Lower Duwamish Waterway NPDES Inspection Sampling Support

Technical Memorandum

Final

Prepared for

Toxics Cleanup Program
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Appendix I
Alaska Marine Lines

Limitation of Use: Leidos' project activities were restricted to collection and analysis of a limited number of environmental samples and visual observations obtained during the physical site visit, and from records made available by Ecology or third parties during the project. In preparing this report, Leidos has relied on verbal and written information provided by secondary sources and interviews, including information provided by the customer. Leidos has made no independent investigations concerning the accuracy or completeness of the information relied upon. Because the project activities consisted of collecting and evaluating a limited supply of information, Leidos may not have identified all potential items of concern and, therefore, Leidos warrants only that the project activities under this contract have been performed within the parameters and scope communicated by Ecology and reflected in the contract. Maps presented in this report were accurate based on the information available to Leidos at the time that the facility inspections were conducted.

This report is intended to be used in its entirety. Taking or using in any way excerpts from this report are not permitted and any party doing so does so at its own risk.

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I-1 Introduction and Background

Facility Name	**Alaska Marine Lines**
Address	5600 West Marginal Way SW Seattle, WA 98106
NPDES Permit Type	Industrial Stormwater General Permit
NPDES Permit No.	WAR001365
Permit Monitoring Requirements	Turbidity, pH, oil sheen, total copper, total zinc, total lead, TSS
SIC Code	4449: Water Transportation of Freight, NEC
Inspection Date	June 12, 2013
Grab Samples	2 Solids Samples (1 field duplicate solids sample)
Sample ID(s)	AM-SF4-EFF-20130612-S AM-DUP-01-20130612-S AM-VT-INF-20130612-S
Solids Sample Analytes	Dioxins/furans, PCB Aroclors, SVOCs (including phthalates and PAHs), pesticides, TPH-Diesel and Motor Oil (SF4-EFF, DUP-01), TPH-Gasoline (SF4-EFF, DUP-01), VOCs (SF4-EFF, DUP-01), metals, mercury, TOC, total solids, grain size
Split Samples with Facility	No

Alaska Marine Lines, Inc. is located at 5600 West Marginal Way SW adjacent to the Lower Duwamish Waterway (LDW). Alaska Marine Lines is a licensed, maritime common carrier providing freight transportation services between Seattle, Alaska, and Canada. The Operations and Maintenance terminal serves as a transfer point for cargo transported by barge and truck, predominantly dry and refrigerated cargo in 20-, 24-, 40- and 53-foot containers. Alaska Marine Lines has operated at this site since December 1993. Alaska Marine Lines also operates at the adjoining site, leased from Duwamish Shipyard, Inc. The leased area to the south is used primarily for equipment storage (Alaska Marine Lines 2012). A facility map is presented on Figure I-1.

Maintenance on forklifts, containers, refrigeration units, and power equipment is performed in the Reefer Shop and Bull Shop. Heavy maintenance in the covered shop areas includes engine service work, changing axles, and welding or replacing major body components. Occasionally some light maintenance is performed in various parts of the yard when required. Diesel-powered equipment is fueled onsite by a 3,100-gallon tank truck or by an outside vendor. Alaska Marine Lines' diesel-powered inventory at the facility typically includes a fuel truck, tractors, several forklifts, and generators. Alaska Marine Lines also operates several propane-powered forklifts (Alaska Marine Lines 2012).

Approximately 90 percent of the 13.8 acres of the site are covered by impervious surfaces. The bulk of the site is paved with asphalt, with some smaller areas capped with concrete (wash pad, fuel pad, scales). The four buildings at the facility have an aggregate roof area of about 24,460 square feet (Alaska Marine Lines 2012).

I-1.1 Stormwater Conveyance and Treatment System

The Alaska Marine Lines stormwater drainage system incorporates a variety of pollutant control technologies, including catch basins with removable filter socks, trench-type sand filters with slotted grates (Delaware type), diverter valves, oil water separators, a Contech hydrodynamic separator and StormFilter system, settling/storage tanks, and a StormwateRx Aquip unit (Alaska Marine Lines 2012).

To facilitate stormwater management, the site has been divided into four drainage zones – Zone A (Central); Zone B (North), Zone C (West), and Zone D (South – former Duwamish Shipyard). Drainage basins are presented on Figure I-1. Approximately 50 percent of the site drains to the stormwater collection system of Zone A, which encompasses the central section of the site. The Zone A drainage system consists of catch basins and Delaware sand filters #7 and #8 that discharge to the LDW via Outfall DP-2. A 280-foot-long trench drain in Zone A conveys stormwater to a Contech Vortechs hydrodynamic separator and before being pumped to a storage tank. The storage tank gravity feeds a StormwateRx Aquip unit, which discharges to the LDW via Outfall DP-3. Approximately 20 percent of the site drains toward a series of Delaware sand filters (#1 – #4) along the northern edge of the property in Zone B. Zone C represents approximately 10 percent of the site, and collects runoff from a trench drain in a small wash area and several catch basins in a container and equipment storage area. Zone B and C discharge to the LDW via Outfall DP-1. Zone D encompasses the property currently owned by Duwamish Shipyard, Inc., about 20 percent of the overall site. Stormwater in Zone D flows to the Contech Vortechs and StormFilter vaults prior to discharge to the LDW via Outfall DP-3 (Alaska Marine Lines 2012).

I-1.2 Recent Compliance History

Ecology previously inspected the Alaska Marine Lines facility on October 26, 2010 and identified requirements for permit compliance. Alaska Marine Lines needed to re-evaluate maintenance frequencies for all stormwater treatment systems, oil water separators and catch basin filter inserts. The Stormwater Pollution Prevention Plan (SWPPP) needed to include an outline of standard operating procedures for the fuel area and wash pad system. The facility needed to delineate the footprint of all areas that flow to the sanitary sewer in the site map. Liquid chemical and petroleum products and wastes stored outside needed proper cover and containment. Dumpsters and scrap metals bins needed cover or tight-fitting lids. Ecology recommended the facility evaluate the effectiveness of the vacuum sweeper including sweeper methodology and locations. The facility needed to conduct vehicle repair and maintenance in a building or other covered impervious containment area (Ecology 2010). Follow-up information regarding compliance with corrective actions was not available for review.

Based on Alaska Marine Lines' 2012 Industrial Stormwater General Permit (ISGP) Annual Report, the facility exceeded benchmarks for turbidity and copper during the 2nd quarter of 2012, triggering a Level One Corrective Action. Alaska Marine Lines indicated that the elevated copper levels might be a result of residue from vehicle brake pads that operate at the facility. The facility swept areas with solids build up to reduce turbidity and copper levels in stormwater (Alaska Marine Lines 2013).

I-2 Inspection and Sampling

I-2.1 June 2013 Stormwater Compliance Inspection

On June 12, 2013, Ecology conducted a stormwater compliance inspection at Alaska Marine Lines. Leidos assisted Ecology with the inspection and sampling of the facility's stormwater conveyance system. The inspection included investigating influent and effluent points at drainage structures, written and photographic documentation, and assessing whether the drainage structures contained sufficient sampleable material. The coordinates of sample locations were measured with a survey-quality global positioning system and plotted on Figure I-2 using geographic information system software. An inspection photographic log and field documentation are presented in Attachments I-1 and I-2, respectively.

The field team inspected the following stormwater conveyance structures at Alaska Marine Lines (Figure I-2): a manhole upstream of sand filter #4 (MH-B4), sand filter #4 (SF4-EFF), a manhole downstream of sand filters #7 and #8 (MH-A8), and an influent stormwater vault to the treatment system (VT-INF). The locations MH-B4 and MH-A8 did not contain sufficient sampleable material. A solids grab sample was collected from an access port located at a sedimentation chamber of SF4-EFF. A solids grab sample was collected from the influent stormwater vault VT-INF.

I-2.2 Stormwater Conveyance System Sampling

Ecology collected two solids samples and one field duplicate solids sample from the stormwater conveyance system at Alaska Marine Lines. Laboratory analyses for the solids samples are listed on Table I-1 and analytical data are presented in Table I-2. Chain of custody forms and the laboratory reports are provided as Attachments I-3 and I-4, respectively.

Solids sample AM-SF4-EFF-20130612-S and field duplicate AM-FD-01-20130612-S were collected from the sedimentation chamber of the sand filter SF4-EFF (Figure I-2, Attachment I-1). SF4-EFF is located at the northern property boundary of Alaska Marine Lines. The sand filter receives stormwater from the northern portion of the facility and discharges to the LDW via Outfall DP-1. The sample was collected from an access port located at the downstream portion of the sand filter and is representative of storm drain solids in Zone B. The sample consisted of dark brown fine-grained sand and silt. A strong odor was detected during sample collection. After multiple grab attempts, sufficient sample volume was obtained for all analyses. Per discussion with Ecology, dioxin/furan analysis was requested for this sample and field duplicate sample.

Solids sample AM-VT-INF-20130612-S was collected from the influent stormwater vault to the facility's stormwater treatment system (Figure I-2). The influent vault is located at the southeastern portion of the facility, north of the former Duwamish Shipyard. The influent vault receives stormwater from the central portion of the facility used for container and equipment storage. Stormwater is pumped to the storage tanks prior to treatment. After treatment, stormwater discharges to the LDW via Outfall DP-2. The sample was collected from the northwest portion of the influent vault and is representative of storm drain solids in Zone A. The sample consisted of brown and tan fine-grained sand and silt, organic matter, and debris. A slight hydrogen sulfide odor was detected during sample collection. Due to the silty sample matrix, no

volatile organic compounds (VOCs) or petroleum hydrocarbons (TPH) were selected for analysis. After multiple grab attempts, sufficient sample volume was obtained for all other analyses. Per discussion with Ecology, dioxin/furan analysis was requested for this sample.

I-3 Results

I-3.1 Chemical Analysis

Ecology collected two solids samples and one field duplicate solids sample during the June 12, 2013 stormwater compliance inspection at Alaska Marine Lines. No water samples were collected at Alaska Marine Lines. Analytical methods, chemical results and regulatory criteria are presented in Tables I-1 through I-2.

All chemical results were independently validated by EcoChem, Inc. of Seattle, WA. A summary-level, U.S. Environmental Protection Agency (EPA) Stage 2B data validation was performed on all chemistry results; a full-level, EPA Stage 4 data validation was performed on the dioxin/furan results. A compliance-level screening (EPA Stage 2A), including a comparison of detected results to sample concentrations, was performed on the rinse blank samples. Data validation was performed following EPA guidance (EPA 1994, 2008, 2009, 2010). The data validation report is available as Attachment 2 to the draft LDW NPDES Inspection Sampling Support Technical Memorandum (Leidos 2014).

I-3.2 Inspection Results and Permit Compliance Requirements

During the June 2013 inspection, Ecology identified areas of non-compliance with permit requirements and identified the following corrective actions for Alaska Marine Lines (Ecology 2013):

- Delineate the footprint of all areas that flow to the sanitary sewer in the SWPPP.
- Update the facility SWPPP to address improved source control measures in Zone D and include an accurate depiction of all storm drain lines, structures, and connections.
- Provide a detailed diagram of the facility's drain piping and plumbing near the StormwateRx system, including pumps, pipes, tanks, vaults, and bypasses.
- Provide proper cover and containment for all liquid chemical and petroleum products, and wastes stored outside, including dumpsters and scrap metal bins.
- Prohibit discharge of leachate or wash water to surface waters or storm drains.
- Obtain a separate coverage under the ISGP for the portion of the facility located west of West Marginal Way SW or expand the facility's current SWPPP to cover the additional area.

On August 12, 2013, Ecology issued a warning letter to Alaska Marine Lines describing the areas of non-compliance and corrective actions (Ecology 2013).

I-4 References

Alaska Marine Lines, Inc. (Alaska Marine Lines). 2012. Stormwater Pollution Prevention Plan, Alaska Marine Lines, Seattle, Washington. May 2012.

Alaska Marine Lines. 2013. Industrial Stormwater General Permit Annual Report, 2012, Permit No. WAR-001365. May 15, 2013.

Ecology (Washington Department of Ecology). 2010. Stormwater Compliance Inspection Report, Alaska Marine Lines. December 29, 2010.

Ecology. 2013. Stormwater Compliance Inspection Report, Alaska Marine Lines. August 12, 2013.

EPA (U.S. Environmental Protection Agency), Office of Emergency and Remedial Response. February 1994. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review.* EPA 540/R-94/013. Washington, DC.

EPA, Office of Emergency and Remedial Response. June 2008. *USEPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*. EPA-540-R-08-01. Washington, DC.

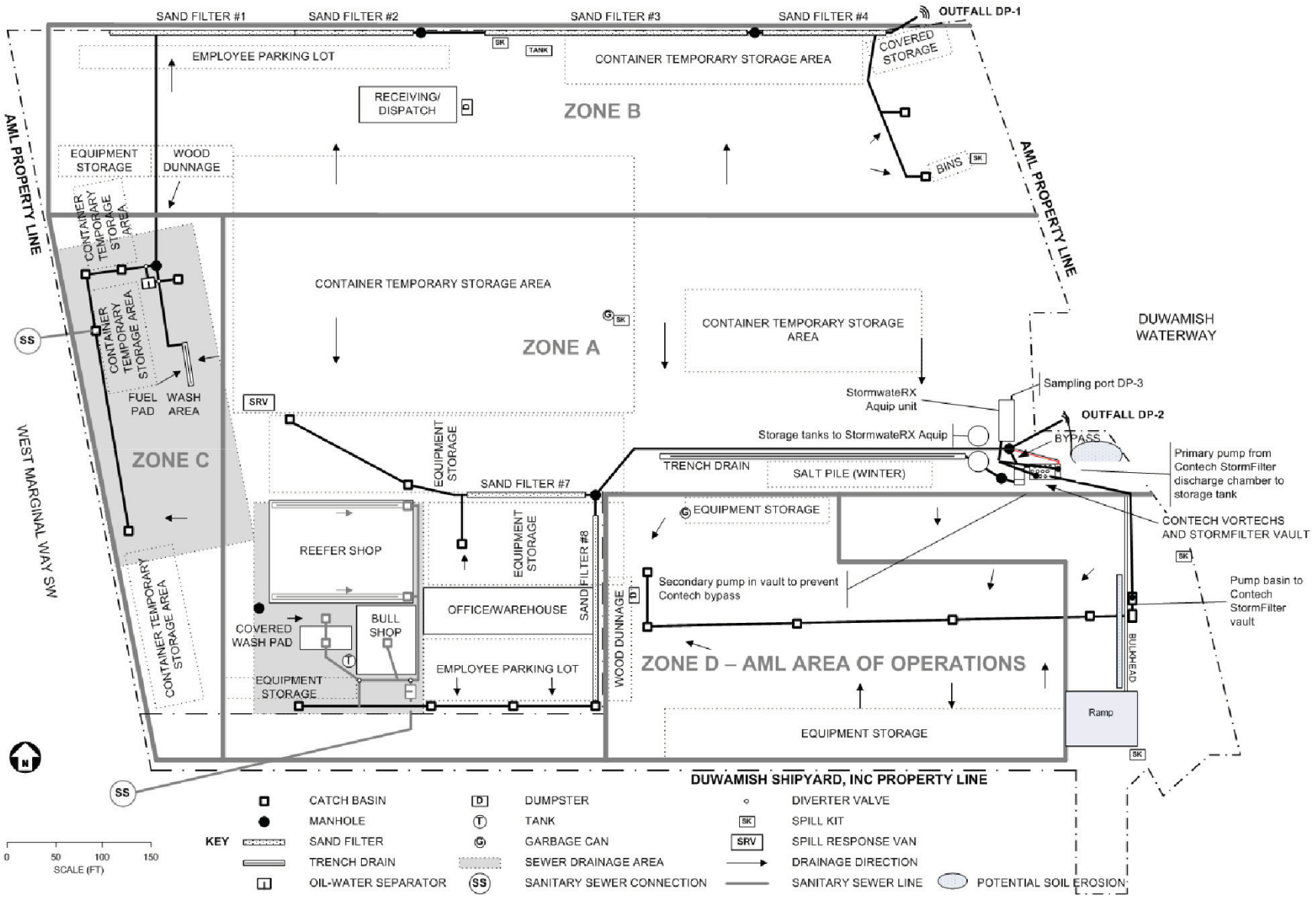
EPA, Office of Emergency and Remedial Response. January 2009. *Guidance for labeling externally validated laboratory analytical data for Superfund use.* EPA-540-R-08-005. Washington, DC.

EPA, Office of Emergency and Remedial Response. January 2010. *USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*. EPA 540-R-10-011. Washington, DC.

Leidos. 2014. LDW NPDES Inspection Sampling Support, Seattle, WA, Technical Memorandum. DRAFT. Prepared for Washington State Department of Ecology, Toxics Cleanup Program, Northwest Regional Office. In progress.

Figures

APPENDIX A – SITE MAP AND STORMWATER DRAINAGE SYSTEM



Source: Alaska Marine Lines 2006 [01648]

Figure I–1. Alaska Marine Lines Facility SWPPP Map

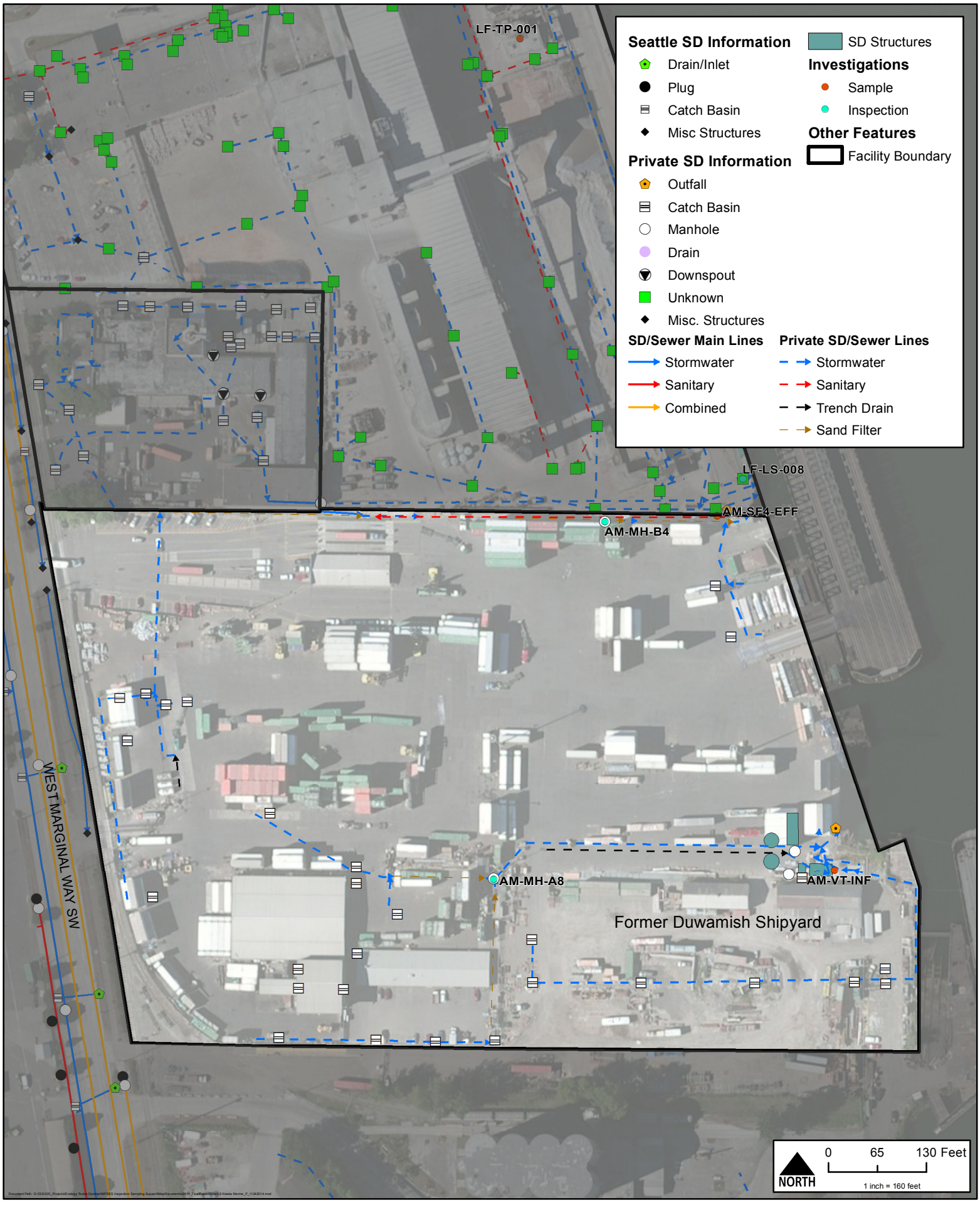


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Figure I–2. Alaska Marine Lines Inspection and Sample Locations

DEPARTMENT OF ECOLOGY State of Washington

Tables

Table I-1. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID / Collection Date	AM-SF4-EFF	AM-FD-01[a]	AM-VT-INF
Analyte	**6/12/2013**	**6/12/2013**	**6/12/2013**
Metals (Total) (mg/kg)			
Antimony	EPA200.8	EPA200.8	EPA200.8
Arsenic	EPA200.8	EPA200.8	EPA200.8
Beryllium	SW6010C	SW6010C	SW6010C
Cadmium	EPA200.8	EPA200.8	EPA200.8
Chromium	EPA200.8	EPA200.8	EPA200.8
Copper	SW6010C	SW6010C	SW6010C
Lead	EPA200.8	EPA200.8	EPA200.8
Mercury	SW7471A	SW7471A	SW7471A
Nickel	EPA200.8	EPA200.8	EPA200.8
Selenium	EPA200.8	EPA200.8	EPA200.8
Silver	EPA200.8	EPA200.8	EPA200.8
Thallium	EPA200.8	EPA200.8	EPA200.8
Zinc	SW6010C	SW6010C	SW6010C
PAHs (µg/kg)			
1-Methylnaphthalene	SW8270D	SW8270D	SW8270D
2-Chloronaphthalene	SW8270D	SW8270D	SW8270D
2-Methylnaphthalene	SW8270D	SW8270D	SW8270D
Acenaphthene	SW8270D	SW8270D	SW8270D
Acenaphthylene	SW8270D	SW8270D	SW8270D
Anthracene	SW8270D	SW8270D	SW8270D
Benzo(a)anthracene	SW8270D	SW8270D	SW8270D
Benzo(a)pyrene	SW8270D	SW8270D	SW8270D
Benzo(g,h,i)perylene	SW8270D	SW8270D	SW8270D
Chrysene	SW8270D	SW8270D	SW8270D
Dibenz(a,h)anthracene	SW8270D	SW8270D	SW8270D
Dibenzofuran	SW8270D	SW8270D	SW8270D
Fluoranthene	SW8270D	SW8270D	SW8270D
Fluorene	SW8270D	SW8270D	SW8270D
Indeno(1,2,3-cd)pyrene	SW8270D	SW8270D	SW8270D
Naphthalene	SW8260C	SW8270D	SW8270D
Phenanthrene	SW8270D	SW8270D	SW8270D
Pyrene	SW8270D	SW8270D	SW8270D
Total Benzofluoranthenes	SW8270D	SW8270D	SW8270D
Total HPAHs	SW8270D	SW8270D	SW8270D
Total LPAHs	SW8270D	SW8270D	SW8270D
Total PAHs	SW8270D	SW8270D	SW8270D
cPAHs, nd RL*0	SW8270D	SW8270D	SW8270D
cPAHs, nd RL*0.5	SW8270D	SW8270D	SW8270D
cPAHs, nd RL*1	SW8270D	SW8270D	SW8270D
Phthalates (µg/kg)			
bis(2-Ethylhexyl)phthalate	SW8270D	SW8270D	SW8270D
Butylbenzylphthalate	SW8270D	SW8270DSIM	SW8270D
Di-n-Butylphthalate	SW8270D	SW8270D	SW8270D
Diethylphthalate	SW8270DSIM	SW8270DSIM	SW8270DSIM

Table I-1. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID / Collection Date	AM-SF4-EFF	AM-FD-01[a]	AM-VT-INF
Analyte	**6/12/2013**	**6/12/2013**	**6/12/2013**
Dimethylphthalate	SW8270DSIM	SW8270DSIM	SW8270DSIM
Di-n-Octyl phthalate	SW8270D	SW8270D	SW8270D
Phenols (µg/kg)			
2,4,5-Trichlorophenol	SW8270D	SW8270D	SW8270D
2,4,6-Trichlorophenol	SW8270D	SW8270D	SW8270D
2,4-Dichlorophenol	SW8270D	SW8270D	SW8270D
2,4-Dimethylphenol	SW8270DSIM	SW8270DSIM	SW8270D
2,4-Dinitrophenol	SW8270D	SW8270D	SW8270D
2-Chlorophenol	SW8270D	SW8270D	SW8270D
2-Methylphenol	SW8270DSIM	SW8270DSIM	SW8270DSIM
2-Nitrophenol	SW8270D	SW8270D	SW8270D
4,6-Dinitro-2-Methylphenol	SW8270D	SW8270D	SW8270D
4-Chloro-3-methylphenol	SW8270D	SW8270D	SW8270D
4-Methylphenol	SW8270D	SW8270D	SW8270D
4-Nitrophenol	SW8270D	SW8270D	SW8270D
Pentachlorophenol	SW8270DSIM	SW8270DSIM	SW8270DSIM
Phenol	SW8270D	SW8270D	SW8270D
Other SVOCs (µg/kg)			
1,2,4-Trichlorobenzene	SW8260C	SW8260C	SW8270DSIM
1,2-Dichlorobenzene	SW8260C	SW8260C	SW8270DSIM
1,3-Dichlorobenzene	SW8260C	SW8260C	SW8270DSIM
1,4-Dichlorobenzene	SW8260C	SW8260C	SW8270DSIM
2,4-Dinitrotoluene	SW8270D	SW8270D	SW8270D
2,6-Dinitrotoluene	SW8270D	SW8270D	SW8270D
2-Nitroaniline	SW8270D	SW8270D	SW8270D
3,3'-Dichlorobenzidine	R	SW8270D	SW8270D
3-Nitroaniline	R	SW8270D	SW8270D
4-Bromophenyl-phenylether	SW8270D	SW8270D	SW8270D
4-Chloroaniline	R	SW8270D	SW8270D
4-Chlorophenyl-phenylether	SW8270D	SW8270D	SW8270D
4-Nitroaniline	SW8270D	SW8270D	SW8270D
Aniline	R	SW8270D	SW8270D
Benzoic Acid	SW8270D	SW8270D	SW8270D
Benzyl Alcohol	SW8270DSIM	SW8270DSIM	SW8270DSIM
2,2'-Oxybis(1-Chloropropane)	SW8270D	SW8270D	SW8270D
bis(2-Chloroethoxy) Methane	SW8270D	SW8270D	SW8270D
Bis-(2-Chloroethyl) Ether	SW8270D	SW8270D	SW8270D
Carbazole	SW8270D	SW8270D	SW8270D
Hexachlorobenzene	SW8270DSIM	SW8270DSIM	SW8270DSIM
Hexachlorobutadiene	SW8260C	SW8260C	SW8270DSIM
Hexachlorocyclopentadiene	R	SW8270D	SW8270D
Hexachloroethane	SW8270D	SW8270D	SW8270D
Isophorone	SW8270D	SW8270D	SW8270D
Nitrobenzene	SW8270D	SW8270D	SW8270D
N-Nitrosodimethylamine	SW8270DSIM	SW8270DSIM	SW8270DSIM

Table I-1. Sample Analytical Methods – Solids
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID / Collection Date	AM-SF4-EFF	AM-FD-01[a]	AM-VT-INF
Analyte	**6/12/2013**	**6/12/2013**	**6/12/2013**
N-Nitroso-Di-N-Propylamine	SW8270DSIM	SW8270DSIM	SW8270DSIM
N-Nitrosodiphenylamine	SW8270DSIM	SW8270DSIM	SW8270D
PCB Aroclors (µg/kg)			
PCB Aroclors	SW8082A	SW8082A	SW8082A
Pesticides (µg/kg)			
Pesticides	SW8081B	SW8081B	SW8081B
VOCs (µg/kg)			
VOCs	SW8260C	SW8260C	na
TPHs (mg/kg)			
Gasoline-Range Hydrocarbons	NWTPHG	NWTPHG	na
Diesel-Range Hydrocarbons	NWTPHD	NWTPHD	na
Motor Oil-Range Hydrocarbons	NWTPHD	NWTPHD	na
Dioxins and Furans (ng/kg)			
Dioxins and Furans	EPA 1613B	EPA 1613B	EPA 1613B
Grain size (%)			
Grain size	PSEP-PS	PSEP-PS	PSEP-PS
Conventionals (%)			
Total Organic Carbon	PLUMB81TC	PLUMB81TC	PLUMB81TC
Total Solids	SM2540B	SM2540B	SM2540B

a - This is a field duplicate of the sample directly preceding it.

% - percent
µg/kg - micrograms per kilogram
cPAHs - carcinogenic polycyclic aromatic hydrocarbons
EPA - U.S. Environmental Protection Agency
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
mg/kg - milligrams per kilogram
nd - non-detect
ng/kg - nanograms per kilogram
NPDES - National Pollutant Discharge Elimination System
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
R - Result rejected during data validation review.
RL - reporting limit
SIM - selected ion monitoring
SVOCs - semivolatile organic compounds
TPH - total petroleum hydrocarbons
VOCs - volatile organic compounds

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Metals (Total) (mg/kg)											
Antimony	--	--	< 0.5 UJ			< 0.5 UJ			< 0.5 UJ		
Arsenic	57	93	41			40.4			16.3		
Beryllium	--	--	0.3			< 0.6 U			0.3		
Cadmium	5.1	6.7	**5.5**	1.1		4.6			1.2		
Chromium	260	270	69			68			28		
Copper	390	390	215			235			71.6		
Lead	450	530	308			311			76.2		
Mercury	0.41	0.59	**0.47**	1.1		**0.47**	1.1		0.14		
Nickel	--	--	63			61			22		
Selenium	--	--	< 1.0 U			< 1.0 U			< 1.0 U		
Silver	6.1	6.1	1.5 J			1.4 J			< 0.5 UJ		
Thallium	--	--	< 0.5 U			< 0.5 U			< 0.5 U		
Zinc	410	960	**3,030**	7.4	3.2	**3,010**	7.3	3.1	**564**	1.4	
PAHs (µg/kg)											
1-Methylnaphthalene	--	--	< 210 U			< 220 U			160		
2-Chloronaphthalene	--	--	< 210 U			< 220 U			< 140 U		
2-Methylnaphthalene	670	1,400	< 210 U			< 220 U			200		
Acenaphthene	500	730	410			470			< 140 U		
Acenaphthylene	1,300	1,300	< 210 U			< 220 U			230		
Anthracene	960	4,400	410			460			170		
Benzo(a)anthracene	1,300	1,600	1,100			1,100			220		
Benzo(a)pyrene	1,600	3,000	620			720			180		
Benzo(g,h,i)perylene	670	720	**960 J**	1.4	1.3	**1,000**	1.5	1.4	330		
Chrysene	1,400	2,800	**2,000**	1.4		**2,300**	1.6		620		
Dibenz(a,h)anthracene	230	540	**310**	1.3		**320**	1.4		84 J		
Dibenzofuran	540	700	350			410			140		
Fluoranthene	1,700	2,500	**5,800 J**	3.4	2.3	**6,300**	3.7	2.5	840		
Fluorene	540	1,000	**570**	1.1		540			190		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Indeno(1,2,3-cd)pyrene	600	690	580 J			600			190		
Naphthalene	2,100	2,400	12 J			120 J			520		
Phenanthrene	1,500	5,400	**3,800**	2.5		**4,100**	2.7		940		
Pyrene	2,600	3,300	**5,200**	2.0	1.6	**5,800**	2.2	1.8	920		
Total Benzofluoranthenes	3,200	3,600	2,200			2,300			470		
Total HPAHs	12,000	17,000	**19,000 J**	1.6	1.1	**20,000**	1.7	1.2	3,900 J		
Total LPAHs	5,200	13,000	5,200 J			**5,700 J**	1.1		2,100		
Total PAHs	--	--	24,000 J			26,000 J			5,900 J		
cPAHs, nd RL*0	1,000	--	**1,100 J**	1.1		**1,200**	1.2		280 J		
cPAHs, nd RL*0.5	1,000	--	**1,100 J**	1.1		**1,200**	1.2		280 J		
cPAHs, nd RL*1	1,000	--	**1,100 J**	1.1		**1,200**	1.2		280 J		
Phthalates (µg/kg)											
bis(2-Ethylhexyl)phthalate	1,300	1,900	**13,000**	10	6.8	**12,000**	9.2	6.3	**5,100**	3.9	2.7
Butylbenzylphthalate	63	900	**340**	5.4		**360 J**	5.7		**1,300**	21	1.4
Di-n-Butylphthalate	1,400	5,100	< 210 U			< 220 U			200		
Diethylphthalate	200	1,200	< 64 U			< 120 U			< 52 U		
Dimethylphthalate	71	160	20			17 J			< 12 U		
Di-n-Octyl phthalate	6,200	--	440			440			100 J		
Phenols (µg/kg)											
2,4,5-Trichlorophenol	--	--	< 1,100 U			< 1,100 U			< 700 U		
2,4,6-Trichlorophenol	--	--	< 1,100 U			< 1,100 U			< 700 U		
2,4-Dichlorophenol	--	--	< 2,100 U			< 2,200 U			< 1,400 U		
2,4-Dimethylphenol	29	29	12 J			**< 72 U**			**110 J**	3.8	3.8
2,4-Dinitrophenol	--	--	< 9,100 UJ			< 9,100 UJ			< 5,900 UJ		
2-Chlorophenol	--	--	< 210 U			< 220 U			< 140 U		
2-Methylphenol	63	63	< 18 U			< 18 U			**130**	2.1	2.1
2-Nitrophenol	--	--	< 1,100 U			< 1,100 U			< 700 U		
4,6-Dinitro-2-Methylphenol	--	--	< 2,100 U			< 2,200 U			< 1,400 U		
4-Chloro-3-methylphenol	--	--	< 1,100 U			< 1,100 U			< 700 U		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
4-Methylphenol	670	670	500			540			360		
4-Nitrophenol	--	--	< 1,100 U			< 1,100 U			< 700 U		
Pentachlorophenol	360	690	< 180 U			< 180 U			49 J		
Phenol	420	1,200	110 J			< 220 U			**520**	1.2	
Other SVOCs (µg/kg)											
1,2,4-Trichlorobenzene	31	51	< 9.1 UJ			< 7.3 UJ			< 12 U		
1,2-Dichlorobenzene	35	50	< 1.8 UJ			< 1.5 UJ			< 12 U		
1,3-Dichlorobenzene	--	--	< 1.8 UJ			< 1.5 UJ			< 12 U		
1,4-Dichlorobenzene	110	120	< 1.8 UJ			< 1.5 UJ			< 12 U		
2,4-Dinitrotoluene	--	--	< 1,100 U			< 1,100 U			< 700 U		
2,6-Dinitrotoluene	--	--	< 1,100 U			< 1,100 U			< 700 U		
2-Nitroaniline	--	--	< 1,100 U			< 1,100 U			< 700 U		
3,3'-Dichlorobenzidine	--	--	R			< 1,600 U			< 1,000 U		
3-Nitroaniline	--	--	R			< 1,100 U			< 700 U		
4-Bromophenyl-phenylether	--	--	< 210 U			< 220 U			< 140 U		
4-Chloroaniline	--	--	R			< 2,900 U			< 1,900 U		
4-Chlorophenyl-phenylether	--	--	< 210 U			< 220 U			< 140 U		
4-Nitroaniline	--	--	< 1,100 UJ			< 1,100 U			< 700 U		
Aniline	--	--	R			< 5,800 U			< 3,800 U		
Benzoic Acid	650	650	**< 4,300 UJ**			**< 4,300 UJ**			**< 2,800 UJ**		
Benzyl Alcohol	57	73	56 J			**60 J**	1.1		**130**	2.3	1.8
2,2'-Oxybis(1-Chloropropane)	--	--	< 210 U			< 220 U			< 140 U		
bis(2-Chloroethoxy) Methane	--	--	< 210 U			< 220 U			< 140 U		
Bis-(2-Chloroethyl) Ether	--	--	< 210 U			< 220 U			< 140 U		
Carbazole	--	--	320			370			410		
Hexachlorobenzene	22	70	< 18 U			< 18 U			< 12 U		
Hexachlorobutadiene	11	120	< 9.1 UJ			< 7.3 UJ			**< 12 U**		
Hexachlorocyclopentadiene	--	--	R			< 4,300 U			< 2,800 U		
Hexachloroethane	--	--	< 210 U			< 220 U			< 140 U		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Isophorone	--	--	< 210 U			< 220 U			< 140 U		
Nitrobenzene	--	--	< 210 U			< 220 U			< 140 U		
N-Nitrosodimethylamine	--	--	< 89 U			< 90 U			< 58 U		
N-Nitroso-Di-N-Propylamine	--	--	< 43 U			< 43 U			< 28 U		
N-Nitrosodiphenylamine	28	40	**130**	4.6	3.3	**180**	6.4	4.5	**220**	7.9	5.5
PCB Aroclors (µg/kg)											
Aroclor 1016	--	--	< 19 U			< 19 U			< 3.8 U		
Aroclor 1221	--	--	< 19 U			< 19 U			< 3.8 U		
Aroclor 1232	--	--	< 19 U			< 19 U			< 3.8 U		
Aroclor 1242	--	--	< 19 U			< 19 U			< 3.8 U		
Aroclor 1248	--	--	39			33			10		
Aroclor 1254	--	--	49			48			20		
Aroclor 1260	--	--	20			21			6.5		
Aroclor 1262	--	--	< 19 U			< 19 U			< 3.8 U		
Aroclor 1268	--	--	< 19 U			< 19 U			< 3.8 U		
Total PCB Aroclors	130	1,000	110			100			37		
Pesticides (µg/kg)											
4,4'-DDD	--	--	< 98 UJ			< 98 UJ			< 97 UJ		
4,4'-DDE	--	--	< 98 U			< 98 U			< 97 U		
4,4'-DDT	--	--	< 98 U			< 98 U			< 97 U		
Total DDTs	--	--	< 98 U			< 98 U			< 97 U		
Aldrin	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
alpha-BHC	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
beta-BHC	--	--	< 49 U			< 49 U			< 48 U		
cis-Chlordane	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
delta-BHC	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
Dieldrin	--	--	< 98 U			< 98 U			< 97 U		
Endosulfan I	--	--	< 49 U			< 49 U			< 48 U		
Endosulfan II	--	--	< 98 U			< 98 U			< 97 U		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
Endosulfan Sulfate	--	--	< 98 U			< 98 U			< 97 U		
Endrin	--	--	< 98 U			< 98 UJ			< 97 U		
Endrin Aldehyde	--	--	< 98 U			< 98 U			< 97 U		
Endrin Ketone	--	--	< 98 U			< 98 U			< 97 U		
Heptachlor	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
Heptachlor Epoxide	--	--	< 98 U			< 98 U			< 97 U		
gamma-BHC (Lindane)	--	--	< 49 UJ			< 49 UJ			< 48 UJ		
Methoxychlor	--	--	< 490 U			< 490 UJ			< 480 U		
Toxaphene	--	--	< 9,800 U			< 9,800 U			< 9,700 U		
trans-Chlordane	--	--	< 49 U			< 49 U			< 48 U		
Total aldrin/dieldrin	--	--	< 98 U			< 98 U			< 97 U		
Total Chlordane	--	--	< 49 U			< 49 U			< 48 U		
VOCs (µg/kg)											
1,1,1,2-Tetrachloroethane	--	--	< 1.8 U			< 1.5 U			na		
1,1,1-Trichloroethane	--	--	< 1.8 U			< 1.5 U			na		
1,1,2,2-Tetrachloroethane	--	--	< 1.8 UJ			< 1.5 UJ			na		
1,1,2-Trichloro-1,2,2-trifluoroetha	--	--	< 3.6 U			< 2.9 U			na		
1,1,2-Trichloroethane	--	--	< 1.8 U			< 1.5 U			na		
1,1-Dichloroethane	--	--	< 1.8 U			< 1.5 U			na		
1,1-Dichloroethene	--	--	< 1.8 UJ			< 1.5 UJ			na		
1,1-Dichloropropene	--	--	< 1.8 U			< 1.5 U			na		
1,2,3-Trichlorobenzene	--	--	< 9.1 UJ			< 7.3 UJ			na		
1,2,3-Trichloropropane	--	--	< 3.6 UJ			< 2.9 UJ			na		
1,2,4-Trimethylbenzene	--	--	35 J			32 J			na		
1,2-Dibromo-3-chloropropane	--	--	< 9.1 UJ			< 7.3 UJ			na		
1,2-Dibromoethane	--	--	< 1.8 U			< 1.5 U			na		
1,2-Dichloroethane	--	--	< 1.8 U			< 1.5 U			na		
1,2-Dichloropropane	--	--	< 1.8 U			< 1.5 U			na		
1,3,5-Trimethylbenzene	--	--	25 J			23 J			na		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
1,3-Dichloropropane	--	--	< 1.8 U			< 1.5 U			na		
2,2-Dichloropropane	--	--	< 1.8 U			< 1.5 U			na		
2-Chloroethylvinylether	--	--	< 9.1 UJ			< 7.3 UJ			na		
2-Chlorotoluene	--	--	< 1.8 UJ			< 1.5 UJ			na		
2-Hexanone	--	--	10			12			na		
4-Chlorotoluene	--	--	< 1.8 UJ			< 1.5 UJ			na		
Acetone	--	--	< 9.1 U			< 7.3 U			na		
Acrolein	--	--	< 91 UJ			< 73 UJ			na		
Acrylonitrile	--	--	< 9.1 U			< 7.3 U			na		
Benzene	--	--	2.6			2.3			na		
Bromobenzene	--	--	< 1.8 UJ			< 1.5 UJ			na		
Bromochloromethane	--	--	< 1.8 U			< 1.5 U			na		
Bromoethane	--	--	< 3.6 UJ			< 2.9 UJ			na		
Bromoform	--	--	< 1.8 UJ			< 1.5 UJ			na		
Bromomethane	--	--	< 1.8 U			< 1.5 U			na		
Carbon Disulfide	--	--	47			52			na		
Carbon Tetrachloride	--	--	< 1.8 U			< 1.5 U			na		
Chlorobenzene	--	--	< 1.8 U			< 1.5 U			na		
Dibromochloromethane	--	--	< 1.8 U			< 1.5 U			na		
Chloroethane	--	--	< 1.8 U			< 1.5 U			na		
Chloroform	--	--	2.4			1.9			na		
Chloromethane	--	--	< 1.8 U			< 1.5 U			na		
cis-1,2-Dichloroethene	--	--	< 1.8 U			< 1.5 U			na		
cis-1,3-Dichloropropene	--	--	< 1.8 U			< 1.5 U			na		
Dibromomethane	--	--	< 1.8 U			< 1.5 U			na		
Bromodichloromethane	--	--	< 1.8 U			< 1.5 U			na		
Dichlorodifluoromethane	--	--	< 1.8 U			< 1.5 U			na		
Ethylbenzene	--	--	3.3			1.8			na		
Isopropylbenzene	--	--	3.6 J			3.2 J			na		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
m,p-Xylene	--	--	9.3			5.5			na		
2-Butanone	--	--	230			380			na		
Iodomethane	--	--	< 1.8 UJ			< 1.5 UJ			na		
4-Methyl-2-Pentanone (MIBK)	--	--	280			220			na		
Methyl tert-Butyl Ether	--	--	< 1.8 U			< 1.5 U			na		
Methylene Chloride	--	--	< 9 U			< 5.4 U			na		
n-Butylbenzene	--	--	< 1.8 UJ			< 1.5 UJ			na		
n-Propylbenzene	--	--	3.2 J			2.5 J			na		
o-Xylene	--	--	11			6.2			na		
4-Isopropyltoluene	--	--	2.1 J			2.0 J			na		
sec-Butylbenzene	--	--	4.2 J			6.9 J			na		
Styrene	--	--	5.7			4.3			na		
tert-Butylbenzene	--	--	< 1.8 UJ			< 1.5 UJ			na		
Tetrachloroethene	--	--	< 1.8 U			< 1.5 U			na		
Toluene	--	--	3.9			2.7			na		
Total Xylenes	--	--	20			12			na		
trans-1,2-Dichloroethene	--	--	< 1.8 U			< 1.5 U			na		
trans-1,3-Dichloropropene	--	--	< 1.8 U			< 1.5 U			na		
trans-1,4-Dichloro-2-butene	--	--	< 9.1 UJ			< 7.3 UJ			na		
Trichloroethene	--	--	< 1.8 U			< 1.5 U			na		
Trichlorofluoromethane	--	--	5.6			3.5			na		
Vinyl Acetate	--	--	< 9.1 UJ			< 7.3 UJ			na		
Vinyl Chloride	--	--	< 1.8 U			< 1.5 U			na		
TPH (mg/kg)											
Gasoline-Range Hydrocarbons	30/100	--	< 20 U			< 20 U			na		
Diesel-Range Hydrocarbons	2,000	--	**3,000**	1.5		**3,200**	1.6		na		
Motor Oil-Range Hydrocarbons	2,000	--	**13,000**	6.5		**14,000**	7.0		na		
Dioxins and Furans (ng/kg)											
2,3,7,8-TCDD	--	--	< 0.944 U			< 0.883 U			< 0.463 U		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
1,2,3,7,8-PeCDD	--	--	2.72			2.62			1.39		
1,2,3,4,7,8-HxCDD	--	--	4.52			4.31			1.91		
1,2,3,6,7,8-HxCDD	--	--	19			19.5			8.29		
1,2,3,7,8,9-HxCDD	--	--	9.86			10			4.68		
1,2,3,4,6,7,8-HpCDD	--	--	552			543			187		
OCDD	--	--	5,680 J			5,300 J			2,690		
2,3,7,8-TCDF	--	--	1.44 J			1.16			1.97		
1,2,3,7,8-PeCDF	--	--	1.42			1.33			1.99		
2,3,4,7,8-PeCDF	--	--	< 2.2 U			< 1.87 U			3.69		
1,2,3,4,7,8-HxCDF	--	--	7.77			7.3			9.67		
1,2,3,6,7,8-HxCDF	--	--	4.43			4.32			3.93		
1,2,3,7,8,9-HxCDF	--	--	1.95			1.99			2.03		
2,3,4,6,7,8-HxCDF	--	--	6.48			6.55			5.74		
1,2,3,4,6,7,8-HpCDF	--	--	114 J			115 J			54.4 J		
1,2,3,4,7,8,9-HpCDF	--	--	8.75			7.9			4.85		
OCDF	--	--	434			431			152		
Dioxin/Furan TEQ, nd SDL*0	25	--	16.9 J			16.6 J			9.69 J		
Dioxin/Furan TEQ, nd SDL*0.5	25	--	17.7 J			17.3 J			9.93 J		
Dioxin/Furan TEQ, nd SDL*1	25	--	18.5 J			18 J			10.2 J		
Total TCDD	--	--	6.56 J			7.93 J			6.71 J		
Total TCDF	--	--	20.6 J			21.3 J			46.3 J		
Total PeCDD	--	--	17.2 J			17.2 J			12.3 J		
Total PeCDF	--	--	43.8 J			46.8 J			54.2 J		
Total HxCDD	--	--	178 J			175			58.4 J		
Total HxCDF	--	--	159 J			158			104 J		
Total HpCDD	--	--	1,660			1,620			396		
Total HpCDF	--	--	361			361 J			165 J		
Grain size (%)											
> 10 Phi Clay	--	--	7.9			7.9			23.8		

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET
8-9 Phi Clay	--	--	6.9			6.5			7.9		
9-10 Phi Clay	--	--	9.9			6.2			2.8		
Very Fine Silt	--	--	7.5			6.2			20.6		
Fine Silt	--	--	30.5			13.1			32.9		
Medium Silt	--	--	15.4			26.4			5.4		
Coarse Silt	--	--	1.0			3.0			0.8		
Total Fines	--	--	79.1			69.3			94.2		
Very Fine Sand	--	--	5.0			9.2			1.4		
Fine Sand	--	--	4.2			8.7			1.5		
Medium Sand	--	--	3.2			7.4			1.1		
Coarse Sand	--	--	3.2			4.1			0.6		
Very Coarse Sand	--	--	2.9			1.1			0.6		
Gravel	--	--	2.3			0.2			0.6		
Conventionals (%)											
Total Organic Carbon	--	--	11.3			12.6			5.5		
Total Solids	--	--	39.45			39.43			41.71		

a - LDW RALs are presented for cPAHs and Dioxin/Furan TEQs. MTCA Method A cleanup levels for soil are presented for TPH.

b - This is a field duplicate of the sample directly preceding it.

Results in **bold** exceed the SQS/LAET/RAL.

Results in **bold and shaded gray** exceed the CSL/2LAET.

EFs are presented for detected concentrations that exceed the SMS/AET criteria, LDW RALs, or MTCA Method A cleanup levels for soil only.

The EFs are calculated (result/criterion) and have no regulatory relevance. They provide an indication of the general magnitude of the concentration relative to the SMS criteria or LDW RALs.

% - percent

< - not detected

2LAET - Second Lowest Apparent Effects Threshold

AET - Apparent Effects Threshold

cPAHs - carcinogenic polycyclic aromatic hydrocarbons

ng/kg - nanograms per kilogram

NPDES - National Pollutant Discharge Elimination System

OC - organic carbon

PCBs - polychlorinated biphenyls

R - Rejected completely during data validation review

Table I-2. Solids Sample Results Compared to Dry Weight SMS/AET Criteria or LDW RALs
NPDES Inspection Sampling Support: Alaska Marine Lines

Location ID			AM-SF4-EFF			AM-FD-01[b]			AM-VT-INF		
Collection Date			6/12/2013			6/12/2013			6/12/2013		
Analyte	SMS Criteria		Result	EF		Result	EF		Result	EF	
	SQS/ LAET/RAL[a]	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET		SQS/ LAET/RAL	CSL/ 2LAET

CSL - Cleanup Screening Level
EF - exceedance factor (sample result/criteria value)
HPAHs - high molecular weight polycyclic aromatic hydrocarbons
J - estimated concentration
LAET - Lowest Apparent Effects Threshold
LDW - Lower Duwamish Waterway
LPAHs - low molecular weight polycyclic aromatic hydrocarbons
mg/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
MTCA - Model Toxics Control Act
na - not analyzed
nc - not calculated
nd - non-detect
RAL - Remedial Action Levels
RL - reporting limit
SDL - sample detection limit
SMS - Washington State Sediment Management Standards
SQS - Sediment Quality Standard
SVOCs - semivolatile organic compounds
TEQ - toxic equivalency
TPH - total petroleum hydrocarbons
U - not detected
VOCs - volatile organic compounds

Attachment I-1
Inspection Photographic Log

Conveyance Structure Information	
Structure Identification Number: AM-SF4-EFF	**N➔**
Structure Type: “Delaware” Sand Filter	
General Location: Northeastern portion of facility	
Characteristics: Trench-type sand filters with slotted grates	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Sealed manhole cover	
Volume Gauge: No	
Sample ID: AM-S4-EFF-20130612-S AM-FD-01-20130612-S	
Drainage Information:	
Location AM-SF4-EFF receives stormwater from Drainage Zone B at the northern portion of Alaska Marine Lines. Solids in stormwater settle in the sand filter chamber pictured to the right. Stormwater fills the chamber and overflows the notch in the wall (pictured above) to another sand filter chamber. Stormwater drains through the sand filter and is then discharged to the LDW via Outfall DP-1.	**N➔** 

Conveyance Structure Information	
Structure Identification Number: Drainage Zone A	N← 
Structure Type: n/a	
General Location: Central portion of facility	
Characteristics: Container storage area	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: n/a	
Volume Gauge: No	
Sample ID: Not Sampled	
Drainage Information:	
Stormwater in Drainage Zone A is collected in a series of catch basins and sand filters and then conveyed to the facility's stormwater treatment system. Stormwater is discharged to the LDW via Outfall DP-2.	N↑ 

Conveyance Structure Information	
Structure Identification Number: AM-MH-A8	**N➔** 
Structure Type: Manhole/Sand Filter Effluent Point	
General Location: Central portion of facility	
Characteristics: Trench-type sand filters with slotted grates (Delaware type)	
Pump Capacity (gpm): n/a	
Design Storm: n/a	
Access: Sealed manhole cover	
Volume Gauge: No	
Sample ID: No sample collected due to insufficient material volume available.	
Drainage Information	
AM-MH-A8 receives stormwater from sand filters #7 and #8 located in the Drainage Zone A. Stormwater from AM-MH-A8 is conveyed to the facility's stormwater treatment system prior to discharge to the LDW via Outfall DP-2.	**N🡅** 

Attachment I-2
Field Documentation

SAIC
From Science to Solutions

Sediment Collection Form

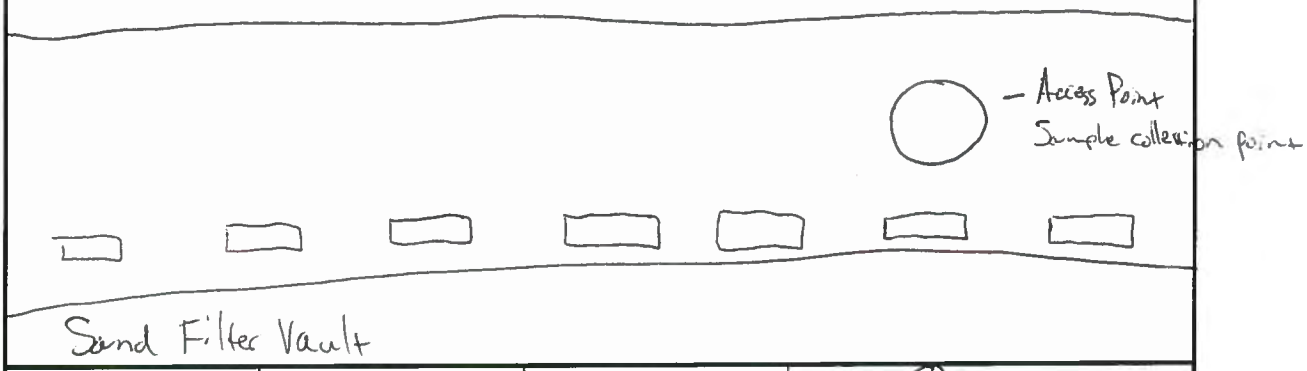
Project: NPDES Sampling Support **Location ID:** AM-SF4-EFF

Facility Name: Alaska Marine Lines **Sample ID:** AM-SF4-EFF-20130612-S

Sampled By: CW CN **Date:** 6 /12 / 2013 **Time:** 1003

Structure Type: Sand Filter	**Dimensions:** 6" Diameter W_____ L_____	**Standing Water:** Y /(N)	**Flow:** Y /(N)

Conveyance System Sketch ↑N



Depth to Bottom: 4 ft	**Depth to Water:** — ft	**Depth of Sediment:** ~6 in	**Sampled:** (Y) / N (Discrete) / Composite *(circle one)*

Sediment type:	***Sediment color:***	***Sediment Odor:***	***Comments:***
Cobble	~~Drab olive~~	None	
Gravel	~~Brown~~ Dark	Slight	
~~Sand~~ C M (F)	Brown surface	Moderate	
(Silt/clay)	Gray	(Strong)	
Organic matter	Black	Overwhelming	Photo ID(s):
Debris	Tan	H_2S	
		Petroleum	GPS ID: ~~AM~~ AM-SF4-EFF

NOTES:

Collected Sample from the sedimentation portion of Sand Filter Vault.

Recorded By/Date: CW 6/12/13 **Reviewed By/Date:** _____

Version2 -030311

SAIC
From Science to Solutions

Sediment Collection Form

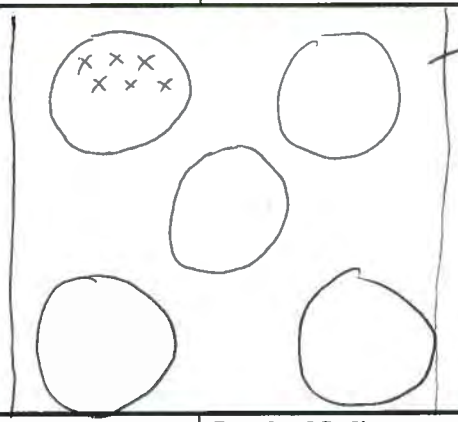
Project: NPDES Sampling Support **Location ID:** AM-VT-INF

Facility Name: Alaska Marine Lines **Sample ID:** AM-VT-INF-20130612-S

Sampled By: CW CN **Date:** 6 / 12 / 2013 **Time:** 1306

Structure Type: Influent Vault	**Dimensions:** Standard W ____ L Manhole	**Standing Water:** (Y) / N	**Flow:** Y / (N)

Conveyance System Sketch



Depth to Bottom: ~7 ft	**Depth to Water:** ~4 ft	**Depth of Sediment:** 6-12 in	**Sampled:** (Y) / N **Discrete** / **Composite** *(circle one)*

Sediment type:	***Sediment color:***	***Sediment Odor:***	***Comments:***
Cobble	Drab olive	None	
Gravel	(Brown)	(Slight)	
Sand C M (F)	Brown surface	Moderate	
(Silt/clay)	Gray	Strong	
Organic matter	Black	Overwhelming	Photo ID(s):
(Debris)	(Tan)	H_2S	
		Petroleum	GPS ID: AM-VT-INF

NOTES: Collected sample from influent vault to Contech treatment system

Recorded By/Date: CW 6/12/13 **Reviewed By/Date:** _____

Version2 -030311

6/12/13 NPDES Alaska Marine Lines

Amrep Field office Partly Cloudy 55°

Create bottle sets, load truck

0753 Depart Field office

0807 Arrive at Alaska Marine Lines

Sign in to office

0819 Kickoff Meeting w/ Bob (ECY)

H+S Meeting Andrew Meuscher (AML)

Mark Graska (AML)

Begin Side walk

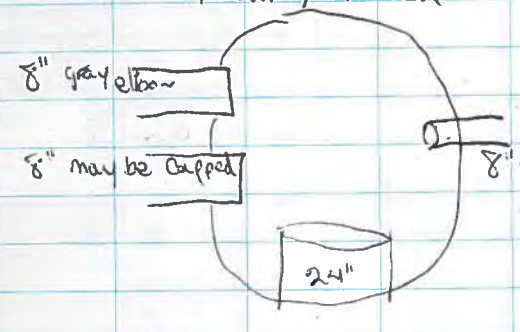
0845 Open manhole along north fence line

AM-SF4-INF (Sand Filter 4)

Tested for sediments not enough sample volume in manhole

10.5' depth to bottom ~1' ft water depth

Pictures taken



0945 Setup to sample at AM-SF4-Eff

6/12/13 Alaska Marine Lines

1003 Collect AM-SF4-EFF-20130612-S and AM-DUP-01-20130612-S full suite of seds collected.

1043 Finish sample collection Breakdown collection site; reload cart used to transport equipment.

1112 Decon equipment; move truck so we don't get blocked in

1117 MOB to lunch

1200 Arrive onsite at south entrance, inspect AM-SF8-EFF which receives flow from sand filter 7 and 8. no solids, 5 pipes tidally influenced

1220 Inspect Sand filter #8. Two access portals no solids, approx 3' water. Tidal/GW influenced

1228 Inspect contech Stormfilter vault

1306 Opt to collect influent sample AM-VT-INF-20130612-S; due to matrix no VOC/TPH collected.

6/12/13 Alaska Marine Lines

1317 Decon equipment
Have a meeting w/ Alaska Staff re: Action Items

13
~~1446~~ MOB offsite
Mtg w/ Bob in the parking lot to discuss schedule and planning for next week

13
~~1447~~ B. Wright offsite

~~0453~~ 49 CW/CW offsite MOB to ARI Lab

1408 Arrive @ ARI

1417 Depart ARI

1435 Arrive at field office. Unload field gear

6/12/13 CW

Attachment I-3
Chain of Custody Forms

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WT81	Turn-around Requested: Standard 10 d TAT	Date: 12 June 2013	
ARI Client Company: **SAIC**	Phone: **206.300.2144** nancarrowc@saic.com	Page: 1 of 1	
Client Contact: **Christine Nancarrow**		No. of Coolers: 1	Cooler Temps: 6.0
Client Project Name: **NPDES Sampling Support**			
Client Project #: **209977**	Samplers: CN/AW		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	PCB Aroclors (EPA 8082)	SVOCs/PAHs (EPA 8270 / EPA 8270-SIM)	Pesticides (EPA 8081)	Dioxins/Furans (EPA 1613B)	TPH-Diesel (NWTPH-DW)	VOCs (EPA8260)	Metals (EPA 6010/200.8)	Mercury (EPA 7471)	TOC (Plumb 1981)	Total Solids (SM2540B)	Particle Size Distribution (Sedigraph)	NWTPH-Gas (NWTPH-Gx)	Notes/Comments
AM-SF4-EFF-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-DUP-01-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-TB-01-20130612-W	6/12/13	1005	H2O	2						✓						✓	
AM-VT-INF-20130612-S	6/12/13	1306	Sed.	6	✓	✓	✓	✓			✓	✓	✓	✓	✓		

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
Do not discard samples w/out prior written authorization from the SAIC PM.	(Signature) CNancarrow	(Signature) Jennifer Millsap	(Signature)	(Signature)
	Printed Name: CNANCARROW	Printed Name: Jennifer Millsap	Printed Name:	Printed Name:
	Company: SAIC	Company: ARI	Company:	Company:
	Date & Time: 6/12/13 @1410	Date & Time: 6/12/13 1410	Date & Time:	Date & Time:

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Attachment I-4
Laboratory Reports

Note: Laboratory reports are included with digital files.

Table of Contents: ARI Job WT81

Client: SAIC

Project: 209977 NPDES Sampling Support

BC
Signature

June-26-2013
Date

Table of Contents: ARI Job WT81

Client: SAIC

Project: 209977 NPDES Sampling Support

BC

Signature

June-26-2013

Date

Table of Contents: ARI Job WT81

Client: SAIC

Project: 209977 NPDES Sampling Support

BC

Signature

June-26-2013

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 3, 2013

Christine Nancarrow
SAIC
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

RE: Project: NPDES Sampling Support, 209977
ARI Job No.: WT81

Dear Christine:

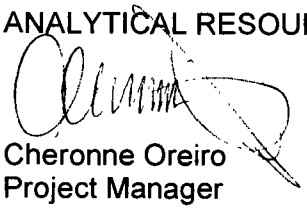
Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this data package will be kept on file with ARI. Should you have any questions or problems, please feel free to contact me at any time.

Sincerely,

ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WT81

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WT81

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WTBL	Turn-around Requested: Standard 10 d TAT	Date: 12 June 2013	
ARI Client Company: **SAIC**	Phone: **206.300.2144** nancarrowc@saic.com	Page: 1 of 1	
Client Contact: **Christine Nancarrow**		No. of Coolers: 1	Cooler Temps: 6.0
Client Project Name: **NPDES Sampling Support**			
Client Project #: **209977**	Samplers: CW/CW		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	PCB Aroclors (EPA 8082)	SVOCs/PAHs (EPA 8270 / EPA 8270-SIM)	Pesticides (EPA 8081)	Dioxins/Furans (EPA 1613B)	TPH-Diesel (NWTPH-DW)	VOCs (EPA8260)	Metals (EPA 6010/200.8)	Mercury (EPA 7471)	TOC (Plumb 1981)	Total Solids (SM2540B)	Particle Size Distribution (Sedigraph)	NWTPH-Gas (NWTPH-Gx)	Notes/Comments
					Analysis Requested (Sediment Sample)												
AM-SF4-EFF-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-DUP-01-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-TB-01-20130612-W	6/12/13	1005	H_2O	2						✓						✓	
AM-VT-INF-20130612-S	6/12/13	1306	Sed.	6	✓	✓	✓	✓			✓	✓	✓	✓	✓		

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
Do not discard samples w/out prior written authorization from the SAIC PM.	Printed Name: C.NANCARROW	Printed Name: Jennifer Millsap	Printed Name.	Printed Name
	Company: SAIC	Company: ARI	Company	Company
	Date & Time: 6/12/13 @ 1410	Date & Time: 6/12/13 1410	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client SAIC
Project Name: NPDES Sampling Support
COC No(s) _____ (NA)
Delivered by Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No. WT81
Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)
Were custody papers included with the cooler? (YES) NO
Were custody papers properly filled out (ink, signed, etc) (YES) NO
Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 6.0
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 70377952
Cooler Accepted by: JM Date: 6/12/13 Time: 1410

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____
Was sufficient ice used (if appropriate)? NA (YES) NO
Were all bottles sealed in individual plastic bags? YES (NO)
Did all bottles arrive in good condition (unbroken)? (YES) NO
Were all bottle labels complete and legible? (YES) NO
Did the number of containers listed on COC match with the number of containers received? (YES) NO
Did all bottle labels and tags agree with custody papers? (YES) NO
Were all bottles used correct for the requested analyses? (YES) NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NA YES (NO)
Were all VOC vials free of air bubbles? NA YES (NO)
Was sufficient amount of sample sent in each bottle? (YES) NO
Date VOC Trip Blank was made at ARI NA 4/15/13
Was Sample Split by ARI: (NA) YES Date/Time _____ Equipment _____ Split by: _____

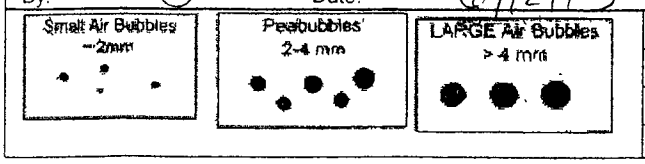
Samples Logged by: JM Date: 6/12/13 Time: 1441

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
AM-TB-01-20130612-W = sm in 1 of 2

By: JM Date: 6/12/13



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Subject: RE: WT81 NPDES Sample Receipt and COC
From: "Mitchell, Marina I." <MARINA.I.MITCHELL@saic.com>
Date: 6/13/2013 11:55 AM
To: "Cheronne Oreiro" <cheronneo@arilabs.com>
CC: "Nancarrow, Christine F." <CHRISTINE.F.NANCARROW@saic.com>, <Wilson, Corey>, <MARINA.I.MITCHELL@saic.com>

Hi Cheronne,

TPH-Dx was not requested on the COC for sample AM-VT-INF-20130612-S (WT81A), but it was logged in for the analysis. Please cancel TPH-Dx for this sample, we do not want to run this sample for TPH-Dx.

Also, would you please edit the sample ID of AM-DUP-01-20130612-S to AM-FD-01-20130612-S for WT81C? The COC (and I presume the sample bottles also) were labeled using old terminology.

Thank you!
Marina

Marina I. Mitchell | SAIC

Senior Environmental Chemist

Engineering Solutions

office: 425.482.3310 | mobile: 425.443.1399

email: marina.i.mitchell@saic.com

-----Original Message-----
From: Cheronne Oreiro [mailto:cheronneo@arilabs.com]
Sent: Wednesday, June 12, 2013 4:23 PM
To: Nancarrow, Christine F.
Cc: Mitchell, Marina I.
Subject: WT81 NPDES Sample Receipt and COC

Hi Christine,

Please see attached.

Thanks,

-Cheronne

--

Cheronne Oreiro

Project Manager

Analytical Resources, Inc.

4611 S. 134th Place, Suite 100

Tukwila, WA 98168-3240

cheronneo@arilabs.com

(206)-695-6214

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WT81

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: SAIC
Project: NPDES Sampling Support, 209977
ARI Job No.: WT81

Sample Receipt

Three sediment samples and one water sample were received on June 12, 2013 under ARI job WT81. The cooler temperature measured by IR thermometer following ARI SOP was 6.0°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles by SW8260C

The samples were analyzed within the recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration was outside the 20% control limit high for 1,1,2-Trichloro-1,2,2-trifluoroethane, Bromoethane, Iodomethane, Methylene Chloride, trans-1,2-Dichloroethene, and Methyl tert-Butyl Ether. The calibration also fell outside the control limit low for 2-Chloroethylvinylether and 1,2-Dibromo-3-chloropropane. All detected results for these compounds have been flagged with a "Q" qualifier. No further corrective action was taken.

The internal standard area of d5-Chlorobenzene and d4-1,4-Dichlorobenzene fell outside the control limits low for sample **AM-SF4-EFF-20130612-S**. The sample was re-analyzed and the internal standard area of d5-Chlorobenzene was within control limits and d4-1,4-Dichlorobenzene fell outside control limits low. No further corrective action was taken.

The internal standard area of d4-1,4-Dichlorobenzene fell outside the control limits low for sample **AM-FD-01-20130612-S**. The sample was re-analyzed and internal standard areas were comparable to the initial analysis. No further corrective action was taken.

The surrogate percent recoveries of Bromofluorobenzene fell outside the control limits low for samples **AM-SF4-EFF-20130612-S** and **AM-FD-01-20130612-S**. The samples were re-analyzed and surrogate percent recoveries were comparable to the initial analysis. No further corrective action was taken.

Methylene Chloride, 1,2-Dichlorobenzene, Iodomethane, 1,2,4-Trichlorobenzene, Naphthalene, and 1,2,3-Trichlorobenzene were present in low levels in **MB-061713A**. All detected results for these compounds have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS percent recoveries of Methylene Chloride and Acrolein were outside control limits high for **LCS-061713A**. All other percent recoveries were within control limits. No corrective action was taken.

Semivolatiles by SW8270D

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 6/22/13 fell outside the 20% control limit low for Hexachlorocyclopentadiene and 4-Nitroaniline. The CCAL was also outside the control limit high for 3-Nitroaniline, Carbazole, and 3,3'-Dichlorobenzidine. All detected results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

The CCAL on 6/26/13 fell outside the 20% control limit low for Benzoic Acid, 4-Chloroaniline, 3-Nitroaniline, 2,4-Dinitrophenol, and 4,6-Dinitro-2-methylphenol. Sample results associated with this CCAL were non-detected. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **AM-SF4-EFF-20130612-S**. No corrective action is required for matrix QC.

SIM Semivolatiles by SW78270-SIM

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration fell outside 20% control limit low for Pentachlorophenol and was out high for Butylbenzylphthalate. All detected results associated for these compounds have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

Diethylphthalate was present in **MB-061813** at a level that was greater than ½ the reporting limit. All detected results for this compound have been flagged with a "B" qualifier. No further corrective action was taken.

The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Dioxin/Furans by SW1613B

The samples was extracted and analyzed within the method recommended holding times.

Analysis was performed using the application specific RTX-Dioxin 2 column, which has a unique isomer separation for the 2378-TCDF, eliminating the need for second column confirmation.

Initial and continuing calibration results were within method requirements.

The surrogate percent recovery of 13C-2,3,7,8-TCDF fell outside the control limits low for sample **AM-SF4-EFF-20130612-S**. All other surrogate percent recoveries were within control limits. No corrective action was taken.

The method blank contained reportable responses below the reporting limit for several compounds. Associated sample results were greater than ten times the levels found in the method blank. No corrective action was taken.

The OPR (Ongoing Precision and Accuracy or LCS) percent recoveries were within control limits.

Specific results have been "EMPC"-flagged indicating a response not meeting requirements of positive identification. The EMPC values are treated as undetects under some programs and as hits under programs with more conservative protocols.

The TEQ is presented with WHO2005 with ND=0 for undetects and ND=1/2 for undetects, with EMPCs included as hits.

Pesticides by SW8081

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The closing pesticide and toxaphene continuing calibrations (CCALs) on 6/25/13 at 18:43 and 19:01 fell outside the 20% control limit low on both columns with a failing DDT/Endrin breakdown. Associated samples were re-analyzed at dilutions and the closing CCAL on 6/27/13 at 1945 fell outside the control limit low for several compounds on the first column was in control for all compounds on the second column. No further corrective action was taken.

The internal standard areas of 1-Bromo-2-Nitrobenzene and Hexabromobiphenyl fell outside the control limits low for sample **AM-FD-01-20130612-S** and the associated matrix spike duplicate on the second column. The internal standard area of Hexabromobiphenyl fell outside the control limits low for the matrix spike of sample **AM-FD-01-20130612-S** on the second column. All internal standard areas on the first column were within control limits. No corrective action was taken.

The surrogate percent recoveries of Decachlorobiphenyl and Tetrachlorometaxylene were outside the control limits high for sample **AM-FD-01-20130612-S** and associated matrix spike/matrix spike duplicate samples. The sample was re-analyzed with diluted surrogates. No corrective action was required for matrix QC.

The method blank was clean at the reporting limits.

Several LCS percent recoveries fell outside control limits low for **LCS-061913**. No corrective action was taken.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits with wide RPDs for sample **AM-FD-01-20130612-S**. No corrective action is required for matrix QC.

Aroclor PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration on 6/23/13 at 00:02 fell outside the 20% control limit low for Aroclor 1254 on the first column, but was within the control limit on the second column. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

NWTPH-Gx

The samples were analyzed within recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS and LCSD percent recoveries were within control limits.

Metals and Mercury

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

Due to laboratory error, all samples were analyzed for zinc by method 200.8. All samples will be analyzed for zinc by method 6010C under a separate cover.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries of antimony and silver fell outside the control limits low for sample **AM-VT-INF-20130612-S**. Post digestion spikes were performed and the recoveries were within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

General Chemistry

The samples and associated laboratory QC were prepared and analyzed within method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recovery was within limits.

Geotechnical Parameters

A laboratory-specific case narrative follows this page.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: SAIC	**ARI Job No.:** WT81
Client Project: NPDES Sampling Support	**Client Project No.:** 209977

Case Narrative

1. Three samples were submitted for analysis on June 12, 2013.
2. The samples were submitted for grain size analysis by means of X-ray diffraction using a Sedigraph 5120. The values are calculated using Stokes' Law of sedimentation and Beer's law of extinction.
3. The samples were run in a single batch and one sample from this job was chosen for triplicate analysis.
4. The standard operating procedure calls for the sample to be measured on the #4 (4750 µm) sieve, down to the 1.0 µm particle size with the Sedigraph 5120. If there were no particles measured at these extremes, the data is not included in the report.
5. The samples contained organic material. Organic material does not absorb X-rays, and is not included in the fine portion of the analysis.
6. Sample AM-VT-INF-20130612-S was originally split too large and resulted in inconsistent sieve data. The sample was resplit and the original bench sheets are included in the raw data.
7. Sample AM-VT-INF-20130612-S appeared to be highly contaminated. The sample contained a strong fuel/oil-like odor, white residue was observed on the oven dried material and the less than 63µm material quickly flocculated and settled out after homogenization. This most likely contributed to the negative mass frequency (percent) values. The sample was rerun three times and no report could be generated without negative values.
8. The data is provided in summary tables and plots.
9. There were no other noted anomalies in the samples or methods on this project.

Released by: Gabriel Doble _____ Date: July 1, 2013
Technician

Reviewed by: Julia Curtis _____ Date: 7/1/13
Geotechnical Laboratory Manager

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WT81
Client: SAIC
Project Event: 209977
Project Name: NPDES Sampling Support

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	AM-VT-INF-20130612-S	WT81A	13-12636	Sediment	06/12/13 13:06	06/12/13 14:10
2.	AM-SF4-EFF-20130612-S	WT81B	13-12637	Sediment	06/12/13 10:03	06/12/13 14:10
3.	AM-FD-01-20130612-S	WT81C	13-12638	Sediment	06/12/13 10:03	06/12/13 14:10
4.	AM-TB-01-20130612-W	WT81D	13-12639	Water	06/12/13	06/12/13 14:10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

DL[1] LOD[1], LOQ[1] and Control Limits Summary
VOA Analysis of Soil (EPA Method 8260C)

Analyte	DL[1,5] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Recovery[2,4]	Replicate RPD[3]
Dichlorodifluoromethane	0.207	0.5	**1.0**	67 – 142	≤ 40
Chloromethane	0.263	0.5	**1.0**	65 – 129	≤ 40
Vinyl Chloride	0.235	0.5	**1.0**	74 – 134	≤ 40
Bromomethane	0.187	0.5	**1.0**	40 – 172	≤ 40
Chloroethane	0.462	0.5	**1.0**	53 – 154	≤ 40
Trichlorofluoromethane	0.266	0.5	**1.0**	57 – 161	≤ 40
Acrolein*	3.809	25	**50.0**	60 – 130	≤ 40
Acetone*	0.482	2.5	**5.0**	48 – 132	≤ 40
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.287	1.0	**2.0**	72 – 142	≤ 40
1,1-Dichloroethene	0.336	0.5	**1.0**	73 – 138	≤ 40
Bromoethane	0.440	1.0	**2.0**	74 – 132	≤ 40
Iodomethane (Methyl Iodide)	0.215	0.5	**1.0**	34 – 181	≤ 40
Methylene Chloride	0.635	1.0	**2.0**	61 – 128	≤ 40
Carbon Disulfide	0.559	1.0	**1.0**	72 – 146	≤ 40
Acrylonitrile	1.026	2.5	**5.0**	59 – 124	≤ 40
Methyl-t-butyl ether (MTBE)	0.231	0.5	**1.0**	68 – 124	≤ 40
trans-1,2-Dichloroethene	0.266	0.5	**1.0**	73 – 131	≤ 40
Vinyl Acetate	0.381	2.5	**5.0**	54 – 138	≤ 40
1,1-Dichloroethane	0.203	0.5	**1.0**	65 – 139	≤ 40
2-Butanone*	0.513	2.5	**5.0**	64 – 120	≤ 40
2,2-Dichloropropane	0.292	0.5	**1.0**	77 – 137	≤ 40
cis-1,2-Dichloroethene	0.240	0.5	**1.0**	75 – 124	≤ 40
Chloroform	0.234	0.5	**1.0**	75 – 126	≤ 40
Bromochloromethane	0.323	0.5	**1.0**	69 – 133	≤ 40
1,1,1-Trichloroethane	0.226	0.5	**1.0**	78 – 133	≤ 40
1,1-Dichloropropene	0.312	0.5	**1.0**	80 – 123	≤ 40
Carbon Tetrachloride	0.213	0.5	**1.0**	76 – 136	≤ 40
1,2-Dichloroethane	0.191	0.5	**1.0**	77 – **120**	≤ 40
Benzene	0.296	0.5	**1.0**	80 – **120**	≤ 40
Trichloroethene	0.212	0.5	**1.0**	80 – 120	≤ 40
1,2-Dichloropropane	0.162	0.5	**1.0**	74 – **120**	≤ 40
Bromodichloromethane	0.254	0.5	**1.0**	80 – 122	≤ 40
Dibromomethane	0.147	0.5	**1.0**	80 – **120**	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary VOA Analysis of Soil (EPA Method 8260C)					
Analyte	**DL[1,5] µg/kg**	**LOD[1] µg/kg**	**LOQ[1] µg/kg**	**LCS Recovery[2,4]**	**Replicate RPD[3]**
2-Chloroethyl Vinyl Ether	0.276	2.5	**5.0**	20 – 157	≤ 40
4-Methyl-2-Pentanone*	0.420	2.5	**5.0**	70 – 124	≤ 40
cis-1,3-Dichloropropene	0.226	0.5	**1.0**	80 – 124	≤ 40
Toluene	0.151	0.5	**1.0**	78 – **120**	≤ 40
trans-1,3-Dichloropropene	0.216	0.5	**1.0**	80 – 126	≤ 40
1,1,2-Trichloroethane	0.286	0.5	**1.0**	77 – **120**	≤ 40
1,2-Dibromoethane (Ethylene Dibromide)	0.176	0.5	**1.0**	79 – **120**	≤ 40
2-Hexanone*	0.439	2.5	**5.0**	62 – 128	≤ 40
1,3-Dichloropropane	0.209	0.5	**1.0**	77 – **120**	≤ 40
Tetrachloroethene	0.257	0.5	**1.0**	76 – 131	≤ 40
Dibromochloromethane	0.266	0.5	**1.0**	77 – 123	≤ 40
Chlorobenzene	0.219	0.5	**1.0**	80 – **120**	≤ 40
1,1,1,2-Tetrachloroethane	0.233	0.5	**1.0**	80 – **120**	≤ 40
Ethyl Benzene	0.202	0.5	**1.0**	**80 – 120**	≤ 40
m,p-Xylene	0.392	0.5	**1.0**	**80** – 123	≤ 40
o-Xylene	0.224	0.5	**1.0**	**80 – 120**	≤ 40
Styrene	0.138	0.5	**1.0**	**80** – 122	≤ 40
Bromoform	0.297	0.5	**1.0**	63 – **120**	≤ 40
Isopropyl Benzene	0.233	0.5	**1.0**	77 – 127	≤ 40
1,1,2,2-Tetrachloroethane	0.253	0.5	**1.0**	71 – **120**	≤ 40
1,2,3-Trichloropropane	0.517	1.0	**2.0**	75 – **120**	≤ 40
trans-1,4-Dichloro-2-Butene	0.437	2.5	**5.0**	62 – 127	≤ 40
n-Propyl Benzene	0.272	0.5	**1.0**	76 – 126	≤ 40
Bromobenzene	0.153	0.5	**1.0**	75 – **120**	≤ 40
1,3,5-Trimethylbenzene	0.254	0.5	**1.0**	77 – 126	≤ 40
2-Chlorotoluene	0.300	0.5	**1.0**	76 – 120	≤ 40
4-Chlorotoluene	0.277	0.5	**1.0**	75 – 121	≤ 40
t-Butylbenzene	0.306	0.5	**1.0**	77 – 125	≤ 40
1,2,4-Trimethylbenzene	0.230	0.5	**1.0**	77 – 125	≤ 40
s-Butylbenzene	0.240	0.5	**1.0**	77 – 127	≤ 40
4-Isopropyl Toluene	0.236	0.5	**1.0**	78 – 131	≤ 40
1,3-Dichlorobenzene	0.227	0.5	**1.0**	76 – 120	≤ 40
1,4-Dichlorobenzene	0.232	0.5	**1.0**	75 – **120**	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
VOA Analysis of Soil (EPA Method 8260C)

Analyte	DL[1,5] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Recovery[2,4]	Replicate RPD[3]
n-Butylbenzene	0.262	0.5	**1.0**	75 – 134	≤ 40
1,2-Dichlorobenzene	0.293	0.5	**1.0**	77 – **120**	≤ 40
1,2-Dibromo-3-Chloropropane	0.586	2.5	**5.0**	61 – 128	≤ 40
1,2,4-Trichlorobenzene	0.332	2.5	**5.0**	75 – 130	≤ 40
Hexachloro-1,3-Butadiene	0.410	2.5	**5.0**	72 – 135	≤ 40
Naphthalene	0.429	2.5	**5.0**	71 – 122	≤ 40
1,2,3-Trichlorobenzene	0.305	2.5	**5.0**	76 – 122	≤ 40
1,2-Dichloroethane-d_4			**80** – 122	**80** – 149	≤ 40
1,2-Dichlorobenzene-d_4			**80 – 120**	**80 – 120**	≤ 40
Toluene-d_8			**80 – 120**	77 – **120**	≤ 40
4-Bromofluorobenzene			**80 – 120**	**80 – 120**	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 1/1/12 through 5/31/12.
(3) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(4) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that:
a. ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit or
b. Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.
(5) MDL study QD19 – 3/8/10

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Phenol	8.65	10	**20**	2.56	5	**5**	34 – 105	30 – 160	≤ 40
bis-(2-Chloroethyl)ether	3.35	10	**20**	--	--	--	36 – **100**	--	≤ 40
2-Chlorophenol	2.39	10	**20**	--	--	--	39 – **100**	--	≤ 40
1,3-Dichlorobenzene	2.63	10	**20**	1.31	2.5	**5**	40 – **100**	30 – **100**	≤ 40
1,4-Dichlorobenzene	2.86	10	**20**	1.19	2.5	**5**	39 – **100**	36 – **100**	≤ 40
1,2-Dichlorobenzene	2.50	10	**20**	1.10	2.5	**5**	40 – **100**	36 – **100**	≤ 40
Benzyl alcohol	6.09	10	**20**	7.04	10	**20**[3]	19 – 117	25 – 123	≤ 40
2,2'-oxy-*bis*-(1-Chloropropane)	3.76	10	**20**	--	--	--	32 – **100**	--	≤ 40
2-Methylphenol	5.25	10	**20**	1.81	2.5	**5**	28 – **100**	26 – **100**	≤ 40
Hexachloroethane	2.94	10	**20**	--	--	--	38 – **100**	--	≤ 40
N-Nitroso-di-n-propylamine	3.36	10	**20**	9.48	10	**12**[3]	34 – **100**	30 – 160	≤ 40
4-Methylphenol[6]	6.63	10	**20**	2.52	5	**10**	29 – 100	30 – 160	≤ 40
Nitrobenzene	4.06	10	**20**	--	--	--	36 – **100**	--	≤ 40
Isophorone	2.86	10	**20**	--	--	--	37 – 101	--	≤ 40
2-Nitrophenol	38.7	50	**100**	--	--	--	30 – 112	--	≤ 40
2,4-Dimethylphenol	3.46	20	**40**	2.89	10	**20**	**10** – **100**	10 – 103	≤ 40
bis-(2-Chloroethoxy)methane	2.00	10	**20**	--	--	--	39 – **100**	--	≤ 40
2,4-Dichlorophenol	21.5	100	**200**	--	--	--	28 – 112	--	≤ 40
1,2,4-Trichlorobenzene	3.48	10	**20**	1.86	2.5	**5**	35 – 103	35 – **100**	≤ 40
Naphthalene	2.76	10	**20**	--	--	--	43 – 100	--	≤ 40
Benzoic acid	101	200	**400**[5]	--	--	--	**10** – 107	--	≤ 40
4-Chloroaniline	22.3	135	**270**[4]	--	--	--	11 – **100**	--	≤ 40
Hexachlorobutadiene	4.57	10	**20**	0.96	2.5	**5**	37 – **100**	34 – **100**	≤ 40
4-Chloro-3-methylphenol	15.1	50	**100**	--	--	--	32 – 117	--	≤ 40
2-Methylnaphthalene	3.06	10	**20**	--	--	--	43 – **100**	--	≤ 40
Hexachlorocyclopentadiene	66.4	200	**400**[4]	--	--	--	**10** – 103	--	≤ 40
2,4,6-Trichlorophenol	22.4	50	**100**	--	--	--	30 – 113	--	≤ 40
2,4,5-Trichlorophenol	21.4	50	**100**	--	--	--	28 – 118	--	≤ 40
2-Chloronaphthalene	2.64	10	**20**	--	--	--	40 – **100**	--	≤ 40
2-Nitroaniline	18.4	50	**100**	--	--	--	31 – 126	--	≤ 40
Acenaphthylene	5.71	10	**20**	--	--	--	42 – 102	--	≤ 40
Dimethylphthalate	2.90	10	**20**	1.34	2.5	**5**	43 – 114	38 – 112	≤ 40
2,6-Dinitrotoluene	30.6	50	**100**	--	--	--	33 – 123	--	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Acenaphthene	3.28	10	**20**	--	--	--	45 – **100**	--	≤ 40
3-Nitroaniline	22.5	50	**100**	--	--	--	22 – 113	--	≤ 40
2,4-Dinitrophenol	111	425	**850**[4]	--	--	--	**10** – 105	--	≤ 40
Dibenzofuran	4.10	10	**20**	--	--	--	43 – 103	--	≤ 40
4-Nitrophenol	34.7	50	**100**	--	--	--	15 – 138	--	≤ 40
2,4-Dinitrotoluene	19.5	50	**100**	--	--	--	35 – 127	--	≤ 40
Fluorene	4.35	10	**20**	--	--	--	45 – 107	--	≤ 40
4-Chlorophenyl-phenylether	5.29	10	**20**	--	--	--	32 – 116	--	≤ 40
Diethylphthalate	36.6	50	**50**[3]	3.26	5.0	**5.0**	50 – 120	55 – 104	≤ 40
4-Nitroaniline	37.9	50	**100**	--	--	--	24 – 125	--	≤ 40
4,6-Dinitro-2-methylphenol	21.2	100	**200**	--	--	--	24 – 119	--	≤ 40
N-Nitrosodiphenylamine	5.39	10	**20**	1.38	10	**20**	36 – 111	27 – 115	≤ 40
4-Bromophenyl-phenylether	5.03	10	**20**	--	--	--	39 – 114	--	≤ 40
Hexachlorobenzene	4.29	10	**20**	1.26	2.5	**5**	33 – 113	32 – 106	≤ 40
Pentachlorophenol	48.5	100	**200**[4]	14.3	25	**50**	16 – 120	26 – 106	≤ 40
Phenanthrene	3.64	10	**20**	--	--	--	49 – 112	--	≤ 40
Anthracene	4.50	10	**20**	--	--	--	45 – 106	--	≤ 40
Carbazole	2.69	10	**20**	--	--	--	43 – 135	--	≤ 40
Di-n-butylphthalate	8.16	10	**20**	--	--	--	48 – 126	--	≤ 40
Fluoranthene	2.91	10	**20**	--	--	--	53 – 118	--	≤ 40
Pyrene	1.94	10	**20**	--	--	--	48 – 121	--	≤ 40
Butylbenzylphthalate	6.14	10	**20**	2.89	5.0	**5**	45 – 132	32 – 142	≤ 40
Benzo(a)anthracene	3.29	10	**20**	--	--	--	49 – 115	--	≤ 40
3,3'-Dichlorobenzidine	17.8	75	**150**[4]	--	--	--	**10** – **100**	--	≤ 40
Chrysene	3.75	10	**20**	--	--	--	47 – 115	--	≤ 40
bis-(2-Ethylhexyl)phthalate	14.6	20	**25**[3]	--	--	--	34 – 130	--	≤ 40
Di-n-octylphthalate	5.84	10	**20**	--	--	--	28 – 124	--	≤ 40
Benzo(b)fluoranthene[7]	3.47	10	**20**	--	--	--	42 – 132	--	≤ 40
Benzo(k)fluoranthene[7]	4.18	10	**20**	--	--	--	39 – 129	--	≤ 40
Benzofluoranthene-Total[8]	6.67	20	**40**	--	--	--	30 – 160	--	≤ 40
Benzo(a)pyrene	5.45	10	**20**	--	--	--	42 – 113	--	≤ 40
Indeno(1,2,3-cd)pyrene	4.68	10	**20**	--	--	--	42 – 123	--	≤ 40
Dibenzo(a,h)anthracene	4.31	10	**20**	2.02	2.5	**5**	30 – 133	28 – 125	≤ 40
Benzo(g,h,i)perylene	4.40	10	**20**	--	--	--	38 – 126	--	≤ 40
N-Nitrosodimethylamine	14.1	50	**100**	3.15	13	**25**	17 – **100**	30 – 160	≤ 40
Aniline	40.0	270	**540**[4]	--	--	--	**10** – 134	--	≤ 40

DL[1] LOD[1], LOQ[1] and Control Limits Summary
GC - MS – SVOA Analysis of Sediment
EPA Method 8270 Full Scan & SIM

Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume

LOD Spike level = LOQ (unless otherwise noted)

Analyte	Full Scan Analysis			SIM Analysis			LCS, MS Control Limits (%)		RPD[2]
	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	DL (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Full Scan	SIM	
Pyridine	32.7	75	**150**[4]	--	--	--	**10** – 147	--	≤ 40
1-Methylnaphthalene	2.68	10	**20**	--	--	--	42 – **100**	--	≤ 40
Azobenzene (1,2-DP-Hydrazine)	2.98	10	**20**	--	--	--	35 – 112	--	≤ 40
Retene [9]	4.01	10	**20**	--	--	--	30 – 160	--	≤ 40
Surrogate Standards									
2-Fluorophenol							32 – **100**	27 – **100**	≤ 40
Phenol-d_5							32 – 101	29 – **100**	≤ 40
2-Chlorophenol-d_4							36 – 101	31 – **100**	≤ 40
1,2-Dichlorobenzene-d_4							37 – **100**	32 – **100**	≤ 40
Nitrobenzene-d_5							33 –102	30 – **100**	≤ 40
2-Fluorobiphenyl							35 –101	35 – **100**	≤ 40
2,4,6-Tribromophenol							23 – 133	24 – 134	≤ 40
p-Terphenyl-d_{14}							42 – 124	37 – 111	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)
(9) LOD study WC15 (2/5/13)

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Sediment Samples for Dioxins & Furans
EPA Method 1613B

Soxhlet (EPA Method 3540C) Extraction using 10 g sample with extract concentrated to 0.02 mL final volume. ARI Bench Sheet 3083F

LOD Spike level = LOQ = 0.1 ppt (ng/kg) = 1 pg/g

Analyte	DL[1] pg/g	LOD[1] pg/g	LOQ[1] pg/g	OPR Control Limit[2,3]	Sample Replicate RPD[3,4]
2,3,7,8-TCDF	0.230	**0.5**	**1**	75 – 158	≤ 25
2,3,7,8-TCDD	0.274	**0.5**	**1**	67 – 158	≤ 25
1,2,3,7,8-PeCDF	0.832	**2.5**	**2.5**	80 – 134	≤ 25
2,3,4,7,8-PeCDF	1.076	**2.5**	**1**	68 – 160	≤ 25
1,2,3,7,8-PeCDD	0.647	**2.5**	**1**	70 – 142	≤ 25
1,2,3,4,7,8-HxCDF	0.991	**2.5**	**2.5**	72 – 134	≤ 25
1,2,3,6,7,8-HxCDF	0.769	**2.5**	**2.5**	84 – 130	≤ 25
2,3,4,6,7,8-HxCDF	0.904	**2.5**	**2.5**	70 – 156	≤ 25
1,2,3,7,8,9-HxCDF	0.857	**2.5**	**2.5**	78 – 130	≤ 25
1,2,3,4,7,8-HxCDD	0.481	**2.5**	**2.5**	70 – 164	≤ 25
1,2,3,6,7,8-HxCDD	0.561	**2.5**	**2.5**	76 – 134	≤ 25
1,2,3,7,8,9-HxCDD	0.886	**2.5**	**2.5**	64 – 162	≤ 25
1,2,3,4,6,7,8-HpCDF	1.165	**2.5**	**2.5**	82 – 122	≤ 25
1,2,3,4,7,8,9-HpCDF	0.688	**2.5**	**2.5**	78 – 138	≤ 25
1,2,3,4,6,7,8-HpCDD	0.828	**2.5**	**2.5**	70 – 140	≤ 25
OCDF	2.176	**5.0**	**5**	63 – 170	≤ 25
OCDD	7.452	**5.0**	**5**	78 – 144	≤ 25

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S

(2) Ongoing precision and recovery (OPR) analyzes as specified in the referenced method.

(3) Method specified control limits.

(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

4

DL[1], LOD[1], LOQ[1] and Control Limits Summary
Analysis of Soil/Sediment Samples for Chlorinated Pesticides
EPA Method 8081B

Microwave (EPA Method 3546) Extraction using 12.5g (dry weight) sample with extract concentrated to 2.5 mL final volume. ARI Bench Sheet 3046F

LOD Spike level = LOQ Concentration

Analyte	DL[1,2] µg/kg	LOD[1] µg/kg	LOQ[1] µg/kg	LCS Control Limit[3,4]	Replicate RPD[5]
alpha-BHC	0.081	0.25	**0.5**	68 – 115	≤ 40
beta-BHC	0.139	0.25	**0.5**	60 – 126	≤ 40
gamma-BHC (Lindane)	0.048	0.25	**0.5**	68 – 134	≤ 40
delta-BHC	0.082	0.25	**0.5**	71 – 154	≤ 40
Heptachlor	0.132	0.25	**0.5**	66 – 115	≤ 40
Aldrin	0.055	0.25	**0.5**	66 – 115	≤ 40
Heptachlor Epoxide	0.085	0.25	**0.5**	65 – 127	≤ 40
trans-Chlordane (*beta*-Chlordane, *gamma*-Chlordane)	0.077	0.25	**0.5**	73 – 136	≤ 40
cis-Chlordane (*alpha*-chlordane)	0.051	0.25	**0.5**	77 – 124	≤ 40
Endosulfan I	0.072	0.25	**0.5**	28 – **100**	≤ 40
4,4'-DDE	0.124	0.5	**1.0**	71 – 149	≤ 40
Dieldrin	0.100	0.5	**1.0**	74 – 131	≤ 40
Endrin	0.215	0.5	**1.0**	72 – 135	≤ 40
Endosulfan II	0.116	0.5	**1.0**	37 – 110	≤ 40
4,4'-DDD	0.135	0.5	**1.0**	76 – 137	≤ 40
Endrin Aldehyde	0.218	0.5	**1.0**	38 – 109	≤ 40
4,4'-DDT	0.192	0.5	**1.0**	58 – 144	≤ 40
Endosulfan Sulfate	0.192	0.5	**1.0**	47 – 148	≤ 40
Endrin Ketone	0.119	0.5	**1.0**	29 – 165	≤ 40
Methoxychlor	0.698	2.5	**5.0**	65 – 123	≤ 40
Hexachlorobutadiene	0.138	0.5	**1.0**	43 – 104	≤ 40
Hexachlorobenzene	0.094	0.5	**1.0**	62 – 119	≤ 40
Surrogate Standard Recovery			**MB / LCS**	**Samples**	**RPD**
Tetrachloro-*m*-xylene (TCMX)			47 – 124	34 – 169	≤ 40
Decachlorobiphenyl			60 – 149	36 – 182	≤ 40

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation as defined in ARI SOP 1018S.
(2) MDL study QZ38
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Control limits calculated using all data from 1/1/12 through 7/31/12.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

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Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

Extraction Bench Sheet	Extraction	DL[1] (ppb)	LOD[1] (ppb)	LOQ[1] (ppb)	Analyte	Spike Recovery Control Limits (%)[2,3,5]			RPD[4]
						LCS	MB/LCS Surrogate	Sample Surrogate	
PCB 15-3067F	12g to 4 mL	10.69	17	33	Aroclor 1016	62 – 111	--	--	≤ 40
		14.42	17	33	Aroclor 1260	59 – 118	--	--	
PCB 08-3025F		--	--	--	TCMX	--	58 – 112	53 – 116	
		--	--	--	DCBP	--	59 – 115	35 – 133	
PCB 05-3017F	5 g to 5 mL[6]	8.00	10	20	Aroclor 1016	56 – 115	--	--	≤ 40
		9.28	10	20	Aroclor 1260	58 – 120	--	--	
PCB 06-3026F		--	--	--	TCMX	--	52 – 117	57 – 109	
		--	--	--	DCBP	--	61 – 114	54 – 115	
PCB 18-3098F	5 g to 2.5 mL[6]	4.61	5	10	Aroclor 1016	66 – 114	--	--	≤ 40
		4.97	5	10	Aroclor 1260	63 – 120	--	--	
PCB06-3026F		--	--	--	TCMX	--	57 – 114	71 – 108	
		--	--	--	DCBP	--	59 – 118	53 – 126	
PCB 19-3099F	12.5 g to 2.5 mL[6]	1.56	2	4	Aroclor 1016	64 – **100**	--	--	≤ 40
		0.589	2	4	Aroclor 1260	64 – 107	--	--	
PCB 06-3026F		--	--	--	TCMX	--	54 – **100**	45 – 102	
		--	--	--	DCBP	--	64 – 105	37 – 128	
PCB 12-3019F	5 g to 40 mL	38.2	400	800	Aroclor 1016	30 – 160	--	--	≤ 40
		73.1	400	800	Aroclor 1260	30 – 160	--	--	
		--	--	--	TCMX	--	30 – 160	30 – 160	
		--	--	--	DCBP	--	30 – 160	30 – 160	

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Control Limits calculated usng all data generated between 6/1/12 and 12/31/12

Analytical Resources, Incorporated
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Quality Control Criteria
Total Petroleum Hydrocarbons
(Diesel & Motor Oil)

Analysis Code	Analyte[5]	DL[1] ppm	LOD[1] ppm	LOQ[2] ppm	Spike % Recovery Control Limits[3]			RPD[4]
					LCS	MB/LCS Surrogate	Sample Surrogate	
HCIWVX	NWTPH-HCID – Water Samples	--	--	0.50 [7]	--	--	50-150	≤ 40
HCISVX	NWTPH-HCID – Solid Samples	--	--	50 [7]	--	--	50-150	
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.022	0.05	0.1	64-112	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.022	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.044	0.1	0.2	60 – 130 [8]	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [9]	0.1	0.2	60-120 [6]	60-120	50-150	
DIESWI	DRO – NWTPH-Dext (C_{12}-C_{24})	0.039	0.05	0.1	61-104	50-150	50-150	≤ 40
AK2WSI	DRO – AK102 (C_{10}-C_{25})	0.042	0.05	0.1	75-125 [6]	60-120	50-150	
OILWSI	RRO – NWTPH-Dext (C_{24}-C_{38})	0.010	0.1	0.2	60 – 130 [8]	50-150	50-150	
AK3WSI	RRO – AK103 (C_{25}-C_{36})	0.030 [8]	0.1	0.2	60-120 [6]	60-120	50-150	
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.35	2.5	5	62-119	50-150	50-150	≤ 40
DIESMI	DRO – NWTPH-Dext Jet A	2.22 [11]	2.5	5	60 – 130 [8]	50-150	50-150	
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.43	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	2.48	5	10	60 – 130 [8]	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [9]	5	10	60-120 [6]	60-120	50-150	
DIESMI	DRO – NWTPH-Dext (C_{12}-C_{24})	1.28	2.5	5	60-108	50-150	50-150	≤ 40
AK2SMI	DRO – AK102 (C_{10}-C_{25})	2.06	2.5	5	75-125 [6]	60-120	50-150	
OILSMI	RRO – NWTPH-Dext (C_{24}-C_{38})	1.57	5	10	60 – 130 [8]	50-150	50-150	
AK3SMI	RRO – AK103 (C_{25}-C_{36})	0.665 [10]	5	10	60-120 [6]	60-120	50-150	

(1) DL (Detection Limit) and LOD (Limit of Detection) as defined in ARI SOP 1018S.
(2) Limit of Quantitation as defined in ARI SOP 1018S. The spike concentration used to determine the DL and the concentration of the lowest standard used to calibrate the GC-FID instrument.
(3) All surrogate recovery limits are specified in the published methods (AK102, AK103 & NWTPH-Dext). The surrogate standard is *o*-Terphenyl.
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(5) DRO = Diesel Range Organics and RRO = Residual Range Organics as defined in the methods referenced in footnote 3.
(6) Method specified LCS acceptance limits.
(7) Method specified reporting limits
(8) Default LCS control limits pending calculation of historic limits
(9) MDL study QD55 completed 2/12/10
(10) MDL study QD35 completed 1/29/10
(11) LOD Study UI44 completed 2/28/12

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Quality Control Criteria
Gasoline and BTEX

Method	Analyte	DL[1]	LOD[1]	LOQ[1]	Spike % Recovery Control Limits			RPD[3]
					LCS	MB/LCS Surrogate	Sample Surrogate	
NWTPH-G	Toluene – Naphthalene	0.057	0.125	0.25	**80 – 120**	--	--	≤ 40
8015B	2-methylpentane – 1,2,4-Trimethylbenzene	0.031	0.125	0.25	**80 – 120**	--	--	
WA-TPH-G	Toluene – nC_{12})	0.087	0.125	0.25	**80 – 120**	--	--	
AK-101	nC_6 – nC_{12}	0.032	0.050	0.10	**80 – 120**	--	--	
	Trifluorotoluene (TFT)	--	--	--	--	**80 - 120**	**80 – 120**	
	Bromobenzene	--	--	--	--	**80 - 120**	**80 – 120**	
8021B	Benzene	0.094	0.5	1.0	76 – **120**	--	--	≤ 40
8021B	Toluene	0.113	0.5	1.0	77 – 122	--	--	
8021B	Ethylbenzene	0.117	0.5	1.0	68 – **120**	--	--	
8021B	m/p-Xylene	0.265	1.0	2.0	75 – **120**	--	--	
8021B	o-Xylene	0.136	0.5	1.0	75 – 121	--	--	
	Trifluorotoluene (TFT)	--	--	--	--	**80 – 120**	**80 - 120**	
	Bromobenzene	--	--	--	--	**80 – 120**	77 - **120**	
NWTPH-G	Toluene – Naphthalene	1.66	2.5	5	**80 – 120**	--	--	≤ 40
8015B	2-methylpentane – 1,2,4-Trimethylbenzene	1.57	2.5	5	**80 – 120**	--	--	
WA-TPH-G	Toluene – nC_{12})	1.54	2.5	5	**80 – 120**	--	--	
AK-101	nC_6 – nC_{12}	1.84	2.5	5	**80** – 127	--	--	
	Trifluorotoluene (TFT)	--	--	--	--	**80 - 120**	65-128	
	Bromobenzene	--	--	--	--	**80 - 120**	52-149	
8021B	Benzene	4.59	12.5	25	78 – **120**	--	--	≤ 40
8021B	Toluene	7.13	12.5	25	80 – **120**	--	--	
8021B	Ethylbenzene	4.98	12.5	25	73 – **120**	--	--	
8021B	m/p-Xylene	11.9	25.0	50	79 – **120**	--	--	
8021B	o-Xylene	6.23	12.5	25	80 – **120**	--	--	
	Trifluorotoluene (TFT)	--	--	--	--	**80 - 120**	69 – 126	
	Bromobenzene	--	--	--	--	**80 - 120**	49 – 143	

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S.
(2) Highlighted control limits (bold font) are adjusted from the calculated values as follows:
a) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
b) Control limits for analytes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.
(3) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(4) Default control limits pending sufficient data to calculate historic limits.

Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A								
Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_0=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	LOD[1] mg/kg	LOQ[1] mg/kg	Matrix Spike	LCS	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Volatile Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-SF4-EFF-20130612-S**
 SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 18:18

Sample Amount: 2.46 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.53	2.0	< 2.0 U
74-83-9	Bromomethane	0.38	2.0	< 2.0 U
75-01-4	Vinyl Chloride	0.48	2.0	< 2.0 U
75-00-3	Chloroethane	0.94	2.0	< 2.0 U
75-09-2	**Methylene Chloride**	**1.3**	**4.1**	**10 QB**
67-64-1	Acetone	0.98	10	< 10 U
75-15-0	**Carbon Disulfide**	**1.1**	**2.0**	**80**
75-35-4	1,1-Dichloroethene	0.68	2.0	< 2.0 U
75-34-3	1,1-Dichloroethane	0.41	2.0	< 2.0 U
156-60-5	trans-1,2-Dichloroethene	0.54	2.0	< 2.0 U
156-59-2	cis-1,2-Dichloroethene	0.49	2.0	< 2.0 U
67-66-3	**Chloroform**	**0.48**	**2.0**	**3.8**
107-06-2	1,2-Dichloroethane	0.39	2.0	< 2.0 U
78-93-3	**2-Butanone**	**1.0**	**10**	**200**
71-55-6	1,1,1-Trichloroethane	0.46	2.0	< 2.0 U
56-23-5	Carbon Tetrachloride	0.43	2.0	< 2.0 U
108-05-4	Vinyl Acetate	0.77	10	< 10 U
75-27-4	Bromodichloromethane	0.52	2.0	< 2.0 U
78-87-5	1,2-Dichloropropane	0.33	2.0	< 2.0 U
10061-01-5	cis-1,3-Dichloropropene	0.46	2.0	< 2.0 U
79-01-6	Trichloroethene	0.43	2.0	< 2.0 U
124-48-1	Dibromochloromethane	0.54	2.0	< 2.0 U
79-00-5	1,1,2-Trichloroethane	0.58	2.0	< 2.0 U
71-43-2	**Benzene**	**0.60**	**2.0**	**3.7**
10061-02-6	trans-1,3-Dichloropropene	0.44	2.0	< 2.0 U
110-75-8	2-Chloroethylvinylether	0.56	10	< 10 U
75-25-2	Bromoform	0.60	2.0	< 2.0 U
108-10-1	**4-Methyl-2-Pentanone (MIBK)**	**0.85**	**10**	**490**
591-78-6	2-Hexanone	0.89	10	< 10 U
127-18-4	Tetrachloroethene	0.52	2.0	< 2.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.51	2.0	< 2.0 U
108-88-3	**Toluene**	**0.31**	**2.0**	**5.3**
108-90-7	Chlorobenzene	0.45	2.0	< 2.0 U
100-41-4	**Ethylbenzene**	**0.41**	**2.0**	**4.0**
100-42-5	**Styrene**	**0.28**	**2.0**	**8.1**
75-69-4	**Trichlorofluoromethane**	**0.54**	**2.0**	**5.1**
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.58	4.1	< 4.1 U
179601-23-1	**m,p-Xylene**	**0.80**	**2.0**	**13**
95-47-6	**o-Xylene**	**0.46**	**2.0**	**15**
95-50-1	1,2-Dichlorobenzene	0.60	2.0	< 2.0 U
541-73-1	1,3-Dichlorobenzene	0.46	2.0	< 2.0 U
106-46-7	1,4-Dichlorobenzene	0.47	2.0	< 2.0 U
107-02-8	Acrolein	7.7	100	< 100 U

WT81 : 00034

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed: 06/17/13 18:18

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
74-88-4	Iodomethane	0.44	2.0	< 2.0 U
74-96-4	Bromoethane	0.89	4.1	< 4.1 U
107-13-1	Acrylonitrile	2.1	10	< 10 U
563-58-6	1,1-Dichloropropene	0.63	2.0	< 2.0 U
74-95-3	Dibromomethane	0.30	2.0	< 2.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.47	2.0	< 2.0 U
96-12-8	1,2-Dibromo-3-chloropropane	1.2	10	< 10 U
96-18-4	1,2,3-Trichloropropane	1.1	4.1	< 4.1 U
110-57-6	trans-1,4-Dichloro-2-butene	0.89	10	< 10 U
108-67-8	**1,3,5-Trimethylbenzene**	**0.52**	**2.0**	**44**
95-63-6	**1,2,4-Trimethylbenzene**	**0.47**	**2.0**	**61**
87-68-3	Hexachlorobutadiene	0.83	10	< 10 U
106-93-4	1,2-Dibromoethane	0.36	2.0	< 2.0 U
74-97-5	Bromochloromethane	0.66	2.0	< 2.0 U
75-71-8	Dichlorodifluoromethane	0.42	2.0	< 2.0 U
594-20-7	2,2-Dichloropropane	0.59	2.0	< 2.0 U
142-28-9	1,3-Dichloropropane	0.42	2.0	< 2.0 U
98-82-8	**Isopropylbenzene**	**0.47**	**2.0**	**5.7**
103-65-1	**n-Propylbenzene**	**0.55**	**2.0**	**5.6**
108-86-1	Bromobenzene	0.31	2.0	< 2.0 U
95-49-8	2-Chlorotoluene	0.61	2.0	< 2.0 U
106-43-4	4-Chlorotoluene	0.56	2.0	< 2.0 U
98-06-6	tert-Butylbenzene	0.62	2.0	< 2.0 U
135-98-8	**sec-Butylbenzene**	**0.49**	**2.0**	**7.1**
99-87-6	**4-Isopropyltoluene**	**0.48**	**2.0**	**3.9**
104-51-8	n-Butylbenzene	0.53	2.0	< 2.0 U
120-82-1	1,2,4-Trichlorobenzene	0.67	10	< 10 U
91-20-3	**Naphthalene**	**0.87**	**10**	**16 B**
87-61-6	1,2,3-Trichlorobenzene	0.62	10	< 10 U
1634-04-4	Methyl tert-Butyl Ether	0.47	2.0	< 2.0 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	123%
d8-Toluene	81.5%
Bromofluorobenzene	61.9%
d4-1,2-Dichlorobenzene	94.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-SF4-EFF-20130612-S**
Page 1 of 2 **REANALYSIS**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 19:06

Sample Amount: 2.76 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.48	1.8	< 1.8 U
74-83-9	Bromomethane	0.34	1.8	< 1.8 U
75-01-4	Vinyl Chloride	0.43	1.8	< 1.8 U
75-00-3	Chloroethane	0.84	1.8	< 1.8 U
75-09-2	**Methylene Chloride**	**1.2**	**3.6**	**9.0 QB**
67-64-1	Acetone	0.87	9.1	< 9.1 U
75-15-0	**Carbon Disulfide**	**1.0**	**1.8**	**47**
75-35-4	1,1-Dichloroethene	0.61	1.8	< 1.8 U
75-34-3	1,1-Dichloroethane	0.37	1.8	< 1.8 U
156-60-5	trans-1,2-Dichloroethene	0.48	1.8	< 1.8 U
156-59-2	cis-1,2-Dichloroethene	0.43	1.8	< 1.8 U
67-66-3	**Chloroform**	**0.42**	**1.8**	**2.4**
107-06-2	1,2-Dichloroethane	0.35	1.8	< 1.8 U
78-93-3	**2-Butanone**	**0.93**	**9.1**	**230**
71-55-6	1,1,1-Trichloroethane	0.41	1.8	< 1.8 U
56-23-5	Carbon Tetrachloride	0.39	1.8	< 1.8 U
108-05-4	Vinyl Acetate	0.69	9.1	< 9.1 U
75-27-4	Bromodichloromethane	0.46	1.8	< 1.8 U
78-87-5	1,2-Dichloropropane	0.29	1.8	< 1.8 U
10061-01-5	cis-1,3-Dichloropropene	0.41	1.8	< 1.8 U
79-01-6	Trichloroethene	0.38	1.8	< 1.8 U
124-48-1	Dibromochloromethane	0.48	1.8	< 1.8 U
79-00-5	1,1,2-Trichloroethane	0.52	1.8	< 1.8 U
71-43-2	**Benzene**	**0.54**	**1.8**	**2.6**
10061-02-6	trans-1,3-Dichloropropene	0.39	1.8	< 1.8 U
110-75-8	2-Chloroethylvinylether	0.50	9.1	< 9.1 U
75-25-2	Bromoform	0.54	1.8	< 1.8 U
108-10-1	**4-Methyl-2-Pentanone (MIBK)**	**0.76**	**9.1**	**280**
591-78-6	**2-Hexanone**	**0.80**	**9.1**	**10**
127-18-4	Tetrachloroethene	0.47	1.8	< 1.8 U
79-34-5	1,1,2,2-Tetrachloroethane	0.46	1.8	< 1.8 U
108-88-3	**Toluene**	**0.27**	**1.8**	**3.9**
108-90-7	Chlorobenzene	0.40	1.8	< 1.8 U
100-41-4	**Ethylbenzene**	**0.37**	**1.8**	**3.3**
100-42-5	**Styrene**	**0.25**	**1.8**	**5.7**
75-69-4	**Trichlorofluoromethane**	**0.48**	**1.8**	**5.6**
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.52	3.6	< 3.6 U
179601-23-1	**m,p-Xylene**	**0.71**	**1.8**	**9.3**
95-47-6	**o-Xylene**	**0.41**	**1.8**	**11**
95-50-1	1,2-Dichlorobenzene	0.53	1.8	< 1.8 U
541-73-1	1,3-Dichlorobenzene	0.41	1.8	< 1.8 U
106-46-7	1,4-Dichlorobenzene	0.42	1.8	< 1.8 U
107-02-8	Acrolein	6.9	91	< 91 U

WT81:000036

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-SF4-EFF-20130612-S**
 REANALYSIS

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed: 06/17/13 19:06

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
74-88-4	Iodomethane	0.39	1.8	< 1.8 U
74-96-4	Bromoethane	0.80	3.6	< 3.6 U
107-13-1	Acrylonitrile	1.9	9.1	< 9.1 U
563-58-6	1,1-Dichloropropene	0.57	1.8	< 1.8 U
74-95-3	Dibromomethane	0.27	1.8	< 1.8 U
630-20-6	1,1,1,2-Tetrachloroethane	0.42	1.8	< 1.8 U
96-12-8	1,2-Dibromo-3-chloropropane	1.1	9.1	< 9.1 U
96-18-4	1,2,3-Trichloropropane	0.94	3.6	< 3.6 U
110-57-6	trans-1,4-Dichloro-2-butene	0.79	9.1	< 9.1 U
108-67-8	**1,3,5-Trimethylbenzene**	**0.46**	**1.8**	**25**
95-63-6	**1,2,4-Trimethylbenzene**	**0.42**	**1.8**	**35**
87-68-3	Hexachlorobutadiene	0.74	9.1	< 9.1 U
106-93-4	1,2-Dibromoethane	0.32	1.8	< 1.8 U
74-97-5	Bromochloromethane	0.59	1.8	< 1.8 U
75-71-8	Dichlorodifluoromethane	0.38	1.8	< 1.8 U
594-20-7	2,2-Dichloropropane	0.53	1.8	< 1.8 U
142-28-9	1,3-Dichloropropane	0.38	1.8	< 1.8 U
98-82-8	**Isopropylbenzene**	**0.42**	**1.8**	**3.6**
103-65-1	**n-Propylbenzene**	**0.49**	**1.8**	**3.2**
108-86-1	Bromobenzene	0.28	1.8	< 1.8 U
95-49-8	2-Chlorotoluene	0.54	1.8	< 1.8 U
106-43-4	4-Chlorotoluene	0.50	1.8	< 1.8 U
98-06-6	tert-Butylbenzene	0.55	1.8	< 1.8 U
135-98-8	**sec-Butylbenzene**	**0.43**	**1.8**	**4.2**
99-87-6	**4-Isopropyltoluene**	**0.43**	**1.8**	**2.1**
104-51-8	n-Butylbenzene	0.47	1.8	< 1.8 U
120-82-1	1,2,4-Trichlorobenzene	0.60	9.1	< 9.1 U
91-20-3	**Naphthalene**	**0.78**	**9.1**	**12 B**
87-61-6	1,2,3-Trichlorobenzene	0.55	9.1	< 9.1 U
1634-04-4	Methyl tert-Butyl Ether	0.42	1.8	< 1.8 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	120%
d8-Toluene	86.4%
Bromofluorobenzene	66.3%
d4-1,2-Dichlorobenzene	93.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-FD-01-20130612-S**
Page 1 of 2 **SAMPLE**

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 18:42

Sample Amount: 3.45 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.38	1.5	< 1.5 U
74-83-9	Bromomethane	0.27	1.5	< 1.5 U
75-01-4	Vinyl Chloride	0.34	1.5	< 1.5 U
75-00-3	Chloroethane	0.67	1.5	< 1.5 U
75-09-2	**Methylene Chloride**	**0.92**	**2.9**	**5.4 QB**
67-64-1	Acetone	0.70	7.3	< 7.3 U
75-15-0	**Carbon Disulfide**	**0.81**	**1.5**	**52**
75-35-4	1,1-Dichloroethene	0.49	1.5	< 1.5 U
75-34-3	1,1-Dichloroethane	0.29	1.5	< 1.5 U
156-60-5	trans-1,2-Dichloroethene	0.39	1.5	< 1.5 U
156-59-2	cis-1,2-Dichloroethene	0.35	1.5	< 1.5 U
67-66-3	**Chloroform**	**0.34**	**1.5**	**1.9**
107-06-2	1,2-Dichloroethane	0.28	1.5	< 1.5 U
78-93-3	**2-Butanone**	**0.74**	**7.3**	**380**
71-55-6	1,1,1-Trichloroethane	0.33	1.5	< 1.5 U
56-23-5	Carbon Tetrachloride	0.31	1.5	< 1.5 U
108-05-4	Vinyl Acetate	0.55	7.3	< 7.3 U
75-27-4	Bromodichloromethane	0.37	1.5	< 1.5 U
78-87-5	1,2-Dichloropropane	0.23	1.5	< 1.5 U
10061-01-5	cis-1,3-Dichloropropene	0.33	1.5	< 1.5 U
79-01-6	Trichloroethene	0.31	1.5	< 1.5 U
124-48-1	Dibromochloromethane	0.39	1.5	< 1.5 U
79-00-5	1,1,2-Trichloroethane	0.41	1.5	< 1.5 U
71-43-2	**Benzene**	**0.43**	**1.5**	**2.3**
10061-02-6	trans-1,3-Dichloropropene	0.31	1.5	< 1.5 U
110-75-8	2-Chloroethylvinylether	0.40	7.3	< 7.3 U
75-25-2	Bromoform	0.43	1.5	< 1.5 U
108-10-1	**4-Methyl-2-Pentanone (MIBK)**	**0.61**	**7.3**	**220**
591-78-6	**2-Hexanone**	**0.64**	**7.3**	**12**
127-18-4	Tetrachloroethene	0.37	1.5	< 1.5 U
79-34-5	1,1,2,2-Tetrachloroethane	0.37	1.5	< 1.5 U
108-88-3	**Toluene**	**0.22**	**1.5**	**2.7**
108-90-7	Chlorobenzene	0.32	1.5	< 1.5 U
100-41-4	**Ethylbenzene**	**0.29**	**1.5**	**1.8**
100-42-5	**Styrene**	**0.20**	**1.5**	**4.3**
75-69-4	**Trichlorofluoromethane**	**0.39**	**1.5**	**3.5**
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.42	2.9	< 2.9 U
179601-23-1	**m,p-Xylene**	**0.57**	**1.5**	**5.5**
95-47-6	**o-Xylene**	**0.32**	**1.5**	**6.2**
95-50-1	1,2-Dichlorobenzene	0.42	1.5	< 1.5 U
541-73-1	1,3-Dichlorobenzene	0.33	1.5	< 1.5 U
106-46-7	1,4-Dichlorobenzene	0.34	1.5	< 1.5 U
107-02-8	Acrolein	5.5	73	< 73 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-FD-01-20130612-S**
 SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Date Analyzed: 06/17/13 18:42

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
74-88-4	Iodomethane	0.31	1.5	< 1.5 U
74-96-4	Bromoethane	0.64	2.9	< 2.9 U
107-13-1	Acrylonitrile	1.5	7.3	< 7.3 U
563-58-6	1,1-Dichloropropene	0.45	1.5	< 1.5 U
74-95-3	Dibromomethane	0.21	1.5	< 1.5 U
630-20-6	1,1,1,2-Tetrachloroethane	0.34	1.5	< 1.5 U
96-12-8	1,2-Dibromo-3-chloropropane	0.85	7.3	< 7.3 U
96-18-4	1,2,3-Trichloropropane	0.75	2.9	< 2.9 U
110-57-6	trans-1,4-Dichloro-2-butene	0.63	7.3	< 7.3 U
108-67-8	**1,3,5-Trimethylbenzene**	**0.37**	**1.5**	**23**
95-63-6	**1,2,4-Trimethylbenzene**	**0.33**	**1.5**	**32**
87-68-3	Hexachlorobutadiene	0.59	7.3	< 7.3 U
106-93-4	1,2-Dibromoethane	0.26	1.5	< 1.5 U
74-97-5	Bromochloromethane	0.47	1.5	< 1.5 U
75-71-8	Dichlorodifluoromethane	0.30	1.5	< 1.5 U
594-20-7	2,2-Dichloropropane	0.42	1.5	< 1.5 U
142-28-9	1,3-Dichloropropane	0.30	1.5	< 1.5 U
98-82-8	**Isopropylbenzene**	**0.34**	**1.5**	**3.2**
103-65-1	**n-Propylbenzene**	**0.39**	**1.5**	**2.5**
108-86-1	Bromobenzene	0.22	1.5	< 1.5 U
95-49-8	2-Chlorotoluene	0.43	1.5	< 1.5 U
106-43-4	4-Chlorotoluene	0.40	1.5	< 1.5 U
98-06-6	tert-Butylbenzene	0.44	1.5	< 1.5 U
135-98-8	**sec-Butylbenzene**	**0.35**	**1.5**	**6.9**
99-87-6	**4-Isopropyltoluene**	**0.34**	**1.5**	**2.0**
104-51-8	n-Butylbenzene	0.38	1.5	< 1.5 U
120-82-1	1,2,4-Trichlorobenzene	0.48	7.3	< 7.3 U
91-20-3	**Naphthalene**	**0.62**	**7.3**	**6.9 J**
87-61-6	1,2,3-Trichlorobenzene	0.44	7.3	< 7.3 U
1634-04-4	Methyl tert-Butyl Ether	0.33	1.5	< 1.5 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	118%
d8-Toluene	86.3%
Bromofluorobenzene	64.1%
d4-1,2-Dichlorobenzene	95.1%

WT81:00039

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-FD-01-20130612-S**
 REANALYSIS

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 19:30

Sample Amount: 2.95 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.45	1.7	< 1.7 U
74-83-9	Bromomethane	0.32	1.7	< 1.7 U
75-01-4	Vinyl Chloride	0.40	1.7	< 1.7 U
75-00-3	Chloroethane	0.78	1.7	< 1.7 U
75-09-2	**Methylene Chloride**	**1.1**	**3.4**	**8.7 QB**
67-64-1	Acetone	0.82	8.5	< 8.5 U
75-15-0	**Carbon Disulfide**	**0.95**	**1.7**	**59**
75-35-4	1,1-Dichloroethene	0.57	1.7	< 1.7 U
75-34-3	1,1-Dichloroethane	0.34	1.7	< 1.7 U
156-60-5	trans-1,2-Dichloroethene	0.45	1.7	< 1.7 U
156-59-2	cis-1,2-Dichloroethene	0.41	1.7	< 1.7 U
67-66-3	**Chloroform**	**0.40**	**1.7**	**2.8**
107-06-2	1,2-Dichloroethane	0.32	1.7	< 1.7 U
78-93-3	**2-Butanone**	**0.87**	**8.5**	**390**
71-55-6	1,1,1-Trichloroethane	0.38	1.7	< 1.7 U
56-23-5	Carbon Tetrachloride	0.36	1.7	< 1.7 U
108-05-4	Vinyl Acetate	0.65	8.5	< 8.5 U
75-27-4	Bromodichloromethane	0.43	1.7	< 1.7 U
78-87-5	1,2-Dichloropropane	0.27	1.7	< 1.7 U
10061-01-5	cis-1,3-Dichloropropene	0.38	1.7	< 1.7 U
79-01-6	Trichloroethene	0.36	1.7	< 1.7 U
124-48-1	Dibromochloromethane	0.45	1.7	< 1.7 U
79-00-5	1,1,2-Trichloroethane	0.48	1.7	< 1.7 U
71-43-2	**Benzene**	**0.50**	**1.7**	**3.1**
10061-02-6	trans-1,3-Dichloropropene	0.37	1.7	< 1.7 U
110-75-8	2-Chloroethylvinylether	0.47	8.5	< 8.5 U
75-25-2	Bromoform	0.50	1.7	< 1.7 U
108-10-1	**4-Methyl-2-Pentanone (MIBK)**	**0.71**	**8.5**	**360**
591-78-6	**2-Hexanone**	**0.74**	**8.5**	**15**
127-18-4	Tetrachloroethene	0.44	1.7	< 1.7 U
79-34-5	1,1,2,2-Tetrachloroethane	0.43	1.7	< 1.7 U
108-88-3	**Toluene**	**0.26**	**1.7**	**4.2**
108-90-7	Chlorobenzene	0.37	1.7	< 1.7 U
100-41-4	**Ethylbenzene**	**0.34**	**1.7**	**3.6**
100-42-5	**Styrene**	**0.23**	**1.7**	**8.3**
75-69-4	**Trichlorofluoromethane**	**0.45**	**1.7**	**4.8**
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.49	3.4	< 3.4 U
179601-23-1	**m,p-Xylene**	**0.66**	**1.7**	**11**
95-47-6	**o-Xylene**	**0.38**	**1.7**	**14**
95-50-1	1,2-Dichlorobenzene	0.50	1.7	< 1.7 U
541-73-1	1,3-Dichlorobenzene	0.38	1.7	< 1.7 U
106-46-7	1,4-Dichlorobenzene	0.39	1.7	< 1.7 U
107-02-8	Acrolein	6.5	85	< 85 U

WT81 : 000119

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-FD-01-20130612-S**
 REANALYSIS

Lab Sample ID: WT81C QC Report No: WT81-SAIC
LIMS ID: 13-12638 Project: NPDES Sampling Support
Matrix: Sediment 209977
Date Analyzed: 06/17/13 19:30

CAS Number	Analyte	DL	LOQ	Result
74-88-4	Iodomethane	0.36	1.7	< 1.7 U
74-96-4	Bromoethane	0.75	3.4	< 3.4 U
107-13-1	Acrylonitrile	1.7	8.5	< 8.5 U
563-58-6	1,1-Dichloropropene	0.53	1.7	< 1.7 U
74-95-3	Dibromomethane	0.25	1.7	< 1.7 U
630-20-6	1,1,1,2-Tetrachloroethane	0.39	1.7	< 1.7 U
96-12-8	1,2-Dibromo-3-chloropropane	0.99	8.5	< 8.5 U
96-18-4	1,2,3-Trichloropropane	0.88	3.4	< 3.4 U
110-57-6	trans-1,4-Dichloro-2-butene	0.74	8.5	< 8.5 U
108-67-8	**1,3,5-Trimethylbenzene**	**0.43**	**1.7**	**44**
95-63-6	**1,2,4-Trimethylbenzene**	**0.39**	**1.7**	**61**
87-68-3	Hexachlorobutadiene	0.69	8.5	< 8.5 U
106-93-4	1,2-Dibromoethane	0.30	1.7	< 1.7 U
74-97-5	Bromochloromethane	0.55	1.7	< 1.7 U
75-71-8	Dichlorodifluoromethane	0.35	1.7	< 1.7 U
594-20-7	2,2-Dichloropropane	0.49	1.7	< 1.7 U
142-28-9	1,3-Dichloropropane	0.35	1.7	< 1.7 U
98-82-8	**Isopropylbenzene**	**0.39**	**1.7**	**5.9**
103-65-1	**n-Propylbenzene**	**0.46**	**1.7**	**5.3**
108-86-1	Bromobenzene	0.26	1.7	< 1.7 U
95-49-8	2-Chlorotoluene	0.51	1.7	< 1.7 U
106-43-4	4-Chlorotoluene	0.47	1.7	< 1.7 U
98-06-6	tert-Butylbenzene	0.52	1.7	< 1.7 U
135-98-8	**sec-Butylbenzene**	**0.41**	**1.7**	**7.9**
99-87-6	**4-Isopropyltoluene**	**0.40**	**1.7**	**3.5**
104-51-8	n-Butylbenzene	0.44	1.7	< 1.7 U
120-82-1	1,2,4-Trichlorobenzene	0.56	8.5	< 8.5 U
91-20-3	**Naphthalene**	**0.73**	**8.5**	**18 B**
87-61-6	1,2,3-Trichlorobenzene	0.52	8.5	< 8.5 U
1634-04-4	Methyl tert-Butyl Ether	0.39	1.7	< 1.7 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	120%
d8-Toluene	83.1%
Bromofluorobenzene	60.3%
d4-1,2-Dichlorobenzene	93.6%

WT81:00044

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: AM-TB-01-20130612-W**
 SAMPLE

Lab Sample ID: WT81D
LIMS ID: 13-12639
Matrix: Water
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 17:54

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.13	1.0	< 1.0 U
74-83-9	Bromomethane	0.43	1.0	< 1.0 U
75-01-4	Vinyl Chloride	0.25	1.0	< 1.0 U
75-00-3	Chloroethane	0.19	1.0	< 1.0 U
75-09-2	**Methylene Chloride**	**0.19**	**2.0**	**3.5 QB**
67-64-1	Acetone	3.0	10	< 10 U
75-15-0	Carbon Disulfide	0.18	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	0.30	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	0.21	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	0.20	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	0.10	1.0	< 1.0 U
67-66-3	Chloroform	0.19	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	0.24	1.0	< 1.0 U
78-93-3	2-Butanone	2.0	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	0.18	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	0.23	1.0	< 1.0 U
108-05-4	Vinyl Acetate	0.22	5.0	< 5.0 U
75-27-4	Bromodichloromethane	0.19	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	0.23	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	0.23	1.0	< 1.0 U
79-01-6	Trichloroethene	0.29	1.0	< 1.0 U
124-48-1	Dibromochloromethane	0.23	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	0.26	1.0	< 1.0 U
71-43-2	Benzene	0.25	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	0.22	5.0	< 5.0 U
75-25-2	Bromoform	0.29	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.37	5.0	< 5.0 U
591-78-6	2-Hexanone	0.93	5.0	< 5.0 U
127-18-4	Tetrachloroethene	0.09	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.14	1.0	< 1.0 U
108-88-3	Toluene	0.18	1.0	< 1.0 U
108-90-7	Chlorobenzene	0.14	1.0	< 1.0 U
100-41-4	Ethylbenzene	0.18	1.0	< 1.0 U
100-42-5	Styrene	0.12	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	0.18	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.18	2.0	< 2.0 U
179601-23-1	m,p-Xylene	0.36	2.0	< 2.0 U
95-47-6	o-Xylene	0.22	1.0	< 1.0 U
95-50-1	1,2-Dichlorobenzene	0.20	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	0.28	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.28	1.0	< 1.0 U
107-02-8	Acrolein	1.9	10	< 10 U
74-88-4	Iodomethane	0.26	1.0	< 1.0 U
74-96-4	Bromoethane	0.42	2.0	< 2.0 U
107-13-1	Acrylonitrile	0.50	5.0	< 5.0 U
563-58-6	1,1-Dichloropropene	0.27	1.0	< 1.0 U
74-95-3	Dibromomethane	0.29	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.29	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	0.44	5.0	< 5.0 U

Lab Sample ID: WT81D
LIMS ID: 13-12639
Matrix: Water
Date Analyzed: 06/17/13 17:54

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
96-18-4	1,2,3-Trichloropropane	0.54	2.0	< 2.0 U
110-57-6	trans-1,4-Dichloro-2-butene	0.86	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	0.14	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	0.15	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.18	5.0	< 5.0 U
106-93-4	1,2-Dibromoethane	0.18	1.0	< 1.0 U
74-97-5	Bromochloromethane	0.20	1.0	< 1.0 U
75-71-8	Dichlorodifluoromethane	0.25	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	0.10	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	0.17	5.0	< 5.0 U
98-82-8	Isopropylbenzene	0.30	1.0	< 1.0 U
103-65-1	n-Propylbenzene	0.12	1.0	< 1.0 U
108-86-1	Bromobenzene	0.24	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	0.14	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	0.21	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	0.40	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	0.13	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	0.35	1.0	< 1.0 U
104-51-8	n-Butylbenzene	0.37	1.0	< 1.0 U
120-82-1	1,2,4-Trichlorobenzene	0.34	5.0	< 5.0 U
91-20-3	Naphthalene	0.23	5.0	< 5.0 U
87-61-6	1,2,3-Trichlorobenzene	0.32	5.0	< 5.0 U
1634-04-4	Methyl tert-Butyl Ether	0.16	1.0	< 1.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%
d8-Toluene	102%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	104%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

EPA SW-846 indicates that vinyl chloride and styrene may degrade in the presence of acid preservative.

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
WT81B	AM-SF4-EFF-20130612-S	Low	123%	81.5%	61.9%*	94.3%	1
WT81BRE	AM-SF4-EFF-20130612-S	Low	120%	86.4%	66.3%*	93.2%	1
MB-061713A	Method Blank	Low	122%	101%	101%	102%	0
LCS-061713A	Lab Control	Low	120%	100%	102%	101%	0
LCSD-061713A	Lab Control Dup	Low	119%	102%	102%	102%	0
WT81C	AM-FD-01-20130612-S	Low	118%	86.3%	64.1%*	95.1%	1
WT81CRE	AM-FD-01-20130612-S	Low	120%	83.1%	60.3%*	93.6%	1

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	80-122	76-120	80-149	69-120
(TOL) = d8-Toluene	80-120	80-120	77-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	80-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 13-12637 to 13-12638

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
MB-061713A	Method Blank	5	122%	101%	101%	102%	0
LCS-061713A	Lab Control	5	120%	100%	102%	101%	0
LCSD-061713A	Lab Control Dup	5	119%	102%	102%	102%	0
WT81D	AM-TB-01-20130612-W	5	121%	102%	101%	104%	0

	LCS/MB LIMITS	QC LIMITS
SW8260C		
(DCE) = d4-1,2-Dichloroethane	80-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 13-12639 to 13-12639

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-061713A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-061713A
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PAB
LCSD: NT5/PAB
Date Analyzed LCS: 06/17/13 11:14
LCSD: 06/17/13 11:38

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	53.6	50.0	107%	49.8	50.0	99.6%	7.4%
Bromomethane	54.6	50.0	109%	51.4	50.0	103%	6.0%
Vinyl Chloride	56.8	50.0	114%	51.4	50.0	103%	10.0%
Chloroethane	56.7	50.0	113%	52.1	50.0	104%	8.5%
Methylene Chloride	67.5 QB	50.0	135%	54.8 QB	50.0	110%	20.8%
Acetone	240	250	96.0%	237	250	94.8%	1.3%
Carbon Disulfide	56.6	50.0	113%	53.2	50.0	106%	6.2%
1,1-Dichloroethene	56.0	50.0	112%	52.5	50.0	105%	6.5%
1,1-Dichloroethane	51.0	50.0	102%	48.4	50.0	96.8%	5.2%
trans-1,2-Dichloroethene	62.6 Q	50.0	125%	49.9 Q	50.0	99.8%	22.6%
cis-1,2-Dichloroethene	52.4	50.0	105%	50.3	50.0	101%	4.1%
Chloroform	50.6	50.0	101%	48.5	50.0	97.0%	4.2%
1,2-Dichloroethane	45.8	50.0	91.6%	44.2	50.0	88.4%	3.6%
2-Butanone	261	250	104%	258	250	103%	1.2%
1,1,1-Trichloroethane	51.2	50.0	102%	51.3	50.0	103%	0.2%
Carbon Tetrachloride	44.7	50.0	89.4%	45.0	50.0	90.0%	0.7%
Vinyl Acetate	51.5	50.0	103%	52.1	50.0	104%	1.2%
Bromodichloromethane	46.1	50.0	92.2%	44.5	50.0	89.0%	3.5%
1,2-Dichloropropane	45.4	50.0	90.8%	43.5	50.0	87.0%	4.3%
cis-1,3-Dichloropropene	46.2	50.0	92.4%	44.5	50.0	89.0%	3.7%
Trichloroethene	46.4	50.0	92.8%	44.1	50.0	88.2%	5.1%
Dibromochloromethane	45.2	50.0	90.4%	43.7	50.0	87.4%	3.4%
1,1,2-Trichloroethane	45.4	50.0	90.8%	44.6	50.0	89.2%	1.8%
Benzene	46.1	50.0	92.2%	44.4	50.0	88.8%	3.8%
trans-1,3-Dichloropropene	46.6	50.0	93.2%	45.0	50.0	90.0%	3.5%
2-Chloroethylvinylether	22.8 Q	50.0	45.6%	22.9 Q	50.0	45.8%	0.4%
Bromoform	42.7	50.0	85.4%	41.6	50.0	83.2%	2.6%
4-Methyl-2-Pentanone (MIBK)	229	250	91.6%	231	250	92.4%	0.9%
2-Hexanone	218	250	87.2%	217	250	86.8%	0.5%
Tetrachloroethene	45.3	50.0	90.6%	42.7	50.0	85.4%	5.9%
1,1,2,2-Tetrachloroethane	41.2	50.0	82.4%	41.0	50.0	82.0%	0.5%
Toluene	45.6	50.0	91.2%	43.8	50.0	87.6%	4.0%
Chlorobenzene	44.8	50.0	89.6%	42.6	50.0	85.2%	5.0%
Ethylbenzene	46.7	50.0	93.4%	44.5	50.0	89.0%	4.8%
Styrene	47.6	50.0	95.2%	44.9	50.0	89.8%	5.8%
Trichlorofluoromethane	55.9	50.0	112%	52.5	50.0	105%	6.3%
1,1,2-Trichloro-1,2,2-trifluoroetha	59.9 Q	50.0	120%	55.4 Q	50.0	111%	7.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-061713A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-061713A QC Report No: WT81-SAIC
LIMS ID: 13-12638 Project: NPDES Sampling Support
Matrix: Sediment 209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
m,p-Xylene	92.9	100	92.9%	88.4	100	88.4%	5.0%
o-Xylene	45.8	50.0	91.6%	43.5	50.0	87.0%	5.2%
1,2-Dichlorobenzene	43.0 B	50.0	86.0%	41.0 B	50.0	82.0%	4.8%
1,3-Dichlorobenzene	44.0	50.0	88.0%	41.4	50.0	82.8%	6.1%
1,4-Dichlorobenzene	43.8	50.0	87.6%	41.2	50.0	82.4%	6.1%
Acrolein	337	250	135%	306	250	122%	9.6%
Iodomethane	61.3 QB	50.0	123%	54.8 QB	50.0	110%	11.2%
Bromoethane	60.9 Q	50.0	122%	55.4 Q	50.0	111%	9.5%
Acrylonitrile	43.3	50.0	86.6%	50.3	50.0	101%	15.0%
1,1-Dichloropropene	43.0	50.0	86.0%	43.8	50.0	87.6%	1.8%
Dibromomethane	46.0	50.0	92.0%	44.9	50.0	89.8%	2.4%
1,1,1,2-Tetrachloroethane	45.0	50.0	90.0%	42.7	50.0	85.4%	5.2%
1,2-Dibromo-3-chloropropane	41.9 Q	50.0	83.8%	41.8 Q	50.0	83.6%	0.2%
1,2,3-Trichloropropane	42.3	50.0	84.6%	41.8	50.0	83.6%	1.2%
trans-1,4-Dichloro-2-butene	41.4	50.0	82.8%	43.2	50.0	86.4%	4.3%
1,3,5-Trimethylbenzene	45.8	50.0	91.6%	43.3	50.0	86.6%	5.6%
1,2,4-Trimethylbenzene	46.0	50.0	92.0%	43.6	50.0	87.2%	5.4%
Hexachlorobutadiene	46.4	50.0	92.8%	43.7	50.0	87.4%	6.0%
1,2-Dibromoethane	45.3	50.0	90.6%	44.4	50.0	88.8%	2.0%
Bromochloromethane	50.3	50.0	101%	48.7	50.0	97.4%	3.2%
Dichlorodifluoromethane	52.5	50.0	105%	49.6	50.0	99.2%	5.7%
2,2-Dichloropropane	54.0	50.0	108%	51.3	50.0	103%	5.1%
1,3-Dichloropropane	44.4	50.0	88.8%	43.1	50.0	86.2%	3.0%
Isopropylbenzene	45.8	50.0	91.6%	43.6	50.0	87.2%	4.9%
n-Propylbenzene	46.1	50.0	92.2%	43.6	50.0	87.2%	5.6%
Bromobenzene	42.8	50.0	85.6%	40.8	50.0	81.6%	4.8%
2-Chlorotoluene	44.2	50.0	88.4%	42.2	50.0	84.4%	4.6%
4-Chlorotoluene	44.9	50.0	89.8%	42.5	50.0	85.0%	5.5%
tert-Butylbenzene	45.5	50.0	91.0%	43.4	50.0	86.8%	4.7%
sec-Butylbenzene	46.4	50.0	92.8%	43.7	50.0	87.4%	6.0%
4-Isopropyltoluene	47.3	50.0	94.6%	44.3	50.0	88.6%	6.6%
n-Butylbenzene	47.2	50.0	94.4%	43.8	50.0	87.6%	7.5%
1,2,4-Trichlorobenzene	46.6 B	50.0	93.2%	43.4 B	50.0	86.8%	7.1%
Naphthalene	43.0 B	50.0	86.0%	42.1 B	50.0	84.2%	2.1%
1,2,3-Trichlorobenzene	44.9 B	50.0	89.8%	42.4 B	50.0	84.8%	5.7%
Methyl tert-Butyl Ether	61.7 Q	50.0	123%	53.0 Q	50.0	106%	15.2%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	120%	119%
d8-Toluene	100%	102%
Bromofluorobenzene	102%	102%
d4-1,2-Dichlorobenzene	101%	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-061713A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-061713A
LIMS ID: 13-12639
Matrix: Water
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: NT5/PAB
LCSD: NT5/PAB
Date Analyzed LCS: 06/17/13 11:14
LCSD: 06/17/13 11:38

Sample Amount LCS: 5.00 mL
LCSD: 5.00 mL
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	53.6	50.0	107%	49.8	50.0	99.6%	7.4%
Bromomethane	54.6	50.0	109%	51.4	50.0	103%	6.0%
Vinyl Chloride	56.8	50.0	114%	51.4	50.0	103%	10.0%
Chloroethane	56.7	50.0	113%	52.1	50.0	104%	8.5%
Methylene Chloride	67.5 QB	50.0	135%	54.8 QB	50.0	110%	20.8%
Acetone	240	250	96.0%	237	250	94.8%	1.3%
Carbon Disulfide	56.6	50.0	113%	53.2	50.0	106%	6.2%
1,1-Dichloroethene	56.0	50.0	112%	52.5	50.0	105%	6.5%
1,1-Dichloroethane	51.0	50.0	102%	48.4	50.0	96.8%	5.2%
trans-1,2-Dichloroethene	62.6 Q	50.0	125%	49.9 Q	50.0	99.8%	22.6%
cis-1,2-Dichloroethene	52.4	50.0	105%	50.3	50.0	101%	4.1%
Chloroform	50.6	50.0	101%	48.5	50.0	97.0%	4.2%
1,2-Dichloroethane	45.8	50.0	91.6%	44.2	50.0	88.4%	3.6%
2-Butanone	261	250	104%	258	250	103%	1.2%
1,1,1-Trichloroethane	51.2	50.0	102%	51.3	50.0	103%	0.2%
Carbon Tetrachloride	44.7	50.0	89.4%	45.0	50.0	90.0%	0.7%
Vinyl Acetate	51.5	50.0	103%	52.1	50.0	104%	1.2%
Bromodichloromethane	46.1	50.0	92.2%	44.5	50.0	89.0%	3.5%
1,2-Dichloropropane	45.4	50.0	90.8%	43.5	50.0	87.0%	4.3%
cis-1,3-Dichloropropene	46.2	50.0	92.4%	44.5	50.0	89.0%	3.7%
Trichloroethene	46.4	50.0	92.8%	44.1	50.0	88.2%	5.1%
Dibromochloromethane	45.2	50.0	90.4%	43.7	50.0	87.4%	3.4%
1,1,2-Trichloroethane	45.4	50.0	90.8%	44.6	50.0	89.2%	1.8%
Benzene	46.1	50.0	92.2%	44.4	50.0	88.8%	3.8%
trans-1,3-Dichloropropene	46.6	50.0	93.2%	45.0	50.0	90.0%	3.5%
2-Chloroethylvinylether	22.8 Q	50.0	45.6%	22.9 Q	50.0	45.8%	0.4%
Bromoform	42.7	50.0	85.4%	41.6	50.0	83.2%	2.6%
4-Methyl-2-Pentanone (MIBK)	229	250	91.6%	231	250	92.4%	0.9%
2-Hexanone	218	250	87.2%	217	250	86.8%	0.5%
Tetrachloroethene	45.3	50.0	90.6%	42.7	50.0	85.4%	5.9%
1,1,2,2-Tetrachloroethane	41.2	50.0	82.4%	41.0	50.0	82.0%	0.5%
Toluene	45.6	50.0	91.2%	43.8	50.0	87.6%	4.0%
Chlorobenzene	44.8	50.0	89.6%	42.6	50.0	85.2%	5.0%
Ethylbenzene	46.7	50.0	93.4%	44.5	50.0	89.0%	4.8%
Styrene	47.6	50.0	95.2%	44.9	50.0	89.8%	5.8%
Trichlorofluoromethane	55.9	50.0	112%	52.5	50.0	105%	6.3%
1,1,2-Trichloro-1,2,2-trifluoroetha	59.9 Q	50.0	120%	55.4 Q	50.0	111%	7.8%
m,p-Xylene	92.9	100	92.9%	88.4	100	88.4%	5.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-061713A**
 LAB CONTROL SAMPLE

Lab Sample ID: LCS-061713A QC Report No: WT81-SAIC
LIMS ID: 13-12639 Project: NPDES Sampling Support
Matrix: Water 209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
o-Xylene	45.8	50.0	91.6%	43.5	50.0	87.0%	5.2%
1,2-Dichlorobenzene	43.0 B	50.0	86.0%	41.0 B	50.0	82.0%	4.8%
1,3-Dichlorobenzene	44.0	50.0	88.0%	41.4	50.0	82.8%	6.1%
1,4-Dichlorobenzene	43.8	50.0	87.6%	41.2	50.0	82.4%	6.1%
Acrolein	337	250	135%	306	250	122%	9.6%
Iodomethane	61.3 QB	50.0	123%	54.8 QB	50.0	110%	11.2%
Bromoethane	60.9 Q	50.0	122%	55.4 Q	50.0	111%	9.5%
Acrylonitrile	43.3	50.0	86.6%	50.3	50.0	101%	15.0%
1,1-Dichloropropene	43.0	50.0	86.0%	43.8	50.0	87.6%	1.8%
Dibromomethane	46.0	50.0	92.0%	44.9	50.0	89.8%	2.4%
1,1,1,2-Tetrachloroethane	45.0	50.0	90.0%	42.7	50.0	85.4%	5.2%
1,2-Dibromo-3-chloropropane	41.9 Q	50.0	83.8%	41.8 Q	50.0	83.6%	0.2%
1,2,3-Trichloropropane	42.3	50.0	84.6%	41.8	50.0	83.6%	1.2%
trans-1,4-Dichloro-2-butene	41.4	50.0	82.8%	43.2	50.0	86.4%	4.3%
1,3,5-Trimethylbenzene	45.8	50.0	91.6%	43.3	50.0	86.6%	5.6%
1,2,4-Trimethylbenzene	46.0	50.0	92.0%	43.6	50.0	87.2%	5.4%
Hexachlorobutadiene	46.4	50.0	92.8%	43.7	50.0	87.4%	6.0%
1,2-Dibromoethane	45.3	50.0	90.6%	44.4	50.0	88.8%	2.0%
Bromochloromethane	50.3	50.0	101%	48.7	50.0	97.4%	3.2%
Dichlorodifluoromethane	52.5	50.0	105%	49.6	50.0	99.2%	5.7%
2,2-Dichloropropane	54.0	50.0	108%	51.3	50.0	103%	5.1%
1,3-Dichloropropane	44.4	50.0	88.8%	43.1	50.0	86.2%	3.0%
Isopropylbenzene	45.8	50.0	91.6%	43.6	50.0	87.2%	4.9%
n-Propylbenzene	46.1	50.0	92.2%	43.6	50.0	87.2%	5.6%
Bromobenzene	42.8	50.0	85.6%	40.8	50.0	81.6%	4.8%
2-Chlorotoluene	44.2	50.0	88.4%	42.2	50.0	84.4%	4.6%
4-Chlorotoluene	44.9	50.0	89.8%	42.5	50.0	85.0%	5.5%
tert-Butylbenzene	45.5	50.0	91.0%	43.4	50.0	86.8%	4.7%
sec-Butylbenzene	46.4	50.0	92.8%	43.7	50.0	87.4%	6.0%
4-Isopropyltoluene	47.3	50.0	94.6%	44.3	50.0	88.6%	6.6%
n-Butylbenzene	47.2	50.0	94.4%	43.8	50.0	87.6%	7.5%
1,2,4-Trichlorobenzene	46.6 B	50.0	93.2%	43.4 B	50.0	86.8%	7.1%
Naphthalene	43.0 B	50.0	86.0%	42.1 B	50.0	84.2%	2.1%
1,2,3-Trichlorobenzene	44.9 B	50.0	89.8%	42.4 B	50.0	84.8%	5.7%
Methyl tert-Butyl Ether	61.7 Q	50.0	123%	53.0 Q	50.0	106%	15.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	120%	119%
d8-Toluene	100%	102%
Bromofluorobenzene	102%	102%
d4-1,2-Dichlorobenzene	101%	102%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0617

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No: WT81

Project: NPDES SAMPLING

Lab File ID: MB0617

Lab Sample ID: MB0617

Date Analyzed: 06/17/13

Time Analyzed: 1202

Instrument ID: NT5

Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS0617	LCS0617	LCS0617	1114
02	LCS0617	LCS0617	LCS0617A	1138
03	AM-TB-01-201	WT81D	WT81D	1754
04	AM-SF4-EFF-2	WT81B	WT81B	1818
05	AM-FD-01-201	WT81C	WT81C	1842
06	AM-SF4-EFF-2	WT81B	WT81B2	1906
07	AM-FD-01-201	WT81C	WT81C2	1930
08				
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COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-061713A**
 METHOD BLANK

Lab Sample ID: MB-061713A
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 12:02

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.26	1.0	< 1.0 U
74-83-9	Bromomethane	0.19	1.0	< 1.0 U
75-01-4	Vinyl Chloride	0.24	1.0	< 1.0 U
75-00-3	Chloroethane	0.46	1.0	< 1.0 U
75-09-2	**Methylene Chloride**	**0.64**	**2.0**	**4.1 Q**
67-64-1	Acetone	0.48	5.0	< 5.0 U
75-15-0	Carbon Disulfide	0.56	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	0.34	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	0.20	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	0.27	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	0.24	1.0	< 1.0 U
67-66-3	Chloroform	0.23	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	0.19	1.0	< 1.0 U
78-93-3	2-Butanone	0.51	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	0.23	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	0.21	1.0	< 1.0 U
108-05-4	Vinyl Acetate	0.38	5.0	< 5.0 U
75-27-4	Bromodichloromethane	0.25	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	0.16	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	0.23	1.0	< 1.0 U
79-01-6	Trichloroethene	0.21	1.0	< 1.0 U
124-48-1	Dibromochloromethane	0.27	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	0.29	1.0	< 1.0 U
71-43-2	Benzene	0.30	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	0.22	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	0.28	5.0	< 5.0 U
75-25-2	Bromoform	0.30	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.42	5.0	< 5.0 U
591-78-6	2-Hexanone	0.44	5.0	< 5.0 U
127-18-4	Tetrachloroethene	0.26	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.25	1.0	< 1.0 U
108-88-3	Toluene	0.15	1.0	< 1.0 U
108-90-7	Chlorobenzene	0.22	1.0	< 1.0 U
100-41-4	Ethylbenzene	0.20	1.0	< 1.0 U
100-42-5	Styrene	0.14	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	0.27	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.29	2.0	< 2.0 U
179601-23-1	m,p-Xylene	0.39	1.0	< 1.0 U
95-47-6	o-Xylene	0.22	1.0	< 1.0 U
95-50-1	**1,2-Dichlorobenzene**	**0.29**	**1.0**	**1.4**
541-73-1	1,3-Dichlorobenzene	0.23	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.23	1.0	< 1.0 U
107-02-8	Acrolein	3.8	50	< 50 U

WT81:88851

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-061713A**
 METHOD BLANK

Lab Sample ID: MB-061713A QC Report No: WT81-SAIC
LIMS ID: 13-12638 Project: NPDES Sampling Support
Matrix: Sediment 209977
Date Analyzed: 06/17/13 12:02

CAS Number	Analyte	DL	LOQ	Result
74-88-4	**Iodomethane**	**0.22**	**1.0**	**1.0 J**
74-96-4	Bromoethane	0.44	2.0	< 2.0 U
107-13-1	Acrylonitrile	1.0	5.0	< 5.0 U
563-58-6	1,1-Dichloropropene	0.31	1.0	< 1.0 U
74-95-3	Dibromomethane	0.15	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.23	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	0.59	5.0	< 5.0 U
96-18-4	1,2,3-Trichloropropane	0.52	2.0	< 2.0 U
110-57-6	trans-1,4-Dichloro-2-butene	0.44	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	0.25	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	0.23	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.41	5.0	< 5.0 U
106-93-4	1,2-Dibromoethane	0.18	1.0	< 1.0 U
74-97-5	Bromochloromethane	0.32	1.0	< 1.0 U
75-71-8	Dichlorodifluoromethane	0.21	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	0.29	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	0.21	1.0	< 1.0 U
98-82-8	Isopropylbenzene	0.23	1.0	< 1.0 U
103-65-1	n-Propylbenzene	0.27	1.0	< 1.0 U
108-86-1	Bromobenzene	0.15	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	0.30	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	0.28	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	0.31	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	0.24	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	0.24	1.0	< 1.0 U
104-51-8	n-Butylbenzene	0.26	1.0	< 1.0 U
120-82-1	**1,2,4-Trichlorobenzene**	**0.33**	**5.0**	**2.4 J**
91-20-3	**Naphthalene**	**0.43**	**5.0**	**1.2 J**
87-61-6	**1,2,3-Trichlorobenzene**	**0.30**	**5.0**	**0.6 J**
1634-04-4	Methyl tert-Butyl Ether	0.23	1.0	< 1.0 U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	122%
d8-Toluene	101%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-061713A**
 METHOD BLANK

Lab Sample ID: MB-061713A
LIMS ID: 13-12639
Matrix: Water
Data Release Authorized: MW
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Instrument/Analyst: NT5/PAB
Date Analyzed: 06/17/13 12:02

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	DL	LOQ	Result
74-87-3	Chloromethane	0.13	1.0	< 1.0 U
74-83-9	Bromomethane	0.43	1.0	< 1.0 U
75-01-4	Vinyl Chloride	0.25	1.0	< 1.0 U
75-00-3	Chloroethane	0.19	1.0	< 1.0 U
75-09-2	**Methylene Chloride**	**0.19**	**2.0**	**4.1**
67-64-1	Acetone	3.0	10	< 10 U
75-15-0	Carbon Disulfide	0.18	1.0	< 1.0 U
75-35-4	1,1-Dichloroethene	0.30	1.0	< 1.0 U
75-34-3	1,1-Dichloroethane	0.21	1.0	< 1.0 U
156-60-5	trans-1,2-Dichloroethene	0.20	1.0	< 1.0 U
156-59-2	cis-1,2-Dichloroethene	0.10	1.0	< 1.0 U
67-66-3	Chloroform	0.19	1.0	< 1.0 U
107-06-2	1,2-Dichloroethane	0.24	1.0	< 1.0 U
78-93-3	2-Butanone	2.0	5.0	< 5.0 U
71-55-6	1,1,1-Trichloroethane	0.18	1.0	< 1.0 U
56-23-5	Carbon Tetrachloride	0.23	1.0	< 1.0 U
108-05-4	Vinyl Acetate	0.22	5.0	< 5.0 U
75-27-4	Bromodichloromethane	0.19	1.0	< 1.0 U
78-87-5	1,2-Dichloropropane	0.23	1.0	< 1.0 U
10061-01-5	cis-1,3-Dichloropropene	0.23	1.0	< 1.0 U
79-01-6	Trichloroethene	0.29	1.0	< 1.0 U
124-48-1	Dibromochloromethane	0.23	1.0	< 1.0 U
79-00-5	1,1,2-Trichloroethane	0.26	1.0	< 1.0 U
71-43-2	Benzene	0.25	1.0	< 1.0 U
10061-02-6	trans-1,3-Dichloropropene	0.20	1.0	< 1.0 U
110-75-8	2-Chloroethylvinylether	0.22	5.0	< 5.0 U
75-25-2	Bromoform	0.29	1.0	< 1.0 U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.37	5.0	< 5.0 U
591-78-6	2-Hexanone	0.93	5.0	< 5.0 U
127-18-4	Tetrachloroethene	0.09	1.0	< 1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	0.14	1.0	< 1.0 U
108-88-3	Toluene	0.18	1.0	< 1.0 U
108-90-7	Chlorobenzene	0.14	1.0	< 1.0 U
100-41-4	Ethylbenzene	0.18	1.0	< 1.0 U
100-42-5	Styrene	0.12	1.0	< 1.0 U
75-69-4	Trichlorofluoromethane	0.18	1.0	< 1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	0.18	2.0	< 2.0 U
179601-23-1	m,p-Xylene	0.36	2.0	< 2.0 U
95-47-6	o-Xylene	0.22	1.0	< 1.0 U
95-50-1	**1,2-Dichlorobenzene**	**0.20**	**1.0**	**1.4**
541-73-1	1,3-Dichlorobenzene	0.28	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	0.28	1.0	< 1.0 U
107-02-8	Acrolein	1.9	10	< 10 U
74-88-4	**Iodomethane**	**0.26**	**1.0**	**1.0 J**
74-96-4	Bromoethane	0.42	2.0	< 2.0 U
107-13-1	Acrylonitrile	0.50	5.0	< 5.0 U
563-58-6	1,1-Dichloropropene	0.27	1.0	< 1.0 U
74-95-3	Dibromomethane	0.29	1.0	< 1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	0.29	1.0	< 1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	0.44	5.0	< 5.0 U

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-061713A**
 METHOD BLANK

Lab Sample ID: MB-061713A QC Report No: WT81-SAIC
LIMS ID: 13-12639 Project: NPDES Sampling Support
Matrix: Water 209977
Date Analyzed: 06/17/13 12:02

CAS Number	Analyte	DL	LOQ	Result
96-18-4	1,2,3-Trichloropropane	0.54	2.0	< 2.0 U
110-57-6	trans-1,4-Dichloro-2-butene	0.86	5.0	< 5.0 U
108-67-8	1,3,5-Trimethylbenzene	0.14	1.0	< 1.0 U
95-63-6	1,2,4-Trimethylbenzene	0.15	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.18	5.0	< 5.0 U
106-93-4	1,2-Dibromoethane	0.18	1.0	< 1.0 U
74-97-5	Bromochloromethane	0.20	1.0	< 1.0 U
75-71-8	Dichlorodifluoromethane	0.25	1.0	< 1.0 U
594-20-7	2,2-Dichloropropane	0.10	1.0	< 1.0 U
142-28-9	1,3-Dichloropropane	0.17	5.0	< 5.0 U
98-82-8	Isopropylbenzene	0.30	1.0	< 1.0 U
103-65-1	n-Propylbenzene	0.12	1.0	< 1.0 U
108-86-1	Bromobenzene	0.24	1.0	< 1.0 U
95-49-8	2-Chlorotoluene	0.14	1.0	< 1.0 U
106-43-4	4-Chlorotoluene	0.21	1.0	< 1.0 U
98-06-6	tert-Butylbenzene	0.40	1.0	< 1.0 U
135-98-8	sec-Butylbenzene	0.13	1.0	< 1.0 U
99-87-6	4-Isopropyltoluene	0.35	1.0	< 1.0 U
104-51-8	n-Butylbenzene	0.37	1.0	< 1.0 U
120-82-1	**1,2,4-Trichlorobenzene**	**0.34**	**5.0**	**2.4 J**
91-20-3	**Naphthalene**	**0.23**	**5.0**	**1.2 J**
87-61-6	**1,2,3-Trichlorobenzene**	**0.32**	**5.0**	**0.6 J**
1634-04-4	Methyl tert-Butyl Ether	0.16	1.0	< 1.0 U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	122%
d8-Toluene	101%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	102%

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SDG No.: WT81

Lab File ID: BFB0611A BFB Injection Date: 06/11/13

Instrument ID: NT5 BFB Injection Time: 0810

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.4
75	30.0 - 66.0% of mass 95	45.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 101.0% of mass 95	83.2
175	4.0 - 9.0% of mass 174	5.9 (7.1)1
176	95.0 - 101.0% of mass 174	79.8 (95.9)1
177	5.0 - 9.0% of mass 176	5.3 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD1	IC0611	0010611	06/11/13	0833
02	VSTD200	IC0611	2000611	06/11/13	0857
03	VSTD150	IC0611	1500611	06/11/13	0921
04	VSTD50	IC0611	0500611	06/11/13	1009
05	VSTD5	IC0611	0050611	06/11/13	1057
06	VSTD2	IC0611	0020611	06/11/13	1120
07	VSTD10	IC0611	0100611	06/11/13	1221
08	VSTD100	IC0611	1000611	06/11/13	1245
09	ICV0611	ICV0611	ICV0611	06/11/13	1404
10					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES INC Contract: SAIC

Lab Code: ARI Case No.: NPDES SAMPLING SDG No.: WT81

Lab File ID: BFB0617 BFB Injection Date: 06/17/13

Instrument ID: NT5 BFB Injection Time: 0914

GC Column: RTXVMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.9
75	30.0 - 66.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 101.0% of mass 95	83.2
175	4.0 - 9.0% of mass 174	6.1 (7.3)1
176	95.0 - 101.0% of mass 174	80.2 (96.4)1
177	5.0 - 9.0% of mass 176	5.2 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	CC0617	CC0617	06/17/13	1036
02	LCS0617	LCS0617	LCS0617	06/17/13	1114
03	LCS0617	LCS0617	LCS0617A	06/17/13	1138
04	MB0617	MB0617	MB0617	06/17/13	1202
05	AM-TB-01-2013061	WT81D	WT81D	06/17/13	1754
06	AM-SF4-EFF-20130	WT81B	WT81B	06/17/13	1818
07	AM-FD-01-2013061	WT81C	WT81C	06/17/13	1842
08	AM-SF4-EFF-20130	WT81B	WT81B2	06/17/13	1906
09	AM-FD-01-2013061	WT81C	WT81C2	06/17/13	1930
10					
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FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF1: 0010611 RF2: 0020611 RF5: 0050611
RF10: 0100611 RF50: 0500611

COMPOUND	RF1	RF2	RF5	RF10	RF50
Chloromethane	2.153	1.611	1.834	1.644	1.664
Vinyl Chloride	1.999	1.531	1.631	1.738	1.655
Bromomethane	1.114	0.870	0.911	0.928	0.797
Chloroethane	1.256	1.020	1.010	1.073	0.971
Trichlorofluoromethane	2.072	1.607	1.768	1.763	1.586
Acrolein	0.299	0.258	0.229	0.268	0.277
112Trichloro122Trifluoroetha	1.173	0.975	1.013	1.000	0.978
Acetone	0.531	0.417	0.267	0.513	0.244
1,1-Dichloroethene	1.433	1.089	1.154	1.115	1.120
Bromoethane	0.880	0.677	0.689	0.739	0.740
Iodomethane	0.906	0.647	0.652	0.716	0.866
Methylene Chloride		1.966	1.258	1.395	1.115
Acrylonitrile	0.616	0.621	0.591	0.530	0.521
Carbon Disulfide	4.581	3.660	3.851	3.733	3.705
Trans-1,2-Dichloroethene	1.515	1.193	1.061	1.311	1.048
Vinyl Acetate	3.533	3.350	3.554	3.131	3.375
1,1-Dichloroethane	3.048	2.608	2.759	2.638	2.161
2-Butanone	0.169	0.163	0.171	0.142	0.177
2,2-Dichloropropane	2.465	1.871	2.036	1.989	1.868
Cis-1,2-Dichloroethene	1.598	1.421	1.447	1.361	1.349
Chloroform	2.680	2.251	2.357	2.182	2.195
Bromochloromethane	0.710	0.581	0.650	0.622	0.592
1,1,1-Trichloroethane	2.293	1.932	2.076	2.012	1.927
1,1-Dichloropropene	0.616	0.513	0.621	0.523	0.513
Carbon Tetrachloride	0.541	0.441	0.466	0.461	0.438
1,2-Dichloroethane	0.568	0.498	0.513	0.453	0.478
Benzene	1.848	1.573	1.690	1.553	1.523
Trichloroethene	0.416	0.358	0.397	0.364	0.354
1,2-Dichloropropane	0.493	0.434	0.450	0.401	0.431
Bromodichloromethane	0.536	0.462	0.479	0.445	0.468
Dibromomethane	0.220	0.201	0.210	0.186	0.204
2-Chloroethyl Vinyl Ether	0.198	0.203	0.236	0.210	0.251
4-Methyl-2-Pentanone	0.170	0.174	0.186	0.161	0.189
Cis 1,3-dichloropropene	0.683	0.582	0.643	0.591	0.618
Toluene	1.208	1.013	1.058	0.969	0.941
Trans 1,3-Dichloropropene	0.594	0.528	0.569	0.517	0.559
2-Hexanone	0.237	0.250	0.268	0.231	0.268

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF1: 0010611 RF2: 0020611 RF5: 0050611
RF10: 0100611 RF50: 0500611

COMPOUND	RF1	RF2	RF5	RF10	RF50
1,1,2-Trichloroethane	0.322	0.301	0.323	0.288	0.313
1,3-Dichloropropane	0.519	0.481	0.494	0.443	0.492
Tetrachloroethene	0.385	0.307	0.345	0.339	0.312
Chlorodibromomethane	0.320	0.274	0.292	0.269	0.295
1,2-Dibromoethane	0.331	0.304	0.311	0.269	0.305
Chlorobenzene	0.984	0.847	0.897	0.831	0.809
Ethyl Benzene	1.753	1.453	1.603	1.526	1.436
1,1,1,2-Tetrachloroethane	0.341	0.287	0.305	0.278	0.287
m,p-xylene	0.650	0.542	0.601	0.569	0.540
o-Xylene	0.584	0.497	0.560	0.533	0.535
Styrene	0.924	0.840	0.965	0.891	0.909
Bromoform	0.416	0.362	0.385	0.349	0.392
1,1,2,2-Tetrachloroethane	0.676	0.605	0.633	0.584	0.658
1,2,3-Trichloropropane	0.201	0.192	0.197	0.178	0.198
Trans-1,4-Dichloro 2-Butene	0.248	0.219	0.228	0.219	0.250
N-Propyl Benzene	3.619	2.969	3.277	3.239	2.876
Bromobenzene	0.743	0.640	0.652	0.621	0.621
Isopropyl Benzene	2.849	2.445	2.710	2.669	2.470
2-Chloro Toluene	2.185	1.817	1.949	1.905	1.796
4-Chloro Toluene	2.174	1.906	2.031	1.988	1.852
T-Butyl Benzene	2.032	1.759	1.964	1.919	1.813
1,3,5-Trimethyl Benzene	2.403	2.042	2.252	2.216	2.067
1,2,4-Trimethylbenzene	2.370	1.999	2.235	2.175	2.048
S-Butyl Benzene	3.215	2.741	2.984	2.947	2.639
4-Isopropyl Toluene	2.525	2.170	2.410	2.402	2.172
1,3-Dichlorobenzene	1.497	1.217	1.239	1.213	1.135
1,4-Dichlorobenzene	1.526	1.255	1.297	1.233	1.153
N-Butyl Benzene	2.436	2.050	2.260	2.325	2.050
1,2-Dichlorobenzene	1.426	1.209	1.220	1.138	1.100
1,2-Dibromo 3-Chloropropane	0.128	0.129	0.119	0.113	0.126
1,2,4-Trichlorobenzene	0.954	0.797	0.827	0.831	0.791
Hexachloro 1,3-Butadiene	0.629	0.490	0.531	0.526	0.466
Naphthalene	1.917	1.975	1.994	1.706	1.946
1,2,3-Trichlorobenzene	0.908	0.838	0.838	0.772	0.767
Dichlorodifluoromethane	1.160	0.738	0.816	0.977	0.768
Methyl tert butyl ether	4.247	3.740	3.548	3.585	3.277

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF1: 0010611 RF2: 0020611 RF5: 0050611
RF10: 0100611 RF50: 0500611

COMPOUND	RF1	RF2	RF5	RF10	RF50
d4-1,2-Dichloroethane	1.332	1.362	1.342	1.345	1.350
d8-Toluene	1.469	1.473	1.474	1.473	1.468
4-Bromofluorobenzene	0.543	0.544	0.548	0.544	0.545
d4-1,2-Dichlorobenzene	1.033	1.031	1.018	1.035	1.009
Dibromofluoromethane	1.421	1.434	1.430	1.440	1.441

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF100: 1000611 RF150: 1500611 RF200: 2000611

COMPOUND	RF100	RF150	RF200
Chloromethane	1.794	1.696	1.727
Vinyl Chloride	1.824	1.705	1.578
Bromomethane	0.797	0.734	0.693
Chloroethane	1.059	0.903	0.842
Trichlorofluoromethane	1.905	1.733	1.761
Acrolein	0.271	0.219	0.200
112Trichloro122Trifluoroetha	1.191	1.041	1.066
Acetone	0.209		
1,1-Dichloroethene	1.313	1.179	1.181
Bromoethane	0.807	0.683	0.674
Iodomethane	1.235	1.022	1.044
Methylene Chloride	1.075		
Acrylonitrile	0.344		
Carbon Disulfide	4.264	3.743	3.608
Trans-1,2-Dichloroethene	1.122	0.968	0.968
Vinyl Acetate	3.550	3.335	
1,1-Dichloroethane	1.733		
2-Butanone	0.184	0.178	0.166
2,2-Dichloropropane	2.213	2.056	2.079
Cis-1,2-Dichloroethene	1.538	1.453	1.462
Chloroform	2.324	2.332	2.337
Bromochloromethane	0.654	0.693	0.706
1,1,1-Trichloroethane	2.276	2.122	2.133
1,1-Dichloropropene	0.599	0.555	0.563
Carbon Tetrachloride	0.520	0.483	0.492
1,2-Dichloroethane	0.516	0.481	0.483
Benzene	1.652	1.449	1.361
Trichloroethene	0.415	0.387	0.398
1,2-Dichloropropane	0.476	0.448	0.453
Bromodichloromethane	0.513	0.484	0.489
Dibromomethane	0.220	0.209	0.213
2-Chloroethyl Vinyl Ether	0.269	0.258	0.258
4-Methyl-2-Pentanone	0.189	0.176	0.169
Cis 1,3-dichloropropene	0.675	0.626	0.623
Toluene	1.046	0.928	0.888
Trans 1,3-Dichloropropene	0.600	0.560	0.556
2-Hexanone	0.261	0.261	0.255

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF100: 1000611 RF150: 1500611 RF200: 2000611

COMPOUND	RF100	RF150	RF200
1,1,2-Trichloroethane	0.335	0.317	0.320
1,3-Dichloropropane	0.523	0.496	0.494
Tetrachloroethene	0.375	0.346	0.359
Chlorodibromomethane	0.319	0.306	0.312
1,2-Dibromoethane	0.326	0.310	0.309
Chlorobenzene	0.883	0.791	0.767
Ethyl Benzene	1.497	1.252	1.156
1,1,1,2-Tetrachloroethane	0.321	0.301	0.305
m,p-xylene	0.580	0.498	0.467
o-Xylene	0.604	0.558	0.553
Styrene	0.973	0.857	0.805
Bromoform	0.420	0.400	0.407
1,1,2,2-Tetrachloroethane	0.699	0.681	0.699
1,2,3-Trichloropropane	0.210	0.202	0.207
Trans-1,4-Dichloro 2-Butene	0.259	0.252	0.268
N-Propyl Benzene	3.050	2.455	2.301
Bromobenzene	0.699	0.646	0.672
Isopropyl Benzene	2.662	2.204	2.059
2-Chloro Toluene	2.007	1.733	1.676
4-Chloro Toluene	2.074	1.809	1.776
T-Butyl Benzene	2.058	1.766	1.706
1,3,5-Trimethyl Benzene	2.299	1.938	1.853
1,2,4-Trimethylbenzene	2.251	1.898	1.810
S-Butyl Benzene	2.847	2.322	2.148
4-Isopropyl Toluene	2.398	1.982	1.863
1,3-Dichlorobenzene	1.279	1.122	1.114
1,4-Dichlorobenzene	1.305	1.166	1.183
N-Butyl Benzene	2.339	1.930	1.858
1,2-Dichlorobenzene	1.212	1.105	1.137
1,2-Dibromo 3-Chloropropane	0.131	0.132	0.135
1,2,4-Trichlorobenzene	0.921	0.856	0.908
Hexachloro 1,3-Butadiene	0.560	0.506	0.529
Naphthalene	1.985	1.833	1.756
1,2,3-Trichlorobenzene	0.849	0.820	0.862
Dichlorodifluoromethane	0.938	0.790	0.903
Methyl tert butyl ether	3.099	2.581	2.491

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

LAB FILE ID: RF100: 1000611 RF150: 1500611 RF200: 2000611

COMPOUND	RF100	RF150	RF200
d4-1,2-Dichloroethane	1.370	1.314	1.306
d8-Toluene	1.465	1.447	1.452
4-Bromofluorobenzene	0.547	0.550	0.543
d4-1,2-Dichlorobenzene	1.013	0.996	1.012
Dibromofluoromethane	1.457	1.427	1.423

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
Chloromethane	AVRG	1.765	9.8
Vinyl Chloride	AVRG	1.708	8.7
Bromomethane	AVRG	0.856	15.5
Chloroethane	AVRG	1.017	12.2
Trichlorofluoromethane	AVRG	1.774	8.8
Acrolein	AVRG	0.253	13.2
112Trichloro122Trifluoroetha	AVRG	1.055	8.0
Acetone	2ORDR		0.9944
1,1-Dichloroethene	AVRG	1.198	9.8
Bromoethane	AVRG	0.736	10.0
Iodomethane	LINR		0.9902
Methylene Chloride	LINR		0.9980
Acrylonitrile	AVRG	0.537	19.3
Carbon Disulfide	AVRG	3.893	8.8
Trans-1,2-Dichloroethene	AVRG	1.148	16.3
Vinyl Acetate	AVRG	3.404	4.5
1,1-Dichloroethane	AVRG	2.491	18.8
2-Butanone	AVRG	0.169	7.6
2,2-Dichloropropane	AVRG	2.072	9.4
Cis-1,2-Dichloroethene	AVRG	1.454	5.7
Chloroform	AVRG	2.332	6.7
Bromochloromethane	AVRG	0.651	7.7
1,1,1-Trichloroethane	AVRG	2.096	6.6
1,1-Dichloropropene	AVRG	0.563	8.0
Carbon Tetrachloride	AVRG	0.480	7.6
1,2-Dichloroethane	AVRG	0.499	6.9
Benzene	AVRG	1.581	9.5
Trichloroethene	AVRG	0.386	6.4
1,2-Dichloropropane	AVRG	0.448	6.2
Bromodichloromethane	AVRG	0.485	5.9
Dibromomethane	AVRG	0.208	5.4
2-Chloroethyl Vinyl Ether	AVRG	0.236	11.9
4-Methyl-2-Pentanone	AVRG	0.177	5.8
Cis 1,3-dichloropropene	AVRG	0.630	5.7
Toluene	AVRG	1.006	10.0
Trans 1,3-Dichloropropene	AVRG	0.560	5.1
2-Hexanone	AVRG	0.254	5.4

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
1,1,2-Trichloroethane	AVRG	0.315	4.6
1,3-Dichloropropane	AVRG	0.493	5.0
Tetrachloroethene	AVRG	0.346	7.9
Chlorodibromomethane	AVRG	0.299	6.5
1,2-Dibromoethane	AVRG	0.308	6.0
Chlorobenzene	AVRG	0.851	8.2
Ethyl Benzene	AVRG	1.460	12.9
1,1,1,2-Tetrachloroethane	AVRG	0.303	6.8
m,p-xylene	AVRG	0.556	10.4
o-Xylene	AVRG	0.553	5.9
Styrene	AVRG	0.895	6.6
Bromoform	AVRG	0.392	6.4
1,1,2,2-Tetrachloroethane	AVRG	0.654	6.6
1,2,3-Trichloropropane	AVRG	0.198	5.0
Trans-1,4-Dichloro 2-Butene	AVRG	0.243	7.7
N-Propyl Benzene	AVRG	2.973	14.6
Bromobenzene	AVRG	0.662	6.3
Isopropyl Benzene	AVRG	2.508	10.7
2-Chloro Toluene	AVRG	1.884	8.7
4-Chloro Toluene	AVRG	1.951	7.1
T-Butyl Benzene	AVRG	1.877	7.1
1,3,5-Trimethyl Benzene	AVRG	2.134	8.9
1,2,4-Trimethylbenzene	AVRG	2.098	9.1
S-Butyl Benzene	AVRG	2.730	12.9
4-Isopropyl Toluene	AVRG	2.240	10.4
1,3-Dichlorobenzene	AVRG	1.227	10.1
1,4-Dichlorobenzene	AVRG	1.265	9.5
N-Butyl Benzene	AVRG	2.156	9.8
1,2-Dichlorobenzene	AVRG	1.194	8.8
1,2-Dibromo 3-Chloropropane	AVRG	0.127	5.8
1,2,4-Trichlorobenzene	AVRG	0.861	7.0
Hexachloro 1,3-Butadiene	AVRG	0.530	9.3
Naphthalene	AVRG	1.889	5.9
1,2,3-Trichlorobenzene	AVRG	0.832	5.5
Dichlorodifluoromethane	AVRG	0.886	15.7
Methyl tert butyl ether	AVRG	3.321	17.8

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Calibration Date: 06/11/13

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
d4-1,2-Dichloroethane	AVRG	1.340	1.6
d8-Toluene	AVRG	1.465	0.7
4-Bromofluorobenzene	AVRG	0.546	0.4
d4-1,2-Dichlorobenzene	AVRG	1.018	1.3
Dibromofluoromethane	AVRG	1.434	0.8

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Cont. Calib. Date: 06/17/13

Init. Calib. Date: 06/11/13 Cont. Calib. Time: 1036

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	1.765	1.8904	0.100	AVRG	7.1	
Vinyl Chloride	1.708	1.8620	0.010	AVRG	9.0	
Bromomethane	0.856	0.9948	0.010	AVRG	16.2	
Chloroethane	1.017	1.2092	0.010	AVRG	18.9	
Trichlorofluoromethane	1.774	2.0847	0.010	AVRG	17.5	
Acrolein	0.253	0.2972	0.010	AVRG	17.5	
112Trichloro122Trifluoroetha	1.055	1.3067	0.010	AVRG	23.8	<-
Acetone	250.00	261.58	0.010	2ORDR	4.6	
1,1-Dichloroethene	1.198	1.4113	0.010	AVRG	17.8	
Bromoethane	0.736	0.9416	0.010	AVRG	27.9	<-
Iodomethane	50.000	64.889	0.010	LINR	29.8	<-
Methylene Chloride	50.000	71.388	0.010	LINR	42.8	<-
Acrylonitrile	0.537	0.4949	0.010	AVRG	-7.8	
Carbon Disulfide	3.893	4.6289	0.010	AVRG	18.9	
Trans-1,2-Dichloroethene	1.148	1.5148	0.010	AVRG	32.0	<-
Vinyl Acetate	3.404	3.4928	0.010	AVRG	2.6	
1,1-Dichloroethane	2.491	2.7347	0.100	AVRG	9.8	
2-Butanone	0.169	0.1723	0.010	AVRG	2.0	
2,2-Dichloropropane	2.072	2.3428	0.010	AVRG	13.1	
Cis-1,2-Dichloroethene	1.454	1.5799	0.010	AVRG	8.6	
Chloroform	2.332	2.4345	0.010	AVRG	4.4	
Bromochloromethane	0.651	0.6760	0.010	AVRG	3.8	
1,1,1-Trichloroethane	2.096	2.2392	0.010	AVRG	6.8	
1,1-Dichloropropene	0.563	0.5251	0.010	AVRG	-6.7	
Carbon Tetrachloride	0.480	0.4408	0.010	AVRG	-8.2	
1,2-Dichloroethane	0.499	0.4533	0.010	AVRG	-9.2	
Benzene	1.581	1.4959	0.010	AVRG	-5.4	
Trichloroethene	0.386	0.3683	0.010	AVRG	-4.6	
1,2-Dichloropropane	0.448	0.4134	0.010	AVRG	-7.7	
Bromodichloromethane	0.484	0.4509	0.010	AVRG	-6.8	
Dibromomethane	0.208	0.1892	0.010	AVRG	-9.0	
2-Chloroethyl Vinyl Ether	0.235	0.1124	0.010	AVRG	-52.2	<-
4-Methyl-2-Pentanone	0.177	0.1565	0.010	AVRG	-11.6	
Cis 1,3-dichloropropene	0.630	0.5862	0.010	AVRG	-7.0	
Toluene	1.006	0.9455	0.010	AVRG	-6.0	
Trans 1,3-Dichloropropene	0.560	0.5214	0.010	AVRG	-6.9	
2-Hexanone	0.254	0.2124	0.010	AVRG	-16.4	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Cont. Calib. Date: 06/17/13

Init. Calib. Date: 06/11/13 Cont. Calib. Time: 1036

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
1,1,2-Trichloroethane	0.315	0.2865	0.010	AVRG	-9.0	
1,3-Dichloropropane	0.493	0.4364	0.010	AVRG	-11.5	
Tetrachloroethene	0.346	0.3218	0.010	AVRG	-7.0	
Chlorodibromomethane	0.298	0.2707	0.010	AVRG	-9.2	
1,2-Dibromoethane	0.308	0.2779	0.010	AVRG	-9.8	
Chlorobenzene	0.851	0.7765	0.300	AVRG	-8.8	
Ethyl Benzene	1.460	1.4024	0.010	AVRG	-3.9	
1,1,1,2-Tetrachloroethane	0.303	0.2755	0.010	AVRG	-9.1	
m,p-xylene	0.556	0.5268	0.010	AVRG	-5.2	
o-Xylene	0.553	0.5145	0.010	AVRG	-7.0	
Styrene	0.896	0.8569	0.010	AVRG	-4.4	
Bromoform	0.391	0.3307	0.100	AVRG	-15.4	
1,1,2,2-Tetrachloroethane	0.654	0.5266	0.300	AVRG	-19.5	
1,2,3-Trichloropropane	0.198	0.1600	0.010	AVRG	-19.2	
Trans-1,4-Dichloro 2-Butene	0.243	0.1977	0.010	AVRG	-18.6	
N-Propyl Benzene	2.973	2.7890	0.010	AVRG	-6.2	
Bromobenzene	0.662	0.5702	0.010	AVRG	-13.9	
Isopropyl Benzene	2.508	2.3525	0.010	AVRG	-6.2	
2-Chloro Toluene	1.884	1.6989	0.010	AVRG	-9.8	
4-Chloro Toluene	1.951	1.7772	0.010	AVRG	-8.9	
T-Butyl Benzene	1.877	1.7539	0.010	AVRG	-6.6	
1,3,5-Trimethyl Benzene	2.134	1.9862	0.010	AVRG	-6.9	
1,2,4-Trimethylbenzene	2.098	1.9697	0.010	AVRG	-6.1	
S-Butyl Benzene	2.730	2.5795	0.010	AVRG	-5.5	
4-Isopropyl Toluene	2.240	2.1530	0.010	AVRG	-3.9	
1,3-Dichlorobenzene	1.227	1.0886	0.010	AVRG	-11.3	
1,4-Dichlorobenzene	1.265	1.1146	0.010	AVRG	-11.9	
N-Butyl Benzene	2.156	2.0737	0.010	AVRG	-3.8	
1,2-Dichlorobenzene	1.193	1.0251	0.010	AVRG	-14.1	
1,2-Dibromo 3-Chloropropane	0.127	0.1007	0.010	AVRG	-20.7	<-
1,2,4-Trichlorobenzene	0.861	0.8029	0.010	AVRG	-6.7	
Hexachloro 1,3-Butadiene	0.530	0.4997	0.010	AVRG	-5.7	
Naphthalene	1.889	1.5829	0.010	AVRG	-16.2	
1,2,3-Trichlorobenzene	0.832	0.7388	0.010	AVRG	-11.2	
Dichlorodifluoromethane	0.886	0.9787	0.010	AVRG	10.5	
Methyl tert butyl ether	3.321	4.1763	0.010	AVRG	25.8	<-

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT5 Cont. Calib. Date: 06/17/13

Init. Calib. Date: 06/11/13 Cont. Calib. Time: 1036

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
d4-1,2-Dichloroethane	1.340	1.6217	0.010	AVRG	21.0	<-
d8-Toluene	1.465	1.4788	0.010	AVRG	0.9	
4-Bromofluorobenzene	0.546	0.5563	0.010	AVRG	1.9	
d4-1,2-Dichlorobenzene	1.018	1.0308	0.010	AVRG	1.2	
Dibromofluoromethane	1.434	1.6516	0.010	AVRG	15.2	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: 0100611 Ical Date: 06/11/13

Instrument ID: NT5 Project Run Date: 06/11/13

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	441694	4.66	1634225	5.11	1921755	7.59
	UPPER LIMIT	883388	5.16	3268450	5.61	3843510	8.09
	LOWER LIMIT	220847	4.16	817112	4.61	960878	7.09
	Sample ID						
01	ICV0611	434681	4.66	1638920	5.11	1920237	7.59
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

WT81:00069

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: 0100611 Ical Date: 06/11/13

Instrument ID: NT5 Project Run Date: 06/11/13

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1018367	9.67				
	UPPER LIMIT	2036734	10.17				
	LOWER LIMIT	509184	9.17				
	Sample ID						
01	ICV0611	1043748	9.67				
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: 0100611 Ical Date: 06/11/13

Instrument ID: NT5 Project Run Date: 06/17/13

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	441694	4.66	1634225	5.11	1921755	7.59
	UPPER LIMIT	883388	5.16	3268450	5.61	3843510	8.09
	LOWER LIMIT	220847	4.16	817112	4.61	960878	7.09
	Sample ID						
01	LCS0617	483301	4.66	2061182	5.11	2482456	7.59
02	LCS0617	493949	4.66	2097198	5.11	2556589	7.60
03	MB0617	489010	4.65	2089891	5.11	2571479	7.59
04	AM-TB-01-201	474415	4.67	2035103	5.12	2531220	7.59
05	AM-SF4-EFF-2	339409	4.67	1413417	5.12	956180*	7.59
06	AM-FD-01-201	367231	4.67	1508898	5.12	1160605	7.59
07	AM-SF4-EFF-2	387246	4.66	1613544	5.11	1248240	7.59
08	AM-FD-01-201	350229	4.66	1440287	5.11	1004334	7.59
09							
10							
11							
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18							
19							
20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: 0100611 Ical Date: 06/11/13

Instrument ID: NT5 Project Run Date: 06/17/13

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	1018367	9.67				
	UPPER LIMIT	2036734	10.17				
	LOWER LIMIT	509184	9.17				
	Sample ID						
01	LCS0617	1394496	9.67				
02	LCS0617	1429119	9.67				
03	MB0617	1412867	9.67				
04	AM-TB-01-201	1413163	9.67				
05	AM-SF4-EFF-2	210450*	9.67				
06	AM-FD-01-201	264025*	9.67				
07	AM-SF4-EFF-2	292501*	9.66				
08	AM-FD-01-201	201595*	9.66				
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/26/13 13:05
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 4.31 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 56.9%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	**Phenol**	**60**	**140**	**520**
111-44-4	Bis-(2-Chloroethyl) Ether	23	140	< 140 U
95-57-8	2-Chlorophenol	17	140	< 140 U
541-73-1	1,3-Dichlorobenzene	18	140	< 140 U
106-46-7	1,4-Dichlorobenzene	20	140	< 140 U
100-51-6	**Benzyl Alcohol**	**42**	**140**	**110 J**
95-50-1	1,2-Dichlorobenzene	17	140	< 140 U
95-48-7	**2-Methylphenol**	**37**	**140**	**110 J**
108-60-1	2,2'-Oxybis(1-Chloropropane)	26	140	< 140 U
106-44-5	**4-Methylphenol**	**46**	**140**	**360**
621-64-7	N-Nitroso-Di-N-Propylamine	23	140	< 140 U
67-72-1	Hexachloroethane	20	140	< 140 U
98-95-3	Nitrobenzene	28	140	< 140 U
78-59-1	Isophorone	20	140	< 140 U
88-75-5	2-Nitrophenol	270	700	< 700 U
105-67-9	**2,4-Dimethylphenol**	**24**	**280**	**110 J**
65-85-0	Benzoic Acid	700	2,800	< 2,800 U
111-91-1	bis(2-Chloroethoxy) Methane	14	140	< 140 U
120-83-2	2,4-Dichlorophenol	150	1,400	< 1,400 U
120-82-1	1,2,4-Trichlorobenzene	24	140	< 140 U
91-20-3	**Naphthalene**	**19**	**140**	**520**
106-47-8	4-Chloroaniline	160	1,900	< 1,900 U
87-68-3	Hexachlorobutadiene	32	140	< 140 U
59-50-7	4-Chloro-3-methylphenol	110	700	< 700 U
91-57-6	**2-Methylnaphthalene**	**21**	**140**	**200**
77-47-4	Hexachlorocyclopentadiene	460	2,800	< 2,800 U
88-06-2	2,4,6-Trichlorophenol	160	700	< 700 U
95-95-4	2,4,5-Trichlorophenol	150	700	< 700 U
91-58-7	2-Chloronaphthalene	18	140	< 140 U
88-74-4	2-Nitroaniline	130	700	< 700 U
131-11-3	Dimethylphthalate	20	140	< 140 U
208-96-8	**Acenaphthylene**	**40**	**140**	**230**
99-09-2	3-Nitroaniline	160	700	< 700 U
83-32-9	Acenaphthene	23	140	< 140 U
51-28-5	2,4-Dinitrophenol	770	5,900	< 5,900 U
100-02-7	4-Nitrophenol	240	700	< 700 U
132-64-9	**Dibenzofuran**	**29**	**140**	**140**
606-20-2	2,6-Dinitrotoluene	210	700	< 700 U
121-14-2	2,4-Dinitrotoluene	140	700	< 700 U
84-66-2	Diethylphthalate	250	350	< 350 U
7005-72-3	4-Chlorophenyl-phenylether	37	140	< 140 U
86-73-7	**Fluorene**	**30**	**140**	**190**
100-01-6	4-Nitroaniline	260	700	< 700 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Date Analyzed: 06/26/13 13:05

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	150	1,400	< 1,400 U
86-30-6	**N-Nitrosodiphenylamine**	**38**	**140**	**220**
101-55-3	4-Bromophenyl-phenylether	35	140	< 140 U
118-74-1	Hexachlorobenzene	30	140	< 140 U
87-86-5	Pentachlorophenol	340	1,400	< 1,400 U
85-01-8	**Phenanthrene**	**25**	**140**	**940**
86-74-8	**Carbazole**	**19**	**140**	**410**
120-12-7	**Anthracene**	**31**	**140**	**170**
84-74-2	**Di-n-Butylphthalate**	**57**	**140**	**200**
206-44-0	**Fluoranthene**	**20**	**140**	**840**
129-00-0	**Pyrene**	**14**	**140**	**920**
85-68-7	**Butylbenzylphthalate**	**43**	**140**	**1,300**
91-94-1	3,3'-Dichlorobenzidine	120	1,000	< 1,000 U
56-55-3	**Benzo(a)anthracene**	**23**	**140**	**220**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**100**	**170**	**5,100**
218-01-9	**Chrysene**	**26**	**140**	**620**
117-84-0	**Di-n-Octyl phthalate**	**41**	**140**	**100 J**
50-32-8	**Benzo(a)pyrene**	**38**	**140**	**180**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**33**	**140**	**190**
53-70-3	**Dibenz(a,h)anthracene**	**30**	**140**	**84 J**
191-24-2	**Benzo(g,h,i)perylene**	**31**	**140**	**330**
62-53-3	Aniline	280	3,800	< 3,800 U
62-75-9	N-Nitrosodimethylamine	98	700	< 700 U
90-12-0	**1-Methylnaphthalene**	**19**	**140**	**160**
TOTBFA	**Total Benzofluoranthenes**	**19**	**280**	**470**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.4%	2-Fluorobiphenyl	71.4%
d14-p-Terphenyl	72.0%	d4-1,2-Dichlorobenzene	59.4%
d5-Phenol	60.4%	2-Fluorophenol	60.0%
2,4,6-Tribromophenol	73.6%	d4-2-Chlorophenol	65.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/26/13 13:42
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.80 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	**Phenol**	**93**	**210**	**110 J**
111-44-4	Bis-(2-Chloroethyl) Ether	36	210	< 210 U
95-57-8	2-Chlorophenol	26	210	< 210 U
541-73-1	1,3-Dichlorobenzene	28	210	< 210 U
106-46-7	1,4-Dichlorobenzene	31	210	< 210 U
100-51-6	Benzyl Alcohol	65	210	< 210 U
95-50-1	1,2-Dichlorobenzene	27	210	< 210 U
95-48-7	2-Methylphenol	56	210	< 210 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	40	210	< 210 U
106-44-5	**4-Methylphenol**	**71**	**210**	**500**
621-64-7	N-Nitroso-Di-N-Propylamine	36	210	< 210 U
67-72-1	Hexachloroethane	32	210	< 210 U
98-95-3	Nitrobenzene	44	210	< 210 U
78-59-1	Isophorone	31	210	< 210 U
88-75-5	2-Nitrophenol	410	1,100	< 1,100 U
105-67-9	2,4-Dimethylphenol	37	430	< 430 U
65-85-0	Benzoic Acid	1100	4,300	< 4,300 U
111-91-1	bis(2-Chloroethoxy) Methane	21	210	< 210 U
120-83-2	2,4-Dichlorophenol	230	2,100	< 2,100 U
120-82-1	1,2,4-Trichlorobenzene	37	210	< 210 U
91-20-3	Naphthalene	30	210	< 210 U
106-47-8	4-Chloroaniline	240	2,900	< 2,900 U
87-68-3	Hexachlorobutadiene	49	210	< 210 U
59-50-7	4-Chloro-3-methylphenol	160	1,100	< 1,100 U
91-57-6	2-Methylnaphthalene	33	210	< 210 U
77-47-4	Hexachlorocyclopentadiene	710	4,300	< 4,300 U
88-06-2	2,4,6-Trichlorophenol	240	1,100	< 1,100 U
95-95-4	2,4,5-Trichlorophenol	230	1,100	< 1,100 U
91-58-7	2-Chloronaphthalene	28	210	< 210 U
88-74-4	2-Nitroaniline	200	1,100	< 1,100 U
131-11-3	Dimethylphthalate	31	210	< 210 U
208-96-8	Acenaphthylene	61	210	< 210 U
99-09-2	3-Nitroaniline	240	1,100	< 1,100 U
83-32-9	**Acenaphthene**	**35**	**210**	**410**
51-28-5	2,4-Dinitrophenol	1200	9,100	< 9,100 U
100-02-7	4-Nitrophenol	370	1,100	< 1,100 U
132-64-9	**Dibenzofuran**	**44**	**210**	**350**
606-20-2	2,6-Dinitrotoluene	330	1,100	< 1,100 U
121-14-2	2,4-Dinitrotoluene	210	1,100	< 1,100 U
84-66-2	Diethylphthalate	390	540	< 540 U
7005-72-3	4-Chlorophenyl-phenylether	57	210	< 210 U
86-73-7	**Fluorene**	**47**	**210**	**570**
100-01-6	4-Nitroaniline	410	1,100	< 1,100 U

WT81 : 00076

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed: 06/26/13 13:42

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	230	2,100	< 2,100 U
86-30-6	**N-Nitrosodiphenylamine**	**58**	**210**	**110 J**
101-55-3	4-Bromophenyl-phenylether	54	210	< 210 U
118-74-1	Hexachlorobenzene	46	210	< 210 U
87-86-5	Pentachlorophenol	520	2,100	< 2,100 U
85-01-8	**Phenanthrene**	**39**	**210**	**3,800**
86-74-8	**Carbazole**	**29**	**210**	**320**
120-12-7	**Anthracene**	**48**	**210**	**410**
84-74-2	Di-n-Butylphthalate	87	210	< 210 U
206-44-0	**Fluoranthene**	**31**	**210**	**5,800**
129-00-0	**Pyrene**	**21**	**210**	**5,200**
85-68-7	**Butylbenzylphthalate**	**66**	**210**	**340**
91-94-1	3,3'-Dichlorobenzidine	190	1,600	< 1,600 U
56-55-3	**Benzo(a)anthracene**	**35**	**210**	**1,100**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**160**	**270**	**13,000**
218-01-9	**Chrysene**	**40**	**210**	**2,000**
117-84-0	**Di-n-Octyl phthalate**	**63**	**210**	**440**
50-32-8	**Benzo(a)pyrene**	**58**	**210**	**620**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**50**	**210**	**580**
53-70-3	**Dibenz(a,h)anthracene**	**46**	**210**	**310**
191-24-2	**Benzo(g,h,i)perylene**	**47**	**210**	**960**
62-53-3	Aniline	430	5,800	< 5,800 U
62-75-9	N-Nitrosodimethylamine	150	1,100	< 1,100 U
90-12-0	1-Methylnaphthalene	29	210	< 210 U
TOTBFA	**Total Benzofluoranthenes**	**29**	**430**	**2,200**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	52.8%	2-Fluorobiphenyl	55.2%
d14-p-Terphenyl	61.8%	d4-1,2-Dichlorobenzene	49.2%
d5-Phenol	51.6%	2-Fluorophenol	48.8%
2,4,6-Tribromophenol	60.4%	d4-2-Chlorophenol	52.4%

WT81:209977

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-FD-01-20130612-S
SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/26/13 14:19
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	93	220	< 220 U
111-44-4	Bis-(2-Chloroethyl) Ether	36	220	< 220 U
95-57-8	2-Chlorophenol	26	220	< 220 U
541-73-1	1,3-Dichlorobenzene	28	220	< 220 U
106-46-7	1,4-Dichlorobenzene	31	220	< 220 U
100-51-6	Benzyl Alcohol	65	220	< 220 U
95-50-1	1,2-Dichlorobenzene	27	220	< 220 U
95-48-7	2-Methylphenol	56	220	< 220 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	40	220	< 220 U
106-44-5	**4-Methylphenol**	**71**	**220**	**540**
621-64-7	N-Nitroso-Di-N-Propylamine	36	220	< 220 U
67-72-1	Hexachloroethane	32	220	< 220 U
98-95-3	Nitrobenzene	44	220	< 220 U
78-59-1	Isophorone	31	220	< 220 U
88-75-5	2-Nitrophenol	420	1,100	< 1,100 U
105-67-9	2,4-Dimethylphenol	37	430	< 430 U
65-85-0	Benzoic Acid	1100	4,300	< 4,300 U
111-91-1	bis(2-Chloroethoxy) Methane	22	220	< 220 U
120-83-2	2,4-Dichlorophenol	230	2,200	< 2,200 U
120-82-1	1,2,4-Trichlorobenzene	37	220	< 220 U
91-20-3	**Naphthalene**	**30**	**220**	**120 J**
106-47-8	4-Chloroaniline	240	2,900	< 2,900 U
87-68-3	Hexachlorobutadiene	49	220	< 220 U
59-50-7	4-Chloro-3-methylphenol	160	1,100	< 1,100 U
91-57-6	2-Methylnaphthalene	33	220	< 220 U
77-47-4	Hexachlorocyclopentadiene	710	4,300	< 4,300 U
88-06-2	2,4,6-Trichlorophenol	240	1,100	< 1,100 U
95-95-4	2,4,5-Trichlorophenol	230	1,100	< 1,100 U
91-58-7	2-Chloronaphthalene	28	220	< 220 U
88-74-4	2-Nitroaniline	200	1,100	< 1,100 U
131-11-3	Dimethylphthalate	31	220	< 220 U
208-96-8	Acenaphthylene	61	220	< 220 U
99-09-2	3-Nitroaniline	240	1,100	< 1,100 U
83-32-9	**Acenaphthene**	**35**	**220**	**470**
51-28-5	2,4-Dinitrophenol	1200	9,100	< 9,100 U
100-02-7	4-Nitrophenol	370	1,100	< 1,100 U
132-64-9	**Dibenzofuran**	**44**	**220**	**410**
606-20-2	2,6-Dinitrotoluene	330	1,100	< 1,100 U
121-14-2	2,4-Dinitrotoluene	210	1,100	< 1,100 U
84-66-2	Diethylphthalate	390	540	< 540 U
7005-72-3	4-Chlorophenyl-phenylether	57	220	< 220 U
86-73-7	**Fluorene**	**47**	**220**	**540**
100-01-6	4-Nitroaniline	410	1,100	< 1,100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546

Sample ID: AM-FD-01-20130612-S
SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Date Analyzed: 06/26/13 14:19

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	230	2,200	< 2,200 U
86-30-6	**N-Nitrosodiphenylamine**	**58**	**220**	**120 J**
101-55-3	4-Bromophenyl-phenylether	54	220	< 220 U
118-74-1	Hexachlorobenzene	46	220	< 220 U
87-86-5	Pentachlorophenol	520	2,200	< 2,200 U
85-01-8	**Phenanthrene**	**39**	**220**	**4,100**
86-74-8	**Carbazole**	**29**	**220**	**370**
120-12-7	**Anthracene**	**48**	**220**	**460**
84-74-2	Di-n-Butylphthalate	88	220	< 220 U
206-44-0	**Fluoranthene**	**31**	**220**	**6,300**
129-00-0	**Pyrene**	**21**	**220**	**5,800**
85-68-7	**Butylbenzylphthalate**	**66**	**220**	**260**
91-94-1	3,3'-Dichlorobenzidine	190	1,600	< 1,600 U
56-55-3	**Benzo(a)anthracene**	**35**	**220**	**1,100**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**160**	**270**	**12,000**
218-01-9	**Chrysene**	**40**	**220**	**2,300**
117-84-0	**Di-n-Octyl phthalate**	**63**	**220**	**440**
50-32-8	**Benzo(a)pyrene**	**59**	**220**	**720**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**50**	**220**	**600**
53-70-3	**Dibenz(a,h)anthracene**	**46**	**220**	**320**
191-24-2	**Benzo(g,h,i)perylene**	**47**	**220**	**1,000**
62-53-3	Aniline	430	5,800	< 5,800 U
62-75-9	N-Nitrosodimethylamine	150	1,100	< 1,100 U
90-12-0	1-Methylnaphthalene	29	220	< 220 U
TOTBFA	**Total Benzofluoranthenes**	**30**	**430**	**2,300**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	58.8%	2-Fluorobiphenyl	66.0%
d14-p-Terphenyl	70.2%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	53.2%	2-Fluorophenol	52.0%
2,4,6-Tribromophenol	73.2%	d4-2-Chlorophenol	60.4%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
AM-VT-INF-20130612	65.4%	71.4%	72.0%	59.4%	60.4%	60.0%	73.6%	65.2%	0
MB-061813	68.6%	68.8%	84.4%	67.2%	67.1%	65.6%	78.5%	68.4%	0
LCS-061813	70.2%	70.2%	82.0%	65.4%	69.1%	67.2%	84.3%	68.4%	0
LCSD-061813	68.0%	68.4%	79.2%	62.6%	69.3%	65.7%	79.6%	66.8%	0
AM-SF4-EFF-2013061	52.8%	55.2%	61.8%	49.2%	51.6%	48.8%	60.4%	52.4%	0
AM-SF4-EFF-2013061 MS	64.4%	75.6%	73.8%	60.6%	67.3%	61.6%	88.7%	67.3%	0
AM-SF4-EFF-2013061 MSD	66.0%	70.6%	69.0%	61.2%	66.0%	61.1%	83.6%	66.7%	0
AM-FD-01-20130612-	58.8%	66.0%	70.2%	56.4%	53.2%	52.0%	73.2%	60.4%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(33-120)	(30-120)
(FBP) = 2-Fluorobiphenyl	(35-120)	(35-120)
(TPH) = d14-p-Terphenyl	(42-124)	(37-120)
(DCB) = d4-1,2-Dichlorobenzene	(37-120)	(32-120)
(PHL) = d5-Phenol	(32-120)	(29-120)
(2FP) = 2-Fluorophenol	(32-120)	(27-120)
(TBP) = 2,4,6-Tribromophenol	(23-133)	(24-134)
(2CP) = d4-2-Chlorophenol	(36-120)	(31-120)

Prep Method: SW3546
Log Number Range: 13-12636 to 13-12638

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

ANALYTICAL RESOURCES INCORPORATED

Sample ID: AM-SF4-EFF-20130612-S
MS/MSD

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted MS/MSD: 06/18/13

Date Analyzed MS: 06/22/13 15:27
MSD: 06/22/13 16:04
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 2.79 g-dry-wt
MSD: 2.79 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 60.1 %

