	8.915	8.915	0.000	97	961448	100.0	108.1	
157 Phenanthrene	178	9.050	9.050	0.000	99	1692547	100.0	96.3	
160 Anthracene	178	9.092	9.092	0.000	99	1727336	100.0	96.7	
161 Carbazole	167	9.249	9.246	0.003	96	1554184	100.0	99.5	
164 Di-n-butyl phthalate	149	9.637	9.637	0.000	100	1923016	100.0	100.4	
170 Fluoranthene	202	10.194	10.194	0.000	99	1825603	100.0	99.1	
171 Benzidine	184	10.322	10.325	-0.003	99	841542	100.0	104.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
172 Pyrene	202	10.415	10.412	0.003	96	1932077	100.0	102.8	
180 Butyl benzyl phthalate	149	11.128	11.129	-0.001	96	849883	100.0	100.4	
183 3,3'-Dichlorobenzidine	252	11.705	11.708	-0.003	75	667654	100.0	107.0	
184 Benzo[a]anthracene	228	11.718	11.718	0.000	99	1917444	100.0	99.0	
185 Chrysene	228	11.773	11.769	0.004	97	1713384	100.0	91.8	
186 Bis(2-ethylhexyl) phthalate	149	11.834	11.834	0.000	97	1260279	100.0	101.6	
189 Di-n-octyl phthalate	149	12.621	12.621	0.000	99	1979439	100.0	102.5	
191 Benzo[b]fluoranthene	252	13.102	13.102	0.000	97	1710709	100.0	100.1	
193 Benzo[k]fluoranthene	252	13.138	13.134	0.004	99	1861890	100.0	100.6	
194 Benzo[a]pyrene	252	13.532	13.532	0.000	83	1490902	100.0	98.9	
198 Indeno[1,2,3-cd]pyrene	276	15.084	15.083	0.001	99	1671984	100.0	100.6	
199 Dibenz(a,h)anthracene	278	15.114	15.112	0.002	92	1412470	100.0	102.5	
200 Benzo[g,h,i]perylene	276	15.480	15.479	0.001	98	1323038	100.0	100.0	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLB1&B2_00017

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\929.D

Injection Date: 07-Nov-2022 23:35:31

Instrument ID: SMS_1

Operator ID:

Lims ID: ICV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

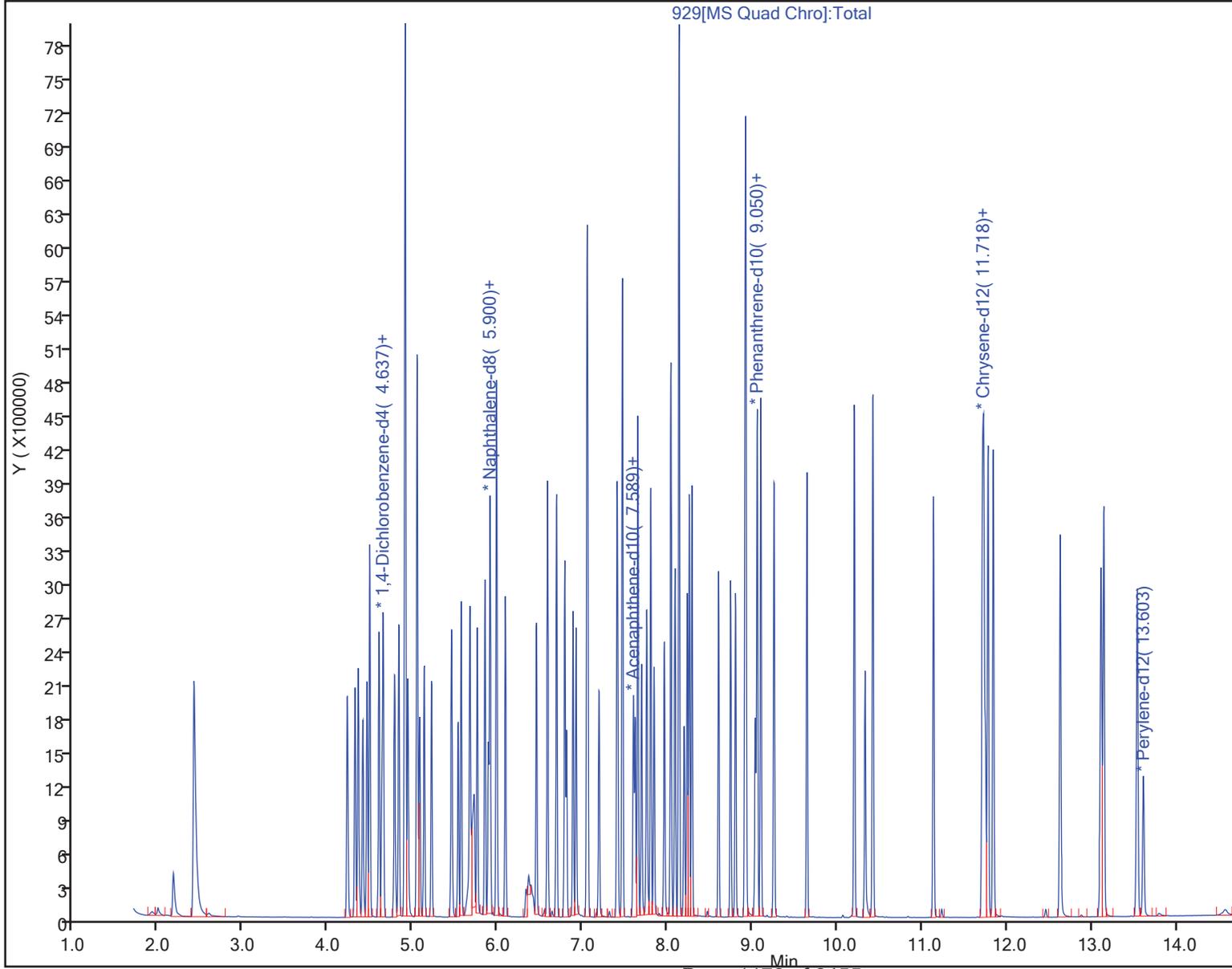
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-592626/26 Calibration Date: 11/07/2022 23:35
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 929.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.5846		101000	100000	0.9	20.0
N-Nitrosodimethylamine	Ave	0.9206	0.8903		96700	100000	-3.3	20.0
Pyridine	Ave	1.603	1.536		192000	200000	-4.2	20.0
Phenol	Ave	1.789	1.678	0.8000	93800	100000	-6.2	20.0
Aniline	Ave	2.245	2.145		95500	100000	-4.5	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.454	0.7000	91300	100000	-8.7	20.0
2-Chlorophenol	Ave	1.293	1.236	0.8000	95600	100000	-4.4	20.0
n-Decane	Lin2		1.629		102000	100000	2.1	20.0
1,3-Dichlorobenzene	Ave	1.474	1.385		94000	100000	-6.0	20.0
1,4-Dichlorobenzene	Ave	1.516	1.419		93600	100000	-6.4	20.0
Benzyl alcohol	Ave	0.8278	0.8117		98100	100000	-1.9	20.0
1,2-Dichlorobenzene	Ave	1.426	1.341		94100	100000	-5.9	20.0
2-Methylphenol	Ave	1.286	1.227	0.7000	95400	100000	-4.6	20.0
Indene	Ave	2.525	2.318		184000	200000	-8.2	20.0
2,2'-oxybis[1-chloropropane]	Lin2		2.013	0.0100	101000	100000	0.9	20.0
3 & 4 Methylphenol	Ave	1.314	1.276		97100	100000	-2.9	20.0
3-Methylphenol	Ave	1.314	1.276		97100	100000	-2.9	20.0
4-Methylphenol	Ave	1.314	1.276	0.6000	97100	100000	-2.9	20.0
Acetophenone	Ave	2.125	2.013	0.0100	94800	100000	-5.2	20.0
N-Nitrosodi-n-propylamine	Lin1		1.093	0.5000	103000	100000	2.6	20.0
Hexachloroethane	Ave	0.6446	0.6128	0.3000	95100	100000	-4.9	20.0
Nitrobenzene	Ave	0.4595	0.4347	0.2000	94600	100000	-5.4	20.0
Isophorone	Ave	0.8135	0.7687	0.4000	94500	100000	-5.5	20.0
2-Nitrophenol	Ave	0.1614	0.1692	0.1000	105000	100000	4.8	20.0
2,4-Dimethylphenol	Ave	0.3553	0.3439	0.2000	96800	100000	-3.2	20.0
Bis(2-chloroethoxy)methane	Lin1		0.3463	0.3000	102000	100000	1.7	20.0
Benzoic acid	Lin1		0.2822		194000	200000	-3.0	20.0
2,4-Dichlorophenol	Ave	0.2857	0.2775	0.2000	97100	100000	-2.9	20.0
1,2,4-Trichlorobenzene	Ave	0.3440	0.3172		92200	100000	-7.8	20.0
Naphthalene	Ave	1.013	0.9467	0.7000	93500	100000	-6.5	20.0
4-Chloroaniline	Ave	0.4233	0.4123	0.0100	97400	100000	-2.6	20.0
2,6-Dichlorophenol	Ave	0.2963	0.2836		95700	100000	-4.3	20.0
Hexachlorobutadiene	Ave	0.1961	0.1843	0.0100	93900	100000	-6.1	20.0
4-Chloro-3-methylphenol	Ave	0.3095	0.3049	0.2000	98500	100000	-1.5	20.0
2-Methylnaphthalene	Ave	0.5816	0.5516	0.4000	94800	100000	-5.2	20.0
1-Methylnaphthalene	Ave	0.6235	0.5804		93100	100000	-6.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3418	0.3241	0.0100	94800	100000	-5.2	20.0
Hexachlorocyclopentadiene	Lin2		0.2562	0.0500	104000	100000	4.1	20.0
2,4,6-Trichlorophenol	Ave	0.3707	0.3756	0.2000	101000	100000	1.3	20.0
2,4,5-Trichlorophenol	Lin1		0.4162	0.2000	104000	100000	3.8	20.0
1,1'-Biphenyl	Ave	1.476	1.436	0.0100	97300	100000	-2.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-592626/26 Calibration Date: 11/07/2022 23:35
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 929.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.172	1.130	0.8000	96400	100000	-3.6	20.0
2-Nitroaniline	Lin1		0.4169	0.0100	105000	100000	5.2	20.0
Dimethyl phthalate	Ave	1.295	1.249	0.0100	96500	100000	-3.5	20.0
1,3-Dinitrobenzene	Lin2		0.2023		101000	100000	0.9	20.0
2,6-Dinitrotoluene	Ave	0.2989	0.2983	0.2000	99800	100000	-0.2	20.0
Acenaphthylene	Ave	1.748	1.697	0.9000	97100	100000	-2.9	20.0
3-Nitroaniline	Lin1		0.2979	0.0100	106000	100000	5.7	20.0
Acenaphthene	Ave	1.196	1.145	0.9000	95700	100000	-4.3	20.0
2,4-Dinitrophenol	Lin2		0.1517	0.0100	219000	200000	9.6	20.0
4-Nitrophenol	Lin2		0.2014	0.0100	211000	200000	5.5	20.0
Dibenzofuran	Ave	1.627	1.533	0.8000	94200	100000	-5.8	20.0
2,4-Dinitrotoluene	Lin2		0.3848	0.2000	99500	100000	-0.5	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3078	0.3090	0.0100	100000	100000	0.4	20.0
Hexadecane	Lin2		1.032		103000	100000	2.8	20.0
Diethyl phthalate	Ave	1.310	1.262	0.0100	96300	100000	-3.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.6663	0.6586	0.4000	98900	100000	-1.1	20.0
Fluorene	Ave	1.352	1.311	0.9000	97000	100000	-3.0	20.0
4-Nitroaniline	Lin2		0.2897	0.0100	99800	100000	-0.2	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1187	0.0100	215000	200000	7.5	20.0
Diphenylamine	Ave	1.102	1.095		84500	85000	-0.6	20.0
N-Nitrosodiphenylamine	Ave	0.5164	0.5165	0.0100	100000	100000	0.0	20.0
1,2-Diphenylhydrazine	Lin2		1.631		104000	101000	2.8	20.0
Azobenzene	Qua		1.649		103000	100000	2.6	20.0
4-Bromophenyl phenyl ether	Ave	0.1991	0.1987	0.1000	99800	100000	-0.2	20.0
Hexachlorobenzene	Ave	0.2199	0.2179	0.1000	99100	100000	-0.9	20.0
n-Octadecane	Lin1		0.5813		108000	100000	8.1	
Phenanthrene	Ave	1.063	1.023	0.7000	96300	100000	-3.7	20.0
Anthracene	Ave	1.080	1.044	0.7000	96700	100000	-3.3	20.0
Carbazole	Ave	0.9442	0.9397	0.0100	99500	100000	-0.5	20.0
Di-n-butyl phthalate	Ave	1.158	1.163	0.0100	100000	100000	0.4	20.0
Fluoranthene	Ave	1.114	1.104	0.6000	99100	100000	-0.9	20.0
Pyrene	Lin2		1.268	0.6000	103000	100000	2.8	20.0
Butyl benzyl phthalate	Lin2		0.5576	0.0100	100000	100000	0.4	20.0
Benzo[a]anthracene	Ave	1.271	1.258	0.8000	99000	100000	-1.0	20.0
Chrysene	Ave	1.225	1.124	0.7000	91800	100000	-8.2	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.7620	0.0100	102000	100000	1.6	20.0
Di-n-octyl phthalate	Lin2		1.299	0.0100	103000	100000	2.5	20.0
Benzo[b]fluoranthene	Ave	1.232	1.233	0.7000	100000	100000	0.0	20.0
Benzo[k]fluoranthene	Ave	1.335	1.342	0.7000	101000	100000	0.6	20.0
Benzo[a]pyrene	Ave	1.087	1.075	0.7000	98900	100000	-1.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.090	1.097	0.5000	101000	100000	0.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-592626/26 Calibration Date: 11/07/2022 23:35
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 929.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibenz(a,h)anthracene	Ave	0.9937	1.018	0.4000	102000	100000	2.5	20.0
Benzo[g,h,i]perylene	Ave	0.9534	0.9537	0.5000	100000	100000	0.0	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\929.D
 Lims ID: ICV HSL
 Client ID:
 Sample Type: ICV
 Inject. Date: 07-Nov-2022 23:35:31 ALS Bottle#: 0 Worklist Smp#: 26
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: ICV HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist:

Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 11:06:37 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3

Date: 17-Nov-2022 11:06:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.624	4.624	0.000	97	171409	40.0	40.0	
* 2 Naphthalene-d8	136	5.881	5.880	0.001	100	649774	40.0	40.0	
* 3 Acenaphthene-d10	164	7.609	7.609	0.001	95	368668	40.0	40.0	
* 4 Phenanthrene-d10	188	9.028	9.028	0.000	97	661571	40.0	40.0	
* 5 Chrysene-d12	240	11.740	11.740	0.000	98	609707	40.0	40.0	
* 6 Perylene-d12	264	13.603	13.606	-0.003	98	554894	40.0	40.0	
15 1,4-Dioxane	88	2.165	2.165	0.000	98	250499	100.0	100.9	
17 N-Nitrosodimethylamine	74	2.398	2.398	0.000	93	381531	100.0	96.7	
18 Pyridine	79	2.411	2.411	0.000	95	1316078	200.0	191.6	
28 Benzaldehyde	106	4.217	4.216	0.001	92	419884	100.0	90.5	
29 Phenol	94	4.307	4.307	0.000	99	718996	100.0	93.8	
31 Aniline	93	4.346	4.345	0.001	96	918975	100.0	95.5	
33 Bis(2-chloroethyl)ether	93	4.397	4.400	-0.003	94	623152	100.0	91.3	
34 2-Chlorophenol	128	4.448	4.448	0.000	95	529471	100.0	95.6	
35 n-Decane	43	4.480	4.480	0.000	90	698171	100.0	102.1	
36 1,3-Dichlorobenzene	146	4.589	4.589	0.000	94	593588	100.0	94.0	
37 1,4-Dichlorobenzene	146	4.640	4.640	0.000	89	608155	100.0	93.6	
40 Benzyl alcohol	108	4.775	4.772	0.003	89	347838	100.0	98.1	
43 1,2-Dichlorobenzene	146	4.823	4.823	0.000	93	574769	100.0	94.1	
45 2-Methylphenol	108	4.893	4.890	0.003	98	525731	100.0	95.4	
46 Indene	116	4.900	4.900	0.000	89	1986698	200.0	183.6	
47 2,2'-oxybis[1-chloropropane]	45	4.929	4.929	0.000	92	862492	100.0	100.9	
49 3-Methylphenol	108	5.038	5.034	0.004	89	546972	100.0	97.1	
51 4-Methylphenol	108	5.038	5.034	0.004	95	546972	100.0	97.1	
50 3 & 4 Methylphenol	108	5.038	5.034	0.004	0	546972	100.0	97.1	
52 Acetophenone	105	5.041	5.041	0.000	92	862787	100.0	94.8	
54 N-Nitrosodi-n-propylamine	70	5.070	5.070	0.000	87	468232	100.0	102.6	
56 Hexachloroethane	117	5.124	5.121	0.003	95	262608	100.0	95.1	
58 Nitrobenzene	77	5.208	5.211	-0.003	89	706081	100.0	94.6	
60 Isophorone	82	5.444	5.444	0.000	99	1248760	100.0	94.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
61 2-Nitrophenol	139	5.524	5.524	0.000	95	274850	100.0	104.8	
62 2,4-Dimethylphenol	107	5.560	5.556	0.004	98	558591	100.0	96.8	
66 Bis(2-chloroethoxy)methane	63	5.662	5.659	0.003	98	562557	100.0	101.7	
69 Benzoic acid	105	5.710	5.704	0.006	92	916946	200.0	194.0	
70 2,4-Dichlorophenol	162	5.749	5.749	0.000	98	450714	100.0	97.1	
72 1,2,4-Trichlorobenzene	180	5.839	5.839	0.000	93	515255	100.0	92.2	
75 Naphthalene	128	5.900	5.900	0.000	99	1537806	100.0	93.5	
77 4-Chloroaniline	127	5.974	5.974	0.000	94	669752	100.0	97.4	
78 2,6-Dichlorophenol	162	5.977	5.977	0.000	94	460614	100.0	95.7	
80 Hexachlorobutadiene	225	6.079	6.079	0.000	97	299326	100.0	93.9	
84 Caprolactam	55	6.355	6.297	0.058	78	214697	100.0	87.8	
85 4-Chloro-3-methylphenol	107	6.448	6.444	0.004	95	495305	100.0	98.5	
88 2-Methylnaphthalene	141	6.576	6.576	0.000	93	895984	100.0	94.8	
89 1-Methylnaphthalene	142	6.685	6.685	0.000	92	942826	100.0	93.1	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	526527	100.0	94.8	
92 Hexachlorocyclopentadiene	237	6.801	6.800	0.001	97	236162	100.0	104.1	
93 2,4,6-Trichlorophenol	196	6.878	6.877	0.001	96	346212	100.0	101.3	
95 2,4,5-Trichlorophenol	196	6.913	6.913	0.000	92	383634	100.0	103.8	
97 1,1'-Biphenyl	154	7.041	7.041	0.000	98	1323800	100.0	97.3	
98 2-Chloronaphthalene	162	7.051	7.051	0.000	98	1041319	100.0	96.4	
101 2-Nitroaniline	65	7.182	7.182	0.000	76	384286	100.0	105.2	
104 Dimethyl phthalate	163	7.397	7.397	0.000	96	1151204	100.0	96.5	
105 1,3-Dinitrobenzene	168	7.407	7.403	0.004	82	186498	100.0	100.9	
106 2,6-Dinitrotoluene	165	7.458	7.458	0.000	91	274923	100.0	99.8	
107 Acenaphthylene	152	7.461	7.461	0.000	99	1564080	100.0	97.1	
108 3-Nitroaniline	138	7.589	7.589	0.000	90	274587	100.0	105.7	
109 Acenaphthene	153	7.641	7.641	0.000	97	1055509	100.0	95.7	
111 2,4-Dinitrophenol	184	7.686	7.686	0.000	81	279672	200.0	219.3	
113 4-Nitrophenol	109	7.747	7.747	0.000	94	371289	200.0	211.1	
114 Dibenzofuran	168	7.795	7.795	0.000	96	1413286	100.0	94.2	
116 2,4-Dinitrotoluene	165	7.834	7.833	0.001	88	354671	100.0	99.5	
120 2,3,4,6-Tetrachlorophenol	232	7.956	7.955	0.001	76	284777	100.0	100.4	
122 Hexadecane	57	8.033	8.032	0.001	94	951424	100.0	102.8	
124 Diethyl phthalate	149	8.081	8.081	0.000	97	1162785	100.0	96.3	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	75	607044	100.0	98.9	
127 Fluorene	166	8.129	8.129	0.000	90	1208120	100.0	97.0	
130 4-Nitroaniline	138	8.190	8.187	0.003	80	266962	100.0	99.8	
131 4,6-Dinitro-2-methylphenol	198	8.225	8.225	0.000	81	392635	200.0	215.0	
132 Diphenylamine	169	8.248	8.248	0.000	94	857787	85.0	84.5	
133 N-Nitrosodiphenylamine	169	8.248	8.248	0.000	65	854311	100.0	100.0	
136 1,2-Diphenylhydrazine	77	8.280	8.280	0.000	45	1519896	101.1	104.0	
135 Azobenzene	77	8.280	8.280	0.000	99	1519896	100.0	102.6	
145 4-Bromophenyl phenyl ether	248	8.594	8.594	0.000	73	328642	100.0	99.8	
148 Hexachlorobenzene	284	8.735	8.735	0.000	94	360387	100.0	99.1	
150 Atrazine	200	8.793	8.797	-0.004	90	324576	100.0	103.6	
154 n-Octadecane	57	8.915	8.915	0.000	97	961448	100.0	108.1	
157 Phenanthrene	178	9.050	9.050	0.000	99	1692547	100.0	96.3	
160 Anthracene	178	9.092	9.092	0.000	99	1727336	100.0	96.7	
161 Carbazole	167	9.249	9.246	0.003	96	1554184	100.0	99.5	
164 Di-n-butyl phthalate	149	9.637	9.637	0.000	100	1923016	100.0	100.4	
170 Fluoranthene	202	10.194	10.194	0.000	99	1825603	100.0	99.1	
171 Benzidine	184	10.322	10.325	-0.003	99	841542	100.0	104.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
172 Pyrene	202	10.415	10.412	0.003	96	1932077	100.0	102.8	
180 Butyl benzyl phthalate	149	11.128	11.129	-0.001	96	849883	100.0	100.4	
183 3,3'-Dichlorobenzidine	252	11.705	11.708	-0.003	75	667654	100.0	107.0	
184 Benzo[a]anthracene	228	11.718	11.718	0.000	99	1917444	100.0	99.0	
185 Chrysene	228	11.773	11.769	0.004	97	1713384	100.0	91.8	
186 Bis(2-ethylhexyl) phthalate	149	11.834	11.834	0.000	97	1260279	100.0	101.6	
189 Di-n-octyl phthalate	149	12.621	12.621	0.000	99	1979439	100.0	102.5	
191 Benzo[b]fluoranthene	252	13.102	13.102	0.000	97	1710709	100.0	100.1	
193 Benzo[k]fluoranthene	252	13.138	13.134	0.004	99	1861890	100.0	100.6	
194 Benzo[a]pyrene	252	13.532	13.532	0.000	83	1490902	100.0	98.9	
198 Indeno[1,2,3-cd]pyrene	276	15.084	15.083	0.001	99	1671984	100.0	100.6	
199 Dibenz(a,h)anthracene	278	15.114	15.112	0.002	92	1412470	100.0	102.5	
200 Benzo[g,h,i]perylene	276	15.480	15.479	0.001	98	1323038	100.0	100.0	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLB1&B2_00017

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\929.D

Injection Date: 07-Nov-2022 23:35:31

Instrument ID: SMS_1

Operator ID:

Lims ID: ICV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

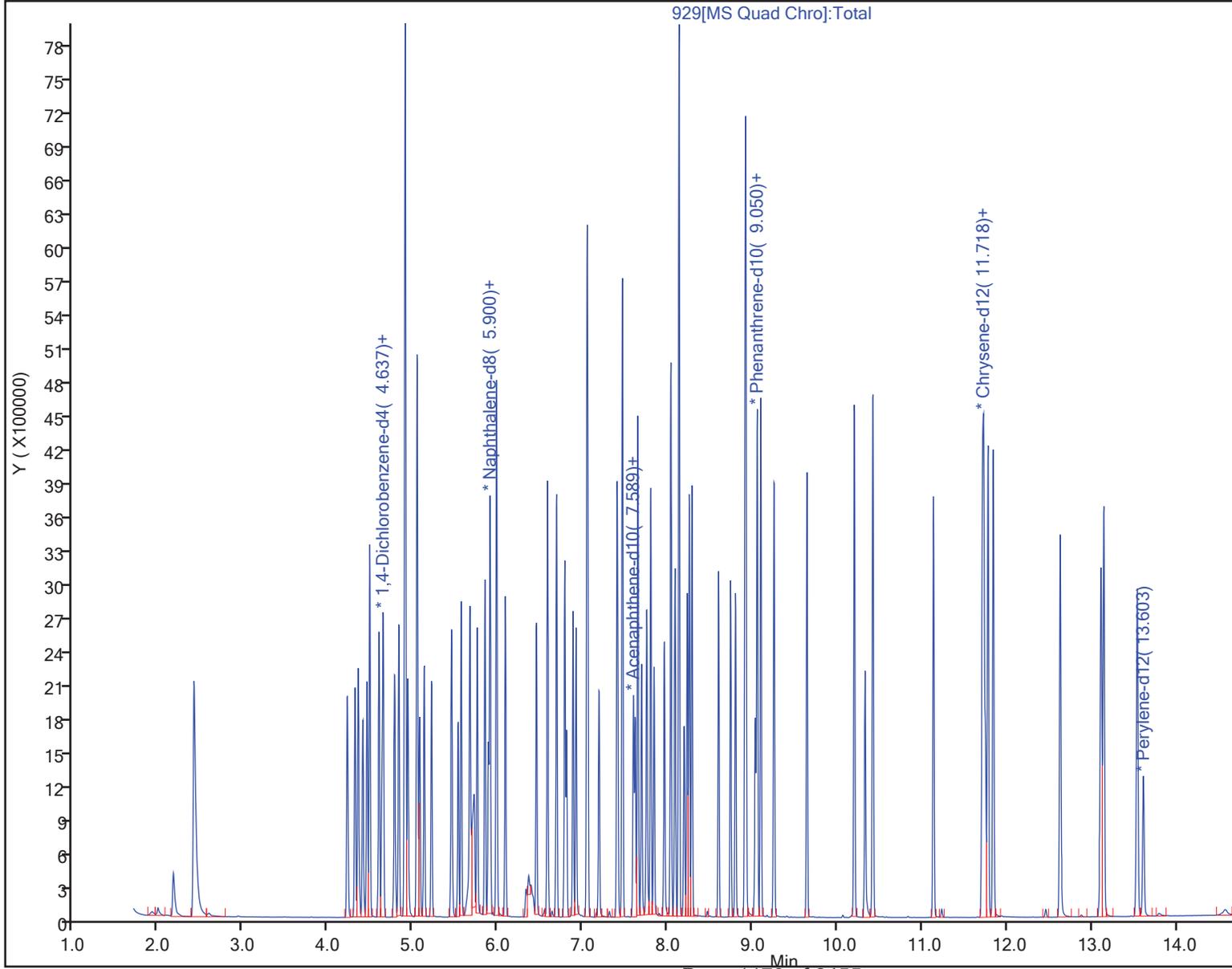
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593651/2 Calibration Date: 11/16/2022 16:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1598.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.5493		74600	80000	-6.8	20.0
N-Nitrosodimethylamine	Ave	0.9206	0.8522		74000	80000	-7.4	20.0
Pyridine	Ave	1.603	1.375		137000	160000	-14.2	20.0
Phenol	Ave	1.789	1.635	0.8000	73100	80000	-8.6	20.0
Aniline	Ave	2.245	1.976		70400	80000	-12.0	20.0
Alpha Methyl Styrene	Ave	1.377	1.348		78300	80000	-2.1	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.446	0.7000	72600	80000	-9.2	20.0
2-Chlorophenol	Ave	1.293	1.227	0.8000	75900	80000	-5.1	20.0
n-Decane	Lin2		1.455		71500	80000	-10.6	20.0
1,3-Dichlorobenzene	Ave	1.474	1.378		74800	80000	-6.5	20.0
1,4-Dichlorobenzene	Ave	1.516	1.386		73100	80000	-8.6	20.0
Benzyl alcohol	Ave	0.8278	0.7919		76500	80000	-4.3	20.0
1,2-Dichlorobenzene	Ave	1.426	1.325		74400	80000	-7.1	20.0
2-Methylphenol	Ave	1.286	1.262	0.7000	78500	80000	-1.9	20.0
Indene	Ave	2.525	2.341		148000	160000	-7.3	20.0
2,2'-oxybis[1-chloropropane]	Lin2		1.903	0.0100	75000	80000	-6.2	20.0
3 & 4 Methylphenol	Ave	1.314	1.285		78200	80000	-2.2	20.0
3-Methylphenol	Ave	1.314	1.285		78200	80000	-2.2	20.0
4-Methylphenol	Ave	1.314	1.285	0.6000	78200	80000	-2.2	20.0
Acetophenone	Ave	2.125	2.007	0.0100	75600	80000	-5.6	20.0
N-Nitrosodi-n-propylamine	Lin1		1.110	0.5000	82500	80000	3.1	20.0
Hexachloroethane	Ave	0.6446	0.5984	0.3000	74300	80000	-7.2	20.0
Nitrobenzene	Ave	0.4595	0.4040	0.2000	70300	80000	-12.1	20.0
Isophorone	Ave	0.8135	0.7318	0.4000	72000	80000	-10.0	20.0
2-Nitrophenol	Ave	0.1614	0.1562	0.1000	77400	80000	-3.2	20.0
2,4-Dimethylphenol	Ave	0.3553	0.3385	0.2000	76200	80000	-4.7	20.0
Bis(2-chloroethoxy)methane	Lin1		0.3094	0.3000	70900	80000	-11.3	20.0
Benzoic acid	Lin1		0.2526		143000	160000	-10.8	20.0
2,4-Dichlorophenol	Ave	0.2857	0.2709	0.2000	75900	80000	-5.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3440	0.3130		72800	80000	-9.0	20.0
Naphthalene	Ave	1.013	0.9165	0.7000	72400	80000	-9.5	20.0
4-Chloroaniline	Ave	0.4233	0.3839	0.0100	72500	80000	-9.3	20.0
2,6-Dichlorophenol	Ave	0.2963	0.2786		75200	80000	-6.0	20.0
Hexachlorobutadiene	Ave	0.1961	0.1784	0.0100	72800	80000	-9.0	20.0
4-Chloro-3-methylphenol	Ave	0.3095	0.2985	0.2000	77100	80000	-3.6	20.0
2-Methylnaphthalene	Ave	0.5816	0.5461	0.4000	75100	80000	-6.1	20.0
1-Methylnaphthalene	Ave	0.6235	0.5850		75100	80000	-6.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3418	0.3205	0.0100	75000	80000	-6.2	20.0
Hexachlorocyclopentadiene	Lin2		0.2194	0.0500	72300	80000	-9.6	20.0
2,4,6-Trichlorophenol	Ave	0.3707	0.3659	0.2000	79000	80000	-1.3	20.0
2,4,5-Trichlorophenol	Lin1		0.4019	0.2000	80100	80000	0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593651/2 Calibration Date: 11/16/2022 16:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1598.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.476	1.353	0.0100	73300	80000	-8.3	20.0
2-Chloronaphthalene	Ave	1.172	1.083	0.8000	73900	80000	-7.7	20.0
2-Nitroaniline	Lin1		0.3731	0.0100	75300	80000	-5.9	20.0
Dimethyl phthalate	Ave	1.295	1.237	0.0100	76400	80000	-4.5	20.0
1,3-Dinitrobenzene	Lin2		0.1914		76800	80000	-4.0	20.0
2,6-Dinitrotoluene	Ave	0.2989	0.2862	0.2000	76600	80000	-4.3	20.0
Acenaphthylene	Ave	1.748	1.630	0.9000	74600	80000	-6.7	20.0
3-Nitroaniline	Lin1		0.2705	0.0100	76900	80000	-3.9	20.0
Acenaphthene	Ave	1.196	1.100	0.9000	73500	80000	-8.1	20.0
2,4-Dinitrophenol	Lin2		0.1368	0.0100	160000	160000	0.2	20.0
4-Nitrophenol	Lin2		0.1570	0.0100	134000	160000	-16.2	20.0
Dibenzofuran	Ave	1.627	1.510	0.8000	74200	80000	-7.2	20.0
2,4-Dinitrotoluene	Lin2		0.3846	0.2000	79800	80000	-0.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3078	0.3028	0.0100	78700	80000	-1.6	20.0
Hexadecane	Lin2		0.9321		73000	80000	-8.8	20.0
Diethyl phthalate	Ave	1.310	1.258	0.0100	76900	80000	-3.9	20.0
4-Chlorophenyl phenyl ether	Ave	0.6663	0.6378	0.4000	76600	80000	-4.3	20.0
Fluorene	Ave	1.352	1.298	0.9000	76800	80000	-3.9	20.0
4-Nitroaniline	Lin2		0.2500	0.0100	69700	80000	-12.9	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1102	0.0100	161000	160000	0.7	20.0
Diphenylamine	Ave	1.102	1.073		66200	68000	-2.6	20.0
N-Nitrosodiphenylamine	Ave	0.5164	0.4778	0.0100	74000	80000	-7.5	20.0
1,2-Diphenylhydrazine	Lin2		1.537		77000	80900	-4.8	20.0
Azobenzene	Qua		1.553		69300	80000	-13.4	20.0
4-Bromophenyl phenyl ether	Ave	0.1991	0.1853	0.1000	74400	80000	-6.9	20.0
Hexachlorobenzene	Ave	0.2199	0.2080	0.1000	75700	80000	-5.4	20.0
Pentachlorophenol	Lin2		0.1274	0.0500	149000	160000	-6.9	20.0
n-Octadecane	Lin1		0.5135		74600	80000	-6.7	
Phenanthrene	Ave	1.063	0.9848	0.7000	74100	80000	-7.3	20.0
Anthracene	Ave	1.080	1.020	0.7000	75500	80000	-5.6	20.0
Carbazole	Ave	0.9442	0.9074	0.0100	76900	80000	-3.9	20.0
Alachlor	Ave	0.1267	0.1380		87100	80000	8.9	20.0
Di-n-butyl phthalate	Ave	1.158	1.136	0.0100	78500	80000	-1.9	20.0
Fluoranthene	Ave	1.114	1.089	0.6000	78200	80000	-2.3	20.0
Pyrene	Lin2		1.206	0.6000	77200	80000	-3.5	20.0
Butyl benzyl phthalate	Lin2		0.5191	0.0100	75100	80000	-6.1	20.0
Benzo[a]anthracene	Ave	1.271	1.223	0.8000	77000	80000	-3.8	20.0
Chrysene	Ave	1.225	1.093	0.7000	71400	80000	-10.8	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.7459	0.0100	79900	80000	-0.1	20.0
Di-n-octyl phthalate	Lin2		1.245	0.0100	79100	80000	-1.2	20.0
Benzo[b]fluoranthene	Ave	1.232	1.160	0.7000	75300	80000	-5.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593651/2 Calibration Date: 11/16/2022 16:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1598.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[k]fluoranthene	Ave	1.335	1.221	0.7000	73200	80000	-8.6	20.0
Benzo[a]pyrene	Ave	1.087	1.052	0.7000	77400	80000	-3.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.090	1.258	0.5000	92400	80000	15.4	20.0
Dibenz(a,h)anthracene	Ave	0.9937	1.081	0.4000	87000	80000	8.8	20.0
Benzo[g,h,i]perylene	Ave	0.9534	1.065	0.5000	89400	80000	11.7	20.0
2-Fluorophenol (Surr)	Ave	1.394	1.172		67300	80000	-15.9	20.0
Phenol-d5 (Surr)	Ave	1.823	1.624		71300	80000	-10.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4887	0.4130		67600	80000	-15.5	20.0
2-Fluorobiphenyl	Ave	1.447	1.248		69000	80000	-13.7	20.0
2,4,6-Tribromophenol (Surr)	Lin2		0.1873		76900	80000	-3.8	20.0
Terphenyl-d14 (Surr)	Ave	1.104	0.9641		69800	80000	-12.7	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1598.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 16-Nov-2022 16:17:25 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:10:08 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NBC9

Date: 16-Nov-2022 17:08:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.621	4.621	0.000	97	177596	40.0	40.0	
* 2 Naphthalene-d8	136	5.880	5.880	0.000	100	704569	40.0	40.0	
* 3 Acenaphthene-d10	164	7.612	7.612	0.000	96	418313	40.0	40.0	
* 4 Phenanthrene-d10	188	9.028	9.028	0.000	97	794459	40.0	40.0	
* 5 Chrysene-d12	240	11.743	11.743	0.000	98	758883	40.0	40.0	
* 6 Perylene-d12	264	13.608	13.608	0.000	98	739383	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.431	3.431	0.000	95	416386	80.0	67.3	
\$ 8 Phenol-d5	99	4.297	4.297	0.000	98	576952	80.0	71.3	
\$ 9 Nitrobenzene-d5	82	5.191	5.191	0.000	90	581927	80.0	67.6	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	99	1044434	80.0	69.0	
\$ 11 2,4,6-Tribromophenol	330	8.383	8.383	0.000	94	156699	80.0	76.9	
\$ 12 Terphenyl-d14	244	10.580	10.580	0.000	97	1463219	80.0	69.8	
15 1,4-Dioxane	88	2.123	2.123	0.000	97	195102	80.0	74.6	
17 N-Nitrosodimethylamine	74	2.366	2.366	0.000	92	302679	80.0	74.0	
18 Pyridine	79	2.379	2.379	0.000	96	976660	160.0	137.2	
29 Phenol	94	4.307	4.307	0.000	99	580611	80.0	73.1	
31 Aniline	93	4.348	4.348	0.000	97	701979	80.0	70.4	
32 Alpha Methyl Styrene	118	4.380	4.380	0.000	91	478696	80.0	78.3	
33 Bis(2-chloroethyl)ether	93	4.396	4.396	0.000	97	513591	80.0	72.6	
34 2-Chlorophenol	128	4.448	4.448	0.000	96	435847	80.0	75.9	
35 n-Decane	43	4.480	4.480	0.000	89	516714	80.0	71.5	
36 1,3-Dichlorobenzene	146	4.589	4.589	0.000	95	489421	80.0	74.8	
37 1,4-Dichlorobenzene	146	4.637	4.637	0.000	90	492245	80.0	73.1	
40 Benzyl alcohol	108	4.774	4.774	0.000	89	281262	80.0	76.5	
43 1,2-Dichlorobenzene	146	4.822	4.822	0.000	93	470681	80.0	74.4	
45 2-Methylphenol	108	4.893	4.893	0.000	97	448418	80.0	78.5	
46 Indene	116	4.899	4.899	0.000	89	1663047	160.0	148.3	
47 2,2'-oxybis[1-chloropropane]	45	4.928	4.928	0.000	92	675980	80.0	75.0	
49 3-Methylphenol	108	5.040	5.040	0.000	88	456536	80.0	78.2	
51 4-Methylphenol	108	5.040	5.040	0.000	96	456536	80.0	78.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.040	5.040	0.000	0	456536	80.0	78.2	
52 Acetophenone	105	5.040	5.040	0.000	91	712715	80.0	75.6	
54 N-Nitrosodi-n-propylamine	70	5.072	5.072	0.000	87	394093	80.0	82.5	
56 Hexachloroethane	117	5.120	5.120	0.000	96	212546	80.0	74.3	
58 Nitrobenzene	77	5.210	5.210	0.000	88	569328	80.0	70.3	
60 Isophorone	82	5.453	5.453	0.000	99	1031229	80.0	72.0	
61 2-Nitrophenol	139	5.524	5.524	0.000	96	220164	80.0	77.4	
62 2,4-Dimethylphenol	107	5.562	5.562	0.000	98	476996	80.0	76.2	
66 Bis(2-chloroethoxy)methane	63	5.662	5.662	0.000	98	435945	80.0	70.9	
68 3,5-Dimethylphenol	107	5.691	5.691	0.000	84	517185	80.0	78.7	
69 Benzoic acid	105	5.713	5.713	0.000	91	711915	160.0	142.7	
70 2,4-Dichlorophenol	162	5.752	5.752	0.000	98	381792	80.0	75.9	
72 1,2,4-Trichlorobenzene	180	5.842	5.842	0.000	93	441023	80.0	72.8	
75 Naphthalene	128	5.899	5.899	0.000	99	1291408	80.0	72.4	
77 4-Chloroaniline	127	5.976	5.976	0.000	94	540952	80.0	72.5	
78 2,6-Dichlorophenol	162	5.980	5.980	0.000	91	392557	80.0	75.2	
80 Hexachlorobutadiene	225	6.082	6.082	0.000	97	251452	80.0	72.8	
84 Caprolactam	55	6.374	6.374	0.000	78	170197	80.0	64.7	
85 4-Chloro-3-methylphenol	107	6.451	6.451	0.000	96	420615	80.0	77.1	
88 2-Methylnaphthalene	141	6.579	6.579	0.000	91	769545	80.0	75.1	
89 1-Methylnaphthalene	142	6.685	6.685	0.000	98	824373	80.0	75.1	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	451620	80.0	75.0	
92 Hexachlorocyclopentadiene	237	6.803	6.803	0.000	97	183537	80.0	72.3	
93 2,4,6-Trichlorophenol	196	6.881	6.881	0.000	95	306142	80.0	79.0	
94 2,3-Dichlorobenzenamine	161	6.890	6.890	0.000	94	500268	80.0	79.3	
95 2,4,5-Trichlorophenol	196	6.919	6.919	0.000	94	336230	80.0	80.1	
97 1,1'-Biphenyl	154	7.044	7.044	0.000	98	1131826	80.0	73.3	
98 2-Chloronaphthalene	162	7.054	7.054	0.000	98	905764	80.0	73.9	
101 2-Nitroaniline	65	7.189	7.189	0.000	77	312119	80.0	75.3	
104 Dimethyl phthalate	163	7.400	7.400	0.000	96	1034716	80.0	76.4	
105 1,3-Dinitrobenzene	168	7.410	7.410	0.000	86	160122	80.0	76.8	
106 2,6-Dinitrotoluene	165	7.461	7.461	0.000	92	239403	80.0	76.6	
107 Acenaphthylene	152	7.464	7.464	0.000	99	1363939	80.0	74.6	
108 3-Nitroaniline	138	7.596	7.596	0.000	91	226333	80.0	76.9	
109 Acenaphthene	153	7.644	7.644	0.000	97	919960	80.0	73.5	
111 2,4-Dinitrophenol	184	7.689	7.689	0.000	84	228979	160.0	160.3	
113 4-Nitrophenol	109	7.753	7.753	0.000	95	262713	160.0	134.1	
114 Dibenzofuran	168	7.798	7.798	0.000	96	1263511	80.0	74.2	
116 2,4-Dinitrotoluene	165	7.837	7.837	0.000	90	321782	80.0	79.8	
120 2,3,4,6-Tetrachlorophenol	232	7.959	7.959	0.000	76	253323	80.0	78.7	
122 Hexadecane	57	8.032	8.032	0.000	95	779834	80.0	73.0	
124 Diethyl phthalate	149	8.084	8.084	0.000	97	1052892	80.0	76.9	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	73	533616	80.0	76.6	
127 Fluorene	166	8.129	8.129	0.000	92	1086192	80.0	76.8	
130 4-Nitroaniline	138	8.190	8.190	0.000	81	209116	80.0	69.7	
131 4,6-Dinitro-2-methylphenol	198	8.228	8.228	0.000	82	350316	160.0	161.2	
132 Diphenylamine	169	8.251	8.251	0.000	94	763064	68.0	66.2	
133 N-Nitrosodiphenylamine	169	8.251	8.251	0.000	66	759197	80.0	74.0	
135 Azobenzene	77	8.283	8.283	0.000	99	1299677	80.0	69.3	
136 1,2-Diphenylhydrazine	77	8.283	8.283	0.000	57	1299677	80.9	77.0	
145 4-Bromophenyl phenyl ether	248	8.598	8.598	0.000	72	294446	80.0	74.4	
148 Hexachlorobenzene	284	8.739	8.739	0.000	94	330473	80.0	75.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200	8.800	8.800	0.000	91	280966	80.0	77.1	
153 Pentachlorophenol	266	8.909	8.909	0.000	92	404760	160.0	148.9	
154 n-Octadecane	57	8.919	8.919	0.000	97	815938	80.0	74.6	
157 Phenanthrene	178	9.051	9.051	0.000	99	1564735	80.0	74.1	
160 Anthracene	178	9.096	9.096	0.000	98	1620044	80.0	75.5	
161 Carbazole	167	9.250	9.250	0.000	96	1441810	80.0	76.9	
163 Alachlor	188	9.487	9.487	0.000	97	219266	80.0	87.1	
164 Di-n-butyl phthalate	149	9.641	9.641	0.000	100	1804865	80.0	78.5	
170 Fluoranthene	202	10.198	10.198	0.000	99	1729607	80.0	78.2	
172 Pyrene	202	10.416	10.416	0.000	96	1830662	80.0	77.2	
180 Butyl benzyl phthalate	149	11.131	11.131	0.000	97	787872	80.0	75.1	
183 3,3'-Dichlorobenzidine	252	11.707	11.707	0.000	77	630602	80.0	83.5	
184 Benzo[a]anthracene	228	11.724	11.724	0.000	99	1856095	80.0	77.0	
185 Chrysene	228	11.775	11.775	0.000	97	1658906	80.0	71.4	
186 Bis(2-ethylhexyl) phthalate	149	11.837	11.837	0.000	98	1185140	80.0	79.9	
189 Di-n-octyl phthalate	149	12.625	12.625	0.000	99	1889528	80.0	79.1	
191 Benzo[b]fluoranthene	252	13.107	13.107	0.000	97	1714774	80.0	75.3	
193 Benzo[k]fluoranthene	252	13.139	13.139	0.000	99	1804989	80.0	73.2	
194 Benzo[a]pyrene	252	13.537	13.537	0.000	78	1555228	80.0	77.4	
198 Indeno[1,2,3-cd]pyrene	276	15.093	15.093	0.000	99	1909676	80.0	92.4	
199 Dibenz(a,h)anthracene	278	15.119	15.119	0.000	94	1598656	80.0	87.0	
200 Benzo[g,h,i]perylene	276	15.486	15.486	0.000	98	1574869	80.0	89.4	
S 211 Total Cresols	108				0			156.8	
S 212 Methyl Phenols, Total	108				0			156.8	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1598.D

Injection Date: 16-Nov-2022 16:17:25

Instrument ID: SMS_1

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

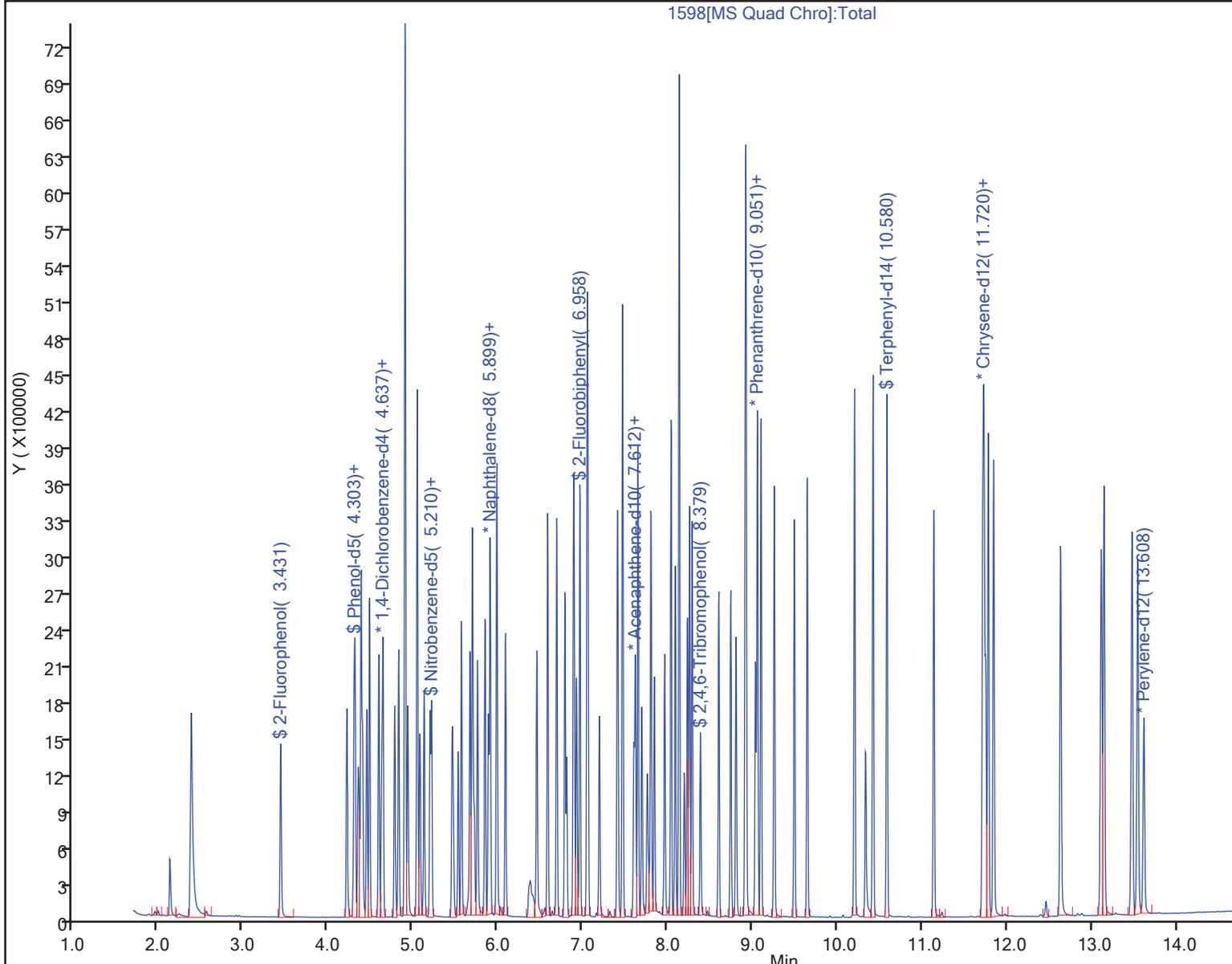
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593651/2 Calibration Date: 11/16/2022 16:17
 Instrument ID: SMS_1 Calib Start Date: 11/09/2022 15:58
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/09/2022 18:07
 Lab File ID: 1598.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1493	0.1208	0.0100	64700	80000	-19.1	20.0
Atrazine	Ave	0.1836	0.1768	0.0100	77100	80000	-3.7	20.0
3,3'-Dichlorobenzidine	Lin2		0.4155	0.0100	83500	80000	4.4	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1598.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 16-Nov-2022 16:17:25 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:10:08 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NBC9

Date: 16-Nov-2022 17:08:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.621	4.621	0.000	97	177596	40.0	40.0	
* 2 Naphthalene-d8	136	5.880	5.880	0.000	100	704569	40.0	40.0	
* 3 Acenaphthene-d10	164	7.612	7.612	0.000	96	418313	40.0	40.0	
* 4 Phenanthrene-d10	188	9.028	9.028	0.000	97	794459	40.0	40.0	
* 5 Chrysene-d12	240	11.743	11.743	0.000	98	758883	40.0	40.0	
* 6 Perylene-d12	264	13.608	13.608	0.000	98	739383	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.431	3.431	0.000	95	416386	80.0	67.3	
\$ 8 Phenol-d5	99	4.297	4.297	0.000	98	576952	80.0	71.3	
\$ 9 Nitrobenzene-d5	82	5.191	5.191	0.000	90	581927	80.0	67.6	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	99	1044434	80.0	69.0	
\$ 11 2,4,6-Tribromophenol	330	8.383	8.383	0.000	94	156699	80.0	76.9	
\$ 12 Terphenyl-d14	244	10.580	10.580	0.000	97	1463219	80.0	69.8	
15 1,4-Dioxane	88	2.123	2.123	0.000	97	195102	80.0	74.6	
17 N-Nitrosodimethylamine	74	2.366	2.366	0.000	92	302679	80.0	74.0	
18 Pyridine	79	2.379	2.379	0.000	96	976660	160.0	137.2	
29 Phenol	94	4.307	4.307	0.000	99	580611	80.0	73.1	
31 Aniline	93	4.348	4.348	0.000	97	701979	80.0	70.4	
32 Alpha Methyl Styrene	118	4.380	4.380	0.000	91	478696	80.0	78.3	
33 Bis(2-chloroethyl)ether	93	4.396	4.396	0.000	97	513591	80.0	72.6	
34 2-Chlorophenol	128	4.448	4.448	0.000	96	435847	80.0	75.9	
35 n-Decane	43	4.480	4.480	0.000	89	516714	80.0	71.5	
36 1,3-Dichlorobenzene	146	4.589	4.589	0.000	95	489421	80.0	74.8	
37 1,4-Dichlorobenzene	146	4.637	4.637	0.000	90	492245	80.0	73.1	
40 Benzyl alcohol	108	4.774	4.774	0.000	89	281262	80.0	76.5	
43 1,2-Dichlorobenzene	146	4.822	4.822	0.000	93	470681	80.0	74.4	
45 2-Methylphenol	108	4.893	4.893	0.000	97	448418	80.0	78.5	
46 Indene	116	4.899	4.899	0.000	89	1663047	160.0	148.3	
47 2,2'-oxybis[1-chloropropane]	45	4.928	4.928	0.000	92	675980	80.0	75.0	
49 3-Methylphenol	108	5.040	5.040	0.000	88	456536	80.0	78.2	
51 4-Methylphenol	108	5.040	5.040	0.000	96	456536	80.0	78.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.040	5.040	0.000	0	456536	80.0	78.2	
52 Acetophenone	105	5.040	5.040	0.000	91	712715	80.0	75.6	
54 N-Nitrosodi-n-propylamine	70	5.072	5.072	0.000	87	394093	80.0	82.5	
56 Hexachloroethane	117	5.120	5.120	0.000	96	212546	80.0	74.3	
58 Nitrobenzene	77	5.210	5.210	0.000	88	569328	80.0	70.3	
60 Isophorone	82	5.453	5.453	0.000	99	1031229	80.0	72.0	
61 2-Nitrophenol	139	5.524	5.524	0.000	96	220164	80.0	77.4	
62 2,4-Dimethylphenol	107	5.562	5.562	0.000	98	476996	80.0	76.2	
66 Bis(2-chloroethoxy)methane	63	5.662	5.662	0.000	98	435945	80.0	70.9	
68 3,5-Dimethylphenol	107	5.691	5.691	0.000	84	517185	80.0	78.7	
69 Benzoic acid	105	5.713	5.713	0.000	91	711915	160.0	142.7	
70 2,4-Dichlorophenol	162	5.752	5.752	0.000	98	381792	80.0	75.9	
72 1,2,4-Trichlorobenzene	180	5.842	5.842	0.000	93	441023	80.0	72.8	
75 Naphthalene	128	5.899	5.899	0.000	99	1291408	80.0	72.4	
77 4-Chloroaniline	127	5.976	5.976	0.000	94	540952	80.0	72.5	
78 2,6-Dichlorophenol	162	5.980	5.980	0.000	91	392557	80.0	75.2	
80 Hexachlorobutadiene	225	6.082	6.082	0.000	97	251452	80.0	72.8	
84 Caprolactam	55	6.374	6.374	0.000	78	170197	80.0	64.7	
85 4-Chloro-3-methylphenol	107	6.451	6.451	0.000	96	420615	80.0	77.1	
88 2-Methylnaphthalene	141	6.579	6.579	0.000	91	769545	80.0	75.1	
89 1-Methylnaphthalene	142	6.685	6.685	0.000	98	824373	80.0	75.1	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	99	451620	80.0	75.0	
92 Hexachlorocyclopentadiene	237	6.803	6.803	0.000	97	183537	80.0	72.3	
93 2,4,6-Trichlorophenol	196	6.881	6.881	0.000	95	306142	80.0	79.0	
94 2,3-Dichlorobenzenamine	161	6.890	6.890	0.000	94	500268	80.0	79.3	
95 2,4,5-Trichlorophenol	196	6.919	6.919	0.000	94	336230	80.0	80.1	
97 1,1'-Biphenyl	154	7.044	7.044	0.000	98	1131826	80.0	73.3	
98 2-Chloronaphthalene	162	7.054	7.054	0.000	98	905764	80.0	73.9	
101 2-Nitroaniline	65	7.189	7.189	0.000	77	312119	80.0	75.3	
104 Dimethyl phthalate	163	7.400	7.400	0.000	96	1034716	80.0	76.4	
105 1,3-Dinitrobenzene	168	7.410	7.410	0.000	86	160122	80.0	76.8	
106 2,6-Dinitrotoluene	165	7.461	7.461	0.000	92	239403	80.0	76.6	
107 Acenaphthylene	152	7.464	7.464	0.000	99	1363939	80.0	74.6	
108 3-Nitroaniline	138	7.596	7.596	0.000	91	226333	80.0	76.9	
109 Acenaphthene	153	7.644	7.644	0.000	97	919960	80.0	73.5	
111 2,4-Dinitrophenol	184	7.689	7.689	0.000	84	228979	160.0	160.3	
113 4-Nitrophenol	109	7.753	7.753	0.000	95	262713	160.0	134.1	
114 Dibenzofuran	168	7.798	7.798	0.000	96	1263511	80.0	74.2	
116 2,4-Dinitrotoluene	165	7.837	7.837	0.000	90	321782	80.0	79.8	
120 2,3,4,6-Tetrachlorophenol	232	7.959	7.959	0.000	76	253323	80.0	78.7	
122 Hexadecane	57	8.032	8.032	0.000	95	779834	80.0	73.0	
124 Diethyl phthalate	149	8.084	8.084	0.000	97	1052892	80.0	76.9	
126 4-Chlorophenyl phenyl ether	204	8.129	8.129	0.000	73	533616	80.0	76.6	
127 Fluorene	166	8.129	8.129	0.000	92	1086192	80.0	76.8	
130 4-Nitroaniline	138	8.190	8.190	0.000	81	209116	80.0	69.7	
131 4,6-Dinitro-2-methylphenol	198	8.228	8.228	0.000	82	350316	160.0	161.2	
132 Diphenylamine	169	8.251	8.251	0.000	94	763064	68.0	66.2	
133 N-Nitrosodiphenylamine	169	8.251	8.251	0.000	66	759197	80.0	74.0	
135 Azobenzene	77	8.283	8.283	0.000	99	1299677	80.0	69.3	
136 1,2-Diphenylhydrazine	77	8.283	8.283	0.000	57	1299677	80.9	77.0	
145 4-Bromophenyl phenyl ether	248	8.598	8.598	0.000	72	294446	80.0	74.4	
148 Hexachlorobenzene	284	8.739	8.739	0.000	94	330473	80.0	75.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200	8.800	8.800	0.000	91	280966	80.0	77.1	
153 Pentachlorophenol	266	8.909	8.909	0.000	92	404760	160.0	148.9	
154 n-Octadecane	57	8.919	8.919	0.000	97	815938	80.0	74.6	
157 Phenanthrene	178	9.051	9.051	0.000	99	1564735	80.0	74.1	
160 Anthracene	178	9.096	9.096	0.000	98	1620044	80.0	75.5	
161 Carbazole	167	9.250	9.250	0.000	96	1441810	80.0	76.9	
163 Alachlor	188	9.487	9.487	0.000	97	219266	80.0	87.1	
164 Di-n-butyl phthalate	149	9.641	9.641	0.000	100	1804865	80.0	78.5	
170 Fluoranthene	202	10.198	10.198	0.000	99	1729607	80.0	78.2	
172 Pyrene	202	10.416	10.416	0.000	96	1830662	80.0	77.2	
180 Butyl benzyl phthalate	149	11.131	11.131	0.000	97	787872	80.0	75.1	
183 3,3'-Dichlorobenzidine	252	11.707	11.707	0.000	77	630602	80.0	83.5	
184 Benzo[a]anthracene	228	11.724	11.724	0.000	99	1856095	80.0	77.0	
185 Chrysene	228	11.775	11.775	0.000	97	1658906	80.0	71.4	
186 Bis(2-ethylhexyl) phthalate	149	11.837	11.837	0.000	98	1185140	80.0	79.9	
189 Di-n-octyl phthalate	149	12.625	12.625	0.000	99	1889528	80.0	79.1	
191 Benzo[b]fluoranthene	252	13.107	13.107	0.000	97	1714774	80.0	75.3	
193 Benzo[k]fluoranthene	252	13.139	13.139	0.000	99	1804989	80.0	73.2	
194 Benzo[a]pyrene	252	13.537	13.537	0.000	78	1555228	80.0	77.4	
198 Indeno[1,2,3-cd]pyrene	276	15.093	15.093	0.000	99	1909676	80.0	92.4	
199 Dibenz(a,h)anthracene	278	15.119	15.119	0.000	94	1598656	80.0	87.0	
200 Benzo[g,h,i]perylene	276	15.486	15.486	0.000	98	1574869	80.0	89.4	
S 211 Total Cresols	108				0			156.8	
S 212 Methyl Phenols, Total	108				0			156.8	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1598.D

Injection Date: 16-Nov-2022 16:17:25

Instrument ID: SMS_1

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

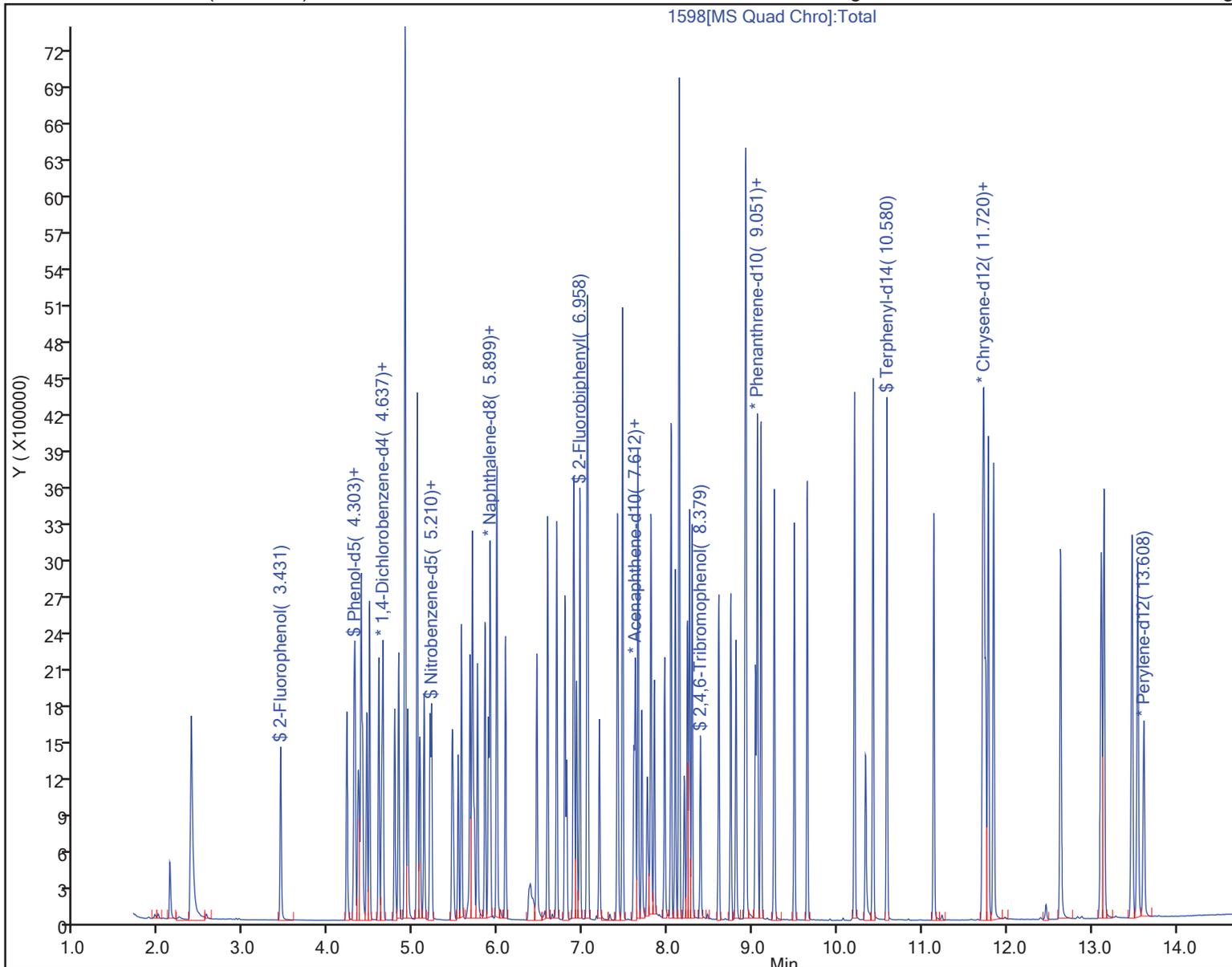
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593651/57 Calibration Date: 11/17/2022 02:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1626.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin2		0.5281		71500	80000	-10.6	50.0
N-Nitrosodimethylamine	Ave	0.9206	0.8365		72700	80000	-9.1	50.0
Pyridine	Ave	1.603	1.352		135000	160000	-15.7	50.0
Phenol	Ave	1.789	1.621	0.8000	72500	80000	-9.4	50.0
Aniline	Ave	2.245	2.035		72500	80000	-9.3	50.0
Alpha Methyl Styrene	Ave	1.377	1.313		76300	80000	-4.6	20.0
Bis(2-chloroethyl)ether	Ave	1.593	1.389	0.7000	69800	80000	-12.8	50.0
2-Chlorophenol	Ave	1.293	1.184	0.8000	73300	80000	-8.4	50.0
n-Decane	Lin2		1.381		67600	80000	-15.5	20.0
1,3-Dichlorobenzene	Ave	1.474	1.330		72200	80000	-9.8	50.0
1,4-Dichlorobenzene	Ave	1.516	1.360		71800	80000	-10.3	50.0
Benzyl alcohol	Ave	0.8278	0.7698		74400	80000	-7.0	50.0
1,2-Dichlorobenzene	Ave	1.426	1.300		72900	80000	-8.8	50.0
2-Methylphenol	Ave	1.286	1.239	0.7000	77100	80000	-3.7	50.0
Indene	Ave	2.525	2.260		143000	160000	-10.5	20.0
2,2'-oxybis[1-chloropropane]	Lin2		1.803	0.0100	70800	80000	-11.5	50.0
3 & 4 Methylphenol	Ave	1.314	1.269		77200	80000	-3.4	50.0
3-Methylphenol	Ave	1.314	1.269		77200	80000	-3.4	20.0
4-Methylphenol	Ave	1.314	1.269	0.6000	77200	80000	-3.4	20.0
Acetophenone	Ave	2.125	1.934	0.0100	72800	80000	-9.0	50.0
N-Nitrosodi-n-propylamine	Lin1		1.075	0.5000	79700	80000	-0.3	50.0
Hexachloroethane	Ave	0.6446	0.5773	0.3000	71600	80000	-10.4	50.0
Nitrobenzene	Ave	0.4595	0.4055	0.2000	70600	80000	-11.7	50.0
Isophorone	Ave	0.8135	0.7446	0.4000	73200	80000	-8.5	50.0
2-Nitrophenol	Ave	0.1614	0.1581	0.1000	78400	80000	-2.0	50.0
2,4-Dimethylphenol	Ave	0.3553	0.3472	0.2000	78200	80000	-2.3	50.0
Bis(2-chloroethoxy)methane	Lin1		0.3108	0.3000	71300	80000	-10.9	50.0
Benzoic acid	Lin1		0.2831		158000	160000	-1.1	50.0
2,4-Dichlorophenol	Ave	0.2857	0.2757	0.2000	77200	80000	-3.5	50.0
1,2,4-Trichlorobenzene	Ave	0.3440	0.3171		73700	80000	-7.8	50.0
Naphthalene	Ave	1.013	0.9310	0.7000	73500	80000	-8.1	50.0
4-Chloroaniline	Ave	0.4233	0.4031	0.0100	76200	80000	-4.8	50.0
2,6-Dichlorophenol	Ave	0.2963	0.2828		76400	80000	-4.5	50.0
Hexachlorobutadiene	Ave	0.1961	0.1814	0.0100	74000	80000	-7.5	50.0
4-Chloro-3-methylphenol	Ave	0.3095	0.3087	0.2000	79800	80000	-0.3	50.0
2-Methylnaphthalene	Ave	0.5816	0.5504	0.4000	75700	80000	-5.4	50.0
1-Methylnaphthalene	Ave	0.6235	0.5876		75400	80000	-5.8	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3418	0.3312	0.0100	77500	80000	-3.1	50.0
Hexachlorocyclopentadiene	Lin2		0.2730	0.0500	89200	80000	11.5	50.0
2,4,6-Trichlorophenol	Ave	0.3707	0.3593	0.2000	77600	80000	-3.1	50.0
2,4,5-Trichlorophenol	Lin1		0.4062	0.2000	81000	80000	1.2	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593651/57 Calibration Date: 11/17/2022 02:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1626.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.476	1.376	0.0100	74600	80000	-6.8	50.0
2-Chloronaphthalene	Ave	1.172	1.074	0.8000	73300	80000	-8.4	50.0
2-Nitroaniline	Lin1		0.3769	0.0100	76100	80000	-4.9	50.0
Dimethyl phthalate	Ave	1.295	1.220	0.0100	75400	80000	-5.8	50.0
1,3-Dinitrobenzene	Lin2		0.1901		76300	80000	-4.6	50.0
2,6-Dinitrotoluene	Ave	0.2989	0.2855	0.2000	76400	80000	-4.5	50.0
Acenaphthylene	Ave	1.748	1.616	0.9000	74000	80000	-7.6	50.0
3-Nitroaniline	Lin1		0.2745	0.0100	78000	80000	-2.4	50.0
Acenaphthene	Ave	1.196	1.120	0.9000	74900	80000	-6.4	50.0
2,4-Dinitrophenol	Lin2		0.1316	0.0100	154000	160000	-3.5	50.0
4-Nitrophenol	Lin2		0.1753	0.0100	149000	160000	-6.9	50.0
Dibenzofuran	Ave	1.627	1.518	0.8000	74600	80000	-6.7	50.0
2,4-Dinitrotoluene	Lin2		0.3783	0.2000	78500	80000	-1.9	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.3078	0.3150	0.0100	81900	80000	2.3	50.0
Hexadecane	Lin2		0.9125		71400	80000	-10.8	20.0
Diethyl phthalate	Ave	1.310	1.259	0.0100	76900	80000	-3.9	50.0
4-Chlorophenyl phenyl ether	Ave	0.6663	0.6359	0.4000	76400	80000	-4.6	50.0
Fluorene	Ave	1.352	1.307	0.9000	77400	80000	-3.3	50.0
4-Nitroaniline	Lin2		0.2898	0.0100	80400	80000	0.5	50.0
4,6-Dinitro-2-methylphenol	Lin2		0.1055	0.0100	155000	160000	-3.4	50.0
Diphenylamine	Ave	1.102	1.071		66100	68000	-2.8	50.0
N-Nitrosodiphenylamine	Ave	0.5164	0.4860	0.0100	75300	80000	-5.9	50.0
1,2-Diphenylhydrazine	Lin2		1.526		76500	80900	-5.5	50.0
Azobenzene	Qua		1.543		68700	80000	-14.2	50.0
4-Bromophenyl phenyl ether	Ave	0.1991	0.1923	0.1000	77300	80000	-3.4	50.0
Hexachlorobenzene	Ave	0.2199	0.2116	0.1000	77000	80000	-3.7	50.0
Pentachlorophenol	Lin2		0.1285	0.0500	150000	160000	-6.1	50.0
n-Octadecane	Lin1		0.5037		73100	80000	-8.6	
Phenanthrene	Ave	1.063	0.9823	0.7000	73900	80000	-7.6	50.0
Anthracene	Ave	1.080	1.033	0.7000	76500	80000	-4.3	50.0
Carbazole	Ave	0.9442	0.9378	0.0100	79500	80000	-0.7	50.0
Alachlor	Ave	0.1267	0.1390		87700	80000	9.7	50.0
Di-n-butyl phthalate	Ave	1.158	1.137	0.0100	78600	80000	-1.8	50.0
Fluoranthene	Ave	1.114	1.105	0.6000	79400	80000	-0.8	50.0
Pyrene	Lin2		1.183	0.6000	75600	80000	-5.5	50.0
Butyl benzyl phthalate	Lin2		0.5149	0.0100	74500	80000	-6.8	50.0
Benzo[a]anthracene	Ave	1.271	1.180	0.8000	74300	80000	-7.2	50.0
Chrysene	Ave	1.225	1.086	0.7000	71000	80000	-11.3	50.0
Bis(2-ethylhexyl) phthalate	Lin2		0.7642	0.0100	81800	80000	2.3	50.0
Di-n-octyl phthalate	Lin2		1.241	0.0100	78800	80000	-1.5	50.0
Benzo[b]fluoranthene	Ave	1.232	1.102	0.7000	71500	80000	-10.6	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593651/57 Calibration Date: 11/17/2022 02:17
 Instrument ID: SMS_1 Calib Start Date: 11/07/2022 20:43
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/07/2022 23:14
 Lab File ID: 1626.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[k]fluoranthene	Ave	1.335	1.249	0.7000	74800	80000	-6.4	50.0
Benzo[a]pyrene	Ave	1.087	1.028	0.7000	75700	80000	-5.4	50.0
Indeno[1,2,3-cd]pyrene	Ave	1.090	1.252	0.5000	91900	80000	14.9	50.0
Dibenz(a,h)anthracene	Ave	0.9937	1.091	0.4000	87800	80000	9.8	50.0
Benzo[g,h,i]perylene	Ave	0.9534	1.050	0.5000	88100	80000	10.1	50.0
2-Fluorophenol (Surr)	Ave	1.394	1.136		65200	80000	-18.5	50.0
Phenol-d5 (Surr)	Ave	1.823	1.602		70300	80000	-12.1	50.0
Nitrobenzene-d5 (Surr)	Ave	0.4887	0.4103		67200	80000	-16.0	50.0
2-Fluorobiphenyl	Ave	1.447	1.250		69100	80000	-13.6	50.0
2,4,6-Tribromophenol (Surr)	Lin2		0.1911		78500	80000	-1.9	50.0
Terphenyl-d14 (Surr)	Ave	1.104	0.9468		68600	80000	-14.3	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1626.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 17-Nov-2022 02:17:15 ALS Bottle#: 0 Worklist Smp#: 57
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:09:06 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NU5H

Date: 17-Nov-2022 13:00:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.615	4.622	-0.007	97	194356	40.0	40.0	
* 2 Naphthalene-d8	136	5.878	5.878	0.000	100	745679	40.0	40.0	
* 3 Acenaphthene-d10	164	7.610	7.610	0.000	95	452214	40.0	40.0	
* 4 Phenanthrene-d10	188	9.027	9.026	0.001	97	847804	40.0	40.0	
* 5 Chrysene-d12	240	11.742	11.738	0.004	99	839843	40.0	40.0	
* 6 Perylene-d12	264	13.611	13.603	0.008	98	815592	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.418	3.441	-0.023	95	441461	80.0	65.2	
\$ 8 Phenol-d5	99	4.288	4.294	-0.006	98	622863	80.0	70.3	
\$ 9 Nitrobenzene-d5	82	5.189	5.191	-0.002	90	611924	80.0	67.2	
\$ 10 2-Fluorobiphenyl	172	6.959	6.958	0.001	100	1130874	80.0	69.1	
\$ 11 2,4,6-Tribromophenol	330	8.382	8.379	0.003	94	172858	80.0	78.5	
\$ 12 Terphenyl-d14	244	10.579	10.575	0.004	97	1590248	80.0	68.6	
15 1,4-Dioxane	88	2.114	2.165	-0.051	96	205296	80.0	71.5	
17 N-Nitrosodimethylamine	74	2.353	2.394	-0.045	92	325169	80.0	72.7	
18 Pyridine	79	2.363	2.407	-0.048	96	1050740	160.0	134.9	
29 Phenol	94	4.301	4.300	-0.006	99	630249	80.0	72.5	
31 Aniline	93	4.333	4.338	-0.012	97	791072	80.0	72.5	
32 Alpha Methyl Styrene	118	4.372	4.377	-0.012	90	510558	80.0	76.3	
33 Bis(2-chloroethyl)ether	93	4.391	4.393	-0.009	97	539802	80.0	69.8	
34 2-Chlorophenol	128	4.439	4.441	-0.009	96	460237	80.0	73.3	
35 n-Decane	43	4.471	4.480	-0.009	89	536909	80.0	67.6	
36 1,3-Dichlorobenzene	146	4.583	4.582	-0.006	95	516867	80.0	72.2	
37 1,4-Dichlorobenzene	146	4.631	4.633	-0.009	90	528599	80.0	71.8	
40 Benzyl alcohol	108	4.769	4.772	-0.003	90	299247	80.0	74.4	
43 1,2-Dichlorobenzene	146	4.817	4.815	-0.006	94	505182	80.0	72.9	
45 2-Methylphenol	108	4.888	4.882	-0.002	97	481746	80.0	77.1	
46 Indene	116	4.894	4.892	-0.006	89	1757342	160.0	143.2	
47 2,2'-oxybis[1-chloropropane]	45	4.923	4.921	-0.006	92	700805	80.0	70.8	
49 3-Methylphenol	108	5.035	5.026	0.001	89	493221	80.0	77.2	
51 4-Methylphenol	108	5.035	5.026	0.001	97	493221	80.0	77.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.035	5.026	0.001	0	493221	80.0	77.2	
52 Acetophenone	105	5.038	5.033	-0.003	89	751650	80.0	72.8	
54 N-Nitrosodi-n-propylamine	70	5.064	5.070	-0.006	87	417729	80.0	79.7	
56 Hexachloroethane	117	5.118	5.113	-0.003	95	224397	80.0	71.6	
58 Nitrobenzene	77	5.205	5.211	-0.006	88	604780	80.0	70.6	
60 Isophorone	82	5.442	5.444	-0.002	99	1110483	80.0	73.2	
61 2-Nitrophenol	139	5.522	5.524	-0.002	97	235836	80.0	78.4	
62 2,4-Dimethylphenol	107	5.561	5.556	0.005	98	517728	80.0	78.2	
66 Bis(2-chloroethoxy)methane	63	5.660	5.659	0.001	99	463457	80.0	71.3	
68 3,5-Dimethylphenol	107	5.689	5.685	0.004	83	551810	80.0	79.4	
69 Benzoic acid	105	5.711	5.704	0.007	91	844543	160.0	158.3	
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	98	411097	80.0	77.2	
72 1,2,4-Trichlorobenzene	180	5.836	5.839	-0.003	93	472858	80.0	73.7	
75 Naphthalene	128	5.898	5.900	-0.002	99	1388427	80.0	73.5	
77 4-Chloroaniline	127	5.975	5.973	0.001	94	601130	80.0	76.2	
78 2,6-Dichlorophenol	162	5.978	5.977	0.001	95	421753	80.0	76.4	
80 Hexachlorobutadiene	225	6.080	6.079	0.001	97	270468	80.0	74.0	
84 Caprolactam	55	6.314	6.314	0.014	78	244002	80.0	87.7	M
85 4-Chloro-3-methylphenol	107	6.452	6.444	0.008	95	460408	80.0	79.8	
88 2-Methylnaphthalene	141	6.577	6.576	0.001	92	820779	80.0	75.7	
89 1-Methylnaphthalene	142	6.683	6.685	-0.002	92	876270	80.0	75.4	
90 1,2,4,5-Tetrachlorobenzene	216	6.779	6.781	-0.002	99	493981	80.0	77.5	
92 Hexachlorocyclopentadiene	237	6.802	6.804	0.002	96	246867	80.0	89.2	
93 2,4,6-Trichlorophenol	196	6.882	6.881	0.005	95	324991	80.0	77.6	
94 2,3-Dichlorobenzenamine	161	6.889	6.891	0.002	94	538358	80.0	79.0	
95 2,4,5-Trichlorophenol	196	6.921	6.916	0.008	94	367389	80.0	81.0	
97 1,1'-Biphenyl	154	7.043	7.041	0.002	97	1244120	80.0	74.6	
98 2-Chloronaphthalene	162	7.053	7.055	0.002	98	971774	80.0	73.3	
101 2-Nitroaniline	65	7.187	7.186	0.005	85	340916	80.0	76.1	
104 Dimethyl phthalate	163	7.399	7.401	0.002	97	1103338	80.0	75.4	
105 1,3-Dinitrobenzene	168	7.408	7.407	0.005	84	171927	80.0	76.3	
106 2,6-Dinitrotoluene	165	7.460	7.462	0.002	93	258180	80.0	76.4	
107 Acenaphthylene	152	7.463	7.465	0.002	99	1461184	80.0	74.0	
108 3-Nitroaniline	138	7.594	7.593	0.005	91	248298	80.0	78.0	
109 Acenaphthene	153	7.643	7.645	0.002	96	1013323	80.0	74.9	
111 2,4-Dinitrophenol	184	7.691	7.690	0.005	84	238130	160.0	154.4	
113 4-Nitrophenol	109	7.752	7.747	0.005	95	317125	160.0	149.0	
114 Dibenzofuran	168	7.797	7.799	0.002	97	1373181	80.0	74.6	
116 2,4-Dinitrotoluene	165	7.835	7.838	0.002	90	342156	80.0	78.5	
120 2,3,4,6-Tetrachlorophenol	232	7.957	7.959	0.002	80	284898	80.0	81.9	
122 Hexadecane	57	8.035	8.037	0.003	95	825263	80.0	71.4	
124 Diethyl phthalate	149	8.080	8.085	-0.001	97	1138780	80.0	76.9	
126 4-Chlorophenyl phenyl ether	204	8.131	8.133	0.002	73	575162	80.0	76.4	
127 Fluorene	166	8.131	8.133	0.002	92	1182344	80.0	77.4	
130 4-Nitroaniline	138	8.192	8.191	0.005	82	262095	80.0	80.4	
131 4,6-Dinitro-2-methylphenol	198	8.227	8.230	0.002	86	357929	160.0	154.5	
132 Diphenylamine	169	8.253	8.248	0.005	93	823042	68.0	66.1	
133 N-Nitrosodiphenylamine	169	8.253	8.253	0.005	76	824072	80.0	75.3	
135 Azobenzene	77	8.282	8.280	0.002	99	1395307	80.0	68.7	
136 1,2-Diphenylhydrazine	77	8.282	8.280	0.002	41	1395307	80.9	76.5	
145 4-Bromophenyl phenyl ether	248	8.597	8.599	0.003	71	326053	80.0	77.3	
148 Hexachlorobenzene	284	8.738	8.740	0.003	95	358858	80.0	77.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200	8.799	8.801	0.004	91	315987	80.0	81.2	
153 Pentachlorophenol	266	8.908	8.911	0.003	91	435697	160.0	150.2	
154 n-Octadecane	57	8.918	8.915	0.003	97	854074	80.0	73.1	
157 Phenanthrene	178	9.053	9.056	0.003	99	1665615	80.0	73.9	
160 Anthracene	178	9.095	9.097	0.003	98	1751703	80.0	76.5	
161 Carbazole	167	9.252	9.251	0.006	96	1590075	80.0	79.5	
163 Alachlor	188	9.486	9.483	0.003	97	235616	80.0	87.7	
164 Di-n-butyl phthalate	149	9.640	9.637	0.003	100	1927881	80.0	78.6	
170 Fluoranthene	202	10.197	10.200	0.003	99	1874339	80.0	79.4	
172 Pyrene	202	10.415	10.412	0.003	96	1987260	80.0	75.6	
180 Butyl benzyl phthalate	149	11.130	11.131	0.001	97	864867	80.0	74.5	
183 3,3'-Dichlorobenzidine	252	11.707	11.708	0.001	77	672845	80.0	80.6	
184 Benzo[a]anthracene	228	11.723	11.718	0.005	99	1981660	80.0	74.3	
185 Chrysene	228	11.775	11.769	0.006	97	1824653	80.0	71.0	
186 Bis(2-ethylhexyl) phthalate	149	11.836	11.834	0.002	98	1295736	80.0	81.8	
189 Di-n-octyl phthalate	149	12.628	12.662	0.007	99	2084077	80.0	78.8	
191 Benzo[b]fluoranthene	252	13.109	13.105	0.007	97	1797615	80.0	71.5	
193 Benzo[k]fluoranthene	252	13.141	13.137	0.007	99	2036886	80.0	74.8	
194 Benzo[a]pyrene	252	13.537	13.532	0.005	79	1677243	80.0	75.7	
198 Indeno[1,2,3-cd]pyrene	276	15.092	15.087	0.009	99	2103469	80.0	91.9	
199 Dibenz(a,h)anthracene	278	15.121	15.116	0.009	92	1779198	80.0	87.8	
200 Benzo[g,h,i]perylene	276	15.488	15.482	0.009	98	1712980	80.0	88.1	
S 211 Total Cresols	108				0			154.3	
S 212 Methyl Phenols, Total	108				0			154.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1626.D

Injection Date: 17-Nov-2022 02:17:15

Instrument ID: SMS_1

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

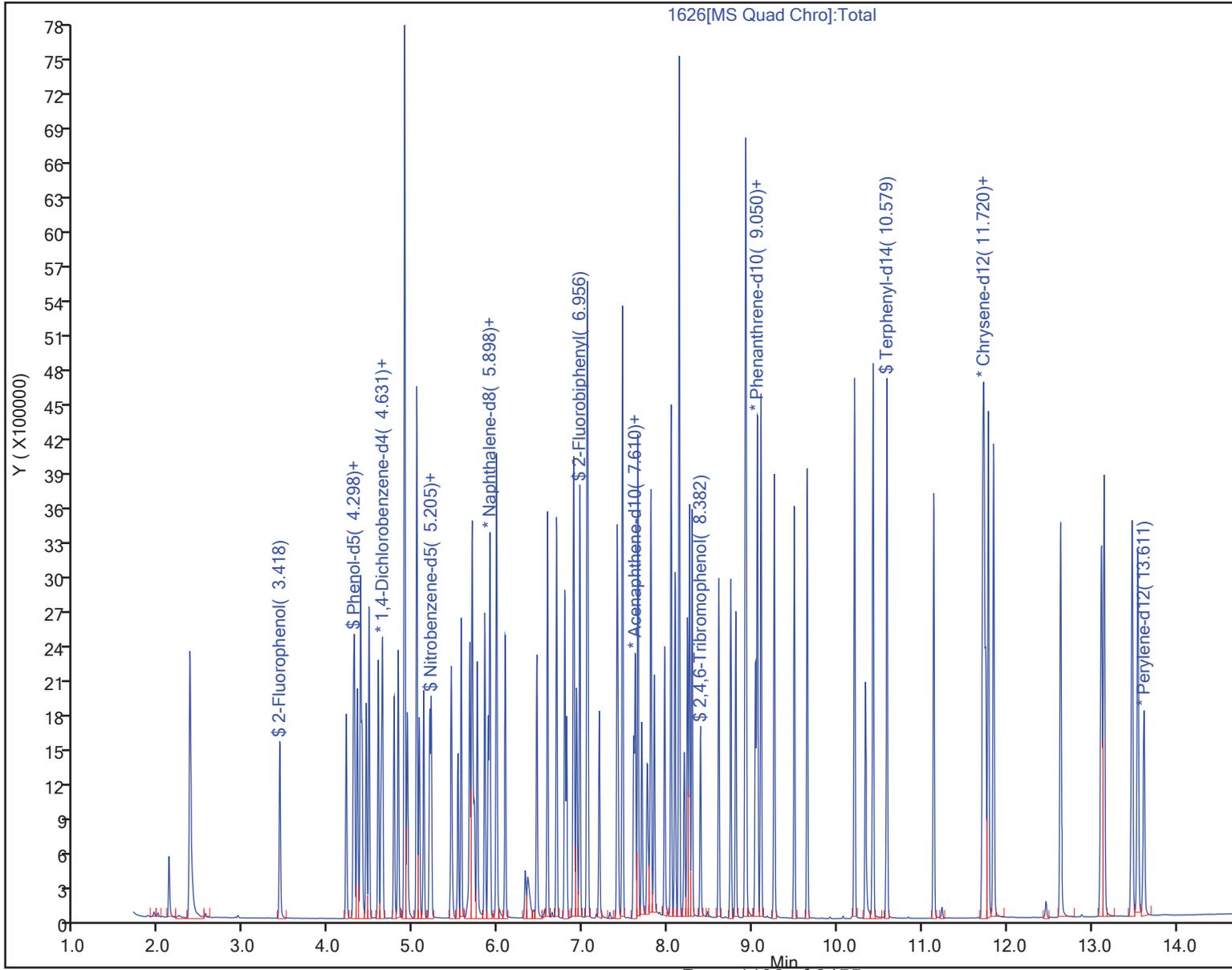
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593651/57 Calibration Date: 11/17/2022 02:17
 Instrument ID: SMS_1 Calib Start Date: 11/09/2022 15:58
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/09/2022 18:07
 Lab File ID: 1626.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1493	0.1636	0.0100	87700	80000	9.6	50.0
Atrazine	Ave	0.1836	0.1864	0.0100	81200	80000	1.5	50.0
3,3'-Dichlorobenzidine	Lin2		0.4006	0.0100	80600	80000	0.7	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1626.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 17-Nov-2022 02:17:15 ALS Bottle#: 0 Worklist Smp#: 57
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: meierg Instrument ID: SMS_1
 Sublist: chrom-SMS_1_8270*sub18
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:09:06 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NU5H

Date: 17-Nov-2022 13:00:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.615	4.622	-0.007	97	194356	40.0	40.0	
* 2 Naphthalene-d8	136	5.878	5.878	0.000	100	745679	40.0	40.0	
* 3 Acenaphthene-d10	164	7.610	7.610	0.000	95	452214	40.0	40.0	
* 4 Phenanthrene-d10	188	9.027	9.026	0.001	97	847804	40.0	40.0	
* 5 Chrysene-d12	240	11.742	11.738	0.004	99	839843	40.0	40.0	
* 6 Perylene-d12	264	13.611	13.603	0.008	98	815592	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.418	3.441	-0.023	95	441461	80.0	65.2	
\$ 8 Phenol-d5	99	4.288	4.294	-0.006	98	622863	80.0	70.3	
\$ 9 Nitrobenzene-d5	82	5.189	5.191	-0.002	90	611924	80.0	67.2	
\$ 10 2-Fluorobiphenyl	172	6.959	6.958	0.001	100	1130874	80.0	69.1	
\$ 11 2,4,6-Tribromophenol	330	8.382	8.379	0.003	94	172858	80.0	78.5	
\$ 12 Terphenyl-d14	244	10.579	10.575	0.004	97	1590248	80.0	68.6	
15 1,4-Dioxane	88	2.114	2.165	-0.051	96	205296	80.0	71.5	
17 N-Nitrosodimethylamine	74	2.353	2.394	-0.045	92	325169	80.0	72.7	
18 Pyridine	79	2.363	2.407	-0.048	96	1050740	160.0	134.9	
29 Phenol	94	4.301	4.300	-0.006	99	630249	80.0	72.5	
31 Aniline	93	4.333	4.338	-0.012	97	791072	80.0	72.5	
32 Alpha Methyl Styrene	118	4.372	4.377	-0.012	90	510558	80.0	76.3	
33 Bis(2-chloroethyl)ether	93	4.391	4.393	-0.009	97	539802	80.0	69.8	
34 2-Chlorophenol	128	4.439	4.441	-0.009	96	460237	80.0	73.3	
35 n-Decane	43	4.471	4.480	-0.009	89	536909	80.0	67.6	
36 1,3-Dichlorobenzene	146	4.583	4.582	-0.006	95	516867	80.0	72.2	
37 1,4-Dichlorobenzene	146	4.631	4.633	-0.009	90	528599	80.0	71.8	
40 Benzyl alcohol	108	4.769	4.772	-0.003	90	299247	80.0	74.4	
43 1,2-Dichlorobenzene	146	4.817	4.815	-0.006	94	505182	80.0	72.9	
45 2-Methylphenol	108	4.888	4.882	-0.002	97	481746	80.0	77.1	
46 Indene	116	4.894	4.892	-0.006	89	1757342	160.0	143.2	
47 2,2'-oxybis[1-chloropropane]	45	4.923	4.921	-0.006	92	700805	80.0	70.8	
49 3-Methylphenol	108	5.035	5.026	0.001	89	493221	80.0	77.2	
51 4-Methylphenol	108	5.035	5.026	0.001	97	493221	80.0	77.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 3 & 4 Methylphenol	108	5.035	5.026	0.001	0	493221	80.0	77.2	
52 Acetophenone	105	5.038	5.033	-0.003	89	751650	80.0	72.8	
54 N-Nitrosodi-n-propylamine	70	5.064	5.070	-0.006	87	417729	80.0	79.7	
56 Hexachloroethane	117	5.118	5.113	-0.003	95	224397	80.0	71.6	
58 Nitrobenzene	77	5.205	5.211	-0.006	88	604780	80.0	70.6	
60 Isophorone	82	5.442	5.444	-0.002	99	1110483	80.0	73.2	
61 2-Nitrophenol	139	5.522	5.524	-0.002	97	235836	80.0	78.4	
62 2,4-Dimethylphenol	107	5.561	5.556	0.005	98	517728	80.0	78.2	
66 Bis(2-chloroethoxy)methane	63	5.660	5.659	0.001	99	463457	80.0	71.3	
68 3,5-Dimethylphenol	107	5.689	5.685	0.004	83	551810	80.0	79.4	
69 Benzoic acid	105	5.711	5.704	0.007	91	844543	160.0	158.3	
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	98	411097	80.0	77.2	
72 1,2,4-Trichlorobenzene	180	5.836	5.839	-0.003	93	472858	80.0	73.7	
75 Naphthalene	128	5.898	5.900	-0.002	99	1388427	80.0	73.5	
77 4-Chloroaniline	127	5.975	5.973	0.001	94	601130	80.0	76.2	
78 2,6-Dichlorophenol	162	5.978	5.977	0.001	95	421753	80.0	76.4	
80 Hexachlorobutadiene	225	6.080	6.079	0.001	97	270468	80.0	74.0	
84 Caprolactam	55	6.314	6.314	0.014	78	244002	80.0	87.7	M
85 4-Chloro-3-methylphenol	107	6.452	6.444	0.008	95	460408	80.0	79.8	
88 2-Methylnaphthalene	141	6.577	6.576	0.001	92	820779	80.0	75.7	
89 1-Methylnaphthalene	142	6.683	6.685	-0.002	92	876270	80.0	75.4	
90 1,2,4,5-Tetrachlorobenzene	216	6.779	6.781	-0.002	99	493981	80.0	77.5	
92 Hexachlorocyclopentadiene	237	6.802	6.804	0.002	96	246867	80.0	89.2	
93 2,4,6-Trichlorophenol	196	6.882	6.881	0.005	95	324991	80.0	77.6	
94 2,3-Dichlorobenzenamine	161	6.889	6.891	0.002	94	538358	80.0	79.0	
95 2,4,5-Trichlorophenol	196	6.921	6.916	0.008	94	367389	80.0	81.0	
97 1,1'-Biphenyl	154	7.043	7.041	0.002	97	1244120	80.0	74.6	
98 2-Chloronaphthalene	162	7.053	7.055	0.002	98	971774	80.0	73.3	
101 2-Nitroaniline	65	7.187	7.186	0.005	85	340916	80.0	76.1	
104 Dimethyl phthalate	163	7.399	7.401	0.002	97	1103338	80.0	75.4	
105 1,3-Dinitrobenzene	168	7.408	7.407	0.005	84	171927	80.0	76.3	
106 2,6-Dinitrotoluene	165	7.460	7.462	0.002	93	258180	80.0	76.4	
107 Acenaphthylene	152	7.463	7.465	0.002	99	1461184	80.0	74.0	
108 3-Nitroaniline	138	7.594	7.593	0.005	91	248298	80.0	78.0	
109 Acenaphthene	153	7.643	7.645	0.002	96	1013323	80.0	74.9	
111 2,4-Dinitrophenol	184	7.691	7.690	0.005	84	238130	160.0	154.4	
113 4-Nitrophenol	109	7.752	7.747	0.005	95	317125	160.0	149.0	
114 Dibenzofuran	168	7.797	7.799	0.002	97	1373181	80.0	74.6	
116 2,4-Dinitrotoluene	165	7.835	7.838	0.002	90	342156	80.0	78.5	
120 2,3,4,6-Tetrachlorophenol	232	7.957	7.959	0.002	80	284898	80.0	81.9	
122 Hexadecane	57	8.035	8.037	0.003	95	825263	80.0	71.4	
124 Diethyl phthalate	149	8.080	8.085	-0.001	97	1138780	80.0	76.9	
126 4-Chlorophenyl phenyl ether	204	8.131	8.133	0.002	73	575162	80.0	76.4	
127 Fluorene	166	8.131	8.133	0.002	92	1182344	80.0	77.4	
130 4-Nitroaniline	138	8.192	8.191	0.005	82	262095	80.0	80.4	
131 4,6-Dinitro-2-methylphenol	198	8.227	8.230	0.002	86	357929	160.0	154.5	
132 Diphenylamine	169	8.253	8.248	0.005	93	823042	68.0	66.1	
133 N-Nitrosodiphenylamine	169	8.253	8.253	0.005	76	824072	80.0	75.3	
135 Azobenzene	77	8.282	8.280	0.002	99	1395307	80.0	68.7	
136 1,2-Diphenylhydrazine	77	8.282	8.280	0.002	41	1395307	80.9	76.5	
145 4-Bromophenyl phenyl ether	248	8.597	8.599	0.003	71	326053	80.0	77.3	
148 Hexachlorobenzene	284	8.738	8.740	0.003	95	358858	80.0	77.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
150 Atrazine	200	8.799	8.801	0.004	91	315987	80.0	81.2	
153 Pentachlorophenol	266	8.908	8.911	0.003	91	435697	160.0	150.2	
154 n-Octadecane	57	8.918	8.915	0.003	97	854074	80.0	73.1	
157 Phenanthrene	178	9.053	9.056	0.003	99	1665615	80.0	73.9	
160 Anthracene	178	9.095	9.097	0.003	98	1751703	80.0	76.5	
161 Carbazole	167	9.252	9.251	0.006	96	1590075	80.0	79.5	
163 Alachlor	188	9.486	9.483	0.003	97	235616	80.0	87.7	
164 Di-n-butyl phthalate	149	9.640	9.637	0.003	100	1927881	80.0	78.6	
170 Fluoranthene	202	10.197	10.200	0.003	99	1874339	80.0	79.4	
172 Pyrene	202	10.415	10.412	0.003	96	1987260	80.0	75.6	
180 Butyl benzyl phthalate	149	11.130	11.131	0.001	97	864867	80.0	74.5	
183 3,3'-Dichlorobenzidine	252	11.707	11.708	0.001	77	672845	80.0	80.6	
184 Benzo[a]anthracene	228	11.723	11.718	0.005	99	1981660	80.0	74.3	
185 Chrysene	228	11.775	11.769	0.006	97	1824653	80.0	71.0	
186 Bis(2-ethylhexyl) phthalate	149	11.836	11.834	0.002	98	1295736	80.0	81.8	
189 Di-n-octyl phthalate	149	12.628	12.662	0.007	99	2084077	80.0	78.8	
191 Benzo[b]fluoranthene	252	13.109	13.105	0.007	97	1797615	80.0	71.5	
193 Benzo[k]fluoranthene	252	13.141	13.137	0.007	99	2036886	80.0	74.8	
194 Benzo[a]pyrene	252	13.537	13.532	0.005	79	1677243	80.0	75.7	
198 Indeno[1,2,3-cd]pyrene	276	15.092	15.087	0.009	99	2103469	80.0	91.9	
199 Dibenz(a,h)anthracene	278	15.121	15.116	0.009	92	1779198	80.0	87.8	
200 Benzo[g,h,i]perylene	276	15.488	15.482	0.009	98	1712980	80.0	88.1	
S 211 Total Cresols	108				0			154.3	
S 212 Methyl Phenols, Total	108				0			154.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1626.D

Injection Date: 17-Nov-2022 02:17:15

Instrument ID: SMS_1

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

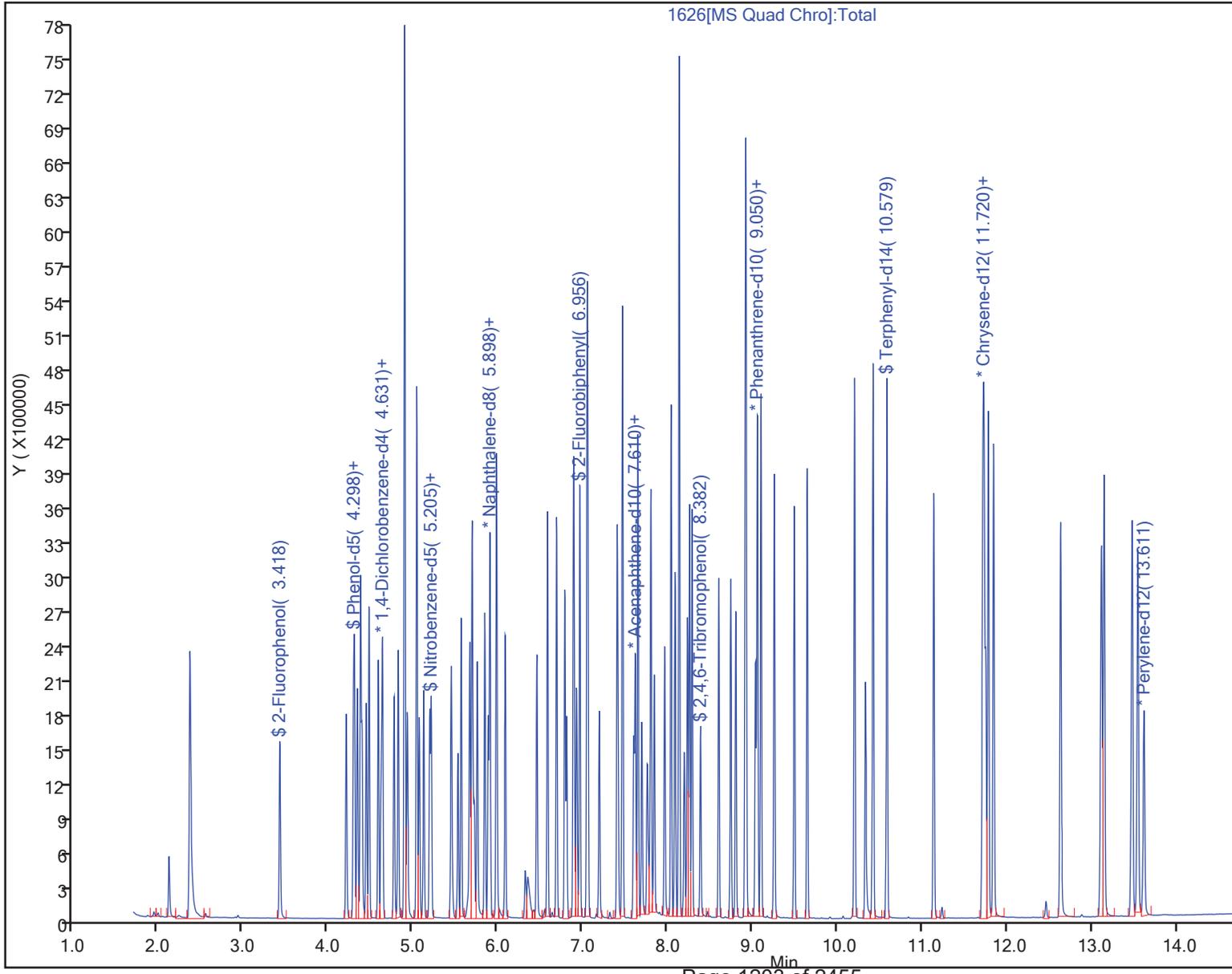
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

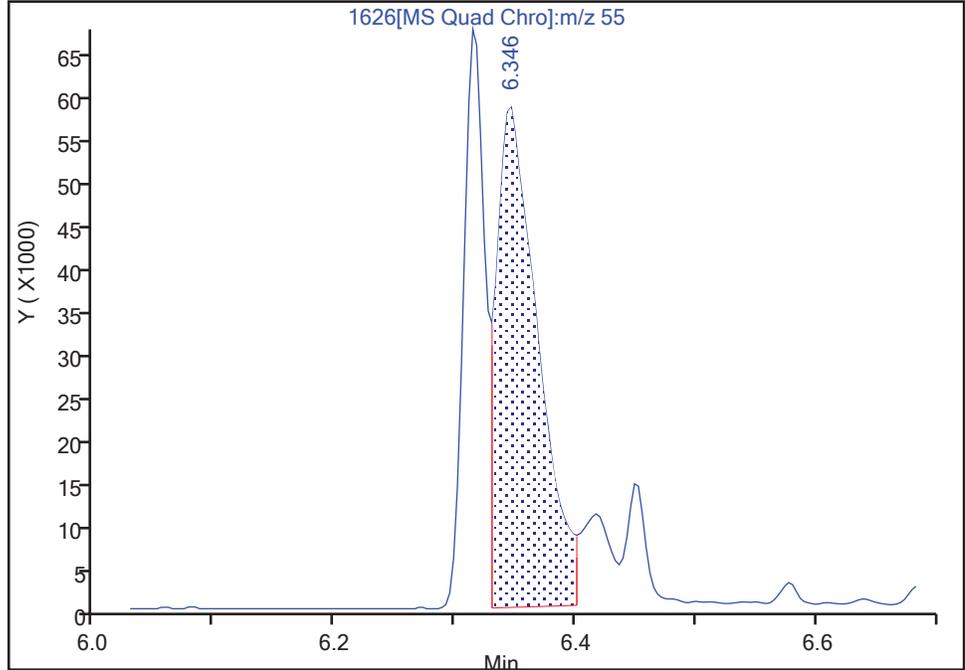
Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1626.D
Injection Date: 17-Nov-2022 02:17:15 Instrument ID: SMS_1
Lims ID: CCVC HSL
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 57
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

84 Caprolactam, CAS: 105-60-2

Signal: 1

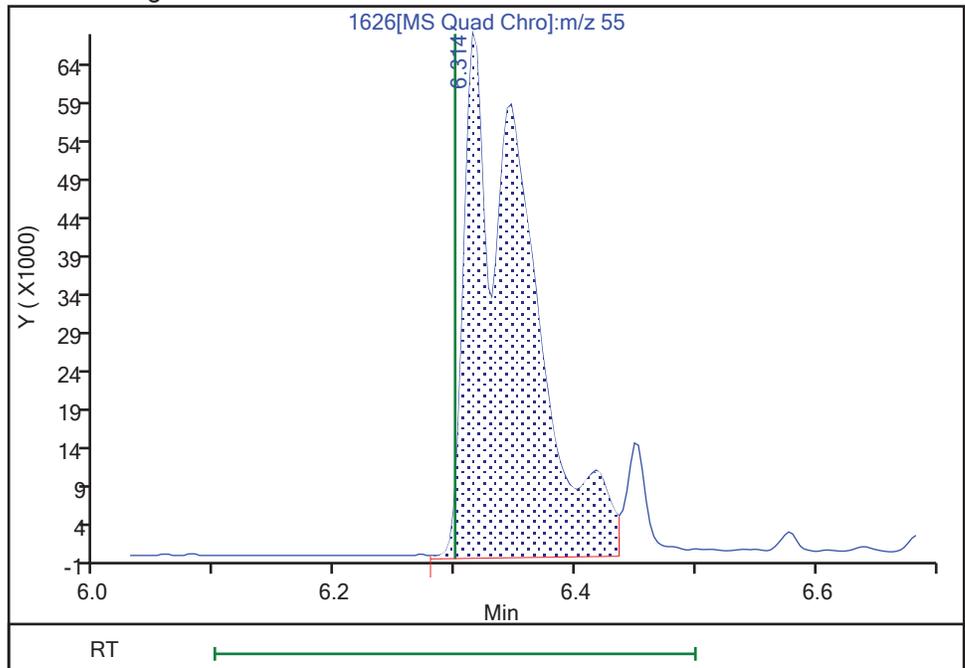
RT: 6.35
Area: 141635
Amount: 101.7785
Amount Units: ug/ml

Processing Integration Results



RT: 6.31
Area: 244002
Amount: 87.669581
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 17-Nov-2022 13:00:14
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-590052/18 Calibration Date: 10/14/2022 19:53
 Instrument ID: SMS_G6 Calib Start Date: 08/08/2022 20:37
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 08/08/2022 22:41
 Lab File ID: G6_101022438.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzidine	Ave	0.6289	0.0036			100000	-99.4*	20.0
Benzaldehyde	Ave	0.9168		0.0100		100000		20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 14-Oct-2022 19:53:30 ALS Bottle#: 21 Worklist Smp#: 18
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: ICV B1&2
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist:

Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 21-Oct-2022 13:57:29 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: TRE2

Date: 15-Oct-2022 10:07:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	93	414599	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	4.999	0.006	99	1580035	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	91	909663	40.0	40.0	
* 4 Phenanthrene-d10	188	8.155	8.150	0.005	96	1480374	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	98	1339780	40.0	40.0	
* 6 Perylene-d12	264	13.145	13.151	-0.006	98	1369688	40.0	40.0	
20 1,4-Dioxane	88	1.368	1.368	0.000	94	464534	100.0	92.8	
21 N-Nitrosodimethylamine	74	1.544	1.544	0.000	93	749158	100.0	94.3	
22 Pyridine	79	1.576	1.576	0.000	98	1920382	200.0	152.4	
32 Benzaldehyde	106		3.272				ND	ND	
34 Phenol	94	3.470	3.459	0.011	97	1799866	100.0	97.9	
35 Aniline	93	3.480	3.475	0.005	98	1923336	100.0	89.4	
37 Bis(2-chloroethyl)ether	93	3.555	3.550	0.005	96	1273070	100.0	93.3	
39 n-Decane	43	3.662	3.657	0.005	85	958588	100.0	97.0	
41 2-Chlorophenol	128	3.587	3.582	0.005	96	1362543	100.0	95.4	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	1486218	100.0	96.3	
43 1,4-Dichlorobenzene	146	3.807	3.801	0.006	96	1501486	100.0	96.3	
44 Benzyl alcohol	108	3.930	3.924	0.006	95	933167	100.0	95.8	
45 1,2-Dichlorobenzene	146	3.946	3.940	0.006	99	1417376	100.0	96.4	
46 2-Methylphenol	108	4.042	4.037	0.005	92	1229883	100.0	95.2	
47 2,2'-oxybis[1-chloropropane]	45	4.074	4.063	0.011	95	1407805	100.0	94.0	
48 Indene	116	4.031	4.026	0.005	91	4212155	200.0	180.3	
49 3 & 4 Methylphenol	108	4.197	4.192	0.005	95	1292468	100.0	93.5	
50 3-Methylphenol	108	4.197	4.192	0.005	96	1292468	100.0	93.5	
51 N-Nitrosodi-n-propylamine	70	4.192	4.181	0.011	85	848663	100.0	92.0	
52 4-Methylphenol	108	4.197	4.192	0.005	93	1292468	100.0	93.5	
55 Acetophenone	105	4.181	4.170	0.011	98	1763240	100.0	92.9	
58 Hexachloroethane	117	4.267	4.261	0.006	98	604795	100.0	95.3	
60 Nitrobenzene	77	4.336	4.331	0.005	86	1278879	100.0	91.6	
63 Isophorone	82	4.577	4.566	0.011	99	2412830	100.0	90.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
65 2-Nitrophenol	139	4.641	4.636	0.005	92	747437	100.0	96.5	
66 2,4-Dimethylphenol	107	4.705	4.700	0.005	94	1184286	100.0	85.9	
69 Bis(2-chloroethoxy)methane	93	4.807	4.796	0.011	99	1591913	100.0	93.0	
70 Benzoic acid	105	4.882	4.759	0.123	86	2036709	200.0	184.6	a
75 2,4-Dichlorophenol	162	4.876	4.871	0.005	92	1158800	100.0	98.2	
77 1,2,4-Trichlorobenzene	180	4.957	4.951	0.006	94	1181590	100.0	95.2	
79 Naphthalene	128	5.026	5.021	0.005	97	3593810	100.0	92.0	
80 4-Chloroaniline	127	5.096	5.085	0.011	97	1618438	100.0	92.2	
81 2,6-Dichlorophenol	162	5.096	5.090	0.006	96	1119102	100.0	96.9	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	97	637938	100.0	101.0	
87 Caprolactam	55	5.459	5.395	0.064	83	605026	100.0	95.8	
90 4-Chloro-3-methylphenol	107	5.588	5.577	0.011	95	1133867	100.0	91.9	
94 2-Methylnaphthalene	142	5.705	5.700	0.005	94	2483972	100.0	94.0	
96 1-Methylnaphthalene	142	5.796	5.791	0.005	95	2353170	100.0	94.2	
97 Hexachlorocyclopentadiene	237	5.861	5.860	0.001	95	701742	100.0	89.9	
98 1,2,4,5-Tetrachlorobenzene	216	5.866	5.860	0.006	97	1120042	100.0	97.1	
101 2,4,6-Trichlorophenol	196	5.984	5.983	0.001	91	806493	100.0	98.7	
103 2,4,5-Trichlorophenol	196	6.021	6.010	0.011	95	903758	100.0	99.4	
105 1,1'-Biphenyl	154	6.165	6.160	0.005	94	2856321	100.0	95.1	
107 2-Chloronaphthalene	162	6.176	6.171	0.005	96	2304611	100.0	95.0	
109 2-Nitroaniline	65	6.283	6.278	0.005	89	748305	100.0	98.8	
112 Dimethyl phthalate	163	6.492	6.481	0.011	98	2571024	100.0	96.7	
113 1,3-Dinitrobenzene	168	6.497	6.492	0.005	90	478497	100.0	102.9	
114 2,6-Dinitrotoluene	165	6.534	6.529	0.005	96	649226	100.0	98.9	
115 Acenaphthylene	152	6.572	6.566	0.006	98	3737685	100.0	97.9	
116 3-Nitroaniline	138	6.690	6.679	0.011	97	810799	100.0	95.0	
117 Acenaphthene	153	6.743	6.738	0.005	92	2332717	100.0	98.5	
118 2,4-Dinitrophenol	184	6.791	6.780	0.011	87	611816	200.0	150.7	
120 4-Nitrophenol	109	6.877	6.861	0.016	88	788810	200.0	191.1	
122 2,4-Dinitrotoluene	165	6.920	6.914	0.006	93	810536	100.0	99.0	
123 Dibenzofuran	168	6.914	6.909	0.005	97	3270162	100.0	96.5	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	71	723475	100.0	99.7	
128 Hexadecane	57	7.219	7.214	0.005	89	1595848	100.0	94.4	
130 Diethyl phthalate	149	7.187	7.176	0.011	98	2626440	100.0	94.3	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	90	1218725	100.0	98.7	
136 Fluorene	166	7.251	7.246	0.005	95	2654492	100.0	94.9	
139 4-Nitroaniline	138	7.289	7.267	0.022	90	795837	100.0	93.7	a
140 4,6-Dinitro-2-methylphenol	198	7.315	7.299	0.016	86	778965	200.0	160.7	
142 Diphenylamine	169	7.385	7.379	0.006	96	1955156	85.0	81.4	
143 N-Nitrosodiphenylamine	169	7.385	7.379	0.006	99	1955156	100.0	94.7	
144 Azobenzene	77	7.422	7.417	0.005	97	2683033	100.0	95.2	
145 1,2-Diphenylhydrazine	77	7.422	7.417	0.005	99	2683033	101.1	96.2	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	62	818085	100.0	100.5	
158 Hexachlorobenzene	284	7.775	7.770	0.005	96	1014778	100.0	106.7	
160 Atrazine	200	7.930	7.920	0.010	93	677200	100.0	93.1	
162 n-Octadecane	85	8.123	8.123	0.000	93	727264	100.0	88.8	
169 Phenanthrene	178	8.176	8.171	0.005	97	3876940	100.0	94.9	
170 Anthracene	178	8.230	8.225	0.006	96	4009279	100.0	95.7	
171 Carbazole	167	8.396	8.390	0.006	95	3837818	100.0	92.1	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	4627369	100.0	93.8	
182 Fluoranthene	202	9.332	9.332	0.000	98	4040399	100.0	95.0	
184 Benzidine	184	9.556	9.562	-0.006	40	12012	NC	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
185 Pyrene	202	9.551	9.546	0.005	98	4186977	100.0	92.3	
193 Butyl benzyl phthalate	149	10.284	10.289	-0.005	96	2166185	100.0	94.7	
197 3,3'-Dichlorobenzidine	252	10.899	10.893	0.006	72	1563358	100.0	99.9	
198 Benzo[a]anthracene	228	10.899	10.893	0.006	98	3977539	100.0	98.7	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.070	-0.005	96	2828129	100.0	90.8	
200 Chrysene	228	10.947	10.942	0.005	97	3805504	100.0	100.8	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	98	5081639	100.0	90.0	
204 Benzo[b]fluoranthene	252	12.514	12.503	0.011	96	4031723	100.0	96.2	
205 Benzo[k]fluoranthene	252	12.562	12.552	0.010	98	4111892	100.0	94.6	
208 Benzo[a]pyrene	252	13.054	13.038	0.016	76	3845733	100.0	101.2	
214 Indeno[1,2,3-cd]pyrene	276	15.055	15.039	0.016	98	3892916	100.0	100.1	
215 Dibenz(a,h)anthracene	278	15.135	15.119	0.016	93	3892414	100.0	99.4	
216 Benzo[g,h,i]perylene	276	15.520	15.493	0.027	99	4145484	100.0	99.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MS-HSLB1&B2_00017

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D

Injection Date: 14-Oct-2022 19:53:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: ICV

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

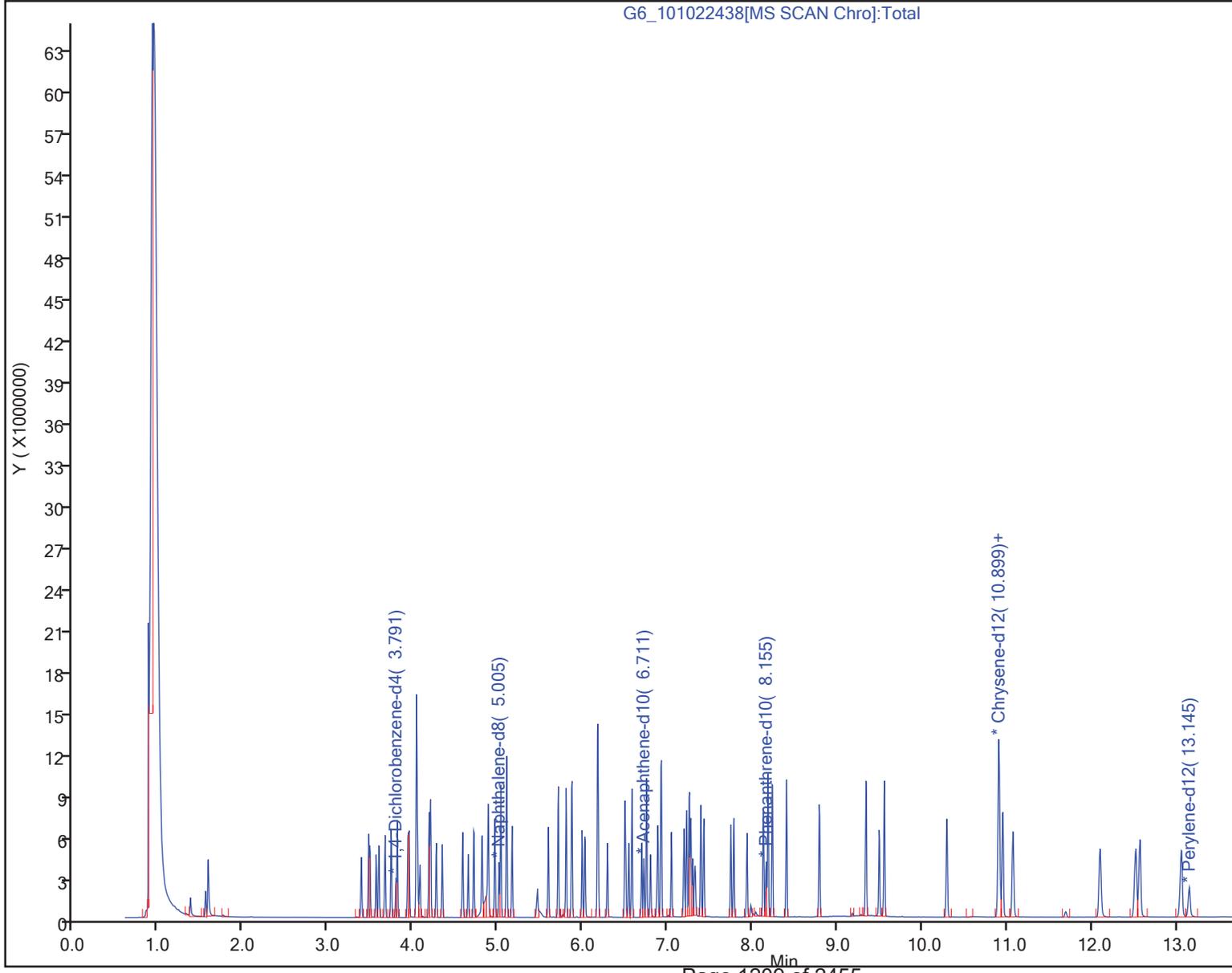
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022438[MS SCAN Chro]:Total



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-590052/18 Calibration Date: 10/14/2022 19:53
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101022438.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.4482		92800	100000	-7.2	20.0
N-Nitrosodimethylamine	Ave	0.7662	0.7228		94300	100000	-5.7	20.0
Pyridine	Ave	1.216	0.9264		152000	200000	-23.8*	20.0
Phenol	Ave	1.773	1.736	0.8000	97900	100000	-2.1	20.0
Aniline	Ave	2.076	1.856		89400	100000	-10.6	20.0
Bis(2-chloroethyl)ether	Ave	1.316	1.228	0.7000	93300	100000	-6.7	20.0
2-Chlorophenol	Ave	1.378	1.315	0.8000	95400	100000	-4.6	20.0
1,3-Dichlorobenzene	Ave	1.488	1.434		96300	100000	-3.7	20.0
1,4-Dichlorobenzene	Ave	1.504	1.449		96300	100000	-3.7	20.0
Benzyl alcohol	Ave	0.9396	0.9003		95800	100000	-4.2	20.0
1,2-Dichlorobenzene	Ave	1.419	1.367		96400	100000	-3.6	20.0
2-Methylphenol	Ave	1.246	1.187	0.7000	95200	100000	-4.8	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.445	1.358	0.0100	94000	100000	-6.0	20.0
Acetophenone	Ave	1.831	1.701	0.0100	92900	100000	-7.1	20.0
N-Nitrosodi-n-propylamine	Ave	0.8902	0.8188	0.5000	92000	100000	-8.0	20.0
3 & 4 Methylphenol	Ave	1.334	1.247		93500	100000	-6.5	20.0
Hexachloroethane	Ave	0.6120	0.5835	0.3000	95300	100000	-4.7	20.0
Nitrobenzene	Ave	0.3533	0.3238	0.2000	91600	100000	-8.4	20.0
Isophorone	Ave	0.6768	0.6108	0.4000	90200	100000	-9.8	20.0
2-Nitrophenol	Ave	0.1962	0.1892	0.1000	96500	100000	-3.5	20.0
2,4-Dimethylphenol	Ave	0.3492	0.2998	0.2000	85900	100000	-14.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4333	0.4030	0.3000	93000	100000	-7.0	20.0
2,4-Dichlorophenol	Ave	0.2986	0.2934	0.2000	98200	100000	-1.8	20.0
Benzoic acid	Lin2		0.2578		185000	200000	-7.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3143	0.2991		95200	100000	-4.8	20.0
Naphthalene	Ave	0.9887	0.9098	0.7000	92000	100000	-8.0	20.0
2,6-Dichlorophenol	Ave	0.2924	0.2833		96900	100000	-3.1	20.0
4-Chloroaniline	Ave	0.4442	0.4097	0.0100	92200	100000	-7.8	20.0
Hexachlorobutadiene	Ave	0.1598	0.1615	0.0100	101000	100000	1.0	20.0
Caprolactam	Ave	0.1599	0.1532	0.0100	95800	100000	-4.2	20.0
4-Chloro-3-methylphenol	Ave	0.3122	0.2870	0.2000	91900	100000	-8.1	20.0
2-Methylnaphthalene	Ave	0.6692	0.6288	0.4000	94000	100000	-6.0	20.0
1-Methylnaphthalene	Ave	0.6322	0.5957		94200	100000	-5.8	20.0
Hexachlorocyclopentadiene	Ave	0.3431	0.3086	0.0500	89900	100000	-10.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2920	0.2835	0.0100	97100	100000	-2.9	20.0
2,4,6-Trichlorophenol	Ave	0.3593	0.3546	0.2000	98700	100000	-1.3	20.0
2,4,5-Trichlorophenol	Ave	0.4000	0.3974	0.2000	99400	100000	-0.6	20.0
1,1'-Biphenyl	Ave	1.321	1.256	0.0100	95100	100000	-4.9	20.0
2-Chloronaphthalene	Ave	1.067	1.013	0.8000	95000	100000	-5.0	20.0
2-Nitroaniline	Ave	0.3331	0.3290	0.0100	98800	100000	-1.2	20.0
Dimethyl phthalate	Ave	1.169	1.131	0.0100	96700	100000	-3.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-590052/18 Calibration Date: 10/14/2022 19:53
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101022438.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dinitrobenzene	Ave	0.2046	0.2104		103000	100000	2.9	20.0
2,6-Dinitrotoluene	Ave	0.2886	0.2855	0.2000	98900	100000	-1.1	20.0
Acenaphthylene	Ave	1.679	1.644	0.9000	97900	100000	-2.1	20.0
3-Nitroaniline	Ave	0.3754	0.3565	0.0100	95000	100000	-5.0	20.0
Acenaphthene	Ave	1.042	1.026	0.9000	98500	100000	-1.5	20.0
2,4-Dinitrophenol	Lin1		0.1345	0.0100	151000	200000	-24.7*	20.0
4-Nitrophenol	Ave	0.1815	0.1734	0.0100	191000	200000	-4.5	20.0
Dibenzofuran	Ave	1.490	1.438	0.8000	96500	100000	-3.5	20.0
2,4-Dinitrotoluene	Ave	0.3601	0.3564	0.2000	99000	100000	-1.0	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3192	0.3181	0.0100	99700	100000	-0.3	20.0
Diethyl phthalate	Ave	1.225	1.155	0.0100	94300	100000	-5.7	20.0
Fluorene	Ave	1.230	1.167	0.9000	94900	100000	-5.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.5428	0.5359	0.4000	98700	100000	-1.3	20.0
4-Nitroaniline	Ave	0.3734	0.3499	0.0100	93700	100000	-6.3	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1052	0.0100	161000	200000	-19.6	20.0
Diphenylamine	Ave	1.056	1.011		81400	85000	-4.2	20.0
N-Nitrosodiphenylamine	Ave	0.5576	0.5283	0.0100	94700	100000	-5.3	20.0
1,2-Diphenylhydrazine	Ave	1.226	1.167		96200	101000	-4.8	20.0
Azobenzene	Ave	1.240	1.180		95200	100000	-4.8	20.0
4-Bromophenyl phenyl ether	Ave	0.2199	0.2210	0.1000	101000	100000	0.5	20.0
Hexachlorobenzene	Ave	0.2569	0.2742	0.1000	107000	100000	6.7	20.0
Atrazine	Ave	0.1966	0.1830	0.0100	93100	100000	-6.9	20.0
Phenanthrene	Ave	1.104	1.048	0.7000	94900	100000	-5.1	20.0
Anthracene	Ave	1.132	1.083	0.7000	95700	100000	-4.3	20.0
Carbazole	Ave	1.126	1.037	0.0100	92100	100000	-7.9	20.0
Di-n-butyl phthalate	Ave	1.333	1.250	0.0100	93800	100000	-6.2	20.0
Fluoranthene	Ave	1.149	1.092	0.6000	95000	100000	-5.0	20.0
Pyrene	Ave	1.355	1.250	0.6000	92300	100000	-7.7	20.0
Butyl benzyl phthalate	Ave	0.6831	0.6467	0.0100	94700	100000	-5.3	20.0
3,3'-Dichlorobenzidine	Ave	0.4672	0.4668	0.0100	99900	100000	-0.1	20.0
Benzo[a]anthracene	Ave	1.203	1.188	0.8000	98700	100000	-1.3	20.0
Chrysene	Ave	1.127	1.136	0.7000	101000	100000	0.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9300	0.8444	0.0100	90800	100000	-9.2	20.0
Di-n-octyl phthalate	Ave	1.685	1.517	0.0100	90000	100000	-10.0	20.0
Benzo[b]fluoranthene	Ave	1.224	1.177	0.7000	96200	100000	-3.8	20.0
Benzo[k]fluoranthene	Ave	1.269	1.201	0.7000	94600	100000	-5.4	20.0
Benzo[a]pyrene	Ave	1.109	1.123	0.7000	101000	100000	1.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.161	1.162	0.5000	100000	100000	0.1	20.0
Dibenz(a,h)anthracene	Ave	1.144	1.137	0.4000	99400	100000	-0.6	20.0
Benzo[g,h,i]perylene	Ave	1.215	1.211	0.5000	99600	100000	-0.4	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 14-Oct-2022 19:53:30 ALS Bottle#: 21 Worklist Smp#: 18
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: ICV B1&2
 Operator ID: tessiern Instrument ID: SMS_G6
 Sublist:

Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 21-Oct-2022 13:57:29 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: TRE2

Date: 15-Oct-2022 10:07:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.791	3.785	0.006	93	414599	40.0	40.0	
* 2 Naphthalene-d8	136	5.005	4.999	0.006	99	1580035	40.0	40.0	
* 3 Acenaphthene-d10	164	6.711	6.711	0.000	91	909663	40.0	40.0	
* 4 Phenanthrene-d10	188	8.155	8.150	0.005	96	1480374	40.0	40.0	
* 5 Chrysene-d12	240	10.910	10.910	0.000	98	1339780	40.0	40.0	
* 6 Perylene-d12	264	13.145	13.151	-0.006	98	1369688	40.0	40.0	
20 1,4-Dioxane	88	1.368	1.368	0.000	94	464534	100.0	92.8	
21 N-Nitrosodimethylamine	74	1.544	1.544	0.000	93	749158	100.0	94.3	
22 Pyridine	79	1.576	1.576	0.000	98	1920382	200.0	152.4	
32 Benzaldehyde	106		3.272				ND	ND	
34 Phenol	94	3.470	3.459	0.011	97	1799866	100.0	97.9	
35 Aniline	93	3.480	3.475	0.005	98	1923336	100.0	89.4	
37 Bis(2-chloroethyl)ether	93	3.555	3.550	0.005	96	1273070	100.0	93.3	
39 n-Decane	43	3.662	3.657	0.005	85	958588	100.0	97.0	
41 2-Chlorophenol	128	3.587	3.582	0.005	96	1362543	100.0	95.4	
42 1,3-Dichlorobenzene	146	3.732	3.732	0.000	98	1486218	100.0	96.3	
43 1,4-Dichlorobenzene	146	3.807	3.801	0.006	96	1501486	100.0	96.3	
44 Benzyl alcohol	108	3.930	3.924	0.006	95	933167	100.0	95.8	
45 1,2-Dichlorobenzene	146	3.946	3.940	0.006	99	1417376	100.0	96.4	
46 2-Methylphenol	108	4.042	4.037	0.005	92	1229883	100.0	95.2	
47 2,2'-oxybis[1-chloropropane]	45	4.074	4.063	0.011	95	1407805	100.0	94.0	
48 Indene	116	4.031	4.026	0.005	91	4212155	200.0	180.3	
49 3 & 4 Methylphenol	108	4.197	4.192	0.005	95	1292468	100.0	93.5	
50 3-Methylphenol	108	4.197	4.192	0.005	96	1292468	100.0	93.5	
51 N-Nitrosodi-n-propylamine	70	4.192	4.181	0.011	85	848663	100.0	92.0	
52 4-Methylphenol	108	4.197	4.192	0.005	93	1292468	100.0	93.5	
55 Acetophenone	105	4.181	4.170	0.011	98	1763240	100.0	92.9	
58 Hexachloroethane	117	4.267	4.261	0.006	98	604795	100.0	95.3	
60 Nitrobenzene	77	4.336	4.331	0.005	86	1278879	100.0	91.6	
63 Isophorone	82	4.577	4.566	0.011	99	2412830	100.0	90.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
65 2-Nitrophenol	139	4.641	4.636	0.005	92	747437	100.0	96.5	
66 2,4-Dimethylphenol	107	4.705	4.700	0.005	94	1184286	100.0	85.9	
69 Bis(2-chloroethoxy)methane	93	4.807	4.796	0.011	99	1591913	100.0	93.0	
70 Benzoic acid	105	4.882	4.759	0.123	86	2036709	200.0	184.6	a
75 2,4-Dichlorophenol	162	4.876	4.871	0.005	92	1158800	100.0	98.2	
77 1,2,4-Trichlorobenzene	180	4.957	4.951	0.006	94	1181590	100.0	95.2	
79 Naphthalene	128	5.026	5.021	0.005	97	3593810	100.0	92.0	
80 4-Chloroaniline	127	5.096	5.085	0.011	97	1618438	100.0	92.2	
81 2,6-Dichlorophenol	162	5.096	5.090	0.006	96	1119102	100.0	96.9	
83 Hexachlorobutadiene	225	5.160	5.154	0.006	97	637938	100.0	101.0	
87 Caprolactam	55	5.459	5.395	0.064	83	605026	100.0	95.8	
90 4-Chloro-3-methylphenol	107	5.588	5.577	0.011	95	1133867	100.0	91.9	
94 2-Methylnaphthalene	142	5.705	5.700	0.005	94	2483972	100.0	94.0	
96 1-Methylnaphthalene	142	5.796	5.791	0.005	95	2353170	100.0	94.2	
97 Hexachlorocyclopentadiene	237	5.861	5.860	0.001	95	701742	100.0	89.9	
98 1,2,4,5-Tetrachlorobenzene	216	5.866	5.860	0.006	97	1120042	100.0	97.1	
101 2,4,6-Trichlorophenol	196	5.984	5.983	0.001	91	806493	100.0	98.7	
103 2,4,5-Trichlorophenol	196	6.021	6.010	0.011	95	903758	100.0	99.4	
105 1,1'-Biphenyl	154	6.165	6.160	0.005	94	2856321	100.0	95.1	
107 2-Chloronaphthalene	162	6.176	6.171	0.005	96	2304611	100.0	95.0	
109 2-Nitroaniline	65	6.283	6.278	0.005	89	748305	100.0	98.8	
112 Dimethyl phthalate	163	6.492	6.481	0.011	98	2571024	100.0	96.7	
113 1,3-Dinitrobenzene	168	6.497	6.492	0.005	90	478497	100.0	102.9	
114 2,6-Dinitrotoluene	165	6.534	6.529	0.005	96	649226	100.0	98.9	
115 Acenaphthylene	152	6.572	6.566	0.006	98	3737685	100.0	97.9	
116 3-Nitroaniline	138	6.690	6.679	0.011	97	810799	100.0	95.0	
117 Acenaphthene	153	6.743	6.738	0.005	92	2332717	100.0	98.5	
118 2,4-Dinitrophenol	184	6.791	6.780	0.011	87	611816	200.0	150.7	
120 4-Nitrophenol	109	6.877	6.861	0.016	88	788810	200.0	191.1	
122 2,4-Dinitrotoluene	165	6.920	6.914	0.006	93	810536	100.0	99.0	
123 Dibenzofuran	168	6.914	6.909	0.005	97	3270162	100.0	96.5	
127 2,3,4,6-Tetrachlorophenol	232	7.037	7.037	0.000	71	723475	100.0	99.7	
128 Hexadecane	57	7.219	7.214	0.005	89	1595848	100.0	94.4	
130 Diethyl phthalate	149	7.187	7.176	0.011	98	2626440	100.0	94.3	
135 4-Chlorophenyl phenyl ether	204	7.267	7.262	0.005	90	1218725	100.0	98.7	
136 Fluorene	166	7.251	7.246	0.005	95	2654492	100.0	94.9	
139 4-Nitroaniline	138	7.289	7.267	0.022	90	795837	100.0	93.7	a
140 4,6-Dinitro-2-methylphenol	198	7.315	7.299	0.016	86	778965	200.0	160.7	
142 Diphenylamine	169	7.385	7.379	0.006	96	1955156	85.0	81.4	
143 N-Nitrosodiphenylamine	169	7.385	7.379	0.006	99	1955156	100.0	94.7	
144 Azobenzene	77	7.422	7.417	0.005	97	2683033	100.0	95.2	
145 1,2-Diphenylhydrazine	77	7.422	7.417	0.005	99	2683033	101.1	96.2	
157 4-Bromophenyl phenyl ether	248	7.738	7.738	0.000	62	818085	100.0	100.5	
158 Hexachlorobenzene	284	7.775	7.770	0.005	96	1014778	100.0	106.7	
160 Atrazine	200	7.930	7.920	0.010	93	677200	100.0	93.1	
162 n-Octadecane	85	8.123	8.123	0.000	93	727264	100.0	88.8	
169 Phenanthrene	178	8.176	8.171	0.005	97	3876940	100.0	94.9	
170 Anthracene	178	8.230	8.225	0.006	96	4009279	100.0	95.7	
171 Carbazole	167	8.396	8.390	0.006	95	3837818	100.0	92.1	
175 Di-n-butyl phthalate	149	8.781	8.781	0.000	99	4627369	100.0	93.8	
182 Fluoranthene	202	9.332	9.332	0.000	98	4040399	100.0	95.0	
184 Benzidine	184	9.556	9.562	-0.006	40	12012	NC	NC	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
185 Pyrene	202	9.551	9.546	0.005	98	4186977	100.0	92.3	
193 Butyl benzyl phthalate	149	10.284	10.289	-0.005	96	2166185	100.0	94.7	
197 3,3'-Dichlorobenzidine	252	10.899	10.893	0.006	72	1563358	100.0	99.9	
198 Benzo[a]anthracene	228	10.899	10.893	0.006	98	3977539	100.0	98.7	
199 Bis(2-ethylhexyl) phthalate	149	11.065	11.070	-0.005	96	2828129	100.0	90.8	
200 Chrysene	228	10.947	10.942	0.005	97	3805504	100.0	100.8	
202 Di-n-octyl phthalate	149	12.092	12.092	0.000	98	5081639	100.0	90.0	
204 Benzo[b]fluoranthene	252	12.514	12.503	0.011	96	4031723	100.0	96.2	
205 Benzo[k]fluoranthene	252	12.562	12.552	0.010	98	4111892	100.0	94.6	
208 Benzo[a]pyrene	252	13.054	13.038	0.016	76	3845733	100.0	101.2	
214 Indeno[1,2,3-cd]pyrene	276	15.055	15.039	0.016	98	3892916	100.0	100.1	
215 Dibenz(a,h)anthracene	278	15.135	15.119	0.016	93	3892414	100.0	99.4	
216 Benzo[g,h,i]perylene	276	15.520	15.493	0.027	99	4145484	100.0	99.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MS-HSLB1&B2_00017

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D

Injection Date: 14-Oct-2022 19:53:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: ICV

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

ALS Bottle#:

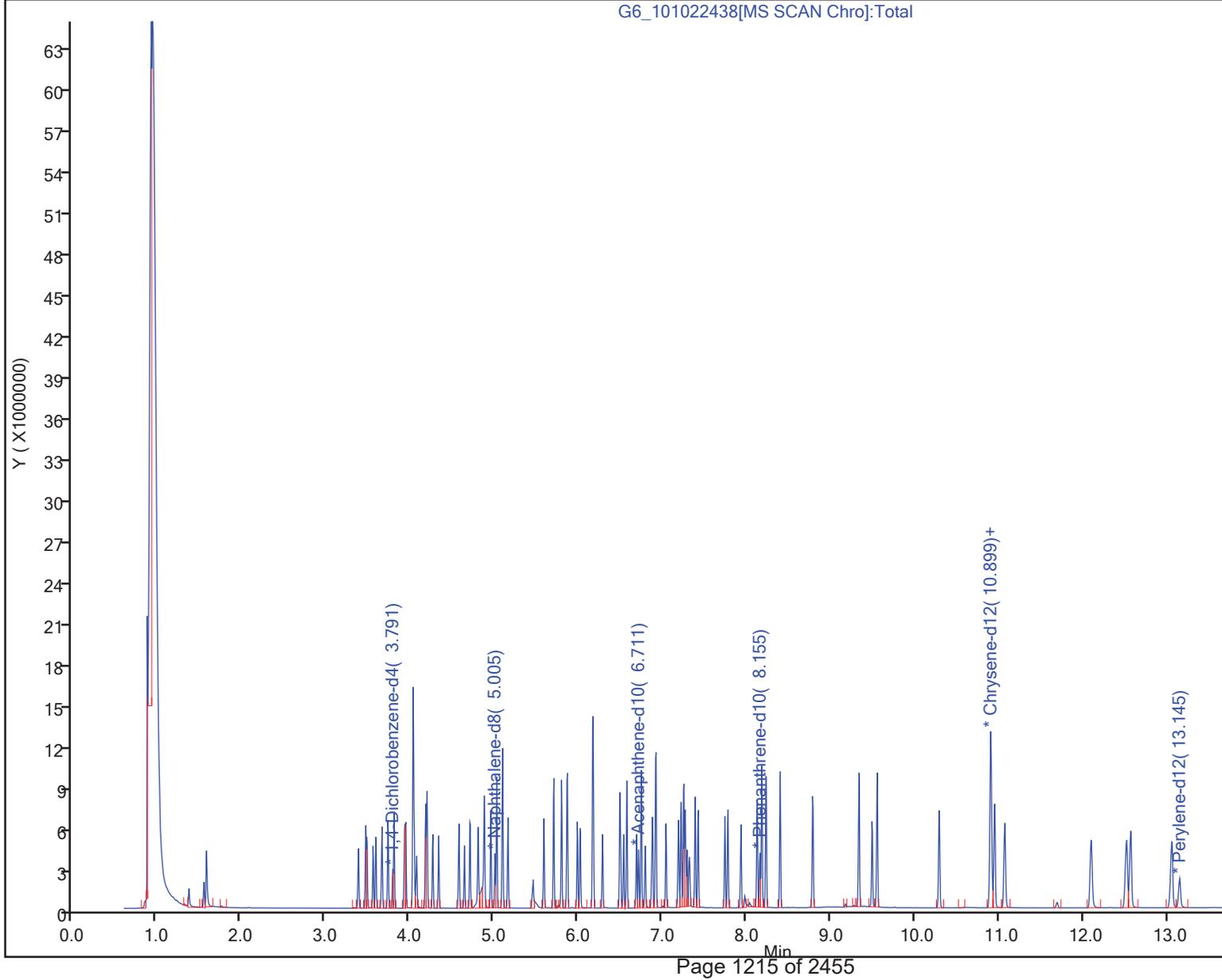
Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest

G6_101022438[MS SCAN Chro]:Total



Eurofins Denver

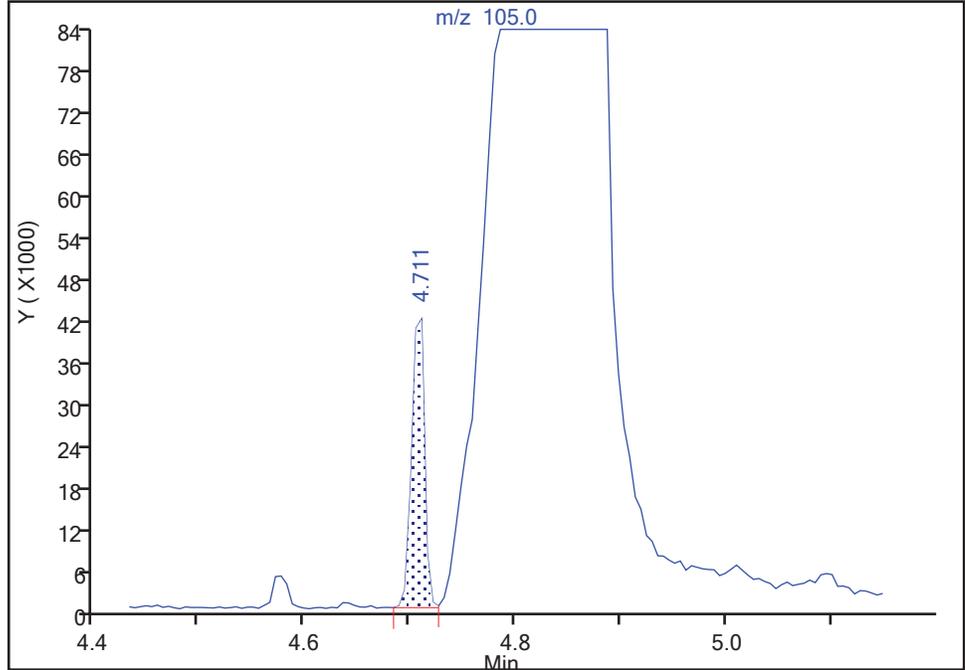
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D
Injection Date: 14-Oct-2022 19:53:30 Instrument ID: SMS_G6
Lims ID: ICV
Client ID:
Operator ID: tessiern ALS Bottle#: 21 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

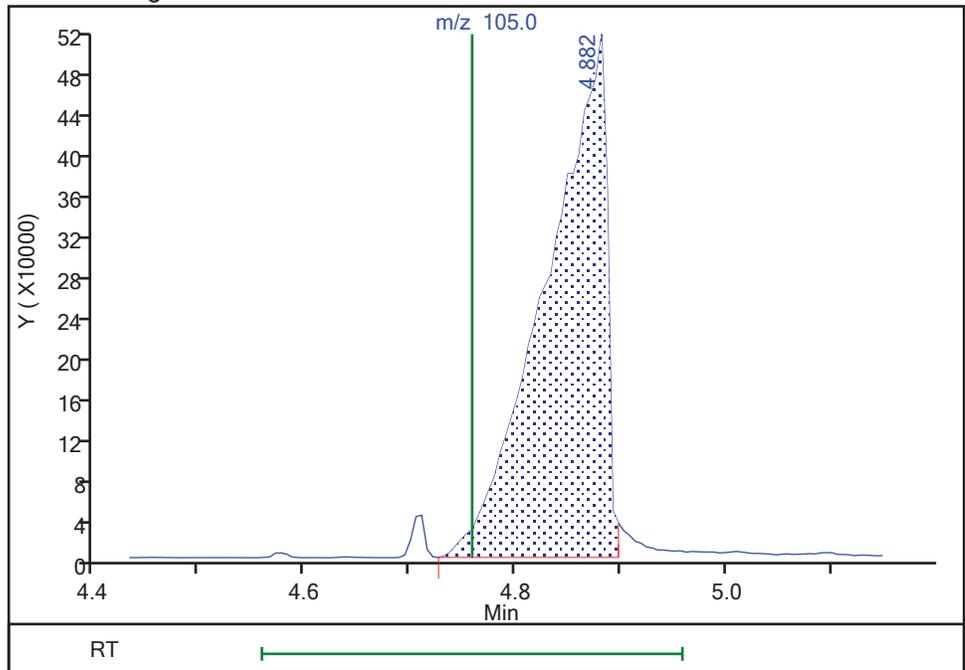
RT: 4.71
Area: 35422
Amount: 3.325392
Amount Units: ug/ml

Processing Integration Results



RT: 4.88
Area: 2036709
Amount: 184.6388
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

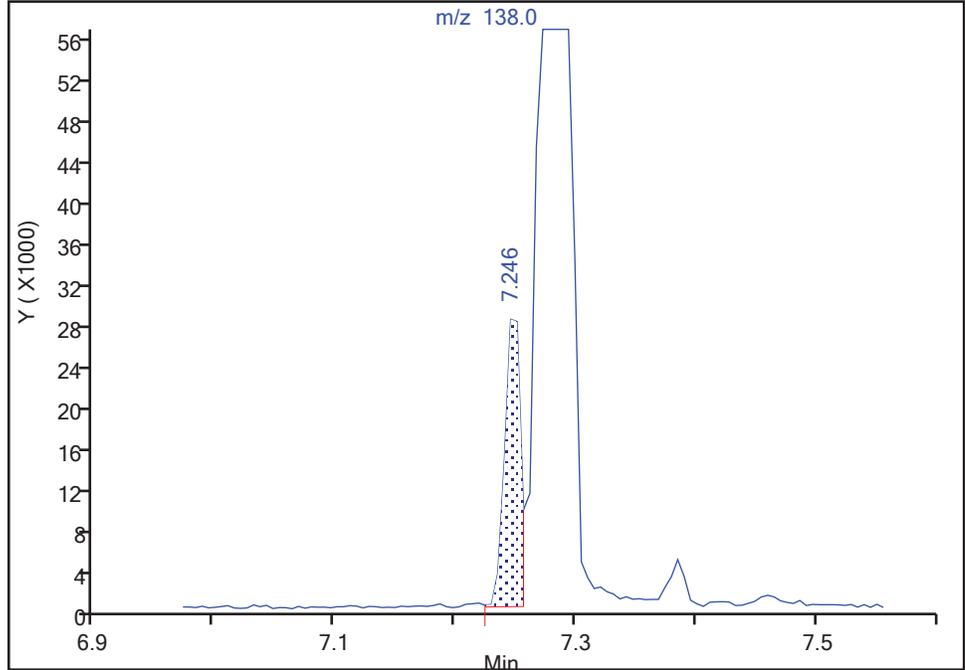
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022438.D
Injection Date: 14-Oct-2022 19:53:30 Instrument ID: SMS_G6
Lims ID: ICV
Client ID:
Operator ID: tessiern ALS Bottle#: 21 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

139 4-Nitroaniline, CAS: 100-01-6

Signal: 1

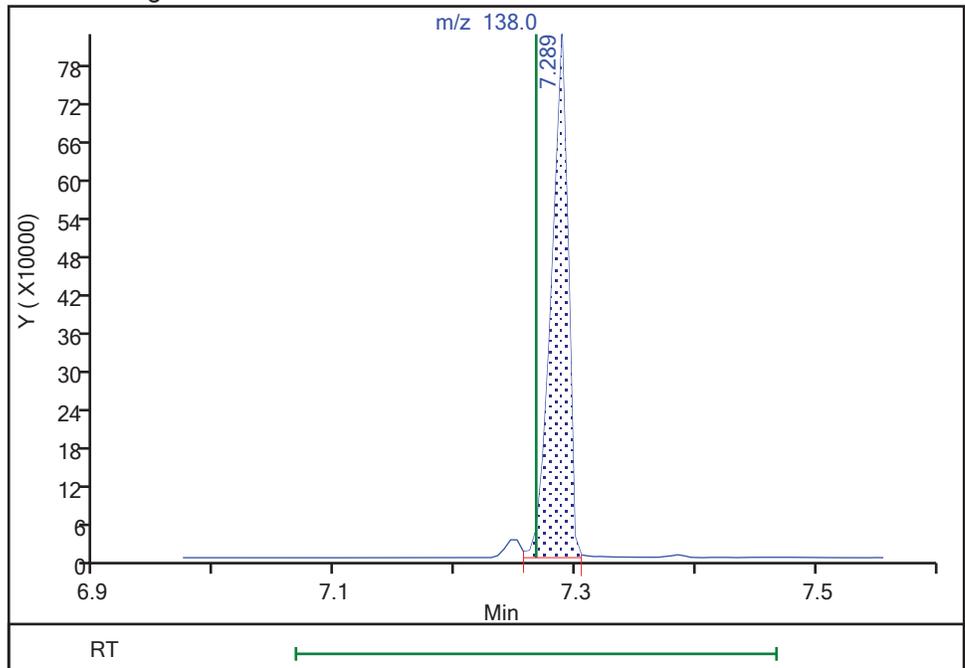
RT: 7.25
Area: 26754
Amount: 3.149415
Amount Units: ug/ml

Processing Integration Results



RT: 7.29
Area: 795837
Amount: 93.723917
Amount Units: ug/ml

Manual Integration Results



Reviewer: TRE2, 17-Oct-2022 10:17:23
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-592986/3 Calibration Date: 11/10/2022 15:20
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023536b.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.6477		108000	80000	34.6*	20.0
N-Nitrosodimethylamine	Ave	0.7662	1.013		106000	80000	32.3*	20.0
Pyridine	Ave	1.216	1.574		207000	160000	29.4*	20.0
Aniline	Ave	2.076	2.201		84800	80000	6.0	20.0
Phenol	Ave	1.773	1.935	0.8000	87300	80000	9.1	20.0
Bis(2-chloroethyl)ether	Ave	1.316	1.469	0.7000	89300	80000	11.6	20.0
2-Chlorophenol	Ave	1.378	1.437	0.8000	83400	80000	4.3	20.0
1,3-Dichlorobenzene	Ave	1.488	1.502		80700	80000	0.9	20.0
1,4-Dichlorobenzene	Ave	1.504	1.515		80600	80000	0.7	20.0
Benzyl alcohol	Ave	0.9396	0.9321		79400	80000	-0.8	20.0
1,2-Dichlorobenzene	Ave	1.419	1.418		79900	80000	-0.0	20.0
2-Methylphenol	Ave	1.246	1.277	0.7000	82000	80000	2.5	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.445	1.893	0.0100	105000	80000	31.0*	20.0
Acetophenone	Ave	1.831	1.929	0.0100	84300	80000	5.4	20.0
N-Nitrosodi-n-propylamine	Ave	0.8902	1.016	0.5000	91300	80000	14.2	20.0
3 & 4 Methylphenol	Ave	1.334	1.346		80700	80000	0.9	20.0
Hexachloroethane	Ave	0.6120	0.6413	0.3000	83800	80000	4.8	20.0
Nitrobenzene	Ave	0.3533	0.3979	0.2000	90100	80000	12.6	20.0
Isophorone	Ave	0.6768	0.7350	0.4000	86900	80000	8.6	20.0
2-Nitrophenol	Ave	0.1962	0.2044	0.1000	83400	80000	4.2	20.0
2,4-Dimethylphenol	Ave	0.3492	0.3618	0.2000	82900	80000	3.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4333	0.4646	0.3000	85800	80000	7.2	20.0
2,4-Dichlorophenol	Ave	0.2986	0.2867	0.2000	76800	80000	-4.0	20.0
Benzoic acid	Lin2		0.3042		174000	160000	9.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3143	0.3073		78200	80000	-2.2	20.0
Naphthalene	Ave	0.9887	0.9943	0.7000	80500	80000	0.6	20.0
2,6-Dichlorophenol	Ave	0.2924	0.2830		77400	80000	-3.2	20.0
4-Chloroaniline	Ave	0.4442	0.4524	0.0100	81500	80000	1.8	20.0
Hexachlorobutadiene	Ave	0.1598	0.1570	0.0100	78600	80000	-1.8	20.0
4-Chloro-3-methylphenol	Ave	0.3122	0.3133	0.2000	80300	80000	0.4	20.0
2-Methylnaphthalene	Ave	0.6692	0.6478	0.4000	77400	80000	-3.2	20.0
1-Methylnaphthalene	Ave	0.6322	0.6076		76900	80000	-3.9	20.0
Hexachlorocyclopentadiene	Ave	0.3431	0.3119	0.0500	72700	80000	-9.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2920	0.2704	0.0100	74100	80000	-7.4	20.0
2,4,6-Trichlorophenol	Ave	0.3593	0.3794	0.2000	84500	80000	5.6	20.0
2,4,5-Trichlorophenol	Ave	0.4000	0.3972	0.2000	79500	80000	-0.7	20.0
1,1'-Biphenyl	Ave	1.321	1.394	0.0100	84400	80000	5.5	20.0
2-Chloronaphthalene	Ave	1.067	1.115	0.8000	83600	80000	4.5	20.0
2-Nitroaniline	Ave	0.3331	0.4142	0.0100	99500	80000	24.4*	20.0
Dimethyl phthalate	Ave	1.169	1.275	0.0100	87200	80000	9.0	20.0
1,3-Dinitrobenzene	Ave	0.2046	0.2197		85900	80000	7.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-592986/3 Calibration Date: 11/10/2022 15:20
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023536b.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2886	0.3073	0.2000	85200	80000	6.5	20.0
Acenaphthylene	Ave	1.679	1.785	0.9000	85100	80000	6.3	20.0
3-Nitroaniline	Ave	0.3754	0.3979	0.0100	84800	80000	6.0	20.0
Acenaphthene	Ave	1.042	1.112	0.9000	85400	80000	6.7	20.0
2,4-Dinitrophenol	Lin1		0.1744	0.0100	156000	160000	-2.5	20.0
4-Nitrophenol	Ave	0.1815	0.2153	0.0100	190000	160000	18.6	20.0
Dibenzofuran	Ave	1.490	1.545	0.8000	82900	80000	3.7	20.0
2,4-Dinitrotoluene	Ave	0.3601	0.3971	0.2000	88200	80000	10.3	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3192	0.3203	0.0100	80300	80000	0.3	20.0
Diethyl phthalate	Ave	1.225	1.322	0.0100	86300	80000	7.9	20.0
Fluorene	Ave	1.230	1.230	0.9000	80100	80000	0.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.5428	0.5422	0.4000	79900	80000	-0.1	20.0
4-Nitroaniline	Ave	0.3734	0.3828	0.0100	82000	80000	2.5	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1424	0.0100	174000	160000	8.5	20.0
Diphenylamine	Ave	1.056	1.060		68300	68000	0.4	20.0
N-Nitrosodiphenylamine	Ave	0.5576	0.5854	0.0100	84000	80000	5.0	20.0
1,2-Diphenylhydrazine	Ave	1.226	1.442		95100	80900	17.6	20.0
Azobenzene	Ave	1.240	1.457		94000	80000	17.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2199	0.2084	0.1000	75800	80000	-5.2	20.0
Hexachlorobenzene	Ave	0.2569	0.2413	0.1000	75100	80000	-6.1	20.0
Pentachlorophenol	Ave	0.1555	0.1639	0.0500	169000	160000	5.4	20.0
Phenanthrene	Ave	1.104	1.113	0.7000	80700	80000	0.9	20.0
Anthracene	Ave	1.132	1.114	0.7000	78700	80000	-1.6	20.0
Carbazole	Ave	1.126	1.116	0.0100	79300	80000	-0.9	20.0
Alachlor	Ave	0.1521	0.1604		84300	80000	5.4	20.0
Di-n-butyl phthalate	Ave	1.333	1.423	0.0100	85500	80000	6.8	20.0
Fluoranthene	Ave	1.149	1.142	0.6000	79500	80000	-0.6	20.0
Pyrene	Ave	1.355	1.511	0.6000	89200	80000	11.5	20.0
Butyl benzyl phthalate	Ave	0.6831	0.8114	0.0100	95000	80000	18.8	20.0
Benzo[a]anthracene	Ave	1.203	1.283	0.8000	85300	80000	6.7	20.0
Chrysene	Ave	1.127	1.220	0.7000	86500	80000	8.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9300	1.057	0.0100	90900	80000	13.7	20.0
Di-n-octyl phthalate	Ave	1.685	1.824	0.0100	86600	80000	8.2	20.0
Benzo[b]fluoranthene	Ave	1.224	1.316	0.7000	86000	80000	7.5	20.0
Benzo[k]fluoranthene	Ave	1.269	1.472	0.7000	92800	80000	16.0	20.0
Benzo[a]pyrene	Ave	1.109	1.253	0.7000	90300	80000	12.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.161	0.9800	0.5000	67500	80000	-15.6	20.0
Dibenz(a,h)anthracene	Ave	1.144	1.124	0.4000	78600	80000	-1.7	20.0
Benzo[g,h,i]perylene	Ave	1.215	1.258	0.5000	82800	80000	3.5	20.0
2-Fluorophenol (Surr)	Ave	1.320	1.506		91300	80000	14.1	20.0
Phenol-d5 (Surr)	Ave	1.681	1.786		85000	80000	6.3	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-592986/3 Calibration Date: 11/10/2022 15:20
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023536b.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3716	0.4108		88400	80000	10.5	20.0
2-Fluorobiphenyl	Ave	1.183	1.237		83700	80000	4.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.2336	0.1996		68400	80000	-14.5	20.0
Terphenyl-d14 (Surr)	Ave	1.028	1.095		85100	80000	6.4	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023536b.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 10-Nov-2022 15:20:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:32:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NBC9

Date: 10-Nov-2022 16:15:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	378756	40.0	40.0	
* 2 Naphthalene-d8	136	4.810	4.810	0.000	99	1372660	40.0	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	92	728831	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	97	1122144	40.0	40.0	
* 5 Chrysene-d12	240	10.629	10.629	0.000	98	871457	40.0	40.0	
* 6 Perylene-d12	264	12.752	12.752	0.000	97	738564	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.403	2.403	0.000	92	1140637	80.0	91.3	
\$ 8 Phenol-d5	99	3.280	3.280	0.000	97	1352769	80.0	85.0	
\$ 9 Nitrobenzene-d5	82	4.125	4.125	0.000	89	1127699	80.0	88.4	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	1803193	80.0	83.7	
\$ 12 2,4,6-Tribromophenol	330	7.281	7.281	0.000	93	290991	80.0	68.4	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	1907807	80.0	85.1	
20 1,4-Dioxane	88	1.199	1.199	0.000	98	490615	80.0	107.7	
21 N-Nitrosodimethylamine	74	1.360	1.360	0.000	95	767658	80.0	105.8	
22 Pyridine	79	1.386	1.386	0.000	96	2384195	160.0	207.1	
34 Phenol	94	3.291	3.291	0.000	89	1466138	80.0	87.3	
35 Aniline	93	3.291	3.291	0.000	88	1667282	80.0	84.8	
36 Alpha Methyl Styrene	118	3.339	3.339	0.000	92	1109495	80.0	86.3	
37 Bis(2-chloroethyl)ether	93	3.365	3.365	0.000	96	1112922	80.0	89.3	
39 n-Decane	43	3.472	3.472	0.000	88	1022150	80.0	113.2	
41 2-Chlorophenol	128	3.398	3.398	0.000	96	1088192	80.0	83.4	
42 1,3-Dichlorobenzene	146	3.537	3.537	0.000	98	1137790	80.0	80.7	
43 1,4-Dichlorobenzene	146	3.611	3.611	0.000	93	1147311	80.0	80.6	
44 Benzyl alcohol	108	3.740	3.740	0.000	93	706055	80.0	79.4	
45 1,2-Dichlorobenzene	146	3.751	3.751	0.000	97	1073815	80.0	79.9	
46 2-Methylphenol	108	3.863	3.863	0.000	94	967403	80.0	82.0	
47 2,2'-oxybis[1-chloropropane]	45	3.884	3.884	0.000	95	1434168	80.0	104.8	
48 Indene	116	3.836	3.836	0.000	91	3472460	160.0	162.7	
49 3 & 4 Methylphenol	108	4.018	4.018	0.000	80	1019424	80.0	80.7	
50 3-Methylphenol	108	4.018	4.018	0.000	91	1019424	80.0	80.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.002	4.002	0.000	87	769748	80.0	91.3	
52 4-Methylphenol	108	4.018	4.018	0.000	92	1019424	80.0	80.7	
55 Acetophenone	105	3.986	3.986	0.000	98	1461553	80.0	84.3	
58 Hexachloroethane	117	4.066	4.066	0.000	96	485765	80.0	83.8	
60 Nitrobenzene	77	4.141	4.141	0.000	89	1092311	80.0	90.1	
63 Isophorone	82	4.382	4.382	0.000	99	2017768	80.0	86.9	
65 2-Nitrophenol	139	4.451	4.451	0.000	94	561222	80.0	83.4	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	993214	80.0	82.9	
69 Bis(2-chloroethoxy)methane	93	4.617	4.617	0.000	98	1275444	80.0	85.8	
70 Benzoic acid	105	4.692	4.692	0.000	59	1669992	160.0	174.5	
71 3,5-Dimethylphenol	107	4.660	4.660	0.000	87	1044361	80.0	82.9	
75 2,4-Dichlorophenol	162	4.687	4.687	0.000	96	786993	80.0	76.8	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	843686	80.0	78.2	
79 Naphthalene	128	4.831	4.831	0.000	97	2729680	80.0	80.5	
80 4-Chloroaniline	127	4.906	4.906	0.000	95	1241915	80.0	81.5	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	93	776956	80.0	77.4	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	431087	80.0	78.6	
87 Caprolactam	55	5.259	5.259	0.000	80	507268	80.0	93.2	
90 4-Chloro-3-methylphenol	107	5.403	5.403	0.000	96	860104	80.0	80.3	
94 2-Methylnaphthalene	142	5.505	5.505	0.000	94	1778388	80.0	77.4	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	94	1668077	80.0	76.9	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	96	454716	80.0	72.7	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	98	742233	80.0	74.1	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	94	553040	80.0	84.5	
102 2,3-Dichlorobenzenamine	161	5.783	5.783	0.000	96	956700	80.0	82.2	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	93	579043	80.0	79.5	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	95	2031460	80.0	84.4	
107 2-Chloronaphthalene	162	5.976	5.976	0.000	97	1625045	80.0	83.6	
109 2-Nitroaniline	65	6.088	6.088	0.000	86	603808	80.0	99.5	
112 Dimethyl phthalate	163	6.296	6.296	0.000	99	1858238	80.0	87.2	
113 1,3-Dinitrobenzene	168	6.307	6.307	0.000	85	320191	80.0	85.9	
114 2,6-Dinitrotoluene	165	6.345	6.345	0.000	96	447884	80.0	85.2	
115 Acenaphthylene	152	6.371	6.371	0.000	98	2602112	80.0	85.1	
116 3-Nitroaniline	138	6.494	6.494	0.000	96	579974	80.0	84.8	
117 Acenaphthene	153	6.543	6.543	0.000	94	1620984	80.0	85.4	
118 2,4-Dinitrophenol	184	6.601	6.601	0.000	85	508498	160.0	156.0	
120 4-Nitrophenol	109	6.698	6.698	0.000	93	627614	160.0	189.7	
122 2,4-Dinitrotoluene	165	6.730	6.730	0.000	93	578899	80.0	88.2	
123 Dibenzofuran	168	6.714	6.714	0.000	99	2251470	80.0	82.9	
127 2,3,4,6-Tetrachlorophenol	232	6.842	6.842	0.000	75	466900	80.0	80.3	
128 Hexadecane	57	7.029	7.029	0.000	90	1369560	80.0	101.1	
130 Diethyl phthalate	149	6.997	6.997	0.000	98	1927623	80.0	86.3	
135 4-Chlorophenyl phenyl ether	204	7.067	7.067	0.000	97	790412	80.0	79.9	
136 Fluorene	166	7.045	7.045	0.000	96	1793588	80.0	80.1	
139 4-Nitroaniline	138	7.088	7.088	0.000	86	557931	80.0	82.0	
140 4,6-Dinitro-2-methylphenol	198	7.120	7.120	0.000	79	639218	160.0	173.7	
142 Diphenylamine	169	7.190	7.190	0.000	96	1313708	68.0	68.3	
143 N-Nitrosodiphenylamine	169	7.190	7.190	0.000	99	1313708	80.0	84.0	
144 Azobenzene	77	7.222	7.222	0.000	98	2124530	80.0	94.0	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	2124530	80.9	95.1	
157 4-Bromophenyl phenyl ether	248	7.537	7.537	0.000	69	467762	80.0	75.8	
158 Hexachlorobenzene	284	7.569	7.569	0.000	94	541440	80.0	75.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.735	7.735	0.000	93	449521	80.0	87.8	
162 n-Octadecane	85	7.933	7.933	0.000	95	588152	80.0	94.7	
164 Pentachlorophenol	266	7.773	7.773	0.000	98	735614	160.0	168.6	
169 Phenanthrene	178	7.971	7.971	0.000	97	2498952	80.0	80.7	
170 Anthracene	178	8.019	8.019	0.000	98	2500594	80.0	78.7	
171 Carbazole	167	8.195	8.195	0.000	96	2504030	80.0	79.3	
172 Alachlor	188	8.356	8.356	0.000	98	360012	80.0	84.3	
175 Di-n-butyl phthalate	149	8.591	8.591	0.000	100	3194725	80.0	85.5	
182 Fluoranthene	202	9.126	9.126	0.000	98	2563009	80.0	79.5	
185 Pyrene	202	9.340	9.340	0.000	97	2633581	80.0	89.2	
193 Butyl benzyl phthalate	149	10.057	10.057	0.000	98	1414224	80.0	95.0	
197 3,3'-Dichlorobenzidine	252	10.624	10.624	0.000	75	841395	80.0	80.8	
198 Benzo[a]anthracene	228	10.618	10.618	0.000	99	2236704	80.0	85.3	
199 Bis(2-ethylhexyl) phthalate	149	10.789	10.789	0.000	98	1842116	80.0	90.9	
200 Chrysene	228	10.661	10.661	0.000	98	2125830	80.0	86.5	
202 Di-n-octyl phthalate	149	11.763	11.763	0.000	99	3178563	80.0	86.6	
204 Benzo[b]fluoranthene	252	12.148	12.148	0.000	98	1944427	80.0	86.0	
205 Benzo[k]fluoranthene	252	12.191	12.191	0.000	99	2174439	80.0	92.8	
208 Benzo[a]pyrene	252	12.661	12.661	0.000	79	1850559	80.0	90.3	
214 Indeno[1,2,3-cd]pyrene	276	14.598	14.598	0.000	98	1708101	80.0	67.5	M
215 Dibenz(a,h)anthracene	278	14.672	14.672	0.000	94	1660700	80.0	78.6	
216 Benzo[g,h,i]perylene	276	15.042	15.042	0.000	97	1858875	80.0	82.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023536b.D

Injection Date: 10-Nov-2022 15:20:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

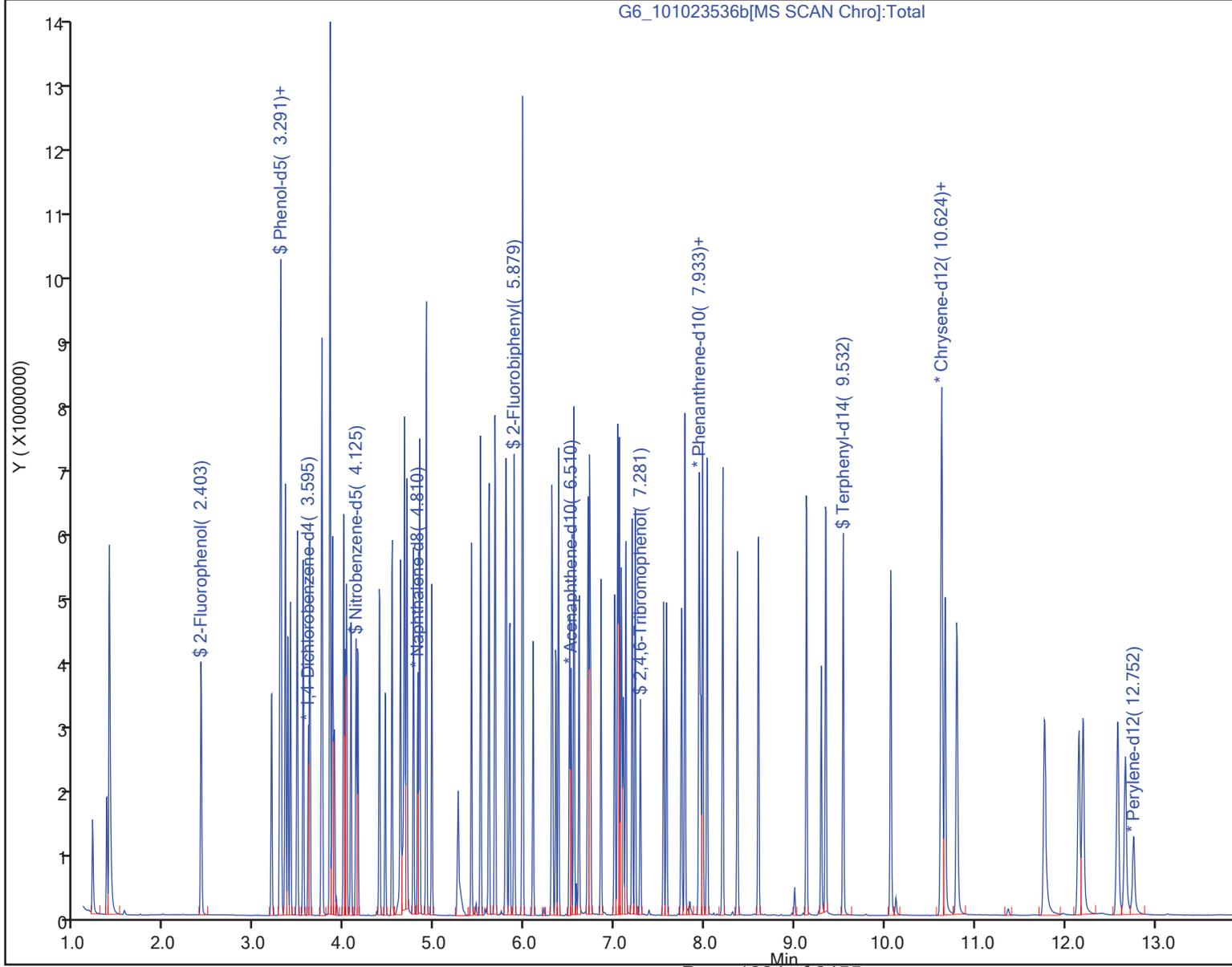
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

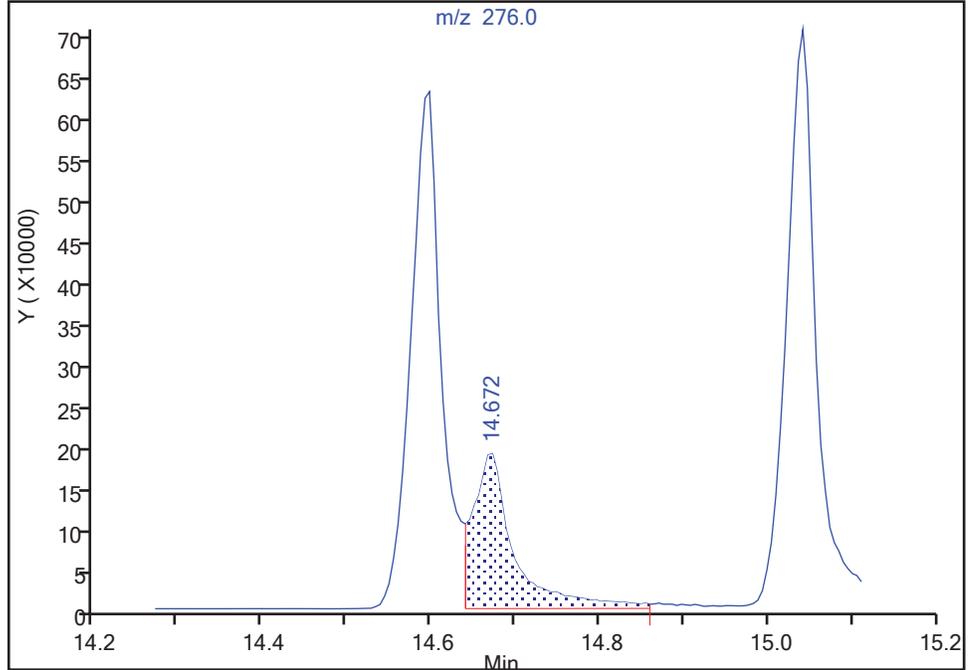
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023536b.D
Injection Date: 10-Nov-2022 15:20:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

214 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

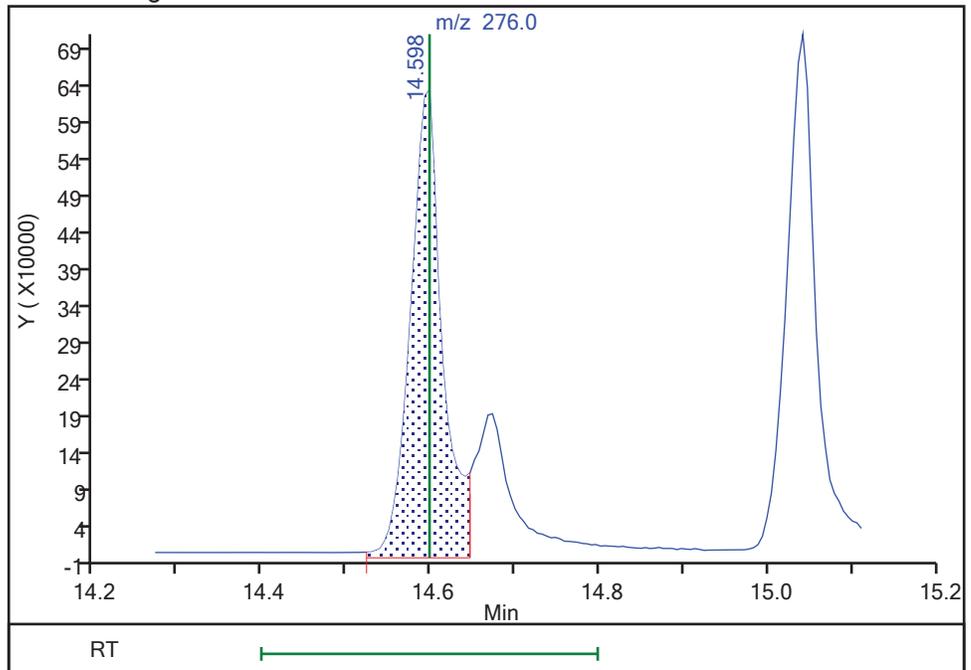
RT: 14.67
Area: 652172
Amount: 25.780909
Amount Units: ug/ml

Processing Integration Results



RT: 14.60
Area: 1708101
Amount: 67.522672
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 10-Nov-2022 16:15:27
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-592986/3 Calibration Date: 11/10/2022 15:20
 Instrument ID: SMS_G6 Calib Start Date: 10/15/2022 00:27
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/15/2022 02:30
 Lab File ID: G6_101023536b.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1586	0.1848	0.0100	93200	80000	16.5	20.0
Atrazine	Ave	0.1826	0.2003	0.0100	87800	80000	9.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4778	0.4828	0.0100	80800	80000	1.0	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023536b.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 10-Nov-2022 15:20:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:32:11 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NBC9

Date: 10-Nov-2022 16:15:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	378756	40.0	40.0	
* 2 Naphthalene-d8	136	4.810	4.810	0.000	99	1372660	40.0	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	92	728831	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	97	1122144	40.0	40.0	
* 5 Chrysene-d12	240	10.629	10.629	0.000	98	871457	40.0	40.0	
* 6 Perylene-d12	264	12.752	12.752	0.000	97	738564	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.403	2.403	0.000	92	1140637	80.0	91.3	
\$ 8 Phenol-d5	99	3.280	3.280	0.000	97	1352769	80.0	85.0	
\$ 9 Nitrobenzene-d5	82	4.125	4.125	0.000	89	1127699	80.0	88.4	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	1803193	80.0	83.7	
\$ 12 2,4,6-Tribromophenol	330	7.281	7.281	0.000	93	290991	80.0	68.4	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	1907807	80.0	85.1	
20 1,4-Dioxane	88	1.199	1.199	0.000	98	490615	80.0	107.7	
21 N-Nitrosodimethylamine	74	1.360	1.360	0.000	95	767658	80.0	105.8	
22 Pyridine	79	1.386	1.386	0.000	96	2384195	160.0	207.1	
34 Phenol	94	3.291	3.291	0.000	89	1466138	80.0	87.3	
35 Aniline	93	3.291	3.291	0.000	88	1667282	80.0	84.8	
36 Alpha Methyl Styrene	118	3.339	3.339	0.000	92	1109495	80.0	86.3	
37 Bis(2-chloroethyl)ether	93	3.365	3.365	0.000	96	1112922	80.0	89.3	
39 n-Decane	43	3.472	3.472	0.000	88	1022150	80.0	113.2	
41 2-Chlorophenol	128	3.398	3.398	0.000	96	1088192	80.0	83.4	
42 1,3-Dichlorobenzene	146	3.537	3.537	0.000	98	1137790	80.0	80.7	
43 1,4-Dichlorobenzene	146	3.611	3.611	0.000	93	1147311	80.0	80.6	
44 Benzyl alcohol	108	3.740	3.740	0.000	93	706055	80.0	79.4	
45 1,2-Dichlorobenzene	146	3.751	3.751	0.000	97	1073815	80.0	79.9	
46 2-Methylphenol	108	3.863	3.863	0.000	94	967403	80.0	82.0	
47 2,2'-oxybis[1-chloropropane]	45	3.884	3.884	0.000	95	1434168	80.0	104.8	
48 Indene	116	3.836	3.836	0.000	91	3472460	160.0	162.7	
49 3 & 4 Methylphenol	108	4.018	4.018	0.000	80	1019424	80.0	80.7	
50 3-Methylphenol	108	4.018	4.018	0.000	91	1019424	80.0	80.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.002	4.002	0.000	87	769748	80.0	91.3	
52 4-Methylphenol	108	4.018	4.018	0.000	92	1019424	80.0	80.7	
55 Acetophenone	105	3.986	3.986	0.000	98	1461553	80.0	84.3	
58 Hexachloroethane	117	4.066	4.066	0.000	96	485765	80.0	83.8	
60 Nitrobenzene	77	4.141	4.141	0.000	89	1092311	80.0	90.1	
63 Isophorone	82	4.382	4.382	0.000	99	2017768	80.0	86.9	
65 2-Nitrophenol	139	4.451	4.451	0.000	94	561222	80.0	83.4	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	993214	80.0	82.9	
69 Bis(2-chloroethoxy)methane	93	4.617	4.617	0.000	98	1275444	80.0	85.8	
70 Benzoic acid	105	4.692	4.692	0.000	59	1669992	160.0	174.5	
71 3,5-Dimethylphenol	107	4.660	4.660	0.000	87	1044361	80.0	82.9	
75 2,4-Dichlorophenol	162	4.687	4.687	0.000	96	786993	80.0	76.8	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	843686	80.0	78.2	
79 Naphthalene	128	4.831	4.831	0.000	97	2729680	80.0	80.5	
80 4-Chloroaniline	127	4.906	4.906	0.000	95	1241915	80.0	81.5	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	93	776956	80.0	77.4	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	431087	80.0	78.6	
87 Caprolactam	55	5.259	5.259	0.000	80	507268	80.0	93.2	
90 4-Chloro-3-methylphenol	107	5.403	5.403	0.000	96	860104	80.0	80.3	
94 2-Methylnaphthalene	142	5.505	5.505	0.000	94	1778388	80.0	77.4	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	94	1668077	80.0	76.9	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	96	454716	80.0	72.7	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	98	742233	80.0	74.1	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	94	553040	80.0	84.5	
102 2,3-Dichlorobenzenamine	161	5.783	5.783	0.000	96	956700	80.0	82.2	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	93	579043	80.0	79.5	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	95	2031460	80.0	84.4	
107 2-Chloronaphthalene	162	5.976	5.976	0.000	97	1625045	80.0	83.6	
109 2-Nitroaniline	65	6.088	6.088	0.000	86	603808	80.0	99.5	
112 Dimethyl phthalate	163	6.296	6.296	0.000	99	1858238	80.0	87.2	
113 1,3-Dinitrobenzene	168	6.307	6.307	0.000	85	320191	80.0	85.9	
114 2,6-Dinitrotoluene	165	6.345	6.345	0.000	96	447884	80.0	85.2	
115 Acenaphthylene	152	6.371	6.371	0.000	98	2602112	80.0	85.1	
116 3-Nitroaniline	138	6.494	6.494	0.000	96	579974	80.0	84.8	
117 Acenaphthene	153	6.543	6.543	0.000	94	1620984	80.0	85.4	
118 2,4-Dinitrophenol	184	6.601	6.601	0.000	85	508498	160.0	156.0	
120 4-Nitrophenol	109	6.698	6.698	0.000	93	627614	160.0	189.7	
122 2,4-Dinitrotoluene	165	6.730	6.730	0.000	93	578899	80.0	88.2	
123 Dibenzofuran	168	6.714	6.714	0.000	99	2251470	80.0	82.9	
127 2,3,4,6-Tetrachlorophenol	232	6.842	6.842	0.000	75	466900	80.0	80.3	
128 Hexadecane	57	7.029	7.029	0.000	90	1369560	80.0	101.1	
130 Diethyl phthalate	149	6.997	6.997	0.000	98	1927623	80.0	86.3	
135 4-Chlorophenyl phenyl ether	204	7.067	7.067	0.000	97	790412	80.0	79.9	
136 Fluorene	166	7.045	7.045	0.000	96	1793588	80.0	80.1	
139 4-Nitroaniline	138	7.088	7.088	0.000	86	557931	80.0	82.0	
140 4,6-Dinitro-2-methylphenol	198	7.120	7.120	0.000	79	639218	160.0	173.7	
142 Diphenylamine	169	7.190	7.190	0.000	96	1313708	68.0	68.3	
143 N-Nitrosodiphenylamine	169	7.190	7.190	0.000	99	1313708	80.0	84.0	
144 Azobenzene	77	7.222	7.222	0.000	98	2124530	80.0	94.0	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	2124530	80.9	95.1	
157 4-Bromophenyl phenyl ether	248	7.537	7.537	0.000	69	467762	80.0	75.8	
158 Hexachlorobenzene	284	7.569	7.569	0.000	94	541440	80.0	75.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.735	7.735	0.000	93	449521	80.0	87.8	
162 n-Octadecane	85	7.933	7.933	0.000	95	588152	80.0	94.7	
164 Pentachlorophenol	266	7.773	7.773	0.000	98	735614	160.0	168.6	
169 Phenanthrene	178	7.971	7.971	0.000	97	2498952	80.0	80.7	
170 Anthracene	178	8.019	8.019	0.000	98	2500594	80.0	78.7	
171 Carbazole	167	8.195	8.195	0.000	96	2504030	80.0	79.3	
172 Alachlor	188	8.356	8.356	0.000	98	360012	80.0	84.3	
175 Di-n-butyl phthalate	149	8.591	8.591	0.000	100	3194725	80.0	85.5	
182 Fluoranthene	202	9.126	9.126	0.000	98	2563009	80.0	79.5	
185 Pyrene	202	9.340	9.340	0.000	97	2633581	80.0	89.2	
193 Butyl benzyl phthalate	149	10.057	10.057	0.000	98	1414224	80.0	95.0	
197 3,3'-Dichlorobenzidine	252	10.624	10.624	0.000	75	841395	80.0	80.8	
198 Benzo[a]anthracene	228	10.618	10.618	0.000	99	2236704	80.0	85.3	
199 Bis(2-ethylhexyl) phthalate	149	10.789	10.789	0.000	98	1842116	80.0	90.9	
200 Chrysene	228	10.661	10.661	0.000	98	2125830	80.0	86.5	
202 Di-n-octyl phthalate	149	11.763	11.763	0.000	99	3178563	80.0	86.6	
204 Benzo[b]fluoranthene	252	12.148	12.148	0.000	98	1944427	80.0	86.0	
205 Benzo[k]fluoranthene	252	12.191	12.191	0.000	99	2174439	80.0	92.8	
208 Benzo[a]pyrene	252	12.661	12.661	0.000	79	1850559	80.0	90.3	
214 Indeno[1,2,3-cd]pyrene	276	14.598	14.598	0.000	98	1708101	80.0	67.5	M
215 Dibenz(a,h)anthracene	278	14.672	14.672	0.000	94	1660700	80.0	78.6	
216 Benzo[g,h,i]perylene	276	15.042	15.042	0.000	97	1858875	80.0	82.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023536b.D

Injection Date: 10-Nov-2022 15:20:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

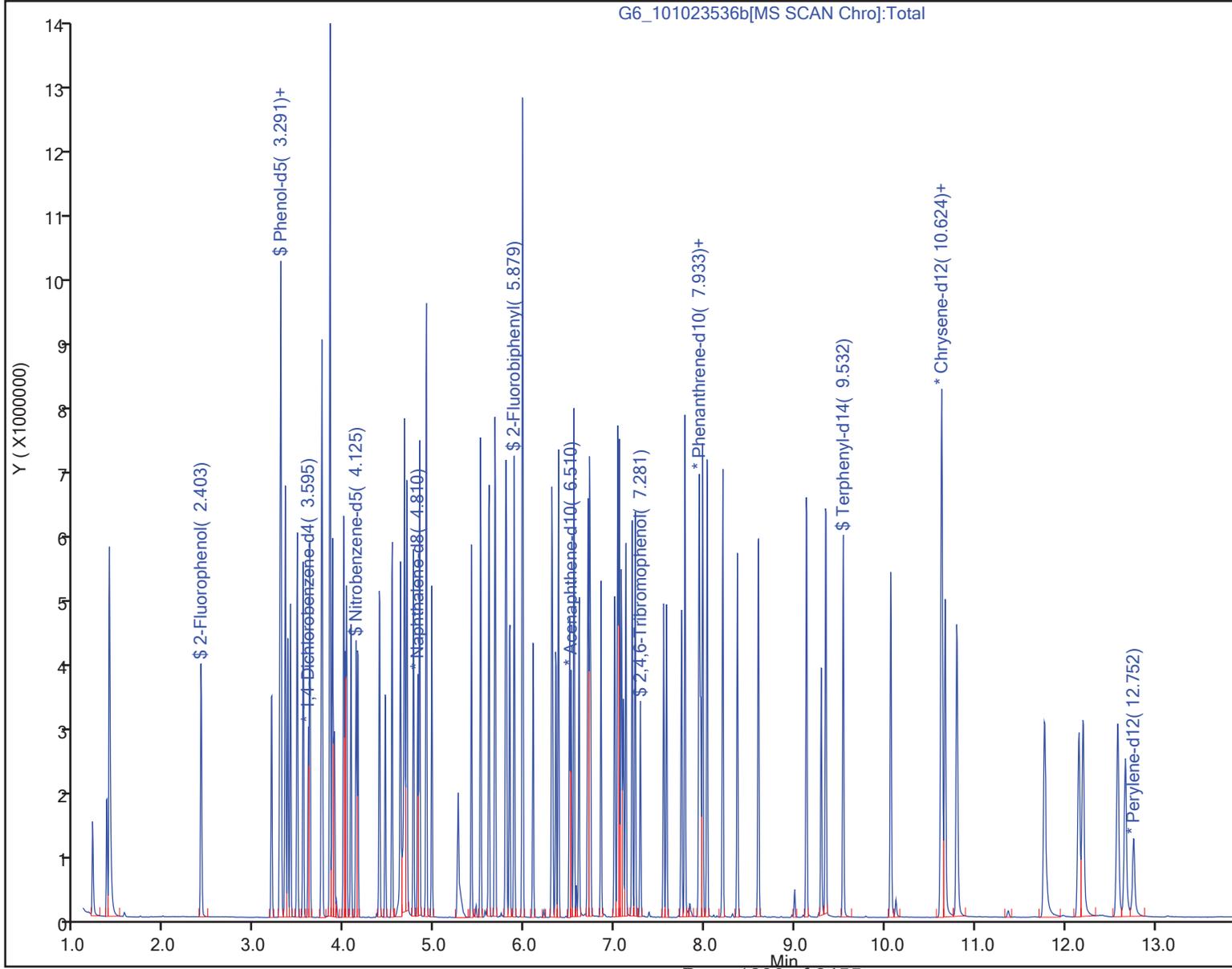
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-592986/36 Calibration Date: 11/11/2022 01:59
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023567.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.6103		101000	80000	26.6	50.0
N-Nitrosodimethylamine	Ave	0.7662	1.015		106000	80000	32.5	50.0
Pyridine	Ave	1.216	1.505		198000	160000	23.7	50.0
Aniline	Ave	2.076	2.153		83000	80000	3.7	50.0
Phenol	Ave	1.773	1.880	0.8000	84800	80000	6.0	50.0
Bis(2-chloroethyl)ether	Ave	1.316	1.468	0.7000	89200	80000	11.5	50.0
2-Chlorophenol	Ave	1.378	1.434	0.8000	83300	80000	4.1	50.0
1,3-Dichlorobenzene	Ave	1.488	1.498		80500	80000	0.6	50.0
1,4-Dichlorobenzene	Ave	1.504	1.503		80000	80000	-0.0	50.0
Benzyl alcohol	Ave	0.9396	0.9287		79100	80000	-1.2	50.0
1,2-Dichlorobenzene	Ave	1.419	1.380		77800	80000	-2.7	50.0
2-Methylphenol	Ave	1.246	1.274	0.7000	81800	80000	2.2	50.0
2,2'-oxybis[1-chloropropane]	Ave	1.445	1.794	0.0100	99300	80000	24.2	50.0
Acetophenone	Ave	1.831	1.869	0.0100	81700	80000	2.1	50.0
N-Nitrosodi-n-propylamine	Ave	0.8902	1.009	0.5000	90700	80000	13.4	50.0
3 & 4 Methylphenol	Ave	1.334	1.319		79100	80000	-1.1	50.0
Hexachloroethane	Ave	0.6120	0.6262	0.3000	81900	80000	2.3	50.0
Nitrobenzene	Ave	0.3533	0.3907	0.2000	88500	80000	10.6	50.0
Isophorone	Ave	0.6768	0.7291	0.4000	86200	80000	7.7	50.0
2-Nitrophenol	Ave	0.1962	0.2021	0.1000	82400	80000	3.0	50.0
2,4-Dimethylphenol	Ave	0.3492	0.3589	0.2000	82200	80000	2.8	50.0
Bis(2-chloroethoxy)methane	Ave	0.4333	0.4634	0.3000	85600	80000	7.0	50.0
2,4-Dichlorophenol	Ave	0.2986	0.2834	0.2000	75900	80000	-5.1	50.0
Benzoic acid	Lin2		0.3131		179000	160000	12.2	50.0
1,2,4-Trichlorobenzene	Ave	0.3143	0.3012		76700	80000	-4.2	50.0
Naphthalene	Ave	0.9887	0.9680	0.7000	78300	80000	-2.1	50.0
2,6-Dichlorophenol	Ave	0.2924	0.2764		75600	80000	-5.5	50.0
4-Chloroaniline	Ave	0.4442	0.4317	0.0100	77800	80000	-2.8	50.0
Hexachlorobutadiene	Ave	0.1598	0.1575	0.0100	78800	80000	-1.5	50.0
4-Chloro-3-methylphenol	Ave	0.3122	0.3165	0.2000	81100	80000	1.4	50.0
2-Methylnaphthalene	Ave	0.6692	0.6521	0.4000	78000	80000	-2.5	50.0
1-Methylnaphthalene	Ave	0.6322	0.6030		76300	80000	-4.6	50.0
Hexachlorocyclopentadiene	Ave	0.3431	0.2414	0.0500	56300	80000	-29.6	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2920	0.2713	0.0100	74300	80000	-7.1	50.0
2,4,6-Trichlorophenol	Ave	0.3593	0.3689	0.2000	82100	80000	2.7	50.0
2,4,5-Trichlorophenol	Ave	0.4000	0.3970	0.2000	79400	80000	-0.7	50.0
1,1'-Biphenyl	Ave	1.321	1.368	0.0100	82800	80000	3.5	50.0
2-Chloronaphthalene	Ave	1.067	1.093	0.8000	82000	80000	2.4	50.0
2-Nitroaniline	Ave	0.3331	0.4027	0.0100	96700	80000	20.9	50.0
Dimethyl phthalate	Ave	1.169	1.236	0.0100	84600	80000	5.7	50.0
1,3-Dinitrobenzene	Ave	0.2046	0.2197		85900	80000	7.4	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-592986/36 Calibration Date: 11/11/2022 01:59
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023567.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2886	0.3045	0.2000	84400	80000	5.5	50.0
Acenaphthylene	Ave	1.679	1.764	0.9000	84000	80000	5.0	50.0
3-Nitroaniline	Ave	0.3754	0.3895	0.0100	83000	80000	3.8	50.0
Acenaphthene	Ave	1.042	1.100	0.9000	84500	80000	5.6	50.0
2,4-Dinitrophenol	Lin1		0.1741	0.0100	156000	160000	-2.7	50.0
4-Nitrophenol	Ave	0.1815	0.2066	0.0100	182000	160000	13.8	50.0
Dibenzofuran	Ave	1.490	1.486	0.8000	79800	80000	-0.3	50.0
2,4-Dinitrotoluene	Ave	0.3601	0.3880	0.2000	86200	80000	7.7	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.3192	0.3187	0.0100	79900	80000	-0.2	50.0
Diethyl phthalate	Ave	1.225	1.292	0.0100	84300	80000	5.4	50.0
Fluorene	Ave	1.230	1.221	0.9000	79400	80000	-0.7	50.0
4-Chlorophenyl phenyl ether	Ave	0.5428	0.5341	0.4000	78700	80000	-1.6	50.0
4-Nitroaniline	Ave	0.3734	0.3820	0.0100	81900	80000	2.3	50.0
4,6-Dinitro-2-methylphenol	Lin2		0.1461	0.0100	178000	160000	11.3	50.0
Diphenylamine	Ave	1.056	1.062		68400	68000	0.6	50.0
N-Nitrosodiphenylamine	Ave	0.5576	0.5956	0.0100	85500	80000	6.8	50.0
1,2-Diphenylhydrazine	Ave	1.226	1.375		90700	80900	12.1	50.0
Azobenzene	Ave	1.240	1.390		89700	80000	12.1	50.0
4-Bromophenyl phenyl ether	Ave	0.2199	0.2173	0.1000	79100	80000	-1.2	50.0
Hexachlorobenzene	Ave	0.2569	0.2493	0.1000	77600	80000	-3.0	50.0
Pentachlorophenol	Ave	0.1555	0.1743	0.0500	179000	160000	12.1	50.0
Phenanthrene	Ave	1.104	1.108	0.7000	80300	80000	0.4	50.0
Anthracene	Ave	1.132	1.121	0.7000	79200	80000	-1.0	50.0
Carbazole	Ave	1.126	1.107	0.0100	78600	80000	-1.7	50.0
Alachlor	Ave	0.1521	0.1614		84800	80000	6.1	50.0
Di-n-butyl phthalate	Ave	1.333	1.418	0.0100	85100	80000	6.4	50.0
Fluoranthene	Ave	1.149	1.163	0.6000	81000	80000	1.3	50.0
Pyrene	Ave	1.355	1.504	0.6000	88800	80000	11.0	50.0
Butyl benzyl phthalate	Ave	0.6831	0.8039	0.0100	94100	80000	17.7	50.0
Benzo[a]anthracene	Ave	1.203	1.280	0.8000	85100	80000	6.4	50.0
Chrysene	Ave	1.127	1.199	0.7000	85100	80000	6.3	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.9300	1.036	0.0100	89100	80000	11.4	50.0
Di-n-octyl phthalate	Ave	1.685	1.872	0.0100	88900	80000	11.1	50.0
Benzo[b]fluoranthene	Ave	1.224	1.325	0.7000	86600	80000	8.2	50.0
Benzo[k]fluoranthene	Ave	1.269	1.494	0.7000	94200	80000	17.7	50.0
Benzo[a]pyrene	Ave	1.109	1.259	0.7000	90800	80000	13.4	50.0
Indeno[1,2,3-cd]pyrene	Ave	1.161	0.9844	0.5000	67800	80000	-15.2	50.0
Dibenz(a,h)anthracene	Ave	1.144	1.149	0.4000	80400	80000	0.5	50.0
Benzo[g,h,i]perylene	Ave	1.215	1.254	0.5000	82600	80000	3.2	50.0
2-Fluorophenol (Surr)	Ave	1.320	1.506		91300	80000	14.1	50.0
Phenol-d5 (Surr)	Ave	1.681	1.789		85200	80000	6.5	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-592986/36 Calibration Date: 11/11/2022 01:59
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023567.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3716	0.4070		87600	80000	9.5	50.0
2-Fluorobiphenyl	Ave	1.183	1.223		82700	80000	3.4	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.2336	0.2030		69500	80000	-13.1	50.0
Terphenyl-d14 (Surr)	Ave	1.028	1.113		86500	80000	8.2	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023567.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 11-Nov-2022 01:59:30 ALS Bottle#: 2 Worklist Smp#: 36
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:32:07 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 11:26:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	572473	40.0	40.0	
* 2 Naphthalene-d8	136	4.809	4.804	0.005	99	2080525	40.0	40.0	
* 3 Acenaphthene-d10	164	6.516	6.510	0.006	91	1114723	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	97	1689533	40.0	40.0	
* 5 Chrysene-d12	240	10.634	10.629	0.005	99	1342970	40.0	40.0	
* 6 Perylene-d12	264	12.763	12.757	0.006	97	1130816	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	91	1723814	80.0	91.3	
\$ 8 Phenol-d5	99	3.285	3.280	0.005	97	2048447	80.0	85.2	
\$ 9 Nitrobenzene-d5	82	4.130	4.125	0.005	88	1693590	80.0	87.6	
\$ 11 2-Fluorobiphenyl	172	5.885	5.879	0.005	99	2727197	80.0	82.7	
\$ 12 2,4,6-Tribromophenol	330	7.286	7.281	0.005	93	452639	80.0	69.5	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	2988393	80.0	86.5	
20 1,4-Dioxane	88	1.199	1.199	0.000	97	698772	80.0	101.3	
21 N-Nitrosodimethylamine	74	1.360	1.360	0.000	95	1162496	80.0	106.0	
22 Pyridine	79	1.386	1.386	0.000	97	3445146	160.0	198.0	
34 Phenol	94	3.296	3.291	0.005	93	2152067	80.0	84.8	
35 Aniline	93	3.290	3.291	-0.001	97	2465610	80.0	83.0	
36 Alpha Methyl Styrene	118	3.344	3.339	0.005	92	1679433	80.0	86.5	
37 Bis(2-chloroethyl)ether	93	3.371	3.365	0.006	96	1681092	80.0	89.2	
39 n-Decane	43	3.472	3.472	0.000	87	1467199	80.0	107.5	
41 2-Chlorophenol	128	3.397	3.398	-0.001	97	1641948	80.0	83.3	
42 1,3-Dichlorobenzene	146	3.542	3.537	0.005	97	1714672	80.0	80.5	
43 1,4-Dichlorobenzene	146	3.611	3.611	0.000	94	1721227	80.0	80.0	
44 Benzyl alcohol	108	3.745	3.740	0.005	94	1063345	80.0	79.1	
45 1,2-Dichlorobenzene	146	3.750	3.751	-0.001	97	1579796	80.0	77.8	
46 2-Methylphenol	108	3.863	3.863	0.000	94	1458196	80.0	81.8	
47 2,2'-oxybis[1-chloropropane]	45	3.884	3.884	0.000	95	2054067	80.0	99.3	
48 Indene	116	3.836	3.836	0.000	91	5108892	160.0	158.4	
49 3 & 4 Methylphenol	108	4.023	4.018	0.005	80	1509684	80.0	79.1	
50 3-Methylphenol	108	4.023	4.018	0.005	92	1509684	80.0	79.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.007	4.002	0.005	85	1155806	80.0	90.7	
52 4-Methylphenol	108	4.023	4.018	0.005	92	1509684	80.0	79.1	
55 Acetophenone	105	3.991	3.986	0.005	98	2139957	80.0	81.7	
58 Hexachloroethane	117	4.066	4.066	0.000	97	716973	80.0	81.9	
60 Nitrobenzene	77	4.146	4.141	0.005	88	1625928	80.0	88.5	
63 Isophorone	82	4.392	4.382	0.010	99	3033977	80.0	86.2	
65 2-Nitrophenol	139	4.451	4.451	0.000	95	841085	80.0	82.4	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	1493376	80.0	82.2	
69 Bis(2-chloroethoxy)methane	93	4.622	4.617	0.005	99	1928359	80.0	85.6	
70 Benzoic acid	105	4.718	4.692	0.026	88	2605518	160.0	179.5	M
71 3,5-Dimethylphenol	107	4.665	4.660	0.005	88	1544904	80.0	80.9	
75 2,4-Dichlorophenol	162	4.692	4.687	0.005	95	1179036	80.0	75.9	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	1253417	80.0	76.7	
79 Naphthalene	128	4.831	4.831	0.000	97	4027998	80.0	78.3	
80 4-Chloroaniline	127	4.906	4.906	0.000	96	1796513	80.0	77.8	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	95	1150037	80.0	75.6	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	655395	80.0	78.8	
87 Caprolactam	55	5.275	5.227	0.048	81	765248	80.0	92.7	
90 4-Chloro-3-methylphenol	107	5.408	5.403	0.005	96	1316914	80.0	81.1	
94 2-Methylnaphthalene	142	5.510	5.505	0.005	94	2713519	80.0	78.0	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	94	2509120	80.0	76.3	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	96	538254	80.0	56.3	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	98	1128961	80.0	74.3	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	94	822474	80.0	82.1	
102 2,3-Dichlorobenzenamine	161	5.788	5.783	0.005	98	1464910	80.0	82.3	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	93	885169	80.0	79.4	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	95	3048806	80.0	82.8	
107 2-Chloronaphthalene	162	5.981	5.976	0.005	97	2436667	80.0	82.0	
109 2-Nitroaniline	65	6.093	6.088	0.005	85	897825	80.0	96.7	
112 Dimethyl phthalate	163	6.302	6.296	0.006	97	2755944	80.0	84.6	
113 1,3-Dinitrobenzene	168	6.312	6.307	0.005	86	489845	80.0	85.9	
114 2,6-Dinitrotoluene	165	6.350	6.345	0.005	96	678778	80.0	84.4	
115 Acenaphthylene	152	6.371	6.371	0.000	98	3932106	80.0	84.0	
116 3-Nitroaniline	138	6.500	6.494	0.006	95	868386	80.0	83.0	
117 Acenaphthene	153	6.548	6.543	0.005	93	2452819	80.0	84.5	
118 2,4-Dinitrophenol	184	6.607	6.601	0.006	87	776117	160.0	155.7	
120 4-Nitrophenol	109	6.708	6.698	0.010	88	921215	160.0	182.1	
122 2,4-Dinitrotoluene	165	6.730	6.730	0.000	92	865031	80.0	86.2	
123 Dibenzofuran	168	6.719	6.714	0.005	97	3312580	80.0	79.8	
127 2,3,4,6-Tetrachlorophenol	232	6.847	6.842	0.005	74	710468	80.0	79.9	
128 Hexadecane	57	7.029	7.029	0.000	89	1996903	80.0	96.4	
130 Diethyl phthalate	149	6.997	6.997	0.000	98	2879644	80.0	84.3	
135 4-Chlorophenyl phenyl ether	204	7.072	7.067	0.005	93	1190832	80.0	78.7	
136 Fluorene	166	7.051	7.045	0.005	96	2721712	80.0	79.4	
139 4-Nitroaniline	138	7.099	7.088	0.011	86	851735	80.0	81.9	
140 4,6-Dinitro-2-methylphenol	198	7.125	7.120	0.005	80	987168	160.0	178.0	
142 Diphenylamine	169	7.195	7.190	0.005	96	2012584	68.0	68.4	
143 N-Nitrosodiphenylamine	169	7.195	7.190	0.005	99	2012584	80.0	85.5	
144 Azobenzene	77	7.222	7.222	0.000	98	3098817	80.0	89.7	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	3098817	80.9	90.7	
157 4-Bromophenyl phenyl ether	248	7.543	7.537	0.006	67	734206	80.0	79.1	
158 Hexachlorobenzene	284	7.575	7.569	0.006	95	842357	80.0	77.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.740	7.740	0.000	90	687061	80.0	89.1	
162 n-Octadecane	85	7.933	7.933	0.000	94	860639	80.0	92.1	
164 Pentachlorophenol	266	7.778	7.773	0.005	99	1178028	160.0	179.3	
169 Phenanthrene	178	7.976	7.971	0.005	97	3745635	80.0	80.3	
170 Anthracene	178	8.024	8.019	0.005	97	3788056	80.0	79.2	
171 Carbazole	167	8.200	8.195	0.005	96	3741254	80.0	78.6	
172 Alachlor	188	8.361	8.356	0.005	98	545273	80.0	84.8	
175 Di-n-butyl phthalate	149	8.591	8.591	0.000	100	4790851	80.0	85.1	
182 Fluoranthene	202	9.126	9.126	0.000	98	3930612	80.0	81.0	
185 Pyrene	202	9.340	9.340	0.000	97	4040527	80.0	88.8	
193 Butyl benzyl phthalate	149	10.062	10.057	0.005	98	2159225	80.0	94.1	
197 3,3'-Dichlorobenzidine	252	10.629	10.629	0.000	74	1340574	80.0	83.6	
198 Benzo[a]anthracene	228	10.623	10.618	0.005	99	3437256	80.0	85.1	
199 Bis(2-ethylhexyl) phthalate	149	10.795	10.789	0.006	97	2782207	80.0	89.1	
200 Chrysene	228	10.672	10.661	0.011	97	3219910	80.0	85.1	
202 Di-n-octyl phthalate	149	11.768	11.763	0.005	99	5028779	80.0	88.9	
204 Benzo[b]fluoranthene	252	12.153	12.148	0.005	97	2995702	80.0	86.6	
205 Benzo[k]fluoranthene	252	12.201	12.191	0.010	99	3378349	80.0	94.2	
208 Benzo[a]pyrene	252	12.672	12.661	0.011	78	2846652	80.0	90.8	
214 Indeno[1,2,3-cd]pyrene	276	14.603	14.598	0.005	98	2643917	80.0	67.8	
215 Dibenz(a,h)anthracene	278	14.678	14.672	0.006	95	2598764	80.0	80.4	
216 Benzo[g,h,i]perylene	276	15.057	15.042	0.015	98	2836849	80.0	82.6	
S 218 Total Cresols	108				0			160.9	
S 219 Methyl Phenols, Total	108				0			160.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023567.D

Injection Date: 11-Nov-2022 01:59:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

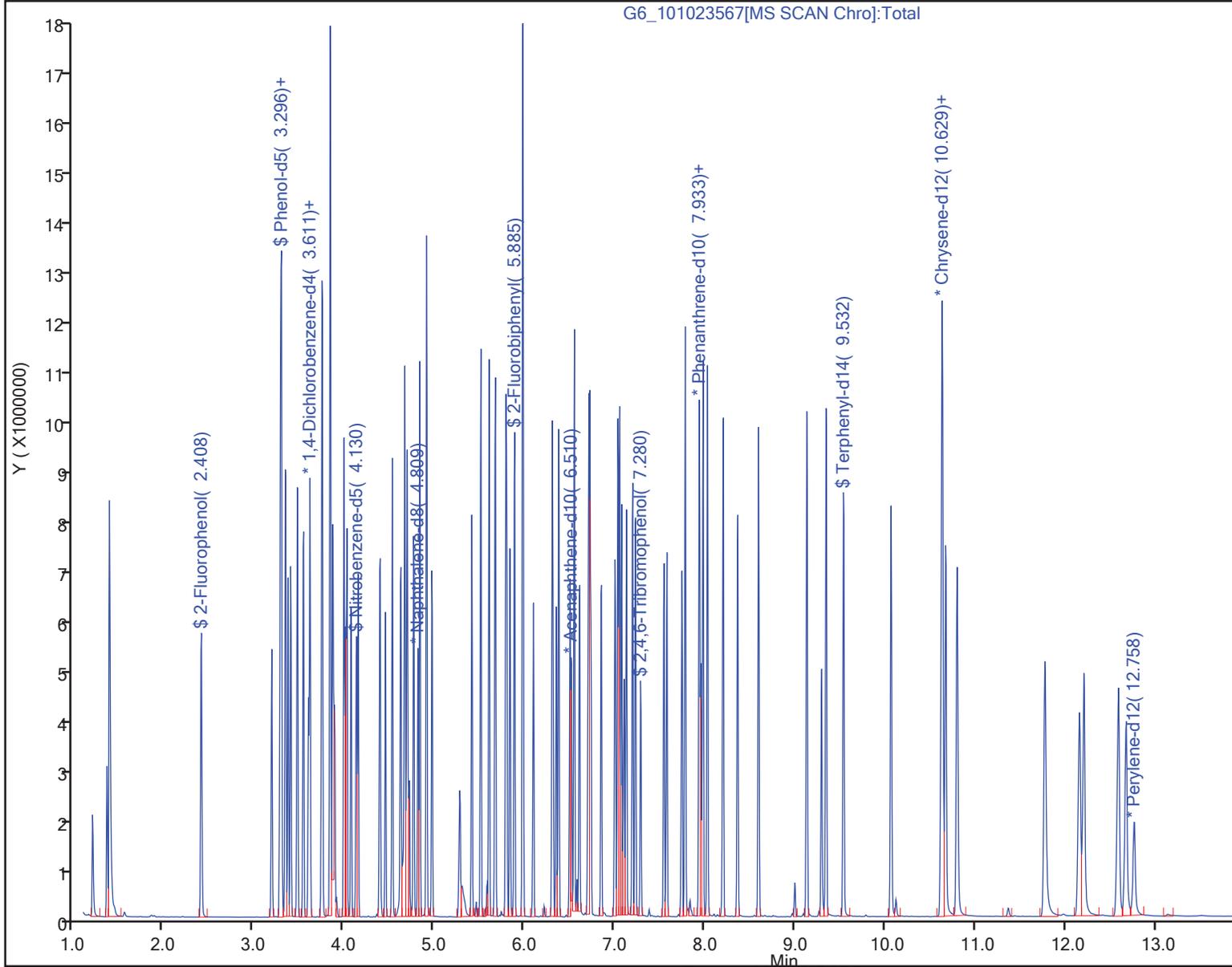
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Larg



Eurofins Denver

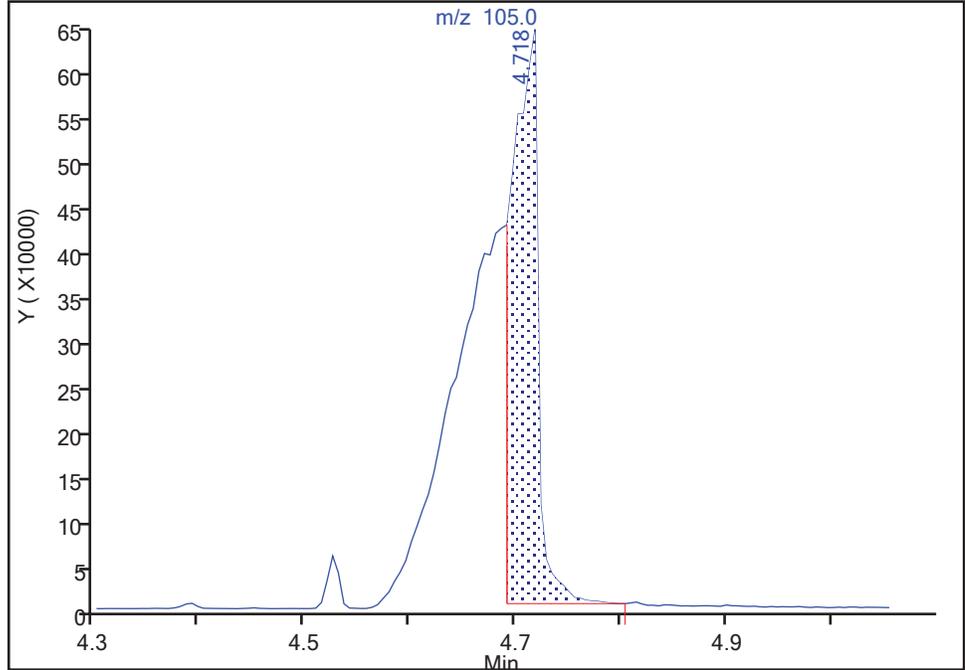
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023567.D
Injection Date: 11-Nov-2022 01:59:30 Instrument ID: SMS_G6
Lims ID: CCVC HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 36
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

70 Benzoic acid, CAS: 65-85-0

Signal: 1

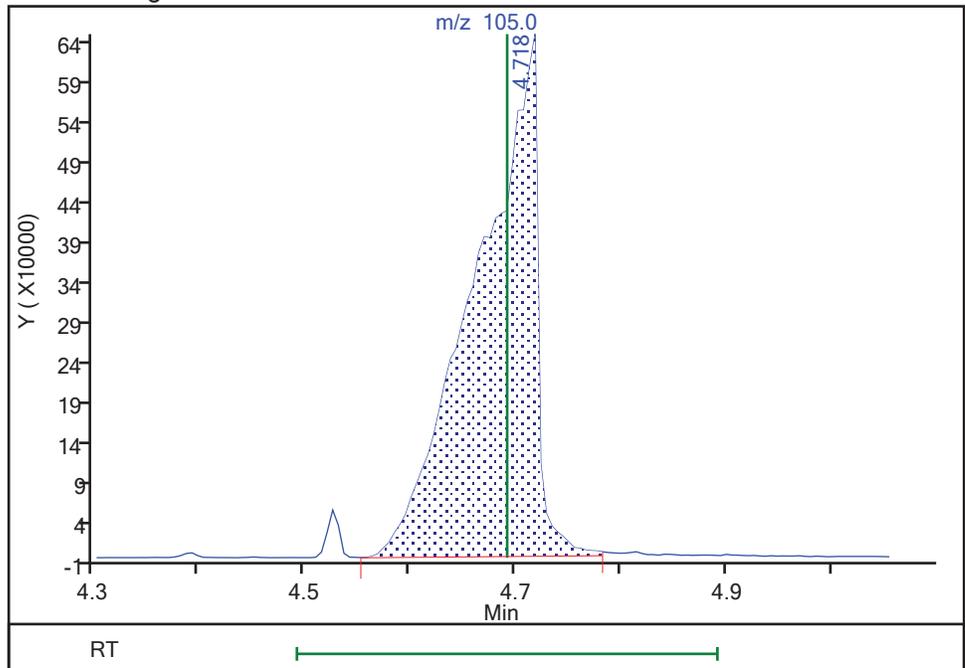
RT: 4.72
Area: 1124372
Amount: 79.483486
Amount Units: ug/ml

Processing Integration Results



RT: 4.72
Area: 2605518
Amount: 179.4848
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 11-Nov-2022 11:22:00
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-592986/36 Calibration Date: 11/11/2022 01:59
 Instrument ID: SMS_G6 Calib Start Date: 10/15/2022 00:27
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/15/2022 02:30
 Lab File ID: G6_101023567.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1586	0.1839	0.0100	92700	80000	15.9	50.0
Atrazine	Ave	0.1826	0.2033	0.0100	89100	80000	11.4	50.0
3,3'-Dichlorobenzidine	Ave	0.4778	0.4991	0.0100	83600	80000	4.5	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023567.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 11-Nov-2022 01:59:30 ALS Bottle#: 2 Worklist Smp#: 36
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:32:07 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 11:26:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	572473	40.0	40.0	
* 2 Naphthalene-d8	136	4.809	4.804	0.005	99	2080525	40.0	40.0	
* 3 Acenaphthene-d10	164	6.516	6.510	0.006	91	1114723	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	97	1689533	40.0	40.0	
* 5 Chrysene-d12	240	10.634	10.629	0.005	99	1342970	40.0	40.0	
* 6 Perylene-d12	264	12.763	12.757	0.006	97	1130816	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	91	1723814	80.0	91.3	
\$ 8 Phenol-d5	99	3.285	3.280	0.005	97	2048447	80.0	85.2	
\$ 9 Nitrobenzene-d5	82	4.130	4.125	0.005	88	1693590	80.0	87.6	
\$ 11 2-Fluorobiphenyl	172	5.885	5.879	0.005	99	2727197	80.0	82.7	
\$ 12 2,4,6-Tribromophenol	330	7.286	7.281	0.005	93	452639	80.0	69.5	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	2988393	80.0	86.5	
20 1,4-Dioxane	88	1.199	1.199	0.000	97	698772	80.0	101.3	
21 N-Nitrosodimethylamine	74	1.360	1.360	0.000	95	1162496	80.0	106.0	
22 Pyridine	79	1.386	1.386	0.000	97	3445146	160.0	198.0	
34 Phenol	94	3.296	3.291	0.005	93	2152067	80.0	84.8	
35 Aniline	93	3.290	3.291	-0.001	97	2465610	80.0	83.0	
36 Alpha Methyl Styrene	118	3.344	3.339	0.005	92	1679433	80.0	86.5	
37 Bis(2-chloroethyl)ether	93	3.371	3.365	0.006	96	1681092	80.0	89.2	
39 n-Decane	43	3.472	3.472	0.000	87	1467199	80.0	107.5	
41 2-Chlorophenol	128	3.397	3.398	-0.001	97	1641948	80.0	83.3	
42 1,3-Dichlorobenzene	146	3.542	3.537	0.005	97	1714672	80.0	80.5	
43 1,4-Dichlorobenzene	146	3.611	3.611	0.000	94	1721227	80.0	80.0	
44 Benzyl alcohol	108	3.745	3.740	0.005	94	1063345	80.0	79.1	
45 1,2-Dichlorobenzene	146	3.750	3.751	-0.001	97	1579796	80.0	77.8	
46 2-Methylphenol	108	3.863	3.863	0.000	94	1458196	80.0	81.8	
47 2,2'-oxybis[1-chloropropane]	45	3.884	3.884	0.000	95	2054067	80.0	99.3	
48 Indene	116	3.836	3.836	0.000	91	5108892	160.0	158.4	
49 3 & 4 Methylphenol	108	4.023	4.018	0.005	80	1509684	80.0	79.1	
50 3-Methylphenol	108	4.023	4.018	0.005	92	1509684	80.0	79.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.007	4.002	0.005	85	1155806	80.0	90.7	
52 4-Methylphenol	108	4.023	4.018	0.005	92	1509684	80.0	79.1	
55 Acetophenone	105	3.991	3.986	0.005	98	2139957	80.0	81.7	
58 Hexachloroethane	117	4.066	4.066	0.000	97	716973	80.0	81.9	
60 Nitrobenzene	77	4.146	4.141	0.005	88	1625928	80.0	88.5	
63 Isophorone	82	4.392	4.382	0.010	99	3033977	80.0	86.2	
65 2-Nitrophenol	139	4.451	4.451	0.000	95	841085	80.0	82.4	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	1493376	80.0	82.2	
69 Bis(2-chloroethoxy)methane	93	4.622	4.617	0.005	99	1928359	80.0	85.6	
70 Benzoic acid	105	4.718	4.692	0.026	88	2605518	160.0	179.5	M
71 3,5-Dimethylphenol	107	4.665	4.660	0.005	88	1544904	80.0	80.9	
75 2,4-Dichlorophenol	162	4.692	4.687	0.005	95	1179036	80.0	75.9	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	1253417	80.0	76.7	
79 Naphthalene	128	4.831	4.831	0.000	97	4027998	80.0	78.3	
80 4-Chloroaniline	127	4.906	4.906	0.000	96	1796513	80.0	77.8	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	95	1150037	80.0	75.6	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	655395	80.0	78.8	
87 Caprolactam	55	5.275	5.227	0.048	81	765248	80.0	92.7	
90 4-Chloro-3-methylphenol	107	5.408	5.403	0.005	96	1316914	80.0	81.1	
94 2-Methylnaphthalene	142	5.510	5.505	0.005	94	2713519	80.0	78.0	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	94	2509120	80.0	76.3	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	96	538254	80.0	56.3	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	98	1128961	80.0	74.3	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	94	822474	80.0	82.1	
102 2,3-Dichlorobenzenamine	161	5.788	5.783	0.005	98	1464910	80.0	82.3	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	93	885169	80.0	79.4	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	95	3048806	80.0	82.8	
107 2-Chloronaphthalene	162	5.981	5.976	0.005	97	2436667	80.0	82.0	
109 2-Nitroaniline	65	6.093	6.088	0.005	85	897825	80.0	96.7	
112 Dimethyl phthalate	163	6.302	6.296	0.006	97	2755944	80.0	84.6	
113 1,3-Dinitrobenzene	168	6.312	6.307	0.005	86	489845	80.0	85.9	
114 2,6-Dinitrotoluene	165	6.350	6.345	0.005	96	678778	80.0	84.4	
115 Acenaphthylene	152	6.371	6.371	0.000	98	3932106	80.0	84.0	
116 3-Nitroaniline	138	6.500	6.494	0.006	95	868386	80.0	83.0	
117 Acenaphthene	153	6.548	6.543	0.005	93	2452819	80.0	84.5	
118 2,4-Dinitrophenol	184	6.607	6.601	0.006	87	776117	160.0	155.7	
120 4-Nitrophenol	109	6.708	6.698	0.010	88	921215	160.0	182.1	
122 2,4-Dinitrotoluene	165	6.730	6.730	0.000	92	865031	80.0	86.2	
123 Dibenzofuran	168	6.719	6.714	0.005	97	3312580	80.0	79.8	
127 2,3,4,6-Tetrachlorophenol	232	6.847	6.842	0.005	74	710468	80.0	79.9	
128 Hexadecane	57	7.029	7.029	0.000	89	1996903	80.0	96.4	
130 Diethyl phthalate	149	6.997	6.997	0.000	98	2879644	80.0	84.3	
135 4-Chlorophenyl phenyl ether	204	7.072	7.067	0.005	93	1190832	80.0	78.7	
136 Fluorene	166	7.051	7.045	0.005	96	2721712	80.0	79.4	
139 4-Nitroaniline	138	7.099	7.088	0.011	86	851735	80.0	81.9	
140 4,6-Dinitro-2-methylphenol	198	7.125	7.120	0.005	80	987168	160.0	178.0	
142 Diphenylamine	169	7.195	7.190	0.005	96	2012584	68.0	68.4	
143 N-Nitrosodiphenylamine	169	7.195	7.190	0.005	99	2012584	80.0	85.5	
144 Azobenzene	77	7.222	7.222	0.000	98	3098817	80.0	89.7	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	3098817	80.9	90.7	
157 4-Bromophenyl phenyl ether	248	7.543	7.537	0.006	67	734206	80.0	79.1	
158 Hexachlorobenzene	284	7.575	7.569	0.006	95	842357	80.0	77.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.740	7.740	0.000	90	687061	80.0	89.1	
162 n-Octadecane	85	7.933	7.933	0.000	94	860639	80.0	92.1	
164 Pentachlorophenol	266	7.778	7.773	0.005	99	1178028	160.0	179.3	
169 Phenanthrene	178	7.976	7.971	0.005	97	3745635	80.0	80.3	
170 Anthracene	178	8.024	8.019	0.005	97	3788056	80.0	79.2	
171 Carbazole	167	8.200	8.195	0.005	96	3741254	80.0	78.6	
172 Alachlor	188	8.361	8.356	0.005	98	545273	80.0	84.8	
175 Di-n-butyl phthalate	149	8.591	8.591	0.000	100	4790851	80.0	85.1	
182 Fluoranthene	202	9.126	9.126	0.000	98	3930612	80.0	81.0	
185 Pyrene	202	9.340	9.340	0.000	97	4040527	80.0	88.8	
193 Butyl benzyl phthalate	149	10.062	10.057	0.005	98	2159225	80.0	94.1	
197 3,3'-Dichlorobenzidine	252	10.629	10.629	0.000	74	1340574	80.0	83.6	
198 Benzo[a]anthracene	228	10.623	10.618	0.005	99	3437256	80.0	85.1	
199 Bis(2-ethylhexyl) phthalate	149	10.795	10.789	0.006	97	2782207	80.0	89.1	
200 Chrysene	228	10.672	10.661	0.011	97	3219910	80.0	85.1	
202 Di-n-octyl phthalate	149	11.768	11.763	0.005	99	5028779	80.0	88.9	
204 Benzo[b]fluoranthene	252	12.153	12.148	0.005	97	2995702	80.0	86.6	
205 Benzo[k]fluoranthene	252	12.201	12.191	0.010	99	3378349	80.0	94.2	
208 Benzo[a]pyrene	252	12.672	12.661	0.011	78	2846652	80.0	90.8	
214 Indeno[1,2,3-cd]pyrene	276	14.603	14.598	0.005	98	2643917	80.0	67.8	
215 Dibenz(a,h)anthracene	278	14.678	14.672	0.006	95	2598764	80.0	80.4	
216 Benzo[g,h,i]perylene	276	15.057	15.042	0.015	98	2836849	80.0	82.6	
S 218 Total Cresols	108				0			160.9	
S 219 Methyl Phenols, Total	108				0			160.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023567.D

Injection Date: 11-Nov-2022 01:59:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

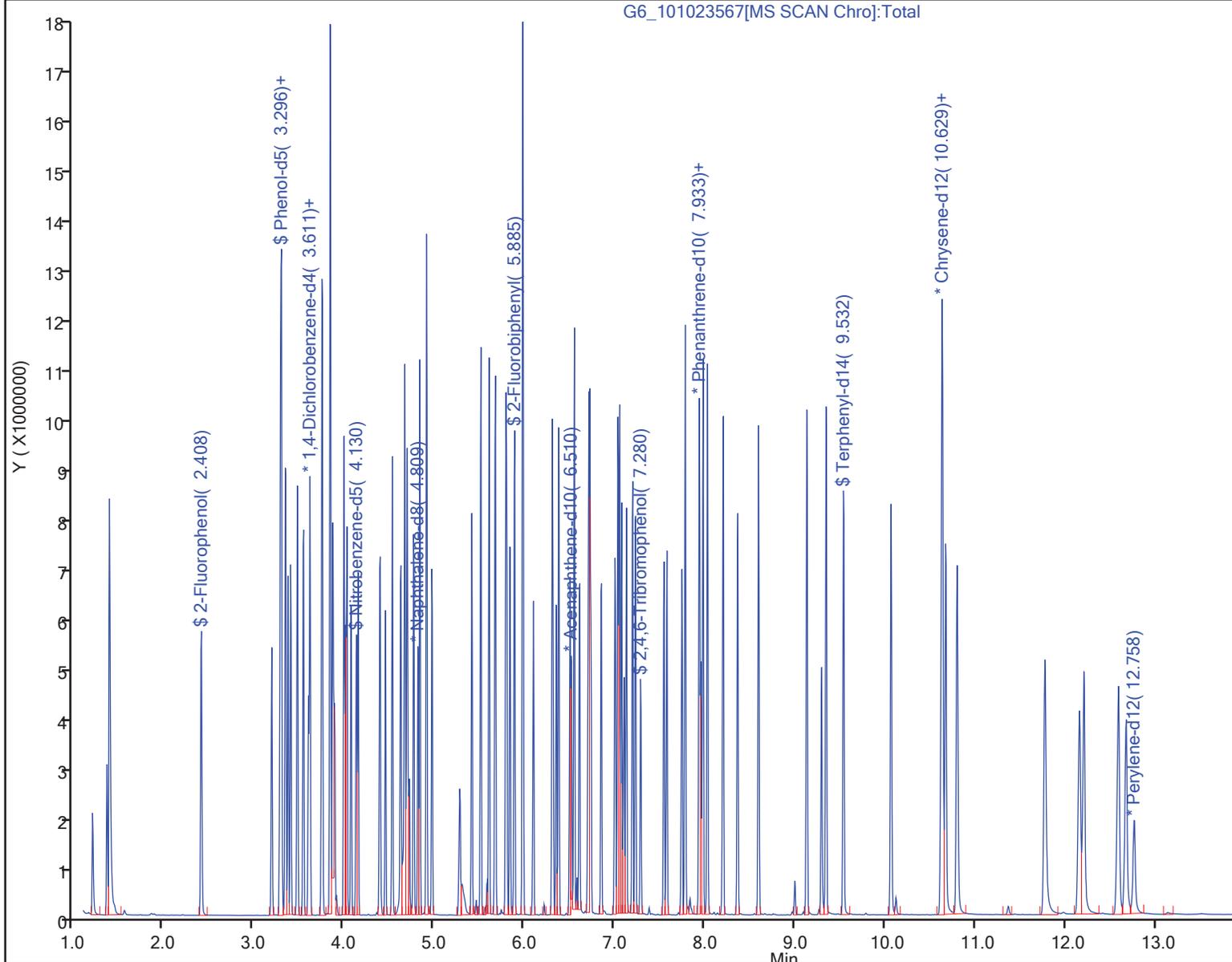
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593336/3 Calibration Date: 11/14/2022 15:19
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023673d.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.6064		101000	80000	25.8*	20.0
N-Nitrosodimethylamine	Ave	0.7662	0.9252		96600	80000	20.8*	20.0
Pyridine	Ave	1.216	1.414		186000	160000	16.3	20.0
Aniline	Ave	2.076	2.059		79300	80000	-0.8	20.0
Phenol	Ave	1.773	1.804	0.8000	81400	80000	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.316	1.377	0.7000	83700	80000	4.6	20.0
2-Chlorophenol	Ave	1.378	1.323	0.8000	76800	80000	-4.0	20.0
1,3-Dichlorobenzene	Ave	1.488	1.365		73400	80000	-8.3	20.0
1,4-Dichlorobenzene	Ave	1.504	1.381		73500	80000	-8.2	20.0
Benzyl alcohol	Ave	0.9396	0.8723		74300	80000	-7.2	20.0
1,2-Dichlorobenzene	Ave	1.419	1.285		72400	80000	-9.4	20.0
2-Methylphenol	Ave	1.246	1.204	0.7000	77300	80000	-3.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.445	1.812	0.0100	100000	80000	25.4*	20.0
Acetophenone	Ave	1.831	1.774	0.0100	77500	80000	-3.1	20.0
N-Nitrosodi-n-propylamine	Ave	0.8902	0.9779	0.5000	87900	80000	9.9	20.0
3 & 4 Methylphenol	Ave	1.334	1.281		76900	80000	-3.9	20.0
Hexachloroethane	Ave	0.6120	0.5931	0.3000	77500	80000	-3.1	20.0
Nitrobenzene	Ave	0.3533	0.3634	0.2000	82300	80000	2.9	20.0
Isophorone	Ave	0.6768	0.6793	0.4000	80300	80000	0.4	20.0
2-Nitrophenol	Ave	0.1962	0.1838	0.1000	75000	80000	-6.3	20.0
2,4-Dimethylphenol	Ave	0.3492	0.3361	0.2000	77000	80000	-3.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4333	0.4238	0.3000	78300	80000	-2.2	20.0
Benzoic acid	Lin2		0.2818		162000	160000	1.2	20.0
2,4-Dichlorophenol	Ave	0.2986	0.2614	0.2000	70000	80000	-12.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3143	0.2725		69400	80000	-13.3	20.0
Naphthalene	Ave	0.9887	0.9077	0.7000	73500	80000	-8.2	20.0
2,6-Dichlorophenol	Ave	0.2924	0.2580		70600	80000	-11.8	20.0
4-Chloroaniline	Ave	0.4442	0.4096	0.0100	73800	80000	-7.8	20.0
Hexachlorobutadiene	Ave	0.1598	0.1397	0.0100	69900	80000	-12.6	20.0
4-Chloro-3-methylphenol	Ave	0.3122	0.2915	0.2000	74700	80000	-6.6	20.0
2-Methylnaphthalene	Ave	0.6692	0.5877	0.4000	70300	80000	-12.2	20.0
1-Methylnaphthalene	Ave	0.6322	0.5581		70600	80000	-11.7	20.0
Hexachlorocyclopentadiene	Ave	0.3431	0.2826	0.0500	65900	80000	-17.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2920	0.2354	0.0100	64500	80000	-19.4	20.0
2,4,6-Trichlorophenol	Ave	0.3593	0.3284	0.2000	73100	80000	-8.6	20.0
2,4,5-Trichlorophenol	Ave	0.4000	0.3536	0.2000	70700	80000	-11.6	20.0
1,1'-Biphenyl	Ave	1.321	1.250	0.0100	75700	80000	-5.3	20.0
2-Chloronaphthalene	Ave	1.067	0.996	0.8000	74700	80000	-6.6	20.0
2-Nitroaniline	Ave	0.3331	0.3763	0.0100	90400	80000	13.0	20.0
Dimethyl phthalate	Ave	1.169	1.132	0.0100	77500	80000	-3.2	20.0
1,3-Dinitrobenzene	Ave	0.2046	0.2049		80100	80000	0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593336/3 Calibration Date: 11/14/2022 15:19
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023673d.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2886	0.2739	0.2000	75900	80000	-5.1	20.0
Acenaphthylene	Ave	1.679	1.597	0.9000	76100	80000	-4.9	20.0
3-Nitroaniline	Ave	0.3754	0.3597	0.0100	76700	80000	-4.2	20.0
Acenaphthene	Ave	1.042	0.9949	0.9000	76400	80000	-4.5	20.0
2,4-Dinitrophenol	Lin1		0.1622	0.0100	146000	160000	-9.0	20.0
4-Nitrophenol	Ave	0.1815	0.2028	0.0100	179000	160000	11.7	20.0
Dibenzofuran	Ave	1.490	1.383	0.8000	74300	80000	-7.2	20.0
2,4-Dinitrotoluene	Ave	0.3601	0.3598	0.2000	79900	80000	-0.1	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3192	0.2697	0.0100	67600	80000	-15.5	20.0
Diethyl phthalate	Ave	1.225	1.217	0.0100	79500	80000	-0.6	20.0
Fluorene	Ave	1.230	1.092	0.9000	71100	80000	-11.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5428	0.4801	0.4000	70800	80000	-11.6	20.0
4-Nitroaniline	Ave	0.3734	0.3567	0.0100	76400	80000	-4.5	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1303	0.0100	159000	160000	-0.4	20.0
Diphenylamine	Ave	1.056	0.9614		61900	68000	-9.0	20.0
N-Nitrosodiphenylamine	Ave	0.5576	0.5288	0.0100	75900	80000	-5.2	20.0
1,2-Diphenylhydrazine	Ave	1.226	1.337		88200	80900	9.1	20.0
Azobenzene	Ave	1.240	1.352		87300	80000	9.1	20.0
4-Bromophenyl phenyl ether	Ave	0.2199	0.1781	0.1000	64800	80000	-19.0	20.0
Hexachlorobenzene	Ave	0.2569	0.1994	0.1000	62100	80000	-22.4*	20.0
Pentachlorophenol	Ave	0.1555	0.1381	0.0500	142000	160000	-11.2	20.0
Phenanthrene	Ave	1.104	1.002	0.7000	72600	80000	-9.2	20.0
Anthracene	Ave	1.132	1.027	0.7000	72500	80000	-9.3	20.0
Carbazole	Ave	1.126	1.023	0.0100	72700	80000	-9.1	20.0
Alachlor	Ave	0.1521	0.1434		75400	80000	-5.8	20.0
Di-n-butyl phthalate	Ave	1.333	1.331	0.0100	79900	80000	-0.1	20.0
Fluoranthene	Ave	1.149	1.059	0.6000	73700	80000	-7.8	20.0
Pyrene	Ave	1.355	1.334	0.6000	78800	80000	-1.5	20.0
Butyl benzyl phthalate	Ave	0.6831	0.7410	0.0100	86800	80000	8.5	20.0
Benzo[a]anthracene	Ave	1.203	1.136	0.8000	75500	80000	-5.6	20.0
Chrysene	Ave	1.127	1.089	0.7000	77300	80000	-3.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9300	0.9645	0.0100	83000	80000	3.7	20.0
Di-n-octyl phthalate	Ave	1.685	1.714	0.0100	81300	80000	1.7	20.0
Benzo[b]fluoranthene	Ave	1.224	1.183	0.7000	77300	80000	-3.3	20.0
Benzo[k]fluoranthene	Ave	1.269	1.343	0.7000	84700	80000	5.9	20.0
Benzo[a]pyrene	Ave	1.109	1.112	0.7000	80200	80000	0.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.161	0.8200	0.5000	56500	80000	-29.4*	20.0
Dibenz(a,h)anthracene	Ave	1.144	0.9898	0.4000	69200	80000	-13.5	20.0
Benzo[g,h,i]perylene	Ave	1.215	1.091	0.5000	71800	80000	-10.2	20.0
2-Fluorophenol (Surr)	Ave	1.320	1.395		84600	80000	5.7	20.0
Phenol-d5 (Surr)	Ave	1.681	1.704		81100	80000	1.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593336/3 Calibration Date: 11/14/2022 15:19
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023673d.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3716	0.3831		82500	80000	3.1	20.0
2-Fluorobiphenyl	Ave	1.183	1.122		75900	80000	-5.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.2336	0.1611		55200	80000	-31.0*	20.0
Terphenyl-d14 (Surr)	Ave	1.028	0.9654		75100	80000	-6.1	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 14-Nov-2022 15:19:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 14:52:59 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NBC9

Date: 14-Nov-2022 16:08:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	320555	40.0	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	99	1192394	40.0	40.0	
* 3 Acenaphthene-d10	164	6.494	6.494	0.000	91	646567	40.0	40.0	
* 4 Phenanthrene-d10	188	7.928	7.928	0.000	97	999146	40.0	40.0	
* 5 Chrysene-d12	240	10.597	10.597	0.000	98	815136	40.0	40.0	
* 6 Perylene-d12	264	12.704	12.704	0.000	97	684059	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.386	2.386	0.000	92	894468	80.0	84.6	
\$ 8 Phenol-d5	99	3.264	3.264	0.000	97	1092768	80.0	81.1	
\$ 9 Nitrobenzene-d5	82	4.109	4.109	0.000	88	913565	80.0	82.5	a
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	1451045	80.0	75.9	a
\$ 12 2,4,6-Tribromophenol	330	7.259	7.259	0.000	91	208369	80.0	55.2	
\$ 13 Terphenyl-d14	244	9.511	9.511	0.000	97	1573793	80.0	75.1	
20 1,4-Dioxane	88	1.183	1.183	0.000	96	388744	80.0	100.6	
21 N-Nitrosodimethylamine	74	1.338	1.338	0.000	96	593183	80.0	96.6	
22 Pyridine	79	1.365	1.365	0.000	96	1813609	160.0	186.1	
34 Phenol	94	3.274	3.274	0.000	86	1156764	80.0	81.4	
35 Aniline	93	3.274	3.274	0.000	89	1320229	80.0	79.3	
36 Alpha Methyl Styrene	118	3.322	3.322	0.000	92	868342	80.0	79.8	
37 Bis(2-chloroethyl)ether	93	3.349	3.349	0.000	97	883094	80.0	83.7	
39 n-Decane	43	3.456	3.456	0.000	89	823920	80.0	107.8	a
41 2-Chlorophenol	128	3.381	3.381	0.000	97	848436	80.0	76.8	
42 1,3-Dichlorobenzene	146	3.520	3.520	0.000	97	875209	80.0	73.4	
43 1,4-Dichlorobenzene	146	3.595	3.595	0.000	93	885428	80.0	73.5	
44 Benzyl alcohol	108	3.724	3.724	0.000	92	559233	80.0	74.3	
45 1,2-Dichlorobenzene	146	3.734	3.734	0.000	96	823643	80.0	72.4	
46 2-Methylphenol	108	3.847	3.847	0.000	91	771601	80.0	77.3	a
47 2,2'-oxybis[1-chloropropane]	45	3.868	3.868	0.000	95	1161575	80.0	100.3	
48 Indene	116	3.820	3.820	0.000	91	2692898	160.0	149.1	a
49 3 & 4 Methylphenol	108	4.002	4.002	0.000	80	821534	80.0	76.9	
50 3-Methylphenol	108	4.002	4.002	0.000	92	821534	80.0	76.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	3.986	3.986	0.000	87	626925	80.0	87.9	
52 4-Methylphenol	108	4.002	4.002	0.000	92	821534	80.0	76.9	
55 Acetophenone	105	3.970	3.970	0.000	97	1137603	80.0	77.5	
58 Hexachloroethane	117	4.050	4.050	0.000	95	380225	80.0	77.5	
60 Nitrobenzene	77	4.125	4.125	0.000	89	866707	80.0	82.3	
63 Isophorone	82	4.365	4.365	0.000	99	1620082	80.0	80.3	
65 2-Nitrophenol	139	4.435	4.435	0.000	95	438433	80.0	75.0	
66 2,4-Dimethylphenol	107	4.510	4.510	0.000	96	801511	80.0	77.0	
69 Bis(2-chloroethoxy)methane	93	4.601	4.601	0.000	98	1010678	80.0	78.3	a
70 Benzoic acid	105	4.665	4.665	0.000	88	1344146	160.0	161.9	
71 3,5-Dimethylphenol	107	4.649	4.649	0.000	89	817071	80.0	74.6	
75 2,4-Dichlorophenol	162	4.676	4.676	0.000	95	623486	80.0	70.0	
77 1,2,4-Trichlorobenzene	180	4.745	4.745	0.000	94	649849	80.0	69.4	
79 Naphthalene	128	4.815	4.815	0.000	97	2164754	80.0	73.5	
80 4-Chloroaniline	127	4.890	4.890	0.000	94	976829	80.0	73.8	
81 2,6-Dichlorophenol	162	4.890	4.890	0.000	93	615200	80.0	70.6	
83 Hexachlorobutadiene	225	4.954	4.954	0.000	98	333075	80.0	69.9	
87 Caprolactam	55	5.237	5.237	0.000	80	406111	80.0	85.9	
90 4-Chloro-3-methylphenol	107	5.392	5.392	0.000	96	695166	80.0	74.7	
94 2-Methylnaphthalene	142	5.489	5.489	0.000	93	1401434	80.0	70.3	
96 1-Methylnaphthalene	142	5.585	5.585	0.000	94	1330945	80.0	70.6	a
97 Hexachlorocyclopentadiene	237	5.649	5.649	0.000	95	365431	80.0	65.9	
98 1,2,4,5-Tetrachlorobenzene	216	5.654	5.654	0.000	98	561282	80.0	64.5	
101 2,4,6-Trichlorophenol	196	5.778	5.778	0.000	94	424717	80.0	73.1	
102 2,3-Dichlorobenzenamine	161	5.767	5.767	0.000	95	769563	80.0	74.5	
103 2,4,5-Trichlorophenol	196	5.815	5.815	0.000	93	457207	80.0	70.7	
105 1,1'-Biphenyl	154	5.954	5.954	0.000	95	1616604	80.0	75.7	
107 2-Chloronaphthalene	162	5.959	5.959	0.000	97	1288047	80.0	74.7	
109 2-Nitroaniline	65	6.072	6.072	0.000	85	486634	80.0	90.4	
112 Dimethyl phthalate	163	6.280	6.280	0.000	98	1464416	80.0	77.5	
113 1,3-Dinitrobenzene	168	6.291	6.291	0.000	87	265005	80.0	80.1	
114 2,6-Dinitrotoluene	165	6.323	6.323	0.000	93	354193	80.0	75.9	a
115 Acenaphthylene	152	6.355	6.355	0.000	98	2065668	80.0	76.1	
116 3-Nitroaniline	138	6.478	6.478	0.000	95	465133	80.0	76.7	
117 Acenaphthene	153	6.526	6.526	0.000	94	1286525	80.0	76.4	
118 2,4-Dinitrophenol	184	6.580	6.580	0.000	84	419610	160.0	145.6	
120 4-Nitrophenol	109	6.681	6.681	0.000	93	524513	160.0	178.7	
122 2,4-Dinitrotoluene	165	6.708	6.708	0.000	92	465209	80.0	79.9	
123 Dibenzofuran	168	6.697	6.697	0.000	97	1787957	80.0	74.3	
127 2,3,4,6-Tetrachlorophenol	232	6.826	6.826	0.000	77	348764	80.0	67.6	
128 Hexadecane	57	7.008	7.008	0.000	90	1114491	80.0	92.7	
130 Diethyl phthalate	149	6.976	6.976	0.000	98	1574389	80.0	79.5	
135 4-Chlorophenyl phenyl ether	204	7.050	7.050	0.000	96	620796	80.0	70.8	
136 Fluorene	166	7.029	7.029	0.000	96	1412254	80.0	71.1	
139 4-Nitroaniline	138	7.067	7.067	0.000	86	461293	80.0	76.4	
140 4,6-Dinitro-2-methylphenol	198	7.099	7.099	0.000	82	520862	160.0	159.3	
142 Diphenylamine	169	7.168	7.168	0.000	95	1056711	68.0	61.9	
143 N-Nitrosodiphenylamine	169	7.168	7.168	0.000	99	1056711	80.0	75.9	
144 Azobenzene	77	7.200	7.200	0.000	98	1748540	80.0	87.3	a
145 1,2-Diphenylhydrazine	77	7.200	7.200	0.000	99	1748540	80.9	88.2	a
157 4-Bromophenyl phenyl ether	248	7.521	7.521	0.000	70	355797	80.0	64.8	
158 Hexachlorobenzene	284	7.553	7.553	0.000	95	398469	80.0	62.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.714	7.714	0.000	88	374132	80.0	82.0	
162 n-Octadecane	85	7.912	7.912	0.000	95	492225	80.0	89.0	
164 Pentachlorophenol	266	7.756	7.756	0.000	99	551843	160.0	142.1	
169 Phenanthrene	178	7.949	7.949	0.000	98	2002293	80.0	72.6	
170 Anthracene	178	7.997	7.997	0.000	98	2051422	80.0	72.5	
171 Carbazole	167	8.174	8.174	0.000	96	2044846	80.0	72.7	
172 Alachlor	188	8.334	8.334	0.000	96	286504	80.0	75.4	
175 Di-n-butyl phthalate	149	8.569	8.569	0.000	100	2659224	80.0	79.9	
182 Fluoranthene	202	9.104	9.104	0.000	98	2115400	80.0	73.7	a
185 Pyrene	202	9.318	9.318	0.000	98	2174867	80.0	78.8	
193 Butyl benzyl phthalate	149	10.035	10.035	0.000	98	1207975	80.0	86.8	
197 3,3'-Dichlorobenzidine	252	10.597	10.597	0.000	76	765694	80.0	78.6	
198 Benzo[a]anthracene	228	10.586	10.586	0.000	99	1851800	80.0	75.5	
199 Bis(2-ethylhexyl) phthalate	149	10.762	10.762	0.000	98	1572432	80.0	83.0	
200 Chrysene	228	10.629	10.629	0.000	98	1776077	80.0	77.3	a
202 Di-n-octyl phthalate	149	11.720	11.720	0.000	99	2793656	80.0	81.3	
204 Benzo[b]fluoranthene	252	12.100	12.100	0.000	98	1618813	80.0	77.3	
205 Benzo[k]fluoranthene	252	12.148	12.148	0.000	98	1838019	80.0	84.7	a
208 Benzo[a]pyrene	252	12.613	12.613	0.000	79	1521865	80.0	80.2	a
214 Indeno[1,2,3-cd]pyrene	276	14.528	14.528	0.000	98	1336764	80.0	56.5	
215 Dibenz(a,h)anthracene	278	14.608	14.608	0.000	95	1354185	80.0	69.2	a
216 Benzo[g,h,i]perylene	276	14.977	14.977	0.000	96	1492696	80.0	71.8	a

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D

Injection Date: 14-Nov-2022 15:19:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

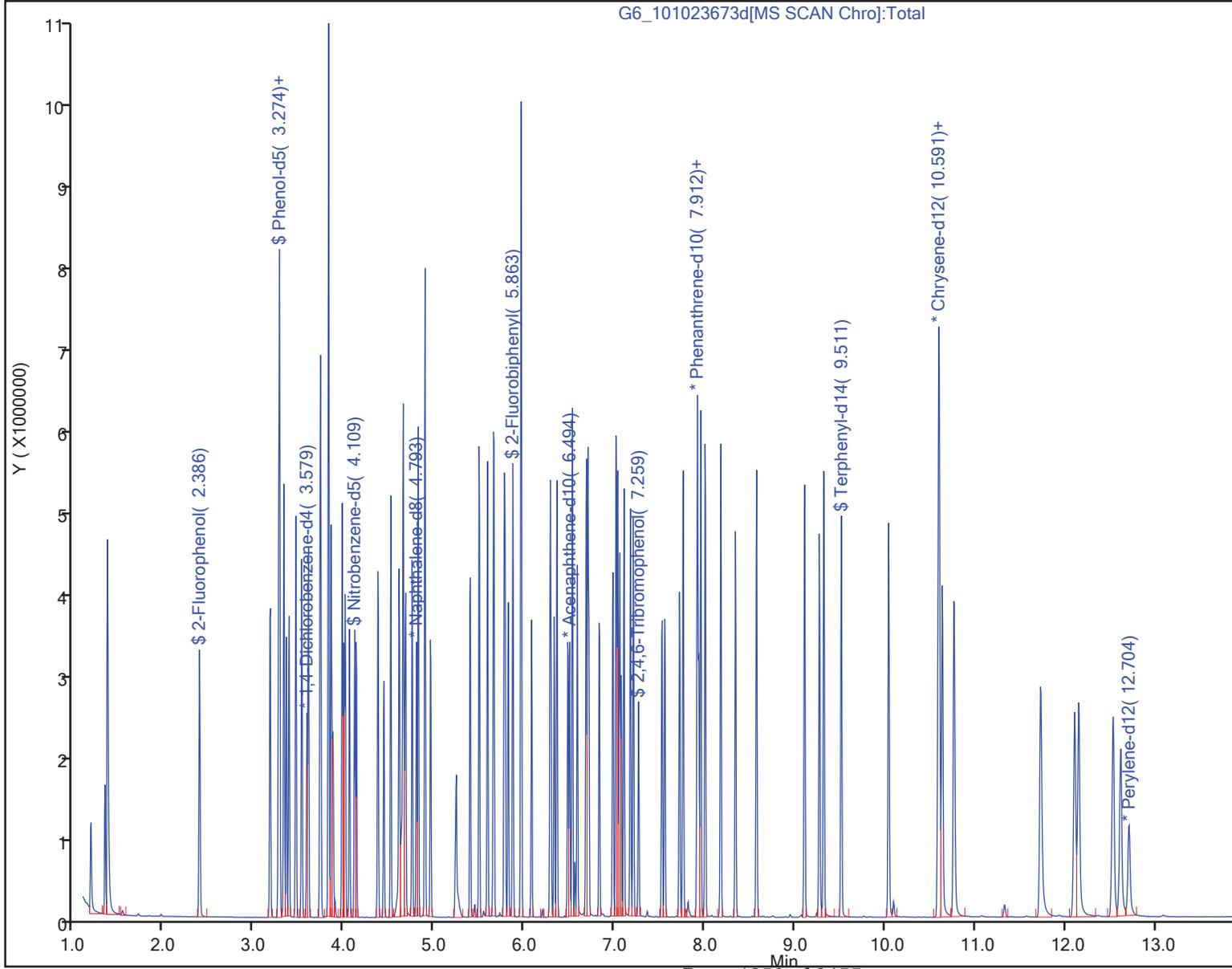
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

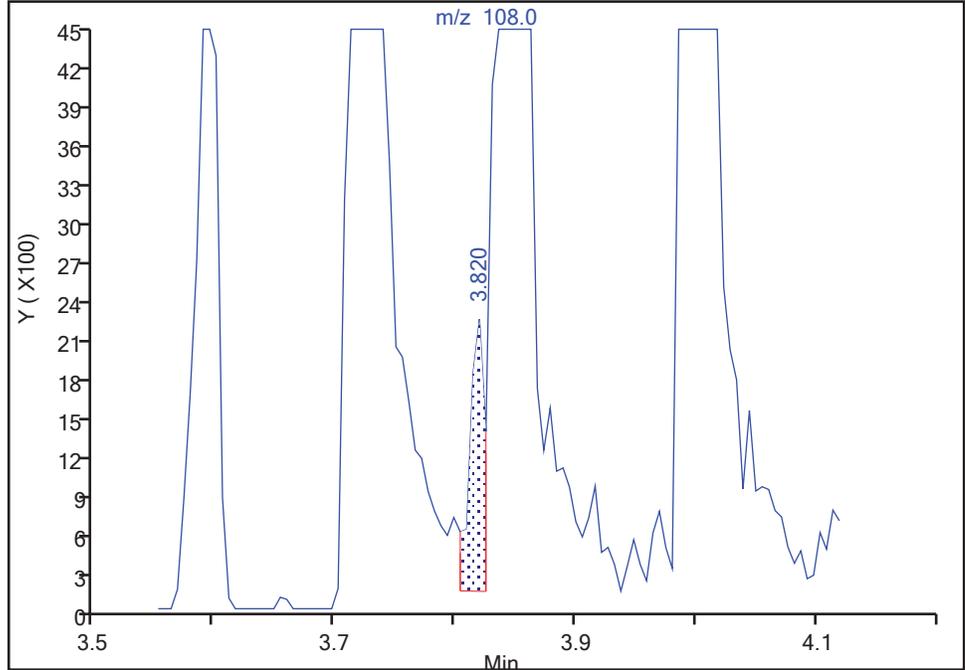
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Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

46 2-Methylphenol, CAS: 95-48-7

Signal: 1

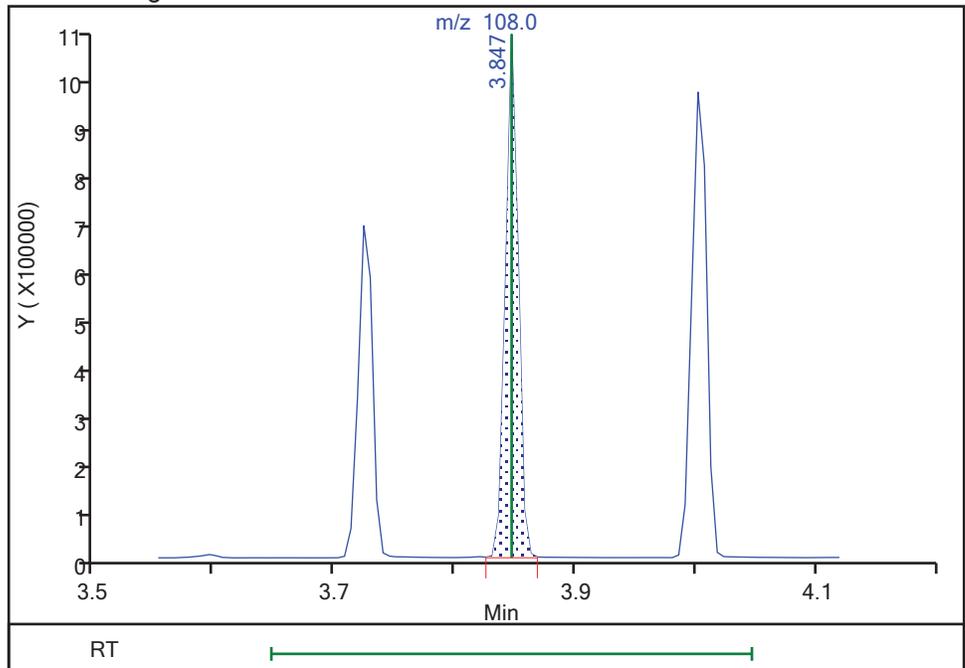
RT: 3.82
Area: 1887
Amount: 0.188960
Amount Units: ug/ml