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Phenol	110 J	1160	1790	58.7%	1140	1790	57.5%	1.7%
Bis-(2-Chloroethyl) Ether	< 210 U	1020	1790	57.0%	1060	1790	59.2%	3.8%
2-Chlorophenol	< 210 U	1100	1790	61.5%	1110	1790	62.0%	0.9%
1,3-Dichlorobenzene	< 210 U	993	1790	55.5%	1020	1790	57.0%	2.7%
1,4-Dichlorobenzene	< 210 U	1030	1790	57.5%	1060	1790	59.2%	2.9%
Benzyl Alcohol	< 210 U	1270	1790	70.9%	1290	1790	72.1%	1.6%
1,2-Dichlorobenzene	< 210 U	1030	1790	57.5%	1080	1790	60.3%	4.7%
2-Methylphenol	< 210 U	1080	1790	60.3%	1070	1790	59.8%	0.9%
2,2'-Oxybis(1-Chloropropane)	< 210 U	1140	1790	63.7%	1180	1790	65.9%	3.4%
4-Methylphenol	500	2870	3580	66.2%	2790	3580	64.0%	2.8%
N-Nitroso-Di-N-Propylamine	< 210 U	1520	1790	84.9%	1380	1790	77.1%	9.7%
Hexachloroethane	< 210 U	1040	1790	58.1%	1100	1790	61.5%	5.6%
Nitrobenzene	< 210 U	1140	1790	63.7%	1190	1790	66.5%	4.3%
Isophorone	< 210 U	1150	1790	64.2%	1180	1790	65.9%	2.6%
2-Nitrophenol	< 1100 U	1090	1790	60.9%	1110	1790	62.0%	1.8%
2,4-Dimethylphenol	< 430 U	4410	5380	82.0%	4320	5380	80.3%	2.1%
Benzoic Acid	< 4300 U	2150	9860	21.8%	2090	9860	21.2%	2.8%
bis(2-Chloroethoxy) Methane	< 210 U	1260	1790	70.4%	1310	1790	73.2%	3.9%
2,4-Dichlorophenol	< 2100 U	3530	5380	65.6%	3380	5380	62.8%	4.3%
1,2,4-Trichlorobenzene	< 210 U	1380	1790	77.1%	1410	1790	78.8%	2.2%
Naphthalene	< 210 U	1220	1790	68.2%	1250	1790	69.8%	2.4%
4-Chloroaniline	< 2900 U	< 968 U	5380	NA	< 968 U	5380	NA	NA
Hexachlorobutadiene	< 210 U	1210	1790	67.6%	1280	1790	71.5%	5.6%
4-Chloro-3-methylphenol	< 1100 U	4760	5380	88.5%	4080	5380	75.8%	15.4%
2-Methylnaphthalene	< 210 U	1350	1790	75.4%	1410	1790	78.8%	4.3%
Hexachlorocyclopentadiene	< 4300 U	< 1430 U	5380	NA	< 1430 U	5380	NA	NA
2,4,6-Trichlorophenol	< 1100 U	4640	5380	86.2%	4270	5380	79.4%	8.3%
2,4,5-Trichlorophenol	< 1100 U	4410	5380	82.0%	3870	5380	71.9%	13.0%
2-Chloronaphthalene	< 210 U	1430	1790	79.9%	1370	1790	76.5%	4.3%
2-Nitroaniline	< 1100 U	4290	5380	79.7%	4130	5380	76.8%	3.8%
Dimethylphthalate	< 210 U	1530	1790	85.5%	1590	1790	88.8%	3.8%
Acenaphthylene	< 210 U	1350	1790	75.4%	1250	1790	69.8%	7.7%
3-Nitroaniline	< 1100 U	< 358 U	5380	NA	< 358 U	5380	NA	NA
Acenaphthene	410	1800	1790	77.7%	1760	1790	75.4%	2.2%
2,4-Dinitrophenol	< 9100 U	3320	9860	33.7%	2440 J	9860	24.7%	30.6%
4-Nitrophenol	< 1100 U	1400	5380	26.0%	1170	5380	21.7%	17.9%
Dibenzofuran	350	1830	1790	82.7%	1750	1790	78.2%	4.5%
2,6-Dinitrotoluene	< 1100 U	4410	5380	82.0%	4250	5380	79.0%	3.7%
2,4-Dinitrotoluene	< 1100 U	4730	5380	87.9%	4270	5380	79.4%	10.2%
Diethylphthalate	< 540 U	1440	1790	80.4%	1440	1790	80.4%	0.0%
4-Chlorophenyl-phenylether	< 210 U	1500	1790	83.8%	1290	1790	72.1%	15.1%
Fluorene	570	2080	1790	84.4%	1970	1790	78.2%	5.4%
4-Nitroaniline	< 1100 U	1020 Q	5380	19.0%	1030 Q	5380	19.1%	1.0%
4,6-Dinitro-2-Methylphenol	< 2100 U	4840	9860	49.1%	4460	9860	45.2%	8.2%
N-Nitrosodiphenylamine	110 J	1750	1790	91.6%	1750	1790	91.6%	0.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: AM-SF4-EFF-20130612-S
MS/MSD

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed MS: 06/22/13 15:27
MSD: 06/22/13 16:04

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
4-Bromophenyl-phenylether	< 210 U	1500	1790	83.8%	1420	1790	79.3%	5.5%
Hexachlorobenzene	< 210 U	1510	1790	84.4%	1350	1790	75.4%	11.2%
Pentachlorophenol	< 2100 U	2450	5380	45.5%	2280	5380	42.4%	7.2%
Phenanthrene	3800	6240	1790	136%	5690	1790	106%	9.2%
Carbazole	320	2480 Q	1790	121%	2380 Q	1790	115%	4.1%
Anthracene	410	2060	1790	92.2%	2060	1790	92.2%	0.0%
Di-n-Butylphthalate	< 210 U	1770	1790	98.9%	1630	1790	91.1%	8.2%
Fluoranthene	5800	10400	1790	257%	8610	1790	157%	18.8%
Pyrene	5200	8120	1790	163%	6690	1790	83.2%	19.3%
Butylbenzylphthalate	340	2100	1790	98.3%	1630	1790	72.1%	25.2%
3,3'-Dichlorobenzidine	< 1600 U	< 538 U	5380	NA	< 538 U	5380	NA	NA
Benzo(a)anthracene	1100	2440	1790	74.9%	1950	1790	47.5%	22.3%
bis(2-Ethylhexyl)phthalate	13000	16100	1790	NA	15700	1790	NA	2.5%
Chrysene	2000	4840	1790	159%	4070	1790	116%	17.3%
Di-n-Octyl phthalate	440	1810	1790	76.5%	1950	1790	84.4%	7.4%
Benzo(a)pyrene	620	2400	1790	99.4%	2160	1790	86.0%	10.5%
Indeno(1,2,3-cd)pyrene	580	1120	1790	30.2%	1000	1790	23.5%	11.3%
Dibenz(a,h)anthracene	310	885	1790	32.1%	771	1790	25.8%	13.8%
Benzo(g,h,i)perylene	960	1260	1790	16.8%	1100	1790	7.8%	13.6%
Aniline	< 5800 U	< 1940 U	5380	NA	< 1940 U	5380	NA	NA
N-Nitrosodimethylamine	< 1100 U	2660	5380	49.4%	2690	5380	50.0%	1.1%
1-Methylnaphthalene	< 210 U	1380	1790	77.1%	1420	1790	79.3%	2.9%
Total Benzofluoranthenes	2200	6130	3580	110%	5670	3580	96.9%	7.8%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 2

Sample ID: AM-SF4-EFF-20130612-S
MATRIX SPIKE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 15:27
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	31	72	---
111-44-4	Bis-(2-Chloroethyl) Ether	12	72	---
95-57-8	2-Chlorophenol	8.6	72	---
541-73-1	1,3-Dichlorobenzene	9.4	72	---
106-46-7	1,4-Dichlorobenzene	10	72	---
100-51-6	Benzyl Alcohol	22	72	---
95-50-1	1,2-Dichlorobenzene	9.0	72	---
95-48-7	2-Methylphenol	19	72	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	13	72	---
106-44-5	4-Methylphenol	24	72	---
621-64-7	N-Nitroso-Di-N-Propylamine	12	72	---
67-72-1	Hexachloroethane	11	72	---
98-95-3	Nitrobenzene	15	72	---
78-59-1	Isophorone	10	72	---
88-75-5	2-Nitrophenol	140	360	---
105-67-9	2,4-Dimethylphenol	12	140	---
65-85-0	Benzoic Acid	360	1,400	---
111-91-1	bis(2-Chloroethoxy) Methane	7.2	72	---
120-83-2	2,4-Dichlorophenol	77	720	---
120-82-1	1,2,4-Trichlorobenzene	12	72	---
91-20-3	Naphthalene	9.9	72	---
106-47-8	4-Chloroaniline	80	970	---
87-68-3	Hexachlorobutadiene	16	72	---
59-50-7	4-Chloro-3-methylphenol	54	360	---
91-57-6	2-Methylnaphthalene	11	72	---
77-47-4	Hexachlorocyclopentadiene	240	1,400	---
88-06-2	2,4,6-Trichlorophenol	80	360	---
95-95-4	2,4,5-Trichlorophenol	77	360	---
91-58-7	2-Chloronaphthalene	9.5	72	---
88-74-4	2-Nitroaniline	66	360	---
131-11-3	Dimethylphthalate	10	72	---
208-96-8	Acenaphthylene	20	72	---
99-09-2	3-Nitroaniline	81	360	---
83-32-9	Acenaphthene	12	72	---
51-28-5	2,4-Dinitrophenol	400	3,000	---
100-02-7	4-Nitrophenol	120	360	---
132-64-9	Dibenzofuran	15	72	---
606-20-2	2,6-Dinitrotoluene	110	360	---
121-14-2	2,4-Dinitrotoluene	70	360	---
84-66-2	Diethylphthalate	130	180	---
7005-72-3	4-Chlorophenyl-phenylether	19	72	---
86-73-7	Fluorene	16	72	---
100-01-6	4-Nitroaniline	140	360	---

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: AM-SF4-EFF-20130612-S**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed: 06/22/13 15:27

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	76	720	---
86-30-6	N-Nitrosodiphenylamine	19	72	---
101-55-3	4-Bromophenyl-phenylether	18	72	---
118-74-1	Hexachlorobenzene	15	72	---
87-86-5	Pentachlorophenol	170	720	---
85-01-8	Phenanthrene	13	72	---
86-74-8	Carbazole	9.6	72	---
120-12-7	Anthracene	16	72	---
84-74-2	Di-n-Butylphthalate	29	72	---
206-44-0	Fluoranthene	10	72	---
129-00-0	Pyrene	7.0	72	---
85-68-7	Butylbenzylphthalate	22	72	---
91-94-1	3,3'-Dichlorobenzidine	64	540	---
56-55-3	Benzo(a)anthracene	12	72	---
117-81-7	bis(2-Ethylhexyl)phthalate	52	90	---
218-01-9	Chrysene	13	72	---
117-84-0	Di-n-Octyl phthalate	21	72	---
50-32-8	Benzo(a)pyrene	20	72	---
193-39-5	Indeno(1,2,3-cd)pyrene	17	72	---
53-70-3	Dibenz(a,h)anthracene	15	72	---
191-24-2	Benzo(g,h,i)perylene	16	72	---
62-53-3	Aniline	140	1,900	---
62-75-9	N-Nitrosodimethylamine	51	360	---
90-12-0	1-Methylnaphthalene	9.6	72	---
TOTBFA	Total Benzofluoranthenes	9.9	140	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	64.4%	2-Fluorobiphenyl	75.6%
d14-p-Terphenyl	73.8%	d4-1,2-Dichlorobenzene	60.6%
d5-Phenol	67.3%	2-Fluorophenol	61.6%
2,4,6-Tribromophenol	88.7%	d4-2-Chlorophenol	67.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS
Extraction Method: SW3546
Page 1 of 2

Sample ID: AM-SF4-EFF-20130612-S
MATRIX SPIKE DUPLICATE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 16:04
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	31	72	---
111-44-4	Bis-(2-Chloroethyl) Ether	12	72	---
95-57-8	2-Chlorophenol	8.6	72	---
541-73-1	1,3-Dichlorobenzene	9.4	72	---
106-46-7	1,4-Dichlorobenzene	10	72	---
100-51-6	Benzyl Alcohol	22	72	---
95-50-1	1,2-Dichlorobenzene	9.0	72	---
95-48-7	2-Methylphenol	19	72	---
108-60-1	2,2'-Oxybis(1-Chloropropane)	13	72	---
106-44-5	4-Methylphenol	24	72	---
621-64-7	N-Nitroso-Di-N-Propylamine	12	72	---
67-72-1	Hexachloroethane	11	72	---
98-95-3	Nitrobenzene	15	72	---
78-59-1	Isophorone	10	72	---
88-75-5	2-Nitrophenol	140	360	---
105-67-9	2,4-Dimethylphenol	12	140	---
65-85-0	Benzoic Acid	360	1,400	---
111-91-1	bis(2-Chloroethoxy) Methane	7.2	72	---
120-83-2	2,4-Dichlorophenol	77	720	---
120-82-1	1,2,4-Trichlorobenzene	12	72	---
91-20-3	Naphthalene	9.9	72	---
106-47-8	4-Chloroaniline	80	970	---
87-68-3	Hexachlorobutadiene	16	72	---
59-50-7	4-Chloro-3-methylphenol	54	360	---
91-57-6	2-Methylnaphthalene	11	72	---
77-47-4	Hexachlorocyclopentadiene	240	1,400	---
88-06-2	2,4,6-Trichlorophenol	80	360	---
95-95-4	2,4,5-Trichlorophenol	77	360	---
91-58-7	2-Chloronaphthalene	9.5	72	---
88-74-4	2-Nitroaniline	66	360	---
131-11-3	Dimethylphthalate	10	72	---
208-96-8	Acenaphthylene	20	72	---
99-09-2	3-Nitroaniline	81	360	---
83-32-9	Acenaphthene	12	72	---
51-28-5	2,4-Dinitrophenol	400	3,000	---
100-02-7	4-Nitrophenol	120	360	---
132-64-9	Dibenzofuran	15	72	---
606-20-2	2,6-Dinitrotoluene	110	360	---
121-14-2	2,4-Dinitrotoluene	70	360	---
84-66-2	Diethylphthalate	130	180	---
7005-72-3	4-Chlorophenyl-phenylether	19	72	---
86-73-7	Fluorene	16	72	---
100-01-6	4-Nitroaniline	140	360	---

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed: 06/22/13 16:04

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	76	720	---
86-30-6	N-Nitrosodiphenylamine	19	72	---
101-55-3	4-Bromophenyl-phenylether	18	72	---
118-74-1	Hexachlorobenzene	15	72	---
87-86-5	Pentachlorophenol	170	720	---
85-01-8	Phenanthrene	13	72	---
86-74-8	Carbazole	9.6	72	---
120-12-7	Anthracene	16	72	---
84-74-2	Di-n-Butylphthalate	29	72	---
206-44-0	Fluoranthene	10	72	---
129-00-0	Pyrene	7.0	72	---
85-68-7	Butylbenzylphthalate	22	72	---
91-94-1	3,3'-Dichlorobenzidine	64	540	---
56-55-3	Benzo(a)anthracene	12	72	---
117-81-7	bis(2-Ethylhexyl)phthalate	52	90	---
218-01-9	Chrysene	13	72	---
117-84-0	Di-n-Octyl phthalate	21	72	---
50-32-8	Benzo(a)pyrene	20	72	---
193-39-5	Indeno(1,2,3-cd)pyrene	17	72	---
53-70-3	Dibenz(a,h)anthracene	15	72	---
191-24-2	Benzo(g,h,i)perylene	16	72	---
62-53-3	Aniline	140	1,900	---
62-75-9	N-Nitrosodimethylamine	51	360	---
90-12-0	1-Methylnaphthalene	9.6	72	---
TOTBFA	Total Benzofluoranthenes	9.9	140	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	66.0%	2-Fluorobiphenyl	70.6%
d14-p-Terphenyl	69.0%	d4-1,2-Dichlorobenzene	61.2%
d5-Phenol	66.0%	2-Fluorophenol	61.1%
2,4,6-Tribromophenol	83.6%	d4-2-Chlorophenol	66.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: LCS-061813
LCS/LCSD

Lab Sample ID: LCS-061813
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted LCS/LCSD: 06/18/13

Date Analyzed LCS: 06/22/13 12:23
LCSD: 06/22/13 12:59
Instrument/Analyst LCS: NT10/YZ
LCSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount LCS: 10.00 g
LCSD: 10.00 g
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	306	500	61.2%	304	500	60.8%	0.7%
Bis-(2-Chloroethyl) Ether	333	500	66.6%	346	500	69.2%	3.8%
2-Chlorophenol	296	500	59.2%	300	500	60.0%	1.3%
1,3-Dichlorobenzene	311	500	62.2%	324	500	64.8%	4.1%
1,4-Dichlorobenzene	311	500	62.2%	328	500	65.6%	5.3%
Benzyl Alcohol	350	500	70.0%	361	500	72.2%	3.1%
1,2-Dichlorobenzene	319	500	63.8%	324	500	64.8%	1.6%
2-Methylphenol	280	500	56.0%	280	500	56.0%	0.0%
2,2'-Oxybis(1-Chloropropane)	341	500	68.2%	340	500	68.0%	0.3%
4-Methylphenol	589	1000	58.9%	591	1000	59.1%	0.3%
N-Nitroso-Di-N-Propylamine	360	500	72.0%	354	500	70.8%	1.7%
Hexachloroethane	319	500	63.8%	332	500	66.4%	4.0%
Nitrobenzene	363	500	72.6%	360	500	72.0%	0.8%
Isophorone	336	500	67.2%	337	500	67.4%	0.3%
2-Nitrophenol	321	500	64.2%	328	500	65.6%	2.2%
2,4-Dimethylphenol	691	1500	46.1%	677	1500	45.1%	2.0%
Benzoic Acid	1540	2750	56.0%	1470	2750	53.5%	4.7%
bis(2-Chloroethoxy) Methane	377	500	75.4%	380	500	76.0%	0.8%
2,4-Dichlorophenol	923	1500	61.5%	911	1500	60.7%	1.3%
1,2,4-Trichlorobenzene	401	500	80.2%	411	500	82.2%	2.5%
Naphthalene	311	500	62.2%	316	500	63.2%	1.6%
4-Chloroaniline	447	1500	29.8%	487	1500	32.5%	8.6%
Hexachlorobutadiene	333	500	66.6%	342	500	68.4%	2.7%
4-Chloro-3-methylphenol	1210	1500	80.7%	1180	1500	78.7%	2.5%
2-Methylnaphthalene	337	500	67.4%	338	500	67.6%	0.3%
Hexachlorocyclopentadiene	656 Q	1500	43.7%	684 Q	1500	45.6%	4.2%
2,4,6-Trichlorophenol	1100	1500	73.3%	1090	1500	72.7%	0.9%
2,4,5-Trichlorophenol	1140	1500	76.0%	1090	1500	72.7%	4.5%
2-Chloronaphthalene	366	500	73.2%	369	500	73.8%	0.8%
2-Nitroaniline	1430	1500	95.3%	1400	1500	93.3%	2.1%
Dimethylphthalate	432	500	86.4%	430	500	86.0%	0.5%
Acenaphthylene	318	500	63.6%	314	500	62.8%	1.3%
3-Nitroaniline	928 Q	1500	61.9%	981 Q	1500	65.4%	5.6%
Acenaphthene	340	500	68.0%	349	500	69.8%	2.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270 GC/MS

Sample ID: LCSD-061813
LCS/LCSD

Lab Sample ID: LCS-061813
LIMS ID: 13-12637
Matrix: Sediment
Date Analyzed LCS: 06/22/13 12:23
LCSD: 06/22/13 12:59

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	1630	2750	59.3%	1610	2750	58.5%	1.2%
4-Nitrophenol	1170	1500	78.0%	1140	1500	76.0%	2.6%
Dibenzofuran	364	500	72.8%	362	500	72.4%	0.6%
2,6-Dinitrotoluene	1290	1500	86.0%	1290	1500	86.0%	0.0%
2,4-Dinitrotoluene	1350	1500	90.0%	1350	1500	90.0%	0.0%
Diethylphthalate	433	500	86.6%	441	500	88.2%	1.8%
4-Chlorophenyl-phenylether	362	500	72.4%	356	500	71.2%	1.7%
Fluorene	351	500	70.2%	353	500	70.6%	0.6%
4-Nitroaniline	795 Q	1500	53.0%	822 Q	1500	54.8%	3.3%
4,6-Dinitro-2-Methylphenol	1940	2750	70.5%	1950	2750	70.9%	0.5%
N-Nitrosodiphenylamine	404	500	80.8%	416	500	83.2%	2.9%
4-Bromophenyl-phenylether	424	500	84.8%	414	500	82.8%	2.4%
Hexachlorobenzene	380	500	76.0%	375	500	75.0%	1.3%
Pentachlorophenol	1120	1500	74.7%	1080	1500	72.0%	3.6%
Phenanthrene	396	500	79.2%	397	500	79.4%	0.3%
Carbazole	589 Q	500	118%	583 Q	500	117%	1.0%
Anthracene	346	500	69.2%	347	500	69.4%	0.3%
Di-n-Butylphthalate	484	500	96.8%	476	500	95.2%	1.7%
Fluoranthene	406	500	81.2%	405	500	81.0%	0.2%
Pyrene	388	500	77.6%	384	500	76.8%	1.0%
Butylbenzylphthalate	495	500	99.0%	507	500	101%	2.4%
3,3'-Dichlorobenzidine	375 Q	1500	25.0%	474 Q	1500	31.6%	23.3%
Benzo(a)anthracene	367	500	73.4%	365	500	73.0%	0.5%
bis(2-Ethylhexyl)phthalate	409	500	81.8%	384	500	76.8%	6.3%
Chrysene	354	500	70.8%	367	500	73.4%	3.6%
Di-n-Octyl phthalate	393	500	78.6%	350	500	70.0%	11.6%
Benzo(a)pyrene	360	500	72.0%	361	500	72.2%	0.3%
Indeno(1,2,3-cd)pyrene	409	500	81.8%	418	500	83.6%	2.2%
Dibenz(a,h)anthracene	376	500	75.2%	396	500	79.2%	5.2%
Benzo(g,h,i)perylene	391	500	78.2%	396	500	79.2%	1.3%
Aniline	223 J	1500	14.9%	236 J	1500	15.7%	5.7%
N-Nitrosodimethylamine	898	1500	59.9%	901	1500	60.1%	0.3%
1-Methylnaphthalene	355	500	71.0%	360	500	72.0%	1.4%
Total Benzofluoranthenes	788	1000	78.8%	782	1000	78.2%	0.8%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	70.2%	68.0%
2-Fluorobiphenyl	70.2%	68.4%
d14-p-Terphenyl	82.0%	79.2%
d4-1,2-Dichlorobenzene	65.4%	62.6%
d5-Phenol	69.1%	69.3%
2-Fluorophenol	67.2%	65.7%
2,4,6-Tribromophenol	84.3%	79.6%
d4-2-Chlorophenol	68.4%	66.8%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

4B
SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WT86MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: F&B

ARI Job No: WT81
Project: 306032

Lab File ID: WT86MB
Date Extracted: 06/18/13

Instrument ID: NT10
Date Analyzed: 06/22/13

Matrix: SOLID
Time Analyzed: 1146

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WT86LCSS1	WT86LCSS1	WT86SB	06/22/13
02	WT86LCSDS1	WT86LCSDS1	WT86SBD	06/22/13
03	AM-SF4-EFF-2013	WT81BMS	WT81BMS	06/22/13
04	AM-SF4-EFF-2013	WT81BMSD	WT81BMSD	06/22/13
05	AM-VT-INF-201306	WT81A	WT81A3	06/26/13
06	AM-SF4-EFF-20130	WT81B	WT81B3	06/26/13
07	AM-FD-01-2013061	WT81C	WT81C3	06/26/13
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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-061813**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-061813
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 11:46
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
108-95-2	Phenol	8.6	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	3.4	20	< 20 U
95-57-8	2-Chlorophenol	2.4	20	< 20 U
541-73-1	1,3-Dichlorobenzene	2.6	20	< 20 U
106-46-7	1,4-Dichlorobenzene	2.9	20	< 20 U
100-51-6	Benzyl Alcohol	6.1	20	< 20 U
95-50-1	1,2-Dichlorobenzene	2.5	20	< 20 U
95-48-7	2-Methylphenol	5.2	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	3.8	20	< 20 U
106-44-5	4-Methylphenol	6.6	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	3.4	20	< 20 U
67-72-1	Hexachloroethane	2.9	20	< 20 U
98-95-3	Nitrobenzene	4.1	20	< 20 U
78-59-1	Isophorone	2.9	20	< 20 U
88-75-5	2-Nitrophenol	39	100	< 100 U
105-67-9	2,4-Dimethylphenol	3.5	40	< 40 U
65-85-0	Benzoic Acid	100	400	< 400 U
111-91-1	bis(2-Chloroethoxy) Methane	2.0	20	< 20 U
120-83-2	2,4-Dichlorophenol	22	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	3.5	20	< 20 U
91-20-3	Naphthalene	2.8	20	< 20 U
106-47-8	4-Chloroaniline	22	270	< 270 U
87-68-3	Hexachlorobutadiene	4.6	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	15	100	< 100 U
91-57-6	2-Methylnaphthalene	3.1	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	66	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	22	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	21	100	< 100 U
91-58-7	2-Chloronaphthalene	2.6	20	< 20 U
88-74-4	2-Nitroaniline	18	100	< 100 U
131-11-3	Dimethylphthalate	2.9	20	< 20 U
208-96-8	Acenaphthylene	5.7	20	< 20 U
99-09-2	3-Nitroaniline	22	100	< 100 U
83-32-9	Acenaphthene	3.3	20	< 20 U
51-28-5	2,4-Dinitrophenol	110	850	< 850 U
100-02-7	4-Nitrophenol	35	100	< 100 U
132-64-9	Dibenzofuran	4.1	20	< 20 U
606-20-2	2,6-Dinitrotoluene	31	100	< 100 U
121-14-2	2,4-Dinitrotoluene	20	100	< 100 U
84-66-2	Diethylphthalate	37	50	< 50 U
7005-72-3	4-Chlorophenyl-phenylether	5.3	20	< 20 U
86-73-7	Fluorene	4.4	20	< 20 U
100-01-6	4-Nitroaniline	38	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: MB-061813**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-061813 QC Report No: WT81-SAIC
LIMS ID: 13-12637 Project: NPDES Sampling Support
Matrix: Sediment 209977
Date Analyzed: 06/22/13 11:46

CAS Number	Analyte	DL	LOQ	Result
534-52-1	4,6-Dinitro-2-Methylphenol	21	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	5.4	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	5.0	20	< 20 U
118-74-1	Hexachlorobenzene	4.3	20	< 20 U
87-86-5	Pentachlorophenol	48	200	< 200 U
85-01-8	Phenanthrene	3.6	20	< 20 U
86-74-8	Carbazole	2.7	20	< 20 U
120-12-7	Anthracene	4.5	20	< 20 U
84-74-2	Di-n-Butylphthalate	8.2	20	< 20 U
206-44-0	Fluoranthene	2.9	20	< 20 U
129-00-0	Pyrene	1.9	20	< 20 U
85-68-7	Butylbenzylphthalate	6.1	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	18	150	< 150 U
56-55-3	Benzo(a)anthracene	3.3	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	15	25	< 25 U
218-01-9	Chrysene	3.8	20	< 20 U
117-84-0	Di-n-Octyl phthalate	5.8	20	< 20 U
50-32-8	Benzo(a)pyrene	5.4	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	4.7	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	4.3	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	4.4	20	< 20 U
62-53-3	Aniline	40	540	< 540 U
62-75-9	N-Nitrosodimethylamine	14	100	< 100 U
90-12-0	1-Methylnaphthalene	2.7	20	< 20 U
TOTBFA	Total Benzofluoranthenes	2.8	40	< 40 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	68.6%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	84.4%	d4-1,2-Dichlorobenzene	67.2%
d5-Phenol	67.1%	2-Fluorophenol	65.6%
2,4,6-Tribromophenol	78.5%	d4-2-Chlorophenol	68.4%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING

DFTPP Injection Date: 04/29/13 DFTPP Injection Time: 1637

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	16.7
68	Less than 2.0% of mass 69	0.5 (1.6)1
69	Mass 69 relative abundance	32.0
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	44.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.4
365	Greater than 1.0% of mass 198	4.00
441	0.0 - 24.0% of mass 442	16.8 (15.6)2
442	50.0 - 200.0% of mass 198	108.0
443	15.0 - 24.0% of mass 442	20.8 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0429A	IC0429A	04/29/13	1653
02		IC0429B	IC0429B	04/29/13	1730
03		IC0429C	IC0429C	04/29/13	1807
04		IC0429D	IC0429D	04/29/13	1844
05		IC0429E	IC0429E	04/29/13	1921
06		IC0429G	IC0429G	04/29/13	2034
07		IC0429I	IC0429I	04/29/13	2147
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING

DFTPP Injection Date: 06/22/13 DFTPP Injection Time: 0936

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	17.8
68	Less than 2.0% of mass 69	0.6 (1.6)1
69	Mass 69 relative abundance	37.1
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	46.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.0
365	Greater than 1.0% of mass 198	3.72
441	0.0 - 24.0% of mass 442	15.5 (15.5)2
442	50.0 - 200.0% of mass 198	99.9
443	15.0 - 24.0% of mass 442	19.3 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		ABN 5	CC0622	06/22/13	0951
02	WT86MBS1	WT86MBS1	WT86MB	06/22/13	1146
03	WT86LCSS1	WT86LCSS1	WT86SB	06/22/13	1223
04	WT86LCSDS1	WT86LCSDS1	WT86SBD	06/22/13	1259
05	AM-SF4-EFF-2013	WT81BMS	WT81BMS	06/22/13	1527
06	AM-SF4-EFF-2013	WT81BMSD	WT81BMSD	06/22/13	1604
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING

DFTPP Injection Date: 06/26/13 DFTPP Injection Time: 1132

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.3
68	Less than 2.0% of mass 69	0.6 (1.6)1
69	Mass 69 relative abundance	39.3
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	47.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	25.4
365	Greater than 1.0% of mass 198	3.34
441	0.0 - 24.0% of mass 442	13.9 (15.8)2
442	50.0 - 200.0% of mass 198	88.1
443	15.0 - 24.0% of mass 442	17.1 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		CC0626	CC0626	06/26/13	1146
02	AM-VT-INF-201306	WT81A	WT81A3	06/26/13	1305
03	AM-SF4-EFF-20130	WT81B	WT81B3	06/26/13	1342
04	AM-FD-01-2013061	WT81C	WT81C3	06/26/13	1419
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FORM V SV

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Calibration Date: 04/29/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0429C RRF0.5=IC0429I RRF1 =IC0429D
RRF2.5=IC0429G RRF5 =IC0429A RRF10 =IC0429E
RRF20 =IC0429B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
Phenol	2.077	2.017	1.990	2.151	2.006	2.200	2.034	2.068	3.9
Bis(2-Chloroethyl)ether	1.569	1.539	1.470	1.553	1.377	1.500	1.401	1.487	5.1
2-Chlorophenol	1.550	1.467	1.471	1.542	1.510	1.815	1.808	1.595	9.5
1,3-Dichlorobenzene	1.693	1.545	1.590	1.600	1.552	1.628	1.594	1.600	3.1
1,4-Dichlorobenzene	1.714	1.526	1.513	1.625	1.533	1.581	1.549	1.577	4.5
1,2-Dichlorobenzene	1.625	1.492	1.506	1.516	1.456	1.497	1.480	1.510	3.6
Benzyl alcohol	0.851	0.735	0.830	0.901	0.883	0.969	0.920	0.870	8.6
2,2'-oxybis(1-Chloropropane)	0.426	0.440	0.464	0.485	0.458	0.477	0.463	0.459	4.4
2-Methylphenol	1.490	1.406	1.450	1.544	1.458	1.560	1.508	1.488	3.7
Hexachloroethane	0.689	0.659	0.654	0.684	0.620	0.669	0.644	0.660	3.6
N-Nitroso-di-n-propylamine	0.952	0.894	0.878	0.986	0.887	0.977	0.928	0.929	4.7
4-Methylphenol	1.437	1.355	1.490	1.593	1.527	1.677	1.541	1.517	6.9
Nitrobenzene	0.395	0.393	0.386	0.400	0.366	0.404	0.385	0.390	3.2
Isophorone	0.712	0.664	0.673	0.711	0.681	0.862	0.828	0.733	10.8
2-Nitrophenol	0.208	0.186	0.201	0.221	0.229	0.242	0.243	0.218	9.7
2,4-Dimethylphenol	0.412	0.372	0.393	0.415	0.402	0.422	0.394	0.401	4.2
Bis(2-Chloroethoxy)methane	0.443	0.434	0.433	0.442	0.414	0.440	0.418	0.432	2.7
2,4-Dichlorophenol	0.318	0.288	0.385	0.393	0.395	0.418	0.391	0.370	12.8
1,2,4-Trichlorobenzene	0.412	0.350	0.364	0.354	0.345	0.353	0.351	0.361	6.4
Naphthalene	1.205	1.006	1.040	1.064	1.020	1.073	1.046	1.065	6.2
Benzoic acid		0.160	0.251	0.309	0.338	0.374	0.383	0.302	0.999
4-Chloroaniline	0.424	0.364	0.406	0.423	0.425	0.489	0.381	0.416	9.6
Hexachlorobutadiene	0.233	0.200	0.214	0.209	0.207	0.221	0.218	0.214	5.1
4-Chloro-3-methylphenol	0.263	0.272	0.312	0.344	0.343	0.377	0.365	0.325	13.7
2-Methylnaphthalene	0.740	0.674	0.682	0.702	0.687	0.739	0.727	0.707	4.0
Hexachlorocyclopentadiene	0.448	0.393	0.415	0.425	0.443	0.466	0.490	0.440	7.4
2,4,6-Trichlorophenol	0.389	0.368	0.407	0.426	0.433	0.453	0.470	0.421	8.4
2,4,5-Trichlorophenol	0.355	0.372	0.419	0.443	0.454	0.493	0.502	0.434	12.9
2-Chloronaphthalene	1.258	1.048	1.069	1.098	1.071	1.125	1.112	1.112	6.3
2-Nitroaniline	0.205	0.222	0.260	0.290	0.289	0.311	0.301	0.268	15.2
Acenaphthylene	2.087	1.803	1.831	1.816	1.772	2.129	1.756	1.885	8.2
Dimethylphthalate	1.365	1.135	1.172	1.190	1.160	1.208	1.175	1.201	6.3
2,6-Dinitrotoluene	0.261	0.257	0.275	0.296	0.284	0.305	0.290	0.281	6.4
Acenaphthene	1.307	1.096	1.084	1.134	1.066	1.135	1.130	1.136	7.0
3-Nitroaniline	0.208	0.214	0.254	0.251	0.240	0.251	0.208	0.232	9.2
2,4-Dinitrophenol		0.092	0.145	0.196	0.239	0.272	0.282	0.204	0.998
Dibenzofuran	1.673	1.498	1.520	1.552	1.472	1.584	1.575	1.553	4.3

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-1

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Calibration Date: 04/29/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0429C RRF0.5=IC0429I RRF1 =IC0429D
RRF2.5=IC0429G RRF5 =IC0429A RRF10 =IC0429E
RRF20 =IC0429B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	RRF	%RSD /R^2
4-Nitrophenol		0.079	0.115	0.152	0.164	0.185	0.183	0.146	0.999
2,4-Dinitrotoluene	0.305	0.311	0.361	0.383	0.378	0.406	0.396	0.363	11.1
Fluorene	1.464	1.260	1.300	1.336	1.271	1.344	1.302	1.325	5.2
4-Chlorophenyl-phenylether	0.738	0.602	0.614	0.616	0.592	0.726	0.674	0.652	9.3
Diethylphthalate	1.354	1.141	1.157	1.206	1.170	1.229	1.188	1.206	5.9
4-Nitroaniline	0.210	0.198	0.271	0.240	0.244	0.272	0.254	0.241	11.8
4,6-Dinitro-2-methylphenol	0.107	0.123	0.161	0.175	0.189	0.198	0.199	0.164	0.999
N-Nitrosodiphenylamine (1)	0.496	0.429	0.473	0.473	0.458	0.461	0.451	0.463	4.5
4-Bromophenyl-phenylether	0.228	0.217	0.230	0.222	0.223	0.230	0.234	0.226	2.6
Hexachlorobenzene	0.323	0.258	0.266	0.258	0.256	0.263	0.266	0.270	8.8
Pentachlorophenol	0.155	0.140	0.173	0.199	0.211	0.221	0.227	0.189	17.8
Phenanthrene	1.229	1.013	1.086	1.066	1.046	1.099	1.099	1.091	6.3
Anthracene	1.196	1.068	1.098	1.103	1.079	1.137	1.142	1.118	4.0
Carbazole		0.800	0.834	0.643	0.476	0.605	0.715	0.679	19.5
Di-n-butylphthalate	1.235	1.000	1.095	1.115	1.141	1.237	1.254	1.154	8.1
Fluoranthene	1.358	1.180	1.246	1.248	1.273	1.334	1.350	1.284	5.1
Pyrene	1.372	1.136	1.192	1.197	1.222	1.259	1.285	1.238	6.2
Butylbenzylphthalate	0.426	0.342	0.412	0.416	0.439	0.457	0.465	0.422	9.6
Benzo(a)anthracene	1.256	1.035	1.094	1.074	1.095	1.140	1.147	1.120	6.3
3,3'-Dichlorobenzidine	0.512	0.365	0.406	0.358	0.385	0.470	0.489	0.426	14.8
Chrysene	1.178	0.953	0.950	0.973	0.977	1.022	1.041	1.013	7.9
bis(2-Ethylhexyl)phthalate	0.632	0.494	0.524	0.534	0.505	0.523	0.510	0.532	8.7
Di-n-octylphthalate	1.055	0.944	0.871	0.906	0.871	0.905	0.894	0.921	6.9
Benzo(b)fluoranthene	1.350	1.055	1.094	1.126	1.215	1.242	1.233	1.188	8.6
Benzo(k)fluoranthene	1.429	1.149	1.245	1.226	1.139	1.225	1.345	1.251	8.3
Benzo(a)pyrene	1.151	0.872	0.973	0.973	1.002	1.055	1.076	1.014	8.8
Indeno(1,2,3-cd)pyrene	1.182	1.014	1.103	1.121	1.204	1.272	1.288	1.169	8.3
Dibenzo(a,h)anthracene	0.924	0.733	0.855	0.886	0.920	0.970	0.990	0.897	9.6
Benzo(g,h,i)perylene	1.046	0.902	0.989	0.991	1.001	1.071	1.081	1.012	6.1
N-Nitrosodimethylamine	0.881	0.875	0.883	0.963	0.856	0.996	0.924	0.911	5.7
Aniline	4.002	3.883	3.894	4.215	3.954	4.212	3.925	4.012	3.6
Benzidine		0.200	0.258	0.144	0.124	0.129	0.158	0.169	0.996
Retene	0.527	0.415	0.449	0.450	0.464	0.479	0.495	0.468	7.7
Perylene	1.360	1.098	1.116	1.099	1.101	1.161	1.185	1.160	8.2
Pyridine	0.727	0.806	0.788	0.868	0.780	0.846	0.791	0.801	5.8
1-methylnaphthalene	0.704	0.597	0.625	0.640	0.633	0.668	0.673	0.648	5.5
Azobenzene (1,2-DP-Hydrazine	1.323	1.268	1.241	1.274	1.124	1.247	1.184	1.237	5.2

(1) Cannot be seperated from Diphenylamine
<- Outside QC limits: %RSD <20% or R^2 > 0.990

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Calibration Date: 04/29/13

Method = ABN.m
Cal levels = 7

LAB FILE ID: RRF0.2=IC0429C RRF0.5=IC0429I RRF1 =IC0429D
RRF2.5=IC0429G RRF5 =IC0429A RRF10 =IC0429E
RRF20 =IC0429B

COMPOUND	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	RRF 10	RRF 20	___ RRF	%RSD /R^2
2,3,4,6-Tetrachlorophenol	0.263	0.256	0.308	0.323	0.352	0.376	0.381	0.323	15.7
Total Benzofluoranthenes	1.309	1.054	1.127	1.118	1.118	1.170	1.178	1.153	6.9
2-Fluorophenol	1.341	1.365	1.373	1.457	1.432	1.532	1.493	1.428	5.0
Phenol-d5	1.744	1.701	1.730	1.881	1.858	2.054	1.962	1.847	7.1
2-Chlorophenol-d4	1.482	1.318	1.345	1.412	1.390	1.440	1.430	1.402	4.0
1,2-Dichlorobenzene-d4	0.989	1.001	0.997	1.022	0.981	1.044	1.027	1.009	2.2
Nitrobenzene-d5	0.429	0.417	0.418	0.430	0.401	0.441	0.419	0.422	3.0
2-Fluorobiphenyl	1.566	1.339	1.343	1.374	1.337	1.414	1.400	1.396	5.8
2,4,6-Tribromophenol	0.200	0.170	0.195	0.214	0.219	0.242	0.241	0.212	12.1
Terphenyl-d14	0.892	0.700	0.754	0.760	0.763	0.794	0.787	0.778	7.5

<- Outside QC limits: %RSD <20% or R^2 > 0.990

FORM VI SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/22/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 0951

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	2.068	2.064	0.800	AVRG	-0.2	
Bis(2-Chloroethyl)ether	1.487	1.398	0.700	AVRG	-6.0	
2-Chlorophenol	1.595	1.572	0.800	AVRG	-1.4	
1,3-Dichlorobenzene	1.600	1.558	0.010	AVRG	-2.6	
1,4-Dichlorobenzene	1.577	1.553	0.010	AVRG	-1.5	
1,2-Dichlorobenzene	1.510	1.468	0.010	AVRG	-2.8	
Benzyl alcohol	0.870	0.703	0.010	AVRG	-19.2	
2,2'-oxybis(1-Chloropropane)	0.459	0.460	0.010	AVRG	0.2	
2-Methylphenol	1.488	1.478	0.700	AVRG	-0.7	
Hexachloroethane	0.660	0.637	0.300	AVRG	-3.5	
N-Nitroso-di-n-propylamine	0.929	0.981	0.500	AVRG	5.6	
4-Methylphenol	1.517	1.570	0.600	AVRG	3.5	
Nitrobenzene	0.390	0.395	0.200	AVRG	1.3	
Isophorone	0.733	0.726	0.400	AVRG	-1.0	
2-Nitrophenol	0.218	0.235	0.100	AVRG	7.8	
2,4-Dimethylphenol	0.401	0.376	0.200	AVRG	-6.2	
Bis(2-Chloroethoxy)methane	0.432	0.440	0.300	AVRG	1.8	
2,4-Dichlorophenol	0.370	0.376	0.200	AVRG	1.6	
1,2,4-Trichlorobenzene	0.361	0.406	0.010	AVRG	12.5	
Naphthalene	1.065	1.028	0.700	AVRG	-3.5	
Benzoic acid	20.00	17.99	0.010	2ORDR	-10.0	
4-Chloroaniline	0.416	0.427	0.010	AVRG	2.6	
Hexachlorobutadiene	0.214	0.216	0.010	AVRG	0.9	
4-Chloro-3-methylphenol	0.325	0.356	0.200	AVRG	9.5	
2-Methylnaphthalene	0.707	0.695	0.400	AVRG	-1.7	
Hexachlorocyclopentadiene	0.440	0.260	0.050	AVRG	-40.9	<-
2,4,6-Trichlorophenol	0.421	0.437	0.200	AVRG	3.8	
2,4,5-Trichlorophenol	0.434	0.470	0.200	AVRG	8.3	
2-Chloronaphthalene	1.112	1.074	0.800	AVRG	-3.4	
2-Nitroaniline	0.268	0.303	0.010	AVRG	13.0	
Acenaphthylene	1.885	1.694	0.900	AVRG	-10.1	
Dimethylphthalate	1.201	1.191	0.010	AVRG	-0.8	
2,6-Dinitrotoluene	0.281	0.290	0.200	AVRG	3.2	
Acenaphthene	1.136	1.073	0.900	AVRG	-5.5	
3-Nitroaniline	0.232	0.291	0.010	AVRG	25.4	<-
2,4-Dinitrophenol	20.00	18.21	0.010	2ORDR	-9.0	
Dibenzofuran	1.553	1.471	0.800	AVRG	-5.3	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/22/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 0951

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	10.00	9.925	0.010	2ORDR	-0.7	
2,4-Dinitrotoluene	0.363	0.385	0.200	AVRG	6.1	
Fluorene	1.325	1.269	0.900	AVRG	-4.2	
4-Chlorophenyl-phenylether	0.652	0.575	0.400	AVRG	-11.8	
Diethylphthalate	1.206	1.136	0.010	AVRG	-5.8	
4-Nitroaniline	0.241	0.179	0.010	AVRG	-25.7	<-
4,6-Dinitro-2-methylphenol	20.00	19.31	0.010	2ORDR	-3.4	
N-Nitrosodiphenylamine(1)	0.463	0.477	0.010	AVRG	3.0	
4-Bromophenyl-phenylether	0.226	0.228	0.100	AVRG	0.9	
Hexachlorobenzene	0.270	0.270	0.100	AVRG	0.0	
Pentachlorophenol	0.189	0.178	0.050	AVRG	-5.8	
Phenanthrene	1.091	1.037	0.700	AVRG	-4.9	
Anthracene	1.118	1.063	0.700	AVRG	-4.9	
Carbazole	0.679	0.826	0.010	AVRG	21.6	<-
Di-n-butylphthalate	1.154	1.200	0.010	AVRG	4.0	
Fluoranthene	1.284	1.267	0.600	AVRG	-1.3	
Pyrene	1.238	1.265	0.600	AVRG	2.2	
Butylbenzylphthalate	0.422	0.475	0.010	AVRG	12.6	
Benzo(a)anthracene	1.120	1.109	0.800	AVRG	-1.0	
3,3'-Dichlorobenzidine	0.426	0.548	0.010	AVRG	28.6	<-
Chrysene	1.013	0.969	0.700	AVRG	-4.3	
bis(2-Ethylhexyl)phthalate	0.532	0.582	0.010	AVRG	9.4	
Di-n-octylphthalate	0.921	0.860	0.010	AVRG	-6.6	
Benzo(b)fluoranthene	1.188	1.280	0.700	AVRG	7.7	
Benzo(k)fluoranthene	1.251	1.212	0.700	AVRG	-3.1	
Benzo(a)pyrene	1.014	1.004	0.700	AVRG	-1.0	
Indeno(1,2,3-cd)pyrene	1.169	1.256	0.500	AVRG	7.4	
Dibenzo(a,h)anthracene	0.897	0.979	0.400	AVRG	9.1	
Benzo(g,h,i)perylene	1.012	1.066	0.500	AVRG	5.3	
N-Nitrosodimethylamine	0.911	0.861	0.010	AVRG	-5.5	
Aniline	4.012	4.132	0.010	AVRG	3.0	
Benzidine	10.00	11.17	0.010	2ORDR	11.7	
Retene	0.468	0.461	0.010	AVRG	-1.5	
Perylene	1.160	1.084	0.010	AVRG	-6.6	
Pyridine	0.801	0.727	0.010	AVRG	-9.2	
1-methylnaphthalene	0.648	0.627	0.010	AVRG	-3.2	

(1) Cannot be separated from Diphenylamine
<- Exceeds QC limit of 20% D
* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/22/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 0951

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.237	1.159	0.010	AVRG	-6.3
2,3,4,6-Tetrachlorophenol	0.323	0.334	0.010	AVRG	3.4
Total Benzofluoranthenes	1.153	1.158	0.010	AVRG	0.4
2-Fluorophenol	1.428	1.470	0.010	AVRG	2.9
Phenol-d5	1.847	1.876	0.010	AVRG	1.6
2-Chlorophenol-d4	1.402	1.420	0.010	AVRG	1.3
1,2-Dichlorobenzene-d4	1.009	1.008	0.010	AVRG	-0.1
Nitrobenzene-d5	0.422	0.430	0.010	AVRG	1.9
2-Fluorobiphenyl	1.396	1.336	0.010	AVRG	-4.3
2,4,6-Tribromophenol	0.212	0.220	0.010	AVRG	3.8
Terphenyl-d14	0.778	0.740	0.010	AVRG	-4.9

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/26/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 1146

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	2.068	1.713	0.800	AVRG	-17.2	
Bis(2-Chloroethyl)ether	1.487	1.266	0.700	AVRG	-14.9	
2-Chlorophenol	1.595	1.488	0.800	AVRG	-6.7	
1,3-Dichlorobenzene	1.600	1.451	0.010	AVRG	-9.3	
1,4-Dichlorobenzene	1.577	1.448	0.010	AVRG	-8.2	
1,2-Dichlorobenzene	1.510	1.373	0.010	AVRG	-9.1	
Benzyl alcohol	0.870	0.760	0.010	AVRG	-12.6	
2,2'-oxybis(1-Chloropropane)	0.459	0.427	0.010	AVRG	-7.0	
2-Methylphenol	1.488	1.307	0.700	AVRG	-12.2	
Hexachloroethane	0.660	0.612	0.300	AVRG	-7.3	
N-Nitroso-di-n-propylamine	0.929	0.902	0.500	AVRG	-2.9	
4-Methylphenol	1.517	1.261	0.600	AVRG	-16.9	
Nitrobenzene	0.390	0.350	0.200	AVRG	-10.2	
Isophorone	0.733	0.667	0.400	AVRG	-9.0	
2-Nitrophenol	0.218	0.206	0.100	AVRG	-5.5	
2,4-Dimethylphenol	0.401	0.363	0.200	AVRG	-9.5	
Bis(2-Chloroethoxy)methane	0.432	0.396	0.300	AVRG	-8.3	
2,4-Dichlorophenol	0.370	0.323	0.200	AVRG	-12.7	
1,2,4-Trichlorobenzene	0.361	0.330	0.010	AVRG	-8.6	
Naphthalene	1.065	0.954	0.700	AVRG	-10.4	
Benzoic acid	20.00	14.44	0.010	2ORDR	-27.8	<-
4-Chloroaniline	0.416	0.312	0.010	AVRG	-25.0	<-
Hexachlorobutadiene	0.214	0.205	0.010	AVRG	-4.2	
4-Chloro-3-methylphenol	0.325	0.323	0.200	AVRG	-0.6	
2-Methylnaphthalene	0.707	0.622	0.400	AVRG	-12.0	
Hexachlorocyclopentadiene	0.440	0.281	0.050	AVRG	-36.1	<-
2,4,6-Trichlorophenol	0.421	0.407	0.200	AVRG	-3.3	
2,4,5-Trichlorophenol	0.434	0.418	0.200	AVRG	-3.7	
2-Chloronaphthalene	1.112	1.028	0.800	AVRG	-7.6	
2-Nitroaniline	0.268	0.292	0.010	AVRG	9.0	
Acenaphthylene	1.885	1.658	0.900	AVRG	-12.0	
Dimethylphthalate	1.201	1.132	0.010	AVRG	-5.7	
2,6-Dinitrotoluene	0.281	0.281	0.200	AVRG	0.0	
Acenaphthene	1.136	1.031	0.900	AVRG	-9.2	
3-Nitroaniline	0.232	0.161	0.010	AVRG	-30.6	<-
2,4-Dinitrophenol	20.00	8.436	0.010	2ORDR	-57.8	<-
Dibenzofuran	1.553	1.406	0.800	AVRG	-9.5	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/26/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 1146

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
4-Nitrophenol	10.00	8.302	0.010	2ORDR	-17.0	
2,4-Dinitrotoluene	0.363	0.361	0.200	AVRG	-0.6	
Fluorene	1.325	1.269	0.900	AVRG	-4.2	
4-Chlorophenyl-phenylether	0.652	0.638	0.400	AVRG	-2.1	
Diethylphthalate	1.206	1.230	0.010	AVRG	2.0	
4-Nitroaniline	0.241	0.213	0.010	AVRG	-11.6	
4,6-Dinitro-2-methylphenol	20.00	14.77	0.010	2ORDR	-26.2	<-
N-Nitrosodiphenylamine(1)	0.463	0.447	0.010	AVRG	-3.4	
4-Bromophenyl-phenylether	0.226	0.216	0.100	AVRG	-4.4	
Hexachlorobenzene	0.270	0.254	0.100	AVRG	-5.9	
Pentachlorophenol	0.189	0.163	0.050	AVRG	-13.8	
Phenanthrene	1.091	0.996	0.700	AVRG	-8.7	
Anthracene	1.118	1.046	0.700	AVRG	-6.4	
Carbazole	0.679	0.606	0.010	AVRG	-10.8	
Di-n-butylphthalate	1.154	1.176	0.010	AVRG	1.9	
Fluoranthene	1.284	1.212	0.600	AVRG	-5.6	
Pyrene	1.238	1.179	0.600	AVRG	-4.8	
Butylbenzylphthalate	0.422	0.459	0.010	AVRG	8.8	
Benzo(a)anthracene	1.120	1.041	0.800	AVRG	-7.0	
3,3'-Dichlorobenzidine	0.426	0.375	0.010	AVRG	-12.0	
Chrysene	1.013	0.949	0.700	AVRG	-6.3	
bis(2-Ethylhexyl)phthalate	0.532	0.532	0.010	AVRG	0.0	
Di-n-octylphthalate	0.921	0.826	0.010	AVRG	-10.3	
Benzo(b)fluoranthene	1.188	1.167	0.700	AVRG	-1.8	
Benzo(k)fluoranthene	1.251	1.086	0.700	AVRG	-13.2	
Benzo(a)pyrene	1.014	0.951	0.700	AVRG	-6.2	
Indeno(1,2,3-cd)pyrene	1.169	1.136	0.500	AVRG	-2.8	
Dibenzo(a,h)anthracene	0.897	0.877	0.400	AVRG	-2.2	
Benzo(g,h,i)perylene	1.012	0.941	0.500	AVRG	-7.0	
N-Nitrosodimethylamine	0.911	0.793	0.010	AVRG	-13.0	
Aniline	4.012	3.476	0.010	AVRG	-13.4	
Benzidine	10.00	7.778	0.010	2ORDR	-22.2	<-
Retene	0.468	0.444	0.010	AVRG	-5.1	
Perylene	1.160	1.026	0.010	AVRG	-11.6	
Pyridine	0.801	0.656	0.010	AVRG	-18.1	
1-methylnaphthalene	0.648	0.576	0.010	AVRG	-11.1	

(1) Cannot be separated from Diphenylamine
<- Exceeds QC limit of 20% D
* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Cont. Calib. Date: 06/26/13

Init. Calib. Date: 04/29/13 Cont. Calib. Time: 1146

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Azobenzene (1,2-DP-Hydrazine	1.237	1.149	0.010	AVRG	-7.1
2,3,4,6-Tetrachlorophenol	0.323	0.326	0.010	AVRG	0.9
Total Benzofluoranthenes	1.153	1.040	0.010	AVRG	-9.8
2-Fluorophenol	1.428	1.231	0.010	AVRG	-13.8
Phenol-d5	1.847	1.597	0.010	AVRG	-13.5
2-Chlorophenol-d4	1.402	1.250	0.010	AVRG	-10.8
1,2-Dichlorobenzene-d4	1.009	0.943	0.010	AVRG	-6.5
Nitrobenzene-d5	0.422	0.376	0.010	AVRG	-10.9
2-Fluorobiphenyl	1.396	1.258	0.010	AVRG	-9.9
2,4,6-Tribromophenol	0.212	0.221	0.010	AVRG	4.2
Terphenyl-d14	0.778	0.710	0.010	AVRG	-8.7

<- Exceeds QC limit of 20% D
* RF less than minimum RF

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A Ical Date: 04/29/13

Instrument ID: NT10 Cont. Cal Date: 06/22/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	45250	8.99	166754	11.64	106910	15.54
	UPPER LIMIT	90500		333508		213820	
	LOWER LIMIT	22625		83377		53455	
	CCAL	41183	7.44	151126	10.01	95266	13.82
	UPPER LIMIT		7.94		10.51		14.32
	LOWER LIMIT		6.94		9.51		13.32
01	WT86MBS1	46197	7.44	179260	10.01	105476	13.80
02	WT86LCSS1	42386	7.43	154465	10.01	93462	13.81
03	WT86LCSDS1	41866	7.43	154379	10.01	92653	13.81
04	AM-SF4-EFF-2	36216	7.44	136482	10.02	80200	13.82
05	AM-SF4-EFF-2	36591	7.44	135676	10.02	83621	13.83
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A Ical Date: 04/29/13

Instrument ID: NT10 Cont. Cal Date: 06/22/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	179783	18.82	192841	23.90	184310	26.35
	UPPER LIMIT	359566		385682		368620	
	LOWER LIMIT	89892		96420		92155	
	CCAL	155782	17.02	157404	22.32	142204	24.61
	UPPER LIMIT		17.52		22.82		25.11
	LOWER LIMIT		16.52		21.82		24.11
01	WT86MBS1	175575	17.00	182527	22.29	161139	24.59
02	WT86LCSS1	149471	17.01	170771	22.30	148251	24.59
03	WT86LCSDS1	149219	17.01	163879	22.30	145378	24.59
04	AM-SF4-EFF-2	124262	17.04	149508	22.39	113901	24.73
05	AM-SF4-EFF-2	127875	17.04	156537	22.40	107530	24.73
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WT81 | Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A | Ical Date: 04/29/13

Instrument ID: NT10 | Cont. Cal Date: 06/22/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	229567	24.99				
	UPPER LIMIT	459134					
	LOWER LIMIT	114784					
	CCAL	191916	23.59				
	UPPER LIMIT		24.09				
	LOWER LIMIT		23.09				
01	WT86MBS1	219509	23.57				
02	WT86LCSS1	208151	23.57				
03	WT86LCSDS1	204937	23.57				
04	AM-SF4-EFF-2	176747	23.66				
05	AM-SF4-EFF-2	177123	23.66				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A Ical Date: 04/29/13

Instrument ID: NT10 Cont. Cal Date: 06/26/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	45250	8.99	166754	11.64	106910	15.54
	UPPER LIMIT	90500		333508		213820	
	LOWER LIMIT	22625		83377		53455	
	CCAL	49019	7.32	179500	9.90	112148	13.71
	UPPER LIMIT		7.82		10.40		14.21
	LOWER LIMIT		6.82		9.40		13.21
01	AM-VT-INF-20	51840	7.34	191094	9.90	108499	13.72
02	AM-SF4-EFF-2	52622	7.33	195802	9.90	120013	13.71
03	AM-FD-01-201	46914	7.33	178855	9.90	106457	13.71
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A Ical Date: 04/29/13

Instrument ID: NT10 Cont. Cal Date: 06/26/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	179783	18.82	192841	23.90	184310	26.35
	UPPER LIMIT	359566		385682		368620	
	LOWER LIMIT	89892		96420		92155	
	CCAL	185920	16.92	200276	22.26	169291	24.56
	UPPER LIMIT		17.42		22.76		25.06
	LOWER LIMIT		16.42		21.76		24.06
01	AM-VT-INF-20	155499	16.92	162360	22.28	164427	24.59
02	AM-SF4-EFF-2	172514	16.92	176547	22.27	174000	24.59
03	AM-FD-01-201	157292	16.92	157178	22.28	156687	24.59
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WT81 | Project: NPDES SAMPLING

Ical Midpoint ID: IC0429A | Ical Date: 04/29/13

Instrument ID: NT10 | Cont. Cal Date: 06/26/13

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	229567	24.99				
	UPPER LIMIT	459134					
	LOWER LIMIT	114784					
	CCAL	237736	23.55				
	UPPER LIMIT		24.05				
	LOWER LIMIT		23.05				
01	AM-VT-INF-20	216448	23.56				
02	AM-SF4-EFF-2	225345	23.56				
03	AM-FD-01-201	200837	23.57				
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

SIM Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-VT-INF-20130612-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 14:13
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 4.31 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 56.9 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**4.7**	**12**	**69**
106-46-7	1,4-Dichlorobenzene	2.8	12	< 12 U
120-82-1	1,2,4-Trichlorobenzene	4.3	12	< 12 U
118-74-1	Hexachlorobenzene	2.9	12	< 12 U
87-68-3	Hexachlorobutadiene	2.2	12	< 12 U
131-11-3	Dimethylphthalate	3.1	12	< 12 U
84-66-2	**Diethylphthalate**	**7.6**	**12**	**52 B**
85-68-7	**Butylbenzylphthalate**	**6.7**	**12**	**1,500 EQ**
95-48-7	**2-Methylphenol**	**4.2**	**12**	**130**
105-67-9	**2,4-Dimethylphenol**	**6.7**	**46**	**100**
86-30-6	**N-Nitrosodiphenylamine**	**3.2**	**46**	**210**
100-51-6	**Benzyl Alcohol**	**16**	**46**	**130**
87-86-5	**Pentachlorophenol**	**33**	**120**	**49 J**
95-50-1	1,2-Dichlorobenzene	2.6	12	< 12 U
541-73-1	1,3-Dichlorobenzene	3.0	12	< 12 U
621-64-7	N-Nitroso-Di-N-Propylamine	22	28	< 28 U
62-75-9	N-Nitrosodimethylamine	7.3	58	< 58 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	65.7%
d14-p-Terphenyl	79.8%

WT81 : 20114

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-SF4-EFF-20130612-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 14:50
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.80 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**7.2**	**18**	**200**
106-46-7	1,4-Dichlorobenzene	4.2	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	6.6	18	< 18 U
118-74-1	Hexachlorobenzene	4.5	18	< 18 U
87-68-3	Hexachlorobutadiene	3.4	18	< 18 U
131-11-3	**Dimethylphthalate**	**4.8**	**18**	**20**
84-66-2	**Diethylphthalate**	**12**	**18**	**64 B**
85-68-7	**Butylbenzylphthalate**	**10**	**18**	**250 Q**
95-48-7	2-Methylphenol	6.5	18	< 18 U
105-67-9	**2,4-Dimethylphenol**	**10**	**71**	**12 J**
86-30-6	**N-Nitrosodiphenylamine**	**4.9**	**71**	**130**
100-51-6	**Benzyl Alcohol**	**25**	**71**	**56 J**
87-86-5	Pentachlorophenol	51	180	< 180 U
95-50-1	1,2-Dichlorobenzene	3.9	18	< 18 U
541-73-1	1,3-Dichlorobenzene	4.7	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	34	43	< 43 U
62-75-9	N-Nitrosodimethylamine	11	89	< 89 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	60.9%
d14-p-Terphenyl	80.4%

WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-FD-01-20130612-S**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 16:40
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.2 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	**Dibenz(a,h)anthracene**	**7.2**	**18**	**230**
106-46-7	1,4-Dichlorobenzene	4.3	18	< 18 U
120-82-1	1,2,4-Trichlorobenzene	6.7	18	< 18 U
118-74-1	Hexachlorobenzene	4.5	18	< 18 U
87-68-3	Hexachlorobutadiene	3.4	18	< 18 U
131-11-3	**Dimethylphthalate**	**4.8**	**18**	**17 J**
84-66-2	**Diethylphthalate**	**12**	**18**	**120 B**
85-68-7	**Butylbenzylphthalate**	**10**	**18**	**360 Q**
95-48-7	2-Methylphenol	6.5	18	< 18 U
105-67-9	2,4-Dimethylphenol	10	72	< 72 U
86-30-6	**N-Nitrosodiphenylamine**	**4.9**	**72**	**180**
100-51-6	**Benzyl Alcohol**	**25**	**72**	**60 J**
87-86-5	Pentachlorophenol	51	180	< 180 U
95-50-1	1,2-Dichlorobenzene	3.9	18	< 18 U
541-73-1	1,3-Dichlorobenzene	4.7	18	< 18 U
621-64-7	N-Nitroso-Di-N-Propylamine	34	43	< 43 U
62-75-9	N-Nitrosodimethylamine	11	90	< 90 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	53.9%
d14-p-Terphenyl	76.4%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Client ID	FPH	TER	TOT OUT
AM-VT-INF-20130612-S	65.7%	79.8%	0
MB-061813	66.5%	83.8%	0
LCS-061813	66.3%	83.2%	0
LCSD-061813	66.7%	81.6%	0
AM-SF4-EFF-20130612-S	60.9%	80.4%	0
AM-SF4-EFF-20130612-S MS	61.6%	86.4%	0
AM-SF4-EFF-20130612-S MSD	63.6%	76.4%	0
AM-FD-01-20130612-S	53.9%	76.4%	0

	LCS/MB LIMITS	QC LIMITS
(FPH) = 2-Fluorophenol	(32-120)	(27-120)
(TER) = d14-p-Terphenyl	(42-124)	(37-120)

Prep Method: SW3546
Log Number Range: 13-12636 to 13-12638

FORM-II SIM SW8270

WT81.00114_rev

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-SF4-EFF-20130612-S**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted MS/MSD: 06/18/13

Date Analyzed MS: 06/22/13 15:27
MSD: 06/22/13 16:04
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ

Sample Amount MS: 2.79 g-dry-wt
MSD: 2.79 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.00
MSD: 1.00

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Dibenz(a,h)anthracene	200	919	1790	40.2%	851	1790	36.4%	7.7%
1,4-Dichlorobenzene	< 18 U	962	1790	53.7%	1010	1790	56.4%	4.9%
1,2,4-Trichlorobenzene	< 18 U	1160	1790	64.8%	1180	1790	65.9%	1.7%
Hexachlorobenzene	< 18 U	1320	1790	73.7%	1290	1790	72.1%	2.3%
Hexachlorobutadiene	< 18 U	1120	1790	62.6%	1150	1790	64.2%	2.6%
Dimethylphthalate	20	1580	1790	87.2%	1580	1790	87.2%	0.0%
Diethylphthalate	64 B	1560 B	1790	83.6%	1550 B	1790	83.0%	0.6%
Butylbenzylphthalate	250 Q	2210 EQ	1790	109%	2000 EQ	1790	97.8%	10.0%
2-Methylphenol	< 18 U	1090	1790	60.9%	1100	1790	61.5%	0.9%
2,4-Dimethylphenol	12 J	4050 E	5380	75.1%	3930 E	5380	72.8%	3.0%
N-Nitrosodiphenylamine	130	2360	1790	125%	1770	1790	91.6%	28.6%
Benzyl Alcohol	56 J	1340	1790	71.7%	1360	1790	72.8%	1.5%
Pentachlorophenol	< 180 U	2550 Q	5380	47.4%	2410 Q	5380	44.8%	5.6%
1,2-Dichlorobenzene	< 18 U	999	1790	55.8%	1040	1790	58.1%	4.0%
1,3-Dichlorobenzene	< 18 U	932	1790	52.1%	989	1790	55.3%	5.9%
N-Nitroso-Di-N-Propylamine	< 43 U	1410	1790	78.8%	1510	1790	84.4%	6.8%
N-Nitrosodimethylamine	< 89 U	2670	5380	49.6%	2770	5380	51.5%	3.7%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

WT81:002145

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-SF4-EFF-20130612-S**
Extraction Method: SW3546 **MATRIX SPIKE**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 15:27
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	7.2	18	---
106-46-7	1,4-Dichlorobenzene	4.3	18	---
120-82-1	1,2,4-Trichlorobenzene	6.7	18	---
118-74-1	Hexachlorobenzene	4.5	18	---
87-68-3	Hexachlorobutadiene	3.4	18	---
131-11-3	Dimethylphthalate	4.8	18	---
84-66-2	Diethylphthalate	12	18	---
85-68-7	Butylbenzylphthalate	10	18	---
95-48-7	2-Methylphenol	6.5	18	---
105-67-9	2,4-Dimethylphenol	10	72	---
86-30-6	N-Nitrosodiphenylamine	4.9	72	---
100-51-6	Benzyl Alcohol	25	72	---
87-86-5	Pentachlorophenol	51	180	---
95-50-1	1,2-Dichlorobenzene	3.9	18	---
541-73-1	1,3-Dichlorobenzene	4.7	18	---
621-64-7	N-Nitroso-Di-N-Propylamine	34	43	---
62-75-9	N-Nitrosodimethylamine	11	90	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	61.6%
d14-p-Terphenyl	86.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: AM-SF4-EFF-20130612-S**
Extraction Method: SW3546 **MATRIX SPIKE DUP**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 16:04
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 2.79 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 60.1 %

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	7.2	18	---
106-46-7	1,4-Dichlorobenzene	4.3	18	---
120-82-1	1,2,4-Trichlorobenzene	6.7	18	---
118-74-1	Hexachlorobenzene	4.5	18	---
87-68-3	Hexachlorobutadiene	3.4	18	---
131-11-3	Dimethylphthalate	4.8	18	---
84-66-2	Diethylphthalate	12	18	---
85-68-7	Butylbenzylphthalate	10	18	---
95-48-7	2-Methylphenol	6.5	18	---
105-67-9	2,4-Dimethylphenol	10	72	---
86-30-6	N-Nitrosodiphenylamine	4.9	72	---
100-51-6	Benzyl Alcohol	25	72	---
87-86-5	Pentachlorophenol	51	180	---
95-50-1	1,2-Dichlorobenzene	3.9	18	---
541-73-1	1,3-Dichlorobenzene	4.7	18	---
621-64-7	N-Nitroso-Di-N-Propylamine	34	43	---
62-75-9	N-Nitrosodimethylamine	11	90	---

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	63.6%
d14-p-Terphenyl	76.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: LCS-061813**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-061813
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/18/13

Sample Amount LCS: 10.00 g-dry-wt
LCSD: 10.00 g-dry-wt

Date Analyzed LCS: 06/22/13 12:23
LCSD: 06/22/13 12:59
Instrument/Analyst LCS: NT10/YZ
LCSD: NT10/YZ

Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Dibenz(a,h)anthracene	392	500	78.4%	396	500	79.2%	1.0%
1,4-Dichlorobenzene	296	500	59.2%	309	500	61.8%	4.3%
1,2,4-Trichlorobenzene	319	500	63.8%	325	500	65.0%	1.9%
Hexachlorobenzene	354	500	70.8%	358	500	71.6%	1.1%
Hexachlorobutadiene	313	500	62.6%	316	500	63.2%	1.0%
Dimethylphthalate	431	500	86.2%	430	500	86.0%	0.2%
Diethylphthalate	439 B	500	87.8%	448 B	500	89.6%	2.0%
Butylbenzylphthalate	555 Q	500	111%	559 Q	500	112%	0.7%
2-Methylphenol	276	500	55.2%	280	500	56.0%	1.4%
2,4-Dimethylphenol	646	1500	43.1%	627	1500	41.8%	3.0%
N-Nitrosodiphenylamine	412	500	82.4%	433	500	86.6%	5.0%
Benzyl Alcohol	378	500	75.6%	386	500	77.2%	2.1%
Pentachlorophenol	1190 Q	1500	79.3%	1210 Q	1500	80.7%	1.7%
1,2-Dichlorobenzene	297	500	59.4%	311	500	62.2%	4.6%
1,3-Dichlorobenzene	286	500	57.2%	302	500	60.4%	5.4%
N-Nitroso-Di-N-Propylamine	342	500	68.4%	351	500	70.2%	2.6%
N-Nitrosodimethylamine	866	1500	57.7%	892	1500	59.5%	3.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
2-Fluorophenol	66.3%	66.7%
d14-p-Terphenyl	83.2%	81.6%

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

WT86MBS1

Lab Name: ANALYTICAL RESOURCES INC Client: F&B

ARI Job No: WT81 Project: 306032

Lab File ID: WT86MB Date Extracted: 06/18/13

Instrument ID: NT10 Date Analyzed: 06/22/13

Matrix: SOLID Time Analyzed: 1146

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WT86LCSS1	WT86LCSS1	WT86SB	06/22/13
02	WT86LCSDS1	WT86LCSDS1	WT86SBD	06/22/13
03	AM-VT-INF-201306	WT81A	WT81A	06/22/13
04	AM-SF4-EFF-20130	WT81B	WT81B	06/22/13
05	AM-SF4-EFF-2013	WT81BMS	WT81BMS	06/22/13
06	AM-SF4-EFF-2013	WT81BMSD	WT81BMSD	06/22/13
07	AM-FD-01-2013061	WT81C	WT81C	06/22/13
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FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by Selected Ion Monitoring GC/MS **Sample ID: MB-061813**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-061813
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/27/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 11:46
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
53-70-3	Dibenz(a,h)anthracene	2.0	5.0	< 5.0 U
106-46-7	1,4-Dichlorobenzene	1.2	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.9	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	1.3	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	0.96	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.3	5.0	< 5.0 U
84-66-2	**Diethylphthalate**	**3.3**	**5.0**	**4.9 J**
85-68-7	Butylbenzylphthalate	2.9	5.0	< 5.0 U
95-48-7	2-Methylphenol	1.8	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	2.9	20	< 20 U
86-30-6	N-Nitrosodiphenylamine	1.4	20	< 20 U
100-51-6	Benzyl Alcohol	7.0	20	< 20 U
87-86-5	Pentachlorophenol	14	50	< 50 U
95-50-1	1,2-Dichlorobenzene	1.1	5.0	< 5.0 U
541-73-1	1,3-Dichlorobenzene	1.3	5.0	< 5.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	9.5	12	< 12 U
62-75-9	N-Nitrosodimethylamine	3.2	25	< 25 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

2-Fluorophenol	66.5%
d14-p-Terphenyl	83.8%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING

DFTPP Injection Date: 04/29/13 DFTPP Injection Time: 1637

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	16.7
68	Less than 2.0% of mass 69	0.5 (1.6)1
69	Mass 69 relative abundance	32.0
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	44.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.4
365	Greater than 1.0% of mass 198	4.00
441	0.0 - 24.0% of mass 442	16.8 (15.6)2
442	50.0 - 200.0% of mass 198	108.0
443	15.0 - 24.0% of mass 442	20.8 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IC0429A	IC0429A	04/29/13	1653
02		IC0429C	IC0429C	04/29/13	1807
03		IC0429D	IC0429D	04/29/13	1844
04		IC0429F	IC0429F	04/29/13	1957
05		IC0429G	IC0429G	04/29/13	2034
06		IC0429H	IC0429H	04/29/13	2111
07		IC0429I	IC0429I	04/29/13	2147
08					
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20					
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22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

Instrument ID: NT10 Project: NPDES SAMPLING

DFTPP Injection Date: 06/22/13 DFTPP Injection Time: 0936

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	17.8
68	Less than 2.0% of mass 69	0.6 (1.6)1
69	Mass 69 relative abundance	37.1
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	46.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.0
365	Greater than 1.0% of mass 198	3.72
441	0.0 - 24.0% of mass 442	15.5 (15.5)2
442	50.0 - 200.0% of mass 198	99.9
443	15.0 - 24.0% of mass 442	19.3 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		ABN 1	CC0622A	06/22/13	1028
02	WT86MBS1	WT86MBS1	WT86MB	06/22/13	1146
03	WT86LCSS1	WT86LCSS1	WT86SB	06/22/13	1223
04	WT86LCSDS1	WT86LCSDS1	WT86SBD	06/22/13	1259
05	AM-VT-INF-201306	WT81A	WT81A	06/22/13	1413
06	AM-SF4-EFF-20130	WT81B	WT81B	06/22/13	1450
07	AM-SF4-EFF-2013	WT81BMS	WT81BMS	06/22/13	1527
08	AM-SF4-EFF-2013	WT81BMSD	WT81BMSD	06/22/13	1604
09	AM-FD-01-2013061	WT81C	WT81C	06/22/13	1640
10					
11					
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17					
18					
19					
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21					
22					

6B

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Instrument ID: NT10 Calibration Date: 04/29/13

Method = SIM.b/SIMABN2.m
Cal levels = 7

LAB FILE ID: RRF0.05=IC0429F RRF0.1=IC0429H RRF0.2=IC0429C
RRF0.5=IC0429I RRF1 =IC0429D RRF2.5=IC0429G
RRF5 =IC0429A

COMPOUND	RRF 0.05	RRF 0.1	RRF 0.2	RRF 0.5	RRF 1	RRF 2.5	RRF 5	___ RRF	%RSD /R^2
Phenol	2.193	1.937	2.061	1.929	1.947	2.088	1.982	2.020	4.9
1,3-Dichlorobenzene	1.876	1.752	1.728	1.588	1.573	1.595	1.539	1.664	7.4
1,4-Dichlorobenzene	1.919	1.703	1.739	1.578	1.552	1.578	1.529	1.657	8.5
1,2-Dichlorobenzene	1.801	1.618	1.674	1.494	1.476	1.511	1.447	1.574	8.2
Benzyl alcohol	1.014	0.924	0.960	0.916	0.949	1.024	0.993	0.968	4.4
2-Methylphenol	1.595	1.392	1.487	1.364	1.397	1.471	1.401	1.444	5.6
N-Nitroso-di-n-propylamine	0.914	0.806	0.850	0.799	0.801	0.850	0.783	0.829	5.5
4-Methylphenol	1.588	1.377	1.517	1.385	1.444	1.521	1.461	1.470	5.2
2,4-Dimethylphenol	0.406	0.356	0.404	0.372	0.385	0.404	0.385	0.387	4.8
1,2,4-Trichlorobenzene	0.443	0.394	0.409	0.363	0.361	0.366	0.347	0.383	8.8
Hexachlorobutadiene	0.272	0.237	0.244	0.221	0.219	0.226	0.215	0.233	8.5
Dimethylphthalate	1.295	1.185	1.226	1.063	1.108	1.111	1.090	1.154	7.3
Diethylphthalate	1.489	1.226	1.394	1.181	1.282	1.302	1.275	1.307	8.0
N-Nitrosodiphenylamine (1)	0.394	0.383	0.485	0.433	0.463	0.459	0.453	0.438	8.5
Hexachlorobenzene	0.376	0.301	0.330	0.268	0.276	0.273	0.274	0.300	13.4
Pentachlorophenol	0.145	0.138	0.182	0.166	0.190	0.205	0.220	0.178	17.1
Butylbenzylphthalate	0.361	0.291	0.415	0.320	0.389	0.402	0.419	0.371	13.3
Dibenzo(a,h)anthracene	0.974	0.783	0.989	0.789	0.879	0.896	0.932	0.892	9.2
N-Nitrosodimethylamine	0.902	0.860	0.851	0.863	0.840	0.902	0.815	0.862	3.7
2-Fluorophenol	1.520	1.352	1.446	1.312	1.367	1.434	1.396	1.404	4.9
Terphenyl-d14	0.565	0.465	0.538	0.444	0.480	0.471	0.478	0.492	8.8

(1) Cannot be seperated from Diphenylamine
<- Outside QC limits: %RSD <20% or R^2 > 0.990

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC — Client: SAIC

ARI Job No: WT81 — Project: NPDES SAMPLING

Instrument ID: NT10 — Cont. Calib. Date: 06/22/13

Init. Calib. Date: 04/29/13 — Cont. Calib. Time: 1028

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Phenol	2.020	2.016	0.800	AVRG	-0.2	
1,3-Dichlorobenzene	1.664	1.545	0.010	AVRG	-7.2	
1,4-Dichlorobenzene	1.657	1.569	0.010	AVRG	-5.3	
1,2-Dichlorobenzene	1.574	1.478	0.010	AVRG	-6.1	
Benzyl alcohol	0.968	0.952	0.010	AVRG	-1.6	
2-Methylphenol	1.444	1.476	0.700	AVRG	2.2	
N-Nitroso-di-n-propylamine	0.829	0.863	0.500	AVRG	4.1	
4-Methylphenol	1.470	1.516	0.600	AVRG	3.1	
2,4-Dimethylphenol	0.387	0.377	0.200	AVRG	-2.6	
1,2,4-Trichlorobenzene	0.383	0.373	0.010	AVRG	-2.6	
Hexachlorobutadiene	0.233	0.222	0.010	AVRG	-4.7	
Dimethylphthalate	1.154	1.189	0.010	AVRG	3.0	
Diethylphthalate	1.307	1.321	0.010	AVRG	1.1	
N-Nitrosodiphenylamine(1)	0.438	0.481	0.010	AVRG	9.8	
Hexachlorobenzene	0.300	0.294	0.100	AVRG	-2.0	
Pentachlorophenol	0.178	0.141	0.050	AVRG	-20.8	<-
Butylbenzylphthalate	0.371	0.471	0.010	AVRG	27.0	<-
Dibenzo(a,h)anthracene	0.892	0.974	0.400	AVRG	9.2	
N-Nitrosodimethylamine	0.862	0.808	0.010	AVRG	-6.3	
2-Fluorophenol	1.405	1.409	0.010	AVRG	0.3	
Terphenyl-d14	0.492	0.492	0.010	AVRG	0.0	

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: SAIC

ARI Job No: WT81 | Project: NPDES SAMPLING

Ical Midpoint ID: IC0429D | Ical Date: 04/29/13

Instrument ID: NT10 | Cont. Cal Date: 06/22/13

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	52658	8.98	192325	11.65	109274	15.54
	UPPER LIMIT	105316		384650		218548	
	LOWER LIMIT	26329		96162		54637	
	CCAL	63619	7.44	228376	10.01	125562	13.81
	UPPER LIMIT		7.94		10.51		14.31
	LOWER LIMIT		6.94		9.51		13.31
01	WT86MBS1	53971	7.44	206146	10.01	110128	13.81
02	WT86LCSS1	50093	7.44	177434	10.01	96973	13.81
03	WT86LCSDS1	48730	7.44	176155	10.01	95436	13.81
04	AM-VT-INF-20	42650	7.44	159870	10.02	82371	13.82
05	AM-SF4-EFF-2	45255	7.44	173065	10.02	93983	13.81
06	AM-SF4-EFF-2	41787	7.44	154986	10.02	87105	13.82
07	AM-SF4-EFF-2	41646	7.44	155037	10.02	87980	13.82
08	AM-FD-01-201	42575	7.44	164493	10.02	91060	13.82
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No: WT81 Project: NPDES SAMPLING

Ical Midpoint ID: IC0429D Ical Date: 04/29/13

Instrument ID: NT10 Cont. Cal Date: 06/22/13

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	ICAL MIDPT	203933	18.82	223647	23.90	211919	26.35
	UPPER LIMIT	407866		447294		423838	
	LOWER LIMIT	101966		111824		105960	
	CCAL	231861	17.01	244012	22.31	227962	24.59
	UPPER LIMIT		17.51		22.81		25.09
	LOWER LIMIT		16.51		21.81		24.09
01	WT86MBS1	205895	17.00	219362	22.30	192041	24.58
02	WT86LCSS1	178031	17.01	198854	22.30	175517	24.59
03	WT86LCSDS1	174099	17.01	193256	22.30	173994	24.59
04	AM-VT-INF-20	141427	17.03	162695	22.38	149144	24.68
05	AM-SF4-EFF-2	158076	17.04	178236	22.39	151359	24.71
06	AM-SF4-EFF-2	146284	17.04	167819	22.39	135182	24.72
07	AM-SF4-EFF-2	150675	17.04	168822	22.39	124389	24.72
08	AM-FD-01-201	158354	17.04	168541	22.39	124651	24.71
09							
10							
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21							
22							
23							
24							
25							

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

Dioxin Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-VT-INF-20130612-S**

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 16:16
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.73	0.65-0.89		0.985	1.97	
2,3,7,8-TCDD	0.32	0.65-0.89		0.985	0.463	JEMPC
1,2,3,7,8-PeCDF	1.46	1.32-1.78		0.985	1.99	
2,3,4,7,8-PeCDF	1.49	1.32-1.78		0.985	3.69	
1,2,3,7,8-PeCDD	1.40	1.32-1.78		0.985	1.39	
1,2,3,4,7,8-HxCDF	1.28	1.05-1.43		0.985	9.67	
1,2,3,6,7,8-HxCDF	1.21	1.05-1.43		0.985	3.93	
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43		0.985	5.74	
1,2,3,7,8,9-HxCDF	1.22	1.05-1.43		0.985	2.03	
1,2,3,4,7,8-HxCDD	1.25	1.05-1.43		0.985	1.91	
1,2,3,6,7,8-HxCDD	1.19	1.05-1.43		0.985	8.29	
1,2,3,7,8,9-HxCDD	1.23	1.05-1.43		0.985	4.68	
1,2,3,4,6,7,8-HpCDF	1.00	0.88-1.20		0.985	54.4	
1,2,3,4,7,8,9-HpCDF	1.03	0.88-1.20		0.985	4.85	
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		0.985	187	
OCDF	0.87	0.76-1.02		1.97	152	
OCDD	0.87	0.76-1.02		1.97	2,690	

Homologue Group	EDL	RL	Result	
Total TCDF		0.985	46.3	EMPC
Total TCDD		0.985	6.71	EMPC
Total PeCDF		1.97	54.2	EMPC
Total PeCDD		0.985	12.3	EMPC
Total HxCDF		1.97	104	EMPC
Total HxCDD		1.97	58.4	EMPC
Total HpCDF		1.97	165	EMPC
Total HpCDD		1.97	396	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 10.2

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 10.2

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-VT-INF-20130612-S**

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 16:16
Instrument/Analyst: AS1/PK

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.77	0.65-0.89	26.2	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	40.6	25-164	
13C-1,2,3,7,8-PeCDF	1.53	1.32-1.78	56.3	24-185	
13C-2,3,4,7,8-PeCDF	1.54	1.32-1.78	55.7	21-178	
13C-1,2,3,7,8-PeCDD	1.54	1.32-1.78	61.7	25-181	
13C-1,2,3,4,7,8-HxCDF	0.50	0.43-0.59	61.4	26-152	
13C-1,2,3,6,7,8-HxCDF	0.51	0.43-0.59	58.9	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	58.3	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	62.3	29-147	
13C-1,2,3,4,7,8-HxCDD	1.24	1.05-1.43	62.4	32-141	
13C-1,2,3,6,7,8-HxCDD	1.23	1.05-1.43	57.0	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	42.1	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	44.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20	44.0	23-140	
13C-OCDD	0.89	0.76-1.02	25.6	17-157	
37Cl4-2,3,7,8-TCDD			48.7	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-SF4-EFF-20130612-S**

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 17:09
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.69	0.65-0.89		0.989	1.44	
2,3,7,8-TCDD	0.49	0.65-0.89		0.989	0.944	JEMPC
1,2,3,7,8-PeCDF	1.41	1.32-1.78		0.989	1.42	
2,3,4,7,8-PeCDF	1.86	1.32-1.78		0.989	2.20	EMPC
1,2,3,7,8-PeCDD	1.34	1.32-1.78		0.989	2.72	
1,2,3,4,7,8-HxCDF	1.20	1.05-1.43		0.989	7.77	
1,2,3,6,7,8-HxCDF	1.15	1.05-1.43		0.989	4.43	
2,3,4,6,7,8-HxCDF	1.26	1.05-1.43		0.989	6.48	
1,2,3,7,8,9-HxCDF	1.18	1.05-1.43		0.989	1.95	
1,2,3,4,7,8-HxCDD	1.18	1.05-1.43		0.989	4.52	
1,2,3,6,7,8-HxCDD	1.22	1.05-1.43		0.989	19.0	
1,2,3,7,8,9-HxCDD	1.27	1.05-1.43		0.989	9.86	
1,2,3,4,6,7,8-HpCDF	1.02	0.88-1.20		0.989	114	
1,2,3,4,7,8,9-HpCDF	1.01	0.88-1.20		0.989	8.75	
1,2,3,4,6,7,8-HpCDD	1.03	0.88-1.20		0.989	552	
OCDF	0.87	0.76-1.02		1.98	434	
OCDD	0.87	0.76-1.02		1.98	5,680	E

Homologue Group	EDL	RL	Result	
Total TCDF		0.989	20.6	EMPC
Total TCDD		0.989	6.56	EMPC
Total PeCDF		1.98	43.8	EMPC
Total PeCDD		0.989	17.2	EMPC
Total HxCDF		1.98	159	EMPC
Total HxCDD		1.98	178	EMPC
Total HpCDF		1.98	361	
Total HpCDD		1.98	1,660	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 18.5

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 18.5

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-SF4-EFF-20130612-S**
Page 1 of 1

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 17:09
Instrument/Analyst: AS1/PK

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.75	0.65-0.89	17.9	24-169	*
13C-2,3,7,8-TCDD	0.77	0.65-0.89	32.1	25-164	
13C-1,2,3,7,8-PeCDF	1.54	1.32-1.78	49.9	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	47.9	21-178	
13C-1,2,3,7,8-PeCDD	1.53	1.32-1.78	56.7	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	68.7	26-152	
13C-1,2,3,6,7,8-HxCDF	0.52	0.43-0.59	67.9	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	66.8	28-136	
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	69.6	29-147	
13C-1,2,3,4,7,8-HxCDD	1.24	1.05-1.43	71.0	32-141	
13C-1,2,3,6,7,8-HxCDD	1.21	1.05-1.43	66.1	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.43	0.37-0.51	45.1	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.45	0.37-0.51	45.9	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20	46.5	23-140	
13C-OCDD	0.89	0.76-1.02	25.6	17-157	
37Cl4-2,3,7,8-TCDD			37.6	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-FD-01-20130612-S**

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 18:01
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF	0.77	0.65-0.89		0.992	1.16	
2,3,7,8-TCDD	0.59	0.65-0.89		0.992	0.883	JEMPC
1,2,3,7,8-PeCDF	1.57	1.32-1.78		0.992	1.33	
2,3,4,7,8-PeCDF	1.26	1.32-1.78		0.992	1.87	EMPC
1,2,3,7,8-PeCDD	1.52	1.32-1.78		0.992	2.62	
1,2,3,4,7,8-HxCDF	1.21	1.05-1.43		0.992	7.30	
1,2,3,6,7,8-HxCDF	1.22	1.05-1.43		0.992	4.32	
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43		0.992	6.55	
1,2,3,7,8,9-HxCDF	1.34	1.05-1.43		0.992	1.99	
1,2,3,4,7,8-HxCDD	1.31	1.05-1.43		0.992	4.31	
1,2,3,6,7,8-HxCDD	1.23	1.05-1.43		0.992	19.5	
1,2,3,7,8,9-HxCDD	1.15	1.05-1.43		0.992	10.0	
1,2,3,4,6,7,8-HpCDF	1.01	0.88-1.20		0.992	115	
1,2,3,4,7,8,9-HpCDF	1.05	0.88-1.20		0.992	7.90	
1,2,3,4,6,7,8-HpCDD	1.02	0.88-1.20		0.992	543	
OCDF	0.88	0.76-1.02		1.98	431	
OCDD	0.88	0.76-1.02		1.98	5,300	E

Homologue Group	EDL	RL	Result	
Total TCDF		0.992	21.3	EMPC
Total TCDD		0.992	7.93	EMPC
Total PeCDF		1.98	46.8	EMPC
Total PeCDD		0.992	17.2	EMPC
Total HxCDF		1.98	158	
Total HxCDD		1.98	175	
Total HpCDF		1.98	361	EMPC
Total HpCDD		1.98	1,620	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 18.0

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 18.0

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: AM-FD-01-20130612-S**

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/26/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 18:01
Instrument/Analyst: AS1/PK

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.76	0.65-0.89	31.1	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	44.0	25-164	
13C-1,2,3,7,8-PeCDF	1.54	1.32-1.78	57.6	24-185	
13C-2,3,4,7,8-PeCDF	1.55	1.32-1.78	55.9	21-178	
13C-1,2,3,7,8-PeCDD	1.54	1.32-1.78	64.3	25-181	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	70.5	26-152	
13C-1,2,3,6,7,8-HxCDF	0.51	0.43-0.59	70.3	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	69.2	28-136	
13C-1,2,3,7,8,9-HxCDF	0.51	0.43-0.59	73.8	29-147	
13C-1,2,3,4,7,8-HxCDD	1.27	1.05-1.43	72.5	32-141	
13C-1,2,3,6,7,8-HxCDD	1.22	1.05-1.43	68.5	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.44	0.37-0.51	50.4	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.43	0.37-0.51	52.1	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.05	0.88-1.20	52.5	23-140	
13C-OCDD	0.88	0.76-1.02	30.6	17-157	
37Cl4-2,3,7,8-TCDD			48.4	35-197	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-061913**

Lab Sample ID: OPR-061913
LIMS ID: 13-12076
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WS91-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 13:38
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	RL	Result
2,3,7,8-TCDF	0.76	0.65-0.89	1.00	23.0
2,3,7,8-TCDD	0.73	0.65-0.89	1.00	21.7
1,2,3,7,8-PeCDF	1.54	1.32-1.78	1.00	107
2,3,4,7,8-PeCDF	1.48	1.32-1.78	1.00	105
1,2,3,7,8-PeCDD	1.53	1.32-1.78	1.00	104
1,2,3,4,7,8-HxCDF	1.24	1.05-1.43	1.00	106
1,2,3,6,7,8-HxCDF	1.25	1.05-1.43	1.00	106
2,3,4,6,7,8-HxCDF	1.19	1.05-1.43	1.00	108
1,2,3,7,8,9-HxCDF	1.19	1.05-1.43	1.00	108
1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	1.00	104
1,2,3,6,7,8-HxCDD	1.28	1.05-1.43	1.00	106
1,2,3,7,8,9-HxCDD	1.22	1.05-1.43	1.00	106
1,2,3,4,6,7,8-HpCDF	1.03	0.88-1.20	1.00	143
1,2,3,4,7,8,9-HpCDF	1.00	0.88-1.20	1.00	109
1,2,3,4,6,7,8-HpCDD	1.00	0.88-1.20	1.00	109
OCDF	0.89	0.76-1.02	2.00	199
OCDD	0.87	0.76-1.02	2.00	219

Homologue Group	EDL	RL	Result	
Total TCDF		1.00	28.9	EMPC
Total TCDD		1.00	22.9	EMPC
Total PeCDF		2.00	227	EMPC
Total PeCDD		1.00	105	EMPC
Total HxCDF		2.00	433	EMPC
Total HxCDD		2.00	316	
Total HpCDF		2.00	254	EMPC
Total HpCDD		2.00	111	

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-061913**

Lab Sample ID: OPR-061913 QC Report No: WS91-SAIC
LIMS ID: 13-12076 Project: NPDES Sampling Support
Matrix: Sediment 209977
Data Release Authorized: MW Date Sampled: NA
Reported: 06/26/13 Date Received: NA

Date Extracted: 06/19/13 Sample Amount: 10.0 g-dry-wt
Date Analyzed: 06/24/13 13:38 Final Extract Volume: 20 uL
Instrument/Analyst: AS1/PK Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.76	0.65-0.89	72.0	22-152	
13C-2,3,7,8-TCDD	0.78	0.65-0.89	73.2	20-175	
13C-1,2,3,7,8-PeCDF	1.52	1.32-1.78	90.2	21-192	
13C-2,3,4,7,8-PeCDF	1.54	1.32-1.78	71.7	13-328	
13C-1,2,3,7,8-PeCDD	1.55	1.32-1.78	78.4	21-227	
13C-1,2,3,4,7,8-HxCDF	0.51	0.43-0.59	77.0	19-202	
13C-1,2,3,6,7,8-HxCDF	0.51	0.43-0.59	84.4	21-159	
13C-2,3,4,6,7,8-HxCDF	0.50	0.43-0.59	76.0	22-176	
13C-1,2,3,7,8,9-HxCDF	0.50	0.43-0.59	69.7	17-205	
13C-1,2,3,4,7,8-HxCDD	1.25	1.05-1.43	86.6	21-193	
13C-1,2,3,6,7,8-HxCDD	1.20	1.05-1.43	84.2	25-163	
13C-1,2,3,4,6,7,8-HpCDF	0.45	0.37-0.51	72.4	21-158	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	72.9	20-186	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	86.2	26-166	
13C-OCDD	0.86	0.76-1.02	71.3	13-198	
37Cl4-2,3,7,8-TCDD			75.6	31-191	

Reported in Percent Recovery

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: OPR-061913**

Lab Sample ID: OPR-061913
LIMS ID: 13-12076
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WS91-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 13:38
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	OPR	Spiked	Recovery	Limits
2,3,7,8-TCDF	23.0	20.0	115	75-158
2,3,7,8-TCDD	21.7	20.0	108	67-158
1,2,3,7,8-PeCDF	107	100	107	80-134
2,3,4,7,8-PeCDF	105	100	105	68-160
1,2,3,7,8-PeCDD	104	100	104	70-142
1,2,3,4,7,8-HxCDF	106	100	106	72-134
1,2,3,6,7,8-HxCDF	106	100	106	84-130
2,3,4,6,7,8-HxCDF	108	100	108	70-156
1,2,3,7,8,9-HxCDF	108	100	108	78-130
1,2,3,4,7,8-HxCDD	104	100	104	70-164
1,2,3,6,7,8-HxCDD	106	100	106	76-134
1,2,3,7,8,9-HxCDD	106	100	106	64-162
1,2,3,4,6,7,8-HpCDF	143	100	143	82-132
1,2,3,4,7,8,9-HpCDF	109	100	109	78-138
1,2,3,4,6,7,8-HpCDD	109	100	109	70-140
OCDF	199	200	99.5	63-170
OCDD	219	200	110	78-144

Reported in pg/g

4DF - FORM IV-HR CDD
CDD/CDF METHOD BLANK SUMMARY
HIGH RESOLUTION

Blank No.
WS91MB

Lab Name: ANALYTICAL RESOURCES, INC.
Contract: SAIC
Lab Code: WS91
Project: NPDES
Matrix: (Soil/Water/Ash/Tissue/Oil) SOIL
Lab Sample ID: WS91MBS
Sample wt/vol: 10 (g/ml) g
Lab File ID: 13062405
Water Sample Prep: (sep/spe)
Date Received: 05-JUN-13
GC Column: RTX-DIOXIN2 ID: 0.25 mm
Date Extracted: 19-JUN-13
Instrument ID: AUTOSPEC1
Date Analyzed: 24-JUN-13

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
WS91OPR	WS91OPR	13062406	06/24/13
CL-MH-20130605-2	WS91A	13062407	06/24/13
AM-VT-INF-20130612-S	WT81A	13062409	06/24/13
AM-SF4-EFF-20130612-S	WT81B	13062410	06/24/13
AM-DUP-01-20130612-S	WT81C	13062411	06/24/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B
Page 1 of 1

Sample ID: MB-061913

Lab Sample ID: MB-061913
LIMS ID: 13-12076
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WS91-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 12:48
Instrument/Analyst: AS1/PK
Acid Cleanup: Yes
Silica-Carbon Cleanup: No

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00
Silica-Florisil Cleanup: Yes

Analyte	Ion Ratio	Ratio Limits	EDL	RL	Result	
2,3,7,8-TCDF		0.65-0.89	0.0600	1.00	< 0.0600	U
2,3,7,8-TCDD		0.65-0.89	0.0740	1.00	< 0.0740	U
1,2,3,7,8-PeCDF		1.32-1.78	0.0660	1.00	< 0.0660	U
2,3,4,7,8-PeCDF		1.32-1.78	0.0780	1.00	< 0.0780	U
1,2,3,7,8-PeCDD		1.32-1.78	0.0620	1.00	< 0.0620	U
1,2,3,4,7,8-HxCDF		1.05-1.43	0.0460	1.00	< 0.0460	U
1,2,3,6,7,8-HxCDF		1.05-1.43	0.0420	1.00	< 0.0420	U
2,3,4,6,7,8-HxCDF	0.89	1.05-1.43		1.00	0.0440	JEMPC
1,2,3,7,8,9-HxCDF	3.04	1.05-1.43		1.00	0.0860	JEMPC
1,2,3,4,7,8-HxCDD		1.05-1.43	0.0760	1.00	< 0.0760	U
1,2,3,6,7,8-HxCDD		1.05-1.43	0.0820	1.00	< 0.0820	U
1,2,3,7,8,9-HxCDD		1.05-1.43	0.0860	1.00	< 0.0860	U
1,2,3,4,6,7,8-HpCDF		0.88-1.20	0.0500	1.00	< 0.0500	U
1,2,3,4,7,8,9-HpCDF		0.88-1.20	0.0760	1.00	< 0.0760	U
1,2,3,4,6,7,8-HpCDD	1.42	0.88-1.20		1.00	0.146	JEMPC
OCDF		0.76-1.02	0.182	2.00	< 0.182	U
OCDD	0.54	0.76-1.02		2.00	0.346	JEMPC

Homologue Group	EDL	RL	Result	
Total TCDF	0.0600	1.00	< 0.0600	U
Total TCDD	0.0740	1.00	0.233	EMPC
Total PeCDF	0.0780	2.00	< 0.0780	U
Total PeCDD	0.0620	1.00	0.218	EMPC
Total HxCDF		2.00	0.130	EMPC
Total HxCDD	0.0860	2.00	0.493	EMPC
Total HpCDF	0.0760	2.00	< 0.0760	U
Total HpCDD		2.00	0.278	EMPC

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.01

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.12

Reported in pg/g

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Dioxins/Furans by EPA 1613B **Sample ID: MB-061913**

Lab Sample ID: MB-061913
LIMS ID: 13-12076
Matrix: Sediment
Data Release Authorized: MW
Reported: 06/26/13

QC Report No: WS91-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/19/13
Date Analyzed: 06/24/13 12:48
Instrument/Analyst: AS1/PK

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 20 uL
Dilution Factor: 1.00

Analyte	Ion Ratio	Ratio Limits	Result	Limits	Exceedance
13C-2,3,7,8-TCDF	0.76	0.65-0.89	89.2	24-169	
13C-2,3,7,8-TCDD	0.77	0.65-0.89	89.0	25-164	
13C-1,2,3,7,8-PeCDF	1.57	1.32-1.78	100	24-185	
13C-2,3,4,7,8-PeCDF	1.56	1.32-1.78	84.6	21-178	
13C-1,2,3,7,8-PeCDD	1.54	1.32-1.78	91.8	25-181	
13C-1,2,3,4,7,8-HxCDF	0.52	0.43-0.59	83.0	26-152	
13C-1,2,3,6,7,8-HxCDF	0.51	0.43-0.59	88.3	26-123	
13C-2,3,4,6,7,8-HxCDF	0.51	0.43-0.59	83.0	28-136	
13C-1,2,3,7,8,9-HxCDF	0.52	0.43-0.59	78.4	29-147	
13C-1,2,3,4,7,8-HxCDD	1.24	1.05-1.43	93.0	32-141	
13C-1,2,3,6,7,8-HxCDD	1.23	1.05-1.43	89.3	28-130	
13C-1,2,3,4,6,7,8-HpCDF	0.42	0.37-0.51	78.9	28-143	
13C-1,2,3,4,7,8,9-HpCDF	0.44	0.37-0.51	82.6	26-138	
13C-1,2,3,4,6,7,8-HpCDD	1.04	0.88-1.20	91.6	23-140	
13C-OCDD	0.89	0.76-1.02	75.0	17-157	
37Cl4-2,3,7,8-TCDD			91.3	35-197	

Reported in Percent Recovery

5DFA - FORM V-HR CDD-1
CDD/CDF WINDOW DEFINING MIX (WDM) SUMMARY
HIGH RESOLUTION

Standard No.: CS3

Lab Name: ANALYTICAL RESOURCES, INC. Contract: SAIC

Lab Code: WS91 Project: NPDES

GC Column: RTX-DIOXIN2 ID: 0.25 mm Lab File ID: 13062402

Instrument ID: AUTOSPEC1 Date Analyzed: 24-JUN-13

Time Analyzed: 0956

CDD/CDF	RT First Eluting	RT Last Eluting
TCDD	24.36	27.83
TCDF	23.08	28.10
PeCDD	29.61	32.74
PeCDF	27.93	33.13
HxCDD	34.83	37.54
HxCDF	34.04	37.96
HpCDD	40.64	41.94
HpCDF	40.07	42.86

5DFB - FORM V-HR CDD-2
CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
HIGH RESOLUTION

Standard No.

TETRA ISC

Lab Name: ANALYTICAL RESOURCES, INC.
Lab Code: WS91
GC Column: RTX-DIOXIN2 ID: .25 mm
Instrument: AUTOSPEC1

Contract: SAIC
Project: NPDES
Lab File ID: 13062403
Date Analyzed: 24-JUN-13
Time Analyzed: 1047

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

1278-TCDD/2378-TCDD: 17.9

Quality Control (QC) Limits:
Percent Valley between the TCDD isomers must be less than or equal to 25%

Percent Valley determination for RTX-DIOXIN2 column -
For the column performance solution beginning 12-hour period:

3467-TCDF/2378-TCDF: 12.0

QC Limits:
Percent Valley between the TCDD/TCDF isomers must be less than or equal to 25%

5DFB - FORM V-HR CDD-3
CDD/CDF ANALTYICAL SEQUENCE SUMMARY
HIGH RESOLUTION

Lab Name: ANALYTICAL RESOURCES, INC. Contract: SAIC

Lab Code: WS91 Project: NPDES

GC Column: RTX-DIOXIN2 ID: 0.25 mm Instrument ID: AUTOSPEC1

Init. Calib. Date(s): 20-JUN-13

Init: Calib. Times: 12:34 to 17:10

The Analytical Sequence of standards, samples, blanks, and Laboratory Control Samples (LCS) is as follows:

Client Sample No.	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
CS3	CS3	13062402	06/24/13	0956
ISC01	ISC	13062403	06/24/13	1047
WS91MB	WS91MBS	13062405	06/24/13	1248
WS91OPR	WS91OPR	13062406	06/24/13	1338
CL-MH-20130605-2	WS91A	13062407	06/24/13	1433
AM-VT-INF-20130612-S	WT81A	13062409	06/24/13	1616
AM-SF4-EFF-20130612-S	WT81B	13062410	06/24/13	1709
AM-DUP-01-20130612-S	WT81C	13062411	06/24/13	1801
CS3	CS3	13062414	06/24/13	2038

6DFA - Form VI-HR CDD-1

CDD/CDF INITIAL CALIBRATION RESPONSE FACTOR SUMMARY

HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WS91	Case No.:	NPDES
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm).	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	20-Jun-13	Init.Calib.Time CSL:	12:34:03
Init.Calib.Date CS1:	20-Jun-13	Init.Calib.Time CS1:	13:43:04
Init.Calib.Date CS2:	20-Jun-13	Init.Calib.Time CS2:	14:33:31
Init.Calib.Date CS3:	20-Jun-13	Init.Calib.Time CS3:	15:25:46
Init.Calib.Date CS4:	20-Jun-13	Init.Calib.Time CS4:	16:18:06
Init.Calib.Date CS5:	20-Jun-13	Init.Calib.Time CS5:	17:10:20

Target Analytes	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
2378-TCDD	0.00	1.01	0.89	0.91	0.93	0.94	0.94	4.8	20.0
2378-TCDF	0.00	0.78	0.75	0.79	0.76	0.77	0.77	2.0	20.0
12378-PeCDF	0.81	0.81	0.79	0.85	0.81	0.81	0.81	2.3	20.0
12378-PeCDD	0.95	0.92	0.86	0.87	0.88	0.89	0.89	3.6	20.0
23478-PeCDF	0.87	0.85	0.80	0.84	0.83	0.83	0.84	2.6	20.0
123478-HxCDF	1.02	0.96	0.95	0.95	0.96	0.96	0.97	2.6	20.0
123678-HxCDF	0.97	0.98	0.92	0.96	0.92	0.96	0.95	2.6	20.0
123478-HxCDD	0.94	0.96	0.87	0.87	0.87	0.88	0.90	4.7	20.0
123678-HxCDD	0.76	0.85	0.81	0.84	0.80	0.83	0.82	4.0	20.0
123789-HxCDD[2]	0.74	0.80	0.79	0.80	0.80	0.80	0.79	3.0	20.0
234678-HxCDF	0.90	1.03	0.99	1.06	1.00	1.02	1.00	5.4	20.0
123789-HxCDF	0.77	0.89	0.86	0.92	0.90	0.91	0.87	6.5	20.0
1234678-HpCDF	0.89	1.12	1.08	1.14	1.08	1.12	1.07	8.5	20.0
1234678-HpCDD	0.80	0.87	0.87	0.92	0.92	0.90	0.88	4.8	20.0
1234789-HpCDF	1.01	1.10	1.04	1.15	1.09	1.13	1.09	4.7	20.0
OCDD	0.85	0.84	0.87	0.88	0.90	0.91	0.88	3.0	20.0
OCDF[1]	0.82	0.83	0.85	0.93	0.91	0.93	0.88	5.8	20.0
37CL-2378-TCDD	1.07	1.02	0.91	0.95	1.00	1.04	1.00	5.8	20.0

(1) The Relative Response (RR) is calculated based on the labeled analogs of the other two HxCDDs.
(2) The RR is calculated based on the labeled analog of OCDD.

Labeled Compounds	RR/RRF						Mean RR/RRF	% RSD	Limits (% +/-)
	CSL	CS1	CS2	CS3	CS4	CS5			
13C-2378-TCDD	0.91	0.91	0.91	0.92	0.92	0.95	0.92	2.0	35.0
13C-12378-PeCDD	0.65	0.64	0.63	0.65	0.69	0.75	0.67	6.5	35.0
13C-123478-HxCDD	1.00	1.02	1.02	1.06	1.03	1.05	1.03	2.0	35.0
13C-123678-HxCDD	1.14	1.17	1.13	1.17	1.15	1.13	1.15	1.7	35.0
13C-1234678-HpCDD	0.76	0.78	0.80	0.77	0.81	0.81	0.79	2.6	35.0
13C-OCDD	0.65	0.67	0.69	0.65	0.75	0.77	0.70	7.5	35.0
13C-2378-TCDF	1.19	1.19	1.17	1.19	1.20	1.20	1.19	0.9	35.0
13C-12378-PeCDF	0.87	0.90	0.86	0.89	0.92	0.98	0.90	4.7	35.0
13C-23478-PeCDF	0.85	0.87	0.84	0.86	0.89	0.96	0.88	4.9	35.0
13C-123478-HxCDF	1.05	1.14	1.08	1.17	1.07	1.07	1.10	4.2	35.0
13C-123678-HxCDF	1.16	1.22	1.20	1.24	1.17	1.13	1.19	3.5	35.0
13C-234678-HxCDF	1.07	1.08	1.02	1.05	1.02	1.00	1.04	3.1	35.0
13C-123789-HxCDF	0.90	0.98	0.96	0.94	0.95	0.92	0.94	2.9	35.0
13C-1234678-HpCDF	0.80	0.85	0.82	0.83	0.83	0.81	0.83	2.4	35.0
13C-1234789-HpCDF	0.58	0.62	0.61	0.60	0.63	0.61	0.61	2.9	35.0

6DFB - Form VI-HR CDD-2

CDD/CDF INITIAL CALIBRATION ION ABUNDANCE RATIO SUMMARY

HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WS91	Case No.:	NPDES
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1		
Init.Calib.Date CSL:	20-Jun-13	Init.Calib.Time CSL:	12:34:03
Init.Calib.Date CS1:	20-Jun-13	Init.Calib.Time CS1:	13:43:04
Init.Calib.Date CS2:	20-Jun-13	Init.Calib.Time CS2:	14:33:31
Init.Calib.Date CS3:	20-Jun-13	Init.Calib.Time CS3:	15:25:46
Init.Calib.Date CS4:	20-Jun-13	Init.Calib.Time CS4:	16:18:06
Init.Calib.Date CS5:	20-Jun-13	Init.Calib.Time CS5:	17:10:20

Target Analytes	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits#
		CSL	CS1	CS2	CS3	CS4	CS5		
2378-TCDD	320/322	0.00	0.79	0.81	0.77	0.76	0.75		0.65 - 0.89
2378-TCDF	304/306	0.00	0.74	0.77	0.72	0.72	0.74		0.65 - 0.89
12378-PeCDF	340/342	1.34	1.68	1.50	1.53	1.50	1.49		1.32 - 1.78
12378-PeCDD	356/358	1.68	1.46	1.45	1.53	1.49	1.51		1.32 - 1.78
23478-PeCDF	340/342	1.66	1.59	1.47	1.50	1.50	1.49		1.32 - 1.78
123478-HxCDF	374/376	1.30	1.16	1.26	1.21	1.21	1.21		1.05 - 1.43
123678-HxCDF	374/376	1.26	1.27	1.25	1.22	1.20	1.20		1.05 - 1.43
123478-HxCDD	390/392	1.42	1.31	1.27	1.24	1.22	1.22		1.05 - 1.43
123678-HxCDD	390/392	1.34	1.26	1.20	1.20	1.22	1.21		1.05 - 1.43
123789-HxCDD	390/392	1.38	1.18	1.19	1.23	1.24	1.22		1.05 - 1.43
234678-HxCDF	374/376	1.31	1.32	1.18	1.23	1.20	1.20		1.05 - 1.43
123789-HxCDF	374/376	1.33	1.19	1.25	1.24	1.16	1.20		1.05 - 1.43
1234678-HpCDF	408/410	1.06	1.04	1.02	1.00	1.00	1.00		0.89 - 1.21
1234678-HpCDD	424/426	0.98	1.00	1.04	1.02	1.02	1.01		0.89 - 1.21
1234789-HpCDF	408/410	0.93	0.99	0.94	1.02	0.97	0.98		0.89 - 1.21
OCDD	458/460	0.83	1.00	0.87	0.88	0.87	0.86		0.76 - 1.02
OCDF	442/444	0.90	0.88	0.86	0.89	0.90	0.88		0.76 - 1.02

Labeled Compounds	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-2378-TCDD	332/334	0.78	0.77	0.76	0.78	0.78	0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	1.56	1.56	1.58	1.53	1.52	1.53		1.32 - 1.78
13C-123478-HxCDD	402/404	1.22	1.20	1.28	1.24	1.23	1.25		1.05 - 1.43
13C-123678-HxCDD	402/404	1.26	1.20	1.22	1.18	1.22	1.24		1.05 - 1.43
13C-1234678-HpCDD	436/438	1.04	1.00	1.04	1.04	1.01	1.05		0.89 - 1.21
13C-OCDD	470/472	0.87	0.89	0.90	0.88	0.89	0.88		0.76 - 1.02
13C-2378-TCDF	316/318	0.76	0.76	0.76	0.76	0.75	0.76		0.65 - 0.89
13C-12378-PeCDF	352/354	1.50	1.54	1.54	1.54	1.50	1.55		1.32 - 1.78
13C-23478-PeCDF	352/354	1.55	1.54	1.53	1.55	1.54	1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	0.50	0.50	0.50	0.51	0.51	0.51		0.43 - 0.59
13C-123678-HxCDF	384/386	0.50	0.51	0.52	0.53	0.51	0.51		0.43 - 0.59
13C-234678-HxCDF	384/386	0.50	0.50	0.50	0.51	0.52	0.51		0.43 - 0.59
13C-123789-HxCDF	384/386	0.49	0.51	0.49	0.52	0.51	0.51		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.43	0.43	0.41	0.44	0.43	0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.42	0.43	0.44	0.43	0.43	0.44		0.37 - 0.51

Internal Standards	Selected Ions	Ion Abundance Ratio						Ratio Flag	Ion Ratio QC Limits
		CSL	CS1	CS2	CS3	CS4	CS5		
13C-1234-TCDD	332/334	0.77	0.78	0.78	0.78	0.78	0.79		0.65 - 0.89
13C-123789-HxCDD	402/404	1.24	1.22	1.21	1.24	1.22	1.21		1.05 - 1.43

(#) Quality Control (QC) limits represent ±15% window around the theoretical ion abundance ratio. The laboratory must flag any analyte in any calibration solution which does not meet the ion abundance ratio QC limit by placing an asterisk in the flag column.

7DFA - Form VII-HR CDD-1

CDD/CDF CONTINUING CALIBRATION SUMMARY

HIGH RESOLUTION

Lab Name	ANALYTICAL RESOURCES, INC.	Contract.	SAIC
Lab Code	WS91	Case No	NPDES
TO No..		SDG No..	
GC Column	RTX-DIOXIN2	ID (mm)	.25
Instrument ID	AUTOSPEC1	Lab File ID	13062402
Date Analysed	24-Jun-13	Time Analysed	09:56:39
Init Calib.Date:	20-JUN-13	Init Calib.Time:	12 34

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.94	0.94	0.3		0.77		0.65 - 0.89
2378-TCDF	304/306	0.80	0.77	3 2		0.74		0.65 - 0.89
12378-PeCDF	340/342	0.81	0.81	-0 4		1.50		1.32 - 1.78
12378-PeCDD	356/358	0.89	0.89	-0.2		1.53		1.32 - 1.78
23478-PeCDF	340/342	0.83	0.84	-1 1		1.51		1.32 - 1.78
123478-HxCDF	374/376	0.98	0.97	1.2		1.22		1 05 - 1.43
123678-HxCDF	374/376	0.94	0.95	-1 3		1.23		1.05 - 1.43
123478-HxCDD	390/392	0.89	0 90	-0.4		1.23		1.05 - 1.43
123678-HxCDD	390/392	0.81	0.82	-1 1		1.22		1 05 - 1.43
123789-HxCDD	390/392	0.81	0.79	2.5		1.21		1.05 - 1.43
234678-HxCDF	374/376	1.03	1.00	2 8		1.21		1.05 - 1.43
123789-HxCDF	374/376	0.92	0.87	5.1		1.23		1.05 - 1.43
1234678-HpCDF	408/410	1.13	1.07	5.6		1.03		0.89 - 1.21
1234678-HpCDD	424/426	0.91	0 88	3 9		1.03		0.89 - 1.21
1234789-HpCDF	408/410	1.15	1 09	5.9		1.00		0.89 - 1.21
OCDD	458/460	0.90	0.88	3 0		0.87		0.76 - 1.02
OCDF	442/444	0.96	0 88	9.7		0.89		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0.94	0 92	2.4		0.77		0.65 - 0.89
13C-12378-PeCDD	368/370	0.70	0.67	5.0		1.54		1.32 - 1.78
13C-123478-HxCDD	402/404	1 04	1.03	1.3		1.24		1.05 - 1.43
13C-123678-HxCDD	402/404	1.16	1.15	1.1		1.26		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.82	0.79	3.5		1.04		0.89 - 1.21
13C-OCDD	470/472	0.70	0.70	0.7		0.86		0.76 - 1 02
13C-2378-TCDF	316/318	1.25	1.19	4.7		0.76		0.65 - 0.89
13C-12378-PeCDF	352/354	0.98	0.90	8.3		1.53		1.32 - 1.78
13C-23478-PeCDF	352/354	0.94	0.88	7.4		1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	1 15	1 10	4.5		0.51		0.43 - 0.59
13C-123678-HxCDF	384/386	1.27	1 19	6.9		0.51		0.43 - 0.59
13C-234678-HxCDF	384/386	1.05	1.04	1.3		0.51		0.43 - 0.59
13C-123789-HxCDF	384/386	0.97	0.94	2.7		0.51		0.43 - 0.59
13C-1234678-HpCDF	418/420	0.86	0.83	4.5		0.44		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.63	0.61	3.6		0.44		0.37 - 0.51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	0.99	1.00	-0.6		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1.23		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column.

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract:	SAIC
Lab Code:	WS91	Case No.:	NPDES
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID.	13062402
Date Analysed	24-Jun-13	Time Analysed	09:56:39
Init.Calib.Date:	20-JUN-13	Init.Calib.Time:	12:34

Target Analytes	RRT#	RT
2378-TCDD	1.00	27.23
2378-TCDF	1 00	26.59
12378-PeCDF	1.00	30.74
12378-PeCDD	1.00	32.34
23478-PeCDF	1.00	32 09
123478-HxCDF	1.00	35.77
123678-HxCDF	1.00	35.93
123478-HxCDD	1.00	37.00
123678-HxCDD	1 00	37 12
123789-HxCDD	1 01	37.54
234678-HxCDF	1 00	36 87
123789-HxCDF	1.00	37.98
1234678-HpCDF	1.00	40.08
1234678-HpCDD	1.00	41.94
1234789-HpCDF	1.00	42.86
OCDD	1 00	48.07
OCDF	1.01	48.36

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	27.21
13C-12378-PeCDD	1.22	32.32
13C-123478-HxCDD	0.99	36 98
13C-123678-HxCDD	0.99	37.11
13C-1234678-HpCDD	1.12	41.92
13C-OCDD	1.28	48.04
13C-2378-TCDF	1.01	26.57
13C-12378-PeCDF	1.16	30.73
13C-23478-PeCDF	1 22	32.08
13C-123478-HxCDF	0.95	35.75
13C-123678-HxCDF	0.96	35.90
13C-234678-HxCDF	0 98	36.85
13C-123789-HxCDF	1.01	37.95
13C-1234678-HpCDF	1.07	40.06
13C-1234789-HpCDF	1.14	42.85

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	27 23

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	26.39
13C-123789-HxCDD	0.00	37.53

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound).

7DFA - Form VII-HR CDD-1
CDD/CDF CONTINUING CALIBRATION SUMMARY
HIGH RESOLUTION

Lab Name.	ANALYTICAL RESOURCES, INC.	Contract.	SAIC
Lab Code	WS91	Case No	NPDES
TO No		SDG No.:	
GC Column	RTX-DIOXIN2	ID (mm).	25
Instrument ID:	AUTOSPEC1	Lab File ID:	13062414
Date Analysed	24-Jun-13	Time Analysed	20 38 11
Init.Calib.Date:	20-JUN-13	Init.Calib Time.	12:34

Target Analytes	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
2378-TCDD	320/322	0.98	0.94	4 2		0.75		0.65 - 0.89
2378-TCDF	304/306	0.83	0 77	7.1		0 75		0.65 - 0.89
12378-PeCDF	340/342	0.83	0.81	2 1		1.52		1.32 - 1.78
12378-PeCDD	356/358	0.92	0.89	2.6		1.53		1.32 - 1.78
23478-PeCDF	340/342	0.85	0.84	2 2		1 52		1.32 - 1.78
123478-HxCDF	374/376	0.98	0.97	1.4		1.23		1.05 - 1.43
123678-HxCDF	374/376	0.96	0.95	1 2		1.23		1.05 - 1.43
123478-HxCDD	390/392	0.92	0.90	2.3		1.26		1.05 - 1.43
123678-HxCDD	390/392	0.84	0.82	3.0		1 18		1.05 - 1.43
123789-HxCDD	390/392	0.88	0.79	11.0		1.21		1.05 - 1.43
234678-HxCDF	374/376	1.05	1 00	4 5		1.21		1.05 - 1 43
123789-HxCDF	374/376	0.93	0.87	6.4		1.19		1.05 - 1.43
1234678-HpCDF	408/410	1 12	1.07	4 6		1.00		0.89 - 1.21
1234678-HpCDD	424/426	0.93	0 88	5.4		1.02		0.89 - 1.21
1234789-HpCDF	408/410	1.12	1.09	2.9		1.00		0.89 - 1 21
OCDD	458/460	0.91	0 88	4 0		0 87		0.76 - 1.02
OCDF	442/444	0.94	0.88	6.9		0.89		0.76 - 1.02

Labeled Compounds	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
13C-2378-TCDD	332/334	0.99	0.92	7.1		0.76		0.65 - 0.89
13C-12378-PeCDD	368/370	0.74	0.67	10 0		1.56		1.32 - 1.78
13C-123478-HxCDD	402/404	1.00	1.03	-3.0		1.24		1.05 - 1.43
13C-123678-HxCDD	402/404	1.05	1.15	-8.4		1.22		1.05 - 1.43
13C-1234678-HpCDD	436/438	0.75	0.79	-4 9		1.06		0.89 - 1.21
13C-OCDD	470/472	0 57	0.70	-18.0		0 89		0.76 - 1.02
13C-2378-TCDF	316/318	1.32	1 19	11.0		0.76		0.65 - 0.89
13C-12378-PeCDF	352/354	1.04	0.90	15.0		1.53		1.32 - 1.78
13C-23478-PeCDF	352/354	1.00	0.88	13.7		1.56		1.32 - 1.78
13C-123478-HxCDF	384/386	1 09	1.10	-0.9		0 51		0.43 - 0.59
13C-123678-HxCDF	384/386	1.13	1 19	-4.9		0.50		0.43 - 0 59
13C-234678-HxCDF	384/386	1 02	1.04	-2.3		0.51		0.43 - 0.59
13C-123789-HxCDF	384/386	0.99	0 94	5.2		0.52		0.43 - 0.59
13C-1234678-HpCDF	418/420	0 78	0.83	-5.5		0.43		0.37 - 0.51
13C-1234789-HpCDF	418/420	0.60	0.61	-1.3		0.44		0.37 - 0 51

Clean-up	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ratio Flag#	Ratio QC Limits
37CL-2378-TCDD	328	1.06	1.00	5.6		NA	NA	NA

Internal Standards	Selected Ions	RRF	Mean RRF	%D	%D Flag#	Ion Ratio	Ion Ratio Flag#	Ion Ratio QC Limits
13C-1234-TCDD	332/334	NA	NA	NA	NA	0.78		0.65 - 0.89
13C-123789-HxCDD	402/404	NA	NA	NA	NA	1 22		1.05 - 1.43

(#) The laboratory must flag any analyte which does not meet the criteria for Percentage Difference (%D) or ion abundance ratio by placing an asterisk in the appropriate flag column

7DFB - Form VII-HR CDD-2
CDD/CDF CONTINUING CALIBRATION RETENTION TIME SUMMARY
HIGH RESOLUTION

Lab Name:	ANALYTICAL RESOURCES, INC.	Contract.	SAIC
Lab Code:	WS91	Case No.:	NPDES
TO No.:		SDG No.:	
GC Column:	RTX-DIOXIN2	ID (mm):	.25
Instrument ID:	AUTOSPEC1	Lab File ID:	13062414
Date Analysed	24-Jun-13	Time Analysed	20:38:11
Init.Calib.Date:	20-JUN-13	Init.Calib.Time:	12:34

Target Analytes	RRT#	RT
2378-TCDD	1.00	27.20
2378-TCDF	1.00	26.57
12378-PeCDF	1 00	30 73
12378-PeCDD	1.00	32.33
23478-PeCDF	1.00	32 08
123478-HxCDF	1.00	35.76
123678-HxCDF	1.00	35.92
123478-HxCDD	1 00	36 99
123678-HxCDD	1.00	37.11
123789-HxCDD	1.01	37.53
234678-HxCDF	1.00	36.86
123789-HxCDF	1.00	37.97
1234678-HpCDF	1.00	40.07
1234678-HpCDD	1.00	41.94
1234789-HpCDF	1.00	42.87
OCDD	1.00	48.07
OCDF	1.01	48.36

Labeled Compounds	RRT#	RT
13C-2378-TCDD	1.03	27.18
13C-12378-PeCDD	1.23	32.31
13C-123478-HxCDD	0.99	36.97
13C-123678-HxCDD	0.99	37.10
13C-1234678-HpCDD	1.12	41.92
13C-OCDD	1.28	48.04
13C-2378-TCDF	1.01	26.54
13C-12378-PeCDF	1 16	30.71
13C-23478-PeCDF	1.22	32.06
13C-123478-HxCDF	0.95	35.74
13C-123678-HxCDF	0.96	35.89
13C-234678-HxCDF	0.98	36.84
13C-123789-HxCDF	1.01	37.94
13C-1234678-HpCDF	1.07	40.06
13C-1234789-HpCDF	1 14	42 84

Clean up Standard	RRT#	RT
37CL-2378-TCDD	1.03	27 20

Internal Standards	RRT#	RT
13C-1234-TCDD	0.00	26.36
13C-123789-HxCDD	0.00	37.52

(#) RRT = (RT of Analyte)/(RT of appropriate labeled compound)

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 16:57
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 56.9%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.39	2.4	< 2.4 U
319-85-7	beta-BHC	0.67	3.8	< 3.8 Y
319-86-8	delta-BHC	0.40	7.5	< 7.5 Y
58-89-9	gamma-BHC (Lindane)	0.23	2.4	< 2.4 U
76-44-8	Heptachlor	0.64	2.4	< 2.4 U
309-00-2	Aldrin	0.27	2.4	< 2.4 U
1024-57-3	Heptachlor Epoxide	0.41	4.8	< 4.8 U
959-98-8	Endosulfan I	0.35	2.4	< 2.4 U
60-57-1	Dieldrin	0.48	4.8	< 4.8 U
72-55-9	4,4'-DDE	0.60	4.8	< 4.8 U
72-20-8	Endrin	1.0	4.8	< 4.8 U
33213-65-9	Endosulfan II	0.56	4.8	< 4.8 U
72-54-8	4,4'-DDD	0.65	4.8	< 4.8 U
1031-07-8	Endosulfan Sulfate	0.93	4.8	< 4.8 U
50-29-3	4,4'-DDT	0.93	4.8	< 4.8 U
72-43-5	Methoxychlor	3.4	24	< 24 U
53494-70-5	Endrin Ketone	0.58	4.8	< 4.8 U
7421-93-4	Endrin Aldehyde	1.1	4.8	< 4.8 U
5103-74-2	trans-Chlordane	0.37	2.4	< 2.4 U
5103-71-9	cis-Chlordane	0.25	2.4	< 2.4 U
8001-35-2	Toxaphene	170	480	< 480 U
118-74-1	Hexachlorobenzene	0.45	4.8	< 4.8 U
87-68-3	Hexachlorobutadiene	0.67	4.8	< 4.8 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	89.5%
Tetrachlorometaxylene	94.0%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
DILUTION

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/27/13 18:34
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 56.9%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	7.8	48	< 48 U
319-85-7	beta-BHC	13	48	< 48 U
319-86-8	delta-BHC	7.9	48	< 48 U
58-89-9	gamma-BHC (Lindane)	4.6	48	< 48 U
76-44-8	Heptachlor	13	48	< 48 U
309-00-2	Aldrin	5.3	48	< 48 U
1024-57-3	Heptachlor Epoxide	8.2	97	< 97 U
959-98-8	Endosulfan I	7.0	48	< 48 U
60-57-1	Dieldrin	9.7	97	< 97 U
72-55-9	4,4'-DDE	12	97	< 97 U
72-20-8	Endrin	21	97	< 97 U
33213-65-9	Endosulfan II	11	97	< 97 U
72-54-8	4,4'-DDD	13	97	< 97 U
1031-07-8	Endosulfan Sulfate	19	97	< 97 U
50-29-3	4,4'-DDT	19	97	< 97 U
72-43-5	Methoxychlor	67	480	< 480 U
53494-70-5	Endrin Ketone	12	97	< 97 U
7421-93-4	Endrin Aldehyde	21	97	< 97 U
5103-74-2	trans-Chlordane	7.4	48	< 48 U
5103-71-9	cis-Chlordane	4.9	48	< 48 U
8001-35-2	Toxaphene	3300	9700	< 9,700 U
118-74-1	Hexachlorobenzene	9.1	97	< 97 U
87-68-3	Hexachlorobutadiene	13	97	< 97 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 17:14
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.8 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.1%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.40	9.0	< 9.0 Y
319-85-7	beta-BHC	0.68	2.4	< 2.4 U
319-86-8	delta-BHC	0.40	2.4	< 2.4 U
58-89-9	gamma-BHC (Lindane)	0.23	2.4	< 2.4 U
76-44-8	Heptachlor	0.65	2.4	< 2.4 U
309-00-2	Aldrin	0.27	2.4	< 2.4 U
1024-57-3	Heptachlor Epoxide	0.42	4.9	< 4.9 U
959-98-8	Endosulfan I	0.35	2.4	< 2.4 U
60-57-1	Dieldrin	0.49	4.9	< 4.9 U
72-55-9	4,4'-DDE	0.61	4.9	< 4.9 U
72-20-8	Endrin	1.1	4.9	< 4.9 U
33213-65-9	Endosulfan II	0.57	4.9	< 4.9 U
72-54-8	4,4'-DDD	0.66	4.9	< 4.9 U
1031-07-8	Endosulfan Sulfate	0.94	4.9	< 4.9 U
50-29-3	4,4'-DDT	0.94	4.9	< 4.9 U
72-43-5	Methoxychlor	3.4	24	< 24 U
53494-70-5	Endrin Ketone	0.58	6.7	< 6.7 Y
7421-93-4	Endrin Aldehyde	1.1	4.9	< 4.9 U
5103-74-2	trans-Chlordane	0.38	4.2	< 4.2 Y
5103-71-9	cis-Chlordane	0.25	2.4	< 2.4 U
8001-35-2	Toxaphene	170	490	< 490 U
118-74-1	Hexachlorobenzene	0.46	8.2	< 8.2 Y
87-68-3	Hexachlorobutadiene	0.68	4.9	< 4.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	107%
Tetrachlorometaxylene	51.8%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: AM-FD-01-20130612-S
SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 17:32
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.40	7.6	< 7.6 Y
319-85-7	beta-BHC	0.68	2.4	< 2.4 U
319-86-8	delta-BHC	0.40	2.4	< 2.4 U
58-89-9	gamma-BHC (Lindane)	0.24	2.4	< 2.4 U
76-44-8	Heptachlor	0.65	2.4	< 2.4 U
309-00-2	Aldrin	0.27	2.4	< 2.4 U
1024-57-3	Heptachlor Epoxide	0.42	12	< 12 Y
959-98-8	Endosulfan I	0.35	2.4	< 2.4 U
60-57-1	Dieldrin	0.49	4.9	< 4.9 U
72-55-9	4,4'-DDE	0.61	4.9	< 4.9 U
72-20-8	Endrin	1.1	4.9	< 4.9 U
33213-65-9	Endosulfan II	0.57	42	< 42 Y
72-54-8	4,4'-DDD	0.66	4.9	< 4.9 U
1031-07-8	Endosulfan Sulfate	0.94	4.9	< 4.9 U
50-29-3	4,4'-DDT	0.94	4.9	< 4.9 U
72-43-5	Methoxychlor	3.4	24	< 24 U
53494-70-5	Endrin Ketone	0.58	24	< 24 Y
7421-93-4	Endrin Aldehyde	1.1	4.9	< 4.9 U
5103-74-2	trans-Chlordane	0.38	2.4	< 2.4 U
5103-71-9	cis-Chlordane	0.25	2.4	< 2.4 U
8001-35-2	Toxaphene	170	490	< 490 U
118-74-1	Hexachlorobenzene	0.46	9.9	< 9.9 Y
87-68-3	Hexachlorobutadiene	0.68	4.9	< 4.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	1230%
Tetrachlorometaxylene	235%

This analyte (CAS registry No. 5103-74-2) is named trans-Chlordane in EPA Method 8081B(Feb 2007). It has also been named gamma-Chlordane and beta-Chlordane.

$ This analyte (CAS registry No. 5103-71-9) is named cis-Chlordane in EPA Method 8081B(Feb 2007). It has also been named alpha-Chlordane.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: AM-FD-01-20130612-S
DILUTION

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/27/13 19:10
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	7.9	49	< 49 U
319-85-7	beta-BHC	14	49	< 49 U
319-86-8	delta-BHC	8.0	49	< 49 U
58-89-9	gamma-BHC (Lindane)	4.7	49	< 49 U
76-44-8	Heptachlor	13	49	< 49 U
309-00-2	Aldrin	5.4	49	< 49 U
1024-57-3	Heptachlor Epoxide	8.3	98	< 98 U
959-98-8	Endosulfan I	7.1	49	< 49 U
60-57-1	Dieldrin	9.8	98	< 98 U
72-55-9	4,4'-DDE	12	98	< 98 U
72-20-8	Endrin	21	98	< 98 U
33213-65-9	Endosulfan II	11	98	< 98 U
72-54-8	4,4'-DDD	13	98	< 98 U
1031-07-8	Endosulfan Sulfate	19	98	< 98 U
50-29-3	4,4'-DDT	19	98	< 98 U
72-43-5	Methoxychlor	68	490	< 490 U
53494-70-5	Endrin Ketone	12	98	< 98 U
7421-93-4	Endrin Aldehyde	21	98	< 98 U
5103-74-2	trans-Chlordane	7.6	49	< 49 U
5103-71-9	cis-Chlordane	5.0	49	< 49 U
8001-35-2	Toxaphene	3400	9800	< 9,800 U
118-74-1	Hexachlorobenzene	9.2	98	< 98 U
87-68-3	Hexachlorobutadiene	14	98	< 98 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ANALYTICAL RESOURCES INCORPORATED

SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Client ID	DCBP	TCMX	TOT OUT
AM-VT-INF-20130612-S	89.5%	94.0%	0
AM-VT-INF-20130612-S DL	D	D	0
AM-SF4-EFF-20130612-S	107%	51.8%	0
MB-061913	77.2%	65.8%	0
LCS-061913	77.8%	59.2%	0
AM-FD-01-20130612-S	1230%*	235%*	2
AM-FD-01-20130612-S DL	D	D	0
AM-FD-01-20130612-S MS	1060%*	202%*	2
AM-FD-01-20130612-S MSD	1030%*	214%*	2

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(60-149)	(36-182)
(TCMX) = Tetrachlorometaxylene	(47-124)	(34-169)

Prep Method: SW3546
Log Number Range: 13-12636 to 13-12638

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
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Sample ID: AM-FD-01-20130612-S
MS/MSD

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted MS/MSD: 06/19/13

Date Analyzed MS: 06/25/13 17:50
MSD: 06/25/13 18:08
Instrument/Analyst MS: ECD6/YZ
MSD: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount MS: 12.7 g-dry-wt
MSD: 12.7 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 5.00
MSD: 5.00
Silica Gel: Yes

Percent Moisture: 60.2%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
alpha-BHC	< 7.62	7.87	3.92	201%	10.2	3.92	260%	25.8%
beta-BHC	< 2.45	5.36 JP	3.92	137%	5.86 JP	3.92	149%	8.9%
delta-BHC	< 2.45	9.74 JP	3.92	248%	8.96 JP	3.92	229%	8.3%
gamma-BHC (Lindane)	< 2.45	10.6 JP	3.92	270%	13.0 P	3.92	332%	20.3%
Heptachlor	< 2.45	2.93 JP	3.92	74.7%	2.91 JP	3.92	74.2%	0.7%
Aldrin	< 2.45	27.6 P	3.92	704%	27.5 P	3.92	702%	0.4%
Heptachlor Epoxide	< 12.1	12.5 JP	3.92	319%	13.1 P	3.92	334%	4.7%
Endosulfan I	< 2.45	8.14 JP	3.92	208%	9.29 JP	3.92	237%	13.2%
Dieldrin	< 4.90	4.66 J	7.85	59.4%	5.71 JP	7.85	72.7%	20.3%
4,4'-DDE	< 4.90	14.2 JP	7.85	181%	17.0 JP	7.85	217%	17.9%
Endrin	< 4.90	4.95 JP	7.85	63.1%	4.12 J	7.85	52.5%	18.3%
Endosulfan II	< 41.6	35.7 P	7.85	NA	32.6 P	7.85	NA	9.1%
4,4'-DDD	< 4.90	7.26	7.85	92.5%	7.71 JP	7.85	98.2%	6.0%
Endosulfan Sulfate	< 4.90	63.5 JP	7.85	809%	68.7 P	7.85	875%	7.9%
4,4'-DDT	< 4.90	11.9 JP	7.85	152%	10.7 JP	7.85	136%	10.6%
Methoxychlor	< 24.5	21.5 J	39.2	54.8%	22.1 J	39.2	56.4%	2.8%
Endrin Ketone	< 24.2	11.6	7.85	148%	25.2 P	7.85	321%	73.9%
Endrin Aldehyde	< 4.90	4.63 JP	7.85	59.0%	3.63 JP	7.85	46.2%	24.2%
trans-Chlordane	< 2.45	5.55	3.92	142%	5.87	3.92	150%	5.6%
cis-Chlordane	< 2.45	4.53 JP	3.92	116%	4.95 JP	3.92	126%	8.9%
Hexachlorobenzene	< 9.91	10.1	3.92	258%	10.1	3.92	258%	0.0%
Hexachlorobutadiene	< 4.90	2.88 JP	3.92	73.5%	3.12 JP	3.92	79.6%	8.0%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: AM-FD-01-20130612-S
MATRIX SPIKE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 17:50
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.40	2.4	---
319-85-7	beta-BHC	0.68	2.4	---
319-86-8	delta-BHC	0.40	2.4	---
58-89-9	gamma-BHC (Lindane)	0.24	2.4	---
76-44-8	Heptachlor	0.65	2.4	---
309-00-2	Aldrin	0.27	2.4	---
1024-57-3	Heptachlor Epoxide	0.42	4.9	---
959-98-8	Endosulfan I	0.35	2.4	---
60-57-1	Dieldrin	0.49	4.9	---
72-55-9	4,4'-DDE	0.61	4.9	---
72-20-8	Endrin	1.1	4.9	---
33213-65-9	Endosulfan II	0.57	4.9	---
72-54-8	4,4'-DDD	0.66	4.9	---
1031-07-8	Endosulfan Sulfate	0.94	4.9	---
50-29-3	4,4'-DDT	0.94	4.9	---
72-43-5	Methoxychlor	3.4	24	---
53494-70-5	Endrin Ketone	0.58	4.9	---
7421-93-4	Endrin Aldehyde	1.1	4.9	---
5103-74-2	trans-Chlordane	0.38	2.4	---
5103-71-9	cis-Chlordane	0.25	2.4	---
8001-35-2	Toxaphene	170	490	< 490 U
118-74-1	Hexachlorobenzene	0.46	4.9	---
87-68-3	Hexachlorobutadiene	0.68	4.9	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	1060%
Tetrachlorometaxylene	202%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Extraction Method: SW3546
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Sample ID: AM-FD-01-20130612-S
MATRIX SPIKE DUP

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 18:08
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.2%

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.40	2.4	---
319-85-7	beta-BHC	0.68	2.4	---
319-86-8	delta-BHC	0.40	2.4	---
58-89-9	gamma-BHC (Lindane)	0.24	2.4	---
76-44-8	Heptachlor	0.65	2.4	---
309-00-2	Aldrin	0.27	2.4	---
1024-57-3	Heptachlor Epoxide	0.42	4.9	---
959-98-8	Endosulfan I	0.35	2.4	---
60-57-1	Dieldrin	0.49	4.9	---
72-55-9	4,4'-DDE	0.61	4.9	---
72-20-8	Endrin	1.1	4.9	---
33213-65-9	Endosulfan II	0.57	4.9	---
72-54-8	4,4'-DDD	0.66	4.9	---
1031-07-8	Endosulfan Sulfate	0.94	4.9	---
50-29-3	4,4'-DDT	0.94	4.9	---
72-43-5	Methoxychlor	3.4	24	---
53494-70-5	Endrin Ketone	0.58	4.9	---
7421-93-4	Endrin Aldehyde	1.1	4.9	---
5103-74-2	trans-Chlordane	0.38	2.4	---
5103-71-9	cis-Chlordane	0.25	2.4	---
8001-35-2	Toxaphene	170	490	< 490 U
118-74-1	Hexachlorobenzene	0.46	4.9	---
87-68-3	Hexachlorobutadiene	0.68	4.9	---

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	1030%
Tetrachlorometaxylene	214%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
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Sample ID: LCS-061913
LAB CONTROL

Lab Sample ID: LCS-061913
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 16:21
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery
alpha-BHC	2.38	4.00	59.5%
beta-BHC	2.56	4.00	64.0%
delta-BHC	1.53	4.00	38.2%
gamma-BHC (Lindane)	2.60	4.00	65.0%
Heptachlor	2.54	4.00	63.5%
Aldrin	2.48	4.00	62.0%
Heptachlor Epoxide	2.90	4.00	72.5%
Endosulfan I	2.96	4.00	74.0%
Dieldrin	5.92	8.00	74.0%
4,4'-DDE	7.22	8.00	90.2%
Endrin	5.94	8.00	74.2%
Endosulfan II	5.74	8.00	71.8%
4,4'-DDD	5.64	8.00	70.5%
Endosulfan Sulfate	5.56	8.00	69.5%
4,4'-DDT	5.44	8.00	68.0%
Methoxychlor	28.8	40.0	72.0%
Endrin Ketone	6.26	8.00	78.2%
Endrin Aldehyde	4.06	8.00	50.8%
trans-Chlordane	2.92	4.00	73.0%
cis-Chlordane	2.84	4.00	71.0%
Hexachlorobenzene	2.26	4.00	56.5%
Hexachlorobutadiene	1.99	4.00	49.8%

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	77.8%
Tetrachlorometaxylene	59.2%

Reported in µg/kg (ppb)

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

WT81MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WT81
Project: NPDES SAMPLING SUPPO

Lab Sample ID: WT81MBS1
Lab File ID: 0625A008

Date Extracted: 06/19/13
Matrix: SOLID

Date Analyzed: 06/25/13
Instrument ID: ECD6

Time Analyzed: 1603
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WT81LCSS1	WT81LCSS1	06/25/13
02	AM-VT-INF-20130612-	WT81A	06/25/13
03	AM-SF4-EFF-20130612	WT81B	06/25/13
04	AM-FD-01-20130612-S	WT81C	06/25/13
05	AM-FD-01-201306 MS	WT81CMS	06/25/13
06	AM-FD-01-201306 MSD	WT81CMSD	06/25/13
07	AM-VT-INF-20130612-	WT81A	06/27/13
08	AM-SF4-EFF-20130612	WT81B	06/27/13
09	AM-FD-01-20130612-S	WT81C	06/27/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD **Sample ID: MB-061913**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-061913
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/28/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/19/13
Date Analyzed: 06/25/13 16:03
Instrument/Analyst: ECD6/YZ
GPC Cleanup: Yes
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	DL	LOQ	Result
319-84-6	alpha-BHC	0.081	0.50	< 0.50 U
319-85-7	beta-BHC	0.14	0.50	< 0.50 U
319-86-8	delta-BHC	0.082	0.50	< 0.50 U
58-89-9	gamma-BHC (Lindane)	0.048	0.50	< 0.50 U
76-44-8	Heptachlor	0.13	0.50	< 0.50 U
309-00-2	Aldrin	0.055	0.50	< 0.50 U
1024-57-3	Heptachlor Epoxide	0.085	1.0	< 1.0 U
959-98-8	Endosulfan I	0.072	0.50	< 0.50 U
60-57-1	Dieldrin	0.10	1.0	< 1.0 U
72-55-9	4,4'-DDE	0.12	0.20	< 0.20 U
72-20-8	Endrin	0.22	1.0	< 1.0 U
33213-65-9	Endosulfan II	0.12	1.0	< 1.0 U
72-54-8	4,4'-DDD	0.14	0.20	< 0.20 U
1031-07-8	Endosulfan Sulfate	0.19	1.0	< 1.0 U
50-29-3	4,4'-DDT	0.19	0.20	< 0.20 U
72-43-5	Methoxychlor	0.70	5.0	< 5.0 U
53494-70-5	Endrin Ketone	0.12	1.0	< 1.0 U
7421-93-4	Endrin Aldehyde	0.22	1.0	< 1.0 U
5103-74-2	trans-Chlordane	0.077	0.50	< 0.50 U
5103-71-9	cis-Chlordane	0.051	0.50	< 0.50 U
8001-35-2	Toxaphene	35	100	< 100 U
118-74-1	Hexachlorobenzene	0.094	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	0.14	1.0	< 1.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	77.2%
Tetrachlorometaxylene	65.8%

6D

8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.24	4.34
beta-BHC	4.65	4.65	4.65	4.64	4.64	4.64	4.64	4.64	4.59	4.69
delta-BHC	4.82	4.82	4.81	4.81	4.81	4.81	4.81	4.81	4.76	4.86
gamma-BHC (Lindane)	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.57	4.52	4.62
Heptachlor	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	4.96	5.06
Aldrin	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.26	5.36
Heptachlor epoxide b	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.83	5.93
Endosulfan I	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.21	6.31
Dieldrin	6.48	6.48	6.48	6.48	6.48	6.48	6.48	6.48	6.43	6.53
4,4'-DDE	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.18	6.13	6.23
Endrin	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.65	6.75
Endosulfan II	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.86	6.96
4,4'-DDD	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.69	6.79
Endosulfan sulfate	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.67	7.62	7.72
4,4'-DDT	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.95	7.05
Methoxychlor	7.43	7.42	7.42	7.42	7.42	7.42	7.42	7.42	7.37	7.47
Endrin ketone	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.88	7.98
Endrin aldehyde	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.28	7.23	7.33
gamma-Chlordane	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.95	6.05
alpha-Chlordane	6.13	6.13	6.13	6.13	6.13	6.13	6.13	6.13	6.08	6.18
Hexachlorobutadiene	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.26	2.36
Hexachlorobenzene	4.14	4.14	4.14	4.14	4.14	4.14	4.14	4.14	4.09	4.19
Tetrachloro-m-xylene	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.75	3.85
Decachlorobiphenyl	8.78	8.78	8.78	8.78	8.78	8.78	8.78	8.78	8.73	8.83

6D
8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

	RT OF STANDARDS							MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT	FROM	TO
alpha-BHC	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.66	4.76
beta-BHC	5.14	5.14	5.14	5.14	5.14	5.14	5.14	5.14	5.09	5.19
delta-BHC	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.45	5.40	5.50
gamma-BHC (Lindane)	5.07	5.07	5.07	5.06	5.07	5.07	5.07	5.07	5.02	5.12
Heptachlor	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.48	5.58
Aldrin	5.87	5.87	5.87	5.87	5.87	5.87	5.87	5.87	5.82	5.92
Heptachlor epoxide b	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.37	6.47
Endosulfan I	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.76	6.86
Dieldrin	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.07	7.02	7.12
4,4'-DDE	6.87	6.87	6.87	6.87	6.87	6.87	6.87	6.87	6.82	6.92
Endrin	7.36	7.36	7.35	7.35	7.36	7.36	7.36	7.36	7.31	7.41
Endosulfan II	7.54	7.54	7.54	7.54	7.54	7.54	7.55	7.54	7.50	7.60
4,4'-DDD	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.36	7.46
Endosulfan sulfate	8.09	8.09	8.09	8.09	8.09	8.09	8.09	8.09	8.04	8.14
4,4'-DDT	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.69	7.64	7.74
Methoxychlor	8.28	8.28	8.28	8.28	8.28	8.28	8.28	8.28	8.23	8.33
Endrin ketone	8.58	8.58	8.58	8.58	8.58	8.58	8.58	8.58	8.53	8.63
Endrin aldehyde	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.79	7.89
gamma-Chlordane	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.55	6.65
alpha-Chlordane	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.69	6.79
Hexachlorobutadiene	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.42	2.52
Hexachlorobenzene	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.54	4.64
Tetrachloro-m-xylene	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.08	4.18
Decachlorobiphenyl	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.67	9.77

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

	CALIBRATION FACTORS								R^2
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	%RSD
alpha-BHC	1.5439	1.5547	1.5102	1.6675	1.5722	1.6801	1.7024	1.6044	4.8
beta-BHC	0.7227	0.6940	0.6288	0.6544	0.5978	0.6172	0.6154	0.6472	7.1
delta-BHC	1.3108	1.3377	1.2922	1.4417	1.3673	1.4738	1.5010	1.3892	6.0
gamma-BHC (Lindane)	1.4389	1.4516	1.3866	1.5141	1.4188	1.5091	1.5210	1.4629	3.6
Heptachlor	1.4611	1.4499	1.3707	1.4603	1.3396	1.3863	1.3590	1.4038	3.7
Aldrin	1.3809	1.3803	1.3036	1.4204	1.3102	1.3714	1.3549	1.3602	3.0
Heptachlor epoxide b	1.3713	1.3363	1.2293	1.3089	1.1855	1.2139	1.1821	1.2610	6.1
Endosulfan I	1.2951	1.2614	1.1522	1.2204	1.1025	1.1230	1.0962	1.1787	6.8
Dieldrin	1.2872	1.2978	1.2235	1.3084	1.1909	1.2167	1.1938	1.2455	4.1
4,4'-DDE	1.0139	0.9831	0.9049	0.9548	0.8804	0.9337	0.9621	0.9476	4.8
Endrin	1.2671	1.2700	1.2054	1.2552	1.1578	1.1596	1.1241	1.2056	5.0
Endosulfan II	1.2826	1.2659	1.1980	1.2432	1.1395	1.1415	1.1072	1.1968	5.8
4,4'-DDD	1.2001	1.1988	1.1420	1.1784	1.1006	1.1329	1.1060	1.1512	3.6
Endosulfan sulfate	1.1243	1.1172	1.0439	1.0892	0.9973	1.0231	1.0024	1.0568	5.0
4,4'-DDT	1.1508	1.1600	1.1076	1.1738	1.0915	1.1372	1.1217	1.1346	2.6
Methoxychlor	0.6089	0.5929	0.5343	0.5362	0.4840	0.4979	0.5049	0.5370	8.9
Endrin ketone	1.4712	1.4100	1.2991	1.3397	1.2084	1.2410	1.2163	1.3122	7.7
Endrin aldehyde	1.0260	1.0155	0.9446	0.9809	0.8892	0.8943	0.8714	0.9460	6.7
gamma-Chlordane	1.3445	1.3274	1.2342	1.3370	1.2340	1.2975	1.2933	1.2954	3.6
alpha-Chlordane	1.3528	1.3154	1.2108	1.2957	1.1858	1.2371	1.2288	1.2609	4.8
Hexachlorobutadiene	1.9025	1.8274	1.7247	1.8054	1.6395	1.7040	1.7020	1.7579	5.1
Hexachlorobenzene	1.4861	1.3849	1.2506	1.2922	1.1582	1.1894	1.1740	1.2765	9.5
Tetrachloro-m-xylene	1.1560	1.1331	1.0665	1.1244	1.0248	1.0590	1.0400	1.0862	4.7
Decachlorobiphenyl	1.1337	1.0998	0.9925	1.0181	0.9174	0.9470	0.9398	1.0069	8.2

6E

8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

COMPOUND	CALIBRATION FACTORS LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	MEAN	R^2 %RSD
alpha-BHC	1.8907	1.9585	1.8601	2.0205	1.8576	1.9256	1.8660	1.9113	3.2
beta-BHC	1.0592	0.9600	0.8113	0.8084	0.7203	0.7323	0.7044	0.8280	16.2
delta-BHC	1.6482	1.6625	1.5719	1.7263	1.5992	1.6594	1.6648	1.6475	3.0
gamma-BHC (Lindane)	1.7179	1.7217	1.6316	1.7706	1.6273	1.6803	1.6806	1.6900	3.0
Heptachlor	1.9323	1.7962	1.6666	1.7262	1.5264	1.4801	1.3470	1.6392	12.3
Aldrin	1.8340	1.6659	1.5367	1.6223	1.4440	1.4302	1.3301	1.5519	11.0
Heptachlor epoxide b	1.8168	1.6398	1.4044	1.4381	1.2629	1.2239	1.1149	1.4144	17.4
Endosulfan I	1.5192	1.4169	1.2720	1.3234	1.1718	1.1458	1.0476	1.2710	12.9
Dieldrin	1.5995	1.4528	1.3259	1.3512	1.1540	1.1018	0.9936	1.2827	16.5
4,4'-DDE	1.5367	1.4595	1.3241	1.3606	1.1790	1.1494	1.0294	1.2912	14.0
Endrin	1.9014	1.8672	1.7277	1.7487	1.5208	1.4564	1.3250	1.6496	13.2
Endosulfan II	1.9719	1.9168	1.7752	1.8312	1.5816	1.5646	1.4555	1.7281	11.3
4,4'-DDD	2.1094	1.9958	1.8121	1.8464	1.6032	1.5801	1.4841	1.7759	13.0
Endosulfan sulfate	1.7321	1.6421	1.4774	1.5146	1.3442	1.3332	1.2549	1.4712	11.8
4,4'-DDT	1.7471	1.6963	1.5902	1.6301	1.4383	1.4739	1.4388	1.5735	8.0
Methoxychlor	0.7305	0.7076	0.6202	0.6027	0.5239	0.5120	0.4022	0.5856	19.7
Endrin ketone	1.6388	1.6002	1.4832	1.5356	1.3499	1.3642	1.3207	1.4704	8.7
Endrin aldehyde	1.5847	1.5114	1.3396	1.3594	1.1937	1.1861	1.1117	1.3266	13.3
gamma-Chlordane	1.8298	1.6423	1.4613	1.5070	1.3462	1.3504	1.2825	1.4885	13.0
alpha-Chlordane	1.6047	1.4942	1.3505	1.4009	1.2502	1.2566	1.1949	1.3646	10.8
Hexachlorobutadiene	1.7754	1.7738	1.6689	1.7660	1.5610	1.5866	1.4596	1.6559	7.5
Hexachlorobenzene	1.9001	1.7583	1.5690	1.6119	1.4286	1.4201	1.3431	1.5759	12.7
Tetrachloro-m-xylene	1.5306	1.4889	1.3673	1.4133	1.2254	1.1895	1.0472	1.3232	13.2
Decachlorobiphenyl	1.4748	1.4207	1.2965	1.3235	1.1681	1.1996	1.1690	1.2932	9.5

6G

8081 INITIAL CALIBRATION OF SINGLE POINT PCBs and TOXAPHENE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

Toxaphene			
Peak	RT	RT WIN	Cal Factor
1	6.958	6.91- 7.01	0.0513
2	7.010	6.96- 7.06	0.0354
3	7.267	7.22- 7.32	0.0585
4	7.593	7.54- 7.64	0.0595
5	7.632	7.58- 7.68	0.0395
6	7.913	7.86- 7.96	0.0336

6G

8081 INITIAL CALIBRATION OF SINGLE POINT PCBs and TOXAPHENE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm) Instrument ID: ECD6

Calibration Date: 06/19/13

Toxaphene			
Peak	RT	RT WIN	Cal Factor
1	7.291	7.24- 7.34	0.0560
2	7.615	7.57- 7.67	0.0826
3	7.846	7.80- 7.90	0.0906
4	8.314	8.26- 8.36	0.0653
5	8.353	8.30- 8.40	0.0831

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20130619PEST

Analysis Date: 25-JUN-2013 15:10 Init. Calib. Date: 19-JUN-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.172	80447
Endrin	6.686	8716354
4,4'-DDD	6.727	335790
4,4'-DDT	6.984	8867378
Endrin ketone	7.912	337178
Endrin aldehyde	7.268	198001

DDT Percent Breakdown = 4.5 %
((80447+335790) * 100)/(80447+335790+8867378)

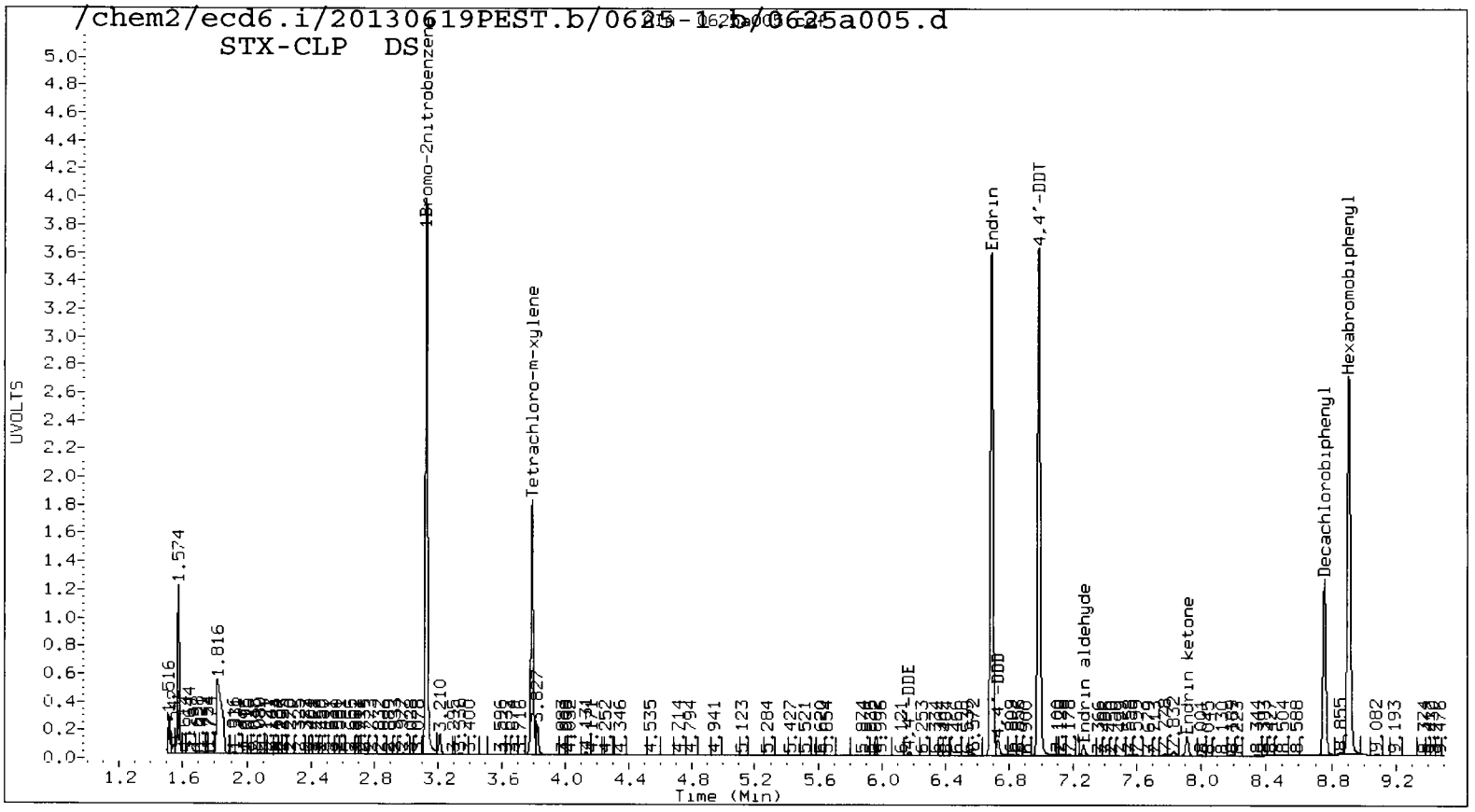
Endrin Percent Breakdown = 5.8 %
((198001+337178) * 100)/(198001+337178+8716354)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.870	298312
Endrin	7.356	28956071
4,4'-DDD	7.407	1657615
4,4'-DDT	7.695	30579038
Endrin ketone	8.577	1077325
Endrin aldehyde	7.842	810015

DDT Percent Breakdown = 6.0 %
((298312+1657615) * 100)/(298312+1657615+30579038)

Endrin Percent Breakdown = 6.1 %
((810015+1077325) * 100)/(810015+1077325+28956071)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3.827
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4.253
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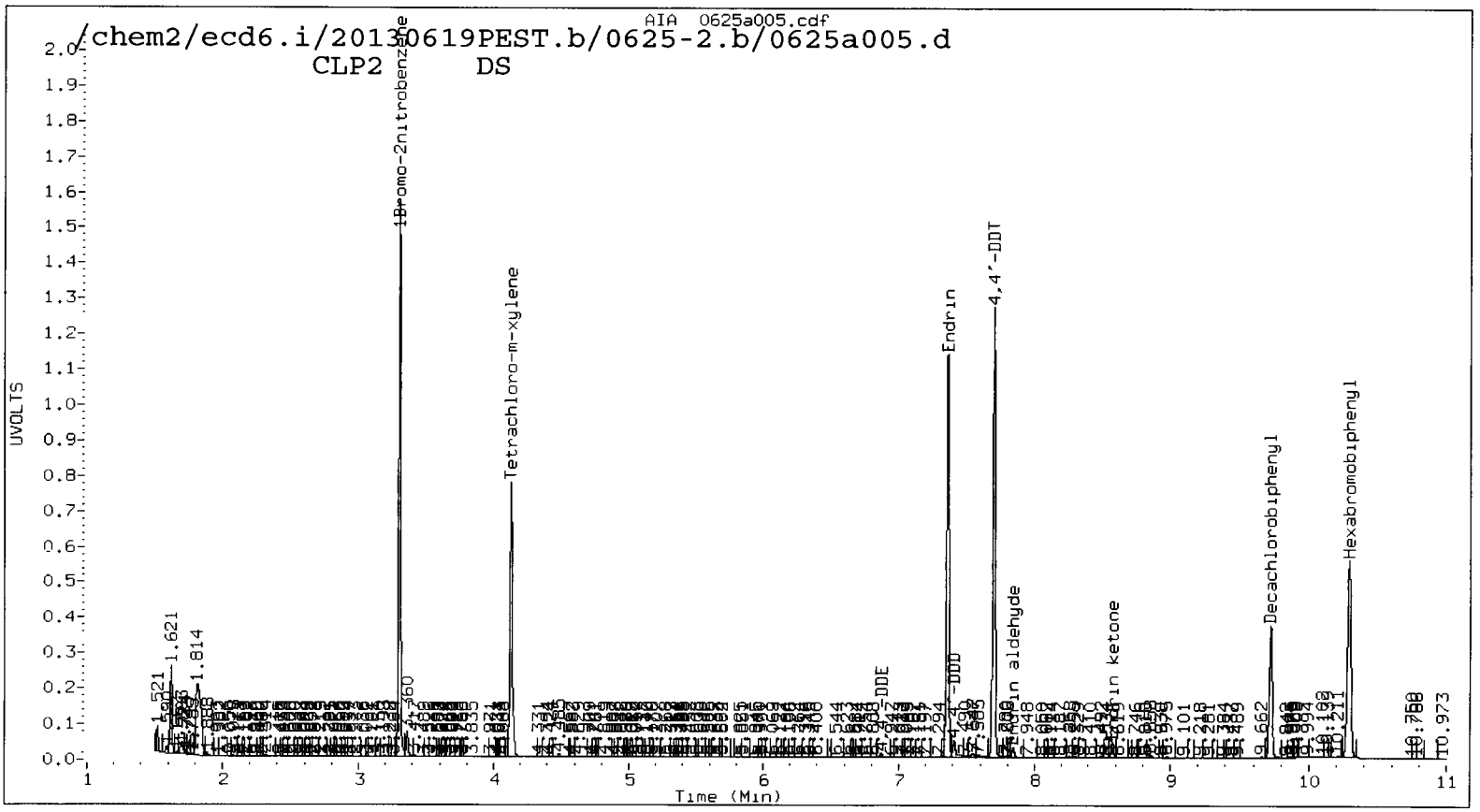
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1Bromo-2nitrobenzene
Tetrachloro-m-xylene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Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
1Bromo-2nitrobenzene
Tetrachloro-m-xylene

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/25/13,1528

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.71	4.66	4.76	18.8	20.0	-5.8
beta-BHC	5.14	5.09	5.19	16.7	20.0	-16.5
delta-BHC	5.45	5.40	5.50	19.1	20.0	-4.5
gamma-BHC (Lindane)	5.07	5.02	5.12	18.3	20.0	-8.5
Heptachlor	5.53	5.48	5.58	17.6	20.0	-12.2
Aldrin	5.87	5.82	5.92	17.9	20.0	-10.3
Heptachlor epoxide b	6.42	6.37	6.47	17.5	20.0	-12.6
Endosulfan I	6.81	6.76	6.86	17.8	20.0	-10.9
Dieldrin	7.07	7.02	7.12	35.2	40.0	-12.1
4,4'-DDE	6.87	6.82	6.92	35.2	40.0	-12.0
Endrin	7.36	7.31	7.41	35.1	40.0	-12.2
Endosulfan II	7.55	7.50	7.60	36.1	40.0	-9.8
4,4'-DDD	7.41	7.36	7.46	34.5	40.0	-13.8
Endosulfan sulfate	8.09	8.04	8.14	36.9	40.0	-7.8
4,4'-DDT	7.69	7.64	7.74	35.8	40.0	-10.5
Methoxychlor	8.28	8.23	8.33	160.9	200.0	-19.6
Endrin ketone	8.58	8.53	8.63	38.1	40.0	-4.7
Endrin aldehyde	7.84	7.79	7.89	37.2	40.0	-7.1
gamma-Chlordane	6.60	6.55	6.65	17.4	20.0	-13.2
alpha-Chlordane	6.74	6.69	6.79	17.5	20.0	-12.4
Hexachlorobutadiene	2.47	2.42	2.52	17.8	20.0	-11.2
Hexachlorobenzene	4.59	4.54	4.64	18.3	20.0	-8.5
Tetrachloro-m-xylene	4.13	4.08	4.18	36.8	40.0	-8.0
Decachlorobiphenyl	9.72	9.67	9.77	35.7	40.0	-10.8

FORM VII PEST-2

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/25/13,1528

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.28	4.24	4.34	20.0	20.0	-0.1
beta-BHC	4.64	4.59	4.69	18.3	20.0	-8.5
delta-BHC	4.80	4.76	4.86	20.1	20.0	0.4
gamma-BHC (Lindane)	4.56	4.52	4.62	19.6	20.0	-2.2
Heptachlor	5.00	4.96	5.06	19.3	20.0	-3.5
Aldrin	5.30	5.26	5.36	19.6	20.0	-1.9
Heptachlor epoxide b	5.87	5.83	5.93	18.8	20.0	-5.9
Endosulfan I	6.25	6.21	6.31	18.9	20.0	-5.7
Dieldrin	6.47	6.43	6.53	38.4	40.0	-4.1
4,4'-DDE	6.17	6.13	6.23	37.0	40.0	-7.4
Endrin	6.69	6.65	6.75	35.1	40.0	-12.3
Endosulfan II	6.89	6.86	6.96	35.0	40.0	-12.4
4,4'-DDD	6.73	6.69	6.79	34.9	40.0	-12.7
Endosulfan sulfate	7.66	7.62	7.72	35.5	40.0	-11.1
4,4'-DDT	6.98	6.95	7.05	36.1	40.0	-9.8
Methoxychlor	7.41	7.37	7.47	163.4	200.0	-18.3
Endrin ketone	7.91	7.88	7.98	34.6	40.0	-13.6
Endrin aldehyde	7.27	7.23	7.33	35.8	40.0	-10.6
gamma-Chlordane	5.99	5.95	6.05	19.3	20.0	-3.4
alpha-Chlordane	6.11	6.08	6.18	19.0	20.0	-4.8
Hexachlorobutadiene	2.31	2.26	2.36	18.5	20.0	-7.5
Hexachlorobenzene	4.13	4.09	4.19	18.1	20.0	-9.3
Tetrachloro-m-xylene	3.79	3.75	3.85	37.7	40.0	-5.8
Decachlorobiphenyl	8.76	8.73	8.83	34.8	40.0	-13.0

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/25/13,1545

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Toxaphene -1	7.29	7.24	7.34	2220	2500	-11.2
Toxaphene -2	7.62	7.57	7.67	2220	2500	-11.2
Toxaphene -3	7.85	7.80	7.90	2220	2500	-11.2
Toxaphene -4	8.31	8.26	8.36	2280	2500	-8.8
Toxaphene -5	8.35	8.30	8.40	2300	2500	-8.0

AVERAGE %D = 10.1

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/25/13,1545

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Toxaphene -1	6.94	6.91	7.01	2160	2500	-13.6	
Toxaphene -2	6.99	6.96	7.06	2180	2500	-12.8	
Toxaphene -3	7.25	7.22	7.32	2160	2500	-13.6	
Toxaphene -4	7.58	7.54	7.64	2160	2500	-13.6	
Toxaphene -5	7.64	7.58	7.68	1810	2500	-27.6	<-
Toxaphene -6	7.90	7.86	7.96	2160	2500	-13.6	

AVERAGE %D = 15.8

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20130619PEST

Analysis Date: 25-JUN-2013 18:26 Init. Calib. Date: 19-JUN-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.172	94651
Endrin	6.688	5110458
4,4'-DDD	6.728	810338
4,4'-DDT	6.985	3751086
Endrin ketone	7.913	359991
Endrin aldehyde	7.271	130613

DDT Percent Breakdown = 19.4 %
((94651+810338) * 100)/(94651+810338+3751086)

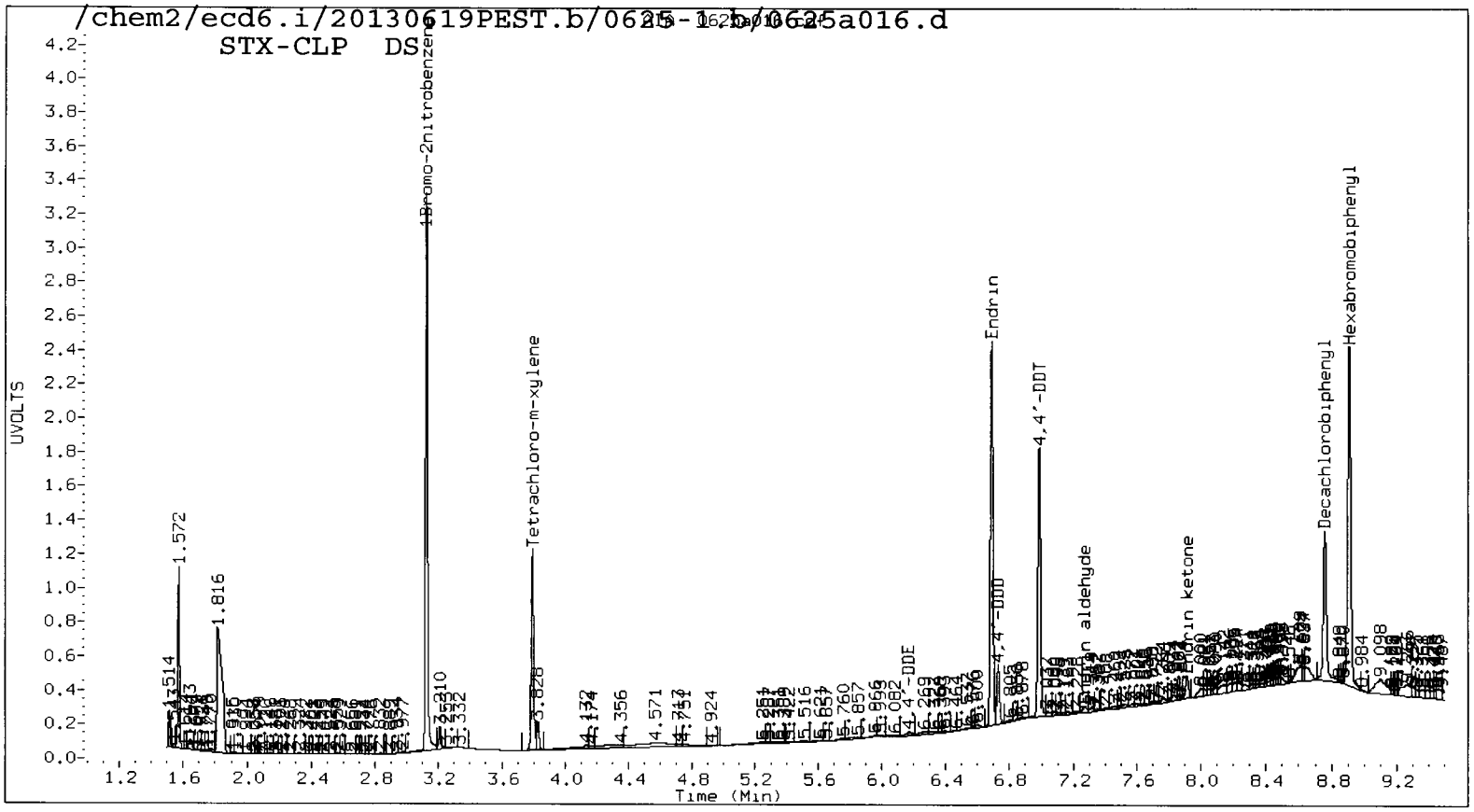
Endrin Percent Breakdown = 8.8 %
((130613+359991) * 100)/(130613+359991+5110458)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.870	123640
Endrin	7.358	8955433
4,4'-DDD	7.410	1670506
4,4'-DDT	7.697	6298067
Endrin ketone	8.580	775666
Endrin aldehyde	7.845	137339

DDT Percent Breakdown = 22.2 %
((123640+1670506) * 100)/(123640+1670506+6298067)

Endrin Percent Breakdown = 9.3 %
((137339+775666) * 100)/(137339+775666+8955433)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STX-CLP DS
UVOLTS
Time (Min)
1.572
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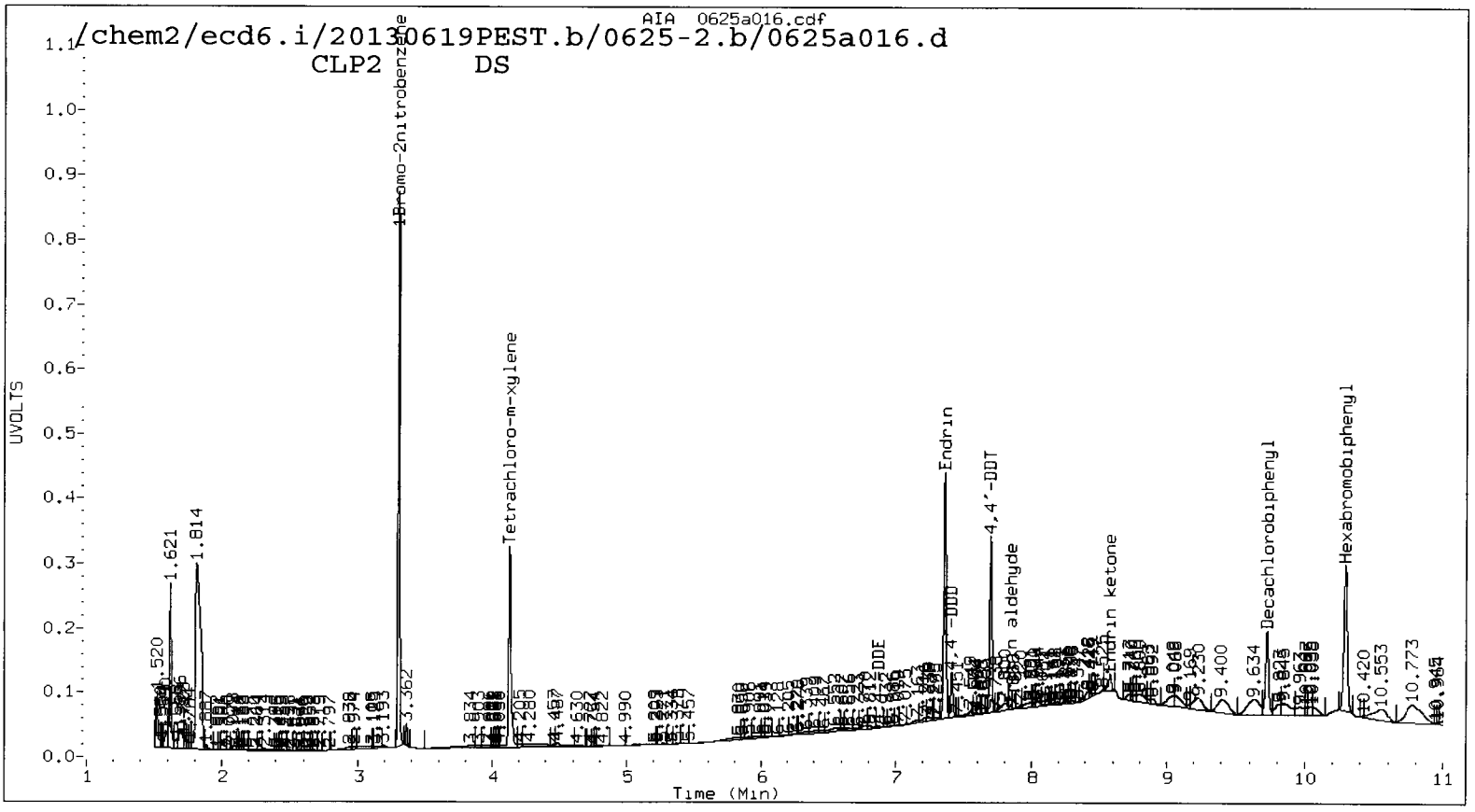
1Bromo-2nitrobenzene
3.210
3.332
3.828
Tetrachloro-m-xylene
4.356
4.571
4.924
4,4'-DDE
4,4'-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1.621
1.814
1Bromo-2nitrobenzene
3.362
Tetrachloro-m-xylene
4.280
4.990
4,4'-DDE
4,4'-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
9.400
9.634
Decachlorobiphenyl
Hexabromobiphenyl
10.420
10.553
10.773

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/25/13,1843

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
alpha-BHC	4.71	4.66	4.76	11.2	20.0	-44.1	<-
beta-BHC	5.14	5.09	5.19	8.7	20.0	-56.5	<-
delta-BHC	5.45	5.40	5.50	9.4	20.0	-53.0	<-
gamma-BHC (Lindane)	5.07	5.02	5.12	10.3	20.0	-48.6	<-
Heptachlor	5.53	5.48	5.58	8.6	20.0	-57.0	<-
Aldrin	5.87	5.82	5.92	8.1	20.0	-59.4	<-
Heptachlor epoxide b	6.42	6.37	6.47	7.5	20.0	-62.6	<-
Endosulfan I	6.81	6.76	6.86	6.0	20.0	-70.1	<-
Dieldrin	7.07	7.02	7.12	14.5	40.0	-63.8	<-
4,4'-DDE	6.87	6.82	6.92	12.1	40.0	-69.7	<-
Endrin	7.36	7.31	7.41	28.2	40.0	-29.4	<-
Endosulfan II	7.55	7.50	7.60	32.8	40.0	-18.0	
4,4'-DDD	7.41	7.36	7.46	31.3	40.0	-21.7	<-
Endosulfan sulfate	8.09	8.04	8.14	36.0	40.0	-10.1	
4,4'-DDT	7.70	7.64	7.74	30.2	40.0	-24.6	<-
Methoxychlor	8.28	8.23	8.33	152.5	200.0	-23.8	<-
Endrin ketone	8.58	8.53	8.63	49.1	40.0	22.7	<-
Endrin aldehyde	7.84	7.79	7.89	32.6	40.0	-18.5	
gamma-Chlordane	6.61	6.55	6.65	7.2	20.0	-63.9	<-
alpha-Chlordane	6.74	6.69	6.79	5.9	20.0	-70.4	<-
Hexachlorobutadiene	2.47	2.42	2.52	16.6	20.0	-17.0	
Hexachlorobenzene	4.59	4.54	4.64	11.1	20.0	-44.5	<-
Tetrachloro-m-xylene	4.13	4.08	4.18	24.0	40.0	-40.1	<-
Decachlorobiphenyl	9.73	9.67	9.77	36.2	40.0	-9.6	

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/25/13,1843

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
alpha-BHC	4.28	4.24	4.34	16.9	20.0	-15.5	
beta-BHC	4.64	4.59	4.69	14.4	20.0	-27.8	<-
delta-BHC	4.81	4.76	4.86	15.3	20.0	-23.6	<-
gamma-BHC (Lindane)	4.56	4.52	4.62	15.7	20.0	-21.2	<-
Heptachlor	5.01	4.96	5.06	14.6	20.0	-27.0	<-
Aldrin	5.30	5.26	5.36	15.4	20.0	-23.2	<-
Heptachlor epoxide b	5.87	5.83	5.93	13.9	20.0	-30.6	<-
Endosulfan I	6.25	6.21	6.31	13.7	20.0	-31.6	<-
Dieldrin	6.47	6.43	6.53	27.0	40.0	-32.5	<-
4,4'-DDE	6.17	6.13	6.23	31.7	40.0	-20.8	<-
Endrin	6.69	6.65	6.75	30.3	40.0	-24.3	<-
Endosulfan II	6.89	6.86	6.96	29.5	40.0	-26.4	<-
4,4'-DDD	6.73	6.69	6.79	33.9	40.0	-15.2	
Endosulfan sulfate	7.66	7.62	7.72	28.2	40.0	-29.6	<-
4,4'-DDT	6.98	6.95	7.05	22.7	40.0	-43.3	<-
Methoxychlor	7.41	7.37	7.47	130.2	200.0	-34.9	<-
Endrin ketone	7.91	7.88	7.98	28.9	40.0	-27.8	<-
Endrin aldehyde	7.27	7.23	7.33	32.4	40.0	-19.0	
gamma-Chlordane	5.99	5.95	6.05	13.7	20.0	-31.3	<-
alpha-Chlordane	6.11	6.08	6.18	13.4	20.0	-32.8	<-
Hexachlorobutadiene	2.31	2.26	2.36	17.6	20.0	-12.2	
Hexachlorobenzene	4.13	4.09	4.19	16.3	20.0	-18.4	
Tetrachloro-m-xylene	3.79	3.75	3.85	34.9	40.0	-12.8	
Decachlorobiphenyl	8.76	8.73	8.83	37.7	40.0	-5.7	

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/25/13,1901

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Toxaphene -1	7.29	7.24	7.34	1740	2500	-30.4	<-
Toxaphene -2	7.62	7.57	7.67	1780	2500	-28.8	<-
Toxaphene -3	7.85	7.80	7.90	1560	2500	-37.6	<-
Toxaphene -4	8.32	8.26	8.36	1430	2500	-42.8	<-
Toxaphene -5	8.36	8.30	8.40	1340	2500	-46.4	<-

AVERAGE %D = 37.2

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/25/13,1901

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Toxaphene -1	6.95	6.91	7.01	1630	2500	-34.8	<-
Toxaphene -2	7.00	6.96	7.06	1650	2500	-34.0	<-
Toxaphene -3	7.25	7.22	7.32	1500	2500	-40.0	<-
Toxaphene -4	7.58	7.54	7.64	1430	2500	-42.8	<-
Toxaphene -5	7.64	7.58	7.68	953	2500	-61.9	<-
Toxaphene -6	7.90	7.86	7.96	1270	2500	-49.2	<-

AVERAGE %D = 43.8

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20130619PEST

Analysis Date: 27-JUN-2013 17:41 Init. Calib. Date: 19-JUN-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.173	100097
Endrin	6.687	7785229
4,4'-DDD	6.729	303347
4,4'-DDT	6.985	7446937
Endrin ketone	7.913	322031
Endrin aldehyde	7.269	143096

DDT Percent Breakdown = 5.1 %
((100097+303347) * 100)/(100097+303347+7446937)

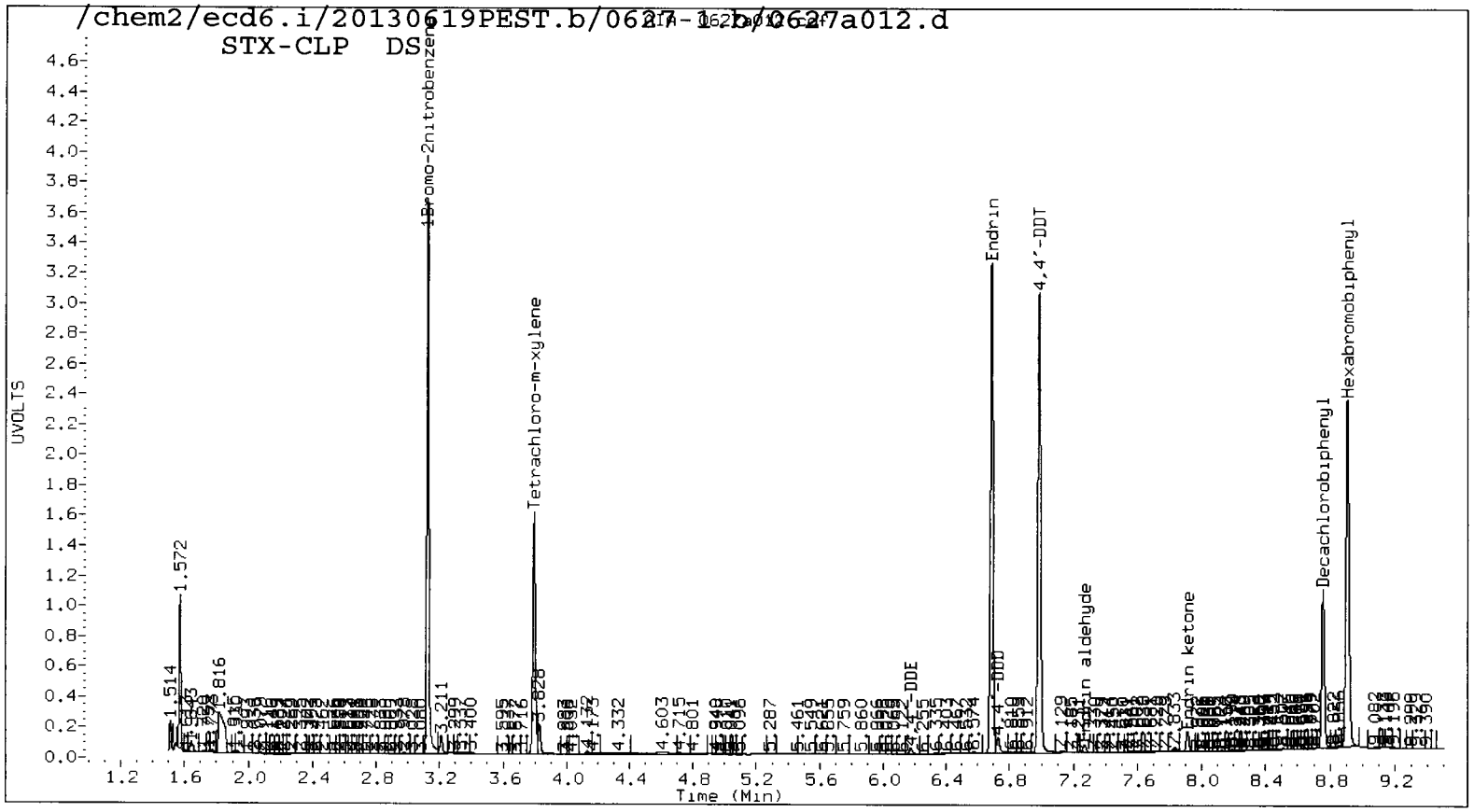
Endrin Percent Breakdown = 5.6 %
((143096+322031) * 100)/(143096+322031+7785229)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.871	342967
Endrin	7.357	21627319
4,4'-DDD	7.409	1234223
4,4'-DDT	7.697	20722803
Endrin ketone	8.579	812075
Endrin aldehyde	7.844	411340

DDT Percent Breakdown = 7.1 %
((342967+1234223) * 100)/(342967+1234223+20722803)

Endrin Percent Breakdown = 5.4 %
((411340+812075) * 100)/(411340+812075+21627319)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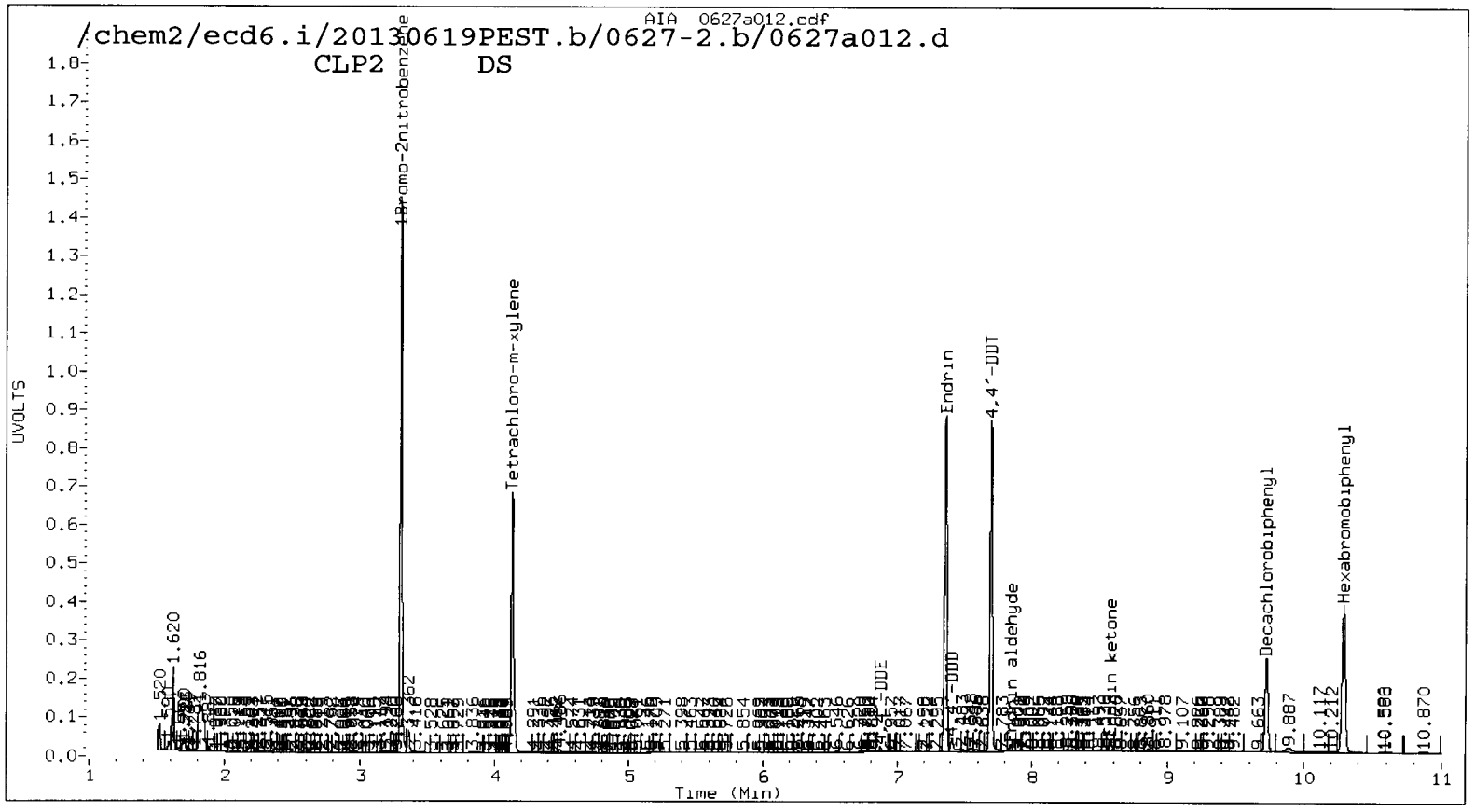
STX-CLP DS
AIA 0627a012.cdf
UVOLTS
Time (Min)
1.572
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
AIA 0627a012.cdf
UVOLTS
Time (Min)
1.620
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/27/13,1758

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.28	4.24	4.34	22.6	20.0	13.2
beta-BHC	4.64	4.59	4.69	20.8	20.0	4.0
delta-BHC	4.81	4.76	4.86	22.4	20.0	12.0
gamma-BHC (Lindane)	4.56	4.52	4.62	22.2	20.0	11.0
Heptachlor	5.00	4.96	5.06	21.8	20.0	8.8
Aldrin	5.30	5.26	5.36	22.4	20.0	12.1
Heptachlor epoxide b	5.87	5.83	5.93	21.5	20.0	7.7
Endosulfan I	6.25	6.21	6.31	21.4	20.0	6.8
Dieldrin	6.47	6.43	6.53	43.8	40.0	9.5
4,4'-DDE	6.17	6.13	6.23	43.8	40.0	9.5
Endrin	6.69	6.65	6.75	41.6	40.0	4.0
Endosulfan II	6.89	6.86	6.96	41.7	40.0	4.3
4,4'-DDD	6.73	6.69	6.79	41.4	40.0	3.5
Endosulfan sulfate	7.66	7.62	7.72	41.1	40.0	2.8
4,4'-DDT	6.98	6.95	7.05	41.8	40.0	4.5
Methoxychlor	7.41	7.37	7.47	194.3	200.0	-2.8
Endrin ketone	7.91	7.88	7.98	41.2	40.0	2.9
Endrin aldehyde	7.27	7.23	7.33	41.2	40.0	2.9
gamma-Chlordane	5.99	5.95	6.05	22.1	20.0	10.4
alpha-Chlordane	6.11	6.08	6.18	21.6	20.0	7.8
Hexachlorobutadiene	2.30	2.26	2.36	21.3	20.0	6.6
Hexachlorobenzene	4.13	4.09	4.19	20.7	20.0	3.3
Tetrachloro-m-xylene	3.79	3.75	3.85	43.3	40.0	8.1
Decachlorobiphenyl	8.76	8.73	8.83	40.1	40.0	0.3

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/27/13,1758

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	4.71	4.66	4.76	20.3	20.0	1.3
beta-BHC	5.14	5.09	5.19	17.4	20.0	-13.0
delta-BHC	5.45	5.40	5.50	20.1	20.0	0.7
gamma-BHC (Lindane)	5.07	5.02	5.12	20.1	20.0	0.6
Heptachlor	5.53	5.48	5.58	18.7	20.0	-6.5
Aldrin	5.87	5.82	5.92	18.8	20.0	-6.0
Heptachlor epoxide b	6.42	6.37	6.47	17.7	20.0	-11.4
Endosulfan I	6.81	6.76	6.86	18.0	20.0	-10.2
Dieldrin	7.07	7.02	7.12	35.6	40.0	-11.1
4,4'-DDE	6.87	6.82	6.92	35.5	40.0	-11.2
Endrin	7.36	7.31	7.41	42.1	40.0	5.3
Endosulfan II	7.55	7.50	7.60	43.0	40.0	7.4
4,4'-DDD	7.41	7.36	7.46	40.6	40.0	1.6
Endosulfan sulfate	8.09	8.04	8.14	41.6	40.0	4.0
4,4'-DDT	7.70	7.64	7.74	41.7	40.0	4.2
Methoxychlor	8.28	8.23	8.33	195.2	200.0	-2.4
Endrin ketone	8.58	8.53	8.63	41.9	40.0	4.7
Endrin aldehyde	7.84	7.79	7.89	42.4	40.0	6.0
gamma-Chlordane	6.61	6.55	6.65	17.3	20.0	-13.3
alpha-Chlordane	6.74	6.69	6.79	17.5	20.0	-12.5
Hexachlorobutadiene	2.47	2.42	2.52	20.2	20.0	1.0
Hexachlorobenzene	4.59	4.54	4.64	20.2	20.0	1.1
Tetrachloro-m-xylene	4.13	4.08	4.18	40.8	40.0	2.0
Decachlorobiphenyl	9.72	9.67	9.77	40.0	40.0	-0.0

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/27/13,1816

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Toxaphene -1	7.29	7.24	7.34	2250	2500	-10.0
Toxaphene -2	7.62	7.57	7.67	2240	2500	-10.4
Toxaphene -3	7.85	7.80	7.90	2200	2500	-12.0
Toxaphene -4	8.32	8.26	8.36	2060	2500	-17.6
Toxaphene -5	8.36	8.30	8.40	2050	2500	-18.0

AVERAGE %D = 13.6

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/27/13,1816

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Toxaphene -1	6.94	6.91	7.01	2110	2500	-15.6	
Toxaphene -2	7.00	6.96	7.06	2260	2500	-9.6	
Toxaphene -3	7.25	7.22	7.32	2110	2500	-15.6	
Toxaphene -4	7.58	7.54	7.64	2070	2500	-17.2	
Toxaphene -5	7.64	7.58	7.68	1700	2500	-32.0	<-
Toxaphene -6	7.90	7.86	7.96	2030	2500	-18.8	

AVERAGE %D = 18.1

FORM VII PEST-3

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20130619PEST

Analysis Date: 27-JUN-2013 19:27 Init. Calib. Date: 19-JUN-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.174	78816
Endrin	6.687	6829873
4,4'-DDD	6.729	238456
4,4'-DDT	6.985	6344093
Endrin ketone	7.913	253677
Endrin aldehyde	7.270	117199

DDT Percent Breakdown = 4.8 %
((78816+238456) * 100)/(78816+238456+6344093)

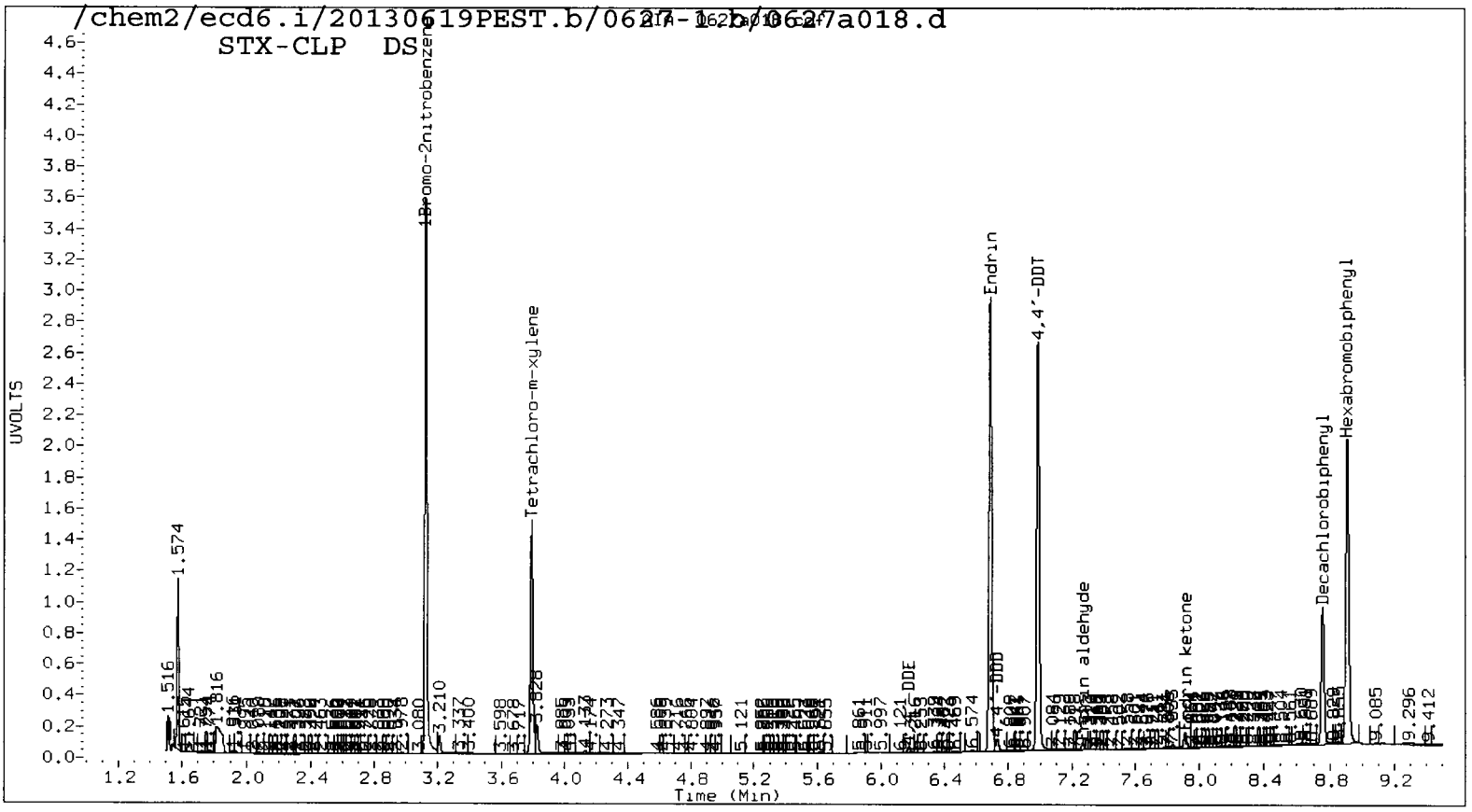
Endrin Percent Breakdown = 5.2 %
((117199+253677) * 100)/(117199+253677+6829873)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.872	215170
Endrin	7.358	15146453
4,4'-DDD	7.410	835076
4,4'-DDT	7.697	14392711
Endrin ketone	8.579	583789
Endrin aldehyde	7.844	279849

DDT Percent Breakdown = 6.8 %
((215170+835076) * 100)/(215170+835076+14392711)

Endrin Percent Breakdown = 5.4 %
((279849+583789) * 100)/(279849+583789+15146453)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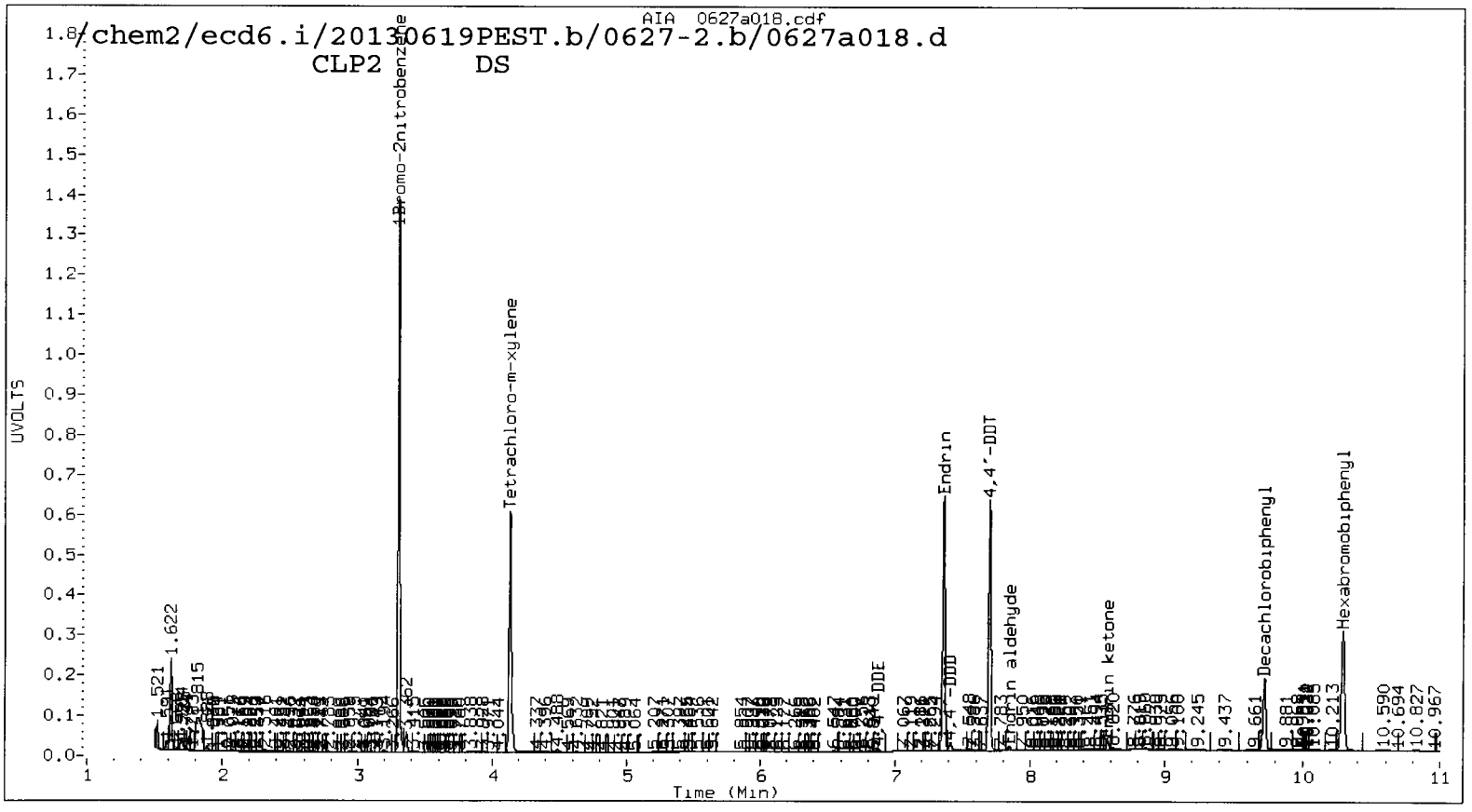
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
1.574
1.516
3.210
3.828
DDE
Endrin aldehyde
Endrin ketone
9.085
9.296
9.412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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
1.622
1.521
DDE
Endrin aldehyde
Endrin ketone
9.245
9.437
9.661
10.213
10.590
10.694
10.827
10.967