Processing Integration Results



RT: 3.85
Area: 771601
Amount: 77.266336
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:07:12
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

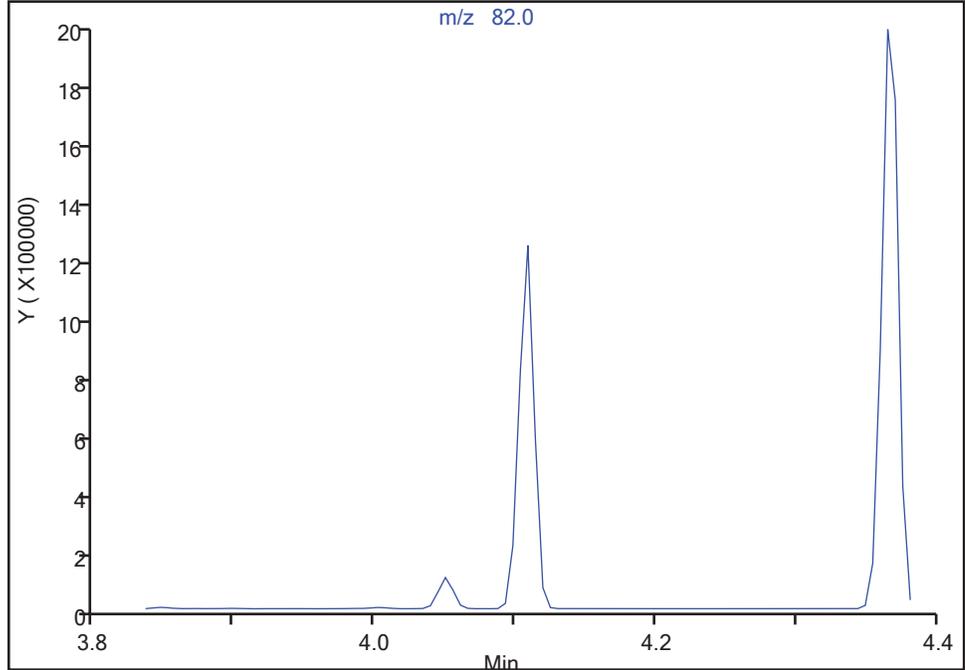
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Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

\$ 9 Nitrobenzene-d5, CAS: 4165-60-0

Signal: 1

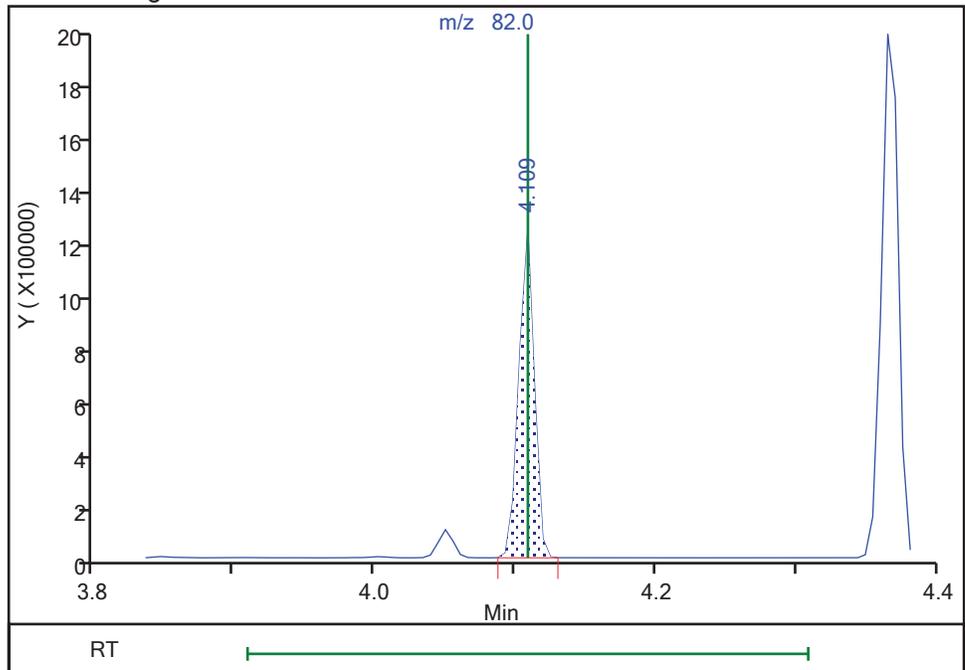
Not Detected
Expected RT: 4.11

Processing Integration Results



Manual Integration Results

RT: 4.11
Area: 913565
Amount: 82.465707
Amount Units: ug/ml



Reviewer: NBC9, 14-Nov-2022 16:05:52
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

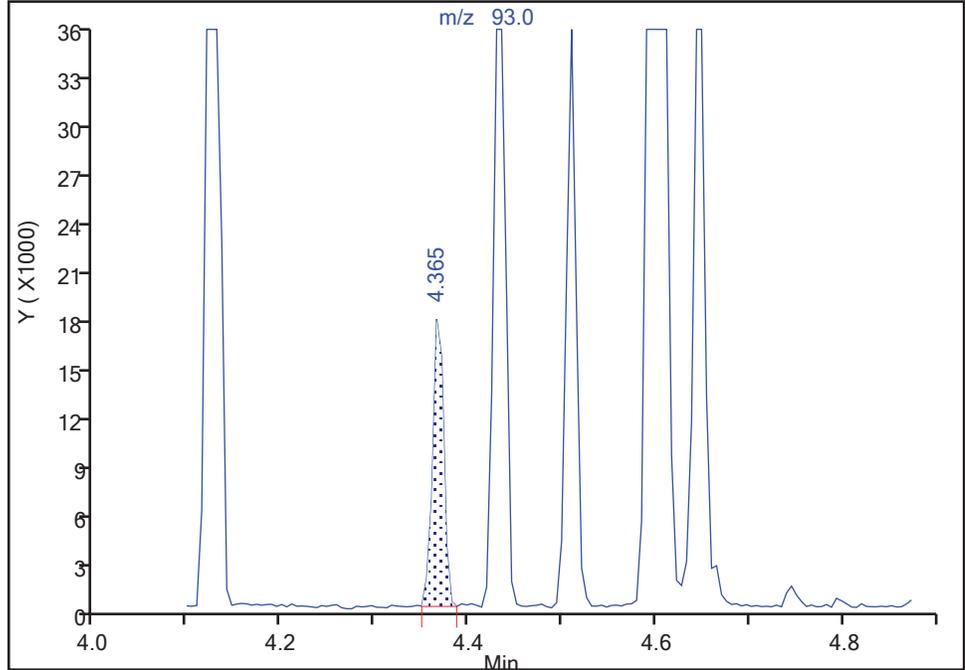
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Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

69 Bis(2-chloroethoxy)methane, CAS: 111-91-1

Signal: 1

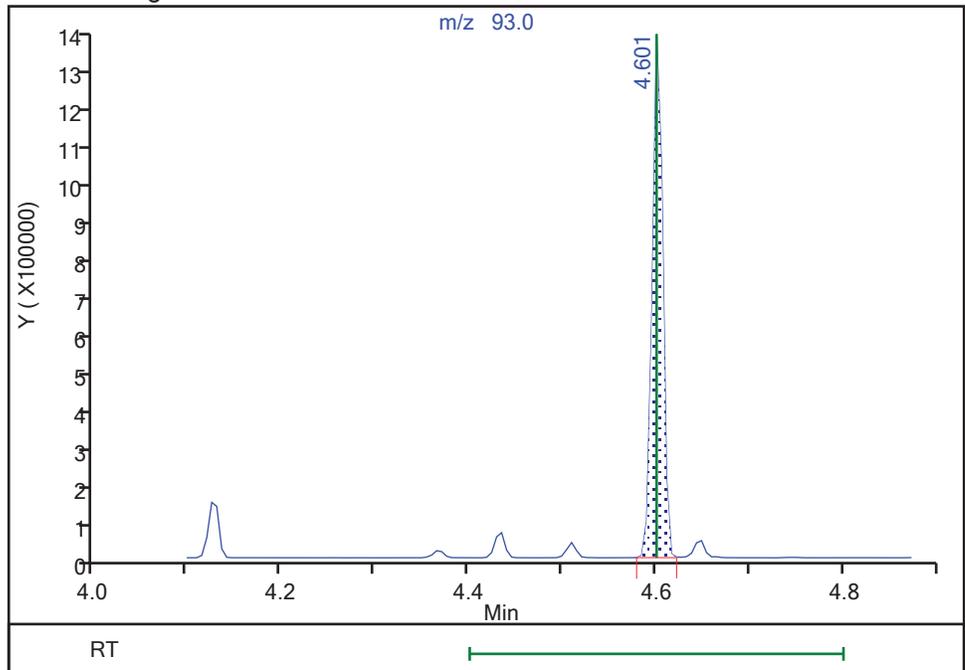
RT: 4.37
Area: 14505
Amount: 1.123046
Amount Units: ug/ml

Processing Integration Results



RT: 4.60
Area: 1010678
Amount: 78.251518
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

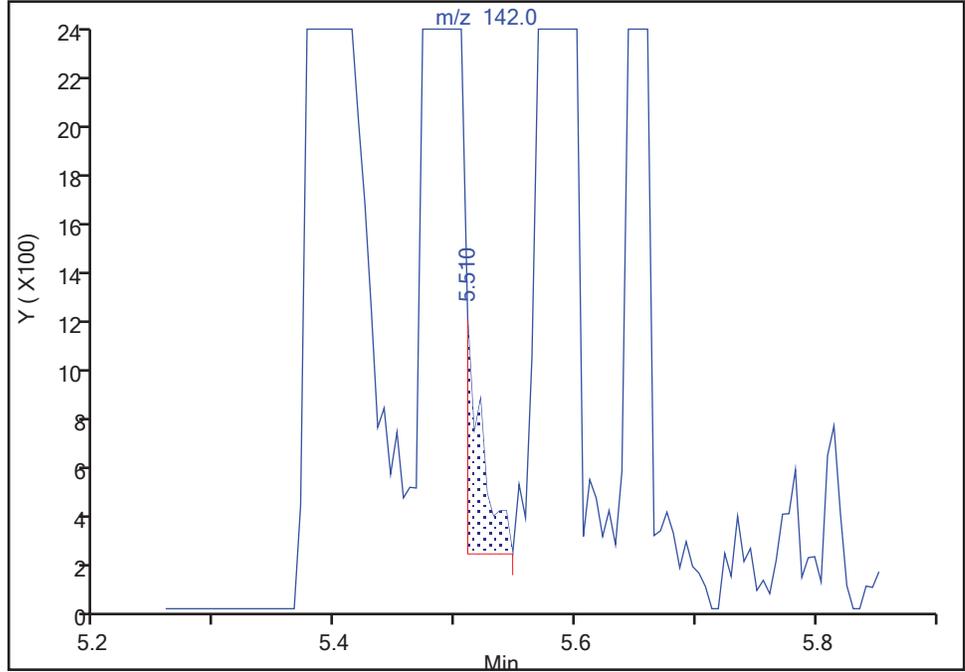
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

96 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

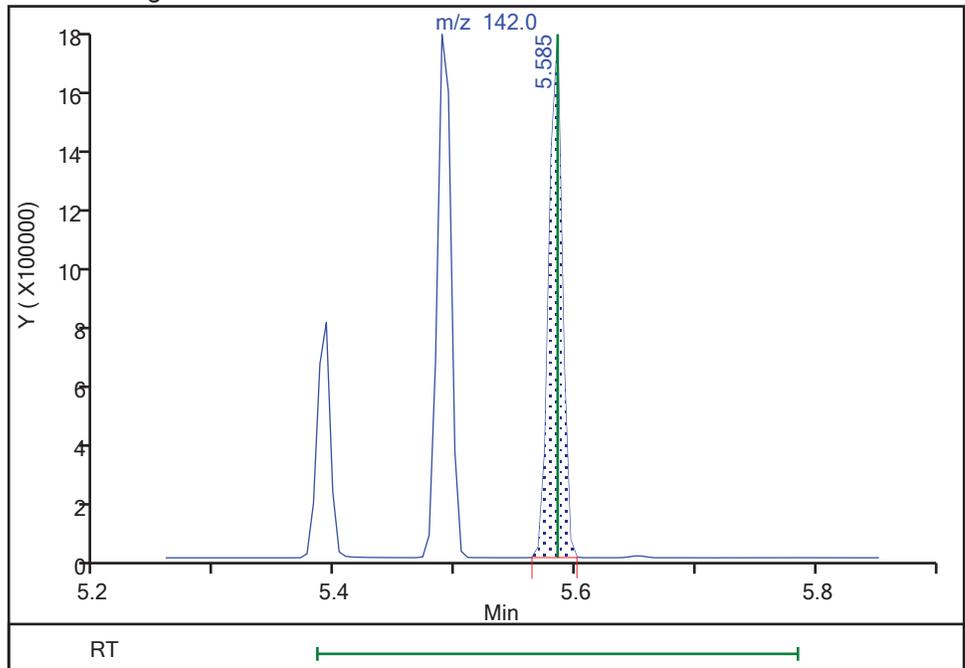
RT: 5.51
Area: 884
Amount: 0.046910
Amount Units: ug/ml

Processing Integration Results



RT: 5.58
Area: 1330945
Amount: 70.627452
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

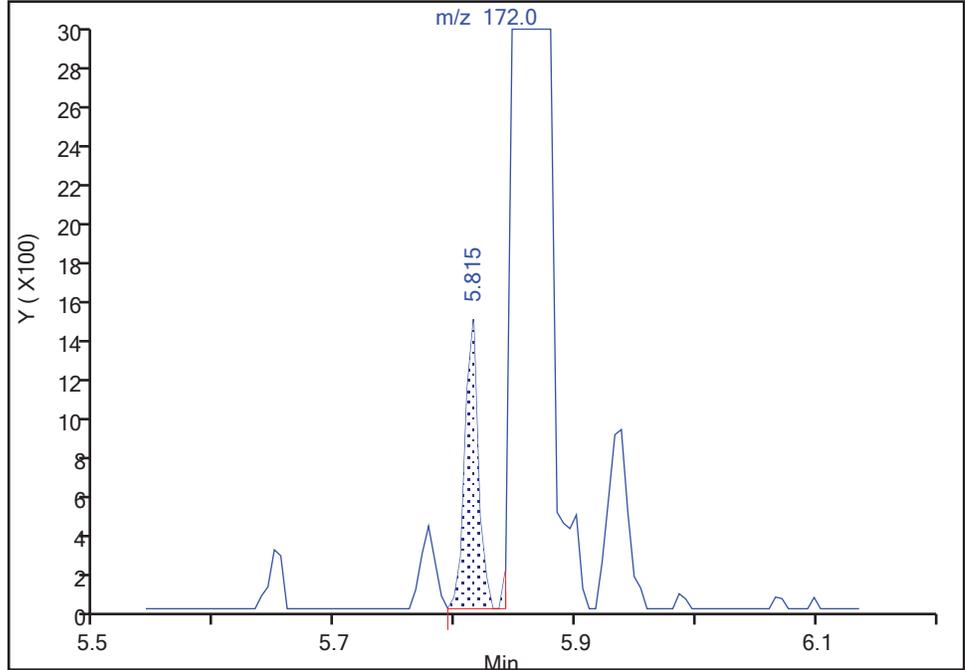
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

\$ 11 2-Fluorobiphenyl, CAS: 321-60-8

Signal: 1

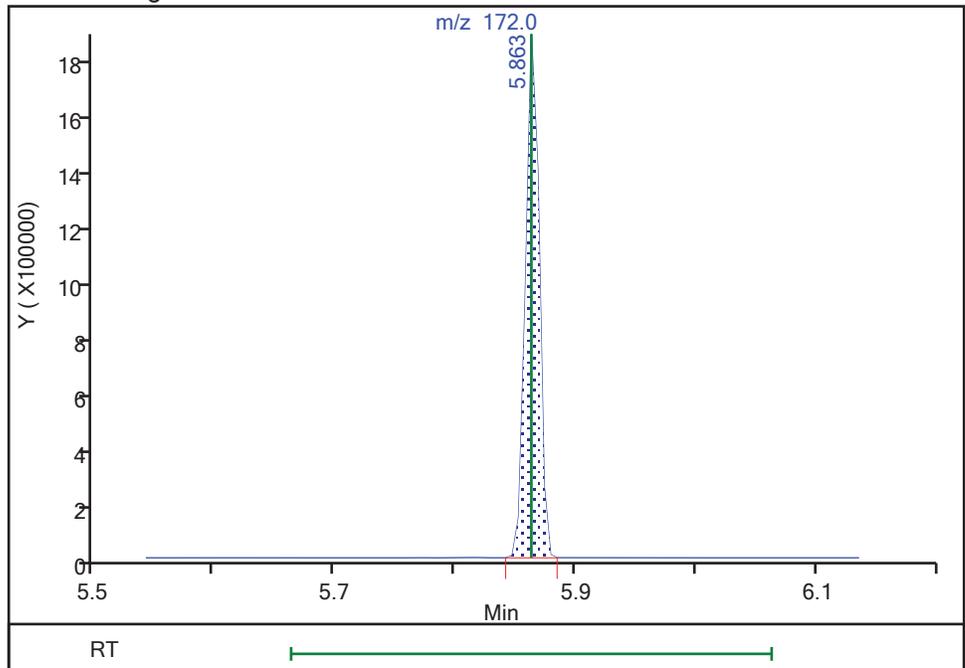
RT: 5.81
Area: 1213
Amount: 0.063434
Amount Units: ug/ml

Processing Integration Results



RT: 5.86
Area: 1451045
Amount: 75.882772
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:06:57
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

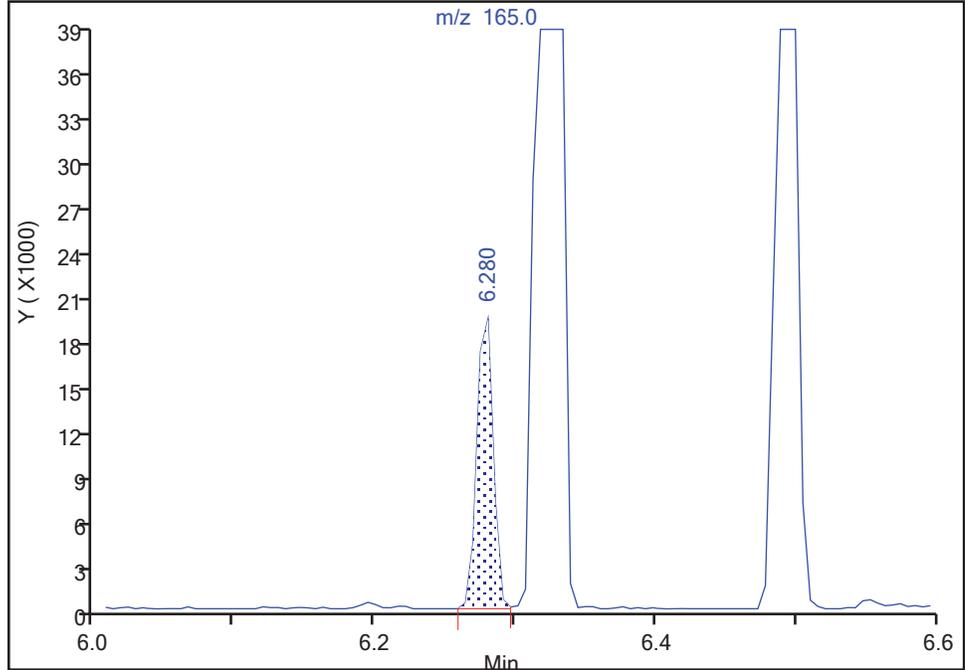
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

114 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

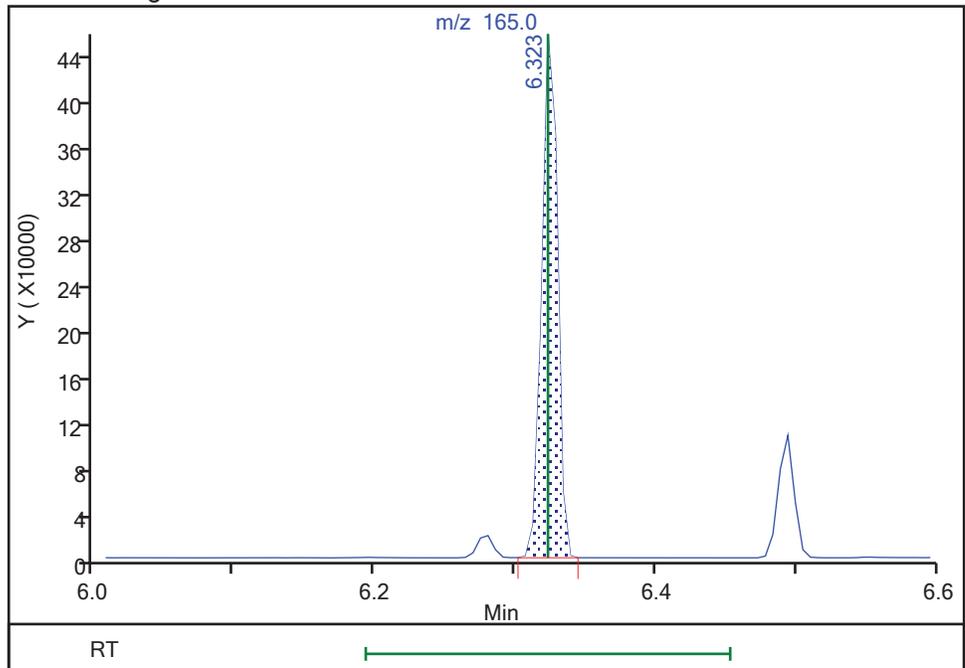
RT: 6.28
Area: 15751
Amount: 3.376613
Amount Units: ug/ml

Processing Integration Results



RT: 6.32
Area: 354193
Amount: 75.929956
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:07:42
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

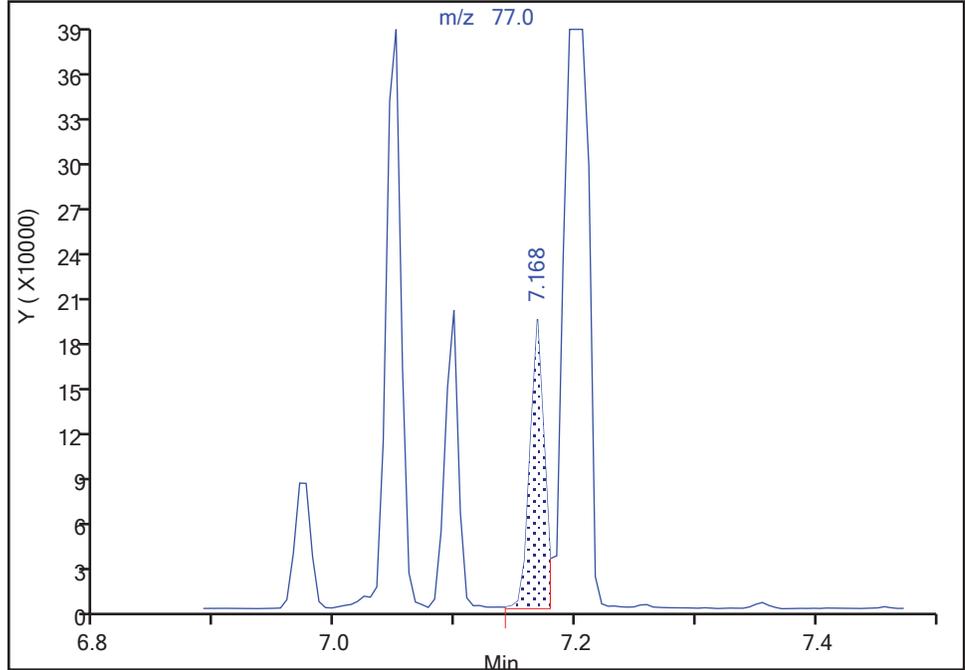
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

145 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

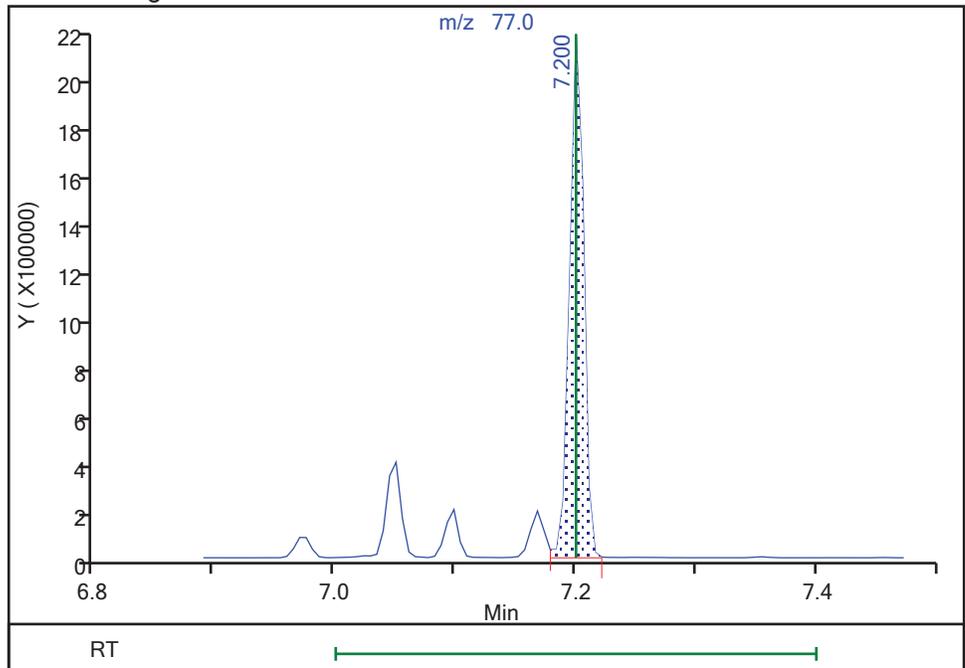
RT: 7.17
Area: 159864
Amount: 8.064716
Amount Units: ug/ml

Processing Integration Results



RT: 7.20
Area: 1748540
Amount: 88.209214
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

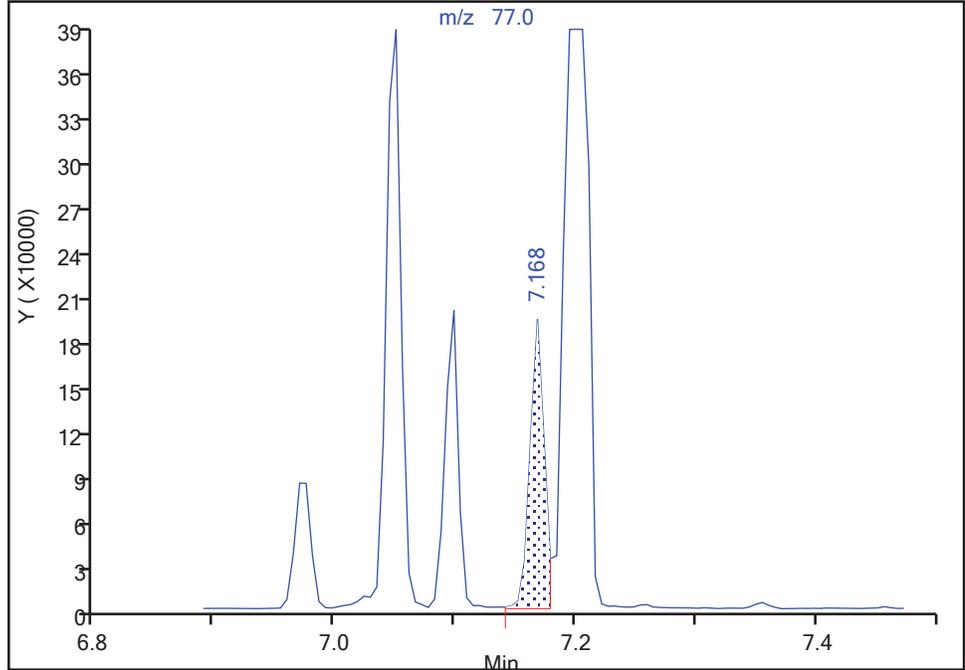
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

144 Azobenzene, CAS: 103-33-3

Signal: 1

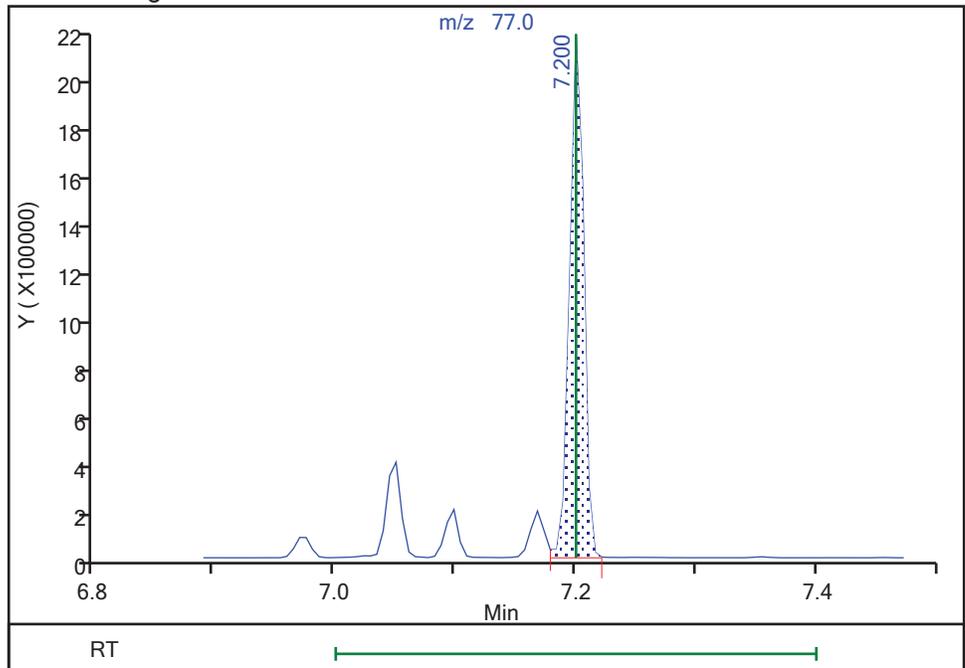
RT: 7.17
Area: 159864
Amount: 7.977170
Amount Units: ug/ml

Processing Integration Results



RT: 7.20
Area: 1748540
Amount: 87.251667
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:07:53
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

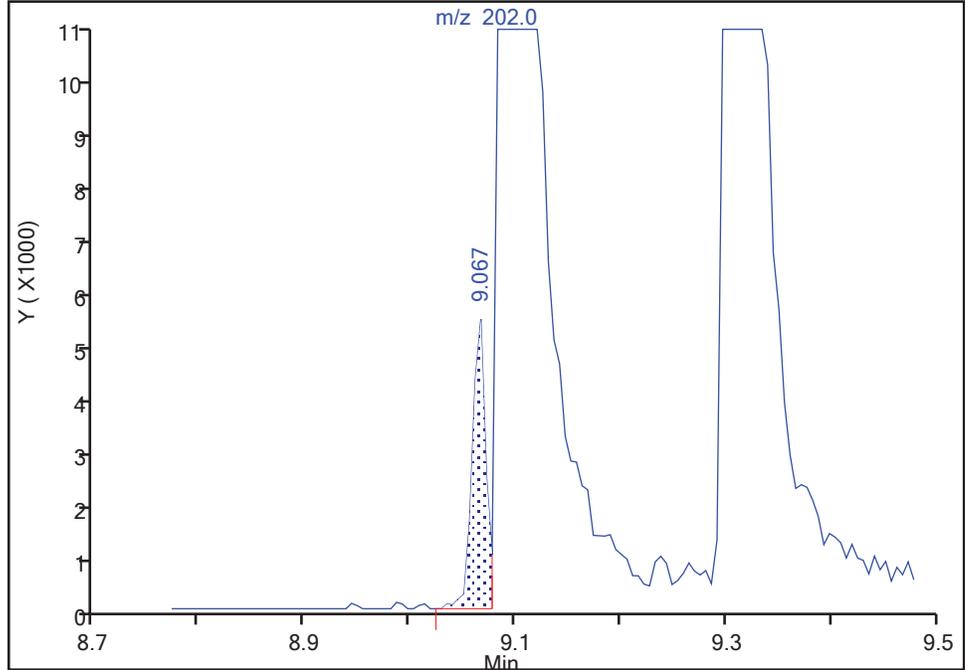
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

182 Fluoranthene, CAS: 206-44-0

Signal: 1

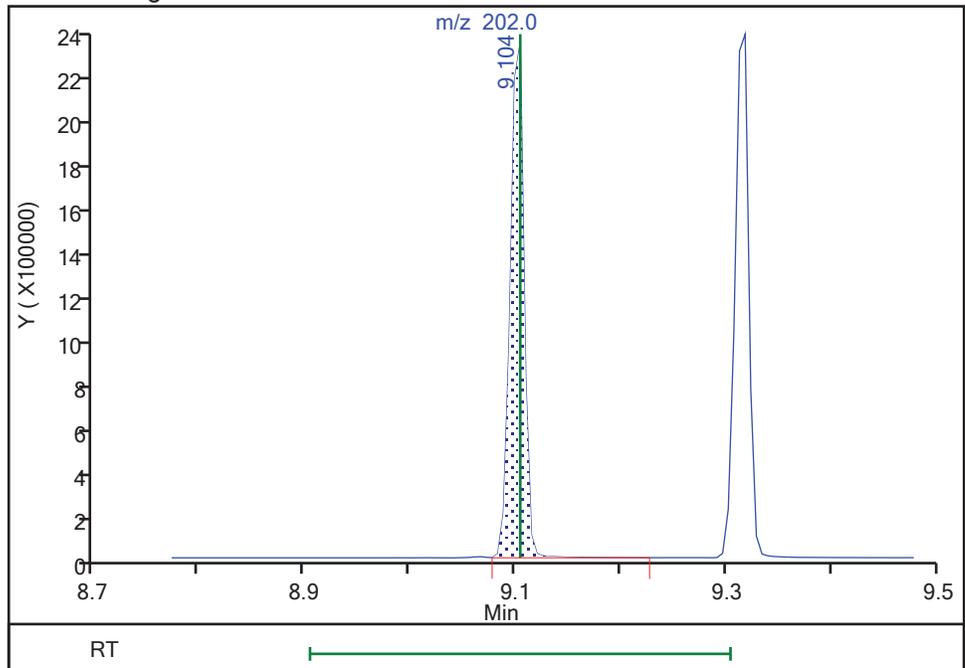
RT: 9.07
Area: 4578
Amount: 0.159567
Amount Units: ug/ml

Processing Integration Results



RT: 9.10
Area: 2115400
Amount: 73.732844
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

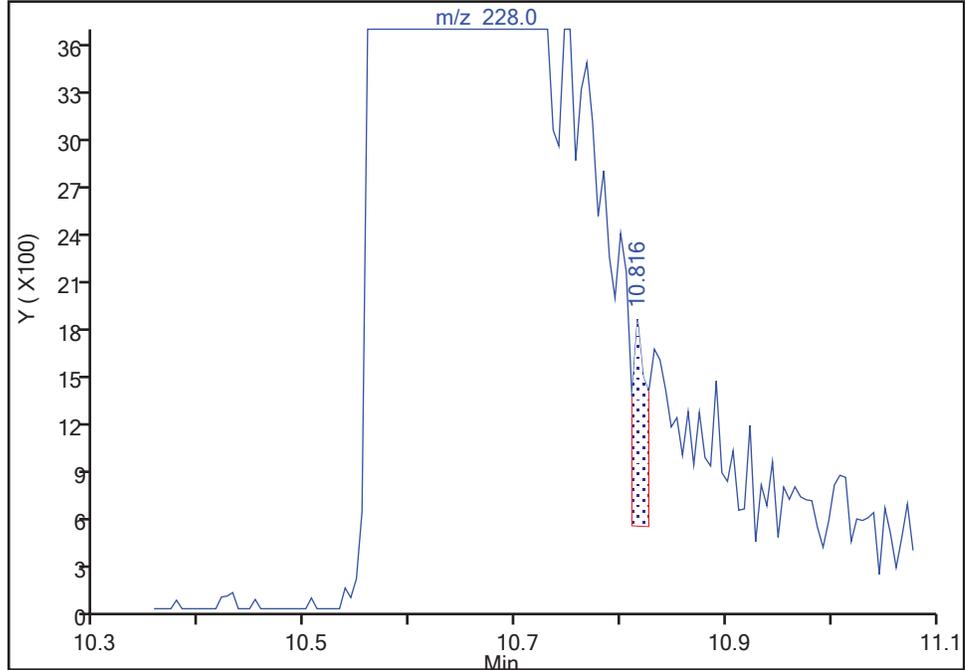
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

200 Chrysene, CAS: 218-01-9

Signal: 1

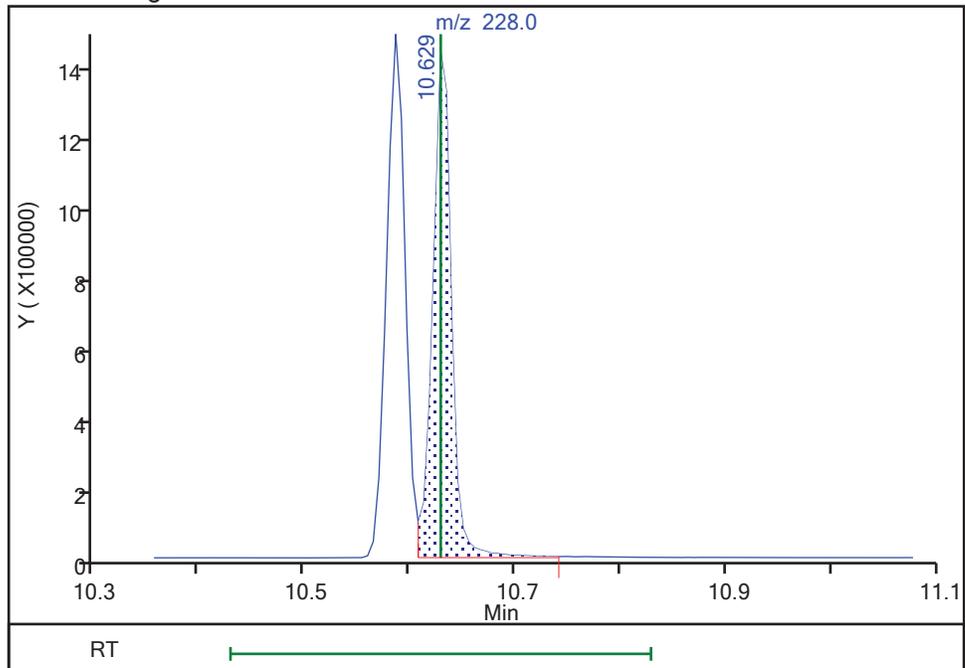
RT: 10.82
Area: 1263
Amount: 0.054972
Amount Units: ug/ml

Processing Integration Results



RT: 10.63
Area: 1776077
Amount: 77.303252
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

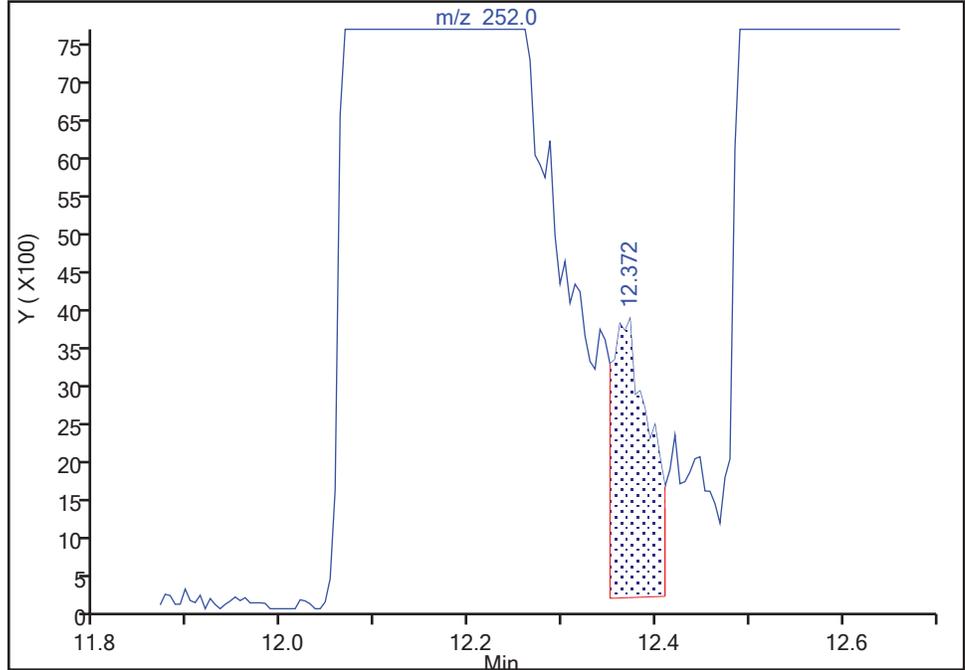
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

205 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

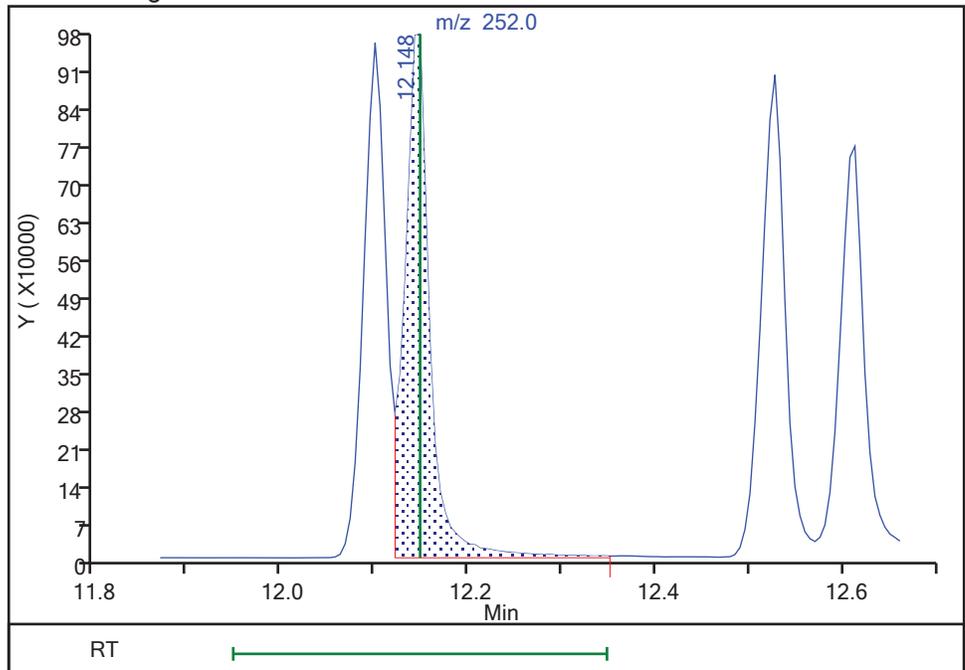
RT: 12.37
Area: 10444
Amount: 0.481175
Amount Units: ug/ml

Processing Integration Results



RT: 12.15
Area: 1838019
Amount: 84.681022
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

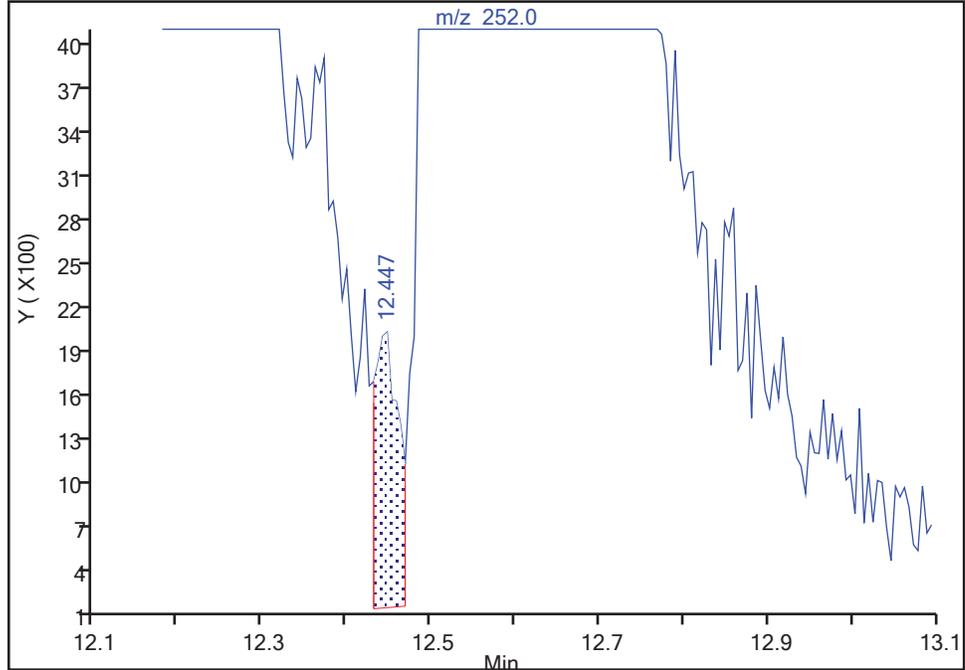
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

208 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

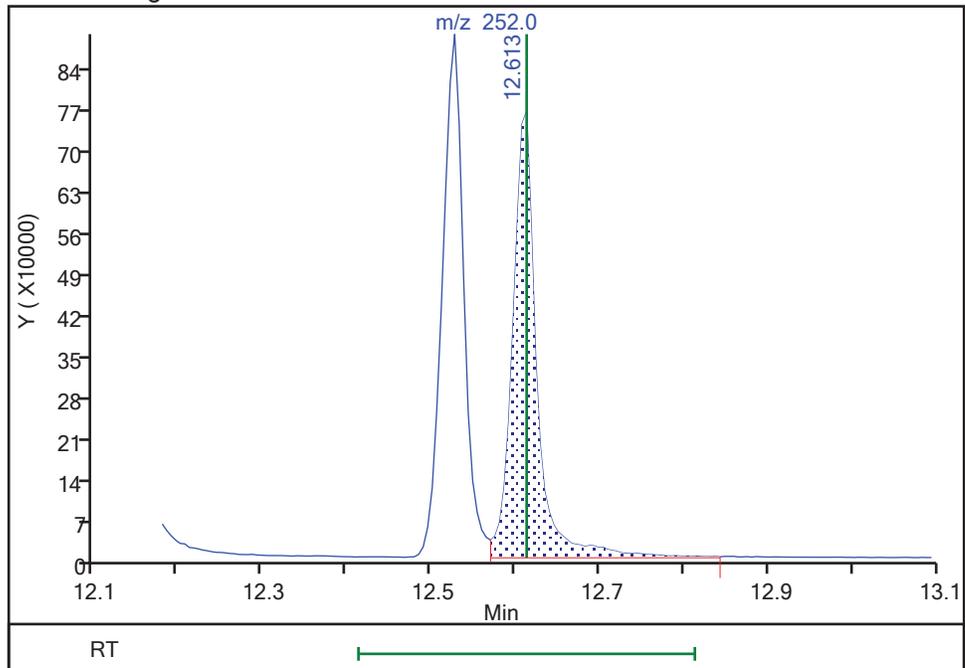
RT: 12.45
Area: 3735
Amount: 0.196850
Amount Units: ug/ml

Processing Integration Results



RT: 12.61
Area: 1521865
Amount: 80.208665
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:06:42
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

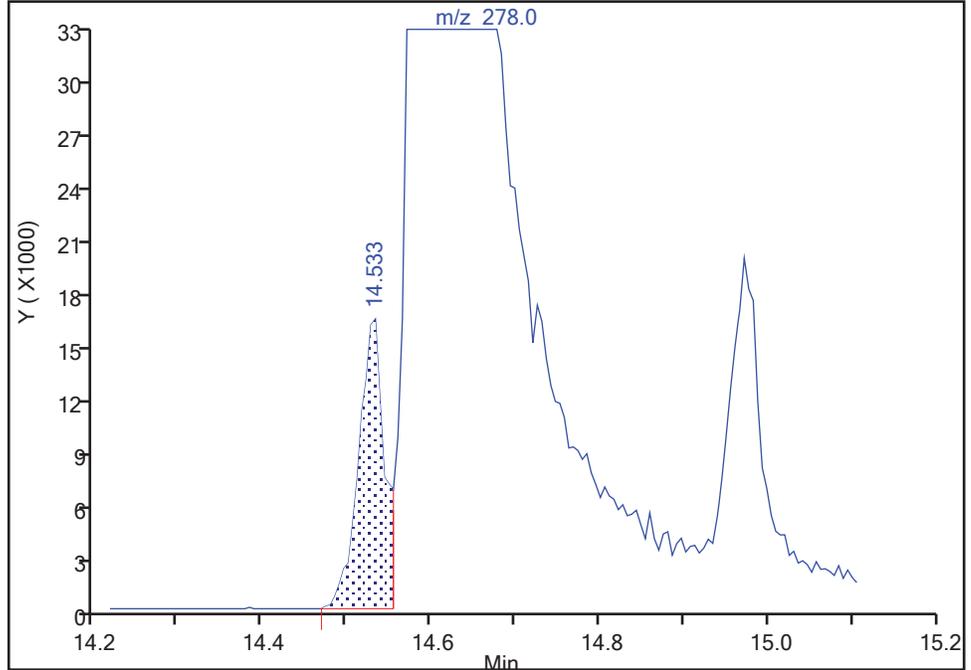
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

215 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

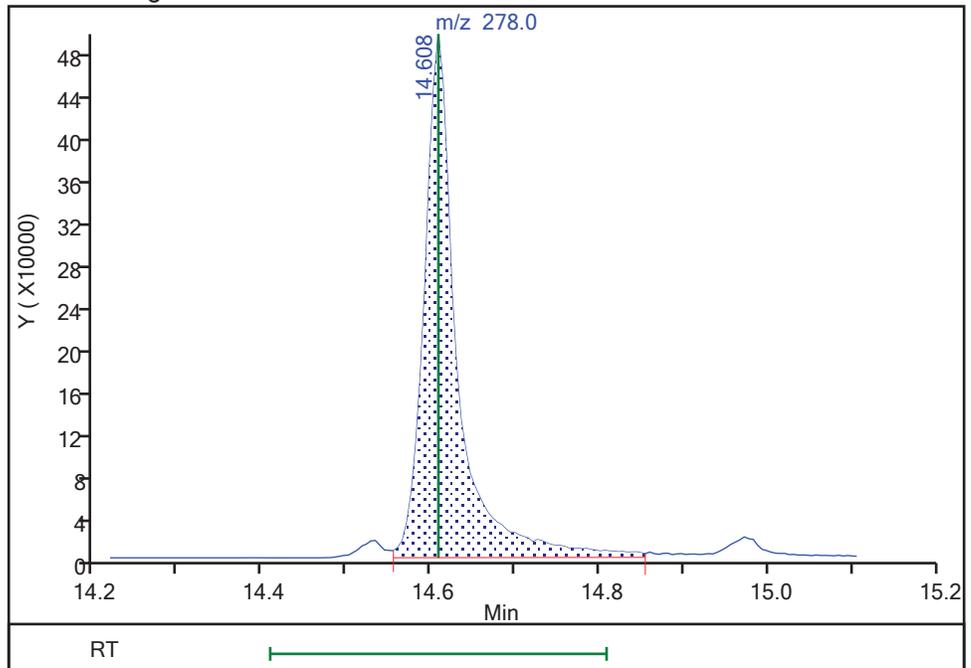
RT: 14.53
Area: 35123
Amount: 1.795653
Amount Units: ug/ml

Processing Integration Results



RT: 14.61
Area: 1354185
Amount: 69.232291
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:06:23
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

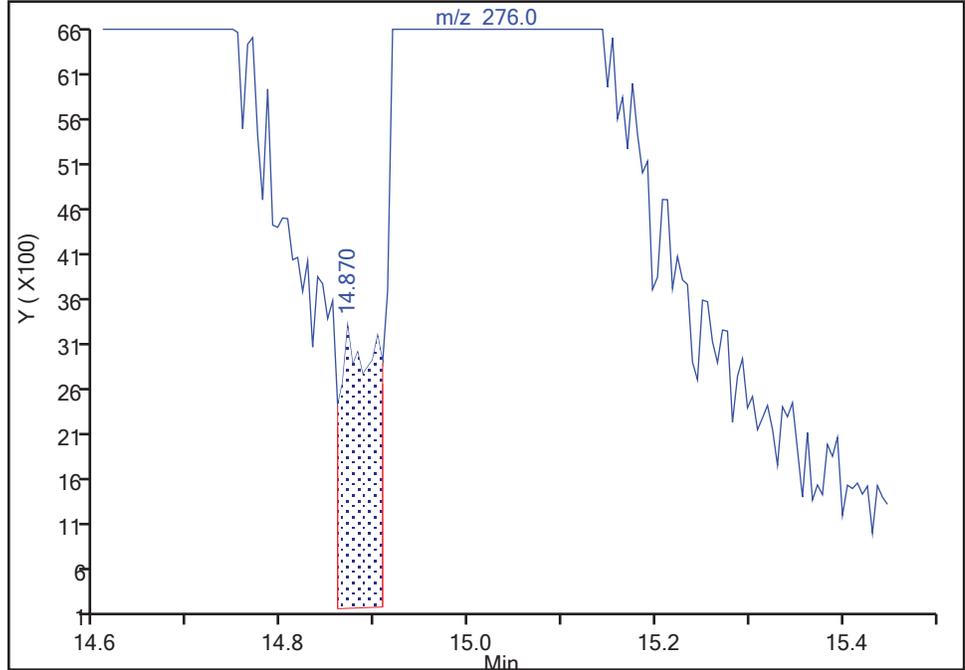
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
Injection Date: 14-Nov-2022 15:19:30 Instrument ID: SMS_G6
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

216 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

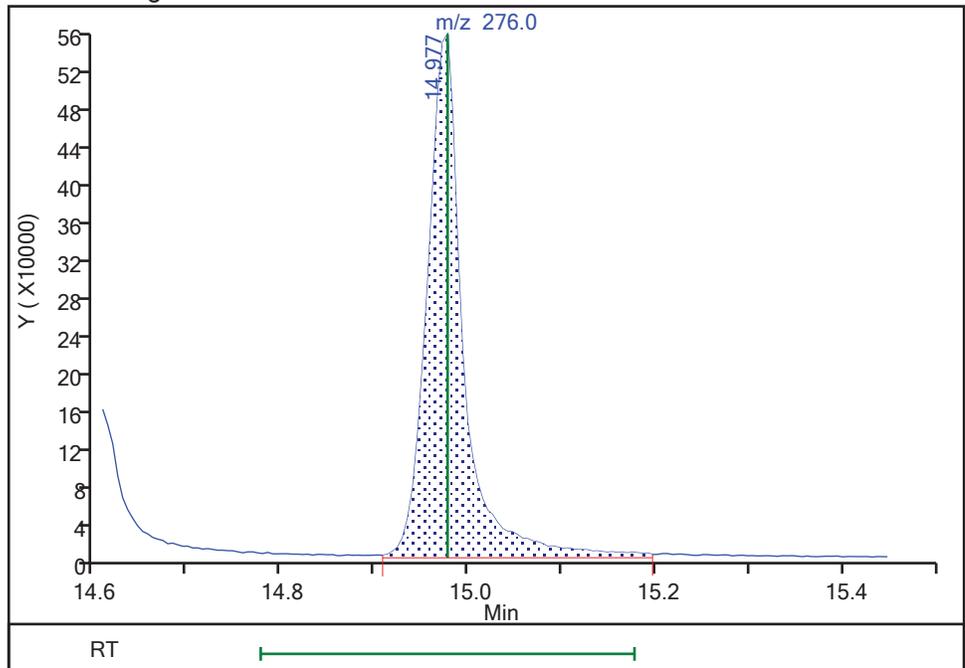
RT: 14.87
Area: 8686
Amount: 0.417870
Amount Units: ug/ml

Processing Integration Results



RT: 14.98
Area: 1492696
Amount: 71.811318
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 14-Nov-2022 16:06:46
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-593336/3 Calibration Date: 11/14/2022 15:19
 Instrument ID: SMS_G6 Calib Start Date: 10/15/2022 00:27
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/15/2022 02:30
 Lab File ID: G6_101023673d.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1586	0.1703	0.0100	85900	80000	7.3	20.0
Atrazine	Ave	0.1826	0.1872	0.0100	82000	80000	2.6	20.0
3,3'-Dichlorobenzidine	Ave	0.4778	0.4697	0.0100	78600	80000	-1.7	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 14-Nov-2022 15:19:30 ALS Bottle#: 2 Worklist Smp#: 3
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 14:52:59 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NBC9

Date: 14-Nov-2022 16:08:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	320555	40.0	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	99	1192394	40.0	40.0	
* 3 Acenaphthene-d10	164	6.494	6.494	0.000	91	646567	40.0	40.0	
* 4 Phenanthrene-d10	188	7.928	7.928	0.000	97	999146	40.0	40.0	
* 5 Chrysene-d12	240	10.597	10.597	0.000	98	815136	40.0	40.0	
* 6 Perylene-d12	264	12.704	12.704	0.000	97	684059	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.386	2.386	0.000	92	894468	80.0	84.6	
\$ 8 Phenol-d5	99	3.264	3.264	0.000	97	1092768	80.0	81.1	
\$ 9 Nitrobenzene-d5	82	4.109	4.109	0.000	88	913565	80.0	82.5	a
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	1451045	80.0	75.9	a
\$ 12 2,4,6-Tribromophenol	330	7.259	7.259	0.000	91	208369	80.0	55.2	
\$ 13 Terphenyl-d14	244	9.511	9.511	0.000	97	1573793	80.0	75.1	
20 1,4-Dioxane	88	1.183	1.183	0.000	96	388744	80.0	100.6	
21 N-Nitrosodimethylamine	74	1.338	1.338	0.000	96	593183	80.0	96.6	
22 Pyridine	79	1.365	1.365	0.000	96	1813609	160.0	186.1	
34 Phenol	94	3.274	3.274	0.000	86	1156764	80.0	81.4	
35 Aniline	93	3.274	3.274	0.000	89	1320229	80.0	79.3	
36 Alpha Methyl Styrene	118	3.322	3.322	0.000	92	868342	80.0	79.8	
37 Bis(2-chloroethyl)ether	93	3.349	3.349	0.000	97	883094	80.0	83.7	
39 n-Decane	43	3.456	3.456	0.000	89	823920	80.0	107.8	a
41 2-Chlorophenol	128	3.381	3.381	0.000	97	848436	80.0	76.8	
42 1,3-Dichlorobenzene	146	3.520	3.520	0.000	97	875209	80.0	73.4	
43 1,4-Dichlorobenzene	146	3.595	3.595	0.000	93	885428	80.0	73.5	
44 Benzyl alcohol	108	3.724	3.724	0.000	92	559233	80.0	74.3	
45 1,2-Dichlorobenzene	146	3.734	3.734	0.000	96	823643	80.0	72.4	
46 2-Methylphenol	108	3.847	3.847	0.000	91	771601	80.0	77.3	a
47 2,2'-oxybis[1-chloropropane]	45	3.868	3.868	0.000	95	1161575	80.0	100.3	
48 Indene	116	3.820	3.820	0.000	91	2692898	160.0	149.1	a
49 3 & 4 Methylphenol	108	4.002	4.002	0.000	80	821534	80.0	76.9	
50 3-Methylphenol	108	4.002	4.002	0.000	92	821534	80.0	76.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	3.986	3.986	0.000	87	626925	80.0	87.9	
52 4-Methylphenol	108	4.002	4.002	0.000	92	821534	80.0	76.9	
55 Acetophenone	105	3.970	3.970	0.000	97	1137603	80.0	77.5	
58 Hexachloroethane	117	4.050	4.050	0.000	95	380225	80.0	77.5	
60 Nitrobenzene	77	4.125	4.125	0.000	89	866707	80.0	82.3	
63 Isophorone	82	4.365	4.365	0.000	99	1620082	80.0	80.3	
65 2-Nitrophenol	139	4.435	4.435	0.000	95	438433	80.0	75.0	
66 2,4-Dimethylphenol	107	4.510	4.510	0.000	96	801511	80.0	77.0	
69 Bis(2-chloroethoxy)methane	93	4.601	4.601	0.000	98	1010678	80.0	78.3	a
70 Benzoic acid	105	4.665	4.665	0.000	88	1344146	160.0	161.9	
71 3,5-Dimethylphenol	107	4.649	4.649	0.000	89	817071	80.0	74.6	
75 2,4-Dichlorophenol	162	4.676	4.676	0.000	95	623486	80.0	70.0	
77 1,2,4-Trichlorobenzene	180	4.745	4.745	0.000	94	649849	80.0	69.4	
79 Naphthalene	128	4.815	4.815	0.000	97	2164754	80.0	73.5	
80 4-Chloroaniline	127	4.890	4.890	0.000	94	976829	80.0	73.8	
81 2,6-Dichlorophenol	162	4.890	4.890	0.000	93	615200	80.0	70.6	
83 Hexachlorobutadiene	225	4.954	4.954	0.000	98	333075	80.0	69.9	
87 Caprolactam	55	5.237	5.237	0.000	80	406111	80.0	85.9	
90 4-Chloro-3-methylphenol	107	5.392	5.392	0.000	96	695166	80.0	74.7	
94 2-Methylnaphthalene	142	5.489	5.489	0.000	93	1401434	80.0	70.3	
96 1-Methylnaphthalene	142	5.585	5.585	0.000	94	1330945	80.0	70.6	a
97 Hexachlorocyclopentadiene	237	5.649	5.649	0.000	95	365431	80.0	65.9	
98 1,2,4,5-Tetrachlorobenzene	216	5.654	5.654	0.000	98	561282	80.0	64.5	
101 2,4,6-Trichlorophenol	196	5.778	5.778	0.000	94	424717	80.0	73.1	
102 2,3-Dichlorobenzenamine	161	5.767	5.767	0.000	95	769563	80.0	74.5	
103 2,4,5-Trichlorophenol	196	5.815	5.815	0.000	93	457207	80.0	70.7	
105 1,1'-Biphenyl	154	5.954	5.954	0.000	95	1616604	80.0	75.7	
107 2-Chloronaphthalene	162	5.959	5.959	0.000	97	1288047	80.0	74.7	
109 2-Nitroaniline	65	6.072	6.072	0.000	85	486634	80.0	90.4	
112 Dimethyl phthalate	163	6.280	6.280	0.000	98	1464416	80.0	77.5	
113 1,3-Dinitrobenzene	168	6.291	6.291	0.000	87	265005	80.0	80.1	
114 2,6-Dinitrotoluene	165	6.323	6.323	0.000	93	354193	80.0	75.9	a
115 Acenaphthylene	152	6.355	6.355	0.000	98	2065668	80.0	76.1	
116 3-Nitroaniline	138	6.478	6.478	0.000	95	465133	80.0	76.7	
117 Acenaphthene	153	6.526	6.526	0.000	94	1286525	80.0	76.4	
118 2,4-Dinitrophenol	184	6.580	6.580	0.000	84	419610	160.0	145.6	
120 4-Nitrophenol	109	6.681	6.681	0.000	93	524513	160.0	178.7	
122 2,4-Dinitrotoluene	165	6.708	6.708	0.000	92	465209	80.0	79.9	
123 Dibenzofuran	168	6.697	6.697	0.000	97	1787957	80.0	74.3	
127 2,3,4,6-Tetrachlorophenol	232	6.826	6.826	0.000	77	348764	80.0	67.6	
128 Hexadecane	57	7.008	7.008	0.000	90	1114491	80.0	92.7	
130 Diethyl phthalate	149	6.976	6.976	0.000	98	1574389	80.0	79.5	
135 4-Chlorophenyl phenyl ether	204	7.050	7.050	0.000	96	620796	80.0	70.8	
136 Fluorene	166	7.029	7.029	0.000	96	1412254	80.0	71.1	
139 4-Nitroaniline	138	7.067	7.067	0.000	86	461293	80.0	76.4	
140 4,6-Dinitro-2-methylphenol	198	7.099	7.099	0.000	82	520862	160.0	159.3	
142 Diphenylamine	169	7.168	7.168	0.000	95	1056711	68.0	61.9	
143 N-Nitrosodiphenylamine	169	7.168	7.168	0.000	99	1056711	80.0	75.9	
144 Azobenzene	77	7.200	7.200	0.000	98	1748540	80.0	87.3	a
145 1,2-Diphenylhydrazine	77	7.200	7.200	0.000	99	1748540	80.9	88.2	a
157 4-Bromophenyl phenyl ether	248	7.521	7.521	0.000	70	355797	80.0	64.8	
158 Hexachlorobenzene	284	7.553	7.553	0.000	95	398469	80.0	62.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.714	7.714	0.000	88	374132	80.0	82.0	
162 n-Octadecane	85	7.912	7.912	0.000	95	492225	80.0	89.0	
164 Pentachlorophenol	266	7.756	7.756	0.000	99	551843	160.0	142.1	
169 Phenanthrene	178	7.949	7.949	0.000	98	2002293	80.0	72.6	
170 Anthracene	178	7.997	7.997	0.000	98	2051422	80.0	72.5	
171 Carbazole	167	8.174	8.174	0.000	96	2044846	80.0	72.7	
172 Alachlor	188	8.334	8.334	0.000	96	286504	80.0	75.4	
175 Di-n-butyl phthalate	149	8.569	8.569	0.000	100	2659224	80.0	79.9	
182 Fluoranthene	202	9.104	9.104	0.000	98	2115400	80.0	73.7	a
185 Pyrene	202	9.318	9.318	0.000	98	2174867	80.0	78.8	
193 Butyl benzyl phthalate	149	10.035	10.035	0.000	98	1207975	80.0	86.8	
197 3,3'-Dichlorobenzidine	252	10.597	10.597	0.000	76	765694	80.0	78.6	
198 Benzo[a]anthracene	228	10.586	10.586	0.000	99	1851800	80.0	75.5	
199 Bis(2-ethylhexyl) phthalate	149	10.762	10.762	0.000	98	1572432	80.0	83.0	
200 Chrysene	228	10.629	10.629	0.000	98	1776077	80.0	77.3	a
202 Di-n-octyl phthalate	149	11.720	11.720	0.000	99	2793656	80.0	81.3	
204 Benzo[b]fluoranthene	252	12.100	12.100	0.000	98	1618813	80.0	77.3	
205 Benzo[k]fluoranthene	252	12.148	12.148	0.000	98	1838019	80.0	84.7	a
208 Benzo[a]pyrene	252	12.613	12.613	0.000	79	1521865	80.0	80.2	a
214 Indeno[1,2,3-cd]pyrene	276	14.528	14.528	0.000	98	1336764	80.0	56.5	
215 Dibenz(a,h)anthracene	278	14.608	14.608	0.000	95	1354185	80.0	69.2	a
216 Benzo[g,h,i]perylene	276	14.977	14.977	0.000	96	1492696	80.0	71.8	a

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023673d.D

Injection Date: 14-Nov-2022 15:19:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

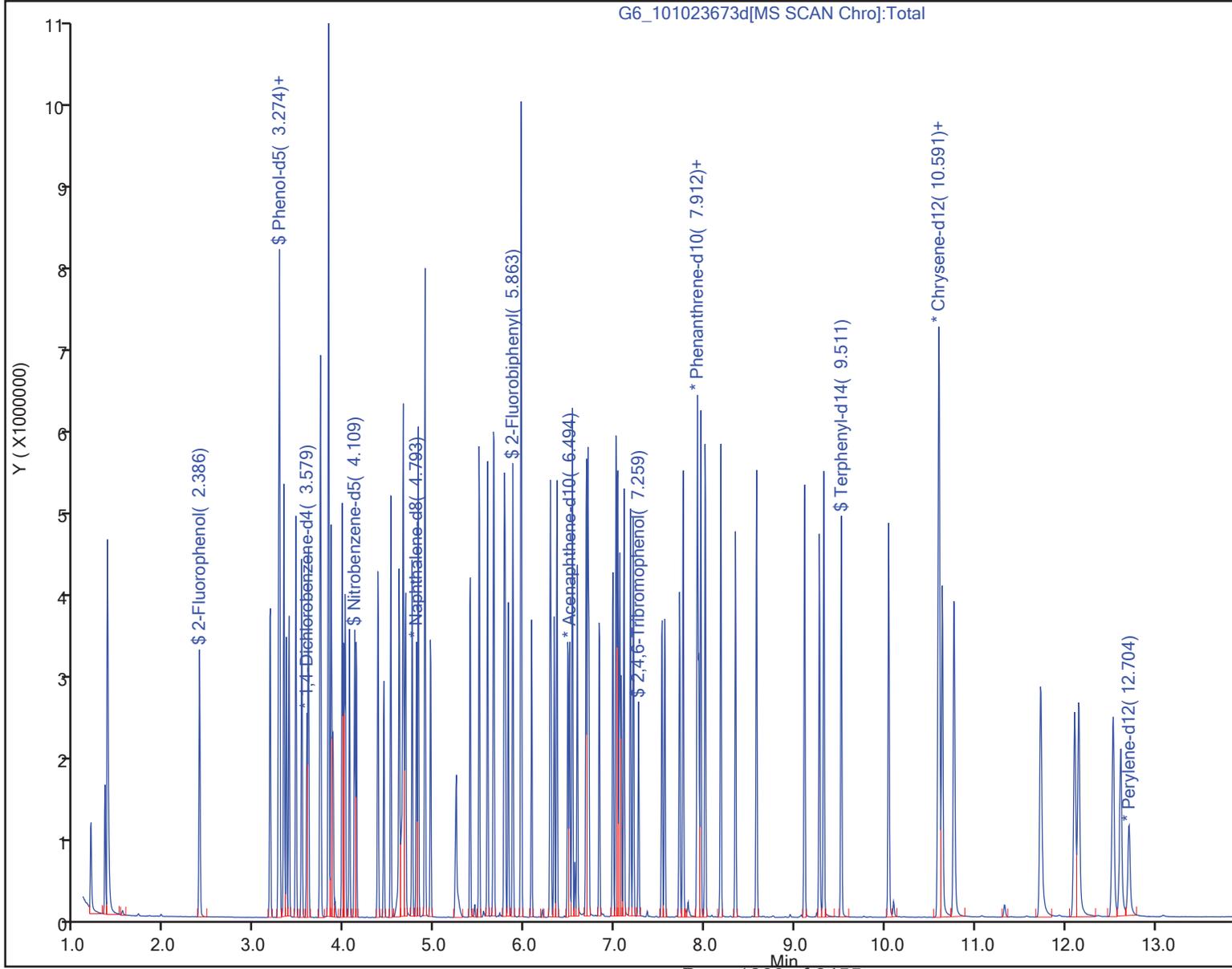
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593336/32 Calibration Date: 11/15/2022 01:49
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023702.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.5204		86000	80000	7.5	50.0
N-Nitrosodimethylamine	Ave	0.7662	0.8058		84100	80000	5.2	50.0
Pyridine	Ave	1.216	1.215		160000	160000	-0.0	50.0
Aniline	Ave	2.076	1.983		76400	80000	-4.5	50.0
Phenol	Ave	1.773	1.744	0.8000	78700	80000	-1.7	50.0
Bis(2-chloroethyl)ether	Ave	1.316	1.345	0.7000	81700	80000	2.2	50.0
2-Chlorophenol	Ave	1.378	1.325	0.8000	77000	80000	-3.8	50.0
1,3-Dichlorobenzene	Ave	1.488	1.336		71800	80000	-10.2	50.0
1,4-Dichlorobenzene	Ave	1.504	1.349		71800	80000	-10.3	50.0
Benzyl alcohol	Ave	0.9396	0.8606		73300	80000	-8.4	50.0
1,2-Dichlorobenzene	Ave	1.419	1.232		69500	80000	-13.1	50.0
2-Methylphenol	Ave	1.246	1.178	0.7000	75600	80000	-5.5	50.0
2,2'-oxybis[1-chloropropane]	Ave	1.445	1.709	0.0100	94600	80000	18.3	50.0
Acetophenone	Ave	1.831	1.756	0.0100	76700	80000	-4.1	50.0
N-Nitrosodi-n-propylamine	Ave	0.8902	0.9721	0.5000	87400	80000	9.2	50.0
3 & 4 Methylphenol	Ave	1.334	1.259		75500	80000	-5.6	50.0
Hexachloroethane	Ave	0.6120	0.5906	0.3000	77200	80000	-3.5	50.0
Nitrobenzene	Ave	0.3533	0.3545	0.2000	80300	80000	0.3	50.0
Isophorone	Ave	0.6768	0.6668	0.4000	78800	80000	-1.5	50.0
2-Nitrophenol	Ave	0.1962	0.1839	0.1000	75000	80000	-6.2	50.0
2,4-Dimethylphenol	Ave	0.3492	0.3277	0.2000	75100	80000	-6.1	50.0
Bis(2-chloroethoxy)methane	Ave	0.4333	0.4176	0.3000	77100	80000	-3.6	50.0
2,4-Dichlorophenol	Ave	0.2986	0.2543	0.2000	68100	80000	-14.9	50.0
Benzoic acid	Lin2		0.2801		161000	160000	0.6	50.0
1,2,4-Trichlorobenzene	Ave	0.3143	0.2636		67100	80000	-16.1	50.0
Naphthalene	Ave	0.9887	0.8889	0.7000	71900	80000	-10.1	50.0
4-Chloroaniline	Ave	0.4442	0.3976	0.0100	71600	80000	-10.5	50.0
2,6-Dichlorophenol	Ave	0.2924	0.2468		67500	80000	-15.6	50.0
Hexachlorobutadiene	Ave	0.1598	0.1336	0.0100	66900	80000	-16.4	50.0
4-Chloro-3-methylphenol	Ave	0.3122	0.2876	0.2000	73700	80000	-7.9	50.0
2-Methylnaphthalene	Ave	0.6692	0.5824	0.4000	69600	80000	-13.0	50.0
1-Methylnaphthalene	Ave	0.6322	0.5480		69300	80000	-13.3	50.0
Hexachlorocyclopentadiene	Ave	0.3431	0.2122	0.0500	49500	80000	-38.2	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2920	0.2297	0.0100	62900	80000	-21.4	50.0
2,4,6-Trichlorophenol	Ave	0.3593	0.3251	0.2000	72400	80000	-9.5	50.0
2,4,5-Trichlorophenol	Ave	0.4000	0.3514	0.2000	70300	80000	-12.2	50.0
1,1'-Biphenyl	Ave	1.321	1.222	0.0100	74000	80000	-7.4	50.0
2-Chloronaphthalene	Ave	1.067	0.9821	0.8000	73600	80000	-7.9	50.0
2-Nitroaniline	Ave	0.3331	0.3810	0.0100	91500	80000	14.4	50.0
Dimethyl phthalate	Ave	1.169	1.115	0.0100	76300	80000	-4.6	50.0
1,3-Dinitrobenzene	Ave	0.2046	0.2004		78400	80000	-2.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593336/32 Calibration Date: 11/15/2022 01:49
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023702.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2886	0.2759	0.2000	76500	80000	-4.4	50.0
Acenaphthylene	Ave	1.679	1.584	0.9000	75400	80000	-5.7	50.0
3-Nitroaniline	Ave	0.3754	0.3582	0.0100	76300	80000	-4.6	50.0
Acenaphthene	Ave	1.042	0.9900	0.9000	76000	80000	-5.0	50.0
2,4-Dinitrophenol	Lin1		0.1419	0.0100	128000	160000	-19.9	50.0
4-Nitrophenol	Ave	0.1815	0.1946	0.0100	172000	160000	7.2	50.0
Dibenzofuran	Ave	1.490	1.367	0.8000	73400	80000	-8.2	50.0
2,4-Dinitrotoluene	Ave	0.3601	0.3560	0.2000	79100	80000	-1.2	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.3192	0.2742	0.0100	68700	80000	-14.1	50.0
Diethyl phthalate	Ave	1.225	1.177	0.0100	76900	80000	-3.9	50.0
Fluorene	Ave	1.230	1.102	0.9000	71700	80000	-10.4	50.0
4-Chlorophenyl phenyl ether	Ave	0.5428	0.4685	0.4000	69100	80000	-13.7	50.0
4-Nitroaniline	Ave	0.3734	0.3479	0.0100	74500	80000	-6.8	50.0
4,6-Dinitro-2-methylphenol	Lin2		0.1216	0.0100	149000	160000	-6.9	50.0
Diphenylamine	Ave	1.056	0.9705		62500	68000	-8.1	50.0
N-Nitrosodiphenylamine	Ave	0.5576	0.5418	0.0100	77700	80000	-2.8	50.0
1,2-Diphenylhydrazine	Ave	1.226	1.306		86100	80900	6.5	50.0
Azobenzene	Ave	1.240	1.320		85200	80000	6.5	50.0
4-Bromophenyl phenyl ether	Ave	0.2199	0.1823	0.1000	66300	80000	-17.1	50.0
Hexachlorobenzene	Ave	0.2569	0.1994	0.1000	62100	80000	-22.4	50.0
Pentachlorophenol	Ave	0.1555	0.1344	0.0500	138000	160000	-13.6	50.0
Phenanthrene	Ave	1.104	0.9852	0.7000	71400	80000	-10.8	50.0
Anthracene	Ave	1.132	1.013	0.7000	71600	80000	-10.6	50.0
Carbazole	Ave	1.126	1.013	0.0100	72000	80000	-10.0	50.0
Alachlor	Ave	0.1521	0.1433		75300	80000	-5.8	50.0
Di-n-butyl phthalate	Ave	1.333	1.317	0.0100	79000	80000	-1.2	50.0
Fluoranthene	Ave	1.149	0.9885	0.6000	68900	80000	-13.9	50.0
Pyrene	Ave	1.355	1.561	0.6000	92200	80000	15.2	50.0
Butyl benzyl phthalate	Ave	0.6831	0.8425	0.0100	98700	80000	23.3	50.0
Benzo[a]anthracene	Ave	1.203	1.173	0.8000	78000	80000	-2.4	50.0
Chrysene	Ave	1.127	1.086	0.7000	77100	80000	-3.7	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.9300	1.099	0.0100	94500	80000	18.2	50.0
Di-n-octyl phthalate	Ave	1.685	2.013	0.0100	95600	80000	19.5	50.0
Benzo[b]fluoranthene	Ave	1.224	1.124	0.7000	73500	80000	-8.1	50.0
Benzo[k]fluoranthene	Ave	1.269	1.194	0.7000	75200	80000	-6.0	50.0
Benzo[a]pyrene	Ave	1.109	1.034	0.7000	74500	80000	-6.8	50.0
Indeno[1,2,3-cd]pyrene	Ave	1.161	0.8642	0.5000	59500	80000	-25.6	50.0
Dibenz(a,h)anthracene	Ave	1.144	0.9281	0.4000	64900	80000	-18.9	50.0
Benzo[g,h,i]perylene	Ave	1.215	1.000	0.5000	65800	80000	-17.7	50.0
2-Fluorophenol (Surr)	Ave	1.320	1.334		80900	80000	1.1	50.0
Phenol-d5 (Surr)	Ave	1.681	1.647		78400	80000	-2.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593336/32 Calibration Date: 11/15/2022 01:49
 Instrument ID: SMS_G6 Calib Start Date: 10/14/2022 17:09
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/14/2022 19:33
 Lab File ID: G6_101023702.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3716	0.3729		80300	80000	0.4	50.0
2-Fluorobiphenyl	Ave	1.183	1.113		75300	80000	-5.9	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.2336	0.1607		55000	80000	-31.2	50.0
Terphenyl-d14 (Surr)	Ave	1.028	1.097		85300	80000	6.7	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023702.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 15-Nov-2022 01:49:30 ALS Bottle#: 2 Worklist Smp#: 32
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 14:52:45 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:41:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	391720	40.0	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	100	1495593	40.0	40.0	
* 3 Acenaphthene-d10	164	6.494	6.494	0.000	91	802030	40.0	40.0	
* 4 Phenanthrene-d10	188	7.928	7.928	0.000	97	1221169	40.0	40.0	
* 5 Chrysene-d12	240	10.597	10.597	0.000	98	789786	40.0	40.0	
* 6 Perylene-d12	264	12.699	12.704	-0.005	96	741431	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.386	2.386	0.000	93	1045417	80.0	80.9	
\$ 8 Phenol-d5	99	3.264	3.264	0.000	96	1290351	80.0	78.4	
\$ 9 Nitrobenzene-d5	82	4.109	4.109	0.000	90	1115513	80.0	80.3	
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	1785945	80.0	75.3	
\$ 12 2,4,6-Tribromophenol	330	7.264	7.259	0.005	91	257725	80.0	55.0	
\$ 13 Terphenyl-d14	244	9.511	9.511	0.000	97	1732923	80.0	85.3	
20 1,4-Dioxane	88	1.183	1.183	0.000	96	407677	80.0	86.0	
21 N-Nitrosodimethylamine	74	1.338	1.338	0.000	95	631268	80.0	84.1	
22 Pyridine	79	1.365	1.365	0.000	96	1904063	160.0	159.9	
34 Phenol	94	3.280	3.274	0.006	97	1366382	80.0	78.7	
35 Aniline	93	3.274	3.274	0.000	94	1553756	80.0	76.4	
36 Alpha Methyl Styrene	118	3.322	3.322	0.000	93	1058677	80.0	79.6	
37 Bis(2-chloroethyl)ether	93	3.355	3.349	0.006	96	1053734	80.0	81.7	
39 n-Decane	43	3.456	3.456	0.000	90	982193	80.0	105.2	
41 2-Chlorophenol	128	3.381	3.381	0.000	97	1038410	80.0	77.0	
42 1,3-Dichlorobenzene	146	3.520	3.520	0.000	97	1046448	80.0	71.8	
43 1,4-Dichlorobenzene	146	3.595	3.595	0.000	93	1057089	80.0	71.8	
44 Benzyl alcohol	108	3.729	3.724	0.005	92	674222	80.0	73.3	
45 1,2-Dichlorobenzene	146	3.734	3.734	0.000	95	965526	80.0	69.5	
46 2-Methylphenol	108	3.852	3.847	0.005	93	922997	80.0	75.6	
47 2,2'-oxybis[1-chloropropane]	45	3.868	3.868	0.000	95	1338829	80.0	94.6	
48 Indene	116	3.820	3.820	0.000	91	3235037	160.0	146.6	
49 3 & 4 Methylphenol	108	4.007	4.002	0.005	79	986621	80.0	75.5	
50 3-Methylphenol	108	4.007	4.002	0.005	93	986621	80.0	75.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	3.991	3.986	0.005	87	761592	80.0	87.4	
52 4-Methylphenol	108	4.007	4.002	0.005	91	986621	80.0	75.5	
55 Acetophenone	105	3.975	3.970	0.005	99	1375360	80.0	76.7	
58 Hexachloroethane	117	4.050	4.050	0.000	95	462693	80.0	77.2	
60 Nitrobenzene	77	4.130	4.125	0.005	87	1060468	80.0	80.3	
63 Isophorone	82	4.371	4.365	0.006	99	1994589	80.0	78.8	
65 2-Nitrophenol	139	4.435	4.435	0.000	95	550109	80.0	75.0	
66 2,4-Dimethylphenol	107	4.510	4.510	0.000	96	980334	80.0	75.1	
69 Bis(2-chloroethoxy)methane	93	4.606	4.601	0.005	99	1249181	80.0	77.1	
70 Benzoic acid	105	4.676	4.665	0.011	88	1675750	160.0	161.0	
71 3,5-Dimethylphenol	107	4.649	4.649	0.000	88	991507	80.0	72.2	
75 2,4-Dichlorophenol	162	4.676	4.676	0.000	97	760512	80.0	68.1	
77 1,2,4-Trichlorobenzene	180	4.751	4.745	0.006	94	788405	80.0	67.1	
79 Naphthalene	128	4.815	4.815	0.000	97	2658730	80.0	71.9	
80 4-Chloroaniline	127	4.890	4.890	0.000	96	1189182	80.0	71.6	
81 2,6-Dichlorophenol	162	4.895	4.890	0.005	96	738168	80.0	67.5	
83 Hexachlorobutadiene	225	4.954	4.954	0.000	98	399633	80.0	66.9	
87 Caprolactam	55	5.248	5.237	0.011	80	483940	80.0	81.6	
90 4-Chloro-3-methylphenol	107	5.392	5.392	0.000	96	860155	80.0	73.7	
94 2-Methylnaphthalene	142	5.494	5.489	0.005	94	1742081	80.0	69.6	
96 1-Methylnaphthalene	142	5.585	5.585	0.000	94	1639047	80.0	69.3	
97 Hexachlorocyclopentadiene	237	5.649	5.649	0.000	97	340310	80.0	49.5	
98 1,2,4,5-Tetrachlorobenzene	216	5.654	5.654	0.000	97	687060	80.0	62.9	
101 2,4,6-Trichlorophenol	196	5.778	5.778	0.000	94	521475	80.0	72.4	
102 2,3-Dichlorobenzenamine	161	5.772	5.767	0.005	97	941276	80.0	73.5	
103 2,4,5-Trichlorophenol	196	5.815	5.815	0.000	92	563593	80.0	70.3	
105 1,1'-Biphenyl	154	5.954	5.954	0.000	96	1960807	80.0	74.0	
107 2-Chloronaphthalene	162	5.959	5.959	0.000	98	1575381	80.0	73.6	
109 2-Nitroaniline	65	6.072	6.072	0.000	85	611169	80.0	91.5	
112 Dimethyl phthalate	163	6.280	6.280	0.000	98	1788547	80.0	76.3	
113 1,3-Dinitrobenzene	168	6.291	6.291	0.000	86	321409	80.0	78.4	
114 2,6-Dinitrotoluene	165	6.328	6.323	0.005	96	442516	80.0	76.5	
115 Acenaphthylene	152	6.355	6.355	0.000	98	2540127	80.0	75.4	
116 3-Nitroaniline	138	6.478	6.478	0.000	94	574528	80.0	76.3	
117 Acenaphthene	153	6.526	6.526	0.000	93	1587985	80.0	76.0	
118 2,4-Dinitrophenol	184	6.585	6.580	0.005	87	455072	160.0	128.1	
120 4-Nitrophenol	109	6.681	6.681	0.000	95	624327	160.0	171.5	
122 2,4-Dinitrotoluene	165	6.708	6.708	0.000	91	571044	80.0	79.1	
123 Dibenzofuran	168	6.697	6.697	0.000	97	2192867	80.0	73.4	
127 2,3,4,6-Tetrachlorophenol	232	6.826	6.826	0.000	76	439757	80.0	68.7	
128 Hexadecane	57	7.008	7.008	0.000	91	1393009	80.0	93.4	
130 Diethyl phthalate	149	6.976	6.976	0.000	98	1888279	80.0	76.9	
135 4-Chlorophenyl phenyl ether	204	7.050	7.050	0.000	97	751560	80.0	69.1	
136 Fluorene	166	7.029	7.029	0.000	95	1767925	80.0	71.7	
139 4-Nitroaniline	138	7.072	7.067	0.005	86	558037	80.0	74.5	
140 4,6-Dinitro-2-methylphenol	198	7.099	7.099	0.000	77	593950	160.0	148.9	
142 Diphenylamine	169	7.168	7.168	0.000	96	1323178	68.0	62.5	
143 N-Nitrosodiphenylamine	169	7.168	7.168	0.000	99	1323178	80.0	77.7	
144 Azobenzene	77	7.200	7.200	0.000	98	2117592	80.0	85.2	
145 1,2-Diphenylhydrazine	77	7.200	7.200	0.000	99	2117592	80.9	86.1	
157 4-Bromophenyl phenyl ether	248	7.521	7.521	0.000	69	445179	80.0	66.3	
158 Hexachlorobenzene	284	7.553	7.553	0.000	93	487117	80.0	62.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.719	7.714	0.005	88	444891	80.0	79.8	
162 n-Octadecane	85	7.912	7.912	0.000	95	623071	80.0	92.2	
164 Pentachlorophenol	266	7.757	7.756	0.000	97	656626	160.0	138.3	
169 Phenanthrene	178	7.954	7.949	0.005	98	2406171	80.0	71.4	
170 Anthracene	178	8.003	7.997	0.006	97	2472884	80.0	71.6	
171 Carbazole	167	8.174	8.174	0.000	96	2474485	80.0	72.0	
172 Alachlor	188	8.340	8.334	0.006	98	349977	80.0	75.3	
175 Di-n-butyl phthalate	149	8.570	8.569	0.001	100	3215516	80.0	79.0	
182 Fluoranthene	202	9.104	9.104	0.000	98	2414268	80.0	68.9	
185 Pyrene	202	9.318	9.318	0.000	98	2466357	80.0	92.2	
193 Butyl benzyl phthalate	149	10.035	10.035	0.000	98	1330721	80.0	98.7	
197 3,3'-Dichlorobenzidine	252	10.597	10.597	0.000	76	722861	80.0	76.6	
198 Benzo[a]anthracene	228	10.586	10.586	0.000	99	1853564	80.0	78.0	
199 Bis(2-ethylhexyl) phthalate	149	10.757	10.762	-0.005	98	1735619	80.0	94.5	
200 Chrysene	228	10.629	10.629	0.000	98	1715518	80.0	77.1	
202 Di-n-octyl phthalate	149	11.720	11.720	0.000	99	3180436	80.0	95.6	
204 Benzo[b]fluoranthene	252	12.100	12.100	0.000	98	1667341	80.0	73.5	
205 Benzo[k]fluoranthene	252	12.148	12.148	0.000	98	1769947	80.0	75.2	
208 Benzo[a]pyrene	252	12.608	12.613	-0.005	80	1533071	80.0	74.5	
214 Indeno[1,2,3-cd]pyrene	276	14.533	14.528	0.005	97	1365080	80.0	59.5	
215 Dibenz(a,h)anthracene	278	14.608	14.608	0.000	95	1376243	80.0	64.9	
216 Benzo[g,h,i]perylene	276	14.977	14.977	0.000	96	1483137	80.0	65.8	
S 218 Total Cresols	108				0			151.2	
S 219 Methyl Phenols,Total	108				0			151.2	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023702.D

Injection Date: 15-Nov-2022 01:49:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

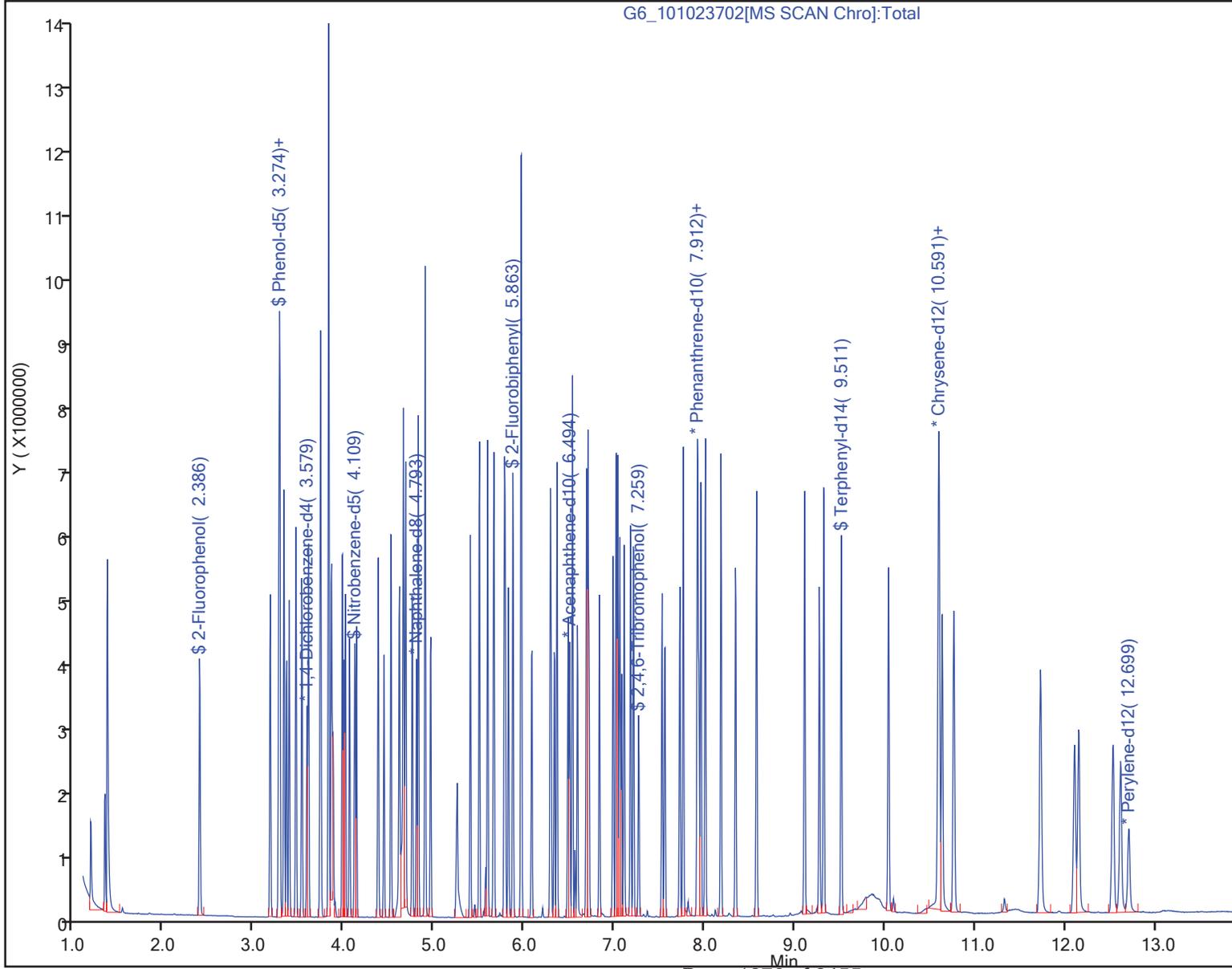
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-593336/32 Calibration Date: 11/15/2022 01:49
 Instrument ID: SMS_G6 Calib Start Date: 10/15/2022 00:27
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 10/15/2022 02:30
 Lab File ID: G6_101023702.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1586	0.1618	0.0100	81600	80000	2.0	50.0
Atrazine	Ave	0.1826	0.1822	0.0100	79800	80000	-0.2	50.0
3,3'-Dichlorobenzidine	Ave	0.4778	0.4576	0.0100	76600	80000	-4.2	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023702.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 15-Nov-2022 01:49:30 ALS Bottle#: 2 Worklist Smp#: 32
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Sublist: chrom-SMSG6_8270C*sub67
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\SMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 14:52:45 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 15-Nov-2022 11:41:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.579	3.579	0.000	96	391720	40.0	40.0	
* 2 Naphthalene-d8	136	4.793	4.793	0.000	100	1495593	40.0	40.0	
* 3 Acenaphthene-d10	164	6.494	6.494	0.000	91	802030	40.0	40.0	
* 4 Phenanthrene-d10	188	7.928	7.928	0.000	97	1221169	40.0	40.0	
* 5 Chrysene-d12	240	10.597	10.597	0.000	98	789786	40.0	40.0	
* 6 Perylene-d12	264	12.699	12.704	-0.005	96	741431	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.386	2.386	0.000	93	1045417	80.0	80.9	
\$ 8 Phenol-d5	99	3.264	3.264	0.000	96	1290351	80.0	78.4	
\$ 9 Nitrobenzene-d5	82	4.109	4.109	0.000	90	1115513	80.0	80.3	
\$ 11 2-Fluorobiphenyl	172	5.863	5.863	0.000	99	1785945	80.0	75.3	
\$ 12 2,4,6-Tribromophenol	330	7.264	7.259	0.005	91	257725	80.0	55.0	
\$ 13 Terphenyl-d14	244	9.511	9.511	0.000	97	1732923	80.0	85.3	
20 1,4-Dioxane	88	1.183	1.183	0.000	96	407677	80.0	86.0	
21 N-Nitrosodimethylamine	74	1.338	1.338	0.000	95	631268	80.0	84.1	
22 Pyridine	79	1.365	1.365	0.000	96	1904063	160.0	159.9	
34 Phenol	94	3.280	3.274	0.006	97	1366382	80.0	78.7	
35 Aniline	93	3.274	3.274	0.000	94	1553756	80.0	76.4	
36 Alpha Methyl Styrene	118	3.322	3.322	0.000	93	1058677	80.0	79.6	
37 Bis(2-chloroethyl)ether	93	3.355	3.349	0.006	96	1053734	80.0	81.7	
39 n-Decane	43	3.456	3.456	0.000	90	982193	80.0	105.2	
41 2-Chlorophenol	128	3.381	3.381	0.000	97	1038410	80.0	77.0	
42 1,3-Dichlorobenzene	146	3.520	3.520	0.000	97	1046448	80.0	71.8	
43 1,4-Dichlorobenzene	146	3.595	3.595	0.000	93	1057089	80.0	71.8	
44 Benzyl alcohol	108	3.729	3.724	0.005	92	674222	80.0	73.3	
45 1,2-Dichlorobenzene	146	3.734	3.734	0.000	95	965526	80.0	69.5	
46 2-Methylphenol	108	3.852	3.847	0.005	93	922997	80.0	75.6	
47 2,2'-oxybis[1-chloropropane]	45	3.868	3.868	0.000	95	1338829	80.0	94.6	
48 Indene	116	3.820	3.820	0.000	91	3235037	160.0	146.6	
49 3 & 4 Methylphenol	108	4.007	4.002	0.005	79	986621	80.0	75.5	
50 3-Methylphenol	108	4.007	4.002	0.005	93	986621	80.0	75.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	3.991	3.986	0.005	87	761592	80.0	87.4	
52 4-Methylphenol	108	4.007	4.002	0.005	91	986621	80.0	75.5	
55 Acetophenone	105	3.975	3.970	0.005	99	1375360	80.0	76.7	
58 Hexachloroethane	117	4.050	4.050	0.000	95	462693	80.0	77.2	
60 Nitrobenzene	77	4.130	4.125	0.005	87	1060468	80.0	80.3	
63 Isophorone	82	4.371	4.365	0.006	99	1994589	80.0	78.8	
65 2-Nitrophenol	139	4.435	4.435	0.000	95	550109	80.0	75.0	
66 2,4-Dimethylphenol	107	4.510	4.510	0.000	96	980334	80.0	75.1	
69 Bis(2-chloroethoxy)methane	93	4.606	4.601	0.005	99	1249181	80.0	77.1	
70 Benzoic acid	105	4.676	4.665	0.011	88	1675750	160.0	161.0	
71 3,5-Dimethylphenol	107	4.649	4.649	0.000	88	991507	80.0	72.2	
75 2,4-Dichlorophenol	162	4.676	4.676	0.000	97	760512	80.0	68.1	
77 1,2,4-Trichlorobenzene	180	4.751	4.745	0.006	94	788405	80.0	67.1	
79 Naphthalene	128	4.815	4.815	0.000	97	2658730	80.0	71.9	
80 4-Chloroaniline	127	4.890	4.890	0.000	96	1189182	80.0	71.6	
81 2,6-Dichlorophenol	162	4.895	4.890	0.005	96	738168	80.0	67.5	
83 Hexachlorobutadiene	225	4.954	4.954	0.000	98	399633	80.0	66.9	
87 Caprolactam	55	5.248	5.237	0.011	80	483940	80.0	81.6	
90 4-Chloro-3-methylphenol	107	5.392	5.392	0.000	96	860155	80.0	73.7	
94 2-Methylnaphthalene	142	5.494	5.489	0.005	94	1742081	80.0	69.6	
96 1-Methylnaphthalene	142	5.585	5.585	0.000	94	1639047	80.0	69.3	
97 Hexachlorocyclopentadiene	237	5.649	5.649	0.000	97	340310	80.0	49.5	
98 1,2,4,5-Tetrachlorobenzene	216	5.654	5.654	0.000	97	687060	80.0	62.9	
101 2,4,6-Trichlorophenol	196	5.778	5.778	0.000	94	521475	80.0	72.4	
102 2,3-Dichlorobenzenamine	161	5.772	5.767	0.005	97	941276	80.0	73.5	
103 2,4,5-Trichlorophenol	196	5.815	5.815	0.000	92	563593	80.0	70.3	
105 1,1'-Biphenyl	154	5.954	5.954	0.000	96	1960807	80.0	74.0	
107 2-Chloronaphthalene	162	5.959	5.959	0.000	98	1575381	80.0	73.6	
109 2-Nitroaniline	65	6.072	6.072	0.000	85	611169	80.0	91.5	
112 Dimethyl phthalate	163	6.280	6.280	0.000	98	1788547	80.0	76.3	
113 1,3-Dinitrobenzene	168	6.291	6.291	0.000	86	321409	80.0	78.4	
114 2,6-Dinitrotoluene	165	6.328	6.323	0.005	96	442516	80.0	76.5	
115 Acenaphthylene	152	6.355	6.355	0.000	98	2540127	80.0	75.4	
116 3-Nitroaniline	138	6.478	6.478	0.000	94	574528	80.0	76.3	
117 Acenaphthene	153	6.526	6.526	0.000	93	1587985	80.0	76.0	
118 2,4-Dinitrophenol	184	6.585	6.580	0.005	87	455072	160.0	128.1	
120 4-Nitrophenol	109	6.681	6.681	0.000	95	624327	160.0	171.5	
122 2,4-Dinitrotoluene	165	6.708	6.708	0.000	91	571044	80.0	79.1	
123 Dibenzofuran	168	6.697	6.697	0.000	97	2192867	80.0	73.4	
127 2,3,4,6-Tetrachlorophenol	232	6.826	6.826	0.000	76	439757	80.0	68.7	
128 Hexadecane	57	7.008	7.008	0.000	91	1393009	80.0	93.4	
130 Diethyl phthalate	149	6.976	6.976	0.000	98	1888279	80.0	76.9	
135 4-Chlorophenyl phenyl ether	204	7.050	7.050	0.000	97	751560	80.0	69.1	
136 Fluorene	166	7.029	7.029	0.000	95	1767925	80.0	71.7	
139 4-Nitroaniline	138	7.072	7.067	0.005	86	558037	80.0	74.5	
140 4,6-Dinitro-2-methylphenol	198	7.099	7.099	0.000	77	593950	160.0	148.9	
142 Diphenylamine	169	7.168	7.168	0.000	96	1323178	68.0	62.5	
143 N-Nitrosodiphenylamine	169	7.168	7.168	0.000	99	1323178	80.0	77.7	
144 Azobenzene	77	7.200	7.200	0.000	98	2117592	80.0	85.2	
145 1,2-Diphenylhydrazine	77	7.200	7.200	0.000	99	2117592	80.9	86.1	
157 4-Bromophenyl phenyl ether	248	7.521	7.521	0.000	69	445179	80.0	66.3	
158 Hexachlorobenzene	284	7.553	7.553	0.000	93	487117	80.0	62.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
160 Atrazine	200	7.719	7.714	0.005	88	444891	80.0	79.8	
162 n-Octadecane	85	7.912	7.912	0.000	95	623071	80.0	92.2	
164 Pentachlorophenol	266	7.757	7.756	0.000	97	656626	160.0	138.3	
169 Phenanthrene	178	7.954	7.949	0.005	98	2406171	80.0	71.4	
170 Anthracene	178	8.003	7.997	0.006	97	2472884	80.0	71.6	
171 Carbazole	167	8.174	8.174	0.000	96	2474485	80.0	72.0	
172 Alachlor	188	8.340	8.334	0.006	98	349977	80.0	75.3	
175 Di-n-butyl phthalate	149	8.570	8.569	0.001	100	3215516	80.0	79.0	
182 Fluoranthene	202	9.104	9.104	0.000	98	2414268	80.0	68.9	
185 Pyrene	202	9.318	9.318	0.000	98	2466357	80.0	92.2	
193 Butyl benzyl phthalate	149	10.035	10.035	0.000	98	1330721	80.0	98.7	
197 3,3'-Dichlorobenzidine	252	10.597	10.597	0.000	76	722861	80.0	76.6	
198 Benzo[a]anthracene	228	10.586	10.586	0.000	99	1853564	80.0	78.0	
199 Bis(2-ethylhexyl) phthalate	149	10.757	10.762	-0.005	98	1735619	80.0	94.5	
200 Chrysene	228	10.629	10.629	0.000	98	1715518	80.0	77.1	
202 Di-n-octyl phthalate	149	11.720	11.720	0.000	99	3180436	80.0	95.6	
204 Benzo[b]fluoranthene	252	12.100	12.100	0.000	98	1667341	80.0	73.5	
205 Benzo[k]fluoranthene	252	12.148	12.148	0.000	98	1769947	80.0	75.2	
208 Benzo[a]pyrene	252	12.608	12.613	-0.005	80	1533071	80.0	74.5	
214 Indeno[1,2,3-cd]pyrene	276	14.533	14.528	0.005	97	1365080	80.0	59.5	
215 Dibenz(a,h)anthracene	278	14.608	14.608	0.000	95	1376243	80.0	64.9	
216 Benzo[g,h,i]perylene	276	14.977	14.977	0.000	96	1483137	80.0	65.8	
S 218 Total Cresols	108				0			151.2	
S 219 Methyl Phenols, Total	108				0			151.2	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00003

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023702.D

Injection Date: 15-Nov-2022 01:49:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

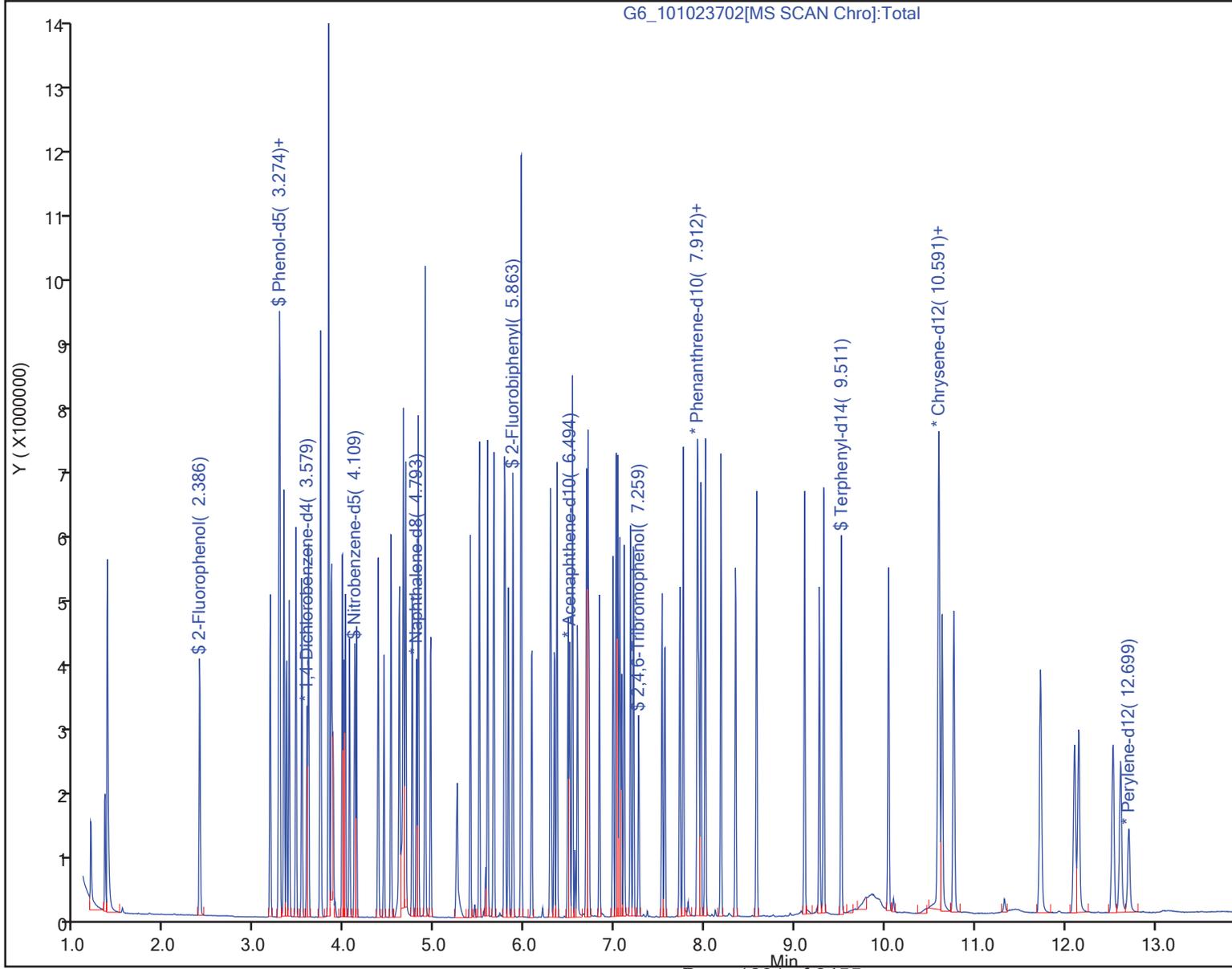
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-593534/40 Calibration Date: 11/15/2022 17:22
 Instrument ID: SMS_Y Calib Start Date: 11/02/2022 20:34
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/02/2022 23:07
 Lab File ID: Y19305990.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzaldehyde	Ave	1.155	0.9295	0.0100	78900	100000	-19.5	20.0
Benzidine	Ave	0.6610	0.6332		96600	100000	-4.2	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 15-Nov-2022 17:22:30 ALS Bottle#: 15 Worklist Smp#: 40
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: ICV 1&2 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist:
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:27 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 16-Nov-2022 13:02:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.816	3.815	0.001	96	102875	40.0	40.0	
* 2 Naphthalene-d8	136	5.034	5.033	0.001	99	422051	40.0	40.0	
* 3 Acenaphthene-d10	164	6.743	6.743	0.000	92	244307	40.0	40.0	
* 4 Phenanthrene-d10	188	8.185	8.185	0.000	97	425511	40.0	40.0	
* 5 Chrysene-d12	240	11.236	11.235	0.001	98	406634	40.0	40.0	
* 6 Perylene-d12	264	14.174	14.174	0.000	97	424820	40.0	40.0	
15 1,4-Dioxane	88	1.406	1.406	0.000	90	132622	100.0	93.8	
17 N-Nitrosodimethylamine	74	1.583	1.582	0.001	87	220516	100.0	89.0	
18 Pyridine	79	1.615	1.614	0.001	96	697888	200.0	179.2	
27 Benzaldehyde	106	3.404	3.430	-0.026	97	239062	100.0	78.9	
28 Phenol	94	3.506	3.505	0.001	87	482424	100.0	88.2	
30 Aniline	93	3.506	3.511	-0.005	80	569571	100.0	88.1	
31 Bis(2-chloroethyl)ether	93	3.581	3.580	0.001	98	352305	100.0	88.1	
34 2-Chlorophenol	128	3.623	3.623	0.000	96	336990	100.0	91.0	
35 n-Decane	43	3.693	3.692	0.001	85	252847	100.0	86.5	
37 1,3-Dichlorobenzene	146	3.762	3.762	0.000	97	346962	100.0	90.0	
38 1,4-Dichlorobenzene	146	3.832	3.831	0.001	93	351831	100.0	89.5	
39 Benzyl alcohol	108	3.960	3.959	0.001	93	242759	100.0	88.9	
40 1,2-Dichlorobenzene	146	3.976	3.975	0.001	97	337650	100.0	90.3	
41 2-Methylphenol	108	4.077	4.077	0.000	94	330760	100.0	89.7	
43 2,2'-oxybis[1-chloropropane]	45	4.099	4.098	0.001	95	381036	100.0	86.3	
44 Indene	116	4.061	4.061	0.000	88	1125266	200.0	172.0	
46 3-Methylphenol	108	4.232	4.232	0.000	91	355769	100.0	90.1	
47 4-Methylphenol	108	4.232	4.232	0.000	96	355769	100.0	90.1	
48 3 & 4 Methylphenol	108	4.232	4.232	0.000	99	355769	100.0	90.1	
50 N-Nitrosodi-n-propylamine	70	4.216	4.216	0.000	79	265863	100.0	86.4	
51 Acetophenone	105	4.206	4.205	0.001	98	498341	100.0	88.8	
53 Hexachloroethane	117	4.296	4.296	0.000	97	142114	100.0	90.6	
54 Nitrobenzene	77	4.360	4.360	0.000	84	387371	100.0	87.6	
57 Isophorone	82	4.601	4.600	0.001	98	735653	100.0	88.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
58 2-Nitrophenol	139	4.670	4.670	0.000	92	189688	100.0	95.6	
59 2,4-Dimethylphenol	107	4.740	4.739	0.001	95	363302	100.0	91.2	
63 Bis(2-chloroethoxy)methane	93	4.831	4.830	0.001	97	438079	100.0	88.3	
64 Benzoic acid	105	4.905	4.900	0.005	84	602872	200.0	182.8	
68 2,4-Dichlorophenol	162	4.916	4.916	0.000	95	272408	100.0	92.8	
69 1,2,4-Trichlorobenzene	180	4.986	4.985	0.001	94	281970	100.0	92.4	
71 Naphthalene	128	5.055	5.055	0.000	97	971685	100.0	90.0	
72 4-Chloroaniline	127	5.119	5.119	0.000	96	426054	100.0	90.9	
73 2,6-Dichlorophenol	162	5.130	5.129	0.001	97	265507	100.0	92.6	
75 Hexachlorobutadiene	225	5.194	5.193	0.001	97	149383	100.0	91.7	
79 Caprolactam	55	5.477	5.477	0.000	87	161718	100.0	87.3	M
83 4-Chloro-3-methylphenol	107	5.627	5.626	0.001	96	321721	100.0	90.8	
86 2-Methylnaphthalene	142	5.733	5.733	0.000	93	640436	100.0	89.8	
88 1-Methylnaphthalene	142	5.830	5.829	0.001	94	612423	100.0	90.9	
89 1,2,4,5-Tetrachlorobenzene	216	5.899	5.899	0.000	98	248321	100.0	89.3	
90 Hexachlorocyclopentadiene	237	5.899	5.899	0.000	97	182388	100.0	98.1	
92 2,4,6-Trichlorophenol	196	6.022	6.021	0.001	93	189969	100.0	94.6	
94 2,4,5-Trichlorophenol	196	6.065	6.064	0.001	94	207690	100.0	94.1	
98 1,1'-Biphenyl	154	6.198	6.198	0.000	95	757952	100.0	90.0	
99 2-Chloronaphthalene	162	6.204	6.203	0.001	98	575050	100.0	89.2	
101 2-Nitroaniline	65	6.310	6.310	0.000	85	214873	100.0	90.1	
104 Dimethyl phthalate	163	6.519	6.518	0.001	97	666519	100.0	90.3	
105 1,3-Dinitrobenzene	168	6.524	6.524	0.000	87	125084	100.0	97.3	
106 2,6-Dinitrotoluene	165	6.561	6.561	0.000	96	169011	100.0	94.3	
107 Acenaphthylene	152	6.604	6.604	0.000	99	973750	100.0	91.1	
108 3-Nitroaniline	138	6.716	6.716	0.000	95	213261	100.0	94.7	
109 Acenaphthene	153	6.775	6.775	0.000	94	619601	100.0	90.2	
111 2,4-Dinitrophenol	184	6.823	6.817	0.006	87	204408	200.0	190.0	
112 4-Nitrophenol	109	6.919	6.919	0.000	89	213621	200.0	182.7	
114 2,4-Dinitrotoluene	165	6.951	6.946	0.005	65	215623	100.0	93.6	
116 Dibenzofuran	168	6.946	6.946	0.000	96	831355	100.0	88.9	
119 2,3,4,6-Tetrachlorophenol	232	7.074	7.074	0.000	75	169562	100.0	95.3	
123 Diethyl phthalate	149	7.219	7.218	0.001	98	706272	100.0	91.2	
124 Hexadecane	57	7.256	7.256	0.000	89	451549	100.0	88.3	
127 4-Chlorophenyl phenyl ether	204	7.299	7.298	0.001	95	308550	100.0	90.1	
129 Fluorene	166	7.283	7.282	0.001	95	713098	100.0	89.3	
130 4-Nitroaniline	138	7.315	7.314	0.001	87	219625	100.0	93.7	
131 4,6-Dinitro-2-methylphenol	198	7.347	7.346	0.001	84	255130	200.0	190.8	
134 Diphenylamine	169	7.416	7.416	0.000	95	529455	85.0	77.1	
135 N-Nitrosodiphenylamine	169	7.416	7.416	0.000	99	529455	100.0	91.9	
136 1,2-Diphenylhydrazine	182	7.454	7.453	0.001	98	190702	101.1	91.6	
137 Azobenzene	77	7.454	7.453	0.001	97	833543	100.0	87.8	
148 4-Bromophenyl phenyl ether	248	7.774	7.774	0.000	65	189520	100.0	89.6	
151 Hexachlorobenzene	284	7.812	7.811	0.001	95	215351	100.0	90.5	
152 Atrazine	200	7.961	7.961	0.000	91	182058	100.0	91.3	
155 Pentachlorophenol	266	8.015	8.014	0.000	93	270390	200.0	191.2	
158 n-Octadecane	85	8.159	8.158	0.001	95	239743	100.0	91.2	
161 Phenanthrene	178	8.212	8.212	0.000	98	1021107	100.0	89.6	
162 Anthracene	178	8.260	8.260	0.000	98	1061448	100.0	92.0	
164 Carbazole	167	8.431	8.425	0.006	95	1047834	100.0	91.2	
168 Di-n-butyl phthalate	149	8.816	8.815	0.001	100	1281626	100.0	94.6	
175 Fluoranthene	202	9.371	9.371	0.000	98	1106029	100.0	92.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
176 Benzidine	184	9.526	9.552	-0.026	100	643710	100.0	96.6	
178 Pyrene	202	9.596	9.595	0.001	97	1182468	100.0	94.0	
187 Butyl benzyl phthalate	149	10.472	10.471	0.001	97	606142	100.0	101.3	
189 3,3'-Dichlorobenzidine	252	11.230	11.230	0.000	75	442682	100.0	96.7	
191 Benzo[a]anthracene	228	11.220	11.219	0.001	99	1126770	100.0	95.5	
192 Chrysene	228	11.279	11.278	0.001	98	1140498	100.0	92.0	
193 Bis(2-ethylhexyl) phthalate	149	11.482	11.481	0.001	97	842890	100.0	103.5	
195 Di-n-octyl phthalate	149	12.860	12.859	0.001	99	1419354	100.0	93.0	
196 Benzo[b]fluoranthene	252	13.330	13.330	0.000	98	1136314	100.0	94.9	a
198 Benzo[k]fluoranthene	252	13.399	13.394	0.005	99	1336057	100.0	92.9	a
201 Benzo[a]pyrene	252	14.046	14.045	0.001	78	1094349	100.0	95.1	a
207 Indeno[1,2,3-cd]pyrene	276	16.776	16.775	0.001	98	934890	100.0	92.4	a
208 Dibenz(a,h)anthracene	278	16.898	16.898	0.000	95	1053146	100.0	98.4	
209 Benzo[g,h,i]perylene	276	17.401	17.400	0.001	97	1125679	100.0	100.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLB1&B2_00014

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D

Injection Date: 15-Nov-2022 17:22:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: ICV

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

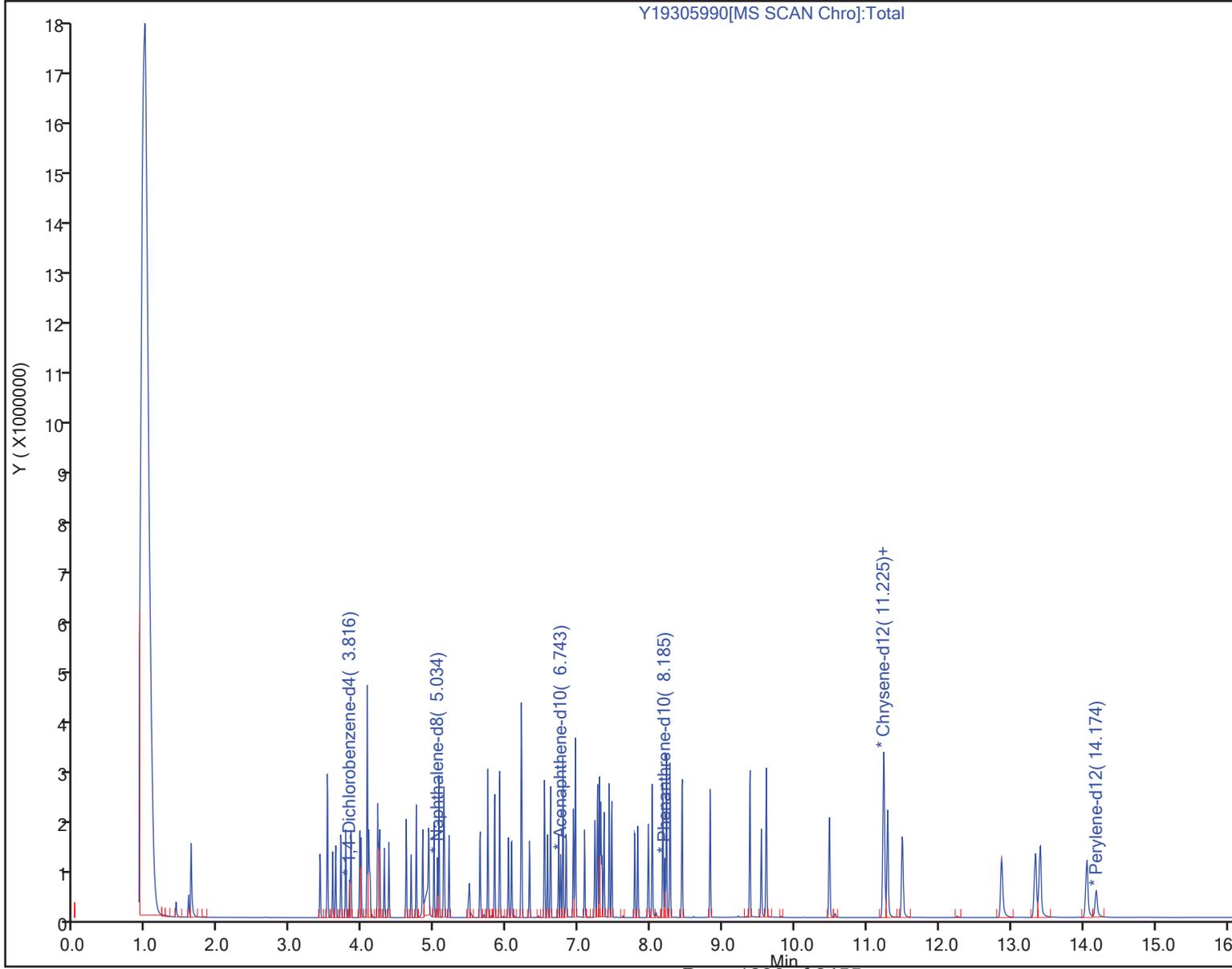
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-593534/40 Calibration Date: 11/15/2022 17:22
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19305990.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.5157		93800	100000	-6.2	20.0
N-Nitrosodimethylamine	Ave	0.9630	0.8574		89000	100000	-11.0	20.0
Pyridine	Ave	1.515	1.357		179000	200000	-10.4	20.0
Aniline	Ave	2.515	2.215		88100	100000	-11.9	20.0
Phenol	Ave	2.127	1.876	0.8000	88200	100000	-11.8	20.0
Bis(2-chloroethyl)ether	Ave	1.555	1.370	0.7000	88100	100000	-11.9	20.0
2-Chlorophenol	Ave	1.440	1.310	0.8000	91000	100000	-9.0	20.0
1,3-Dichlorobenzene	Ave	1.500	1.349		90000	100000	-10.0	20.0
1,4-Dichlorobenzene	Ave	1.528	1.368		89500	100000	-10.5	20.0
Benzyl alcohol	Ave	1.061	0.9439		88900	100000	-11.1	20.0
1,2-Dichlorobenzene	Ave	1.454	1.313		90300	100000	-9.7	20.0
2-Methylphenol	Ave	1.434	1.286	0.7000	89700	100000	-10.3	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.716	1.482	0.0100	86300	100000	-13.7	20.0
Acetophenone	Ave	2.182	1.938	0.0100	88800	100000	-11.2	20.0
N-Nitrosodi-n-propylamine	Ave	1.197	1.034	0.5000	86400	100000	-13.6	20.0
3 & 4 Methylphenol	Ave	1.536	1.383		90100	100000	-9.9	20.0
Hexachloroethane	Ave	0.6098	0.5526	0.3000	90600	100000	-9.4	20.0
Nitrobenzene	Ave	0.4193	0.3671	0.2000	87600	100000	-12.4	20.0
Isophorone	Ave	0.7898	0.6972	0.4000	88300	100000	-11.7	20.0
2-Nitrophenol	Ave	0.1881	0.1798	0.1000	95600	100000	-4.4	20.0
2,4-Dimethylphenol	Ave	0.3776	0.3443	0.2000	91200	100000	-8.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4700	0.4152	0.3000	88300	100000	-11.7	20.0
Benzoic acid	Lin2		0.2857		183000	200000	-8.6	20.0
2,4-Dichlorophenol	Ave	0.2782	0.2582	0.2000	92800	100000	-7.2	20.0
1,2,4-Trichlorobenzene	Ave	0.2892	0.2672		92400	100000	-7.6	20.0
Naphthalene	Ave	1.024	0.9209	0.7000	90000	100000	-10.0	20.0
4-Chloroaniline	Ave	0.4441	0.4038	0.0100	90900	100000	-9.1	20.0
2,6-Dichlorophenol	Ave	0.2718	0.2516		92600	100000	-7.4	20.0
Hexachlorobutadiene	Ave	0.1543	0.1416	0.0100	91700	100000	-8.3	20.0
Caprolactam	Ave	0.7201	0.6288	0.0100	87300	100000	-12.7	20.0
4-Chloro-3-methylphenol	Ave	0.3356	0.3049	0.2000	90800	100000	-9.2	20.0
2-Methylnaphthalene	Ave	0.6759	0.6070	0.4000	89800	100000	-10.2	20.0
1-Methylnaphthalene	Ave	0.6388	0.5804		90900	100000	-9.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2636	0.2353	0.0100	89300	100000	-10.7	20.0
Hexachlorocyclopentadiene	Ave	0.3043	0.2986	0.0500	98100	100000	-1.9	20.0
2,4,6-Trichlorophenol	Ave	0.3287	0.3110	0.2000	94600	100000	-5.4	20.0
2,4,5-Trichlorophenol	Ave	0.3615	0.3400	0.2000	94100	100000	-5.9	20.0
1,1'-Biphenyl	Ave	1.379	1.241	0.0100	90000	100000	-10.0	20.0
2-Chloronaphthalene	Ave	1.055	0.9415	0.8000	89200	100000	-10.8	20.0
2-Nitroaniline	Ave	0.3904	0.3518	0.0100	90100	100000	-9.9	20.0
Dimethyl phthalate	Ave	1.209	1.091	0.0100	90300	100000	-9.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-593534/40 Calibration Date: 11/15/2022 17:22
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19305990.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dinitrobenzene	Ave	0.2105	0.2048		97300	100000	-2.7	20.0
2,6-Dinitrotoluene	Ave	0.2933	0.2767	0.2000	94300	100000	-5.7	20.0
Acenaphthylene	Ave	1.751	1.594	0.9000	91100	100000	-8.9	20.0
3-Nitroaniline	Ave	0.3686	0.3492	0.0100	94700	100000	-5.3	20.0
Acenaphthene	Ave	1.125	1.014	0.9000	90200	100000	-9.8	20.0
2,4-Dinitrophenol	Lin1		0.1673	0.0100	190000	200000	-5.0	20.0
4-Nitrophenol	Lin2		0.1749	0.0100	183000	200000	-8.6	20.0
Dibenzofuran	Ave	1.530	1.361	0.8000	88900	100000	-11.1	20.0
2,4-Dinitrotoluene	Ave	0.3774	0.3530	0.2000	93600	100000	-6.4	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2914	0.2776	0.0100	95300	100000	-4.7	20.0
Diethyl phthalate	Ave	1.269	1.156	0.0100	91200	100000	-8.8	20.0
Fluorene	Ave	1.308	1.168	0.9000	89300	100000	-10.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.5607	0.5052	0.4000	90100	100000	-9.9	20.0
4-Nitroaniline	Ave	0.3838	0.3596	0.0100	93700	100000	-6.3	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1199	0.0100	191000	200000	-4.6	20.0
Diphenylamine	Ave	1.124	1.020		77100	85000	-9.3	20.0
N-Nitrosodiphenylamine	Ave	0.5414	0.4977	0.0100	91900	100000	-8.1	20.0
1,2-Diphenylhydrazine	Ave	0.3409	0.3088		91600	101000	-9.4	20.0
Azobenzene	Ave	1.554	1.365		87800	100000	-12.2	20.0
4-Bromophenyl phenyl ether	Ave	0.1988	0.1782	0.1000	89600	100000	-10.4	20.0
Hexachlorobenzene	Ave	0.2238	0.2024	0.1000	90500	100000	-9.5	20.0
Atrazine	Ave	0.1875	0.1711	0.0100	91300	100000	-8.7	20.0
Pentachlorophenol	Lin2		0.1271	0.0500	191000	200000	-4.4	20.0
Phenanthrene	Ave	1.072	0.9599	0.7000	89600	100000	-10.4	20.0
Anthracene	Ave	1.085	0.998	0.7000	92000	100000	-8.0	20.0
Carbazole	Ave	1.080	0.9850	0.0100	91200	100000	-8.8	20.0
Di-n-butyl phthalate	Ave	1.273	1.205	0.0100	94600	100000	-5.4	20.0
Fluoranthene	Ave	1.123	1.040	0.6000	92600	100000	-7.4	20.0
Pyrene	Ave	1.238	1.163	0.6000	94000	100000	-6.0	20.0
Butyl benzyl phthalate	Ave	0.5888	0.5963	0.0100	101000	100000	1.3	20.0
Benzo[a]anthracene	Ave	1.160	1.108	0.8000	95500	100000	-4.5	20.0
3,3'-Dichlorobenzidine	Ave	0.4504	0.4355	0.0100	96700	100000	-3.3	20.0
Chrysene	Ave	1.220	1.122	0.7000	92000	100000	-8.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8013	0.8291	0.0100	103000	100000	3.5	20.0
Di-n-octyl phthalate	Lin1		1.396	0.0100	93000	100000	-7.0	20.0
Benzo[b]fluoranthene	Lin2		1.070	0.7000	94900	100000	-5.1	20.0
Benzo[k]fluoranthene	Ave	1.354	1.258	0.7000	92900	100000	-7.1	20.0
Benzo[a]pyrene	Ave	1.083	1.030	0.7000	95100	100000	-4.9	20.0
Indeno[1,2,3-cd]pyrene	Lin1		0.9196	0.5000	92400	100000	-7.6	20.0
Dibenz(a,h)anthracene	Lin2		0.9916	0.4000	98400	100000	-1.6	20.0
Benzo[g,h,i]perylene	Ave	1.052	1.060	0.5000	101000	100000	0.8	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 15-Nov-2022 17:22:30 ALS Bottle#: 15 Worklist Smp#: 40
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: ICV 1&2 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist:
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:27 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9

Date: 16-Nov-2022 13:02:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.816	3.815	0.001	96	102875	40.0	40.0	
* 2 Naphthalene-d8	136	5.034	5.033	0.001	99	422051	40.0	40.0	
* 3 Acenaphthene-d10	164	6.743	6.743	0.000	92	244307	40.0	40.0	
* 4 Phenanthrene-d10	188	8.185	8.185	0.000	97	425511	40.0	40.0	
* 5 Chrysene-d12	240	11.236	11.235	0.001	98	406634	40.0	40.0	
* 6 Perylene-d12	264	14.174	14.174	0.000	97	424820	40.0	40.0	
15 1,4-Dioxane	88	1.406	1.406	0.000	90	132622	100.0	93.8	
17 N-Nitrosodimethylamine	74	1.583	1.582	0.001	87	220516	100.0	89.0	
18 Pyridine	79	1.615	1.614	0.001	96	697888	200.0	179.2	
27 Benzaldehyde	106	3.404	3.430	-0.026	97	239062	100.0	78.9	
28 Phenol	94	3.506	3.505	0.001	87	482424	100.0	88.2	
30 Aniline	93	3.506	3.511	-0.005	80	569571	100.0	88.1	
31 Bis(2-chloroethyl)ether	93	3.581	3.580	0.001	98	352305	100.0	88.1	
34 2-Chlorophenol	128	3.623	3.623	0.000	96	336990	100.0	91.0	
35 n-Decane	43	3.693	3.692	0.001	85	252847	100.0	86.5	
37 1,3-Dichlorobenzene	146	3.762	3.762	0.000	97	346962	100.0	90.0	
38 1,4-Dichlorobenzene	146	3.832	3.831	0.001	93	351831	100.0	89.5	
39 Benzyl alcohol	108	3.960	3.959	0.001	93	242759	100.0	88.9	
40 1,2-Dichlorobenzene	146	3.976	3.975	0.001	97	337650	100.0	90.3	
41 2-Methylphenol	108	4.077	4.077	0.000	94	330760	100.0	89.7	
43 2,2'-oxybis[1-chloropropane]	45	4.099	4.098	0.001	95	381036	100.0	86.3	
44 Indene	116	4.061	4.061	0.000	88	1125266	200.0	172.0	
46 3-Methylphenol	108	4.232	4.232	0.000	91	355769	100.0	90.1	
47 4-Methylphenol	108	4.232	4.232	0.000	96	355769	100.0	90.1	
48 3 & 4 Methylphenol	108	4.232	4.232	0.000	99	355769	100.0	90.1	
50 N-Nitrosodi-n-propylamine	70	4.216	4.216	0.000	79	265863	100.0	86.4	
51 Acetophenone	105	4.206	4.205	0.001	98	498341	100.0	88.8	
53 Hexachloroethane	117	4.296	4.296	0.000	97	142114	100.0	90.6	
54 Nitrobenzene	77	4.360	4.360	0.000	84	387371	100.0	87.6	
57 Isophorone	82	4.601	4.600	0.001	98	735653	100.0	88.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
58 2-Nitrophenol	139	4.670	4.670	0.000	92	189688	100.0	95.6	
59 2,4-Dimethylphenol	107	4.740	4.739	0.001	95	363302	100.0	91.2	
63 Bis(2-chloroethoxy)methane	93	4.831	4.830	0.001	97	438079	100.0	88.3	
64 Benzoic acid	105	4.905	4.900	0.005	84	602872	200.0	182.8	
68 2,4-Dichlorophenol	162	4.916	4.916	0.000	95	272408	100.0	92.8	
69 1,2,4-Trichlorobenzene	180	4.986	4.985	0.001	94	281970	100.0	92.4	
71 Naphthalene	128	5.055	5.055	0.000	97	971685	100.0	90.0	
72 4-Chloroaniline	127	5.119	5.119	0.000	96	426054	100.0	90.9	
73 2,6-Dichlorophenol	162	5.130	5.129	0.001	97	265507	100.0	92.6	
75 Hexachlorobutadiene	225	5.194	5.193	0.001	97	149383	100.0	91.7	
79 Caprolactam	55	5.477	5.477	0.000	87	161718	100.0	87.3	M
83 4-Chloro-3-methylphenol	107	5.627	5.626	0.001	96	321721	100.0	90.8	
86 2-Methylnaphthalene	142	5.733	5.733	0.000	93	640436	100.0	89.8	
88 1-Methylnaphthalene	142	5.830	5.829	0.001	94	612423	100.0	90.9	
89 1,2,4,5-Tetrachlorobenzene	216	5.899	5.899	0.000	98	248321	100.0	89.3	
90 Hexachlorocyclopentadiene	237	5.899	5.899	0.000	97	182388	100.0	98.1	
92 2,4,6-Trichlorophenol	196	6.022	6.021	0.001	93	189969	100.0	94.6	
94 2,4,5-Trichlorophenol	196	6.065	6.064	0.001	94	207690	100.0	94.1	
98 1,1'-Biphenyl	154	6.198	6.198	0.000	95	757952	100.0	90.0	
99 2-Chloronaphthalene	162	6.204	6.203	0.001	98	575050	100.0	89.2	
101 2-Nitroaniline	65	6.310	6.310	0.000	85	214873	100.0	90.1	
104 Dimethyl phthalate	163	6.519	6.518	0.001	97	666519	100.0	90.3	
105 1,3-Dinitrobenzene	168	6.524	6.524	0.000	87	125084	100.0	97.3	
106 2,6-Dinitrotoluene	165	6.561	6.561	0.000	96	169011	100.0	94.3	
107 Acenaphthylene	152	6.604	6.604	0.000	99	973750	100.0	91.1	
108 3-Nitroaniline	138	6.716	6.716	0.000	95	213261	100.0	94.7	
109 Acenaphthene	153	6.775	6.775	0.000	94	619601	100.0	90.2	
111 2,4-Dinitrophenol	184	6.823	6.817	0.006	87	204408	200.0	190.0	
112 4-Nitrophenol	109	6.919	6.919	0.000	89	213621	200.0	182.7	
114 2,4-Dinitrotoluene	165	6.951	6.946	0.005	65	215623	100.0	93.6	
116 Dibenzofuran	168	6.946	6.946	0.000	96	831355	100.0	88.9	
119 2,3,4,6-Tetrachlorophenol	232	7.074	7.074	0.000	75	169562	100.0	95.3	
123 Diethyl phthalate	149	7.219	7.218	0.001	98	706272	100.0	91.2	
124 Hexadecane	57	7.256	7.256	0.000	89	451549	100.0	88.3	
127 4-Chlorophenyl phenyl ether	204	7.299	7.298	0.001	95	308550	100.0	90.1	
129 Fluorene	166	7.283	7.282	0.001	95	713098	100.0	89.3	
130 4-Nitroaniline	138	7.315	7.314	0.001	87	219625	100.0	93.7	
131 4,6-Dinitro-2-methylphenol	198	7.347	7.346	0.001	84	255130	200.0	190.8	
134 Diphenylamine	169	7.416	7.416	0.000	95	529455	85.0	77.1	
135 N-Nitrosodiphenylamine	169	7.416	7.416	0.000	99	529455	100.0	91.9	
136 1,2-Diphenylhydrazine	182	7.454	7.453	0.001	98	190702	101.1	91.6	
137 Azobenzene	77	7.454	7.453	0.001	97	833543	100.0	87.8	
148 4-Bromophenyl phenyl ether	248	7.774	7.774	0.000	65	189520	100.0	89.6	
151 Hexachlorobenzene	284	7.812	7.811	0.001	95	215351	100.0	90.5	
152 Atrazine	200	7.961	7.961	0.000	91	182058	100.0	91.3	
155 Pentachlorophenol	266	8.015	8.014	0.000	93	270390	200.0	191.2	
158 n-Octadecane	85	8.159	8.158	0.001	95	239743	100.0	91.2	
161 Phenanthrene	178	8.212	8.212	0.000	98	1021107	100.0	89.6	
162 Anthracene	178	8.260	8.260	0.000	98	1061448	100.0	92.0	
164 Carbazole	167	8.431	8.425	0.006	95	1047834	100.0	91.2	
168 Di-n-butyl phthalate	149	8.816	8.815	0.001	100	1281626	100.0	94.6	
175 Fluoranthene	202	9.371	9.371	0.000	98	1106029	100.0	92.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
176 Benzidine	184	9.526	9.552	-0.026	100	643710	100.0	96.6	
178 Pyrene	202	9.596	9.595	0.001	97	1182468	100.0	94.0	
187 Butyl benzyl phthalate	149	10.472	10.471	0.001	97	606142	100.0	101.3	
189 3,3'-Dichlorobenzidine	252	11.230	11.230	0.000	75	442682	100.0	96.7	
191 Benzo[a]anthracene	228	11.220	11.219	0.001	99	1126770	100.0	95.5	
192 Chrysene	228	11.279	11.278	0.001	98	1140498	100.0	92.0	
193 Bis(2-ethylhexyl) phthalate	149	11.482	11.481	0.001	97	842890	100.0	103.5	
195 Di-n-octyl phthalate	149	12.860	12.859	0.001	99	1419354	100.0	93.0	
196 Benzo[b]fluoranthene	252	13.330	13.330	0.000	98	1136314	100.0	94.9	a
198 Benzo[k]fluoranthene	252	13.399	13.394	0.005	99	1336057	100.0	92.9	a
201 Benzo[a]pyrene	252	14.046	14.045	0.001	78	1094349	100.0	95.1	a
207 Indeno[1,2,3-cd]pyrene	276	16.776	16.775	0.001	98	934890	100.0	92.4	a
208 Dibenz(a,h)anthracene	278	16.898	16.898	0.000	95	1053146	100.0	98.4	
209 Benzo[g,h,i]perylene	276	17.401	17.400	0.001	97	1125679	100.0	100.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLB1&B2_00014

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D

Injection Date: 15-Nov-2022 17:22:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: ICV

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

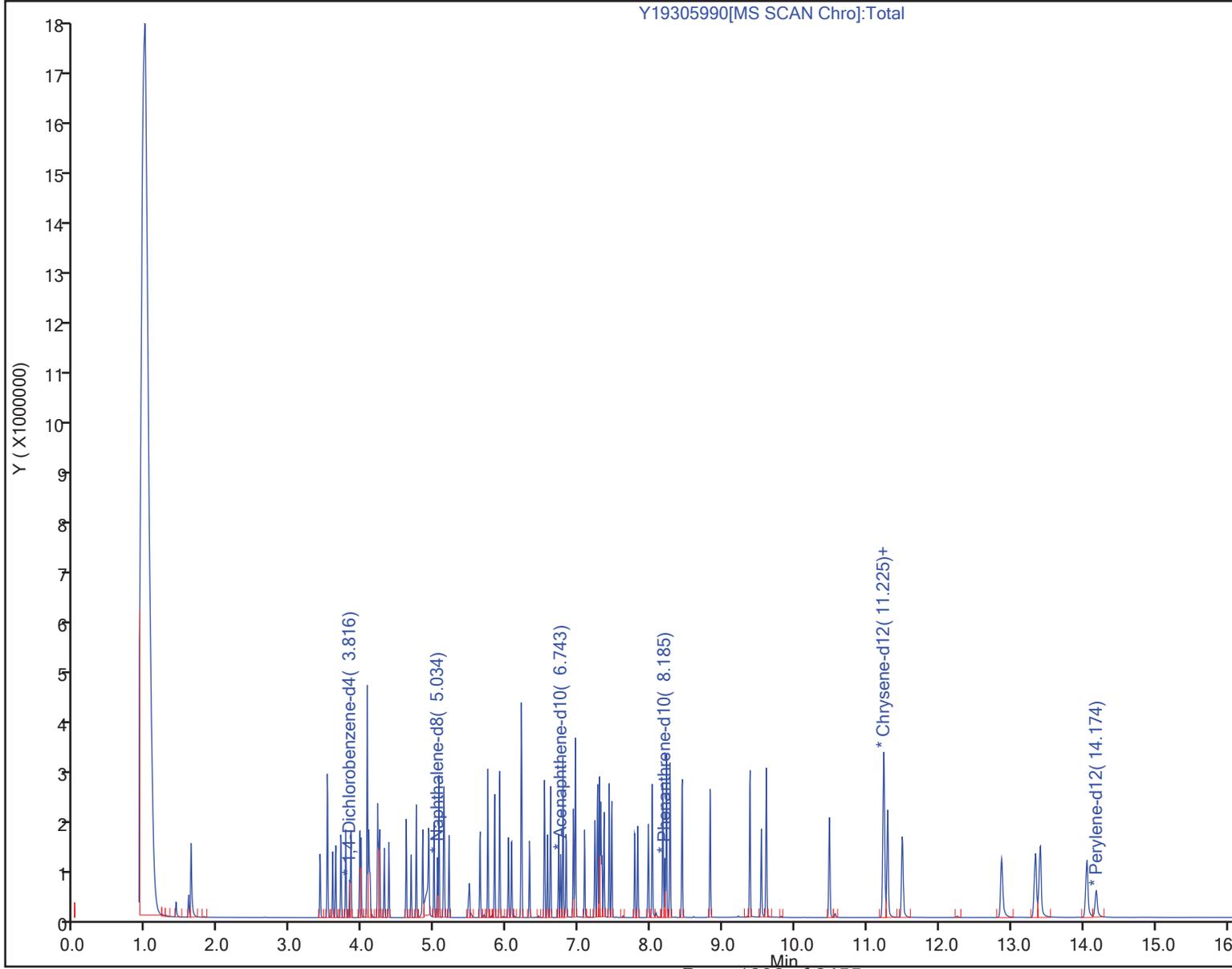
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

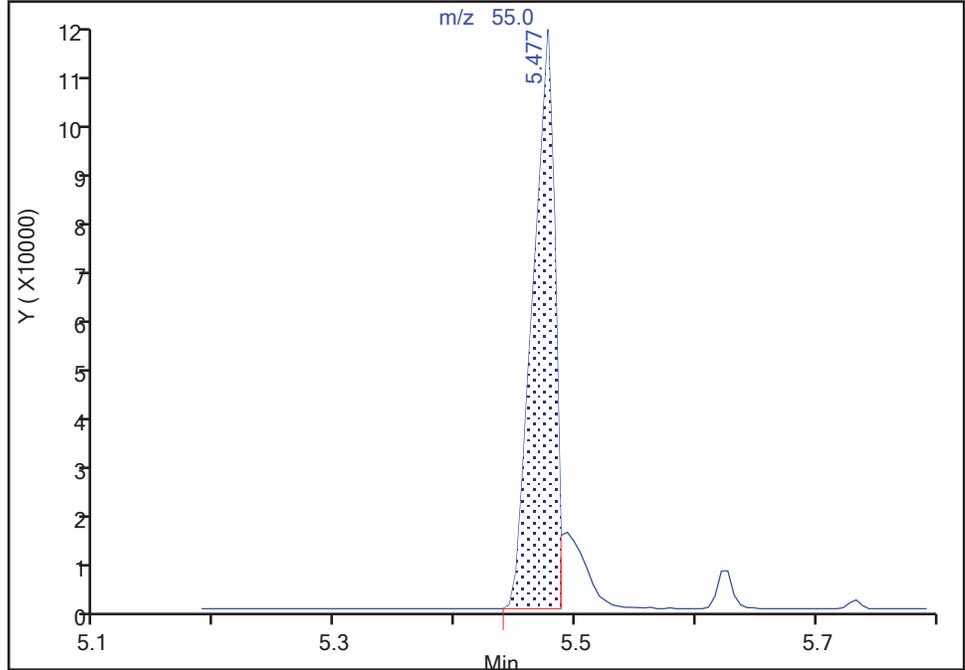
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Injection Date: 15-Nov-2022 17:22:30 Instrument ID: SMS_Y
Lims ID: ICV
Client ID:
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

79 Caprolactam, CAS: 105-60-2

Signal: 1

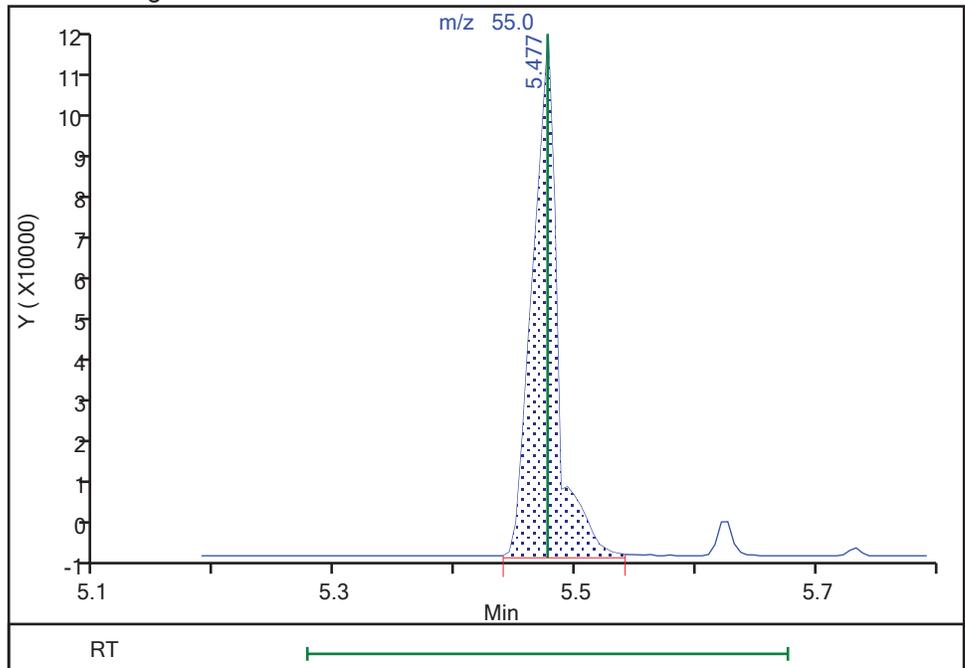
RT: 5.48
Area: 140825
Amount: 78.633431
Amount Units: ug/ml

Processing Integration Results



RT: 5.48
Area: 161718
Amount: 87.323102
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:57:45
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

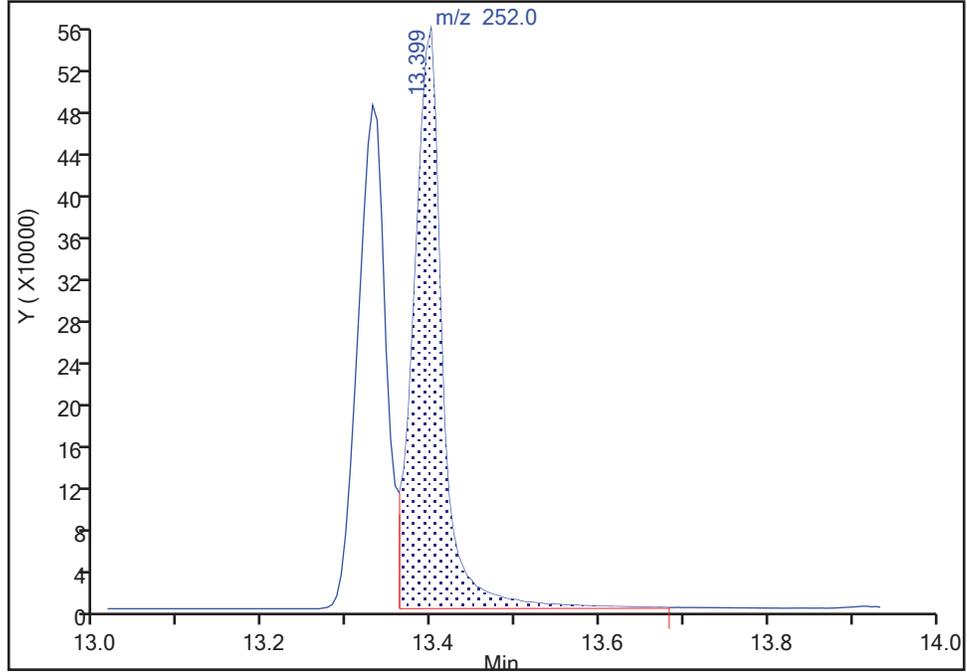
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Injection Date: 15-Nov-2022 17:22:30 Instrument ID: SMS_Y
Lims ID: ICV
Client ID:
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

196 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

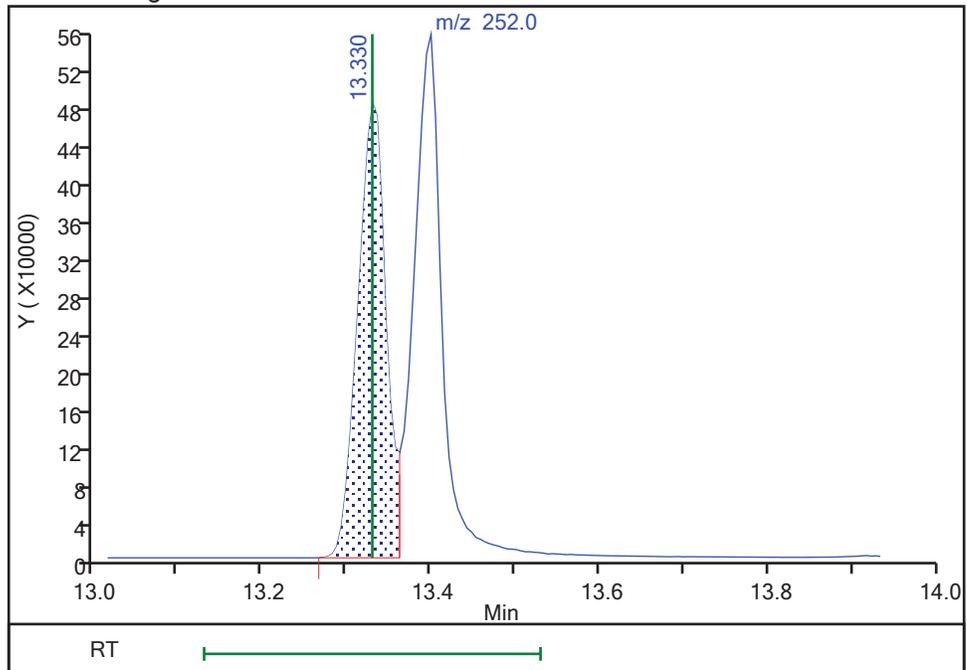
RT: 13.40
Area: 1336057
Amount: 111.2117
Amount Units: ug/ml

Processing Integration Results



RT: 13.33
Area: 1136314
Amount: 94.851980
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:58:58
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

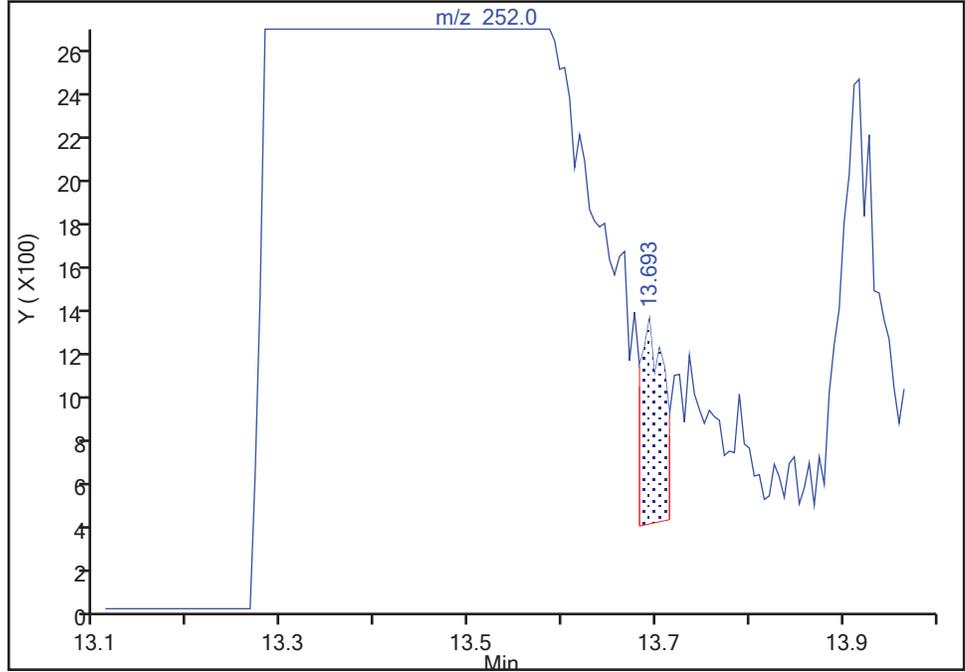
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Injection Date: 15-Nov-2022 17:22:30 Instrument ID: SMS_Y
Lims ID: ICV
Client ID:
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

198 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

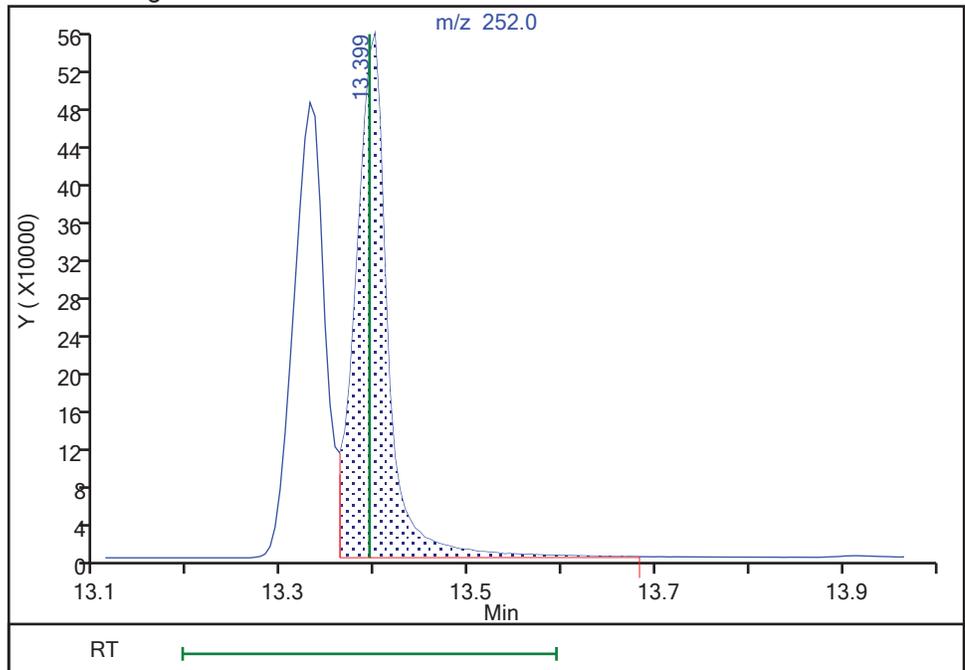
RT: 13.69
Area: 1633
Amount: 0.113546
Amount Units: ug/ml

Processing Integration Results



RT: 13.40
Area: 1336057
Amount: 92.898939
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

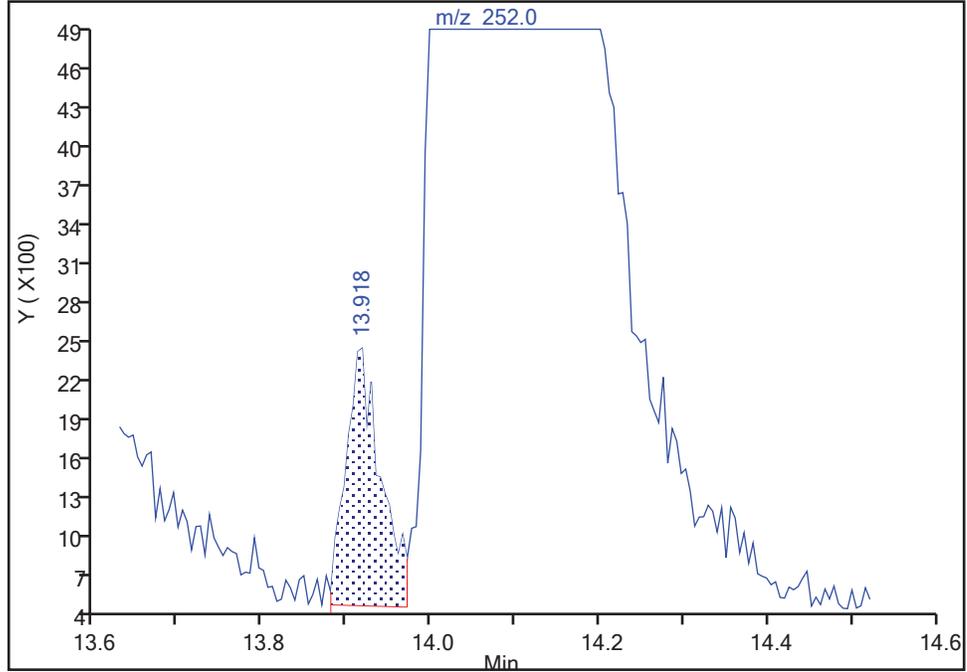
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D
Injection Date: 15-Nov-2022 17:22:30 Instrument ID: SMS_Y
Lims ID: ICV
Client ID:
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

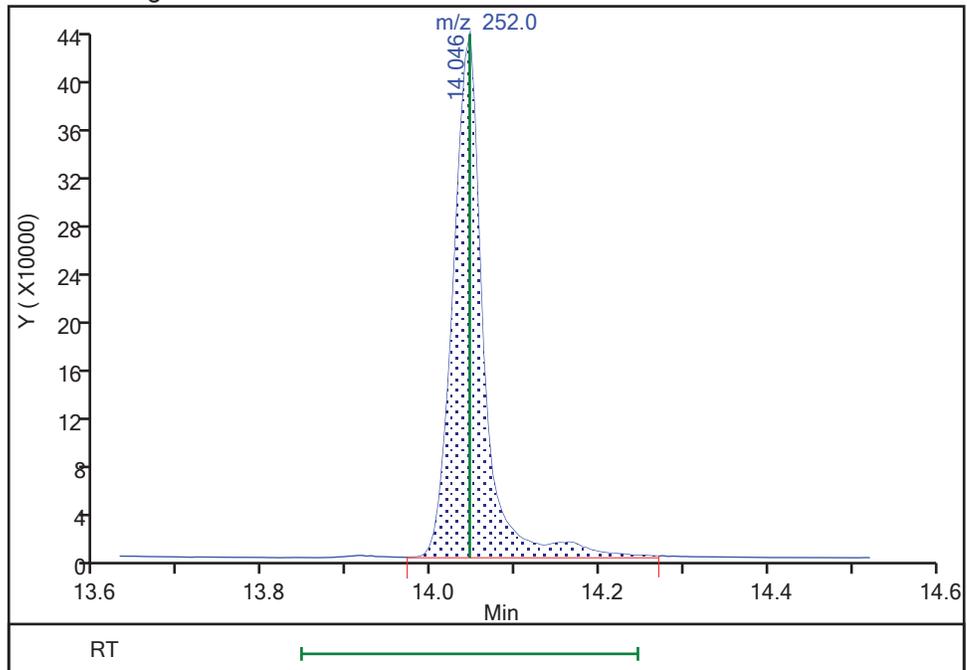
RT: 13.92
Area: 5547
Amount: 0.482057
Amount Units: ug/ml

Processing Integration Results



RT: 14.05
Area: 1094349
Amount: 95.103482
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:59:02
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

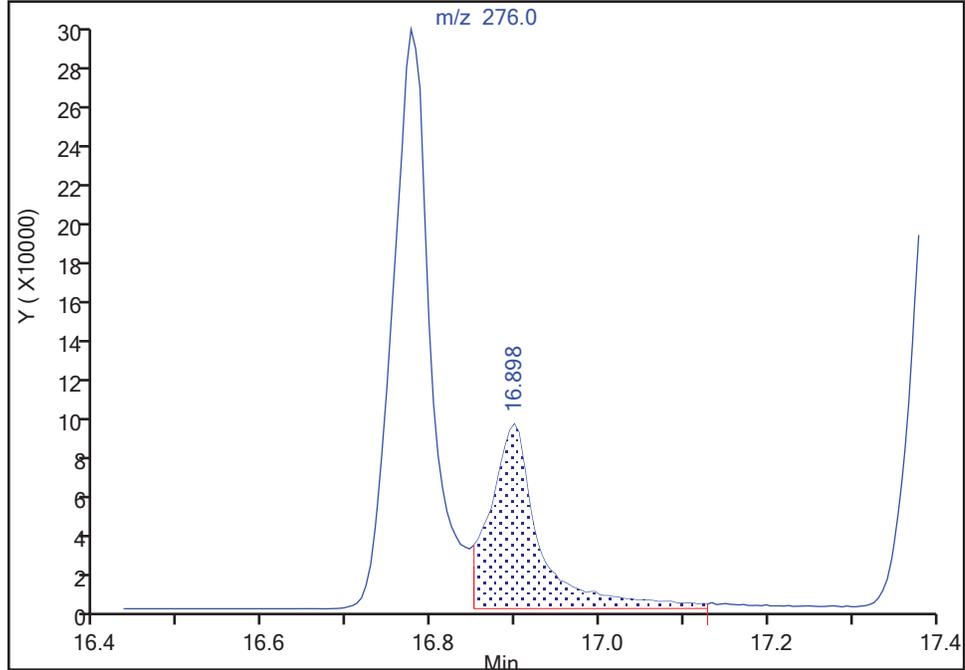
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305990.D
Injection Date: 15-Nov-2022 17:22:30 Instrument ID: SMS_Y
Lims ID: ICV
Client ID:
Operator ID: TESSIERN ALS Bottle#: 15 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

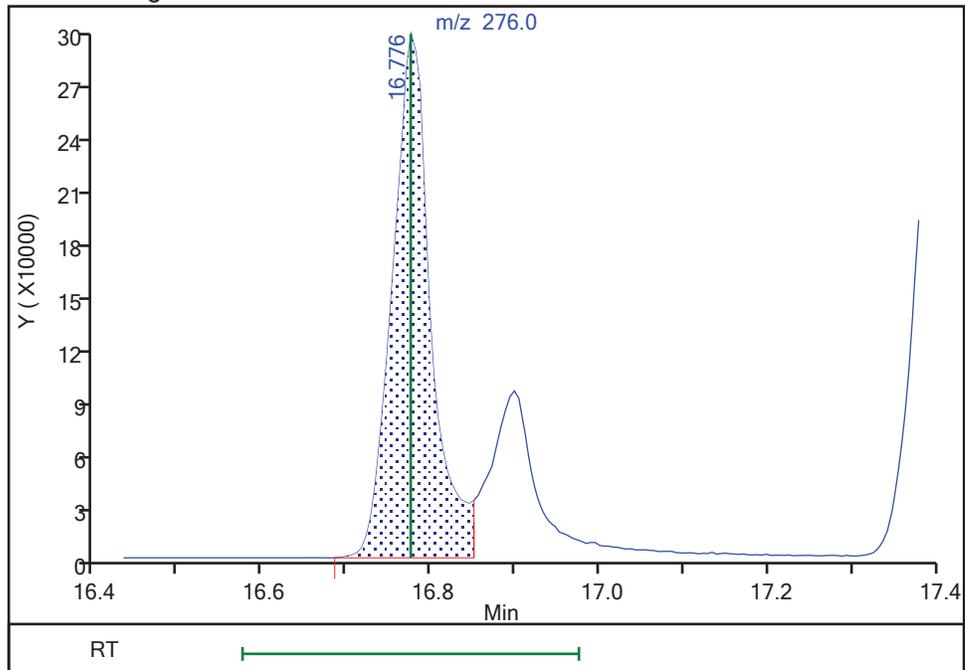
RT: 16.90
Area: 382957
Amount: 39.808646
Amount Units: ug/ml

Processing Integration Results



RT: 16.78
Area: 934890
Amount: 92.421983
Amount Units: ug/ml

Manual Integration Results



Reviewer: NBC9, 16-Nov-2022 12:59:05
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: ICV 280-593534/41 Calibration Date: 11/15/2022 17:48
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19305991.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Alachlor	Ave	0.1360	0.1290		94900	100000	-5.1	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305991.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 15-Nov-2022 17:48:30 ALS Bottle#: 16 Worklist Smp#: 41
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: ICV 3 HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist:

Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:14:27 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9 Date: 16-Nov-2022 13:02:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.818	3.815	0.003	96	114752	40.0	40.0	
* 2 Naphthalene-d8	136	5.031	5.033	-0.002	99	468381	40.0	40.0	
* 3 Acenaphthene-d10	164	6.740	6.743	-0.003	93	266420	40.0	40.0	
* 4 Phenanthrene-d10	188	8.183	8.185	-0.002	97	467326	40.0	40.0	
* 5 Chrysene-d12	240	11.222	11.235	-0.013	98	460945	40.0	40.0	
* 6 Perylene-d12	264	14.171	14.174	-0.003	97	452086	40.0	40.0	
32 Alpha Methyl Styrene	118	3.562	3.564	-0.002	92	379354	100.0	89.9	
66 3,5-Dimethylphenol	107	4.876	4.878	-0.002	85	398121	100.0	90.7	
93 2,3-Dichlorobenzamine	161	6.009	6.011	-0.002	96	356334	100.0	91.0	
166 Alachlor	188	8.594	8.591	0.003	97	150686	100.0	94.9	

QC Flag Legend

Processing Flags

Reagents:

HSL SSV B3_00009 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305991.D

Injection Date: 15-Nov-2022 17:48:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: ICV

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

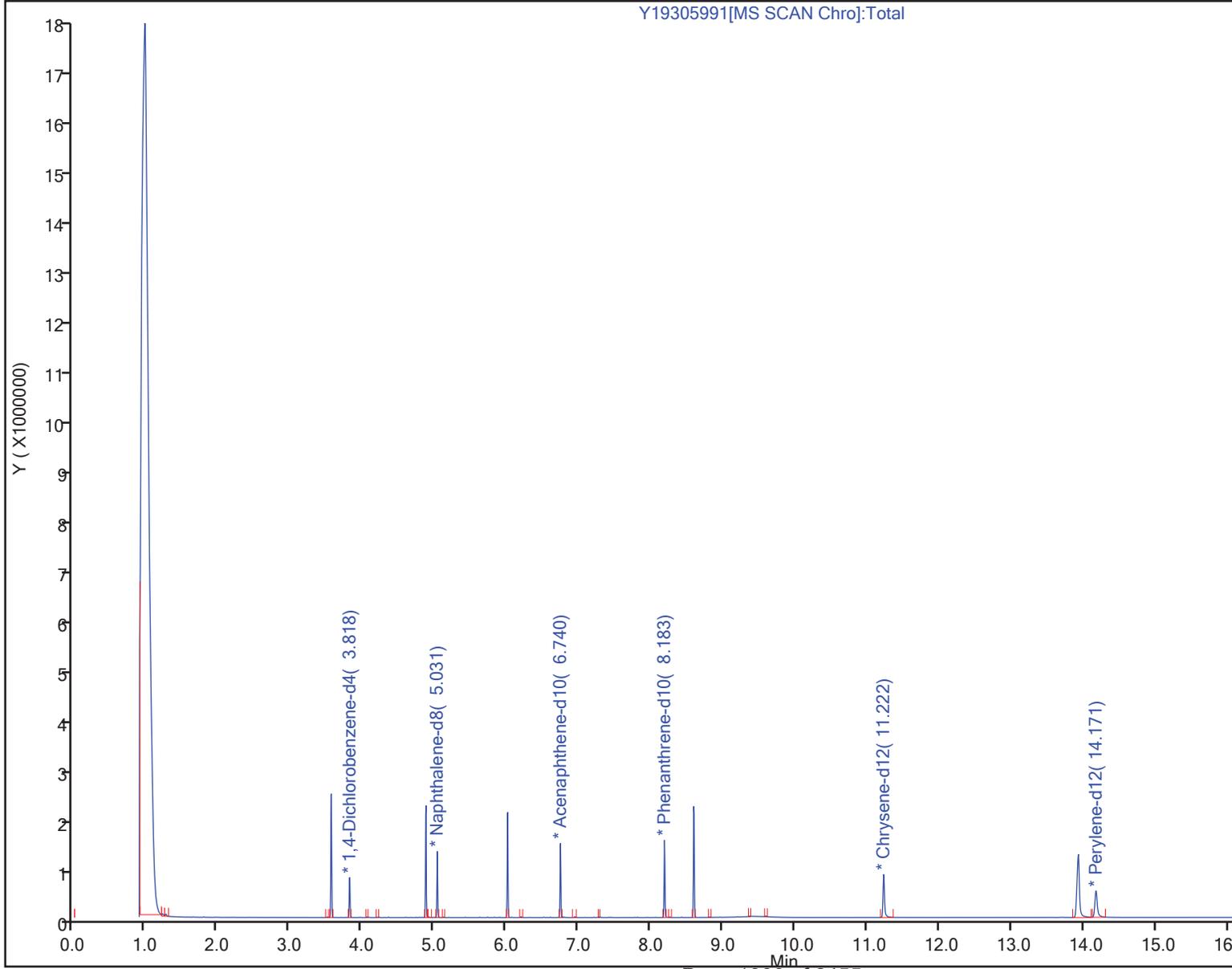
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-594711/2 Calibration Date: 11/28/2022 11:12
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306462.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.5826		84500	80000	5.6	20.0
N-Nitrosodimethylamine	Ave	0.9630	0.9248		76800	80000	-4.0	20.0
Pyridine	Ave	1.515	1.445		153000	160000	-4.6	20.0
Aniline	Ave	2.515	2.571		81800	80000	2.2	20.0
Phenol	Ave	2.127	2.292	0.8000	86200	80000	7.8	20.0
Bis(2-chloroethyl)ether	Ave	1.555	1.590	0.7000	81800	80000	2.2	20.0
2-Chlorophenol	Ave	1.440	1.475	0.8000	82000	80000	2.5	20.0
1,3-Dichlorobenzene	Ave	1.500	1.541		82200	80000	2.7	20.0
1,4-Dichlorobenzene	Ave	1.528	1.591		83300	80000	4.2	20.0
Benzyl alcohol	Ave	1.061	1.129		85100	80000	6.4	20.0
1,2-Dichlorobenzene	Ave	1.454	1.489		81900	80000	2.4	20.0
2-Methylphenol	Ave	1.434	1.500	0.7000	83700	80000	4.6	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.716	1.355	0.0100	63100	80000	-21.1*	20.0
Acetophenone	Ave	2.182	2.351	0.0100	86200	80000	7.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.197	1.217	0.5000	81300	80000	1.6	20.0
3 & 4 Methylphenol	Ave	1.536	1.607		83700	80000	4.6	20.0
Hexachloroethane	Ave	0.6098	0.6478	0.3000	85000	80000	6.2	20.0
Nitrobenzene	Ave	0.4193	0.4230	0.2000	80700	80000	0.9	20.0
Isophorone	Ave	0.7898	0.8180	0.4000	82900	80000	3.6	20.0
2-Nitrophenol	Ave	0.1881	0.1856	0.1000	79000	80000	-1.3	20.0
2,4-Dimethylphenol	Ave	0.3776	0.4126	0.2000	87400	80000	9.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.4700	0.4674	0.3000	79600	80000	-0.6	20.0
Benzoic acid	Lin2		0.2893		149000	160000	-6.8	20.0
2,4-Dichlorophenol	Ave	0.2782	0.2914	0.2000	83800	80000	4.7	20.0
1,2,4-Trichlorobenzene	Ave	0.2892	0.2957		81800	80000	2.3	20.0
Naphthalene	Ave	1.024	1.042	0.7000	81400	80000	1.8	20.0
4-Chloroaniline	Ave	0.4441	0.4655	0.0100	83900	80000	4.8	20.0
2,6-Dichlorophenol	Ave	0.2718	0.2796		82300	80000	2.8	20.0
Hexachlorobutadiene	Ave	0.1543	0.1614	0.0100	83700	80000	4.6	20.0
4-Chloro-3-methylphenol	Ave	0.3356	0.3696	0.2000	88100	80000	10.1	20.0
2-Methylnaphthalene	Ave	0.6759	0.6983	0.4000	82700	80000	3.3	20.0
1-Methylnaphthalene	Ave	0.6388	0.6665		83500	80000	4.3	20.0
Hexachlorocyclopentadiene	Ave	0.3043	0.3184	0.0500	83700	80000	4.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2636	0.2763	0.0100	83900	80000	4.8	20.0
2,4,6-Trichlorophenol	Ave	0.3287	0.3456	0.2000	84100	80000	5.1	20.0
2,4,5-Trichlorophenol	Ave	0.3615	0.3740	0.2000	82800	80000	3.4	20.0
1,1'-Biphenyl	Ave	1.379	1.469	0.0100	85200	80000	6.5	20.0
2-Chloronaphthalene	Ave	1.055	1.123	0.8000	85200	80000	6.5	20.0
2-Nitroaniline	Ave	0.3904	0.4008	0.0100	82100	80000	2.7	20.0
Dimethyl phthalate	Ave	1.209	1.325	0.0100	87700	80000	9.7	20.0
1,3-Dinitrobenzene	Ave	0.2105	0.2304		87600	80000	9.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-594711/2 Calibration Date: 11/28/2022 11:12
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306462.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2933	0.3123	0.2000	85200	80000	6.5	20.0
Acenaphthylene	Ave	1.751	1.816	0.9000	83000	80000	3.7	20.0
3-Nitroaniline	Ave	0.3686	0.4067	0.0100	88300	80000	10.3	20.0
Acenaphthene	Ave	1.125	1.180	0.9000	83900	80000	4.9	20.0
2,4-Dinitrophenol	Lin1		0.1447	0.0100	134000	160000	-16.2	20.0
4-Nitrophenol	Lin2		0.2627	0.0100	219000	160000	36.8*	20.0
Dibenzofuran	Ave	1.530	1.598	0.8000	83500	80000	4.4	20.0
2,4-Dinitrotoluene	Ave	0.3774	0.4257	0.2000	90200	80000	12.8	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2914	0.3019	0.0100	82900	80000	3.6	20.0
Diethyl phthalate	Ave	1.269	1.407	0.0100	88800	80000	10.9	20.0
Fluorene	Ave	1.308	1.365	0.9000	83500	80000	4.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.5607	0.5679	0.4000	81000	80000	1.3	20.0
4-Nitroaniline	Ave	0.3838	0.4206	0.0100	87700	80000	9.6	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1200	0.0100	154000	160000	-3.9	20.0
Diphenylamine	Ave	1.124	1.172		70900	68000	4.3	20.0
N-Nitrosodiphenylamine	Ave	0.5414	0.5732	0.0100	84700	80000	5.9	20.0
1,2-Diphenylhydrazine	Ave	0.3409	0.3427		81300	80900	0.5	20.0
Azobenzene	Ave	1.554	1.674		86200	80000	7.7	20.0
4-Bromophenyl phenyl ether	Ave	0.1988	0.2116	0.1000	85200	80000	6.5	20.0
Hexachlorobenzene	Ave	0.2238	0.2405	0.1000	86000	80000	7.5	20.0
Pentachlorophenol	Lin2		0.1456	0.0500	176000	160000	9.7	20.0
Phenanthrene	Ave	1.072	1.130	0.7000	84400	80000	5.4	20.0
Anthracene	Ave	1.085	1.191	0.7000	87800	80000	9.8	20.0
Carbazole	Ave	1.080	1.146	0.0100	84900	80000	6.1	20.0
Alachlor	Ave	0.1360	0.1595		93900	80000	17.3	20.0
Di-n-butyl phthalate	Ave	1.273	1.436	0.0100	90200	80000	12.8	20.0
Fluoranthene	Ave	1.123	1.230	0.6000	87600	80000	9.5	20.0
Pyrene	Ave	1.238	1.240	0.6000	80100	80000	0.2	20.0
Butyl benzyl phthalate	Ave	0.5888	0.6237	0.0100	84700	80000	5.9	20.0
Benzo[a]anthracene	Ave	1.160	1.173	0.8000	80900	80000	1.1	20.0
Chrysene	Ave	1.220	1.242	0.7000	81400	80000	1.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8013	0.8429	0.0100	84200	80000	5.2	20.0
Di-n-octyl phthalate	Lin1		1.389	0.0100	74700	80000	-6.7	20.0
Benzo[b]fluoranthene	Lin2		1.114	0.7000	79300	80000	-0.8	20.0
Benzo[k]fluoranthene	Ave	1.354	1.480	0.7000	87500	80000	9.3	20.0
Benzo[a]pyrene	Ave	1.083	1.255	0.7000	92700	80000	15.9	20.0
Indeno[1,2,3-cd]pyrene	Lin1		0.9435	0.5000	76400	80000	-4.4	20.0
Dibenz(a,h)anthracene	Lin2		1.092	0.4000	87000	80000	8.7	20.0
Benzo[g,h,i]perylene	Ave	1.052	1.248	0.5000	95000	80000	18.7	20.0
2-Fluorophenol (Surr)	Ave	1.563	1.527		78200	80000	-2.2	20.0
Phenol-d5 (Surr)	Ave	2.128	2.051		77100	80000	-3.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-594711/2 Calibration Date: 11/28/2022 11:12
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306462.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.4573	0.4477		78300	80000	-2.1	20.0
2-Fluorobiphenyl	Ave	1.324	1.275		77000	80000	-3.7	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1990	0.2118		85200	80000	6.4	20.0
Terphenyl-d14 (Surr)	Ave	1.039	0.9926		76400	80000	-4.5	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 28-Nov-2022 11:12:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:13:21 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:08:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.693	0.000	96	78244	40.0	40.0	
* 2 Naphthalene-d8	136	4.911	4.911	0.000	99	332149	40.0	40.0	
* 3 Acenaphthene-d10	164	6.620	6.620	0.000	93	192302	40.0	40.0	
* 4 Phenanthrene-d10	188	8.063	8.063	0.000	98	334272	40.0	40.0	
* 5 Chrysene-d12	240	11.033	11.033	0.000	99	354064	40.0	40.0	
* 6 Perylene-d12	264	13.875	13.875	0.000	97	355089	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	90	239032	80.0	78.2	
\$ 8 Phenol-d5	99	3.383	3.383	0.000	94	321003	80.0	77.1	
\$ 9 Nitrobenzene-d5	82	4.222	4.222	0.000	85	297424	80.0	78.3	
\$ 11 2-Fluorobiphenyl	172	5.985	5.985	0.000	99	490365	80.0	77.0	
\$ 12 2,4,6-Tribromophenol	330	7.390	7.390	0.000	93	81458	80.0	85.2	
\$ 13 Terphenyl-d14	244	9.665	9.665	0.000	97	702892	80.0	76.4	
15 1,4-Dioxane	88	1.294	1.294	0.000	87	91177	80.0	84.5	
17 N-Nitrosodimethylamine	74	1.455	1.455	0.000	87	144719	80.0	76.8	
18 Pyridine	79	1.487	1.487	0.000	94	452163	160.0	152.6	
28 Phenol	94	3.394	3.394	0.000	96	358696	80.0	86.2	
30 Aniline	93	3.383	3.383	0.000	95	402330	80.0	81.8	
31 Bis(2-chloroethyl)ether	93	3.458	3.458	0.000	98	248741	80.0	81.8	a
32 Alpha Methyl Styrene	118	3.436	3.436	0.000	90	245639	80.0	85.4	
34 2-Chlorophenol	128	3.501	3.501	0.000	95	230842	80.0	82.0	a
35 n-Decane	43	3.575	3.575	0.000	82	142966	80.0	64.3	
37 1,3-Dichlorobenzene	146	3.639	3.639	0.000	95	241083	80.0	82.2	
38 1,4-Dichlorobenzene	146	3.709	3.709	0.000	93	249030	80.0	83.3	
39 Benzyl alcohol	108	3.837	3.837	0.000	93	176653	80.0	85.1	
40 1,2-Dichlorobenzene	146	3.848	3.848	0.000	95	233028	80.0	81.9	
41 2-Methylphenol	108	3.965	3.965	0.000	95	234746	80.0	83.7	
43 2,2'-oxybis[1-chloropropane]	45	3.976	3.976	0.000	94	212007	80.0	63.1	a
44 Indene	116	3.933	3.933	0.000	88	830020	160.0	166.9	
46 3-Methylphenol	108	4.120	4.120	0.000	89	251409	80.0	83.7	a
47 4-Methylphenol	108	4.120	4.120	0.000	95	251409	80.0	83.7	a

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.120	4.120	0.000	97	251409	80.0	83.7	a
50 N-Nitrosodi-n-propylamine	70	4.099	4.099	0.000	73	190396	80.0	81.3	
51 Acetophenone	105	4.083	4.083	0.000	96	367835	80.0	86.2	a
53 Hexachloroethane	117	4.168	4.168	0.000	95	101371	80.0	85.0	
54 Nitrobenzene	77	4.238	4.238	0.000	83	280989	80.0	80.7	
57 Isophorone	82	4.478	4.478	0.000	98	543372	80.0	82.9	
58 2-Nitrophenol	139	4.548	4.548	0.000	94	123326	80.0	79.0	
59 2,4-Dimethylphenol	107	4.622	4.622	0.000	97	274119	80.0	87.4	
63 Bis(2-chloroethoxy)methane	93	4.713	4.713	0.000	97	310505	80.0	79.6	
64 Benzoic acid	105	4.783	4.783	0.000	82	384368	160.0	149.1	M
66 3,5-Dimethylphenol	107	4.761	4.761	0.000	88	290661	80.0	93.4	a
68 2,4-Dichlorophenol	162	4.793	4.793	0.000	95	193548	80.0	83.8	a
69 1,2,4-Trichlorobenzene	180	4.863	4.863	0.000	93	196455	80.0	81.8	
71 Naphthalene	128	4.932	4.932	0.000	97	692213	80.0	81.4	
72 4-Chloroaniline	127	5.002	5.002	0.000	96	309259	80.0	83.9	a
73 2,6-Dichlorophenol	162	5.007	5.007	0.000	96	185723	80.0	82.3	a
75 Hexachlorobutadiene	225	5.071	5.071	0.000	97	107239	80.0	83.7	
79 Caprolactam	55	5.349	5.349	0.000	89	103882	80.0	83.0	
83 4-Chloro-3-methylphenol	107	5.509	5.509	0.000	94	245540	80.0	88.1	a
86 2-Methylnaphthalene	142	5.611	5.611	0.000	92	463878	80.0	82.7	
88 1-Methylnaphthalene	142	5.702	5.702	0.000	92	442735	80.0	83.5	
89 1,2,4,5-Tetrachlorobenzene	216	5.776	5.776	0.000	98	183554	80.0	83.9	
90 Hexachlorocyclopentadiene	237	5.771	5.771	0.000	97	122447	80.0	83.7	
92 2,4,6-Trichlorophenol	196	5.899	5.899	0.000	93	132903	80.0	84.1	
93 2,3-Dichlorobenzenamine	161	5.883	5.883	0.000	96	247406	80.0	87.6	a
94 2,4,5-Trichlorophenol	196	5.942	5.942	0.000	91	143825	80.0	82.8	
98 1,1'-Biphenyl	154	6.076	6.076	0.000	96	565092	80.0	85.2	
99 2-Chloronaphthalene	162	6.081	6.081	0.000	99	431987	80.0	85.2	
101 2-Nitroaniline	65	6.188	6.188	0.000	84	154139	80.0	82.1	
104 Dimethyl phthalate	163	6.396	6.396	0.000	94	509746	80.0	87.7	
105 1,3-Dinitrobenzene	168	6.401	6.401	0.000	83	88595	80.0	87.6	
106 2,6-Dinitrotoluene	165	6.439	6.439	0.000	92	120122	80.0	85.2	
107 Acenaphthylene	152	6.476	6.476	0.000	99	698556	80.0	83.0	
108 3-Nitroaniline	138	6.594	6.594	0.000	95	156407	80.0	88.3	a
109 Acenaphthene	153	6.652	6.652	0.000	94	453746	80.0	83.9	
111 2,4-Dinitrophenol	184	6.701	6.701	0.000	85	111313	160.0	134.1	a
112 4-Nitrophenol	109	6.807	6.807	0.000	89	202047	160.0	218.9	
114 2,4-Dinitrotoluene	165	6.829	6.829	0.000	90	163708	80.0	90.2	
116 Dibenzofuran	168	6.823	6.823	0.000	97	614650	80.0	83.5	
119 2,3,4,6-Tetrachlorophenol	232	6.952	6.952	0.000	76	116113	80.0	82.9	a
123 Diethyl phthalate	149	7.101	7.101	0.000	97	541289	80.0	88.8	
124 Hexadecane	57	7.139	7.139	0.000	88	278637	80.0	69.2	
127 4-Chlorophenyl phenyl ether	204	7.176	7.176	0.000	96	218429	80.0	81.0	
129 Fluorene	166	7.155	7.155	0.000	95	525042	80.0	83.5	a
130 4-Nitroaniline	138	7.192	7.192	0.000	82	161749	80.0	87.7	a
131 4,6-Dinitro-2-methylphenol	198	7.224	7.224	0.000	79	160472	160.0	153.8	a
134 Diphenylamine	169	7.294	7.294	0.000	95	383199	68.0	70.9	a
135 N-Nitrosodiphenylamine	169	7.294	7.294	0.000	99	383199	80.0	84.7	a
136 1,2-Diphenylhydrazine	182	7.331	7.331	0.000	98	133247	80.9	81.3	
137 Azobenzene	77	7.331	7.331	0.000	96	643940	80.0	86.2	a
148 4-Bromophenyl phenyl ether	248	7.651	7.651	0.000	67	141467	80.0	85.2	
151 Hexachlorobenzene	284	7.689	7.689	0.000	94	160812	80.0	86.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.844	7.844	0.000	91	137097	80.0	92.2	
155 Pentachlorophenol	266	7.892	7.892	0.000	92	194718	160.0	175.5	
158 n-Octadecane	85	8.047	8.047	0.000	94	166941	80.0	80.9	
161 Phenanthrene	178	8.084	8.084	0.000	98	755413	80.0	84.4	
162 Anthracene	178	8.132	8.132	0.000	98	796484	80.0	87.8	
164 Carbazole	167	8.303	8.303	0.000	96	766434	80.0	84.9	
166 Alachlor	188	8.474	8.474	0.000	90	106641	80.0	93.9	
168 Di-n-butyl phthalate	149	8.698	8.698	0.000	100	959974	80.0	90.2	
175 Fluoranthene	202	9.243	9.243	0.000	99	822403	80.0	87.6	
178 Pyrene	202	9.462	9.462	0.000	97	878272	80.0	80.1	
187 Butyl benzyl phthalate	149	10.312	10.312	0.000	96	441642	80.0	84.7	
189 3,3'-Dichlorobenzidine	252	11.033	11.033	0.000	75	327891	80.0	88.9	
191 Benzo[a]anthracene	228	11.022	11.022	0.000	99	830757	80.0	80.9	a
192 Chrysene	228	11.076	11.076	0.000	98	879307	80.0	81.4	a
193 Bis(2-ethylhexyl) phthalate	149	11.284	11.284	0.000	97	596900	80.0	84.2	
195 Di-n-octyl phthalate	149	12.620	12.620	0.000	98	983775	80.0	74.7	
196 Benzo[b]fluoranthene	252	13.052	13.052	0.000	98	791468	80.0	79.3	
198 Benzo[k]fluoranthene	252	13.116	13.116	0.000	99	1051252	80.0	87.5	
201 Benzo[a]pyrene	252	13.752	13.752	0.000	79	891581	80.0	92.7	a
207 Indeno[1,2,3-cd]pyrene	276	16.423	16.423	0.000	98	668105	80.0	76.4	a
208 Dibenz(a,h)anthracene	278	16.541	16.541	0.000	94	775218	80.0	87.0	
209 Benzo[g,h,i]perylene	276	17.038	17.038	0.000	98	886532	80.0	95.0	
S 211 Total Cresols	108				0			167.4	
S 212 Methyl Phenols, Total	108				0			167.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLACCV5ML_00005

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D

Injection Date: 28-Nov-2022 11:12:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

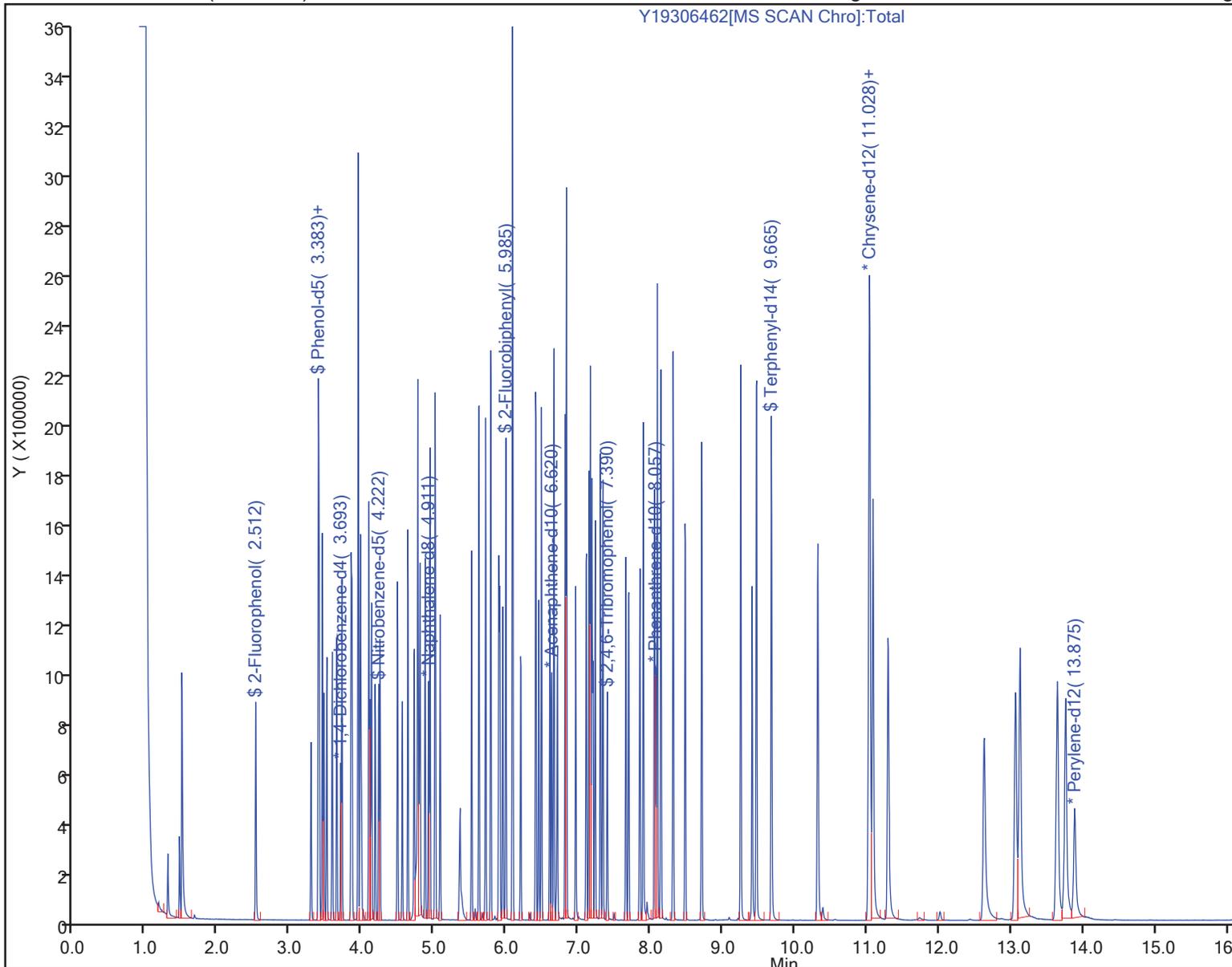
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

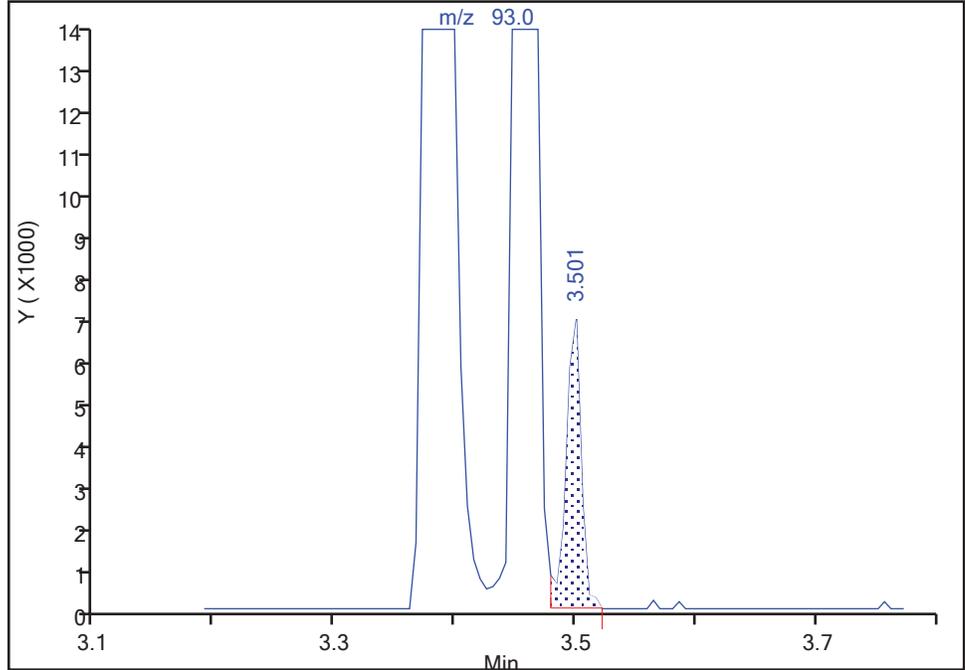
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

31 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

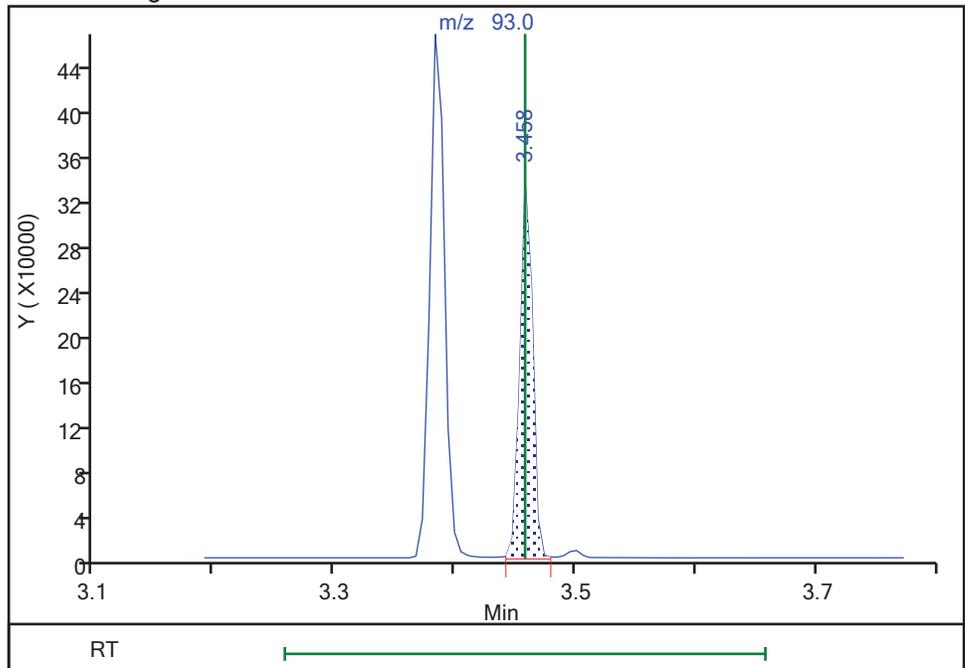
RT: 3.50
Area: 5830
Amount: 1.916171
Amount Units: ug/ml

Processing Integration Results



RT: 3.46
Area: 248741
Amount: 81.754772
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:05:58
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

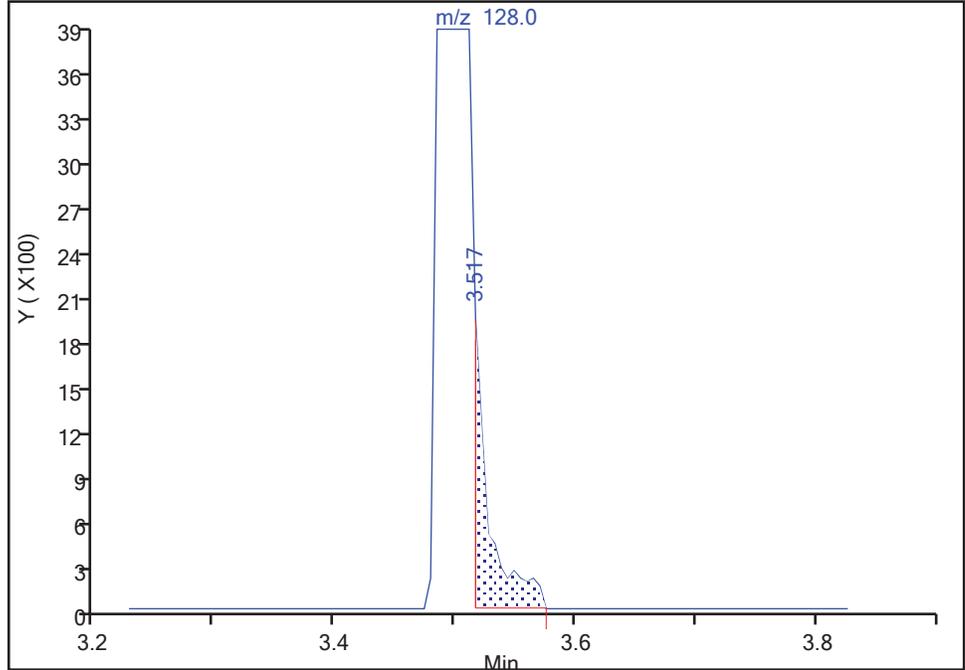
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

34 2-Chlorophenol, CAS: 95-57-8

Signal: 1

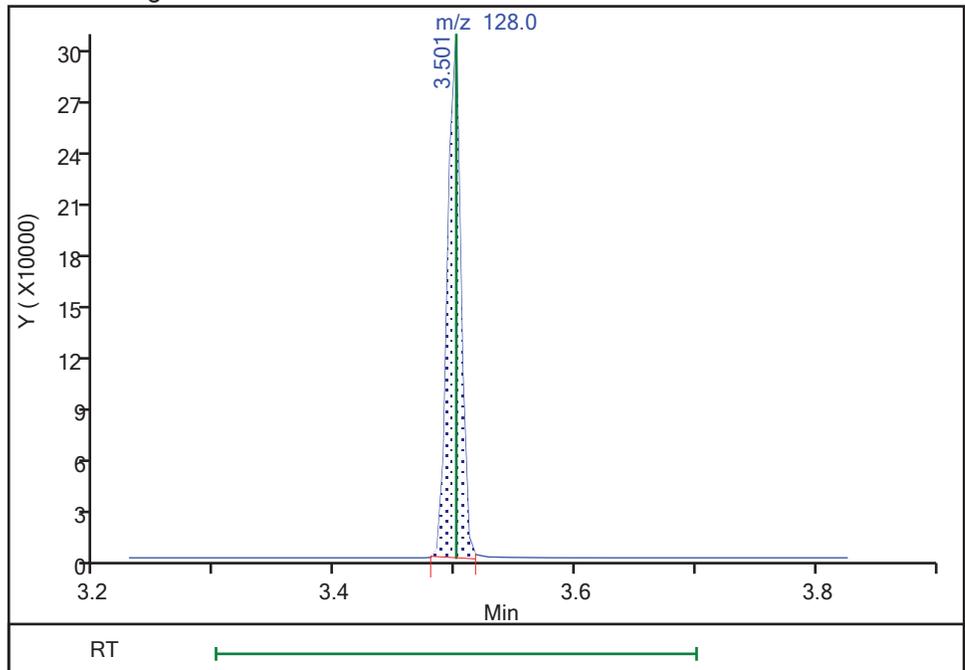
RT: 3.52
Area: 1748
Amount: 0.620661
Amount Units: ug/ml

Processing Integration Results



RT: 3.50
Area: 230842
Amount: 81.964943
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

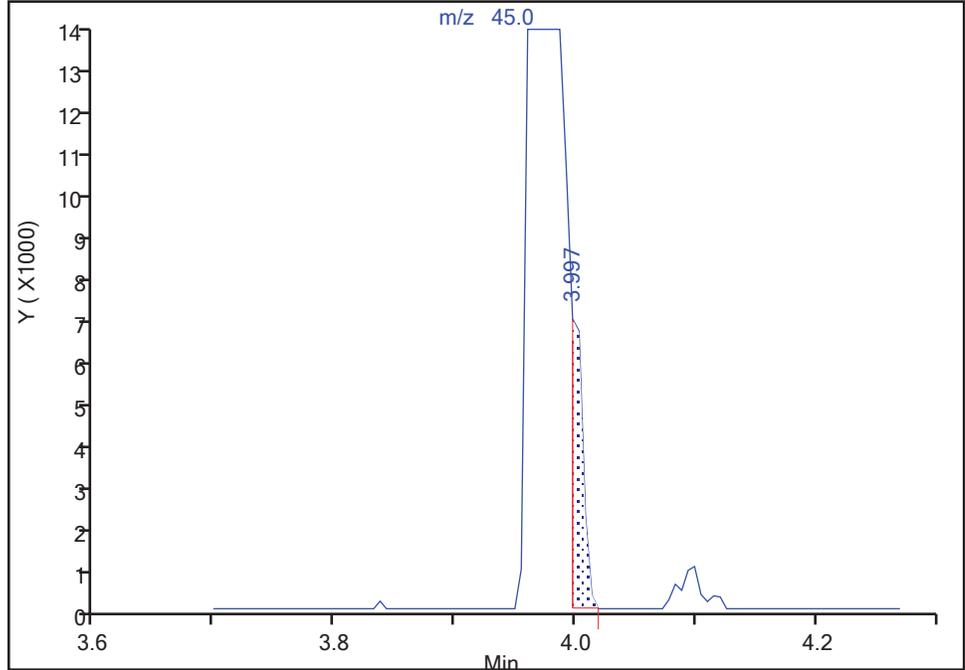
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

43 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

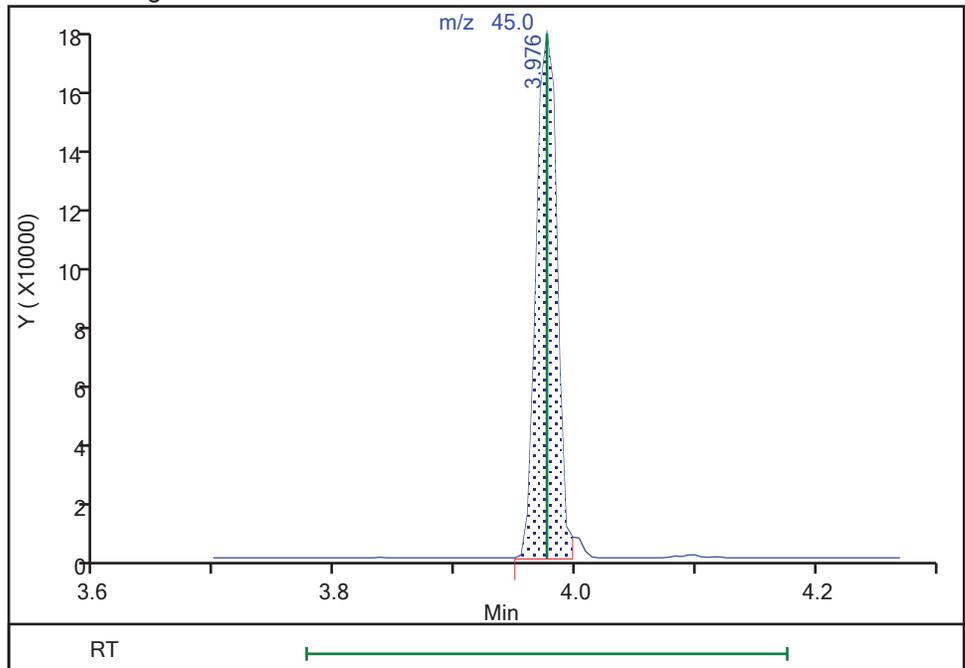
RT: 4.00
Area: 5190
Amount: 1.545888
Amount Units: ug/ml

Processing Integration Results



RT: 3.98
Area: 212007
Amount: 63.148201
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

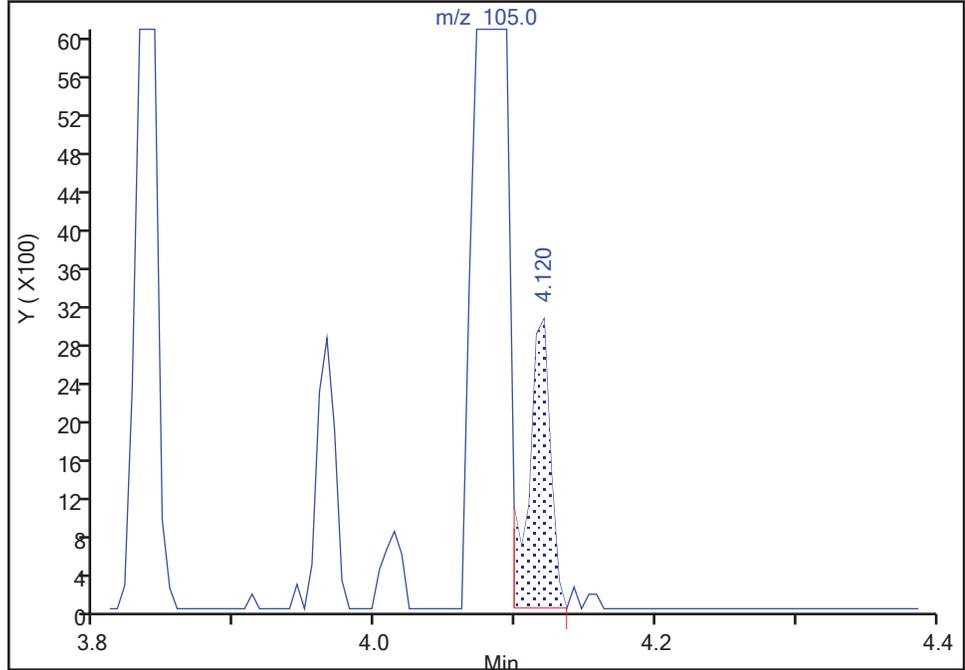
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

51 Acetophenone, CAS: 98-86-2

Signal: 1

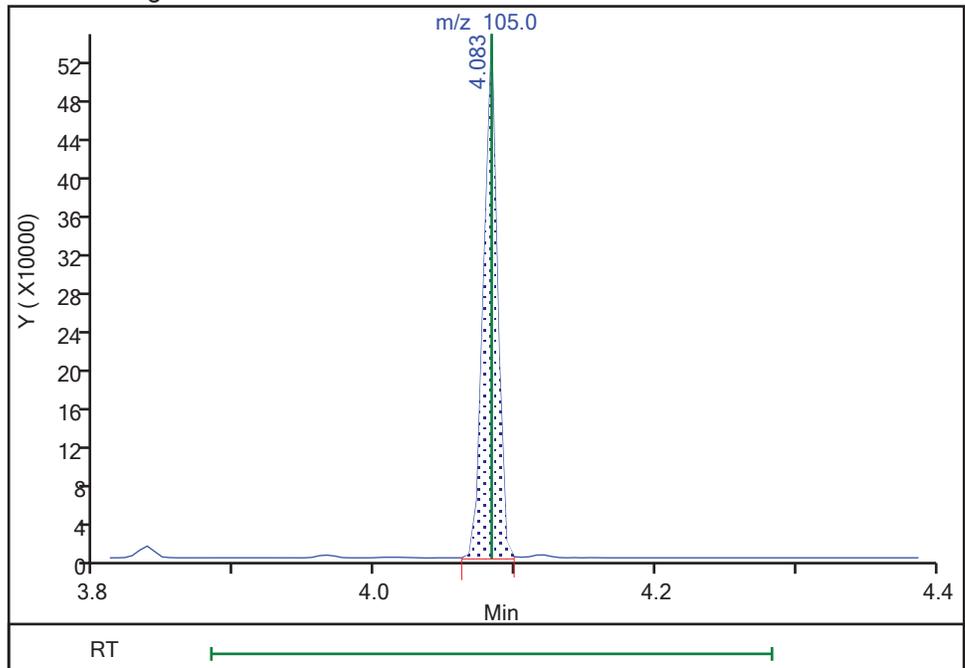
RT: 4.12
Area: 3298
Amount: 0.772601
Amount Units: ug/ml

Processing Integration Results



RT: 4.08
Area: 367835
Amount: 86.170363
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

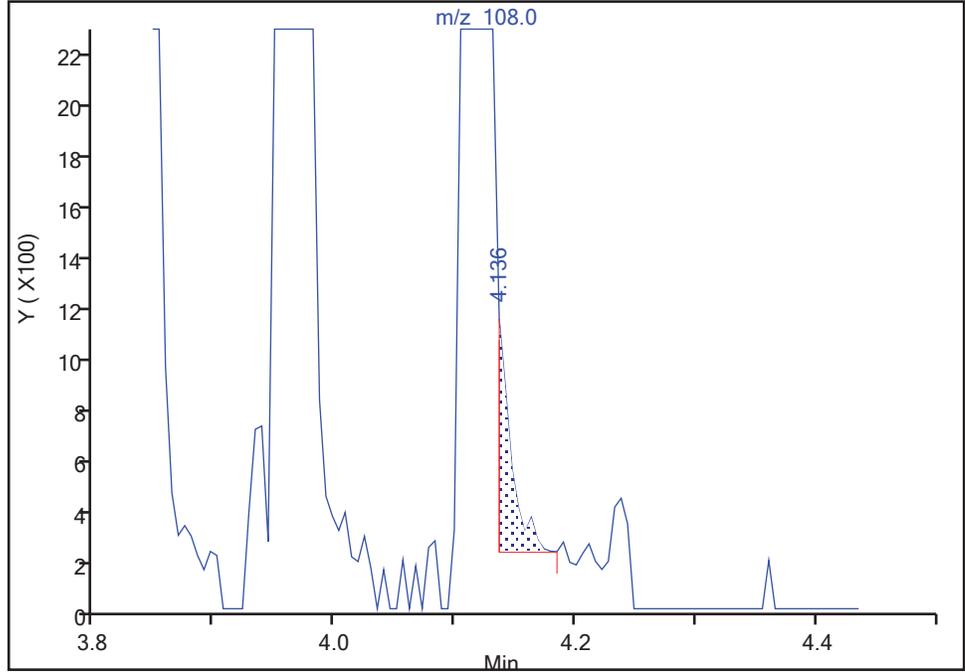
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

48 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

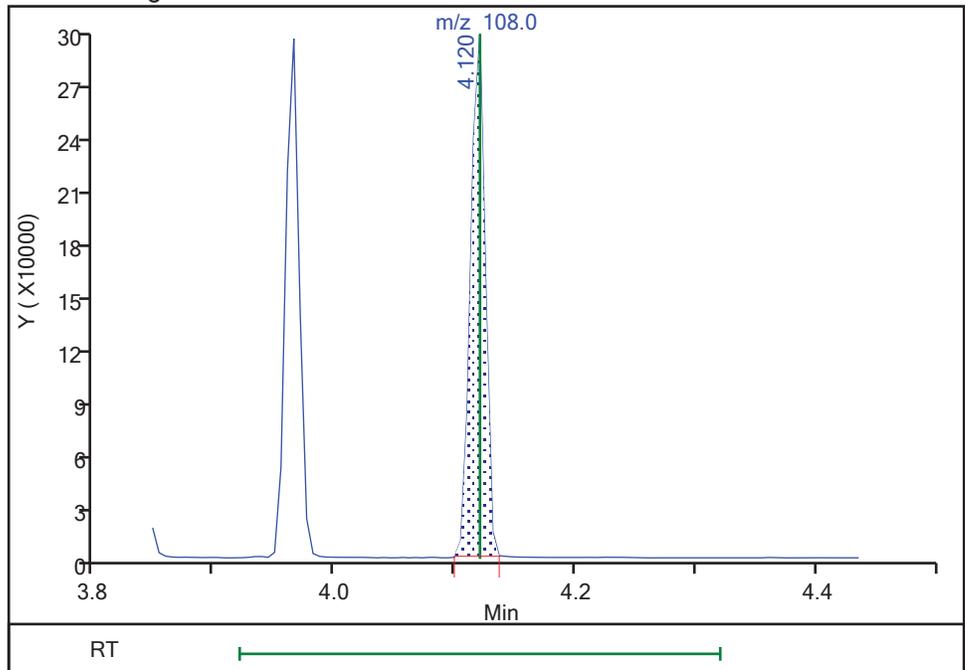
RT: 4.14
Area: 746
Amount: 0.248301
Amount Units: ug/ml

Processing Integration Results



RT: 4.12
Area: 251409
Amount: 83.679770
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

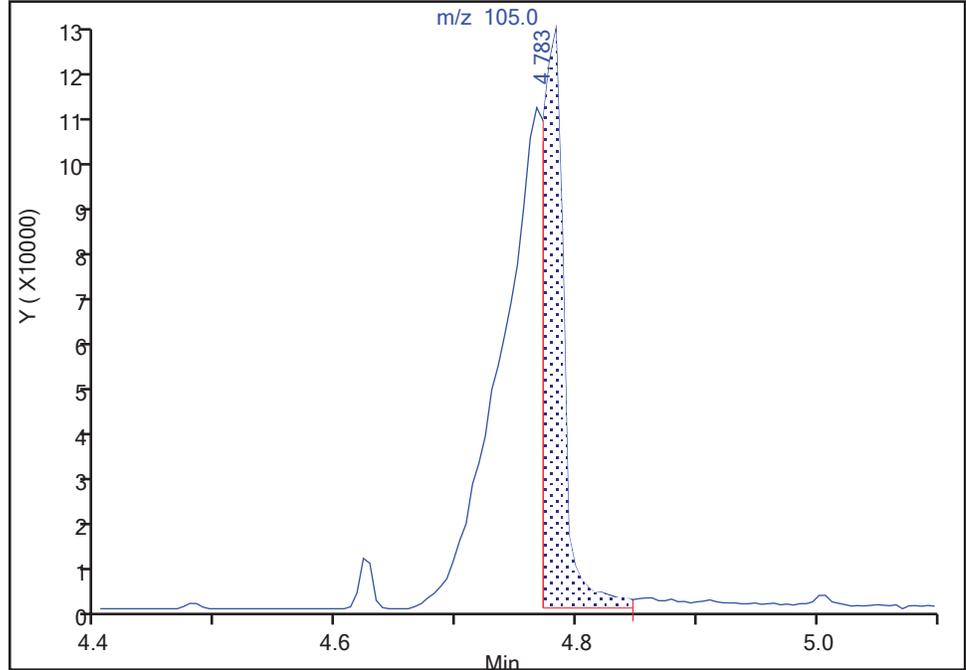
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

64 Benzoic acid, CAS: 65-85-0

Signal: 1

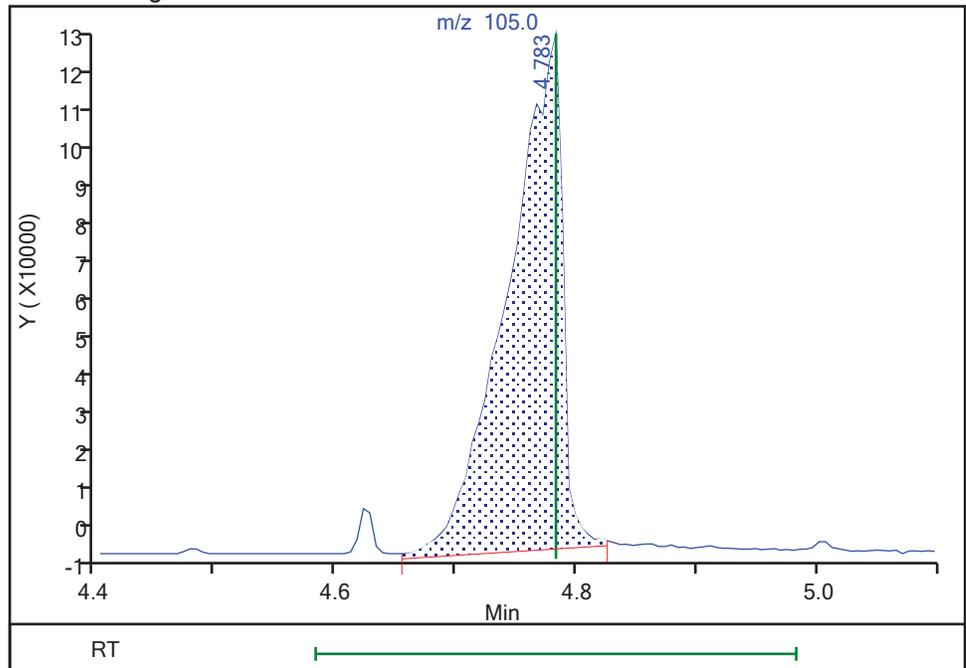
RT: 4.78
Area: 153386
Amount: 62.732577
Amount Units: ug/ml

Processing Integration Results



RT: 4.78
Area: 384368
Amount: 149.1433
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:06:41
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Denver

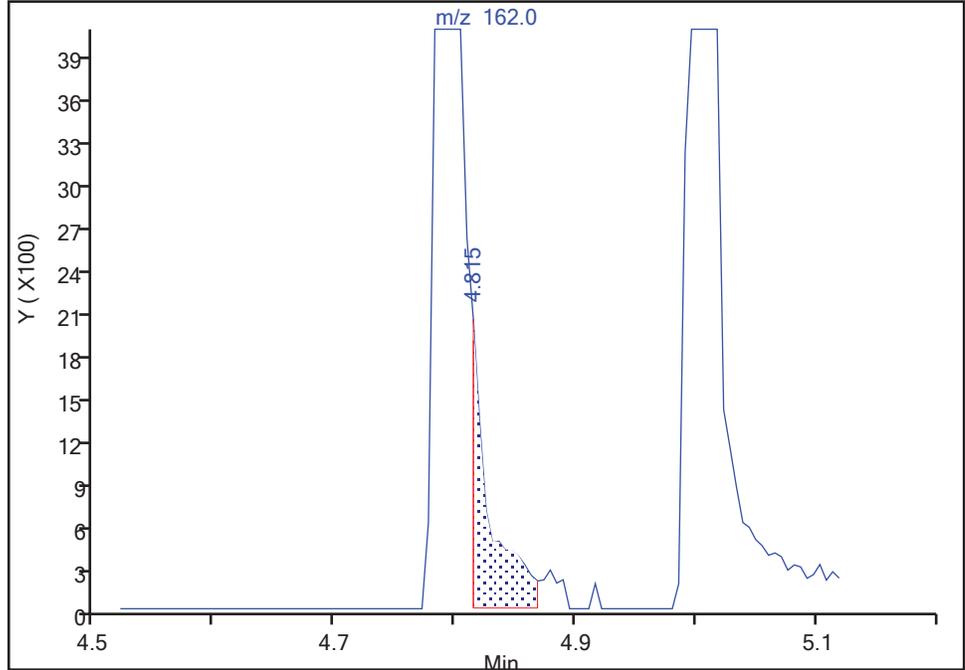
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

68 2,4-Dichlorophenol, CAS: 120-83-2

Signal: 1

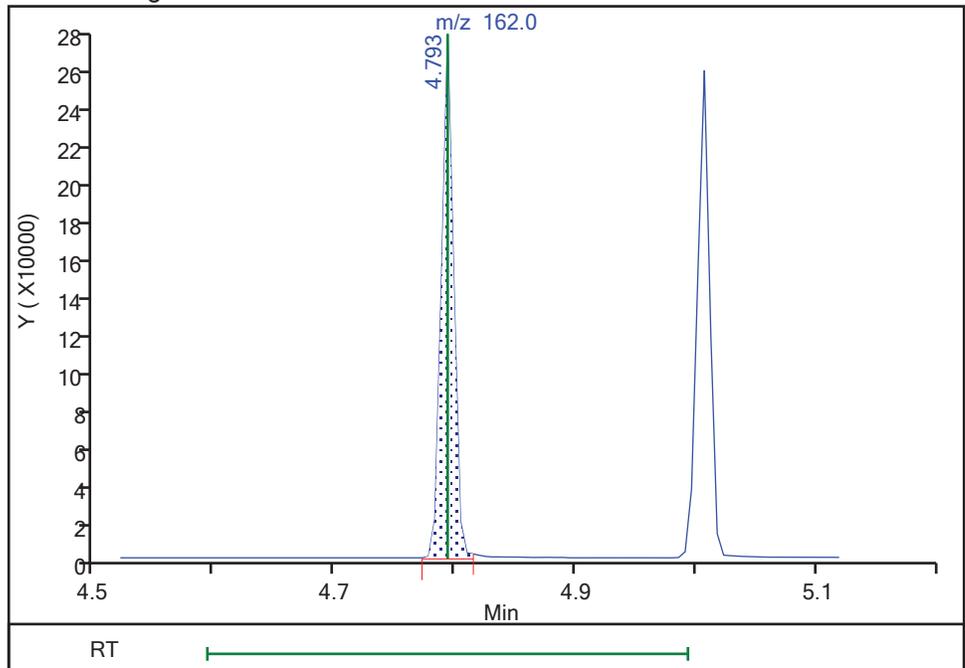
RT: 4.81
Area: 2211
Amount: 0.957163
Amount Units: ug/ml

Processing Integration Results



RT: 4.79
Area: 193548
Amount: 83.788799
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:06:47
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

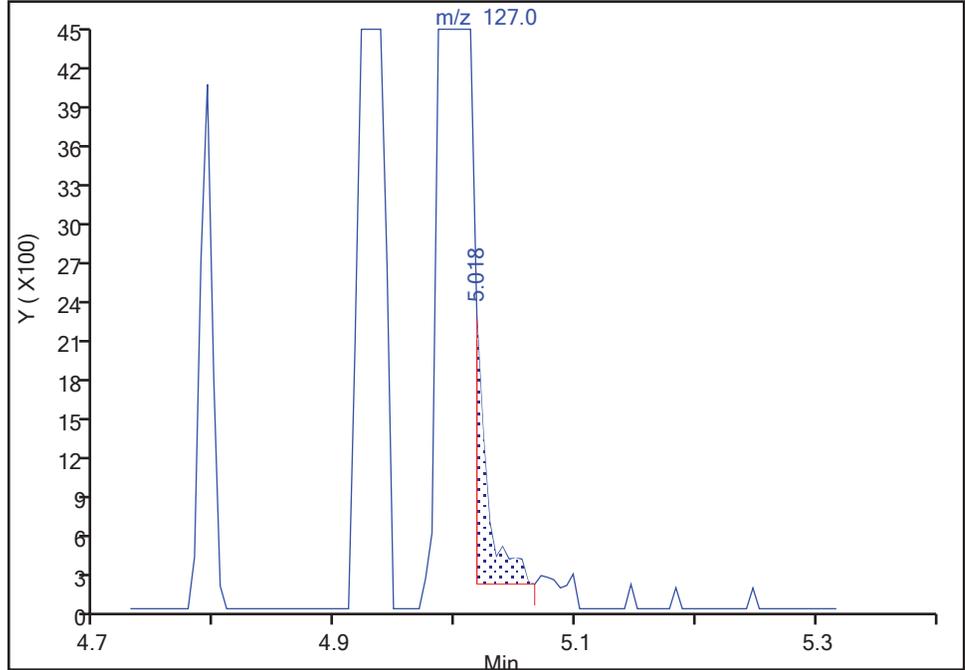
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

72 4-Chloroaniline, CAS: 106-47-8

Signal: 1

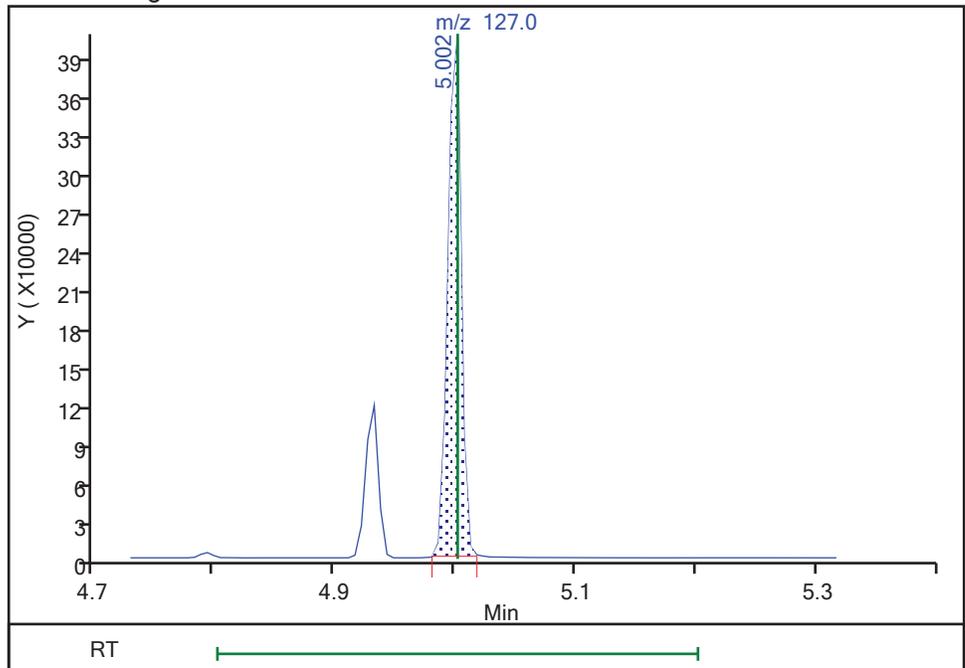
RT: 5.02
Area: 1515
Amount: 0.410821
Amount Units: ug/ml

Processing Integration Results



RT: 5.00
Area: 309259
Amount: 83.861489
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

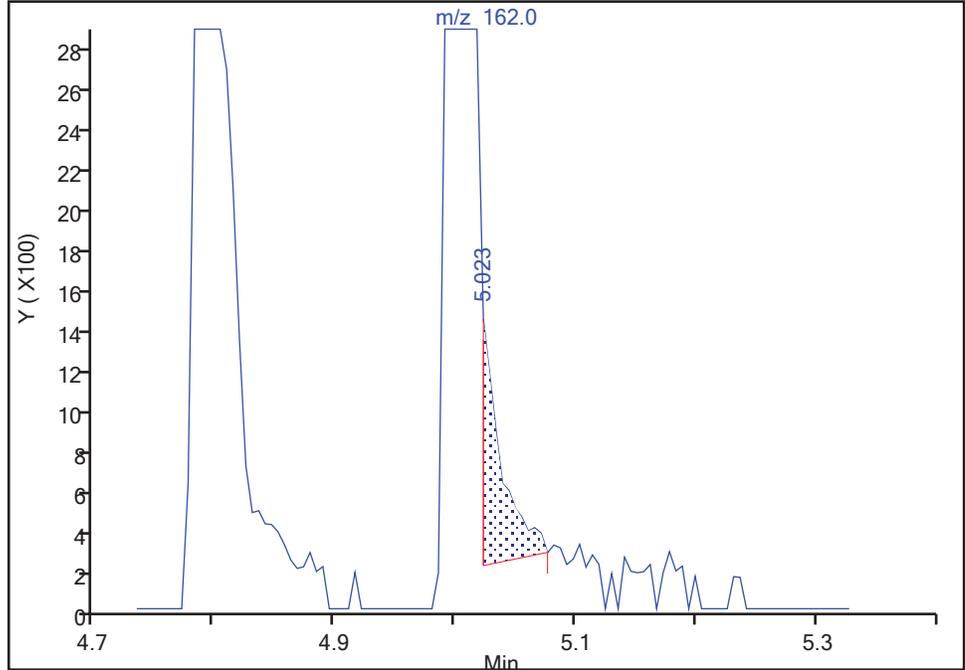
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

73 2,6-Dichlorophenol, CAS: 87-65-0

Signal: 1

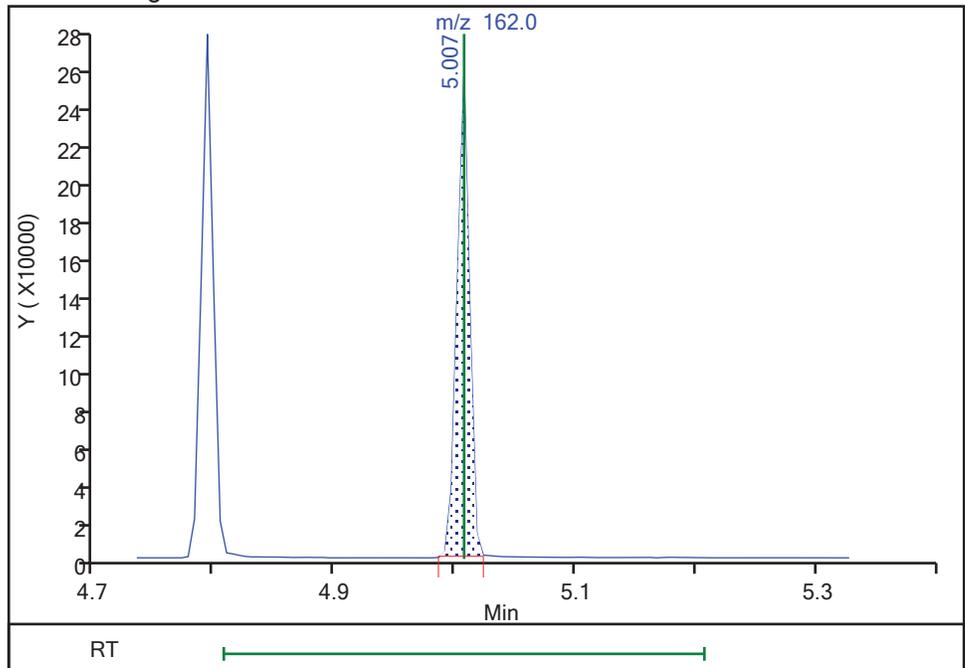
RT: 5.02
Area: 1357
Amount: 0.601151
Amount Units: ug/ml

Processing Integration Results



RT: 5.01
Area: 185723
Amount: 82.275349
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:06:54
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

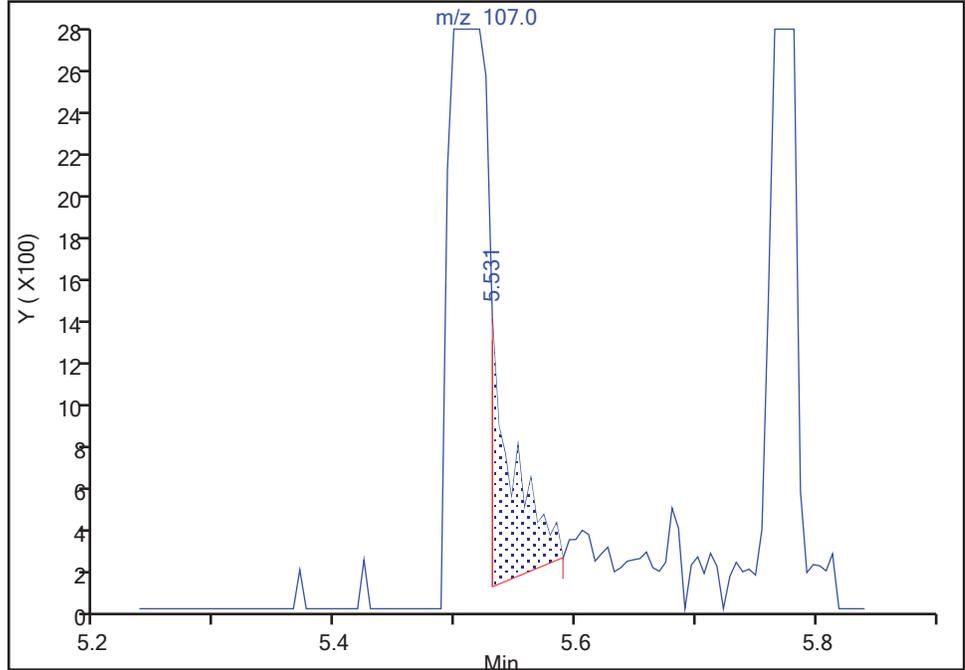
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

83 4-Chloro-3-methylphenol, CAS: 59-50-7

Signal: 1

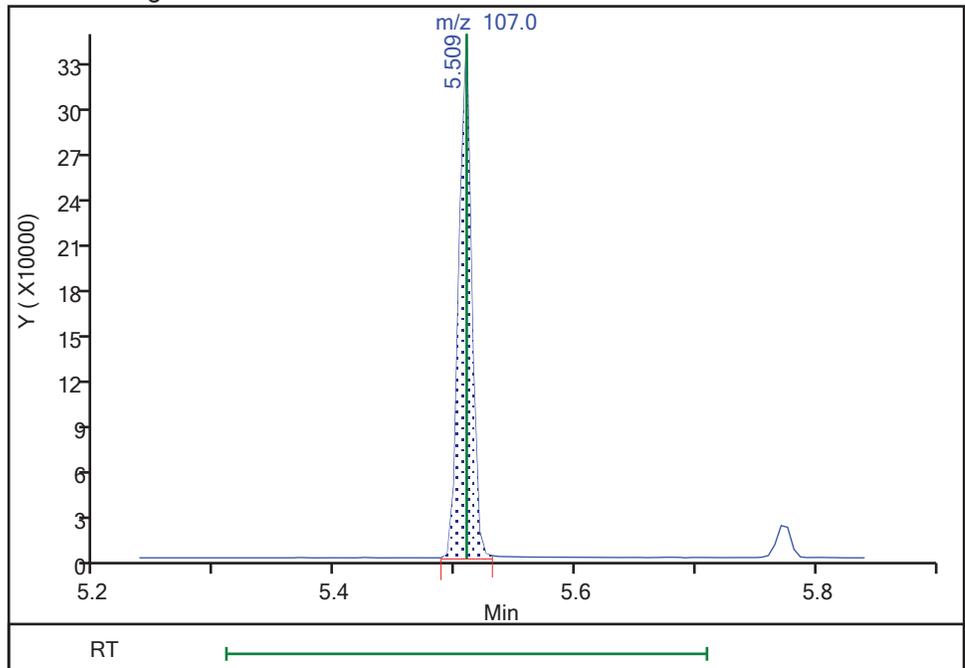
RT: 5.53
Area: 1668
Amount: 0.598467
Amount Units: ug/ml

Processing Integration Results



RT: 5.51
Area: 245540
Amount: 88.098060
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:00
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

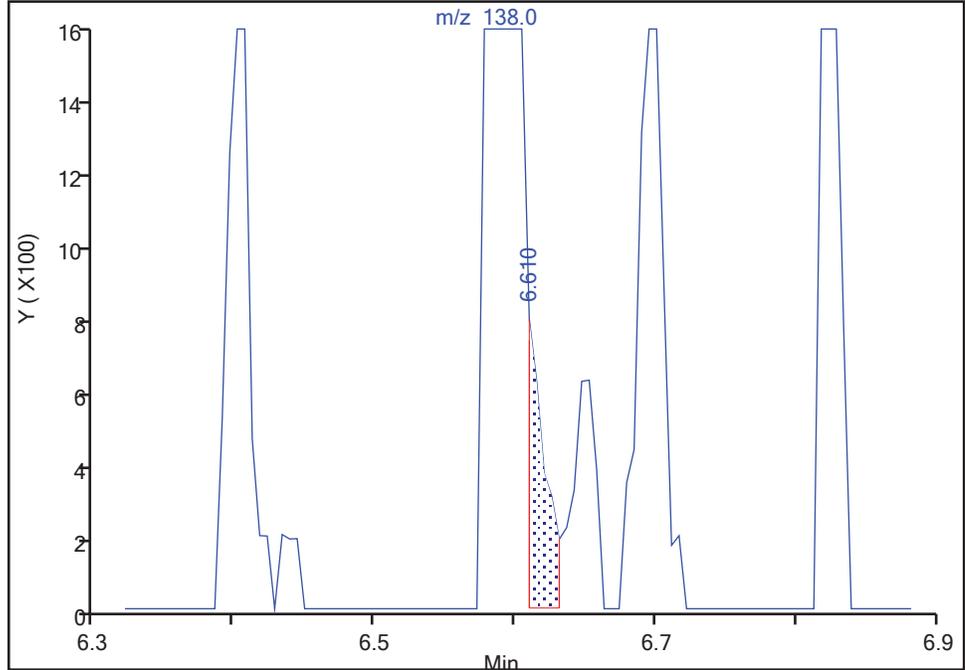
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

108 3-Nitroaniline, CAS: 99-09-2

Signal: 1

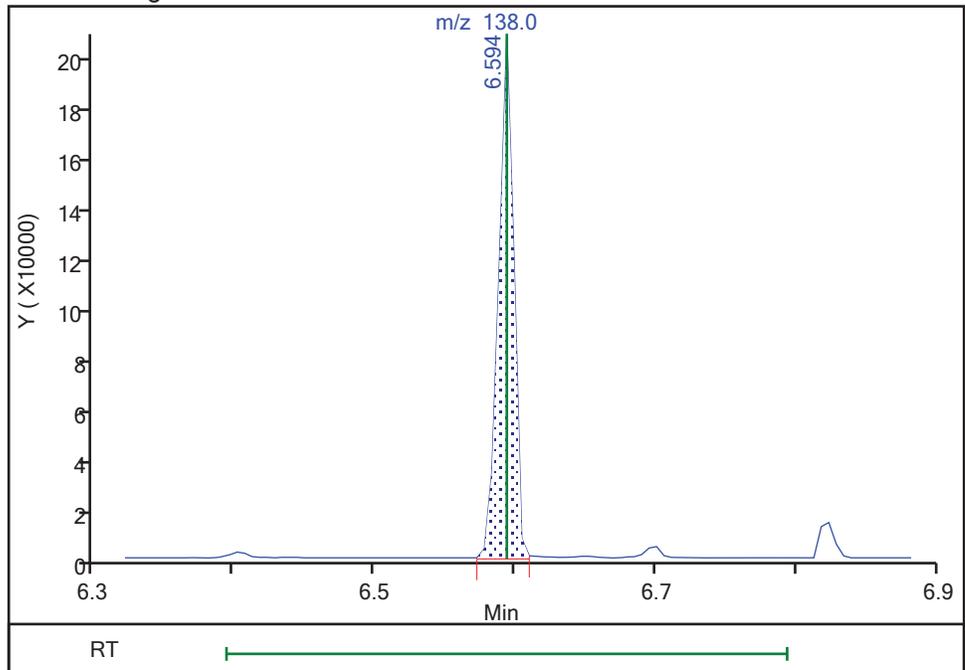
RT: 6.61
Area: 716
Amount: 0.404045
Amount Units: ug/ml

Processing Integration Results



RT: 6.59
Area: 156407
Amount: 88.261781
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

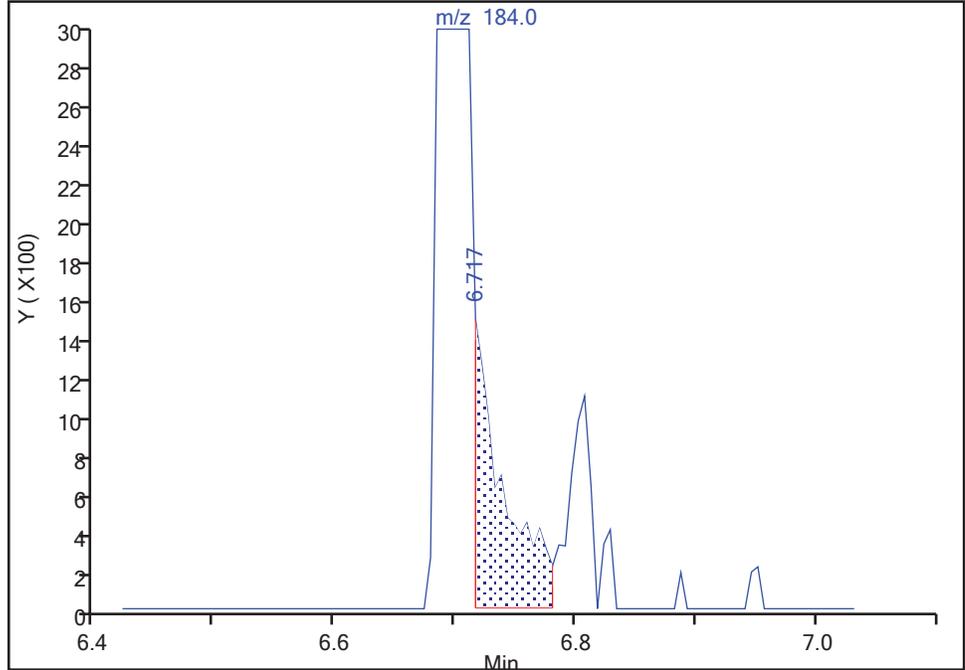
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

111 2,4-Dinitrophenol, CAS: 51-28-5

Signal: 1

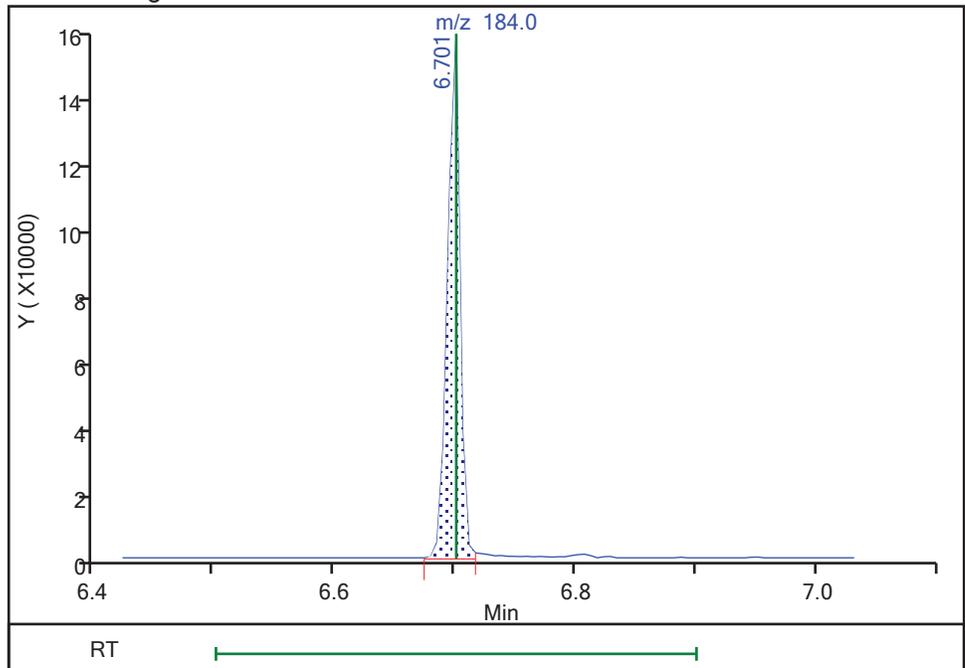
RT: 6.72
Area: 2509
Amount: 11.285656
Amount Units: ug/ml

Processing Integration Results



RT: 6.70
Area: 111313
Amount: 134.0775
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

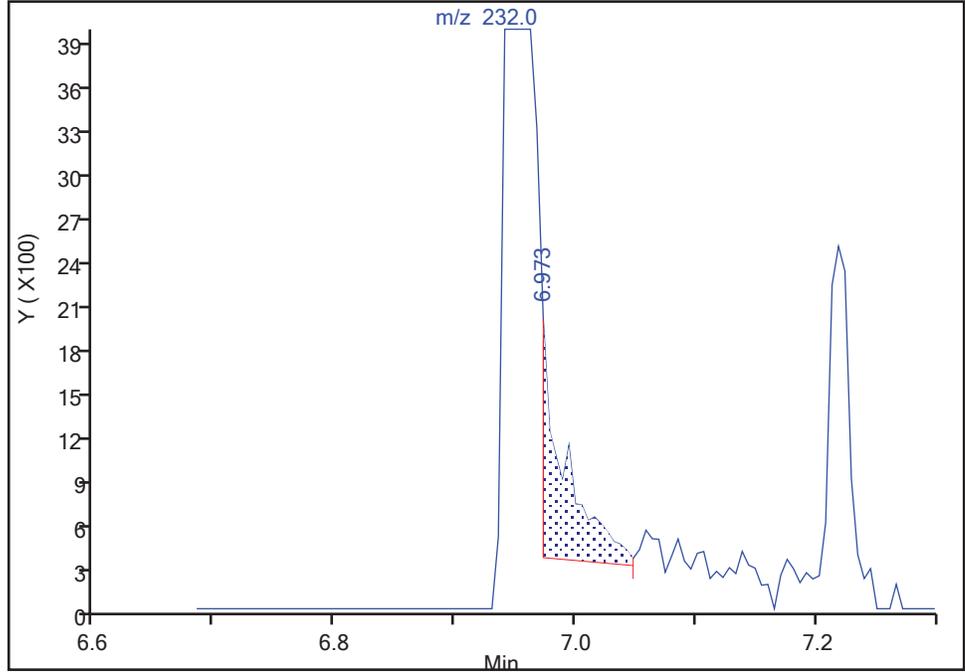
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

119 2,3,4,6-Tetrachlorophenol, CAS: 58-90-2

Signal: 1

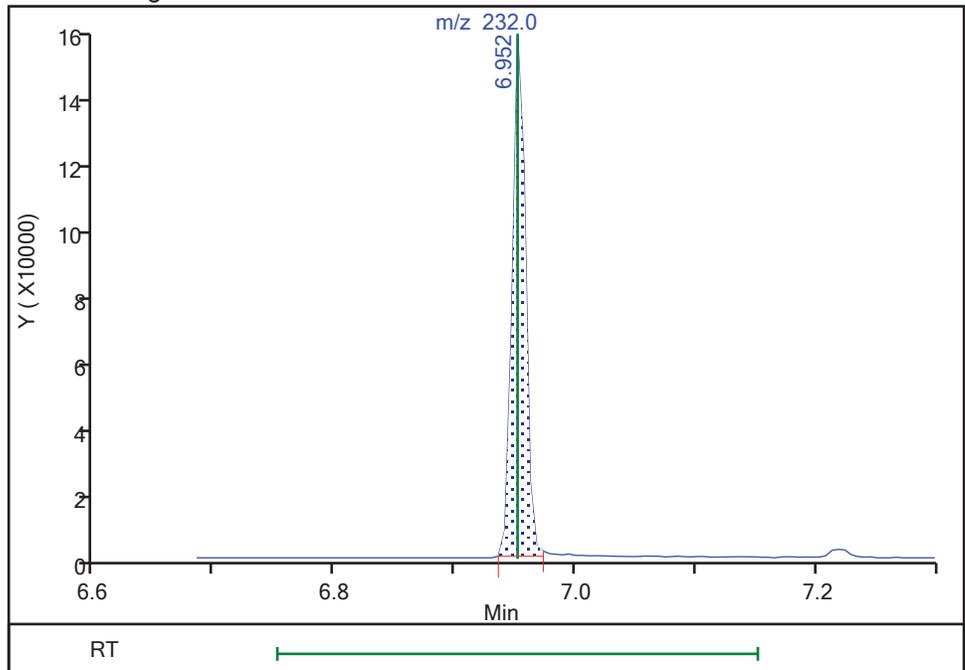
RT: 6.97
Area: 2161
Amount: 1.542523
Amount Units: ug/ml

Processing Integration Results



RT: 6.95
Area: 116113
Amount: 82.881505
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

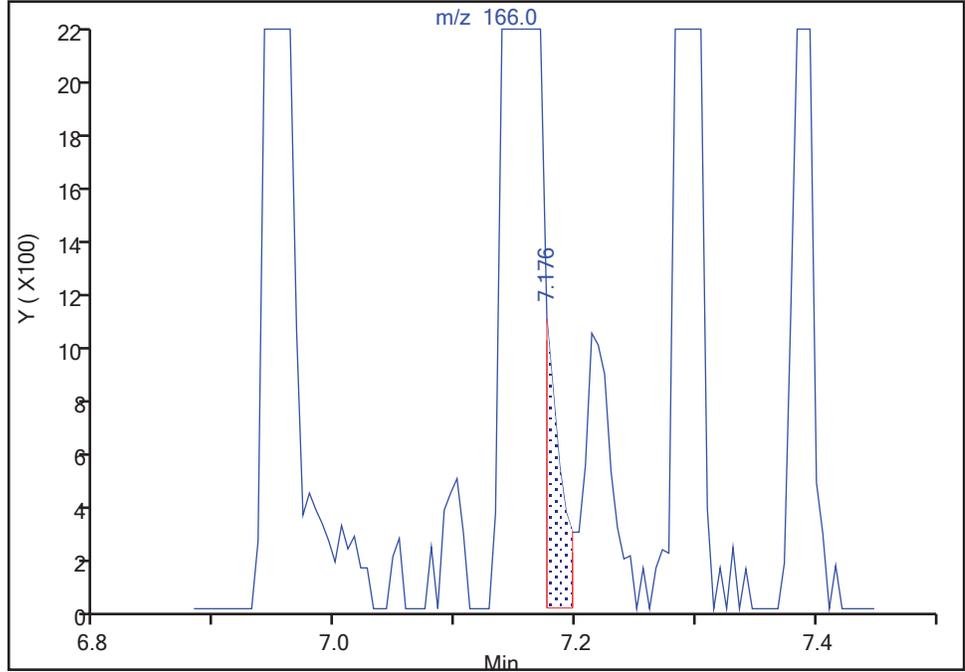
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

129 Fluorene, CAS: 86-73-7

Signal: 1

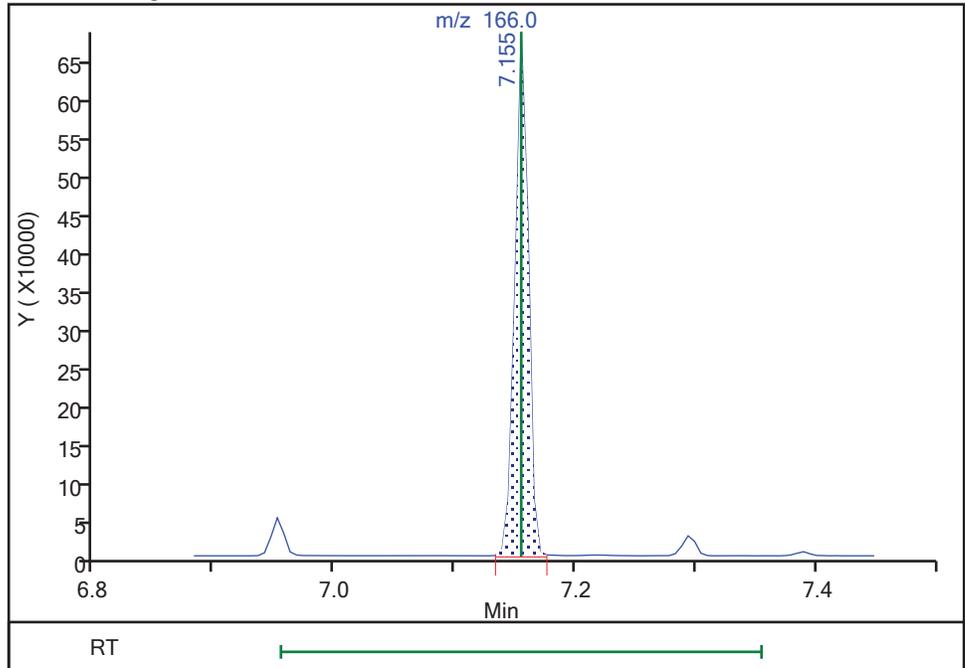
RT: 7.18
Area: 999
Amount: 0.158925
Amount Units: ug/ml

Processing Integration Results



RT: 7.15
Area: 525042
Amount: 83.526063
Amount Units: ug/ml

Manual Integration Results



Eurofins Denver

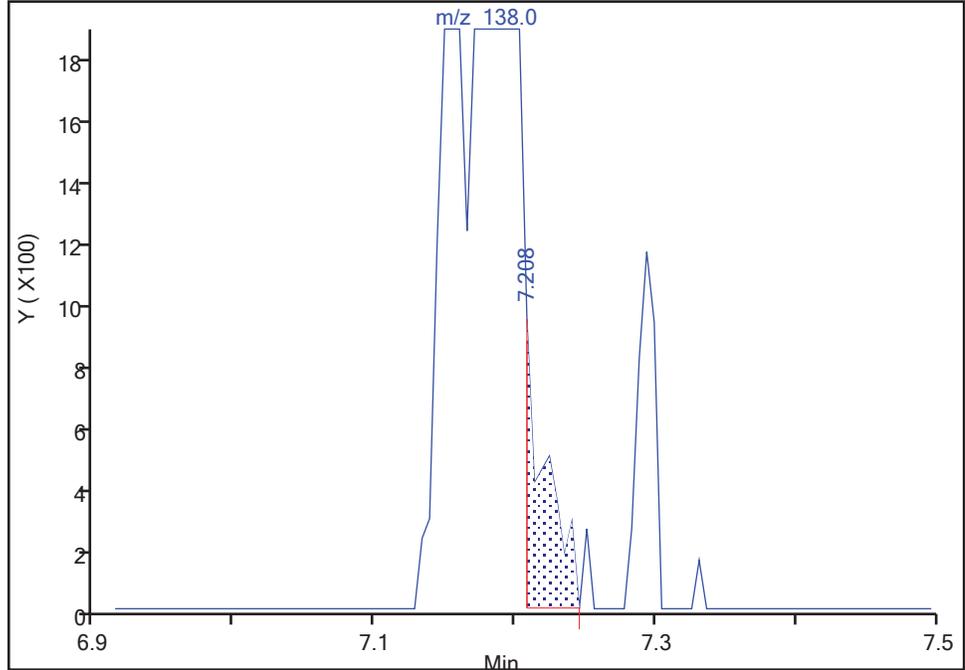
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