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/27/13,1945

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
alpha-BHC	4.71	4.66	4.76	18.5	20.0	-7.2	
beta-BHC	5.14	5.09	5.19	15.8	20.0	-20.9	<-
delta-BHC	5.45	5.40	5.50	18.2	20.0	-8.8	
gamma-BHC (Lindane)	5.07	5.02	5.12	18.3	20.0	-8.3	
Heptachlor	5.53	5.48	5.58	17.1	20.0	-14.7	
Aldrin	5.87	5.82	5.92	16.2	20.0	-19.2	
Heptachlor epoxide b	6.42	6.37	6.47	14.8	20.0	-26.2	<-
Endosulfan I	6.81	6.76	6.86	12.9	20.0	-35.5	<-
Dieldrin	7.07	7.02	7.12	26.3	40.0	-34.3	<-
4,4'-DDE	6.87	6.82	6.92	26.1	40.0	-34.9	<-
Endrin	7.36	7.31	7.41	37.9	40.0	-5.2	
Endosulfan II	7.55	7.50	7.60	39.6	40.0	-1.1	
4,4'-DDD	7.41	7.36	7.46	35.8	40.0	-10.5	
Endosulfan sulfate	8.09	8.04	8.14	35.3	40.0	-11.7	
4,4'-DDT	7.70	7.64	7.74	38.1	40.0	-4.7	
Methoxychlor	8.28	8.23	8.33	199.4	200.0	-0.3	
Endrin ketone	8.58	8.53	8.63	39.7	40.0	-0.7	
Endrin aldehyde	7.84	7.79	7.89	37.0	40.0	-7.6	
gamma-Chlordane	6.61	6.55	6.65	13.2	20.0	-33.8	<-
alpha-Chlordane	6.74	6.69	6.79	12.5	20.0	-37.4	<-
Hexachlorobutadiene	2.47	2.42	2.52	19.9	20.0	-0.4	
Hexachlorobenzene	4.59	4.54	4.64	18.6	20.0	-7.0	
Tetrachloro-m-xylene	4.13	4.08	4.18	38.2	40.0	-4.6	
Decachlorobiphenyl	9.72	9.67	9.77	38.8	40.0	-2.9	

7E

8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: INDAE Date/Time Analyzed: 06/27/13,1945

PEST MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D
alpha-BHC	4.28	4.24	4.34	22.2	20.0	10.8
beta-BHC	4.64	4.59	4.69	20.0	20.0	0.2
delta-BHC	4.81	4.76	4.86	21.5	20.0	7.6
gamma-BHC (Lindane)	4.56	4.52	4.62	21.5	20.0	7.7
Heptachlor	5.01	4.96	5.06	21.1	20.0	5.4
Aldrin	5.30	5.26	5.36	21.6	20.0	7.8
Heptachlor epoxide b	5.87	5.83	5.93	20.3	20.0	1.3
Endosulfan I	6.25	6.21	6.31	20.0	20.0	-0.2
Dieldrin	6.47	6.43	6.53	40.6	40.0	1.6
4,4'-DDE	6.17	6.13	6.23	42.5	40.0	6.2
Endrin	6.69	6.65	6.75	43.5	40.0	8.6
Endosulfan II	6.89	6.86	6.96	42.2	40.0	5.5
4,4'-DDD	6.73	6.69	6.79	42.3	40.0	5.8
Endosulfan sulfate	7.66	7.62	7.72	40.1	40.0	0.2
4,4'-DDT	6.98	6.95	7.05	41.5	40.0	3.7
Methoxychlor	7.41	7.37	7.47	207.1	200.0	3.6
Endrin ketone	7.91	7.88	7.98	40.3	40.0	0.7
Endrin aldehyde	7.27	7.23	7.33	41.3	40.0	3.4
gamma-Chlordane	5.99	5.95	6.05	20.6	20.0	3.1
alpha-Chlordane	6.11	6.08	6.18	20.1	20.0	0.6
Hexachlorobutadiene	2.31	2.26	2.36	21.4	20.0	7.1
Hexachlorobenzene	4.13	4.09	4.19	20.4	20.0	2.0
Tetrachloro-m-xylene	3.79	3.75	3.85	43.2	40.0	8.0
Decachlorobiphenyl	8.76	8.73	8.83	40.2	40.0	0.6

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/27/13,2003

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Toxaphene -1	7.29	7.24	7.34	2100	2500	-16.0	
Toxaphene -2	7.62	7.57	7.67	2230	2500	-10.8	
Toxaphene -3	7.85	7.80	7.90	2050	2500	-18.0	
Toxaphene -4	8.32	8.26	8.36	1940	2500	-22.4	<-
Toxaphene -5	8.35	8.30	8.40	1960	2500	-21.6	<-

AVERAGE %D = 17.8

FORM VII PEST-3

7F

8081 PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 06/19/13

Lab Ccal ID: TOXAPH Date/Time Analyzed: 06/27/13,2003

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ug/L)	NOM AMOUNT (ug/L)	%D	
Toxaphene -1	6.94	6.91	7.01	2100	2500	-16.0	
Toxaphene -2	6.99	6.96	7.06	2280	2500	-8.8	
Toxaphene -3	7.25	7.22	7.32	2100	2500	-16.0	
Toxaphene -4	7.58	7.54	7.64	2040	2500	-18.4	
Toxaphene -5	7.64	7.58	7.68	1660	2500	-33.6	<-
Toxaphene -6	7.90	7.86	7.96	1990	2500	-20.4	<-

AVERAGE %D = 18.9

FORM VII PEST-3

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP1 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 06/19/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			IS1 AREA	RT	IS2 AREA	RT
		ICAL MIDPT	5590801	3.130	4870538	8.927
		UPPER LIMIT	11181602	3.180	9741076	8.977
		LOWER LIMIT	2795400	3.080	2435269	8.877

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	06/19/13	1757	5590801	3.130	4870538	8.927
02		INDAA	06/19/13	1814	5443407	3.130	4756712	8.927
03		INDAB	06/19/13	1832	5578569	3.131	4877747	8.927
04		INDAC	06/19/13	1850	5651084	3.130	4910634	8.926
05		INDAD	06/19/13	1908	5597417	3.130	4918023	8.927
06		INDAF	06/19/13	1926	5751246	3.130	5082371	8.927
07		INDAG	06/19/13	1944	5601251	3.131	5032937	8.927
08		TOXAPHENE	06/19/13	2317	6058478	3.132	5799142	8.927
09		DS	06/25/13	1510	7459120	3.124	7265210	8.906
10		INDAE	06/25/13	1528	6980936	3.124	6724624	8.906
11		TOXAPH	06/25/13	1545	6885906	3.124	6946802	8.907
12	WT81MBS1	WT81MBS1	06/25/13	1603	6637557	3.123	6441794	8.905
13	WT81LCSS1	WT81LCSS1	06/25/13	1621	6571407	3.124	6371690	8.905
14	ZZZZZ	ZZZZZ	06/25/13	1639	6305504	3.124	6191974	8.905
15	AM-VT-INF-20	WT81A	06/25/13	1657	5937304	3.123	5892262	8.921
16	AM-SF4-EFF-2	WT81B	06/25/13	1714	6055291	3.123	6683328	8.954
17	AM-FD-01-201	WT81C	06/25/13	1732	4833990	3.123	5114322	8.957
18	AM-FD-01-201	WT81CMS	06/25/13	1750	5697582	3.123	6371028	8.957
19	AM-FD-01-201	WT81CMSD	06/25/13	1808	5379525	3.123	7221941	8.957
20		DS	06/25/13	1826	5985924	3.124	5303632	8.907
21		INDAE	06/25/13	1843	6442561	3.125	4907300	8.907
22		TOXAPH	06/25/13	1901	6254364	3.125	4986411	8.907
23		INDAE	06/27/13	1758	6715782	3.124	6193033	8.908
24		TOXAPH	06/27/13	1816	6878588	3.125	6507625	8.908
25	AM-VT-INF-20	WT81A	06/27/13	1834	6857090	3.124	6022363	8.905
26	AM-SF4-EFF-2	WT81B	06/27/13	1852	7223342	3.124	6032955	8.908
27	AM-FD-01-201	WT81C	06/27/13	1910	7120602	3.124	5857223	8.907
28		DS	06/27/13	1927	6778198	3.125	5272887	8.907
29		INDAE	06/27/13	1945	6575595	3.125	5346271	8.907
30		TOXAPH	06/27/13	2003	6932872	3.125	6133778	8.907

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING SUPPORT

GC Column: STX-CLP2 ID: 0.53(mm) Instrument ID: ECD6

Init. Calib. Date: 06/19/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

			IS1 AREA	RT	IS2 AREA	RT
		ICAL MIDPT	28320361	3.300	16454599	10.289
		UPPER LIMIT	56640722	3.350	32909198	10.339
		LOWER LIMIT	14160180	3.250	8227300	10.239

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01		INDAE	06/19/13	1757	28320361	3.300	16454599	10.289
02		INDAA	06/19/13	1814	27626455	3.300	16087272	10.288
03		INDAB	06/19/13	1832	28124817	3.300	16392538	10.289
04		INDAC	06/19/13	1850	28473248	3.299	16513179	10.289
05		INDAD	06/19/13	1908	28402073	3.299	16714534	10.289
06		INDAF	06/19/13	1926	29146657	3.300	17347014	10.289
07		INDAG	06/19/13	1944	28311756	3.300	17081518	10.289
08		TOXAPHENE	06/19/13	2317	29930668	3.301	19105364	10.289
09		DS	06/25/13	1510	30544553	3.299	18891318	10.287
10		INDAE	06/25/13	1528	29495923	3.300	18007957	10.287
11		TOXAPH	06/25/13	1545	29667902	3.300	18224259	10.287
12	WT81MBS1	WT81MBS1	06/25/13	1603	27952473	3.299	16390268	10.287
13	WT81LCSS1	WT81LCSS1	06/25/13	1621	28115041	3.299	15937223	10.287
14	ZZZZZ	ZZZZZ	06/25/13	1639	27651758	3.299	15629522	10.286
15	AM-VT-INF-20	WT81A	06/25/13	1657	20436447	3.299	9067730	10.297
16	AM-SF4-EFF-2	WT81B	06/25/13	1714	16942234	3.299	8662376	10.318
17	AM-FD-01-201	WT81C	06/25/13	1732	13493748*	3.299	7530938*	10.320
18	AM-FD-01-201	WT81CMS	06/25/13	1750	14288443	3.299	8047650*	10.320
19	AM-FD-01-201	WT81CMSD	06/25/13	1808	14018776*	3.299	7892312*	10.320
20		DS	06/25/13	1826	15185461	3.300	7686483*	10.290
21		INDAE	06/25/13	1843	27899775	3.301	7542941*	10.290
22		TOXAPH	06/25/13	1901	27802299	3.301	7959546*	10.290
23		INDAE	06/27/13	1758	28121646	3.300	14179509	10.288
24		TOXAPH	06/27/13	1816	29135804	3.301	15486641	10.289
25	AM-VT-INF-20	WT81A	06/27/13	1834	27111274	3.300	12047145	10.288
26	AM-SF4-EFF-2	WT81B	06/27/13	1852	28212544	3.300	10689121	10.289
27	AM-FD-01-201	WT81C	06/27/13	1910	26749253	3.301	10153222	10.288
28		DS	06/27/13	1927	26569407	3.301	10485578	10.288
29		INDAE	06/27/13	1945	28503895	3.301	10816249	10.289
30		TOXAPH	06/27/13	2003	29825953	3.301	12373371	10.288

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

PCB Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 22:12
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 56.9%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.97	3.8	< 3.8 U
53469-21-9	Aroclor 1242	1.3	3.8	< 3.8 U
12672-29-6	**Aroclor 1248**	**1.3**	**3.8**	**10**
11097-69-1	**Aroclor 1254**	**1.3**	**3.8**	**20**
11096-82-5	**Aroclor 1260**	**1.3**	**3.8**	**6.5**
11104-28-2	Aroclor 1221	1.3	3.8	< 3.8 U
11141-16-5	Aroclor 1232	1.3	3.8	< 3.8 U
37324-23-5	Aroclor 1262	1.3	3.8	< 3.8 U
11100-14-4	Aroclor 1268	1.3	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	73.8%
Tetrachlorometaxylene	67.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 23:18
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 13.1 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.1%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	< 19 U
53469-21-9	Aroclor 1242	6.5	19	< 19 U
12672-29-6	**Aroclor 1248**	**6.5**	**19**	**39**
11097-69-1	**Aroclor 1254**	**6.5**	**19**	**49**
11096-82-5	**Aroclor 1260**	**6.5**	**19**	**20**
11104-28-2	Aroclor 1221	6.5	19	< 19 U
11141-16-5	Aroclor 1232	6.5	19	< 19 U
37324-23-5	Aroclor 1262	6.5	19	< 19 U
11100-14-4	Aroclor 1268	6.5	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	74.4%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-FD-01-20130612-S
SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 23:40
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.9 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5.00
Silica Gel: Yes

Percent Moisture: 60.2%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	4.9	19	< 19 U
53469-21-9	Aroclor 1242	6.6	19	< 19 U
12672-29-6	**Aroclor 1248**	**6.6**	**19**	**33**
11097-69-1	**Aroclor 1254**	**6.6**	**19**	**48**
11096-82-5	**Aroclor 1260**	**6.6**	**19**	**21**
11104-28-2	Aroclor 1221	6.6	19	< 19 U
11141-16-5	Aroclor 1232	6.6	19	< 19 U
37324-23-5	Aroclor 1262	6.6	19	< 19 U
11100-14-4	Aroclor 1268	6.6	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	91.5%
Tetrachlorometaxylene	79.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-061813	88.8%	64-105	75.0%	54-100	0
LCS-061813	87.2%	64-105	74.8%	54-100	0
LCSD-061813	90.8%	64-105	79.2%	54-100	0
AM-VT-INF-20130612-S	73.8%	37-128	67.0%	45-102	0
AM-VT-INF-20130612-S MS	80.2%	35-133	66.5%	53-116	0
AM-VT-INF-20130612-S MSD	77.5%	35-133	64.5%	53-116	0
AM-SF4-EFF-20130612-S	100%	37-128	74.4%	45-102	0
AM-FD-01-20130612-S	91.5%	37-128	79.2%	45-102	0

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 13-12636 to 13-12638

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
MS/MSD

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted MS/MSD: 06/18/13

Date Analyzed MS: 06/22/13 22:34
MSD: 06/22/13 22:56
Instrument/Analyst MS: ECD7/JGR
MSD: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 13.3 g-dry-wt
MSD: 13.0 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: Yes

Percent Moisture: 56.9%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 3.8 U	60.8	95.0	64.0%	60.2	97.0	62.1%	1.0%
Aroclor 1260	6.5	72.1	95.0	69.1%	71.6	97.0	67.1%	0.7%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
MATRIX SPIKE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 22:34
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 13.3 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 56.9%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.96	3.8	---
53469-21-9	Aroclor 1242	1.3	3.8	< 3.8 U
12672-29-6	**Aroclor 1248**	**1.3**	**3.8**	**68 P**
11097-69-1	**Aroclor 1254**	**1.3**	**3.8**	**48**
11096-82-5	Aroclor 1260	1.3	3.8	---
11104-28-2	Aroclor 1221	1.3	3.8	< 3.8 U
11141-16-5	Aroclor 1232	1.3	3.8	< 3.8 U
37324-23-5	Aroclor 1262	1.3	3.8	< 3.8 U
11100-14-4	Aroclor 1268	1.3	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	66.5%

FORM I

WT81:00239

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
MATRIX SPIKE DUP

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 22:56
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 13.0 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 56.9%

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	0.98	3.8	---
53469-21-9	Aroclor 1242	1.3	3.8	< 3.8 U
12672-29-6	**Aroclor 1248**	**1.3**	**3.8**	**66 P**
11097-69-1	**Aroclor 1254**	**1.3**	**3.8**	**45**
11096-82-5	Aroclor 1260	1.3	3.8	---
11104-28-2	Aroclor 1221	1.3	3.8	< 3.8 U
11141-16-5	Aroclor 1232	1.3	3.8	< 3.8 U
37324-23-5	Aroclor 1262	1.3	3.8	< 3.8 U
11100-14-4	Aroclor 1268	1.3	3.8	< 3.8 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	64.5%

FORM I

WT81-080291

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD

Sample ID: LCS-061813
LCS/LCSD

Lab Sample ID: LCS-061813
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 06/18/13

Date Analyzed LCS: 06/22/13 20:00
LCSD: 06/22/13 20:22
Instrument/Analyst LCS: ECD7/JGR
LCSD: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount LCS: 12.5 g-dry-wt
LCSD: 12.5 g-dry-wt
Final Extract Volume LCS: 2.50 mL
LCSD: 2.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: Yes

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	75.7	101	75.0%	80.1	101	79.3%	5.6%
Aroclor 1260	80.2	101	79.4%	84.7	101	83.9%	5.5%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	87.2%	90.8%
Tetrachlorometaxylene	74.8%	79.2%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

PCB METHOD BLANK SUMMARY

BLANK NO.

WT81MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WT81
Project: NPDES SAMPLING SUPPO

Lab Sample ID: WT81MBS1
Lab File ID: 0622A016

Date Extracted: 06/18/13
Matrix: SOLID

Date Analyzed: 06/22/13
Instrument ID: ECD7

Time Analyzed: 1938
GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WT81LCSS1	WT81LCSS1	06/22/13
02	WT81LCSDS1	WT81LCSDS1	06/22/13
03	AM-VT-INF-20130612-	WT81A	06/22/13
04	AM-VT-INF-20130 MS	WT81AMS	06/22/13
05	AM-VT-INF-20130 MSD	WT81AMSD	06/22/13
06	AM-SF4-EFF-20130612	WT81B	06/22/13
07	AM-FD-01-20130612-S	WT81C	06/22/13

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Extraction Method: SW3546
Page 1 of 1

Sample ID: MB-061813
METHOD BLANK

Lab Sample ID: MB-061813
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted: 06/18/13
Date Analyzed: 06/22/13 19:38
Instrument/Analyst: ECD7/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

CAS Number	Analyte	MDL	RL	Result
12674-11-2	Aroclor 1016	1.0	4.0	< 4.0 U
53469-21-9	Aroclor 1242	1.4	4.0	< 4.0 U
12672-29-6	Aroclor 1248	1.4	4.0	< 4.0 U
11097-69-1	Aroclor 1254	1.4	4.0	< 4.0 U
11096-82-5	Aroclor 1260	1.4	4.0	< 4.0 U
11104-28-2	Aroclor 1221	1.4	4.0	< 4.0 U
11141-16-5	Aroclor 1232	1.4	4.0	< 4.0 U
37324-23-5	Aroclor 1262	1.4	4.0	< 4.0 U
11100-14-4	Aroclor 1268	1.4	4.0	< 4.0 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	88.8%
Tetrachlorometaxylene	75.0%

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 05/13/13

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 5.64- 5.84	0.9055	0.9025	0.9294	0.9236	0.9298	0.9886	0.9299	3.3
DCB 14.49-14.69	1.0950	1.0411	1.0141	0.9379	0.9127	0.9643	0.9942	6.9

Aroclor-1016 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 7.65- 7.85	0.0267	0.0262	0.0253	0.0237	0.0227	0.0234	0.0247	6.6
2 8.17- 8.37	0.0877	0.0857	0.0844	0.0802	0.0782	0.0813	0.0829	4.3
3 8.36- 8.56	0.0360	0.0350	0.0338	0.0314	0.0301	0.0311	0.0329	7.1
4 8.78- 8.98	0.0234	0.0217	0.0205	0.0184	0.0173	0.0177	0.0198	12.3

AROCLOR AVERAGE %RSD = 7.6

Aroclor-1260 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 11.95-12.15	0.0658	0.0597	0.0562	0.0522	0.0499	0.0519	0.0560	10.7
2 12.26-12.46	0.0624	0.0584	0.0564	0.0524	0.0511	0.0533	0.0557	7.6
3 12.64-12.84	0.1354	0.1316	0.1309	0.1239	0.1221	0.1283	0.1287	3.9
4 13.03-13.23	0.0700	0.0688	0.0685	0.0647	0.0641	0.0675	0.0673	3.5
5 13.21-13.41	0.0309	0.0308	0.0305	0.0285	0.0278	0.0291	0.0296	4.5

AROCLOR AVERAGE %RSD = 6.0

6F

8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 05/13/13

SURROGATES

RT WIN	LVL1	LVL2	LVL3	LVL4	LVL5	LVL6	MEAN	%RSD
TCX 5.29- 5.49	1.0600	1.0101	0.9988	0.9393	0.9212	0.9585	0.9813	5.2
DCB 14.53-14.73	0.9355	1.0241	1.0079	0.9282	0.9025	0.9672	0.9609	5.0

Aroclor-1016 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 6.55- 6.75	0.0236	0.0213	0.0198	0.0171	0.0158	0.0155	0.0188	17.2
2 7.43- 7.63	0.0511	0.0468	0.0434	0.0379	0.0351	0.0349	0.0415	16.0
3 8.24- 8.44	0.1011	0.0944	0.0867	0.0771	0.0731	0.0747	0.0845	13.6
4 8.84- 9.04	0.0306	0.0309	0.0273	0.0226	0.0207	0.0203	0.0254	19.0

AROCLOR AVERAGE %RSD = 16.5

Aroclor-1260 Peak RT WIN	LVL1 .02	LVL2 0.05	LVL3 0.1	LVL4 .25	LVL5 0.5	LVL6 1.0	MEAN	%RSD R^2
1 11.85-12.05	0.1028	0.0921	0.0845	0.0710	0.0699	0.0724	0.0821	16.3
2 12.40-12.60	0.0837	0.0751	0.0687	0.0569	0.0562	0.0578	0.0664	17.1
3 12.67-12.87	0.1511	0.1388	0.1321	0.1134	0.1157	0.1220	0.1288	11.3
4 13.23-13.43	0.1002	0.0938	0.0885	0.0754	0.0758	0.0785	0.0853	12.2

AROCLOR AVERAGE %RSD = 14.2

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 05/13/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	6.191	6.09- 6.29	0.00940
2	6.400	6.30- 6.50	0.00793
3	6.523	6.42- 6.62	0.02309

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.520	6.42- 6.62	0.01552
2	7.743	7.64- 7.84	0.00958
3	8.263	8.16- 8.36	0.03130
4	8.449	8.35- 8.55	0.01261

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	7.747	7.65- 7.85	0.02034
2	8.267	8.17- 8.37	0.06806
3	8.454	8.35- 8.55	0.02678
4	9.417	9.32- 9.52	0.02531

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	8.259	8.16- 8.36	0.03940
2	8.878	8.78- 8.98	0.02565
3	9.417	9.32- 9.52	0.03634
4	9.887	9.79- 9.99	0.04602

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Instrument ID: ECD7

Calibration Date: 05/13/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.230	10.13-10.33	0.04842
2	10.620	10.52-10.72	0.03019
3	10.760	10.66-10.86	0.05914
4	11.120	11.02-11.22	0.06073
5	11.816	11.72-11.92	0.06009

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.361	12.26-12.46	0.06792
2	12.731	12.63-12.83	0.15657
3	13.128	13.03-13.23	0.05095
4	13.307	13.21-13.41	0.05998
5	13.887	13.79-13.99	0.04822

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.239	13.14-13.34	0.16630
2	13.306	13.21-13.41	0.14844
3	13.651	13.55-13.75	0.12278
4	14.288	14.19-14.39	0.34570

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 05/13/13

Aroclor-1221			
Peak	RT	RT WIN	Cal Factor
1	6.215	6.12- 6.32	0.01248
2	6.512	6.41- 6.61	0.00723
3	6.647	6.55- 6.75	0.02172
4	7.540	7.44- 7.64	0.00790

Aroclor-1232			
Peak	RT	RT WIN	Cal Factor
1	6.645	6.54- 6.74	0.01561
2	7.525	7.43- 7.63	0.01760
3	8.337	8.24- 8.44	0.03322
4	8.936	8.84- 9.04	0.01132

Aroclor-1242			
Peak	RT	RT WIN	Cal Factor
1	6.646	6.55- 6.75	0.01620
2	7.528	7.43- 7.63	0.03274
3	8.338	8.24- 8.44	0.06680
4	9.404	9.30- 9.50	0.02656

Aroclor-1248			
Peak	RT	RT WIN	Cal Factor
1	7.525	7.42- 7.62	0.01509
2	8.334	8.23- 8.43	0.04054
3	8.937	8.84- 9.04	0.02948
4	10.345	10.24-10.44	0.04049

6G

8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 Instrument ID: ECD7

Calibration Date: 05/13/13

Aroclor-1254			
Peak	RT	RT WIN	Cal Factor
1	10.047	9.95-10.15	0.02638
2	10.233	10.13-10.33	0.03339
3	10.928	10.83-11.03	0.05526
4	11.181	11.08-11.28	0.05583
5	11.953	11.85-12.05	0.04022

Aroclor-1262			
Peak	RT	RT WIN	Cal Factor
1	12.498	12.40-12.60	0.07330
2	12.767	12.67-12.87	0.14645
3	13.273	13.17-13.37	0.06357
4	13.330	13.23-13.43	0.09595
5	13.957	13.86-14.06	0.05096

Aroclor-1268			
Peak	RT	RT WIN	Cal Factor
1	13.273	13.17-13.37	0.15308
2	13.335	13.23-13.43	0.14371
3	13.681	13.58-13.78	0.11569
4	14.332	14.23-14.43	0.34541

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WT81

Project: NPDES SAMPLING

GC Column: ZB5

Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/22/13

Lab Standard ID: AR1248

Time Analyzed :1810

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	8.26	8.16	8.36	245.0	250.0	-2.0
Aroclor-1248-2	8.88	8.78	8.98	241.1	250.0	-3.6
Aroclor-1248-3	9.42	9.32	9.52	235.8	250.0	-5.7
Aroclor-1248-4	9.89	9.79	9.99	233.6	250.0	-6.6

AVERAGE %D = 4.5

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WT81

Project: NPDES SAMPLING

GC Column: ZB35

Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/22/13

Lab Standard ID: AR1248

Time Analyzed :1810

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1248-1	7.52	7.42	7.62	254.4	250.0	1.7
Aroclor-1248-2	8.33	8.23	8.43	246.7	250.0	-1.3
Aroclor-1248-3	8.94	8.84	9.04	244.5	250.0	-2.2
Aroclor-1248-4	10.34	10.24	10.44	236.5	250.0	-5.4

AVERAGE %D = 2.7

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :1832

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	7.74	7.65	7.85	233.0	250.0	-6.8
Aroclor-1016-2	8.27	8.17	8.37	236.8	250.0	-5.3
Aroclor-1016-3	8.45	8.36	8.56	229.5	250.0	-8.2
Aroclor-1016-4	8.88	8.78	8.98	220.2	250.0	-11.9

AVERAGE %D = 8.0

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :1832

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.05	11.95	12.15	213.5	250.0	-14.6
Aroclor-1260-2	12.36	12.26	12.46	219.4	250.0	-12.2
Aroclor-1260-3	12.73	12.64	12.84	227.1	250.0	-9.2
Aroclor-1260-4	13.13	13.03	13.23	230.8	250.0	-7.7
Aroclor-1260-5	13.31	13.21	13.41	227.2	250.0	-9.1

AVERAGE %D = 10.6

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :1832

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.65	6.55	6.75	232.5	250.0	-7.0
Aroclor-1016-2	7.53	7.43	7.63	229.6	250.0	-8.2
Aroclor-1016-3	8.34	8.24	8.44	226.4	250.0	-9.4
Aroclor-1016-4	8.94	8.84	9.04	218.0	250.0	-12.8

AVERAGE %D = 9.4

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :1832

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.95	11.85	12.05	201.9	250.0	-19.2
Aroclor-1260-2	12.50	12.40	12.60	197.4	250.0	-21.0
Aroclor-1260-3	12.77	12.67	12.87	204.8	250.0	-18.1
Aroclor-1260-4	13.33	13.23	13.43	204.6	250.0	-18.1

AVERAGE %D = 19.1

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WT81

Project: NPDES SAMPLING

GC Column: ZB5

Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/22/13

Lab Standard ID: AR1242

Time Analyzed :2128

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	7.75	7.65	7.85	226.3	250.0	-9.5
Aroclor-1242-2	8.27	8.17	8.37	229.4	250.0	-8.2
Aroclor-1242-3	8.45	8.35	8.55	226.2	250.0	-9.5
Aroclor-1242-4	9.42	9.32	9.52	219.2	250.0	-12.3

AVERAGE %D = 9.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WT81

Project: NPDES SAMPLING

GC Column: ZB35

Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/22/13

Lab Standard ID: AR1242

Time Analyzed :2128

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1242-1	6.65	6.55	6.75	238.1	250.0	-4.7
Aroclor-1242-2	7.53	7.43	7.63	235.3	250.0	-5.9
Aroclor-1242-3	8.34	8.24	8.44	232.3	250.0	-7.1
Aroclor-1242-4	9.40	9.30	9.50	229.2	250.0	-8.3

AVERAGE %D = 6.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :2150

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	7.74	7.65	7.85	232.5	250.0	-7.0
Aroclor-1016-2	8.27	8.17	8.37	236.8	250.0	-5.3
Aroclor-1016-3	8.45	8.36	8.56	229.4	250.0	-8.2
Aroclor-1016-4	8.88	8.78	8.98	219.9	250.0	-12.0

AVERAGE %D = 8.1

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :2150

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.05	11.95	12.15	216.2	250.0	-13.5
Aroclor-1260-2	12.36	12.26	12.46	222.5	250.0	-11.0
Aroclor-1260-3	12.73	12.64	12.84	230.8	250.0	-7.7
Aroclor-1260-4	13.13	13.03	13.23	233.1	250.0	-6.8
Aroclor-1260-5	13.31	13.21	13.41	230.2	250.0	-7.9

AVERAGE %D = 9.4

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :2150

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.64	6.55	6.75	232.5	250.0	-7.0
Aroclor-1016-2	7.52	7.43	7.63	229.4	250.0	-8.2
Aroclor-1016-3	8.34	8.24	8.44	227.1	250.0	-9.2
Aroclor-1016-4	8.94	8.84	9.04	218.3	250.0	-12.7

AVERAGE %D = 9.3

Date Analyzed :06/22/13

Lab Standard ID: AR1660 Time Analyzed :2150

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.95	11.85	12.05	219.2	250.0	-12.3
Aroclor-1260-2	12.50	12.40	12.60	216.9	250.0	-13.2
Aroclor-1260-3	12.77	12.67	12.87	224.2	250.0	-10.3
Aroclor-1260-4	13.33	13.23	13.43	229.0	250.0	-8.4

AVERAGE %D = 11.0

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/23/13

Lab Standard ID: AR1254 Time Analyzed :0002

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D	
Aroclor-1254-1	10.23	10.13	10.33	207.5	250.0	-17.0	
Aroclor-1254-2	10.62	10.52	10.72	200.7	250.0	-19.7	
Aroclor-1254-3	10.76	10.66	10.86	198.4	250.0	-20.6	
Aroclor-1254-4	11.12	11.02	11.22	195.6	250.0	-21.8	
Aroclor-1254-5	11.82	11.72	11.92	186.6	250.0	-25.3	<-

AVERAGE %D = 20.9

FORM VII PCB

7F

PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

ARI Job No.: WT81

Project: NPDES SAMPLING

GC Column: ZB35

Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/23/13

Lab Standard ID: AR1254

Time Analyzed :0002

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1254-1	10.05	9.95	10.15	228.7	250.0	-8.5
Aroclor-1254-2	10.23	10.13	10.33	228.3	250.0	-8.7
Aroclor-1254-3	10.93	10.83	11.03	223.5	250.0	-10.6
Aroclor-1254-4	11.18	11.08	11.28	223.2	250.0	-10.7
Aroclor-1254-5	11.95	11.85	12.05	216.3	250.0	-13.5

AVERAGE %D = 10.4

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 Intrument: ECD7

Init. Calib. Date: 05/13/13

Date Analyzed :06/23/13

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	7.75	7.65	7.85	232.6	250.0	-6.9
Aroclor-1016-2	8.27	8.17	8.37	235.6	250.0	-5.8
Aroclor-1016-3	8.46	8.36	8.56	227.4	250.0	-9.0
Aroclor-1016-4	8.88	8.78	8.98	215.1	250.0	-14.0

AVERAGE %D = 8.9

Date Analyzed :06/23/13

Lab Standard ID: AR1660 Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	12.05	11.95	12.15	241.6	250.0	-3.4
Aroclor-1260-2	12.36	12.26	12.46	244.8	250.0	-2.1
Aroclor-1260-3	12.74	12.64	12.84	249.7	250.0	-0.1
Aroclor-1260-4	13.13	13.03	13.23	251.3	250.0	0.5
Aroclor-1260-5	13.31	13.21	13.41	248.1	250.0	-0.7

AVERAGE %D = 1.4

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC
Client: SAIC

ARI Job No.: WT81
Project: NPDES SAMPLING

GC Column: ZB35
Intrument: ECD7

Init. Calib. Date: 04/16/13

Date Analyzed :06/23/13

Lab Standard ID: AR1660
Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1016-1	6.65	6.55	6.75	234.8	250.0	-6.1
Aroclor-1016-2	7.53	7.43	7.63	232.0	250.0	-7.2
Aroclor-1016-3	8.34	8.24	8.44	229.5	250.0	-8.2
Aroclor-1016-4	8.94	8.84	9.04	217.2	250.0	-13.1

AVERAGE %D = 8.7

Date Analyzed :06/23/13

Lab Standard ID: AR1660
Time Analyzed :0024

COMPOUND/PEAK NO.	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aroclor-1260-1	11.95	11.85	12.05	252.1	250.0	0.8
Aroclor-1260-2	12.50	12.40	12.60	247.5	250.0	-1.0
Aroclor-1260-3	12.77	12.67	12.87	255.1	250.0	2.0
Aroclor-1260-4	13.33	13.23	13.43	249.8	250.0	-0.1

AVERAGE %D = 1.0

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB5 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 05/13/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	5453827	2.788	4223695	14.852
	UPPER LIMIT	10907654	2.888	8447390	14.952
	LOWER LIMIT	2726914	2.688	2111848	14.752

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	05/13/13	0848	5369822	2.784	4069872	14.851
02		0.25PPM AR16	05/13/13	0910	5453827	2.788	4223695	14.852
03		0.02PPM AR16	05/13/13	0932	5460030	2.787	4224878	14.851
04		0.05PPM AR16	05/13/13	0954	5481103	2.784	4229191	14.852
05		1PPM AR1660	05/13/13	1016	5141417	2.788	3989119	14.851
06		0.1PPM AR166	05/13/13	1038	5505021	2.788	4301720	14.851
07		0.5PPM AR166	05/13/13	1100	5586769	2.785	4381623	14.852
08		AR1242	05/13/13	1122	5477153	2.788	4321157	14.852
09		AR1248	05/13/13	1144	5664247	2.790	4507656	14.852
10		AR1254	05/13/13	1206	7023013	2.790	5627395	14.853
11		AR2162	05/13/13	1228	5880460	2.788	4648818	14.853
12		AR3268	05/13/13	1250	5865530	2.786	4724358	14.852
13	ZZZZZ	ZZZZZ	05/13/13	1312	5229612	2.788	4157104	14.852
14	ZZZZZ	ZZZZZ	05/13/13	1334	5647345	2.787	4542379	14.853
15	ZZZZZ	ZZZZZ	05/13/13	1356	5833077	2.786	4737874	14.852
16	ZZZZZ	ZZZZZ	05/13/13	1418	5734409	2.786	4626168	14.852
17	ZZZZZ	ZZZZZ	05/13/13	1440	5850857	2.786	4714513	14.852
18	ZZZZZ	ZZZZZ	05/13/13	1502	5750105	2.788	4630389	14.852
19		AR1248	06/22/13	1810	7150355	2.790	5376606	14.853
20		AR1660	06/22/13	1832	7126300	2.786	5486880	14.853
21	WT81MBS1	WT81MBS1	06/22/13	1938	8264295	2.791	6124364	14.853
22	WT81LCSS1	WT81LCSS1	06/22/13	2000	8090173	2.788	6329072	14.853
23	WT81LCSDS1	WT81LCSDS1	06/22/13	2022	8081311	2.789	6194188	14.853
24		AR1242	06/22/13	2128	7233004	2.789	5449532	14.853
25		AR1660	06/22/13	2150	7288887	2.786	5563331	14.853
26	AM-VT-INF-20	WT81A	06/22/13	2212	7557582	2.792	5164772	14.862
27	AM-VT-INF-20	WT81AMS	06/22/13	2234	7436369	2.793	4672562	14.862
28	AM-VT-INF-20	WT81AMSD	06/22/13	2256	7949088	2.793	4845203	14.861
29	AM-SF4-EFF-2	WT81B	06/22/13	2318	7027175	2.794	4053136	14.862
30	AM-FD-01-201	WT81C	06/22/13	2340	7185648	2.792	4053568	14.860
31		AR1254	06/23/13	0002	7155440	2.792	4042697	14.854
32		AR1660	06/23/13	0024	7254506	2.792	4168185	14.854

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

ARI Job No.: WT81 Project: NPDES SAMPLING

GC Column: ZB35 ID: 0.53(mm) Instrument ID: ECD7

Init. Calib. Date: 04/16/13

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

		IS1 AREA	RT	IS2 AREA	RT
	ICAL MIDPT	9556981	3.204	6702455	15.229
	UPPER LIMIT	19113962	3.304	13404910	15.329
	LOWER LIMIT	4778490	3.104	3351228	15.129

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME	IS1 AREA	RT	IS2 AREA	RT
01	ZZZZZ	ZZZZZ	05/13/13	0848	9254999	3.201	6201001	15.228
02		0.25PPM AR16	05/13/13	0910	9556981	3.204	6702455	15.229
03		0.02PPM AR16	05/13/13	0932	9585331	3.203	6427979	15.230
04		0.05PPM AR16	05/13/13	0954	9693088	3.200	6488389	15.228
05		1PPM AR1660	05/13/13	1016	9081991	3.205	6113929	15.229
06		0.1PPM AR166	05/13/13	1038	9778983	3.205	6588075	15.228
07		0.5PPM AR166	05/13/13	1100	9908964	3.201	6717350	15.229
08		AR1242	05/13/13	1122	9774589	3.204	6628867	15.230
09		AR1248	05/13/13	1144	10074876	3.206	6871133	15.229
10		AR1254	05/13/13	1206	12391227	3.206	9447663	15.230
11		AR2162	05/13/13	1228	10338415	3.204	7110547	15.229
12		AR3268	05/13/13	1250	10354228	3.202	7164877	15.229
13	ZZZZZ	ZZZZZ	05/13/13	1312	9344927	3.204	6312124	15.229
14	ZZZZZ	ZZZZZ	05/13/13	1334	10074444	3.204	6895823	15.229
15	ZZZZZ	ZZZZZ	05/13/13	1356	10322167	3.202	7157497	15.228
16	ZZZZZ	ZZZZZ	05/13/13	1418	10167071	3.203	7007158	15.229
17	ZZZZZ	ZZZZZ	05/13/13	1440	10232179	3.203	7133256	15.229
18	ZZZZZ	ZZZZZ	05/13/13	1502	10172481	3.204	7038146	15.228
19		AR1248	06/22/13	1810	9345285	3.204	6266616	15.229
20		AR1660	06/22/13	1832	9380932	3.201	6715729	15.228
21	WT81MBS1	WT81MBS1	06/22/13	1938	10815151	3.206	7097931	15.229
22	WT81LCSS1	WT81LCSS1	06/22/13	2000	10582044	3.204	7281686	15.229
23	WT81LCSDS1	WT81LCSDS1	06/22/13	2022	10654787	3.204	7158792	15.228
24		AR1242	06/22/13	2128	9622450	3.204	6364695	15.228
25		AR1660	06/22/13	2150	9709150	3.200	6473812	15.228
26	AM-VT-INF-20	WT81A	06/22/13	2212	9128183	3.207	6044778	15.233
27	AM-VT-INF-20	WT81AMS	06/22/13	2234	9123362	3.206	5430495	15.234
28	AM-VT-INF-20	WT81AMSD	06/22/13	2256	9651687	3.207	5680026	15.233
29	AM-SF4-EFF-2	WT81B	06/22/13	2318	9039308	3.206	4863173	15.233
30	AM-FD-01-201	WT81C	06/22/13	2340	9313274	3.206	4821305	15.232
31		AR1254	06/23/13	0002	9272471	3.206	4897175	15.229
32		AR1660	06/23/13	0024	9573512	3.204	5063926	15.227

IS1 = 1-Bromo-2-Nitrobenzene RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS

NWTPHD by GC/FID
Extraction Method: SW3546
Page 1 of 1

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Matrix: Sediment

Date Received: 06/12/13

Data Release Authorized:
Reported: 06/24/13

ARI ID	Sample ID	Analysis Date	DF	Range	Result	RL	MDL
MB-061713	Method Blank	06/20/13	1.0	Diesel	< 50 U	50	14
13-12637		FID4A		Motor Oil	< 100 U	100	25
				HC ID	---		
				o-Terphenyl	86.5%		
WT81B	AM-SF4-EFF-20130612-S	06/20/13	10	**Diesel**	**3,000**	1,200	340
13-12637		FID4A		**Motor Oil**	**13,000**	2,500	620
				HC ID	DIESEL/MOTOR OIL		
				o-Terphenyl	58.4%		
WT81C	AM-FD-01-20130612-S	06/20/13	10	**Diesel**	**3,200**	1,300	340
13-12638		FID4A		**Motor Oil**	**14,000**	2,500	620
				HC ID	DIESEL/MOTOR OIL		
				o-Terphenyl	64.2%		

Reported in mg/kg (ppm)

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977

Client ID	OTER	TOT OUT
061713MBS	86.5%	0
061713LCS	72.9%	0
061713LCSD	70.3%	0
AM-SF4-EFF-20130612-S	58.4%	0
AM-SF4-EFF-20130612-S MS	66.4%	0
AM-SF4-EFF-20130612-S MSD	60.0%	0
AM-FD-01-20130612-S	64.2%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3546
Log Number Range: 13-12637 to 13-12638

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: AM-SF4-EFF-20130612-S
MS/MSD

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Date Extracted MS/MSD: 06/17/13

Date Analyzed MS: 06/20/13 14:45
MSD: 06/20/13 15:05
Instrument/Analyst MS: FID4A/JLW
MSD: FID4A/JLW

Sample Amount MS: 3.99 g-dry-wt
MSD: 3.99 g-dry-wt
Final Extract Volume MS: 10 mL
MSD: 10 mL
Dilution Factor MS: 10.0
MSD: 10.0
Percent Moisture: 60.1%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	3,000	6,540	3,760	94.1%	5,850	3,760	75.8%	11.1%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	66.4%	60.0%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-061713
LCS/LCSD

Lab Sample ID: LCS-061713
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 06/17/13

Date Analyzed LCS: 06/20/13 13:23
LCSD: 06/20/13 13:43
Instrument/Analyst LCS: FID4A/JLW
LCSD: FID4A/JLW

Sample Amount LCS: 10.0 g-dry-wt
LCSD: 10.0 g-dry-wt
Final Extract Volume LCS: 10 mL
LCSD: 10 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	1200	1500	80.0%	1150	1500	76.7%	4.3%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	72.9%	70.3%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

FORM III

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: WT81
Matrix: Sediment Project: NPDES Sampling Support
Date Received: 06/12/13 209977

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
13-12637-061713MB1	Method Blank	10.0 g	10.0 mL	-	06/17/13
13-12637-061713LCS1	Lab Control	10.0 g	10.0 mL	-	06/17/13
13-12637-061713LCSD1	Lab Control Dup	10.0 g	10.0 mL	-	06/17/13
13-12637-WT81B	AM-SF4-EFF-201306123	3.99 g	10.0 mL	D	06/17/13
13-12637-WT81BMS	AM-SF4-EFF-201306123	3.99 g	10.0 mL	D	06/17/13
13-12637-WT81BMSD	AM-SF4-EFF-201306123	3.99 g	10.0 mL	D	06/17/13
13-12638-WT81C	AM-FD-01-20130612-S	3.98 g	10.0 mL	D	06/17/13

Basis: D=Dry Weight W=As Received

WT81 : 090230

4

TPH METHOD BLANK SUMMARY

BLANK NO.

WT86MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: SAIC

SDG No.: WT81

Project No.: NPDES SAMPLING SUPPORT

Date Extracted: 06/17/13

Matrix: SOLID

Date Analyzed : 06/20/13

Instrument ID : FID4A

Time Analyzed : 1302

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	WT86LCSS1	WT86LCSS1	06/20/13
02	WT86LCSDS1	WT86LCSDS1	06/20/13
03	AM-SF4-EFF-2	WT81B	06/20/13
04	AM-SF4-EFF-2	WT81BMS	06/20/13
05	AM-SF4-EFF-2	WT81BMSD	06/20/13
06	AM-FD-01-201	WT81C	06/20/13
07			
08			
09			
10			
11			
12			
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29			
30			

FORM IV TPH

6a
DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

Instrument: FID4A.I Project: NPDES Sampling Support

Calibration Date: 13-APR-2013 SDG No.: WT81

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	15188	15021	14479	14279	14226	13910	14517	3.4
AK Diesel	17981	17836	17184	16948	16866	16485	17217	3.4
OR Diesel	18067	17904	17254	17021	16941	16562	17291	3.4
Cal Diesel	17937	17789	17145	16910	16821	16447	17175	3.4
o-Terph	20876	20737	19497	18356	18320	17911	19283	6.7

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.908-7.326)
AK Diesel C10-C25 (2.967-7.574)
OR Diesel C10-C28 (2.967-8.269)
Cal Diesel C10-C24 (2.967-7.326)

Calibration Files	Analysis Time
0413a006.d	13-APR-2013 11:53
0413a007.d	13-APR-2013 12:13
0413a008.d	13-APR-2013 12:34
0413a009.d	13-APR-2013 12:54
0413a010.d	13-APR-2013 13:15
0413a011.d	13-APR-2013 13:35

6a

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: SAIC

Instrument: FID4A.I

Project: NPDES Sampling Support

Calibration Date: 20-MAY-2013

SDG No.: WT81

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	14505	14238	13594	13326	11838	9930	12905	13.4
Triac Surr	19882	20137	19857	19391	18502	18199	19328	4.1

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0520a016.d	20-MAY-2013 17:53
0520a017.d	20-MAY-2013 18:13
0520a018.d	20-MAY-2013 18:34
0520a019.d	20-MAY-2013 18:55
0520a020.d	20-MAY-2013 19:15
0520a021.d	20-MAY-2013 19:36

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 13-APR-2013
Project: NPDES Sampling Supp

CCal Date: 20-JUN-2013
SDG No.: WT81

Analysis Time: 12:21
Lab ID: DIESEL#2

Instrument: FID4A.I
Lab File Name: 0620a012.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D	
WADies(C12-C24)	3701400	255.0	250	2.0	
AK102 (C10-C25)	4342081	252.2	250	0.9	
NASDies(C10-C24)	4327873	219.4	250	-12.2	
Terphenyl	824785	42.8	45	-4.9	
Creos (C12-C22)	3569941	1636.2	250	554.5	<-

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

FORM VII-Diesel

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 20-MAY-2013
Project: NPDES Sampling Supp

CCal Date: 20-JUN-2013
SDG No.: WT81

Analysis Time: 12:41
Lab ID: MOIL#2

Instrument: FID4A.I
Lab File Name: 0620a013.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	6664874	516.5	500	3.3
AK103 (C25-C36)	5657883	614.8	500	23.0
OR MOIL(C28-C40)	5417500	717.3	500	43.5
CRUDE(Tol-C40)	7887662	1044.3	500	108.9
n-Triacontane	862879	44.6	45	-0.8

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

FORM VII-Diesel

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 13-APR-2013
Project: NPDES Sampling Supp

CCal Date: 20-JUN-2013
SDG No.: WT81

Analysis Time: 15:46
Lab ID: DIESEL#3

Instrument: FID4A.I
Lab File Name: 0620a022.d

Diesel Range	Area*	CalcAmnt	NomAmnt	% D	
WADies(C12-C24)	3773144	260.0	250	4.0	
AK102 (C10-C25)	4425565	257.1	250	2.8	
NASDies(C10-C24)	4411637	223.7	250	-10.5	
Terphenyl	830166	43.1	45	-4.3	
Creos (C12-C22)	3631025	1664.2	250	565.7	<-

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

FORM VII-Diesel

7a

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 20-MAY-2013
Project: NPDES Sampling Supp

CCal Date: 20-JUN-2013
SDG No.: WT81

Analysis Time: 16:06
Lab ID: MOIL#3

Instrument: FID4A.I
Lab File Name: 0620a023.d

M.oil Range	Area*	CalcAmnt	NomAmnt	% D
WAMoil(C24-C38)	6698604	519.1	500	3.8
AK103 (C25-C36)	5669944	616.2	500	23.2
OR MOIL(C28-C40)	5368097	710.7	500	42.1
CRUDE(Tol-C40)	7865402	1041.4	500	108.3
n-Triacontane	878187	45.4	45	1.0

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

FORM VII-Diesel

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES SAMPLING SUPPORT

Instrument ID: FID4A GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.26 TRIAC: 9.15

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	ZZZZZ	ZZZZZ	06/20/13	0835	6.26	9.16
02		RT0620	06/20/13	0855	6.26	9.15
03	ZZZZZ	ZZZZZ	06/20/13	0916	6.26	9.16
04	ZZZZZ	ZZZZZ	06/20/13	0936	6.26	9.17
05	ZZZZZ	ZZZZZ	06/20/13	0956	6.25	9.14
06	ZZZZZ	ZZZZZ	06/20/13	1017	6.26	9.13
07	ZZZZZ	ZZZZZ	06/20/13	1038	6.26	9.13
08	ZZZZZ	ZZZZZ	06/20/13	1058	6.26	9.14
09	ZZZZZ	ZZZZZ	06/20/13	1119	6.26	9.14
10	ZZZZZ	ZZZZZ	06/20/13	1139	6.25	9.12
11	ZZZZZ	ZZZZZ	06/20/13	1200	6.25	9.12
12	NPDES SAMPLI	DIESEL#2	06/20/13	1221	6.26	9.17
13	NPDES SAMPLI	MOIL#2	06/20/13	1241	6.25	9.14
14	WT86MBS1	WT86MBS1	06/20/13	1302	6.26	9.15
15	WT86LCSS1	WT86LCSS1	06/20/13	1323	6.26	9.15
16	WT86LCSDS1	WT86LCSDS1	06/20/13	1343	6.26	9.13
17	ZZZZZ	ZZZZZ	06/20/13	1404	6.25	9.12
18	AM-SF4-EFF-2	WT81B	06/20/13	1424	6.25	9.12
19	AM-SF4-EFF-2	WT81BMS	06/20/13	1445	6.25	9.12
20	AM-SF4-EFF-2	WT81BMSD	06/20/13	1505	6.25	9.12
21	AM-FD-01-201	WT81C	06/20/13	1526	6.25	9.12
22	NPDES SAMPLI	DIESEL#3	06/20/13	1546	6.26	9.16
23	NPDES SAMPLI	MOIL#3	06/20/13	1606	6.24	9.14

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

8
TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES Sampling Support

Instrument ID: FID4A GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.86 TRIAC: 8.70

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RINSE	04/13/13	0947	5.87	8.70
02		RT0413	04/13/13	1007	5.86	8.70
03		IB0413	04/13/13	1027	5.86	8.69
04		DIESEL#1	04/13/13	1047	5.87	8.69
05		MOIL#1	04/13/13	1107	5.85	8.69
06		DIESEL50	04/13/13	1153	5.86	8.71
07		DIESEL100	04/13/13	1213	5.86	8.71
08		DIESEL250	04/13/13	1234	5.87	8.71
09		DIESEL500	04/13/13	1254	5.87	8.71
10		DIESEL1000	04/13/13	1315	5.88	8.71
11		DIESEL2500	04/13/13	1335	5.90	8.70
12		DIESELICV250	04/13/13	1356	5.86	8.70
13		MOIL100	04/13/13	1416	5.90	8.67
14		MOIL250	04/13/13	1436	5.90	8.68
15		MOIL500	04/13/13	1457	5.90	8.68
16		MOIL1000	04/13/13	1517	5.90	8.70
17		MOIL2500	04/13/13	1538	5.90	8.72
18		MOIL5000	04/13/13	1558	5.90	8.75
19		MOILICV500	04/13/13	1619	5.90	8.68

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES Sampling Support

Instrument ID: FID4A GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.72 TRIAC: 8.54

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RINSE	05/20/13	1100	5.79*	8.61*
02		RINSE	05/20/13	1120	5.77*	8.60*
03		RINSE	05/20/13	1141	5.77*	8.63*
04		RINSE	05/20/13	1202	5.77*	8.60*
05		RT0520	05/20/13	1223	5.72	8.54
06		IB0520	05/20/13	1244	5.71	8.54
07		DIESEL#1	05/20/13	1305	5.72	8.52
08		MOIL#1	05/20/13	1325	5.73	8.54
09		RINSE	05/20/13	1528	5.72	8.55
10		MINSP 50	05/20/13	1549	5.71	8.53
11		MINSP 100	05/20/13	1609	5.71	8.52
12		MINSP 250	05/20/13	1630	5.72	8.55
13		MINSP 500	05/20/13	1651	5.73	8.54
14		MINSP 1000	05/20/13	1711	5.74	8.56
15		MINSP 2500	05/20/13	1732	5.76	8.55
16		MOIL 100	05/20/13	1753	5.71	8.53
17		MOIL 250	05/20/13	1813	5.71	8.54
18		MOIL 500	05/20/13	1834	5.71	8.54
19		MOIL 1000	05/20/13	1855	5.71	8.56
20		MOIL 2500	05/20/13	1915	5.71	8.58
21		MOIL 5000	05/20/13	1936	5.71	8.61*
22		MOIL ICV 500	05/20/13	1956	5.71	8.54

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

TPHG Analysis
Report and Summary QC Forms

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Matrix: Sediment

Data Release Authorized: MW
Reported: 06/18/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

ARI ID	Client ID	Analysis Date	Range	Result	LOQ	DL
MB-061413	Method Blank	06/14/13	Gasoline	< 5.0 U	5.0	1.7
13-12637		PID1	HC ID	---		
			Trifluorotoluene	98.7%		
			Bromobenzene	87.4%		
WT81B	AM-SF4-EFF-20130	06/14/13	Gasoline	< 20 U	20	6.6
13-12637		PID1	HC ID	---		
			Trifluorotoluene	98.7%		
			Bromobenzene	87.4%		
WT81C	AM-FD-01-201306106	06/14/13	Gasoline	< 20 U	20	6.6
13-12638		PID1	HC ID	---		
			Trifluorotoluene	100%		
			Bromobenzene	91.8%		

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Matrix: Water

Data Release Authorized:
Reported: 06/21/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

ARI ID	Client ID	Analysis Date	Basis	Range	Result	LOQ	DL
WT81D	AM-TB-01-201306106	06/14/13	Wet	Gasoline	< 0.25 U	0.25	0.057
13-12639		PID1		HC ID	---		
				Trifluorotoluene	105%		
				Bromobenzene	99.1%		

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

ANALYTICAL RESOURCES INCORPORATED

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: WT81
Matrix: Sediment

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977

Client ID	BFB	TFT	BBZ	TOT OUT
MB-061413	NA	98.7%	87.4%	0
LCS-061413	NA	110%	95.5%	0
LCSD-061413	NA	107%	95.2%	0
AM-SF4-EFF-20130612-S	NA	98.7%	87.4%	0
AM-FD-01-20130612-S	NA	100%	91.8%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(65-128)
(BBZ) = Bromobenzene	(80-120)	(52-149)

Log Number Range: 13-12637 to 13-12638

ANALYTICAL RESOURCES INCORPORATED

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: WT81
Matrix: Water

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977

Client ID	TFT	BBZ	TOT OUT
AM-TB-01-20130612-	105%	99.1%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 13-12639 to 13-12639

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-061413
LAB CONTROL SAMPLE

Lab Sample ID: LCS-061413
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/18/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 06/14/13 13:07
LCSD: 06/14/13 13:36
Instrument/Analyst LCS: PID1/PKC
LCSD: PID1/PKC

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	48.3	50.0	96.6%	46.6	50.0	93.2%	3.6%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	110%	107%
Bromobenzene	95.5%	95.2%

WT81 : 209977

4

BETX/GAS METHOD BLANK SUMMARY

BLANK NO.

MB0614

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project No.: NPDES SAMPLING SUPPORT

Date Analyzed : 06/14/13 Matrix: SOIL

Time Analyzed : 1405 Instrument ID : PID1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	LCS0614	LCS0614	06/14/13
02	LCSD0614	LCSD0614	06/14/13
03	AM-SF4-EFF-2	WT81B	06/14/13
04	AM-FD-01-201	WT81C	06/14/13
05	AM-TB-01-201	WT81D	06/14/13
06			
07			
08			
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6a

GAS INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: SAIC

Instrument/Det: PID1.I/RTX 502-2 FID Project: NPDES SAMPLING SUPPORT

Calibration Date: 23-OCT-2012 SDG No.: WT81

Surr Calibration Date: 22-MAY-2013

Gas Range	RF1 0.1	RF2 0.25	RF3 1.0	RF4 2.5	RF5 5.0	RF6 10	Ave RF	%RSD
WA Gas	371020	379456	358654	339293	340260	360001	358114	4.5
AK Gas	579135	648986	585010	543304	542244	598628	582885	6.8
NW Gas	394025	395072	376837	353939	355113	375572	375093	4.8
Cal Gas	761375	793504	721427	674216	671666	730795	725497	6.6
8015Gas	742770	796044	725276	674926	670493	732827	723723	6.4

Surrogates Rel. Rec.	RF1	RF2	RF3	RF4	RF5	RF6	Ave RF	%RSD
$ TFT(Surr)	+++++	30.63636	30.95455	30.54545	29.88060	29.37000		
	28.75188	28.18539	28.40000				29.59053	3.634
$ BB(Surr)	+++++	20.63636	20.13636	20.50000	19.88060	19.80000		
	19.51128	19.17978	19.32000				19.87055	2.668

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Quant Ranges : WA Gas Toluene - nC12
AK Gas nC6 - nC10
NW Gas Toluene - Naphthalene
Cal Gas nC6 - nC12
8015 Gas 2-Methylpentane - 1,2,4-Trimethylbenzene

Calibration Files	Analysis Time
1023a013.d	23-OCT-2012 22:13
1023a014.d	23-OCT-2012 22:42
1023a015.d	23-OCT-2012 23:11
1023a016.d	23-OCT-2012 23:40
1023a017.d	24-OCT-2012 00:10
1023a018.d	24-OCT-2012 00:39

Surr Calibration Files	Analysis Time
0522a002.d	22-MAY-2013 09:02
0522a003.d	22-MAY-2013 09:30
0522a004.d	22-MAY-2013 09:58
0522a005.d	22-MAY-2013 10:27
0522a006.d	22-MAY-2013 10:56
0522a007.d	22-MAY-2013 11:25
0522a008.d	22-MAY-2013 11:55
0522a009.d	22-MAY-2013 12:24

7a
GAS CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 23-OCT-2012
Project: NPDES SAMPLING

CCal Date: 14-JUN-2013
SDG No.: WT81

Lab File Name: 0614a003.d
Inst/Det: PID1.I/RTX 502-2 FID

Gas Range	Area*	CalcAmnt	NomAmnt	%D
WAGas (Tol-C12)	866612	2.42	2.50	-3.2
AKGas (C6-C10)	1382220	2.37	2.50	-5.1
NWGas (Tol-Nap)	917988	2.45	2.50	-2.1
8015C (2MP-TMB)	1711396	2.36	2.50	-5.4

* Surrogate areas are subtracted from Total Area
<- Indicates an RPD outside QC limits

FORM VII-GAS

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 23-OCT-2012
Project: NPDES SAMPLING

CCal Date: 14-JUN-2013
SDG No.: WT81

Lab File Name: 0614a003.d
Inst/Det: PID1.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	50481	117.9	100.0	17.9
Bromobenzene	18622	104.4	100.0	4.4

7a
GAS CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 23-OCT-2012
Project: NPDES SAMPLING

CCal Date: 14-JUN-2013
SDG No.: WT81

Lab File Name: 0614a015.d
Inst/Det: PID1.I/RTX 502-2 FID

Gas Range	Area*	CalcAmnt	NomAmnt	%D
WAGas (Tol-C12)	847400	2.37	2.50	-5.3
AKGas (C6-C10)	1332386	2.29	2.50	-8.6
NWGas (Tol-Nap)	885238	2.36	2.50	-5.6
8015C (2MP-TMB)	1652389	2.28	2.50	-8.7

* Surrogate areas are subtracted from Total Area
<- Indicates an RPD outside QC limits

FORM VII-GAS

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: SAIC

ICal Date: 23-OCT-2012
Project: NPDES SAMPLING

CCal Date: 14-JUN-2013
SDG No.: WT81

Lab File Name: 0614a015.d
Inst/Det: PID1.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	48900	114.9	100.0	14.9
Bromobenzene	19322	105.0	100.0	5.0

FORM VII-Surr

BETX/GAS ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES SAMPLING SUPPORT

Instrument ID: PID1 GC Detector: RTX 502-2 FID

Run Date: 10/23/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 7.89 S2 : 15.39

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	S1 #	S2 RT	S2 #
01		RINSE	10/23/12	0941				
02		RT1023+BCAL1	10/23/12	1010	7.88		15.39	
03		GCAL1	10/23/12	1039	7.88		15.39	
04		B 200	10/23/12	1750	7.89		15.39	
05		B 100	10/23/12	1820	7.88		15.39	
06		B 50	10/23/12	1849	7.88		15.39	
07		B 25	10/23/12	1918	7.89		15.39	
08		B 5	10/23/12	1947	7.88		15.39	
09		B 1	10/23/12	2016	7.88		15.39	
10		B 0.5	10/23/12	2045	7.88		15.39	
11		B 0.25	10/23/12	2115	7.89		15.39	
12		BICV	10/23/12	2144	7.88		15.39	
13		G 0.10	10/23/12	2213	7.89		15.39	
14		G 0.25	10/23/12	2242	7.89		15.39	
15		G 1.0	10/23/12	2311	7.89		15.39	
16		G 2.5	10/23/12	2340	7.88		15.39	
17		G 5.0	10/24/12	0010	7.88		15.39	
18		G 10	10/24/12	0039	7.88		15.39	
19		GICV	10/24/12	0108	7.88		15.39	

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)
S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII-2 BETX

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES SAMPLING SUPPORT

Instrument ID: PID1 GC Column: RTX 502-2 FID

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 7.85 S2 : 15.38

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	BCAL0.25	BCAL0.25	05/22/13	0902	7.85	15.38
02	BCAL0.5	BCAL0.5	05/22/13	0930	7.85	15.38
03	BCAL1	BCAL1	05/22/13	0958	7.85	15.38
04	BCAL5	BCAL5	05/22/13	1027	7.85	15.38
05	BCAL25	BCAL25	05/22/13	1056	7.85	15.38
06	BCAL50	BCAL50	05/22/13	1125	7.85	15.38
07	BCAL100	BCAL100	05/22/13	1155	7.85	15.38
08	BCAL200	BCAL200	05/22/13	1224	7.85	15.38
09	ICV25	ICV25	05/22/13	1253	7.85	15.38

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)
S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

BETX/GAS ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client: SAIC

SDG No.: WT81 Project: NPDES SAMPLING SUPPORT

Instrument ID: PID1 GC Detector: RTX 502-2 FID

Run Date: 06/14/13

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 7.85 S2 : 15.38

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	S1 #	S2 RT	S2 #
01	RT0614+BCAL	RT0614+BCAL	06/14/13	1117	7.85		15.38	
02	NPDES SAMPLI	GCAL 1	06/14/13	1146	7.85		15.38	
03	LCS0614	LCS0614	06/14/13	1307	7.85		15.38	
04	LCSD0614	LCSD0614	06/14/13	1336	7.85		15.38	
05	MB0614	MB0614	06/14/13	1405	7.85		15.38	
06	AM-SF4-EFF-2	WT81B	06/14/13	1539	7.85		15.38	
07	AM-FD-01-201	WT81C	06/14/13	1608	7.85		15.38	
08	AM-TB-01-201	WT81D	06/14/13	1638	7.85		15.38	
09	NPDES SAMPLI	GCAL 2	06/14/13	1933	7.85		15.38	

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)

S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WT81

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
AM-VT-INF-20130612	WT81A	13-12636	
AM-VT-INF-20130612D	WT81ADUP	13-12636	
AM-VT-INF-20130612S	WT81ASPK	13-12636	
AM-SF4-EFF-2013061	WT81B	13-12637	
PBS	WT81MB1	13-12637	
LCSS	WT81MB1SPK	13-12637	
AM-FD-01-20130612-	WT81C	13-12638	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Eric Larson for Name: Jay Kuhn

Date: 6-24-13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 41.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
3050B	06/17/13	200.8	06/20/13	7440-36-0	Antimony	0.029	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-38-2**	**Arsenic**	0.20	0.5	**16.3**	
3050B	06/17/13	6010C	06/21/13	**7440-41-7**	**Beryllium**	0.023	0.2	**0.3**	
3050B	06/17/13	200.8	06/20/13	**7440-43-9**	**Cadmium**	0.027	0.2	**1.2**	
3050B	06/17/13	200.8	06/20/13	**7440-47-3**	**Chromium**	0.086	1	**28**	
3050B	06/17/13	6010C	06/21/13	**7440-50-8**	**Copper**	0.11	0.5	**71.6**	
3050B	06/17/13	200.8	06/20/13	**7439-92-1**	**Lead**	0.11	0.2	**76.2**	
CLP	06/17/13	7471A	06/20/13	**7439-97-6**	**Mercury**	0.0025	0.05	**0.14**	
3050B	06/17/13	200.8	06/20/13	**7440-02-0**	**Nickel**	0.11	1	**22**	
3050B	06/17/13	200.8	06/20/13	7782-49-2	Selenium	0.22	1	1	U
3050B	06/17/13	200.8	06/20/13	7440-22-4	Silver	0.018	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	7440-28-0	Thallium	0.0068	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-66-6**	**Zinc**	1.9	20	**580**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WT81B
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 37.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
3050B	06/17/13	200.8	06/20/13	7440-36-0	Antimony	0.032	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-38-2**	**Arsenic**	0.21	0.5	**41.0**	
3050B	06/17/13	6010C	06/21/13	**7440-41-7**	**Beryllium**	0.026	0.3	**0.3**	
3050B	06/17/13	200.8	06/20/13	**7440-43-9**	**Cadmium**	0.030	0.2	**5.5**	
3050B	06/17/13	200.8	06/20/13	**7440-47-3**	**Chromium**	0.094	1	**69**	
3050B	06/17/13	6010C	06/21/13	**7440-50-8**	**Copper**	0.13	0.5	**215**	
3050B	06/17/13	200.8	06/20/13	**7439-92-1**	**Lead**	0.12	0.2	**308**	
CLP	06/17/13	7471A	06/20/13	**7439-97-6**	**Mercury**	0.0033	0.06	**0.47**	
3050B	06/17/13	200.8	06/20/13	**7440-02-0**	**Nickel**	0.12	1	**63**	
3050B	06/17/13	200.8	06/20/13	7782-49-2	Selenium	0.24	1	1	U
3050B	06/17/13	200.8	06/20/13	**7440-22-4**	**Silver**	0.020	0.5	**1.5**	
3050B	06/17/13	200.8	06/20/13	7440-28-0	Thallium	0.0074	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-66-6**	**Zinc**	8.3	100	**3,040**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-FD-01-20130612-S
SAMPLE

Lab Sample ID: WT81C
LIMS ID: 13-12638
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 39.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
3050B	06/17/13	200.8	06/20/13	7440-36-0	Antimony	0.033	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-38-2**	**Arsenic**	0.22	0.5	**40.4**	
3050B	06/17/13	6010C	06/21/13	7440-41-7	Beryllium	0.064	0.6	0.6	U
3050B	06/17/13	200.8	06/20/13	**7440-43-9**	**Cadmium**	0.030	0.3	**4.6**	
3050B	06/17/13	200.8	06/20/13	**7440-47-3**	**Chromium**	0.095	1	**68**	
3050B	06/17/13	6010C	06/21/13	**7440-50-8**	**Copper**	0.32	1	**235**	
3050B	06/17/13	200.8	06/20/13	**7439-92-1**	**Lead**	0.12	0.3	**311**	
CLP	06/17/13	7471A	06/20/13	**7439-97-6**	**Mercury**	0.0030	0.06	**0.47**	
3050B	06/17/13	200.8	06/20/13	**7440-02-0**	**Nickel**	0.12	1	**61**	
3050B	06/17/13	200.8	06/20/13	7782-49-2	Selenium	0.25	1	1	U
3050B	06/17/13	200.8	06/20/13	**7440-22-4**	**Silver**	0.020	0.5	**1.4**	
3050B	06/17/13	200.8	06/20/13	7440-28-0	Thallium	0.0075	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	**7440-66-6**	**Zinc**	8.5	100	**2,970**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
MATRIX SPIKE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.5 U	3.7	56.9	6.5%	N
Arsenic	200.8	16.3	84.7	56.9	120%	
Beryllium	6010C	0.3	104	113	91.8%	
Cadmium	200.8	1.2	54.8	56.9	94.2%	
Chromium	200.8	28	76	56.9	84.4%	
Copper	6010C	71.6	184	113	99.5%	
Lead	200.8	76.2	123	56.9	82.2%	
Mercury	7471A	0.14	0.64	0.476	105%	
Nickel	200.8	22	75	56.9	93.1%	
Selenium	200.8	1 U	184	182	101%	
Silver	200.8	0.5 U	17.2	56.9	30.2%	N
Thallium	200.8	0.5 U	53.0	56.9	93.1%	
Zinc	200.8	580	730	182	82.4%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: AM-VT-INF-20130612-S
DUPLICATE

Lab Sample ID: WT81A
LIMS ID: 13-12636
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Arsenic	200.8	16.3	15.1	7.6%	+/- 20%	
Beryllium	6010C	0.3	0.3	0.0%	+/- 0.2	L
Cadmium	200.8	1.2	1.1	8.7%	+/- 20%	
Chromium	200.8	28	27	3.6%	+/- 20%	
Copper	6010C	71.6	71.6	0.0%	+/- 20%	
Lead	200.8	76.2	73.3	3.9%	+/- 20%	
Mercury	7471A	0.14	0.14	0.0%	+/- 0.05	L
Nickel	200.8	22	21	4.7%	+/- 20%	
Selenium	200.8	1 U	1 U	0.0%	+/- 1	L
Silver	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Thallium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Zinc	200.8	580	580	0.0%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WT81LCS
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	25.4	25.0	102%	
Arsenic	200.8	27.8	25.0	111%	
Beryllium	6010C	47.8	50.0	95.6%	
Cadmium	200.8	25.4	25.0	102%	
Chromium	200.8	24.0	25.0	96.0%	
Copper	6010C	51.6	50.0	103%	
Lead	200.8	26.0	25.0	104%	
Mercury	7471A	0.49	0.50	98.0%	
Nickel	200.8	25.3	25.0	101%	
Selenium	200.8	82.3	80.0	103%	
Silver	200.8	26.1	25.0	104%	
Thallium	200.8	26.0	25.0	104%	
Zinc	200.8	81	80	101%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: WT81MB
LIMS ID: 13-12637
Matrix: Sediment
Data Release Authorized:
Reported: 06/24/13

QC Report No: WT81-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	LOQ	Result	Q
3050B	06/17/13	200.8	06/20/13	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	06/17/13	200.8	06/20/13	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	06/17/13	6010C	06/21/13	7440-41-7	Beryllium	0.010	0.1	0.1	U
3050B	06/17/13	200.8	06/20/13	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	06/17/13	200.8	06/20/13	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	06/17/13	6010C	06/21/13	7440-50-8	Copper	0.050	0.2	0.2	U
3050B	06/17/13	200.8	06/20/13	7439-92-1	Lead	0.047	0.1	0.1	U
CLP	06/17/13	7471A	06/20/13	7439-97-6	Mercury	0.0013	0.02	0.02	U
3050B	06/17/13	200.8	06/20/13	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	06/17/13	200.8	06/20/13	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	06/17/13	200.8	06/20/13	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	06/17/13	200.8	06/20/13	7440-66-6	Zinc	0.34	4	4	U

Reported in mg/kg (ppm).
U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

UNITS:ug/L

SDG: WT81

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS062011	50.0	50.55	101.1	50.0	50.77	101.5	50.71	101.4	50.76	101.5	50.58	101.2	51.09	102.2
Arsenic	AS	PMS	MS062011	50.0	52.65	105.3	50.0	49.68	99.4	50.61	101.2	51.73	103.5	50.67	101.3	49.52	99.0
Beryllium	BE	ICP	IP062171	1000.0	997.48	99.7	1000.0	998.13	99.8	979.48	97.9	991.57	99.2	977.47	97.7	991.69	99.2
Cadmium	CD	PMS	MS062011	50.0	48.88	97.8	50.0	50.37	100.7	50.32	100.6	50.66	101.3	49.72	99.4	50.07	100.1
Chromium	CR	PMS	MS062011	50.0	49.79	99.6	50.0	50.70	101.4	47.08	94.2	50.59	101.2	49.95	99.9	48.66	97.3
Copper	CU	ICP	IP062171	1000.0	993.79	99.4	1000.0	1004.25	100.4	990.08	99.0	996.12	99.6	998.16	99.8	1003.25	100.3
Lead	PB	PMS	MS062011	50.0	50.26	100.5	50.0	50.32	100.6	49.04	98.1	50.59	101.2	50.20	100.4	49.78	99.6
Mercury	HG	CVA	HG062001	8.0	7.89	98.6	4.0	4.18	104.5	4.19	104.8	4.11	102.8				
Nickel	NI	PMS	MS062011	50.0	49.55	99.1	50.0	49.43	98.9	48.59	97.2	49.81	99.6	50.12	100.2	49.09	98.2
Selenium	SE	PMS	MS062011	80.0	76.79	96.0	50.0	49.66	99.3	53.14	106.3	54.77	109.5	50.84	101.7	49.80	99.6
Silver	AG	PMS	MS062011	50.0	49.35	98.7	50.0	48.96	97.9	51.32	102.6	50.99	102.0	49.66	99.3	49.49	99.0
Thallium	TL	PMS	MS062011	50.0	49.87	99.7	50.0	50.35	100.7	49.54	99.1	50.56	101.1	50.26	100.5	49.82	99.6
Zinc	ZN	PMS	MS062011	50.0	49.32	98.6	50.0	50.05	100.1	49.88	99.8	49.89	99.8	49.88	99.8	48.99	98.0

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

UNITS: ug/L

SDG: WT81

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS062111	50.0	52.13	**104.3**	50.0	49.63	**99.3**	51.16	**102.3**	51.70	**103.4**	50.82	**101.6**	51.35	**102.7**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

UNITS:ug/L

SDG: WT81

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	PMS	MS062111	50.0	51.47	**102.9**	50.92	**101.8**								

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS062011	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS062011	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Beryllium	BE	ICP	IP062171	5.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	CD	PMS	MS062011	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chromium	CR	PMS	MS062011	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Copper	CU	ICP	IP062171	25.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Lead	PB	PMS	MS062011	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Mercury	HG	CVA	HG062001	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Nickel	NI	PMS	MS062011	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Selenium	SE	PMS	MS062011	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS062011	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Thallium	TL	PMS	MS062011	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS062011	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS062111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	PMS	MS062111	10.0	0.2	0.2	U	0.2	U								

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

UNITS: ug/L

SDG: WT81

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS062011	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS062011	0.2	0.25	**125.0**										
Beryllium	BE	ICP	IP062171	1.0	0.90	**90.0**										
Cadmium	CD	PMS	MS062011	0.1	0.10	**100.0**										
Chromium	CR	PMS	MS062011	0.5	0.48	**96.0**										
Copper	CU	ICP	IP062171	2.0	2.15	**107.5**										
Lead	PB	PMS	MS062011	0.1	0.11	**110.0**										
Mercury	HG	CVA	HG062001	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS062011	0.5	0.48	**96.0**										
Selenium	SE	PMS	MS062011	0.5	0.52	**104.0**										
Silver	AG	PMS	MS062011	0.2	0.19	**95.0**										
Thallium	TL	PMS	MS062011	0.2	0.21	**105.0**										
Zinc	ZN	PMS	MS062011	4.0	3.98	**99.5**										

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

UNITS:ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	PMS	MS062111		0.2	0.24	**120.0**										

Control Limits: no control limits have been established by the EPA at this time.

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ICS SOURCE: I.V.

PROJECT: NPDES Sampling Suppo

RUNID: IP062171

SDG: WT81

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	198572.4	200917.9	**100.5**						
Antimony		1000	15.2	1025.4	**102.5**						
Arsenic		1000	17.3	1006.1	**100.6**						
Barium		1000	-1.1	997.1	**99.7**						
Beryllium		1000	0.1	971.1	**97.1**						
Boron			-3.5	-5.2							
Cadmium		1000	0.4	994.2	**99.4**						
Calcium	100000	100000	98753.7	99407.2	**99.4**						
Chromium		1000	0.6	997.9	**99.8**						
Cobalt		1000	-0.1	926.3	**92.6**						
Copper		1000	0.1	1042.9	**104.3**						
Iron	200000	200000	195796.9	196770.8	**98.4**						
Lead		1000	-2.7	975.4	**97.5**						
Magnesium	100000	100000	103470.8	99026.5	**99.0**						
Manganese		1000	0.5	938.2	**93.8**						
Molybdenum			1.6	1.7							
Nickel		1000	-0.9	958.8	**95.9**						
Potassium			-1.4	-23.3							
Selenium		1000	11.1	998.5	**99.9**						
Silicon			-6.9	-7.3							
Silver		1000	-1.2	1054.3	**105.4**						
Sodium			11.5	0.3							
Strontium			5.3	5.3							
Thallium		1000	2.0	923.5	**92.4**						
Tin			-13.3	-11.5							
Titanium			2.7	2.3							
Vanadium		1000	1.2	969.7	**97.0**						
Zinc		1000	2.7	945.1	**94.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ICS SOURCE: I.V.

PROJECT: NPDES Sampling Suppo

RUNID: MS062011

SDG: WT81

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.3	17.6	**88.0**						
Cadmium		20	0.1	19.1	**95.5**						
Chromium		20	0.7	19.6	**98.0**						
Copper		20	1.1	20.3	**101.5**						
Manganese		20	0.1	19.2	**96.0**						
Nickel		20	0.3	20.1	**100.5**						
Selenium			-0.1	-0.1							
Silver		20	0.0	17.5	**87.5**						
Zinc		20	0.8	19.3	**96.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ICS SOURCE: I.V.

PROJECT: NPDES Sampling Suppo

RUNID: MS062111

SDG: WT81

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.3	19.4	**97.0**						
Cadmium		20	0.1	19.5	**97.5**						
Chromium		20	0.6	20.3	**101.5**						
Copper		20	1.4	21.1	**105.5**						
Manganese		20	0.1	20.1	**100.5**						
Nickel		20	0.3	20.6	**103.0**						
Selenium			-0.2	-0.1							
Silver		20	0.0	20.2	**101.0**						
Zinc		20	0.9	19.8	**99.0**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

ANALYSIS METHOD: PMS

SDG: WT81

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	AM-VT-INF-20130612	WT81APOST	MS062011	493.60	B	1000.00	U	500	Sediment	**98.7**
Silver	AM-VT-INF-20130612	WT81APOST	MS062011	484.80		60.00	U	500	Sediment	**97.0**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Beryllium	BE	ICP	OPTIMA ICP 2	313.04		5	1.0	4/1/2012	5000.0	6/10/2013
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Chromium	CR	PMS	NEXION 300D MS	0.00		10	0.5	4/1/2012		
Copper	CU	ICP	OPTIMA ICP 2	324.75		25	2.0	4/1/2012	40000.0	6/10/2013
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	NEXION 300D MS	0.00		40	0.5	4/1/2012		
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Zinc	ZN	PMS	NEXION 300D MS	0.00		20	4.0	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 6/10/2013

SDG: WT81

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	13.5116900	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0733590	0.0000000	-1.1562270	1.6205640	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1808730	0.0000000	0.0000000	0.1684250
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.67	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	2.1037380	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.4930220	0.0000000	0.0000000	0.0000000	0.0000000	0.1385480	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0970800	0.0000000	0.0000000	0.0000000	0.0000000	-0.0418440
Cobalt	228.62	0.0000000	0.0000000	0.0906750	0.0000000	0.0000000	0.0000000	0.0000000	-0.0404570	0.0000000	0.0120010
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1617900	0.0000000	0.0000000	-0.0440960
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.0775070	0.0000000	0.0000000
Lead	220.35	-0.2330880	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1375770	-1.7455340	1.4164220	0.0510640
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1238020	0.0000000	-1.6776030	-1.2063230	0.0000000	0.6021300
Manganese	257.61	0.0056830	0.0000000	0.0000000	0.0000000	0.0040290	0.0000000	0.0000000	0.0000000	0.0000000	-0.0043570
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0127170	0.0000000	0.0000000	0.0494370	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.1095620	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5156780	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.7783440	0.0000000	-0.6443870	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	4.3373140	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.9719930	0.4226130	0.0000000	-0.1373360
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1284010	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0622130	0.0000000	0.0000000	0.1906300	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9208100	0.0000000	0.0530020
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0123920	0.0000000	0.0000000	-0.0659320	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 6/10/2013

SDG: WT81

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	16.0812590	0.0000000	0.0000000	0.0000000	1.9531650	0.0000000	15.6704600	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.8263670	0.0000000	-3.8485090	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.4165090	0.0000000	0.0000000	0.0000000	-32.1596340	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1266550	0.0000000	0.0000000	0.0000000	0.0000000	0.2235440	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0102770	0.0000000	0.2401990	0.0000000
Boron	249.67	0.0000000	0.0000000	-1.0759410	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9387840	0.0000000	0.0000000	0.0000000	0.0000000	0.0597550	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0860990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3212800	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1256200	0.1682020	0.0000000	0.0000000	1.7253070	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0058198	0.0000000	0.3004190	0.0000000	0.0000000	0.0000000	0.1851800	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	7.2530080	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.2138260	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1832430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5439300	0.0000000	0.4201630	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5911140	0.0000000
Silicon	288.16	-0.1130470	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2887870	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	287.1603720	0.0000000	0.0000000	306.9999840
Thallium	190.80	0.0000000	0.0000000	-1.5891790	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6439390	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0384380	-0.4873020	-0.2074990	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9474070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1525200	-0.5409400	0.0000000	0.0000000	0.0000000	0.5527510	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2376970	0.0000000	-0.0608720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 6/17/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
AM-VT-INF-20130612	WT81A	1.072	0.0	50.0
AM-VT-INF-20130612D	WT81ADUP	1.069	0.0	50.0
AM-VT-INF-20130612S	WT81ASPK	1.069	0.0	50.0
AM-SF4-EFF-2013061	WT81B	1.004	0.0	50.0
AM-FD-01-20130612-	WT81C	1.002	0.0	50.0
PBS	WT81MB1	1.000	0.0	50.0
LCSS	WT81MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ANALYSIS METHOD: PMS

PROJECT: NPDES Sampling Suppo

ARI PREP CODE: SWN

SDG: WT81

PREPDATE: 6/17/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
AM-VT-INF-20130612	WT81A	1.065	0.0	50.0
AM-VT-INF-20130612D	WT81ADUP	1.062	0.0	50.0
AM-VT-INF-20130612S	WT81ASPK	1.061	0.0	50.0
AM-SF4-EFF-2013061	WT81B	1.072	0.0	50.0
AM-FD-01-20130612-	WT81C	1.016	0.0	50.0
PBS	WT81MB1	1.000	0.0	50.0
LCSS	WT81MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WT81

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 6/17/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
AM-VT-INF-20130612	WT81A	0.255	0.0	50.0
AM-VT-INF-20130612D	WT81ADUP	0.251	0.0	50.0
AM-VT-INF-20130612S	WT81ASPK	0.254	0.0	50.0
AM-SF4-EFF-2013061	WT81B	0.209	0.0	50.0
AM-FD-01-20130612-	WT81C	0.221	0.0	50.0
PBS	WT81MB1	0.200	0.0	50.0
LCSW	WT81MB1SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 6/21/2013

SDG: WT81 | RUNID: IP062171 | METHOD: ICP | END DATE: 6/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09274							X					X																		
S2	S2	1.00	09315												X																		
S3	S3	1.00	09334							X																							
S4	S4	1.00	09361																														
S5	S5	1.00	09383																														
ICV	ICV	1.00	09440							X					X																		
ICB	ICB	1.00	09481							X					X																		
CRI	CRII	1.00	09522							X					X																		
ICSA	ICSAI	1.00	09564							X					X																		
ICSAB	ICSABI	1.00	10005							X					X																		
CCV	CCV1	1.00	10060							X					X																		
CCB	CCB1	1.00	10111							X					X																		
ZZZZZZ	WU00MB1	2.00	10152																														
ZZZZZZ	WU10MB1	2.00	10194																														
ZZZZZZ	WU00A	2.00	10235																														
ZZZZZZ	WU00B	2.00	10271																														
ZZZZZZ	WU00C	2.00	10311																														
ZZZZZZ	WU00D	2.00	10352																														
ZZZZZZ	WU00E	2.00	10392																														
ZZZZZZ	WU00F	2.00	10432																														
ZZZZZZ	WU00MB1SPK	2.00	10472																														
ZZZZZZ	WU00MB1SPD	2.00	10512																														
CCV	CCV2	1.00	10552							X					X																		
CCB	CCB2	1.00	11003							X					X																		
ZZZZZZ	WU10O	2.00	11044																														
ZZZZZZ	WU10P	2.00	11084																														
ZZZZZZ	WU10Q	2.00	11125																														
ZZZZZZ	WU10R	2.00	11165																														
ZZZZZZ	WU10S	2.00	11205																														
ZZZZZZ	WU10T	2.00	11245																														
ZZZZZZ	WU10NDUP	2.00	11285																														
ZZZZZZ	WU10N	2.00	11325																														
ZZZZZZ	WU10NSPK	2.00	11365																														
ZZZZZZ	ZZZZZZ	2.00	11401																														
CCV	CCV3	1.00	11433							X					X																		

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 6/21/2013

SDG: WT81 | RUNID: IP062171 | METHOD: ICP | END DATE: 6/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB3	1.00	11483							X					X																		
PBS	WT81MB1	2.00	11570							X					X																		
ZZZZZZ	WU10U	2.00	12012																														
ZZZZZZ	WU10Y	2.00	12052																														
AM-SF4-EFF-2013061	WT81B	2.00	12092							X					X																		
AM-FD-01-20130612-	WT81C	2.00	12133																														
ZZZZZZ	WU00A	5.00	12173																														
AM-VT-INF-20130612D	WT81ADUP	2.00	12213							X					X																		
AM-VT-INF-20130612	WT81A	2.00	12261							X					X																		
AM-VT-INF-20130612S	WT81ASPK	2.00	12304							X					X																		
ZZZZZZ	ZZZZZZ	2.00	12350																														
CCV	CCV4	1.00	12384							X					X																		
CCB	CCB4	1.00	12435							X					X																		
AM-FD-01-20130612-	WT81C	5.00	12521							X					X																		
LCSS	WT81MB1SPK	2.00	12561							X					X																		
ZZZZZZ	WU10MB1SPK	2.00	13002																														
CCV	CCV5	1.00	13042							X					X																		
CCB	CCB5	1.00	13092							X					X																		

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 6/20/2013

SDG: WT81 | RUNID: MS062011 | METHOD: PMS | END DATE: 6/20/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10000		X		X					X		X									X	X	X	X				X			X
S1	S1	1.00	10030		X		X					X		X									X	X	X	X				X			X
S2	S2	1.00	10070		X		X					X		X									X	X	X	X				X			X
S3	S3	1.00	10110		X		X					X		X									X	X	X	X				X			X
S4	S4	1.00	10150		X		X					X		X									X	X	X	X				X			X
S5	S5	1.00	10190																														
ZZZZZZ	Rinse sampl	1.00	10240																														
ICV	MICV	1.00	10310		X		X					X		X									X	X	X	X				X			X
ICB	ICB	1.00	10370		X		X					X		X									X	X	X	X				X			X
CCV	MCCV1	1.00	10410		X		X					X		X									X	X	X	X				X			X
CCB	CCB1	1.00	10470		X		X					X		X									X	X	X	X				X			X
CRI	MCRI	1.00	10500		X		X					X		X									X	X	X	X				X			X
ICSA	ICSAI	1.00	10540		X		X					X		X									X	X	X	X				X			X
ICSAB	ICSABI	1.00	11000		X		X					X		X									X	X	X	X				X			X
ZZZZZZ	LR200	1.00	11060																														
ZZZZZZ	LR300	1.00	11130																														
ZZZZZZ	B1	1.00	11190																														
ZZZZZZ	B2	1.00	11260																														
CCV	MCCV2	1.00	11320		X		X					X		X									X	X	X	X				X			X
CCB	CCB2	1.00	11380		X		X					X		X									X	X	X	X				X			X
PBS	WT81MB1	20.00	11430		X		X					X		X									X	X	X	X				X			X
ZZZZZZ	WT82MB1	20.00	11470																														
ZZZZZZ	WT82A-L	100.00	11510																														
ZZZZZZ	WT82A	20.00	11540																														
ZZZZZZ	WT82ADUP	20.00	11580																														
ZZZZZZ	WT82ASPK	20.00	12010																														
ZZZZZZ	ZZZZZZ	20.00	12050																														
AM-SF4-EFF-2013061	WT81B	20.00	12080		X		X					X		X									X	X	X	X				X			
AM-FD-01-20130612-	WT81C	20.00	12120		X		X					X		X									X	X	X	X				X			
ZZZZZZ	WT82MB1SPK	20.00	12160																														
CCV	MCCV3	1.00	12200		X		X					X		X									X	X	X	X				X			X
CCB	CCB3	1.00	12270		X		X					X		X									X	X	X	X				X			X
ZZZZZZ	WT86MB	20.00	12320																														
ZZZZZZ	WT86ADUP	20.00	12360																														
ZZZZZZ	WT86A	20.00	12400																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 6/20/2013

SDG: WT81 | RUNID: MS062011 | METHOD: PMS | END DATE: 6/20/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WT86ASPK	20.00	12430																														
AM-VT-INF-20130612D	WT81ADUP	20.00	12470		X		X					X		X									X	X	X	X				X			
AM-VT-INF-20130612	WT81A	20.00	12500		X		X					X		X									X	X	X	X				X			
AM-VT-INF-20130612S	WT81ASPK	20.00	12540		X		X					X		X									X	X	X	X				X			
AM-VT-INF-20130612A	WT81APOST	20.00	12580																						X								
LCSS	WT81MB1SPK	20.00	13010		X							X		X									X	X	X	X				X			X
ZZZZZZ	WT86MBSPK	20.00	13050																														
CCV	MCCV4	1.00	13090		X		X					X		X									X	X	X	X				X			X
CCB	CCB4	1.00	13160		X		X					X		X									X	X	X	X				X			X
AM-SF4-EFF-2013061	WT81B	200.00	13210																														X
AM-FD-01-20130612-	WT81C	200.00	13250																														X
AM-VT-INF-20130612D	WT81ADUP	50.00	13290																														X
AM-VT-INF-20130612	WT81A	50.00	13320																														X
AM-VT-INF-20130612S	WT81ASPK	50.00	13360																														X
ZZZZZZ	ZZZZZZ	50.00	13390																														
CCV	MCCV5	1.00	13430		X		X					X		X									X	X	X	X				X			X
CCB	CCB5	1.00	13490		X		X					X		X									X	X	X	X				X			X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 6/21/2013

SDG: WT81 | RUNID: MS062111 | METHOD: PMS | END DATE: 6/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09090				X																										
S1	S1	1.00	09120				X																										
S2	S2	1.00	09160				X																										
S3	S3	1.00	09200				X																										
S4	S4	1.00	09240				X																										
S5	S5	1.00	09280																														
ZZZZZZ	Rinse sampl	1.00	09330																														
ICV	MICV	1.00	09390				X																										
ICB	ICB	1.00	09460				X																										
CCV	MCCV1	1.00	09490				X																										
CCB	CCB1	1.00	09550				X																										
CRI	MCRI	1.00	09590				X																										
ICSA	ICSAI	1.00	10030				X																										
ICSAB	ICSABI	1.00	10090				X																										
ZZZZZZ	LR200	1.00	10150																														
ZZZZZZ	LR300	1.00	10210																														
ZZZZZZ	B1	1.00	10280																														
CCV	MCCV2	1.00	10330				X																										
CCB	CCB2	1.00	10390				X																										
ZZZZZZ	WS79MB1	5.00	10490																														
ZZZZZZ	WS79MB2	5.00	10520																														
ZZZZZZ	WS79E	5.00	10560																														
ZZZZZZ	WS79MB1SPK	5.00	11000																														
ZZZZZZ	WS79MB2SPK	5.00	11030																														
ZZZZZZ	WU04DSPK	2.00	11070																														
ZZZZZZ	WU04MB1SPK	2.00	11100																														
ZZZZZZ	WU04MB2SPK	2.00	11140																														
LCSS	WT81MB1SPK	20.00	11170				X																										
ZZZZZZ	WT86MBSPK	20.00	11210																														
CCV	MCCV3	1.00	11260				X																										
CCB	CCB3	1.00	11320				X																										
ZZZZZZ	WS79F	5.00	11360																														
ZZZZZZ	WS79G	5.00	11390																														
ZZZZZZ	WS79T	5.00	11430																														
ZZZZZZ	WS79U	5.00	11460																														

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 6/21/2013

SDG: WT81 | RUNID: MS062111 METHOD: PMS | END DATE: 6/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WS79V	5.00	11500																														
ZZZZZZ	WS79A	50.00	11540																														
ZZZZZZ	WS79B	50.00	11570																														
ZZZZZZ	WS79H	50.00	12010																														
ZZZZZZ	WS79L	50.00	12040																														
ZZZZZZ	WS79M	50.00	12080																														
CCV	MCCV4	1.00	12130				X																										
CCB	CCB4	1.00	12190				X																										
ZZZZZZ	WU75MB	2.00	12250																														
ZZZZZZ	WU75B	2.00	12290																														
ZZZZZZ	WU75C	2.00	12320																														
ZZZZZZ	WU75D	2.00	12360																														
ZZZZZZ	WU75E	2.00	12390																														
ZZZZZZ	WU75F	2.00	12430																														
ZZZZZZ	WU75ADUP	2.00	12470																														
ZZZZZZ	WU75A	2.00	12500																														
ZZZZZZ	WU75ASPK	2.00	12540																														
ZZZZZZ	WU75MBSPK	2.00	12570																														
CCV	MCCV5	1.00	13020				X																										
CCB	CCB5	1.00	13080				X																										
ZZZZZZ	WU75G	2.00	13140																														
ZZZZZZ	WU75H	2.00	13170																														
ZZZZZZ	WU75I	2.00	13210																														
ZZZZZZ	WU75J	2.00	13240																														
ZZZZZZ	WU75K	2.00	13280																														
CCV	MCCV6	1.00	13340				X																										
CCB	CCB6	1.00	13400				X																										
ZZZZZZ	1	1.00	13440																														
ZZZZZZ	2	1.00	13480																														
ZZZZZZ	3	1.00	13510																														
ZZZZZZ	4	1.00	13550																														
ZZZZZZ	5	1.00	13590																														
ZZZZZZ	1	1.00	14130																														
ZZZZZZ	2	1.00	14160																														
ZZZZZZ	3	1.00	14200																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: NEXION 300D MS | START DATE: 6/21/2013

SDG: WT81 | RUNID: MS062111 | METHOD: PMS | END DATE: 6/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	4	1.00	14230																														
ZZZZZZ	5	1.00	14270																														
CCV	MCCV7	1.00	14310				X																										
CCB	CCB7	1.00	14370				X																										

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: CETAC MERCURY | START DATE: 6/20/2013

SDG: WT81 | RUNID: HG062001 | METHOD: CVA | END DATE: 6/20/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10483														X																
S0.1	S0.1	1.00	10501														X																
S0.5	S0.5	1.00	10514														X																
S1	S1	1.00	10532														X																
S2	S2	1.00	10550														X																
S5	S5	1.00	10564														X																
S10	S10	1.00	10582														X																
ICV	AICV	1.00	11064														X																
ICB	ICB	1.00	11082														X																
CCV	ACCV1	1.00	11100														X																
CCB	CCB1	1.00	11114														X																
CRA	CRA	1.00	11131														X																
ZZZZZZ	WT82MB1	1.00	11145																														
ZZZZZZ	WT82MB1SPK	1.00	11162																														
ZZZZZZ	WT82A	1.00	11180																														
ZZZZZZ	WT82ADUP	1.00	11194																														
ZZZZZZ	WT82ASPK	1.00	11211																														
PBW	WT81MB1	1.00	11225														X																
LCSW	WT81MB1SPK	1.00	11243														X																
AM-VT-INF-20130612	WT81A	1.00	11261														X																
AM-VT-INF-20130612D	WT81ADUP	1.00	11274														X																
CCV	ACCV2	1.00	11292														X																
CCB	CCB2	1.00	11310														X																
AM-VT-INF-20130612S	WT81ASPK	1.00	11324														X																
AM-SF4-EFF-2013061	WT81B	1.00	11342														X																
AM-FD-01-20130612-	WT81C	1.00	11355														X																
ZZZZZZ	WU10MB1	1.00	11373																														
ZZZZZZ	WU10MB1SPK	1.00	11390																														
ZZZZZZ	WU10N	1.00	11404																														
ZZZZZZ	WU10NDUP	1.00	11422																														
ZZZZZZ	WU10NSPK	1.00	11435																														
ZZZZZZ	WU10O	1.00	11453																														
ZZZZZZ	WU10P	1.00	11471																														
CCV	ACCV3	1.00	11485														X																
CCB	CCB3	1.00	11503														X																

FORM XIV

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: WT81

SAMPLE RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MF
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Client ID: AM-VT-INF-20130612-S
ARI ID: 13-12636 WT81A

Analyte	Date	Method	Units	RL	Sample
Total Solids	06/17/13 061713#1	SM2540B	Percent	0.01	41.71
Total Organic Carbon	06/25/13 062513#1	Plumb,1981	Percent	0.020	5.50

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Client ID: AM-SF4-EFF-20130612-S
ARI ID: 13-12637 WT81B

Analyte	Date	Method	Units	RL	Sample
Total Solids	06/17/13 061713#1	SM2540B	Percent	0.01	39.45
Total Organic Carbon	06/25/13 062513#1	Plumb,1981	Percent	0.020	11.3

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Client ID: AM-FD-01-20130612-S
ARI ID: 13-12638 WT81C

Analyte	Date	Method	Units	RL	Sample
Total Solids	06/17/13 061713#1	SM2540B	Percent	0.01	39.43
Total Organic Carbon	06/25/13 062513#1	Plumb,1981	Percent	0.020	12.6

RL Analytical reporting limit
U Undetected at reported detection limit

LAB CONTROL RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	06/25/13	Percent	0.095	0.100	95.0%

METHOD BLANK RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MB
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank	QC ID
Total Solids	06/17/13	Percent	< 0.01 U	ICB
Total Organic Carbon	06/25/13	Percent	< 0.020 U	ICB

STANDARD REFERENCE RESULTS-CONVENTIONALS
WT81-SAIC

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 06/26/13

Project: NPDES Sampling Support
Event: 209977
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	06/25/13	Percent	2.43	2.99	81.3%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: WT81

SAIC
NPDES Sampling Support
209977

Modified PSEP - Sieve/Sedigraph Method
Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15 60	7.80	3.90	2.00	1.00
AM-VT-INF-20130612-S	100.0	100.0	99.4	98.8	98.3	97.2	95.7	94.2	93.4	88.0	55.1	34.5	26.6	23.8
	100.0	100.0	99.9	99.6	99.1	98.0	96.4	94.9	94.8	88.8	52.9	35.6	27.9	23.4
	100.0	100.0	99.8	99.2	98.5	97.2	95.7	94.2	93.2	86.5	52.6	34.3	26.9	25.4
AM-SF4-EFF-20130612-S	100.0	99.4	97.7	94.8	91.6	88.4	84.1	79.1	78.1	62.7	32.2	24.7	17.8	7.9
AM-FD-01-20130612-S	100.0	100.0	99.8	98.7	94.6	87.2	78.5	69.3	66.3	39.9	26.8	20.6	14.1	7.9

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

WT81

SAIC
NPDES Sampling Support
209977

Modified PSEP - Sieve/Sedigraph Method
Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62 5-31 0	31 0-15 6	15.6-7 8	7.8-3 9	3 9-2.0	2 0-1 0	<1.0	<230 (<62)
AM-VT-INF-20130612-S	0.6	0.6	0.6	1.1	1.5	1.4	0.8	5.4	32.9	20.6	7.9	2.8	23.8	94.2
	0.1	0.3	0.5	1.1	1 6	1.5	0.1	6.0	35.9	17.3	7.7	4.5	23.4	94.9
	0.2	0.6	0.7	1.3	1 6	1.5	1.0	6.7	33.9	18.3	7.4	1.5	25.4	94.2
AM-SF4-EFF-20130612-S	2.3	2.9	3.2	3.2	4.2	5.0	1.0	15.4	30.5	7.5	6.9	9.9	7.9	79.1
AM-FD-01-20130612-S	0.2	1.1	4.1	7.4	8.7	9.2	3.0	26.4	13.1	6.2	6.5	6.2	7.9	69.3

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

WT81

QA SUMMARY

Client:	SAIC	Client Project:	NPDES Sampling Support
ARI Trip. Sample ID:	WT81A	Client Project No.:	209977
Client Trip. Sample ID:	AM-VT-INF-20130612-S	Batch No..	WT81-1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
AM-VT-INF-20130612-S	100.0	100.0	99.4	98.8	98.3	97.2	95.7	94.2	93 4	88 0	55 1	34 5	26.6	23.8
	100.0	100.0	99.9	99.6	99.1	98 0	96.4	94.9	94.8	88 8	52.9	35.6	27.9	23.4
	100 0	100.0	99.8	99 2	98.5	97 2	95.7	94.2	93 2	86 5	52.6	34.3	26.9	25.4
AVE	100 0	100 0	99 7	99 2	98.6	97.5	95.9	94.4	93 8	87 8	53 5	34.8	27.1	24.2
STDEV	0 0	0 0	0.3	0.4	0.4	0 4	0 4	0 4	0.9	1 2	1.4	0.7	0 7	1 1
%RSD	0.0	0.0	0 3	0 4	0 4	0 5	0.4	0 5	0 9	1.3	2 5	2 0	2.5	4.4

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	Data Qualifier	Sedigraph Fine Portion Dry Mass (g)
AM-VT-INF-20130612-S	6/12/2013	6/27/2013	7/1/2013		6.8
	6/12/2013	6/27/2013	7/1/2013		7.2
	6/12/2013	6/27/2013	7/1/2013		7.8
AM-SF4-EFF-20130612-S	6/12/2013	6/26/2013	7/1/2013		13 1
AM-FD-01-20130612-S	6/12/2013	6/26/2013	7/1/2013		11 7

* ARI Internal QA limits = 95-105%

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

Total Solids

ARI Job ID: WT81

Volatiles Total Solids-voats
Data By: Pat Basilio
Created: 6/20/13

Worklist: 3592
Analyst: PAB
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. WT81B 13-12637	_____	_____	*	39.90
2. WT81C 13-12638	_____	_____	*	39.80

Worklist ID: 3592 Page: 1
* - VOA TS Copied From BETX TS
% - VOA TS Copied From Metals TS
$ - VOA TS Copied From Extraction TS

Total Solids Targets-Extractions
Data By: Jim Hawk
Created: 6/14/13

Worklist: 1605
Analyst: JBH
Comments:

	ARI ID	Target Dry Wt (g)	Total Solids	Min Wet Wt (g)
1.	WT81A	10.00	43.1	23.20
2.	WT81B	10.00	39.9	25.06
3.	WT81C	10.00	39.8	25.13

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 6/13/13

Worklist: 1476
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	WT81A 13-12636 AM-VT-INF-20130612-S	1.18	11.80	5.76	43.1	NR
2.	WT81B 13-12637 AM-SF4-EFF-20130612-S	1.17	12.26	5.60	39.9	NR
3.	WT81C 13-12638 AM-FD-01-20130612-S	1.16	12.70	5.75	39.8	NR