130 4-Nitroaniline, CAS: 100-01-6

Signal: 1

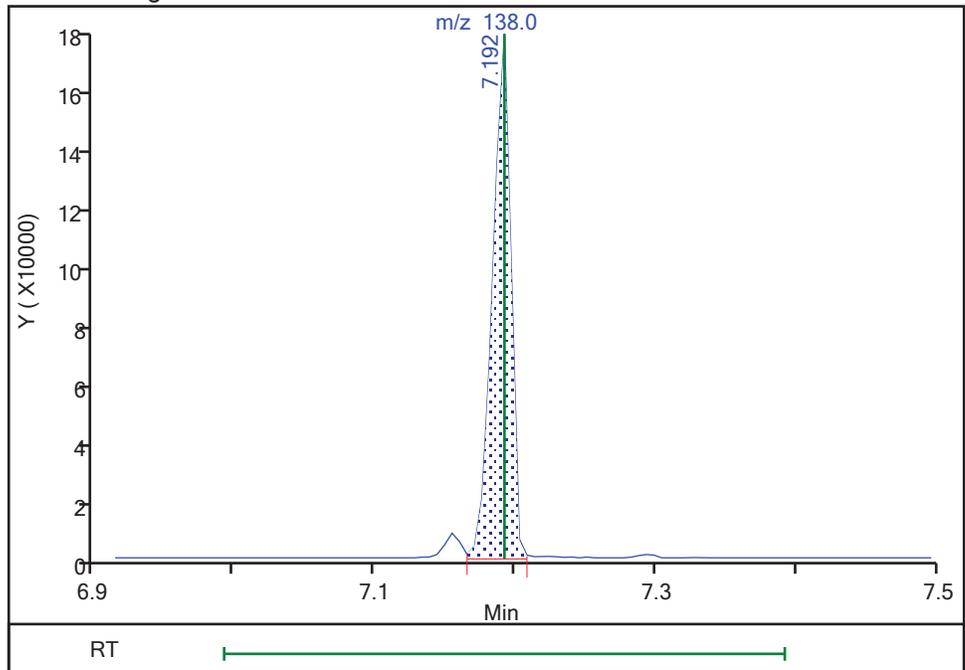
RT: 7.21
Area: 965
Amount: 0.523002
Amount Units: ug/ml

Processing Integration Results



RT: 7.19
Area: 161749
Amount: 87.663268
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:31
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

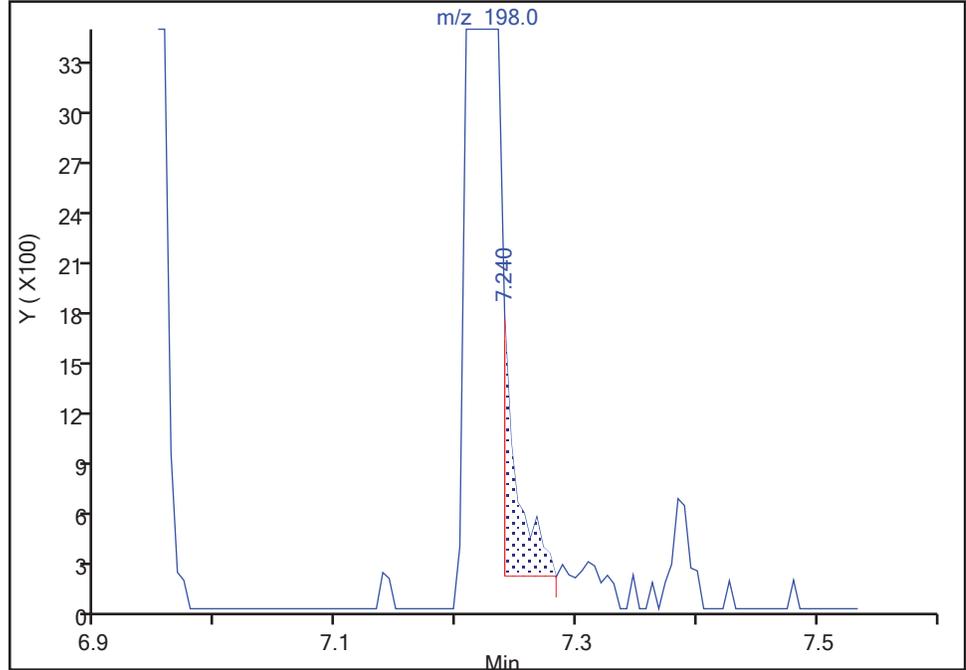
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

131 4,6-Dinitro-2-methylphenol, CAS: 534-52-1

Signal: 1

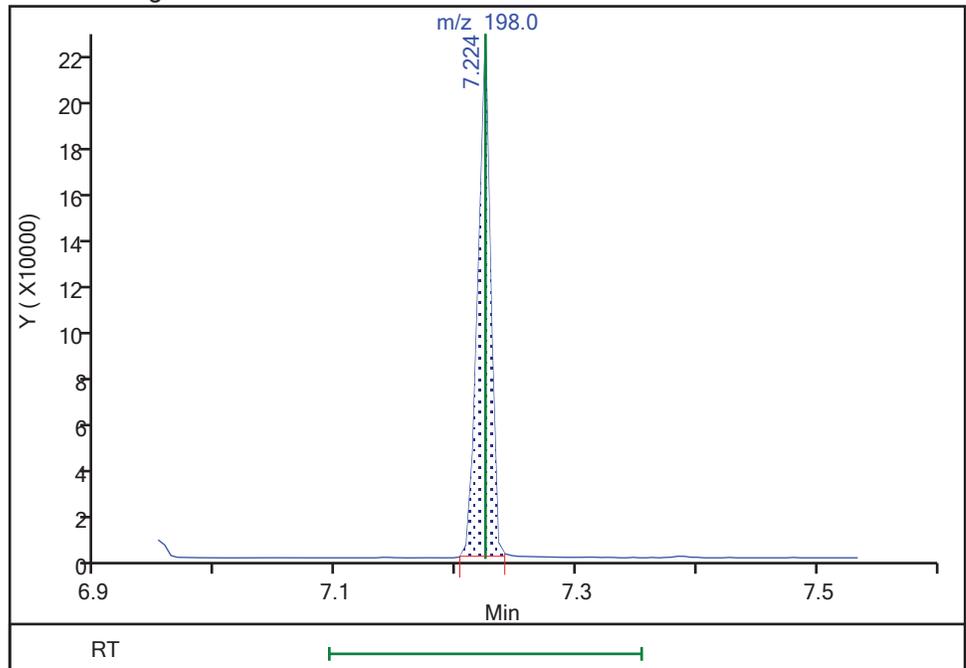
RT: 7.24
Area: 1322
Amount: 6.731816
Amount Units: ug/ml

Processing Integration Results



RT: 7.22
Area: 160472
Amount: 153.8281
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:33
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

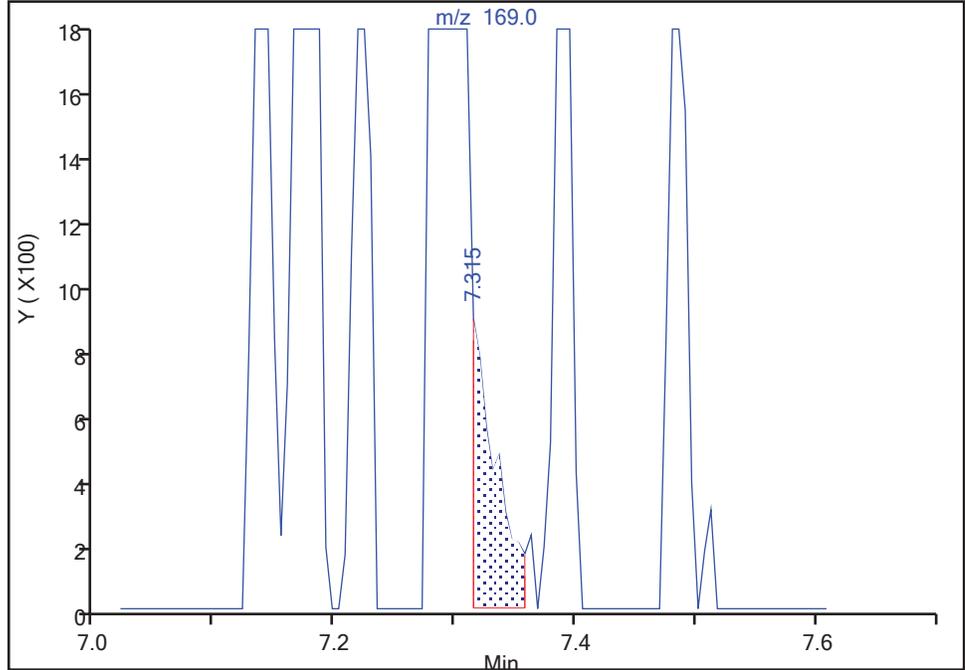
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

134 Diphenylamine, CAS: 122-39-4

Signal: 1

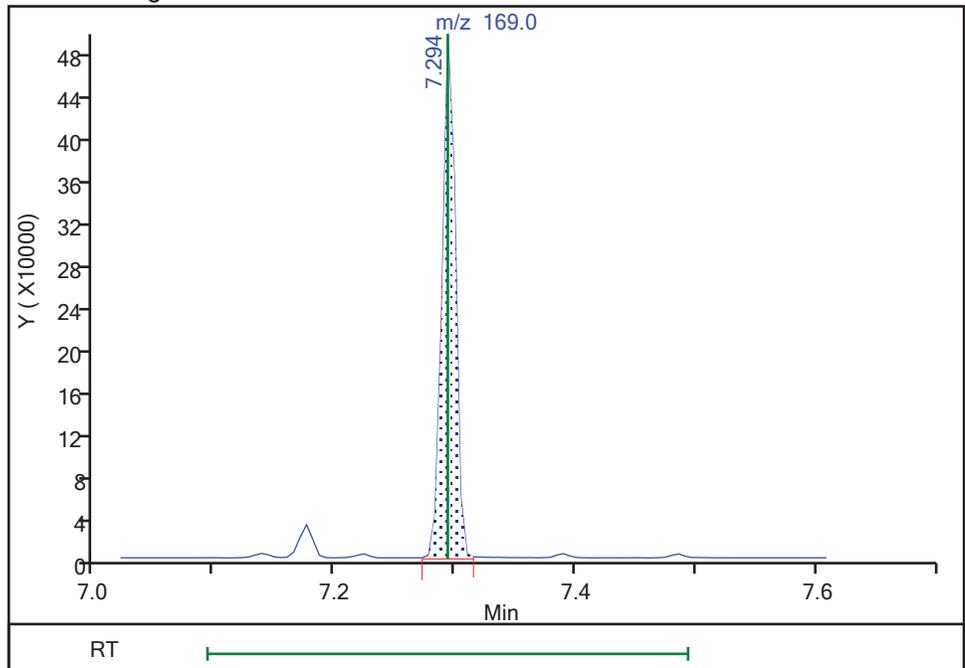
RT: 7.31
Area: 1239
Amount: 0.229255
Amount Units: ug/ml

Processing Integration Results



RT: 7.29
Area: 383199
Amount: 70.904299
Amount Units: ug/ml

Manual Integration Results



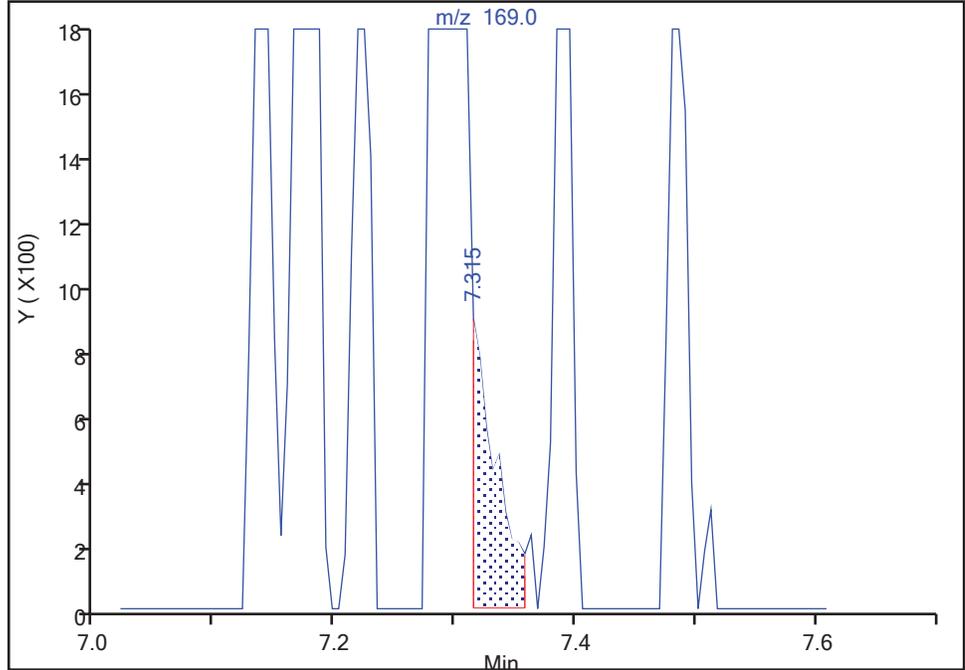
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

135 N-Nitrosodiphenylamine, CAS: 86-30-6
Signal: 1

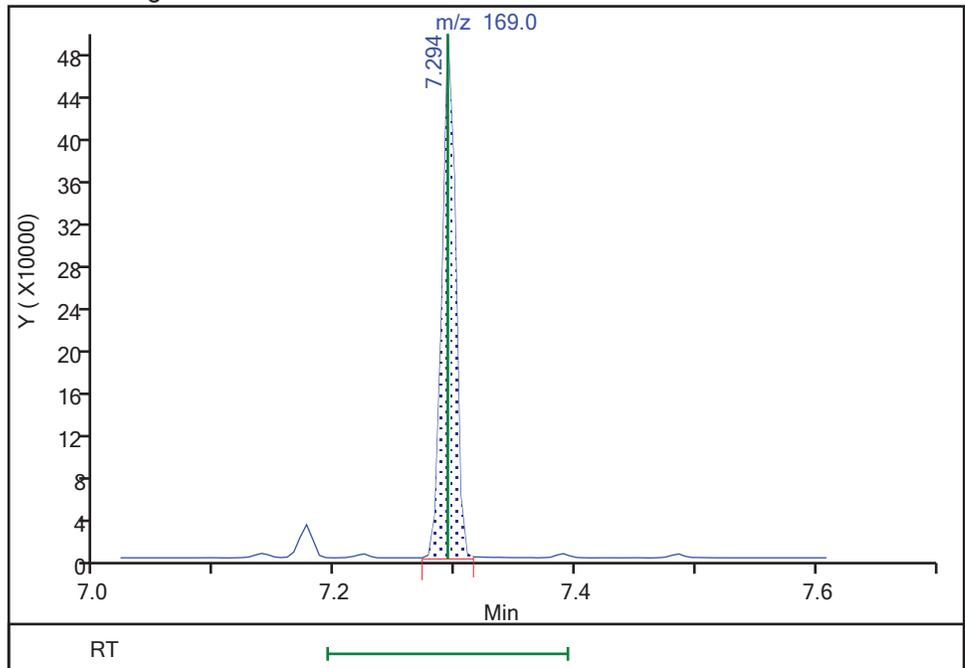
RT: 7.31
Area: 1239
Amount: 0.273834
Amount Units: ug/ml

Processing Integration Results



RT: 7.29
Area: 383199
Amount: 84.691730
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:38
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

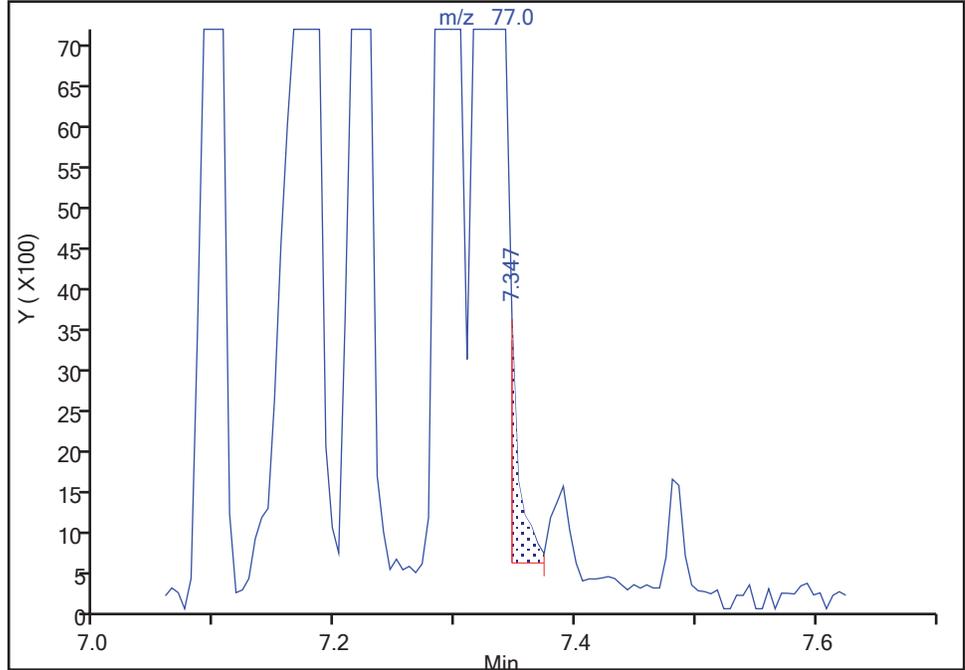
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

137 Azobenzene, CAS: 103-33-3

Signal: 1

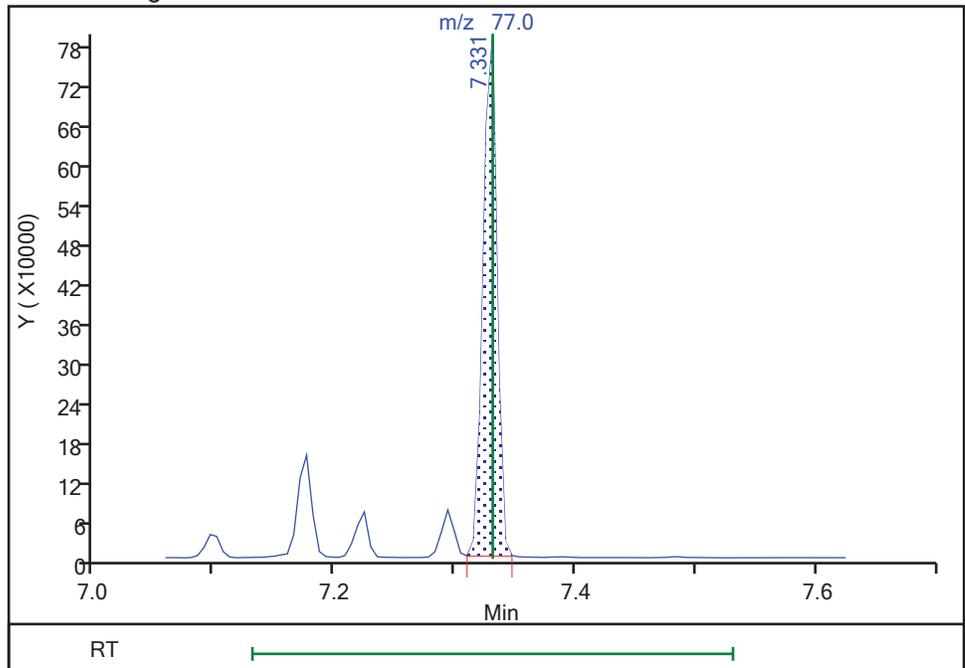
RT: 7.35
Area: 1736
Amount: 0.232316
Amount Units: ug/ml

Processing Integration Results



RT: 7.33
Area: 643940
Amount: 86.173593
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:41
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

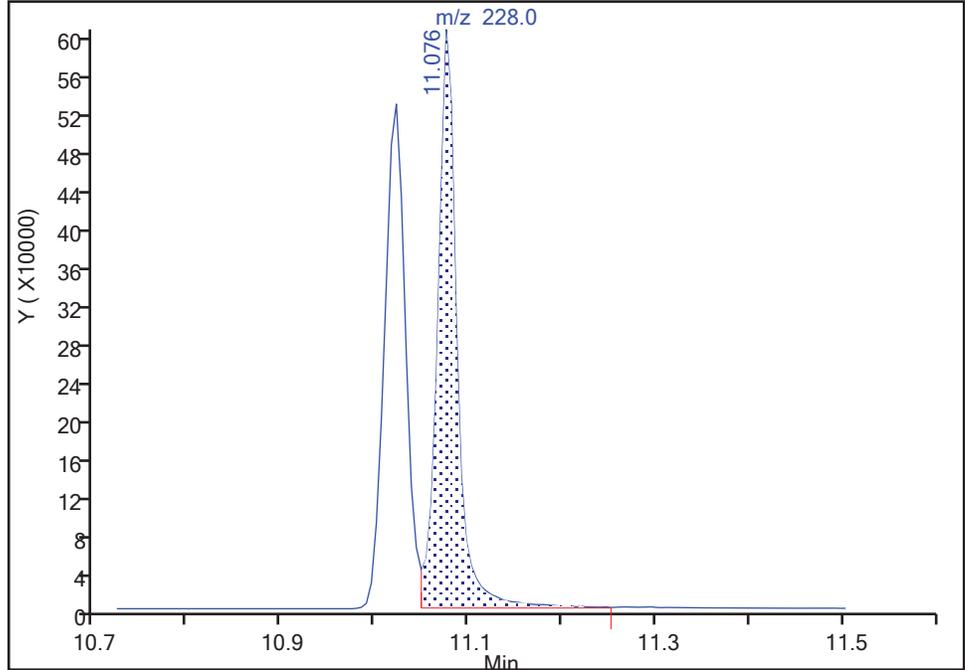
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

191 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

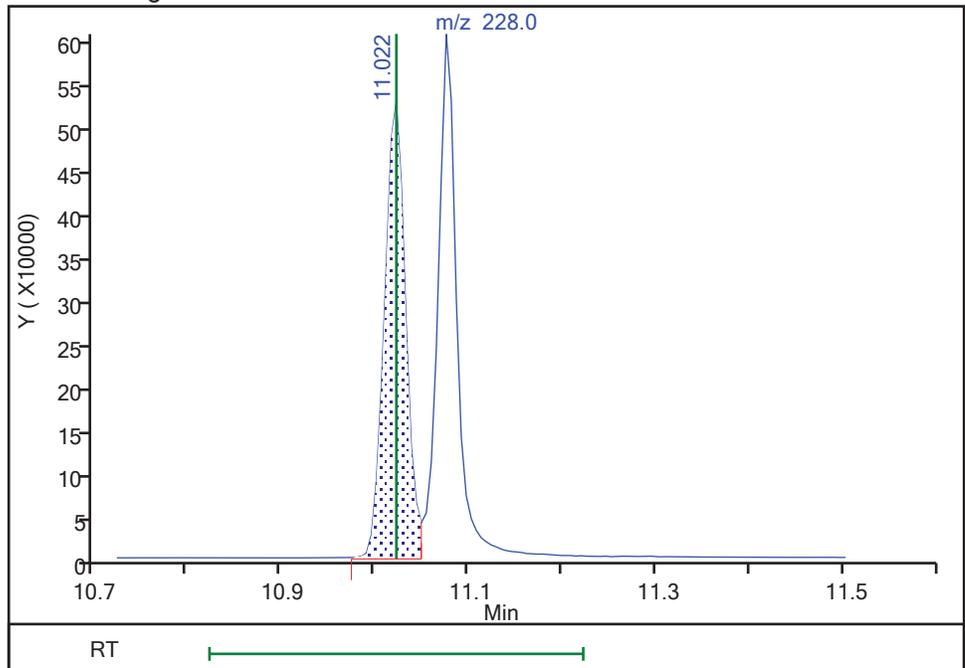
RT: 11.08
Area: 879307
Amount: 85.634241
Amount Units: ug/ml

Processing Integration Results



RT: 11.02
Area: 830757
Amount: 80.906038
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:51
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

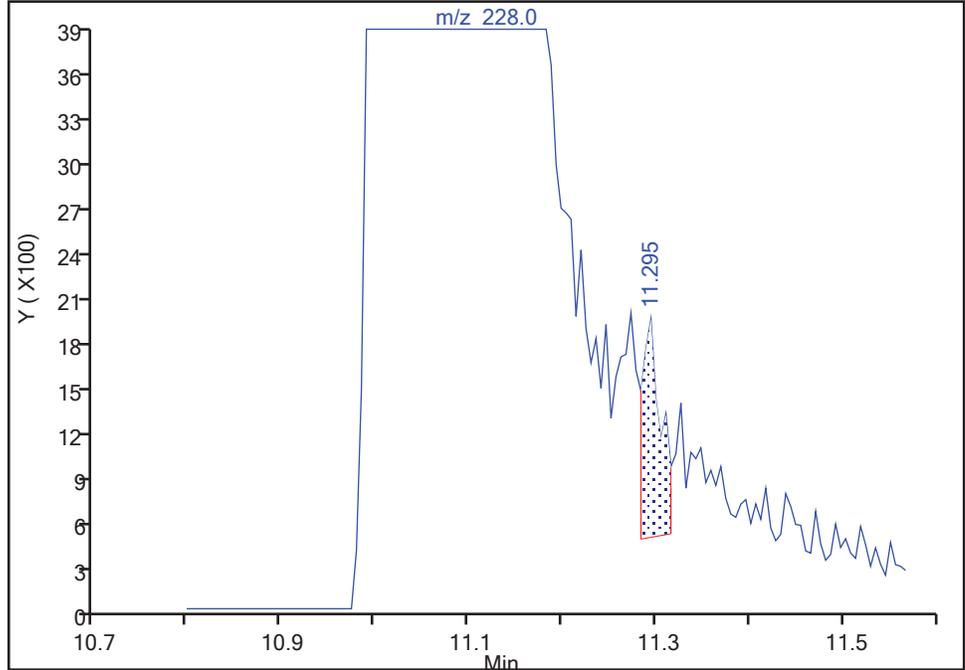
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

192 Chrysene, CAS: 218-01-9

Signal: 1

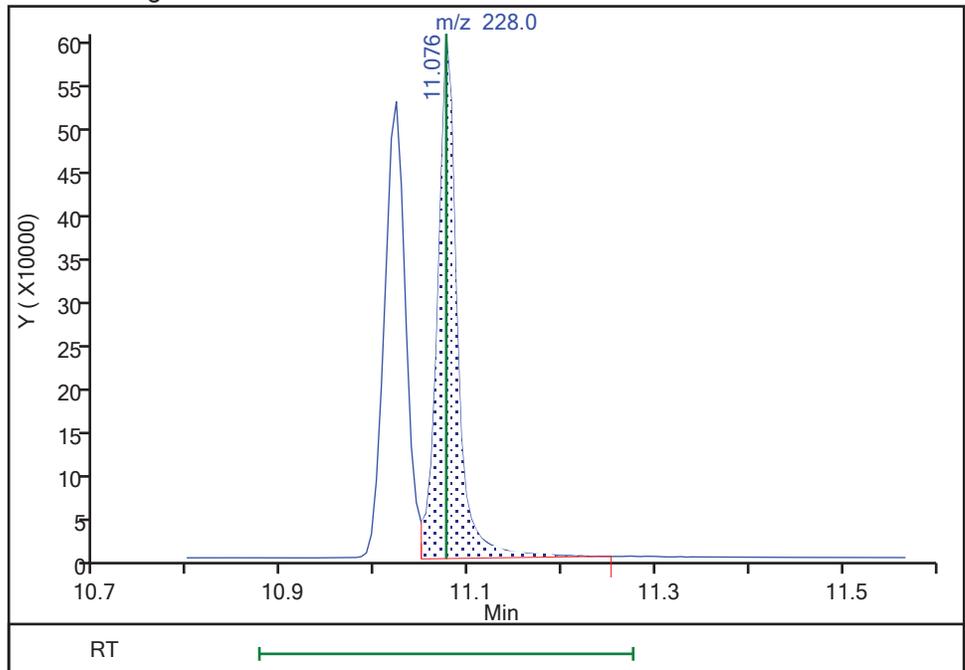
RT: 11.29
Area: 2093
Amount: 0.193871
Amount Units: ug/ml

Processing Integration Results



RT: 11.08
Area: 879307
Amount: 81.448780
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:53
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

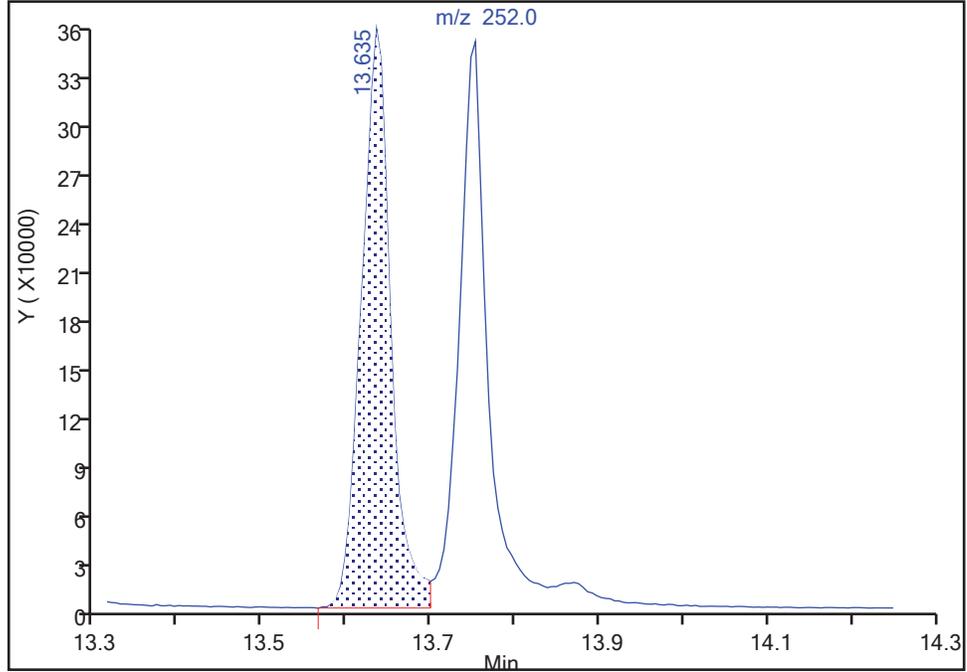
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

201 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

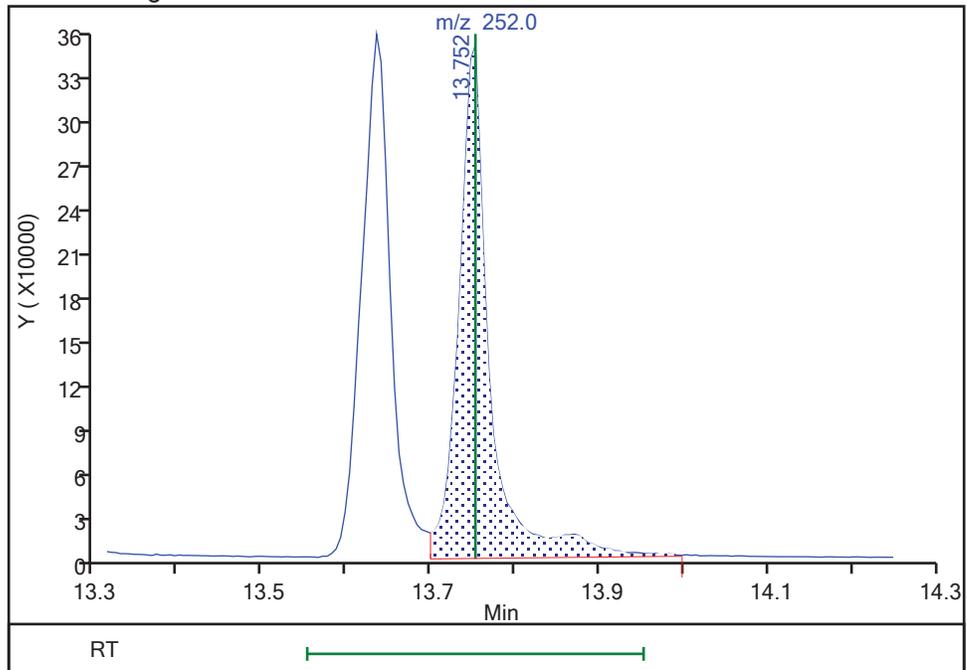
RT: 13.63
Area: 857968
Amount: 89.202987
Amount Units: ug/ml

Processing Integration Results



RT: 13.75
Area: 891581
Amount: 92.697733
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:07:59
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Denver

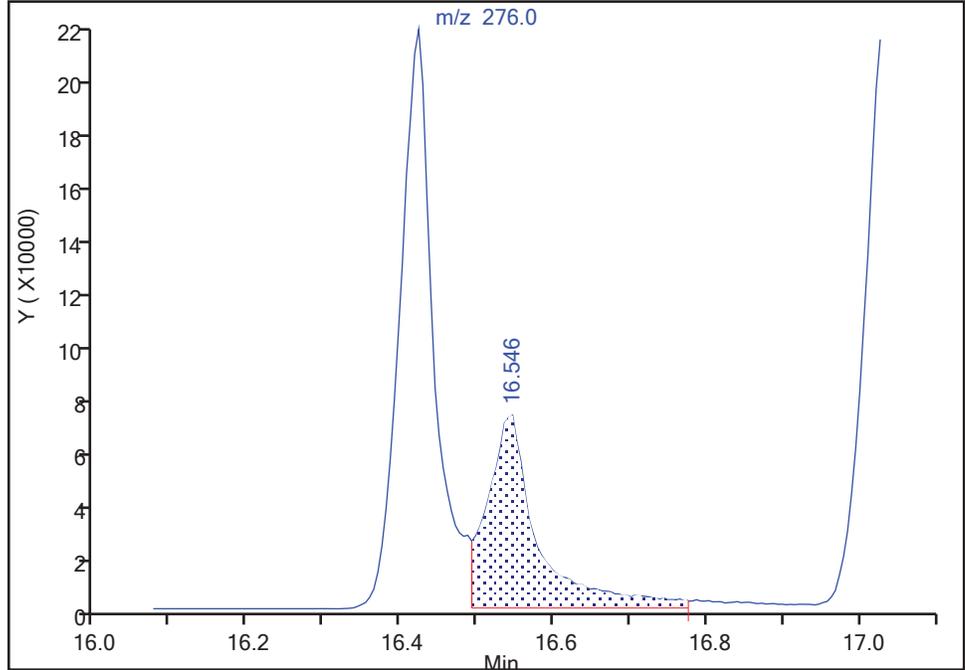
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
Injection Date: 28-Nov-2022 11:12:30 Instrument ID: SMS_Y
Lims ID: CCV HSL
Client ID:
Operator ID: TESSIERN ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

207 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

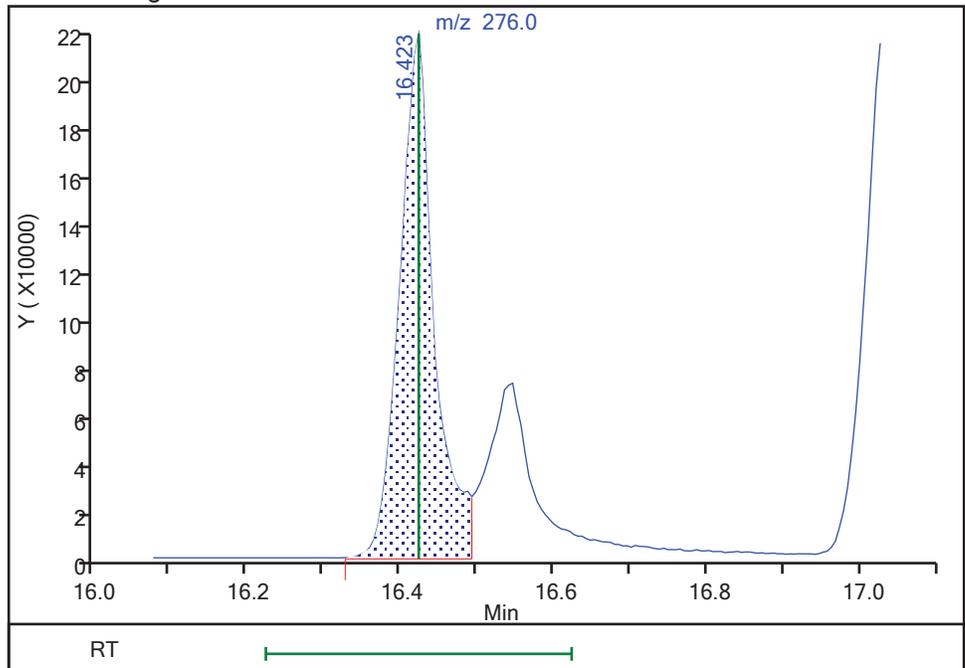
RT: 16.55
Area: 330946
Amount: 39.534731
Amount Units: ug/ml

Processing Integration Results



RT: 16.42
Area: 668105
Amount: 76.446610
Amount Units: ug/ml

Manual Integration Results



Reviewer: NU5H, 29-Nov-2022 17:08:01
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCV 280-594711/2 Calibration Date: 11/28/2022 11:12
 Instrument ID: SMS_Y Calib Start Date: 11/16/2022 11:45
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/16/2022 14:14
 Lab File ID: Y19306462.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.6395	0.6638	0.0100	83000	80000	3.8	20.0
Atrazine	Ave	0.1779	0.2051	0.0100	92200	80000	15.3	20.0
3,3'-Dichlorobenzidine	Ave	0.4167	0.4630	0.0100	88900	80000	11.1	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D
 Lims ID: CCV HSL
 Client ID:
 Sample Type: CCV
 Inject. Date: 28-Nov-2022 11:12:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCV HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:13:21 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:08:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.693	0.000	96	78244	40.0	40.0	
* 2 Naphthalene-d8	136	4.911	4.911	0.000	99	332149	40.0	40.0	
* 3 Acenaphthene-d10	164	6.620	6.620	0.000	93	192302	40.0	40.0	
* 4 Phenanthrene-d10	188	8.063	8.063	0.000	98	334272	40.0	40.0	
* 5 Chrysene-d12	240	11.033	11.033	0.000	99	354064	40.0	40.0	
* 6 Perylene-d12	264	13.875	13.875	0.000	97	355089	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	90	239032	80.0	78.2	
\$ 8 Phenol-d5	99	3.383	3.383	0.000	94	321003	80.0	77.1	
\$ 9 Nitrobenzene-d5	82	4.222	4.222	0.000	85	297424	80.0	78.3	
\$ 11 2-Fluorobiphenyl	172	5.985	5.985	0.000	99	490365	80.0	77.0	
\$ 12 2,4,6-Tribromophenol	330	7.390	7.390	0.000	93	81458	80.0	85.2	
\$ 13 Terphenyl-d14	244	9.665	9.665	0.000	97	702892	80.0	76.4	
15 1,4-Dioxane	88	1.294	1.294	0.000	87	91177	80.0	84.5	
17 N-Nitrosodimethylamine	74	1.455	1.455	0.000	87	144719	80.0	76.8	
18 Pyridine	79	1.487	1.487	0.000	94	452163	160.0	152.6	
28 Phenol	94	3.394	3.394	0.000	96	358696	80.0	86.2	
30 Aniline	93	3.383	3.383	0.000	95	402330	80.0	81.8	
31 Bis(2-chloroethyl)ether	93	3.458	3.458	0.000	98	248741	80.0	81.8	a
32 Alpha Methyl Styrene	118	3.436	3.436	0.000	90	245639	80.0	85.4	
34 2-Chlorophenol	128	3.501	3.501	0.000	95	230842	80.0	82.0	a
35 n-Decane	43	3.575	3.575	0.000	82	142966	80.0	64.3	
37 1,3-Dichlorobenzene	146	3.639	3.639	0.000	95	241083	80.0	82.2	
38 1,4-Dichlorobenzene	146	3.709	3.709	0.000	93	249030	80.0	83.3	
39 Benzyl alcohol	108	3.837	3.837	0.000	93	176653	80.0	85.1	
40 1,2-Dichlorobenzene	146	3.848	3.848	0.000	95	233028	80.0	81.9	
41 2-Methylphenol	108	3.965	3.965	0.000	95	234746	80.0	83.7	
43 2,2'-oxybis[1-chloropropane]	45	3.976	3.976	0.000	94	212007	80.0	63.1	a
44 Indene	116	3.933	3.933	0.000	88	830020	160.0	166.9	
46 3-Methylphenol	108	4.120	4.120	0.000	89	251409	80.0	83.7	a
47 4-Methylphenol	108	4.120	4.120	0.000	95	251409	80.0	83.7	a

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.120	4.120	0.000	97	251409	80.0	83.7	a
50 N-Nitrosodi-n-propylamine	70	4.099	4.099	0.000	73	190396	80.0	81.3	
51 Acetophenone	105	4.083	4.083	0.000	96	367835	80.0	86.2	a
53 Hexachloroethane	117	4.168	4.168	0.000	95	101371	80.0	85.0	
54 Nitrobenzene	77	4.238	4.238	0.000	83	280989	80.0	80.7	
57 Isophorone	82	4.478	4.478	0.000	98	543372	80.0	82.9	
58 2-Nitrophenol	139	4.548	4.548	0.000	94	123326	80.0	79.0	
59 2,4-Dimethylphenol	107	4.622	4.622	0.000	97	274119	80.0	87.4	
63 Bis(2-chloroethoxy)methane	93	4.713	4.713	0.000	97	310505	80.0	79.6	
64 Benzoic acid	105	4.783	4.783	0.000	82	384368	160.0	149.1	M
66 3,5-Dimethylphenol	107	4.761	4.761	0.000	88	290661	80.0	93.4	a
68 2,4-Dichlorophenol	162	4.793	4.793	0.000	95	193548	80.0	83.8	a
69 1,2,4-Trichlorobenzene	180	4.863	4.863	0.000	93	196455	80.0	81.8	
71 Naphthalene	128	4.932	4.932	0.000	97	692213	80.0	81.4	
72 4-Chloroaniline	127	5.002	5.002	0.000	96	309259	80.0	83.9	a
73 2,6-Dichlorophenol	162	5.007	5.007	0.000	96	185723	80.0	82.3	a
75 Hexachlorobutadiene	225	5.071	5.071	0.000	97	107239	80.0	83.7	
79 Caprolactam	55	5.349	5.349	0.000	89	103882	80.0	83.0	
83 4-Chloro-3-methylphenol	107	5.509	5.509	0.000	94	245540	80.0	88.1	a
86 2-Methylnaphthalene	142	5.611	5.611	0.000	92	463878	80.0	82.7	
88 1-Methylnaphthalene	142	5.702	5.702	0.000	92	442735	80.0	83.5	
89 1,2,4,5-Tetrachlorobenzene	216	5.776	5.776	0.000	98	183554	80.0	83.9	
90 Hexachlorocyclopentadiene	237	5.771	5.771	0.000	97	122447	80.0	83.7	
92 2,4,6-Trichlorophenol	196	5.899	5.899	0.000	93	132903	80.0	84.1	
93 2,3-Dichlorobenzenamine	161	5.883	5.883	0.000	96	247406	80.0	87.6	a
94 2,4,5-Trichlorophenol	196	5.942	5.942	0.000	91	143825	80.0	82.8	
98 1,1'-Biphenyl	154	6.076	6.076	0.000	96	565092	80.0	85.2	
99 2-Chloronaphthalene	162	6.081	6.081	0.000	99	431987	80.0	85.2	
101 2-Nitroaniline	65	6.188	6.188	0.000	84	154139	80.0	82.1	
104 Dimethyl phthalate	163	6.396	6.396	0.000	94	509746	80.0	87.7	
105 1,3-Dinitrobenzene	168	6.401	6.401	0.000	83	88595	80.0	87.6	
106 2,6-Dinitrotoluene	165	6.439	6.439	0.000	92	120122	80.0	85.2	
107 Acenaphthylene	152	6.476	6.476	0.000	99	698556	80.0	83.0	
108 3-Nitroaniline	138	6.594	6.594	0.000	95	156407	80.0	88.3	a
109 Acenaphthene	153	6.652	6.652	0.000	94	453746	80.0	83.9	
111 2,4-Dinitrophenol	184	6.701	6.701	0.000	85	111313	160.0	134.1	a
112 4-Nitrophenol	109	6.807	6.807	0.000	89	202047	160.0	218.9	
114 2,4-Dinitrotoluene	165	6.829	6.829	0.000	90	163708	80.0	90.2	
116 Dibenzofuran	168	6.823	6.823	0.000	97	614650	80.0	83.5	
119 2,3,4,6-Tetrachlorophenol	232	6.952	6.952	0.000	76	116113	80.0	82.9	a
123 Diethyl phthalate	149	7.101	7.101	0.000	97	541289	80.0	88.8	
124 Hexadecane	57	7.139	7.139	0.000	88	278637	80.0	69.2	
127 4-Chlorophenyl phenyl ether	204	7.176	7.176	0.000	96	218429	80.0	81.0	
129 Fluorene	166	7.155	7.155	0.000	95	525042	80.0	83.5	a
130 4-Nitroaniline	138	7.192	7.192	0.000	82	161749	80.0	87.7	a
131 4,6-Dinitro-2-methylphenol	198	7.224	7.224	0.000	79	160472	160.0	153.8	a
134 Diphenylamine	169	7.294	7.294	0.000	95	383199	68.0	70.9	a
135 N-Nitrosodiphenylamine	169	7.294	7.294	0.000	99	383199	80.0	84.7	a
136 1,2-Diphenylhydrazine	182	7.331	7.331	0.000	98	133247	80.9	81.3	
137 Azobenzene	77	7.331	7.331	0.000	96	643940	80.0	86.2	a
148 4-Bromophenyl phenyl ether	248	7.651	7.651	0.000	67	141467	80.0	85.2	
151 Hexachlorobenzene	284	7.689	7.689	0.000	94	160812	80.0	86.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.844	7.844	0.000	91	137097	80.0	92.2	
155 Pentachlorophenol	266	7.892	7.892	0.000	92	194718	160.0	175.5	
158 n-Octadecane	85	8.047	8.047	0.000	94	166941	80.0	80.9	
161 Phenanthrene	178	8.084	8.084	0.000	98	755413	80.0	84.4	
162 Anthracene	178	8.132	8.132	0.000	98	796484	80.0	87.8	
164 Carbazole	167	8.303	8.303	0.000	96	766434	80.0	84.9	
166 Alachlor	188	8.474	8.474	0.000	90	106641	80.0	93.9	
168 Di-n-butyl phthalate	149	8.698	8.698	0.000	100	959974	80.0	90.2	
175 Fluoranthene	202	9.243	9.243	0.000	99	822403	80.0	87.6	
178 Pyrene	202	9.462	9.462	0.000	97	878272	80.0	80.1	
187 Butyl benzyl phthalate	149	10.312	10.312	0.000	96	441642	80.0	84.7	
189 3,3'-Dichlorobenzidine	252	11.033	11.033	0.000	75	327891	80.0	88.9	
191 Benzo[a]anthracene	228	11.022	11.022	0.000	99	830757	80.0	80.9	a
192 Chrysene	228	11.076	11.076	0.000	98	879307	80.0	81.4	a
193 Bis(2-ethylhexyl) phthalate	149	11.284	11.284	0.000	97	596900	80.0	84.2	
195 Di-n-octyl phthalate	149	12.620	12.620	0.000	98	983775	80.0	74.7	
196 Benzo[b]fluoranthene	252	13.052	13.052	0.000	98	791468	80.0	79.3	
198 Benzo[k]fluoranthene	252	13.116	13.116	0.000	99	1051252	80.0	87.5	
201 Benzo[a]pyrene	252	13.752	13.752	0.000	79	891581	80.0	92.7	a
207 Indeno[1,2,3-cd]pyrene	276	16.423	16.423	0.000	98	668105	80.0	76.4	a
208 Dibenz(a,h)anthracene	278	16.541	16.541	0.000	94	775218	80.0	87.0	
209 Benzo[g,h,i]perylene	276	17.038	17.038	0.000	98	886532	80.0	95.0	
S 211 Total Cresols	108				0			167.4	
S 212 Methyl Phenols, Total	108				0			167.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-HSLACCV5ML_00005

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306462.D

Injection Date: 28-Nov-2022 11:12:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: CCV HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

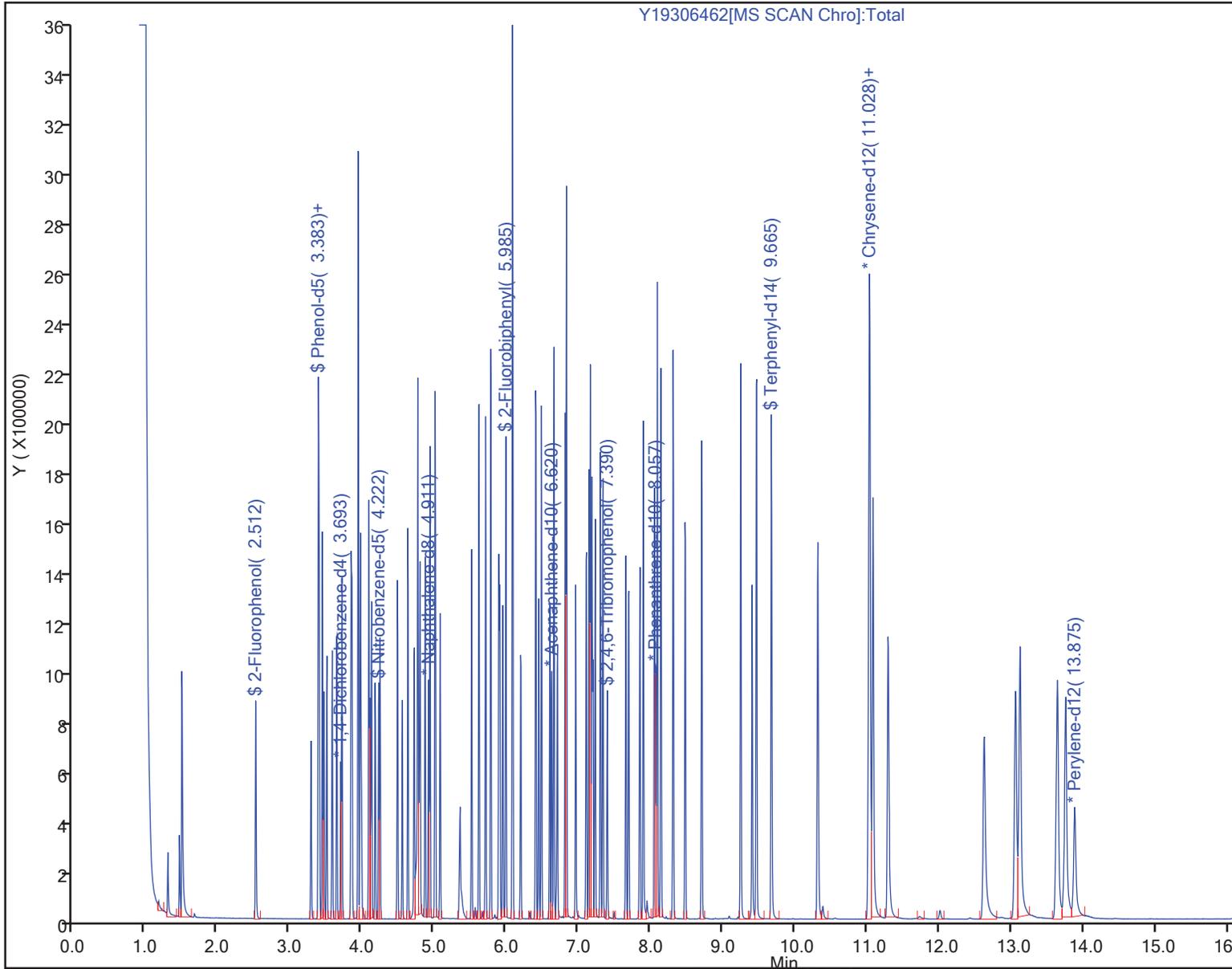
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-594711/30 Calibration Date: 11/28/2022 22:26
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306488.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Lin1		0.5649		81800	80000	2.3	50.0
N-Nitrosodimethylamine	Ave	0.9630	0.9167		76200	80000	-4.8	50.0
Pyridine	Ave	1.515	1.425		151000	160000	-5.9	50.0
Aniline	Ave	2.515	2.569		81700	80000	2.2	50.0
Phenol	Ave	2.127	2.288	0.8000	86100	80000	7.6	50.0
Bis(2-chloroethyl)ether	Ave	1.555	1.600	0.7000	82300	80000	2.8	50.0
2-Chlorophenol	Ave	1.440	1.477	0.8000	82100	80000	2.6	50.0
1,3-Dichlorobenzene	Ave	1.500	1.522		81200	80000	1.5	50.0
1,4-Dichlorobenzene	Ave	1.528	1.567		82100	80000	2.6	50.0
Benzyl alcohol	Ave	1.061	1.119		84300	80000	5.4	50.0
1,2-Dichlorobenzene	Ave	1.454	1.492		82100	80000	2.6	50.0
2-Methylphenol	Ave	1.434	1.516	0.7000	84600	80000	5.7	50.0
2,2'-oxybis[1-chloropropane]	Ave	1.716	1.339	0.0100	62400	80000	-22.0	50.0
Acetophenone	Ave	2.182	2.371	0.0100	86900	80000	8.6	50.0
N-Nitrosodi-n-propylamine	Ave	1.197	1.226	0.5000	81900	80000	2.4	50.0
3 & 4 Methylphenol	Ave	1.536	1.623		84600	80000	5.7	50.0
Hexachloroethane	Ave	0.6098	0.6376	0.3000	83600	80000	4.6	50.0
Nitrobenzene	Ave	0.4193	0.4260	0.2000	81300	80000	1.6	50.0
Isophorone	Ave	0.7898	0.8202	0.4000	83100	80000	3.8	50.0
2-Nitrophenol	Ave	0.1881	0.2015	0.1000	85700	80000	7.2	50.0
2,4-Dimethylphenol	Ave	0.3776	0.4173	0.2000	88400	80000	10.5	50.0
Bis(2-chloroethoxy)methane	Ave	0.4700	0.4750	0.3000	80800	80000	1.1	50.0
Benzoic acid	Lin2		0.3631		186000	160000	16.1	50.0
2,4-Dichlorophenol	Ave	0.2782	0.2888	0.2000	83100	80000	3.8	50.0
1,2,4-Trichlorobenzene	Ave	0.2892	0.2924		80900	80000	1.1	50.0
Naphthalene	Ave	1.024	1.033	0.7000	80800	80000	0.9	50.0
4-Chloroaniline	Ave	0.4441	0.4653	0.0100	83800	80000	4.8	50.0
2,6-Dichlorophenol	Ave	0.2718	0.2841		83600	80000	4.5	50.0
Hexachlorobutadiene	Ave	0.1543	0.1623	0.0100	84200	80000	5.2	50.0
4-Chloro-3-methylphenol	Ave	0.3356	0.3752	0.2000	89400	80000	11.8	50.0
2-Methylnaphthalene	Ave	0.6759	0.7020	0.4000	83100	80000	3.9	50.0
1-Methylnaphthalene	Ave	0.6388	0.6605		82700	80000	3.4	50.0
Hexachlorocyclopentadiene	Ave	0.3043	0.2952	0.0500	77600	80000	-3.0	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.2636	0.2825	0.0100	85700	80000	7.2	50.0
2,4,6-Trichlorophenol	Ave	0.3287	0.3535	0.2000	86000	80000	7.5	50.0
2,4,5-Trichlorophenol	Ave	0.3615	0.3845	0.2000	85100	80000	6.4	50.0
1,1'-Biphenyl	Ave	1.379	1.466	0.0100	85000	80000	6.3	50.0
2-Chloronaphthalene	Ave	1.055	1.111	0.8000	84300	80000	5.4	50.0
2-Nitroaniline	Ave	0.3904	0.4115	0.0100	84300	80000	5.4	50.0
Dimethyl phthalate	Ave	1.209	1.299	0.0100	86000	80000	7.5	50.0
1,3-Dinitrobenzene	Ave	0.2105	0.2388		90700	80000	13.4	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-594711/30 Calibration Date: 11/28/2022 22:26
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306488.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2933	0.3175	0.2000	86600	80000	8.2	50.0
Acenaphthylene	Ave	1.751	1.834	0.9000	83800	80000	4.8	50.0
3-Nitroaniline	Ave	0.3686	0.4050	0.0100	87900	80000	9.9	50.0
Acenaphthene	Ave	1.125	1.193	0.9000	84800	80000	6.1	50.0
2,4-Dinitrophenol	Lin1		0.1945	0.0100	177000	160000	10.8	50.0
4-Nitrophenol	Lin2		0.2760	0.0100	230000	160000	43.7	50.0
2,4-Dinitrotoluene	Ave	0.3774	0.4334	0.2000	91900	80000	14.9	50.0
Dibenzofuran	Ave	1.530	1.634	0.8000	85400	80000	6.8	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2914	0.3394	0.0100	93200	80000	16.5	50.0
Diethyl phthalate	Ave	1.269	1.405	0.0100	88600	80000	10.8	50.0
Fluorene	Ave	1.308	1.392	0.9000	85100	80000	6.4	50.0
4-Chlorophenyl phenyl ether	Ave	0.5607	0.5909	0.4000	84300	80000	5.4	50.0
4-Nitroaniline	Ave	0.3838	0.4190	0.0100	87300	80000	9.2	50.0
4,6-Dinitro-2-methylphenol	Lin2		0.1411	0.0100	180000	160000	12.4	50.0
Diphenylamine	Ave	1.124	1.187		71800	68000	5.6	50.0
N-Nitrosodiphenylamine	Ave	0.5414	0.5699	0.0100	84200	80000	5.3	50.0
Azobenzene	Ave	1.554	1.680		86500	80000	8.1	50.0
1,2-Diphenylhydrazine	Ave	0.3409	0.3618		85800	80900	6.1	50.0
4-Bromophenyl phenyl ether	Ave	0.1988	0.2194	0.1000	88300	80000	10.4	50.0
Hexachlorobenzene	Ave	0.2238	0.2546	0.1000	91000	80000	13.8	50.0
Pentachlorophenol	Lin2		0.1595	0.0500	192000	160000	20.0	50.0
Phenanthrene	Ave	1.072	1.138	0.7000	85000	80000	6.2	50.0
Anthracene	Ave	1.085	1.190	0.7000	87700	80000	9.7	50.0
Carbazole	Ave	1.080	1.165	0.0100	86300	80000	7.9	50.0
Alachlor	Ave	0.1360	0.1624		95500	80000	19.4	50.0
Di-n-butyl phthalate	Ave	1.273	1.423	0.0100	89400	80000	11.8	50.0
Fluoranthene	Ave	1.123	1.231	0.6000	87700	80000	9.6	50.0
Pyrene	Ave	1.238	1.246	0.6000	80500	80000	0.7	50.0
Butyl benzyl phthalate	Ave	0.5888	0.6092	0.0100	82800	80000	3.5	50.0
Benzo[a]anthracene	Ave	1.160	1.186	0.8000	81800	80000	2.3	50.0
Chrysene	Ave	1.220	1.244	0.7000	81600	80000	2.0	50.0
Bis(2-ethylhexyl) phthalate	Ave	0.8013	0.8143	0.0100	81300	80000	1.6	50.0
Di-n-octyl phthalate	Lin1		1.316	0.0100	70900	80000	-11.4	50.0
Benzo[b]fluoranthene	Lin2		1.142	0.7000	81300	80000	1.6	50.0
Benzo[k]fluoranthene	Ave	1.354	1.521	0.7000	89900	80000	12.3	50.0
Benzo[a]pyrene	Ave	1.083	1.265	0.7000	93400	80000	16.8	50.0
Indeno[1,2,3-cd]pyrene	Lin1		0.9219	0.5000	74800	80000	-6.5	50.0
Dibenz(a,h)anthracene	Lin2		1.084	0.4000	86400	80000	8.0	50.0
Benzo[g,h,i]perylene	Ave	1.052	1.215	0.5000	92400	80000	15.6	50.0
2-Fluorophenol (Surr)	Ave	1.563	1.511		77300	80000	-3.3	50.0
Phenol-d5 (Surr)	Ave	2.128	2.086		78400	80000	-2.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-594711/30 Calibration Date: 11/28/2022 22:26
 Instrument ID: SMS_Y Calib Start Date: 11/15/2022 13:59
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/15/2022 16:57
 Lab File ID: Y19306488.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.4573	0.4479		78400	80000	-2.0	50.0
2-Fluorobiphenyl	Ave	1.324	1.291		78000	80000	-2.5	50.0
2,4,6-Tribromophenol (Surr)	Ave	0.1990	0.2449		98400	80000	23.1	50.0
Terphenyl-d14 (Surr)	Ave	1.039	1.030		79300	80000	-0.9	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306488.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 28-Nov-2022 22:26:30 ALS Bottle#: 2 Worklist Smp#: 30
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:13:16 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 18:06:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.689	0.004	96	74767	40.0	40.0	
* 2 Naphthalene-d8	136	4.911	4.907	0.004	99	320683	40.0	40.0	
* 3 Acenaphthene-d10	164	6.615	6.617	-0.002	94	186169	40.0	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	97	329579	40.0	40.0	
* 5 Chrysene-d12	240	11.027	11.030	-0.003	96	348314	40.0	40.0	
* 6 Perylene-d12	264	13.869	13.888	-0.019	97	338604	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	89	225876	80.0	77.3	
\$ 8 Phenol-d5	99	3.378	3.383	-0.005	95	311937	80.0	78.4	
\$ 9 Nitrobenzene-d5	82	4.216	4.225	-0.006	86	287286	80.0	78.4	
\$ 11 2-Fluorobiphenyl	172	5.984	5.983	-0.001	99	480665	80.0	78.0	
\$ 12 2,4,6-Tribromophenol	330	7.389	7.387	-0.001	94	91168	80.0	98.4	
\$ 13 Terphenyl-d14	244	9.665	9.664	0.000	97	717308	80.0	79.3	
15 1,4-Dioxane	88	1.294	1.295	0.000	86	84477	80.0	81.8	
17 N-Nitrosodimethylamine	74	1.454	1.456	-0.001	87	137079	80.0	76.2	
18 Pyridine	79	1.486	1.488	-0.001	94	426211	160.0	150.5	
28 Phenol	94	3.394	3.394	0.000	96	342147	80.0	86.1	
30 Aniline	93	3.383	3.383	0.000	94	384224	80.0	81.7	
31 Bis(2-chloroethyl)ether	93	3.458	3.458	0.000	99	239195	80.0	82.3	
32 Alpha Methyl Styrene	118	3.436	3.436	0.000	90	233805	80.0	85.0	
34 2-Chlorophenol	128	3.500	3.504	-0.001	95	220884	80.0	82.1	
35 n-Decane	43	3.575	3.579	0.000	82	131864	80.0	62.1	
37 1,3-Dichlorobenzene	146	3.634	3.643	-0.005	95	227552	80.0	81.2	
38 1,4-Dichlorobenzene	146	3.709	3.712	0.000	92	234345	80.0	82.1	
39 Benzyl alcohol	108	3.837	3.840	0.000	91	167306	80.0	84.3	
40 1,2-Dichlorobenzene	146	3.848	3.851	0.000	95	223111	80.0	82.1	
41 2-Methylphenol	108	3.960	3.969	-0.005	96	226716	80.0	84.6	
43 2,2'-oxybis[1-chloropropane]	45	3.976	3.980	0.000	91	200225	80.0	62.4	
44 Indene	116	3.933	3.937	0.000	88	792953	160.0	166.8	
46 3-Methylphenol	108	4.115	4.124	-0.005	89	242742	80.0	84.6	
47 4-Methylphenol	108	4.115	4.124	-0.005	95	242742	80.0	84.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.115	4.124	-0.005	97	242742	80.0	84.6	
50 N-Nitrosodi-n-propylamine	70	4.099	4.103	0.000	72	183304	80.0	81.9	
51 Acetophenone	105	4.083	4.086	0.000	97	354514	80.0	86.9	
53 Hexachloroethane	117	4.168	4.172	0.000	95	95340	80.0	83.6	
54 Nitrobenzene	77	4.238	4.241	0.000	83	273243	80.0	81.3	
57 Isophorone	82	4.478	4.481	0.000	98	526019	80.0	83.1	
58 2-Nitrophenol	139	4.547	4.551	-0.001	93	129248	80.0	85.7	
59 2,4-Dimethylphenol	107	4.622	4.625	0.000	96	267655	80.0	88.4	
63 Bis(2-chloroethoxy)methane	93	4.708	4.716	-0.005	97	304648	80.0	80.8	
64 Benzoic acid	105	4.788	4.786	0.005	83	465758	160.0	185.8	
66 3,5-Dimethylphenol	107	4.761	4.764	0.000	85	278665	80.0	92.7	
68 2,4-Dichlorophenol	162	4.793	4.797	0.000	96	185231	80.0	83.1	
69 1,2,4-Trichlorobenzene	180	4.863	4.866	0.000	93	187566	80.0	80.9	
71 Naphthalene	128	4.932	4.936	0.000	97	662728	80.0	80.8	
72 4-Chloroaniline	127	5.002	5.005	0.000	95	298428	80.0	83.8	
73 2,6-Dichlorophenol	162	5.007	5.010	0.000	97	182236	80.0	83.6	
75 Hexachlorobutadiene	225	5.071	5.074	0.000	97	104116	80.0	84.2	
79 Caprolactam	55	5.349	5.322	0.030	90	99211	80.0	83.0	
83 4-Chloro-3-methylphenol	107	5.509	5.513	0.000	94	240665	80.0	89.4	
86 2-Methylnaphthalene	142	5.611	5.614	0.000	92	450267	80.0	83.1	
88 1-Methylnaphthalene	142	5.701	5.705	-0.001	92	423633	80.0	82.7	
89 1,2,4,5-Tetrachlorobenzene	216	5.776	5.780	0.000	98	181172	80.0	85.7	
90 Hexachlorocyclopentadiene	237	5.771	5.769	0.000	97	109922	80.0	77.6	
92 2,4,6-Trichlorophenol	196	5.899	5.897	0.000	92	131628	80.0	86.0	
93 2,3-Dichlorobenzenamine	161	5.883	5.881	0.000	96	237853	80.0	87.0	
94 2,4,5-Trichlorophenol	196	5.942	5.940	0.000	93	143174	80.0	85.1	
98 1,1'-Biphenyl	154	6.075	6.074	-0.001	96	545754	80.0	85.0	
99 2-Chloronaphthalene	162	6.081	6.079	0.000	99	413811	80.0	84.3	
101 2-Nitroaniline	65	6.187	6.186	-0.001	83	153206	80.0	84.3	
104 Dimethyl phthalate	163	6.396	6.394	0.000	93	483743	80.0	86.0	
105 1,3-Dinitrobenzene	168	6.401	6.399	0.000	84	88899	80.0	90.7	
106 2,6-Dinitrotoluene	165	6.439	6.437	0.000	92	118220	80.0	86.6	
107 Acenaphthylene	152	6.476	6.474	0.000	99	683041	80.0	83.8	
108 3-Nitroaniline	138	6.593	6.592	-0.001	94	150783	80.0	87.9	
109 Acenaphthene	153	6.647	6.650	-0.005	95	444258	80.0	84.8	
111 2,4-Dinitrophenol	184	6.695	6.698	-0.006	85	144831	160.0	177.3	
112 4-Nitrophenol	109	6.807	6.805	0.000	89	205515	160.0	229.9	
114 2,4-Dinitrotoluene	165	6.823	6.827	-0.006	85	161380	80.0	91.9	
116 Dibenzofuran	168	6.823	6.821	0.000	96	608364	80.0	85.4	
119 2,3,4,6-Tetrachlorophenol	232	6.951	6.949	-0.001	75	126382	80.0	93.2	
123 Diethyl phthalate	149	7.096	7.099	-0.005	97	523256	80.0	88.6	
124 Hexadecane	57	7.138	7.136	-0.001	88	276379	80.0	70.9	
127 4-Chlorophenyl phenyl ether	204	7.176	7.174	0.000	95	219996	80.0	84.3	
129 Fluorene	166	7.154	7.152	-0.001	95	518158	80.0	85.1	
130 4-Nitroaniline	138	7.192	7.190	0.000	82	156010	80.0	87.3	
131 4,6-Dinitro-2-methylphenol	198	7.224	7.222	0.000	86	186027	160.0	179.9	
134 Diphenylamine	169	7.293	7.291	-0.001	94	375649	68.0	71.8	
135 N-Nitrosodiphenylamine	169	7.293	7.311	-0.001	98	375649	80.0	84.2	
136 1,2-Diphenylhydrazine	182	7.331	7.329	0.000	98	136196	80.9	85.8	
137 Azobenzene	77	7.325	7.329	-0.006	97	625689	80.0	86.5	
148 4-Bromophenyl phenyl ether	248	7.646	7.649	-0.005	66	144634	80.0	88.3	
151 Hexachlorobenzene	284	7.683	7.687	-0.006	94	167814	80.0	91.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.844	7.838	0.004	92	134345	80.0	91.7	
155 Pentachlorophenol	266	7.892	7.890	0.000	92	210331	160.0	192.0	
158 n-Octadecane	85	8.041	8.045	-0.006	94	164008	80.0	80.6	
161 Phenanthrene	178	8.084	8.082	0.000	98	750319	80.0	85.0	
162 Anthracene	178	8.132	8.130	0.000	98	784554	80.0	87.7	
164 Carbazole	167	8.303	8.301	0.000	96	768140	80.0	86.3	
166 Alachlor	188	8.469	8.472	-0.005	92	107028	80.0	95.5	
168 Di-n-butyl phthalate	149	8.698	8.696	0.000	100	937946	80.0	89.4	
175 Fluoranthene	202	9.238	9.241	-0.005	99	811707	80.0	87.7	
178 Pyrene	202	9.457	9.461	-0.005	96	868174	80.0	80.5	
187 Butyl benzyl phthalate	149	10.306	10.310	-0.006	96	424382	80.0	82.8	
189 3,3'-Dichlorobenzidine	252	11.027	11.033	-0.008	75	315242	80.0	86.9	
191 Benzo[a]anthracene	228	11.017	11.020	-0.005	99	826487	80.0	81.8	
192 Chrysene	228	11.076	11.074	0.000	98	866838	80.0	81.6	
193 Bis(2-ethylhexyl) phthalate	149	11.284	11.282	0.000	96	567296	80.0	81.3	
195 Di-n-octyl phthalate	149	12.614	12.617	-0.006	98	916415	80.0	70.9	
196 Benzo[b]fluoranthene	252	13.052	13.035	0.000	97	773485	80.0	81.3	
198 Benzo[k]fluoranthene	252	13.116	13.099	0.000	99	1030027	80.0	89.9	
201 Benzo[a]pyrene	252	13.747	13.734	-0.005	80	856647	80.0	93.4	
207 Indeno[1,2,3-cd]pyrene	276	16.412	16.420	-0.011	98	642190	80.0	74.8	
208 Dibenz(a,h)anthracene	278	16.535	16.519	-0.006	94	734080	80.0	86.4	
209 Benzo[g,h,i]perylene	276	17.027	17.015	-0.011	98	823054	80.0	92.4	
S 211 Total Cresols	108				0			169.1	
S 212 Methyl Phenols, Total	108				0			169.1	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00005

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306488.D

Injection Date: 28-Nov-2022 22:26:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

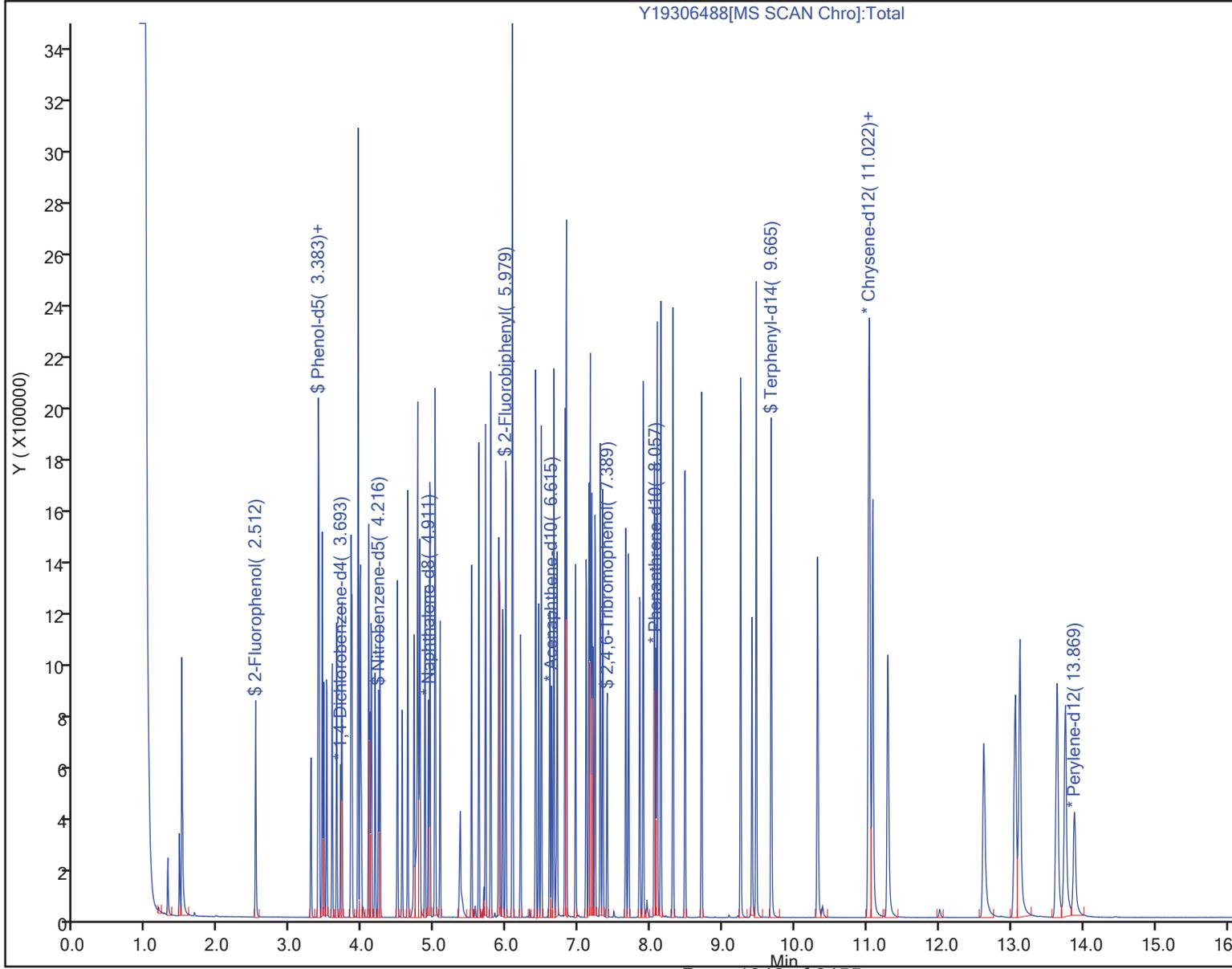
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-594711/30 Calibration Date: 11/28/2022 22:26
 Instrument ID: SMS_Y Calib Start Date: 11/16/2022 11:45
 GC Column: Rxi-5Sil MS ID: 0.25 (mm) Calib End Date: 11/16/2022 14:14
 Lab File ID: Y19306488.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.6395	0.6635	0.0100	83000	80000	3.7	50.0
Atrazine	Ave	0.1779	0.2038	0.0100	91700	80000	14.6	50.0
3,3'-Dichlorobenzidine	Ave	0.4167	0.4525	0.0100	86900	80000	8.6	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306488.D
 Lims ID: CCVC HSL
 Client ID:
 Sample Type: CCVC
 Inject. Date: 28-Nov-2022 22:26:30 ALS Bottle#: 2 Worklist Smp#: 30
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: CCVC HSL
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Sublist: chrom-SMSY_8270C*sub56
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:13:16 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 18:06:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.693	3.689	0.004	96	74767	40.0	40.0	
* 2 Naphthalene-d8	136	4.911	4.907	0.004	99	320683	40.0	40.0	
* 3 Acenaphthene-d10	164	6.615	6.617	-0.002	94	186169	40.0	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	97	329579	40.0	40.0	
* 5 Chrysene-d12	240	11.027	11.030	-0.003	96	348314	40.0	40.0	
* 6 Perylene-d12	264	13.869	13.888	-0.019	97	338604	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	89	225876	80.0	77.3	
\$ 8 Phenol-d5	99	3.378	3.383	-0.005	95	311937	80.0	78.4	
\$ 9 Nitrobenzene-d5	82	4.216	4.225	-0.006	86	287286	80.0	78.4	
\$ 11 2-Fluorobiphenyl	172	5.984	5.983	-0.001	99	480665	80.0	78.0	
\$ 12 2,4,6-Tribromophenol	330	7.389	7.387	-0.001	94	91168	80.0	98.4	
\$ 13 Terphenyl-d14	244	9.665	9.664	0.000	97	717308	80.0	79.3	
15 1,4-Dioxane	88	1.294	1.295	0.000	86	84477	80.0	81.8	
17 N-Nitrosodimethylamine	74	1.454	1.456	-0.001	87	137079	80.0	76.2	
18 Pyridine	79	1.486	1.488	-0.001	94	426211	160.0	150.5	
28 Phenol	94	3.394	3.394	0.000	96	342147	80.0	86.1	
30 Aniline	93	3.383	3.383	0.000	94	384224	80.0	81.7	
31 Bis(2-chloroethyl)ether	93	3.458	3.458	0.000	99	239195	80.0	82.3	
32 Alpha Methyl Styrene	118	3.436	3.436	0.000	90	233805	80.0	85.0	
34 2-Chlorophenol	128	3.500	3.504	-0.001	95	220884	80.0	82.1	
35 n-Decane	43	3.575	3.579	0.000	82	131864	80.0	62.1	
37 1,3-Dichlorobenzene	146	3.634	3.643	-0.005	95	227552	80.0	81.2	
38 1,4-Dichlorobenzene	146	3.709	3.712	0.000	92	234345	80.0	82.1	
39 Benzyl alcohol	108	3.837	3.840	0.000	91	167306	80.0	84.3	
40 1,2-Dichlorobenzene	146	3.848	3.851	0.000	95	223111	80.0	82.1	
41 2-Methylphenol	108	3.960	3.969	-0.005	96	226716	80.0	84.6	
43 2,2'-oxybis[1-chloropropane]	45	3.976	3.980	0.000	91	200225	80.0	62.4	
44 Indene	116	3.933	3.937	0.000	88	792953	160.0	166.8	
46 3-Methylphenol	108	4.115	4.124	-0.005	89	242742	80.0	84.6	
47 4-Methylphenol	108	4.115	4.124	-0.005	95	242742	80.0	84.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3 & 4 Methylphenol	108	4.115	4.124	-0.005	97	242742	80.0	84.6	
50 N-Nitrosodi-n-propylamine	70	4.099	4.103	0.000	72	183304	80.0	81.9	
51 Acetophenone	105	4.083	4.086	0.000	97	354514	80.0	86.9	
53 Hexachloroethane	117	4.168	4.172	0.000	95	95340	80.0	83.6	
54 Nitrobenzene	77	4.238	4.241	0.000	83	273243	80.0	81.3	
57 Isophorone	82	4.478	4.481	0.000	98	526019	80.0	83.1	
58 2-Nitrophenol	139	4.547	4.551	-0.001	93	129248	80.0	85.7	
59 2,4-Dimethylphenol	107	4.622	4.625	0.000	96	267655	80.0	88.4	
63 Bis(2-chloroethoxy)methane	93	4.708	4.716	-0.005	97	304648	80.0	80.8	
64 Benzoic acid	105	4.788	4.786	0.005	83	465758	160.0	185.8	
66 3,5-Dimethylphenol	107	4.761	4.764	0.000	85	278665	80.0	92.7	
68 2,4-Dichlorophenol	162	4.793	4.797	0.000	96	185231	80.0	83.1	
69 1,2,4-Trichlorobenzene	180	4.863	4.866	0.000	93	187566	80.0	80.9	
71 Naphthalene	128	4.932	4.936	0.000	97	662728	80.0	80.8	
72 4-Chloroaniline	127	5.002	5.005	0.000	95	298428	80.0	83.8	
73 2,6-Dichlorophenol	162	5.007	5.010	0.000	97	182236	80.0	83.6	
75 Hexachlorobutadiene	225	5.071	5.074	0.000	97	104116	80.0	84.2	
79 Caprolactam	55	5.349	5.322	0.030	90	99211	80.0	83.0	
83 4-Chloro-3-methylphenol	107	5.509	5.513	0.000	94	240665	80.0	89.4	
86 2-Methylnaphthalene	142	5.611	5.614	0.000	92	450267	80.0	83.1	
88 1-Methylnaphthalene	142	5.701	5.705	-0.001	92	423633	80.0	82.7	
89 1,2,4,5-Tetrachlorobenzene	216	5.776	5.780	0.000	98	181172	80.0	85.7	
90 Hexachlorocyclopentadiene	237	5.771	5.769	0.000	97	109922	80.0	77.6	
92 2,4,6-Trichlorophenol	196	5.899	5.897	0.000	92	131628	80.0	86.0	
93 2,3-Dichlorobenzenamine	161	5.883	5.881	0.000	96	237853	80.0	87.0	
94 2,4,5-Trichlorophenol	196	5.942	5.940	0.000	93	143174	80.0	85.1	
98 1,1'-Biphenyl	154	6.075	6.074	-0.001	96	545754	80.0	85.0	
99 2-Chloronaphthalene	162	6.081	6.079	0.000	99	413811	80.0	84.3	
101 2-Nitroaniline	65	6.187	6.186	-0.001	83	153206	80.0	84.3	
104 Dimethyl phthalate	163	6.396	6.394	0.000	93	483743	80.0	86.0	
105 1,3-Dinitrobenzene	168	6.401	6.399	0.000	84	88899	80.0	90.7	
106 2,6-Dinitrotoluene	165	6.439	6.437	0.000	92	118220	80.0	86.6	
107 Acenaphthylene	152	6.476	6.474	0.000	99	683041	80.0	83.8	
108 3-Nitroaniline	138	6.593	6.592	-0.001	94	150783	80.0	87.9	
109 Acenaphthene	153	6.647	6.650	-0.005	95	444258	80.0	84.8	
111 2,4-Dinitrophenol	184	6.695	6.698	-0.006	85	144831	160.0	177.3	
112 4-Nitrophenol	109	6.807	6.805	0.000	89	205515	160.0	229.9	
114 2,4-Dinitrotoluene	165	6.823	6.827	-0.006	85	161380	80.0	91.9	
116 Dibenzofuran	168	6.823	6.821	0.000	96	608364	80.0	85.4	
119 2,3,4,6-Tetrachlorophenol	232	6.951	6.949	-0.001	75	126382	80.0	93.2	
123 Diethyl phthalate	149	7.096	7.099	-0.005	97	523256	80.0	88.6	
124 Hexadecane	57	7.138	7.136	-0.001	88	276379	80.0	70.9	
127 4-Chlorophenyl phenyl ether	204	7.176	7.174	0.000	95	219996	80.0	84.3	
129 Fluorene	166	7.154	7.152	-0.001	95	518158	80.0	85.1	
130 4-Nitroaniline	138	7.192	7.190	0.000	82	156010	80.0	87.3	
131 4,6-Dinitro-2-methylphenol	198	7.224	7.222	0.000	86	186027	160.0	179.9	
134 Diphenylamine	169	7.293	7.291	-0.001	94	375649	68.0	71.8	
135 N-Nitrosodiphenylamine	169	7.293	7.311	-0.001	98	375649	80.0	84.2	
136 1,2-Diphenylhydrazine	182	7.331	7.329	0.000	98	136196	80.9	85.8	
137 Azobenzene	77	7.325	7.329	-0.006	97	625689	80.0	86.5	
148 4-Bromophenyl phenyl ether	248	7.646	7.649	-0.005	66	144634	80.0	88.3	
151 Hexachlorobenzene	284	7.683	7.687	-0.006	94	167814	80.0	91.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
152 Atrazine	200	7.844	7.838	0.004	92	134345	80.0	91.7	
155 Pentachlorophenol	266	7.892	7.890	0.000	92	210331	160.0	192.0	
158 n-Octadecane	85	8.041	8.045	-0.006	94	164008	80.0	80.6	
161 Phenanthrene	178	8.084	8.082	0.000	98	750319	80.0	85.0	
162 Anthracene	178	8.132	8.130	0.000	98	784554	80.0	87.7	
164 Carbazole	167	8.303	8.301	0.000	96	768140	80.0	86.3	
166 Alachlor	188	8.469	8.472	-0.005	92	107028	80.0	95.5	
168 Di-n-butyl phthalate	149	8.698	8.696	0.000	100	937946	80.0	89.4	
175 Fluoranthene	202	9.238	9.241	-0.005	99	811707	80.0	87.7	
178 Pyrene	202	9.457	9.461	-0.005	96	868174	80.0	80.5	
187 Butyl benzyl phthalate	149	10.306	10.310	-0.006	96	424382	80.0	82.8	
189 3,3'-Dichlorobenzidine	252	11.027	11.033	-0.008	75	315242	80.0	86.9	
191 Benzo[a]anthracene	228	11.017	11.020	-0.005	99	826487	80.0	81.8	
192 Chrysene	228	11.076	11.074	0.000	98	866838	80.0	81.6	
193 Bis(2-ethylhexyl) phthalate	149	11.284	11.282	0.000	96	567296	80.0	81.3	
195 Di-n-octyl phthalate	149	12.614	12.617	-0.006	98	916415	80.0	70.9	
196 Benzo[b]fluoranthene	252	13.052	13.035	0.000	97	773485	80.0	81.3	
198 Benzo[k]fluoranthene	252	13.116	13.099	0.000	99	1030027	80.0	89.9	
201 Benzo[a]pyrene	252	13.747	13.734	-0.005	80	856647	80.0	93.4	
207 Indeno[1,2,3-cd]pyrene	276	16.412	16.420	-0.011	98	642190	80.0	74.8	
208 Dibenz(a,h)anthracene	278	16.535	16.519	-0.006	94	734080	80.0	86.4	
209 Benzo[g,h,i]perylene	276	17.027	17.015	-0.011	98	823054	80.0	92.4	
S 211 Total Cresols	108				0			169.1	
S 212 Methyl Phenols, Total	108				0			169.1	

QC Flag Legend

Processing Flags

Reagents:

MS-HSLACCV5ML_00005

Amount Added: 200.00

Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306488.D

Injection Date: 28-Nov-2022 22:26:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: CCVC HSL

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

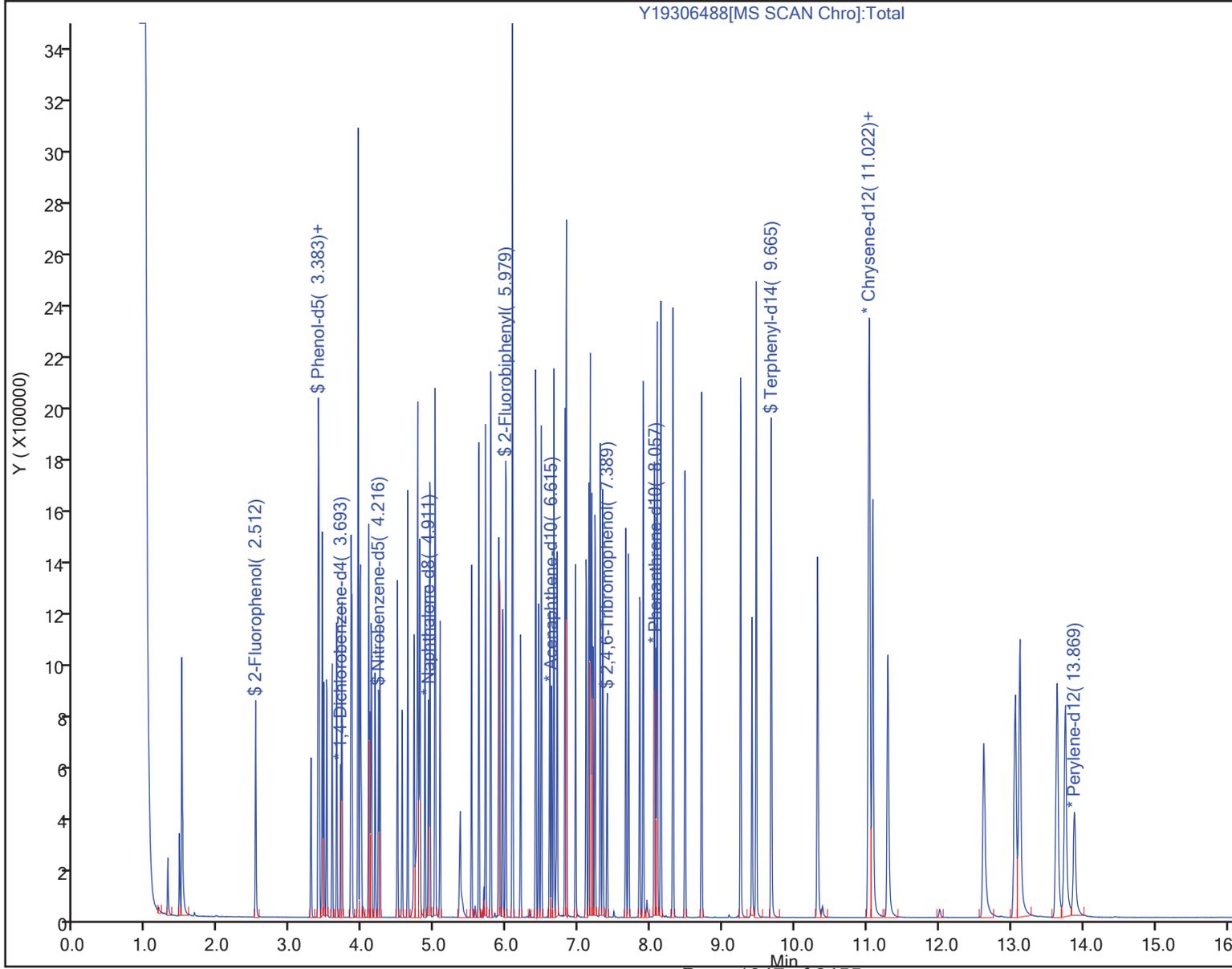
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 07-Nov-2022 14:22:17 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: meierg Instrument ID: SMS_1

 Method: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 12:44:57 Calib Date: 07-Nov-2022 23:14:03
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\928.D

 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1621

First Level Reviewer: NBC9 Date: 11-Nov-2022 13:22:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
38 Pentachlorophenol_T	266	4.692	4.692	0.000	91	127263	NR	NR	
73 Benzidine_T	184	5.846	5.846	0.000	99	440547	NR	NR	
206 DFTPP									
207 4,4'-DDE	246	6.019	6.019	0.000	85	2763	NR	NR	a
208 4,4'-DDD	235		6.267				ND	ND	
209 4,4'-DDT	235	6.501	6.501	0.000	97	329069	NR	NR	a

QC Flag Legend

Processing Flags

- NR - Missing Quant Standard
- ND - Not Detected or Marked ND

Review Flags

- a - User Assigned ID

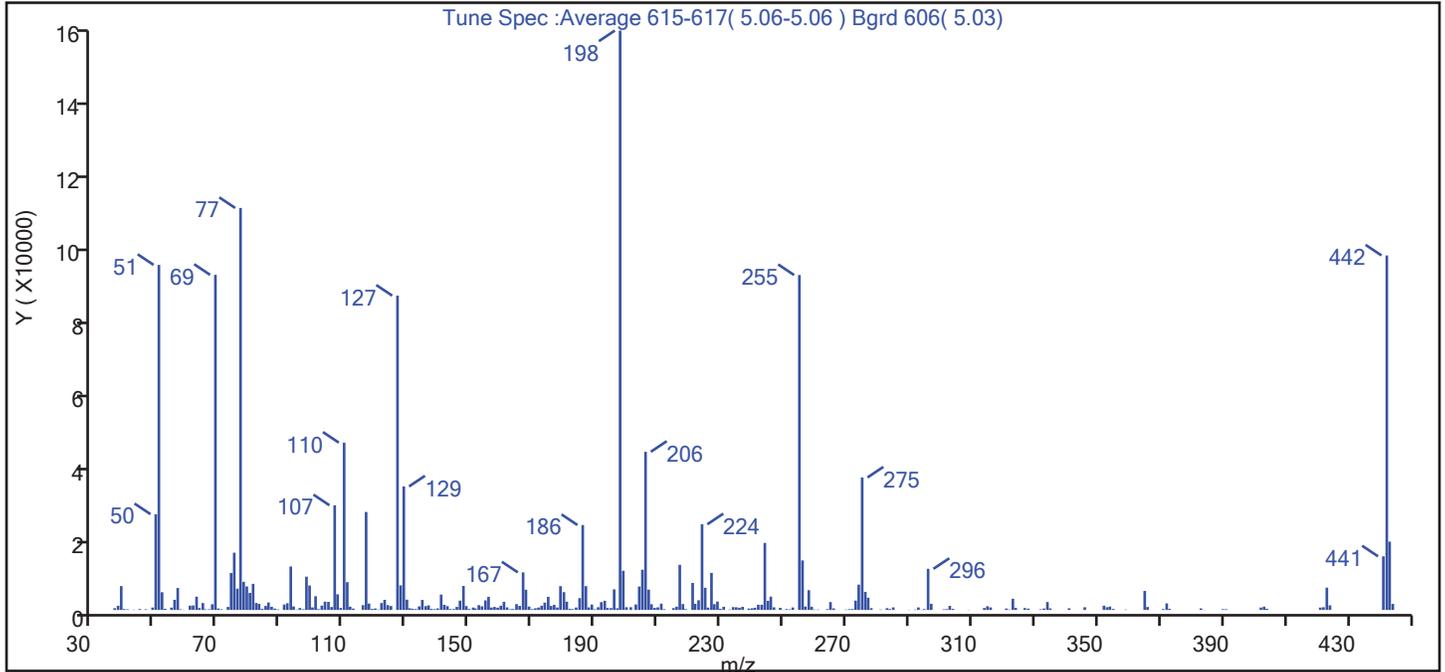
Reagents:

MS-DFTPP_00057 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D
 Injection Date: 07-Nov-2022 14:22:17 Instrument ID: SMS_1
 Lims ID: DFTPP
 Client ID:
 Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMS_1_8270 Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

206 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	59.6
68	<2% of mass 69	1.0 (1.7)
69	Present	57.8
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.3
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.9
365	>1% of mass 198	3.3
441	Present but less than mass 443	9.3 (78.4)
442	>40% of mass 198	61.2
443	17-23% of mass 442	11.8 (19.3)

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D\SMS_1_8270.rslt\spectra.d
Injection Date: 07-Nov-2022 14:22:17
Spectrum: Tune Spec :Average 615-617(5.06-5.06) Bgrd 606(5.03)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	473	113.00	370	185.00	3224	264.00	218
38.00	1141	116.00	1323	186.00	23136	265.00	2145
39.00	6511	117.00	26688	187.00	6498	266.00	422
40.00	247	118.00	1743	188.00	693	270.00	106
41.00	169	119.00	285	189.00	1469	271.00	218
43.00	78	120.00	408	190.00	181	272.00	247
44.00	8	121.00	109	191.00	744	273.00	2552
45.00	246	122.00	1893	192.00	2125	274.00	6897
47.00	181	123.00	2757	193.00	2498	275.00	36088
49.00	656	124.00	1309	194.00	545	276.00	4929
50.00	26096	125.00	1076	195.00	505	277.00	3339
51.00	94000	127.00	85624	196.00	5615	278.00	489
52.00	4828	128.00	6696	197.00	464	281.00	113
53.00	308	129.00	33656	198.00	157824	283.00	482
55.00	635	130.00	2807	199.00	10682	284.00	246
56.00	2759	131.00	448	200.00	749	285.00	706
57.00	5975	132.00	315	201.00	748	290.00	51
58.00	163	133.00	227	203.00	1496	292.00	114
59.00	53	134.00	979	204.00	6382	293.00	686
61.00	1166	135.00	2733	205.00	10959	294.00	56
62.00	1227	136.00	1051	206.00	43088	295.00	230
63.00	3617	137.00	1239	207.00	5538	296.00	11201
64.00	517	138.00	281	208.00	1564	297.00	1681
65.00	1880	139.00	219	209.00	548	301.00	157
66.00	170	140.00	417	210.00	712	302.00	211
67.00	174	141.00	4185	211.00	1721	303.00	1108
68.00	1553	142.00	1404	212.00	199	304.00	298
69.00	91288	143.00	1040	215.00	502	309.00	51
70.00	383	144.00	240	216.00	893	314.00	529
71.00	181	145.00	235	217.00	12281	315.00	1017
73.00	825	146.00	826	218.00	1603	316.00	694
74.00	10074	147.00	2531	219.00	217	321.00	381
75.00	15598	148.00	6540	221.00	7357	322.00	116

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D\SMS_1_8270.rslt\spectra.d

Injection Date: 07-Nov-2022 14:22:17

Spectrum: Tune Spec :Average 615-617(5.06-5.06) Bgrd 606(5.03)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	5800	149.00	1059	222.00	1673	323.00	3031
77.00	109504	150.00	258	223.00	2643	324.00	556
78.00	7669	151.00	658	224.00	23344	327.00	517
79.00	6398	152.00	403	225.00	6054	328.00	361
80.00	4634	153.00	1309	226.00	632	332.00	181
81.00	7115	154.00	995	227.00	10093	333.00	394
82.00	1895	155.00	2605	228.00	1588	334.00	2157
83.00	1651	156.00	3577	229.00	2287	335.00	415
84.00	298	157.00	657	230.00	312	341.00	452
85.00	1087	158.00	830	231.00	853	346.00	734
86.00	2038	159.00	630	233.00	122	352.00	1174
87.00	862	160.00	1161	234.00	784	353.00	753
88.00	381	161.00	2218	235.00	738	354.00	916
89.00	152	162.00	700	236.00	599	355.00	273
91.00	1475	163.00	198	237.00	840	359.00	106
92.00	1830	164.00	242	239.00	382	365.00	5176
93.00	11842	165.00	1593	240.00	450	366.00	798
94.00	960	166.00	1110	241.00	611	371.00	245
95.00	84	167.00	10240	242.00	1422	372.00	1782
96.00	530	168.00	5497	243.00	1420	373.00	306
97.00	203	169.00	929	244.00	18256	383.00	421
98.00	9067	170.00	209	245.00	2485	384.00	53
99.00	6666	171.00	456	246.00	3630	390.00	212
100.00	689	172.00	656	247.00	716	391.00	197
101.00	3747	173.00	1152	249.00	573	402.00	657
102.00	227	174.00	2005	250.00	52	403.00	907
103.00	1189	175.00	3583	251.00	228	404.00	327
104.00	2272	176.00	1089	252.00	158	421.00	652
105.00	2215	177.00	1388	253.00	678	422.00	737
106.00	803	178.00	668	255.00	91240	423.00	6081
107.00	28520	179.00	6484	256.00	13493	424.00	1248
108.00	4261	180.00	4850	257.00	927	441.00	14604
109.00	550	181.00	2258	258.00	5393	442.00	96568
110.00	45576	182.00	304	259.00	875	443.00	18616

Report Date: 15-Nov-2022 12:44:57

Chrom Revision: 2.3 08-Nov-2022 12:31:00

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D\SMS_1_8270.rslt\spectra.d

Injection Date: 07-Nov-2022 14:22:17

Spectrum: Tune Spec :Average 615-617(5.06-5.06) Bgrd 606(5.03)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	7575	183.00	228	260.00	116	444.00	1648
112.00	888	184.00	670	261.00	116		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D

Injection Date: 07-Nov-2022 14:22:17

Instrument ID: SMS_1

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

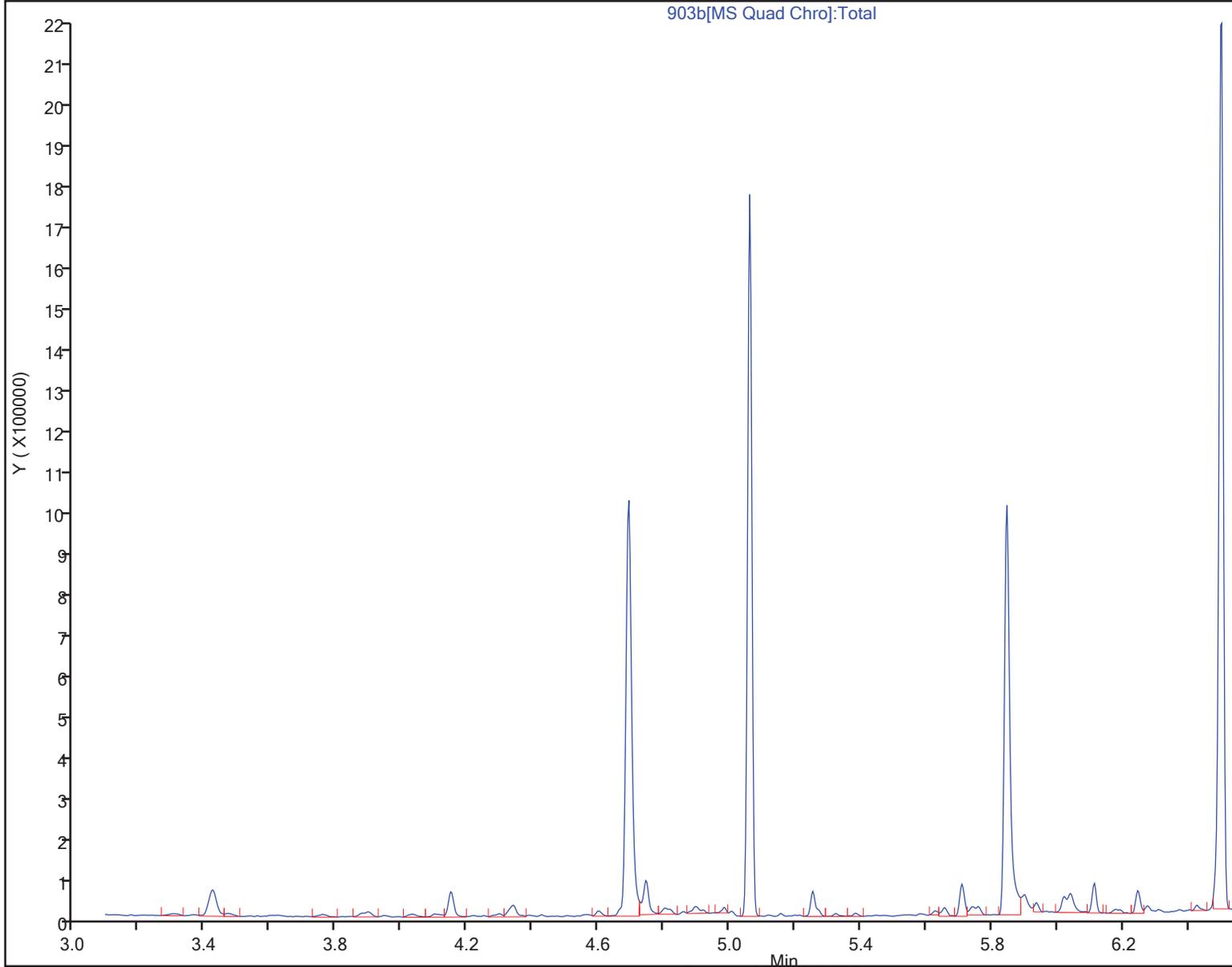
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D
Injection Date: 07-Nov-2022 14:22:17 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

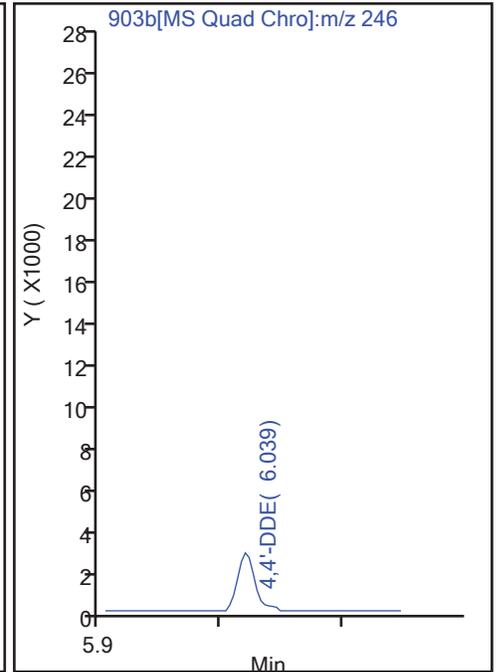
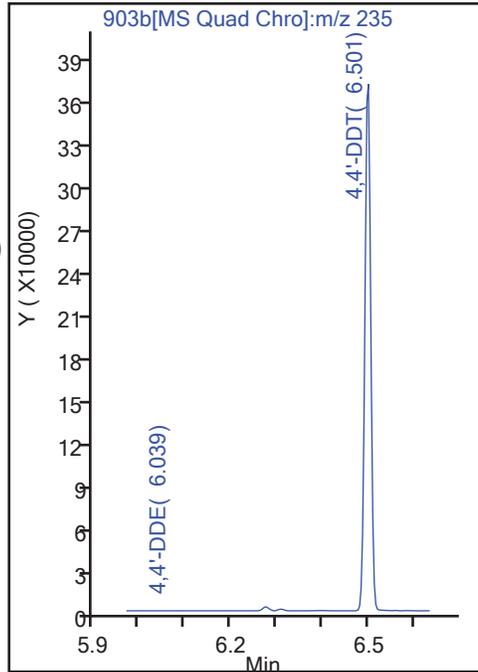
209 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

209 4,4'-DDT, Area = 329069
208 4,4'-DDD, Area = 0
207 4,4'-DDE, Area = 2763

%Breakdown: 0.83%, <= 20.00%
Passed



Eurofins Denver

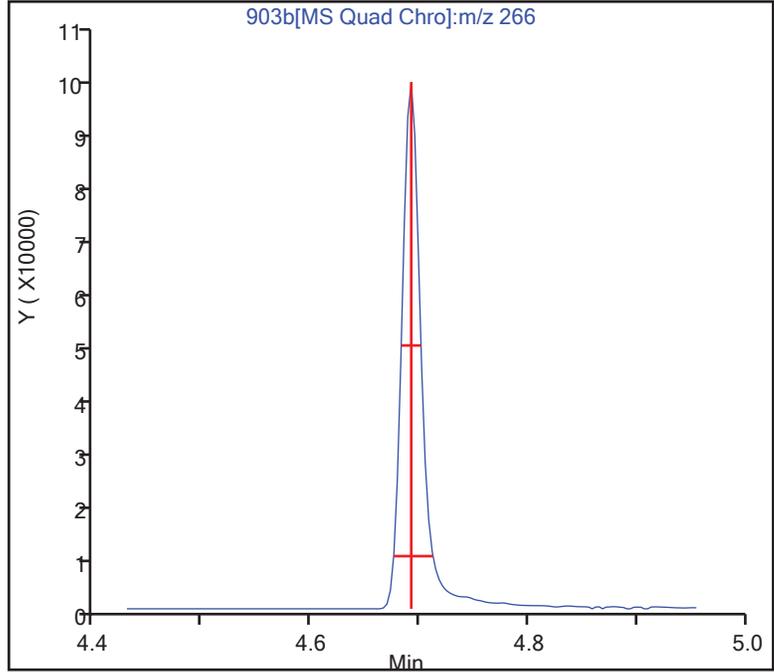
Data File: \\chromfs\Denver\ChromData\SMS_1\20221107-115869.b\903b.D
Injection Date: 07-Nov-2022 14:22:17 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

38 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.020 (min.)
Front Width = 0.016 (min.)

Tailing Factor = 1.25, Max. Tailing <= 5.00
Passed



Eurofins Denver

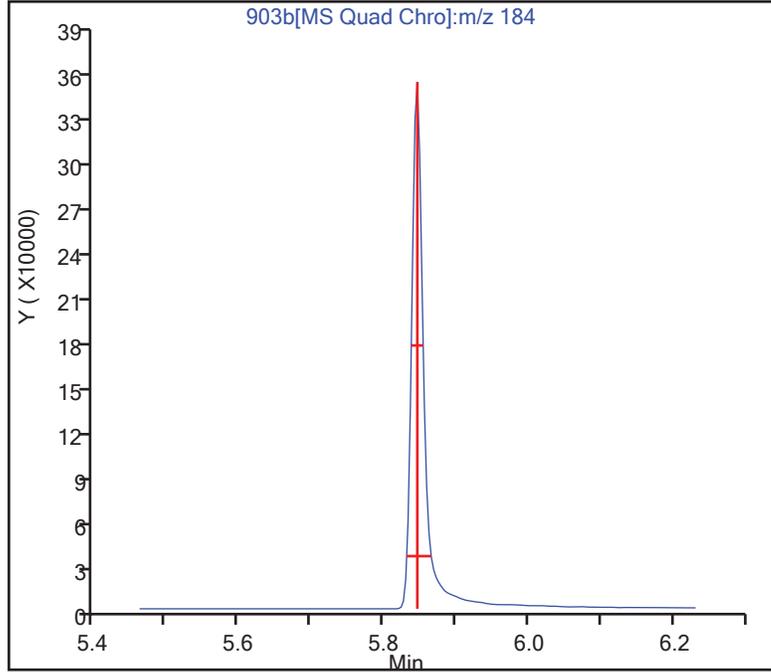
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Injection Date: 07-Nov-2022 14:22:17 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

73 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.019 (min.)
Front Width = 0.015 (min.)

Tailing Factor = 1.27, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 09-Nov-2022 15:29:05 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 12:32:17 Calib Date: 09-Nov-2022 17:03:12
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1011.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1661

First Level Reviewer: BMJ3 Date: 17-Nov-2022 12:23:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
38 Pentachlorophenol_T	266	4.692	4.692	0.000	91	154212	NR	NR	
73 Benzidine_T	184	5.842	5.842	0.000	99	554211	NR	NR	
206 DFTPP									
207 4,4'-DDE	246	6.019	6.019	0.000	93	4450	NR	NR	a
208 4,4'-DDD	235		6.267				ND	ND	
209 4,4'-DDT	235	6.497	6.497	0.000	97	380746	NR	NR	a

QC Flag Legend

Processing Flags

- NR - Missing Quant Standard
- ND - Not Detected or Marked ND

Review Flags

- a - User Assigned ID

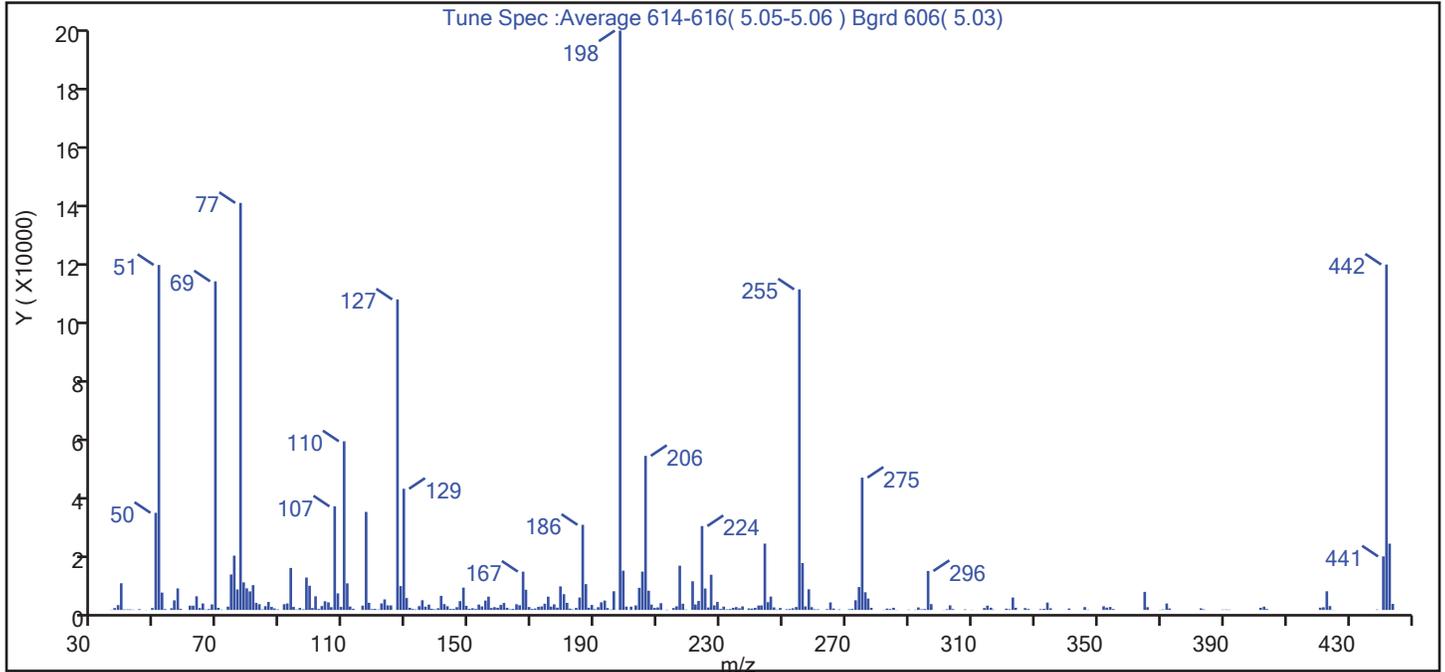
Reagents:

MS-DFTPP_00057 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D
 Injection Date: 09-Nov-2022 15:29:05 Instrument ID: SMS_1
 Lims ID: DFTPP
 Client ID:
 Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMS_1_8270 Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

206 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	59.6
68	<2% of mass 69	1.0 (1.7)
69	Present	56.7
70	<2% of mass 69	0.4 (0.6)
127	40-60% of mass 198	53.6
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.8
365	>1% of mass 198	3.1
441	Present but less than mass 443	9.2 (80.8)
442	>40% of mass 198	59.6
443	17-23% of mass 442	11.4 (19.2)

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D\SMS_1_8270.rslt\spectra.d
Injection Date: 09-Nov-2022 15:29:05
Spectrum: Tune Spec :Average 614-616(5.05-5.06) Bgrd 606(5.03)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	77	116.00	1454	188.00	741	271.00	232
37.00	632	117.00	32848	189.00	1680	272.00	337
38.00	1633	118.00	2405	190.00	256	273.00	3256
39.00	8955	119.00	280	191.00	932	274.00	7683
40.00	182	120.00	364	192.00	2560	275.00	44336
41.00	180	121.00	137	193.00	3152	276.00	5930
42.00	174	122.00	2197	194.00	642	277.00	3813
43.00	86	123.00	3541	195.00	142	278.00	724
44.00	4	124.00	1535	196.00	6273	282.00	54
45.00	253	125.00	1518	198.00	194112	283.00	452
47.00	51	127.00	104048	199.00	13166	284.00	316
49.00	657	128.00	7996	200.00	1135	285.00	732
50.00	32544	129.00	40608	201.00	1109	286.00	59
51.00	115600	130.00	4006	203.00	1522	290.00	112
52.00	5825	131.00	732	204.00	7426	292.00	101
53.00	283	132.00	317	205.00	12853	293.00	852
55.00	570	133.00	171	206.00	51624	294.00	209
56.00	3226	134.00	1282	207.00	6448	295.00	303
57.00	7216	135.00	3264	208.00	1798	296.00	13060
58.00	370	136.00	1120	209.00	684	297.00	1967
61.00	1444	137.00	1792	210.00	846	301.00	53
62.00	1431	138.00	398	211.00	2270	302.00	230
63.00	4590	139.00	205	213.00	104	303.00	1540
64.00	632	140.00	566	215.00	651	304.00	293
65.00	2171	141.00	4729	216.00	1229	308.00	189
66.00	123	142.00	1975	217.00	14833	310.00	60
67.00	303	143.00	1247	218.00	2091	314.00	645
68.00	1859	144.00	348	219.00	128	315.00	1451
69.00	110112	145.00	329	221.00	9624	316.00	761
70.00	713	146.00	944	222.00	1842	317.00	115
71.00	126	147.00	2968	223.00	3020	321.00	433
73.00	1120	148.00	7483	224.00	28112	322.00	254
74.00	11892	149.00	1402	225.00	7177	323.00	4175

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D\SMS_1_8270.rslt\spectra.d

Injection Date: 09-Nov-2022 15:29:05

Spectrum: Tune Spec :Average 614-616(5.05-5.06) Bgrd 606(5.03)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	18200	150.00	369	226.00	820	324.00	737
76.00	6873	151.00	581	227.00	11801	327.00	629
77.00	136384	152.00	332	228.00	1544	328.00	319
78.00	9247	153.00	1805	229.00	2689	332.00	261
79.00	7252	154.00	1189	230.00	348	333.00	384
80.00	6228	155.00	3153	231.00	1126	334.00	2473
81.00	8316	156.00	4463	232.00	201	335.00	568
82.00	2364	157.00	652	233.00	314	341.00	484
83.00	1929	158.00	947	234.00	717	346.00	963
84.00	168	159.00	745	235.00	972	347.00	102
85.00	1265	160.00	1675	236.00	563	352.00	1237
86.00	2691	161.00	2349	237.00	1196	353.00	791
87.00	1025	162.00	728	239.00	511	354.00	1002
88.00	510	163.00	213	240.00	475	355.00	307
89.00	183	164.00	344	241.00	706	365.00	6075
91.00	1934	165.00	1924	242.00	1493	366.00	932
92.00	2176	166.00	1588	243.00	1529	370.00	54
93.00	14073	167.00	12846	244.00	22224	371.00	162
94.00	1025	168.00	6764	245.00	2615	372.00	2162
95.00	139	169.00	993	246.00	4497	373.00	494
96.00	684	170.00	326	247.00	860	383.00	544
97.00	217	171.00	486	248.00	133	384.00	187
98.00	10870	172.00	1051	249.00	664	390.00	121
99.00	8103	173.00	1191	251.00	225	391.00	135
100.00	641	174.00	2094	252.00	318	392.00	114
101.00	4572	175.00	4455	253.00	563	402.00	733
102.00	324	176.00	1133	254.00	996	403.00	1119
103.00	1319	177.00	1885	255.00	107416	404.00	317
104.00	2931	178.00	774	256.00	15712	421.00	768
105.00	2536	179.00	7895	257.00	1199	422.00	908
106.00	937	180.00	5295	258.00	6929	423.00	6263
107.00	34704	181.00	2381	259.00	951	424.00	1304
108.00	5548	182.00	449	260.00	226	425.00	60
109.00	1023	183.00	182	261.00	209	439.00	139

Report Date: 17-Nov-2022 12:32:17

Chrom Revision: 2.3 08-Nov-2022 12:31:00

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D\SMS_1_8270.rslt\spectra.d

Injection Date: 09-Nov-2022 15:29:05

Spectrum: Tune Spec :Average 614-616(5.05-5.06) Bgrd 606(5.03)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
110.00	56512	184.00	687	264.00	260	441.00	17944
111.00	8916	185.00	4171	265.00	2534	442.00	115736
112.00	1152	186.00	28520	266.00	474	443.00	22208
113.00	381	187.00	8657	268.00	180	444.00	2038

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D

Injection Date: 09-Nov-2022 15:29:05

Instrument ID: SMS_1

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

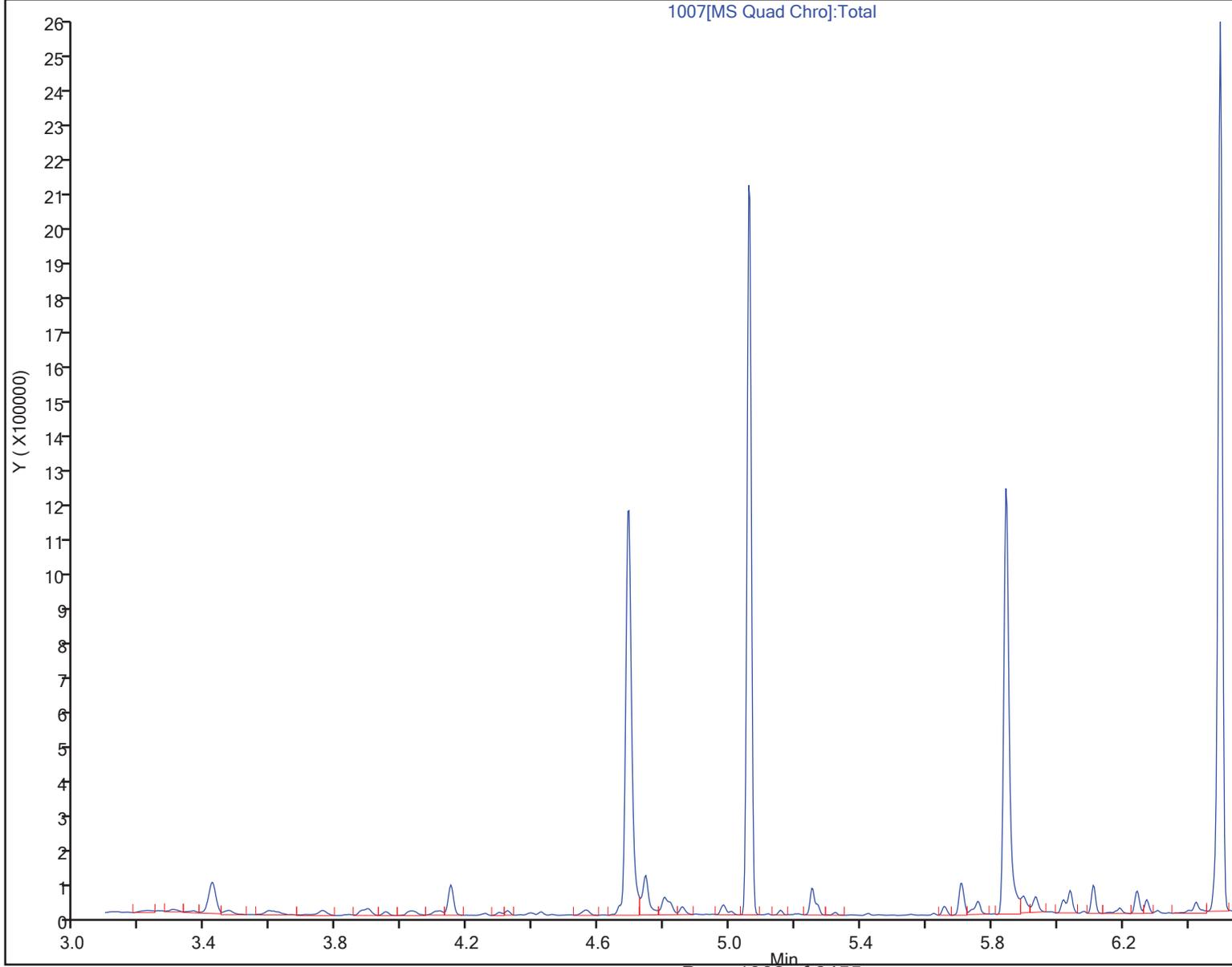
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D
Injection Date: 09-Nov-2022 15:29:05 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

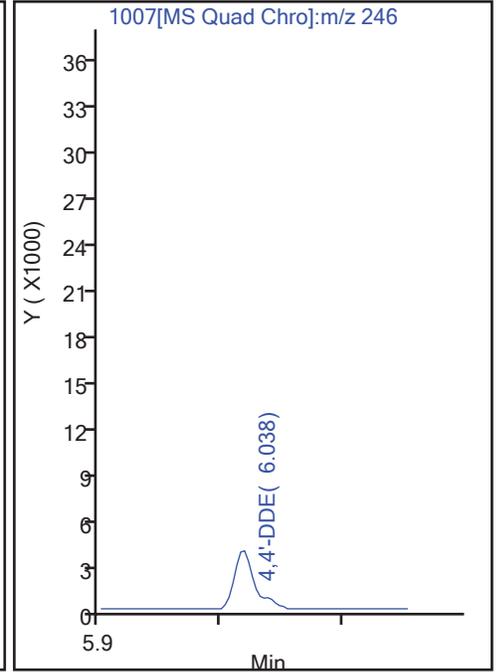
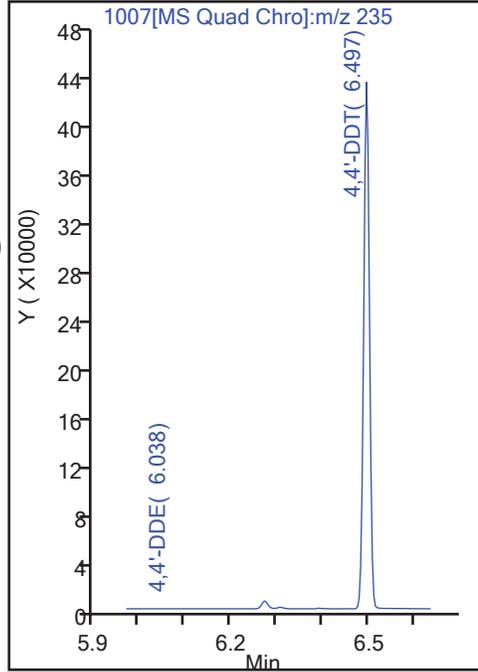
209 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

209 4,4'-DDT, Area = 380746
208 4,4'-DDD, Area = 0
207 4,4'-DDE, Area = 4450

%Breakdown: 1.16%, <= 20.00%
Passed



Eurofins Denver

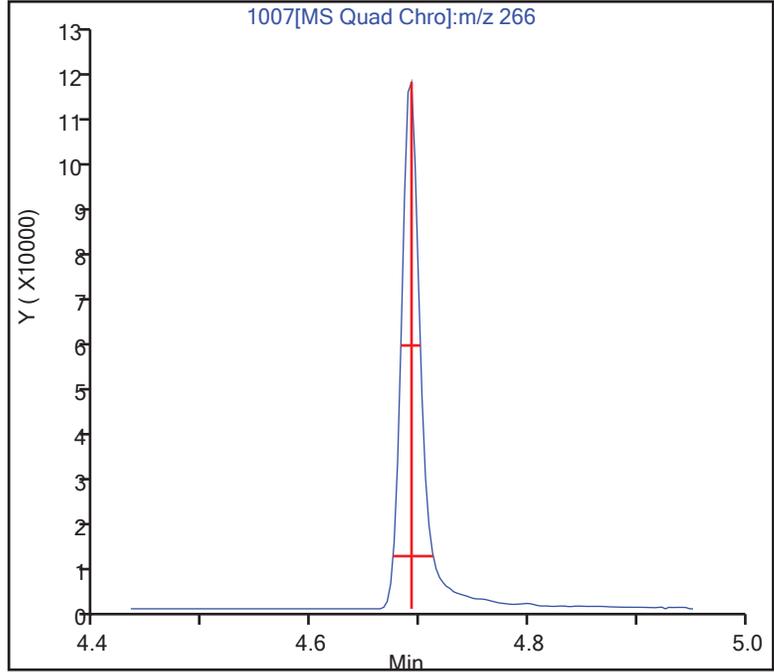
Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D
Injection Date: 09-Nov-2022 15:29:05 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

38 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.020 (min.)
Front Width = 0.017 (min.)