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 6/13/13

Worklist: 1476
Analyst: AC
Comments:

Oven ID: ϕ15

Balance ID: B\39298402

Samples In: Date: 6-13-13 Time: 18:25 Temp: 97C Analyst: AC

Samples Out: Date: 6/14/13 Time: 0650 Temp: 102 Analyst: RR

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	WT81A 13-12636 AM-VT-INF-20130612-S	1.18	11.80	5.76		NR
2.	WT81B 13-12637 AM-SF4-EFF-20130612-S	1.17	12.26	5.60		NR
3.	WT81C 13-12638 AM-FD-01-20130612-S	1.16	12.70	5.75		NR

BETX/TPHG Total Solids-betxts
Data By: Paul K. Campbell
Created: 6/17/13

Worklist: 2475
Analyst: PKC
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. WT81B 13-12637	_____	_____		$ 39.90
2. WT81C 13-12638	_____	_____		$ 39.80

Worklist ID: 2475 Page: 1
* - BETX TS Copied From VOA TS
% - BETX TS Copied From Metals TS
$ - BETX TS Copied From Extraction TS

Solids Data Entry Report Checked by: CB Date: 6/18/13
Date: 06/18/13 Data Analyst: DM

Solids Determination performed on 06/17/13 by CB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WT81	A	AM-VT-INF-20130612-	1.001	10.426	4.902	41.39
WT81	B	AM-SF4-EFF-20130612	0.967	10.964	4.754	37.88
WT81	C	AM-FD-01-20130612-S	0.990	10.286	4.634	39.20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 6-17-13 Time: 0900 Temp: 100°C Analyst: CB

Removed from Oven: Date: 6-18-13 Time: 0645 Temp: 100°C Analyst: DM

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
WT82	A	0.989	10.563	9.605	—	✓
WT83	B	0.983	10.847	9.921	—	✓
"	D	0.991	10.245	8.862	—	✓
"	E	0.989	10.336	9.357	—	✓
"	F	1.008	10.374	9.423	—	✓
"	G	1.006	10.465	9.766	—	✓
WT81	A	1.001	10.426	4.902	—	✓
"	B	0.967	10.964	4.754	—	✓
"	C	0.990	10.286	4.634	—	✓
WW18	C	0.957	10.208	7.519	—	✓
			CB			
			6-17-13			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Volatile Raw Data
Preparation Log

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Method 5035 Extraction Bench Sheet
(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No.	Client ID	Prep/Extraction Date	MeOH Lot No.	Analyst
		6/14/13	I7873	PC

	Lab ID	Vial No.	Preservative			Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Lot #	Vial Weight (g)	Tare (from vial) (g)	Sample Weight (g)	Extract Volume (mL)	MeOH Split Volume (µL)	
1	WT52A	1						10,42	5	450	
2	1 B	1						10,50			
3	WT86A	3						10,42			
4	WW6A	1						10,48			
5	B	2						10,46			
6	C	2						10,37			
7	D	1						10,56			
8	WT81B	1		X	DE695	33,03	27,902	5,128		900	
9	C	1		X	1	33,19	28,107	5,083		1	
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
					Balance ID:	4005006 PM20					

Volatile Raw Data
Initial Calibration Notes and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Initial Calibration Notes

ARI SOP: 404S(Gas) 410S(BTEX) 430S(VPH) 700S(8260C) 703S(SIM) 706S(524.3) 710S(RSK-175)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 PID-1 PID-2 PID-3 FID-6

Curve Date(s): 6/11/13 Internal Standard ID B000643/B000644 Expiration 12/11/13

BFB Tune Meets Criteria?	YES / NO	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	ICV Exceeding ±30%?	YES / NO
Q flag applied?	YES / NO	Linear Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Quadratic Fits Used?	YES / NO
Spectral Library Updated?	YES / NO	Calibration Points Dropped?	YES / NO
Minimum Response Factors Met	YES / NO	Purge Volume (mL)	5

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Bor ultra	B000348	10/13/14	accustd	MW746-4	10/13/14
ultra	B000196	6/27/14	SPEX	MW797-3	6/3/14
restek	B000612	12/5/13			
6/11/13 B000464 restek	B000164	6/30/14	ultra	I8301	7/9/13

Detail problems, corrective actions and/or other pertinent information below:

linear - iodomethane, DCM quadratic - acetone (3% RSD before changing to quadratic)
ICV - DCDFM 128%R, acrolein 68%R, 1,1DCE 78%R, bromomethane 78%R, chloroethane 69%R, carbon disulfide 75%R, VA 48%R, trans 1,4 dichloro-2-butene 77%R

Analyst: [signature] Date: 6/11/13

Reviewer: [signature] Date: 6/12/13

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-5 Serial No.:GC=US10228086, MS=US10462818

Date: 6/11/13 Analysis: SMC Analyst: BJ

GC Program: LIMA04 Column No: 92852 Column Type: MTX624

Instrument Tune (.U or .CT.): BFB(100) EM Voltage: 1412

Inj. Vol: 5 Calibration File: bfb0611a Curve Date: 6/11/13

IS/SS	Ical/Ccal	LCS/ICV
B000643	B000648	W797-4
B000644	B000649	W797-5
		ERA01

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt5.i/11JUN13.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF							
1	0702	bfb0611.d	BFB0611	BFB0611			1							
2	0810	bfb0611a.d	BFB0611	BFB0611			1							
3	0833	0010611.d	IC0611	VSTD1			1	4.67	463596	5.12	1698223	7.59	2010959	9.67 1071536
4	0857	2000611.d	IC0611	VSTD200			1	4.65	507140	5.10	1861384	7.60	2123406	9.68 1103824
5	0921	1500611.d	IC0611	VSTD150			1	4.66	496348	5.11	1843399	7.60	2125124	9.68 1137532
6	1009	0500611.d	IC0611	VSTD50			1	4.66	459631	5.11	1692431	7.59	1987215	9.67 1075398
7	1057	0050611.d	IC0611	VSTD5			1	4.65	459587	5.11	1687157	7.59	2006212	9.67 1096782
8	1120	0020611.d	IC0611	VSTD2			1	4.67	444324	5.12	1641355	7.60	1959754	9.67 1061365
9	1221	0100611.d	IC0611	VSTD10			1	4.66	441694	5.11	1634225	7.59	1921755	9.67 1018367
10	1245	1000611.d	IC0611	VSTD100			1	4.67	457100	5.11	1695367	7.60	1980001	9.67 1049557
11	1404	icv0611.d	ICV0611	ICV0611			1	4.66	434681	5.11	1638920	7.59	1920237	9.67 1043748

Maintenance / Comments

6/11/13

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem1/nt5.i/11JUN13.b/bfb0611a.d

Date : 11-JUN-2013 08:10

Client ID: BFB0611

Instrument: nt5.i

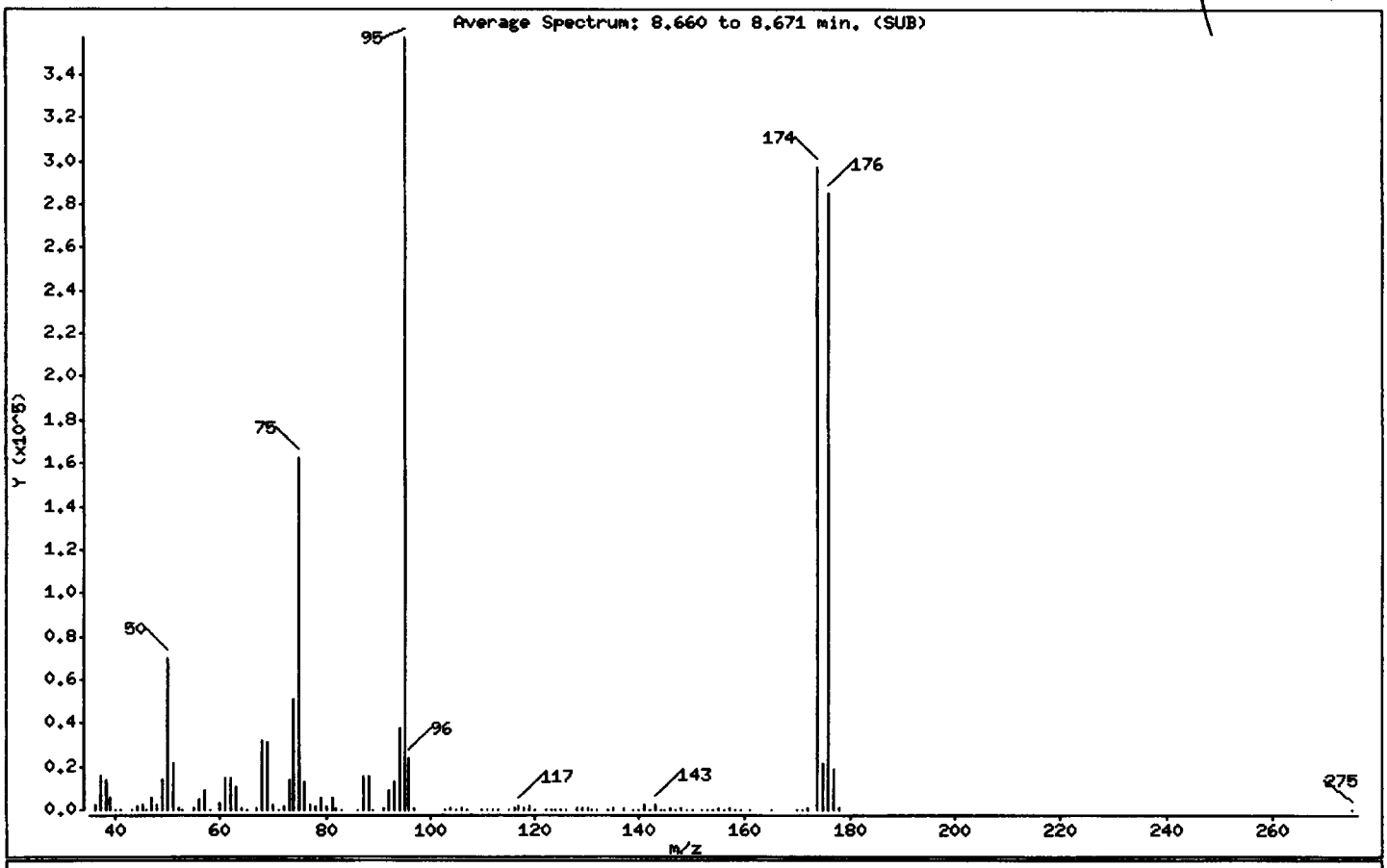
Sample Info: BFB0611,BFB0611,,1,11JUN13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	19.44
75	30.00 - 66.00% of mass 95	45.50
96	5.00 - 9.00% of mass 95	6.62
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 101.00% of mass 95	83.24
175	4.00 - 9.00% of mass 174	5.93 (7.13)
176	95.00 - 101.00% of mass 174	79.81 (95.87)
177	5.00 - 9.00% of mass 176	5.28 (6.62)

Data File: /chem1/nt5.i/11JUN13.b/bfb0611a.d

Date : 11-JUN-2013 08:10

Client ID: BFB0611

Instrument: nt5.i

Sample Info: BFB0611,BFB0611,,1,11JUN13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0611a.d

Spectrum: Average Speotrum: 8.660 to 8.671 min. (SUB)

Location of Maximum: 95.00

Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2585	69.00	31560	106.00	1039	143.00	2774
37.00	15758	70.00	2162	107.00	406	144.00	87
38.00	14282	71.00	152	110.00	127	145.00	279
39.00	5446	72.00	1664	111.00	233	146.00	442
40.00	199	73.00	13686	112.00	52	147.00	204
41.00	33	74.00	50952	113.00	147	148.00	835
43.00	68	75.00	162496	115.00	313	149.00	204
44.00	1313	76.00	13541	116.00	963	150.00	290
45.00	2849	77.00	2132	117.00	1613	152.00	191
46.00	224	78.00	1365	118.00	982	153.00	257
47.00	5973	79.00	5772	119.00	1358	154.00	151
48.00	2167	80.00	1621	120.00	33	155.00	696
49.00	13976	81.00	5425	122.00	33	156.00	35
50.00	69456	82.00	1135	123.00	34	157.00	555
51.00	21576	83.00	160	124.00	137	158.00	35
52.00	926	86.00	393	125.00	37	159.00	370
53.00	46	87.00	15463	126.00	146	161.00	308
55.00	773	88.00	15414	128.00	958	165.00	42
56.00	4753	89.00	39	129.00	526	170.00	38
57.00	8891	91.00	1008	130.00	976	171.00	121
58.00	400	92.00	8689	131.00	312	172.00	690
60.00	3017	93.00	13378	132.00	33	174.00	297408
61.00	14478	94.00	37584	134.00	78	175.00	21192
62.00	14832	95.00	357248	135.00	442	176.00	285120
63.00	11037	96.00	23664	137.00	439	177.00	18864
64.00	1085	97.00	720	139.00	129	178.00	544
65.00	410	103.00	98	140.00	309	275.00	36
67.00	916	104.00	1121	141.00	2541		
68.00	31776	105.00	409	142.00	336		

Data File: /chem1/nt5.i/11JUN13.b/bfb0611a.d

Date : 11-JUN-2013 08:10

Client ID: BFB0611

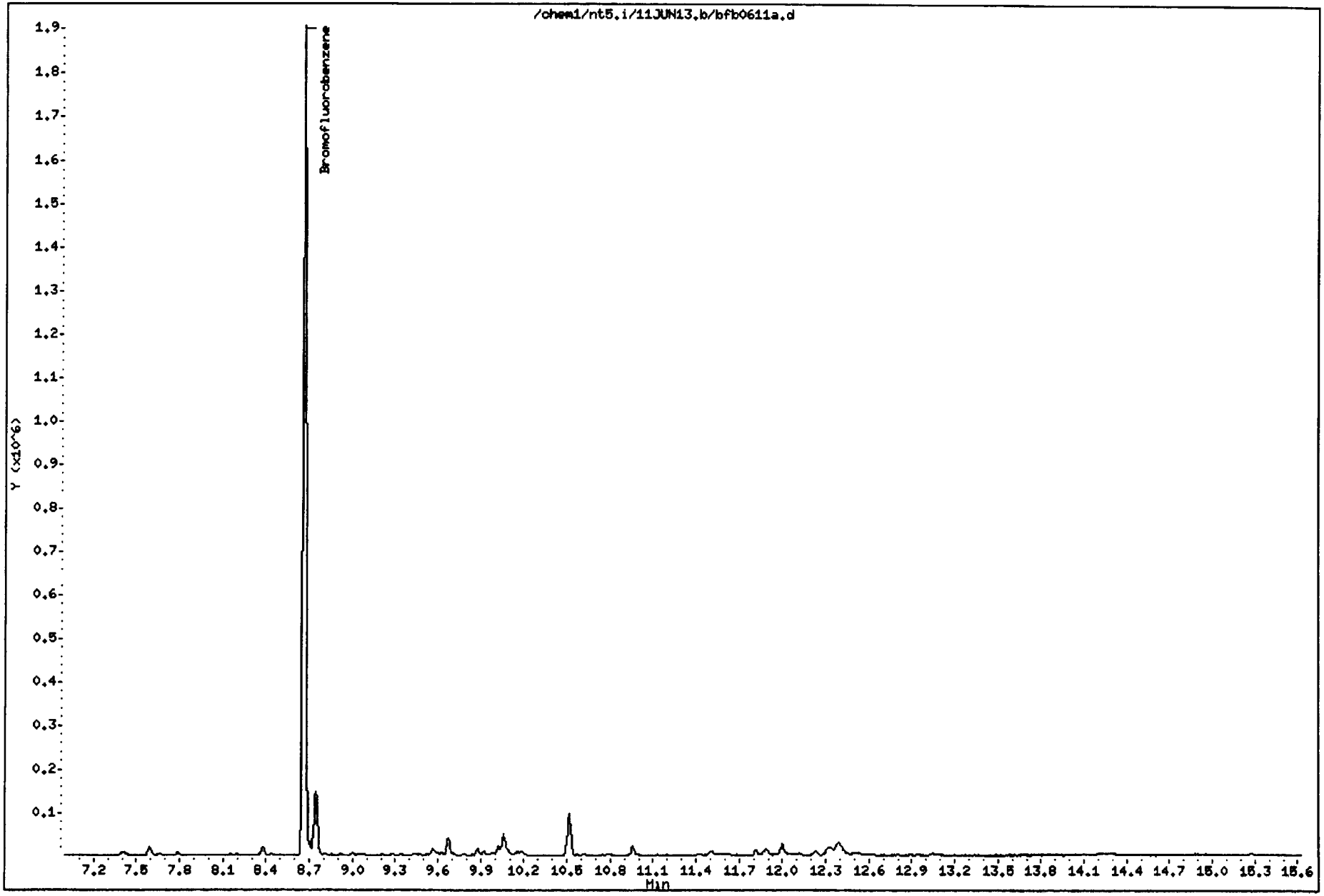
Sample Info: BFB0611,BFB0611,,1,11JUN13,,

Column phase: RTXVMS

Instrument: nt5.i

Operator: PB

Column diameter: 0.18



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb

Calibration File Names:
Level 1: /chem1/nt5.i/11JUN13.b/0010611.d
Level 2: /chem1/nt5.i/11JUN13.b/0020611.d
Level 3: /chem1/nt5.i/11JUN13.b/0050611.d
Level 4: /chem1/nt5.i/11JUN13.b/0100611.d
Level 5: /chem1/nt5.i/11JUN13.b/0500611.d
Level 6: /chem1/nt5.i/11JUN13.b/1000611.d
Level 7: /chem1/nt5.i/11JUN13.b/1500611.d
Level 8: /chem1/nt5.i/11JUN13.b/2000611.d

6/12/13

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
1 Dichlorodifluoromethane	1.15985	0.73837	0.81617	0.97672	0.76826	0.93849					
	0.79058	0.90335					AVRG		0.88647		15.71883
2 Chloromethane	2.15349	1.61138	1.83391	1.64416	1.66363	1.79429					
	1.69561	1.72662					AVRG		1.76539		9.84141
3 Vinyl Chloride	1.99937	1.53098	1.63129	1.73824	1.65547	1.82428					
	1.70517	1.57850					AVRG		1.70791		8.74330

Analytical Resources, Inc.

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Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	150 Level 7	200 Level 8									
4 Bromomethane	1.11455	0.86975	0.91088	0.92848	0.79696	0.79674					
	0.73429	0.69266					AVRG		0.85554		15.54370
5 Chloroethane	1.25605	1.02043	1.01004	1.07308	0.97124	1.05913					
	0.90276	0.84183					AVRG		1.01682		12.21323
6 Trichlorofluoromethane	2.07228	1.60710	1.76839	1.76278	1.58603	1.90520					
	1.73276	1.76116					AVRG		1.77446		8.81816
7 1,1-Dichloroethene	1.43304	1.08901	1.15351	1.11525	1.12017	1.31347					
	1.17918	1.18071					AVRG		1.19804		9.77444
8 Carbon Disulfide	4.58125	3.66022	3.85094	3.73277	3.70547	4.26429					
	3.74349	3.60790					AVRG		3.89329		8.85505
9 112Trichloro122Trifluoroethan	1.17268	0.97547	1.01328	0.99965	0.97764	1.19118					
	1.04090	1.06600					AVRG		1.05460		8.00004
10 Iodomethane	8399	11499	29970	63217	397931	1129814					
	1522399	2117934					LINR	0.000e+00	1.06229		0.99016

Analytical Resources, Inc.

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Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
11 Bromoethane	0.88018	0.67676	0.68947	0.73889	0.74005	0.80712					
	0.68285	0.67451					AVRG		0.73623		10.02755
12 Acrolein	0.29925	0.25834	0.22950	0.26818	0.27716	0.27081					
	0.21873	0.20006					AVRG		0.25275		13.23048
13 Methylene Chloride	+++++	34934	57838	123231	512608	983128					
	+++++	+++++					LINR	0.000e+00	1.08730		0.99799
14 Acetone	24600	37068	61461	226490	559829	955765					
	+++++	+++++					QUAD	0.000e+00	2.37497	1.17429	0.99443
15 Trans-1,2-Dichloroethene	1.51522	1.19316	1.06078	1.31084	1.04822	1.12151					
	0.96776	0.96821					AVRG		1.14821		16.34263
16 Methyl tert butyl ether	4.24680	3.73973	3.54808	3.58528	3.27729	3.09939					
	2.58140	2.49074					AVRG		3.32109		17.78170
17 1,1-Dichloroethane	3.04856	2.60834	2.75933	2.63793	2.16132	1.73335					
	+++++	+++++					AVRG		2.49147		18.83399

Analytical Resources, Inc.

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	150 Level 7	200 Level 8										
18 Acrylonitrile	0.61584	0.62139	0.59097	0.53014	0.52102	0.34450						
	+++++	+++++					AVRG		0.53731		19.27076	
19 Vinyl Acetate	3.53314	3.34998	3.55413	3.13082	3.37481	3.55041						
	3.33473	+++++					AVRG		3.40400		4.54869	
20 Cis-1,2-Dichloroethene	1.59805	1.42149	1.44697	1.36104	1.34895	1.53835						
	1.45307	1.46221					AVRG		1.45377		5.73839	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
22 2,2-Dichloropropane	2.46497	1.87144	2.03550	1.98910	1.86828	2.21329						
	2.05659	2.07875					AVRG		2.07224		9.38223	
23 Bromochloromethane	0.70956	0.58099	0.65002	0.62160	0.59245	0.65405						
	0.69301	0.70634					AVRG		0.65100		7.67163	
24 Chloroform	2.68014	2.25106	2.35681	2.18244	2.19549	2.32442						
	2.33200	2.33735					AVRG		2.33246		6.67056	

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
25 Carbon Tetrachloride	0.54062	0.44127	0.46563	0.46093	0.43796	0.51967					
	0.48308	0.49219					AVRG		0.48017		7.56835
26 1,1,1-Trichloroethane	2.29327	1.93243	2.07658	2.01220	1.92671	2.27638					
	2.12220	2.13273					AVRG		2.09656		6.65569
28 1,1-Dichloropropene	0.61617	0.51281	0.62068	0.52279	0.51285	0.59928					
	0.55464	0.56286					AVRG		0.56276		8.00087
29 2-Butanone	0.16918	0.16292	0.17142	0.14178	0.17691	0.18360					
	0.17778	0.16657					AVRG		0.16877		7.56852
30 Benzene	1.84805	1.57317	1.68981	1.55349	1.52315	1.65205					
	1.44938	1.36132					AVRG		1.58130		9.49939
33 1,2-Dichloroethane	0.56768	0.49799	0.51314	0.45349	0.47844	0.51592					
	0.48130	0.48272					AVRG		0.49883		6.89316
34 Trichloroethene	0.41564	0.35835	0.39703	0.36359	0.35392	0.41477					
	0.38705	0.39806					AVRG		0.38605		6.39811

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	150 Level 7	200 Level 8										
36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
37 Dibromomethane	0.21952	0.20067	0.21029	0.18599	0.20354	0.22052						
	0.20927	0.21293					AVRG		0.20784		5.38954	
38 1,2-Dichloropropane	0.49328	0.43420	0.45002	0.40134	0.43087	0.47577						
	0.44757	0.45305					AVRG		0.44826		6.25964	
39 Bromodichloromethane	0.53594	0.46219	0.47886	0.44534	0.46824	0.51323						
	0.48458	0.48876					AVRG		0.48464		5.94815	
40 2-Chloroethyl Vinyl Ether	0.19841	0.20293	0.23640	0.21033	0.25128	0.26928						
	0.25825	0.25764					AVRG		0.23557		11.86506	
41 Cis 1,3-dichloropropene	0.68339	0.58155	0.64340	0.59087	0.61761	0.67548						
	0.62593	0.62342					AVRG		0.63020		5.74963	
43 Toluene	1.20770	1.01293	1.05832	0.96938	0.94116	1.04609						
	0.92801	0.88834					AVRG		1.00649		9.97422	

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Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
44 Tetrachloroethene	0.38514	0.30744	0.34495	0.33928	0.31189	0.37507					
	0.34615	0.35904					AVRG		0.34612		7.90789
45 4-Methyl-2-Pentanone	0.16974	0.17439	0.18576	0.16064	0.18860	0.18866					
	0.17642	0.16877					AVRG		0.17662		5.82728
46 Trans 1,3-Dichloropropene	0.59371	0.52769	0.56928	0.51709	0.55879	0.60001					
	0.56007	0.55576					AVRG		0.56030		5.10521
47 1,1,2-Trichloroethane	0.32190	0.30102	0.32285	0.28762	0.31280	0.33494					
	0.31710	0.31966					AVRG		0.31474		4.62368
48 Chlorodibromomethane	0.32012	0.27454	0.29228	0.26907	0.29532	0.31946					
	0.30635	0.31197					AVRG		0.29864		6.50136
49 1,3-Dichloropropane	0.51901	0.48065	0.49420	0.44312	0.49204	0.52308					
	0.49561	0.49396					AVRG		0.49271		4.99011
50 1,2-Dibromoethane	0.33129	0.30434	0.31142	0.26902	0.30469	0.32610					
	0.30969	0.30930					AVRG		0.30823		6.04409

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Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
51 2-Hexanone	0.23741	0.24952	0.26845	0.23093	0.26845	0.26099					
	0.26101	0.25525					AVRG		0.25400		5.45667
53 Chlorobenzene	0.98446	0.84665	0.89684	0.83060	0.80886	0.88306					
	0.79100	0.76670					AVRG		0.85102		8.17223
54 Ethyl Benzene	1.75282	1.45312	1.60347	1.52622	1.43555	1.49669					
	1.25237	1.15591					AVRG		1.45952		12.90379
55 1,1,1,2-Tetrachloroethane	0.34130	0.28699	0.30483	0.27783	0.28695	0.32118					
	0.30101	0.30468					AVRG		0.30310		6.77955
56 m,p-xylene	0.65059	0.54198	0.60109	0.56908	0.54048	0.58022					
	0.49785	0.46745					AVRG		0.55609		10.39652
57 o-Xylene	0.58457	0.49718	0.55974	0.53285	0.53472	0.60443					
	0.55789	0.55339					AVRG		0.55310		5.94465
58 Styrene	0.92416	0.83961	0.96468	0.89093	0.90908	0.97311					
	0.85725	0.80503					AVRG		0.89548		6.62106

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	150 Level 7	200 Level 8										
59 Bromoform	0.41650	0.36241	0.38509	0.34950	0.39203	0.42028						
	0.39971	0.40734					AVRG		0.39161		6.41933	
60 Isopropyl Benzene	2.84941	2.44527	2.70996	2.66892	2.46984	2.66240						
	2.20389	2.05866					AVRG		2.50854		10.72697	
61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
63 Bromobenzene	0.74323	0.63970	0.65245	0.62106	0.62112	0.69938						
	0.64590	0.67219					AVRG		0.66188		6.33190	
64 N-Propyl Benzene	3.61873	2.96868	3.27739	3.23866	2.87644	3.04990						
	2.45529	2.30083					AVRG		2.97324		14.57911	
65 1,1,2,2-Tetrachloroethane	0.67581	0.60472	0.63261	0.58405	0.65760	0.69915						
	0.68101	0.69890					AVRG		0.65423		6.60000	
66 2-Chloro Toluene	2.18467	1.81707	1.94914	1.90504	1.79643	2.00730						
	1.73282	1.67643					AVRG		1.88361		8.70915	

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Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
67 1,3,5-Trimethyl Benzene	2.40295	2.04232	2.25252	2.21593	2.06740	2.29880					
	1.93785	1.85296					AVRG		2.13384		8.86618
68 1,2,3-Trichloropropane	0.20102	0.19256	0.19669	0.17755	0.19756	0.21011					
	0.20198	0.20682					AVRG		0.19804		5.04604
69 Trans-1,4-Dichloro 2-Butene	0.24824	0.21873	0.22791	0.21876	0.25053	0.25905					
	0.25225	0.26816					AVRG		0.24295		7.72356
70 4-Chloro Toluene	2.17384	1.90575	2.03097	1.98777	1.85226	2.07365					
	1.80914	1.77610					AVRG		1.95119		7.11624
71 T-Butyl Benzene	2.03180	1.75870	1.96374	1.91864	1.81318	2.05766					
	1.76631	1.70579					AVRG		1.87698		7.13354
72 1,2,4-Trimethylbenzene	2.36987	1.99922	2.23465	2.17477	2.04821	2.25121					
	1.89821	1.81013					AVRG		2.09828		9.13128
73 S-Butyl Benzene	3.21468	2.74086	2.98397	2.94687	2.63870	2.84729					
	2.32191	2.14813					AVRG		2.73030		12.94020

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
74 4-Isopropyl Toluene	2.52535	2.17046	2.41045	2.40177	2.17215	2.39750					
	1.98160	1.86263					AVRG		2.24024		10.40128
75 1,3-Dichlorobenzene	1.49701	1.21723	1.23863	1.21345	1.13507	1.27949					
	1.12168	1.11455					AVRG		1.22714		10.13445
77 1,4-Dichlorobenzene	1.52552	1.25478	1.29725	1.23323	1.15327	1.30543					
	1.16569	1.18318					AVRG		1.26479		9.48297
78 N-Butyl Benzene	2.43566	2.05045	2.26049	2.32535	2.04956	2.33910					
	1.93032	1.85789					AVRG		2.15610		9.81684
80 1,2-Dichlorobenzene	1.42557	1.20884	1.22026	1.13860	1.10054	1.21217					
	1.10537	1.13701					AVRG		1.19355		8.83118
81 1,2-Dibromo 3-Chloropropane	0.12813	0.12901	0.11891	0.11326	0.12558	0.13123					
	0.13185	0.13547					AVRG		0.12668		5.76839
82 Hexachloro 1,3-Butadiene	0.62919	0.49029	0.53115	0.52593	0.46575	0.55951					
	0.50651	0.52885					AVRG		0.52965		9.30001

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
83 1,2,4-Trichlorobenzene	0.95414	0.79730	0.82711	0.83075	0.79062	0.92135					
	0.85622	0.90765					AVRG		0.86064		7.02538
84 Naphthalene	1.91743	1.97489	1.99429	1.70589	1.94573	1.98514					
	1.83301	1.75554					AVRG		1.88899		5.87484
85 1,2,3-Trichlorobenzene	0.90772	0.83779	0.83846	0.77253	0.76725	0.84919					
	0.81976	0.86234					AVRG		0.83188		5.54667
$ 27 Dibromofluoromethane	1.42080	1.43437	1.43045	1.43975	1.44083	1.45670					
	1.42720	1.42333					AVRG		1.43418		0.80866
$ 32 d4-1,2-Dichloroethane	1.33180	1.36151	1.34153	1.34491	1.34985	1.37034					
	1.31374	1.30630					AVRG		1.34000		1.64461
$ 42 d8-Toluene	1.46932	1.47340	1.47407	1.47279	1.46793	1.46461					
	1.44670	1.45242					AVRG		1.46515		0.69876
$ 62 4-Bromofluorobenzene	0.54277	0.54434	0.54763	0.54387	0.54537	0.54739					
	0.54962	0.54333					AVRG		0.54554		0.44515

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	150 Level 7	200 Level 8									
$ 79 d4-1,2-Dichlorobenzene	1.03331	1.03074	1.01817	1.03518	1.00949	1.01335					
	0.99631	1.01225					AVRG		1.01860		1.33111

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
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Quant Method : ISTD
Origin : Force
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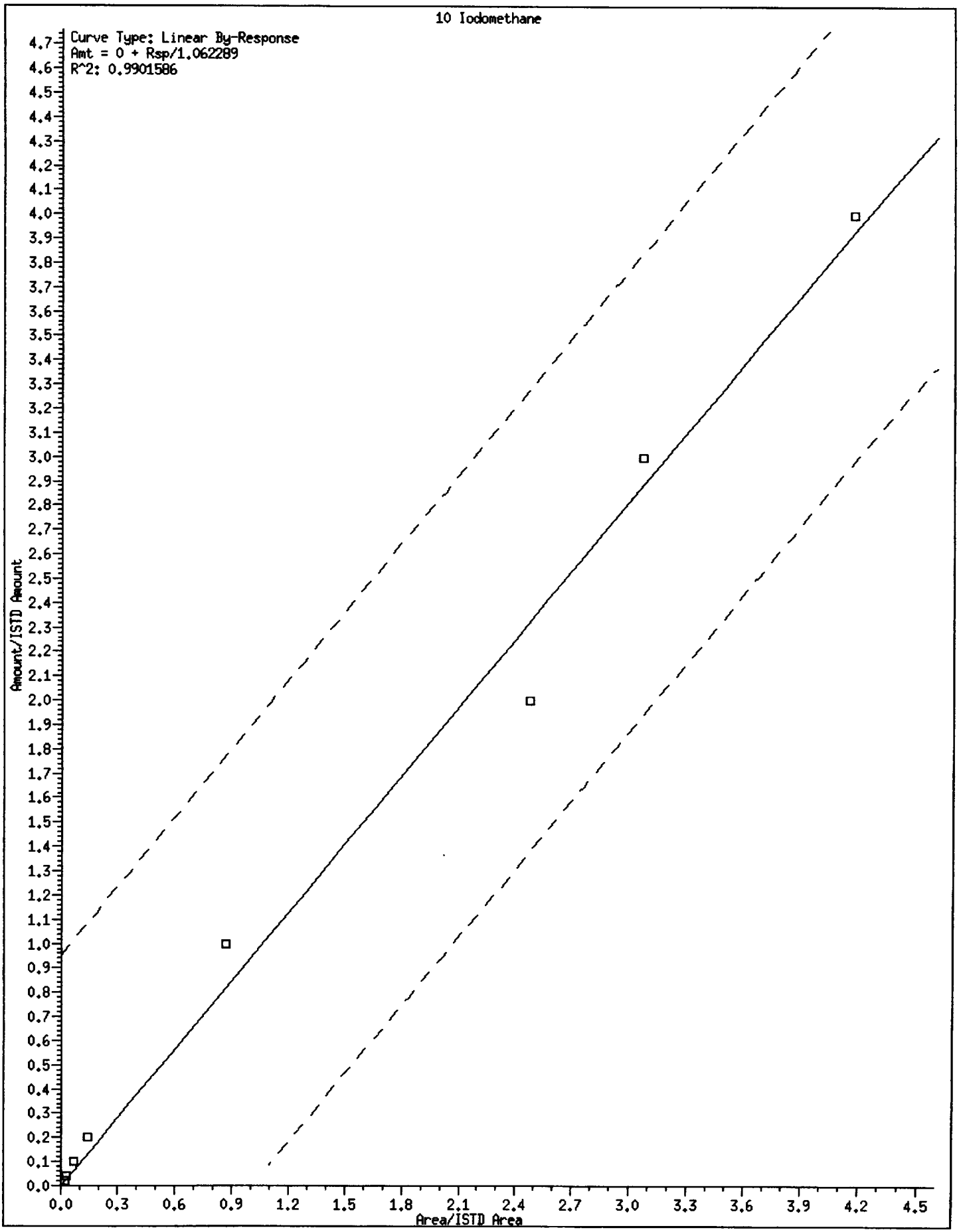
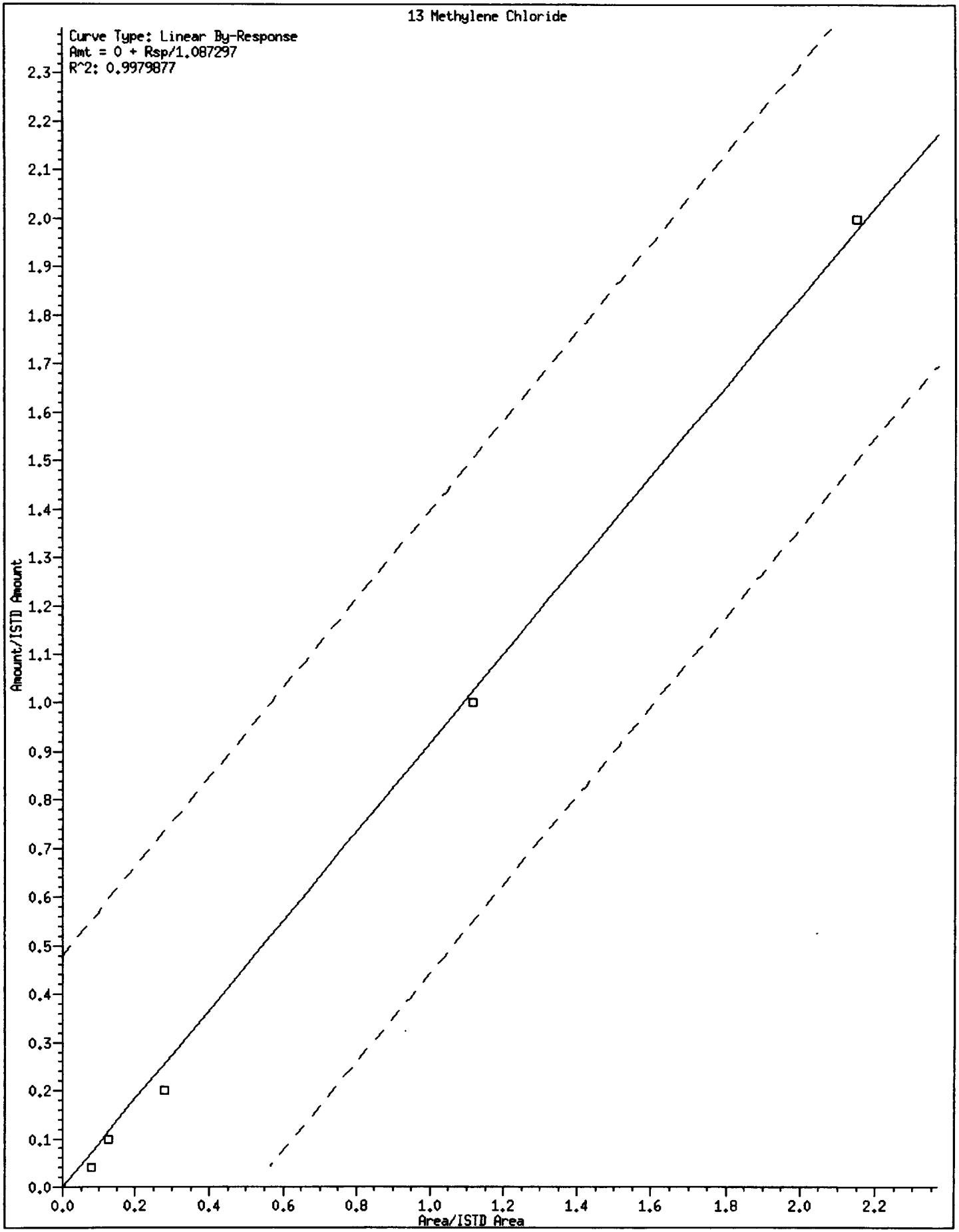
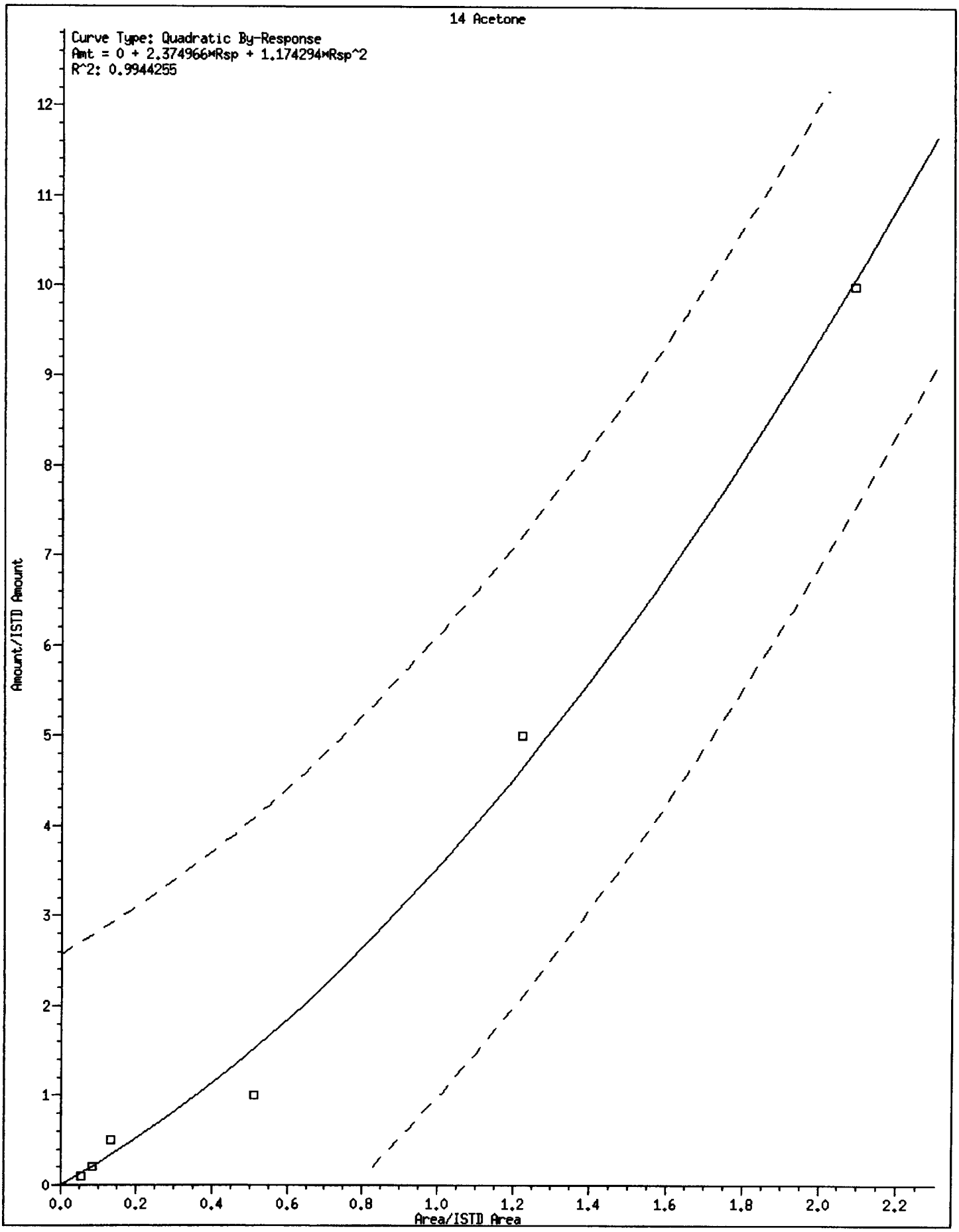
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response


10 Iodomethane
Curve Type: Linear By-Response
Amt = 0 + Rsp/1.062289
R^2: 0.9901586
Amount/ISTD Amount
Area/ISTD Area
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5


13 Methylene Chloride
Curve Type: Linear By-Response
Amt = 0 + Rsp/1.087297
R^2: 0.9979877
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2


14 Acetone
Curve Type: Quadratic By-Response
Amt = 0 + 2.374966*Rsp + 1.174294*Rsp^2
R^2: 0.9944255
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt5.i/11JUN13.b/0010611.d
Level 2: /chem1/nt5.i/11JUN13.b/0020611.d
Level 3: /chem1/nt5.i/11JUN13.b/0050611.d
Level 4: /chem1/nt5.i/11JUN13.b/0100611.d
Level 5: /chem1/nt5.i/11JUN13.b/0500611.d
Level 6: /chem1/nt5.i/11JUN13.b/1000611.d
Level 7: /chem1/nt5.i/11JUN13.b/1500611.d
Level 8: /chem1/nt5.i/11JUN13.b/2000611.d

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	150.000 Level 7	200.000 Level 8	RRF	% RSD
1 Dichlorodifluoromethane	1.15985	0.73837	0.81617	0.97672	0.76826	0.93849	0.79058	0.90335	0.88647	15.719
2 Chloromethane	2.15349	1.61138	1.83391	1.64416	1.66363	1.79429	1.69561	1.72662	1.76539	9.841
3 Vinyl Chloride	1.99937	1.53098	1.63129	1.73824	1.65547	1.82428	1.70517	1.57850	1.70791	8.743
4 Bromomethane	1.11455	0.86975	0.91088	0.92848	0.79696	0.79674	0.73429	0.69266	0.85554	15.544
5 Chloroethane	1.25605	1.02043	1.01004	1.07308	0.97124	1.05913	0.90276	0.84183	1.01682	12.213
6 Trichlorofluoromethane	2.07228	1.60710	1.76839	1.76278	1.58603	1.90520	1.73276	1.76116	1.77446	8.818

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
7 1,1-Dichloroethene	1.43304	1.08901	1.15351	1.11525	1.12017	1.31347			
	1.17918	1.18071					1.19804	9.774	
8 Carbon Disulfide	4.58125	3.66022	3.85094	3.73277	3.70547	4.26429			
	3.74349	3.60790					3.89329	8.855	
9 112Trichloro122Trifluoroethan	1.17268	0.97547	1.01328	0.99965	0.97764	1.19118			
	1.04090	1.06600					1.05460	8.000	
10 Iodomethane	0.90585	0.64699	0.65211	0.71562	0.86576	1.23529			
	1.02240	1.04406					0.88601	23.646	<-
11 Bromoethane	0.88018	0.67676	0.68947	0.73889	0.74005	0.80712			
	0.68285	0.67451					0.73623	10.028	
12 Acrolein	0.29925	0.25834	0.22950	0.26818	0.27716	0.27081			
	0.21873	0.20006					0.25275	13.230	
13 Methylene Chloride	+++++	1.96557	1.25848	1.39498	1.11526	1.07491			
	+++++	+++++					1.36184	26.460	<-
14 Acetone	0.53063	0.41713	0.26746	0.51278	0.24360	0.20900			
	+++++	+++++					0.36343	39.022	<-
15 Trans-1,2-Dichloroethene	1.51522	1.19316	1.06078	1.31084	1.04822	1.12151			
	0.96776	0.96821					1.14821	16.343	

Analytical Resources, Inc.

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
16 Methyl tert butyl ether	4.24680	3.73973	3.54808	3.58528	3.27729	3.09939			
	2.58140	2.49074					3.32109	17.782	
17 1,1-Dichloroethane	3.04856	2.60834	2.75933	2.63793	2.16132	1.73335			
	+++++	+++++					2.49147	18.834	
18 Acrylonitrile	0.61584	0.62139	0.59097	0.53014	0.52102	0.34450			
	+++++	+++++					0.53731	19.271	
19 Vinyl Acetate	3.53314	3.34998	3.55413	3.13082	3.37481	3.55041			
	3.33473	+++++					3.40400	4.549	
20 Cis-1,2-Dichloroethene	1.59805	1.42149	1.44697	1.36104	1.34895	1.53835			
	1.45307	1.46221					1.45377	5.738	
21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
22 2,2-Dichloropropane	2.46497	1.87144	2.03550	1.98910	1.86828	2.21329			
	2.05659	2.07875					2.07224	9.382	
23 Bromochloromethane	0.70956	0.58099	0.65002	0.62160	0.59245	0.65405			
	0.69301	0.70634					0.65100	7.672	
24 Chloroform	2.68014	2.25106	2.35681	2.18244	2.19549	2.32442			
	2.33200	2.33735					2.33246	6.671	

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
25 Carbon Tetrachloride	0.54062	0.44127	0.46563	0.46093	0.43796	0.51967			
	0.48308	0.49219					0.48017	7.568	
26 1,1,1-Trichloroethane	2.29327	1.93243	2.07658	2.01220	1.92671	2.27638			
	2.12220	2.13273					2.09656	6.656	
28 1,1-Dichloropropene	0.61617	0.51281	0.62068	0.52279	0.51285	0.59928			
	0.55464	0.56286					0.56276	8.001	
29 2-Butanone	0.16918	0.16292	0.17142	0.14178	0.17691	0.18360			
	0.17778	0.16657					0.16877	7.569	
30 Benzene	1.84805	1.57317	1.68981	1.55349	1.52315	1.65205			
	1.44938	1.36132					1.58130	9.499	
33 1,2-Dichloroethane	0.56768	0.49799	0.51314	0.45349	0.47844	0.51592			
	0.48130	0.48272					0.49883	6.893	
34 Trichloroethene	0.41564	0.35835	0.39703	0.36359	0.35392	0.41477			
	0.38705	0.39806					0.38605	6.398	
36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
37 Dibromomethane	0.21952	0.20067	0.21029	0.18599	0.20354	0.22052			
	0.20927	0.21293					0.20784	5.390	

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Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
38 1,2-Dichloropropane	0.49328	0.43420	0.45002	0.40134	0.43087	0.47577		
	0.44757	0.45305					0.44826	6.260
39 Bromodichloromethane	0.53594	0.46219	0.47886	0.44534	0.46824	0.51323		
	0.48458	0.48876					0.48464	5.948
40 2-Chloroethyl Vinyl Ether	0.19841	0.20293	0.23640	0.21033	0.25128	0.26928		
	0.25825	0.25764					0.23557	11.865
41 Cis 1,3-dichloropropene	0.68339	0.58155	0.64340	0.59087	0.61761	0.67548		
	0.62593	0.62342					0.63020	5.750
43 Toluene	1.20770	1.01293	1.05832	0.96938	0.94116	1.04609		
	0.92801	0.88834					1.00649	9.974
44 Tetrachloroethene	0.38514	0.30744	0.34495	0.33928	0.31189	0.37507		
	0.34615	0.35904					0.34612	7.908
45 4-Methyl-2-Pentanone	0.16974	0.17439	0.18576	0.16064	0.18860	0.18866		
	0.17642	0.16877					0.17662	5.827
46 Trans 1,3-Dichloropropene	0.59371	0.52769	0.56928	0.51709	0.55879	0.60001		
	0.56007	0.55576					0.56030	5.105
47 1,1,2-Trichloroethane	0.32190	0.30102	0.32285	0.28762	0.31280	0.33494		
	0.31710	0.31966					0.31474	4.624

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Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
48 Chlorodibromomethane	0.32012	0.27454	0.29228	0.26907	0.29532	0.31946		
	0.30635	0.31197					0.29864	6.501
49 1,3-Dichloropropane	0.51901	0.48065	0.49420	0.44312	0.49204	0.52308		
	0.49561	0.49396					0.49271	4.990
50 1,2-Dibromoethane	0.33129	0.30434	0.31142	0.26902	0.30469	0.32610		
	0.30969	0.30930					0.30823	6.044
51 2-Hexanone	0.23741	0.24952	0.26845	0.23093	0.26845	0.26099		
	0.26101	0.25525					0.25400	5.457
53 Chlorobenzene	0.98446	0.84665	0.89684	0.83060	0.80886	0.88306		
	0.79100	0.76670					0.85102	8.172
54 Ethyl Benzene	1.75282	1.45312	1.60347	1.52622	1.43555	1.49669		
	1.25237	1.15591					1.45952	12.904
55 1,1,1,2-Tetrachloroethane	0.34130	0.28699	0.30483	0.27783	0.28695	0.32118		
	0.30101	0.30468					0.30310	6.780
56 m,p-xylene	0.65059	0.54198	0.60109	0.56908	0.54048	0.58022		
	0.49785	0.46745					0.55609	10.397
57 o-Xylene	0.58457	0.49718	0.55974	0.53285	0.53472	0.60443		
	0.55789	0.55339					0.55310	5.945

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1 / 150.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
58 Styrene	0.92416	0.83961	0.96468	0.89093	0.90908	0.97311			
	0.85725	0.80503					0.89548	6.621	
59 Bromoform	0.41650	0.36241	0.38509	0.34950	0.39203	0.42028			
	0.39971	0.40734					0.39161	6.419	
60 Isopropyl Benzene	2.84941	2.44527	2.70996	2.66892	2.46984	2.66240			
	2.20389	2.05866					2.50854	10.727	
61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
63 Bromobenzene	0.74323	0.63970	0.65245	0.62106	0.62112	0.69938			
	0.64590	0.67219					0.66188	6.332	
64 N-Propyl Benzene	3.61873	2.96868	3.27739	3.23866	2.87644	3.04990			
	2.45529	2.30083					2.97324	14.579	
65 1,1,2,2-Tetrachloroethane	0.67581	0.60472	0.63261	0.58405	0.65760	0.69915			
	0.68101	0.69890					0.65423	6.600	
66 2-Chloro Toluene	2.18467	1.81707	1.94914	1.90504	1.79643	2.00730			
	1.73282	1.67643					1.88361	8.709	
67 1,3,5-Trimethyl Benzene	2.40295	2.04232	2.25252	2.21593	2.06740	2.29880			
	1.93785	1.85296					2.13384	8.866	

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
68 1,2,3-Trichloropropane	0.20102	0.19256	0.19669	0.17755	0.19756	0.21011		
	0.20198	0.20682					0.19804	5.046
69 Trans-1,4-Dichloro 2-Butene	0.24824	0.21873	0.22791	0.21876	0.25053	0.25905		
	0.25225	0.26816					0.24295	7.724
70 4-Chloro Toluene	2.17384	1.90575	2.03097	1.98777	1.85226	2.07365		
	1.80914	1.77610					1.95119	7.116
71 T-Butyl Benzene	2.03180	1.75870	1.96374	1.91864	1.81318	2.05766		
	1.76631	1.70579					1.87698	7.134
72 1,2,4-Trimethylbenzene	2.36987	1.99922	2.23465	2.17477	2.04821	2.25121		
	1.89821	1.81013					2.09828	9.131
73 S-Butyl Benzene	3.21468	2.74086	2.98397	2.94687	2.63870	2.84729		
	2.32191	2.14813					2.73030	12.940
74 4-Isopropyl Toluene	2.52535	2.17046	2.41045	2.40177	2.17215	2.39750		
	1.98160	1.86263					2.24024	10.401
75 1,3-Dichlorobenzene	1.49701	1.21723	1.23863	1.21345	1.13507	1.27949		
	1.12168	1.11455					1.22714	10.134
77 1,4-Dichlorobenzene	1.52552	1.25478	1.29725	1.23323	1.15327	1.30543		
	1.16569	1.18318					1.26479	9.483

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/V0121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
78 N-Butyl Benzene	2.43566	2.05045	2.26049	2.32535	2.04956	2.33910		
	1.93032	1.85789					2.15610	9.817
80 1,2-Dichlorobenzene	1.42557	1.20884	1.22026	1.13860	1.10054	1.21217		
	1.10537	1.13701					1.19355	8.831
81 1,2-Dibromo 3-Chloropropane	0.12813	0.12901	0.11891	0.11326	0.12558	0.13123		
	0.13185	0.13547					0.12668	5.768
82 Hexachloro 1,3-Butadiene	0.62919	0.49029	0.53115	0.52593	0.46575	0.55951		
	0.50651	0.52885					0.52965	9.300
83 1,2,4-Trichlorobenzene	0.95414	0.79730	0.82711	0.83075	0.79062	0.92135		
	0.85622	0.90765					0.86064	7.025
84 Naphthalene	1.91743	1.97489	1.99429	1.70589	1.94573	1.98514		
	1.83301	1.75554					1.88899	5.875
85 1,2,3-Trichlorobenzene	0.90772	0.83779	0.83846	0.77253	0.76725	0.84919		
	0.81976	0.86234					0.83188	5.547
$ 27 Dibromofluoromethane	1.42080	1.43437	1.43045	1.43975	1.44083	1.45670		
	1.42720	1.42333					1.43418	0.809
$ 32 d4-1,2-Dichloroethane	1.33180	1.36151	1.34153	1.34491	1.34985	1.37034		
	1.31374	1.30630					1.34000	1.645

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUN-2013 08:33
End Cal Date : 11-JUN-2013 12:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt5.i/11JUN13.b/SampleInfo/VO121012S.m
Cal Date : 12-Jun-2013 11:30 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
$ 42 d8-Toluene	1.46932	1.47340	1.47407	1.47279	1.46793	1.46461		
	1.44670	1.45242					1.46515	0.699
$ 62 4-Bromofluorobenzene	0.54277	0.54434	0.54763	0.54387	0.54537	0.54739		
	0.54962	0.54333					0.54554	0.445
$ 79 d4-1,2-Dichlorobenzene	1.03331	1.03074	1.01817	1.03518	1.00949	1.01335		
	0.99631	1.01225					1.01860	1.331

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt5.i/11JUN13.b

ARI Job No.: BFB0 Method: bfb8260.m Instrument: nt5.i Date: 11-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0810	bfb0611a.d	BFB0611	BFB0611	1	NO MANUAL INTEGRATION
0833	0010611.d	IC0611	VSTD1	1	Chloromethane, Acrolein, Acetone, Acrylonitrile, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-Butene,
0857	2000611.d	IC0611	VSTD200	1	Chloromethane, Vinyl Acetate, 2-Butanone,
0921	1500611.d	IC0611	VSTD150	1	Chloromethane,
1009	0500611.d	IC0611	VSTD50	1	Chloromethane, Acetone,
1057	0050611.d	IC0611	VSTD5	1	Chloromethane, Acetone,
1120	0020611.d	IC0611	VSTD2	1	Chloromethane, Acetone, 1,2,3-Trichloropropane,
1221	0100611.d	IC0611	VSTD10	1	Chloromethane,
1245	1000611.d	IC0611	VSTD100	1	Chloromethane, Acetone,
1404	icv0611.d	ICV0611	ICV0611	1	Chloromethane, Acetone,

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt5.i/11JUN13.b/V0121012S.m
Batch File: /chem1/nt5.i/11JUN13.b
Inst ID: nt5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	0010611	2000611	1500611	0500611	0050611	0020611	0100611	1000611
INJ.DATE:	11-JUN-2013	11-JUN-2013	11-JUN-2013	11-JUN-2013	11-JUN-2013	11-JUN-2013	11-JUN-2013	11-JUN-2013
INJ.TIME:	08:33	08:57	09:21	10:09	10:57	11:20	12:21	12:45

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Dichlorodifluoromethan	1.057	1.029	1.051	1.029	1.028	1.057	1.040	1.051	1.029	0.935-1.122	1.043	0.013
2 Chloromethane	1.176	1.317	1.345	1.153	1.334	1.334	1.153	1.357	1.153	1.060-1.246	1.271	0.092
3 Vinyl Chloride	1.227	1.198	1.227	1.198	1.204	1.226	1.204	1.221	1.198	1.105-1.291	1.213	0.013
4 Bromomethane	1.430	1.402	1.430	1.408	1.407	1.436	1.413	1.430	1.408	1.314-1.501	1.420	0.013
5 Chloroethane	1.526	1.492	1.515	1.492	1.492	1.526	1.498	1.515	1.492	1.399-1.586	1.507	0.015
6 Trichlorofluoromethane	1.611	1.577	1.611	1.589	1.588	1.611	1.594	1.606	1.589	1.495-1.682	1.598	0.013
7 1,1-Dichloroethene	1.968	1.939	1.968	1.951	1.950	1.973	1.951	1.968	1.951	1.857-2.044	1.958	0.012
8 Carbon Disulfide	1.973	1.939	1.968	1.951	1.950	1.979	1.956	1.973	1.951	1.857-2.044	1.961	0.014
9 112Trichloro122Trifluo	2.019	1.985	2.013	1.990	1.990	2.018	1.996	2.013	1.990	1.897-2.083	2.003	0.014
10 Iodomethane	2.075	2.041	2.069	2.053	2.047	2.075	2.052	2.069	2.053	1.959-2.146	2.060	0.013
11 Bromoethane	2.177	2.137	2.166	2.149	2.143	2.171	2.149	2.166	2.149	2.055-2.242	2.157	0.015
12 Acrolein	2.279	2.245	2.279	2.267	2.256	2.284	2.256	2.290	2.267	2.174-2.361	2.269	0.016
13 Methylene Chloride	2.443	2.409	2.437	2.426	2.420	2.448	2.426	2.443	2.426	2.333-2.519	2.431	0.014
14 Acetone	2.630	2.601	2.635	2.697	2.590	2.641	2.578	2.663	2.697	2.604-2.791	2.629	0.039
15 Trans-1,2-Dichloroethe	2.590	2.545	2.573	2.562	2.556	2.584	2.567	2.579	2.562	2.468-2.655	2.569	0.015
16 Methyl tert butyl ethe	2.754	2.720	2.748	2.726	2.737	2.759	2.737	2.748	2.726	2.632-2.819	2.741	0.014
17 1,1-Dichloroethane	3.207	3.144	3.173	3.173	3.172	3.206	3.184	3.184	3.173	3.079-3.266	3.180	0.020

Reviewer 1 _____ Date: 6/12/13
Reviewer 2 _____ Date: 6/12/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Batch File: /chem1/nt5.i/11JUN13.b
Inst ID: nt5.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	18 Acrylonitrile	3.303	3.286	3.320	3.308	3.297	3.314	3.286	3.320	3.308	3.215-3.401	3.304	0.014
	19 Vinyl Acetate	3.535	3.518	3.529	3.518	3.517	3.534	3.518	3.529	3.518	3.424-3.611	3.525	0.008
	20 Cis-1,2-Dichloroethene	3.744	3.699	3.727	3.721	3.721	3.744	3.727	3.733	3.721	3.628-3.814	3.727	0.014
	21 Allyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.560	4.467-4.653	+++++	+++++
	22 2,2-Dichloropropane	3.834	3.795	3.817	3.817	3.817	3.840	3.823	3.829	3.817	3.724-3.911	3.822	0.014
	23 Bromochloromethane	3.925	3.891	3.914	3.908	3.908	3.925	3.914	3.919	3.908	3.815-4.001	3.913	0.011
	24 Chloroform	4.027	3.998	4.021	4.010	4.010	4.027	4.015	4.021	4.010	3.917-4.103	4.016	0.010
	25 Carbon Tetrachloride	4.117	4.072	4.095	4.095	4.094	4.117	4.106	4.100	4.095	3.992-4.197	4.099	0.015
	26 1,1,1-Trichloroethane	4.185	4.146	4.168	4.168	4.168	4.185	4.174	4.174	4.168	4.075-4.261	4.171	0.012
$	27 Dibromofluoromethane	4.196	4.174	4.191	4.180	4.179	4.196	4.179	4.191	4.180	4.086-4.273	4.186	0.009
	28 1,1-Dichloropropene	4.304	4.270	4.287	4.287	4.287	4.304	4.293	4.293	4.287	4.185-4.389	4.290	0.011
	29 2-Butanone	4.389	4.423	4.428	4.406	4.389	4.389	4.366	4.423	4.406	4.313-4.499	4.401	0.022
	30 Benzene	4.530	4.508	4.519	4.519	4.513	4.530	4.519	4.524	4.519	4.417-4.621	4.520	0.008
*	31 Pentafluorobenzene	4.672	4.649	4.660	4.660	4.654	4.671	4.660	4.666	4.660	4.567-4.754	4.662	0.008
$	32 d4-1,2-Dichloroethane	4.660	4.643	4.655	4.649	4.649	4.660	4.649	4.660	4.649	4.556-4.742	4.653	0.007
	33 1,2-Dichloroethane	4.723	4.706	4.723	4.711	4.711	4.722	4.711	4.722	4.711	4.609-4.813	4.716	0.007
	34 Trichloroethene	5.062	5.045	5.056	5.056	5.056	5.067	5.056	5.062	5.056	4.954-5.158	5.058	0.007
*	35 1,4-Difluorobenzene	5.119	5.102	5.113	5.107	5.107	5.118	5.113	5.113	5.107	5.005-5.209	5.111	0.006
	36 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.693	5.591-5.795	+++++	+++++
	37 Dibromomethane	5.418	5.407	5.418	5.413	5.407	5.418	5.407	5.418	5.413	5.311-5.515	5.413	0.006
	38 1,2-Dichloropropane	5.515	5.503	5.514	5.503	5.503	5.514	5.503	5.514	5.503	5.401-5.605	5.509	0.006
	39 Bromodichloromethane	5.588	5.582	5.588	5.582	5.582	5.588	5.582	5.588	5.582	5.480-5.685	5.585	0.003

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Batch File: /chem1/nt5.i/11JUN13.b
Inst ID: nt5.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	40 2-Chloroethyl Vinyl Et	6.120	6.120	6.125	6.120	6.114	6.120	6.114	6.125	6.120	6.018-6.222	6.120	0.004
	41 Cis 1,3-dichloropropen	6.137	6.131	6.137	6.131	6.125	6.137	6.131	6.137	6.131	6.029-6.233	6.133	0.004
$	42 d8-Toluene	6.290	6.284	6.289	6.284	6.284	6.289	6.289	6.289	6.284	6.182-6.386	6.287	0.003
	43 Toluene	6.335	6.329	6.335	6.329	6.329	6.335	6.329	6.335	6.329	6.227-6.431	6.332	0.003
	44 Tetrachloroethene	6.640	6.640	6.646	6.640	6.640	6.646	6.640	6.646	6.640	6.488-6.792	6.642	0.003
	45 4-Methyl-2-Pentanone	6.697	6.719	6.719	6.702	6.697	6.697	6.691	6.708	6.702	6.600-6.805	6.704	0.011
	46 Trans 1,3-Dichloroprop	6.697	6.697	6.702	6.697	6.691	6.697	6.691	6.697	6.697	6.595-6.799	6.696	0.004
	47 1,1,2-Trichloroethane	6.821	6.833	6.833	6.821	6.821	6.827	6.821	6.832	6.821	6.719-6.923	6.826	0.006
	48 Chlorodibromomethane	6.963	6.963	6.968	6.957	6.957	6.962	6.957	6.963	6.957	6.805-7.109	6.961	0.004
	49 1,3-Dichloropropane	7.042	7.048	7.053	7.042	7.042	7.042	7.042	7.047	7.042	6.890-7.194	7.045	0.004
	50 1,2-Dibromoethane	7.138	7.144	7.144	7.138	7.132	7.138	7.138	7.144	7.138	7.036-7.240	7.139	0.004
	51 2-Hexanone	7.410	7.427	7.427	7.415	7.409	7.409	7.404	7.421	7.415	7.263-7.567	7.415	0.009
*	52 d5-Chlorobenzene	7.591	7.596	7.596	7.591	7.590	7.596	7.590	7.596	7.591	7.439-7.742	7.593	0.003
	53 Chlorobenzene	7.608	7.613	7.613	7.608	7.602	7.607	7.607	7.613	7.608	7.456-7.759	7.609	0.004
	54 Ethyl Benzene	7.658	7.670	7.670	7.659	7.653	7.658	7.653	7.664	7.659	7.507-7.810	7.661	0.007
	55 1,1,1,2-Tetrachloroeth	7.670	7.687	7.687	7.675	7.670	7.675	7.670	7.681	7.675	7.524-7.827	7.677	0.007
	56 m,p-xylene	7.789	7.806	7.800	7.789	7.788	7.788	7.788	7.800	7.789	7.637-7.940	7.793	0.007
	57 o-Xylene	8.151	8.162	8.162	8.151	8.150	8.150	8.151	8.156	8.151	7.999-8.302	8.154	0.005
	58 Styrene	8.202	8.213	8.207	8.202	8.196	8.201	8.201	8.207	8.202	8.050-8.353	8.204	0.005
	59 Bromoform	8.196	8.202	8.201	8.196	8.190	8.190	8.190	8.201	8.196	8.002-8.389	8.196	0.005
	60 Isopropyl Benzene	8.439	8.450	8.445	8.439	8.439	8.439	8.439	8.445	8.439	8.246-8.632	8.442	0.004
	61 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.568	8.416-8.720	+++++	+++++
$	62 4-Bromofluorobenzene	8.660	8.665	8.665	8.660	8.660	8.660	8.665	8.665	8.660	8.508-8.812	8.662	0.003
	63 Bromobenzene	8.739	8.745	8.745	8.739	8.739	8.739	8.739	8.745	8.739	8.546-8.932	8.741	0.003

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Batch File: /chem1/nt5.i/11JUN13.b
Inst ID: nt5.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	64 N-Propyl Benzene	8.807	8.818	8.818	8.807	8.807	8.807	8.807	8.812	8.807	8.614-9.000	8.810	0.005
	65 1,1,2,2-Tetrachloroeth	8.869	8.897	8.886	8.869	8.869	8.869	8.869	8.875	8.869	8.676-9.062	8.875	0.011
	66 2-Chloro Toluene	8.920	8.931	8.926	8.920	8.914	8.920	8.920	8.926	8.920	8.727-9.113	8.922	0.005
	67 1,3,5-Trimethyl Benzen	8.999	9.016	9.010	8.999	8.993	8.993	8.999	9.005	8.999	8.806-9.192	9.002	0.008
	68 1,2,3-Trichloropropane	8.965	8.982	8.976	8.971	8.965	8.971	8.965	8.971	8.971	8.778-9.164	8.971	0.006
	69 Trans-1,4-Dichloro 2-B	9.022	9.039	9.039	9.027	9.022	9.022	9.022	9.033	9.027	8.834-9.221	9.028	0.008
	70 4-Chloro Toluene	9.067	9.084	9.078	9.073	9.067	9.067	9.073	9.078	9.073	8.879-9.266	9.073	0.006
	71 T-Butyl Benzene	9.271	9.282	9.282	9.271	9.270	9.270	9.271	9.276	9.271	9.077-9.464	9.274	0.005
	72 1,2,4-Trimethylbenzene	9.339	9.350	9.350	9.339	9.338	9.338	9.338	9.344	9.339	9.145-9.532	9.342	0.005
	73 S-Butyl Benzene	9.435	9.452	9.446	9.435	9.435	9.435	9.435	9.440	9.435	9.241-9.628	9.439	0.007
	74 4-Isopropyl Toluene	9.582	9.599	9.593	9.582	9.582	9.582	9.582	9.587	9.582	9.388-9.775	9.586	0.007
	75 1,3-Dichlorobenzene	9.593	9.610	9.604	9.593	9.593	9.593	9.593	9.604	9.593	9.400-9.786	9.598	0.007
*	76 d4-1,4-Dichlorobenzene	9.667	9.678	9.678	9.667	9.666	9.666	9.672	9.672	9.667	9.473-9.860	9.671	0.005
	77 1,4-Dichlorobenzene	9.678	9.695	9.695	9.684	9.678	9.678	9.684	9.689	9.684	9.490-9.877	9.685	0.007
	78 N-Butyl Benzene	9.966	9.983	9.978	9.967	9.966	9.966	9.972	9.972	9.967	9.773-10.160	9.971	0.006
$	79 d4-1,2-Dichlorobenzene	10.051	10.063	10.063	10.051	10.051	10.051	10.057	10.057	10.051	9.858-10.245	10.056	0.005
	80 1,2-Dichlorobenzene	10.063	10.074	10.068	10.063	10.057	10.057	10.063	10.068	10.063	9.869-10.256	10.064	0.006
	81 1,2-Dibromo 3-Chloropr	10.815	10.826	10.821	10.809	10.809	10.809	10.815	10.815	10.809	10.616-11.003	10.815	0.006
	82 Hexachloro 1,3-Butadie	11.494	11.505	11.499	11.488	11.488	11.488	11.505	11.494	11.488	11.295-11.682	11.495	0.007
	83 1,2,4-Trichlorobenzene	11.483	11.494	11.488	11.477	11.477	11.477	11.488	11.482	11.477	11.283-11.670	11.483	0.006
	84 Naphthalene	11.799	11.805	11.799	11.794	11.788	11.788	11.805	11.794	11.794	11.600-11.987	11.796	0.007
	85 1,2,3-Trichlorobenzene	11.980	11.992	11.986	11.975	11.969	11.969	11.986	11.980	11.975	11.781-12.168	11.980	0.008

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/0010611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD1
Inj Date : 11-JUN-2013 08:33
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:33 Cal File: 0010611.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.057	1.029	(0.226)	10754	1.00000	1.308
2 Chloromethane	50	1.176	1.153	(0.252)	19967	1.00000	1.220(M)
3 Vinyl Chloride	62	1.227	1.198	(0.263)	18538	1.00000	1.171
4 Bromomethane	94	1.430	1.408	(0.306)	10334	1.00000	1.303
5 Chloroethane	64	1.526	1.492	(0.327)	11646	1.00000	1.235
6 Trichlorofluoromethane	101	1.611	1.589	(0.345)	19214	1.00000	1.168
7 1,1-Dichloroethene	96	1.968	1.951	(0.421)	13287	1.00000	1.196
8 Carbon Disulfide	76	1.973	1.951	(0.422)	42477	1.00000	1.177(T)
9 112Trichloro122Trifluoroethane	101	2.019	1.990	(0.432)	10873	1.00000	1.112
10 Iodomethane	142	2.075	2.053	(0.444)	8399	1.00000	0.8527
11 Bromoethane	108	2.177	2.149	(0.466)	8161	1.00000	1.196
12 Acrolein	56	2.279	2.267	(0.488)	13873	5.00000	5.920(M)
13 Methylene Chloride	84	2.443	2.426	(0.523)	32771	1.00000	3.251
14 Acetone	43	2.630	2.697	(0.563)	24600	5.00000	6.467(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.590	2.562	(0.554)	14049	1.00000	1.320
	16 Methyl tert butyl ether	73	2.754	2.726	(0.590)	39376	1.00000	1.279
	17 1,1-Dichloroethane	63	3.207	3.173	(0.686)	28266	1.00000	1.224
	18 Acrylonitrile	53	3.303	3.308	(0.707)	5710	1.00000	1.146(M)
	19 Vinyl Acetate	43	3.535	3.518	(0.757)	32759	1.00000	1.038
	20 Cis-1,2-Dichloroethene	96	3.744	3.721	(0.801)	14817	1.00000	1.099
	22 2,2-Dichloropropane	77	3.834	3.817	(0.821)	22855	1.00000	1.190
	23 Bromochloromethane	128	3.925	3.908	(0.840)	6579	1.00000	1.090
	24 Chloroform	83	4.027	4.010	(0.862)	24850	1.00000	1.149
	25 Carbon Tetrachloride	117	4.117	4.095	(0.804)	18362	1.00000	1.126
$	27 Dibromofluoromethane	111	4.196	4.180	(0.898)	658677	50.0000	49.534
	26 1,1,1-Trichloroethane	97	4.185	4.168	(0.896)	21263	1.00000	1.094
	28 1,1-Dichloropropene	75	4.304	4.287	(0.841)	20928	1.00000	1.095
	29 2-Butanone	72	4.389	4.406	(0.939)	7843	5.00000	5.012
	30 Benzene	78	4.530	4.519	(0.885)	62768	1.00000	1.169
*	31 Pentafluorobenzene	168	4.672	4.660	(1.000)	463596	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.660	4.649	(0.998)	617416	50.0000	49.694
	33 1,2-Dichloroethane	62	4.723	4.711	(0.923)	19281	1.00000	1.138
	34 Trichloroethene	95	5.062	5.056	(0.989)	14117	1.00000	1.077
*	35 1,4-Difluorobenzene	114	5.119	5.107	(1.000)	1698223	50.0000	
	37 Dibromomethane	93	5.418	5.413	(1.059)	7456	1.00000	1.056
	38 1,2-Dichloropropane	63	5.515	5.503	(1.077)	16754	1.00000	1.100
	39 Bromodichloromethane	83	5.588	5.582	(1.092)	18203	1.00000	1.106
	40 2-Chloroethyl Vinyl Ether	63	6.120	6.120	(1.196)	6739	1.00000	0.8423
	41 Cis 1,3-dichloropropene	75	6.137	6.131	(1.199)	23211	1.00000	1.084
$	42 d8-Toluene	98	6.290	6.284	(1.229)	2495230	50.0000	50.142
	43 Toluene	92	6.335	6.329	(1.238)	41019	1.00000	1.200
	44 Tetrachloroethene	166	6.640	6.640	(0.875)	15490	1.00000	1.113
	45 4-Methyl-2-Pentanone	58	6.697	6.702	(1.308)	28825	5.00000	4.805
	46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.308)	20165	1.00000	1.060
	47 1,1,2-Trichloroethane	97	6.821	6.821	(1.333)	10933	1.00000	1.023
	48 Chlorodibromomethane	129	6.963	6.957	(0.917)	12875	1.00000	1.072
	49 1,3-Dichloropropane	76	7.042	7.042	(0.928)	20874	1.00000	1.053
	50 1,2-Dibromoethane	107	7.138	7.138	(1.395)	11252	1.00000	1.075
	51 2-Hexanone	43	7.410	7.415	(0.976)	47742	5.00000	4.673
*	52 d5-Chlorobenzene	117	7.591	7.591	(1.000)	2010959	50.0000	
	53 Chlorobenzene	112	7.608	7.608	(1.002)	39594	1.00000	1.157
	54 Ethyl Benzene	91	7.658	7.659	(1.009)	70497	1.00000	1.201
	55 1,1,1,2-Tetrachloroethane	131	7.670	7.675	(1.010)	13727	1.00000	1.126
	56 m,p-xylene	106	7.789	7.789	(1.026)	52332	2.00000	2.340
	57 o-Xylene	106	8.151	8.151	(1.074)	23511	1.00000	1.057
	58 Styrene	104	8.202	8.202	(1.080)	37169	1.00000	1.032
	59 Bromoform	173	8.196	8.196	(0.848)	8926	1.00000	1.064
	60 Isopropyl Benzene	105	8.439	8.439	(0.873)	61065	1.00000	1.136
$	62 4-Bromofluorobenzene	95	8.660	8.660	(1.141)	1091488	50.0000	49.746
	63 Bromobenzene	156	8.739	8.739	(0.904)	15928	1.00000	1.123
	64 N-Propyl Benzene	91	8.807	8.807	(0.911)	77552	1.00000	1.217

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	14483	1.00000	1.033
66	2-Chloro Toluene	91	8.920	8.920	(0.923)	46819	1.00000	1.160
67	1,3,5-Trimethyl Benzene	105	8.999	8.999	(0.931)	51497	1.00000	1.126
68	1,2,3-Trichloropropane	110	8.965	8.971	(0.927)	4308	1.00000	1.015(TM)
69	Trans-1,4-Dichloro 2-Butene	53	9.022	9.027	(0.933)	5320	1.00000	1.022(M)
70	4-Chloro Toluene	91	9.067	9.073	(0.938)	46587	1.00000	1.114
71	T-Butyl Benzene	119	9.271	9.271	(0.959)	43543	1.00000	1.082
72	1,2,4-Trimethylbenzene	105	9.339	9.339	(0.966)	50788	1.00000	1.129
73	S-Butyl Benzene	105	9.435	9.435	(0.976)	68893	1.00000	1.177
74	4-Isopropyl Toluene	119	9.582	9.582	(0.991)	54120	1.00000	1.127
75	1,3-Dichlorobenzene	146	9.593	9.593	(0.992)	32082	1.00000	1.220
* 76	d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	1071536	50.0000	
77	1,4-Dichlorobenzene	146	9.678	9.684	(1.001)	32693	1.00000	1.206
78	N-Butyl Benzene	91	9.966	9.967	(1.031)	52198	1.00000	1.130
$ 79	d4-1,2-Dichlorobenzene	152	10.051	10.051	(1.040)	1107225	50.0000	50.722
80	1,2-Dichlorobenzene	146	10.063	10.063	(1.041)	30551	1.00000	1.194
81	1,2-Dibromo 3-Chloropropane	75	10.815	10.809	(1.119)	2746	1.00000	1.011
82	Hexachloro 1,3-Butadiene	225	11.494	11.488	(1.189)	13484	1.00000	1.188
83	1,2,4-Trichlorobenzene	180	11.483	11.477	(1.188)	20448	1.00000	1.109
84	Naphthalene	128	11.799	11.794	(1.221)	41092	1.00000	1.015
85	1,2,3-Trichlorobenzene	180	11.980	11.975	(1.239)	19453	1.00000	1.091

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 0010611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	463596	0.86
35 1,4-Difluorobenze	1692431	846216	3384862	1698223	0.34
52 d5-Chlorobenzene	1987215	993608	3974430	2010959	1.19
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1071536	-0.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.67	0.24
35 1,4-Difluorobenze	5.11	4.61	5.61	5.12	0.22
52 d5-Chlorobenzene	7.59	7.09	8.09	7.59	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/0010611.d

Date : 11-JUN-2013 08:33

Client ID: VSTD1

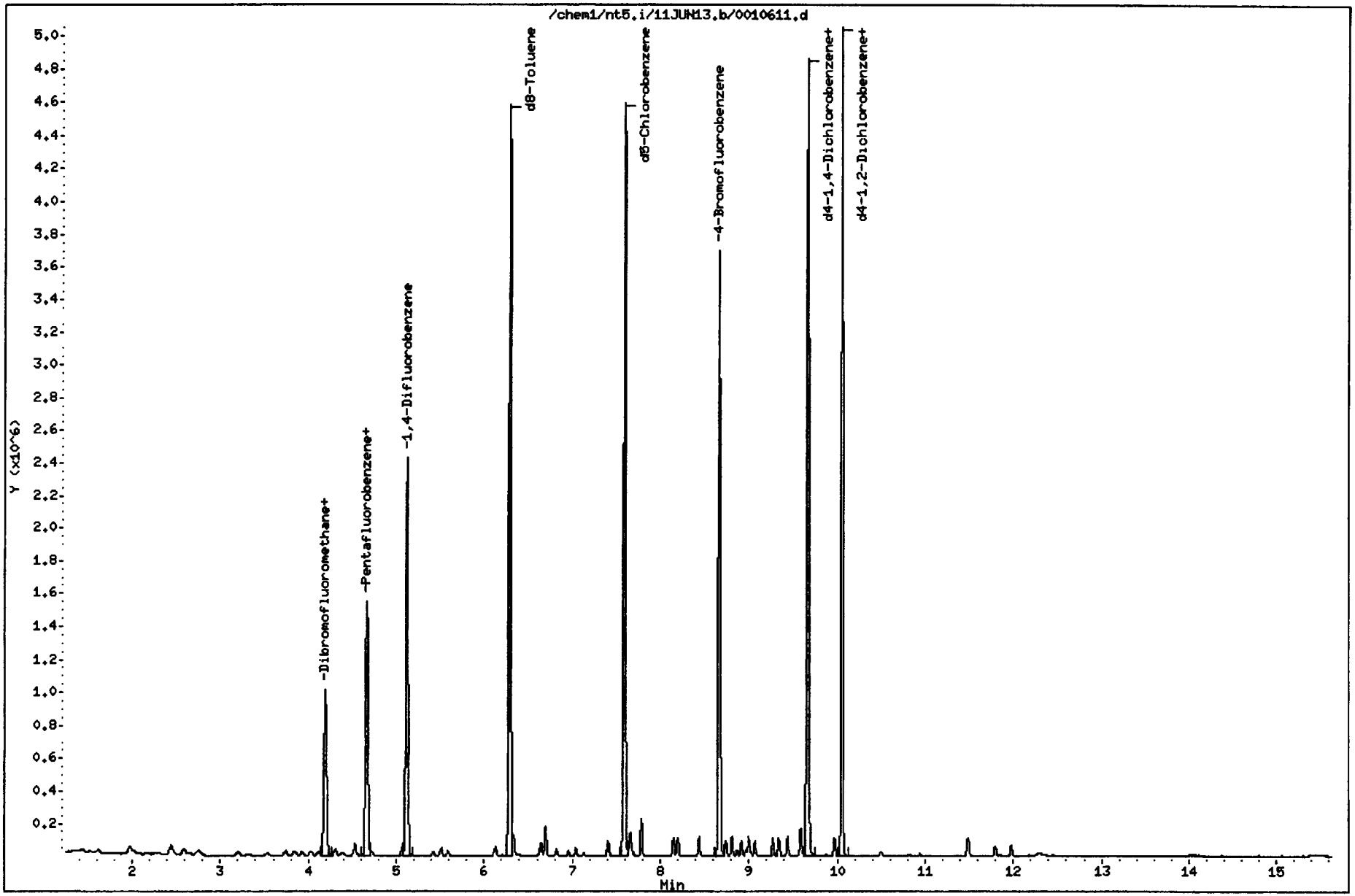
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

Instrument: nt5.i

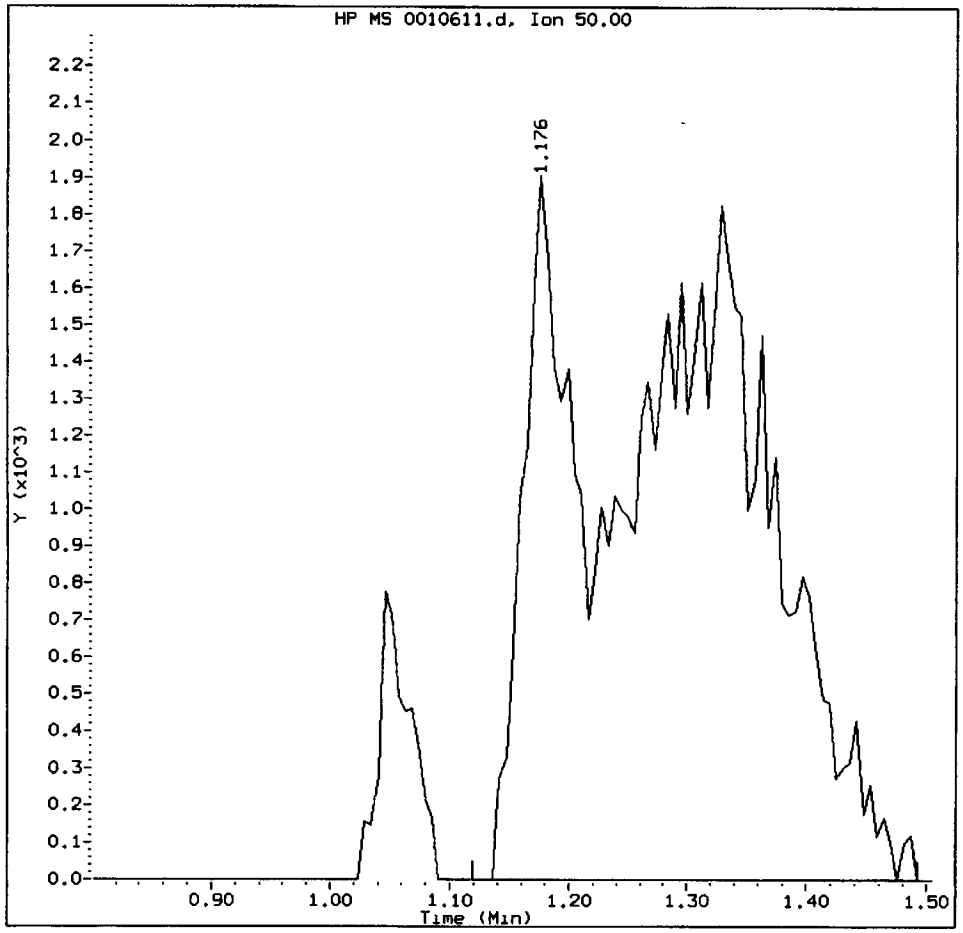
Operator: PB

Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

Chloromethane Amount: 1.22 Area: 19967



MANUAL INTEGRATION for Chloromethane

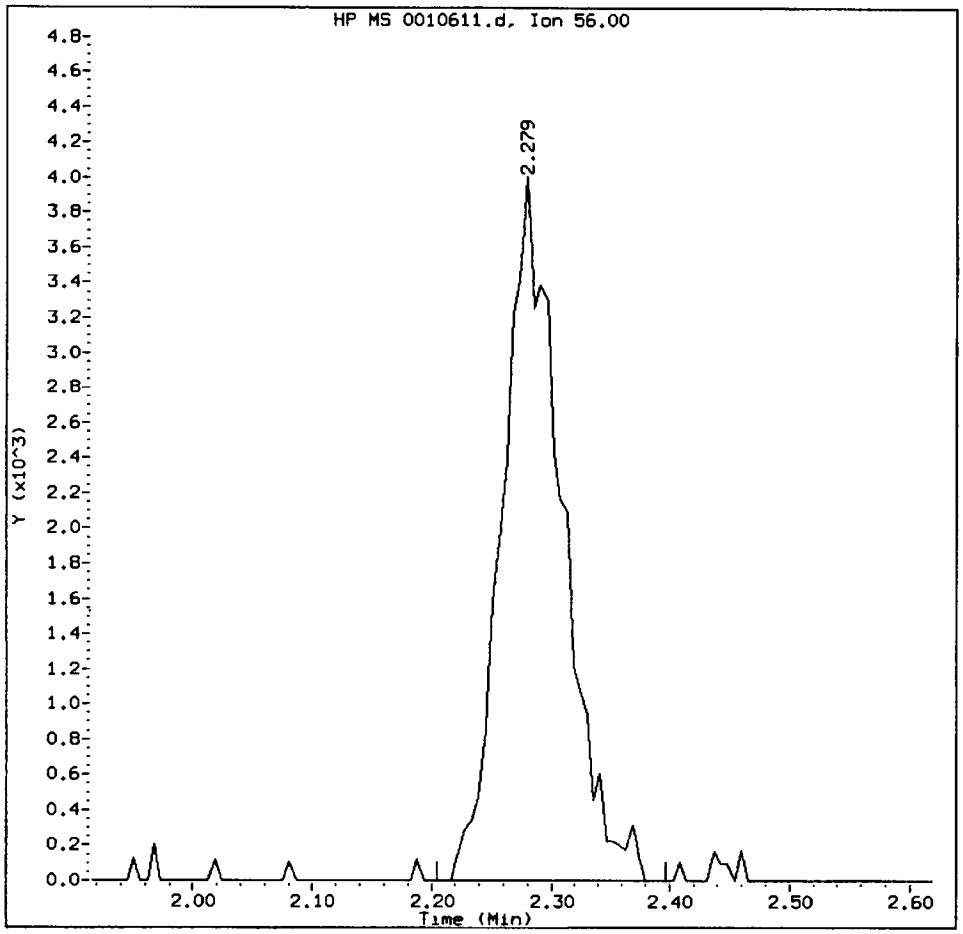
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

Acrolein Amount: 5.92 Area: 13873



MANUAL INTEGRATION for Acrolein

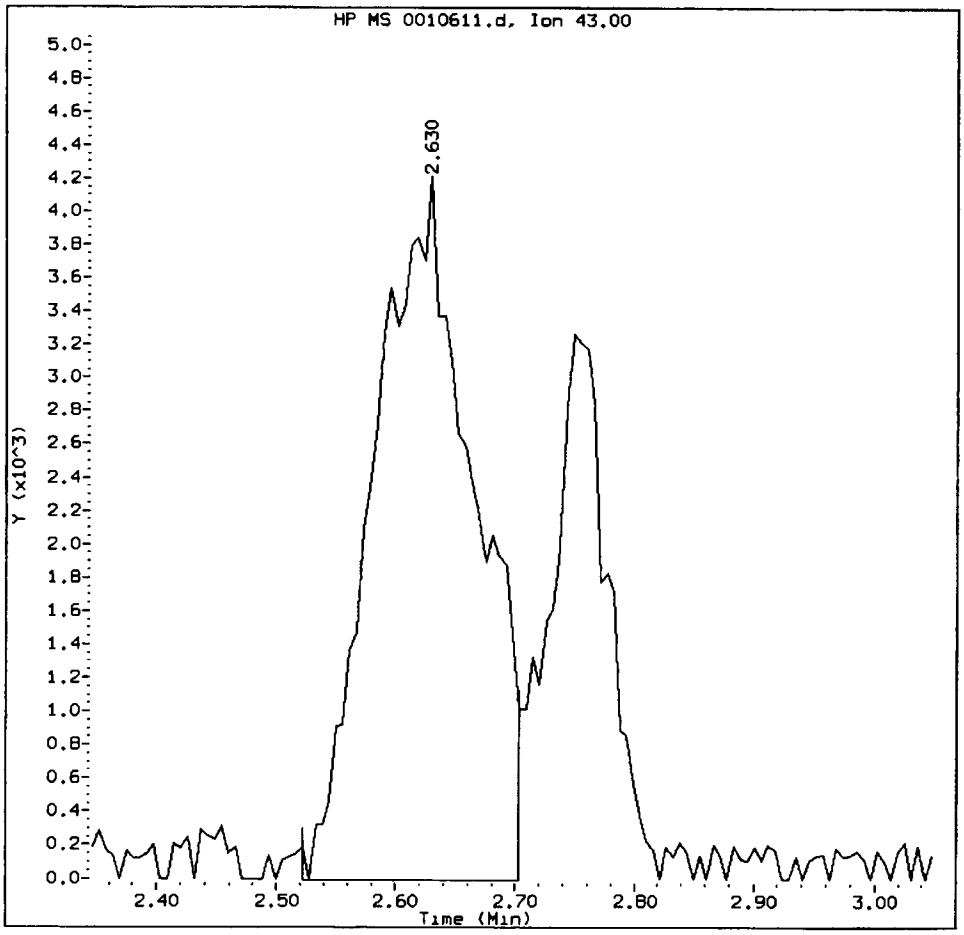
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/12/13

IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

Acetone Amount: 6.47 Area: 24600



MANUAL INTEGRATION for Acetone

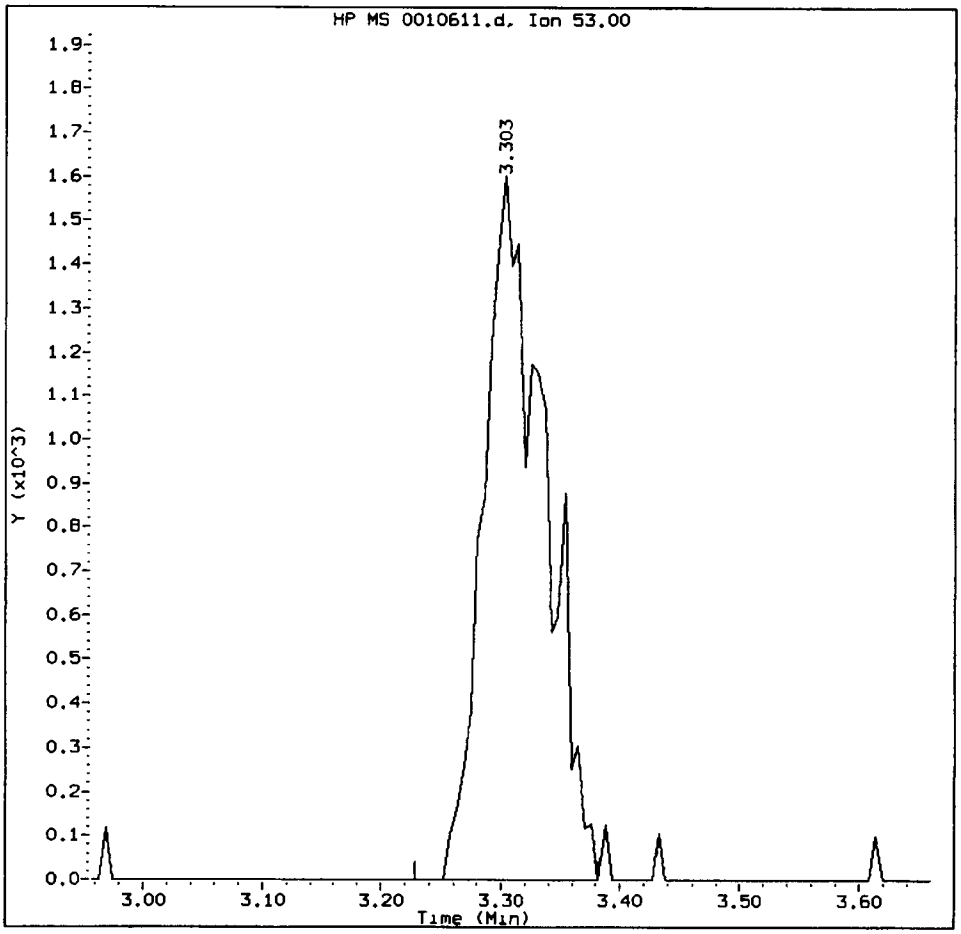
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

Acrylonitrile Amount: 1.15 Area: 5710



MANUAL INTEGRATION for Acrylonitrile

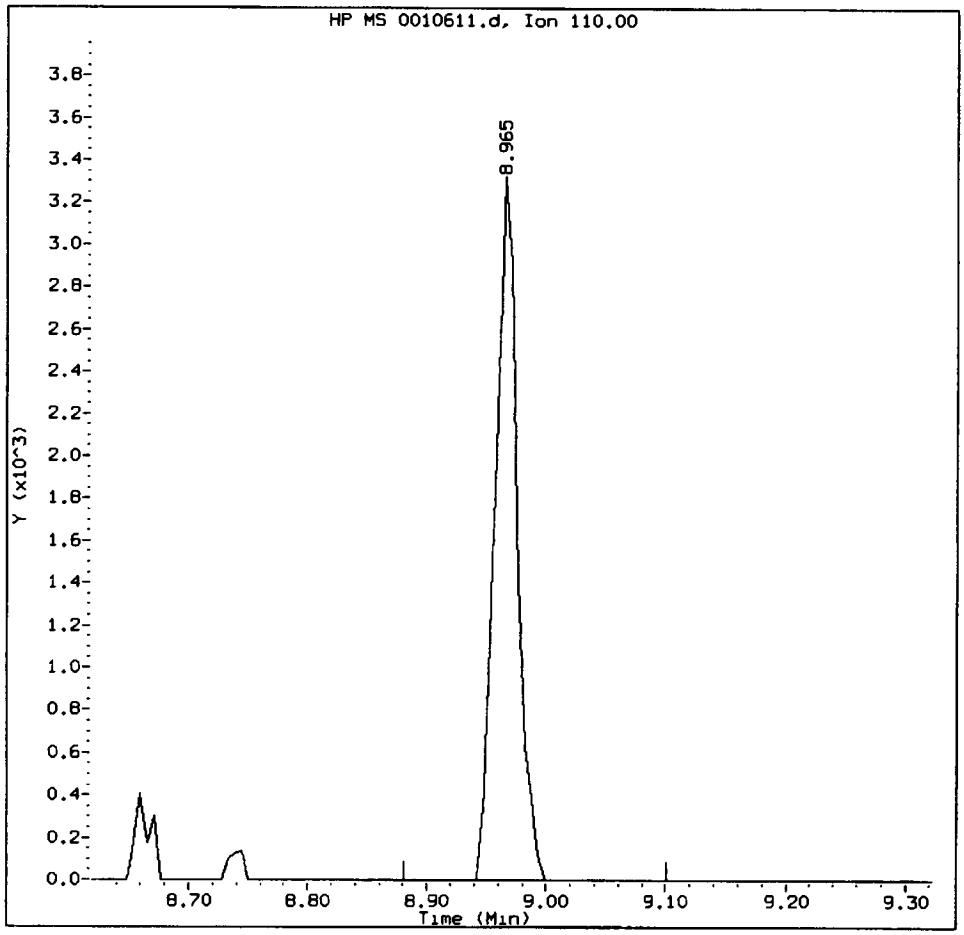
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

1,2,3-Trichloropropane Amount: 1.02 Area: 4308



MANUAL INTEGRATION for 1,2,3-Trichloropropane

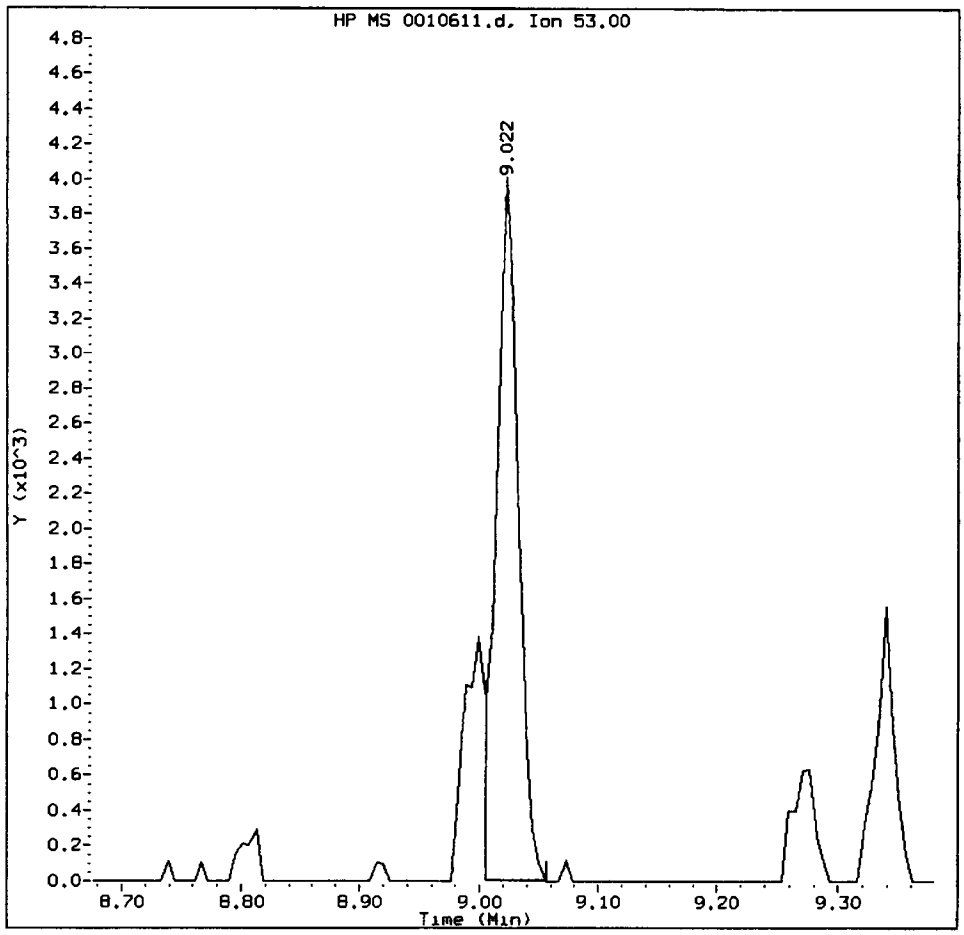
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14/13