Tailing Factor = 1.18, Max. Tailing <= 5.00
Passed



Eurofins Denver

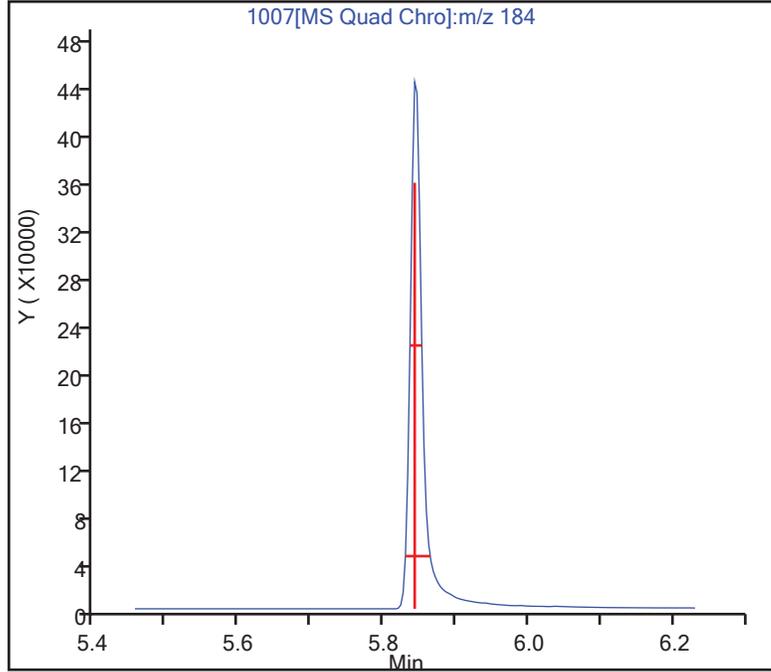
Data File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1007.D
Injection Date: 09-Nov-2022 15:29:05 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

73 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.022 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 1.69, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1597g.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 16-Nov-2022 15:55:04 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: meierg Instrument ID: SMS_1

 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:10:49 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D

 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NBC9 Date: 16-Nov-2022 16:11:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
38 Pentachlorophenol_T	266	4.671	4.671	0.000	90	126533	NR	NR	
73 Benzidine_T	184	5.836	5.836	0.000	99	413160	NR	NR	
206 DFTPP									
207 4,4'-DDE	246	6.013	6.013	0.000	89	7433	NR	NR	a
208 4,4'-DDD	235	6.266	6.266	0.000	93	5639	NR	NR	a
209 4,4'-DDT	235	6.494	6.494	0.000	97	171658	NR	NR	a

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

Reagents:

MS-DFTPP_00057 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1597g.D

Injection Date: 16-Nov-2022 15:55:04

Instrument ID: SMS_1

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

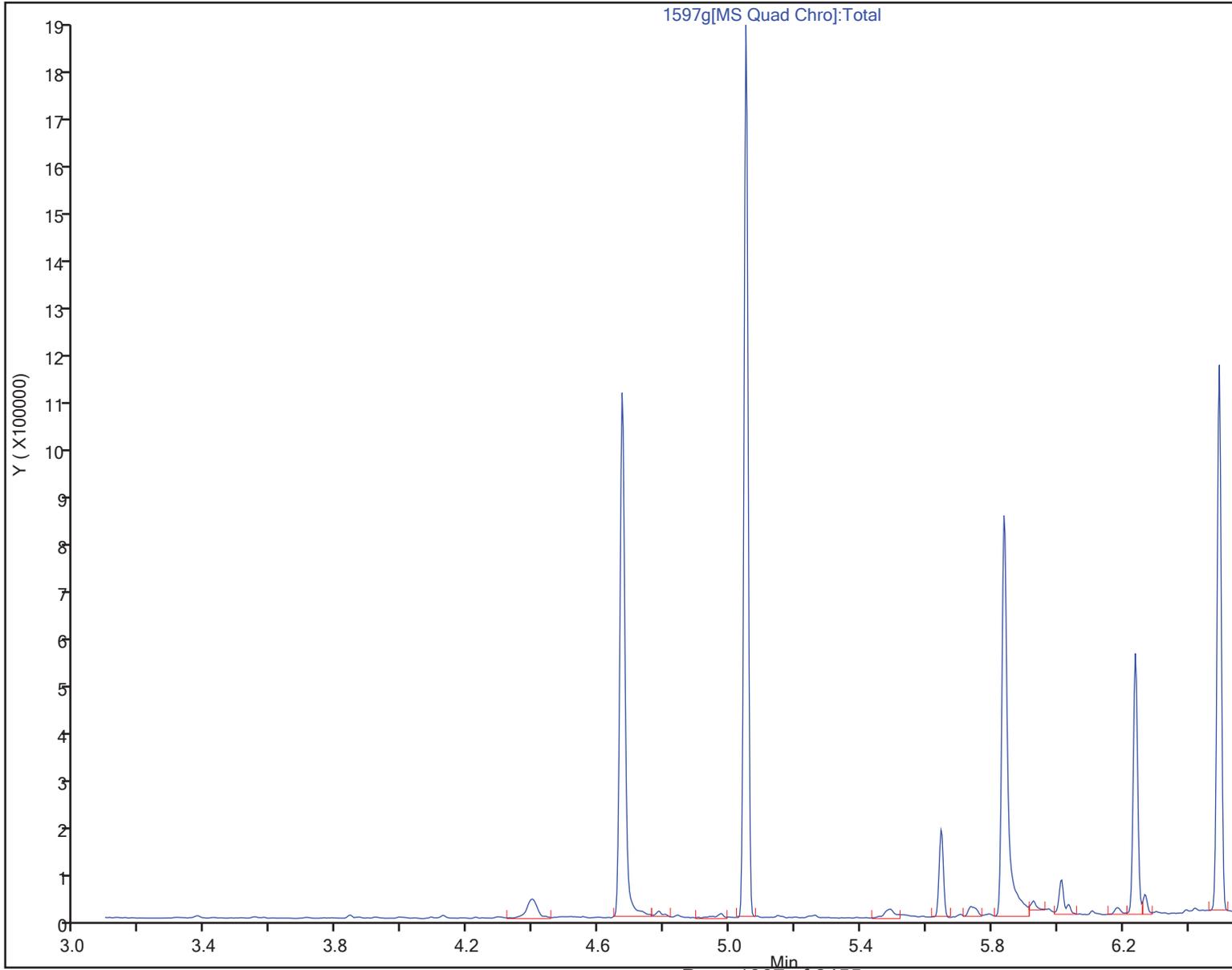
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Larg



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1597g.D
Injection Date: 16-Nov-2022 15:55:04 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

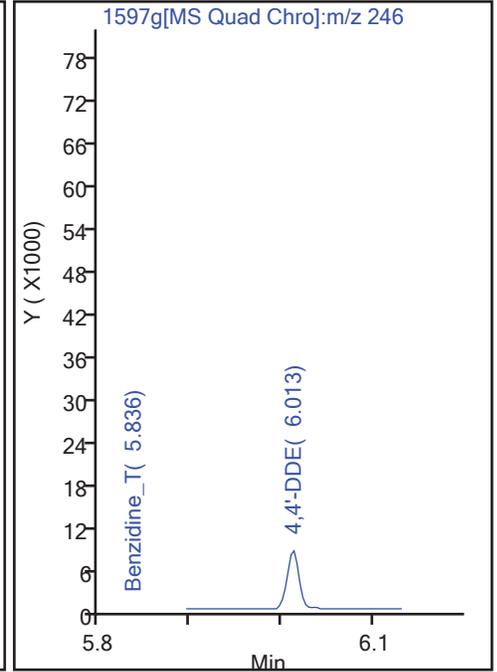
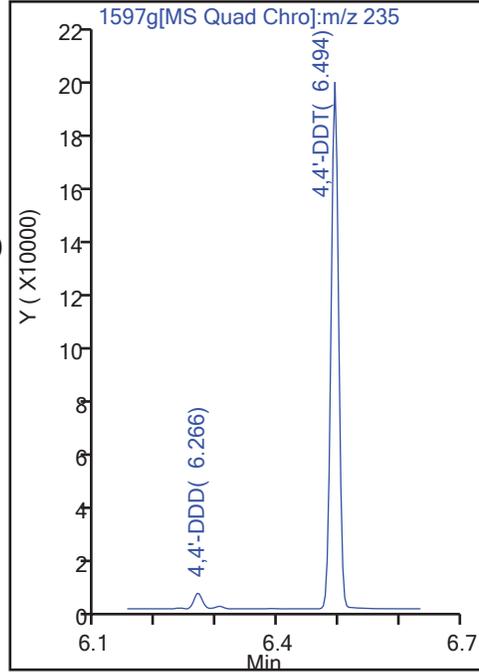
209 4,4'-DDT, Detector: MS Quad

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

209 4,4'-DDT, Area = 171658
208 4,4'-DDD, Area = 5639
207 4,4'-DDE, Area = 7433

%Breakdown: 7.08%, <= 20.00%
Passed



Eurofins Denver

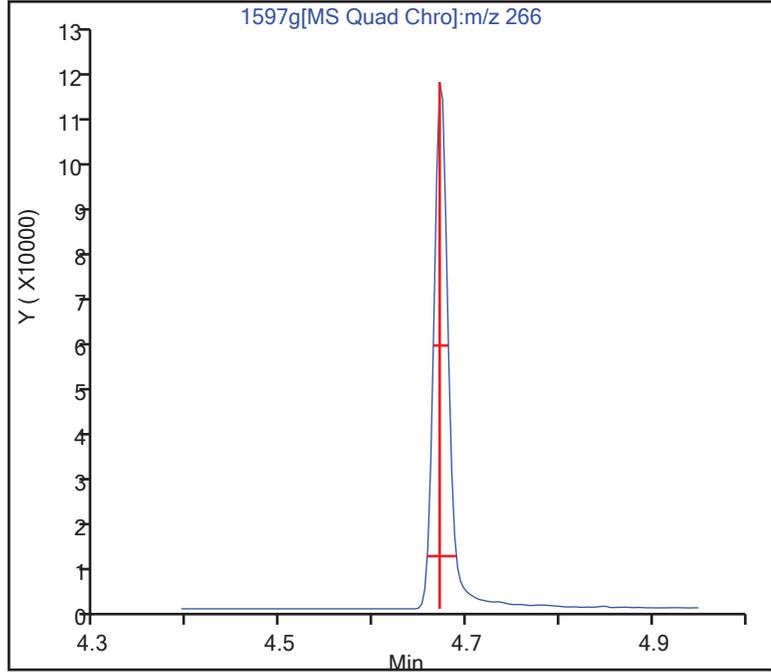
Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1597g.D
Injection Date: 16-Nov-2022 15:55:04 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

38 Pentachlorophenol_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.018 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 1.38, Max. Tailing <= 5.00
Passed



Eurofins Denver

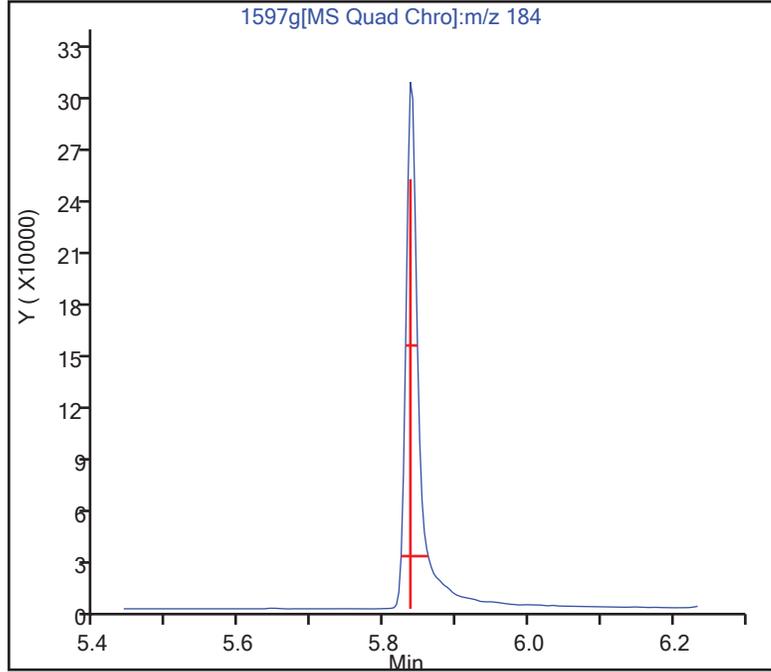
Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1597g.D
Injection Date: 16-Nov-2022 15:55:04 Instrument ID: SMS_1
Lims ID: DFTPP
Client ID:
Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMS_1_8270 Limit Group: MSSV - 8270C_625

73 Benzidine_T, Detector: MS Quad

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.025 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 1.92, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 14-Oct-2022 16:55:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: tessiern Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 11:45:16 Calib Date: 14-Oct-2022 19:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022437.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: NBC9 Date: 14-Oct-2022 17:02:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
29 Pentachlorophenol_T	266	3.063	3.063	0.000	99	379080	NR	NR	
54 Benzidine_T	184	4.157	4.157	0.000	100	2188022	NR	NR	
31 DFTPP									
59 4,4'-DDE	246		4.299				ND	ND	
64 4,4'-DDD	235	4.581	4.581	0.000	79	2473	NR	NR	
74 4,4'-DDT	235	4.793	4.793	0.000	98	789576	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

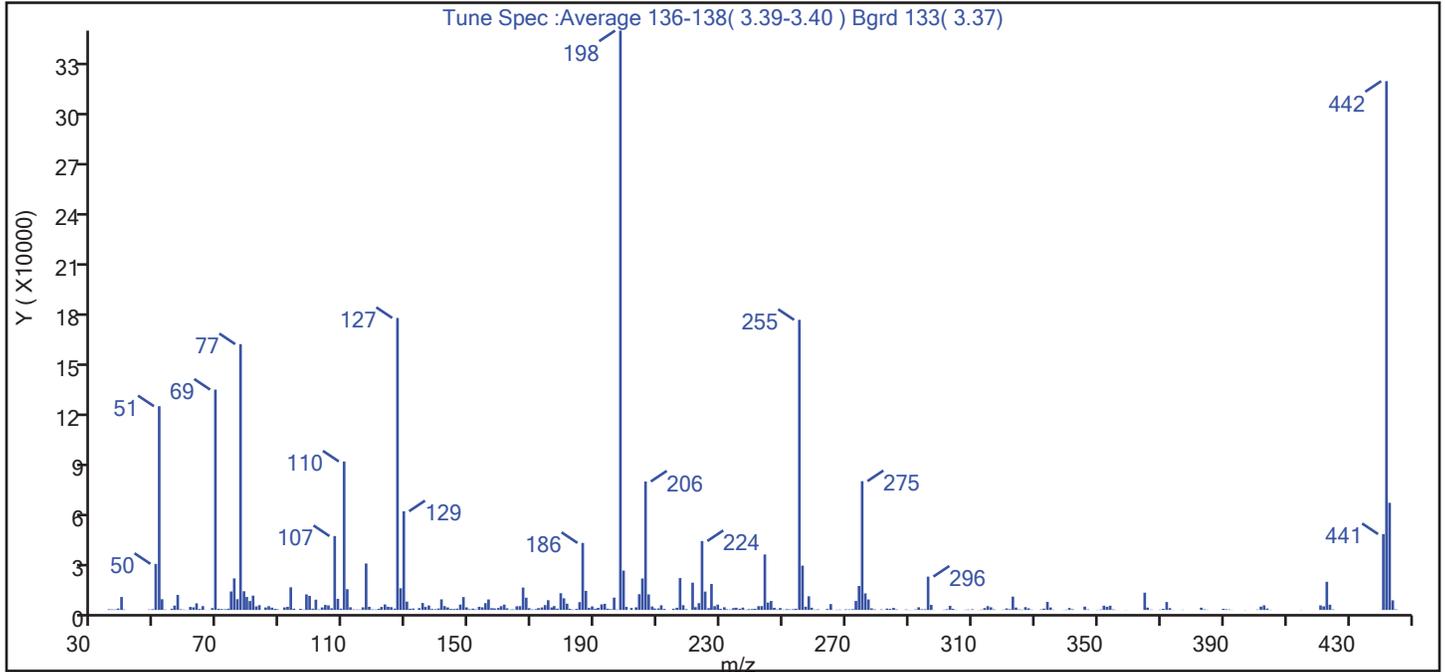
Reagents:

MS-DFTPP_00059 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D
 Injection Date: 14-Oct-2022 16:55:30 Instrument ID: SMS_G6
 Lims ID: DFTPP
 Client ID:
 Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

31 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	35.2
68	<2% of mass 69	0.3 (0.8)
69	Present	38.0
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	50.4
197	<1% of mass 198	0.1
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.2
365	>1% of mass 198	3.0
441	Present but less than mass 443	13.1 (70.8)
442	>40% of mass 198	91.3
443	17-23% of mass 442	18.5 (20.3)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D\SMSG6_8270C.rslt\spect
Injection Date: 14-Oct-2022 16:55:30
Spectrum: Tune Spec :Average 136-138(3.39-3.40) Bgrd 133(3.37)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	399	126.00	810	208.00	2101	297.00	3070
36.00	301	127.00	176320	209.00	859	298.00	62
37.00	290	128.00	13094	210.00	916	301.00	182
38.00	838	129.00	59600	211.00	2820	302.00	415
39.00	7844	130.00	5043	212.00	604	303.00	2513
40.00	267	131.00	750	215.00	736	304.00	687
48.00	280	132.00	858	216.00	1344	305.00	146
49.00	448	134.00	1103	217.00	19248	308.00	150
50.00	27816	135.00	4213	218.00	2890	309.00	253
51.00	123024	136.00	1807	219.00	462	310.00	393
52.00	6492	137.00	2704	221.00	16464	312.00	57
53.00	237	138.00	588	222.00	1681	313.00	225
55.00	724	139.00	466	223.00	4109	314.00	1112
56.00	2643	140.00	874	224.00	41624	315.00	2329
57.00	9069	141.00	6409	225.00	11104	316.00	1615
58.00	391	142.00	2316	226.00	1082	317.00	309
59.00	194	143.00	1510	227.00	15719	320.00	175
60.00	60	144.00	639	228.00	2289	321.00	924
61.00	1823	145.00	587	229.00	3221	322.00	480
62.00	1605	146.00	801	230.00	705	323.00	8071
63.00	4023	147.00	3234	231.00	1639	324.00	1451
64.00	579	148.00	7792	232.00	386	325.00	309
65.00	2330	149.00	1583	233.00	276	326.00	186
66.00	48	150.00	455	234.00	1142	327.00	1708
67.00	59	151.00	804	235.00	1355	328.00	973
68.00	1122	152.00	333	236.00	731	329.00	175
69.00	133056	153.00	1913	237.00	1436	332.00	289
70.00	705	154.00	1599	238.00	153	333.00	788
71.00	535	155.00	4116	239.00	508	334.00	4853
72.00	419	156.00	6354	240.00	558	335.00	1502
73.00	748	157.00	1075	241.00	715	336.00	160
74.00	11168	158.00	931	242.00	2309	339.00	54
75.00	19080	159.00	1191	243.00	2324	340.00	178

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D\MSG6_8270C.rslt\spect

Injection Date: 14-Oct-2022 16:55:30

Spectrum: Tune Spec :Average 136-138(3.39-3.40) Bgrd 133(3.37)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	6505	160.00	2293	244.00	33504	341.00	1177
77.00	160512	161.00	3229	245.00	4473	342.00	382
78.00	11305	162.00	980	246.00	5434	346.00	2033
79.00	7860	163.00	271	247.00	1302	347.00	322
80.00	5408	164.00	314	248.00	290	350.00	119
81.00	8674	165.00	2227	249.00	1170	351.00	275
82.00	2166	166.00	2283	250.00	175	352.00	2588
83.00	2898	167.00	13533	251.00	471	353.00	1952
85.00	1514	168.00	7396	252.00	325	354.00	2561
86.00	2307	169.00	1071	253.00	451	355.00	315
87.00	1417	170.00	331	254.00	743	356.00	59
88.00	653	171.00	483	255.00	175168	359.00	69
89.00	382	172.00	1122	256.00	26768	365.00	10435
91.00	1531	173.00	1534	257.00	1956	366.00	1415
92.00	1912	174.00	2947	258.00	8267	367.00	222
93.00	13682	175.00	5887	259.00	1360	370.00	218
94.00	779	176.00	1538	260.00	220	371.00	666
96.00	695	177.00	2346	261.00	346	372.00	4810
97.00	210	178.00	778	264.00	601	373.00	1078
98.00	9398	179.00	10128	265.00	3545	374.00	84
99.00	8519	180.00	7037	266.00	52	377.00	144
100.00	764	181.00	3799	267.00	167	383.00	1372
101.00	6209	182.00	670	268.00	222	384.00	349
102.00	269	183.00	239	270.00	343	385.00	144
103.00	1534	184.00	606	271.00	339	390.00	676
104.00	3035	185.00	4722	272.00	472	391.00	414
105.00	2751	186.00	40472	273.00	5445	392.00	275
106.00	1007	187.00	11531	274.00	14482	393.00	50
107.00	44624	188.00	1201	275.00	77768	397.00	76
108.00	6714	189.00	2158	276.00	10013	401.00	235
109.00	799	190.00	665	277.00	6340	402.00	2004
110.00	89664	191.00	1278	278.00	989	403.00	2806
111.00	12562	192.00	3379	279.00	338	404.00	876
112.00	1636	193.00	3731	281.00	320	405.00	131

Report Date: 17-Oct-2022 11:45:16

Chrom Revision: 2.3 28-Sep-2022 12:57:42

Data File:

\\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D\SMSG6_8270C.rslt\spect

Injection Date:

14-Oct-2022 16:55:30

Spectrum:

Tune Spec :Average 136-138(3.39-3.40) Bgrd 133(3.37)

Base Peak:

198.00

Minimum % Base Peak: 0

Number of Points:

318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	320	194.00	773	282.00	16	415.00	71
114.00	274	195.00	445	283.00	840	421.00	2776
115.00	219	196.00	7472	284.00	630	422.00	2199
116.00	1598	197.00	240	285.00	1259	423.00	17008
117.00	28048	198.00	349824	286.00	320	424.00	3169
118.00	1916	199.00	23776	289.00	265	425.00	292
119.00	343	200.00	1842	290.00	85	441.00	45824
120.00	244	202.00	1195	291.00	74	442.00	319296
121.00	701	203.00	1580	292.00	295	443.00	64704
122.00	1830	204.00	9521	293.00	1621	444.00	5817
123.00	3346	205.00	18984	294.00	401	445.00	324
124.00	1888	206.00	77568	295.00	429		
125.00	1693	207.00	9397	296.00	20136		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D

Injection Date: 14-Oct-2022 16:55:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

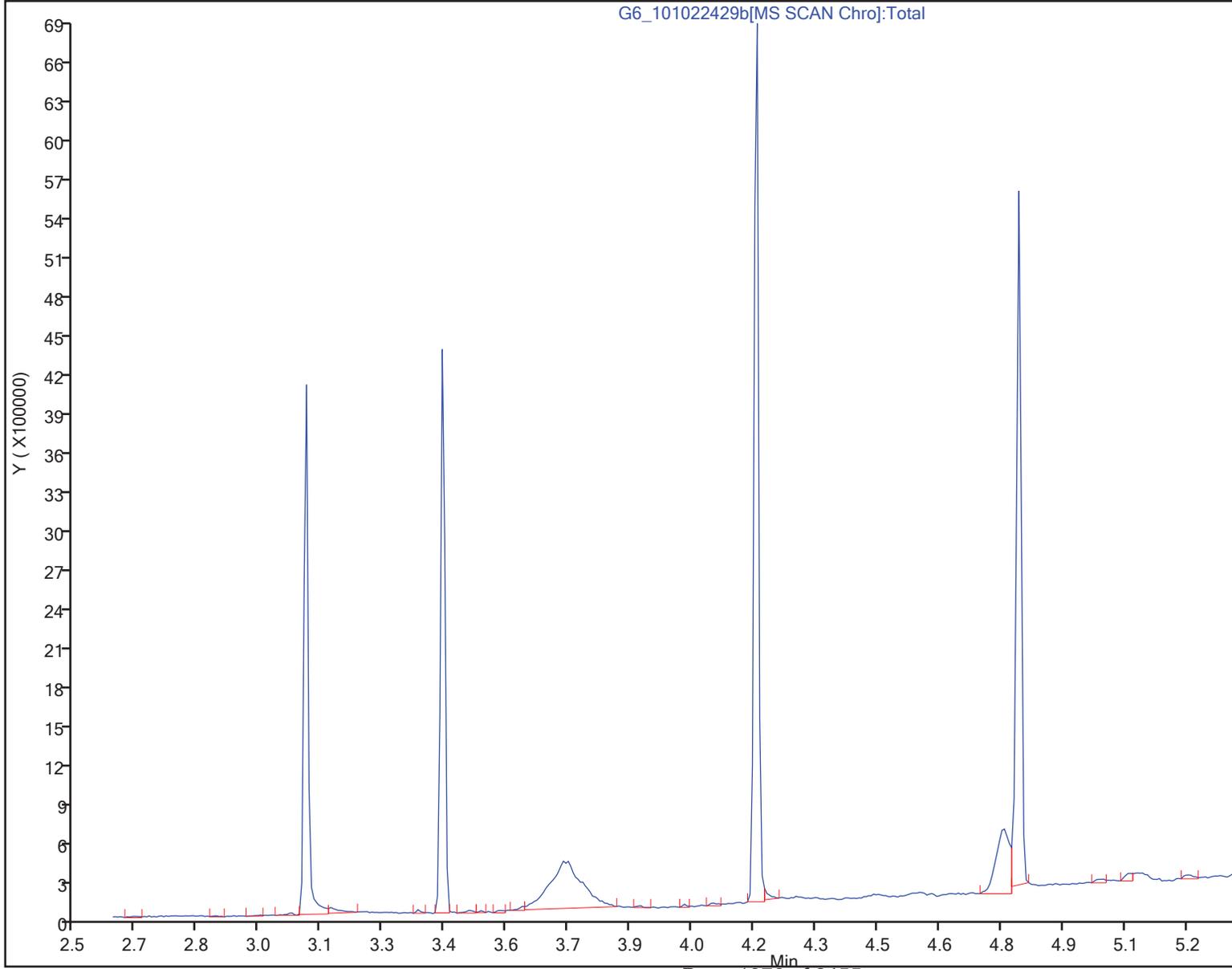
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D
Injection Date: 14-Oct-2022 16:55:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

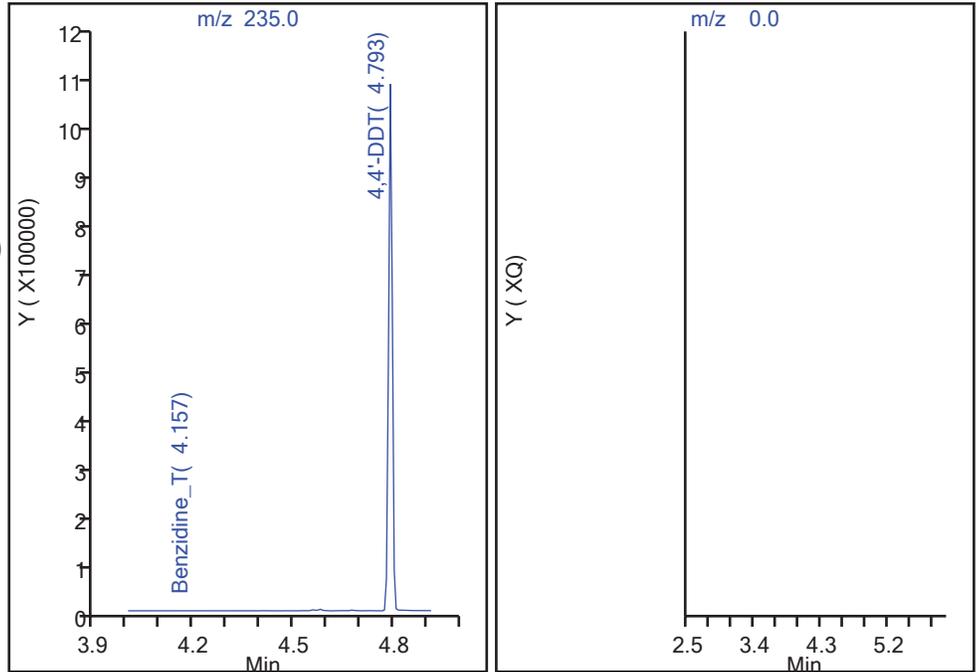
74 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

74 4,4'-DDT, Area = 789576
64 4,4'-DDD, Area = 2473
59 4,4'-DDE, Area = 0

%Breakdown: 0.31%, <= 20.00%
Passed



Eurofins Denver

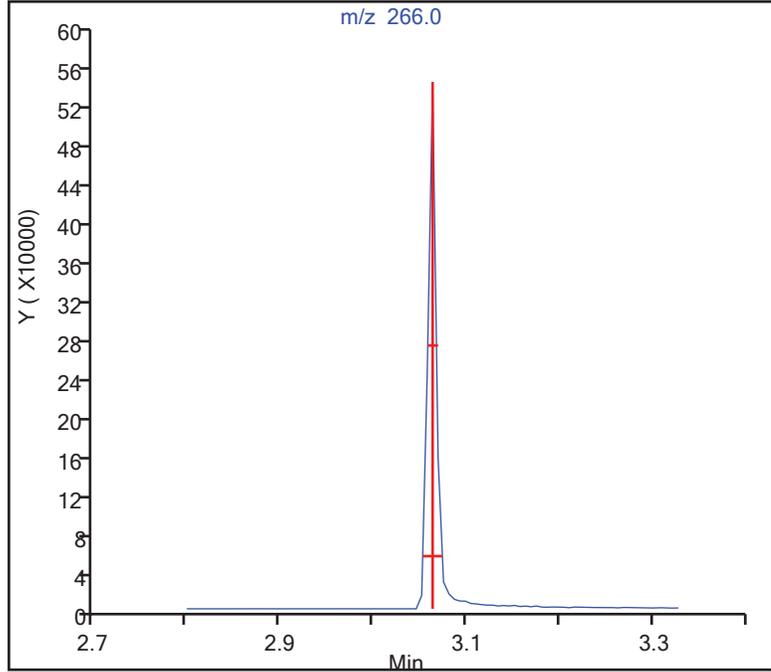
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D
Injection Date: 14-Oct-2022 16:55:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 1.00, Max. Tailing <= 5.00
Passed



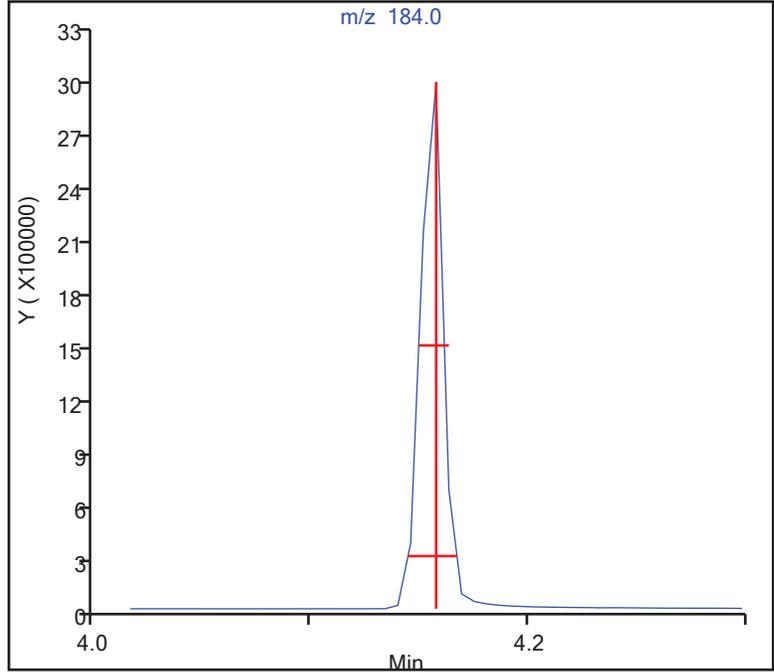
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221014-115152.b\G6_101022429b.D
Injection Date: 14-Oct-2022 16:55:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
54 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 0.77, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 15-Oct-2022 00:19:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: tessiern Instrument ID: SMS_G6

 Method: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Oct-2022 12:36:38 Calib Date: 15-Oct-2022 02:30:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022458.D

 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1677

First Level Reviewer: TRE2 Date: 17-Oct-2022 12:21:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
29 Pentachlorophenol_T	266	3.058	3.058	0.000	98	271661	NR	NR	
54 Benzidine_T	184	4.122	4.122	0.000	100	1660023	NR	NR	
31 DFTPP									
59 4,4'-DDE	246	4.263	4.263	0.000	77	777	NR	NR	
64 4,4'-DDD	235	4.528	4.528	0.000	90	1483	NR	NR	
74 4,4'-DDT	235	4.728	4.728	0.000	98	604858	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

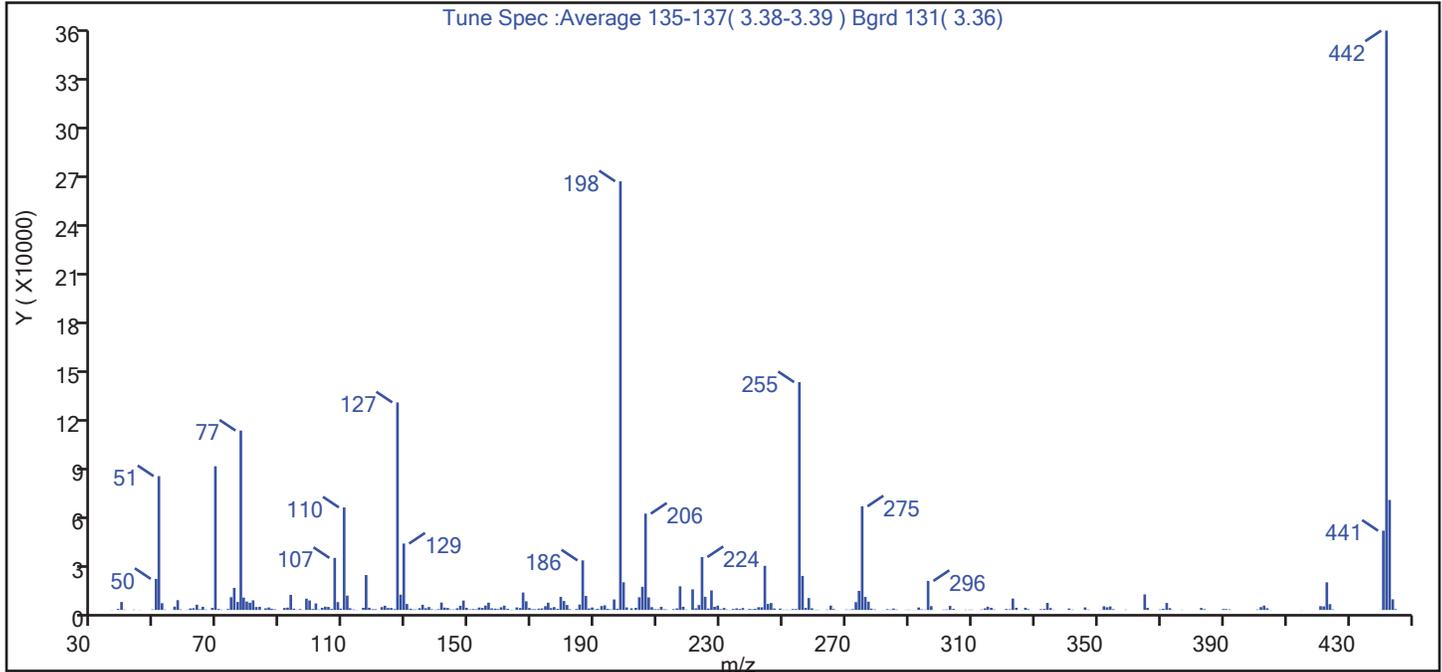
Reagents:

MS-DFTPP_00059 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D
 Injection Date: 15-Oct-2022 00:19:30 Instrument ID: SMS_G6
 Lims ID: DFTPP
 Client ID:
 Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

31 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	31.2
68	<2% of mass 69	0.5 (1.4)
69	Present	33.5
70	<2% of mass 69	0.2 (0.7)
127	40-60% of mass 198	48.4
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.5
275	10-30% of mass 198	24.2
365	>1% of mass 198	3.6
441	Present but less than mass 443	18.5 (72.1)
442	>40% of mass 198	135.2
443	17-23% of mass 442	25.7 (19.0)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D\SMSG6_8270C.rslt\spectra
Injection Date: 15-Oct-2022 00:19:30
Spectrum: Tune Spec :Average 135-137(3.38-3.39) Bgrd 131(3.36)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	80	125.00	1218	202.00	1004	289.00	136
38.00	624	126.00	518	203.00	1274	290.00	183
39.00	4893	127.00	127472	204.00	7793	291.00	61
40.00	208	128.00	9381	205.00	14216	292.00	87
41.00	28	129.00	40776	206.00	59152	293.00	1519
43.00	209	130.00	3680	207.00	7705	294.00	343
45.00	80	131.00	759	208.00	1739	295.00	209
49.00	309	132.00	295	209.00	445	296.00	17832
50.00	19064	133.00	271	210.00	427	297.00	2330
51.00	82176	134.00	1085	211.00	1915	298.00	57
52.00	4142	135.00	3200	212.00	386	301.00	209
53.00	215	136.00	1038	213.00	188	302.00	271
55.00	20	137.00	1803	215.00	433	303.00	2457
56.00	2053	138.00	403	216.00	943	304.00	621
57.00	6006	139.00	172	217.00	14527	305.00	51
58.00	307	140.00	462	218.00	1946	308.00	183
60.00	139	141.00	4567	219.00	205	309.00	163
61.00	933	142.00	1429	221.00	12660	310.00	196
62.00	1075	143.00	1207	222.00	960	313.00	273
63.00	3204	144.00	304	223.00	3041	314.00	964
64.00	397	145.00	261	224.00	32488	315.00	2003
65.00	1924	146.00	1017	225.00	8075	316.00	1337
66.00	250	147.00	2562	226.00	838	317.00	281
68.00	1278	148.00	5781	227.00	11987	321.00	567
69.00	88248	149.00	1281	228.00	1954	322.00	411
70.00	582	150.00	332	229.00	2667	323.00	6992
71.00	180	151.00	539	230.00	486	324.00	1332
73.00	577	152.00	371	231.00	1239	326.00	70
74.00	7823	153.00	1480	232.00	258	327.00	1336
75.00	13552	154.00	1260	233.00	92	328.00	481
76.00	4897	155.00	2719	234.00	598	332.00	483
77.00	110168	156.00	4470	235.00	980	333.00	632
78.00	7605	157.00	979	236.00	590	334.00	4354

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D\MSG6_8270C.rsl\spectra

Injection Date: 15-Oct-2022 00:19:30

Spectrum: Tune Spec :Average 135-137(3.38-3.39) Bgrd 131(3.36)

Base Peak: 442.00

Minimum % Base Peak: 0

Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5164	158.00	804	237.00	1190	335.00	1142
80.00	4428	159.00	505	238.00	63	336.00	141
81.00	5921	160.00	1645	239.00	607	341.00	863
82.00	1818	161.00	2677	240.00	388	342.00	197
83.00	1941	162.00	754	241.00	703	346.00	1571
84.00	36	163.00	113	242.00	1710	347.00	217
85.00	993	164.00	117	243.00	1648	351.00	83
86.00	1527	165.00	1571	244.00	27104	352.00	2250
87.00	739	166.00	1179	245.00	3677	353.00	1648
88.00	378	167.00	10733	246.00	4262	354.00	2166
89.00	55	168.00	5331	247.00	892	355.00	447
91.00	1215	169.00	1168	249.00	855	359.00	189
92.00	1430	170.00	400	250.00	173	365.00	9580
93.00	9294	171.00	418	251.00	190	366.00	1273
94.00	807	172.00	800	252.00	97	367.00	52
95.00	165	173.00	959	253.00	552	370.00	282
96.00	537	174.00	2323	254.00	539	371.00	693
97.00	65	175.00	4468	255.00	139904	372.00	4287
98.00	6931	176.00	1132	256.00	20896	373.00	1079
99.00	5852	177.00	1763	257.00	1263	374.00	91
100.00	602	178.00	657	258.00	7327	377.00	126
101.00	4006	179.00	8048	259.00	1012	383.00	1215
102.00	204	180.00	5515	260.00	143	384.00	461
103.00	1341	181.00	3057	261.00	155	390.00	548
104.00	2005	182.00	475	264.00	226	391.00	539
105.00	1850	183.00	59	265.00	2638	392.00	341
106.00	623	184.00	554	266.00	547	401.00	291
107.00	31944	185.00	3355	267.00	105	402.00	1761
108.00	4830	186.00	30424	270.00	262	403.00	2685
109.00	832	187.00	8604	271.00	194	404.00	1049
110.00	62976	188.00	917	272.00	489	405.00	73
111.00	8808	189.00	1505	273.00	4790	415.00	52
112.00	1043	190.00	304	274.00	11668	421.00	2359
113.00	283	191.00	637	275.00	63632	422.00	2178

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D\MSG6_8270C.rslt\spectra

Injection Date: 15-Oct-2022 00:19:30

Spectrum: Tune Spec :Average 135-137(3.38-3.39) Bgrd 131(3.36)

Base Peak: 442.00

Minimum % Base Peak: 0

Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	121	192.00	2393	276.00	8035	423.00	16968
116.00	1316	193.00	2841	277.00	5095	424.00	3575
117.00	21448	194.00	678	278.00	815	425.00	329
118.00	1374	195.00	299	279.00	319	441.00	48688
119.00	444	196.00	6451	282.00	95	442.00	355776
120.00	412	197.00	760	283.00	466	443.00	67544
122.00	1778	198.00	263232	284.00	261	444.00	6521
123.00	2550	199.00	16984	285.00	870	445.00	487
124.00	1182	200.00	1573	286.00	241		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D

Injection Date: 15-Oct-2022 00:19:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

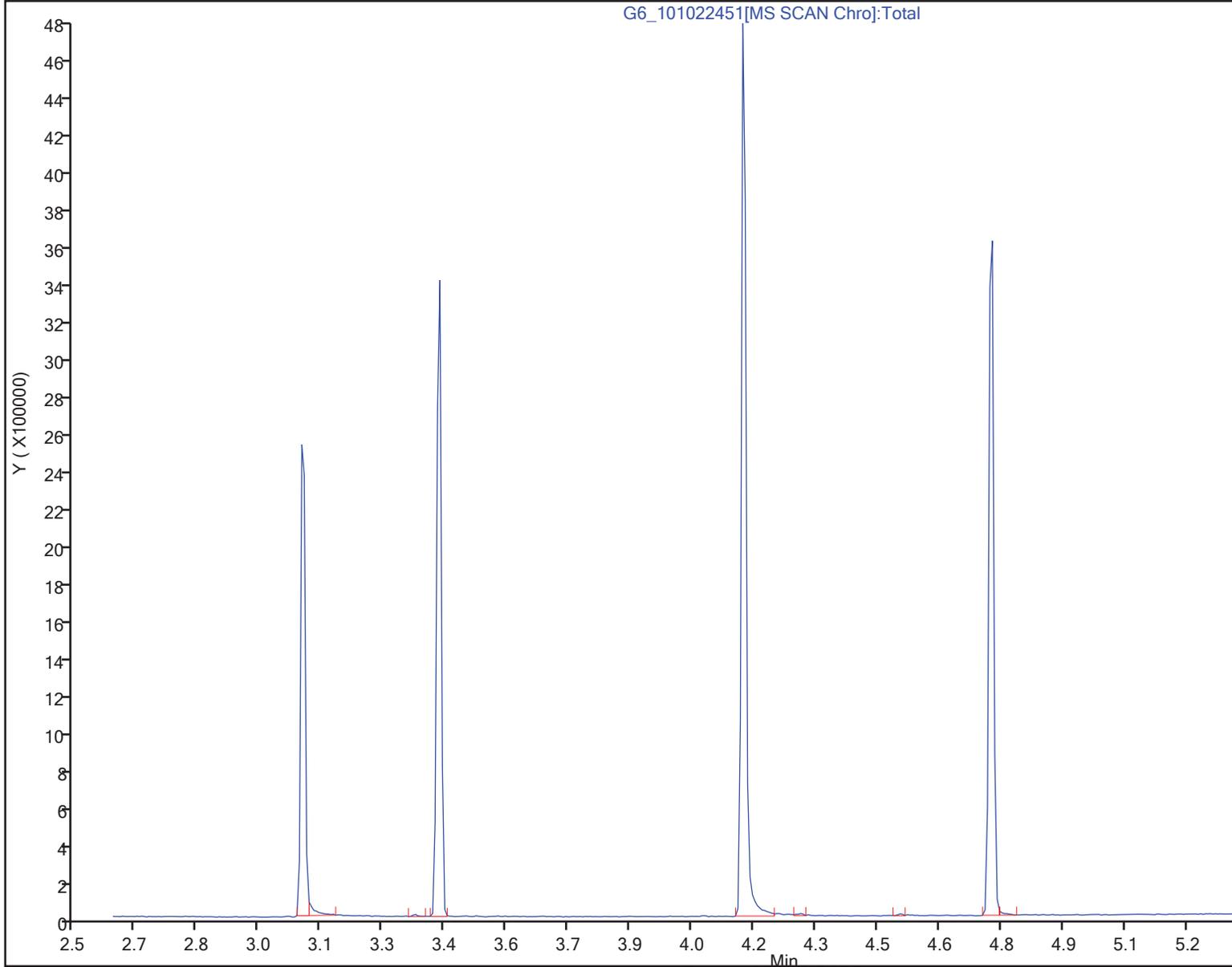
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D
Injection Date: 15-Oct-2022 00:19:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

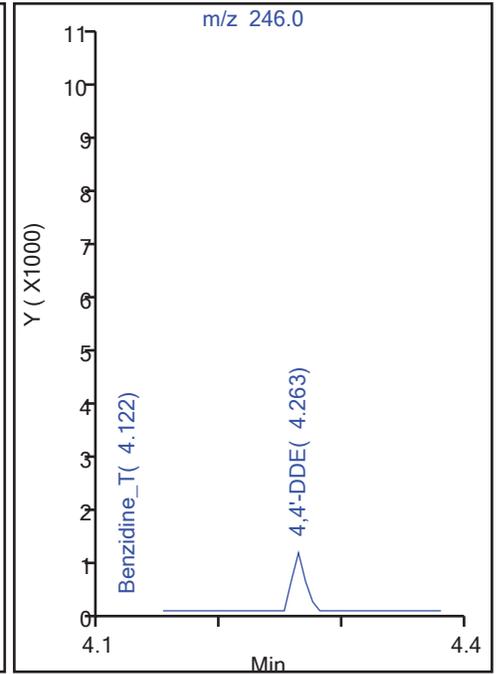
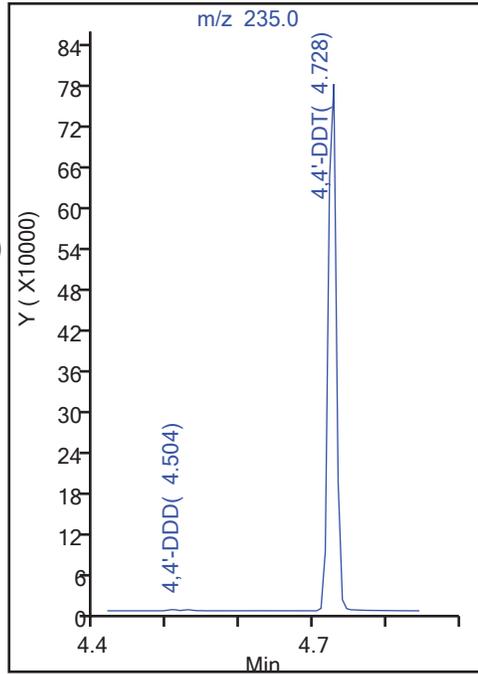
74 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

74 4,4'-DDT, Area = 604858
64 4,4'-DDD, Area = 1483
59 4,4'-DDE, Area = 777

%Breakdown: 0.37%, <= 20.00%
Passed



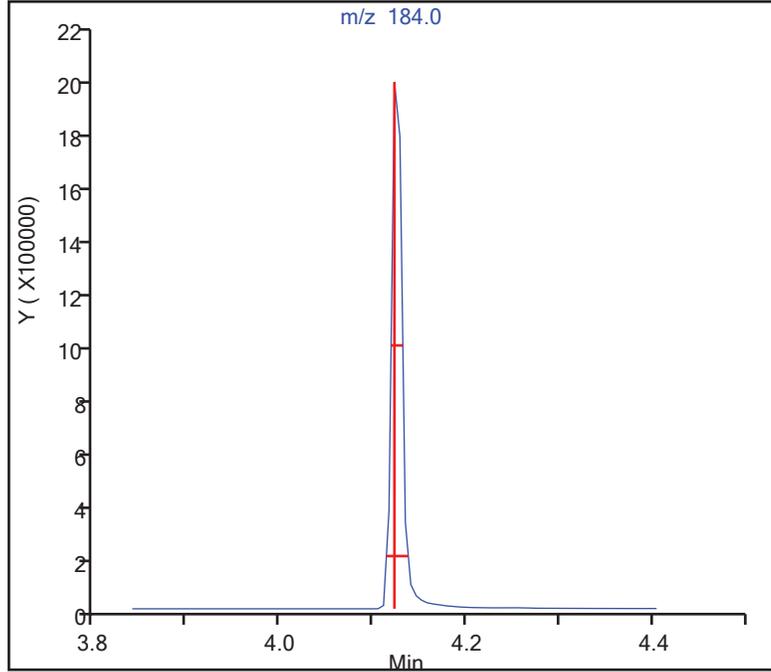
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115173.b\G6_101022451.D
Injection Date: 15-Oct-2022 00:19:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
54 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.015 (min.)
Front Width = 0.009 (min.)

Tailing Factor = 1.67, Max. Tailing <= 3.00
Passed



Eurofins Denver

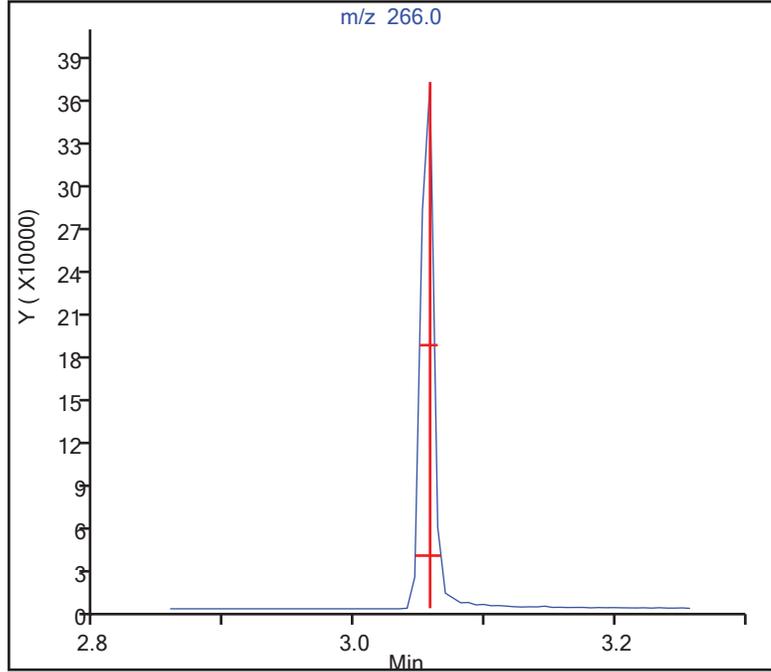
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Injection Date: 15-Oct-2022 00:19:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.008 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.73, Max. Tailing <= 5.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 17-Oct-2022 09:41:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: tessiern Instrument ID: SMS_G6

 Method: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\SMMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 18-Oct-2022 12:16:38 Calib Date: 15-Oct-2022 05:33:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115177.b\G6_101022466.D

 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1673

First Level Reviewer: NU5H Date: 17-Oct-2022 09:54:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
29 Pentachlorophenol_T	266	3.063	3.063	0.000	98	418830	NR	NR	
54 Benzidine_T	184	4.169	4.169	0.000	100	2474690	NR	NR	
31 DFTPP									
59 4,4'-DDE	246	4.316	4.316	0.000	92	3432	NR	NR	
64 4,4'-DDD	235	4.604	4.604	0.000	93	2554	NR	NR	
74 4,4'-DDT	235	4.816	4.816	0.000	98	898073	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

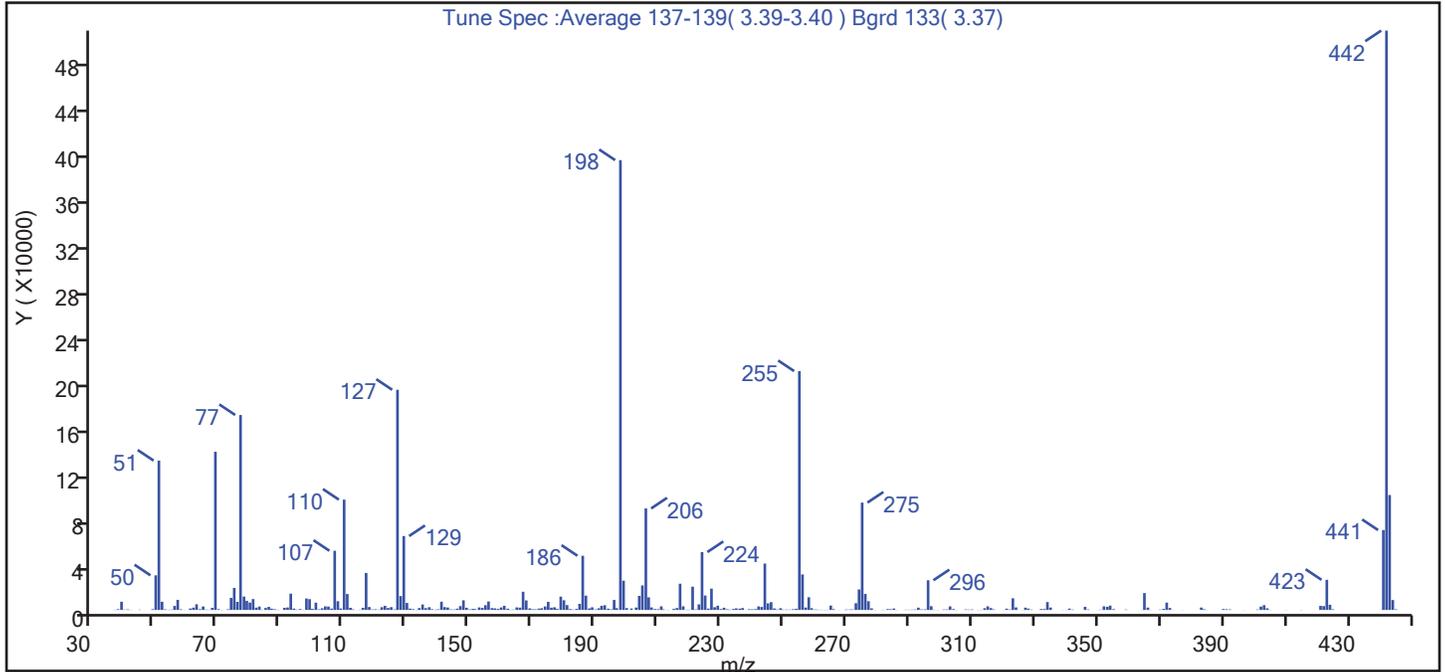
Reagents:

MS-DFTPP_00059 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D
 Injection Date: 17-Oct-2022 09:41:30 Instrument ID: SMS_G6
 Lims ID: DFTPP
 Client ID:
 Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

31 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	33.2
68	<2% of mass 69	0.5 (1.3)
69	Present	35.2
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	48.9
197	<1% of mass 198	0.4
199	5-9% of mass 198	6.5
275	10-30% of mass 198	23.9
365	>1% of mass 198	3.7
441	Present but less than mass 443	17.8 (69.5)
442	>40% of mass 198	128.8
443	17-23% of mass 442	25.6 (19.8)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D\SMSG6_8270C.rslt\spectra
Injection Date: 17-Oct-2022 09:41:30
Spectrum: Tune Spec :Average 137-139(3.39-3.40) Bgrd 133(3.37)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	193	126.00	502	209.00	772	295.00	559
38.00	678	127.00	192768	210.00	658	296.00	25992
39.00	7198	128.00	12133	211.00	3180	297.00	3286
40.00	281	129.00	64704	212.00	473	298.00	212
41.00	465	130.00	6136	213.00	154	299.00	140
42.00	131	131.00	1172	215.00	931	301.00	372
45.00	264	132.00	666	216.00	1671	302.00	461
49.00	672	133.00	153	217.00	22976	303.00	3145
50.00	30320	134.00	1629	218.00	3203	304.00	760
51.00	130768	135.00	4807	219.00	194	305.00	91
52.00	7177	136.00	1570	220.00	214	308.00	416
53.00	517	137.00	2417	221.00	20368	309.00	330
54.00	205	138.00	651	222.00	433	310.00	443
55.00	325	139.00	302	223.00	4902	312.00	154
56.00	3531	140.00	524	224.00	50696	313.00	144
57.00	8849	141.00	7215	225.00	12621	314.00	1492
58.00	535	142.00	2523	226.00	1146	315.00	3185
59.00	74	143.00	2151	227.00	18672	316.00	1633
60.00	8	144.00	472	228.00	2372	317.00	436
61.00	1227	145.00	353	229.00	3692	320.00	86
62.00	2036	146.00	1131	230.00	757	321.00	1103
63.00	4965	147.00	3360	231.00	1943	322.00	402
64.00	652	148.00	8453	232.00	570	323.00	10201
65.00	3041	149.00	1915	233.00	300	324.00	2224
66.00	328	150.00	462	234.00	856	326.00	76
67.00	183	151.00	950	235.00	1365	327.00	2025
68.00	1831	152.00	744	236.00	1111	328.00	1186
69.00	138496	153.00	2199	237.00	1653	329.00	307
70.00	693	154.00	1793	238.00	50	332.00	794
71.00	144	155.00	4156	239.00	642	333.00	833
73.00	554	156.00	7404	240.00	532	334.00	6877
74.00	10561	157.00	1630	241.00	718	335.00	2094
75.00	19320	158.00	1366	242.00	3100	339.00	83

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D\MSG6_8270C.rsl\spectra

Injection Date: 17-Oct-2022 09:41:30

Spectrum: Tune Spec :Average 137-139(3.39-3.40) Bgrd 133(3.37)

Base Peak: 442.00

Minimum % Base Peak: 0

Number of Points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	7097	159.00	913	243.00	2633	340.00	120
77.00	170688	160.00	2192	244.00	40616	341.00	1188
78.00	11711	161.00	3638	245.00	5760	342.00	342
79.00	7946	162.00	1095	246.00	6846	346.00	2755
80.00	6441	163.00	240	247.00	1310	347.00	429
81.00	9550	164.00	289	248.00	380	350.00	59
82.00	2063	165.00	2237	249.00	1496	351.00	262
83.00	2967	166.00	2036	250.00	289	352.00	3183
84.00	185	167.00	15946	251.00	340	353.00	2766
85.00	1736	168.00	8340	252.00	281	354.00	3835
86.00	2713	169.00	1377	253.00	627	355.00	706
87.00	1148	170.00	575	254.00	968	359.00	361
88.00	642	171.00	503	255.00	209152	360.00	57
89.00	223	172.00	1177	256.00	31104	364.00	115
91.00	1856	173.00	1508	257.00	2115	365.00	14768
92.00	2164	174.00	3081	258.00	11139	366.00	2076
93.00	14265	175.00	7086	259.00	1537	367.00	102
94.00	1189	176.00	2007	260.00	365	370.00	322
95.00	291	177.00	2349	261.00	281	371.00	911
96.00	794	178.00	889	262.00	177	372.00	6428
97.00	138	179.00	11665	263.00	169	373.00	1700
98.00	10046	180.00	8478	264.00	149	374.00	80
99.00	9457	181.00	4267	265.00	3826	377.00	83
100.00	945	182.00	750	266.00	692	383.00	2122
101.00	6373	183.00	321	268.00	68	384.00	613
102.00	502	184.00	873	270.00	89	385.00	105
103.00	1429	185.00	5360	270.00	391	390.00	796
104.00	3168	186.00	47448	271.00	354	391.00	635
105.00	2982	187.00	12535	272.00	427	392.00	467
106.00	1168	188.00	1334	273.00	5886	397.00	63
107.00	51800	189.00	2330	274.00	17960	401.00	377
108.00	7676	190.00	457	275.00	94008	402.00	2974
109.00	1274	191.00	1439	276.00	14025	403.00	4223
110.00	96592	192.00	3606	277.00	7644	404.00	1453

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D\MSG6_8270C.rslt\spectra

Injection Date: 17-Oct-2022 09:41:30

Spectrum: Tune Spec :Average 137-139(3.39-3.40) Bgrd 133(3.37)

Base Peak: 442.00

Minimum % Base Peak: 0

Number of Points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	13944	193.00	4111	278.00	1393	405.00	152
112.00	1885	194.00	1074	279.00	127	410.00	106
113.00	494	195.00	497	281.00	69	415.00	144
114.00	87	196.00	8746	282.00	178	421.00	3597
115.00	229	197.00	1562	283.00	731	422.00	3384
116.00	1897	198.00	393856	284.00	630	423.00	26376
117.00	32368	199.00	25632	285.00	1257	424.00	4550
118.00	2581	200.00	1631	286.00	138	425.00	562
119.00	420	202.00	1260	288.00	55	441.00	69952
120.00	590	203.00	2117	289.00	238	442.00	507264
121.00	259	204.00	12333	290.00	222	443.00	100632
122.00	2427	205.00	21488	291.00	272	444.00	8671
123.00	3616	206.00	88880	292.00	405	445.00	516
124.00	1719	207.00	11032	293.00	2016		
125.00	2478	208.00	2231	294.00	466		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D

Injection Date: 17-Oct-2022 09:41:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

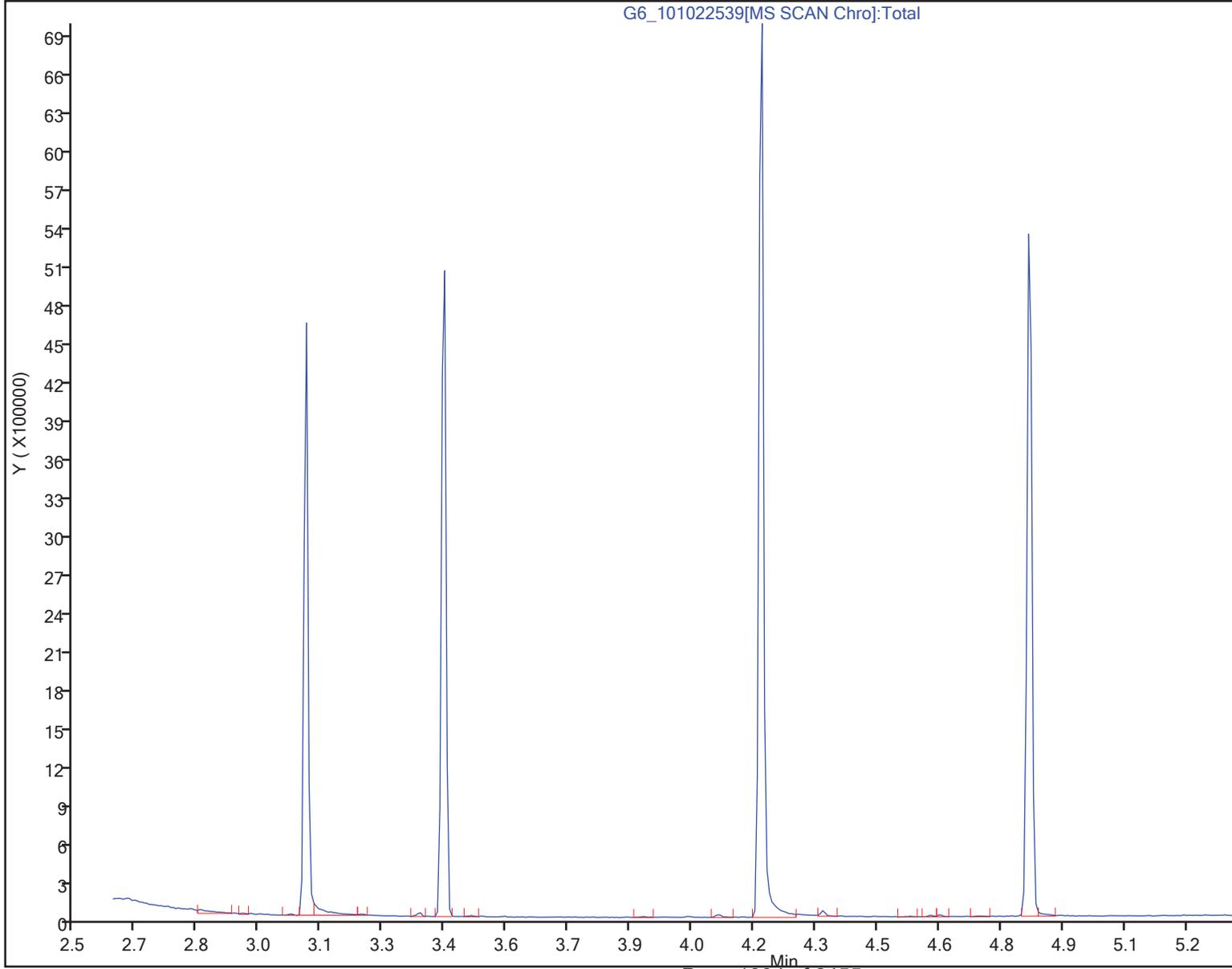
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D
Injection Date: 17-Oct-2022 09:41:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

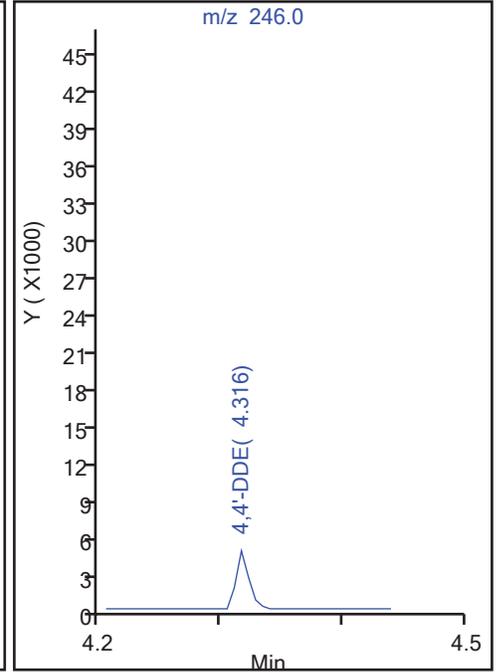
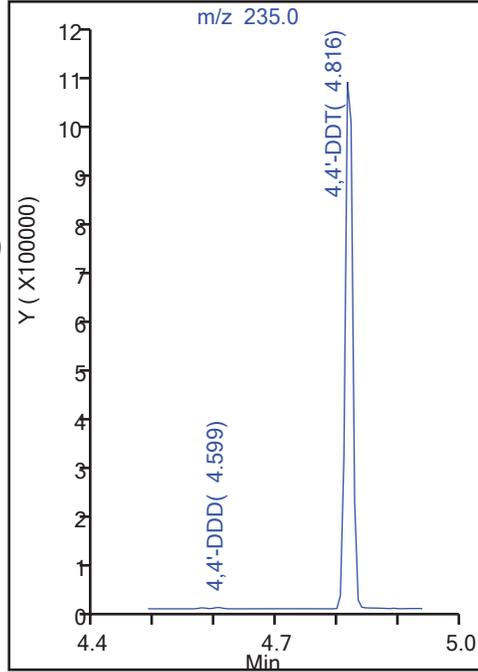
74 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

74 4,4'-DDT, Area = 898073
64 4,4'-DDD, Area = 2554
59 4,4'-DDE, Area = 3432

%Breakdown: 0.66%, <= 20.00%
Passed



Eurofins Denver

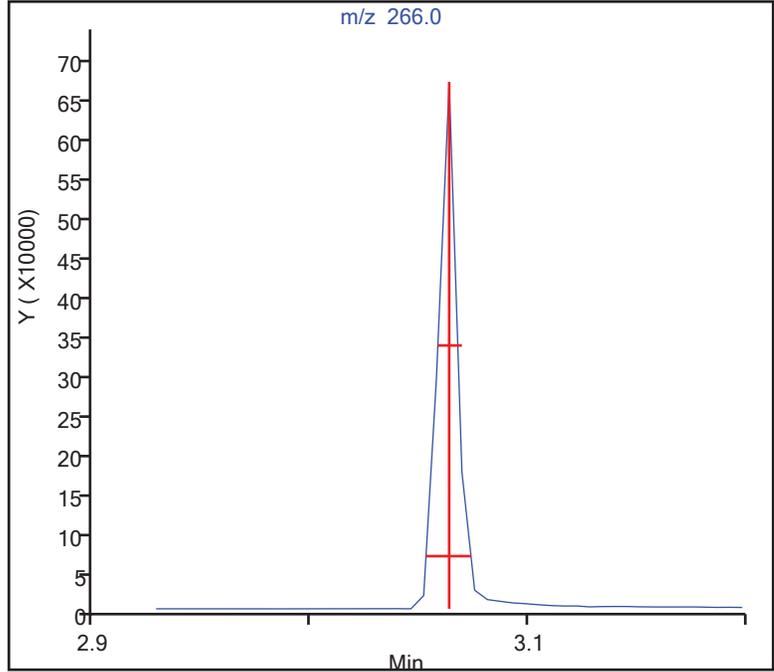
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D
Injection Date: 17-Oct-2022 09:41:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.91, Max. Tailing <= 5.00
Passed



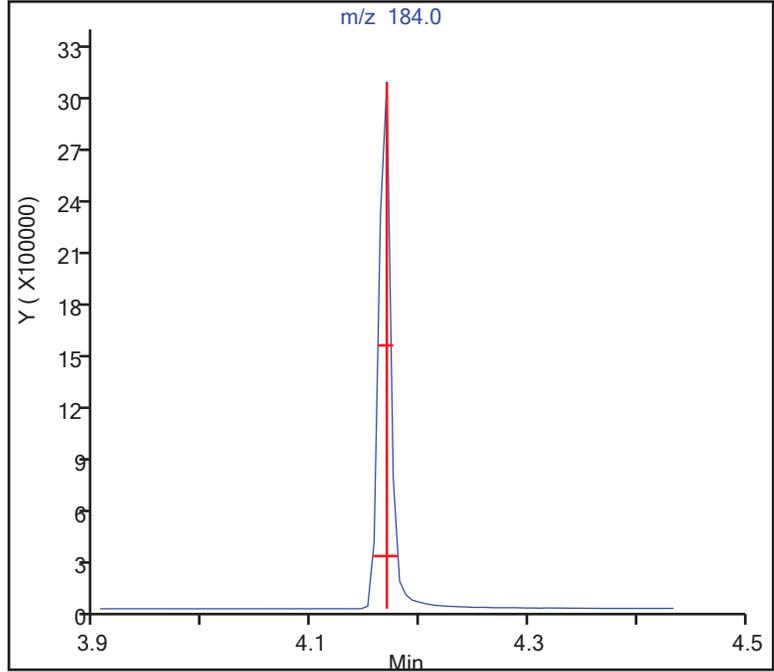
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221017-115178.b\G6_101022539.D
Injection Date: 17-Oct-2022 09:41:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: tessiern ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
54 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.013 (min.)

Tailing Factor = 0.77, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 10-Nov-2022 15:12:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:33:23 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NBC9 Date: 10-Nov-2022 16:14:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
29 Pentachlorophenol_T	266	2.893	2.893	0.000	94	497186	NR	NR	
54 Benzidine_T	184	3.957	3.957	0.000	100	2654945	NR	NR	
31 DFTPP									
59 4,4'-DDE	246	4.093	4.093	0.000	81	1259	NR	NR	
64 4,4'-DDD	235	4.352	4.352	0.000	87	3426	NR	NR	
74 4,4'-DDT	235	4.552	4.552	0.000	98	1090284	NR	NR	a

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

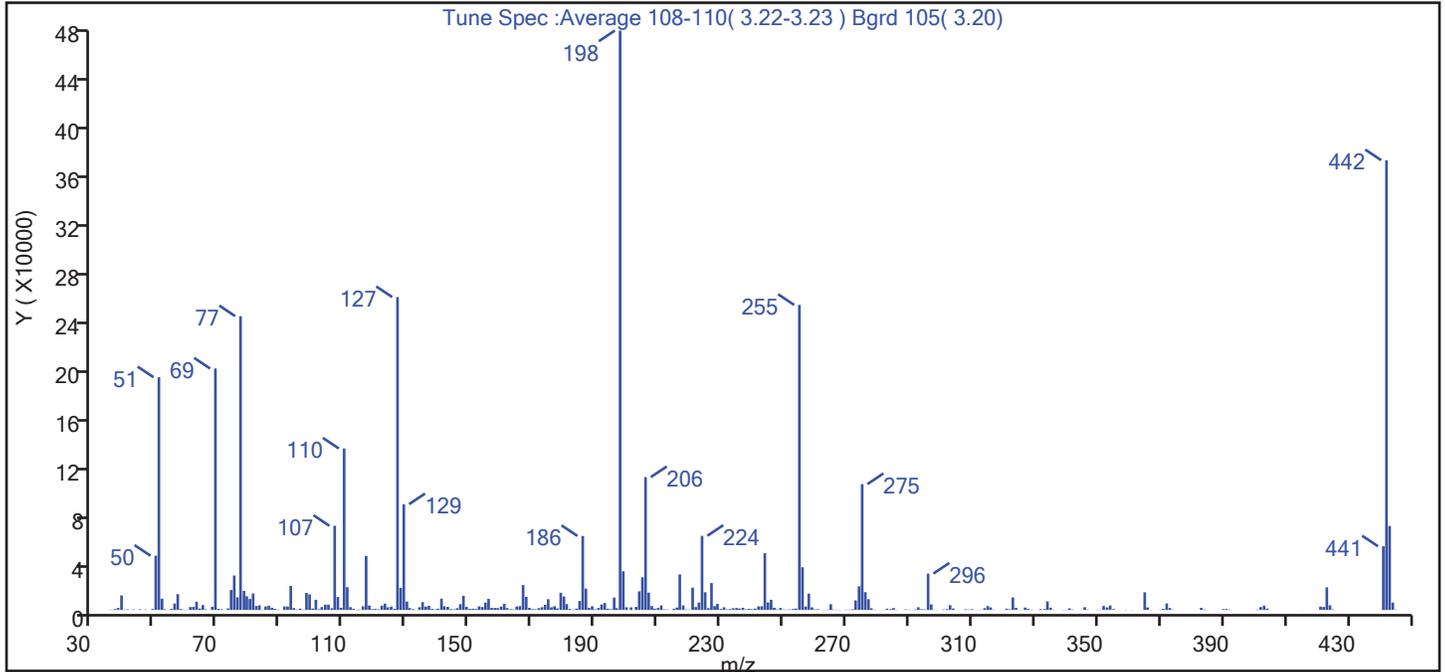
Reagents:

MS-DFTPP_00059 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D
 Injection Date: 10-Nov-2022 15:12:30 Instrument ID: SMS_G6
 Lims ID: DFTPP
 Client ID:
 Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

31 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	40.2
68	<2% of mass 69	0.5 (1.3)
69	Present	41.7
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.0
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.7
275	10-30% of mass 198	21.7
365	>1% of mass 198	3.0
441	Present but less than mass 443	11.0 (75.9)
442	>40% of mass 198	77.6
443	17-23% of mass 442	14.5 (18.7)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D\SMSG6_8270C.rslt\spect
 Injection Date: 10-Nov-2022 15:12:30
 Spectrum: Tune Spec :Average 108-110(3.22-3.23) Bgrd 105(3.20)
 Base Peak: 197.90
 Minimum % Base Peak: 0
 Number of Points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	94	122.00	3523	205.00	27008	293.00	2230
36.00	264	123.00	5222	206.00	109960	294.00	630
37.00	704	124.00	2200	207.00	14354	295.00	467
38.00	1660	125.00	2763	208.00	3241	296.00	30112
39.00	12011	126.00	868	209.00	1029	297.00	4629
40.00	230	127.00	258944	210.00	1616	298.00	204
41.00	473	128.00	18344	211.00	3708	299.00	61
42.00	19	129.00	87528	212.00	418	301.00	374
43.00	453	130.00	6954	213.00	319	302.00	654
45.00	505	131.00	1514	214.00	64	303.00	3945
47.00	319	132.00	678	215.00	920	304.00	1170
49.00	767	133.00	42	216.00	2007	305.00	58
50.00	44880	134.00	2290	217.00	29416	308.00	496
51.00	192576	135.00	6492	218.00	3711	309.00	298
52.00	9308	136.00	2728	219.00	374	310.00	614
53.00	510	137.00	3456	220.00	279	312.00	135
54.00	72	138.00	855	221.00	18496	313.00	212
55.00	914	139.00	428	222.00	2427	314.00	1461
56.00	5290	140.00	1017	223.00	6103	315.00	3208
57.00	13083	141.00	9360	224.00	61384	316.00	2092
58.00	688	142.00	3011	225.00	14618	317.00	222
59.00	280	143.00	2551	226.00	1478	321.00	1027
60.00	173	144.00	653	227.00	22296	322.00	576
61.00	2380	145.00	441	228.00	3173	323.00	10339
62.00	2563	146.00	1434	229.00	5054	324.00	1730
63.00	6849	147.00	4816	230.00	814	325.00	126
64.00	1204	148.00	11712	231.00	2247	326.00	67
65.00	4090	149.00	2545	232.00	425	327.00	1984
66.00	471	150.00	882	233.00	744	328.00	891
68.00	2572	151.00	1033	234.00	1420	329.00	275
69.00	199808	152.00	783	235.00	1620	332.00	709
70.00	889	153.00	2929	236.00	1135	333.00	720
71.00	530	154.00	2455	237.00	1810	334.00	7116

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D\MSG6_8270C.rslt\spect

Injection Date: 10-Nov-2022 15:12:30

Spectrum: Tune Spec :Average 108-110(3.22-3.23) Bgrd 105(3.20)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	60	155.00	6096	238.00	490	335.00	1867
73.00	1251	156.00	9166	239.00	884	336.00	205
74.00	16536	157.00	1697	240.00	627	339.00	173
75.00	28456	158.00	1641	241.00	1148	340.00	186
76.00	10475	159.00	1565	242.00	2954	341.00	1325
77.00	243136	160.00	2843	243.00	3073	342.00	303
78.00	15752	161.00	5079	244.00	46944	346.00	2287
79.00	11311	162.00	1558	245.00	6177	347.00	304
80.00	9072	163.00	607	246.00	8423	350.00	225
81.00	13653	164.00	361	247.00	1802	351.00	154
82.00	3290	165.00	2920	248.00	438	352.00	3296
83.00	3854	166.00	3190	249.00	1627	353.00	2113
84.00	216	167.00	20640	250.00	389	354.00	3689
85.00	2851	168.00	10817	251.00	225	355.00	683
86.00	3482	169.00	1732	252.00	434	359.00	227
87.00	1863	170.00	655	253.00	809	361.00	67
88.00	940	171.00	577	254.00	1117	364.00	53
89.00	355	172.00	1508	255.00	252480	365.00	14602
91.00	2898	173.00	2310	256.00	35304	366.00	2098
92.00	2918	174.00	4250	257.00	2857	367.00	138
93.00	19984	175.00	8909	258.00	13539	370.00	234
94.00	1548	176.00	2193	259.00	2158	371.00	876
95.00	362	177.00	3069	260.00	428	372.00	5365
96.00	1067	178.00	1303	261.00	615	373.00	1578
97.00	292	179.00	14200	263.00	122	374.00	214
98.00	14097	180.00	11135	264.00	306	377.00	73
99.00	12858	181.00	4856	265.00	4757	383.00	1738
100.00	1166	182.00	828	266.00	325	384.00	356
101.00	8451	183.00	366	267.00	130	385.00	114
102.00	588	184.00	1073	268.00	213	390.00	692
103.00	2421	185.00	7436	270.00	273	391.00	809
104.00	4412	186.00	61240	271.00	312	392.00	349
105.00	4428	187.00	17632	272.00	554	401.00	303
106.00	1381	188.00	1684	273.00	7891	402.00	2401

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D\SMSG6_8270C.rslt\spect

Injection Date: 10-Nov-2022 15:12:30

Spectrum: Tune Spec :Average 108-110(3.22-3.23) Bgrd 105(3.20)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 328

m/z	Y	m/z	Y	m/z	Y	m/z	Y
107.00	69624	189.00	3041	274.00	19512	403.00	3514
108.00	10729	190.00	482	275.00	104176	404.00	1149
109.00	1823	191.00	1612	276.00	14687	405.00	55
110.00	133632	192.00	4535	277.00	8910	415.00	116
111.00	18880	193.00	5756	278.00	1427	420.00	52
112.00	2352	194.00	1058	279.00	293	421.00	2743
113.00	912	195.00	612	282.00	125	422.00	2467
114.00	112	196.00	10243	283.00	1023	423.00	18728
115.00	356	197.00	1469	284.00	642	424.00	3865
116.00	3021	198.00	479488	285.00	1547	425.00	422
117.00	44648	199.00	32048	286.00	218	441.00	52680
118.00	3649	200.00	2263	289.00	414	442.00	372224
119.00	621	201.00	2154	290.00	249	443.00	69448
120.00	851	203.00	2533	291.00	122	444.00	6113
121.00	531	204.00	15440	292.00	438	445.00	289

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D

Injection Date: 10-Nov-2022 15:12:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

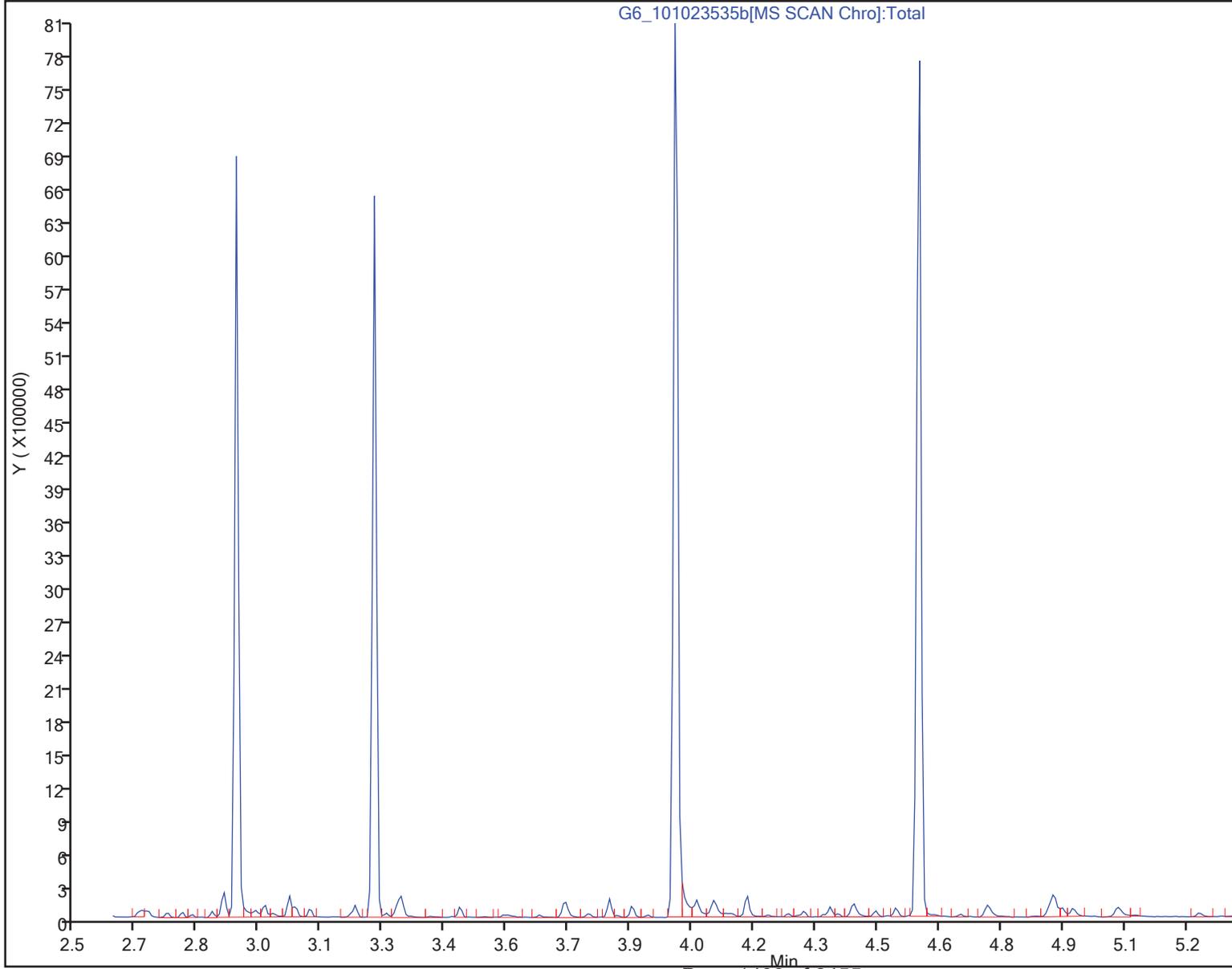
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D
Injection Date: 10-Nov-2022 15:12:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

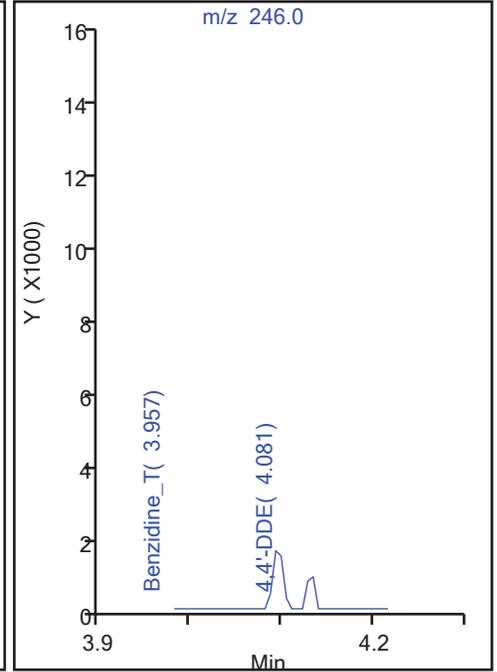
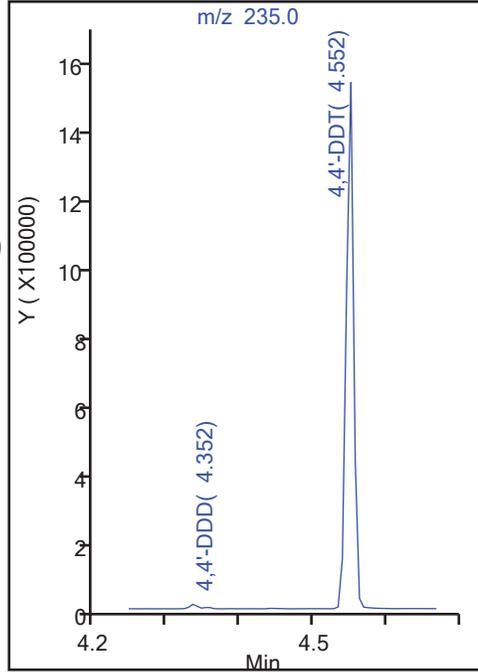
74 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

74 4,4'-DDT, Area = 1090284
64 4,4'-DDD, Area = 3426
59 4,4'-DDE, Area = 1259

%Breakdown: 0.43%, <= 20.00%
Passed



Eurofins Denver

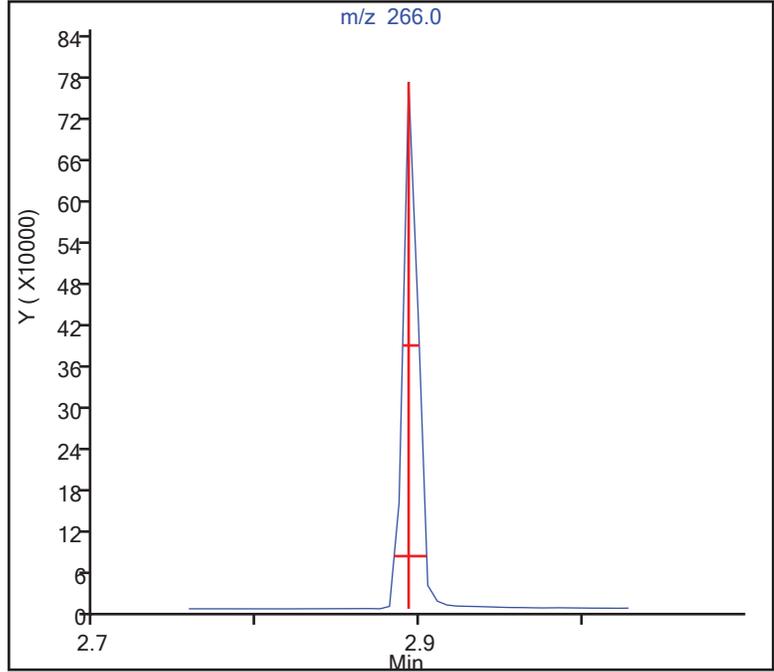
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Injection Date: 10-Nov-2022 15:12:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.009 (min.)

Tailing Factor = 1.22, Max. Tailing <= 5.00
Passed



Eurofins Denver

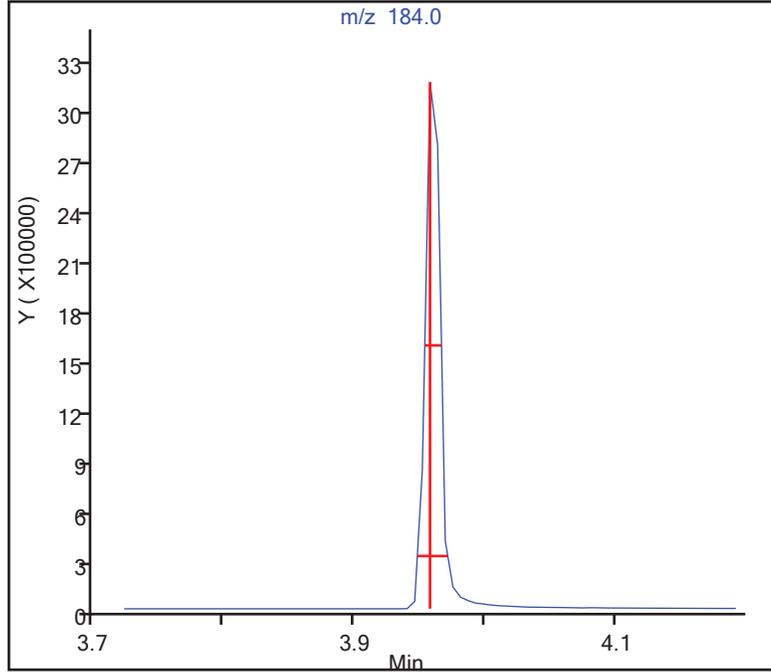
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023535b.D
Injection Date: 10-Nov-2022 15:12:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

54 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.014 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.40, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 14-Nov-2022 15:10:30 ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 15-Nov-2022 14:52:57 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NBC9 Date: 14-Nov-2022 16:05:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
29 Pentachlorophenol_T	266	2.881	2.881	0.000	92	234154	NR	NR	
54 Benzidine_T	184	3.946	3.946	0.000	100	1640196	NR	NR	
31 DFTPP									
59 4,4'-DDE	246	4.081	4.081	0.000	85	1089	NR	NR	
64 4,4'-DDD	235	4.316	4.316	0.000	83	2502	NR	NR	a
74 4,4'-DDT	235	4.534	4.534	0.000	97	606809	NR	NR	a

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Review Flags

a - User Assigned ID

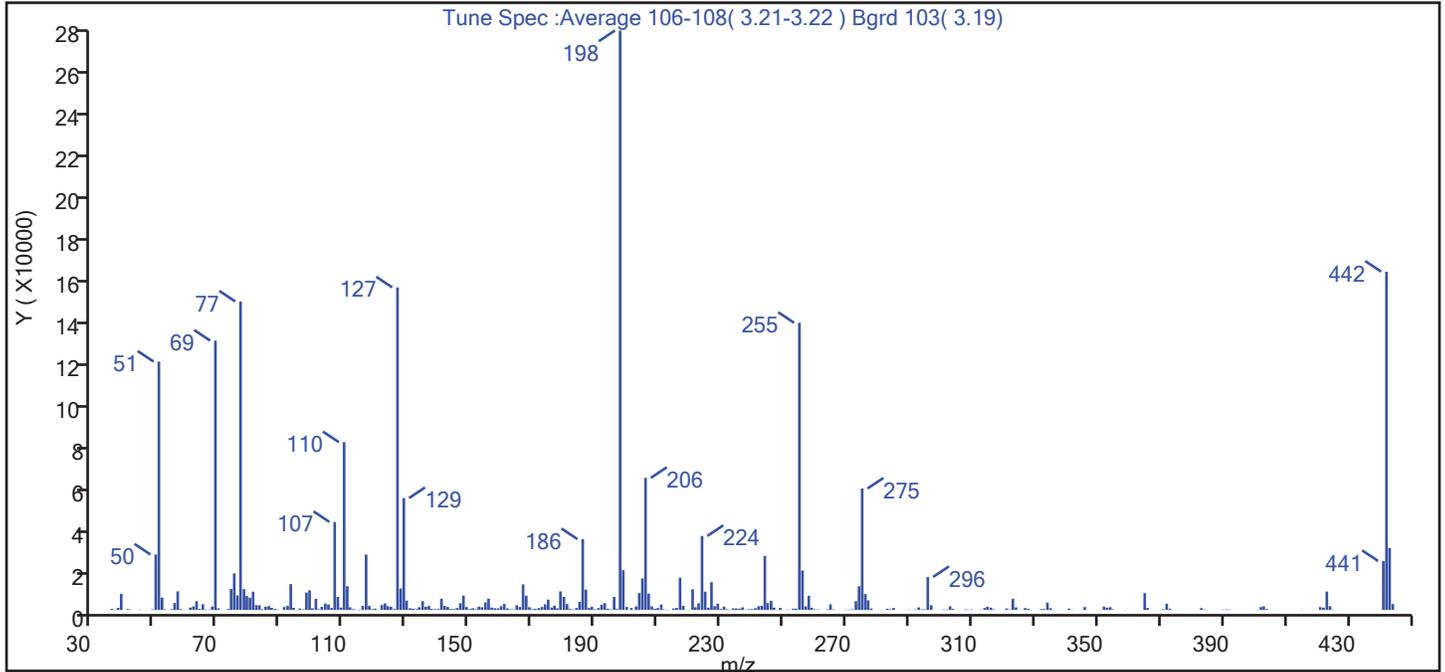
Reagents:

MS-DFTPP_00059 Amount Added: 200.00 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D
 Injection Date: 14-Nov-2022 15:10:30 Instrument ID: SMS_G6
 Lims ID: DFTPP
 Client ID:
 Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

31 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	42.9
68	<2% of mass 69	0.6 (1.3)
69	Present	46.5
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	55.7
197	<1% of mass 198	0.2
199	5-9% of mass 198	6.9
275	10-30% of mass 198	21.0
365	>1% of mass 198	2.9
441	Present but less than mass 443	8.5 (78.9)
442	>40% of mass 198	58.4
443	17-23% of mass 442	10.7 (18.3)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D\SMSG6_8270C.rslt\spect
Injection Date: 14-Nov-2022 15:10:30
Spectrum: Tune Spec :Average 106-108(3.21-3.22) Bgrd 103(3.19)
Base Peak: 197.90
Minimum % Base Peak: 0
Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	505	122.00	2314	198.00	271168	281.00	63
37.00	117	123.00	3037	199.00	18608	283.00	572
38.00	980	124.00	1785	200.00	1436	284.00	304
39.00	7559	125.00	1520	202.00	894	285.00	903
41.00	390	126.00	427	202.00	65	289.00	61
42.00	168	127.00	150976	203.00	1648	290.00	123
45.00	160	128.00	10061	204.00	7899	291.00	120
47.00	53	129.00	52368	205.00	14752	292.00	226
49.00	265	130.00	4305	206.00	61808	293.00	1218
50.00	25944	131.00	779	207.00	7640	294.00	289
51.00	116232	132.00	564	208.00	1686	295.00	280
52.00	5778	133.00	336	209.00	559	296.00	15436
53.00	314	134.00	1268	210.00	855	297.00	2238
55.00	377	135.00	4127	211.00	2582	301.00	211
56.00	3233	136.00	1459	212.00	247	302.00	233
57.00	8734	137.00	1893	213.00	134	303.00	1723
58.00	394	138.00	452	215.00	678	304.00	478
59.00	78	139.00	347	216.00	960	306.00	50
61.00	1127	140.00	480	217.00	15103	308.00	285
62.00	1674	141.00	5233	218.00	1935	309.00	122
63.00	4070	142.00	1915	219.00	124	310.00	226
64.00	477	143.00	1376	220.00	87	313.00	150
65.00	2672	144.00	425	221.00	9699	314.00	862
66.00	209	145.00	452	222.00	1269	315.00	1504
67.00	138	146.00	891	223.00	3139	316.00	1064
68.00	1606	147.00	3162	224.00	34632	317.00	238
69.00	126072	148.00	6731	225.00	8569	321.00	715
70.00	727	149.00	1388	226.00	1070	322.00	208
73.00	413	150.00	398	227.00	13003	323.00	5220
74.00	9836	151.00	776	228.00	1802	324.00	1195
75.00	17120	152.00	312	229.00	2972	327.00	892
76.00	6823	153.00	1529	230.00	430	328.00	527
77.00	144384	154.00	1293	231.00	1566	329.00	54

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D\MSG6_8270C.rslt\spect

Injection Date: 14-Nov-2022 15:10:30

Spectrum: Tune Spec :Average 106-108(3.21-3.22) Bgrd 103(3.19)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	9723	155.00	3534	232.00	310	332.00	399
79.00	6534	156.00	5349	233.00	144	333.00	457
80.00	5749	157.00	1126	234.00	751	334.00	3448
81.00	8558	158.00	827	235.00	735	335.00	807
82.00	2242	159.00	759	236.00	585	336.00	130
83.00	2216	160.00	1733	237.00	1242	341.00	677
84.00	351	161.00	2821	238.00	196	342.00	109
85.00	1543	162.00	720	239.00	328	346.00	1352
86.00	1839	163.00	304	240.00	426	350.00	51
87.00	1021	164.00	243	241.00	808	351.00	83
88.00	481	165.00	2198	242.00	1756	352.00	1636
89.00	193	166.00	1404	243.00	1947	353.00	1050
91.00	1414	167.00	11978	244.00	25328	354.00	1310
92.00	1921	168.00	6727	245.00	3233	355.00	294
93.00	12100	169.00	1299	246.00	4316	359.00	87
94.00	1008	170.00	355	247.00	1050	365.00	7867
95.00	68	171.00	543	248.00	90	366.00	927
96.00	667	172.00	901	249.00	979	370.00	69
97.00	268	173.00	1386	250.00	77	371.00	364
98.00	8141	174.00	2627	251.00	123	372.00	2921
99.00	9231	175.00	4852	252.00	119	373.00	566
100.00	737	176.00	1160	253.00	575	383.00	845
101.00	5223	177.00	1987	254.00	571	384.00	198
102.00	319	178.00	748	255.00	134400	385.00	97
103.00	1461	179.00	8699	256.00	18480	390.00	194
104.00	2982	180.00	6134	257.00	1671	391.00	245
105.00	2564	181.00	2787	258.00	6661	392.00	157
106.00	919	182.00	457	259.00	1048	401.00	85
107.00	41192	183.00	201	260.00	290	402.00	1341
108.00	6111	184.00	893	261.00	246	403.00	1689
109.00	1103	185.00	3862	264.00	257	404.00	451
110.00	78536	186.00	33144	265.00	2622	415.00	110
111.00	11115	187.00	9516	266.00	234	421.00	1338
112.00	1238	188.00	882	270.00	164	422.00	1076

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D\SMSG6_8270C.rslt\spect

Injection Date: 14-Nov-2022 15:10:30

Spectrum: Tune Spec :Average 106-108(3.21-3.22) Bgrd 103(3.19)

Base Peak: 197.90

Minimum % Base Peak: 0

Number of Points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	383	189.00	1536	271.00	167	423.00	8610
115.00	58	190.00	279	272.00	285	424.00	1761
115.00	178	191.00	868	273.00	4089	425.00	171
116.00	1938	192.00	2497	274.00	11060	441.00	22920
117.00	25936	193.00	3189	275.00	56824	442.00	158336
118.00	1887	194.00	588	276.00	7468	443.00	29032
119.00	346	195.00	204	277.00	4499	444.00	2759
120.00	586	196.00	6122	278.00	679	445.00	59
121.00	70	197.00	407	279.00	57		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D

Injection Date: 14-Nov-2022 15:10:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

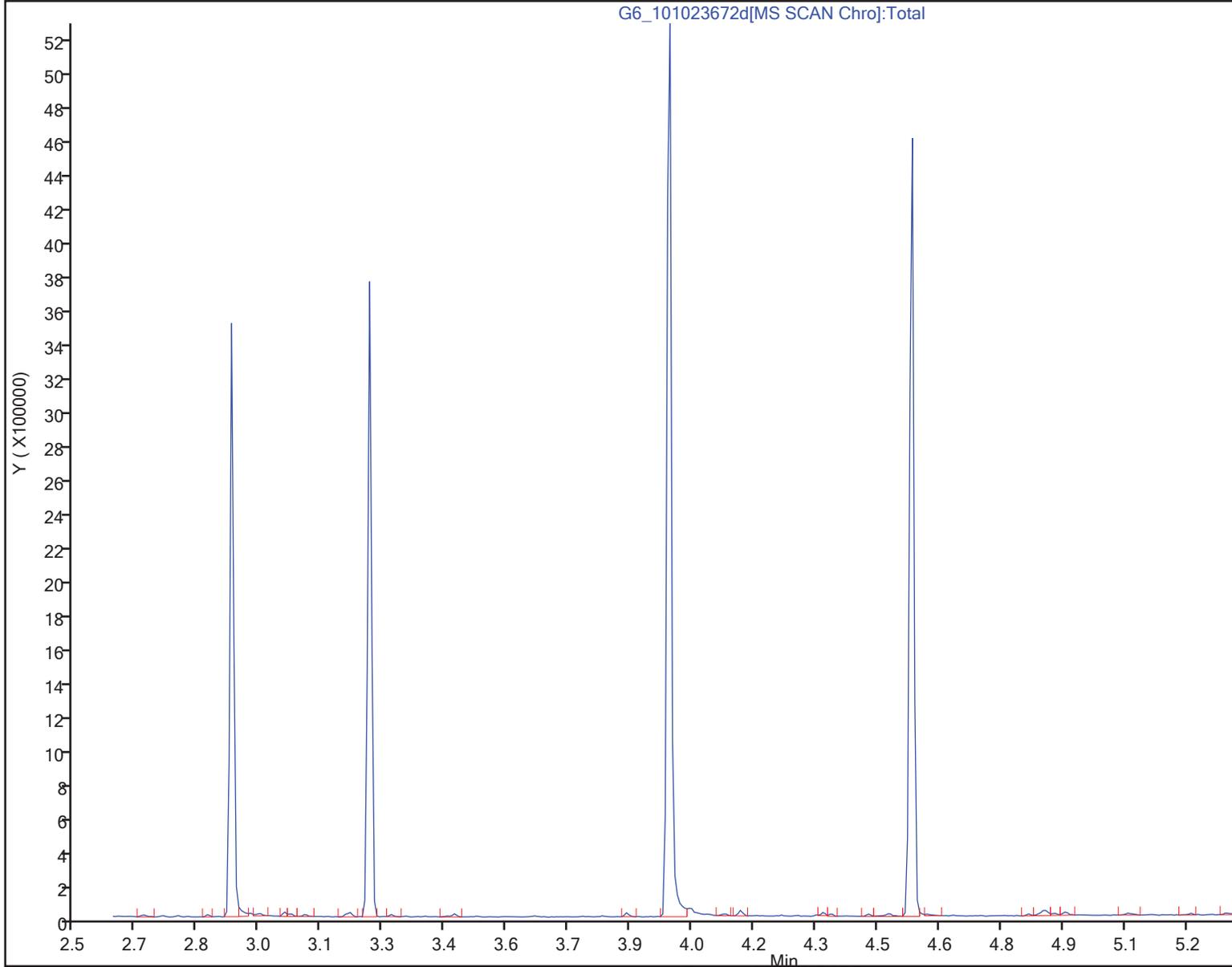
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D
Injection Date: 14-Nov-2022 15:10:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

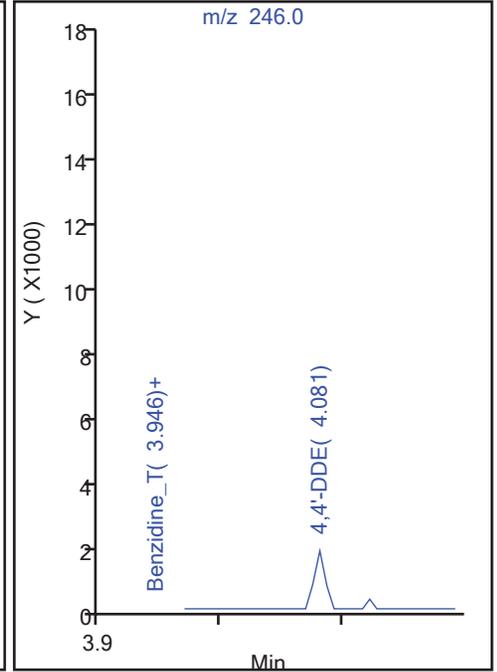
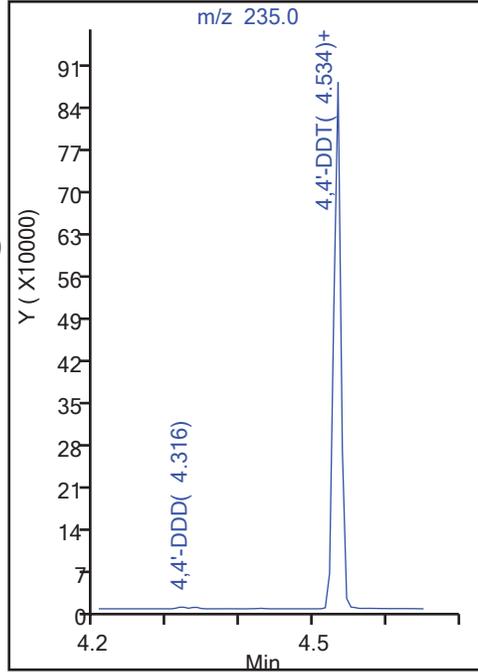
74 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

74 4,4'-DDT, Area = 606809
64 4,4'-DDD, Area = 2502
59 4,4'-DDE, Area = 1089

%Breakdown: 0.59%, <= 20.00%
Passed



Eurofins Denver

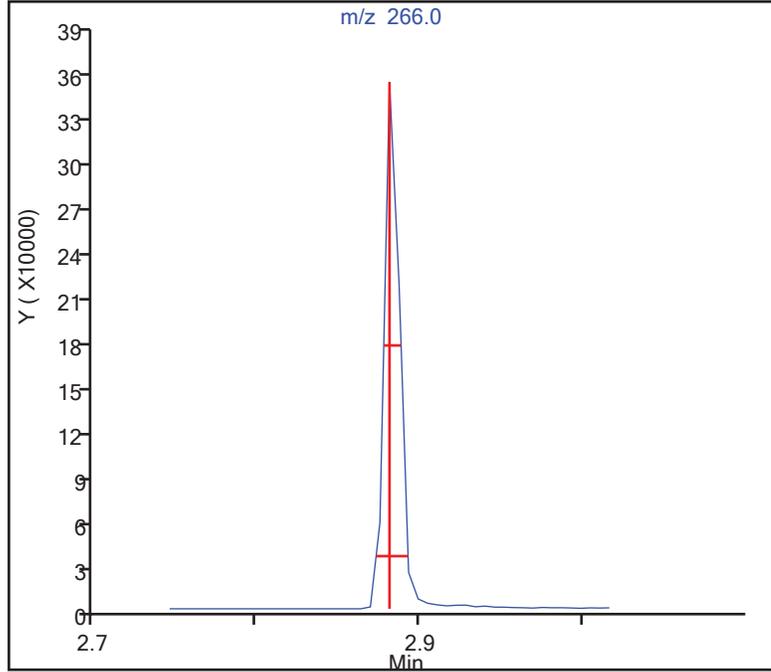
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D
Injection Date: 14-Nov-2022 15:10:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

29 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.011 (min.)
Front Width = 0.008 (min.)

Tailing Factor = 1.38, Max. Tailing <= 5.00
Passed



Eurofins Denver

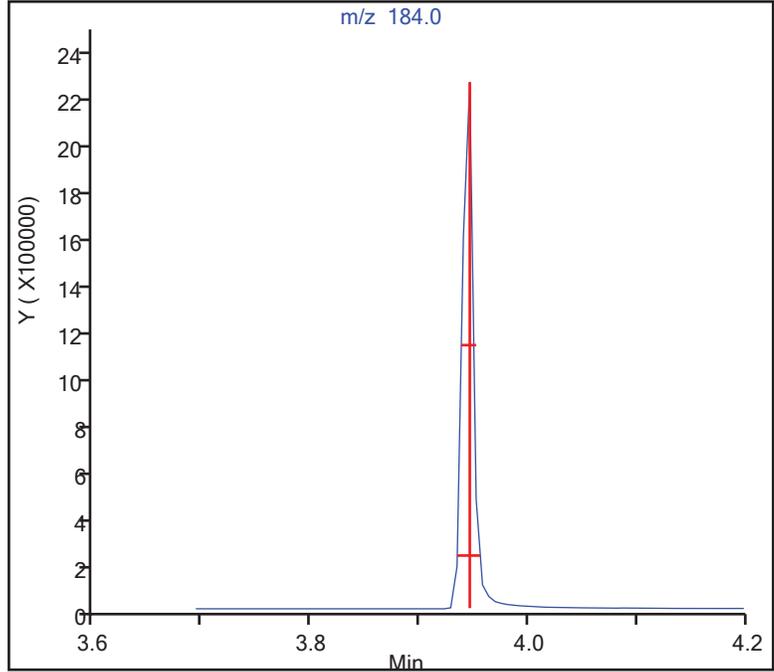
Data File: \\chromfs\Denver\ChromData\SMS_G6\20221114-116065.b\G6_101023672d.D
Injection Date: 14-Nov-2022 15:10:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

54 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.012 (min.)

Tailing Factor = 0.83, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 15-Nov-2022 13:42:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 16-Nov-2022 13:15:52 Calib Date: 15-Nov-2022 16:57:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305989.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1624

First Level Reviewer: NBC9 Date: 15-Nov-2022 13:55:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
25 Pentachlorophenol_T	266	3.099	3.099	0.000	93	90834	NR	NR	
42 Benzidine_T	184	4.184	4.184	0.000	100	666670	NR	NR	
227 DFTPP									
228 4,4'-DDE	246	4.333	4.333	0.000	87	650	NR	NR	
229 4,4'-DDD	235	4.584	4.584	0.000	95	2868	NR	NR	
230 4,4'-DDT	235	4.819	4.819	0.000	98	251166	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

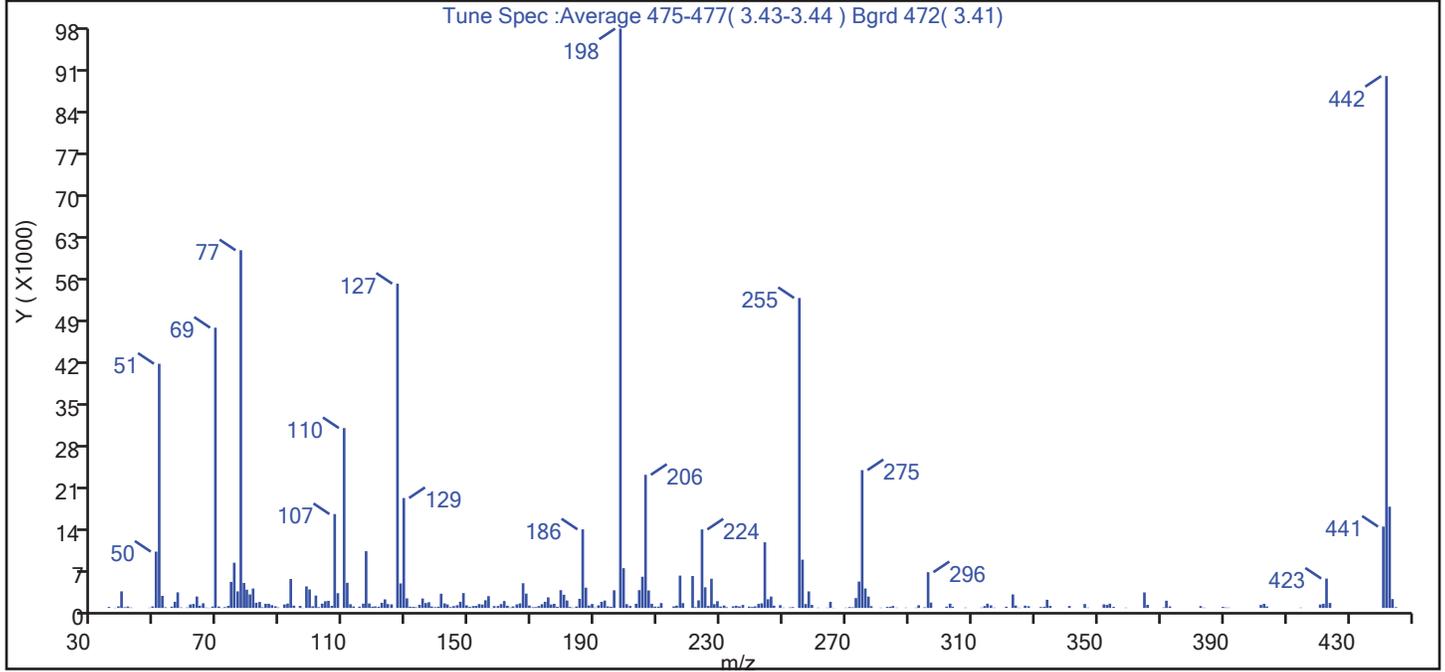
Reagents:

MS-DFTPP_00058 Amount Added: 0.50 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D
 Injection Date: 15-Nov-2022 13:42:30 Instrument ID: SMS_Y
 Lims ID: DFTPP
 Client ID:
 Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMSY_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

227 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	42.2
68	<2% of mass 69	0.2 (0.5)
69	Present	48.4
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	56.0
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.9
275	10-30% of mass 198	23.8
365	>1% of mass 198	2.7
441	Present but less than mass 443	14.0 (80.3)
442	>40% of mass 198	91.8
443	17-23% of mass 442	17.5 (19.0)

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D\SMSY_8270C.rslt\spectra.d
Injection Date: 15-Nov-2022 13:42:30
Spectrum: Tune Spec :Average 475-477(3.43-3.44) Bgrd 472(3.41)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	171	116.00	726	186.00	13224	273.00	1662
37.00	35	117.00	9552	187.00	3415	274.00	4433
38.00	268	118.00	756	188.00	414	275.00	23184
39.00	2791	119.00	218	189.00	673	276.00	3281
40.00	116	120.00	267	190.00	65	277.00	1915
41.00	241	121.00	201	191.00	437	278.00	297
42.00	68	122.00	877	192.00	1037	281.00	51
48.00	50	123.00	1445	193.00	1249	283.00	181
49.00	256	124.00	655	194.00	267	284.00	187
50.00	9477	125.00	606	195.00	190	285.00	332
51.00	41088	127.00	54560	196.00	2973	286.00	51
52.00	2039	128.00	4125	198.00	97472	289.00	52
53.00	110	129.00	18496	199.00	6693	292.00	53
55.00	226	130.00	1609	200.00	643	293.00	454
56.00	1036	131.00	208	201.00	335	295.00	107
57.00	2631	132.00	177	203.00	700	296.00	6021
58.00	82	133.00	121	204.00	3000	297.00	902
60.00	78	134.00	518	205.00	5252	302.00	228
61.00	587	135.00	1595	206.00	22400	303.00	723
62.00	680	136.00	825	207.00	2944	304.00	199
63.00	1928	137.00	969	208.00	702	308.00	60
64.00	378	138.00	243	209.00	223	313.00	67
65.00	790	139.00	135	210.00	227	314.00	311
66.00	63	140.00	211	211.00	826	315.00	716
67.00	39	141.00	2397	215.00	259	316.00	435
68.00	236	142.00	766	216.00	391	317.00	60
69.00	47152	143.00	587	217.00	5444	321.00	203
70.00	236	144.00	150	218.00	818	323.00	2276
71.00	34	145.00	312	221.00	5371	324.00	405
72.00	138	146.00	451	222.00	135	325.00	51
73.00	344	147.00	1037	223.00	1281	327.00	384
74.00	4382	148.00	2504	224.00	13211	328.00	290
75.00	7612	149.00	439	225.00	3475	332.00	154

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D\SMSY_8270C.rslt\spectra.d

Injection Date: 15-Nov-2022 13:42:30

Spectrum: Tune Spec :Average 475-477(3.43-3.44) Bgrd 472(3.41)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	2796	150.00	176	226.00	338	333.00	188
77.00	60184	151.00	311	227.00	4915	334.00	1377
78.00	4202	152.00	343	228.00	639	335.00	343
79.00	3070	153.00	657	229.00	1139	341.00	332
80.00	2278	154.00	575	230.00	238	346.00	662
81.00	3268	155.00	1298	231.00	418	347.00	59
82.00	871	156.00	1994	232.00	121	352.00	606
83.00	1009	157.00	18	234.00	276	353.00	518
84.00	104	158.00	319	235.00	367	354.00	717
85.00	705	159.00	327	236.00	256	355.00	180
86.00	705	160.00	651	237.00	505	359.00	52
87.00	469	161.00	1167	239.00	231	365.00	2616
88.00	286	162.00	368	240.00	168	366.00	519
89.00	81	163.00	76	241.00	267	371.00	86
91.00	587	164.00	262	242.00	683	372.00	1216
92.00	730	165.00	604	243.00	780	373.00	259
93.00	4874	166.00	764	244.00	11048	383.00	315
94.00	394	167.00	4160	245.00	1462	384.00	61
96.00	349	168.00	2414	246.00	1920	390.00	180
97.00	28	169.00	404	247.00	392	391.00	76
98.00	3627	170.00	123	249.00	472	392.00	57
99.00	3111	171.00	144	250.00	53	402.00	501
100.00	281	172.00	321	252.00	91	403.00	696
101.00	2085	173.00	629	253.00	144	404.00	248
102.00	134	174.00	1036	255.00	52152	415.00	57
103.00	730	175.00	1785	256.00	8122	421.00	579
104.00	1129	176.00	582	257.00	658	422.00	700
105.00	1194	177.00	701	258.00	2786	423.00	4947
106.00	357	178.00	206	259.00	507	424.00	842
107.00	15797	179.00	2994	261.00	55	441.00	13687
108.00	2491	180.00	2225	264.00	46	442.00	89488
110.00	30264	181.00	1254	265.00	1031	443.00	17040
111.00	4233	182.00	160	266.00	30	444.00	1493
112.00	630	183.00	57	270.00	52	445.00	130

Report Date: 16-Nov-2022 13:15:52

Chrom Revision: 2.3 08-Nov-2022 12:31:00

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D\SMSY_8270C.rslt\spectra.d

Injection Date: 15-Nov-2022 13:42:30

Spectrum: Tune Spec :Average 475-477(3.43-3.44) Bgrd 472(3.41)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	249	184.00	242	271.00	152		
115.00	223	185.00	1540	272.00	101		

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D

Injection Date: 15-Nov-2022 13:42:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

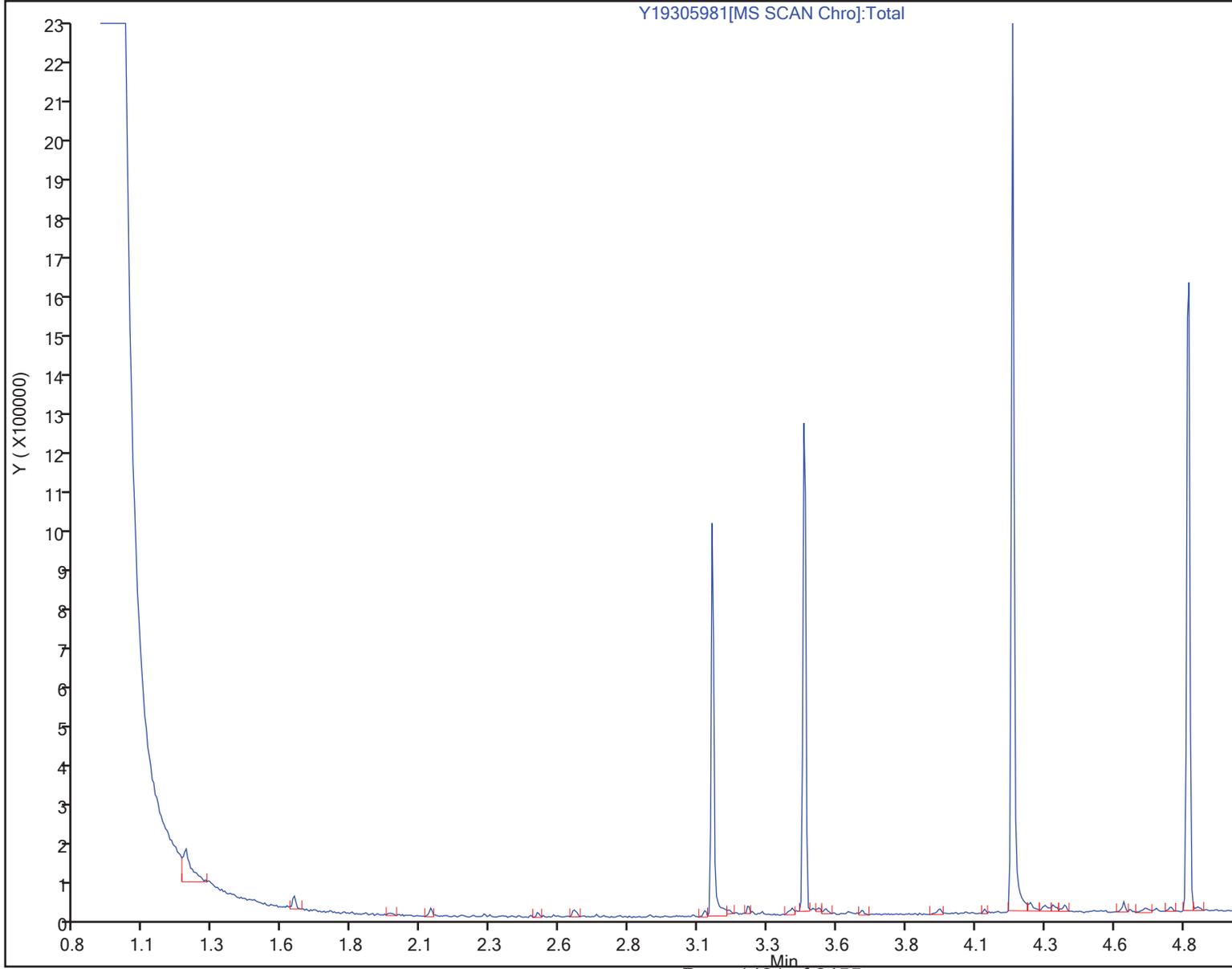
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D
Injection Date: 15-Nov-2022 13:42:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

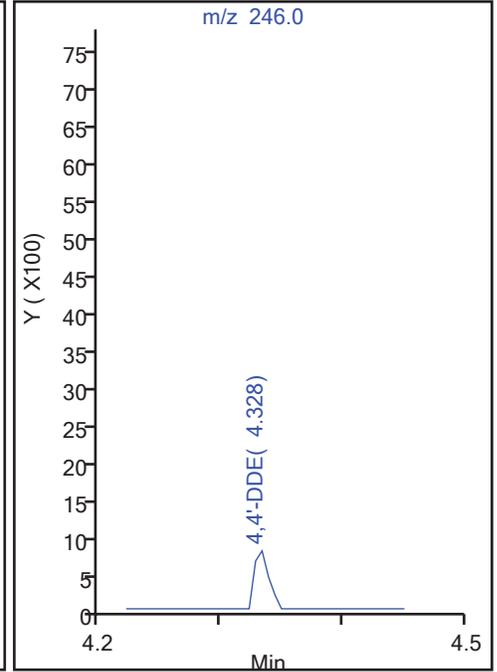
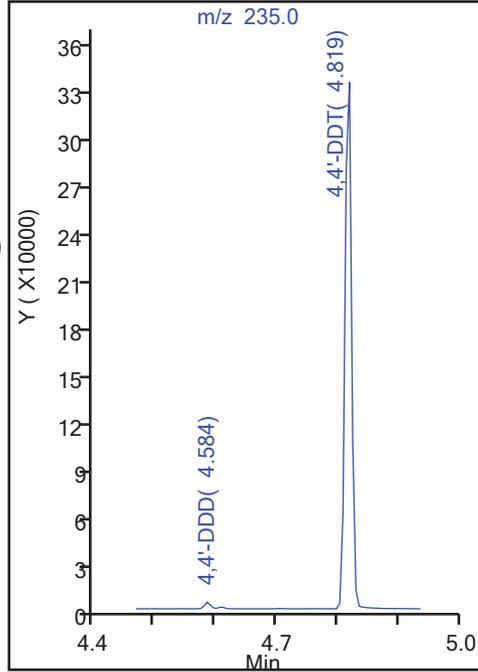
230 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

230 4,4'-DDT, Area = 251166
229 4,4'-DDD, Area = 2868
228 4,4'-DDE, Area = 650

%Breakdown: 1.38%, <= 20.00%
Passed



Eurofins Denver

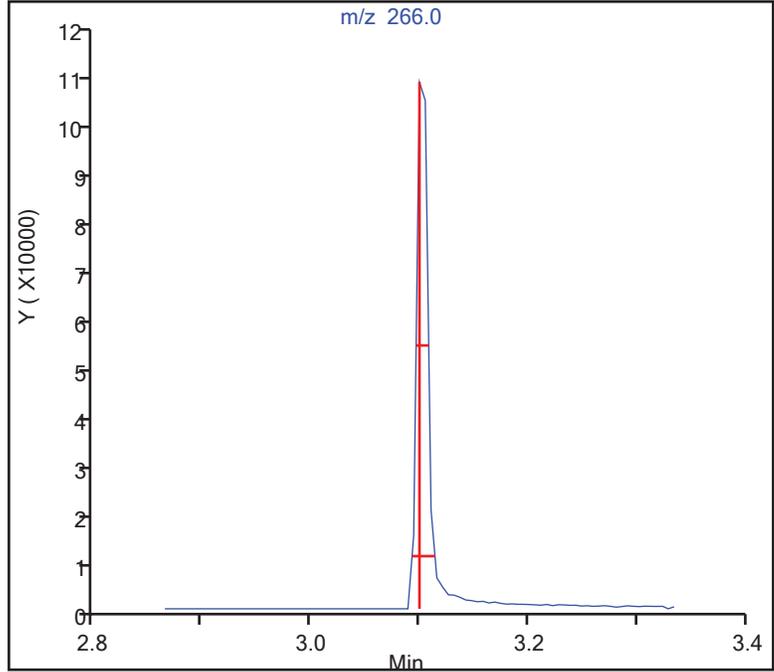
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Injection Date: 15-Nov-2022 13:42:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

25 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.014 (min.)
Front Width = 0.007 (min.)