IC0611, /chem1/nt5.i/11JUN13.b/0010611.d

Trans-1,4-Dichloro 2-Butene Amount: 1.02 Area: 5320



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

CO-ELUTION SUMMARY FOR FILE - 0010611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/0020611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD2
Inj Date : 11-JUN-2013 11:20
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 11:20 Cal File: 0020611.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.057	1.029	(0.226)	13123	2.00000	1.666
2 Chloromethane	50	1.334	1.153	(0.286)	28639	2.00000	1.826(TM)
3 Vinyl Chloride	62	1.226	1.198	(0.263)	27210	2.00000	1.793
4 Bromomethane	94	1.436	1.408	(0.307)	15458	2.00000	2.033
5 Chloroethane	64	1.526	1.492	(0.327)	18136	2.00000	2.007
6 Trichlorofluoromethane	101	1.611	1.589	(0.345)	28563	2.00000	1.811
7 1,1-Dichloroethene	96	1.973	1.951	(0.422)	19355	2.00000	1.818
8 Carbon Disulfide	76	1.979	1.951	(0.424)	65053	2.00000	1.880(T)
9 112Trichloro122Trifluoroethane	101	2.018	1.990	(0.432)	17337	2.00000	1.850
10 Iodomethane	142	2.075	2.053	(0.444)	11499	2.00000	1.218
11 Bromoethane	108	2.171	2.149	(0.465)	12028	2.00000	1.838
12 Acrolein	56	2.284	2.267	(0.489)	22957	10.0000	10.221
13 Methylene Chloride	84	2.448	2.426	(0.524)	34934	2.00000	3.616
14 Acetone	43	2.641	2.697	(0.565)	37068	10.0000	10.315(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
15	Trans-1,2-Dichloroethene	96	2.584	2.562	(0.553)	21206	2.00000	2.078
16	Methyl tert butyl ether	73	2.759	2.726	(0.591)	66466	2.00000	2.252
17	1,1-Dichloroethane	63	3.206	3.173	(0.686)	46358	2.00000	2.094
18	Acrylonitrile	53	3.314	3.308	(0.709)	11044	2.00000	2.313
19	Vinyl Acetate	43	3.534	3.518	(0.757)	59539	2.00000	1.968
20	Cis-1,2-Dichloroethene	96	3.744	3.721	(0.801)	25264	2.00000	1.956
22	2,2-Dichloropropane	77	3.840	3.817	(0.822)	33261	2.00000	1.806
23	Bromochloromethane	128	3.925	3.908	(0.840)	10326	2.00000	1.785
24	Chloroform	83	4.027	4.010	(0.862)	40008	2.00000	1.930
25	Carbon Tetrachloride	117	4.117	4.095	(0.804)	28971	2.00000	1.838
$ 27	Dibromofluoromethane	111	4.196	4.180	(0.898)	637324	50.0000	50.007
26	1,1,1-Trichloroethane	97	4.185	4.168	(0.896)	34345	2.00000	1.843
28	1,1-Dichloropropene	75	4.304	4.287	(0.841)	33668	2.00000	1.822
29	2-Butanone	72	4.389	4.406	(0.939)	14478	10.0000	9.653
30	Benzene	78	4.530	4.519	(0.885)	103285	2.00000	1.990
* 31	Pentafluorobenzene	168	4.671	4.660	(1.000)	444324	50.0000	
$ 32	d4-1,2-Dichloroethane	65	4.660	4.649	(0.998)	604952	50.0000	50.803
33	1,2-Dichloroethane	62	4.722	4.711	(0.923)	32695	2.00000	1.997
34	Trichloroethene	95	5.067	5.056	(0.990)	23527	2.00000	1.856
* 35	1,4-Difluorobenzene	114	5.118	5.107	(1.000)	1641355	50.0000	
37	Dibromomethane	93	5.418	5.413	(1.059)	13175	2.00000	1.931
38	1,2-Dichloropropane	63	5.514	5.503	(1.077)	28507	2.00000	1.937
39	Bromodichloromethane	83	5.588	5.582	(1.092)	30345	2.00000	1.907
40	2-Chloroethyl Vinyl Ether	63	6.120	6.120	(1.196)	13323	2.00000	1.723
41	Cis 1,3-dichloropropene	75	6.137	6.131	(1.199)	38181	2.00000	1.846
$ 42	d8-Toluene	98	6.289	6.284	(1.229)	2418375	50.0000	50.281
43	Toluene	92	6.335	6.329	(1.238)	66503	2.00000	2.013
44	Tetrachloroethene	166	6.646	6.640	(0.875)	24100	2.00000	1.776
45	4-Methyl-2-Pentanone	58	6.697	6.702	(1.308)	57247	10.0000	9.874
46	Trans 1,3-Dichloropropene	75	6.697	6.697	(1.308)	34645	2.00000	1.884
47	1,1,2-Trichloroethane	97	6.827	6.821	(1.334)	19763	2.00000	1.913
48	Chlorodibromomethane	129	6.962	6.957	(0.917)	21521	2.00000	1.839
49	1,3-Dichloropropane	76	7.042	7.042	(0.927)	37678	2.00000	1.951
50	1,2-Dibromoethane	107	7.138	7.138	(1.395)	19981	2.00000	1.975
51	2-Hexanone	43	7.409	7.415	(0.975)	97799	10.0000	9.823
* 52	dS-Chlorobenzene	117	7.596	7.591	(1.000)	1959754	50.0000	
53	Chlorobenzene	112	7.607	7.608	(1.001)	66369	2.00000	1.990
54	Ethyl Benzene	91	7.658	7.659	(1.008)	113910	2.00000	1.991
55	1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.010)	22497	2.00000	1.894
56	m,p-xylene	106	7.788	7.789	(1.025)	84972	4.00000	3.898
57	o-Xylene	106	8.150	8.151	(1.073)	38974	2.00000	1.798
58	Styrene	104	8.201	8.202	(1.080)	65817	2.00000	1.875
59	Bromoform	173	8.190	8.196	(0.847)	15386	2.00000	1.851
60	Isopropyl Benzene	105	8.439	8.439	(0.873)	103813	2.00000	1.950
$ 62	4-Bromofluorobenzene	95	8.660	8.660	(1.140)	1066765	50.0000	49.890
63	Bromobenzene	156	8.739	8.739	(0.904)	27158	2.00000	1.933
64	N-Propyl Benzene	91	8.807	8.807	(0.911)	126034	2.00000	1.997

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	65 1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	25673	2.00000	1.849
	66 2-Chloro Toluene	91	8.920	8.920	(0.923)	77143	2.00000	1.929
	67 1,3,5-Trimethyl Benzene	105	8.993	8.999	(0.930)	86706	2.00000	1.914
	68 1,2,3-Trichloropropane	110	8.971	8.971	(0.928)	8175	2.00000	1.945(TM)
	69 Trans-1,4-Dichloro 2-Butene	53	9.022	9.027	(0.933)	9286	2.00000	1.801
	70 4-Chloro Toluene	91	9.067	9.073	(0.938)	80908	2.00000	1.953
	71 T-Butyl Benzene	119	9.270	9.271	(0.959)	74665	2.00000	1.874
	72 1,2,4-Trimethylbenzene	105	9.338	9.339	(0.966)	84876	2.00000	1.906
	73 S-Butyl Benzene	105	9.435	9.435	(0.976)	116362	2.00000	2.008
	74 4-Isopropyl Toluene	119	9.582	9.582	(0.991)	92146	2.00000	1.938
	75 1,3-Dichlorobenzene	146	9.593	9.593	(0.992)	51677	2.00000	1.984
*	76 d4-1,4-Dichlorobenzene	152	9.666	9.667	(1.000)	1061365	50.0000	
	77 1,4-Dichlorobenzene	146	9.678	9.684	(1.001)	53271	2.00000	1.984
	78 N-Butyl Benzene	91	9.966	9.967	(1.031)	87051	2.00000	1.902
$	79 d4-1,2-Dichlorobenzene	152	10.051	10.051	(1.040)	1093995	50.0000	50.596
	80 1,2-Dichlorobenzene	146	10.057	10.063	(1.040)	51321	2.00000	2.026
	81 1,2-Dibromo 3-Chloropropane	75	10.809	10.809	(1.118)	5477	2.00000	2.037
	82 Hexachloro 1,3-Butadiene	225	11.488	11.488	(1.188)	20815	2.00000	1.851
	83 1,2,4-Trichlorobenzene	180	11.477	11.477	(1.187)	33849	2.00000	1.853
	84 Naphthalene	128	11.788	11.794	(1.219)	83843	2.00000	2.091
	85 1,2,3-Trichlorobenzene	180	11.969	11.975	(1.238)	35568	2.00000	2.014

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 0020611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	444324	-3.33
35 1,4-Difluorobenze	1692431	846216	3384862	1641355	-3.02
52 d5-Chlorobenzene	1987215	993608	3974430	1959754	-1.38
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1061365	-1.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.67	0.24
35 1,4-Difluorobenze	5.11	4.61	5.61	5.12	0.22
52 d5-Chlorobenzene	7.59	7.09	8.09	7.60	0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

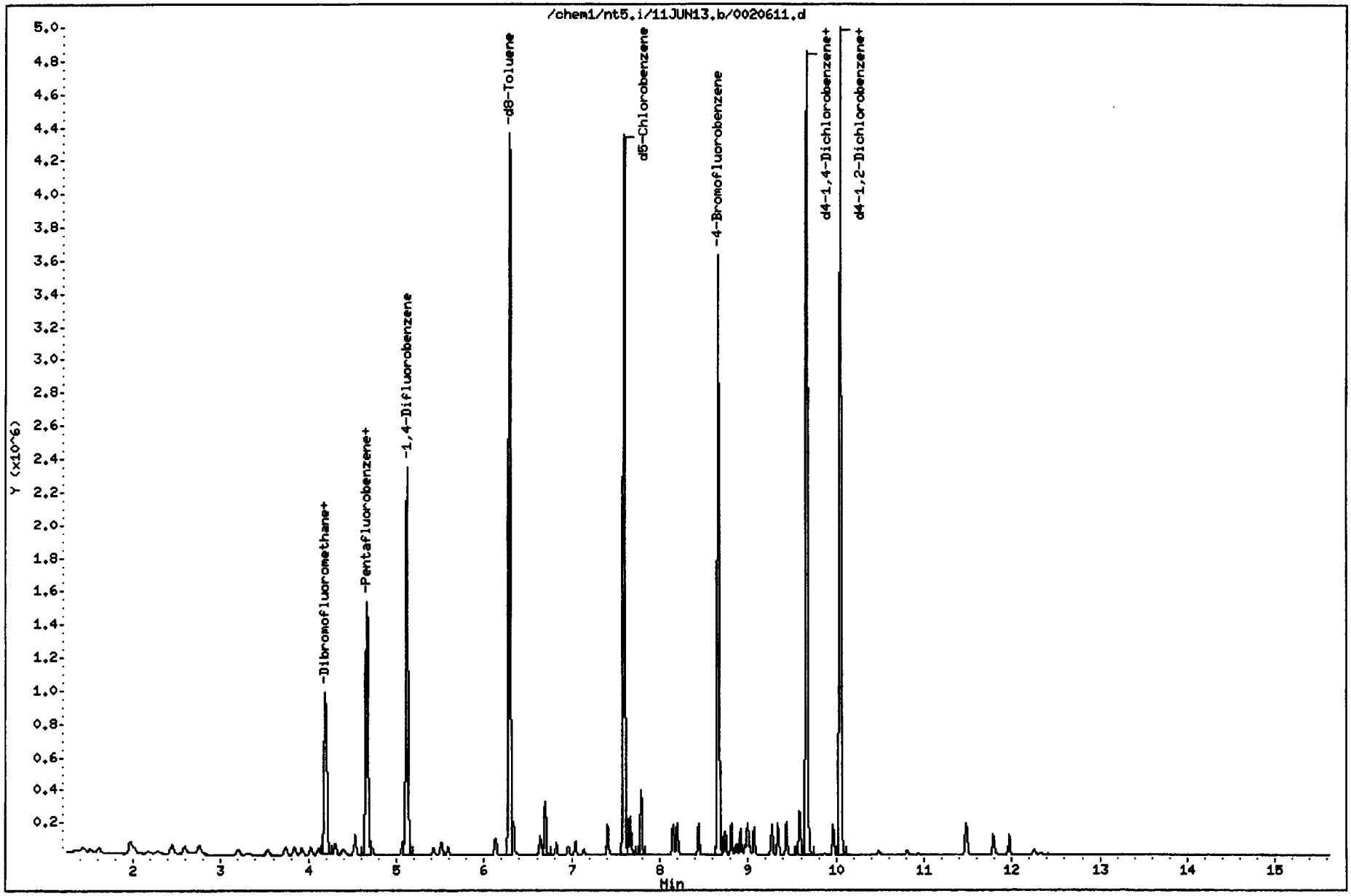
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/0020611.d
Date : 11-JUN-2013 11:20
Client ID: VSTD2
Sample Info: IC0611,5,5,0

Instrument: nt5.i

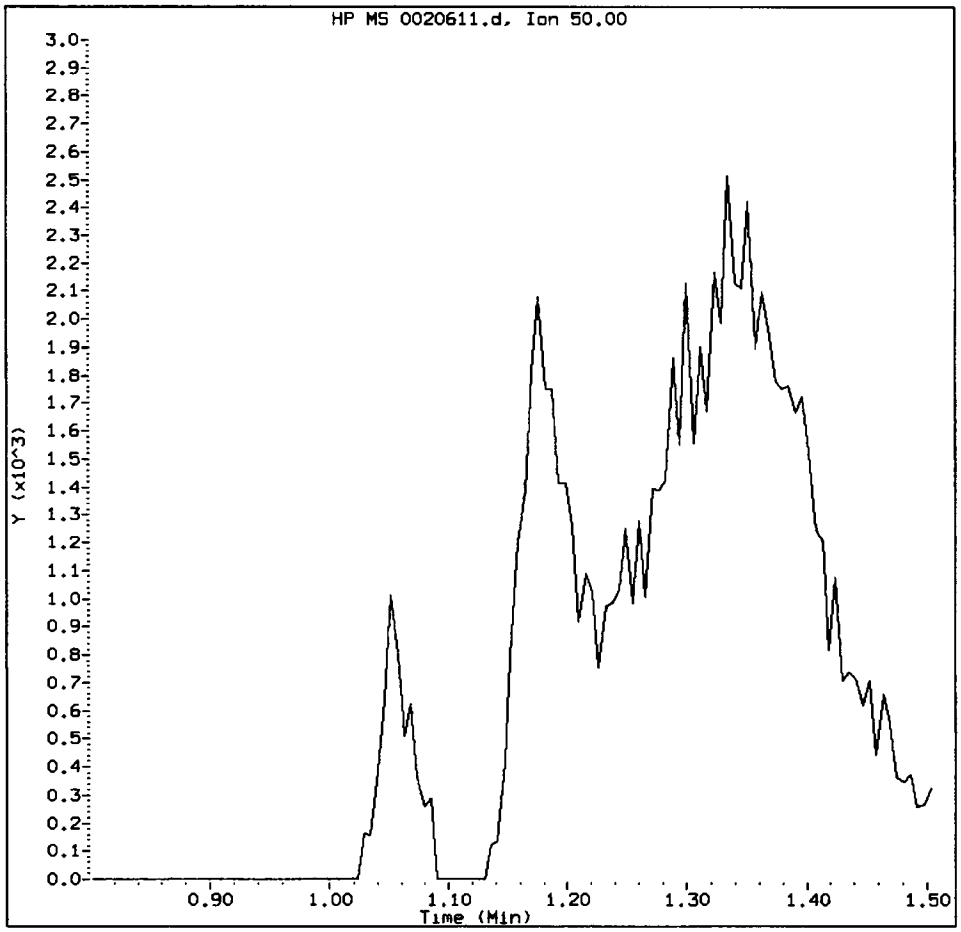
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0611, /chem1/nt5.i/11JUN13.b/0020611.d

Chloromethane Amount: 1.83 Area: 28639



MANUAL INTEGRATION for Chloromethane

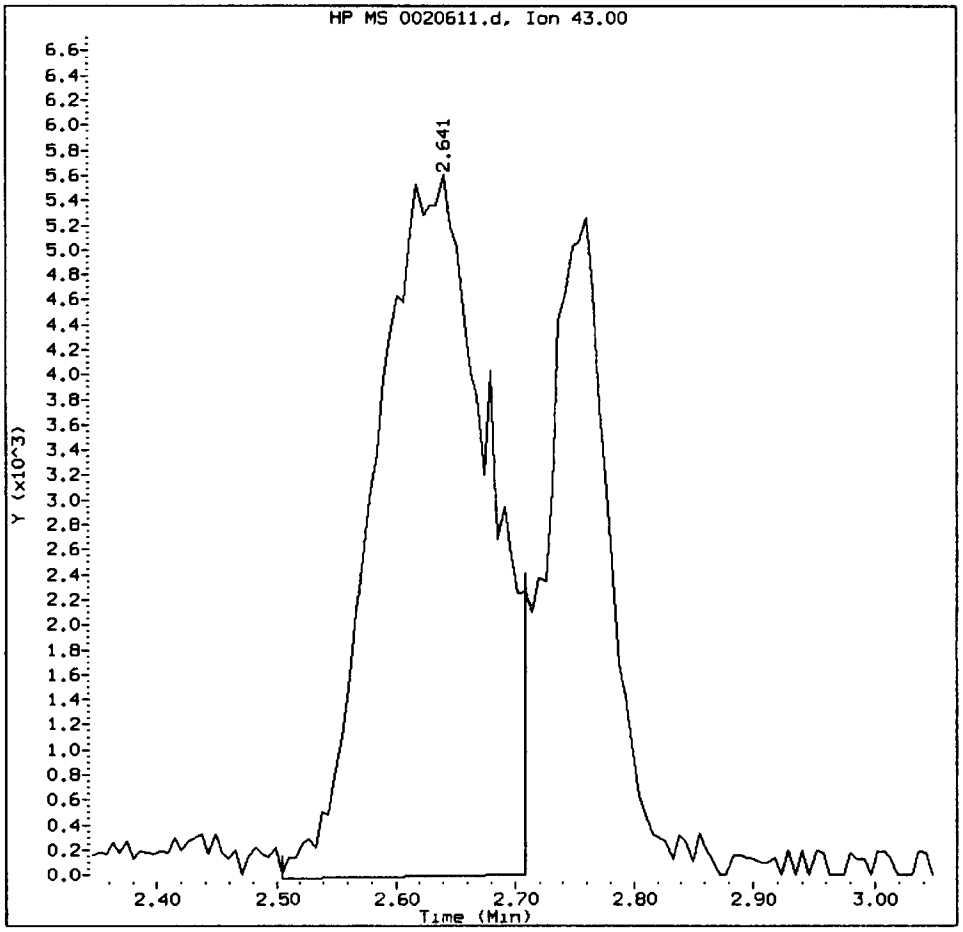
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/0020611.d

Acetone Amount: 10.32 Area: 37068



MANUAL INTEGRATION for Acetone

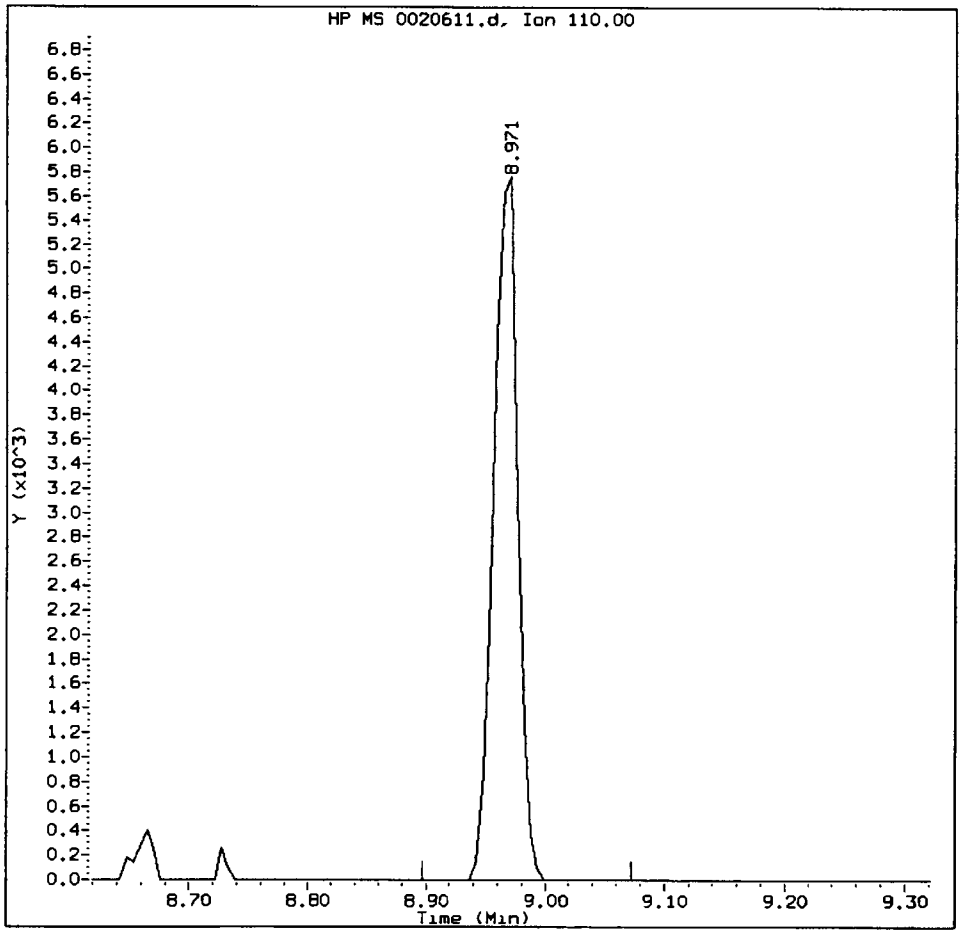
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/10/13

IC0611, /chem1/nt5.i/11JUN13.b/0020611.d

1,2,3-Trichloropropane Amount: 1.94 Area: 8175



MANUAL INTEGRATION for 1,2,3-Trichloropropane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14/13

CO-ELUTION SUMMARY FOR FILE - 0020611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/0050611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD5
Inj Date : 11-JUN-2013 10:57
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 10:57 Cal File: 0050611.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.028	1.029	(0.221)	37510	5.00000	4.603
2 Chloromethane	50	1.334	1.153	(0.287)	84284	5.00000	5.194(TM)
3 Vinyl Chloride	62	1.204	1.198	(0.259)	74972	5.00000	4.776
4 Bromomethane	94	1.407	1.408	(0.302)	41863	5.00000	5.323
5 Chloroethane	64	1.492	1.492	(0.321)	46420	5.00000	4.967
6 Trichlorofluoromethane	101	1.588	1.589	(0.341)	81273	5.00000	4.983
7 1,1-Dichloroethene	96	1.950	1.951	(0.419)	53014	5.00000	4.814
8 Carbon Disulfide	76	1.950	1.951	(0.419)	176984	5.00000	4.946
9 112Trichloro122Trifluoroethane	101	1.990	1.990	(0.428)	46569	5.00000	4.804
10 Iodomethane	142	2.047	2.053	(0.440)	29970	5.00000	3.069
11 Bromoethane	108	2.143	2.149	(0.460)	31687	5.00000	4.682
12 Acrolein	56	2.256	2.267	(0.485)	52737	25.0000	22.700
13 Methylene Chloride	84	2.420	2.426	(0.520)	57838	5.00000	5.787
14 Acetone	43	2.590	2.697	(0.556)	61461	25.0000	16.930(TM)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
15	Trans-1,2-Dichloroethene	96	2.556	2.562	(0.549)	48752	5.00000	4.619
16	Methyl tert butyl ether	73	2.737	2.726	(0.588)	163065	5.00000	5.342
17	1,1-Dichloroethane	63	3.172	3.173	(0.682)	126815	5.00000	5.538
18	Acrylonitrile	53	3.297	3.308	(0.708)	27160	5.00000	5.499
19	Vinyl Acetate	43	3.517	3.518	(0.756)	163343	5.00000	5.221
20	Cis-1,2-Dichloroethene	96	3.721	3.721	(0.799)	66501	5.00000	4.977
22	2,2-Dichloropropane	77	3.817	3.817	(0.820)	93549	5.00000	4.911
23	Bromochloromethane	128	3.908	3.908	(0.840)	29874	5.00000	4.992
24	Chloroform	83	4.010	4.010	(0.861)	108316	5.00000	5.052
25	Carbon Tetrachloride	117	4.094	4.095	(0.802)	78559	5.00000	4.849
$ 27	Dibromofluoromethane	111	4.179	4.180	(0.898)	657418	50.0000	49.870
26	1,1,1-Trichloroethane	97	4.168	4.168	(0.895)	95437	5.00000	4.952
28	1,1-Dichloropropene	75	4.287	4.287	(0.839)	104718	5.00000	5.515
29	2-Butanone	72	4.389	4.406	(0.943)	39392	25.0000	25.393
30	Benzene	78	4.513	4.519	(0.884)	285098	5.00000	5.343
* 31	Pentafluorobenzene	168	4.654	4.660	(1.000)	459587	50.0000	
$ 32	d4-1,2-Dichloroethane	65	4.649	4.649	(0.999)	616549	50.0000	50.057
33	1,2-Dichloroethane	62	4.711	4.711	(0.922)	86574	5.00000	5.143
34	Trichloroethene	95	5.056	5.056	(0.990)	66986	5.00000	5.142
* 35	1,4-Difluorobenzene	114	5.107	5.107	(1.000)	1687157	50.0000	
37	Dibromomethane	93	5.407	5.413	(1.059)	35480	5.00000	5.059
38	1,2-Dichloropropane	63	5.503	5.503	(1.078)	75926	5.00000	5.020
39	Bromodichloromethane	83	5.582	5.582	(1.093)	80792	5.00000	4.940
40	2-Chloroethyl Vinyl Ether	63	6.114	6.120	(1.197)	39884	5.00000	5.018
41	Cis 1,3-dichloropropene	75	6.125	6.131	(1.199)	108551	5.00000	5.105
$ 42	d8-Toluene	98	6.284	6.284	(1.230)	2486982	50.0000	50.304
43	Toluene	92	6.329	6.329	(1.239)	178556	5.00000	5.257
44	Tetrachloroethene	166	6.640	6.640	(0.875)	69205	5.00000	4.983
45	4-Methyl-2-Pentanone	58	6.697	6.702	(1.311)	156706	25.0000	26.294
46	Trans 1,3-Dichloropropene	75	6.691	6.697	(1.310)	96046	5.00000	5.080
47	1,1,2-Trichloroethane	97	6.821	6.821	(1.336)	54470	5.00000	5.129
48	Chlorodibromomethane	129	6.957	6.957	(0.917)	58638	5.00000	4.894
49	1,3-Dichloropropane	76	7.042	7.042	(0.928)	99146	5.00000	5.015
50	1,2-Dibromoethane	107	7.132	7.138	(1.397)	52541	5.00000	5.052
51	2-Hexanone	43	7.409	7.415	(0.976)	269287	25.0000	26.422
* 52	d5-Chlorobenzene	117	7.590	7.591	(1.000)	2006212	50.0000	
53	Chlorobenzene	112	7.602	7.608	(1.001)	179925	5.00000	5.269
54	Ethyl Benzene	91	7.653	7.659	(1.008)	321690	5.00000	5.493
55	1,1,1,2-Tetrachloroethane	131	7.670	7.675	(1.010)	61155	5.00000	5.029
56	m,p-xylene	106	7.788	7.789	(1.026)	241184	10.0000	10.809
57	o-Xylene	106	8.150	8.151	(1.074)	112295	5.00000	5.060
58	Styrene	104	8.196	8.202	(1.080)	193535	5.00000	5.386
59	Bromoform	173	8.190	8.196	(0.847)	42236	5.00000	4.917
60	Isopropyl Benzene	105	8.439	8.439	(0.873)	297224	5.00000	5.401
$ 62	4-Bromofluorobenzene	95	8.660	8.660	(1.141)	1098671	50.0000	50.192
63	Bromobenzene	156	8.739	8.739	(0.904)	71559	5.00000	4.929
64	N-Propyl Benzene	91	8.807	8.807	(0.911)	359458	5.00000	5.511

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	69384	5.00000	4.835
66	2-Chloro Toluene	91	8.914	8.920	(0.922)	213778	5.00000	5.174
67	1,3,5-Trimethyl Benzene	105	8.993	8.999	(0.930)	247052	5.00000	5.278
68	1,2,3-Trichloropropane	110	8.965	8.971	(0.927)	21573	5.00000	4.966
69	Trans-1,4-Dichloro 2-Butene	53	9.022	9.027	(0.933)	24997	5.00000	4.690
70	4-Chloro Toluene	91	9.067	9.073	(0.938)	222753	5.00000	5.204
71	T-Butyl Benzene	119	9.270	9.271	(0.959)	215379	5.00000	5.231
72	1,2,4-Trimethylbenzene	105	9.338	9.339	(0.966)	245092	5.00000	5.325
73	S-Butyl Benzene	105	9.435	9.435	(0.976)	327277	5.00000	5.465
74	4-Isopropyl Toluene	119	9.582	9.582	(0.991)	264374	5.00000	5.380
75	1,3-Dichlorobenzene	146	9.593	9.593	(0.992)	135851	5.00000	5.047
* 76	d4-1,4-Dichlorobenzene	152	9.666	9.667	(1.000)	1096782	50.0000	
77	1,4-Dichlorobenzene	146	9.678	9.684	(1.001)	142280	5.00000	5.128
78	N-Butyl Benzene	91	9.966	9.967	(1.031)	247927	5.00000	5.242
$ 79	d4-1,2-Dichlorobenzene	152	10.051	10.051	(1.040)	1116716	50.0000	49.979
80	1,2-Dichlorobenzene	146	10.057	10.063	(1.040)	133836	5.00000	5.112
81	1,2-Dibromo 3-Chloropropane	75	10.809	10.809	(1.118)	13042	5.00000	4.693
82	Hexachloro 1,3-Butadiene	225	11.488	11.488	(1.188)	58256	5.00000	5.014
83	1,2,4-Trichlorobenzene	180	11.477	11.477	(1.187)	90716	5.00000	4.805
84	Naphthalene	128	11.788	11.794	(1.219)	218730	5.00000	5.279
85	1,2,3-Trichlorobenzene	180	11.969	11.975	(1.238)	91961	5.00000	5.040

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 0050611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD5
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	459587	-0.01
35 1,4-Difluorobenze	1692431	846216	3384862	1687157	-0.31
52 d5-Chlorobenzene	1987215	993608	3974430	2006212	0.96
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1096782	1.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.65	-0.13
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.00
52 d5-Chlorobenzene	7.59	7.09	8.09	7.59	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

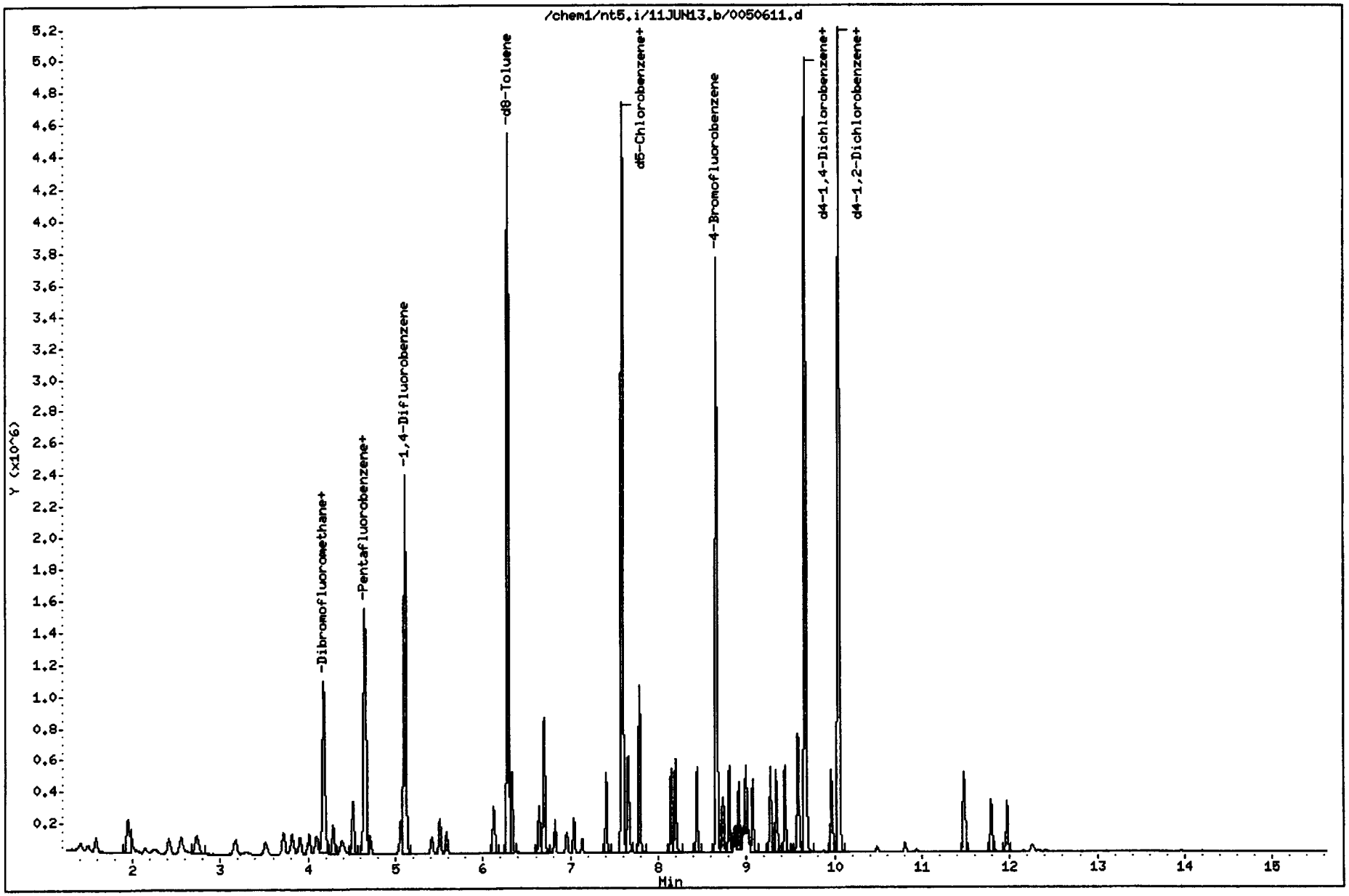
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/0050611.d
Date : 11-JUN-2013 10:57
Client ID: VSTD5
Sample Info: IC0611,5,5,0

Instrument: nt5.i

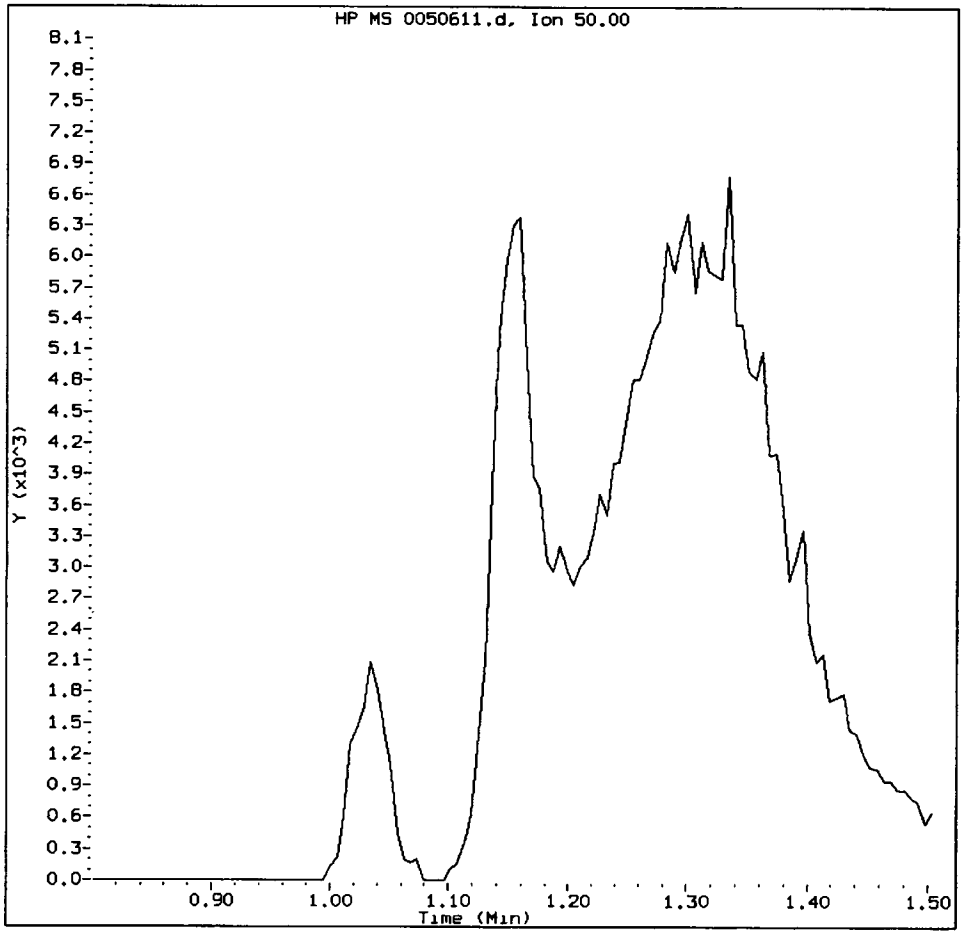
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



IC0611, /chem1/nt5.i/11JUN13.b/0050611.d

Chloromethane Amount: 5.19 Area: 84284



MANUAL INTEGRATION for Chloromethane

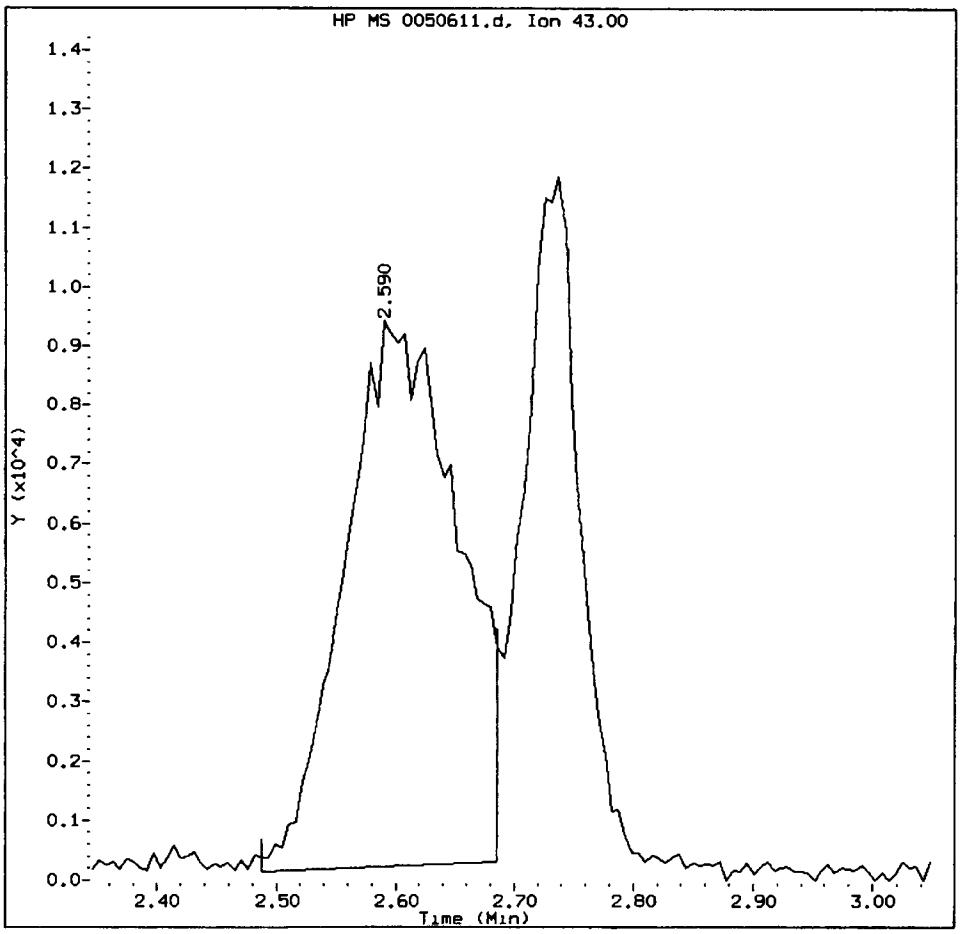
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/0050611.d

Acetone Amount: 16.93 Area: 61461



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/13/13

CO-ELUTION SUMMARY FOR FILE - 0050611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/0100611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD10
Inj Date : 11-JUN-2013 12:21
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 12:21 Cal File: 0100611.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.040	1.029	(0.223)	86282	10.0000	11.018
2 Chloromethane	50	1.153	1.153	(0.247)	145243	10.0000	9.313(TM)
3 Vinyl Chloride	62	1.204	1.198	(0.258)	153554	10.0000	10.178
4 Bromomethane	94	1.413	1.408	(0.303)	82021	10.0000	10.853
5 Chloroethane	64	1.498	1.492	(0.321)	94795	10.0000	10.553
6 Trichlorofluoromethane	101	1.594	1.589	(0.342)	155722	10.0000	9.934
7 1,1-Dichloroethene	96	1.951	1.951	(0.419)	98520	10.0000	9.309
8 Carbon Disulfide	76	1.956	1.951	(0.420)	329748	10.0000	9.588
9 112Trichloro122Trifluoroethane	101	1.996	1.990	(0.428)	88308	10.0000	9.479
10 Iodomethane	142	2.052	2.053	(0.440)	63217	10.0000	6.737
11 Bromoethane	108	2.149	2.149	(0.461)	65273	10.0000	10.036
12 Acrolein	56	2.256	2.267	(0.484)	118454	50.0000	53.052
13 Methylene Chloride	84	2.426	2.426	(0.521)	123231	10.0000	12.830
14 Acetone	43	2.578	2.697	(0.553)	226490	50.0000	76.330(T)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.567	2.562	(0.551)	115798	10.0000	11.416
	16 Methyl tert butyl ether	73	2.737	2.726	(0.587)	316719	10.0000	10.795
	17 1,1-Dichloroethane	63	3.184	3.173	(0.683)	233032	10.0000	10.588
	18 Acrylonitrile	53	3.286	3.308	(0.705)	46832	10.0000	9.867
	19 Vinyl Acetate	43	3.518	3.518	(0.755)	276573	10.0000	9.197
	20 Cis-1,2-Dichloroethene	96	3.727	3.721	(0.800)	120233	10.0000	9.362
	22 2,2-Dichloropropane	77	3.823	3.817	(0.820)	175715	10.0000	9.599
	23 Bromochloromethane	128	3.914	3.908	(0.840)	54911	10.0000	9.548
	24 Chloroform	83	4.015	4.010	(0.862)	192794	10.0000	9.357
	25 Carbon Tetrachloride	117	4.106	4.095	(0.803)	150653	10.0000	9.599
$	27 Dibromofluoromethane	111	4.179	4.180	(0.897)	635929	50.0000	50.194
	26 1,1,1-Trichloroethane	97	4.174	4.168	(0.896)	177755	10.0000	9.598
	28 1,1-Dichloropropene	75	4.293	4.287	(0.840)	170871	10.0000	9.290
	29 2-Butanone	72	4.366	4.406	(0.937)	62622	50.0000	42.003
	30 Benzene	78	4.519	4.519	(0.884)	507751	10.0000	9.824
*	31 Pentafluorobenzene	168	4.660	4.660	(1.000)	441694	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.649	4.649	(0.998)	594039	50.0000	50.183
	33 1,2-Dichloroethane	62	4.711	4.711	(0.921)	148221	10.0000	9.091
	34 Trichloroethene	95	5.056	5.056	(0.989)	118837	10.0000	9.418
*	35 1,4-Difluorobenzene	114	5.113	5.107	(1.000)	1634225	50.0000	
	37 Dibromomethane	93	5.407	5.413	(1.058)	60791	10.0000	8.949
	38 1,2-Dichloropropane	63	5.503	5.503	(1.076)	131177	10.0000	8.953
	39 Bromodichloromethane	83	5.582	5.582	(1.092)	145557	10.0000	9.189
	40 2-Chloroethyl Vinyl Ether	63	6.114	6.120	(1.196)	68746	10.0000	8.929
	41 Cis 1,3-dichloropropene	75	6.131	6.131	(1.199)	193122	10.0000	9.376
$	42 d8-Toluene	98	6.289	6.284	(1.230)	2406864	50.0000	50.260
	43 Toluene	92	6.329	6.329	(1.238)	316837	10.0000	9.631
	44 Tetrachloroethene	166	6.640	6.640	(0.875)	130402	10.0000	9.802
	45 4-Methyl-2-Pentanone	58	6.691	6.702	(1.309)	262514	50.0000	45.474
	46 Trans 1,3-Dichloropropene	75	6.691	6.697	(1.309)	169008	10.0000	9.229
	47 1,1,2-Trichloroethane	97	6.821	6.821	(1.334)	94008	10.0000	9.139
	48 Chlorodibromomethane	129	6.957	6.957	(0.917)	103418	10.0000	9.010
	49 1,3-Dichloropropane	76	7.042	7.042	(0.928)	170313	10.0000	8.994
	50 1,2-Dibromoethane	107	7.138	7.138	(1.396)	87928	10.0000	8.728
	51 2-Hexanone	43	7.404	7.415	(0.975)	443800	50.0000	45.459
*	52 d5-Chlorobenzene	117	7.590	7.591	(1.000)	1921755	50.0000	
	53 Chlorobenzene	112	7.607	7.608	(1.002)	319243	10.0000	9.760
	54 Ethyl Benzene	91	7.653	7.659	(1.008)	586606	10.0000	10.457
	55 1,1,1,2-Tetrachloroethane	131	7.670	7.675	(1.010)	106783	10.0000	9.166
	56 m,p-xylene	106	7.788	7.789	(1.026)	437454	20.0000	20.467
	57 o-Xylene	106	8.151	8.151	(1.074)	204800	10.0000	9.634
	58 Styrene	104	8.201	8.202	(1.080)	342431	10.0000	9.949
	59 Bromoform	173	8.190	8.196	(0.847)	71183	10.0000	8.925
	60 Isopropyl Benzene	105	8.439	8.439	(0.872)	543587	10.0000	10.639
$	62 4-Bromofluorobenzene	95	8.665	8.660	(1.142)	1045193	50.0000	49.847
	63 Bromobenzene	156	8.739	8.739	(0.903)	126493	10.0000	9.383
	64 N-Propyl Benzene	91	8.807	8.807	(0.911)	659629	10.0000	10.893

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	118956	10.0000	8.927
66	2-Chloro Toluene	91	8.920	8.920	(0.922)	388006	10.0000	10.114
67	1,3,5-Trimethyl Benzene	105	8.999	8.999	(0.930)	451327	10.0000	10.385
68	1,2,3-Trichloropropane	110	8.965	8.971	(0.927)	36163	10.0000	8.966
69	Trans-1,4-Dichloro 2-Butene	53	9.022	9.027	(0.933)	44555	10.0000	9.004
70	4-Chloro Toluene	91	9.073	9.073	(0.938)	404855	10.0000	10.187
71	T-Butyl Benzene	119	9.271	9.271	(0.958)	390776	10.0000	10.222
72	1,2,4-Trimethylbenzene	105	9.338	9.339	(0.965)	442943	10.0000	10.365
73	S-Butyl Benzene	105	9.435	9.435	(0.975)	600199	10.0000	10.793
74	4-Isopropyl Toluene	119	9.582	9.582	(0.991)	489177	10.0000	10.721
75	1,3-Dichlorobenzene	146	9.593	9.593	(0.992)	247147	10.0000	9.888
* 76	d4-1,4-Dichlorobenzene	152	9.672	9.667	(1.000)	1018367	50.0000	
77	1,4-Dichlorobenzene	146	9.684	9.684	(1.001)	251176	10.0000	9.750
78	N-Butyl Benzene	91	9.972	9.967	(1.031)	473611	10.0000	10.785
$ 79	d4-1,2-Dichlorobenzene	152	10.057	10.051	(1.040)	1054197	50.0000	50.814
80	1,2-Dichlorobenzene	146	10.063	10.063	(1.040)	231902	10.0000	9.540
81	1,2-Dibromo 3-Chloropropane	75	10.815	10.809	(1.118)	23069	10.0000	8.941
82	Hexachloro 1,3-Butadiene	225	11.505	11.488	(1.189)	107118	10.0000	9.930
83	1,2,4-Trichlorobenzene	180	11.488	11.477	(1.188)	169201	10.0000	9.653
84	Naphthalene	128	11.805	11.794	(1.220)	347444	10.0000	9.031
85	1,2,3-Trichlorobenzene	180	11.986	11.975	(1.239)	157344	10.0000	9.287

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 0100611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD10
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	441694	-3.90
35 1,4-Difluorobenze	1692431	846216	3384862	1634225	-3.44
52 d5-Chlorobenzene	1987215	993608	3974430	1921755	-3.29
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1018367	-5.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.66	0.00
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.11
52 d5-Chlorobenzene	7.59	7.09	8.09	7.59	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/0100611.d

Date : 11-JUN-2013 12:21

Client ID: VSTD10

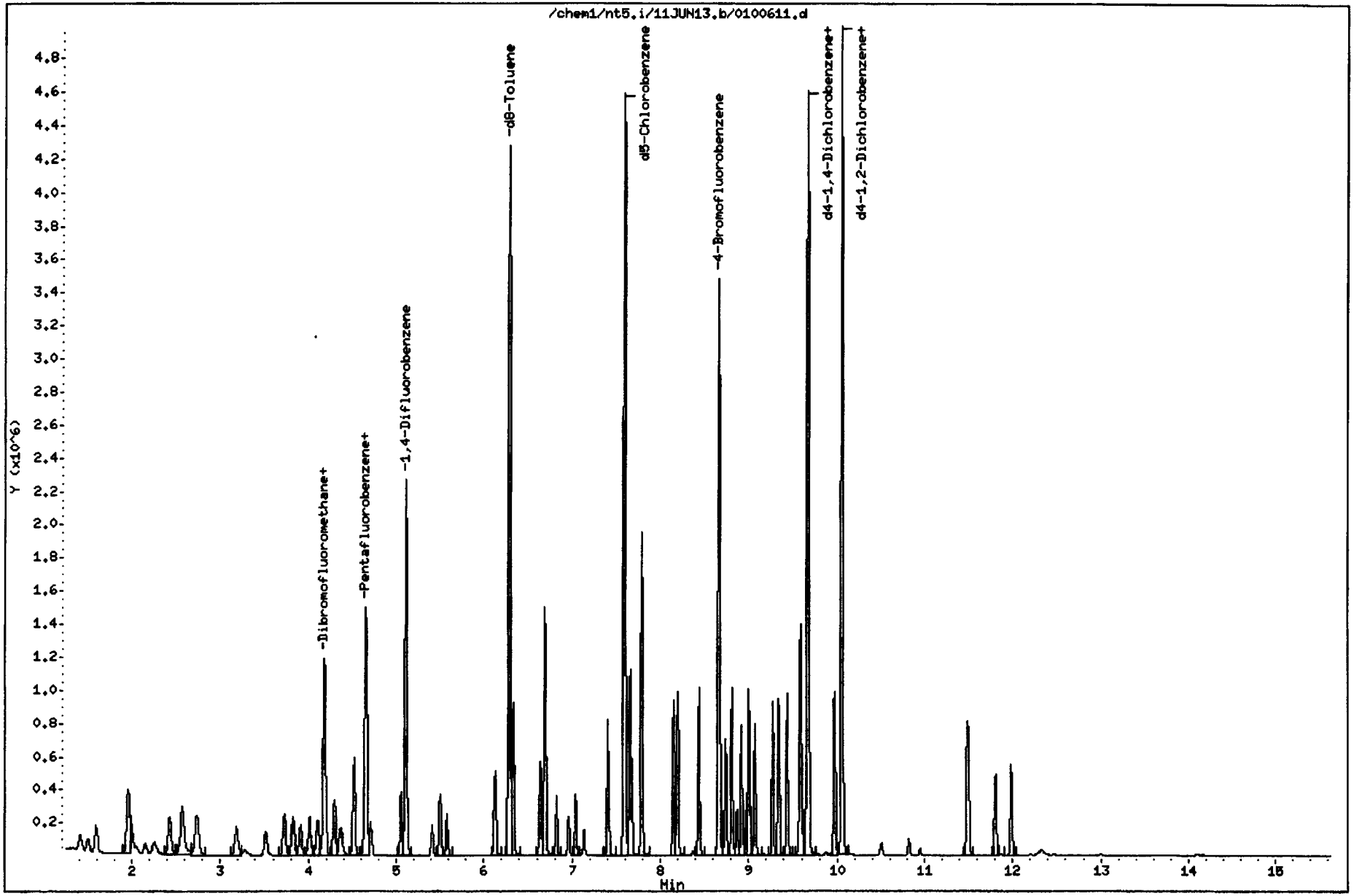
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

Instrument: nt5.i

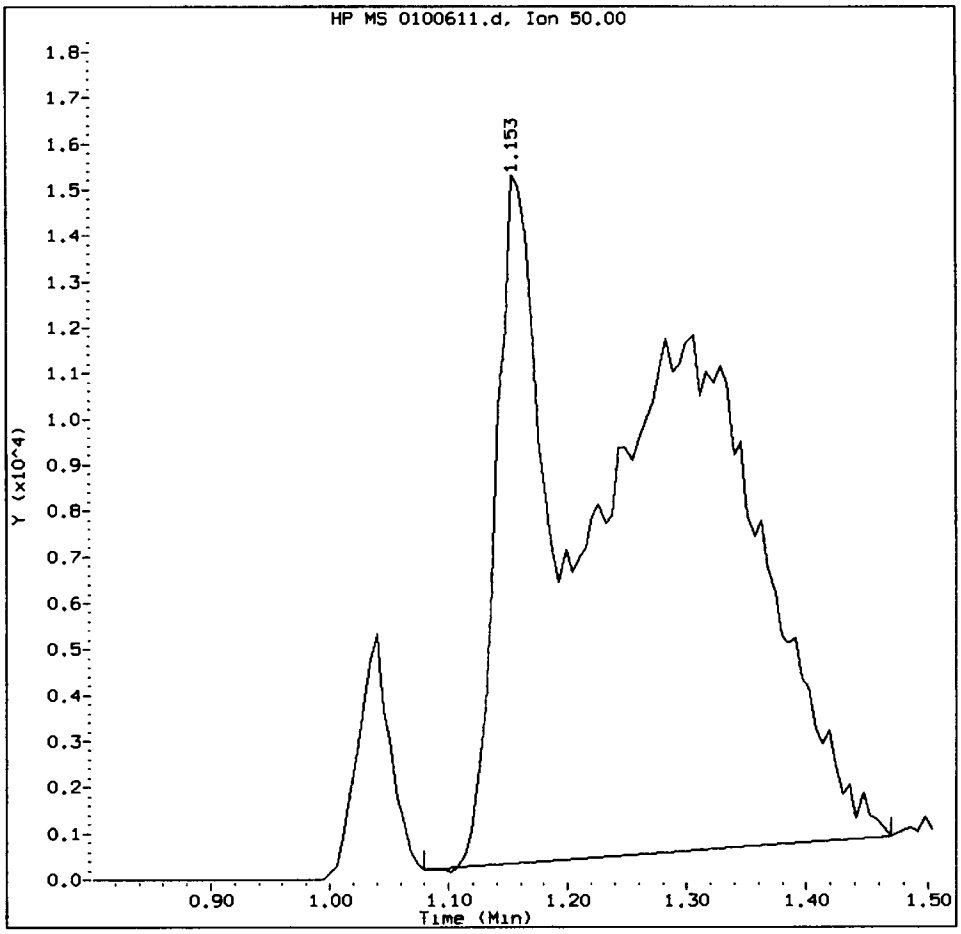
Operator: PB

Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/0100611.d

Chloromethane Amount: 9.31 Area: 145243



MANUAL INTEGRATION for Chloromethane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

CO-ELUTION SUMMARY FOR FILE - 0100611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/0500611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD50
Inj Date : 11-JUN-2013 10:09
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 10:09 Cal File: 0500611.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.029	1.029	(0.221)	353115	50.0000	43.332
2 Chloromethane	50	1.153	1.153	(0.247)	764654	50.0000	47.118(M)
3 Vinyl Chloride	62	1.198	1.198	(0.257)	760907	50.0000	48.465
4 Bromomethane	94	1.408	1.408	(0.302)	366307	50.0000	46.576
5 Chloroethane	64	1.492	1.492	(0.320)	446413	50.0000	47.759
6 Trichlorofluoromethane	101	1.589	1.589	(0.341)	728990	50.0000	44.690
7 1,1-Dichloroethene	96	1.951	1.951	(0.419)	514867	50.0000	46.750
8 Carbon Disulfide	76	1.951	1.951	(0.419)	1703150	50.0000	47.588
9 112Trichloro122Trifluoroethane	101	1.990	1.990	(0.427)	449354	50.0000	46.351
10 Iodomethane	142	2.053	2.053	(0.440)	397931	50.0000	40.750
11 Bromoethane	108	2.149	2.149	(0.461)	340152	50.0000	50.260
12 Acrolein	56	2.267	2.267	(0.487)	636947	250.000	274.14
13 Methylene Chloride	84	2.426	2.426	(0.521)	512608	50.0000	51.286
14 Acetone	43	2.697	2.697	(0.579)	559829	250.000	231.74(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.562	2.562	(0.550)	481795	50.0000	45.646
	16 Methyl tert butyl ether	73	2.726	2.726	(0.585)	1506342	50.0000	49.341
	17 1,1-Dichloroethane	63	3.173	3.173	(0.681)	993409	50.0000	43.374
	18 Acrylonitrile	53	3.308	3.308	(0.710)	239476	50.0000	48.484
	19 Vinyl Acetate	43	3.518	3.518	(0.755)	1551168	50.0000	49.571
	20 Cis-1,2-Dichloroethene	96	3.721	3.721	(0.798)	620020	50.0000	46.395
	22 2,2-Dichloropropane	77	3.817	3.817	(0.819)	858721	50.0000	45.079
	23 Bromochloromethane	128	3.908	3.908	(0.839)	272310	50.0000	45.503
	24 Chloroform	83	4.010	4.010	(0.860)	1009113	50.0000	47.064
	25 Carbon Tetrachloride	117	4.095	4.095	(0.802)	741213	50.0000	45.605
$	27 Dibromofluoromethane	111	4.180	4.180	(0.897)	662250	50.0000	50.232
	26 1,1,1-Trichloroethane	97	4.168	4.168	(0.894)	885575	50.0000	45.949
	28 1,1-Dichloropropene	75	4.287	4.287	(0.839)	867958	50.0000	45.565
	29 2-Butanone	72	4.406	4.406	(0.945)	406574	250.000	262.06
	30 Benzene	78	4.519	4.519	(0.885)	2577823	50.0000	48.161
*	31 Pentafluorobenzene	168	4.660	4.660	(1.000)	459631	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.649	4.649	(0.998)	620434	50.0000	50.368
	33 1,2-Dichloroethane	62	4.711	4.711	(0.922)	809721	50.0000	47.955
	34 Trichloroethene	95	5.056	5.056	(0.990)	598982	50.0000	45.838
*	35 1,4-Difluorobenzene	114	5.107	5.107	(1.000)	1692431	50.0000	
	37 Dibromomethane	93	5.413	5.413	(1.060)	344470	50.0000	48.964
	38 1,2-Dichloropropane	63	5.503	5.503	(1.078)	729210	50.0000	48.060
	39 Bromodichloromethane	83	5.582	5.582	(1.093)	792459	50.0000	48.307
	40 2-Chloroethyl Vinyl Ether	63	6.120	6.120	(1.198)	425279	50.0000	53.336
	41 Cis 1,3-dichloropropene	75	6.131	6.131	(1.200)	1045254	50.0000	49.000
$	42 d8-Toluene	98	6.284	6.284	(1.230)	2484368	50.0000	50.095
	43 Toluene	92	6.329	6.329	(1.239)	1592845	50.0000	46.754
	44 Tetrachloroethene	166	6.640	6.640	(0.875)	619783	50.0000	45.055
	45 4-Methyl-2-Pentanone	58	6.702	6.702	(1.312)	1595980	250.000	266.96
	46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.311)	945718	50.0000	49.865
	47 1,1,2-Trichloroethane	97	6.821	6.821	(1.336)	529384	50.0000	49.692
	48 Chlorodibromomethane	129	6.957	6.957	(0.917)	586870	50.0000	49.445
	49 1,3-Dichloropropane	76	7.042	7.042	(0.928)	977791	50.0000	49.932
	50 1,2-Dibromoethane	107	7.138	7.138	(1.398)	515660	50.0000	49.425
	51 2-Hexanone	43	7.415	7.415	(0.977)	2667348	250.000	264.22
*	52 d5-Chlorobenzene	117	7.591	7.591	(1.000)	1987215	50.0000	
	53 Chlorobenzene	112	7.608	7.608	(1.002)	1607382	50.0000	47.523
	54 Ethyl Benzene	91	7.659	7.659	(1.009)	2852744	50.0000	49.179
	55 1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.011)	570228	50.0000	47.336
	56 m,p-xylene	106	7.789	7.789	(1.026)	2148101	100.000	97.192
	57 o-Xylene	106	8.151	8.151	(1.074)	1062604	50.0000	48.339
	58 Styrene	104	8.202	8.202	(1.080)	1806538	50.0000	50.759
	59 Bromoform	173	8.196	8.196	(0.848)	421583	50.0000	50.053
	60 Isopropyl Benzene	105	8.439	8.439	(0.873)	2656060	50.0000	49.229
$	62 4-Bromofluorobenzene	95	8.660	8.660	(1.141)	1083761	50.0000	49.984
	63 Bromobenzene	156	8.739	8.739	(0.904)	667951	50.0000	46.921
	64 N-Propyl Benzene	91	8.807	8.807	(0.911)	3093314	50.0000	48.372

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	707186	50.0000	50.258
66	2-Chloro Toluene	91	8.920	8.920	(0.923)	1931882	50.0000	47.686
67	1,3,5-Trimethyl Benzene	105	8.999	8.999	(0.931)	2223273	50.0000	48.443
68	1,2,3-Trichloropropane	110	8.971	8.971	(0.928)	212455	50.0000	49.879
69	Trans-1,4-Dichloro 2-Butene	53	9.027	9.027	(0.934)	269415	50.0000	51.558
70	4-Chloro Toluene	91	9.073	9.073	(0.939)	1991916	50.0000	47.465
71	T-Butyl Benzene	119	9.271	9.271	(0.959)	1949891	50.0000	48.301
72	1,2,4-Trimethylbenzene	105	9.339	9.339	(0.966)	2202640	50.0000	48.807
73	S-Butyl Benzene	105	9.435	9.435	(0.976)	2837658	50.0000	48.323
74	4-Isopropyl Toluene	119	9.582	9.582	(0.991)	2335926	50.0000	48.480
75	1,3-Dichlorobenzene	146	9.593	9.593	(0.992)	1220647	50.0000	46.248
* 76	d4-1,4-Dichlorobenzene	152	9.667	9.667	(1.000)	1075398	50.0000	
77	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	1240225	50.0000	45.591
78	N-Butyl Benzene	91	9.967	9.967	(1.031)	2204096	50.0000	47.529
$ 79	d4-1,2-Dichlorobenzene	152	10.051	10.051	(1.040)	1085602	50.0000	49.553
80	1,2-Dichlorobenzene	146	10.063	10.063	(1.041)	1183518	50.0000	46.104
81	1,2-Dibromo 3-Chloropropane	75	10.809	10.809	(1.118)	135046	50.0000	49.565
82	Hexachloro 1,3-Butadiene	225	11.488	11.488	(1.188)	500871	50.0000	43.968
83	1,2,4-Trichlorobenzene	180	11.477	11.477	(1.187)	850233	50.0000	45.932
84	Naphthalene	128	11.794	11.794	(1.220)	2092430	50.0000	51.502
85	1,2,3-Trichlorobenzene	180	11.975	11.975	(1.239)	825099	50.0000	46.115

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 0500611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD50
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	459631	0.00
35 1,4-Difluorobenze	1692431	846216	3384862	1692431	0.00
52 d5-Chlorobenzene	1987215	993608	3974430	1987215	0.00
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1075398	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.66	0.00
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.00
52 d5-Chlorobenzene	7.59	7.09	8.09	7.59	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/0500611.d

Date : 11-JUN-2013 10:09

Client ID: VSTD50

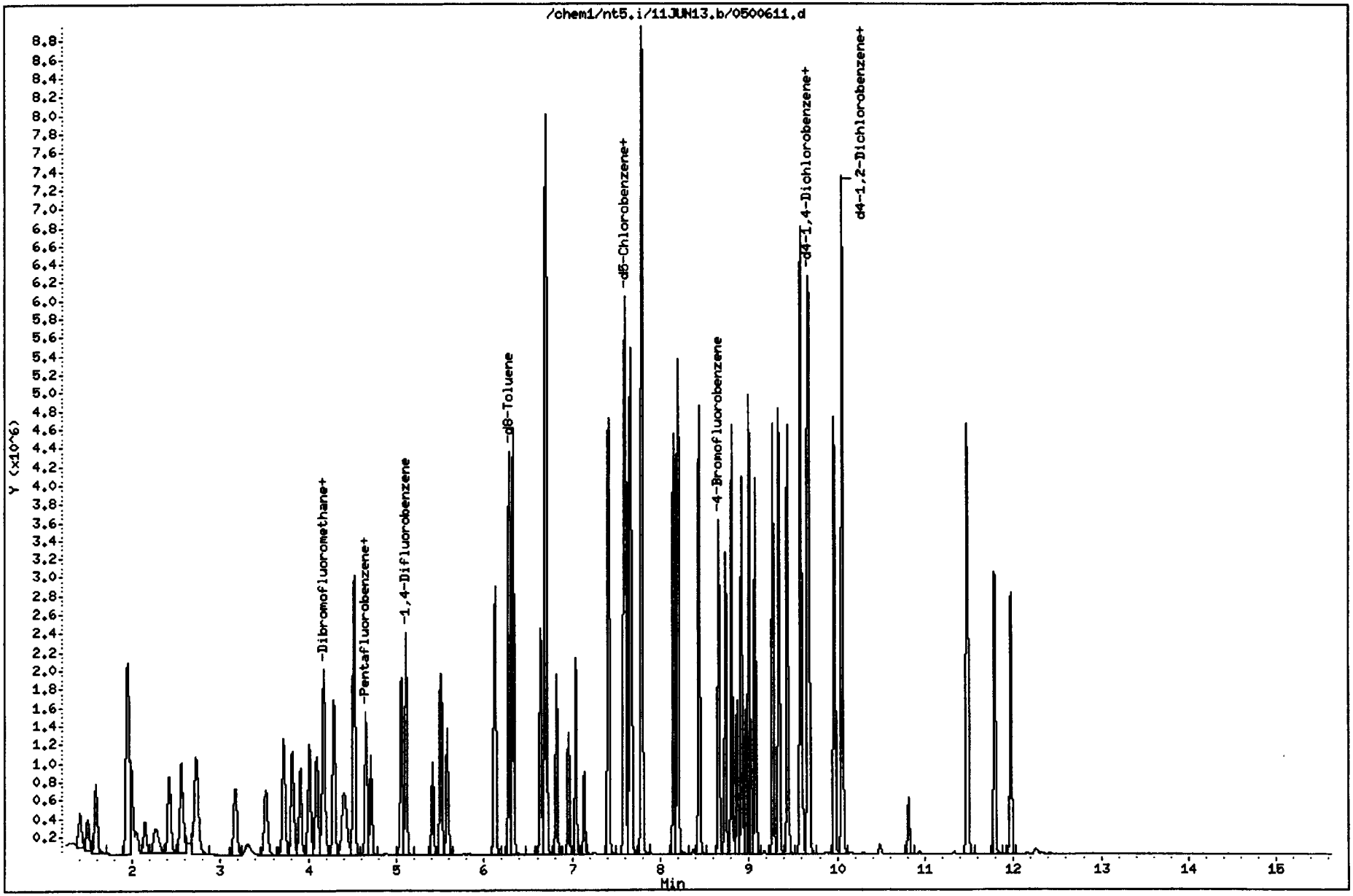
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

Instrument: nt5.i

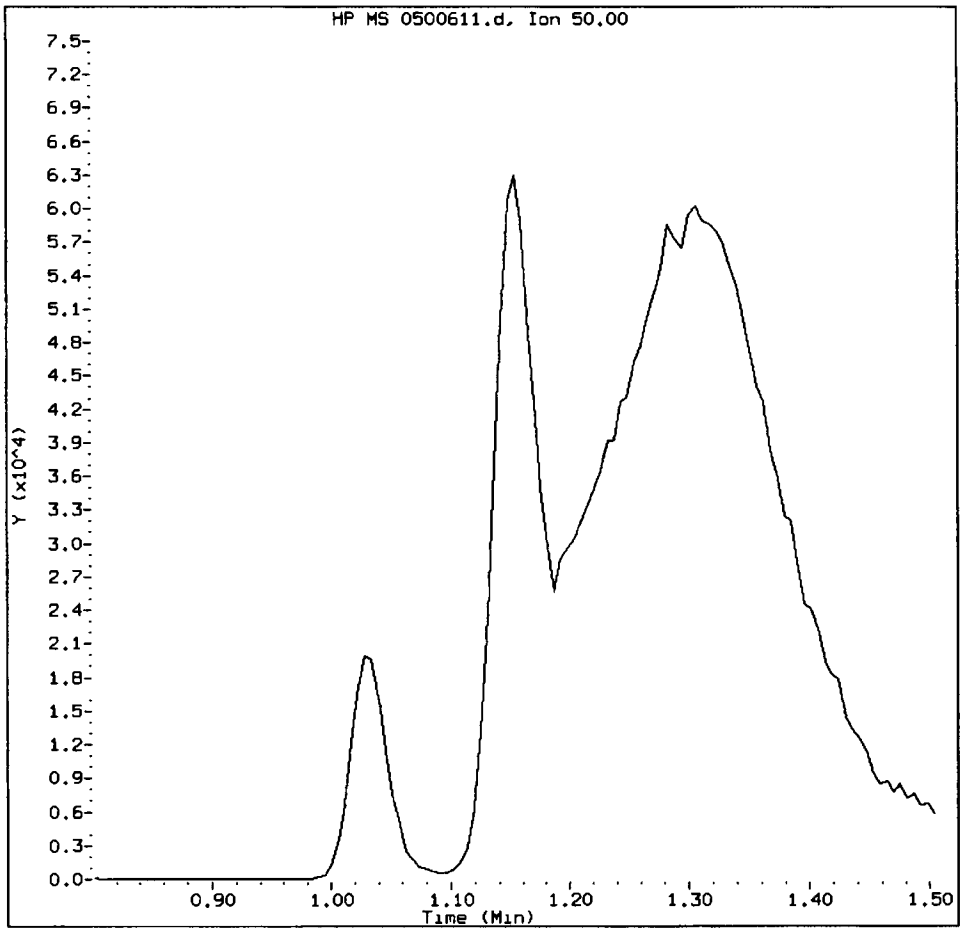
Operator: PB

Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/0500611.d

Chloromethane Amount: 47.12 Area: 764654



MANUAL INTEGRATION for Chloromethane

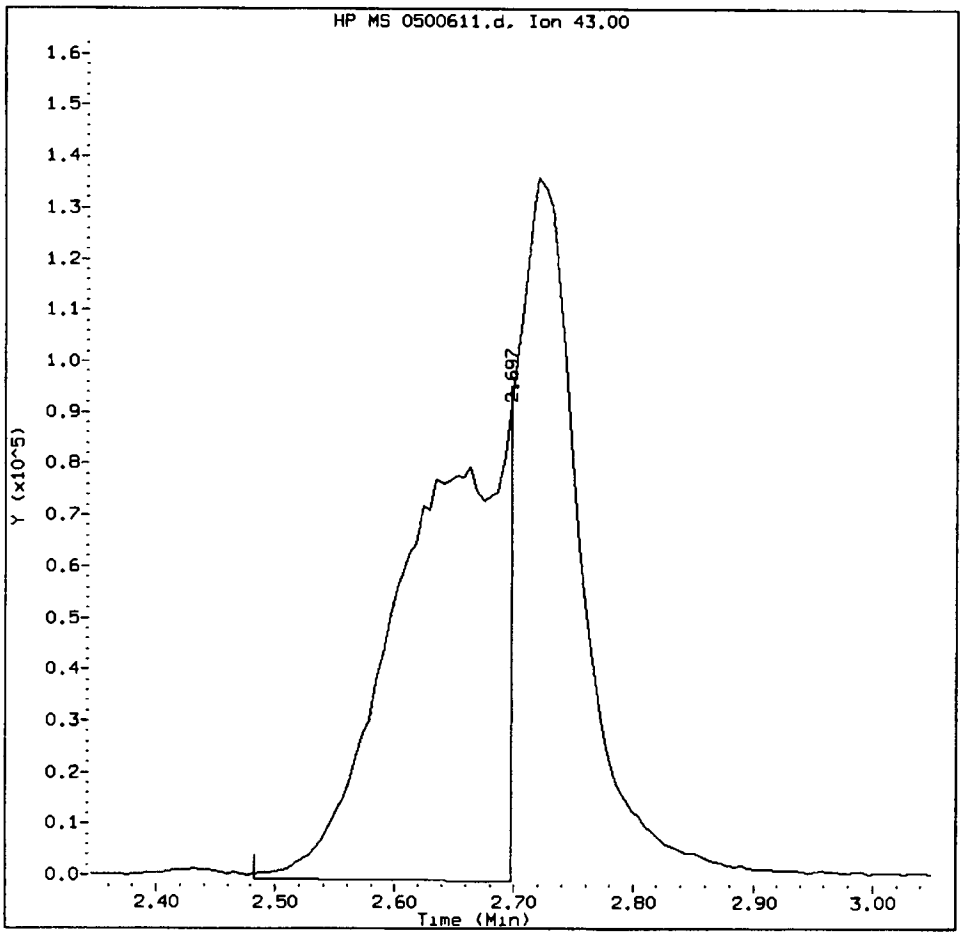
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14

IC0611, /chem1/nt5.i/11JUN13.b/0500611.d

Acetone Amount: 231.74 Area: 559829



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

CO-ELUTION SUMMARY FOR FILE - 0500611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/1000611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD100
Inj Date : 11-JUN-2013 12:45
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 12:45 Cal File: 1000611.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.051	1.029	(0.225)	858354	100.000	105.87
2 Chloromethane	50	1.357	1.153	(0.291)	1641082	100.000	101.64(TM)
3 Vinyl Chloride	62	1.221	1.198	(0.262)	1668516	100.000	106.81
4 Bromomethane	94	1.430	1.408	(0.306)	728711	100.000	93.127
5 Chloroethane	64	1.515	1.492	(0.325)	968696	100.000	104.16
6 Trichlorofluoromethane	101	1.606	1.589	(0.344)	1742529	100.000	107.37
7 1,1-Dichloroethene	96	1.968	1.951	(0.422)	1201323	100.000	109.63
8 Carbon Disulfide	76	1.973	1.951	(0.423)	3900192	100.000	109.53
9 112Trichloro122Trifluoroethane	101	2.013	1.990	(0.431)	1089474	100.000	112.95
10 Iodomethane	142	2.069	2.053	(0.444)	1129814	100.000	116.29
11 Bromoethane	108	2.166	2.149	(0.464)	738208	100.000	109.63
12 Acrolein	56	2.290	2.267	(0.491)	1238440	500.000	535.72
13 Methylene Chloride	84	2.443	2.426	(0.524)	983128	100.000	98.861
14 Acetone	43	2.663	2.697	(0.571)	955765	500.000	504.65(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.579	2.562	(0.553)	1025747	100.000	97.674
	16 Methyl tert butyl ether	73	2.748	2.726	(0.589)	2834755	100.000	93.325
	17 1,1-Dichloroethane	63	3.184	3.173	(0.682)	1585352	100.000	69.571
	18 Acrylonitrile	53	3.320	3.308	(0.711)	315089	100.000	64.116
	19 Vinyl Acetate	43	3.529	3.518	(0.756)	3247264	100.000	104.30
	20 Cis-1,2-Dichloroethene	96	3.733	3.721	(0.800)	1406997	100.000	105.82
	22 2,2-Dichloropropane	77	3.829	3.817	(0.821)	2024312	100.000	106.81
	23 Bromochloromethane	128	3.919	3.908	(0.840)	598201	100.000	100.47
	24 Chloroform	83	4.021	4.010	(0.862)	2125955	100.000	99.655
	25 Carbon Tetrachloride	117	4.100	4.095	(0.802)	1762054	100.000	108.23
$	27 Dibromofluoromethane	111	4.191	4.180	(0.898)	666159	50.0000	50.785
	26 1,1,1-Trichloroethane	97	4.174	4.168	(0.895)	2082018	100.000	108.58
	28 1,1-Dichloropropene	75	4.293	4.287	(0.840)	2031996	100.000	106.49
	29 2-Butanone	72	4.423	4.406	(0.948)	839604	500.000	543.93
	30 Benzene	78	4.524	4.519	(0.885)	5601653	100.000	104.47
*	31 Pentafluorobenzene	168	4.666	4.660	(1.000)	457308	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.660	4.649	(0.999)	626668	50.0000	51.132
	33 1,2-Dichloroethane	62	4.722	4.711	(0.924)	1749356	100.000	103.43
	34 Trichloroethene	95	5.062	5.056	(0.990)	1406371	100.000	107.44
*	35 1,4-Difluorobenzene	114	5.113	5.107	(1.000)	1695367	50.0000	
	37 Dibromomethane	93	5.418	5.413	(1.060)	747716	100.000	106.10
	38 1,2-Dichloropropane	63	5.514	5.503	(1.079)	1613193	100.000	106.14
	39 Bromodichloromethane	83	5.588	5.582	(1.093)	1740227	100.000	105.90
	40 2-Chloroethyl Vinyl Ether	63	6.125	6.120	(1.198)	913048	100.000	114.31
	41 Cis 1,3-dichloropropene	75	6.137	6.131	(1.200)	2290367	100.000	107.18
$	42 d8-Toluene	98	6.289	6.284	(1.230)	2483045	50.0000	49.981
	43 Toluene	92	6.335	6.329	(1.239)	3547029	100.000	103.93
	44 Tetrachloroethene	166	6.646	6.640	(0.875)	1485267	100.000	108.36
	45 4-Methyl-2-Pentanone	58	6.708	6.702	(1.312)	3198403	500.000	534.07
	46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.310)	2034490	100.000	107.09
	47 1,1,2-Trichloroethane	97	6.832	6.821	(1.336)	1135703	100.000	106.42
	48 Chlorodibromomethane	129	6.963	6.957	(0.917)	1265081	100.000	106.97
	49 1,3-Dichloropropane	76	7.047	7.042	(0.928)	2071413	100.000	106.17
	50 1,2-Dibromoethane	107	7.144	7.138	(1.397)	1105711	100.000	105.80
	51 2-Hexanone	43	7.421	7.415	(0.977)	5167635	500.000	513.76
*	52 d5-Chlorobenzene	117	7.596	7.591	(1.000)	1980001	50.0000	
	53 Chlorobenzene	112	7.613	7.608	(1.002)	3496929	100.000	103.77
	54 Ethyl Benzene	91	7.664	7.659	(1.009)	5926895	100.000	102.55
	55 1,1,1,2-Tetrachloroethane	131	7.681	7.675	(1.011)	1271886	100.000	105.97
	56 m,p-xylene	106	7.800	7.789	(1.027)	4595366	200.000	208.68
	57 o-Xylene	106	8.156	8.151	(1.074)	2393545	100.000	109.28
	58 Styrene	104	8.207	8.202	(1.080)	3853532	100.000	108.67
	59 Bromoform	173	8.201	8.196	(0.848)	882215	100.000	107.32
	60 Isopropyl Benzene	105	8.445	8.439	(0.873)	5588691	100.000	106.13
$	62 4-Bromofluorobenzene	95	8.665	8.660	(1.141)	1083831	50.0000	50.169
	63 Bromobenzene	156	8.745	8.739	(0.904)	1468069	100.000	105.67
	64 N-Propyl Benzene	91	8.812	8.807	(0.911)	6402093	100.000	102.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.875	8.869	(0.918)	1467600	100.000	106.87
66	2-Chloro Toluene	91	8.926	8.920	(0.923)	4213559	100.000	106.57
67	1,3,5-Trimethyl Benzene	105	9.005	8.999	(0.931)	4825433	100.000	107.73
68	1,2,3-Trichloropropane	110	8.971	8.971	(0.927)	441055	100.000	106.10
69	Trans-1,4-Dichloro 2-Butene	53	9.033	9.027	(0.934)	543778	100.000	106.63
70	4-Chloro Toluene	91	9.078	9.073	(0.939)	4352826	100.000	106.28
71	T-Butyl Benzene	119	9.276	9.271	(0.959)	4319272	100.000	109.63
72	1,2,4-Trimethylbenzene	105	9.344	9.339	(0.966)	4725539	100.000	107.29
73	S-Butyl Benzene	105	9.440	9.435	(0.976)	5976793	100.000	104.28
74	4-Isopropyl Toluene	119	9.587	9.582	(0.991)	5032632	100.000	107.02
75	1,3-Dichlorobenzene	146	9.604	9.593	(0.993)	2685794	100.000	104.27
* 76	d4-1,4-Dichlorobenzene	152	9.672	9.667	(1.000)	1049557	50.0000	
77	1,4-Dichlorobenzene	146	9.689	9.684	(1.002)	2740251	100.000	103.21
78	N-Butyl Benzene	91	9.972	9.967	(1.031)	4910044	100.000	108.49
$ 79	d4-1,2-Dichlorobenzene	152	10.057	10.051	(1.040)	1063567	50.0000	49.742
80	1,2-Dichlorobenzene	146	10.068	10.063	(1.041)	2544475	100.000	101.56
81	1,2-Dibromo 3-Chloropropane	75	10.815	10.809	(1.118)	275463	100.000	103.59
82	Hexachloro 1,3-Butadiene	225	11.494	11.488	(1.188)	1174471	100.000	105.64
83	1,2,4-Trichlorobenzene	180	11.482	11.477	(1.187)	1934013	100.000	107.05
84	Naphthalene	128	11.794	11.794	(1.219)	4167045	100.000	105.09
85	1,2,3-Trichlorobenzene	180	11.980	11.975	(1.239)	1782554	100.000	102.08

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 1000611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD100
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	457308	-0.51
35 1,4-Difluorobenze	1692431	846216	3384862	1695367	0.17
52 d5-Chlorobenzene	1987215	993608	3974430	1980001	-0.36
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1049557	-2.40

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.67	0.12
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.11
52 d5-Chlorobenzene	7.59	7.09	8.09	7.60	0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.06

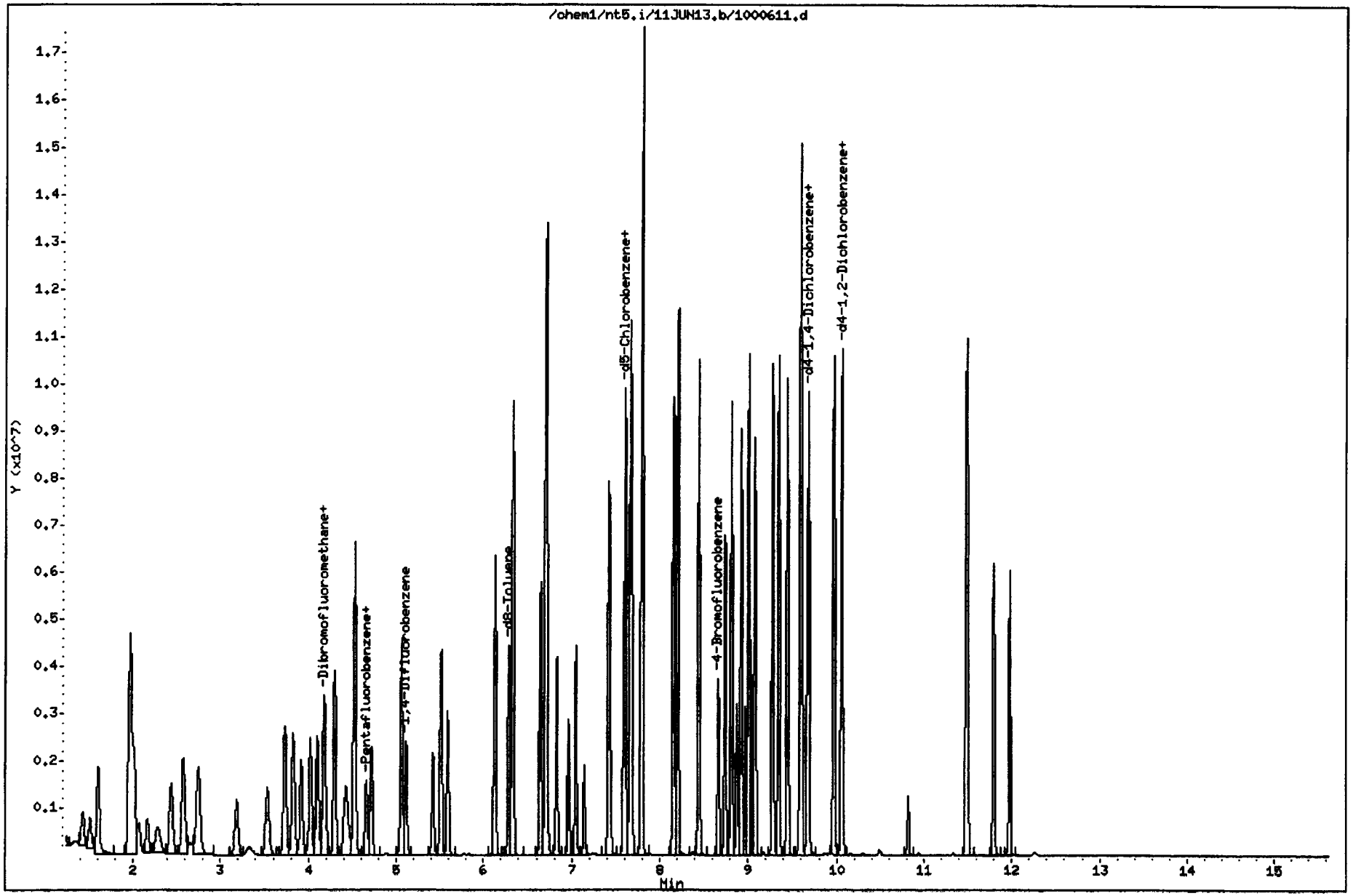
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/1000611.d
Date : 11-JUN-2013 12:45
Client ID: VSTD100
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

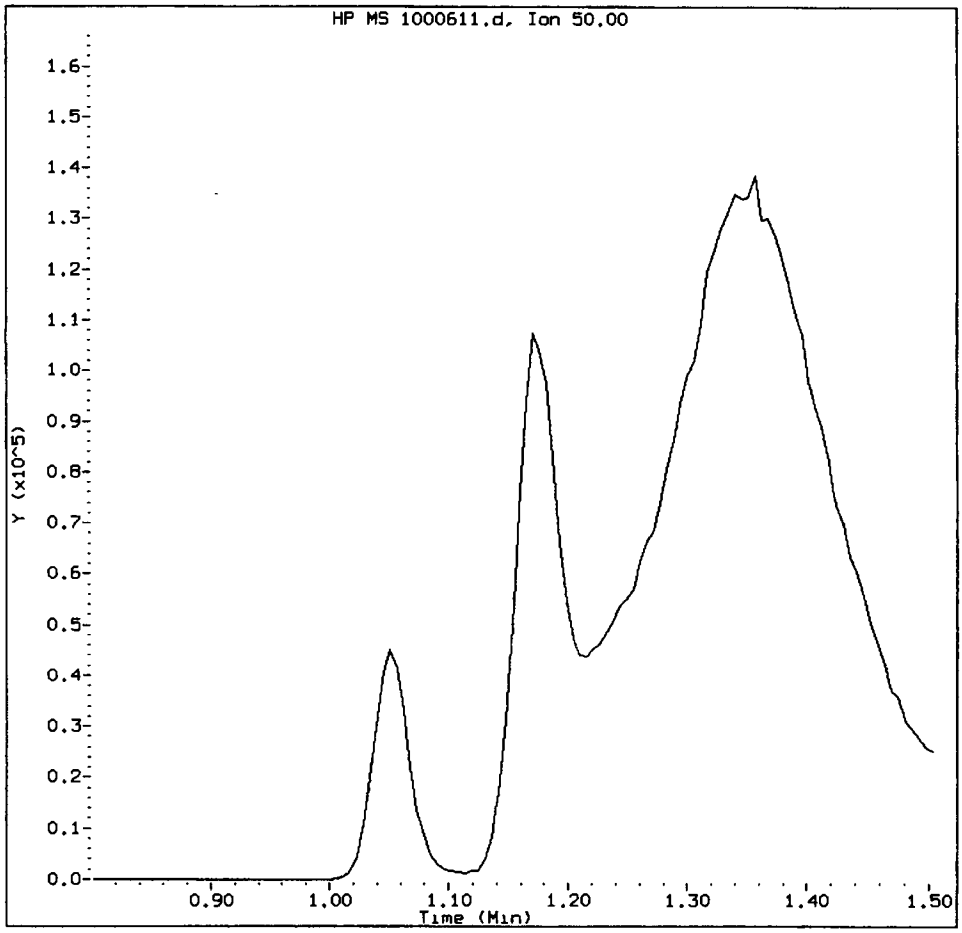
Instrument: nt5.i

Operator: PB
Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/1000611.d

Chloromethane Amount: 101.64 Area: 1641082



MANUAL INTEGRATION for Chloromethane

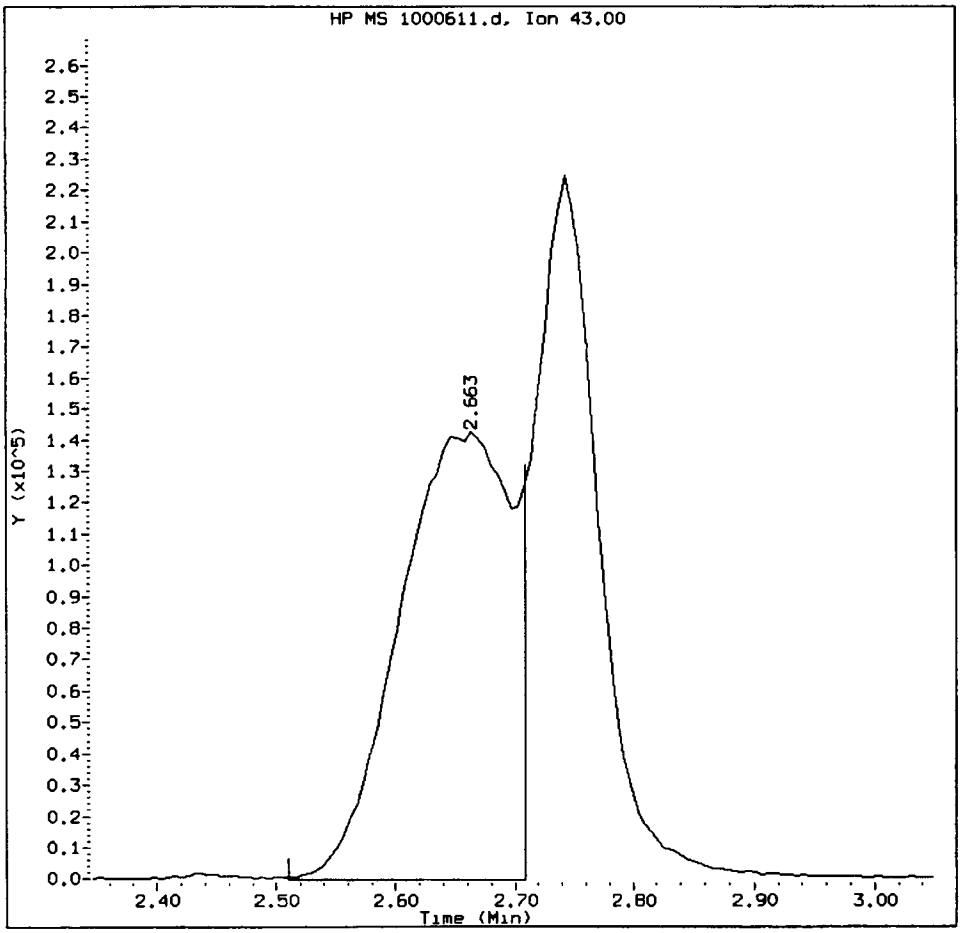
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

IC0611, /chem1/nt5.i/11JUN13.b/1000611.d

Acetone Amount: 504.65 Area: 955765



MANUAL INTEGRATION for Acetone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14/13

CO-ELUTION SUMMARY FOR FILE - 1000611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/1500611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD150
Inj Date : 11-JUN-2013 09:21
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 09:21 Cal File: 1500611.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	1.051	1.029	(0.226)	1177207	150.000	133.77
2 Chloromethane	50	1.345	1.153	(0.289)	2524840	150.000	144.07(TM)
3 Vinyl Chloride	62	1.227	1.198	(0.263)	2539067	150.000	149.76
4 Bromomethane	94	1.430	1.408	(0.307)	1093390	150.000	128.74
5 Chloroethane	64	1.515	1.492	(0.325)	1344249	150.000	133.17
6 Trichlorofluoromethane	101	1.611	1.589	(0.346)	2580153	150.000	146.47
7 1,1-Dichloroethene	96	1.968	1.951	(0.422)	1755844	150.000	147.64
8 Carbon Disulfide	76	1.968	1.951	(0.422)	5574219	150.000	144.23
9 112Trichloro122Trifluoroethane	101	2.013	1.990	(0.432)	1549942	150.000	148.05
10 Iodomethane	142	2.069	2.053	(0.444)	1522399	150.000	144.37
11 Bromoethane	108	2.166	2.149	(0.465)	1016801	150.000	139.13
12 Acrolein	56	2.279	2.267	(0.489)	1628498	750.000	649.05
13 Methylene Chloride	84	2.437	2.426	(0.523)	1349683	150.000	125.05
14 Acetone	43	2.635	2.697	(0.565)	1361385	750.000	767.41

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.573	2.562	(0.552)	1441035	150.000	126.43
	16 Methyl tert butyl ether	73	2.748	2.726	(0.590)	3843816	150.000	116.59
	17 1,1-Dichloroethane	63	3.173	3.173	(0.681)	1906938	150.000	77.102
	18 Acrylonitrile	53	3.320	3.308	(0.712)	303574	150.000	56.915
	19 Vinyl Acetate	43	3.529	3.518	(0.757)	4965553	150.000	146.95
	20 Cis-1,2-Dichloroethene	96	3.727	3.721	(0.800)	2163689	150.000	149.93
	22 2,2-Dichloropropane	77	3.817	3.817	(0.819)	3062350	150.000	148.87
	23 Bromochloromethane	128	3.914	3.908	(0.840)	1031917	150.000	159.68
	24 Chloroform	83	4.021	4.010	(0.863)	3472449	150.000	149.97
	25 Carbon Tetrachloride	117	4.095	4.095	(0.801)	2671548	150.000	150.91
$	27 Dibromofluoromethane	111	4.191	4.180	(0.899)	708388	50.0000	49.757
	26 1,1,1-Trichloroethane	97	4.168	4.168	(0.894)	3160053	150.000	151.83
	28 1,1-Dichloropropene	75	4.287	4.287	(0.838)	3067277	150.000	147.84
	29 2-Butanone	72	4.428	4.406	(0.950)	1323574	750.000	790.02
	30 Benzene	78	4.519	4.519	(0.884)	8015334	150.000	137.49
*	31 Pentafluorobenzene	168	4.660	4.660	(1.000)	496348	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.655	4.649	(0.999)	652070	50.0000	49.020
	33 1,2-Dichloroethane	62	4.723	4.711	(0.924)	2661667	150.000	144.73
	34 Trichloroethene	95	5.056	5.056	(0.989)	2140477	150.000	150.39
*	35 1,4-Difluorobenzene	114	5.113	5.107	(1.000)	1843399	50.0000	
	37 Dibromomethane	93	5.418	5.413	(1.060)	1157284	150.000	151.03
	38 1,2-Dichloropropane	63	5.514	5.503	(1.079)	2475132	150.000	149.77
	39 Bromodichloromethane	83	5.588	5.582	(1.093)	2679823	150.000	149.98
	40 2-Chloroethyl Vinyl Ether	63	6.125	6.120	(1.198)	1428189	150.000	164.45
	41 Cis 1,3-dichloropropene	75	6.137	6.131	(1.200)	3461526	150.000	148.98
$	42 d8-Toluene	98	6.289	6.284	(1.230)	2666842	50.0000	49.370
	43 Toluene	92	6.335	6.329	(1.239)	5132074	150.000	138.30
	44 Tetrachloroethene	166	6.646	6.640	(0.875)	2206818	150.000	150.01
	45 4-Methyl-2-Pentanone	58	6.719	6.702	(1.314)	4878059	750.000	749.13
	46 Trans 1,3-Dichloropropene	75	6.702	6.697	(1.311)	3097314	150.000	149.94
	47 1,1,2-Trichloroethane	97	6.833	6.821	(1.336)	1753638	150.000	151.13
	48 Chlorodibromomethane	129	6.968	6.957	(0.917)	1953066	150.000	153.87
	49 1,3-Dichloropropane	76	7.053	7.042	(0.928)	3159698	150.000	150.88
	50 1,2-Dibromoethane	107	7.144	7.138	(1.397)	1712671	150.000	150.71
	51 2-Hexanone	43	7.427	7.415	(0.978)	8320314	750.000	770.70
*	52 d5-Chlorobenzene	117	7.596	7.591	(1.000)	2125124	50.0000	
	53 Chlorobenzene	112	7.613	7.608	(1.002)	5042901	150.000	139.42
	54 Ethyl Benzene	91	7.670	7.659	(1.010)	7984332	150.000	128.71
	55 1,1,1,2-Tetrachloroethane	131	7.687	7.675	(1.012)	1919032	150.000	148.97
	56 m,p-xylene	106	7.800	7.789	(1.027)	6347918	300.000	268.58
	57 o-Xylene	106	8.162	8.151	(1.074)	3556782	150.000	151.30
	58 Styrene	104	8.207	8.202	(1.080)	5465289	150.000	143.60
	59 Bromoform	173	8.201	8.196	(0.847)	1364047	150.000	153.10
	60 Isopropyl Benzene	105	8.445	8.439	(0.873)	7520976	150.000	131.78
$	62 4-Bromofluorobenzene	95	8.665	8.660	(1.141)	1168014	50.0000	50.374
	63 Bromobenzene	156	8.745	8.739	(0.904)	2204193	150.000	146.38
	64 N-Propyl Benzene	91	8.818	8.807	(0.911)	8378925	150.000	123.87

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.886	8.869	(0.918)	2323997	150.000	156.14
66	2-Chloro Toluene	91	8.926	8.920	(0.922)	5913413	150.000	137.99
67	1,3,5-Trimethyl Benzene	105	9.010	8.999	(0.931)	6613088	150.000	136.22
68	1,2,3-Trichloropropane	110	8.976	8.971	(0.928)	689267	150.000	152.98
69	Trans-1,4-Dichloro 2-Butene	53	9.039	9.027	(0.934)	860831	150.000	155.74
70	4-Chloro Toluene	91	9.078	9.073	(0.938)	6173868	150.000	139.08
71	T-Butyl Benzene	119	9.282	9.271	(0.959)	6027688	150.000	141.16
72	1,2,4-Trimethylbenzene	105	9.350	9.339	(0.966)	6477811	150.000	135.70
73	S-Butyl Benzene	105	9.446	9.435	(0.976)	7923737	150.000	127.56
74	4-Isopropyl Toluene	119	9.593	9.582	(0.991)	6762407	150.000	132.68
75	1,3-Dichlorobenzene	146	9.604	9.593	(0.992)	3827854	150.000	137.11
* 76	d4-1,4-Dichlorobenzene	152	9.678	9.667	(1.000)	1137532	50.0000	
77	1,4-Dichlorobenzene	146	9.695	9.684	(1.002)	3978024	150.000	138.25
78	N-Butyl Benzene	91	9.978	9.967	(1.031)	6587416	150.000	134.29
$ 79	d4-1,2-Dichlorobenzene	152	10.063	10.051	(1.040)	1133332	50.0000	48.906
80	1,2-Dichlorobenzene	146	10.068	10.063	(1.040)	3772192	150.000	138.92
81	1,2-Dibromo 3-Chloropropane	75	10.821	10.809	(1.118)	449965	150.000	156.13
82	Hexachloro 1,3-Butadiene	225	11.499	11.488	(1.188)	1728512	150.000	143.45
83	1,2,4-Trichlorobenzene	180	11.488	11.477	(1.187)	2921940	150.000	149.23
84	Naphthalene	128	11.799	11.794	(1.219)	6255334	150.000	145.56
85	1,2,3-Trichlorobenzene	180	11.986	11.975	(1.238)	2797505	150.000	147.81

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 1500611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD150
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	496348	7.99
35 1,4-Difluorobenze	1692431	846216	3384862	1843399	8.92
52 d5-Chlorobenzene	1987215	993608	3974430	2125124	6.94
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1137532	5.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.66	0.00
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.11
52 d5-Chlorobenzene	7.59	7.09	8.09	7.60	0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.68	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/1500611.d

Date : 11-JUN-2013 09:21

Client ID: VSTD150

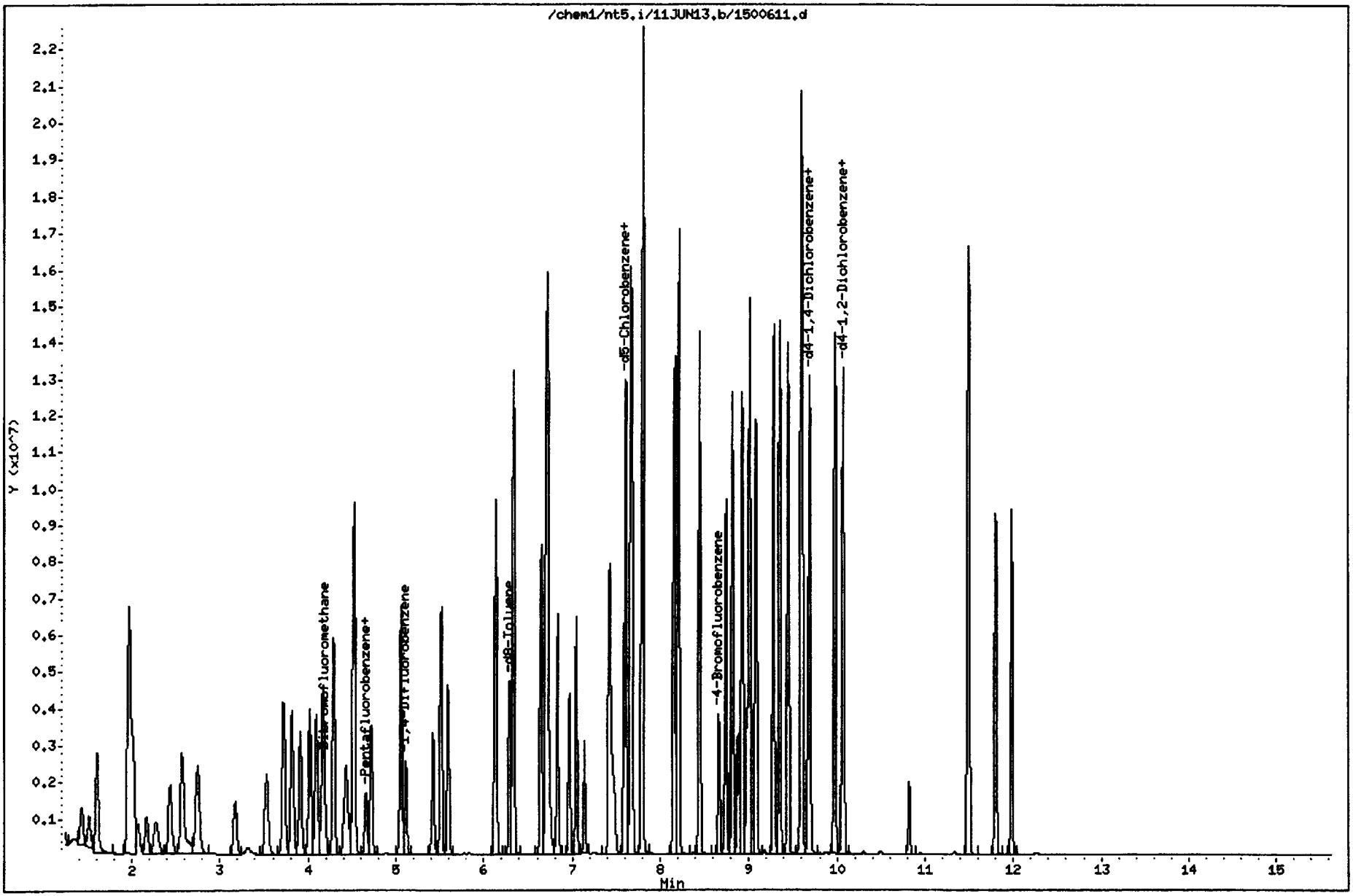
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