Tailing Factor = 2.00, Max. Tailing <= 5.00
Passed



Eurofins Denver

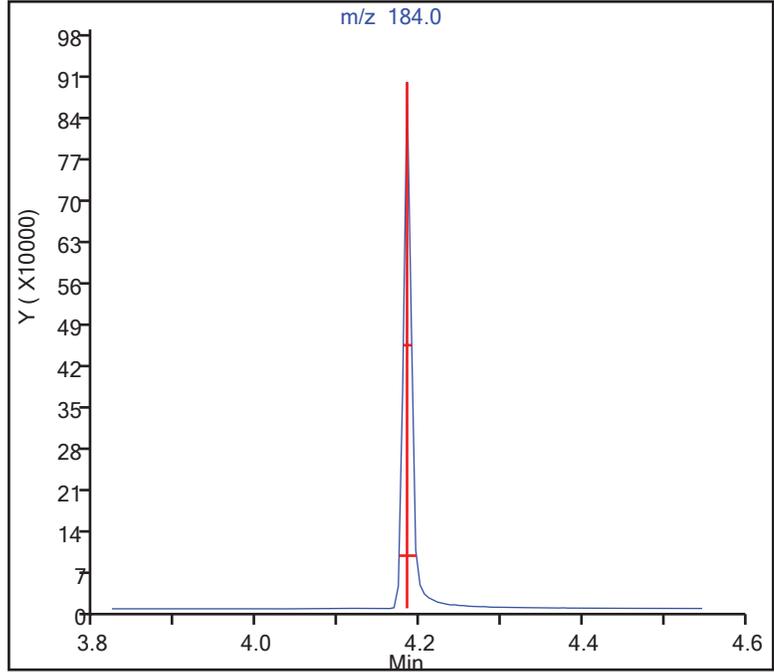
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221115-116120.b\Y19305981.D
Injection Date: 15-Nov-2022 13:42:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

42 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.012 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.20, Max. Tailing <= 3.00
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 28-Nov-2022 11:01:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:14:28 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NBC9 Date: 28-Nov-2022 11:08:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
25 Pentachlorophenol_T	266	2.992	2.992	0.000	92	72185	NR	NR	
42 Benzidine_T	184	4.050	4.050	0.000	100	616445	NR	NR	
227 DFTPP									
228 4,4'-DDE	246		4.275				ND	ND	
229 4,4'-DDD	235	4.445	4.445	0.000	91	545	NR	NR	
230 4,4'-DDT	235	4.637	4.637	0.000	98	224710	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

ND - Not Detected or Marked ND

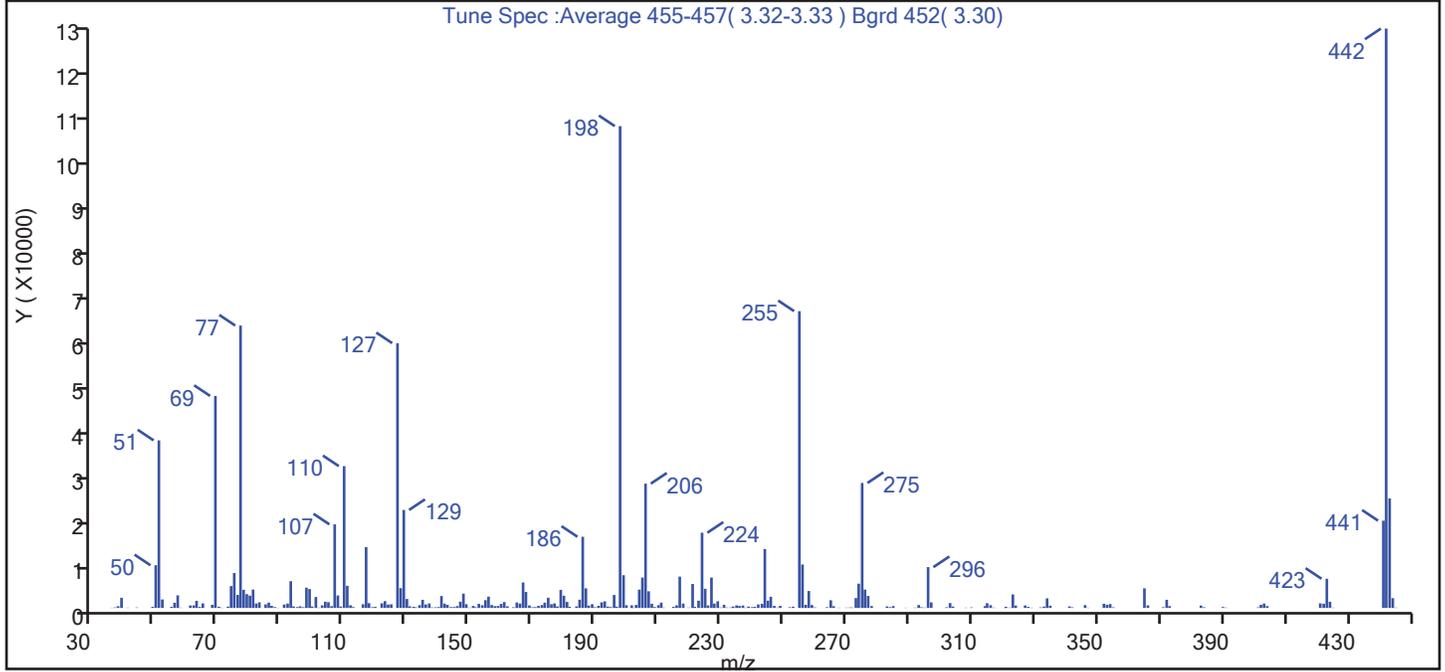
Reagents:

MS-DFTPP_00058 Amount Added: 0.50 Units: uL

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D
 Injection Date: 28-Nov-2022 11:01:30 Instrument ID: SMS_Y
 Lims ID: DFTPP
 Client ID:
 Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMSY_8270C Limit Group: MSSV - 8270C_625
 Tune Method: DFTPP Method 8270

227 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	34.8
68	<2% of mass 69	0.7 (1.5)
69	Present	44.0
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	55.0
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.8
275	10-30% of mass 198	25.9
365	>1% of mass 198	4.1
441	Present but less than mass 443	18.1 (79.7)
442	>40% of mass 198	120.2
443	17-23% of mass 442	22.7 (18.9)

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D\SMSY_8270C.rslt\spectra.d
Injection Date: 28-Nov-2022 11:01:30
Spectrum: Tune Spec :Average 455-457(3.32-3.33) Bgrd 452(3.30)
Base Peak: 441.90
Minimum % Base Peak: 0
Number of Points: 272

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	44	123.00	1441	194.00	286	273.00	2089
37.00	114	124.00	726	195.00	183	274.00	5111
38.00	369	125.00	763	196.00	2730	275.00	26320
39.00	2143	127.00	55768	197.00	271	276.00	3870
41.00	56	128.00	4167	198.00	101480	277.00	2528
44.00	90	129.00	20640	199.00	6897	278.00	400
49.00	230	130.00	1890	200.00	570	283.00	320
50.00	8995	131.00	348	202.00	555	284.00	169
51.00	35296	132.00	249	202.00	52	285.00	401
52.00	1786	133.00	130	203.00	628	289.00	51
55.00	237	134.00	588	204.00	3863	292.00	66
56.00	1091	135.00	1716	205.00	6405	293.00	612
57.00	2654	136.00	732	206.00	26184	294.00	141
58.00	59	137.00	945	207.00	3503	295.00	76
61.00	528	138.00	106	208.00	879	296.00	8603
62.00	532	139.00	138	209.00	186	297.00	1169
63.00	1497	140.00	186	210.00	577	302.00	145
64.00	211	141.00	2507	211.00	1126	303.00	1024
65.00	973	142.00	903	212.00	68	304.00	290
68.00	665	143.00	646	215.00	235	308.00	61
69.00	44656	144.00	188	216.00	544	310.00	114
70.00	258	145.00	192	217.00	6598	314.00	379
71.00	54	146.00	392	218.00	924	315.00	1006
73.00	276	147.00	1320	220.00	75	316.00	578
74.00	4603	148.00	3019	221.00	5050	317.00	72
75.00	7366	149.00	791	222.00	224	320.00	52
76.00	2746	150.00	64	223.00	1527	321.00	246
77.00	59480	151.00	424	224.00	15845	322.00	79
78.00	3828	152.00	152	225.00	4046	323.00	2851
79.00	2909	153.00	863	226.00	519	324.00	498
80.00	2599	154.00	566	227.00	6406	327.00	530
81.00	3870	155.00	1643	228.00	928	328.00	235
82.00	939	156.00	2388	229.00	1415	329.00	56

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D\SMSY_8270C.rslt\spectra.d

Injection Date: 28-Nov-2022 11:01:30

Spectrum: Tune Spec :Average 455-457(3.32-3.33) Bgrd 452(3.30)

Base Peak: 441.90

Minimum % Base Peak: 0

Number of Points: 272

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1188	157.00	619	230.00	92	332.00	112
85.00	752	158.00	388	231.00	669	333.00	284
86.00	1126	159.00	412	232.00	87	334.00	2019
87.00	444	160.00	850	233.00	98	335.00	470
88.00	185	161.00	1241	234.00	303	341.00	323
89.00	51	162.00	339	235.00	541	342.00	136
91.00	720	164.00	140	236.00	423	346.00	607
92.00	918	165.00	1149	237.00	511	347.00	50
93.00	5642	166.00	927	238.00	62	352.00	885
94.00	325	167.00	5373	239.00	289	353.00	671
95.00	191	168.00	3377	240.00	172	354.00	818
96.00	343	169.00	528	241.00	235	355.00	128
97.00	151	170.00	138	242.00	738	365.00	4137
98.00	4263	171.00	174	243.00	866	366.00	543
99.00	3977	172.00	440	244.00	12412	371.00	151
100.00	298	173.00	611	245.00	1526	372.00	1717
101.00	2310	174.00	1120	246.00	2352	373.00	382
102.00	55	175.00	2157	247.00	427	383.00	508
103.00	540	176.00	790	248.00	77	384.00	141
104.00	1314	177.00	960	249.00	433	390.00	196
105.00	1214	178.00	321	252.00	148	391.00	66
106.00	370	179.00	3812	253.00	269	401.00	115
107.00	17600	180.00	2581	255.00	62512	402.00	654
108.00	2624	181.00	1262	256.00	9158	403.00	935
109.00	295	182.00	237	257.00	654	404.00	397
110.00	29864	184.00	325	258.00	3569	421.00	976
111.00	4666	185.00	1734	259.00	615	422.00	894
112.00	566	186.00	14992	260.00	102	423.00	6144
113.00	181	187.00	4132	264.00	167	424.00	1308
116.00	783	188.00	500	265.00	1621	425.00	52
117.00	12804	189.00	791	266.00	371	441.00	18384
118.00	1010	190.00	141	268.00	54	442.00	122024
119.00	154	191.00	452	270.00	68	443.00	23064
120.00	226	192.00	1180	271.00	89	444.00	2055

Report Date: 29-Nov-2022 18:14:28

Chrom Revision: 2.3 21-Nov-2022 18:34:02

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D\SMSY_8270C.rslt\spectra.d

Injection Date: 28-Nov-2022 11:01:30

Spectrum: Tune Spec :Average 455-457(3.32-3.33) Bgrd 452(3.30)

Base Peak: 441.90

Minimum % Base Peak: 0

Number of Points: 272

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	982	193.00	1401	272.00	76	445.00	66

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D

Injection Date: 28-Nov-2022 11:01:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: DFTPP

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

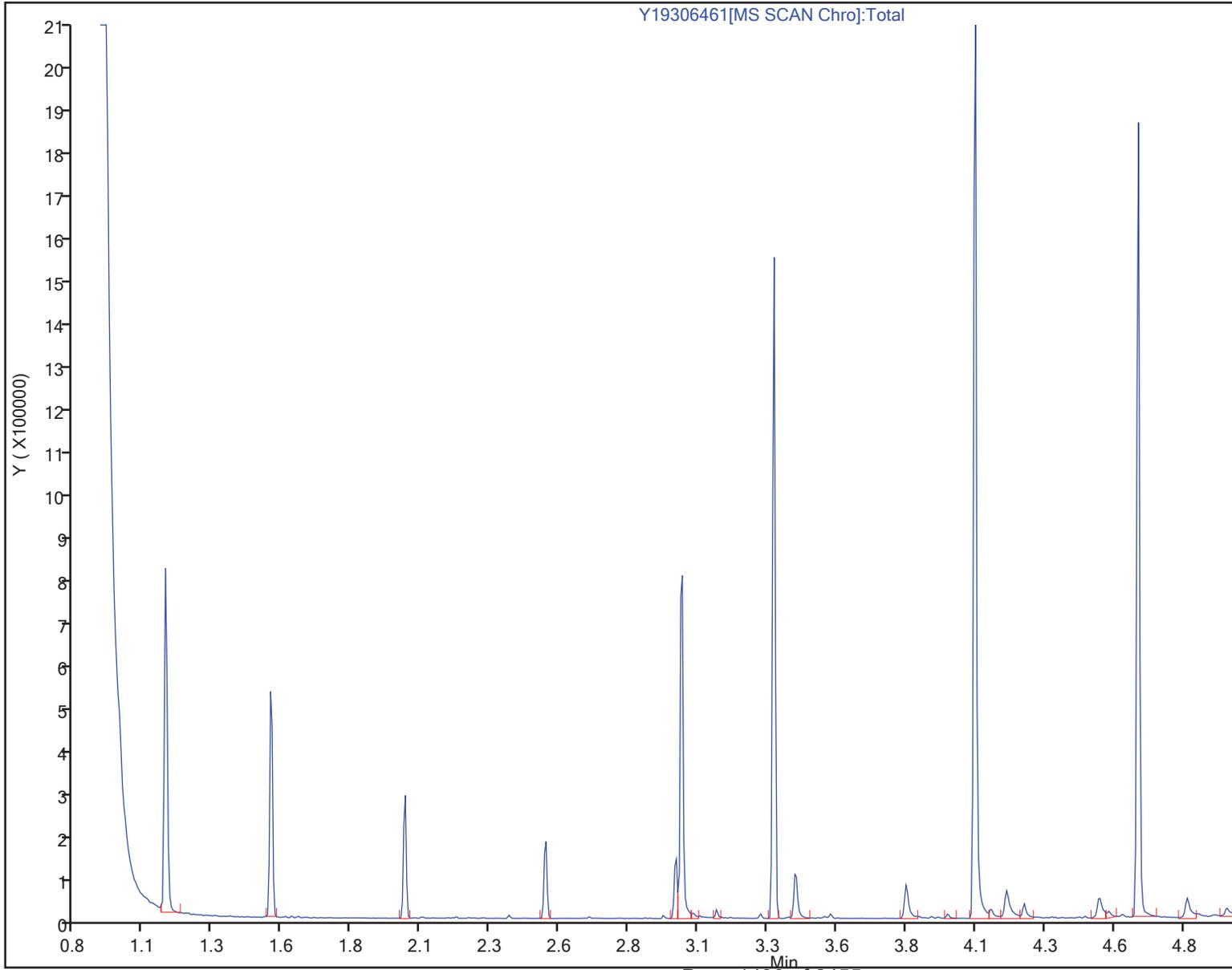
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D
Injection Date: 28-Nov-2022 11:01:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

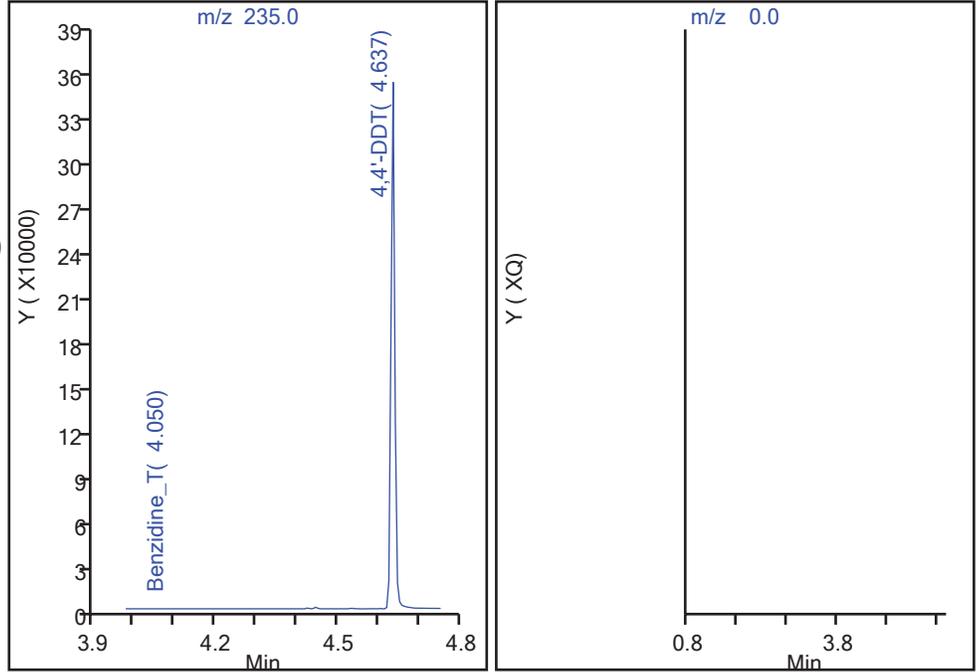
230 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

230 4,4'-DDT, Area = 224710
229 4,4'-DDD, Area = 545
228 4,4'-DDE, Area = 0

%Breakdown: 0.24%, <= 20.00%
Passed



Eurofins Denver

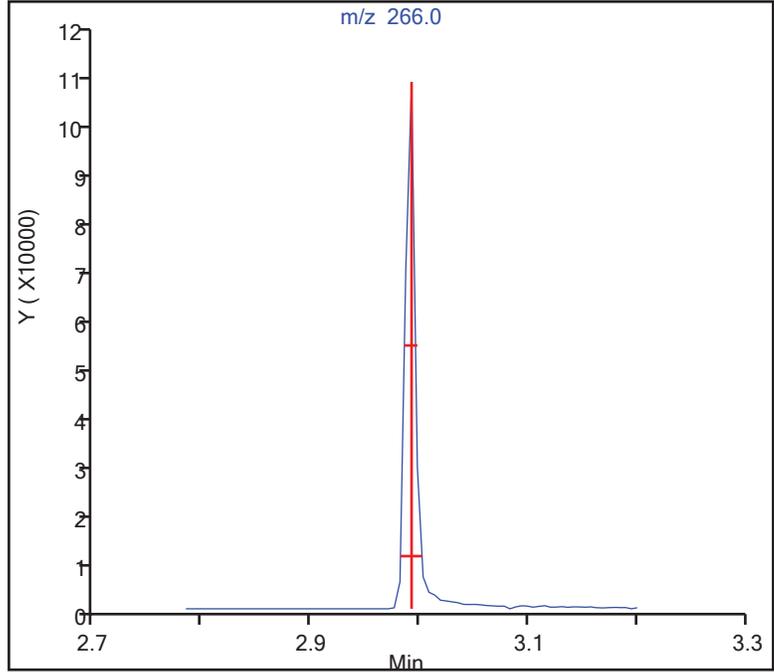
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D
Injection Date: 28-Nov-2022 11:01:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

25 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.010 (min.)

Tailing Factor = 1.00, Max. Tailing <= 5.00
Passed



Eurofins Denver

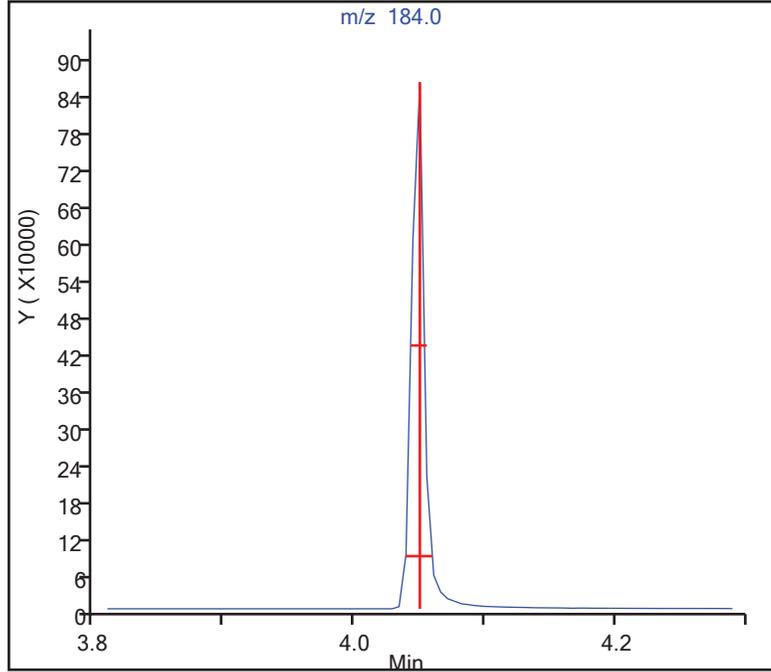
Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306461.D
Injection Date: 28-Nov-2022 11:01:30 Instrument ID: SMS_Y
Lims ID: DFTPP
Client ID:
Operator ID: TESSIERN ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625

42 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.010 (min.)
Front Width = 0.011 (min.)

Tailing Factor = 0.91, Max. Tailing <= 3.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-592592/1-A
 Matrix: Water Lab File ID: 1602.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3510C Date Extracted: 11/07/2022 13:11
 Sample wt/vol: 1000 (mL) Date Analyzed: 11/16/2022 17:43
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593651 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	30	U	30	30	10
122-39-4	Diphenylamine	6.8	U M	10	6.8	1.1
86-30-6	N-Nitrosodiphenylamine	8.0	U	10	8.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	65		44-119
367-12-4	2-Fluorophenol (Surr)	25		19-119
118-79-6	2,4,6-Tribromophenol (Surr)	70		43-140
4165-60-0	Nitrobenzene-d5 (Surr)	62		44-120
4165-62-2	Phenol-d5 (Surr)	13		10-115
1718-51-0	Terphenyl-d14 (Surr)	87		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1602.D
 Lims ID: MB 280-592592/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Nov-2022 17:43:14 ALS Bottle#: 0 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: RINSE
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:12:53 Calib Date: 16-Nov-2022 17:21:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1601b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 17-Nov-2022 10:56:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.614	4.613	0.001	97	228735	40.0	40.0	
* 2 Naphthalene-d8	136	5.877	5.876	0.001	100	855784	40.0	40.0	
* 3 Acenaphthene-d10	164	7.614	7.613	0.001	97	518745	40.0	40.0	
* 4 Phenanthrene-d10	188	9.030	9.031	-0.001	98	999943	40.0	40.0	
* 5 Chrysene-d12	240	11.743	11.743	0.000	99	925677	40.0	40.0	
* 6 Perylene-d12	264	13.612	13.619	-0.007	98	928909	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.422	3.431	-0.009	95	199163	100.0	25.0	
\$ 8 Phenol-d5	99	4.298	4.297	0.001	97	132015	100.0	12.7	
\$ 9 Nitrobenzene-d5	82	5.187	5.191	-0.004	90	649954	100.0	62.2	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	100	1218649	100.0	65.0	
\$ 11 2,4,6-Tribromophenol	330	8.382	8.383	-0.001	94	175641	100.0	69.7	
\$ 12 Terphenyl-d14	244	10.581	10.580	0.001	97	2221468	100.0	86.9	
\$ 13 2,4,6-Trichlorophenol-d2	198		6.870					ND	
14 Triethyl amine	86		2.044					ND	U
15 1,4-Dioxane	88		2.123					ND	U
16 2-Ethoxyethanol	59		2.181					ND	
17 N-Nitrosodimethylamine	74		2.366					ND	
18 Pyridine	79		2.379					ND	
19 Dimethylformamide	73		2.683					ND	
20 2-Picoline	93		2.926					ND	
22 N-Nitrosomethylethylamine	88		3.032					ND	
21 Acrylamide	71		3.032					ND	U
23 Methyl methanesulfonate	80		3.303					ND	
24 Phenylmercaptan TIC	110		3.583					ND	
25 N-Nitrosodiethylamine	102		3.655					ND	
26 2-Bromopyridine	78		3.867					ND	
27 Ethyl methanesulfonate	79		3.937					ND	
28 Benzaldehyde	106		4.204					ND	
29 Phenol	94		4.307					ND	
30 Pentachloroethane	117		4.337					ND	
31 Aniline	93		4.348					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Alpha Methyl Styrene	118		4.380					ND	
33 Bis(2-chloroethyl)ether	93		4.396					ND	
34 2-Chlorophenol	128		4.448					ND	
35 n-Decane	43		4.480					ND	
36 1,3-Dichlorobenzene	146		4.589					ND	
37 1,4-Dichlorobenzene	146		4.637					ND	
38 Pentachlorophenol_T	266		4.692					ND	
39 4-Chloro-3-nitro-alpha,alpha,alp	179		4.766					ND	
40 Benzyl alcohol	108		4.774					ND	U
41 3-Amino-4-Chlorobenzotrifluorid	105		4.785					ND	
42 2,4-Xylidine TIC	136		4.810					ND	
43 1,2-Dichlorobenzene	146		4.822					ND	
44 o-Anisidine TIC	80		4.857					ND	
45 2-Methylphenol	108		4.893					ND	
46 Indene	116		4.899					ND	
47 2,2'-oxybis[1-chloropropane]	45		4.928					ND	
48 N-Nitrosopyrrolidine	100		5.031					ND	
50 3 & 4 Methylphenol	108		5.040					ND	
52 Acetophenone	105		5.040					ND	
51 4-Methylphenol	108		5.040					ND	
49 3-Methylphenol	108		5.040					ND	
53 N-Nitrosomorpholine	116		5.047					ND	
54 N-Nitrosodi-n-propylamine	70		5.072					ND	
55 2-Toluidine	106		5.079					ND	
56 Hexachloroethane	117		5.120					ND	
57 Sulfolane	56		5.166					ND	
58 Nitrobenzene	77		5.210					ND	U
59 N-Nitrosopiperidine	114		5.352					ND	
60 Isophorone	82		5.453					ND	U
61 2-Nitrophenol	139		5.524					ND	
64 Benzyl dichloride	125		5.561					ND	
62 2,4-Dimethylphenol	107		5.562					ND	
63 1,3-phenylenediamine TIC	108		5.568					ND	
65 5-Methyl-o-Anisidine TIC	122		5.592					ND	
66 Bis(2-chloroethoxy)methane	63		5.662					ND	
67 o,o',o"-Triethylphosphorothioat	198		5.675					ND	
68 3,5-Dimethylphenol	107		5.691					ND	
69 Benzoic acid	105		5.713					ND	U
70 2,4-Dichlorophenol	162		5.752					ND	
71 3'-Bromoacetophenone	183		5.783					ND	
72 1,2,4-Trichlorobenzene	180		5.842					ND	
73 Benzidine_T	184		5.842					ND	
76 Alpha-Terpineol	59		5.894					ND	
75 Naphthalene	128		5.899					ND	
77 4-Chloroaniline	127		5.976					ND	
78 2,6-Dichlorophenol	162		5.980					ND	
79 Hexachloropropene	213		6.018					ND	
80 Hexachlorobutadiene	225		6.082					ND	
74 alpha,alpha-Dimethyl phenethylam	58		6.213					ND	
81 Quinoline	129		6.236					ND	
84 Caprolactam	55		6.314					ND	
83 N-Nitrosodi-n-butylamine	84		6.329					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 p-Phenylene diamine	108		6.345					ND	
85 4-Chloro-3-methylphenol	107		6.451					ND	
86 Safrole, Total	162		6.502					ND	
87 Carbofuran phenol	164		6.556					ND	
88 2-Methylnaphthalene	141		6.579					ND	
89 1-Methylnaphthalene	142		6.685					ND	
90 1,2,4,5-Tetrachlorobenzene	216		6.781					ND	
91 Isosafrole Peak 1	162		6.787					ND	
92 Hexachlorocyclopentadiene	237		6.803					ND	
93 2,4,6-Trichlorophenol	196		6.881					ND	
94 2,3-Dichlorobenzeneamine	161		6.890					ND	
95 2,4,5-Trichlorophenol	196		6.919					ND	
96 Isosafrole Peak 2	162		7.005					ND	
97 1,1'-Biphenyl	154		7.044					ND	U
98 2-Chloronaphthalene	162		7.054					ND	
99 Toluene diamine (2,4- + 2,6- isd	222		7.062					ND	
100 1-Chloronaphthalene	162		7.085					ND	
101 2-Nitroaniline	65		7.189					ND	
102 1,4-Naphthoquinone	158		7.229					ND	
103 1,4-Dinitrobenzene	168		7.294					ND	
104 Dimethyl phthalate	163		7.400					ND	U
105 1,3-Dinitrobenzene	168		7.410					ND	
106 2,6-Dinitrotoluene	165		7.461					ND	
107 Acenaphthylene	152		7.464					ND	
108 3-Nitroaniline	138		7.596					ND	
109 Acenaphthene	153		7.644					ND	
110 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.678					ND	
111 2,4-Dinitrophenol	184		7.689					ND	
112 1,3-Dimethyl-2,4-Dinitrobenzene	177		7.719					ND	
113 4-Nitrophenol	109		7.753					ND	U
114 Dibenzofuran	168		7.798					ND	
115 Pentachlorobenzene	250		7.819					ND	
116 2,4-Dinitrotoluene	165		7.837					ND	
117 1-Naphthylamine	143		7.877					ND	
118 Prometon	210		7.939					ND	
119 2-Naphthylamine	143		7.951					ND	
120 2,3,4,6-Tetrachlorophenol	232		7.959					ND	
121 1,4-Dimethyl-2,6-Dinitrobenzene	179		8.019					ND	
122 Hexadecane	57	8.043	8.032	0.011	96	3530		-4.19	a
123 1,4-Dimethyl-2,3-Dinitrobenzene	177		8.054					ND	
124 Diethyl phthalate	149	8.104	8.084	0.020	97	3893		0.2292	
126 4-Chlorophenyl phenyl ether	204		8.129					ND	
127 Fluorene	166		8.129					ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		8.131					ND	
128 Thionazin	97		8.160					ND	U
129 N-Nitro-o-toluidine	152		8.173					ND	
130 4-Nitroaniline	138		8.190					ND	
131 4,6-Dinitro-2-methylphenol	198		8.228					ND	
132 Diphenylamine	169		8.251					ND	U
133 N-Nitrosodiphenylamine	169		8.251					ND	
136 1,2-Diphenylhydrazine	77		8.283					ND	U
135 Azobenzene	77		8.283					ND	U

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
134 1,5-Dimethyl-2,4-Dinitrobenzene	179		8.283					ND	
137 Tributyl phosphate	99		8.284					ND	
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		8.383					ND	
139 1,2-Dimethyl-3,5-Dinitrobenzene	179		8.495					ND	
140 Sulfotepp	97		8.507					ND	U
141 1,3,5-Trinitrobenzene	213		8.542					ND	
142 Diallate Peak 1	86		8.568					ND	U
143 Phorate	121		8.578					ND	
144 Phenacetin	108		8.594					ND	
145 4-Bromophenyl phenyl ether	248		8.598					ND	
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		8.648					ND	
147 Diallate Peak 2	86		8.648					ND	U
148 Hexachlorobenzene	284		8.739					ND	
149 Dimethoate	87		8.754					ND	
150 Atrazine	200		8.803					ND	
151 4-Aminobiphenyl	169		8.857					ND	U
152 1,2-Dimethyl-4,5-Dinitrobenzene	179		8.889					ND	
153 Pentachlorophenol	266		8.909					ND	
154 n-Octadecane	57	8.924	8.919	0.005	90	1940		-5.97	
155 Pronamide	173		8.951					ND	
156 Pentachloronitrobenzene	237		8.986					ND	
157 Phenanthrene	178	9.052	9.051	0.001	90	1221		0.0460	
158 Disulfoton	88		9.080					ND	U
159 Dinoseb	211		9.092					ND	
160 Anthracene	178		9.096					ND	U
161 Carbazole	167		9.250					ND	U
162 Methyl parathion	109		9.436					ND	
163 Alachlor	188		9.487					ND	
164 Di-n-butyl phthalate	149	9.648	9.641	0.007	99	4625		0.1598	
166 4-Nitroquinoline-1-oxide	190		9.815					ND	
165 Ethyl Parathion	109		9.818					ND	
167 Methapyrilene	97		9.927					ND	
168 Hexachlorophene	196		10.073					ND	
169 Isodrin	193		10.075					ND	
170 Fluoranthene	202		10.198					ND	U
171 Benzidine	184		10.329					ND	
172 Pyrene	202		10.416					ND	U
173 Aramite Peak 1	185		10.586					ND	U
174 4,4-Dichlorobenzil	139		10.657					ND	
175 Aramite Peak 2	185		10.659					ND	U
176 p-Dimethylamino azobenzene	120		10.740					ND	
177 Chlorobenzilate	251		10.798					ND	
179 3,3'-Dimethylbenzidine	212		11.090					ND	
178 Famphur	218		11.092					ND	
180 Butyl benzyl phthalate	149		11.131					ND	U
181 2-Acetylaminofluorene	181		11.398					ND	
182 4,4'-Methylene bis(2-chloroani	231		11.704					ND	
183 3,3'-Dichlorobenzidine	252		11.710					ND	
184 Benzo[a]anthracene	228		11.724					ND	U
185 Chrysene	228		11.775					ND	U
186 Bis(2-ethylhexyl) phthalate	149	11.849	11.837	0.012	94	3843		1.78	
187 Dibenzo[a,e]pyrene	302		12.074					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
188 6-Methylchrysene	242		12.356					ND	
189 Di-n-octyl phthalate	149		12.625					ND	U
190 Tris(2,3-dibromopropyl)phosphate	149		12.644					ND	
191 Benzo[b]fluoranthene	252		13.107					ND	U
192 7,12-Dimethylbenz(a)anthracene	252		13.132					ND	
193 Benzo[k]fluoranthene	252		13.139					ND	U
194 Benzo[a]pyrene	252		13.537					ND	U
195 3-Methylcholanthrene	268		14.051					ND	
196 Dibenz[a,h]acridine	279		14.775					ND	
197 Dibenz[a,j]acridine	279		14.836					ND	
198 Indeno[1,2,3-cd]pyrene	276		15.093					ND	
199 Dibenz(a,h)anthracene	278		15.119					ND	
200 Benzo[g,h,i]perylene	276		15.486					ND	
205 1,4-Dimethyl-2,5-Dinitrobenzene	4		0.000					ND	
201 Phthalic anhydride	104		0.000					ND	
202 Dibenz[a,h]acridine TIC	1		0.000					ND	
204 Ethyl methacrylate	69		0.000					ND	
203 Dibenzo[a,e]pyrene TIC	1		0.000					ND	
207 4,4'-DDE	246		6.019					ND	
208 4,4'-DDD	235		6.267					ND	
209 4,4'-DDT	235		6.497					ND	
S 210 Phthalic acid TIC	1		5.729					ND	
S 211 Total Cresols	108		15.496					ND	
S 212 Methyl Phenols, Total	108		15.496					ND	
S 213 Isosafrole	162		15.496					ND	
S 214 Diallate	86		15.496					ND	
S 215 Aramite, Total	185		15.496					ND	
S 216 TPAH	1		0.000					ND	

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1602.D

Injection Date: 16-Nov-2022 17:43:14

Instrument ID: SMS_1

Operator ID:

Lims ID: MB 280-592592/1-A

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

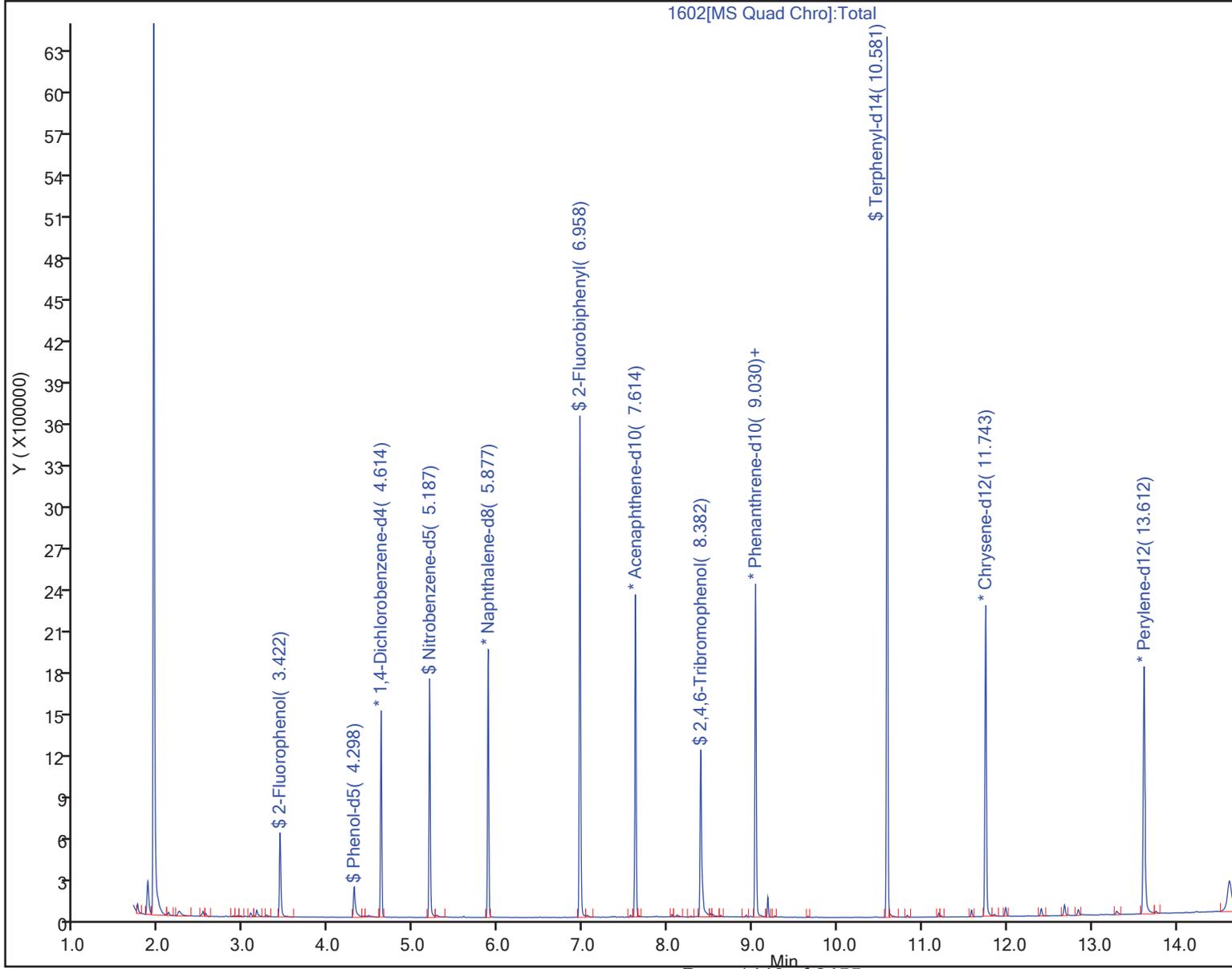
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1602.D
 Lims ID: MB 280-592592/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Nov-2022 17:43:14 ALS Bottle#: 0 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: RINSE
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:12:53 Calib Date: 16-Nov-2022 17:21:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1601b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H Date: 17-Nov-2022 10:56:51

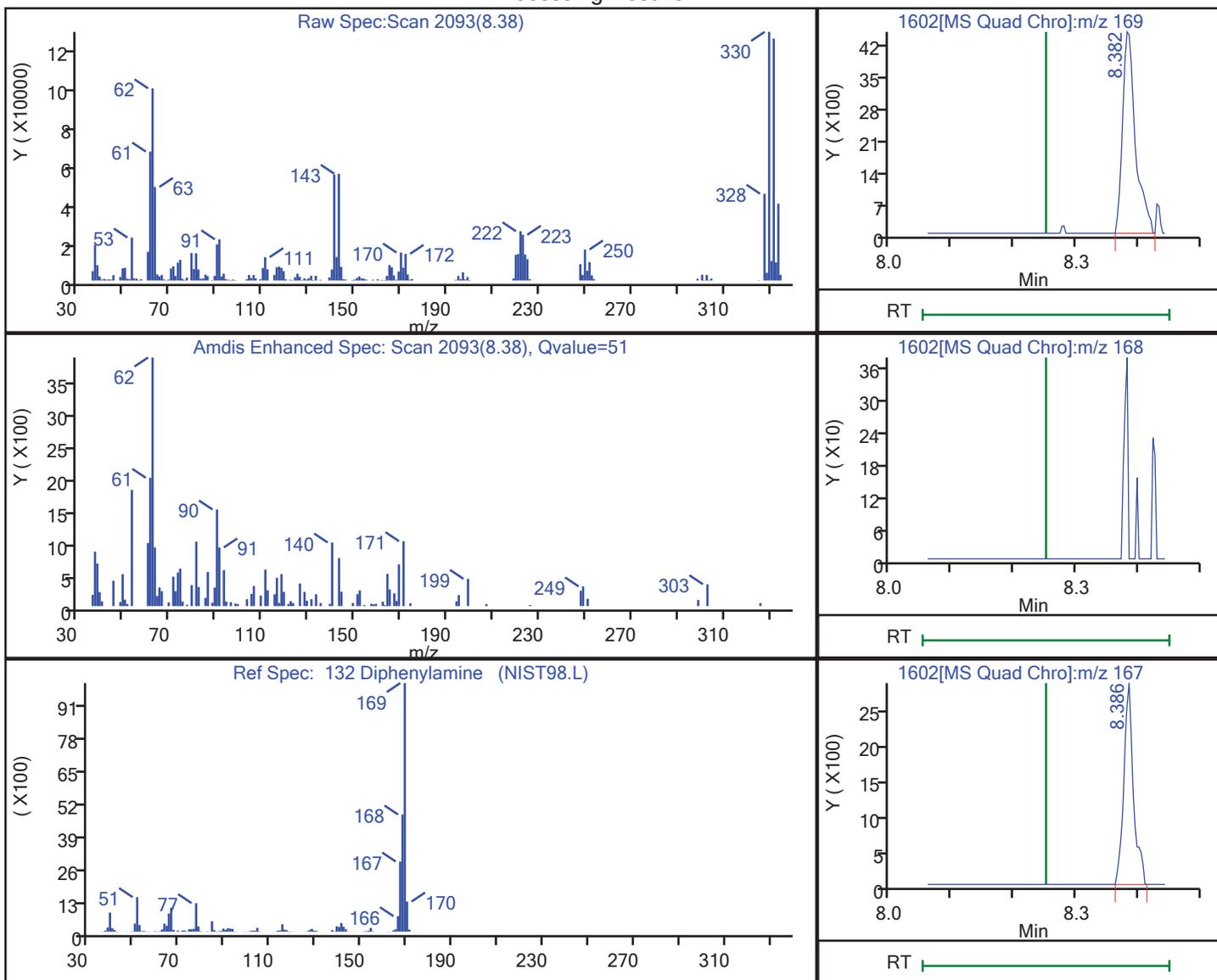
Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	25.0	24.99
\$ 8 Phenol-d5	100.0	12.7	12.66
\$ 9 Nitrobenzene-d5	100.0	62.2	62.17
\$ 10 2-Fluorobiphenyl	100.0	65.0	64.96
\$ 11 2,4,6-Tribromophenol	100.0	69.7	69.71
\$ 12 Terphenyl-d14	100.0	86.9	86.92

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1602.D
 Injection Date: 16-Nov-2022 17:43:14 Instrument ID: SMS_1
 Lims ID: MB 280-592592/1-A
 Client ID:
 Operator ID: meierg ALS Bottle#: 0 Worklist Smp#: 32
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Method: SMS_1_8270 Limit Group: MSSV - 8270C_625
 Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

132 Diphenylamine, CAS: 122-39-4

Processing Results



RT	Mass	Response	Amount
8.38	169.00	6450	0.451506
8.25	168.00	0	
8.39	167.00	3061	

Reviewer: NU5H, 17-Nov-2022 10:53:08

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-592594/1-A
 Matrix: Solid Lab File ID: G6_101023540b.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30(g) Date Analyzed: 11/10/2022 16:43
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1000	U	1600	1000	330
122-39-4	Diphenylamine	170	U	330	170	44
86-30-6	N-Nitrosodiphenylamine	67	U M	330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	67		44-115
367-12-4	2-Fluorophenol (Surr)	70		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	60		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	69		37-122
4165-62-2	Phenol-d5 (Surr)	68		33-122
1718-51-0	Terphenyl-d14 (Surr)	91		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023540b.D
 Lims ID: MB 280-592594/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 10-Nov-2022 16:43:30 ALS Bottle#: 7 Worklist Smp#: 9
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: MB280-592594_1-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 10:14:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	96	410970	40.0	40.0	
* 2 Naphthalene-d8	136	4.810	4.804	0.006	99	1537009	40.0	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	92	823687	40.0	40.0	
* 4 Phenanthrene-d10	188	7.944	7.949	-0.005	97	1328894	40.0	40.0	
* 5 Chrysene-d12	240	10.623	10.629	-0.006	99	994453	40.0	40.0	
* 6 Perylene-d12	264	12.752	12.757	-0.005	97	914010	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	92	946815	100.0	69.8	
\$ 8 Phenol-d5	99	3.274	3.280	-0.006	97	1165681	100.0	67.5	
\$ 9 Nitrobenzene-d5	82	4.120	4.125	-0.005	89	988327	100.0	69.2	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.746					ND	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	1624503	100.0	66.7	
\$ 12 2,4,6-Tribromophenol	330	7.275	7.281	-0.006	93	286658	100.0	59.6	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	2315758	100.0	90.6	
17 1,4-Dimethyl-2,5-Dinitrobenzene	179	6.992	7.000	-0.008	19	64		0.007538	
18 Triethyl amine	86		1.338					ND	7
19 2-Ethoxyethanol	59		1.162					ND	7
20 1,4-Dioxane	88		1.199					ND	
21 N-Nitrosodimethylamine	74		1.360					ND	7
22 Pyridine	79		1.386					ND	7
23 Dimethylformamide	73		1.579					ND	7
24 2-Picoline	93		1.905					ND	7
25 N-Nitrosomethylethylamine	88		2.001					ND	
26 Acrylamide	71		2.296					ND	7
27 Methyl methanesulfonate	80		2.264					ND	
28 N-Nitrosodiethylamine	102		2.611					ND	
29 Pentachlorophenol_T	266		2.893					ND	
30 Ethyl methanesulfonate	79		2.900					ND	
32 Benzaldehyde	106	3.184	3.183	0.001	93	2770		0.2545	7a
34 Phenol	94		3.291					ND	7
35 Aniline	93		3.291					ND	7
36 Alpha Methyl Styrene	118		3.339					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
37 Bis(2-chloroethyl)ether	93		3.365					ND	7
38 Pentachloroethane	117		3.328					ND	
39 n-Decane	43		3.472					ND	7
41 2-Chlorophenol	128		3.398					ND	
42 1,3-Dichlorobenzene	146		3.537					ND	
43 1,4-Dichlorobenzene	146		3.611					ND	
44 Benzyl alcohol	108		3.740					ND	7
45 1,2-Dichlorobenzene	146		3.751					ND	
46 2-Methylphenol	108		3.863					ND	
47 2,2'-oxybis[1-chloropropane]	45		3.884					ND	7
48 Indene	116		3.836					ND	
49 3 & 4 Methylphenol	108		4.018					ND	
50 3-Methylphenol	108		4.018					ND	
51 N-Nitrosodi-n-propylamine	70		4.002					ND	U
52 4-Methylphenol	108		4.018					ND	
53 N-Nitrosopyrrolidine	100		3.970					ND	
54 Benzidine_T	184		3.957					ND	
55 Acetophenone	105		3.986					ND	
56 N-Nitrosomorpholine	116		4.018					ND	
57 2-Toluidine	106		4.023					ND	
58 Hexachloroethane	117		4.066					ND	
60 Nitrobenzene	77		4.141					ND	7
62 N-Nitrosopiperidine	114		4.291					ND	
63 Isophorone	82		4.382					ND	7
65 2-Nitrophenol	139		4.451					ND	
66 2,4-Dimethylphenol	107		4.526					ND	
67 Benzyl dichloride	125		4.462					ND	
68 o,o',o"-Triethylphosphorothioat	198		4.596					ND	
69 Bis(2-chloroethoxy)methane	93		4.617					ND	7
70 Benzoic acid	105	4.569	4.692	-0.123	90	11806		4.65	7a
71 3,5-Dimethylphenol	107		4.660					ND	U
72 alpha,alpha-Dimethyl phenethylam	58		4.783					ND	7
75 2,4-Dichlorophenol	162		4.687					ND	
77 1,2,4-Trichlorobenzene	180		4.761					ND	
78 Alpha-Terpineol	59		4.831					ND	7
79 Naphthalene	128		4.831					ND	7
80 4-Chloroaniline	127		4.906					ND	
81 2,6-Dichlorophenol	162		4.906					ND	
82 Hexachloropropene	213		4.916					ND	
83 Hexachlorobutadiene	225		4.965					ND	
85 Quinoline	129		5.152					ND	
86 N-Nitrosodi-n-butylamine	84		5.253					ND	7
87 Caprolactam	55	5.205	5.227	-0.022	76	4850		0.7956	7a
88 p-Phenylene diamine	108		5.243					ND	
90 4-Chloro-3-methylphenol	107		5.403					ND	
91 Safrole, Total	162		5.446					ND	
92 Carbofuran phenol	164		5.425					ND	
94 2-Methylnaphthalene	142		5.505					ND	
95 Phthalic anhydride	76		5.557					ND	
96 1-Methylnaphthalene	142		5.601					ND	
97 Hexachlorocyclopentadiene	237		5.665					ND	
98 1,2,4,5-Tetrachlorobenzene	216		5.671					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
99 Isosafrole Peak 1	162		5.729					ND	
101 2,4,6-Trichlorophenol	196		5.794					ND	
102 2,3-Dichlorobenzamine	161		5.783					ND	
103 2,4,5-Trichlorophenol	196		5.831					ND	
104 Isosafrole Peak 2	162		5.949					ND	7
105 1,1'-Biphenyl	154		5.970					ND	7
106 Toluene diamine (2,4- + 2,6- is)	122		5.927					ND	7
107 2-Chloronaphthalene	162		5.976					ND	
108 1-Chloronaphthalene	162		5.992					ND	
109 2-Nitroaniline	65		6.088					ND	
110 1,4-Naphthoquinone	158		6.157					ND	
111 1,4-Dinitrobenzene	168		6.238					ND	
112 Dimethyl phthalate	163		6.296					ND	
113 1,3-Dinitrobenzene	168		6.307					ND	
114 2,6-Dinitrotoluene	165		6.345					ND	
115 Acenaphthylene	152		6.371					ND	
116 3-Nitroaniline	138		6.494					ND	
117 Acenaphthene	153		6.543					ND	
118 2,4-Dinitrophenol	184		6.601					ND	
119 1,3-Dimethyl-2,4-Dinitrobenzene	177		6.995					ND	
120 4-Nitrophenol	109	6.692	6.698	-0.006	84	730		0.1953	7a
121 Pentachlorobenzene	250		6.671					ND	
122 2,4-Dinitrotoluene	165		6.730					ND	
123 Dibenzofuran	168		6.714					ND	
124 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.053					ND	
125 1-Naphthylamine	143		6.794					ND	
127 2,3,4,6-Tetrachlorophenol	232		6.842					ND	
128 Hexadecane	57		7.029					ND	7
129 2-Naphthylamine	143		6.874					ND	
130 Diethyl phthalate	149	6.981	6.997	-0.016	97	8109		0.3214	7a
131 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.053					ND	
132 1,4-Dimethyl-2,3-Dinitrobenzene	177		6.995					ND	
133 Thionazin	97		7.061					ND	7
134 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.075					ND	
135 4-Chlorophenyl phenyl ether	204		7.067					ND	
136 Fluorene	166		7.045					ND	
137 N-Nitro-o-toluidine	152		7.077					ND	7
138 Tributyl phosphate	99		7.184					ND	7
139 4-Nitroaniline	138		7.088					ND	
140 4,6-Dinitro-2-methylphenol	198		7.120					ND	
141 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.469					ND	
142 Diphenylamine	169		7.190					ND	7
143 N-Nitrosodiphenylamine	169		7.190					ND	U
144 Azobenzene	77		7.222					ND	7
145 1,2-Diphenylhydrazine	77		7.222					ND	7
146 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.554					ND	
147 Sulfotepp	97		7.382					ND	7
149 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.666					ND	
150 Diallate Peak 1	86		7.484					ND	7
151 1,3,5-Trinitrobenzene	213		7.473					ND	
152 Phorate	121		7.489					ND	
154 Phenacetin	108		7.527					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
155 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.800					ND	7
156 Diallate Peak 2	86		7.564					ND	7
157 4-Bromophenyl phenyl ether	248		7.537					ND	
158 Hexachlorobenzene	284		7.569					ND	
159 Dimethoate	87		7.650					ND	
160 Atrazine	200	7.725	7.740	-0.015	82	2084		0.3436	7a
161 1,2-Dimethyl-4,5-Dinitrobenzene	161		8.123					ND	
162 n-Octadecane	85		7.933					ND	U
163 4-Aminobiphenyl	169		7.799					ND	7
164 Pentachlorophenol	266		7.773					ND	U
165 Pentachloronitrobenzene	237		7.783					ND	
166 Pronamide	173		7.885					ND	7
167 Disulfoton	88		8.003					ND	7
168 Dinoseb	211		7.987					ND	
169 Phenanthrene	178		7.971					ND	
170 Anthracene	178		8.019					ND	
171 Carbazole	167		8.195					ND	
172 Alachlor	188		8.356					ND	
173 Methyl parathion	109		8.356					ND	
175 Di-n-butyl phthalate	149		8.591					ND	7
176 Ethyl Parathion	109		8.746					ND	
178 4-Nitroquinoline-1-oxide	190		8.741					ND	
179 Methapyrilene	97	8.842	8.848	-0.006	93	1445		-2.16	7a
180 Isodrin	193		8.976					ND	
182 Fluoranthene	202		9.126					ND	
183 4,4-Dichlorobenzil	139		10.602					ND	
184 Benzidine	184		9.291					ND	
185 Pyrene	202		9.340					ND	7
187 Aramite Peak 1	185		9.554					ND	7
189 Aramite Peak 2	185		9.629					ND	7
190 p-Dimethylamino azobenzene	120		9.677					ND	
191 Chlorobenzilate	251		9.736					ND	
192 Famphur	218	9.976	9.981	-0.005	86	3373		0.3371	7a
193 Butyl benzyl phthalate	149		10.057					ND	
194 3,3'-Dimethylbenzidine	212		10.019					ND	
195 2-Acetylaminofluorene	181		10.292					ND	
196 4,4'-Methylene bis(2-chloroani	231		10.650					ND	7
197 3,3'-Dichlorobenzidine	252		10.629					ND	7
198 Benzo[a]anthracene	228		10.618					ND	7
199 Bis(2-ethylhexyl) phthalate	149		10.789					ND	7
200 Chrysene	228		10.661					ND	7
201 6-Methylchrysene	242		11.281					ND	
202 Di-n-octyl phthalate	149		11.763					ND	7
203 7,12-Dimethylbenz(a)anthracene	256		12.164					ND	
204 Benzo[b]fluoranthene	252		12.148					ND	
205 Benzo[k]fluoranthene	252		12.191					ND	
206 Hexachlorophene	196	12.742	12.554	0.188	57	651		NC	
208 Benzo[a]pyrene	252		12.661					ND	7
210 3-Methylcholanthrene	268		13.298					ND	
211 Tris(2,3-dibromopropyl)phosphite	110		13.667					ND	
212 Dibenz[a,h]acridine	279		14.244					ND	
213 Dibenz[a,j]acridine	279		14.341					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
214 Indeno[1,2,3-cd]pyrene	276		14.598					ND	
215 Dibenz(a,h)anthracene	278		14.672					ND	
216 Benzo[g,h,i]perylene	276		15.042					ND	
217 Dibenzo[a,e]pyrene	302		17.304					ND	
S 218 Total Cresols	108		15.496					ND	7
S 219 Methyl Phenols,Total	108		15.496					ND	7
S 220 Isosafrole	162		15.496					ND	7
S 221 Diallate	86		15.496					ND	7
S 222 Aramite, Total	185		15.496					ND	7
237 3'-Bromoacetophenone	1		5.922					ND	
238 2-Bromopyridine	1		3.983					ND	
59 4,4'-DDE	246		4.093					ND	
64 4,4'-DDD	235		4.352					ND	
74 4,4'-DDT	235		4.552					ND	
S 232 TPAH	1		0.000					ND	
233 Sulfolane	1		0.000					ND	
234 Prometon	1		0.000					ND	
235 4-Chloro-3-nitro-alpha,alpha,alp			4.885					ND	
236 2,6-Dimethylphenol TIC	1		0.000					ND	
239 3-Amino-4-Chlorobenzotrifluoride			0.000					ND	
244 Ethyl methacrylate	69		0.000					ND	
246 5-Methyl-o-Anisidine TIC	1		0.000					ND	
247 Dibenz[a,h]acridine TIC	1		0.000					ND	
248 o-Anisidine TIC	1		0.000					ND	
249 Dibenzo[a,e]pyrene TIC	1		0.000					ND	
250 Phthalic anhydride TIC	1		0.000					ND	
251 1,3-phenylenediamine TIC	1		0.000					ND	
252 2,4-Xylidine TIC	1		0.000					ND	
253 Phthalic acid TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023540b.D

Injection Date: 10-Nov-2022 16:43:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: MB 280-592594/1-A

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

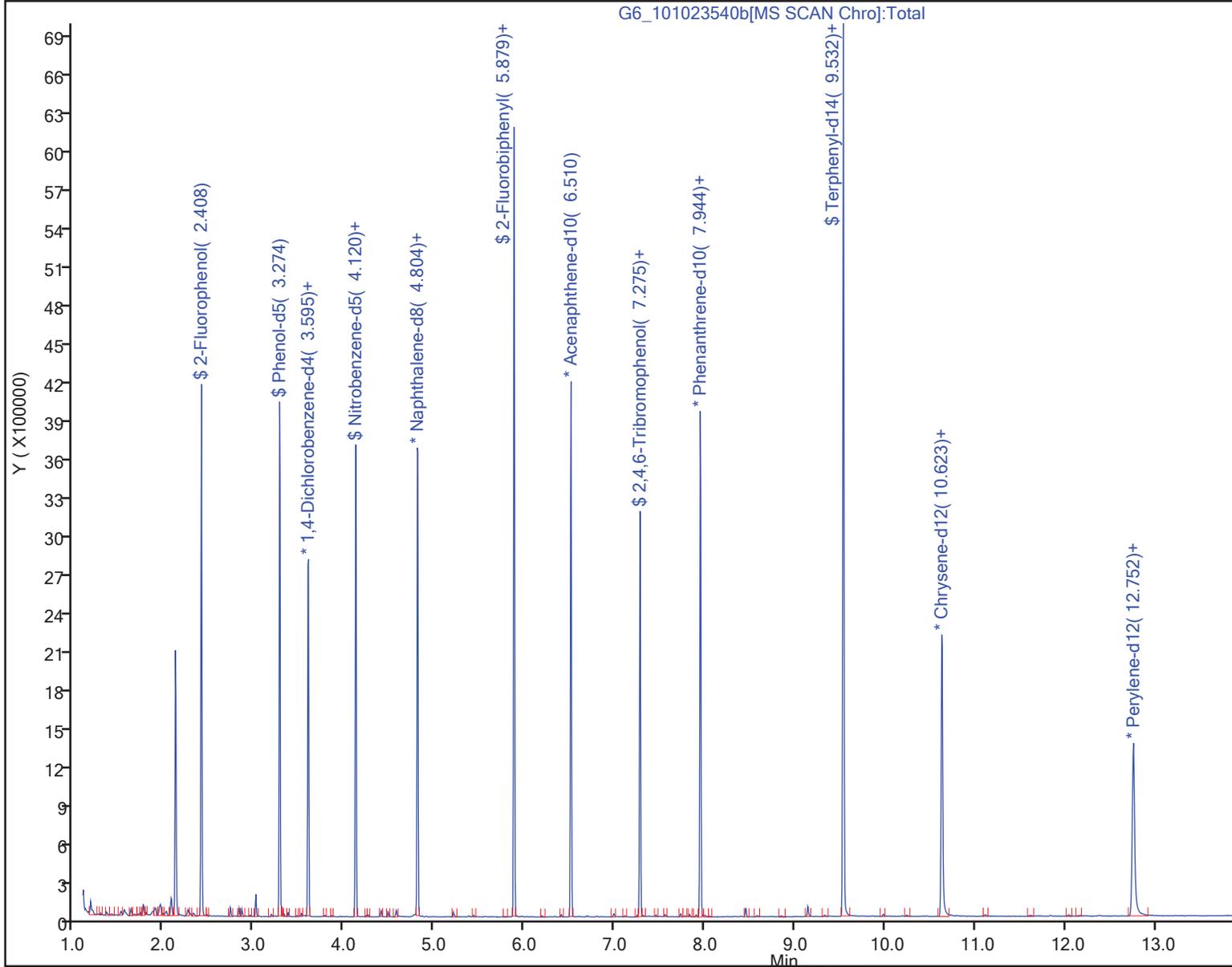
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023540b.D
 Lims ID: MB 280-592594/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 10-Nov-2022 16:43:30 ALS Bottle#: 7 Worklist Smp#: 9
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: MB280-592594_1-A
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H Date: 11-Nov-2022 10:14:45

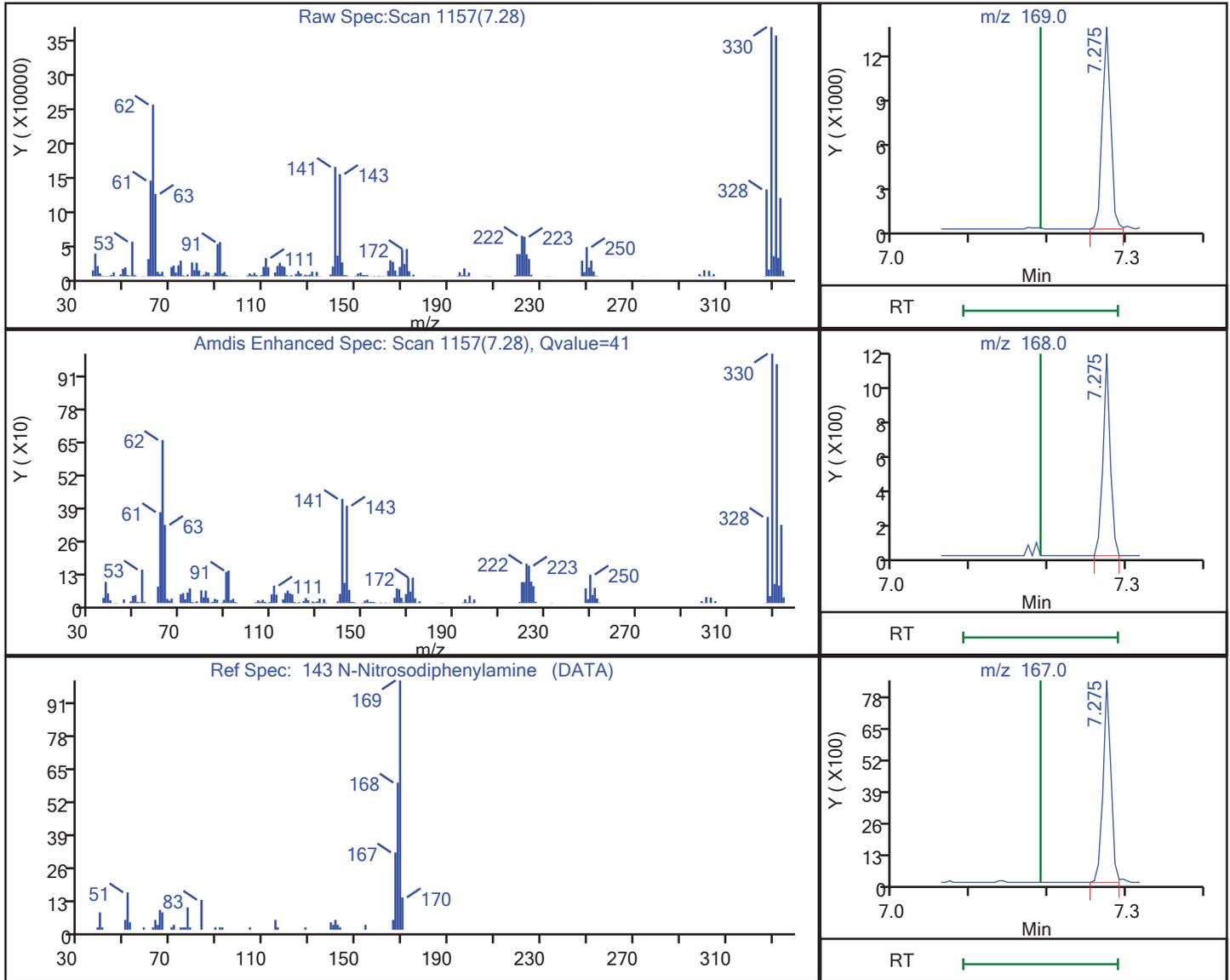
Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	69.8	69.83
\$ 8 Phenol-d5	100.0	67.5	67.51
\$ 9 Nitrobenzene-d5	100.0	69.2	69.21
\$ 11 2-Fluorobiphenyl	100.0	66.7	66.69
\$ 12 2,4,6-Tribromophenol	100.0	59.6	59.59
\$ 13 Terphenyl-d14	100.0	90.6	90.57

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023540b.D
 Injection Date: 10-Nov-2022 16:43:30 Instrument ID: SMS_G6
 Lims ID: MB 280-592594/1-A
 Client ID:
 Operator ID: TESSIERN ALS Bottle#: 7 Worklist Smp#: 9
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
 Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

143 N-Nitrosodiphenylamine, CAS: 86-30-6

Processing Results



RT	Mass	Response	Amount
7.28	169.00	10317	0.556952
7.28	168.00	753	
7.28	167.00	5895	

Reviewer: NU5H, 11-Nov-2022 10:10:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-593019/1-A
 Matrix: Solid Lab File ID: Y19306466.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30(g) Date Analyzed: 11/28/2022 12:54
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1000	U	1600	1000	330
122-39-4	Diphenylamine	170	U	330	170	44
86-30-6	N-Nitrosodiphenylamine	67	U	330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		44-115
367-12-4	2-Fluorophenol (Surr)	51		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	41		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	71		37-122
4165-62-2	Phenol-d5 (Surr)	67		33-122
1718-51-0	Terphenyl-d14 (Surr)	79		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306466.D
 Lims ID: MB 280-593019/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Nov-2022 12:54:30 ALS Bottle#: 7 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: MB280-593019_1-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:14:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.689	3.689	0.000	97	100962	40.0	40.0	
* 2 Naphthalene-d8	136	4.907	4.907	0.000	100	417146	40.0	40.0	
* 3 Acenaphthene-d10	164	6.617	6.617	0.000	93	240670	40.0	40.0	
* 4 Phenanthrene-d10	188	8.059	8.059	0.000	97	441176	40.0	40.0	
* 5 Chrysene-d12	240	11.029	11.030	-0.001	98	451565	40.0	40.0	
* 6 Perylene-d12	264	13.872	13.888	-0.016	97	432247	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.514	2.512	0.002	90	202152	100.0	51.3	
\$ 8 Phenol-d5	99	3.380	3.383	-0.003	94	358790	100.0	66.8	
\$ 9 Nitrobenzene-d5	82	4.218	4.225	-0.004	85	337112	100.0	70.7	
\$ 10 2,4,6-Trichlorophenol-d2	198		5.961					ND	
\$ 11 2-Fluorobiphenyl	172	5.981	5.983	-0.004	99	560323	100.0	70.3	
\$ 12 2,4,6-Tribromophenol	330	7.386	7.387	-0.004	94	49463	100.0	41.3	
\$ 13 Terphenyl-d14	244	9.667	9.664	0.002	97	924275	100.0	78.8	
14 Triethyl amine	86		1.244					ND	
15 1,4-Dioxane	88		1.294					ND	7
16 2-Ethoxyethanol	59		1.356					ND	7
17 N-Nitrosodimethylamine	74		1.455					ND	
18 Pyridine	79		1.487					ND	7
19 Dimethylformamide	73		1.794					ND	
20 2-Picoline	93		2.010					ND	
21 N-Nitrosomethylethylamine	88		2.095					ND	
22 Acrylamide	71		2.368					ND	7
23 Methyl methanesulfonate	80		2.352					ND	
24 N-Nitrosodiethylamine	102		2.699					ND	
25 Pentachlorophenol_T	266		2.992					ND	
26 Ethyl methanesulfonate	79		2.982					ND	
27 Benzaldehyde	106		3.278					ND	
28 Phenol	94		3.394					ND	
30 Aniline	93		3.383					ND	
31 Bis(2-chloroethyl)ether	93		3.458					ND	
32 Alpha Methyl Styrene	118		3.436					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
33 Pentachloroethane	117		3.426					ND	
34 2-Chlorophenol	128		3.501					ND	
35 n-Decane	43		3.575					ND	
37 1,3-Dichlorobenzene	146		3.639					ND	
38 1,4-Dichlorobenzene	146		3.709					ND	
39 Benzyl alcohol	108		3.837					ND	
40 1,2-Dichlorobenzene	146		3.848					ND	U
41 2-Methylphenol	108		3.965					ND	
42 Benzidine_T	184		4.050					ND	
43 2,2'-oxybis[1-chloropropane]	45		3.976					ND	7
44 Indene	116		3.933					ND	
45 N-Nitrosopyrrolidine	100		4.056					ND	
46 3-Methylphenol	108		4.120					ND	
47 4-Methylphenol	108		4.120					ND	
48 3 & 4 Methylphenol	108		4.120					ND	
49 N-Nitrosomorpholine	116		4.099					ND	
50 N-Nitrosodi-n-propylamine	70		4.099					ND	
51 Acetophenone	105		4.083					ND	
52 2-Toluidine	106		4.115					ND	
53 Hexachloroethane	117		4.168					ND	
54 Nitrobenzene	77		4.238					ND	7
56 N-Nitrosopiperidine	114		4.382					ND	
57 Isophorone	82		4.478					ND	U
58 2-Nitrophenol	139		4.548					ND	
59 2,4-Dimethylphenol	107		4.622					ND	
60 Benzyl dichloride	125		4.668					ND	
61 o,o',o"-Triethylphosphorothioat	198		4.692					ND	
63 Bis(2-chloroethoxy)methane	93		4.713					ND	7
64 Benzoic acid	105		4.783					ND	7
66 3,5-Dimethylphenol	107		4.761					ND	
67 alpha,alpha-Dimethyl phenethylam	58		4.831					ND	7
68 2,4-Dichlorophenol	162		4.793					ND	
69 1,2,4-Trichlorobenzene	180		4.863					ND	
70 Alpha-Terpineol	59		5.037					ND	7
71 Naphthalene	128		4.932					ND	
72 4-Chloroaniline	127		5.002					ND	
73 2,6-Dichlorophenol	162		5.007					ND	
74 Hexachloropropene	213		5.023					ND	
75 Hexachlorobutadiene	225		5.071					ND	
77 Quinoline	129		5.253					ND	
79 Caprolactam	55	5.297	5.322	-0.022	87	851		0.5272	7a
80 N-Nitrosodi-n-butylamine	84		5.349					ND	7
81 p-Phenylene diamine	108		5.338					ND	
83 4-Chloro-3-methylphenol	107		5.509					ND	
84 Safrole, Total	162		5.546					ND	
85 Carbofuran phenol	164		5.640					ND	
86 2-Methylnaphthalene	142		5.611					ND	
87 Phthalic anhydride	76	5.981	6.092	-0.111	34	24304			NC
88 1-Methylnaphthalene	142		5.702					ND	
89 1,2,4,5-Tetrachlorobenzene	216		5.776					ND	
90 Hexachlorocyclopentadiene	237		5.771					ND	
91 Isosafrole Peak 1	162		5.829					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
92 2,4,6-Trichlorophenol	196		5.899					ND	
93 2,3-Dichlorobenzamine	161		5.883					ND	
94 2,4,5-Trichlorophenol	196		5.942					ND	
96 Isosafrole Peak 2	162		6.049					ND	
97 Toluene diamine (2,4- + 2,6- is)	222		6.137					ND	7
98 1,1'-Biphenyl	154		6.076					ND	7
99 2-Chloronaphthalene	162		6.081					ND	
100 1-Chloronaphthalene	162		6.097					ND	
101 2-Nitroaniline	65		6.188					ND	
102 1,4-Naphthoquinone	158		6.252					ND	
103 1,4-Dinitrobenzene	168		6.332					ND	
104 Dimethyl phthalate	163		6.396					ND	
105 1,3-Dinitrobenzene	168		6.401					ND	
106 2,6-Dinitrotoluene	165		6.439					ND	
107 Acenaphthylene	152		6.476					ND	
108 3-Nitroaniline	138		6.594					ND	
109 Acenaphthene	153		6.652					ND	
110 1,3-Dimethyl-2,4-Dinitrobenzene	177		6.499					ND	
111 2,4-Dinitrophenol	184		6.701					ND	
112 4-Nitrophenol	109		6.807					ND	
113 1,3-Dimethyl-2,5-Dinitrobenzene	179		6.606					ND	
114 2,4-Dinitrotoluene	165		6.829					ND	
115 Pentachlorobenzene	250		6.780					ND	
116 Dibenzofuran	168		6.823					ND	
117 1,4-Dimethyl-2,3-Dinitrobenzene	177		6.729					ND	
118 1-Naphthylamine	143		6.898					ND	
119 2,3,4,6-Tetrachlorophenol	232		6.952					ND	
120 1,4-Dimethyl-2,6-Dinitrobenzene	179		6.788					ND	
121 2-Naphthylamine	143		6.978					ND	
122 1,4-Dimethyl-2,5-Dinitrobenzene	179		6.788					ND	
123 Diethyl phthalate	149		7.101					ND	
124 Hexadecane	57		7.139					ND	
125 1,2-Dimethyl-3,6-Dinitrobenzene	179		6.884					ND	
126 Thionazin	97		7.160					ND	
127 4-Chlorophenyl phenyl ether	204		7.176					ND	
128 N-Nitro-o-toluidine	152		7.176					ND	
129 Fluorene	166		7.155					ND	
130 4-Nitroaniline	138		7.192					ND	
131 4,6-Dinitro-2-methylphenol	198		7.224					ND	
132 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.044					ND	
133 Tributyl phosphate	99		7.393					ND	
134 Diphenylamine	169		7.294					ND	7
135 N-Nitrosodiphenylamine	169		7.294					ND	7
136 1,2-Diphenylhydrazine	182		7.331					ND	
137 Azobenzene	77		7.331					ND	
138 1,5-Dimethyl-2,3-Dinitrobenzene	179		7.236					ND	
140 Sulfotep	97		7.486					ND	
141 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.359					ND	
142 1,3,5-Trinitrobenzene	213		7.560					ND	
143 Diallate Peak 1	86		7.592					ND	
144 Phorate	121		7.598					ND	
145 Phenacetin	108		7.619					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
146 1,2-Dimethyl-3,4-Dinitrobenzene	179		7.359					ND	
148 4-Bromophenyl phenyl ether	248		7.651					ND	
149 Diallate Peak 2	86		7.673					ND	
150 Dimethoate	87		7.753					ND	
151 Hexachlorobenzene	284		7.689					ND	
152 Atrazine	200		7.840					ND	
153 1,2-Dimethyl-4,5-Dinitrobenzene	201		7.594					ND	
154 4-Aminobiphenyl	169		7.902					ND	
155 Pentachlorophenol	266		7.892					ND	
156 Pentachloronitrobenzene	237		7.897					ND	
157 Pronamide	173		7.993					ND	
158 n-Octadecane	85		8.047					ND	
159 Disulfoton	88		8.105					ND	7
160 Dinoseb	211		8.095					ND	
161 Phenanthrene	178		8.084					ND	
162 Anthracene	178		8.132					ND	
164 Carbazole	167		8.303					ND	
165 Methyl parathion	109		8.463					ND	
166 Alachlor	188		8.474					ND	
168 Di-n-butyl phthalate	149		8.698					ND	
169 Ethyl Parathion	109		8.853					ND	
170 4-Nitroquinoline-1-oxide	190		8.842					ND	
172 Methapyrilene	97		8.960					ND	
173 Isodrin	193		9.094					ND	
175 Fluoranthene	202		9.243					ND	
176 Benzidine	184		9.400					ND	
177 4,4-Dichlorobenzil	139		10.529					ND	
178 Pyrene	202		9.462					ND	
180 Aramite Peak 1	185		9.687					ND	7
182 Aramite Peak 2	185		9.772					ND	7
183 p-Dimethylamino azobenzene	120		9.831					ND	
184 Chlorobenzilate	251		9.906					ND	
185 Famphur	218		10.207					ND	7
186 3,3'-Dimethylbenzidine	212		10.247					ND	
187 Butyl benzyl phthalate	149		10.312					ND	
188 2-Acetylaminofluorene	181		10.589					ND	
189 3,3'-Dichlorobenzidine	252		11.035					ND	
190 4,4'-Methylene bis(2-chloroani	231		11.054					ND	7
191 Benzo[a]anthracene	228		11.022					ND	7
192 Chrysene	228		11.076					ND	7
193 Bis(2-ethylhexyl) phthalate	149		11.284					ND	
194 6-Methylchrysene	242		11.887					ND	
195 Di-n-octyl phthalate	149		12.620					ND	
196 Benzo[b]fluoranthene	252		13.052					ND	
197 7,12-Dimethylbenz(a)anthracene	256		13.073					ND	
198 Benzo[k]fluoranthene	252		13.116					ND	
199 Hexachlorophene	196		13.658					ND	
201 Benzo[a]pyrene	252		13.752					ND	7
203 3-Methylcholanthrene	268		14.633					ND	
204 Tris(2,3-dibromopropyl)phosph	140		12.585					ND	
205 Dibenz[a,h]acridine	279		15.937					ND	
206 Dibenz[a,j]acridine	279		16.070					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
207 Indeno[1,2,3-cd]pyrene	276		16.423					ND	
208 Dibenz(a,h)anthracene	278		16.541					ND	
209 Benzo[g,h,i]perylene	276		17.038					ND	
210 Dibenzo[a,e]pyrene	302		15.632					ND	
S 211 Total Cresols	108		15.636					ND	7
S 212 Methyl Phenols, Total	108		15.636					ND	7
S 213 Isosafrole	162		15.636					ND	7
S 214 Diallate	86		15.636					ND	7
S 215 Aramite, Total	185		15.636					ND	7
217 Sulfolane	56		5.226					ND	
218 Prometon	210		7.988					ND	
219 3'-Bromoacetophenone	183		5.960					ND	
220 4-Chloro-3-nitro-alpha,alpha,diphenylmethane	179		4.913					ND	
221 2-Bromopyridine	78		4.010					ND	
222 3-Amino-4-Chlorobenzotrifluoride	105		4.940					ND	
228 4,4'-DDE	246		4.275					ND	
229 4,4'-DDD	235		4.445					ND	
230 4,4'-DDT	235		4.637					ND	
S 231 TPAH	1		0.000					ND	
241 2,6-Dimethylphenol TIC	1		0.000					ND	
242 Phenylmercaptan TIC	1		0.000					ND	
243 5-Methyl-o-Anisidine TIC	1		0.000					ND	
244 o-Anisidine TIC	1		0.000					ND	
245 Phthalic anhydride TIC	1		0.000					ND	
246 1,3-phenylenediamine TIC	1		0.000					ND	
247 2,4-Xylidine TIC	1		0.000					ND	
248 Phthalic acid TIC	1		0.000					ND	
251 Ethyl methacrylate	69		0.000					ND	
252 Dibenz[a,h]acridine TIC	1		0.000					ND	
253 Dibenzo[a,e]pyrene TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306466.D

Injection Date: 28-Nov-2022 12:54:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: MB 280-593019/1-A

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

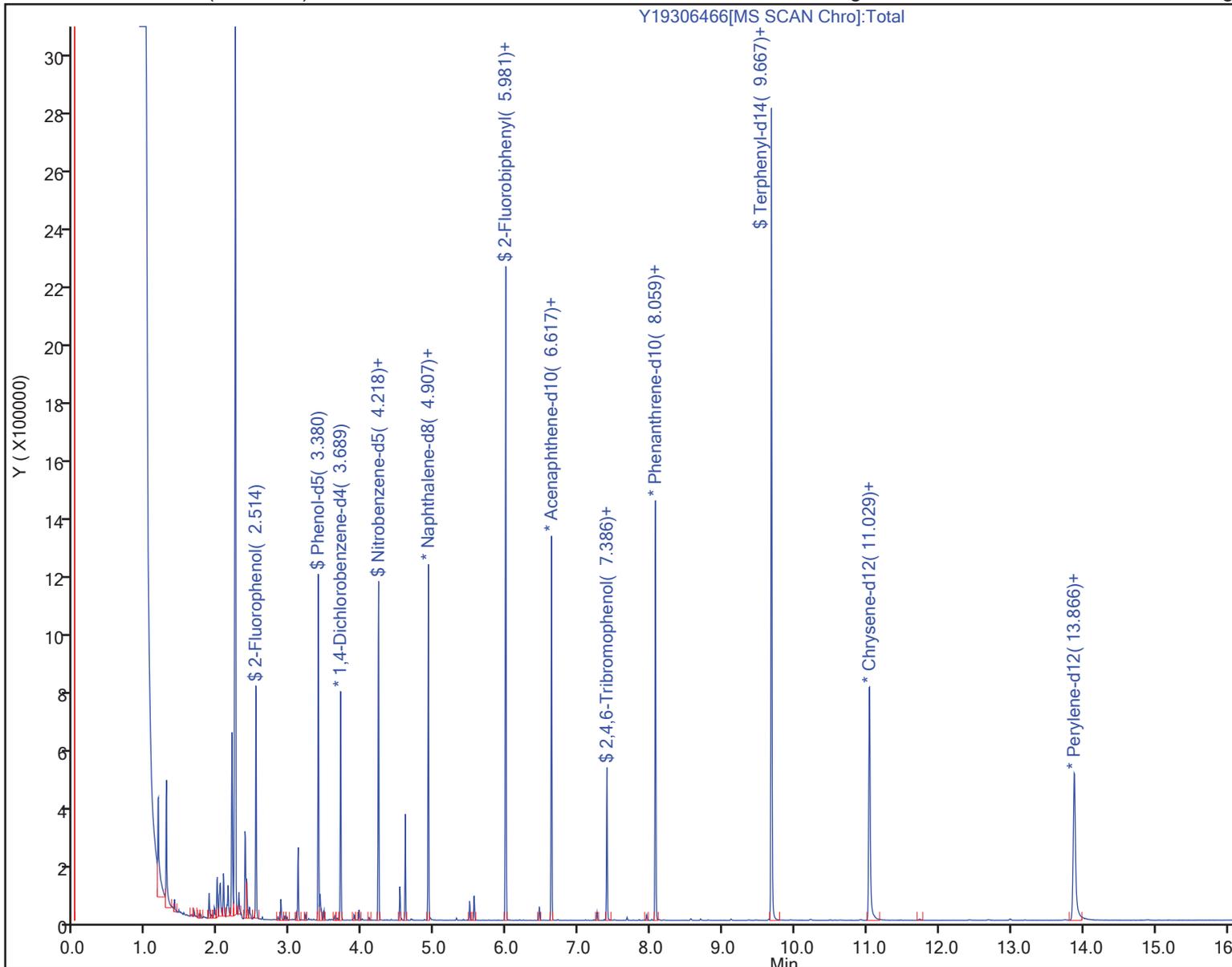
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306466.D
 Lims ID: MB 280-593019/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Nov-2022 12:54:30 ALS Bottle#: 7 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: MB280-593019_1-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:14:16

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	51.3	51.26
\$ 8 Phenol-d5	100.0	66.8	66.81
\$ 9 Nitrobenzene-d5	100.0	70.7	70.69
\$ 11 2-Fluorobiphenyl	100.0	70.3	70.34
\$ 12 2,4,6-Tribromophenol	100.0	41.3	41.31
\$ 13 Terphenyl-d14	100.0	78.8	78.78

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-592592/2-A
 Matrix: Water Lab File ID: 1603.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3510C Date Extracted: 11/07/2022 13:11
 Sample wt/vol: 1000 (mL) Date Analyzed: 11/16/2022 18:04
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593651 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	147		30	30	10
122-39-4	Diphenylamine	59.7		10	6.8	1.1
86-30-6	N-Nitrosodiphenylamine	67.1		10	8.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	77		44-119
367-12-4	2-Fluorophenol (Surr)	36		19-119
118-79-6	2,4,6-Tribromophenol (Surr)	96		43-140
4165-60-0	Nitrobenzene-d5 (Surr)	74		44-120
4165-62-2	Phenol-d5 (Surr)	22		10-115
1718-51-0	Terphenyl-d14 (Surr)	83		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1603.D
 Lims ID: LCS 280-592592/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Nov-2022 18:04:37 ALS Bottle#: 0 Worklist Smp#: 33
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: LCS 280-592592/2-A
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:09:09 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NU5H

Date: 17-Nov-2022 11:11:50

Compound	Sig	RT (min.)	Adj RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.616	4.622	-0.006	97	225063	40.0	40.0	
* 2 Naphthalene-d8	136	5.879	5.878	0.001	100	899699	40.0	40.0	
* 3 Acenaphthene-d10	164	7.612	7.610	0.002	97	545123	40.0	40.0	
* 4 Phenanthrene-d10	188	9.030	9.026	0.004	97	1034686	40.0	40.0	
* 5 Chrysene-d12	240	11.748	11.738	0.010	99	1026719	40.0	40.0	
* 6 Perylene-d12	264	13.613	13.603	0.010	98	983151	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.422	3.441	-0.019	94	278490	100.0	35.5	
\$ 8 Phenol-d5	99	4.289	4.294	-0.005	98	226381	100.0	22.1	
\$ 9 Nitrobenzene-d5	82	5.189	5.191	-0.002	90	812343	100.0	73.9	
\$ 10 2-Fluorobiphenyl	172	6.960	6.958	0.002	99	1514138	100.0	76.8	
\$ 11 2,4,6-Tribromophenol	330	8.383	8.379	0.004	95	255683	100.0	95.9	
\$ 12 Terphenyl-d14	244	10.583	10.575	0.008	97	2339578	100.0	82.5	
15 1,4-Dioxane	88	2.114	2.165	-0.051	97	93772	80.0	25.1	
17 N-Nitrosodimethylamine	74	2.354	2.394	-0.044	93	166960	80.0	32.2	
18 Pyridine	79	2.367	2.407	-0.044	96	289143	160.0	32.1	
28 Benzaldehyde	106	4.202	4.209	-0.014	93	290709	80.0	49.4	
29 Phenol	94	4.302	4.300	-0.005	99	186065	80.0	18.5	
31 Aniline	93	4.337	4.338	-0.008	96	504055	80.0	39.9	
33 Bis(2-chloroethyl)ether	93	4.388	4.393	-0.012	96	555770	80.0	62.0	
34 2-Chlorophenol	128	4.439	4.441	-0.009	96	428106	80.0	58.9	
35 n-Decane	43	4.471	4.480	-0.009	89	475747	80.0	50.6	
36 1,3-Dichlorobenzene	146	4.580	4.582	-0.009	95	468890	80.0	56.5	
37 1,4-Dichlorobenzene	146	4.632	4.633	-0.008	91	485611	80.0	56.9	
40 Benzyl alcohol	108	4.769	4.772	-0.003	90	225335	80.0	48.4	
43 1,2-Dichlorobenzene	146	4.817	4.815	-0.006	94	472238	80.0	58.9	
45 2-Methylphenol	108	4.888	4.882	-0.002	97	371075	80.0	51.3	
46 Indene	116	4.891	4.892	-0.009	88	809516	80.0	57.0	
47 2,2'-oxybis[1-chloropropane]	45	4.923	4.921	-0.006	92	713292	80.0	61.6	
49 3-Methylphenol	108	5.035	5.026	0.001	84	353157	80.0	47.8	
51 4-Methylphenol	108	5.035	5.026	0.001	93	353157	80.0	47.8	
50 3 & 4 Methylphenol	108	5.035	5.026	0.001	0	353157	80.0	47.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.035	5.033	-0.006	89	767734	80.0	64.2	
54 N-Nitrosodi-n-propylamine	70	5.064	5.070	-0.006	86	447834	80.0	73.5	
56 Hexachloroethane	117	5.119	5.113	-0.002	95	207488	80.0	57.2	
58 Nitrobenzene	77	5.205	5.211	-0.006	88	630394	80.0	61.0	
60 Isophorone	82	5.446	5.444	0.002	99	1198075	80.0	65.5	
61 2-Nitrophenol	139	5.523	5.524	-0.001	97	249676	80.0	68.8	
62 2,4-Dimethylphenol	107	5.561	5.556	0.005	98	513755	80.0	64.3	
66 Bis(2-chloroethoxy)methane	63	5.661	5.659	0.002	98	496740	80.0	62.6	
69 Benzoic acid	105	5.638	5.704	-0.066	88	69103	80.0	23.0	a
70 2,4-Dichlorophenol	162	5.750	5.749	0.001	98	432336	80.0	67.3	
72 1,2,4-Trichlorobenzene	180	5.837	5.839	-0.002	94	443048	80.0	57.3	
75 Naphthalene	128	5.898	5.900	-0.002	99	1371223	80.0	60.2	
77 4-Chloroaniline	127	5.975	5.973	0.001	76	450685	80.0	47.3	
78 2,6-Dichlorophenol	162	5.978	5.977	0.001	90	435703	80.0	65.4	
80 Hexachlorobutadiene	225	6.078	6.079	-0.001	97	257031	80.0	58.3	
84 Caprolactam	55	6.424	6.314	0.124	79	45956	80.0	13.7	M
85 4-Chloro-3-methylphenol	107	6.449	6.444	0.005	95	478721	80.0	68.8	
88 2-Methylnaphthalene	141	6.578	6.576	0.002	92	789970	80.0	60.4	
89 1-Methylnaphthalene	142	6.684	6.685	-0.001	93	933224	80.0	66.5	
90 1,2,4,5-Tetrachlorobenzene	216	6.780	6.781	-0.001	97	494606	80.0	64.3	
92 Hexachlorocyclopentadiene	237	6.803	6.804	0.003	97	816253	240.8	239.3	E
93 2,4,6-Trichlorophenol	196	6.880	6.881	0.003	96	351550	80.0	69.6	
95 2,4,5-Trichlorophenol	196	6.918	6.916	0.005	93	395995	80.0	72.4	
97 1,1'-Biphenyl	154	7.044	7.041	0.003	98	1268154	80.0	63.1	
98 2-Chloronaphthalene	162	7.053	7.055	0.002	98	1011620	80.0	63.3	
101 2-Nitroaniline	65	7.188	7.186	0.006	85	376467	80.0	69.7	
104 Dimethyl phthalate	163	7.400	7.401	0.003	97	1240296	80.0	70.3	
105 1,3-Dinitrobenzene	168	7.410	7.407	0.007	87	194663	80.0	71.8	
106 2,6-Dinitrotoluene	165	7.461	7.462	0.003	93	291966	80.0	71.7	
107 Acenaphthylene	152	7.464	7.465	0.003	99	1520131	80.0	63.8	
108 3-Nitroaniline	138	7.596	7.593	0.007	91	223743	80.0	58.4	
109 Acenaphthene	153	7.644	7.645	0.003	97	1063634	80.0	65.2	
111 2,4-Dinitrophenol	184	7.689	7.690	0.003	84	271721	160.0	146.6	
113 4-Nitrophenol	109	7.763	7.747	0.016	95	110966	160.0	47.9	
114 Dibenzofuran	168	7.798	7.799	0.003	96	1482783	80.0	66.9	
116 2,4-Dinitrotoluene	165	7.837	7.838	0.004	90	390239	80.0	74.4	
120 2,3,4,6-Tetrachlorophenol	232	7.959	7.959	0.004	76	312979	80.0	74.6	
122 Hexadecane	57	8.033	8.037	0.001	95	899630	80.0	64.1	
124 Diethyl phthalate	149	8.084	8.085	0.003	97	1278248	80.0	71.6	
126 4-Chlorophenyl phenyl ether	204	8.129	8.133	0.000	73	633461	80.0	69.8	
127 Fluorene	166	8.129	8.133	0.000	92	1295214	80.0	70.3	
130 4-Nitroaniline	138	8.194	8.191	0.007	81	272061	80.0	69.5	
131 4,6-Dinitro-2-methylphenol	198	8.229	8.230	0.004	84	426460	160.0	151.0	
132 Diphenylamine	169	8.252	8.248	0.004	93	896464	68.0	59.7	
133 N-Nitrosodiphenylamine	169	8.252	8.253	0.004	66	896464	80.0	67.1	
135 Azobenzene	77	8.284	8.280	0.004	99	1527326	80.0	60.9	
136 1,2-Diphenylhydrazine	77	8.284	8.280	0.004	47	1527326	80.9	68.9	
145 4-Bromophenyl phenyl ether	248	8.599	8.599	0.005	70	365638	80.0	71.0	
148 Hexachlorobenzene	284	8.740	8.740	0.005	95	407082	80.0	71.6	
150 Atrazine	200	8.801	8.801	0.006	91	432712	80.0	91.1	
153 Pentachlorophenol	266	8.910	8.911	0.005	91	514691	160.0	145.5	
154 n-Octadecane	57	8.920	8.915	0.005	97	962088	80.0	67.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
157 Phenanthrene	178	9.052	9.056	0.002	99	1908099	80.0	69.4	
160 Anthracene	178	9.097	9.097	0.005	98	1955470	80.0	70.0	
161 Carbazole	167	9.251	9.251	0.005	96	1816065	80.0	74.4	
163 Alachlor	188	9.489	9.483	0.006	97	252008	80.0	76.9	
164 Di-n-butyl phthalate	149	9.640	9.637	0.003	100	2267717	80.0	75.7	
170 Fluoranthene	202	10.201	10.200	0.007	99	2134899	80.0	74.1	
171 Benzidine	184	10.329	10.326	0.006	99	386971	160.0	35.4	
172 Pyrene	202	10.419	10.412	0.007	96	2258142	80.0	70.0	
178 Famphur	218	11.093	11.087	0.008	84	531259	80.0	110.7	
180 Butyl benzyl phthalate	149	11.135	11.131	0.006	97	1045043	80.0	73.7	
183 3,3'-Dichlorobenzidine	252	11.716	11.708	0.010	75	1406409	160.0	136.8	
184 Benzo[a]anthracene	228	11.725	11.718	0.007	99	2361536	80.0	72.4	
185 Chrysene	228	11.780	11.769	0.011	97	2138546	80.0	68.0	
186 Bis(2-ethylhexyl) phthalate	149	11.842	11.834	0.008	98	1520851	80.0	78.8	
189 Di-n-octyl phthalate	149	12.632	12.662	0.011	99	2497103	80.0	77.3	
191 Benzo[b]fluoranthene	252	13.115	13.105	0.013	97	2103124	80.0	69.4	
193 Benzo[k]fluoranthene	252	13.147	13.137	0.013	99	2369436	80.0	72.2	
194 Benzo[a]pyrene	252	13.542	13.532	0.010	78	1840091	80.0	68.9	
198 Indeno[1,2,3-cd]pyrene	276	15.098	15.087	0.015	99	2280152	80.0	81.5	
199 Dibenz(a,h)anthracene	278	15.128	15.116	0.016	94	2053414	80.0	84.1	
200 Benzo[g,h,i]perylene	276	15.498	15.482	0.019	98	1977840	80.0	84.4	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1603.D

Injection Date: 16-Nov-2022 18:04:37

Instrument ID: SMS_1

Operator ID:

Lims ID: LCS 280-592592/2-A

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

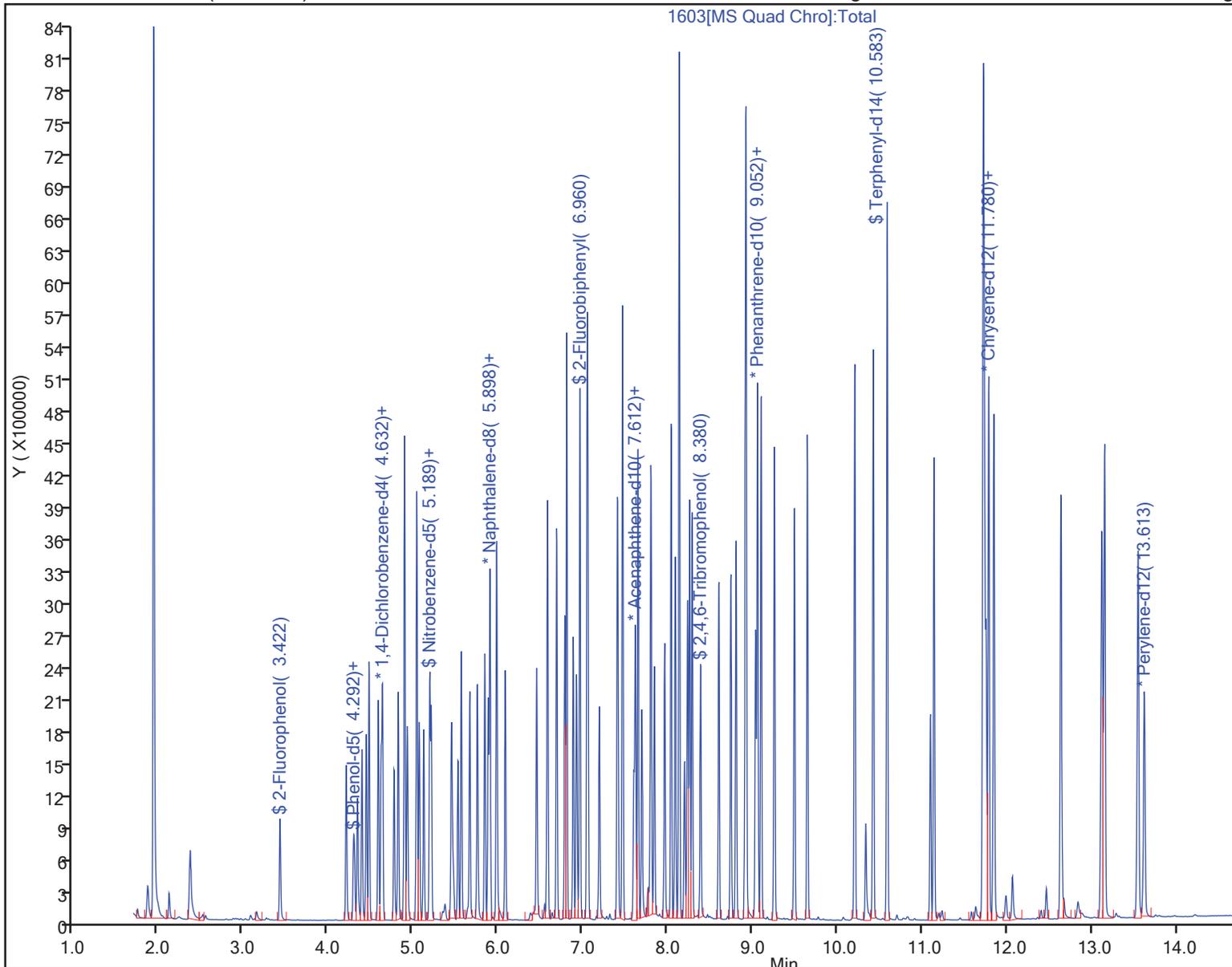
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-592594/2-A
 Matrix: Solid Lab File ID: G6_101023541b.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30(g) Date Analyzed: 11/10/2022 17:04
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	3900		1600	1000	330
122-39-4	Diphenylamine	1850		330	170	44
86-30-6	N-Nitrosodiphenylamine	2290		330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	71		44-115
367-12-4	2-Fluorophenol (Surr)	73		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	70		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	71		37-122
4165-62-2	Phenol-d5 (Surr)	71		33-122
1718-51-0	Terphenyl-d14 (Surr)	93		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023541b.D
 Lims ID: LCS 280-592594/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 10-Nov-2022 17:04:30 ALS Bottle#: 8 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: LCS280-592594_2-A
 Misc. Info.: 280-0115818-028
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 10:16:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	407041	40.0	40.0	
* 2 Naphthalene-d8	136	4.809	4.804	0.005	99	1476129	40.0	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	91	771234	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	98	1184899	40.0	40.0	
* 5 Chrysene-d12	240	10.629	10.629	0.000	85	917080	40.0	40.0	
* 6 Perylene-d12	264	12.752	12.757	-0.005	97	795851	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	91	978657	100.0	72.9	
\$ 8 Phenol-d5	99	3.280	3.280	0.000	97	1216999	100.0	71.2	
\$ 9 Nitrobenzene-d5	82	4.125	4.125	0.000	89	973529	100.0	71.0	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	1622245	100.0	71.1	
\$ 12 2,4,6-Tribromophenol	330	7.281	7.281	0.000	93	316553	100.0	70.3	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	2203921	100.0	93.5	
20 1,4-Dioxane	88	1.194	1.199	-0.005	98	162393	80.0	31.3	
21 N-Nitrosodimethylamine	74	1.354	1.360	-0.006	96	487038	80.0	62.5	
22 Pyridine	79	1.381	1.386	-0.005	97	956669	160.0	77.3	
32 Benzaldehyde	106	3.184	3.183	0.001	94	500677	80.0	46.4	
34 Phenol	94	3.290	3.291	-0.001	97	1028312	80.0	57.0	
35 Aniline	93	3.285	3.291	-0.006	93	756229	80.0	35.8	
37 Bis(2-chloroethyl)ether	93	3.365	3.365	0.000	95	747240	80.0	55.8	
39 n-Decane	43	3.467	3.472	-0.005	89	566636	80.0	58.4	
41 2-Chlorophenol	128	3.397	3.398	-0.001	97	749133	80.0	53.4	
42 1,3-Dichlorobenzene	146	3.537	3.537	-0.001	98	731964	80.0	48.3	
43 1,4-Dichlorobenzene	146	3.611	3.611	0.000	94	745631	80.0	48.7	
44 Benzyl alcohol	108	3.740	3.740	0.000	93	511276	80.0	53.5	
45 1,2-Dichlorobenzene	146	3.745	3.751	-0.006	96	700125	80.0	48.5	
46 2-Methylphenol	108	3.863	3.863	0.000	94	704426	80.0	55.6	
47 2,2'-oxybis[1-chloropropane]	45	3.879	3.884	-0.005	96	937559	80.0	63.8	
48 Indene	116	3.831	3.836	-0.005	92	1173869	80.0	51.2	
49 3 & 4 Methylphenol	108	4.018	4.018	0.000	80	751925	80.0	55.4	
50 3-Methylphenol	108	4.018	4.018	0.000	92	751925	80.0	55.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.002	4.002	0.000	86	545509	80.0	60.2	
52 4-Methylphenol	108	4.018	4.018	0.000	93	751925	80.0	55.4	
55 Acetophenone	105	3.986	3.986	0.000	98	947789	80.0	50.9	
58 Hexachloroethane	117	4.066	4.066	0.000	96	311478	80.0	50.0	
60 Nitrobenzene	77	4.141	4.141	0.000	89	751346	80.0	57.6	
63 Isophorone	82	4.382	4.382	0.000	99	1444998	80.0	57.9	
65 2-Nitrophenol	139	4.446	4.451	-0.005	97	381619	80.0	52.7	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	737983	80.0	57.3	
69 Bis(2-chloroethoxy)methane	93	4.617	4.617	0.000	98	880197	80.0	55.0	
70 Benzoic acid	105	4.638	4.692	-0.054	89	660173	80.0	66.4	a
75 2,4-Dichlorophenol	162	4.686	4.687	-0.001	96	600645	80.0	54.5	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	565916	80.0	48.8	
79 Naphthalene	128	4.826	4.831	-0.005	98	1914424	80.0	52.5	
80 4-Chloroaniline	127	4.900	4.906	-0.006	96	588848	80.0	35.9	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	97	569614	80.0	52.8	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	292319	80.0	49.6	
87 Caprolactam	55	5.243	5.227	0.016	80	503535	80.0	86.0	M
90 4-Chloro-3-methylphenol	107	5.409	5.403	0.006	96	711952	80.0	61.8	
94 2-Methylnaphthalene	142	5.505	5.505	0.000	93	1189761	80.0	48.2	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	95	1231632	80.0	52.8	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	97	942084	240.8	142.4	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	97	514765	80.0	47.8	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	94	434498	80.0	62.7	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	94	484762	80.0	62.9	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	96	1469500	80.0	57.7	
107 2-Chloronaphthalene	162	5.975	5.976	-0.001	97	1195694	80.0	58.1	
109 2-Nitroaniline	65	6.088	6.088	0.000	85	511986	80.0	79.7	
112 Dimethyl phthalate	163	6.296	6.296	0.000	98	1588593	80.0	70.5	
113 1,3-Dinitrobenzene	168	6.307	6.307	0.000	85	275577	80.0	69.9	
114 2,6-Dinitrotoluene	165	6.345	6.345	0.000	97	373837	80.0	67.2	
115 Acenaphthylene	152	6.371	6.371	0.000	98	1958574	80.0	60.5	
116 3-Nitroaniline	138	6.494	6.494	0.000	94	402092	80.0	55.6	
117 Acenaphthene	153	6.542	6.543	-0.001	94	1224814	80.0	61.0	
118 2,4-Dinitrophenol	184	6.601	6.601	0.000	85	398172	160.0	117.1	
120 4-Nitrophenol	109	6.698	6.698	0.000	95	543300	160.0	155.2	
122 2,4-Dinitrotoluene	165	6.730	6.730	0.000	94	509831	80.0	73.4	
123 Dibenzofuran	168	6.714	6.714	0.000	98	1795411	80.0	62.5	
127 2,3,4,6-Tetrachlorophenol	232	6.842	6.842	0.000	76	394046	80.0	64.0	
128 Hexadecane	57	7.029	7.029	0.000	90	1014599	80.0	70.8	
130 Diethyl phthalate	149	6.992	6.997	-0.005	98	1690310	80.0	71.5	
135 4-Chlorophenyl phenyl ether	204	7.072	7.067	0.005	94	645415	80.0	61.7	
136 Fluorene	166	7.045	7.045	0.000	96	1480547	80.0	62.4	
139 4-Nitroaniline	138	7.088	7.088	0.000	85	456795	80.0	63.5	
140 4,6-Dinitro-2-methylphenol	198	7.120	7.120	0.000	82	499448	160.0	129.6	
142 Diphenylamine	169	7.190	7.190	0.000	95	1132529	68.0	55.6	
143 N-Nitrosodiphenylamine	169	7.190	7.190	0.000	99	1132529	80.0	68.6	
144 Azobenzene	77	7.222	7.222	0.000	98	1785633	80.0	74.7	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	1785633	80.9	75.5	
157 4-Bromophenyl phenyl ether	248	7.537	7.537	0.000	69	404225	80.0	62.1	
158 Hexachlorobenzene	284	7.569	7.569	0.000	94	466252	80.0	61.3	
160 Atrazine	200	7.735	7.740	-0.005	89	453111	80.0	83.8	
162 n-Octadecane	85	7.933	7.933	0.000	95	510110	80.0	77.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
164 Pentachlorophenol	266	7.773	7.773	0.000	98	605047	160.0	131.3	
169 Phenanthrene	178	7.971	7.971	0.000	97	2168119	80.0	66.3	
170 Anthracene	178	8.019	8.019	0.000	98	2204304	80.0	65.7	
171 Carbazole	167	8.195	8.195	0.000	96	2216535	80.0	66.4	
175 Di-n-butyl phthalate	149	8.586	8.591	-0.005	100	2918528	80.0	73.9	
182 Fluoranthene	202	9.126	9.126	0.000	98	2263889	80.0	66.5	
184 Benzidine	184	9.286	9.291	-0.005	99	376364	160.0	20.8	
185 Pyrene	202	9.340	9.340	0.000	98	2350260	80.0	75.7	
193 Butyl benzyl phthalate	149	10.062	10.057	0.005	98	1269088	80.0	81.0	
197 3,3'-Dichlorobenzidine	252	10.629	10.629	0.000	75	1306713	160.0	119.3	
198 Benzo[a]anthracene	228	10.618	10.618	0.000	99	1946954	80.0	70.6	
199 Bis(2-ethylhexyl) phthalate	149	10.795	10.789	0.006	98	1645381	80.0	77.2	
200 Chrysene	228	10.661	10.661	0.000	97	1912088	80.0	74.0	
202 Di-n-octyl phthalate	149	11.763	11.763	0.000	99	2803582	80.0	72.6	
204 Benzo[b]fluoranthene	252	12.148	12.148	0.000	98	1657643	80.0	68.1	
205 Benzo[k]fluoranthene	252	12.196	12.191	0.005	98	1929314	80.0	76.4	
208 Benzo[a]pyrene	252	12.661	12.661	0.000	79	1560992	80.0	70.7	
214 Indeno[1,2,3-cd]pyrene	276	14.592	14.598	-0.006	98	1262286	80.0	47.4	
215 Dibenz(a,h)anthracene	278	14.672	14.672	0.000	94	1436919	80.0	63.1	
216 Benzo[g,h,i]perylene	276	15.036	15.042	-0.006	97	1522008	80.0	62.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023541b.D

Injection Date: 10-Nov-2022 17:04:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: LCS 280-592594/2-A

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

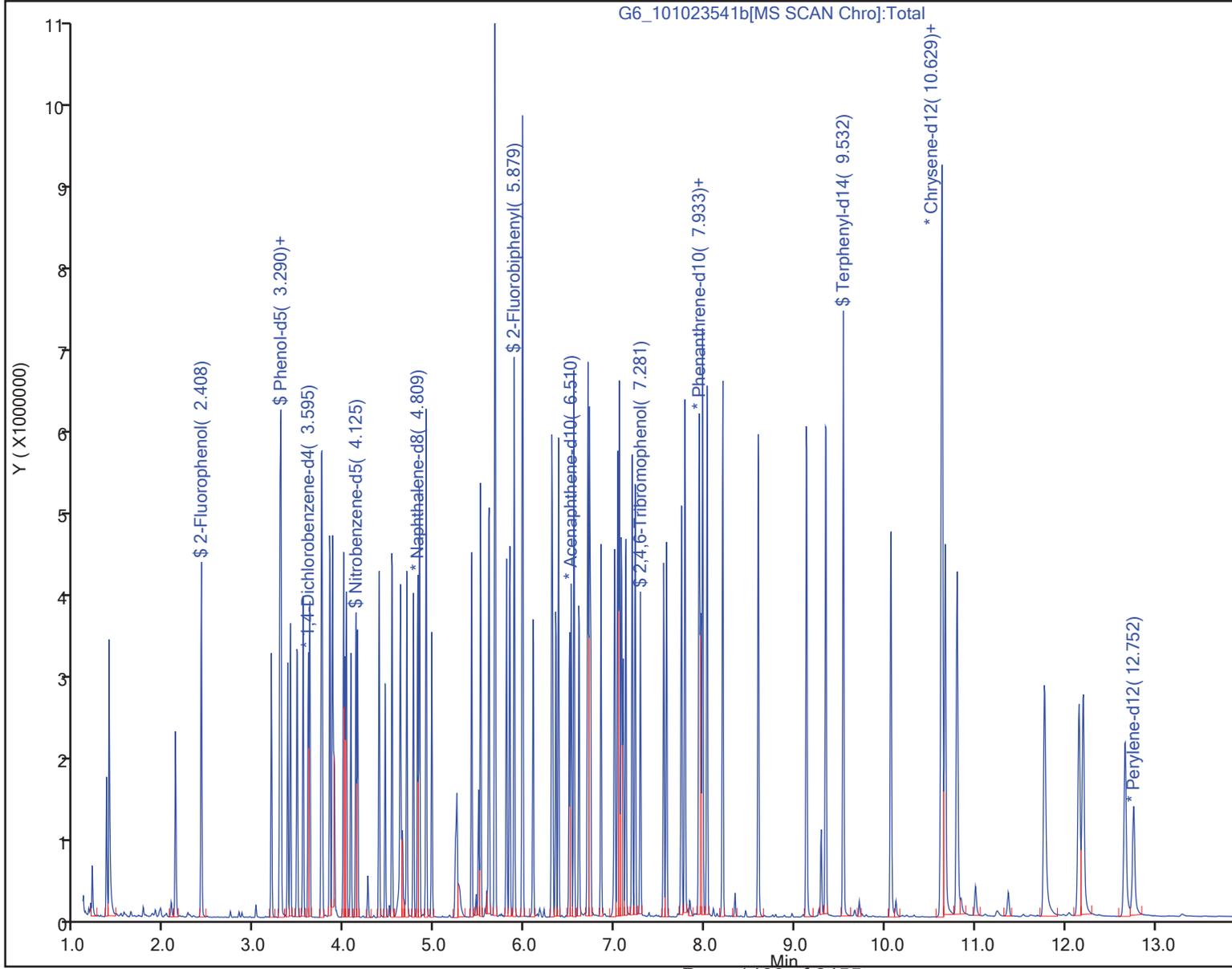
ALS Bottle#:

Method: MSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023541b.D
 Lims ID: LCS 280-592594/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 10-Nov-2022 17:04:30 ALS Bottle#: 8 Worklist Smp#: 10
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: LCS280-592594_2-A
 Misc. Info.: 280-0115818-028
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 10:16:37

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	72.9	72.88
\$ 8 Phenol-d5	100.0	71.2	71.16
\$ 9 Nitrobenzene-d5	100.0	71.0	70.99
\$ 11 2-Fluorobiphenyl	100.0	71.1	71.12
\$ 12 2,4,6-Tribromophenol	100.0	70.3	70.28
\$ 13 Terphenyl-d14	100.0	93.5	93.47

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-593019/2-A
 Matrix: Solid Lab File ID: Y19306467.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30(g) Date Analyzed: 11/28/2022 13:20
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	3470		1600	1000	330
122-39-4	Diphenylamine	1670		330	170	44
86-30-6	N-Nitrosodiphenylamine	1910		330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	67		44-115
367-12-4	2-Fluorophenol (Surr)	71		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	89		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	66		37-122
4165-62-2	Phenol-d5 (Surr)	72		33-122
1718-51-0	Terphenyl-d14 (Surr)	69		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306467.D
 Lims ID: LCS 280-593019/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-Nov-2022 13:20:30 ALS Bottle#: 8 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: LCS280-593019_2-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:15:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	110117	40.0	40.0	
* 2 Naphthalene-d8	136	4.910	4.907	0.003	99	475198	40.0	40.0	
* 3 Acenaphthene-d10	164	6.619	6.617	0.002	93	285471	40.0	40.0	
* 4 Phenanthrene-d10	188	8.062	8.059	0.003	97	516817	40.0	40.0	a
* 5 Chrysene-d12	240	11.037	11.030	0.007	98	561427	40.0	40.0	
* 6 Perylene-d12	264	13.874	13.888	-0.014	97	580841	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.517	2.512	0.005	89	305819	100.0	71.1	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	96	424233	100.0	72.4	
\$ 9 Nitrobenzene-d5	82	4.221	4.225	-0.001	85	358611	100.0	66.0	
\$ 11 2-Fluorobiphenyl	172	5.984	5.983	-0.001	99	630347	100.0	66.7	
\$ 12 2,4,6-Tribromophenol	330	7.389	7.387	-0.001	94	125995	100.0	88.7	
\$ 13 Terphenyl-d14	244	9.670	9.664	0.005	97	1011846	100.0	69.4	
15 1,4-Dioxane	88	1.288	1.295	-0.006	92	38838	80.0	23.6	
17 N-Nitrosodimethylamine	74	1.448	1.456	-0.007	87	123921	80.0	46.7	
18 Pyridine	79	1.486	1.488	-0.001	94	244954	160.0	58.7	
27 Benzaldehyde	106	3.275	3.278	-0.003	96	52052	80.0	16.1	
28 Phenol	94	3.398	3.394	0.004	97	336493	80.0	57.5	
30 Aniline	93	3.382	3.383	-0.001	96	138333	80.0	20.0	
31 Bis(2-chloroethyl)ether	93	3.457	3.458	-0.001	99	232633	80.0	54.3	
34 2-Chlorophenol	128	3.500	3.504	-0.001	96	225781	80.0	57.0	
35 n-Decane	43	3.574	3.579	-0.001	82	106793	80.0	34.1	
37 1,3-Dichlorobenzene	146	3.633	3.643	-0.006	96	210170	80.0	50.9	
38 1,4-Dichlorobenzene	146	3.708	3.712	-0.001	93	213395	80.0	50.7	
39 Benzyl alcohol	108	3.836	3.840	-0.001	92	171805	80.0	58.8	
40 1,2-Dichlorobenzene	146	3.847	3.851	-0.001	97	208215	80.0	52.0	
41 2-Methylphenol	108	3.964	3.969	-0.001	96	231803	80.0	58.7	
43 2,2'-oxybis[1-chloropropane]	45	3.975	3.980	-0.001	91	190867	80.0	40.4	
44 Indene	116	3.932	3.937	-0.001	88	366721	80.0	52.4	
46 3-Methylphenol	108	4.119	4.124	-0.001	89	252980	80.0	59.8	
47 4-Methylphenol	108	4.119	4.124	-0.001	96	252980	80.0	59.8	
48 3 & 4 Methylphenol	108	4.119	4.124	-0.001	97	252980	80.0	59.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 N-Nitrosodi-n-propylamine	70	4.098	4.103	-0.001	73	177833	80.0	54.0	
51 Acetophenone	105	4.082	4.086	-0.001	97	334959	80.0	55.8	
53 Hexachloroethane	117	4.167	4.172	-0.001	95	86963	80.0	51.8	
54 Nitrobenzene	77	4.237	4.241	-0.001	84	261651	80.0	52.5	
57 Isophorone	82	4.477	4.481	-0.001	98	512182	80.0	54.6	
58 2-Nitrophenol	139	4.547	4.551	-0.001	94	116779	80.0	52.3	
59 2,4-Dimethylphenol	107	4.627	4.625	0.005	96	274542	80.0	61.2	
63 Bis(2-chloroethoxy)methane	93	4.712	4.716	-0.001	96	296877	80.0	53.2	
64 Benzoic acid	105	4.750	4.786	-0.033	87	207499	80.0	59.6	a
68 2,4-Dichlorophenol	162	4.792	4.797	-0.001	96	193346	80.0	58.5	
69 1,2,4-Trichlorobenzene	180	4.862	4.866	-0.001	93	177057	80.0	51.5	
71 Naphthalene	128	4.931	4.936	-0.001	97	639434	80.0	52.6	
72 4-Chloroaniline	127	4.995	5.005	-0.007	96	105613	80.0	20.0	
73 2,6-Dichlorophenol	162	5.006	5.010	-0.001	96	187254	80.0	58.0	
75 Hexachlorobutadiene	225	5.070	5.074	-0.001	97	97566	80.0	53.2	
79 Caprolactam	55	5.332	5.322	0.013	90	119599	80.0	67.9	M
83 4-Chloro-3-methylphenol	107	5.508	5.513	-0.001	94	259513	80.0	65.1	
86 2-Methylnaphthalene	142	5.610	5.614	-0.001	92	422990	80.0	52.7	
88 1-Methylnaphthalene	142	5.700	5.705	-0.002	93	429459	80.0	56.6	
89 1,2,4,5-Tetrachlorobenzene	216	5.775	5.780	-0.001	74	176128	80.0	56.2	
90 Hexachlorocyclopentadiene	237	5.775	5.769	0.004	96	317732	240.8	146.3	
92 2,4,6-Trichlorophenol	196	5.898	5.897	-0.001	93	137386	80.0	58.6	
94 2,4,5-Trichlorophenol	196	5.941	5.940	-0.001	92	150728	80.0	58.4	
98 1,1'-Biphenyl	154	6.074	6.074	-0.002	96	540047	80.0	54.9	
99 2-Chloronaphthalene	162	6.080	6.079	-0.001	99	417897	80.0	55.5	
101 2-Nitroaniline	65	6.187	6.186	-0.001	82	163645	80.0	58.7	
104 Dimethyl phthalate	163	6.395	6.394	-0.001	97	519717	80.0	60.2	
105 1,3-Dinitrobenzene	168	6.400	6.399	-0.001	82	89801	80.0	59.8	
106 2,6-Dinitrotoluene	165	6.438	6.437	-0.001	93	125319	80.0	59.9	
107 Acenaphthylene	152	6.475	6.474	-0.001	99	677340	80.0	54.2	
108 3-Nitroaniline	138	6.593	6.592	-0.001	95	110520	80.0	42.0	
109 Acenaphthene	153	6.651	6.650	-0.001	95	451100	80.0	56.2	
111 2,4-Dinitrophenol	184	6.699	6.698	-0.002	86	125987	160.0	104.2	
112 4-Nitrophenol	109	6.806	6.805	-0.001	90	211391	160.0	155.3	
114 2,4-Dinitrotoluene	165	6.828	6.827	-0.001	87	172083	80.0	63.9	
116 Dibenzofuran	168	6.822	6.821	-0.001	98	620494	80.0	56.8	
119 2,3,4,6-Tetrachlorophenol	232	6.951	6.949	-0.001	78	128708	80.0	61.9	
123 Diethyl phthalate	149	7.100	7.099	-0.001	97	555084	80.0	61.3	
124 Hexadecane	57	7.138	7.136	-0.001	88	276361	80.0	46.2	
127 4-Chlorophenyl phenyl ether	204	7.175	7.174	-0.001	96	228458	80.0	57.1	
129 Fluorene	166	7.154	7.152	-0.001	95	536139	80.0	57.5	
130 4-Nitroaniline	138	7.191	7.190	-0.001	83	152693	80.0	55.7	
131 4,6-Dinitro-2-methylphenol	198	7.223	7.222	-0.001	80	170721	160.0	107.6	a
134 Diphenylamine	169	7.292	7.291	-0.002	95	400913	68.0	50.0	
135 N-Nitrosodiphenylamine	169	7.292	7.311	-0.002	98	400913	80.0	57.3	
136 1,2-Diphenylhydrazine	182	7.330	7.329	-0.001	98	137837	80.9	56.6	
137 Azobenzene	77	7.330	7.329	-0.001	97	650352	80.0	58.6	
148 4-Bromophenyl phenyl ether	248	7.650	7.649	-0.001	66	151153	80.0	58.9	
151 Hexachlorobenzene	284	7.688	7.687	-0.001	94	172895	80.0	59.8	
152 Atrazine	200	7.843	7.838	0.003	92	144418	80.0	62.8	
155 Pentachlorophenol	266	7.891	7.890	-0.001	92	208878	160.0	122.8	
158 n-Octadecane	85	8.046	8.045	-0.001	94	173666	80.0	54.4	a

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
161 Phenanthrene	178	8.083	8.082	-0.001	98	798984	80.0	57.7	
162 Anthracene	178	8.131	8.130	-0.001	98	803886	80.0	57.3	a
164 Carbazole	167	8.302	8.301	-0.001	96	824090	80.0	59.1	a
168 Di-n-butyl phthalate	149	8.697	8.696	-0.001	100	1007207	80.0	61.2	
175 Fluoranthene	202	9.242	9.241	-0.001	99	868508	80.0	59.8	
176 Benzidine	184	9.397	9.400	-0.003	99	33542	160.0	3.86	7
178 Pyrene	202	9.456	9.461	-0.006	96	915070	80.0	52.7	
187 Butyl benzyl phthalate	149	10.311	10.310	-0.001	95	476869	80.0	57.7	
189 3,3'-Dichlorobenzidine	252	11.037	11.033	0.002	75	515170	160.0	88.1	
191 Benzo[a]anthracene	228	11.021	11.020	-0.001	99	922602	80.0	56.7	
192 Chrysene	228	11.080	11.074	0.004	98	974007	80.0	56.9	
193 Bis(2-ethylhexyl) phthalate	149	11.283	11.282	-0.001	96	659845	80.0	58.7	
195 Di-n-octyl phthalate	149	12.619	12.617	-0.001	98	1133450	80.0	55.1	
196 Benzo[b]fluoranthene	252	13.051	13.035	-0.001	98	919968	80.0	56.9	
198 Benzo[k]fluoranthene	252	13.115	13.099	-0.001	99	1163345	80.0	59.2	
201 Benzo[a]pyrene	252	13.740	13.734	-0.012	78	886440	80.0	56.3	
207 Indeno[1,2,3-cd]pyrene	276	16.422	16.420	-0.001	98	722320	80.0	53.2	
208 Dibenz(a,h)anthracene	278	16.545	16.519	0.004	94	899419	80.0	62.4	
209 Benzo[g,h,i]perylene	276	17.031	17.015	-0.007	98	948129	80.0	62.1	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306467.D

Injection Date: 28-Nov-2022 13:20:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: LCS 280-593019/2-A

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

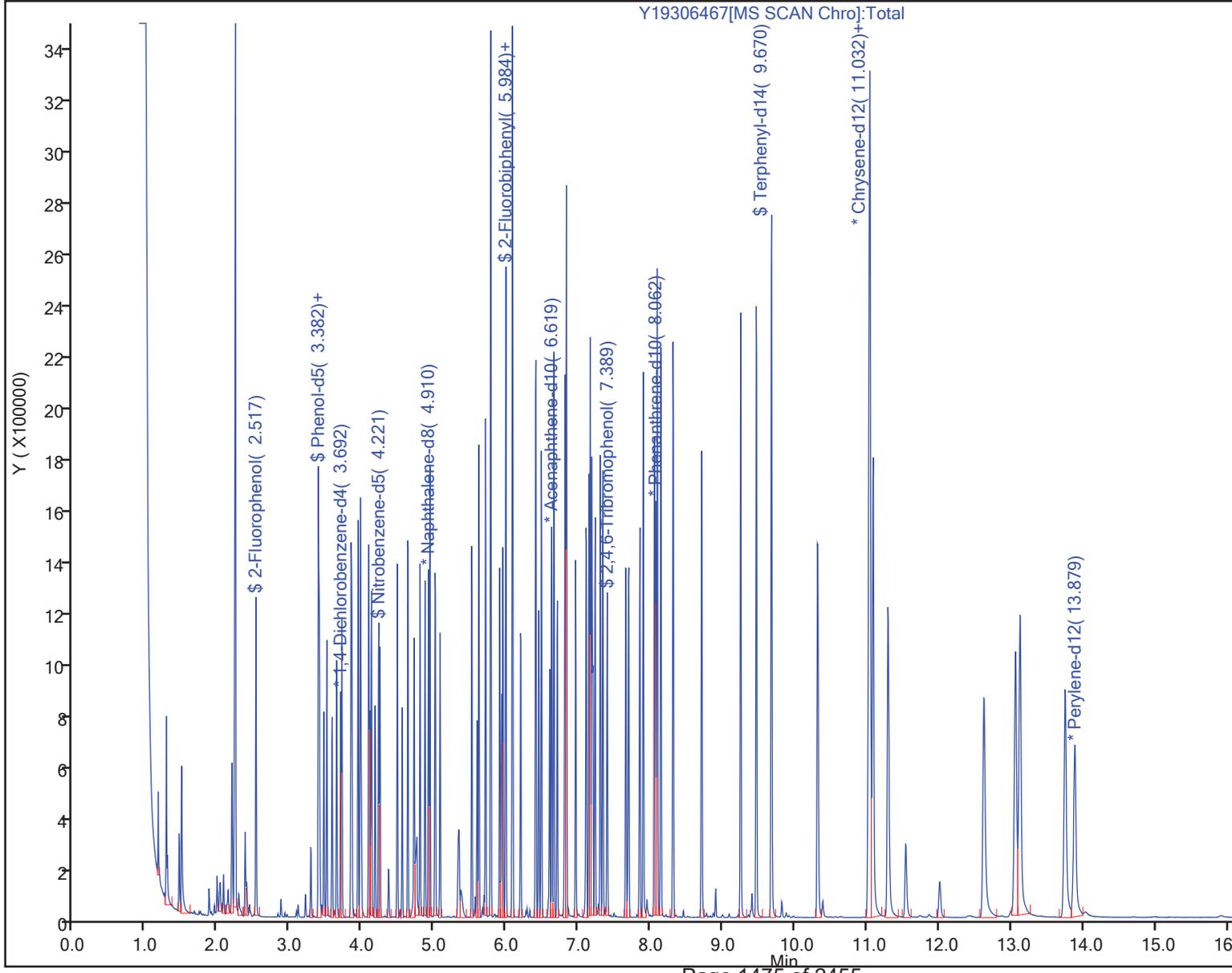
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306467.D
 Lims ID: LCS 280-593019/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-Nov-2022 13:20:30 ALS Bottle#: 8 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: LCS280-593019_2-A
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:12:24 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1620

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:15:40

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	71.1	71.09
\$ 8 Phenol-d5	100.0	72.4	72.43
\$ 9 Nitrobenzene-d5	100.0	66.0	66.01
\$ 11 2-Fluorobiphenyl	100.0	66.7	66.71
\$ 12 2,4,6-Tribromophenol	100.0	88.7	88.72
\$ 13 Terphenyl-d14	100.0	69.4	69.37

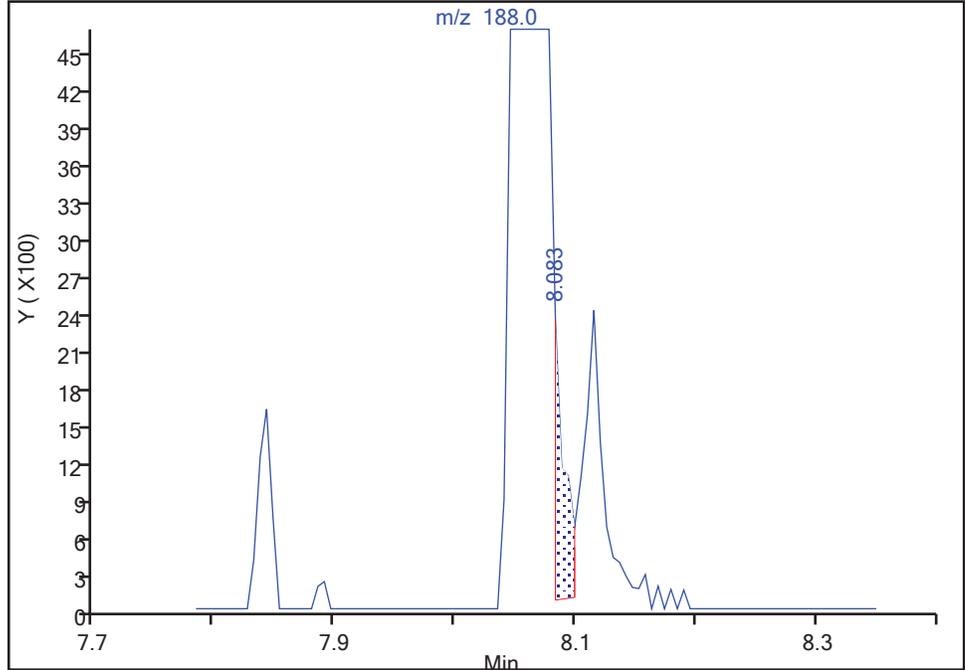
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306467.D
Injection Date: 28-Nov-2022 13:20:30 Instrument ID: SMS_Y
Lims ID: LCS 280-593019/2-A
Client ID:
Operator ID: TESSIERN ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: SMSY_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector: MS SCAN

* 4 Phenanthrene-d10, CAS: 1517-22-2
Signal: 1

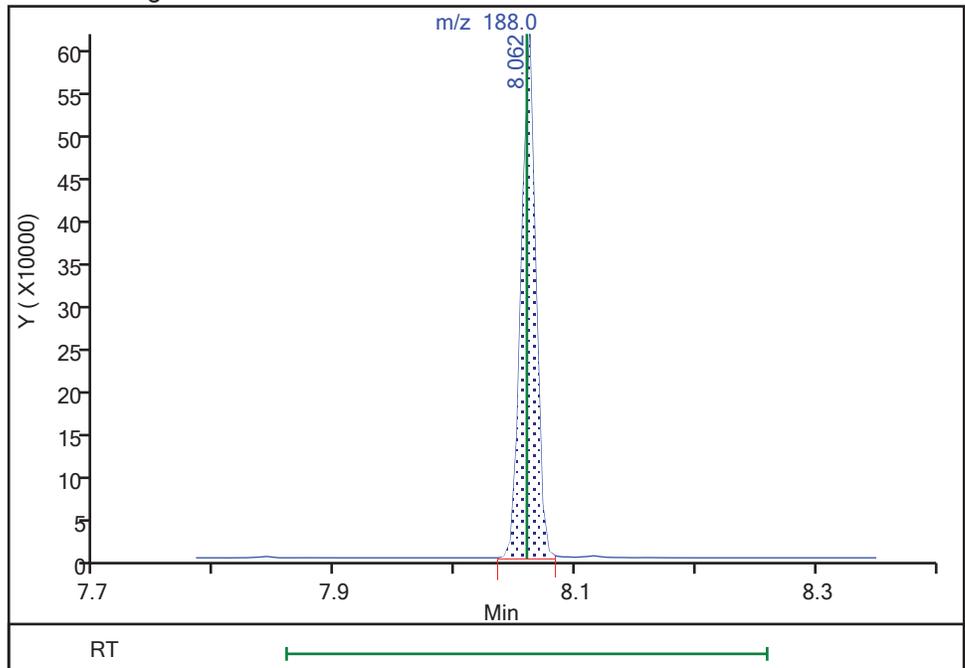
RT: 8.08
Area: 1571
Amount: 40.000000
Amount Units: ug/ml

Processing Integration Results



RT: 8.06
Area: 516817
Amount: 40.000000
Amount Units: ug/ml

Manual Integration Results



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS D 280-592592/3-A
 Matrix: Water Lab File ID: 1604.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3510C Date Extracted: 11/07/2022 13:11
 Sample wt/vol: 1000 (mL) Date Analyzed: 11/16/2022 18:26
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) GC Column: Rxi-5Sil MS ID: 0.25 (mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 593651 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	140		30	30	10
122-39-4	Diphenylamine	60.1		10	6.8	1.1
86-30-6	N-Nitrosodiphenylamine	68.1		10	8.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	73		44-119
367-12-4	2-Fluorophenol (Surr)	31		19-119
118-79-6	2,4,6-Tribromophenol (Surr)	97		43-140
4165-60-0	Nitrobenzene-d5 (Surr)	70		44-120
4165-62-2	Phenol-d5 (Surr)	20		10-115
1718-51-0	Terphenyl-d14 (Surr)	81		50-134

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1604.D
 Lims ID: LCSD 280-592592/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 16-Nov-2022 18:26:04 ALS Bottle#: 0 Worklist Smp#: 34
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: LCSD 280-592592/3-A
 Operator ID: meierg Instrument ID: SMS_1
 Method: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\SMS_1_8270.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 17-Nov-2022 13:11:27 Calib Date: 09-Nov-2022 18:07:43
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_1\20221109-115954.b\1014.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1642

First Level Reviewer: NU5H

Date: 17-Nov-2022 13:11:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.616	4.613	0.003	97	261885	40.0	40.0	
* 2 Naphthalene-d8	136	5.879	5.876	0.003	100	1025003	40.0	40.0	
* 3 Acenaphthene-d10	164	7.613	7.613	0.000	96	614387	40.0	40.0	
* 4 Phenanthrene-d10	188	9.031	9.031	0.000	97	1156568	40.0	40.0	
* 5 Chrysene-d12	240	11.747	11.743	0.004	99	1145033	40.0	40.0	
* 6 Perylene-d12	264	13.616	13.619	-0.003	98	1097911	40.0	40.0	
\$ 7 2-Fluorophenol	112	3.422	3.431	-0.009	95	286379	100.0	31.4	
\$ 8 Phenol-d5	99	4.289	4.297	-0.008	98	233364	100.0	19.6	
\$ 9 Nitrobenzene-d5	82	5.190	5.191	-0.001	90	875177	100.0	69.9	
\$ 10 2-Fluorobiphenyl	172	6.958	6.958	0.000	99	1629979	100.0	73.4	
\$ 11 2,4,6-Tribromophenol	330	8.385	8.383	0.002	95	292117	100.0	97.2	
\$ 12 Terphenyl-d14	244	10.582	10.580	0.002	97	2545868	100.0	80.5	
15 1,4-Dioxane	88	2.120	2.123	-0.003	97	94492	80.0	21.1	
17 N-Nitrosodimethylamine	74	2.360	2.366	-0.006	93	170346	80.0	28.3	
18 Pyridine	79	2.367	2.379	-0.012	97	477449	160.0	45.5	
28 Benzaldehyde	106	4.206	4.204	0.002	93	297267	80.0	43.4	
29 Phenol	94	4.302	4.307	-0.005	99	195616	80.0	16.7	
31 Aniline	93	4.337	4.348	-0.011	97	585886	80.0	39.9	
33 Bis(2-chloroethyl)ether	93	4.389	4.396	-0.007	95	588960	80.0	56.5	
34 2-Chlorophenol	128	4.440	4.448	-0.008	96	449693	80.0	53.1	
35 n-Decane	43	4.472	4.480	-0.008	89	500327	80.0	45.2	
36 1,3-Dichlorobenzene	146	4.581	4.589	-0.008	95	494796	80.0	51.3	
37 1,4-Dichlorobenzene	146	4.632	4.637	-0.005	91	518817	80.0	52.3	
40 Benzyl alcohol	108	4.767	4.774	-0.007	89	234359	80.0	43.2	
43 1,2-Dichlorobenzene	146	4.818	4.822	-0.004	93	493787	80.0	52.9	
45 2-Methylphenol	108	4.888	4.893	-0.005	97	390585	80.0	46.4	
46 Indene	116	4.895	4.899	-0.004	89	863305	80.0	52.2	
47 2,2'-oxybis[1-chloropropane]	45	4.924	4.928	-0.004	92	742751	80.0	54.6	
49 3-Methylphenol	108	5.036	5.040	-0.004	87	374129	80.0	43.5	
51 4-Methylphenol	108	5.036	5.040	-0.004	96	374129	80.0	43.5	
50 3 & 4 Methylphenol	108	5.036	5.040	-0.004	0	374129	80.0	43.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
52 Acetophenone	105	5.036	5.040	-0.004	88	836689	80.0	60.1	
54 N-Nitrosodi-n-propylamine	70	5.065	5.072	-0.007	87	478713	80.0	67.1	
56 Hexachloroethane	117	5.119	5.120	-0.001	95	216720	80.0	51.4	
58 Nitrobenzene	77	5.206	5.210	-0.004	88	676468	80.0	57.5	
60 Isophorone	82	5.443	5.453	-0.010	99	1298157	80.0	62.3	
61 2-Nitrophenol	139	5.523	5.524	-0.001	97	273704	80.0	66.2	
62 2,4-Dimethylphenol	107	5.562	5.562	0.000	98	573823	80.0	63.0	
66 Bis(2-chloroethoxy)methane	63	5.661	5.662	-0.001	98	536034	80.0	59.0	
69 Benzoic acid	105	5.642	5.713	-0.071	90	99374	80.0	25.6	
70 2,4-Dichlorophenol	162	5.751	5.752	-0.001	97	457066	80.0	62.4	
72 1,2,4-Trichlorobenzene	180	5.837	5.842	-0.005	93	478168	80.0	54.2	
75 Naphthalene	128	5.899	5.899	-0.001	99	1463643	80.0	56.4	
77 4-Chloroaniline	127	5.976	5.976	0.000	94	516341	80.0	47.6	
78 2,6-Dichlorophenol	162	5.979	5.980	-0.001	94	475946	80.0	62.7	
80 Hexachlorobutadiene	225	6.078	6.082	-0.004	97	264694	80.0	52.7	
84 Caprolactam	55	6.373	6.314	0.059	82	51933	80.0	13.6	M
85 4-Chloro-3-methylphenol	107	6.450	6.451	-0.001	95	516991	80.0	65.2	
88 2-Methylnaphthalene	141	6.578	6.579	-0.001	91	851834	80.0	57.2	
89 1-Methylnaphthalene	142	6.684	6.685	-0.001	93	1007269	80.0	63.0	
90 1,2,4,5-Tetrachlorobenzene	216	6.781	6.781	0.000	97	533928	80.0	61.0	
92 Hexachlorocyclopentadiene	237	6.803	6.803	0.000	97	885111	240.8	230.4	E
93 2,4,6-Trichlorophenol	196	6.880	6.881	-0.001	95	383668	80.0	67.4	
95 2,4,5-Trichlorophenol	196	6.919	6.919	0.000	93	432076	80.0	70.1	
97 1,1'-Biphenyl	154	7.044	7.044	0.000	97	1379865	80.0	60.9	
98 2-Chloronaphthalene	162	7.054	7.054	0.000	98	1084460	80.0	60.2	
101 2-Nitroaniline	65	7.189	7.189	0.000	77	417145	80.0	68.5	
104 Dimethyl phthalate	163	7.401	7.400	0.001	97	1369919	80.0	68.9	
105 1,3-Dinitrobenzene	168	7.410	7.410	0.000	85	223558	80.0	73.1	
106 2,6-Dinitrotoluene	165	7.462	7.461	0.001	92	321297	80.0	70.0	
107 Acenaphthylene	152	7.465	7.464	0.001	99	1641930	80.0	61.2	
108 3-Nitroaniline	138	7.593	7.596	-0.003	91	254812	80.0	59.0	
109 Acenaphthene	153	7.645	7.644	0.001	97	1160381	80.0	63.1	
111 2,4-Dinitrophenol	184	7.690	7.689	0.001	86	292147	160.0	140.2	
113 4-Nitrophenol	109	7.764	7.753	0.011	94	127119	160.0	48.6	
114 Dibenzofuran	168	7.796	7.798	-0.002	98	1592289	80.0	63.7	
116 2,4-Dinitrotoluene	165	7.838	7.837	0.001	90	440159	80.0	74.4	
120 2,3,4,6-Tetrachlorophenol	232	7.960	7.959	0.001	76	351531	80.0	74.4	
122 Hexadecane	57	8.034	8.032	0.002	94	966635	80.0	60.9	
124 Diethyl phthalate	149	8.082	8.084	-0.002	97	1418076	80.0	70.5	
126 4-Chlorophenyl phenyl ether	204	8.130	8.129	0.001	82	693431	80.0	67.8	
127 Fluorene	166	8.130	8.129	0.001	92	1429273	80.0	68.8	
130 4-Nitroaniline	138	8.195	8.190	0.005	81	306104	80.0	69.4	
131 4,6-Dinitro-2-methylphenol	198	8.230	8.228	0.002	86	483420	160.0	153.0	
132 Diphenylamine	169	8.253	8.251	0.002	94	1016352	68.0	60.1	
133 N-Nitrosodiphenylamine	169	8.253	8.251	0.002	65	1016352	80.0	68.1	
135 Azobenzene	77	8.282	8.283	-0.001	99	1684092	80.0	59.3	
136 1,2-Diphenylhydrazine	77	8.282	8.283	-0.001	45	1684092	80.9	67.3	
145 4-Bromophenyl phenyl ether	248	8.597	8.598	-0.001	70	404736	80.0	70.3	
148 Hexachlorobenzene	284	8.738	8.739	-0.001	94	450380	80.0	70.8	
150 Atrazine	200	8.802	8.803	-0.001	92	472714	80.0	89.1	
153 Pentachlorophenol	266	8.912	8.909	0.003	91	591681	160.0	149.5	
154 n-Octadecane	57	8.918	8.919	-0.001	97	1039610	80.0	64.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
157 Phenanthrene	178	9.054	9.051	0.003	98	2126106	80.0	69.2	
160 Anthracene	178	9.095	9.096	-0.001	98	2189896	80.0	70.1	
161 Carbazole	167	9.253	9.250	0.003	97	1991170	80.0	72.9	
163 Alachlor	188	9.491	9.487	0.004	98	304386	80.0	83.1	
164 Di-n-butyl phthalate	149	9.642	9.641	0.001	100	2467532	80.0	73.7	
170 Fluoranthene	202	10.200	10.198	0.002	99	2355956	80.0	73.1	
171 Benzidine	184	10.328	10.329	-0.001	99	879788	160.0	64.9	
172 Pyrene	202	10.418	10.416	0.002	96	2483520	80.0	68.9	
178 Famphur	218	11.092	11.092	0.000	85	589280	80.0	110.1	
180 Butyl benzyl phthalate	149	11.134	11.131	0.003	97	1148115	80.0	72.6	
183 3,3'-Dichlorobenzidine	252	11.715	11.710	0.005	75	1564594	160.0	136.5	
184 Benzo[a]anthracene	228	11.725	11.724	0.001	99	2637128	80.0	72.5	
185 Chrysene	228	11.780	11.775	0.005	97	2365219	80.0	67.5	
186 Bis(2-ethylhexyl) phthalate	149	11.841	11.837	0.004	98	1686163	80.0	78.1	
189 Di-n-octyl phthalate	149	12.632	12.625	0.007	99	2769818	80.0	76.9	
191 Benzo[b]fluoranthene	252	13.114	13.107	0.007	97	2444043	80.0	72.3	
193 Benzo[k]fluoranthene	252	13.146	13.139	0.007	99	2533090	80.0	69.1	
194 Benzo[a]pyrene	252	13.542	13.537	0.005	78	2076548	80.0	69.6	
198 Indeno[1,2,3-cd]pyrene	276	15.101	15.093	0.008	99	2580829	80.0	82.7	
199 Dibenz(a,h)anthracene	278	15.130	15.119	0.011	94	2312381	80.0	84.8	
200 Benzo[g,h,i]perylene	276	15.501	15.486	0.015	99	2229221	80.0	85.2	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_1\20221116-116149.b\1604.D

Injection Date: 16-Nov-2022 18:26:04

Instrument ID: SMS_1

Operator ID:

Lims ID: LCSD 280-592592/3-A

Worklist Smp#:

Client ID:

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

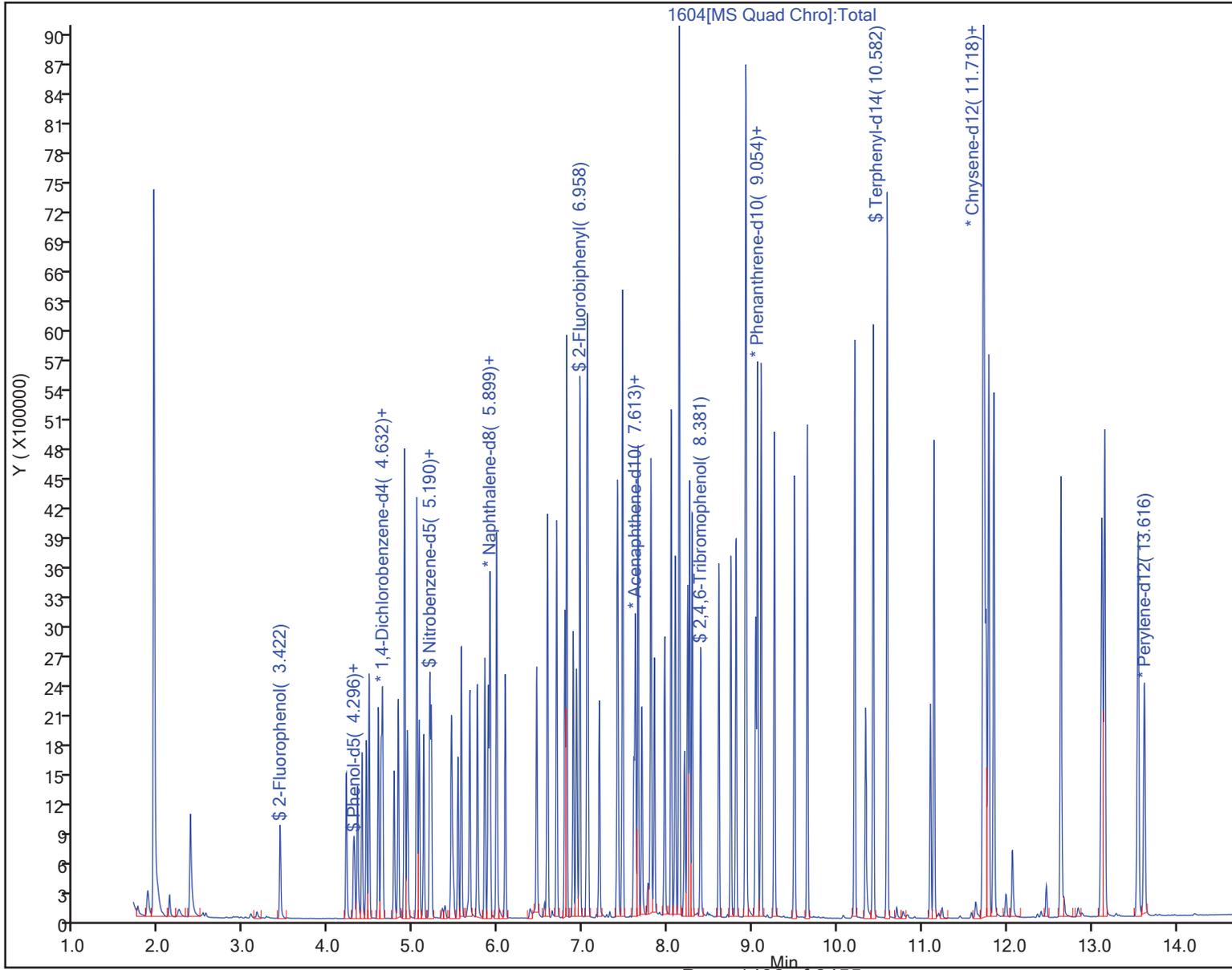
ALS Bottle#:

Method: SMS_1_8270

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 280-592594/3-A
 Matrix: Solid Lab File ID: G6_101023542b.D
 Analysis Method: 8270E Date Collected: _____
 Extract. Method: 3550C Date Extracted: 11/07/2022 12:55
 Sample wt/vol: 30(g) Date Analyzed: 11/10/2022 17:24
 Con. Extract Vol.: 1(mL) Dilution Factor: 1
 Injection Volume: 0.5(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 592986 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	3790		1600	1000	330
122-39-4	Diphenylamine	1740		330	170	44
86-30-6	N-Nitrosodiphenylamine	2140		330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	72		44-115
367-12-4	2-Fluorophenol (Surr)	75		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	67		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	73		37-122
4165-62-2	Phenol-d5 (Surr)	72		33-122
1718-51-0	Terphenyl-d14 (Surr)	88		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023542b.D
 Lims ID: LCSD 280-592594/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 10-Nov-2022 17:24:30 ALS Bottle#: 9 Worklist Smp#: 11
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: LCSD280-592594_3-A
 Misc. Info.: 280-0115818-042
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\MSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 10:19:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.595	3.595	0.000	95	390400	40.0	40.0	
* 2 Naphthalene-d8	136	4.810	4.804	0.006	99	1441912	40.0	40.0	
* 3 Acenaphthene-d10	164	6.510	6.510	0.000	92	768529	40.0	40.0	
* 4 Phenanthrene-d10	188	7.949	7.949	0.000	97	1185213	40.0	40.0	
* 5 Chrysene-d12	240	10.629	10.629	0.000	94	921006	40.0	40.0	
* 6 Perylene-d12	264	12.752	12.757	-0.005	97	812609	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.408	2.403	0.005	92	962870	100.0	74.8	
\$ 8 Phenol-d5	99	3.280	3.280	0.000	97	1182127	100.0	72.1	
\$ 9 Nitrobenzene-d5	82	4.125	4.125	0.000	88	971607	100.0	72.5	
\$ 11 2-Fluorobiphenyl	172	5.879	5.879	0.000	99	1637727	100.0	72.1	
\$ 12 2,4,6-Tribromophenol	330	7.281	7.281	0.000	93	300718	100.0	67.0	
\$ 13 Terphenyl-d14	244	9.532	9.532	0.000	97	2077895	100.0	87.7	
20 1,4-Dioxane	88	1.199	1.199	0.000	96	163702	80.0	33.1	
21 N-Nitrosodimethylamine	74	1.354	1.360	-0.006	96	477823	80.0	63.9	
22 Pyridine	79	1.381	1.386	-0.005	96	975102	160.0	82.2	
32 Benzaldehyde	106	3.184	3.183	0.001	94	496063	80.0	48.0	
34 Phenol	94	3.291	3.291	0.000	97	1007098	80.0	58.2	
35 Aniline	93	3.285	3.291	-0.006	95	762096	80.0	37.6	
37 Bis(2-chloroethyl)ether	93	3.365	3.365	0.000	96	759655	80.0	59.1	
39 n-Decane	43	3.472	3.472	0.000	88	590507	80.0	63.4	
41 2-Chlorophenol	128	3.398	3.398	0.000	96	753193	80.0	56.0	
42 1,3-Dichlorobenzene	146	3.537	3.537	0.000	97	732626	80.0	50.4	
43 1,4-Dichlorobenzene	146	3.612	3.611	0.001	94	753340	80.0	51.3	
44 Benzyl alcohol	108	3.740	3.740	0.000	93	503558	80.0	54.9	
45 1,2-Dichlorobenzene	146	3.745	3.751	-0.006	96	705626	80.0	51.0	
46 2-Methylphenol	108	3.863	3.863	0.000	93	697525	80.0	57.4	
47 2,2'-oxybis[1-chloropropane]	45	3.879	3.884	-0.005	95	945032	80.0	67.0	
48 Indene	116	3.831	3.836	-0.005	91	1185350	80.0	53.9	
49 3 & 4 Methylphenol	108	4.018	4.018	0.000	79	741662	80.0	57.0	
50 3-Methylphenol	108	4.018	4.018	0.000	93	741662	80.0	57.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
51 N-Nitrosodi-n-propylamine	70	4.002	4.002	0.000	85	540123	80.0	62.2	
52 4-Methylphenol	108	4.018	4.018	0.000	92	741662	80.0	57.0	
55 Acetophenone	105	3.986	3.986	0.000	98	948609	80.0	53.1	
58 Hexachloroethane	117	4.066	4.066	0.000	95	323451	80.0	54.2	
60 Nitrobenzene	77	4.141	4.141	0.000	88	743489	80.0	58.4	
63 Isophorone	82	4.382	4.382	0.000	99	1429266	80.0	58.6	
65 2-Nitrophenol	139	4.446	4.451	-0.005	97	382236	80.0	54.1	
66 2,4-Dimethylphenol	107	4.526	4.526	0.000	95	722366	80.0	57.4	
69 Bis(2-chloroethoxy)methane	93	4.617	4.617	0.000	98	878538	80.0	56.2	
70 Benzoic acid	105	4.638	4.692	-0.054	86	627731	80.0	64.7	a
75 2,4-Dichlorophenol	162	4.687	4.687	0.000	96	582732	80.0	54.1	
77 1,2,4-Trichlorobenzene	180	4.761	4.761	0.000	94	577409	80.0	51.0	
79 Naphthalene	128	4.831	4.831	0.000	97	1913943	80.0	53.7	
80 4-Chloroaniline	127	4.901	4.906	-0.005	96	589315	80.0	36.8	
81 2,6-Dichlorophenol	162	4.906	4.906	0.000	97	561812	80.0	53.3	
83 Hexachlorobutadiene	225	4.965	4.965	0.000	98	294404	80.0	51.1	
87 Caprolactam	55	5.243	5.227	0.016	80	470491	80.0	82.3	M
90 4-Chloro-3-methylphenol	107	5.409	5.403	0.006	96	681568	80.0	60.6	
94 2-Methylnaphthalene	142	5.505	5.505	0.000	93	1187618	80.0	49.2	
96 1-Methylnaphthalene	142	5.601	5.601	0.000	94	1209080	80.0	53.1	
97 Hexachlorocyclopentadiene	237	5.665	5.665	0.000	96	965011	240.8	146.4	
98 1,2,4,5-Tetrachlorobenzene	216	5.671	5.671	0.000	97	514584	80.0	48.9	
101 2,4,6-Trichlorophenol	196	5.794	5.794	0.000	93	420875	80.0	61.0	
103 2,4,5-Trichlorophenol	196	5.831	5.831	0.000	94	468292	80.0	60.9	
105 1,1'-Biphenyl	154	5.970	5.970	0.000	95	1462617	80.0	57.6	
107 2-Chloronaphthalene	162	5.976	5.976	0.000	97	1201499	80.0	58.6	
109 2-Nitroaniline	65	6.088	6.088	0.000	85	481634	80.0	75.3	
112 Dimethyl phthalate	163	6.297	6.296	0.001	98	1490805	80.0	66.4	
113 1,3-Dinitrobenzene	168	6.307	6.307	0.000	86	260185	80.0	66.2	
114 2,6-Dinitrotoluene	165	6.345	6.345	0.000	97	363597	80.0	65.6	
115 Acenaphthylene	152	6.371	6.371	0.000	98	1881563	80.0	58.3	
116 3-Nitroaniline	138	6.494	6.494	0.000	94	383300	80.0	53.1	
117 Acenaphthene	153	6.543	6.543	0.000	94	1194875	80.0	59.7	
118 2,4-Dinitrophenol	184	6.601	6.601	0.000	86	385006	160.0	113.8	
120 4-Nitrophenol	109	6.698	6.698	0.000	94	513046	160.0	147.1	
122 2,4-Dinitrotoluene	165	6.724	6.730	-0.006	92	483762	80.0	69.9	
123 Dibenzofuran	168	6.714	6.714	0.000	98	1715881	80.0	60.0	
127 2,3,4,6-Tetrachlorophenol	232	6.842	6.842	0.000	76	363924	80.0	59.3	
128 Hexadecane	57	7.029	7.029	0.000	90	994577	80.0	69.6	
130 Diethyl phthalate	149	6.992	6.997	-0.005	98	1574271	80.0	66.9	
135 4-Chlorophenyl phenyl ether	204	7.072	7.067	0.005	95	617202	80.0	59.2	
136 Fluorene	166	7.045	7.045	0.000	96	1420240	80.0	60.1	
139 4-Nitroaniline	138	7.088	7.088	0.000	85	431141	80.0	60.1	
140 4,6-Dinitro-2-methylphenol	198	7.120	7.120	0.000	83	464591	160.0	120.8	
142 Diphenylamine	169	7.190	7.190	0.000	96	1060279	68.0	52.2	
143 N-Nitrosodiphenylamine	169	7.190	7.190	0.000	99	1060279	80.0	64.2	
144 Azobenzene	77	7.222	7.222	0.000	98	1697156	80.0	71.2	
145 1,2-Diphenylhydrazine	77	7.222	7.222	0.000	100	1697156	80.9	72.0	
157 4-Bromophenyl phenyl ether	248	7.543	7.537	0.006	69	378714	80.0	58.1	
158 Hexachlorobenzene	284	7.569	7.569	0.000	94	438935	80.0	57.7	
160 Atrazine	200	7.735	7.740	-0.005	89	425232	80.0	78.6	
162 n-Octadecane	85	7.933	7.933	0.000	95	478822	80.0	73.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
164 Pentachlorophenol	266	7.778	7.773	0.005	99	570233	160.0	123.8	
169 Phenanthrene	178	7.971	7.971	0.000	98	2050914	80.0	62.7	
170 Anthracene	178	8.024	8.019	0.005	97	2084399	80.0	62.1	
171 Carbazole	167	8.195	8.195	0.000	96	2115889	80.0	63.4	
175 Di-n-butyl phthalate	149	8.591	8.591	0.000	100	2762371	80.0	70.0	
182 Fluoranthene	202	9.126	9.126	0.000	98	2145799	80.0	63.1	
184 Benzidine	184	9.286	9.291	-0.005	100	444273	160.0	24.5	
185 Pyrene	202	9.340	9.340	0.000	97	2235222	80.0	71.6	
193 Butyl benzyl phthalate	149	10.062	10.057	0.005	98	1199101	80.0	76.2	
197 3,3'-Dichlorobenzidine	252	10.634	10.629	0.005	75	1256442	160.0	114.2	
198 Benzo[a]anthracene	228	10.618	10.618	0.000	99	1876340	80.0	67.7	
199 Bis(2-ethylhexyl) phthalate	149	10.795	10.789	0.006	97	1543692	80.0	72.1	
200 Chrysene	228	10.666	10.661	0.005	98	1814439	80.0	69.9	
202 Di-n-octyl phthalate	149	11.768	11.763	0.005	99	2657332	80.0	68.5	
204 Benzo[b]fluoranthene	252	12.148	12.148	0.000	98	1579879	80.0	63.5	
205 Benzo[k]fluoranthene	252	12.196	12.191	0.005	98	1861021	80.0	72.2	
208 Benzo[a]pyrene	252	12.661	12.661	0.000	78	1507253	80.0	66.9	
214 Indeno[1,2,3-cd]pyrene	276	14.592	14.598	-0.006	98	1219306	80.0	45.6	
215 Dibenz(a,h)anthracene	278	14.672	14.672	0.000	94	1399647	80.0	60.2	
216 Benzo[g,h,i]perylene	276	15.042	15.042	0.000	97	1500902	80.0	60.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MS-IS_00027

Amount Added: 100.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023542b.D

Injection Date: 10-Nov-2022 17:24:30

Instrument ID: SMS_G6

Operator ID:

Lims ID: LCSD 280-592594/3-A

Worklist Smp#:

Client ID:

Injection Vol: 0.5 ul

Dil. Factor: 1.0000

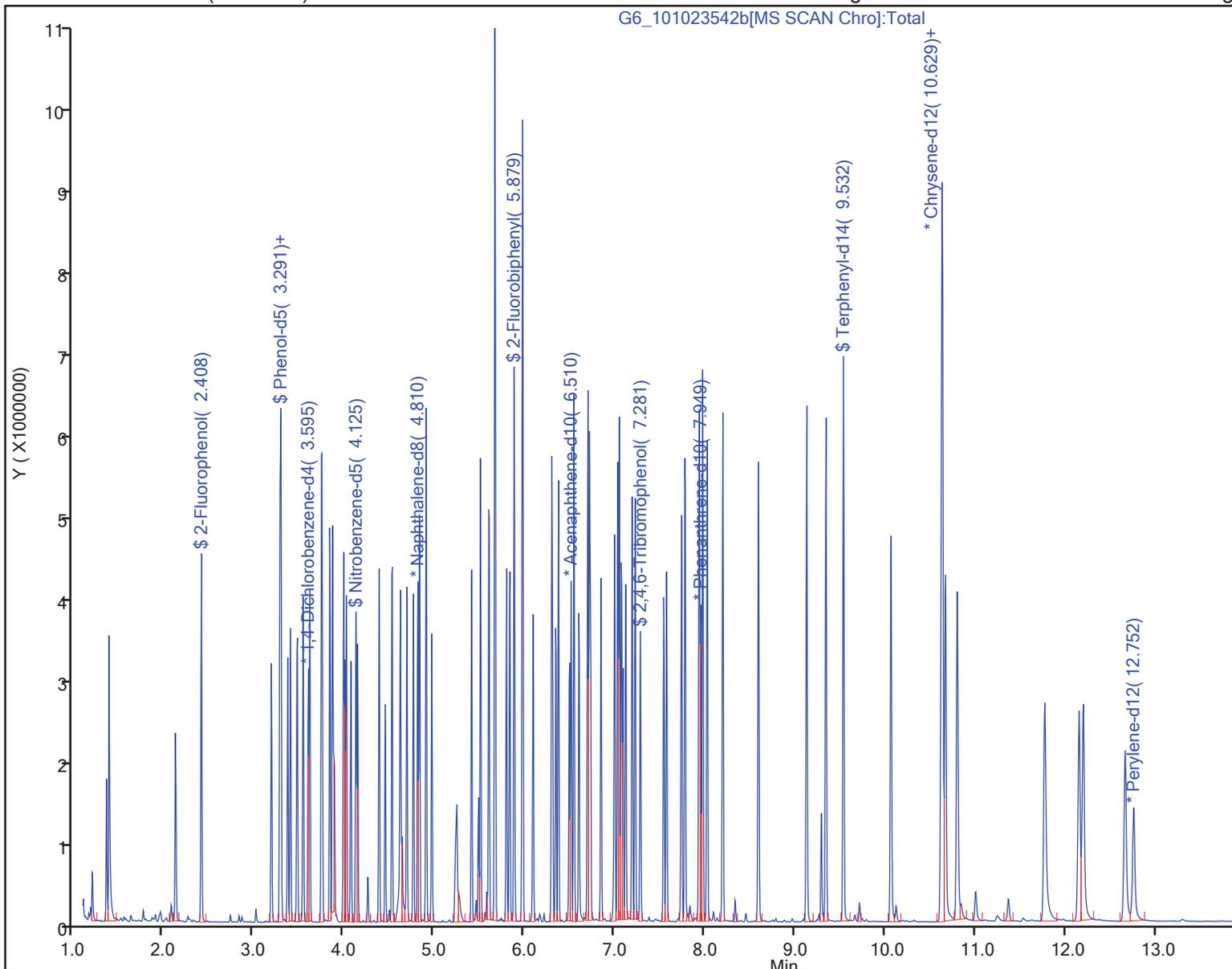
ALS Bottle#:

Method: SMSG6_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\G6_101023542b.D
 Lims ID: LCSD 280-592594/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 10-Nov-2022 17:24:30 ALS Bottle#: 9 Worklist Smp#: 11
 Injection Vol: 0.5 ul Dil. Factor: 1.0000
 Sample Info: LCSD280-592594_3-A
 Misc. Info.: 280-0115818-042
 Operator ID: TESSIERN Instrument ID: SMS_G6
 Method: \\chromfs\Denver\ChromData\SMS_G6\20221110-115971.b\SMMSG6_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 11-Nov-2022 11:29:54 Calib Date: 25-Oct-2022 12:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20221025-115465.b\G6_101022881.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1658

First Level Reviewer: NU5H

Date: 11-Nov-2022 10:19:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	74.8	74.76
\$ 8 Phenol-d5	100.0	72.1	72.07
\$ 9 Nitrobenzene-d5	100.0	72.5	72.53
\$ 11 2-Fluorobiphenyl	100.0	72.1	72.05
\$ 12 2,4,6-Tribromophenol	100.0	67.0	67.00
\$ 13 Terphenyl-d14	100.0	87.7	87.75

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-CO6-0006 MS Lab Sample ID: 280-168718-9 MS
 Matrix: Solid Lab File ID: Y19306478.D
 Analysis Method: 8270E Date Collected: 11/02/2022 10:15
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.2(g) Date Analyzed: 11/28/2022 18:07
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 13.1 % Solids: 86.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	8470	J D	37000	23000	7600
122-39-4	Diphenylamine	2190	J D	7500	3800	1000
86-30-6	N-Nitrosodiphenylamine	2500	J D	7500	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	88		44-115
367-12-4	2-Fluorophenol (Surr)	79		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	91		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	77		37-122
4165-62-2	Phenol-d5 (Surr)	85		33-122
1718-51-0	Terphenyl-d14 (Surr)	80		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306478.D
 Lims ID: 280-168718-A-9-B MS
 Client ID: X3-SS-CO6-0006
 Sample Type: MS
 Inject. Date: 28-Nov-2022 18:07:30 ALS Bottle#: 19 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-9-BMS
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:14:28 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: sripenn

Date: 30-Nov-2022 12:03:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	95988	40.0	40.0	
* 2 Naphthalene-d8	136	4.910	4.907	0.003	99	404883	40.0	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	93	238929	40.0	40.0	
* 4 Phenanthrene-d10	188	8.056	8.059	-0.003	97	433749	40.0	40.0	a
* 5 Chrysene-d12	240	11.026	11.030	-0.004	99	464422	40.0	40.0	
* 6 Perylene-d12	264	13.868	13.888	-0.020	97	468143	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.516	2.512	0.004	90	14797	5.00	3.95	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	95	21815	5.00	4.27	
\$ 9 Nitrobenzene-d5	82	4.215	4.222	-0.007	85	17924	5.00	3.87	
\$ 11 2-Fluorobiphenyl	172	5.978	5.985	-0.007	99	34661	5.00	4.38	
\$ 12 2,4,6-Tribromophenol	330	7.383	7.390	-0.007	94	5411	5.00	4.55	
\$ 13 Terphenyl-d14	244	9.664	9.665	-0.001	97	48125	5.00	3.99	
15 1,4-Dioxane	88	1.293	1.294	-0.001	87	2282	4.00	-1.03	7a
17 N-Nitrosodimethylamine	74	1.459	1.455	0.004	91	5297	4.00	2.29	
18 Pyridine	79	1.501	1.487	0.014	94	7530	8.00	2.07	
27 Benzaldehyde	106	3.280	3.278	0.002	96	9419	4.00	3.34	
28 Phenol	94	3.392	3.394	-0.002	97	16881	4.00	3.31	
30 Aniline	93	3.387	3.383	0.004	44	2344	4.00	0.3884	7a
31 Bis(2-chloroethyl)ether	93	3.457	3.458	-0.001	99	11149	4.00	2.99	
34 2-Chlorophenol	128	3.494	3.501	-0.007	94	11134	4.00	3.22	
35 n-Decane	43	3.569	3.575	-0.006	84	4442	4.00	1.63	
37 1,3-Dichlorobenzene	146	3.633	3.639	-0.006	96	9634	4.00	2.68	
38 1,4-Dichlorobenzene	146	3.708	3.709	-0.001	92	9819	4.00	2.68	
39 Benzyl alcohol	108	3.831	3.837	-0.006	92	8472	4.00	3.33	
40 1,2-Dichlorobenzene	146	3.847	3.848	-0.001	92	9749	4.00	2.79	
41 2-Methylphenol	108	3.959	3.965	-0.006	95	11931	4.00	3.47	
43 2,2'-oxybis[1-chloropropane]	45	3.975	3.976	-0.001	92	9821	4.00	2.38	
44 Indene	116	3.932	3.933	-0.001	87	16835	4.00	2.76	
46 3-Methylphenol	108	4.114	4.120	-0.006	88	12954	4.00	3.51	
47 4-Methylphenol	108	4.114	4.120	-0.006	95	12954	4.00	3.51	
48 3 & 4 Methylphenol	108	4.114	4.120	-0.006	95	12954	4.00	3.51	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 N-Nitrosodi-n-propylamine	70	4.092	4.099	-0.007	74	9184	4.00	3.20	
51 Acetophenone	105	4.076	4.083	-0.007	97	16671	4.00	3.18	
53 Hexachloroethane	117	4.167	4.168	-0.001	92	4343	4.00	2.97	
54 Nitrobenzene	77	4.231	4.238	-0.007	84	12987	4.00	3.06	
57 Isophorone	82	4.472	4.478	-0.006	98	25471	4.00	3.19	
58 2-Nitrophenol	139	4.541	4.548	-0.007	95	5449	4.00	2.86	
59 2,4-Dimethylphenol	107	4.621	4.622	-0.001	96	13520	4.00	3.54	
63 Bis(2-chloroethoxy)methane	93	4.707	4.713	-0.006	96	15124	4.00	3.18	
64 Benzoic acid	105	4.680	4.783	-0.103	86	8109	4.00	7.84	7a
68 2,4-Dichlorophenol	162	4.792	4.793	-0.001	96	9439	4.00	3.35	
69 1,2,4-Trichlorobenzene	180	4.862	4.863	-0.001	92	9000	4.00	3.08	
71 Naphthalene	128	4.926	4.932	-0.006	97	32992	4.00	3.18	
72 4-Chloroaniline	127	4.995	5.002	-0.007	93	3086	4.00	0.6865	7a
73 2,6-Dichlorophenol	162	5.000	5.007	-0.007	95	9610	4.00	3.49	
75 Hexachlorobutadiene	225	5.070	5.071	-0.001	96	5018	4.00	3.21	
79 Caprolactam	55	5.300	5.319	-0.019	90	5448	4.00	3.55	7a
83 4-Chloro-3-methylphenol	107	5.503	5.509	-0.006	94	12668	4.00	3.73	
86 2-Methylnaphthalene	142	5.604	5.611	-0.007	92	20885	4.00	3.05	
88 1-Methylnaphthalene	142	5.700	5.702	-0.002	92	21990	4.00	3.40	
89 1,2,4,5-Tetrachlorobenzene	216	5.770	5.776	-0.006	84	9107	4.00	3.41	
90 Hexachlorocyclopentadiene	237	5.770	5.771	-0.001	95	13810	12.0	7.60	7
92 2,4,6-Trichlorophenol	196	5.893	5.899	-0.006	94	6542	4.00	3.33	
94 2,4,5-Trichlorophenol	196	5.935	5.942	-0.007	91	7079	4.00	3.28	
98 1,1'-Biphenyl	154	6.069	6.076	-0.007	95	29239	4.00	3.55	
99 2-Chloronaphthalene	162	6.074	6.081	-0.007	99	22009	4.00	3.49	
101 2-Nitroaniline	65	6.181	6.188	-0.007	83	7328	4.00	3.14	
104 Dimethyl phthalate	163	6.389	6.396	-0.007	96	26360	4.00	3.65	
105 1,3-Dinitrobenzene	168	6.395	6.401	-0.006	81	3440	4.00	2.74	
106 2,6-Dinitrotoluene	165	6.432	6.439	-0.007	89	5329	4.00	3.04	
107 Acenaphthylene	152	6.475	6.476	-0.001	99	33462	4.00	3.20	
108 3-Nitroaniline	138	6.587	6.594	-0.007	95	4289	4.00	1.95	
109 Acenaphthene	153	6.646	6.652	-0.006	95	22999	4.00	3.42	
111 2,4-Dinitrophenol	184	6.689	6.701	-0.012	82	2932	8.00	11.1	
112 4-Nitrophenol	109	6.806	6.807	-0.001	90	9466	8.00	11.4	
114 2,4-Dinitrotoluene	165	6.822	6.829	-0.007	92	7677	4.00	3.41	
116 Dibenzofuran	168	6.817	6.823	-0.006	99	33624	4.00	3.68	
119 2,3,4,6-Tetrachlorophenol	232	6.950	6.952	-0.002	77	5595	4.00	3.21	
123 Diethyl phthalate	149	7.084	7.101	-0.017	97	27907	4.00	3.68	
124 Hexadecane	57	7.132	7.139	-0.007	89	13317	4.00	2.66	
127 4-Chlorophenyl phenyl ether	204	7.175	7.176	-0.001	94	12362	4.00	3.69	
129 Fluorene	166	7.148	7.155	-0.007	93	26583	4.00	3.40	
130 4-Nitroaniline	138	7.175	7.192	-0.017	82	5935	4.00	2.59	
131 4,6-Dinitro-2-methylphenol	198	7.212	7.224	-0.012	81	4590	8.00	8.78	
134 Diphenylamine	169	7.287	7.294	-0.007	96	19293	3.40	2.87	
135 N-Nitrosodiphenylamine	169	7.287	7.294	-0.007	99	19293	4.00	3.29	
136 1,2-Diphenylhydrazine	182	7.324	7.331	-0.007	98	6949	4.04	3.41	
137 Azobenzene	77	7.324	7.331	-0.007	97	30552	4.00	3.29	
148 4-Bromophenyl phenyl ether	248	7.645	7.651	-0.006	68	7556	4.00	3.51	
151 Hexachlorobenzene	284	7.682	7.689	-0.007	93	8945	4.00	3.69	
152 Atrazine	200	7.832	7.840	-0.008	90	6769	4.00	3.51	a
155 Pentachlorophenol	266	7.885	7.892	-0.007	92	7289	8.00	8.22	7
158 n-Octadecane	85	8.040	8.047	-0.007	93	8622	4.00	3.22	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
161 Phenanthrene	178	8.078	8.084	-0.006	97	41575	4.00	3.58	
162 Anthracene	178	8.131	8.132	-0.001	98	34417	4.00	2.92	
164 Carbazole	167	8.297	8.303	-0.006	96	42201	4.00	3.60	
168 Di-n-butyl phthalate	149	8.697	8.698	-0.001	100	46560	4.00	3.37	
175 Fluoranthene	202	9.237	9.243	-0.006	99	42150	4.00	3.46	
176 Benzidine	184		9.400				ND	ND	
178 Pyrene	202	9.456	9.462	-0.006	96	44095	4.00	3.07	
187 Butyl benzyl phthalate	149	10.305	10.312	-0.007	96	20494	4.00	3.00	
189 3,3'-Dichlorobenzidine	252	11.026	11.035	-0.009	54	5607	8.00	1.16	7a
191 Benzo[a]anthracene	228	11.016	11.022	-0.006	99	39487	4.00	2.93	
192 Chrysene	228	11.064	11.076	-0.012	97	48687	4.00	3.44	
193 Bis(2-ethylhexyl) phthalate	149	11.283	11.284	-0.001	98	27041	4.00	2.91	
195 Di-n-octyl phthalate	149	12.608	12.620	-0.012	99	39185	4.00	5.42	
196 Benzo[b]fluoranthene	252	13.035	13.052	-0.017	98	28632	4.00	3.91	
198 Benzo[k]fluoranthene	252	13.094	13.116	-0.022	98	43504	4.00	2.74	
201 Benzo[a]pyrene	252	13.724	13.752	-0.028	78	24899	4.00	1.96	
207 Indeno[1,2,3-cd]pyrene	276	16.390	16.423	-0.033	97	19853	4.00	4.96	
208 Dibenz(a,h)anthracene	278	16.507	16.541	-0.034	94	23790	4.00	4.33	
209 Benzo[g,h,i]perylene	276	16.994	17.038	-0.044	98	30102	4.00	2.45	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306478.D

Injection Date: 28-Nov-2022 18:07:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-9-B MS

Worklist Smp#:

Client ID: X3-SS-CO6-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

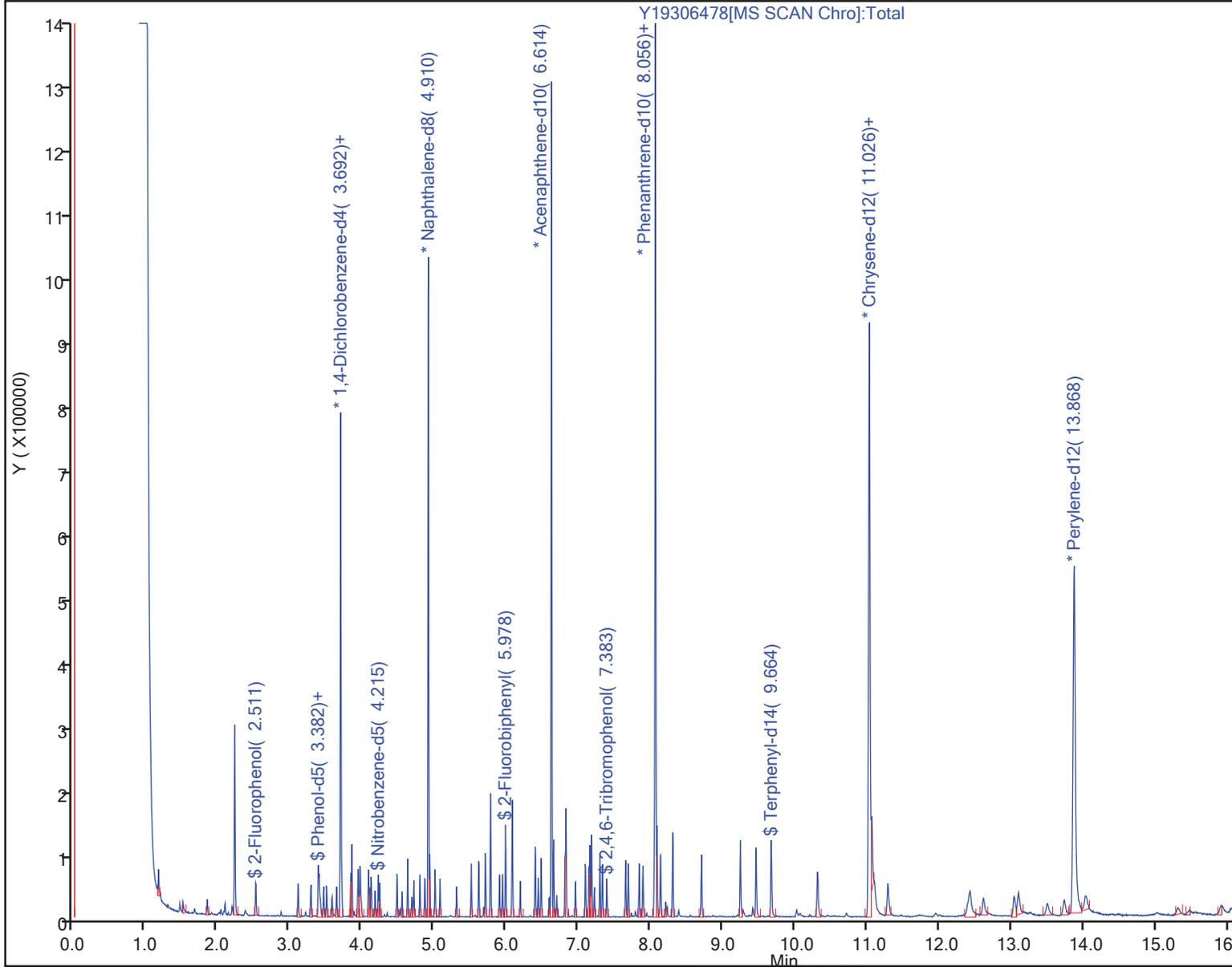
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306478.D
 Lims ID: 280-168718-A-9-B MS
 Client ID: X3-SS-CO6-0006
 Sample Type: MS
 Inject. Date: 28-Nov-2022 18:07:30 ALS Bottle#: 19 Worklist Smp#: 20
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-9-BMS
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:14:28 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: sripenp

Date: 30-Nov-2022 12:03:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	3.95	78.92
\$ 8 Phenol-d5	100.0	4.27	85.45
\$ 9 Nitrobenzene-d5	100.0	3.87	77.45
\$ 11 2-Fluorobiphenyl	100.0	4.38	87.66
\$ 12 2,4,6-Tribromophenol	100.0	4.55	91.05
\$ 13 Terphenyl-d14	100.0	3.99	79.77

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-CO6-0006 MSD Lab Sample ID: 280-168718-9 MSD
 Matrix: Solid Lab File ID: Y19306479.D
 Analysis Method: 8270E Date Collected: 11/02/2022 10:15
 Extract. Method: 3550C Date Extracted: 11/10/2022 12:10
 Sample wt/vol: 30.4(g) Date Analyzed: 11/28/2022 18:33
 Con. Extract Vol.: 1(mL) Dilution Factor: 20
 Injection Volume: 1(uL) GC Column: Rxi-5Sil MS ID: 0.25(mm)
 % Moisture: 13.1 % Solids: 86.9 GPC Cleanup: (Y/N) N
 Cleanup Factor: _____ Level: (low/med) Low
 Analysis Batch No.: 594711 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	8750	J D	36000	23000	7600
122-39-4	Diphenylamine	2360	J D	7500	3800	1000
86-30-6	N-Nitrosodiphenylamine	2650	J D	7500	1500	480

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	89		44-115
367-12-4	2-Fluorophenol (Surr)	87		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	107		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	89		37-122
4165-62-2	Phenol-d5 (Surr)	97		33-122
1718-51-0	Terphenyl-d14 (Surr)	87		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306479.D
 Lims ID: 280-168718-A-9-C MSD
 Client ID: X3-SS-CO6-0006
 Sample Type: MSD
 Inject. Date: 28-Nov-2022 18:33:30 ALS Bottle#: 20 Worklist Smp#: 21
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-9-CMSD
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:14:28 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:53:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.692	3.689	0.003	97	97437	40.0	40.0	
* 2 Naphthalene-d8	136	4.905	4.907	-0.002	99	413065	40.0	40.0	
* 3 Acenaphthene-d10	164	6.614	6.617	-0.003	93	252710	40.0	40.0	
* 4 Phenanthrene-d10	188	8.057	8.059	-0.002	98	466810	40.0	40.0	a
* 5 Chrysene-d12	240	11.027	11.030	-0.003	99	488936	40.0	40.0	
* 6 Perylene-d12	264	13.864	13.888	-0.024	97	489545	40.0	40.0	
\$ 7 2-Fluorophenol	112	2.512	2.512	0.000	91	16550	5.00	4.35	
\$ 8 Phenol-d5	99	3.382	3.383	-0.001	96	25018	5.00	4.83	
\$ 9 Nitrobenzene-d5	82	4.216	4.222	-0.006	85	21018	5.00	4.45	
\$ 11 2-Fluorobiphenyl	172	5.979	5.985	-0.006	99	37353	5.00	4.47	
\$ 12 2,4,6-Tribromophenol	330	7.384	7.390	-0.006	94	6734	5.00	5.36	
\$ 13 Terphenyl-d14	244	9.665	9.665	0.000	97	55185	5.00	4.34	
15 1,4-Dioxane	88	1.294	1.294	0.000	83	2363	4.00	-0.9895	7a
17 N-Nitrosodimethylamine	74	1.459	1.455	0.004	89	6071	4.00	2.59	
18 Pyridine	79	1.502	1.487	0.015	92	8361	8.00	2.27	
27 Benzaldehyde	106	3.276	3.278	-0.002	96	11216	4.00	3.91	
28 Phenol	94	3.393	3.394	-0.001	97	18857	4.00	3.64	
30 Aniline	93	3.388	3.383	0.005	45	2299	4.00	0.3753	7a
31 Bis(2-chloroethyl)ether	93	3.452	3.458	-0.006	98	12887	4.00	3.40	
34 2-Chlorophenol	128	3.495	3.501	-0.006	95	12452	4.00	3.55	
35 n-Decane	43	3.575	3.575	0.000	82	5472	4.00	1.98	
37 1,3-Dichlorobenzene	146	3.634	3.639	-0.005	94	11267	4.00	3.08	
38 1,4-Dichlorobenzene	146	3.708	3.709	-0.001	90	11554	4.00	3.10	
39 Benzyl alcohol	108	3.831	3.837	-0.006	92	9173	4.00	3.55	
40 1,2-Dichlorobenzene	146	3.847	3.848	-0.001	93	11298	4.00	3.19	
41 2-Methylphenol	108	3.959	3.965	-0.006	95	13576	4.00	3.89	
43 2,2'-oxybis[1-chloropropane]	45	3.975	3.976	-0.001	91	11796	4.00	2.82	
44 Indene	116	3.933	3.933	0.000	87	19175	4.00	3.10	
46 3-Methylphenol	108	4.114	4.120	-0.006	88	14361	4.00	3.84	
47 4-Methylphenol	108	4.114	4.120	-0.006	96	14361	4.00	3.84	
48 3 & 4 Methylphenol	108	4.114	4.120	-0.006	96	14361	4.00	3.84	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
50 N-Nitrosodi-n-propylamine	70	4.093	4.099	-0.006	75	10018	4.00	3.44	
51 Acetophenone	105	4.077	4.083	-0.006	96	19328	4.00	3.64	
53 Hexachloroethane	117	4.168	4.168	0.000	95	4493	4.00	3.02	
54 Nitrobenzene	77	4.232	4.238	-0.006	85	14778	4.00	3.41	
57 Isophorone	82	4.472	4.478	-0.006	98	30203	4.00	3.70	
58 2-Nitrophenol	139	4.542	4.548	-0.006	95	6696	4.00	3.45	
59 2,4-Dimethylphenol	107	4.622	4.622	0.000	96	14902	4.00	3.82	
63 Bis(2-chloroethoxy)methane	93	4.707	4.713	-0.006	97	17509	4.00	3.61	
64 Benzoic acid	105	4.681	4.783	-0.102	86	9426	4.00	8.19	7a
68 2,4-Dichlorophenol	162	4.793	4.793	0.000	95	11387	4.00	3.96	
69 1,2,4-Trichlorobenzene	180	4.857	4.863	-0.006	92	10674	4.00	3.57	
71 Naphthalene	128	4.926	4.932	-0.006	98	36857	4.00	3.49	
72 4-Chloroaniline	127	4.996	5.002	-0.006	95	3346	4.00	0.7296	7a
73 2,6-Dichlorophenol	162	5.001	5.007	-0.006	94	11060	4.00	3.94	
75 Hexachlorobutadiene	225	5.071	5.071	0.000	95	5530	4.00	3.47	
79 Caprolactam	55	5.300	5.319	-0.019	89	6543	4.00	4.20	7a
83 4-Chloro-3-methylphenol	107	5.503	5.509	-0.006	94	13996	4.00	4.04	
86 2-Methylnaphthalene	142	5.605	5.611	-0.006	92	24870	4.00	3.56	
88 1-Methylnaphthalene	142	5.701	5.702	-0.001	93	25107	4.00	3.81	
89 1,2,4,5-Tetrachlorobenzene	216	5.770	5.776	-0.006	83	10393	4.00	3.82	
90 Hexachlorocyclopentadiene	237	5.770	5.771	-0.001	96	16181	12.0	8.42	7
92 2,4,6-Trichlorophenol	196	5.893	5.899	-0.006	92	7557	4.00	3.64	
94 2,4,5-Trichlorophenol	196	5.936	5.942	-0.006	88	8337	4.00	3.65	
98 1,1'-Biphenyl	154	6.070	6.076	-0.006	95	32706	4.00	3.75	
99 2-Chloronaphthalene	162	6.075	6.081	-0.006	97	25837	4.00	3.88	
101 2-Nitroaniline	65	6.182	6.188	-0.006	81	8467	4.00	3.43	
104 Dimethyl phthalate	163	6.390	6.396	-0.006	97	29825	4.00	3.91	
105 1,3-Dinitrobenzene	168	6.395	6.401	-0.006	84	3948	4.00	2.97	
106 2,6-Dinitrotoluene	165	6.433	6.439	-0.006	91	6369	4.00	3.44	
107 Acenaphthylene	152	6.476	6.476	0.000	99	36695	4.00	3.32	
108 3-Nitroaniline	138	6.582	6.594	-0.012	94	3946	4.00	1.69	7a
109 Acenaphthene	153	6.647	6.652	-0.005	95	26830	4.00	3.77	
111 2,4-Dinitrophenol	184	6.689	6.701	-0.012	84	3625	8.00	11.6	
112 4-Nitrophenol	109	6.801	6.807	-0.006	92	11444	8.00	12.6	
114 2,4-Dinitrotoluene	165	6.817	6.829	-0.012	65	8493	4.00	3.56	
116 Dibenzofuran	168	6.817	6.823	-0.006	97	38189	4.00	3.95	
119 2,3,4,6-Tetrachlorophenol	232	6.946	6.952	-0.006	77	6748	4.00	3.67	
123 Diethyl phthalate	149	7.085	7.101	-0.016	97	31095	4.00	3.88	
124 Hexadecane	57	7.133	7.139	-0.006	89	15252	4.00	2.88	
127 4-Chlorophenyl phenyl ether	204	7.170	7.176	-0.006	93	14021	4.00	3.96	
129 Fluorene	166	7.149	7.155	-0.006	95	32417	4.00	3.92	
130 4-Nitroaniline	138	7.170	7.192	-0.022	82	6159	4.00	2.54	
131 4,6-Dinitro-2-methylphenol	198	7.213	7.224	-0.011	79	5234	8.00	8.97	
134 Diphenylamine	169	7.288	7.294	-0.006	95	22127	3.40	3.12	
135 N-Nitrosodiphenylamine	169	7.288	7.294	-0.006	98	22127	4.00	3.50	
136 1,2-Diphenylhydrazine	182	7.325	7.331	-0.006	98	7840	4.04	3.64	
137 Azobenzene	77	7.320	7.331	-0.011	96	35097	4.00	3.57	
148 4-Bromophenyl phenyl ether	248	7.646	7.651	-0.005	67	8894	4.00	3.83	
151 Hexachlorobenzene	284	7.683	7.689	-0.006	95	10307	4.00	3.95	
152 Atrazine	200	7.832	7.840	-0.008	92	8207	4.00	3.95	a
155 Pentachlorophenol	266	7.886	7.892	-0.006	91	8904	8.00	8.89	7
158 n-Octadecane	85	8.041	8.047	-0.006	94	9219	4.00	3.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
161 Phenanthrene	178	8.078	8.084	-0.006	98	47115	4.00	3.77	
162 Anthracene	178	8.126	8.132	-0.006	98	40205	4.00	3.17	
164 Carbazole	167	8.297	8.303	-0.006	96	47611	4.00	3.78	
168 Di-n-butyl phthalate	149	8.698	8.698	0.000	100	54340	4.00	3.66	
175 Fluoranthene	202	9.237	9.243	-0.006	98	47879	4.00	3.65	
176 Benzidine	184		9.400				ND	ND	
178 Pyrene	202	9.451	9.462	-0.011	96	51597	4.00	3.41	
187 Butyl benzyl phthalate	149	10.306	10.312	-0.006	96	24464	4.00	3.40	
189 3,3'-Dichlorobenzidine	252	11.027	11.035	-0.008	52	5544	8.00	1.09	7a
191 Benzo[a]anthracene	228	11.016	11.022	-0.006	99	46707	4.00	3.29	
192 Chrysene	228	11.064	11.076	-0.012	98	52578	4.00	3.53	
193 Bis(2-ethylhexyl) phthalate	149	11.284	11.284	0.000	97	32139	4.00	3.28	
195 Di-n-octyl phthalate	149	12.614	12.620	-0.006	98	47962	4.00	5.77	
196 Benzo[b]fluoranthene	252	13.036	13.052	-0.016	97	33482	4.00	4.16	
198 Benzo[k]fluoranthene	252	13.100	13.116	-0.016	99	51131	4.00	3.09	
201 Benzo[a]pyrene	252	13.730	13.752	-0.022	83	30667	4.00	2.31	
207 Indeno[1,2,3-cd]pyrene	276	16.391	16.423	-0.032	98	21868	4.00	5.04	
208 Dibenz(a,h)anthracene	278	16.513	16.541	-0.028	95	27368	4.00	4.53	
209 Benzo[g,h,i]perylene	276	16.994	17.038	-0.044	97	33804	4.00	2.63	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MS-IS_00029

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306479.D

Injection Date: 28-Nov-2022 18:33:30

Instrument ID: SMS_Y

Operator ID:

Lims ID: 280-168718-A-9-C MSD

Worklist Smp#:

Client ID: X3-SS-CO6-0006

Injection Vol: 1.0 ul

Dil. Factor: 20.0000

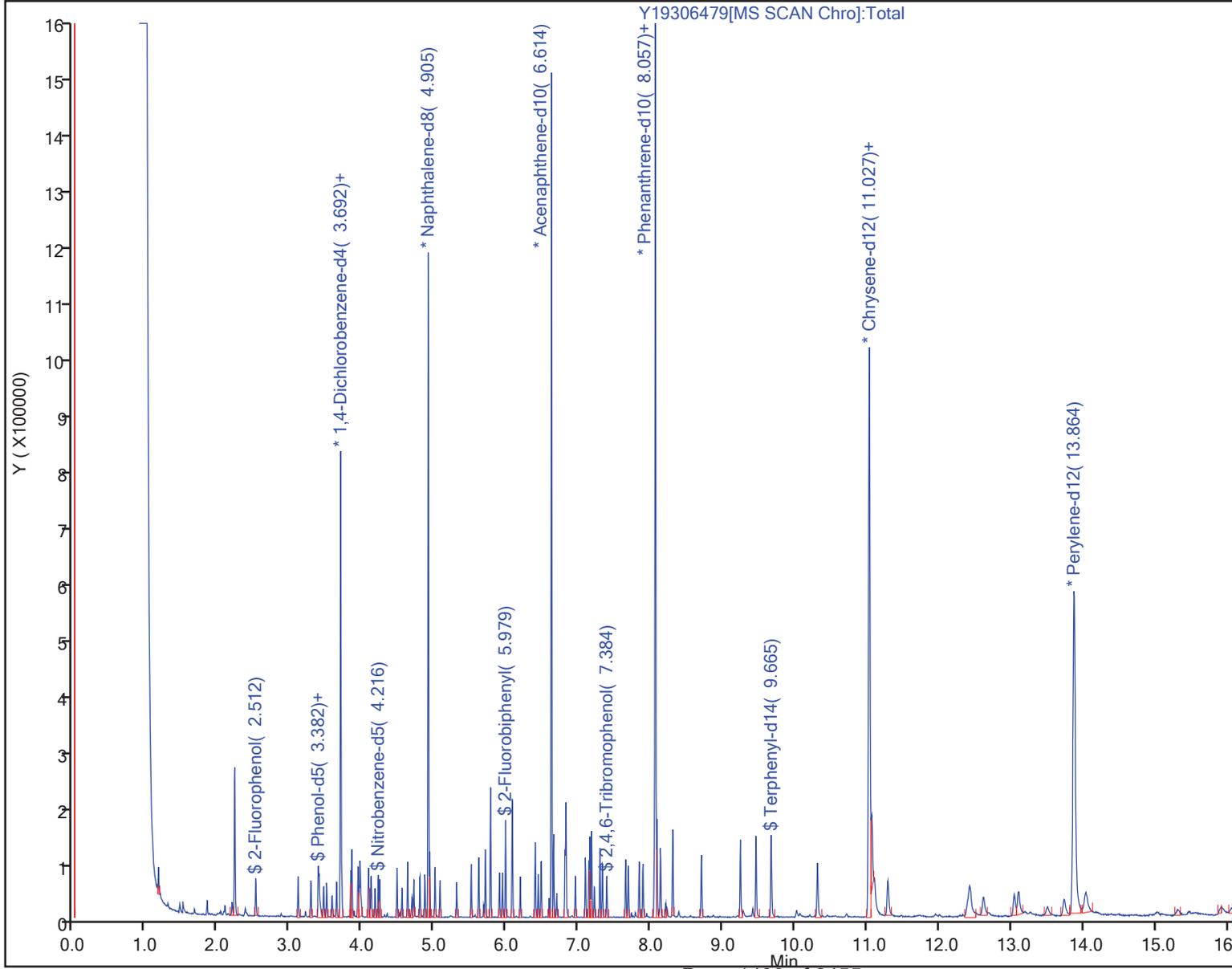
ALS Bottle#:

Method: SMSY_8270C

Limit Group: MSSV - 8270C_625

Column: Rxi-5Sil MS (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\Y19306479.D
 Lims ID: 280-168718-A-9-C MSD
 Client ID: X3-SS-CO6-0006
 Sample Type: MSD
 Inject. Date: 28-Nov-2022 18:33:30 ALS Bottle#: 20 Worklist Smp#: 21
 Injection Vol: 1.0 ul Dil. Factor: 20.0000
 Sample Info: 280-168718-A-9-CMSD
 Operator ID: TESSIERN Instrument ID: SMS_Y
 Method: \\chromfs\Denver\ChromData\SMS_Y\20221128-116455.b\SMSY_8270C.m
 Limit Group: MSSV - 8270C_625
 Method Label: 8270C / 625
 Last Update: 29-Nov-2022 18:14:28 Calib Date: 23-Nov-2022 14:12:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Denver\ChromData\SMS_Y\20221123-116399.b\Y19306428b.D
 Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
 Process Host: CTX1659

First Level Reviewer: NU5H

Date: 29-Nov-2022 17:53:30

Compound	Amount Added	Amount Recovered	% Rec.
\$ 7 2-Fluorophenol	100.0	4.35	86.96
\$ 8 Phenol-d5	100.0	4.83	96.54
\$ 9 Nitrobenzene-d5	100.0	4.45	89.02
\$ 11 2-Fluorobiphenyl	100.0	4.47	89.31
\$ 12 2,4,6-Tribromophenol	100.0	5.36	107.13
\$ 13 Terphenyl-d14	100.0	4.34	86.88

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6Start Date: 10/14/2022 16:55Analysis Batch Number: 590052End Date: 10/14/2022 20:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-590052/2		10/14/2022 16:55	1	G6_101022429b.D	Rxi-5Sil MS 0.25 (mm)
STD004 280-590052/10 IC		10/14/2022 17:09	1	G6_101022430.D	Rxi-5Sil MS 0.25 (mm)
STD010 280-590052/11 IC		10/14/2022 17:30	1	G6_101022431.D	Rxi-5Sil MS 0.25 (mm)
STD020 280-590052/12 IC		10/14/2022 17:50	1	G6_101022432.D	Rxi-5Sil MS 0.25 (mm)
STD050 280-590052/13 IC		10/14/2022 18:11	1	G6_101022433.D	Rxi-5Sil MS 0.25 (mm)
STD80 280-590052/14 IC		10/14/2022 18:31	1	G6_101022434.D	Rxi-5Sil MS 0.25 (mm)
STD120 280-590052/15 IC		10/14/2022 18:52	1	G6_101022435.D	Rxi-5Sil MS 0.25 (mm)
STD160 280-590052/16 IC		10/14/2022 19:12	1	G6_101022436.D	Rxi-5Sil MS 0.25 (mm)
STD200 280-590052/17 IC		10/14/2022 19:33	1	G6_101022437.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-590052/18		10/14/2022 19:53	1	G6_101022438.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-590052/19		10/14/2022 20:14	1	G6_101022439.D	Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Start Date: 10/15/2022 00:19Analysis Batch Number: 590142 End Date: 10/15/2022 02:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-590142/2		10/15/2022 00:19	1	G6_101022451.D	Rxi-5Sil MS 0.25 (mm)
STD010 280-590142/3 IC		10/15/2022 00:27	1		Rxi-5Sil MS 0.25 (mm)
STD020 280-590142/4 IC		10/15/2022 00:48	1		Rxi-5Sil MS 0.25 (mm)
STD050 280-590142/5 IC		10/15/2022 01:08	1		Rxi-5Sil MS 0.25 (mm)
ICIS 280-590142/6		10/15/2022 01:28	1	G6_101022455.D	Rxi-5Sil MS 0.25 (mm)
STD120 280-590142/7 IC		10/15/2022 01:49	1		Rxi-5Sil MS 0.25 (mm)
STD160 280-590142/8 IC		10/15/2022 02:09	1		Rxi-5Sil MS 0.25 (mm)
STD200 280-590142/9 IC		10/15/2022 02:30	1		Rxi-5Sil MS 0.25 (mm)
ICV 280-590142/10		10/15/2022 02:50	1		Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6 Start Date: 10/17/2022 09:41

Analysis Batch Number: 590148 End Date: 10/17/2022 16:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-590148/2		10/17/2022 09:41	1	G6_101022539.D	Rxi-5Sil MS 0.25 (mm)
STD004 280-590148/3 IC		10/17/2022 09:58	1		Rxi-5Sil MS 0.25 (mm)
STD010 280-590148/4 IC		10/17/2022 10:19	1		Rxi-5Sil MS 0.25 (mm)
STD020 280-590148/5 IC		10/17/2022 10:40	1		Rxi-5Sil MS 0.25 (mm)
STD050 280-590148/6 IC		10/17/2022 11:00	1		Rxi-5Sil MS 0.25 (mm)
STD080 280-590148/7 IC		10/17/2022 11:20	1		Rxi-5Sil MS 0.25 (mm)
STD120 280-590148/8 IC		10/17/2022 11:41	1		Rxi-5Sil MS 0.25 (mm)
STD160 280-590148/9 IC		10/17/2022 12:02	1		Rxi-5Sil MS 0.25 (mm)
STD200 280-590148/10 IC		10/17/2022 12:22	1		Rxi-5Sil MS 0.25 (mm)
ICV 280-590148/11		10/17/2022 12:43	1		Rxi-5Sil MS 0.25 (mm)
ICV 280-590148/29		10/17/2022 13:03	1	G6_101022549.D	Rxi-5Sil MS 0.25 (mm)
CCV 280-590148/27		10/17/2022 13:54	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-590148/28		10/17/2022 14:15	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 14:35	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 14:56	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 15:16	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 15:37	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 15:57	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 16:17	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		10/17/2022 16:38	1		Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_1 Start Date: 11/07/2022 14:22

Analysis Batch Number: 592626 End Date: 11/07/2022 23:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-592626/1		11/07/2022 14:22	1	903b.D	Rxi-5Sil MS 0.25 (mm)
STD010 280-592626/2 IC		11/07/2022 14:48	1		Rxi-5Sil MS 0.25 (mm)
STD020 280-592626/3 IC		11/07/2022 15:09	1		Rxi-5Sil MS 0.25 (mm)
STD050 280-592626/4 IC		11/07/2022 15:31	1		Rxi-5Sil MS 0.25 (mm)
STD080 280-592626/5 IC		11/07/2022 15:52	1		Rxi-5Sil MS 0.25 (mm)
STD120 280-592626/6 IC		11/07/2022 16:14	1		Rxi-5Sil MS 0.25 (mm)
STD160 280-592626/7 IC		11/07/2022 16:36	1		Rxi-5Sil MS 0.25 (mm)
STD200 280-592626/8 IC		11/07/2022 16:57	1		Rxi-5Sil MS 0.25 (mm)
ICV 280-592626/9		11/07/2022 17:19	1		Rxi-5Sil MS 0.25 (mm)
STD010 280-592626/10 IC		11/07/2022 17:40	1		Rxi-5Sil MS 0.25 (mm)
STD020 280-592626/11 IC		11/07/2022 18:02	1		Rxi-5Sil MS 0.25 (mm)
STD050 280-592626/12 IC		11/07/2022 18:23	1		Rxi-5Sil MS 0.25 (mm)
STD080 280-592626/13 IC		11/07/2022 18:45	1		Rxi-5Sil MS 0.25 (mm)
STD120 280-592626/14 IC		11/07/2022 19:06	1		Rxi-5Sil MS 0.25 (mm)
STD160 280-592626/15 IC		11/07/2022 19:28	1		Rxi-5Sil MS 0.25 (mm)
STD200 280-592626/16 IC		11/07/2022 19:49	1		Rxi-5Sil MS 0.25 (mm)
ICV 280-592626/17		11/07/2022 20:11	1		Rxi-5Sil MS 0.25 (mm)
STD0004 280-592626/18 IC		11/07/2022 20:43	1	921.D	Rxi-5Sil MS 0.25 (mm)
STD0010 280-592626/19 IC		11/07/2022 21:05	1	922.D	Rxi-5Sil MS 0.25 (mm)
STD0020 280-592626/20 IC		11/07/2022 21:26	1	923.D	Rxi-5Sil MS 0.25 (mm)
STD0050 280-592626/21 IC		11/07/2022 21:48	1	924.D	Rxi-5Sil MS 0.25 (mm)
ICIS 280-592626/22		11/07/2022 22:09	1	925.D	Rxi-5Sil MS 0.25 (mm)
STD0120 280-592626/23 IC		11/07/2022 22:31	1	926.D	Rxi-5Sil MS 0.25 (mm)
STD0160 280-592626/24 IC		11/07/2022 22:52	1	927.D	Rxi-5Sil MS 0.25 (mm)
STD0200 280-592626/25 IC		11/07/2022 23:14	1	928.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-592626/26		11/07/2022 23:35	1	929.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-592626/27		11/07/2022 23:57	1	930.D	Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_1 Start Date: 11/09/2022 15:29

Analysis Batch Number: 592922 End Date: 11/09/2022 18:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-592922/1		11/09/2022 15:29	1	1007.D	R3i-5Sil MS 0.254mmx
STD010 280-592922/8 IC		11/09/2022 15:58	1		R3i-5Sil MS 0.254mmx
STD020 280-592922/9 IC		11/09/2022 16:20	1		R3i-5Sil MS 0.254mmx
STD050 280-592922/10 IC		11/09/2022 16:(1	1		R3i-5Sil MS 0.254mmx
STD080 280-592922/11 IC		11/09/2022 17:0)	1		R3i-5Sil MS 0.254mmx
STD120 280-592922/12 IC		11/09/2022 17:2 (1		R3i-5Sil MS 0.254mmx
STD160 280-592922/1) IC		11/09/2022 17:(6	1		R3i-5Sil MS 0.254mmx
STD200 280-592922/1 (11/09/2022 18:07	1		R3i-5Sil MS 0.254mmx
ICV 280-592922/15		11/09/2022 18:29	1	1015.D	R3i-5Sil MS 0.254mmx

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6Start Date: 11/10/2022 15:12Analysis Batch Number: 592986End Date: 11/11/2022 01:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-592986/2		11/10/2022 15:12	1	G6_101023535b.D	Rxi-5Sil MS 0.25 (mm)
CCV 280-592986/3		11/10/2022 15:20	1	G6_101023536b.D	Rxi-5Sil MS 0.25 (mm)
CCVL 280-592986/4		11/10/2022 15:41	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-592986/5		11/10/2022 16:02	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-592986/6		11/10/2022 16:22	1		Rxi-5Sil MS 0.25 (mm)
MB 280-592594/1-A		11/10/2022 16:43	1	G6_101023540b.D	Rxi-5Sil MS 0.25 (mm)
LCS 280-592594/2-A		11/10/2022 17:04	1	G6_101023541b.D	Rxi-5Sil MS 0.25 (mm)
LCSD 280-592594/3-A		11/10/2022 17:24	1	G6_101023542b.D	Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 17:45	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 18:06	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 18:26	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 18:47	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 19:08	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 19:28	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 19:49	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 20:09	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 20:30	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 20:51	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 21:11	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 21:32	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 21:52	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 22:13	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 22:33	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 22:54	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 23:14	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 23:35	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/10/2022 23:56	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/11/2022 00:16	20		Rxi-5Sil MS 0.25 (mm)
280-168718-1	X3-SS-C01-0006	11/11/2022 00:37	20	G6_101023563.D	Rxi-5Sil MS 0.25 (mm)
280-168718-2	FD-11012201	11/11/2022 00:57	20	G6_101023564.D	Rxi-5Sil MS 0.25 (mm)
280-168718-3	X3-SS-C02-0006	11/11/2022 01:18	20	G6_101023565.D	Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/11/2022 01:38	20		Rxi-5Sil MS 0.25 (mm)
CCVC 280-592986/36		11/11/2022 01:59	1	G6_101023567.D	Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_G6Start Date: 11/14/2022 15:10Analysis Batch Number: 593336End Date: 11/15/2022 02:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-593336/2		11/14/2022 15:10	1	G6_101023672d.D	Rxi-5Sil MS 0.25 (mm)
CCV 280-593336/3		11/14/2022 15:19	1	G6_101023673d.D	Rxi-5Sil MS 0.25 (mm)
CCVL 280-593336/4		11/14/2022 15:47	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593336/5		11/14/2022 16:08	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593336/6		11/14/2022 16:29	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593336/7		11/14/2022 16:49	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 17:13	200		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 17:34	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 17:54	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 18:15	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 18:35	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 18:56	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 19:17	20		Rxi-5Sil MS 0.25 (mm)
280-168718-5	X3-SS-C04-0006	11/14/2022 19:37	20	G6_101023685.D	Rxi-5Sil MS 0.25 (mm)
280-168718-7	X3-SS-C05-0006	11/14/2022 19:58	20	G6_101023686.D	Rxi-5Sil MS 0.25 (mm)
280-168718-8	FD-11022201	11/14/2022 20:18	20	G6_101023687.D	Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 20:39	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 20:59	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 21:20	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 21:41	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 22:01	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 22:22	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 22:42	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 23:06	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 23:30	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/14/2022 23:53	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/15/2022 00:17	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/15/2022 00:41	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/15/2022 01:04	20		Rxi-5Sil MS 0.25 (mm)
CCVC 280-593336/32		11/15/2022 01:49	1	G6_101023702.D	Rxi-5Sil MS 0.25 (mm)
CCVC 280-593336/33		11/15/2022 02:09	1		Rxi-5Sil MS 0.25 (mm)
CCVC 280-593336/34		11/15/2022 02:30	1		Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_Y Start Date: 11/15/2022 13:42Analysis Batch Number: 593534 End Date: 11/15/2022 17:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-593534/1		11/15/2022 13:42	1	Y19305981.D	Rxi-5Sil MS 0.25 (mm)
STD004 280-593534/32 IC		11/15/2022 13:59	1	Y19305982.D	Rxi-5Sil MS 0.25 (mm)
STD010 280-593534/33 IC		11/15/2022 14:23	1	Y19305983.D	Rxi-5Sil MS 0.25 (mm)
STD020 280-593534/34 IC		11/15/2022 14:49	1	Y19305984.D	Rxi-5Sil MS 0.25 (mm)
STD050 280-593534/35 IC		11/15/2022 15:14	1	Y19305985.D	Rxi-5Sil MS 0.25 (mm)
ICIS 280-593534/36		11/15/2022 15:40	1	Y19305986.D	Rxi-5Sil MS 0.25 (mm)
STD120 280-593534/37 IC		11/15/2022 16:05	1	Y19305987.D	Rxi-5Sil MS 0.25 (mm)
STD160 280-593534/38 IC		11/15/2022 16:31	1	Y19305988c.D	Rxi-5Sil MS 0.25 (mm)
STD200 280-593534/39 IC		11/15/2022 16:57	1	Y19305989.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-593534/40		11/15/2022 17:22	1	Y19305990.D	Rxi-5Sil MS 0.25 (mm)
ICV 280-593534/41		11/15/2022 17:48	1	Y19305991.D	Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_1 Start Date: 11/16/2022 15:55

Analysis Batch Number: 593651 End Date: 11/17/2022 02:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-593651/1		11/16/2022 15:55	1	1597g.D	Rxi-5Sil MS 0.25 (mm)
CCV 280-593651/2		11/16/2022 16:17	1	1598.D	Rxi-5Sil MS 0.25 (mm)
CCVL 280-593651/3		11/16/2022 16:38	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593651/4		11/16/2022 17:00	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593651/5		11/16/2022 17:21	1		Rxi-5Sil MS 0.25 (mm)
IC 280-593651/7		11/16/2022 17:21	1		Rxi-5Sil MS 0.25 (mm)
MB 280-592592/1-A		11/16/2022 17:43	1	1602.D	Rxi-5Sil MS 0.25 (mm)
LCS 280-592592/2-A		11/16/2022 18:04	1	1603.D	Rxi-5Sil MS 0.25 (mm)
LCSD 280-592592/3-A		11/16/2022 18:26	1	1604.D	Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 18:47	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 19:08	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 19:30	4		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 19:51	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 20:13	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 20:34	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 20:56	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 21:17	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 21:38	4		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 22:00	4		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 22:21	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 22:43	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 23:04	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 23:26	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/16/2022 23:47	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/17/2022 00:08	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/17/2022 00:30	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/17/2022 00:51	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/17/2022 01:13	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/17/2022 01:34	1		Rxi-5Sil MS 0.25 (mm)
280-168718-6	RB-11012201	11/17/2022 01:55	1	1625.D	Rxi-5Sil MS 0.25 (mm)
CCVC 280-593651/57		11/17/2022 02:17	1	1626.D	Rxi-5Sil MS 0.25 (mm)
CCVC 280-593651/58		11/17/2022 02:38	1		Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins DenverJob No.: 280-168718-1

SDG No.: _____

Instrument ID: SMS_YStart Date: 11/28/2022 11:01Analysis Batch Number: 593711End Date: 11/28/2022 24:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-593711/1		11/28/2022 11:01	1	Y19406361.D	Rxi-5Sil MS 0.25 (mm)
CCV 280-593711/2		11/28/2022 11:12	1	Y19406362.D	Rxi-5Sil MS 0.25 (mm)
CCVL 280-593711/4		11/28/2022 11:45	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593711/3		11/28/2022 12:02	1		Rxi-5Sil MS 0.25 (mm)
CCV 280-593711/5		11/28/2022 12:28	1		Rxi-5Sil MS 0.25 (mm)
MB 280-594019/1-A		11/28/2022 12:53	1	Y19406366.D	Rxi-5Sil MS 0.25 (mm)
LCS 280-594019/2-A		11/28/2022 14:20	1	Y19406367.D	Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 14:36	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 13:12	3		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 13:48	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 15:03	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 15:40	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 15:57	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 16:24	20		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 16:39	1		Rxi-5Sil MS 0.25 (mm)
ZZZZZ		11/28/2022 17:15	1		Rxi-5Sil MS 0.25 (mm)
280-168718-9	X4-SS-C06-0006	11/28/2022 17:31	20	Y19406377.D	Rxi-5Sil MS 0.25 (mm)
280-168718-9 MS	X4-SS-C06-0006 MS	11/28/2022 18:07	20	Y19406378.D	Rxi-5Sil MS 0.25 (mm)
280-168718-9 MSD	X4-SS-C06-0006 MSD	11/28/2022 18:44	20	Y19406379.D	Rxi-5Sil MS 0.25 (mm)
280-168718-10	X7-SS-C01-0006	11/28/2022 18:59	20	Y19406380.D	Rxi-5Sil MS 0.25 (mm)
280-168718-11	X7B-SS-C01-0006	11/28/2022 19:25	20	Y19406381.D	Rxi-5Sil MS 0.25 (mm)
280-168718-12	X7-TP-C01-5360	11/28/2022 19:51	20	Y19406382.D	Rxi-5Sil MS 0.25 (mm)
280-168718-14	X7-TP-C02-4638	11/28/2022 20:17	20	Y19406384.D	Rxi-5Sil MS 0.25 (mm)
280-168718-13	X7-TP-C04-3238	11/28/2022 20:34	20	Y19406383.D	Rxi-5Sil MS 0.25 (mm)
280-168718-15	X7-TP-C03-3238	11/28/2022 21:08	20	Y19406385.D	Rxi-5Sil MS 0.25 (mm)
280-168718-16	X4-SS-C07-0006	11/28/2022 21:43	20	Y19406386.D	Rxi-5Sil MS 0.25 (mm)
280-168718-17	X4-SS-C08-0006	11/28/2022 22:00	20	Y19406387.D	Rxi-5Sil MS 0.25 (mm)
CCVC 280-593711/40		11/28/2022 22:26	1	Y19406388.D	Rxi-5Sil MS 0.25 (mm)
CCVC 280-593711/41		11/28/2022 22:52	1		Rxi-5Sil MS 0.25 (mm)
CCVC 280-593711/42		11/28/2022 24:17	1		Rxi-5Sil MS 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 590052 Batch Start Date: 10/14/22 16:55 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	HSL SSV B3 00009	MS-DFTPP 00059
DFTPP 280-590052/2		8270E		200 uL	Perform Calculation left blank		200 uL
STD004 280-590052/10 IC		8270E		200 uL	Perform Calculation left blank		
STD010 280-590052/11 IC		8270E		200 uL	Perform Calculation left blank		
STD020 280-590052/12 IC		8270E		200 uL	Perform Calculation left blank		
STD050 280-590052/13 IC		8270E		200 uL	Perform Calculation left blank		
STD80 280-590052/14 IC		8270E		200 uL	Perform Calculation left blank		
STD120 280-590052/15 IC		8270E		200 uL	Perform Calculation left blank		
STD160 280-590052/16 IC		8270E		200 uL	Perform Calculation left blank		
STD200 280-590052/17 IC		8270E		200 uL	Perform Calculation left blank		
ICV 280-590052/18		8270E		200 uL	Perform Calculation left blank		
ICV 280-590052/19		8270E		200 uL	Perform Calculation left blank	200 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
DFTPP 280-590052/2		8270E					
STD004 280-590052/10 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 590052 Batch Start Date: 10/14/22 16:55 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
STD010 280-590052/11 IC		8270E					
STD020 280-590052/12 IC		8270E		200 uL			
STD050 280-590052/13 IC		8270E			200 uL		
STD80 280-590052/14 IC		8270E				200 uL	
STD120 280-590052/15 IC		8270E					200 uL
STD160 280-590052/16 IC		8270E					
STD200 280-590052/17 IC		8270E					
ICV 280-590052/18		8270E					
ICV 280-590052/19		8270E					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00017			
DFTPP 280-590052/2		8270E					
STD004 280-590052/10 IC		8270E					
STD010 280-590052/11 IC		8270E					
STD020 280-590052/12 IC		8270E					
STD050 280-590052/13 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 590052 Batch Start Date: 10/14/22 16:55 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00017			
STD80 280-590052/14 IC		8270E					
STD120 280-590052/15 IC		8270E					
STD160 280-590052/16 IC		8270E					
STD200 280-590052/17 IC		8270E					
ICV 280-590052/18		8270E		200 uL			
ICV 280-590052/19		8270E					

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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 590142 Batch Start Date: 10/15/22 00:19 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	MS-DFTPP 00059	MS-FAB080 00003
DFTPP 280-590142/2		8270E		200 uL	Perform Calculation left blank	200 uL	
ICIS 280-590142/6		8270E		200 uL	Perform Calculation left blank		200 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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 590148 Batch Start Date: 10/17/22 09:41 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	MS-DFTPP 00059	MS-HSLB1&B2 00016
DFTPP 280-590148/2		8270E		200 uL	Perform Calculation left blank	200 uL	
ICV 280-590148/29		8270E		200 uL	Perform Calculation left blank		200 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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592592 Batch Start Date: 11/07/22 13:11 Batch Analyst: _____

Batch Method: 3510C Batch End Date: 11/08/22 11:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	InitialAmount	FinalAmount	ReceivedpH
MB 280-592592/1		3510C, 8270E			1000 mL	1 mL	5 SU
LCS 280-592592/2		3510C, 8270E			1000 mL	1 mL	5 SU
LCSD 280-592592/3		3510C, 8270E			1000 mL	1 mL	5 SU
280-168718-A-6	RB-11012201	3510C, 8270E	T	787.0 g	500 mL	1 mL	6 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	8270_BKK_Supp 00024	8270_LCS_Main 00086	8270_LCS_Supp 00522	8270Surrogate 00166
MB 280-592592/1		3510C, 8270E					1 mL
LCS 280-592592/2		3510C, 8270E		1 mL	1 mL	1 mL	1 mL
LCSD 280-592592/3		3510C, 8270E		1 mL	1 mL	1 mL	1 mL
280-168718-A-6	RB-11012201	3510C, 8270E	T				1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592592 Batch Start Date: 11/07/22 13:11 Batch Analyst: _____

Batch Method: 3510C Batch End Date: 11/08/22 11:02

Batch Notes	
Method/Fraction	3510C/8270D
Balance ID	26950384
Pipette/Syringe/Dispenser ID	Nexia
Analyst ID - Extraction	KS AV KZ (Trainers) MS (Trainee)
Reagent Water ID	N. ELGA
Analyst ID - Spike Analyst	KZ
Analyst ID - Spike Witness Analyst	Reviewer: NC
Sufficient Volume for Batch QC	NO
Acid Used for pH Adjustment ID	H2SO4_00112
Base Used to Adjust pH ID	NaOH_00185
NaCl ID	220642
Prep Solvent ID	MeCl2_Cycl_00586
Prep Solvent Volume Used	240 mL
Glass Wool ID	133201999
Na2SO4 ID	Na2SO4_00121
Analyst ID - Concentration	SMQ
Equipment ID - Concentration 1	TV1, Utme, Enterprise
Concentration 1 Uncorrected Temperature	40 Degrees C
Concentration 1 Corrected Temperature	40 Degrees C
Batch Comment	DV-OP-0006/0007;

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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592594 Batch Start Date: 11/07/22 12:55 Batch Analyst: _____

Batch Method: 3550C Batch End Date: 11/08/22 12:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	8270 LCS Main 00086
MB 280-592594/1		3550C, 8270E		30 g	1 mL	CALC NOT SET TO RUN	
LCS 280-592594/2		3550C, 8270E		30 g	1 mL	CALC NOT SET TO RUN	1 mL
LCS 280-592594/3		3550C, 8270E		30 g	1 mL	CALC NOT SET TO RUN	1 mL
280-168718-A-1	X3-SS-C01-0006	3550C, 8270E	T	30.0 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-2	FD-11012201	3550C, 8270E	T	30.9 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-3	X3-SS-C02-0006	3550C, 8270E	T	31.2 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-5	X3-SS-C04-0006	3550C, 8270E	T	30.3 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-7	X3-SS-C05-0006	3550C, 8270E	T	30.5 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-8	FD-11022201	3550C, 8270E	T	30.8 g	1 mL	CALC NOT SET TO RUN	

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment			
MB 280-592594/1		3550C, 8270E					
LCS 280-592594/2		3550C, 8270E		8270			
LCS 280-592594/3		3550C, 8270E		8270			
280-168718-A-1	X3-SS-C01-0006	3550C, 8270E	T				
280-168718-B-2	FD-11012201	3550C, 8270E	T				
280-168718-A-3	X3-SS-C02-0006	3550C, 8270E	T				
280-168718-A-5	X3-SS-C04-0006	3550C, 8270E	T				
280-168718-B-7	X3-SS-C05-0006	3550C, 8270E	T				
280-168718-B-8	FD-11022201	3550C, 8270E	T				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592594 Batch Start Date: 11/07/22 12:55 Batch Analyst: _____

Batch Method: 3550C Batch End Date: 11/08/22 12:30

Batch Notes	
Method/Fraction	3550C/8270E/8270E_DOD5/8270C/8270D
Nominal Amount Used	30 g
Perform Calculation (0=No, 1=Yes)	0
Balance ID	24750402
Pipette/Syringe/Dispenser ID	ROSE
Analyst ID - Extraction	EW, GL
Blank Matrix ID	216016
Analyst ID - Spike Analyst	EW
Analyst ID - Spike Witness Analyst	Reviewer: NC
Sufficient Volume for Batch QC	YES
Prep Solvent ID	1:1AceMeCl2_00389/390 MeCl2_Cycl_00586
Na2SO4 ID	Na2SO4_00121
Filter ID	21-168
Analyst ID - Concentration	SMQ (trainer), BJ (trainee)
Equipment ID - Concentration 1	AR, C
Thermometer ID - Concentration 1	761113, 3138
Concentration 1 Uncorrected Temperature	87, 88 Degrees C
Concentration 1 Corrected Temperature	88 Degrees C
Equipment ID - Concentration 2	41813
Thermometer ID - Concentration 2	North
Concentration 2 Uncorrected Temperature	25 Degrees C
Concentration 2 Corrected Temperature	25 Degrees C
Batch Comment	DV-OP-0016/0007

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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592626 Batch Start Date: 11/07/22 14:22 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	HSL SSV B3 00009	MS-DFTPP 00057
DFTPP 280-592626/1		8270E		1 mL	Perform Calculation left blank		200 uL
STD0004 280-592626/18 IC		8270E		1 mL	Perform Calculation left blank		
STD0010 280-592626/19 IC		8270E		1 mL	Perform Calculation left blank		
STD0020 280-592626/20 IC		8270E		1 mL	Perform Calculation left blank		
STD0050 280-592626/21 IC		8270E		1 mL	Perform Calculation left blank		
ICIS 280-592626/22		8270E		1 mL	Perform Calculation left blank		
STD0120 280-592626/23 IC		8270E		1 mL	Perform Calculation left blank		
STD0160 280-592626/24 IC		8270E		1 mL	Perform Calculation left blank		
STD0200 280-592626/25 IC		8270E		1 mL	Perform Calculation left blank		
ICV 280-592626/26		8270E		1 mL	Perform Calculation left blank		
ICV 280-592626/27		8270E		1 mL	Perform Calculation left blank	200 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
DFTPP 280-592626/1		8270E					
STD0004 280-592626/18 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592626 Batch Start Date: 11/07/22 14:22 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
STD0010 280-592626/19 IC		8270E					
STD0020 280-592626/20 IC		8270E		200 uL			
STD0050 280-592626/21 IC		8270E			200 uL		
ICIS 280-592626/22		8270E				200 uL	
STD0120 280-592626/23 IC		8270E					200 uL
STD0160 280-592626/24 IC		8270E					
STD0200 280-592626/25 IC		8270E					
ICV 280-592626/26		8270E					
ICV 280-592626/27		8270E					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00017			
DFTPP 280-592626/1		8270E					
STD0004 280-592626/18 IC		8270E					
STD0010 280-592626/19 IC		8270E					
STD0020 280-592626/20 IC		8270E					
STD0050 280-592626/21 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592626 Batch Start Date: 11/07/22 14:22 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00017			
ICIS 280-592626/22		8270E					
STD0120 280-592626/23 IC		8270E					
STD0160 280-592626/24 IC		8270E					
STD0200 280-592626/25 IC		8270E					
ICV 280-592626/26		8270E		200 uL			
ICV 280-592626/27		8270E					

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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 592922 Batch Start Date: 11/09/22 15:29 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	MS-DFTPP 00057	MS-FAMSSV_100 00030
DFTPP 280-592922/1		8270E		1 mL	Perform Calculation left blank	200 uL	
ICV 280-592922/15		8270E		1 mL	Perform Calculation left blank		200 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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 593019 Batch Start Date: 11/10/22 12:10 Batch Analyst: _____

Batch Method: 3550C Batch End Date: 11/10/22 16:13

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	8270 LCS Main 00086
MB 280-593019/1		3550C, 8270E		30 g	1 mL	CALC NOT SET TO RUN	
LCS 280-593019/2		3550C, 8270E		30 g	1 mL	CALC NOT SET TO RUN	1 mL
280-168718-C-9	X3-SS-C06-0006	3550C, 8270E	T	30.3 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-9 MS	X3-SS-C06-0006	3550C, 8270E	T	30.2 g	1 mL	CALC NOT SET TO RUN	1 mL
280-168718-A-9 MSD	X3-SS-C06-0006	3550C, 8270E	T	30.4 g	1 mL	CALC NOT SET TO RUN	1 mL
280-168718-A-10	X7-SS-C01-0006	3550C, 8270E	T	30.9 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-11	X7B-SS-C01-0006	3550C, 8270E	T	30.9 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-12	X7-TP-C01-5460	3550C, 8270E	T	30.4 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-13	X7-TP-C02-3648	3550C, 8270E	T	31.3 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-14	X7-TP-C03-4248	3550C, 8270E	T	30.0 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-15	X7-TP-C04-4248	3550C, 8270E	T	30.8 g	1 mL	CALC NOT SET TO RUN	
280-168718-A-16	X3-SS-C07-0006	3550C, 8270E	T	30.0 g	1 mL	CALC NOT SET TO RUN	
280-168718-B-17	X3-SS-C08-0006	3550C, 8270E	T	30.3 g	1 mL	CALC NOT SET TO RUN	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 593019 Batch Start Date: 11/10/22 12:10 Batch Analyst: _____

Batch Method: 3550C Batch End Date: 11/10/22 16:13

Batch Notes	
Method/Fraction	3550C/8270E_D0D5
Nominal Amount Used	30 g
Perform Calculation (0=No, 1=Yes)	0
Balance ID	24750402
Pipette/Syringe/Dispenser ID	ROSE
Analyst ID - Extraction	EW,
Blank Matrix ID	216016
Analyst ID - Spike Analyst	EW
Analyst ID - Spike Witness Analyst	Reviewer: NC
Sufficient Volume for Batch QC	YES
Prep Solvent ID	1:1AceMeCl2_00390/391 MeCl2_Cycl_00586
Na2SO4 ID	Na2SO4_00121
Filter ID	21-168
Analyst ID - Concentration	EW
Equipment ID - Concentration 1	AR, C
Thermometer ID - Concentration 1	761113, 3138
Concentration 1 Uncorrected Temperature	87, 88 Degrees C
Concentration 1 Corrected Temperature	88 Degrees C
Equipment ID - Concentration 2	41813
Thermometer ID - Concentration 2	Nvap North 3
Concentration 2 Uncorrected Temperature	30 Degrees C
Concentration 2 Corrected Temperature	30 Degrees C
Pipette Tip Lot ID	B09871216S
Batch Comment	DV-OP-0016/0007

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 this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 593534 Batch Start Date: 11/15/22 13:42 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	HSL SSV B3 00009	MS-DFTPP 00058
DFTPP 280-593534/1		8270E		200 uL	Perform Calculation left blank		0.5 uL
STD004 280-593534/32 IC		8270E		200 uL	Perform Calculation left blank		
STD010 280-593534/33 IC		8270E		200 uL	Perform Calculation left blank		
STD020 280-593534/34 IC		8270E		200 uL	Perform Calculation left blank		
STD050 280-593534/35 IC		8270E		200 uL	Perform Calculation left blank		
ICIS 280-593534/36		8270E		200 uL	Perform Calculation left blank		
STD120 280-593534/37 IC		8270E		200 uL	Perform Calculation left blank		
STD160 280-593534/38 IC		8270E		200 uL	Perform Calculation left blank		
STD200 280-593534/39 IC		8270E		200 uL	Perform Calculation left blank		
ICV 280-593534/40		8270E		200 uL	Perform Calculation left blank		
ICV 280-593534/41		8270E		200 uL	Perform Calculation left blank	200 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
DFTPP 280-593534/1		8270E					
STD004 280-593534/32 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 593534 Batch Start Date: 11/15/22 13:42 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLA020 00067	MS-HSLA050 00068	MS-HSLA080 00067	MS-HSLA120 00067
STD010 280-593534/33 IC		8270E					
STD020 280-593534/34 IC		8270E		200 uL			
STD050 280-593534/35 IC		8270E			200 uL		
ICIS 280-593534/36		8270E				200 uL	
STD120 280-593534/37 IC		8270E					200 uL
STD160 280-593534/38 IC		8270E					
STD200 280-593534/39 IC		8270E					
ICV 280-593534/40		8270E					
ICV 280-593534/41		8270E					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00014			
DFTPP 280-593534/1		8270E					
STD004 280-593534/32 IC		8270E					
STD010 280-593534/33 IC		8270E					
STD020 280-593534/34 IC		8270E					
STD050 280-593534/35 IC		8270E					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using this reagent.

8270E

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Batch Number: 593534 Batch Start Date: 11/15/22 13:42 Batch Analyst: _____

Batch Method: 8270E Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HSLB1&B2 00014			
ICIS 280-593534/36		8270E					
STD120 280-593534/37 IC		8270E					
STD160 280-593534/38 IC		8270E					
STD200 280-593534/39 IC		8270E					
ICV 280-593534/40		8270E		200 uL			
ICV 280-593534/41		8270E					

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 this reagent.

8270E

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.: _____

Matrix: Solid

Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm)

GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
X3-SS-C01-0006	280-168718-1	109	
X3-SS-C01-0006	280-168718-1		96
FD-11012201	280-168718-2	112	
FD-11012201	280-168718-2		104
X3-SS-C02-0006	280-168718-3	110	
X3-SS-C02-0006	280-168718-3		106
X3-SS-C04-0006	280-168718-5	111	
X3-SS-C04-0006	280-168718-5		103
X3-SS-C05-0006	280-168718-7	117	
X3-SS-C05-0006	280-168718-7		105
FD-11022201	280-168718-8	107 M	
FD-11022201	280-168718-8		103
X3-SS-C06-0006	280-168718-9	114	
X3-SS-C06-0006	280-168718-9		106
X7-SS-C01-0006	280-168718-10	110	
X7B-SS-C01-0006	280-168718-11	112	
X7B-SS-C01-0006	280-168718-11		104
X7-TP-C01-5460	280-168718-12	112	
X7-TP-C01-5460	280-168718-12		108
X7-TP-C01-5460 DL	280-168718-12 DL	97 D	
X7-TP-C01-5460 DL	280-168718-12 DL		100 D
X7-TP-C02-3648	280-168718-13	113	
X7-TP-C02-3648	280-168718-13		108
X7-TP-C02-3648 DL	280-168718-13 DL	91 D	
X7-TP-C02-3648 DL	280-168718-13 DL		86 D
X7-TP-C03-4248	280-168718-14	112	
X7-TP-C03-4248	280-168718-14		109
X7-TP-C04-4248	280-168718-15	111	
X7-TP-C04-4248	280-168718-15		107
X3-SS-C07-0006	280-168718-16	109	
X3-SS-C07-0006	280-168718-16		103
X3-SS-C08-0006	280-168718-17	106	
X3-SS-C08-0006	280-168718-17		102
X3-SS-C08-0006 DL	280-168718-17 DL	102 M D	
X3-SS-C08-0006 DL	280-168718-17 DL		106 D

QC LIMITS
78-119

12DNB = 1,2-Dinitrobenzene

Column to be used to flag recovery values

FORM II 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low
 GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
	MB 280-592924/1-A	112	
	LCS 280-592924/2-A	98	
	LCS 280-592924/3-A	111	
X3-SS-CO6-0006 MS	280-168718-9 MS	99	
X3-SS-CO6-0006 MS	280-168718-9 MS	113	
X3-SS-CO6-0006 MS	280-168718-9 MS		106
X3-SS-CO6-0006 MSD	280-168718-9 MSD	100	
X3-SS-CO6-0006 MSD	280-168718-9 MSD	112	
X3-SS-CO6-0006 MSD	280-168718-9 MSD		105
X3-SS-CO6-0006 DU	280-168718-9 DU	112	
X3-SS-CO6-0006 DU	280-168718-9 DU		107
X3-SS-CO6-0006 TRL	280-168718-9 TRL	108	
X3-SS-CO6-0006 TRL	280-168718-9 TRL		103

12DNB = 1,2-Dinitrobenzene

QC LIMITS
78-119

Column to be used to flag recovery values

FORM II 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver

Job No.: 280-168718-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #
RB-11012201	280-168718-6	101 M
	MB 280-592716/1-A	96 M
	LCS 280-592716/2-A	90
	LCS 280-592716/4-A	87
	LCSD 280-592716/3-A	91
	LCSD 280-592716/5-A	95

12DNB = 1,2-Dinitrobenzene

QC LIMITS
83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 11090012.D
 Lab ID: LCS 280-592716/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.23	112	73-125	
1,3-Dinitrobenzene	2.00	2.05	103	78-120	
2,4,6-Trinitrotoluene	2.00	1.85	93	71-123	
2,4-Dinitrotoluene	2.00	2.01	100	78-120	
2,6-Dinitrotoluene	2.00	2.00	100	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.03	102	79-120	
2-Nitrotoluene	2.00	1.56	78	70-127	
3-Nitrotoluene	2.00	1.57	79	73-125	
4-Amino-2,6-dinitrotoluene	2.00	2.15	107	76-125	
4-Nitrotoluene	2.00	1.58	79	71-127	
Nitrobenzene	2.00	1.71	85	65-134	
Nitroglycerin	20.0	20.6	103	74-127	
HMX	2.00	1.88	94	65-135	
PETN	20.0	20.0	100	73-127	
Picric acid	2.00	2.07	104	80-120	
RDX	2.00	2.01	100	68-130	
Tetryl	2.00	2.03	102	64-128	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 11090014.D
 Lab ID: LCS 280-592716/4-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
3,5-Dinitroaniline	2.00	1.48	74	71-117	
2,4-diamino-6-nitrotoluene	2.00	1.62	81	68-122	M
2,6-diamino-4-nitrotoluene	2.00	1.74	87	72-122	M

Column to be used to flag recovery and RPD values
 FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100039.D
 Lab ID: LCS 280-592924/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	1000	1130	113	80-116	
1,3-Dinitrobenzene	1000	1060	106	73-119	
2,4,6-Trinitrotoluene	1000	959	96	71-120	
2,4-Dinitrotoluene	1000	1060	106	75-121	
2,6-Dinitrotoluene	1000	1000	100	79-117	
2-Amino-4,6-dinitrotoluene	1000	1010	101	71-123	
2-Nitrotoluene	1000	1020	102	70-124	
3-Nitrotoluene	1000	1030	103	67-129	
4-Amino-2,6-dinitrotoluene	1000	1060	106	64-127	
4-Nitrotoluene	1000	1000	100	71-124	
Nitrobenzene	1000	1050	105	67-129	
Nitroglycerin	10000	10800	108	73-124	
HMX	1000	952	95	74-124	M
PETN	10000	10300	103	72-128	
Picric acid	1000	1060	106	38-154	
RDX	1000	985	99	67-129	
Tetryl	1000	1050	105	68-135	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100040.D
 Lab ID: LCS 280-592924/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
3,5-Dinitroaniline	1000	998	100	86-118	
2,4-diamino-6-nitrotoluene	1000	783 J	78	10-150	M
2,6-diamino-4-nitrotoluene	1000	1040 J	104	10-150	M

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 11090013.D
 Lab ID: LCSD 280-592716/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3,5-Trinitrobenzene	2.00	2.22	111	1	20	73-125	
1,3-Dinitrobenzene	2.00	2.07	103	1	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.86	93	0	20	71-123	
2,4-Dinitrotoluene	2.00	2.01	101	0	20	78-120	
2,6-Dinitrotoluene	2.00	2.08	104	4	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.06	103	2	20	79-120	
2-Nitrotoluene	2.00	1.61	80	3	20	70-127	
3-Nitrotoluene	2.00	1.66	83	6	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	2.20	110	2	20	76-125	
4-Nitrotoluene	2.00	1.64	82	4	20	71-127	
Nitrobenzene	2.00	1.74	87	2	20	65-134	
Nitroglycerin	20.0	20.6	103	0	20	74-127	
HMX	2.00	1.82	91	3	20	65-135	M
PETN	20.0	20.0	100	0	20	73-127	
Picric acid	2.00	2.04	102	2	20	80-120	
RDX	2.00	1.98	99	1	20	68-130	
Tetryl	2.00	2.04	102	0	20	64-128	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: 11090015.D

Lab ID: LCSD 280-592716/5-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
3,5-Dinitroaniline	2.00	1.72	86	15	20	71-117	
2,4-diamino-6-nitrotoluene	2.00	1.67	83	3	20	68-122	M
2,6-diamino-4-nitrotoluene	2.00	1.77	89	2	20	72-122	M

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100050.D
 Lab ID: 280-168718-9 MS Client ID: X3-SS-CO6-0006 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	997	39 U	1170	117	80-116	J1
2,4,6-Trinitrotoluene	997	69 U	1020	102	71-120	
2,4-Dinitrotoluene	997	39 U	1070	107	75-121	
2,6-Dinitrotoluene	997	39 U	1040	104	79-117	
2-Amino-4,6-dinitrotoluene	997	69 U	1020	102	71-123	
2-Nitrotoluene	997	99 U	1070	108	70-124	
3-Nitrotoluene	997	150 U	1050	105	67-129	
4-Amino-2,6-dinitrotoluene	997	69 U	1050	106	64-127	
4-Nitrotoluene	997	99 U	1050	105	71-124	
Nitrobenzene	997	200 U	1060	106	67-129	
Nitroglycerin	9970	690 U	11100	111	73-124	
HMX	997	69 U	940	94	74-124	M
PETN	9970	990 U	10700	108	72-128	
Picric acid	997	99 U	243	24	38-154	J1
RDX	997	99 U	988	99	67-129	
Tetryl	997	99 U	1000	101	68-135	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100052.D
 Lab ID: 280-168718-9 MS Client ID: X3-SS-CO6-0006 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
3,5-Dinitroaniline	951	20 U	876	92	86-118	
2,4-diamino-6-nitrotoluene	951	990 U	950 U	0	10-150	M J1
2,6-diamino-4-nitrotoluene	951	990 U	950 U	0	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11110020.D
 Lab ID: 280-168718-9 MS Client ID: X3-SS-CO6-0006 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,3-Dinitrobenzene	997	39 U	1130	113	73-119	

Column to be used to flag recovery and RPD values
 FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100051.D
 Lab ID: 280-168718-9 MSD Client ID: X3-SS-CO6-0006 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3,5-Trinitrobenzene	990	1180	119	1	20	80-116	J1
2,4,6-Trinitrotoluene	990	1010	102	1	20	71-120	
2,4-Dinitrotoluene	990	1060	107	1	20	75-121	
2,6-Dinitrotoluene	990	1030	104	1	20	79-117	
2-Amino-4,6-dinitrotoluene	990	1000	101	2	20	71-123	
2-Nitrotoluene	990	1040	105	3	20	70-124	
3-Nitrotoluene	990	1020	103	3	20	67-129	
4-Amino-2,6-dinitrotoluene	990	1020	103	3	20	64-127	
4-Nitrotoluene	990	1010	102	4	20	71-124	
Nitrobenzene	990	1050	106	1	20	67-129	
Nitroglycerin	9900	11400	116	3	20	73-124	
HMX	990	939	95	0	20	74-124	M
PETN	9900	10500	106	2	20	72-128	
Picric acid	990	163	16	40	20	38-154	M J1
RDX	990	957	97	3	20	67-129	
Tetryl	990	1010	102	1	20	68-135	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100053.D
 Lab ID: 280-168718-9 MSD Client ID: X3-SS-CO6-0006 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
3,5-Dinitroaniline	996	951	96	8	20	86-118	
2,4-diamino-6-nitrotoluene	996	1000 U	0	NC	20	10-150	M J1
2,6-diamino-4-nitrotoluene	996	1000 U	0	NC	20	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11110021.D
 Lab ID: 280-168718-9 MSD Client ID: X3-SS-CO6-0006 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3-Dinitrobenzene	990	1080	109	5	20	73-119	

Column to be used to flag recovery and RPD values

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11100055.D
 Lab ID: 280-168718-9 TRL Client ID: X3-SS-CO6-0006 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
1,3,5-Trinitrobenzene	39 U	38 U	38 U	NC	20	
2,4,6-Trinitrotoluene	69 U	67 U	66 U	NC	20	
3,5-Dinitroaniline	20 U	19 U	19 U	NC	20	
2,4-Dinitrotoluene	39 U	38 U	38 U	NC	20	
2,6-Dinitrotoluene	39 U	38 U	38 U	NC	20	
2-Amino-4,6-dinitrotoluene	69 U	67 U	66 U	NC	20	
2-Nitrotoluene	99 U	96 U	94 U	NC	20	
3-Nitrotoluene	150 U	140 U	140 U	NC	20	
4-Amino-2,6-dinitrotoluene	69 U	67 U	66 U	NC	20	
4-Nitrotoluene	99 U	96 U	94 U	NC	20	
Nitrobenzene	200 U	190 U	190 U	NC	20	
Nitroglycerin	690 U	670 U	660 U	NC	20	
HMX	69 U	67 U	66 U	NC	20	
PETN	990 U	960 U	940 U	NC	20	
Picric acid	99 U	96 U	94 U	NC	20	
RDX	99 U	96 U	94 U	NC	20	
Tetryl	99 U	96 U	94 U	NC	20	
2,4-diamino-6-nitrotoluene	990 U	960 U	940 U	NC	20	
2,6-diamino-4-nitrotoluene	990 U	960 U	940 U	NC	20	

Column to be used to flag %RSD values

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Matrix: Solid Level: Low Lab File ID: 11110023.D
 Lab ID: 280-168718-9 TRL Client ID: X3-SS-CO6-0006 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
1,3-Dinitrobenzene	39 U	38 U	38 U	NC	20	

Column to be used to flag %RSD values

8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: MB 280-592716/1-A
 Matrix: Water Date Extracted: 11/08/2022 13:27
 Lab File ID: (1) 11090011.D Lab File ID: (2) _____
 Date Analyzed: (1) 11/09/2022 15:39 Date Analyzed: (2) _____
 Instrument ID: (1) CHHPLC_X3 Instrument ID: (2) _____
 GC Column: (1) UltraCarb5uO ID: 4.6(mm) GC Column: (2) _____ ID: _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-592716/2-A	11/09/2022 16:02	
	LCSD 280-592716/3-A	11/09/2022 16:25	
	LCS 280-592716/4-A	11/09/2022 16:48	
	LCSD 280-592716/5-A	11/09/2022 17:11	
RB-11012201	280-168718-6	11/10/2022 01:58	

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Lab Sample ID: MB 280-592924/1-A
 Matrix: Solid Date Extracted: 11/09/2022 17:15
 Lab File ID: (1) 11100038.D Lab File ID: (2) _____
 Date Analyzed: (1) 11/11/2022 00:58 Date Analyzed: (2) _____
 Instrument ID: (1) CHHPLC_X3 Instrument ID: (2) CHHPLC_X5
 GC Column: (1) UltraCarb5uO ID: 4.6(mm) GC Column: (2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE		DATE	
		ANALYZED 1		ANALYZED 2	
	LCS 280-592924/2-A	11/11/2022	01:21		
	LCS 280-592924/3-A	11/11/2022	01:44		
X3-SS-C01-0006	280-168718-1	11/11/2022	02:07	11/11/2022	17:36
FD-11012201	280-168718-2	11/11/2022	02:30	11/11/2022	18:11
X3-SS-C02-0006	280-168718-3	11/11/2022	02:53	11/11/2022	18:46
X3-SS-C04-0006	280-168718-5	11/11/2022	03:16	11/11/2022	19:21
X3-SS-C05-0006	280-168718-7	11/11/2022	03:39	11/11/2022	19:56
FD-11022201	280-168718-8	11/11/2022	04:02	11/11/2022	20:30
X3-SS-C06-0006	280-168718-9	11/11/2022	05:11	11/11/2022	21:40
X3-SS-C06-0006 MS	280-168718-9 MS	11/11/2022	05:34	11/11/2022	22:15
X3-SS-C06-0006 MSD	280-168718-9 MSD	11/11/2022	05:57	11/11/2022	22:50
X3-SS-C06-0006 MS	280-168718-9 MS	11/11/2022	06:20		
X3-SS-C06-0006 MSD	280-168718-9 MSD	11/11/2022	06:43		
X3-SS-C06-0006 DU	280-168718-9 DU	11/11/2022	07:06	11/11/2022	23:25
X3-SS-C06-0006 TRL	280-168718-9 TRL	11/11/2022	07:29	11/12/2022	00:00
X7-SS-C01-0006	280-168718-10	11/11/2022	07:52		
X7B-SS-C01-0006	280-168718-11	11/11/2022	08:15	11/12/2022	00:35
X7-TP-C01-5460	280-168718-12	11/11/2022	08:38	11/12/2022	01:10
X7-TP-C02-3648	280-168718-13	11/11/2022	09:47	11/12/2022	01:45
X7-TP-C03-4248	280-168718-14	11/11/2022	10:10	11/12/2022	02:20
X7-TP-C04-4248	280-168718-15	11/11/2022	10:33	11/12/2022	02:55
X3-SS-C07-0006	280-168718-16	11/11/2022	10:56	11/12/2022	04:04
X3-SS-C08-0006	280-168718-17	11/11/2022	11:19	11/12/2022	04:39
X7-TP-C01-5460 DL	280-168718-12 DL	11/11/2022	16:10	11/12/2022	05:14
X7-TP-C02-3648 DL	280-168718-13 DL	11/11/2022	16:33	11/12/2022	05:49
X3-SS-C08-0006 DL	280-168718-17 DL	11/11/2022	16:56	11/12/2022	06:24

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C05-0006 Lab Sample ID: 280-168718-7
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 03:39 Date Analyzed (2): 11/11/2022 19:56
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
3,5-Dinitroaniline	1		9.81	9.68	9.98	87		11.1
	2		14.78	14.65	14.95	78		
2,4,6-Trinitrotoluene	1		10.83	10.75	10.95	510		21.7
	2		24.60	24.53	24.83	640		
4-Amino-2,6-dinitrotoluene	1		11.00	10.92	11.12	190		0.2
	2		17.22	17.10	17.40	190		
2-Amino-4,6-dinitrotoluene	1		11.25	11.17	11.37	180		39.6
	2		18.17	18.08	18.38	270		
2,4-Dinitrotoluene	1		11.60	11.52	11.72	110		5.1
	2		20.17	20.08	20.38	110		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: FD-11022201 Lab Sample ID: 280-168718-8
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 04:02 Date Analyzed (2): 11/11/2022 20:30
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
3,5-Dinitroaniline	1		9.82	9.68	9.98	98		17.9
	2		14.77	14.65	14.95	120		
2,4,6-Trinitrotoluene	1		10.84	10.75	10.95	240		21.7
	2		24.65	24.53	24.83	300		
4-Amino-2,6-dinitrotoluene	1		11.01	10.92	11.12	200		4.6
	2		17.19	17.10	17.40	210		
2-Amino-4,6-dinitrotoluene	1		11.26	11.17	11.37	210		23.1
	2		18.15	18.08	18.38	270		
2,4-Dinitrotoluene	1		11.60	11.52	11.72	43		14.0
	2		20.19	20.08	20.38	37		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-CO6-0006 MS Lab Sample ID: 280-168718-9 MS
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 05:34 Date Analyzed (2): 11/11/2022 22:15
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.42	6.72	940		0.6
	2		6.61	6.51	6.81	946		
RDX	1		7.54	7.41	7.71	988		0.4
	2		8.70	8.61	8.91	984		
1,3,5-Trinitrobenzene	1		8.62	8.48	8.78	1170		8.6
	2		18.34	18.29	18.59	1070		
1,3-Dinitrobenzene	1		9.23	9.09	9.39	1390		21.0
	2		15.10	15.03	15.33	1130		
Nitrobenzene	1		9.62	9.49	9.79	1060		19.5
	2		11.60	11.53	11.83	1290		
Tetryl	1		9.94	9.79	10.09	1000		5.3
	2		23.76	23.73	24.03	1060		
Nitroglycerin	1		10.38	10.25	10.55	11100		2.4
	2		15.42	15.35	15.65	11300		
2,4,6-Trinitrotoluene	1		10.83	10.75	10.95	1020		29.9
	2		24.56	24.53	24.83	1380		
4-Amino-2,6-dinitrotoluene	1		11.01	10.92	11.12	1050		7.4
	2		17.14	17.10	17.40	979		
2-Amino-4,6-dinitrotoluene	1		11.26	11.17	11.37	1020		5.3
	2		18.20	18.08	18.38	1070		
2,6-Dinitrotoluene	1		11.43	11.36	11.56	1040		1.2
	2		19.62	19.57	19.87	1030		
2,4-Dinitrotoluene	1		11.60	11.52	11.72	1070		0.3
	2		20.12	20.08	20.38	1060		
2-Nitrotoluene	1		12.44	12.33	12.63	1070		3.5
	2		16.25	16.19	16.49	1040		
4-Nitrotoluene	1		12.86	12.75	13.05	1050		5.9
	2		16.52	16.49	16.79	1110		
3-Nitrotoluene	1		13.43	13.31	13.61	1050		8.0
	2		17.50	17.46	17.76	1140		
PETN	1		14.47	14.37	14.67	10700		5.6
	2		25.60	25.55	25.85	10100		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-CO6-0006 MSD Lab Sample ID: 280-168718-9 MSD
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 05:57 Date Analyzed (2): 11/11/2022 22:50
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.42	6.72	939		0.3
	2		6.61	6.51	6.81	942		
RDX	1		7.55	7.41	7.71	957		0.5
	2		8.70	8.61	8.91	962		
1,3,5-Trinitrobenzene	1		8.61	8.48	8.78	1180		9.0
	2		18.36	18.29	18.59	1080		
1,3-Dinitrobenzene	1		9.23	9.09	9.39	1170		8.3
	2		15.11	15.03	15.33	1080		
Nitrobenzene	1		9.62	9.49	9.79	1050		9.8
	2		11.61	11.53	11.83	1150		
Tetryl	1		9.93	9.79	10.09	1010		4.5
	2		23.81	23.73	24.03	1060		
Nitroglycerin	1		10.38	10.25	10.55	11400		2.4
	2		15.44	15.35	15.65	11200		
2,4,6-Trinitrotoluene	1		10.83	10.75	10.95	1010		19.2
	2		24.61	24.53	24.83	1230		
4-Amino-2,6-dinitrotoluene	1		11.01	10.92	11.12	1020		6.0
	2		17.17	17.10	17.40	964		
2-Amino-4,6-dinitrotoluene	1		11.25	11.17	11.37	1000		1.5
	2		18.21	18.08	18.38	1020		
2,6-Dinitrotoluene	1		11.43	11.36	11.56	1030		4.3
	2		19.63	19.57	19.87	985		
2,4-Dinitrotoluene	1		11.59	11.52	11.72	1060		1.2
	2		20.14	20.08	20.38	1040		
2-Nitrotoluene	1		12.44	12.33	12.63	1040		5.1
	2		16.27	16.19	16.49	989		
4-Nitrotoluene	1		12.86	12.75	13.05	1010		7.6
	2		16.54	16.49	16.79	1090		
3-Nitrotoluene	1		13.43	13.31	13.61	1020		7.3
	2		17.52	17.46	17.76	1100		
PETN	1		14.47	14.37	14.67	10500		0.7
	2		25.63	25.55	25.85	10600		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C01-5460 Lab Sample ID: 280-168718-12
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 08:38 Date Analyzed (2): 11/12/2022 01:10
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.55	6.42	6.72	1600		1.7
	2		6.60	6.51	6.81	1600		
RDX	1		7.54	7.41	7.71	39000		3.4
	2		8.70	8.61	8.91	41000		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C01-5460 DL Lab Sample ID: 280-168718-12 DL
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 16:10 Date Analyzed (2): 11/12/2022 05:14
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.57	6.41	6.71	1500		2.9
	2		6.65	6.51	6.81	1600		
RDX	1		7.55	7.40	7.70	38000		2.4
	2		8.75	8.61	8.91	39000		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C02-3648 Lab Sample ID: 280-168718-13
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 09:47 Date Analyzed (2): 11/12/2022 01:45
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.42	6.72	4200		4.8
	2		6.59	6.51	6.81	4000		
RDX	1		7.54	7.41	7.71	71000		2.4
	2		8.68	8.61	8.91	73000		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C02-3648 DL Lab Sample ID: 280-168718-13 DL
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 16:33 Date Analyzed (2): 11/12/2022 05:49
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.41	6.71	3900		3.4
	2		6.65	6.51	6.81	4000		
RDX	1		7.55	7.40	7.70	65000		4.1
	2		8.74	8.61	8.91	68000		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C03-4248 Lab Sample ID: 280-168718-14
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 10:10 Date Analyzed (2): 11/12/2022 02:20
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.42	6.72	170		5.0
	2		6.64	6.51	6.81	180		
RDX	1		7.54	7.41	7.71	4800		2.6
	2		8.73	8.61	8.91	4900		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X7-TP-C04-4248 Lab Sample ID: 280-168718-15
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 10:33 Date Analyzed (2): 11/12/2022 02:55
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.56	6.42	6.72	280		23.4
	2		6.61	6.51	6.81	360		
RDX	1		7.54	7.41	7.71	6200		1.5
	2		8.71	8.61	8.91	6100		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C07-0006 Lab Sample ID: 280-168718-16
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 10:56 Date Analyzed (2): 11/12/2022 04:04
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		10.82	10.75	10.95	160		9.6
	2		24.56	24.53	24.83	170		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C08-0006 Lab Sample ID: 280-168718-17
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 11:19 Date Analyzed (2): 11/12/2022 04:39
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		8.61	8.48	8.78	130		14.3
	2		18.32	18.29	18.59	110		
3,5-Dinitroaniline	1		9.81	9.68	9.98	81		2.7
	2		14.71	14.65	14.95	79		
2,4,6-Trinitrotoluene	1		10.83	10.75	10.95	18000		2.6
	2		24.59	24.53	24.83	18000		
2-Amino-4,6-dinitrotoluene	1		11.25	11.17	11.37	400		24.5
	2		18.12	18.08	18.38	510		
2,6-Dinitrotoluene	1		11.43	11.36	11.56	430		19.3
	2		19.64	19.57	19.87	520		
2,4-Dinitrotoluene	1		11.59	11.52	11.72	8300		1.1
	2		20.13	20.08	20.38	8400		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C08-0006 DL Lab Sample ID: 280-168718-17 DL
 Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5
 Date Analyzed (1): 11/11/2022 16:56 Date Analyzed (2): 11/12/2022 06:24
 GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
3,5-Dinitroaniline	1		9.81	9.68	9.98	100		43.2
	2		14.79	14.65	14.95	67		
2,4,6-Trinitrotoluene	1		10.83	10.73	10.93	17000		4.9
	2		24.65	24.53	24.83	18000		
2-Amino-4,6-dinitrotoluene	1		11.25	11.16	11.36	360		0.2
	2		18.18	18.08	18.38	360		
2,6-Dinitrotoluene	1		11.43	11.34	11.54	430		13.4
	2		19.70	19.57	19.87	500		
2,4-Dinitrotoluene	1		11.60	11.50	11.70	8000		3.5
	2		20.21	20.08	20.38	8200		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-168718-1
 SDG No.: _____
 Client Sample ID: X3-SS-C01-0006 Lab Sample ID: 280-168718-1
 Matrix: Solid Lab File ID: 11100041.D
 Analysis Method: 8330B Date Collected: 11/01/2022 12:35
 Extraction Method: 8330B Date Extracted: 11/09/2022 17:15
 Sample wt/vol: 10.3153(g) Date Analyzed: 11/11/2022 02:07
 Con. Extract Vol.: 40(mL) Dilution Factor: 1
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)
 % Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N
 Cleanup Factor: _____
 Analysis Batch No.: 593042 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	97	39	13
118-96-7	2,4,6-Trinitrotoluene	68	U M	97	68	30
618-87-1	3,5-Dinitroaniline	19	U	97	19	8.7
121-14-2	2,4-Dinitrotoluene	39	U	97	39	14
606-20-2	2,6-Dinitrotoluene	39	U	97	39	19
35572-78-2	2-Amino-4,6-dinitrotoluene	68	U	97	68	32
88-72-2	2-Nitrotoluene	97	U	190	97	46
99-08-1	3-Nitrotoluene	150	U	190	150	62
19406-51-0	4-Amino-2,6-dinitrotoluene	68	U	97	68	29
99-99-0	4-Nitrotoluene	97	U	190	97	35
98-95-3	Nitrobenzene	190	U	290	190	82
55-63-0	Nitroglycerin	680	U	1900	680	210
2691-41-0	HMX	68	U	97	68	22
78-11-5	PETN	970	U	1900	970	480
88-89-1	Picric acid	97	U	97	97	55
121-82-4	RDX	97	U	190	97	42
479-45-8	Tetryl	97	U	190	97	43
6629-29-4	2,4-diamino-6-nitrotoluene	970	U	1900	970	500
59229-75-3	2,6-diamino-4-nitrotoluene	970	U M	1900	970	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	109		78-119