Instrument: nt5.i

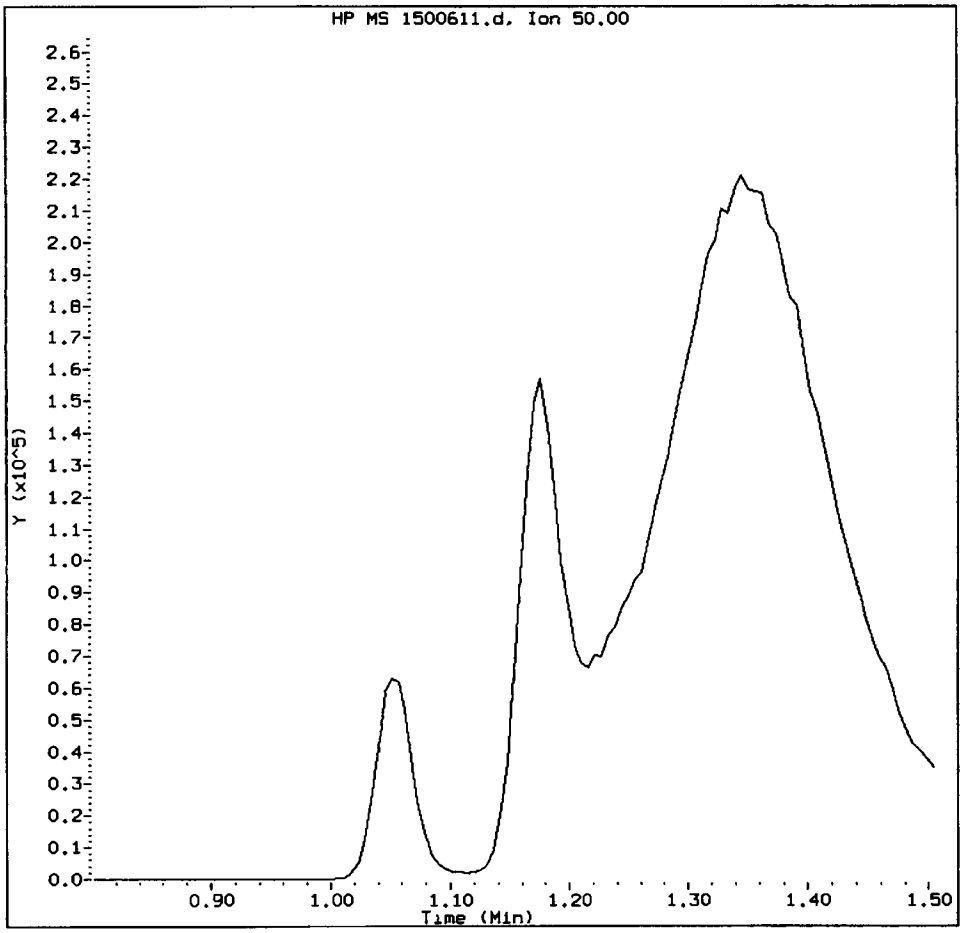
Operator: PB

Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/1500611.d

Chloromethane Amount: 144.07 Area: 2524840



MANUAL INTEGRATION for Chloromethane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

CO-ELUTION SUMMARY FOR FILE - 1500611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/2000611.d
Lab Smp Id: IC0611 Client Smp ID: VSTD200
Inj Date : 11-JUN-2013 08:57
Operator : PB Inst ID: nt5.i
Smp Info : IC0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1	Dichlorodifluoromethane	85	1.029	1.029	(0.221)	1832491	200.000	203.81
2	Chloromethane	50	1.317	1.153	(0.283)	3502553	200.000	195.61(TM)
3	Vinyl Chloride	62	1.198	1.198	(0.258)	3202075	200.000	184.85
4	Bromomethane	94	1.402	1.408	(0.302)	1405108	200.000	161.92
5	Chloroethane	64	1.492	1.492	(0.321)	1707694	200.000	165.58
6	Trichlorofluoromethane	101	1.577	1.589	(0.339)	3572620	200.000	198.50
7	1,1-Dichloroethene	96	1.939	1.951	(0.417)	2395149	200.000	197.11
8	Carbon Disulfide	76	1.939	1.951	(0.417)	7318840	200.000	185.34
9	112Trichloro122Trifluoroethane	101	1.985	1.990	(0.427)	2162442	200.000	202.16
10	Iodomethane	142	2.041	2.053	(0.439)	2117934	200.000	196.57
11	Bromoethane	108	2.137	2.149	(0.460)	1368292	200.000	183.23
12	Acrolein	56	2.245	2.267	(0.483)	2029135	1000.00	791.51
13	Methylene Chloride	84	2.409	2.426	(0.518)	1800973	200.000	163.31
14	Acetone	43	2.601	2.697	(0.560)	1611160	1000.00	969.87(T)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.545	2.562	(0.547)	1964076	200.000	168.65
	16 Methyl tert butyl ether	73	2.720	2.726	(0.585)	5052611	200.000	150.00
	17 1,1-Dichloroethane	63	3.144	3.173	(0.676)	2493501	200.000	98.672
	18 Acrylonitrile	53	3.286	3.308	(0.707)	367407	200.000	67.416
	19 Vinyl Acetate	43	3.518	3.518	(0.757)	3129354	200.000	90.637(M)
	20 Cis-1,2-Dichloroethene	96	3.699	3.721	(0.796)	2966190	200.000	201.16
	22 2,2-Dichloropropane	77	3.795	3.817	(0.816)	4216860	200.000	200.63
	23 Bromochloromethane	128	3.891	3.908	(0.837)	1432852	200.000	217.00
	24 Chloroform	83	3.998	4.010	(0.860)	4741458	200.000	200.42
	25 Carbon Tetrachloride	117	4.072	4.095	(0.798)	3664608	200.000	205.01
$	27 Dibromofluoromethane	111	4.174	4.180	(0.898)	721830	50.0000	49.622
	26 1,1,1-Trichloroethane	97	4.146	4.168	(0.892)	4326365	200.000	203.45
	28 1,1-Dichloropropene	75	4.270	4.287	(0.837)	4190804	200.000	200.04
	29 2-Butanone	72	4.423	4.406	(0.951)	1689512	1000.00	986.98(M)
	30 Benzene	78	4.508	4.519	(0.884)	10135792	200.000	172.18
*	31 Pentafluorobenzene	168	4.649	4.660	(1.000)	507140	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.643	4.649	(0.999)	662477	50.0000	48.743
	33 1,2-Dichloroethane	62	4.706	4.711	(0.922)	3594128	200.000	193.54
	34 Trichloroethene	95	5.045	5.056	(0.989)	2963740	200.000	206.22
*	35 1,4-Difluorobenzene	114	5.102	5.107	(1.000)	1861384	50.0000	
	37 Dibromomethane	93	5.407	5.413	(1.060)	1585364	200.000	204.89
	38 1,2-Dichloropropane	63	5.503	5.503	(1.079)	3373215	200.000	202.14
	39 Bromodichloromethane	83	5.582	5.582	(1.094)	3639115	200.000	201.70
	40 2-Chloroethyl Vinyl Ether	63	6.120	6.120	(1.200)	1918248	200.000	218.74
	41 Cis 1,3-dichloropropene	75	6.131	6.131	(1.202)	4641692	200.000	197.85
$	42 d8-Toluene	98	6.284	6.284	(1.232)	2703520	50.0000	49.566
	43 Toluene	92	6.329	6.329	(1.241)	6614200	200.000	176.52
	44 Tetrachloroethene	166	6.640	6.640	(0.874)	3049582	200.000	207.47
	45 4-Methyl-2-Pentanone	58	6.719	6.702	(1.317)	6283051	1000.00	955.57
	46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.313)	4137962	200.000	198.38
	47 1,1,2-Trichloroethane	97	6.833	6.821	(1.339)	2380036	200.000	203.13
	48 Chlorodibromomethane	129	6.963	6.957	(0.917)	2649737	200.000	208.93
	49 1,3-Dichloropropane	76	7.048	7.042	(0.928)	4195526	200.000	200.51
	50 1,2-Dibromoethane	107	7.144	7.138	(1.400)	2302924	200.000	200.70
	51 2-Hexanone	43	7.427	7.415	(0.978)	10840128	1000.00	1004.9
*	52 d5-Chlorobenzene	117	7.596	7.591	(1.000)	2123406	50.0000	
	53 Chlorobenzene	112	7.613	7.608	(1.002)	6512026	200.000	180.18
	54 Ethyl Benzene	91	7.670	7.659	(1.010)	9817829	200.000	158.40
	55 1,1,1,2-Tetrachloroethane	131	7.687	7.675	(1.012)	2587823	200.000	201.04
	56 m,p-xylene	106	7.806	7.789	(1.028)	7940722	400.000	336.24
	57 o-Xylene	106	8.162	8.151	(1.074)	4700253	200.000	200.11
	58 Styrene	104	8.213	8.202	(1.081)	6837651	200.000	179.80
	59 Bromoform	173	8.202	8.196	(0.847)	1798527	200.000	208.04
	60 Isopropyl Benzene	105	8.450	8.439	(0.873)	9089588	200.000	164.13
$	62 4-Bromofluorobenzene	95	8.665	8.660	(1.141)	1153708	50.0000	49.797
	63 Bromobenzene	156	8.745	8.739	(0.904)	2967911	200.000	203.12
	64 N-Propyl Benzene	91	8.818	8.807	(0.911)	10158841	200.000	154.77

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.897	8.869	(0.919)	3085864	200.000	213.66
66	2-Chloro Toluene	91	8.931	8.920	(0.923)	7401915	200.000	178.00
67	1,3,5-Trimethyl Benzene	105	9.016	8.999	(0.932)	8181385	200.000	173.67
68	1,2,3-Trichloropropane	110	8.982	8.971	(0.928)	913167	200.000	208.87
69	Trans-1,4-Dichloro 2-Butene	53	9.039	9.027	(0.934)	1184000	200.000	220.75
70	4-Chloro Toluene	91	9.084	9.073	(0.939)	7842027	200.000	182.05
71	T-Butyl Benzene	119	9.282	9.271	(0.959)	7531552	200.000	181.76
72	1,2,4-Trimethylbenzene	105	9.350	9.339	(0.966)	7992260	200.000	172.53
73	S-Butyl Benzene	105	9.452	9.435	(0.977)	9484616	200.000	157.35
74	4-Isopropyl Toluene	119	9.599	9.582	(0.992)	8224080	200.000	166.29
75	1,3-Dichlorobenzene	146	9.610	9.593	(0.993)	4921047	200.000	181.65
* 76	d4-1,4-Dichlorobenzene	152	9.678	9.667	(1.000)	1103824	50.0000	
77	1,4-Dichlorobenzene	146	9.695	9.684	(1.002)	5224108	200.000	187.10
78	N-Butyl Benzene	91	9.983	9.967	(1.032)	8203136	200.000	172.34
$ 79	d4-1,2-Dichlorobenzene	152	10.063	10.051	(1.040)	1117341	50.0000	49.688
80	1,2-Dichlorobenzene	146	10.074	10.063	(1.041)	5020231	200.000	190.53
81	1,2-Dibromo 3-Chloropropane	75	10.826	10.809	(1.119)	598140	200.000	213.88
82	Hexachloro 1,3-Butadiene	225	11.505	11.488	(1.189)	2335036	200.000	199.70
83	1,2,4-Trichlorobenzene	180	11.494	11.477	(1.188)	4007563	200.000	210.92
84	Naphthalene	128	11.805	11.794	(1.220)	7751229	200.000	185.87
85	1,2,3-Trichlorobenzene	180	11.992	11.975	(1.239)	3807501	200.000	207.32

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: 2000611.d
Lab Smp Id: IC0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: VSTD200
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	507140	10.34
35 1,4-Difluorobenze	1692431	846216	3384862	1861384	9.98
52 d5-Chlorobenzene	1987215	993608	3974430	2123406	6.85
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1103824	2.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.65	-0.24
35 1,4-Difluorobenze	5.11	4.61	5.61	5.10	-0.11
52 d5-Chlorobenzene	7.59	7.09	8.09	7.60	0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.68	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt5.i/11JUN13.b/2000611.d

Date : 11-JUN-2013 08:57

Client ID: VSTD200

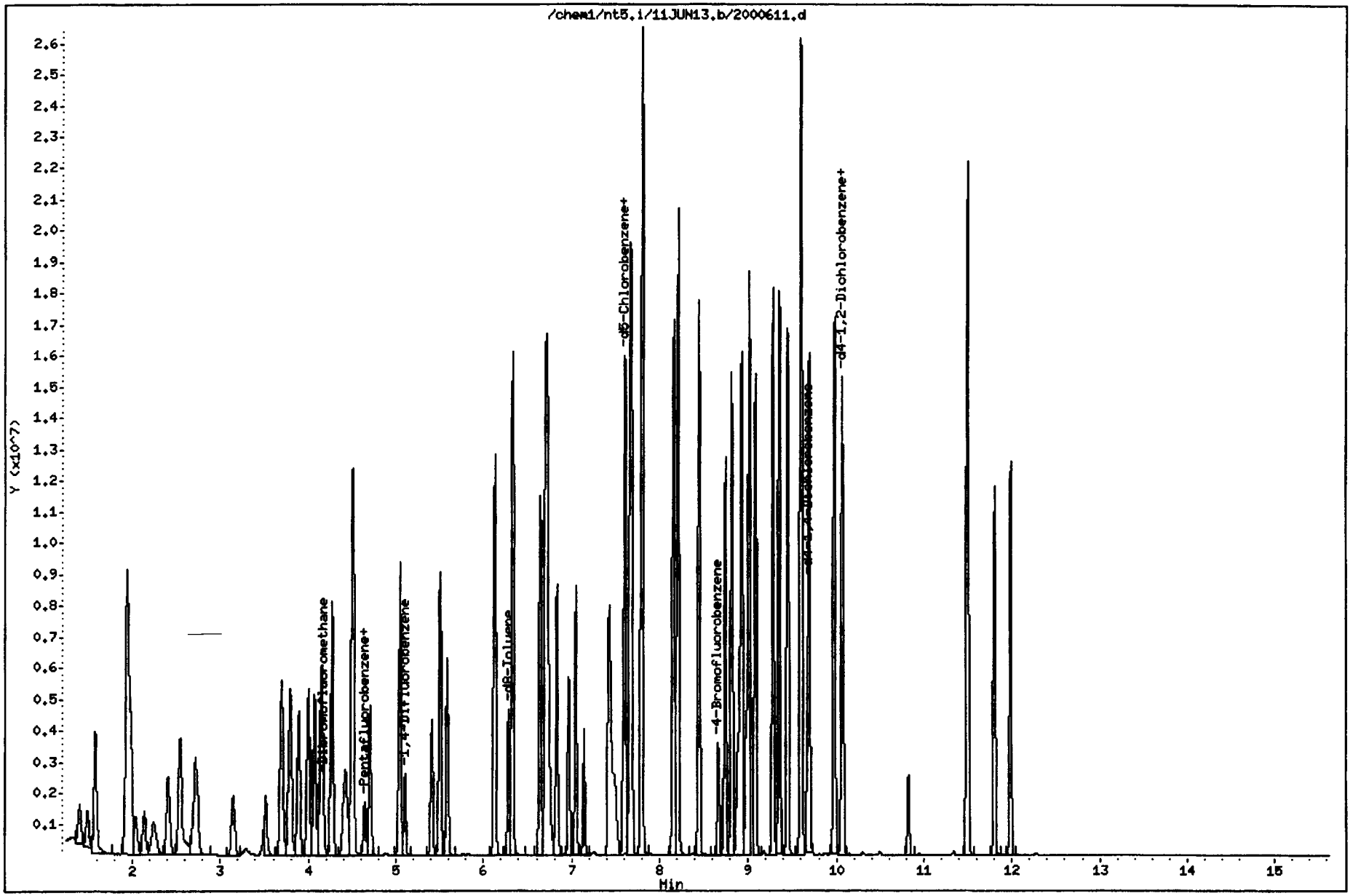
Sample Info: IC0611,5,5,0

Column phase: RTXVMS

Instrument: nt5.i

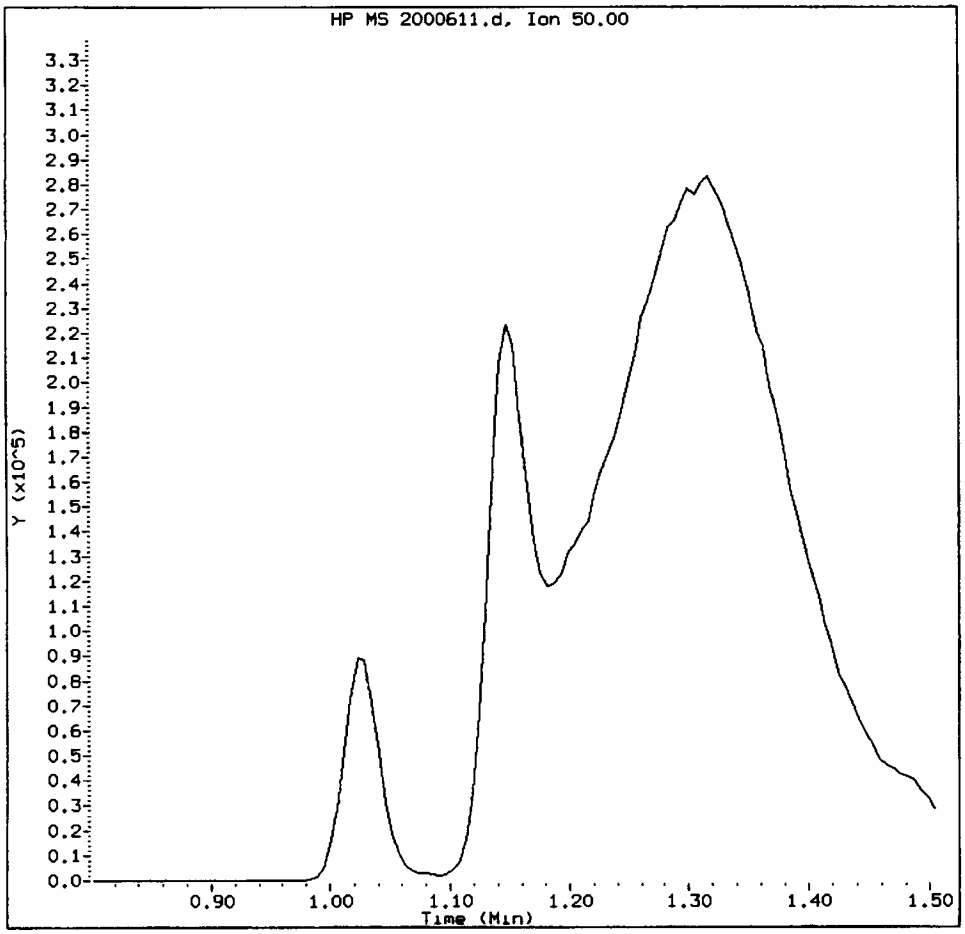
Operator: PB

Column diameter: 0.18



IC0611, /chem1/nt5.i/11JUN13.b/2000611.d

Chloromethane Amount: 195.61 Area: 3502553



MANUAL INTEGRATION for Chloromethane

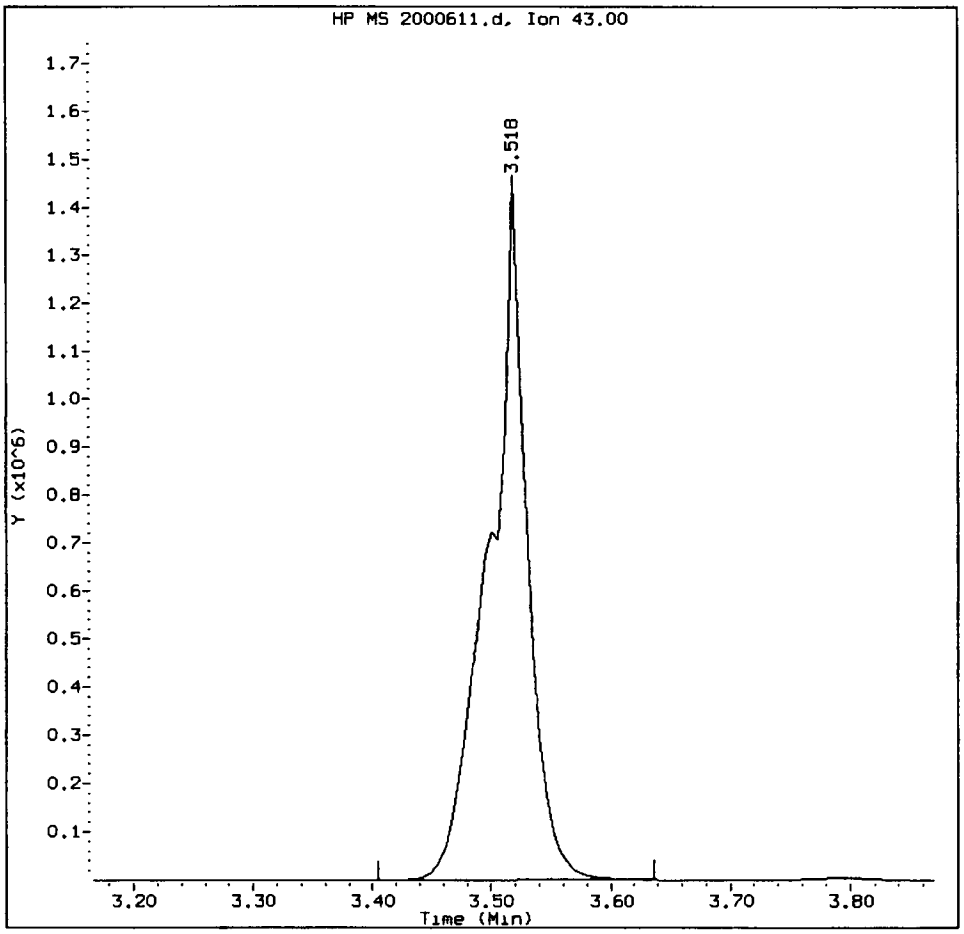
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14/13

IC0611, /chem1/nt5.i/11JUN13.b/2000611.d

Vinyl Acetate Amount: 90.64 Area: 3129354



MANUAL INTEGRATION for Vinyl Acetate

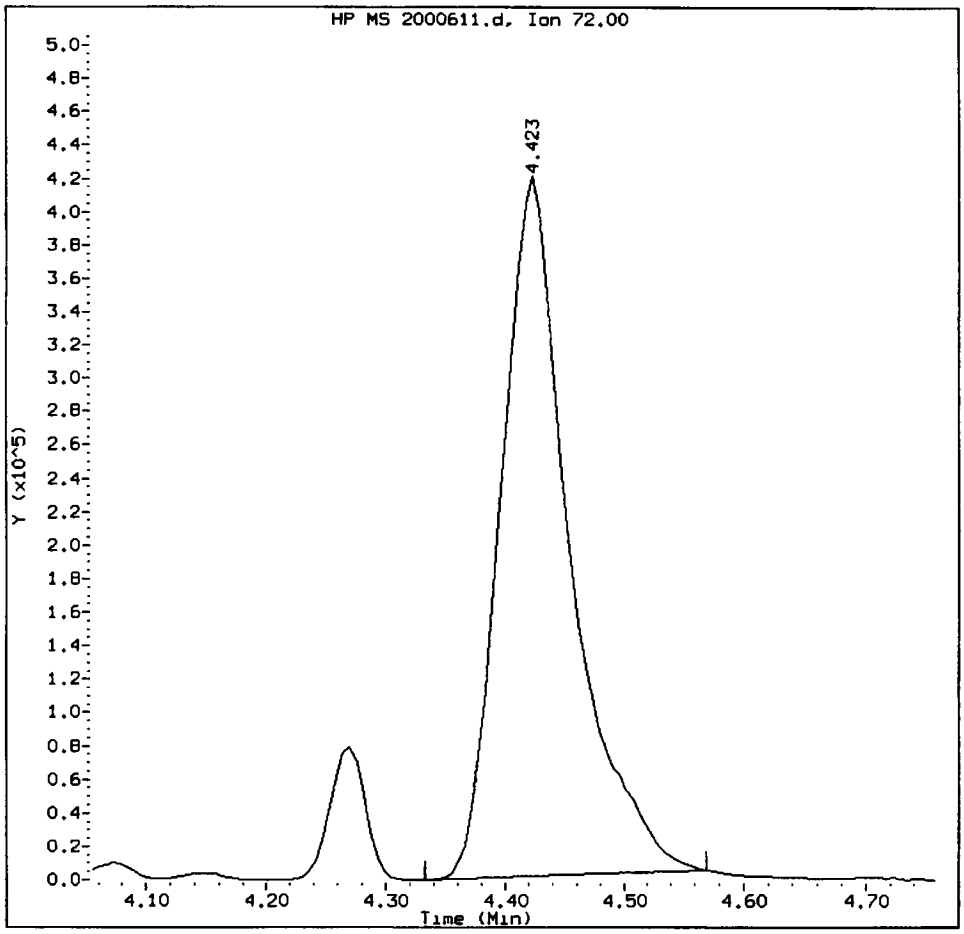
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/14/13

IC0611, /chem1/nt5.i/11JUN13.b/2000611.d

2-Butanone Amount: 986.98 Area: 1689512



MANUAL INTEGRATION for 2-Butanone

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

CO-ELUTION SUMMARY FOR FILE - 2000611.d

Lab ID: IC0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/11JUN13.b/icv0611.d
Lab Smp Id: ICV0611 Client Smp ID: ICV0611
Inj Date : 11-JUN-2013 14:04
Operator : PB Inst ID: nt5.i
Smp Info : ICV0611,5,5,0
Misc Info : 13-
Comment :
Method : /chem1/nt5.i/11JUN13.b/VO121012S.m
Meth Date : 12-Jun-2013 11:33 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	1.040	1.029	(0.223)	493549	64.0420	64.042(R)
2 Chloromethane	50	1.159	1.153	(0.249)	768277	50.0585	50.058(QM)
3 Vinyl Chloride	62	1.210	1.198	(0.260)	885763	59.6556	59.656
4 Bromomethane	94	1.413	1.408	(0.303)	380162	51.1126	51.113
5 Chloroethane	64	1.504	1.492	(0.323)	500064	56.5693	56.569
6 Trichlorofluoromethane	101	1.594	1.589	(0.342)	799955	51.8558	51.856
7 1,1-Dichloroethene	96	1.945	1.951	(0.417)	408726	39.2427	39.243(R)
8 Carbon Disulfide	76	1.951	1.951	(0.419)	1264912	37.3717	37.372(R)
9 112Trichloro122Trifluoroethane	101	1.990	1.990	(0.427)	369310	40.2812	40.281
10 Iodomethane	142	2.047	2.053	(0.439)	317182	34.3451	34.345(R)
11 Bromoethane	108	2.143	2.149	(0.460)	249264	38.9444	38.944(R)
12 Acrolein	56	2.245	2.267	(0.482)	74644	33.9703	33.970(R)
13 Methylene Chloride	84	2.420	2.426	(0.519)	556945	58.9201	58.920(Q)
14 Acetone	43	2.562	2.697	(0.550)	156410	50.3310	50.331(MH)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	2.556	2.562	(0.548)	589365	59.0421	59.042(Q)
	16 Methyl tert butyl ether	73	2.748	2.726	(0.590)	1632146	56.5299	56.530
	17 1,1-Dichloroethane	63	3.178	3.173	(0.682)	1126387	52.0033	52.003
	18 Acrylonitrile	53	3.286	3.308	(0.705)	267261	57.2150	57.215
	19 Vinyl Acetate	43	3.518	3.518	(0.755)	706196	23.8635	23.864(R)
	20 Cis-1,2-Dichloroethene	96	3.727	3.721	(0.800)	625354	49.4801	49.480
	22 2,2-Dichloropropane	77	3.823	3.817	(0.820)	858129	47.6334	47.633
	23 Bromochloromethane	128	3.914	3.908	(0.840)	548144	96.8527	96.853
	24 Chloroform	83	4.015	4.010	(0.862)	949845	46.8422	46.842
	25 Carbon Tetrachloride	117	4.100	4.095	(0.802)	745262	47.3508	47.351
$	27 Dibromofluoromethane	111	4.179	4.180	(0.897)	640382	51.3612	51.361
	26 1,1,1-Trichloroethane	97	4.174	4.168	(0.896)	869724	47.7170	47.717
	28 1,1-Dichloropropene	75	4.293	4.287	(0.840)	841048	45.5943	45.594
	29 2-Butanone	72	4.372	4.406	(0.938)	72917	49.6974	49.697(Q)
	30 Benzene	78	4.519	4.519	(0.884)	2431388	46.9085	46.909
*	31 Pentafluorobenzene	168	4.660	4.660	(1.000)	434681	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.655	4.649	(0.999)	598124	51.3436	51.344
	33 1,2-Dichloroethane	62	4.711	4.711	(0.921)	714578	43.7024	43.702
	34 Trichloroethene	95	5.056	5.056	(0.989)	593270	46.8835	46.884
*	35 1,4-Difluorobenzene	114	5.113	5.107	(1.000)	1638920	50.0000	
	37 Dibromomethane	93	5.413	5.413	(1.059)	302114	44.3456	44.346
	38 1,2-Dichloropropane	63	5.509	5.503	(1.077)	662162	45.0655	45.066
	39 Bromodichloromethane	83	5.582	5.582	(1.092)	783407	49.3147	49.315
	40 2-Chloroethyl Vinyl Ether	63	6.114	6.120	(1.196)	388185	50.2736	50.274
	41 Cis 1,3-dichloropropene	75	6.131	6.131	(1.199)	1001679	48.4908	48.491
$	42 d8-Toluene	98	6.289	6.284	(1.230)	2396980	49.9107	49.911
	43 Toluene	92	6.329	6.329	(1.238)	1530262	46.3839	46.384(Q)
	44 Tetrachloroethene	166	6.646	6.640	(0.876)	621701	46.7704	46.770
	45 4-Methyl-2-Pentanone	58	6.697	6.702	(1.310)	286206	49.4365	49.437(Q)
	46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.310)	834858	45.4573	45.457(Q)
	47 1,1,2-Trichloroethane	97	6.821	6.821	(1.334)	467185	45.2851	45.285
	48 Chlorodibromomethane	129	6.957	6.957	(0.917)	564563	49.2245	49.224
	49 1,3-Dichloropropane	76	7.042	7.042	(0.928)	859003	45.3963	45.396
	50 1,2-Dibromoethane	107	7.138	7.138	(1.396)	441322	43.6810	43.681
	51 2-Hexanone	43	7.410	7.415	(0.976)	489133	50.1422	50.142
*	52 d5-Chlorobenzene	117	7.591	7.591	(1.000)	1920237	50.0000	
	53 Chlorobenzene	112	7.608	7.608	(1.002)	1429487	43.7376	43.738
	54 Ethyl Benzene	91	7.658	7.659	(1.009)	2773715	49.4843	49.484
	55 1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.011)	518388	44.5339	44.534
	56 m,p-xylene	106	7.789	7.789	(1.026)	2034740	95.2745	95.275(Q)
	57 o-Xylene	106	8.156	8.151	(1.075)	955038	44.9610	44.961(Q)
	58 Styrene	104	8.202	8.202	(1.080)	1697449	49.3577	49.358
	59 Bromoform	173	8.196	8.196	(0.847)	378004	46.2403	46.240
	60 Isopropyl Benzene	105	8.439	8.439	(0.872)	2438615	46.5689	46.569
$	62 4-Bromofluorobenzene	95	8.665	8.660	(1.142)	1055437	50.3757	50.376
	63 Bromobenzene	156	8.739	8.739	(0.903)	613972	44.4371	44.437
	64 N-Propyl Benzene	91	8.812	8.807	(0.911)	2942883	47.4152	47.415

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	601538	44.0459	44.046
66	2-Chloro Toluene	91	8.920	8.920	(0.922)	1776879	45.1898	45.190
67	1,3,5-Trimethyl Benzene	105	8.999	8.999	(0.930)	2249984	50.5117	50.512
68	1,2,3-Trichloropropane	110	8.971	8.971	(0.927)	180764	43.7260	43.726
69	Trans-1,4-Dichloro 2-Butene	53	9.027	9.027	(0.933)	193985	38.2490	38.249(R)
70	4-Chloro Toluene	91	9.073	9.073	(0.938)	1812738	44.5052	44.505
71	T-Butyl Benzene	119	9.276	9.271	(0.959)	1806996	46.1182	46.118
72	1,2,4-Trimethylbenzene	105	9.344	9.339	(0.966)	2206118	50.3662	50.366
73	S-Butyl Benzene	105	9.440	9.435	(0.976)	2681888	47.0548	47.055
74	4-Isopropyl Toluene	119	9.587	9.582	(0.991)	2279316	48.7399	48.740
75	1,3-Dichlorobenzene	146	9.599	9.593	(0.992)	1115595	43.5499	43.550
* 76	d4-1,4-Dichlorobenzene	152	9.672	9.667	(1.000)	1043748	50.0000	(Q)
77	1,4-Dichlorobenzene	146	9.684	9.684	(1.001)	1215341	46.0312	46.031
78	N-Butyl Benzene	91	9.972	9.967	(1.031)	2338675	51.9606	51.961
$ 79	d4-1,2-Dichlorobenzene	152	10.057	10.051	(1.040)	1058515	49.7815	49.781(Q)
80	1,2-Dichlorobenzene	146	10.063	10.063	(1.040)	1050231	42.1522	42.152
81	1,2-Dibromo 3-Chloropropane	75	10.815	10.809	(1.118)	113488	42.9153	42.915
82	Hexachloro 1,3-Butadiene	225	11.499	11.488	(1.189)	505889	45.7554	45.755
83	1,2,4-Trichlorobenzene	180	11.488	11.477	(1.188)	855763	47.6326	47.633
84	Naphthalene	128	11.799	11.794	(1.220)	1852216	46.9717	46.972
85	1,2,3-Trichlorobenzene	180	11.986	11.975	(1.239)	785661	45.2427	45.243

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: icv0611.d
Lab Smp Id: ICV0611
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

Calibration Date: 11-JUN-2013
Calibration Time: 10:09
Client Smp ID: ICV0611
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	434681	-5.43
35 1,4-Difluorobenze	1692431	846216	3384862	1638920	-3.16
52 d5-Chlorobenzene	1987215	993608	3974430	1920237	-3.37
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1043748	-2.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.66	0.00
35 1,4-Difluorobenze	5.11	4.61	5.61	5.11	0.11
52 d5-Chlorobenzene	7.59	7.09	8.09	7.59	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 11JUN13
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: ICV0611 Client Smp ID: ICV0611
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCS
SpikeList File: icv.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/nt5.i/11JUN13.b/VO121012S.m
Misc Info: 13-

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.000	64.042	128.08*	80-120
2 Chloromethane	50.000	50.058	100.12	80-120
3 Vinyl Chloride	50.000	59.656	119.31	80-120
4 Bromomethane	50.000	51.113	102.23	80-120
5 Chloroethane	50.000	56.569	113.14	80-120
6 Trichlorofluoromet	50.000	51.856	103.71	80-120
12 Acrolein	50.000	33.970	67.94*	80-120
9 112Trichloro122Tri	50.000	40.281	80.56	80-120
14 Acetone	50.000	50.331	100.66	80-120
7 1,1-Dichloroethene	50.000	39.243	78.49*	80-120
11 Bromoethane	50.000	38.944	77.89*	80-120
10 Iodomethane	50.000	34.345	68.69*	80-120
13 Methylene Chloride	50.000	58.920	117.84	80-120
8 Carbon Disulfide	50.000	37.372	74.74*	80-120
18 Acrylonitrile	50.000	57.215	114.43	80-120
15 Trans-1,2-Dichloro	50.000	59.042	118.08	80-120
16 Methyl tert butyl	50.000	56.530	113.06	80-120
19 Vinyl Acetate	50.000	23.864	47.73*	80-120
17 1,1-Dichloroethane	50.000	52.003	104.01	80-120
29 2-Butanone	50.000	49.697	99.39	80-120
22 2,2-Dichloropropan	50.000	47.633	95.27	80-120
20 Cis-1,2-Dichloroet	50.000	49.480	98.96	80-120
24 Chloroform	50.000	46.842	93.68	80-120
23 Bromochloromethane	100.00	96.853	96.85	80-120
26 1,1,1-Trichloroeth	50.000	47.717	95.43	80-120
28 1,1-Dichloropropen	50.000	45.594	91.19	80-120
25 Carbon Tetrachlori	50.000	47.351	94.70	80-120
33 1,2-Dichloroethane	50.000	43.702	87.40	80-120
30 Benzene	50.000	46.909	93.82	80-120
34 Trichloroethene	50.000	46.884	93.77	80-120
38 1,2-Dichloropropan	50.000	45.066	90.13	80-120
39 Bromodichlorometha	50.000	49.315	98.63	80-120
37 Dibromomethane	50.000	44.346	88.69	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	50.274	100.55	80-120
45 4-Methyl-2-Pentano	50.000	49.437	98.87	80-120
41 Cis 1,3-dichloropr	50.000	48.491	96.98	80-120
43 Toluene	50.000	46.384	92.77	80-120
46 Trans 1,3-Dichloro	50.000	45.457	90.91	80-120
51 2-Hexanone	50.000	50.142	100.28	80-120
47 1,1,2-Trichloroeth	50.000	45.285	90.57	80-120
49 1,3-Dichloropropan	50.000	45.396	90.79	80-120
44 Tetrachloroethene	50.000	46.770	93.54	80-120
48 Chlorodibromometha	50.000	49.224	98.45	80-120
50 1,2-Dibromoethane	50.000	43.681	87.36	80-120
53 Chlorobenzene	50.000	43.738	87.48	80-120
55 1,1,1,2-Tetrachlor	50.000	44.534	89.07	80-120
54 Ethyl Benzene	50.000	49.484	98.97	80-120
56 m,p-xylene	100.00	95.275	95.27	80-120
57 o-Xylene	50.000	44.961	89.92	80-120
58 Styrene	50.000	49.358	98.72	80-120
60 Isopropyl Benzene	50.000	46.569	93.14	80-120
59 Bromoform	50.000	46.240	92.48	80-120
65 1,1,2,2-Tetrachlor	50.000	44.046	88.09	80-120
68 1,2,3-Trichloropro	50.000	43.726	87.45	80-120
69 Trans-1,4-Dichloro	50.000	38.249	76.50*	80-120
64 N-Propyl Benzene	50.000	47.415	94.83	80-120
63 Bromobenzene	50.000	44.437	88.87	80-120
67 1,3,5-Trimethyl Be	50.000	50.512	101.02	80-120
66 2-Chloro Toluene	50.000	45.190	90.38	80-120
70 4-Chloro Toluene	50.000	44.505	89.01	80-120
71 T-Butyl Benzene	50.000	46.118	92.24	80-120
72 1,2,4-Trimethylben	50.000	50.366	100.73	80-120
73 S-Butyl Benzene	50.000	47.055	94.11	80-120
74 4-Isopropyl Toluen	50.000	48.740	97.48	80-120
75 1,3-Dichlorobenzen	50.000	43.550	87.10	80-120
77 1,4-Dichlorobenzen	50.000	46.031	92.06	80-120
78 N-Butyl Benzene	50.000	51.961	103.92	80-120
80 1,2-Dichlorobenzen	50.000	42.152	84.30	80-120
81 1,2-Dibromo 3-Chlo	50.000	42.915	85.83	80-120
83 1,2,4-Trichloroben	50.000	47.633	95.27	80-120
82 Hexachloro 1,3-But	50.000	45.755	91.51	80-120
84 Naphthalene	50.000	46.972	93.94	80-120
85 1,2,3-Trichloroben	50.000	45.243	90.49	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	51.361	102.72	70-130

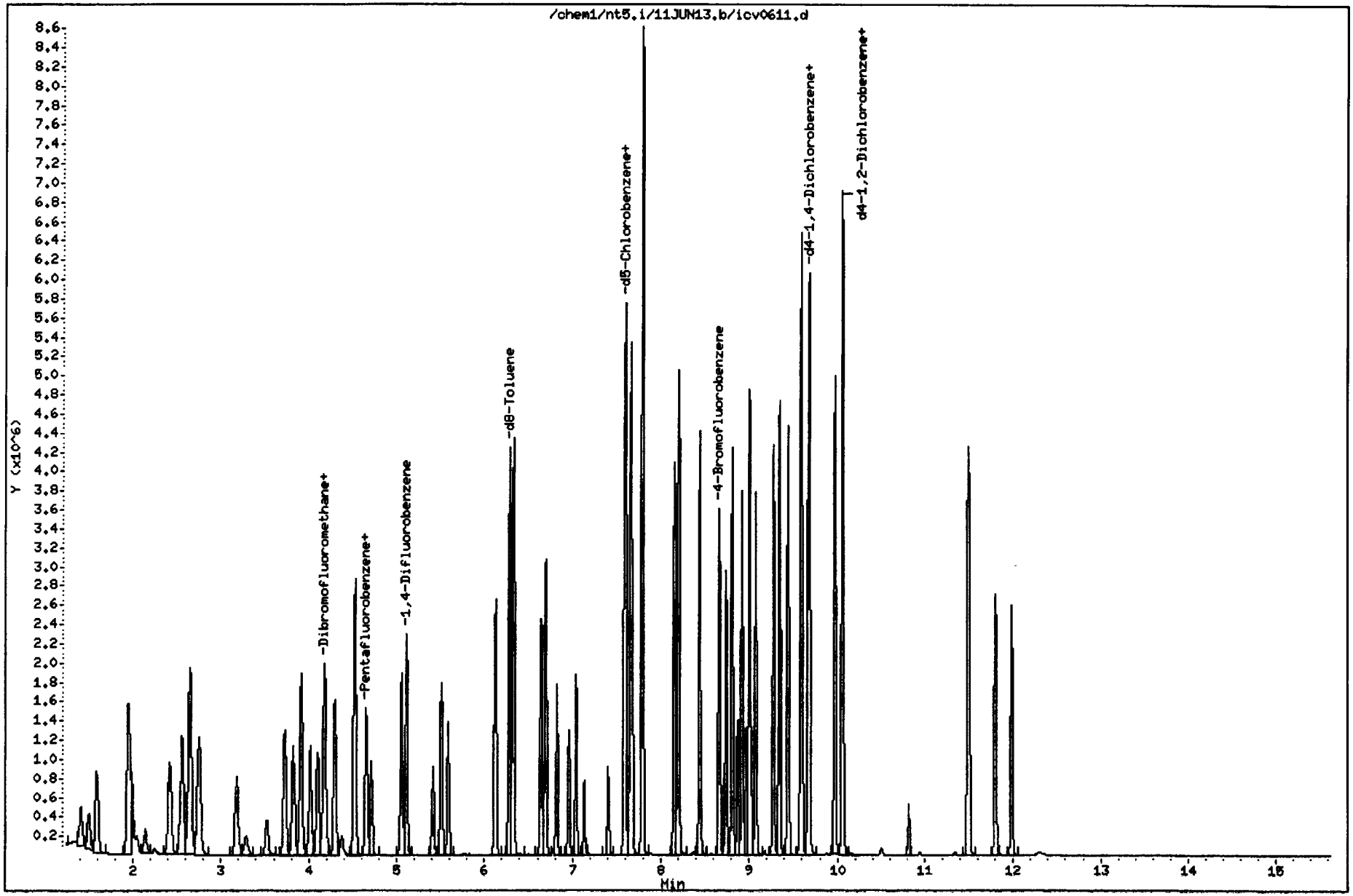
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	51.344	102.69	80-149
$ 42 d8-Toluene	50.000	49.911	99.82	77-120
$ 62 4-Bromofluorobenze	50.000	50.376	100.75	80-120
$ 79 d4-1,2-Dichloroben	50.000	49.781	99.56	80-120

Data File: /chem1/nt5.i/11JUN13.b/icv0611.d
Date : 11-JUN-2013 14:04
Client ID: ICV0611
Sample Info: ICV0611,5,5,0

Instrument: nt5.i

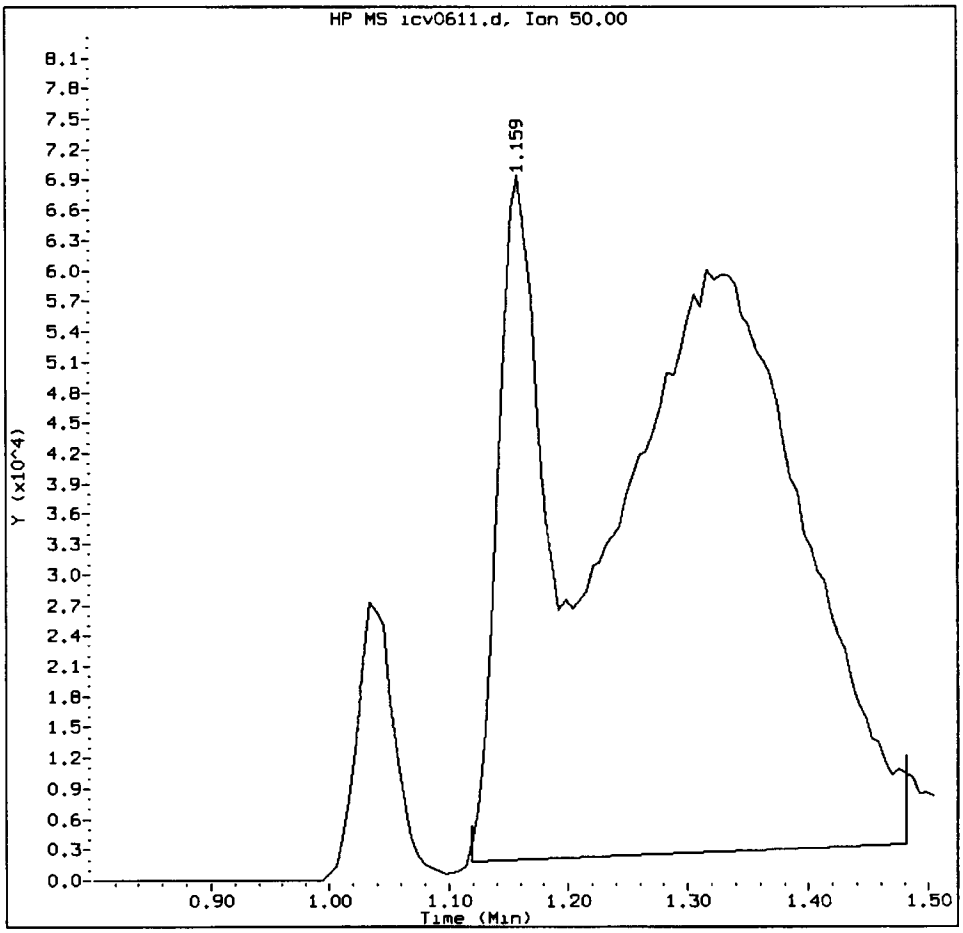
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



ICV0611, /chem1/nt5.i/11JUN13.b/icv0611.d

Chloromethane Amount: 50.06 Area: 768277



MANUAL INTEGRATION for Chloromethane

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/11/13

UT81:0611126

CO-ELUTION SUMMARY FOR FILE - icv0611.d

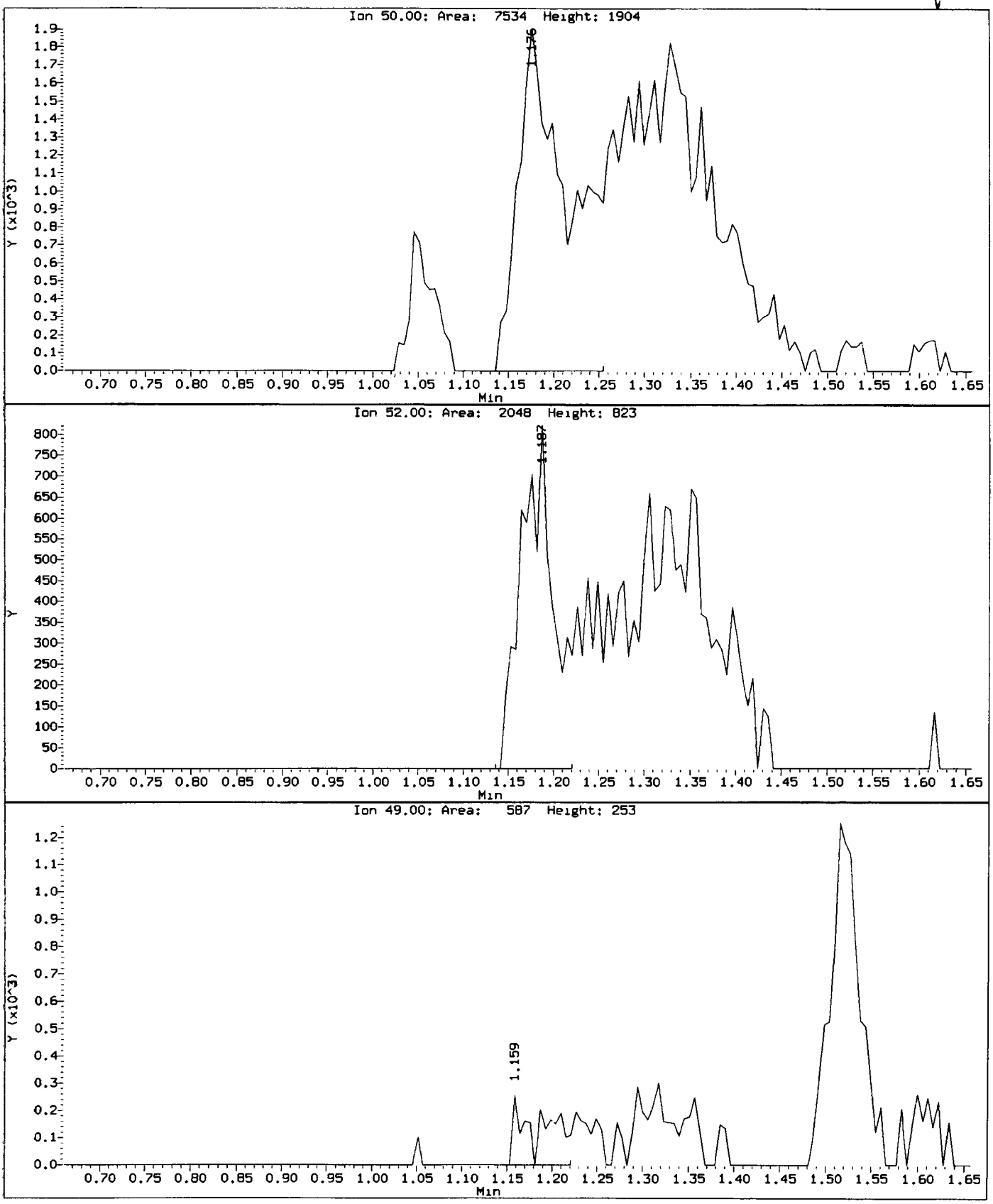
Lab ID: ICV0611, Method: VO121012S.m, Instrument: nt5.i, Date: 11-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

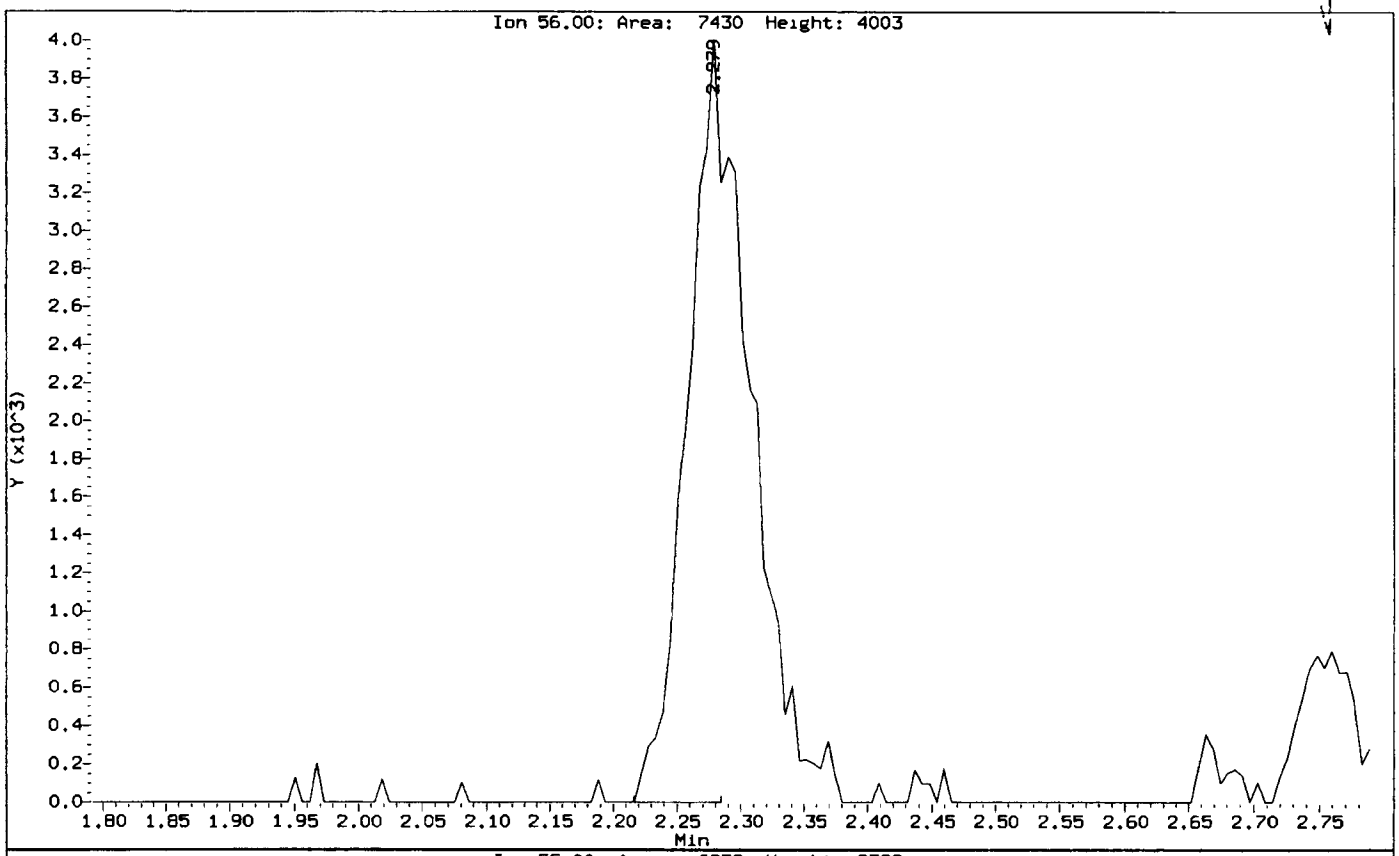
Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

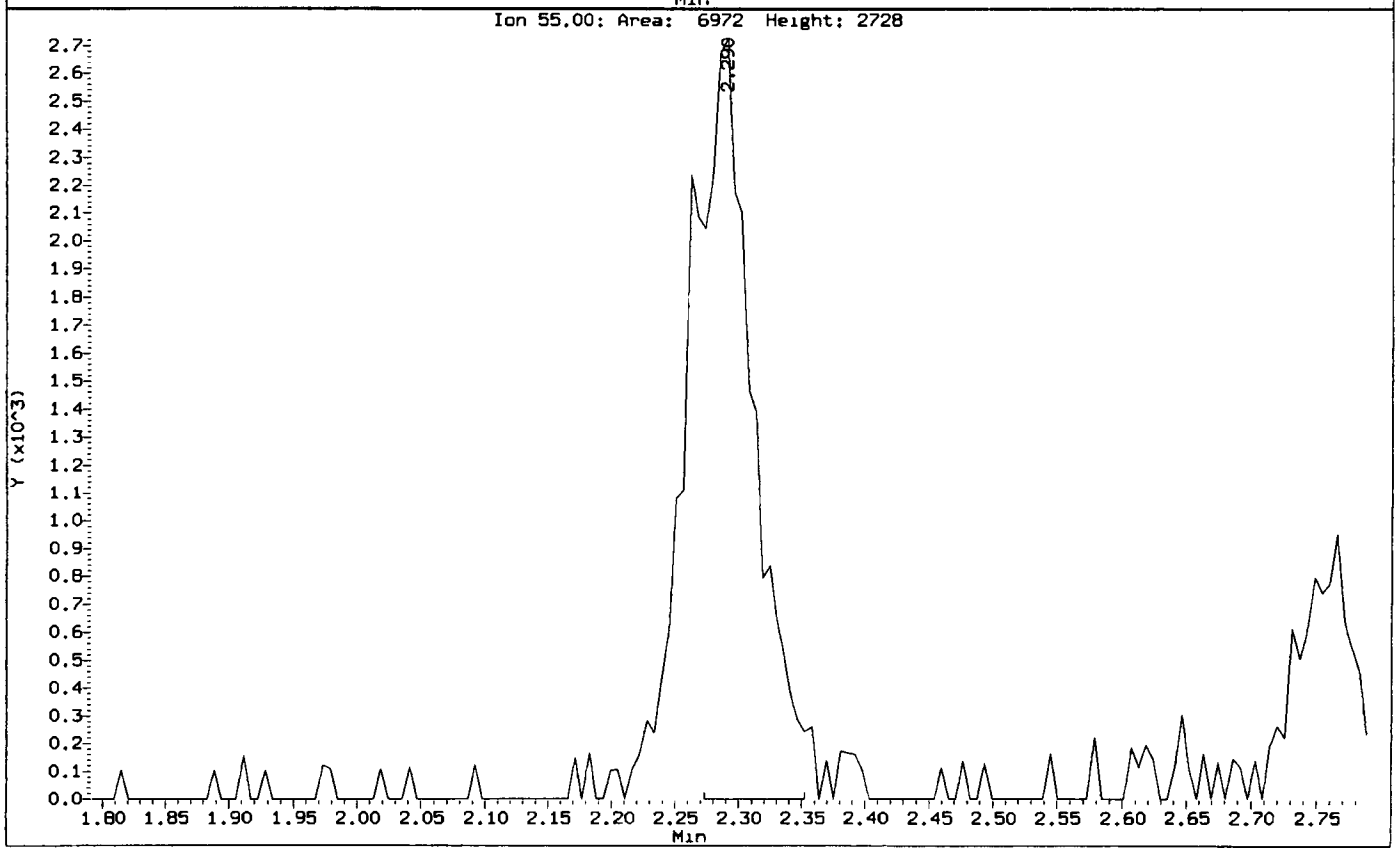
Compound: Chloromethane
CAS Number:



Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

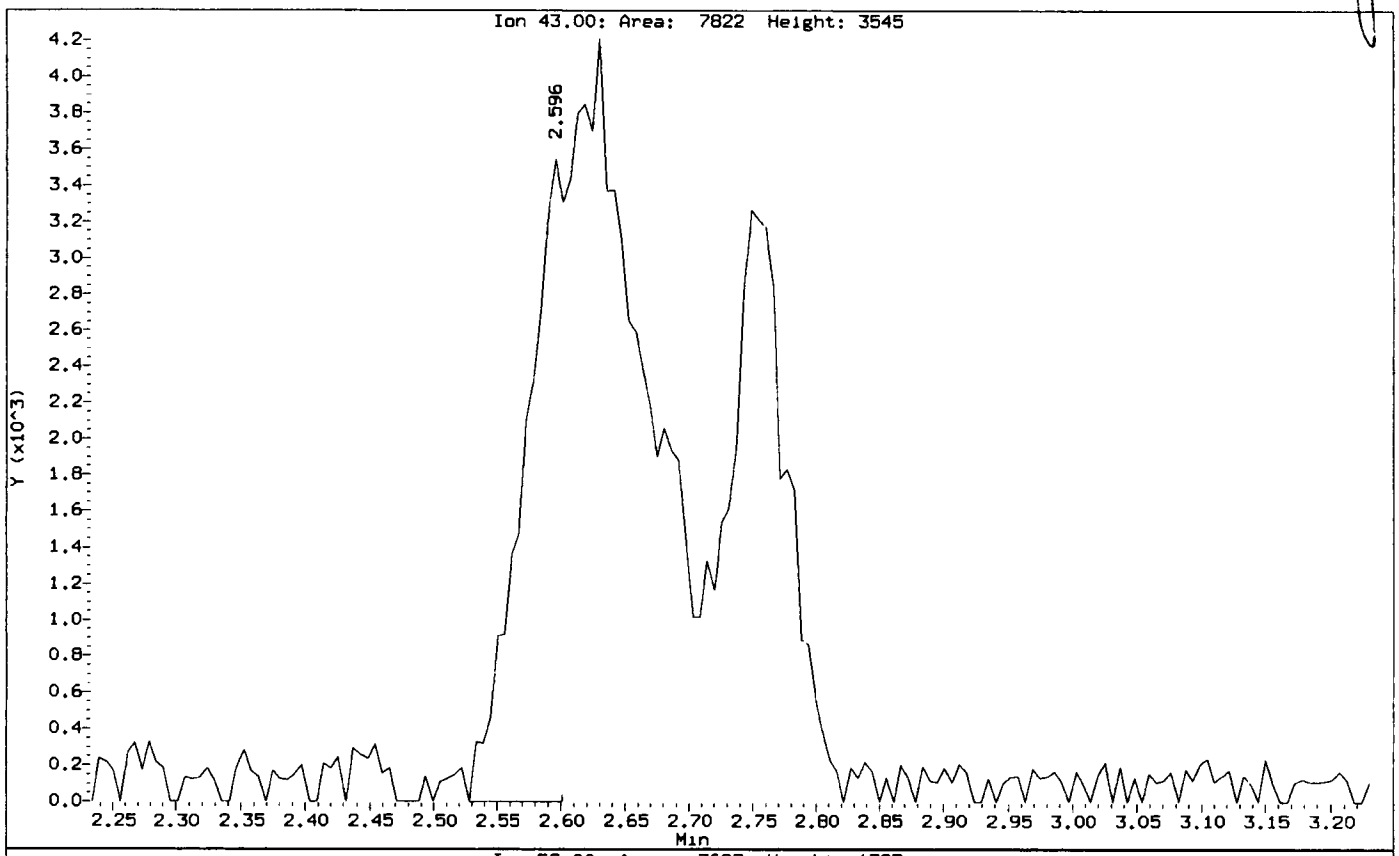
Compound: Acrolein
CAS Number:

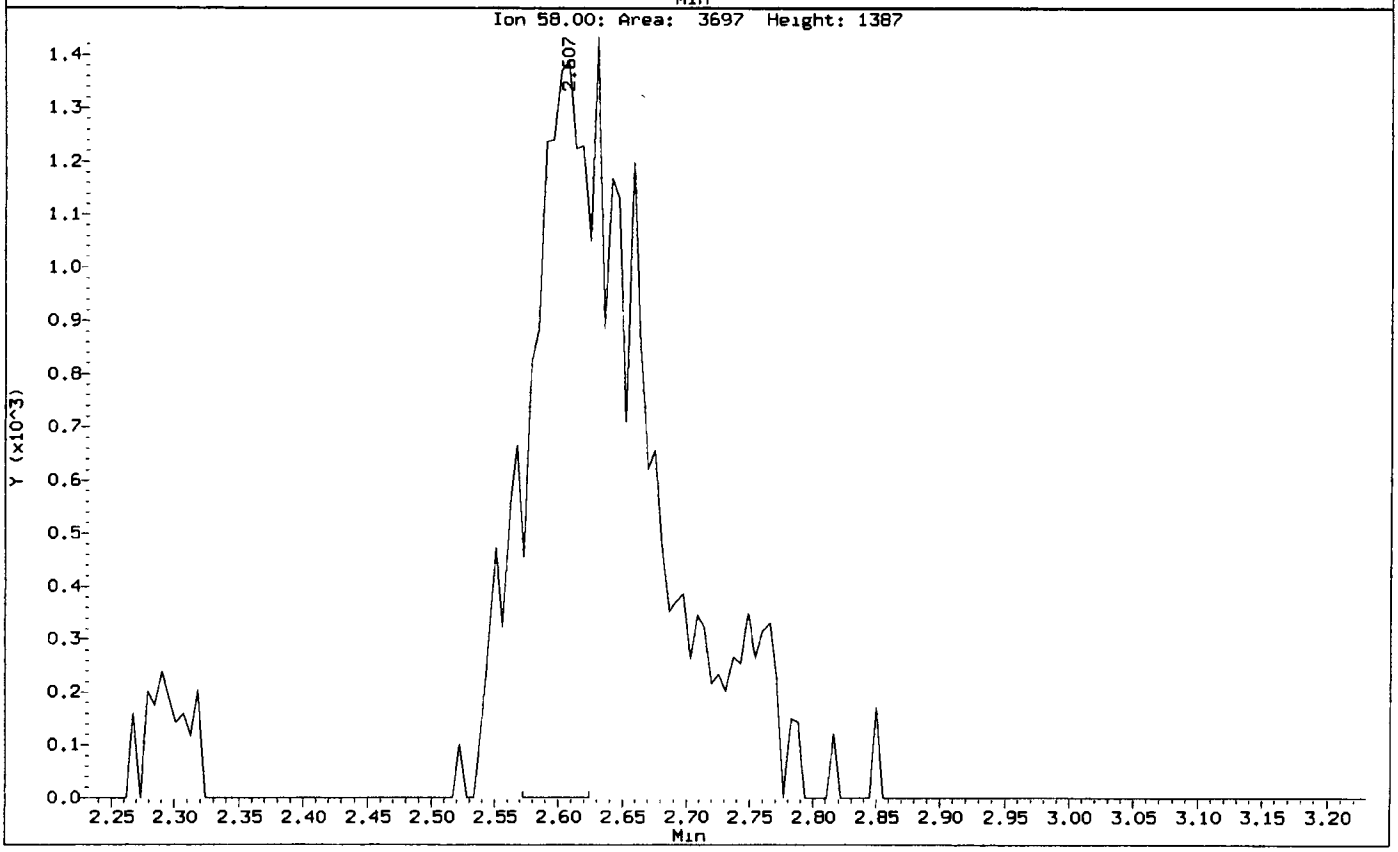




Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

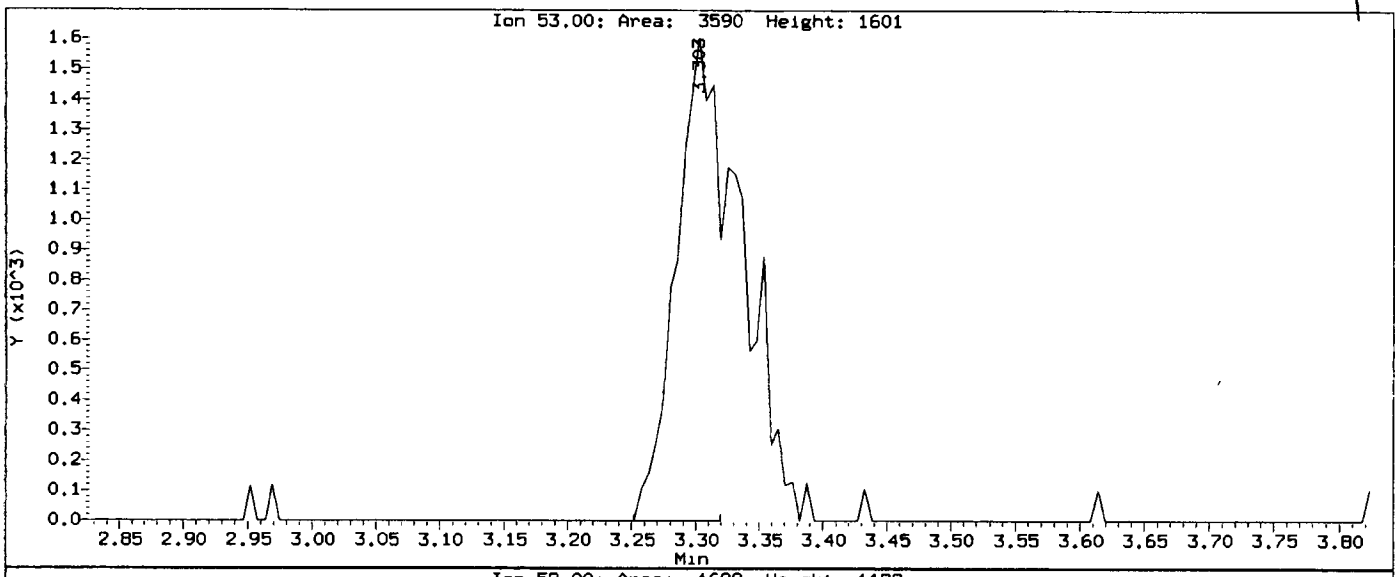
Compound: Acetone
CAS Number:

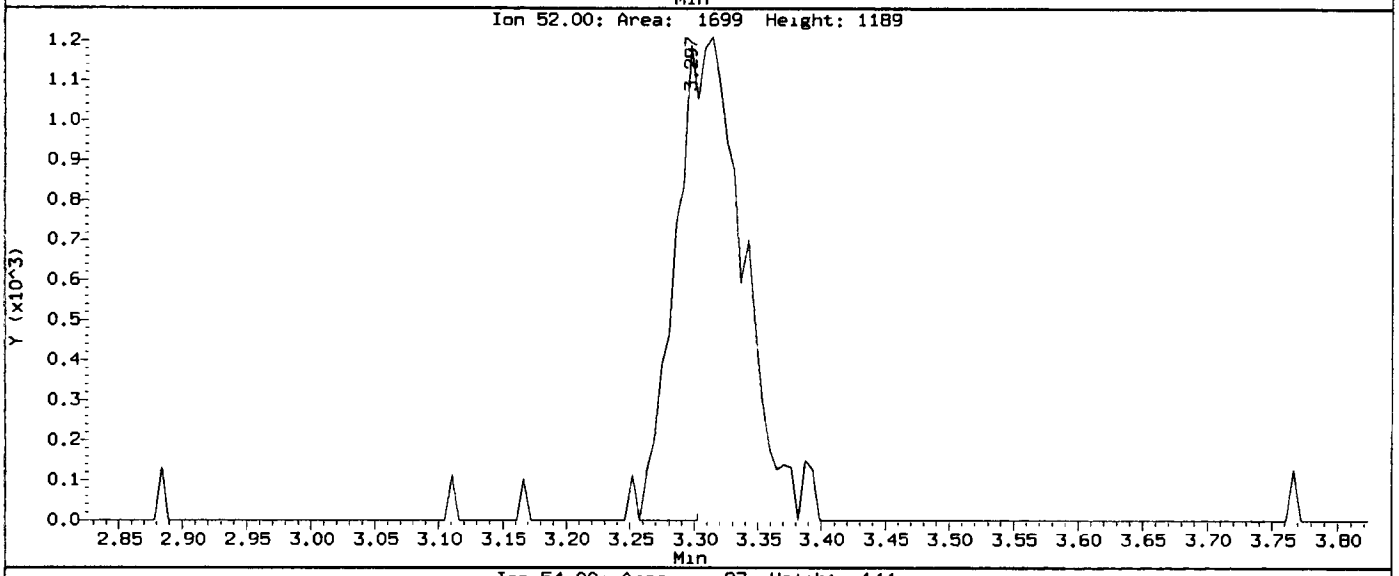


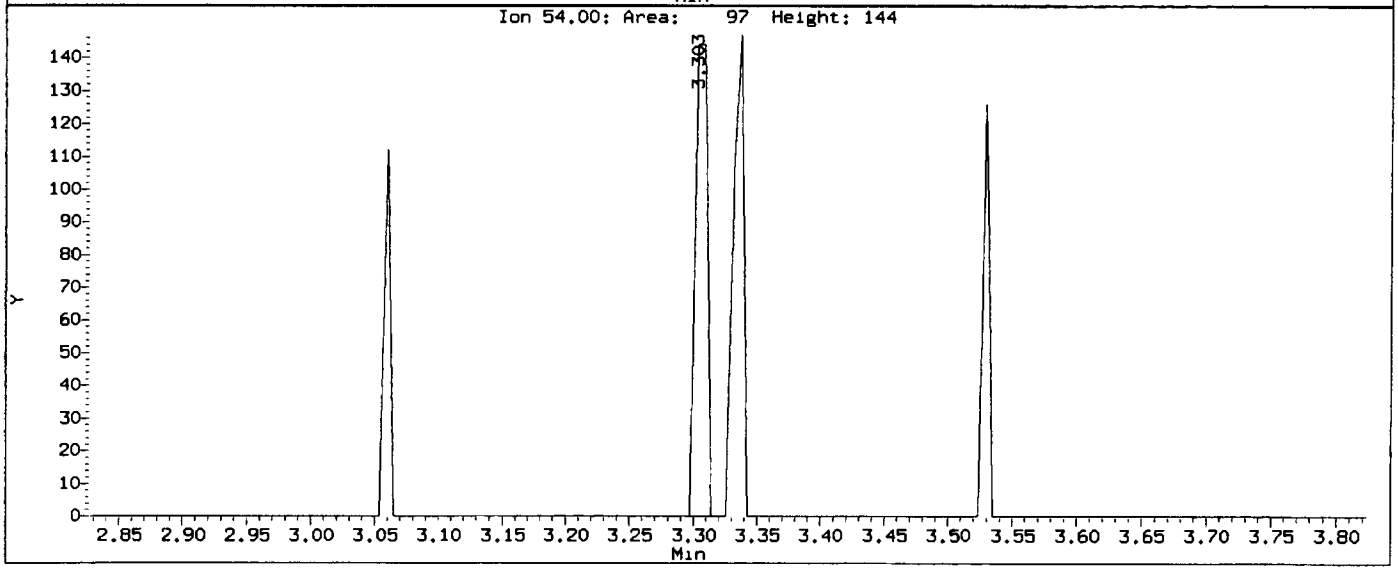


Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

Compound: Acrylonitrile
CAS Number:

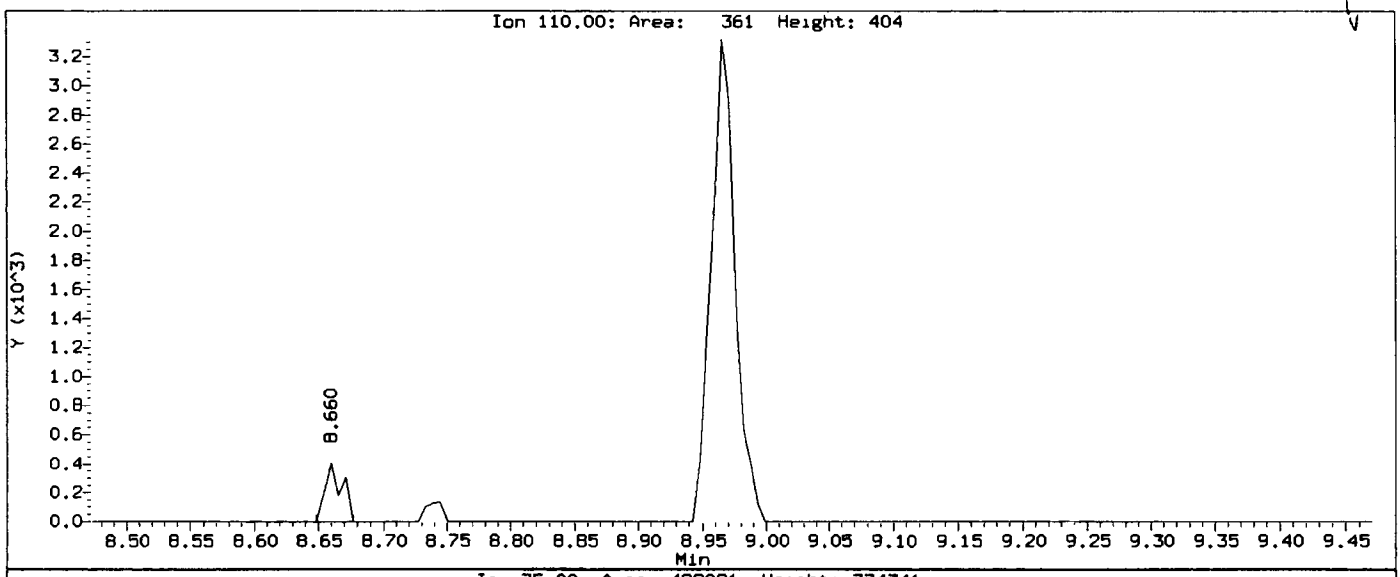


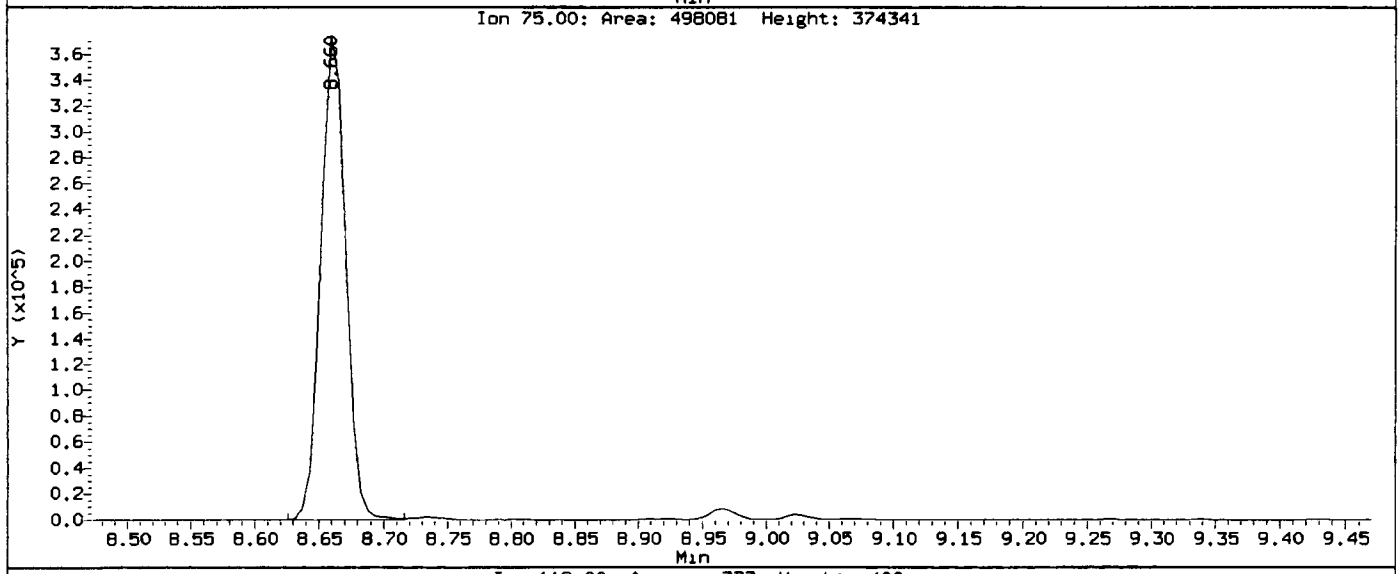


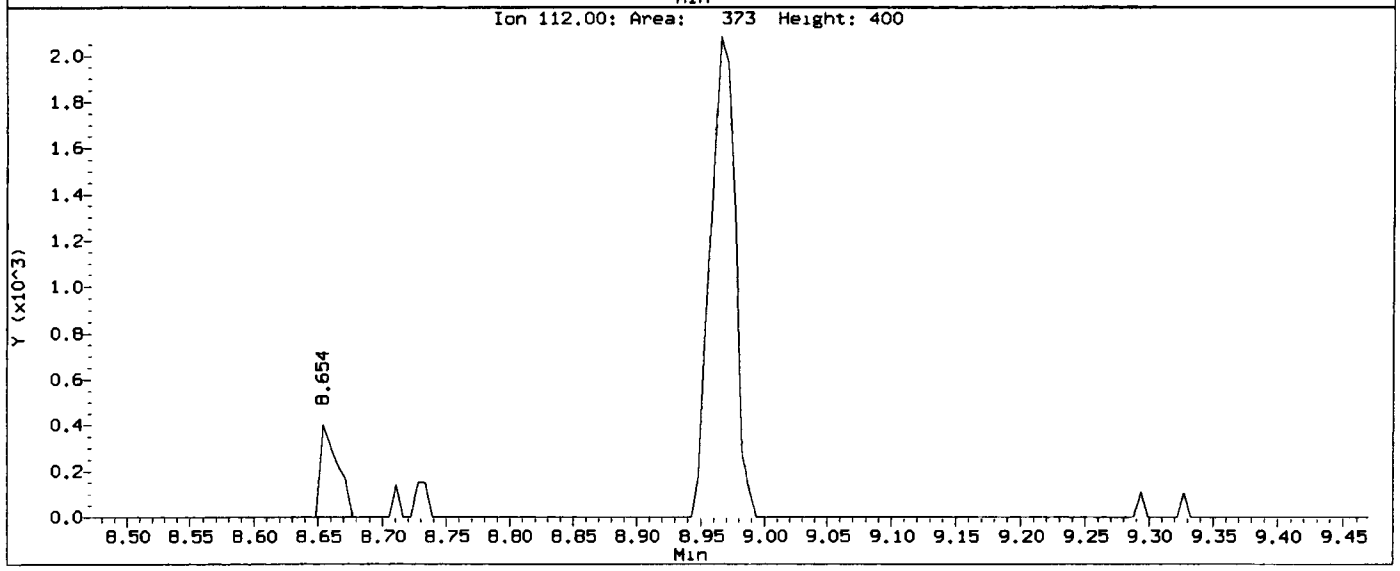


Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

Compound: 1,2,3-Trichloropropane
CAS Number:

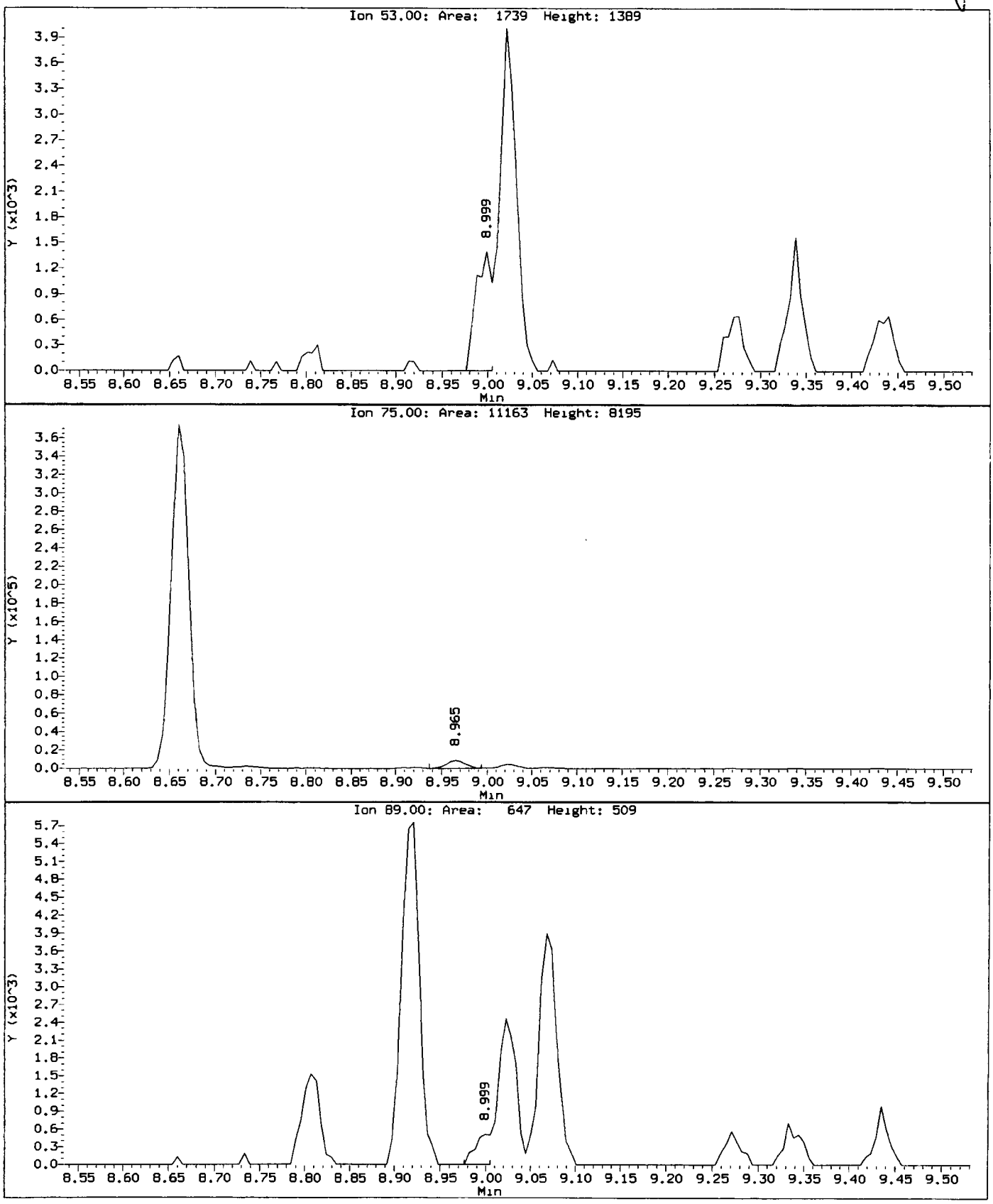






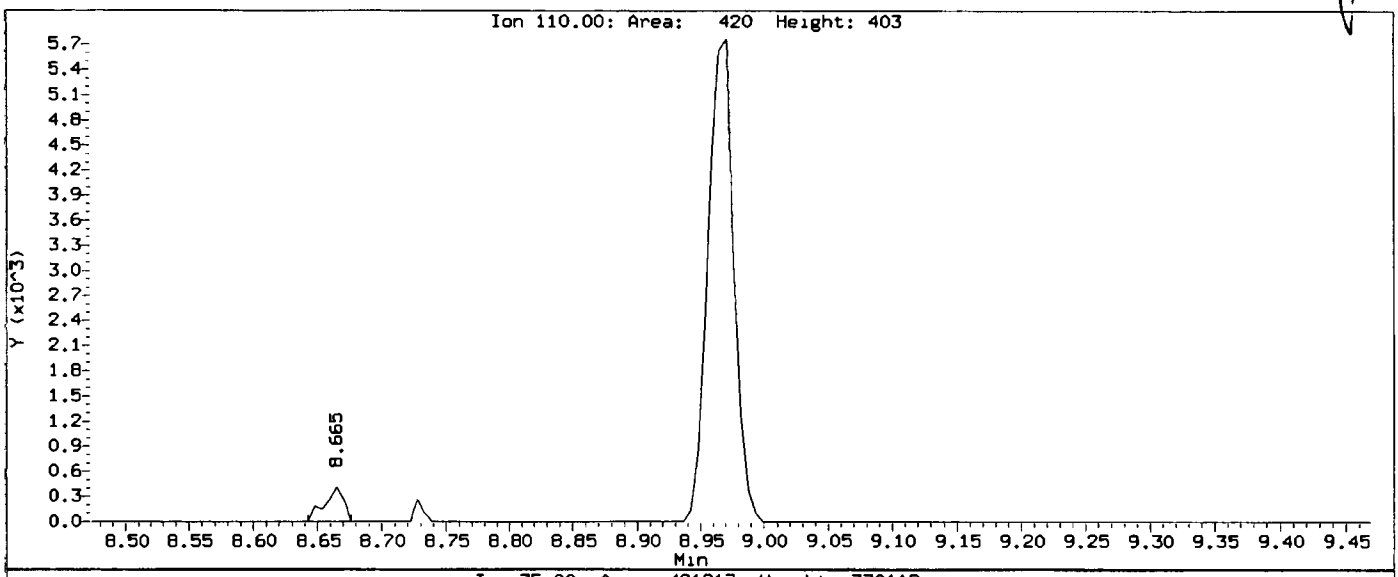
Data File: /chem1/nt5.i/11JUN13.b/0010611.d
Injection Date: 11-JUN-2013 08:33
Instrument: nt5.i
Client Sample ID: VSTD1

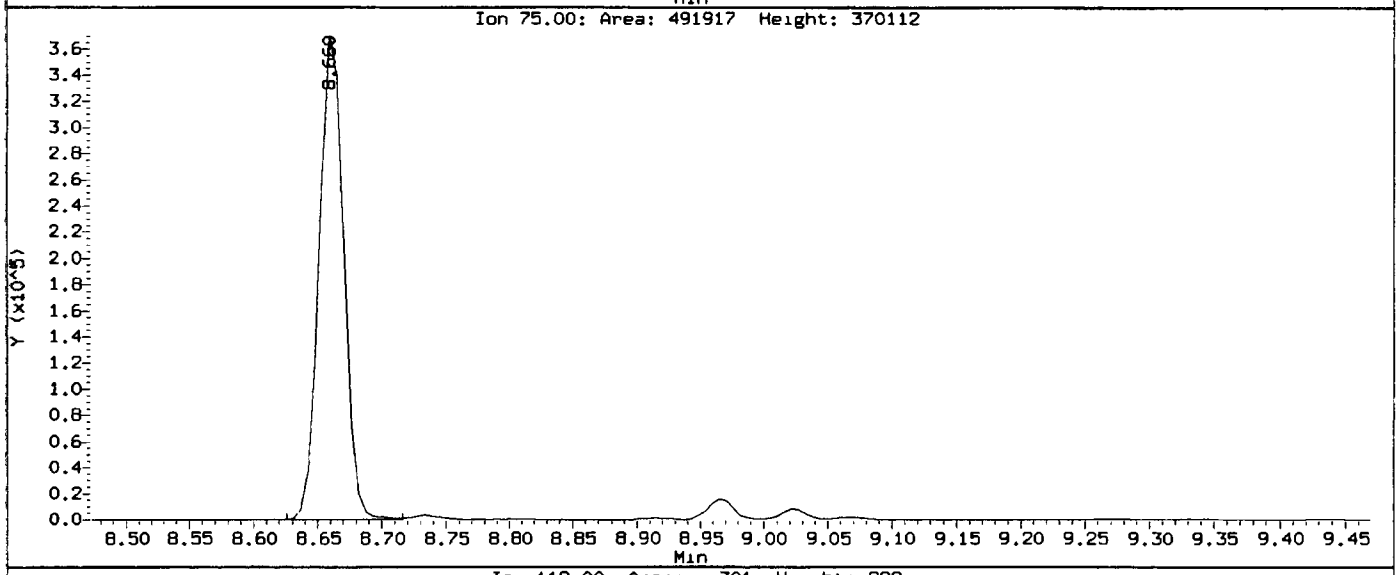
Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

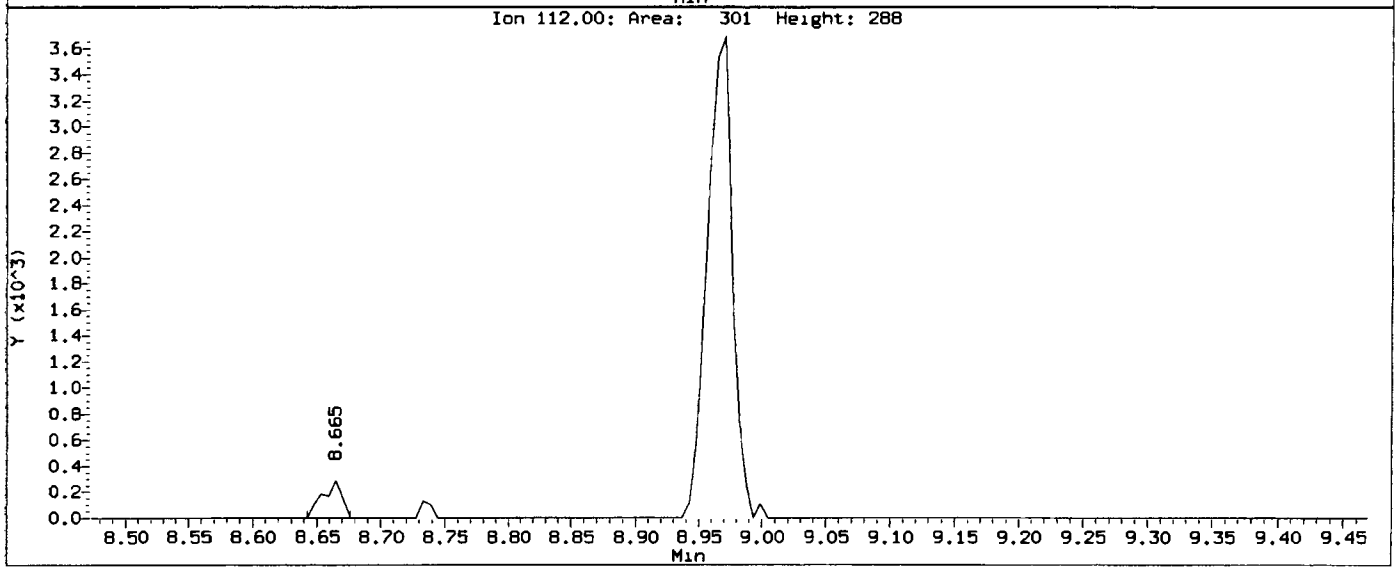


Data File: /chem1/nt5.i/11JUN13.b/0020611.d
Injection Date: 11-JUN-2013 11:20
Instrument: nt5.i
Client Sample ID: VSTD2

Compound: 1,2,3-Trichloropropane
CAS Number:

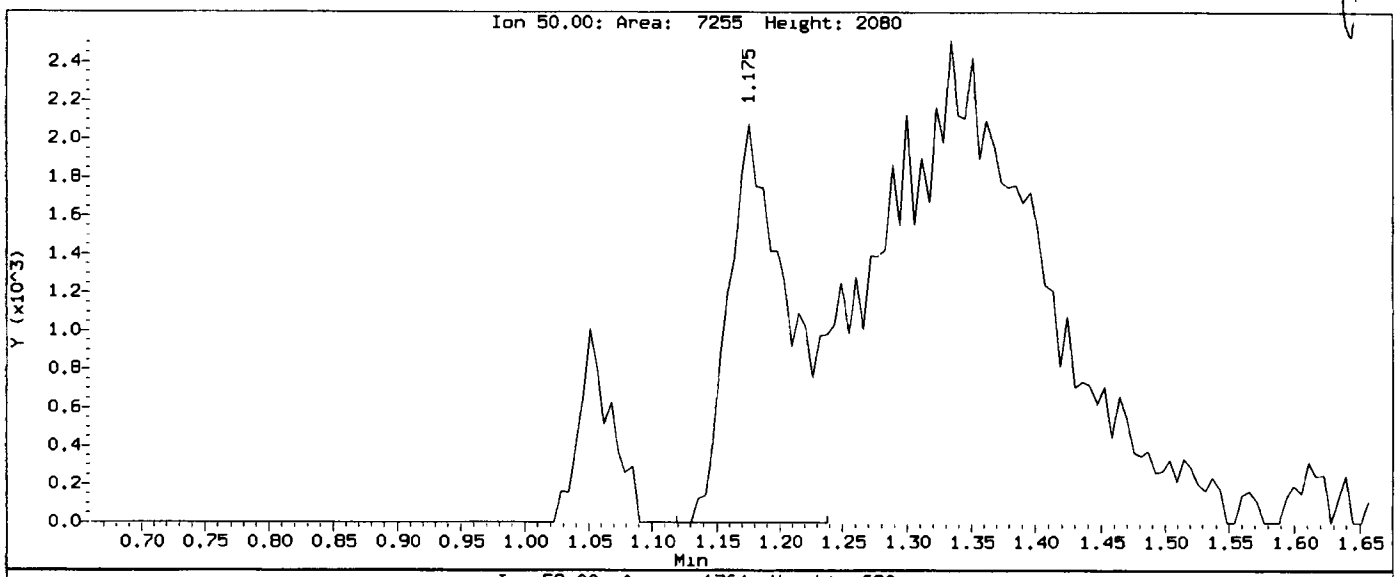


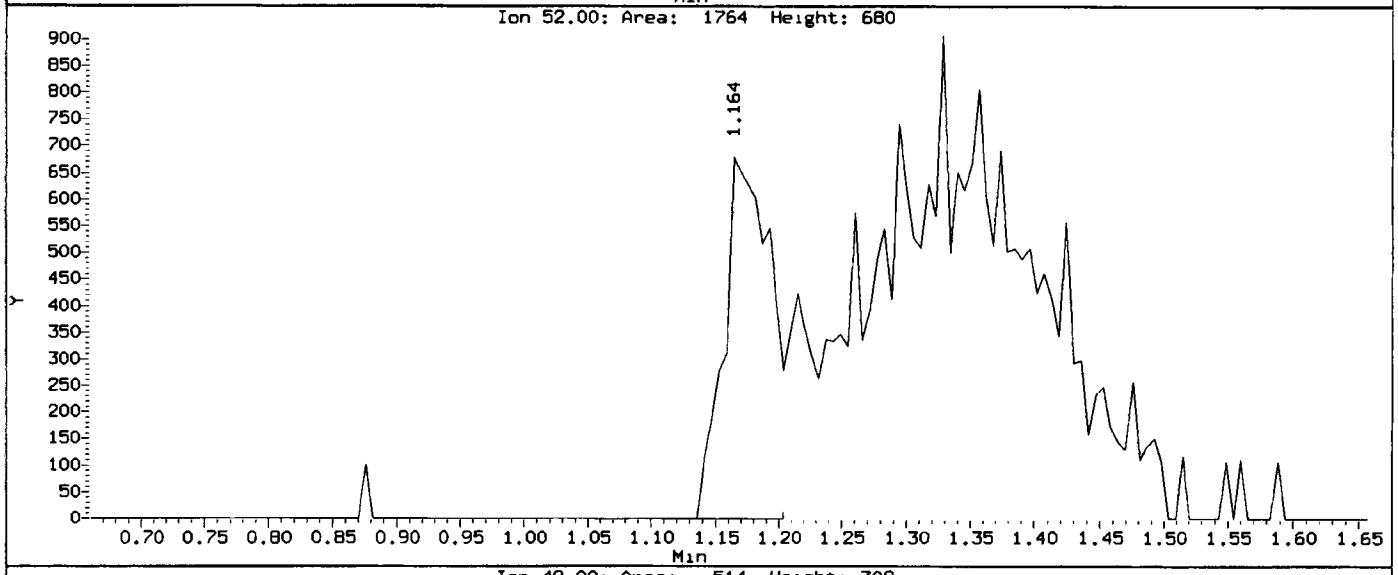


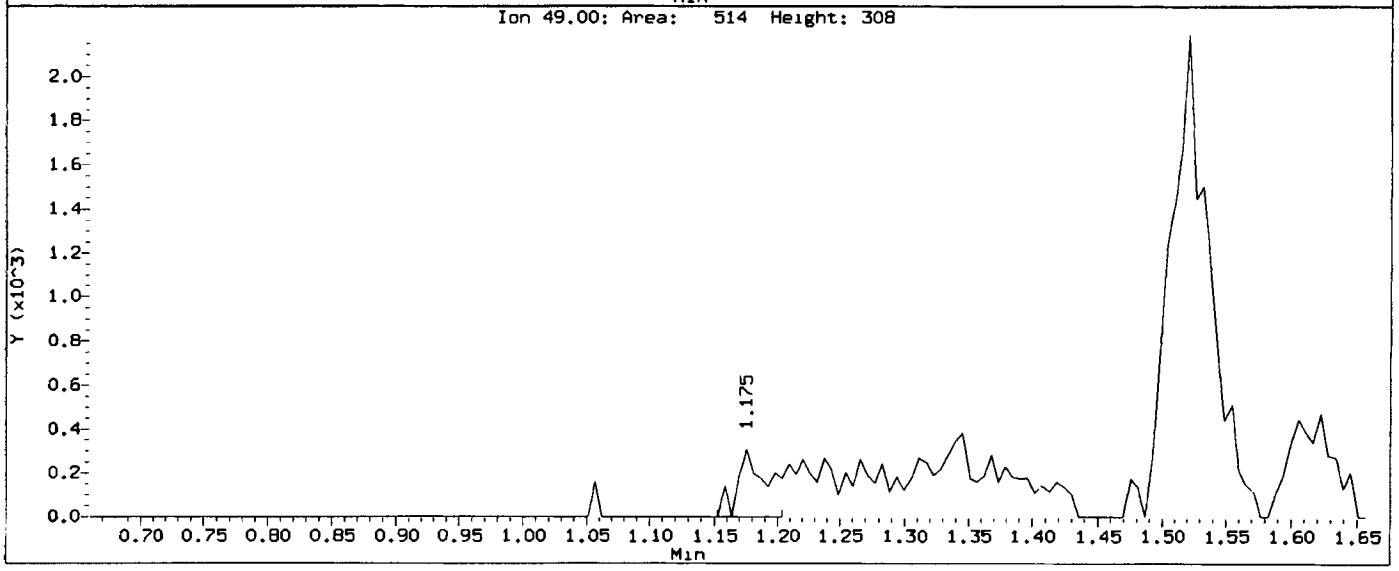


Data File: /chem1/nt5.i/11JUN13.b/0020611.d
Injection Date: 11-JUN-2013 11:20
Instrument: nt5.i
Client Sample ID: VSTD2

Compound: Chloromethane
CAS Number:

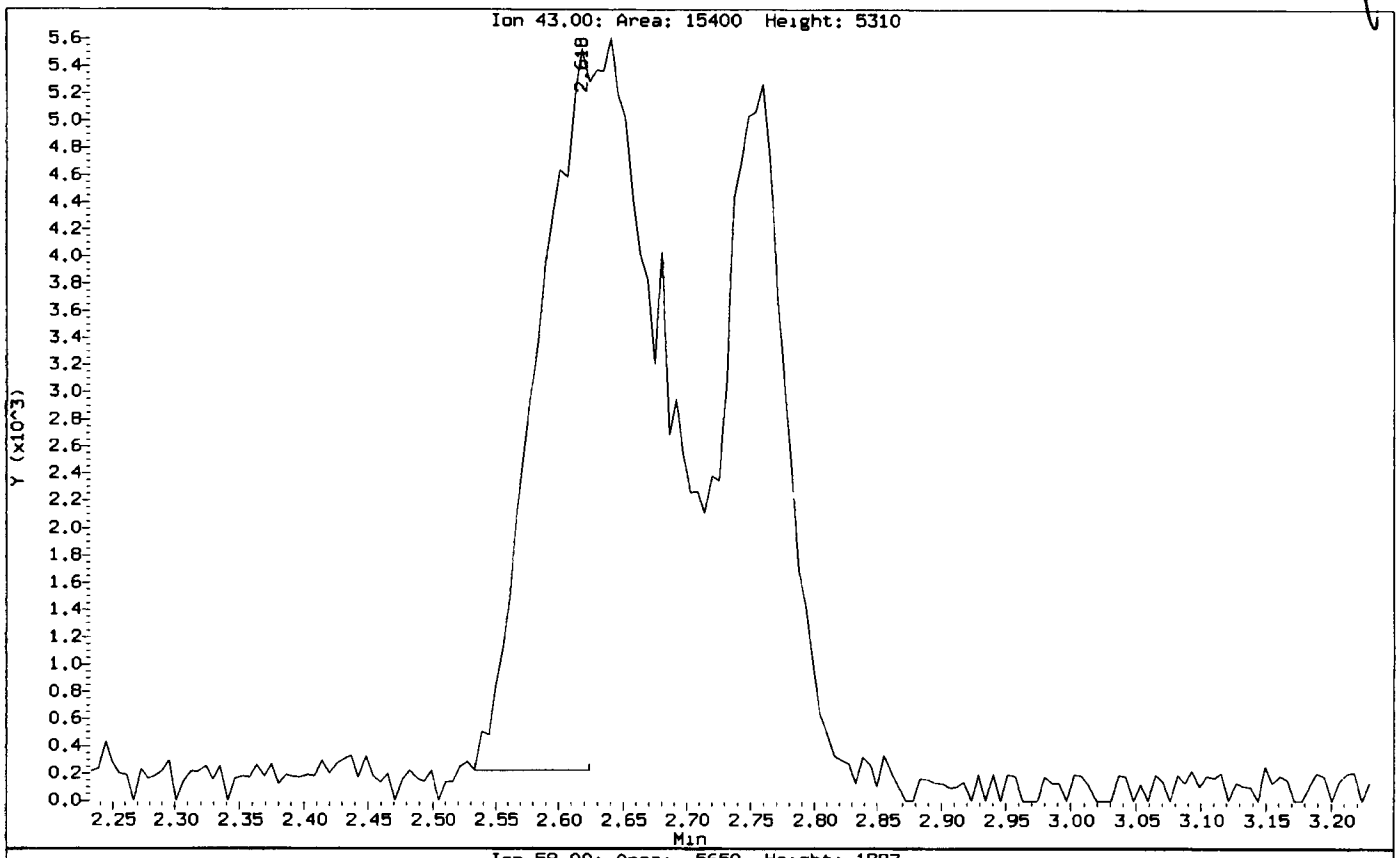


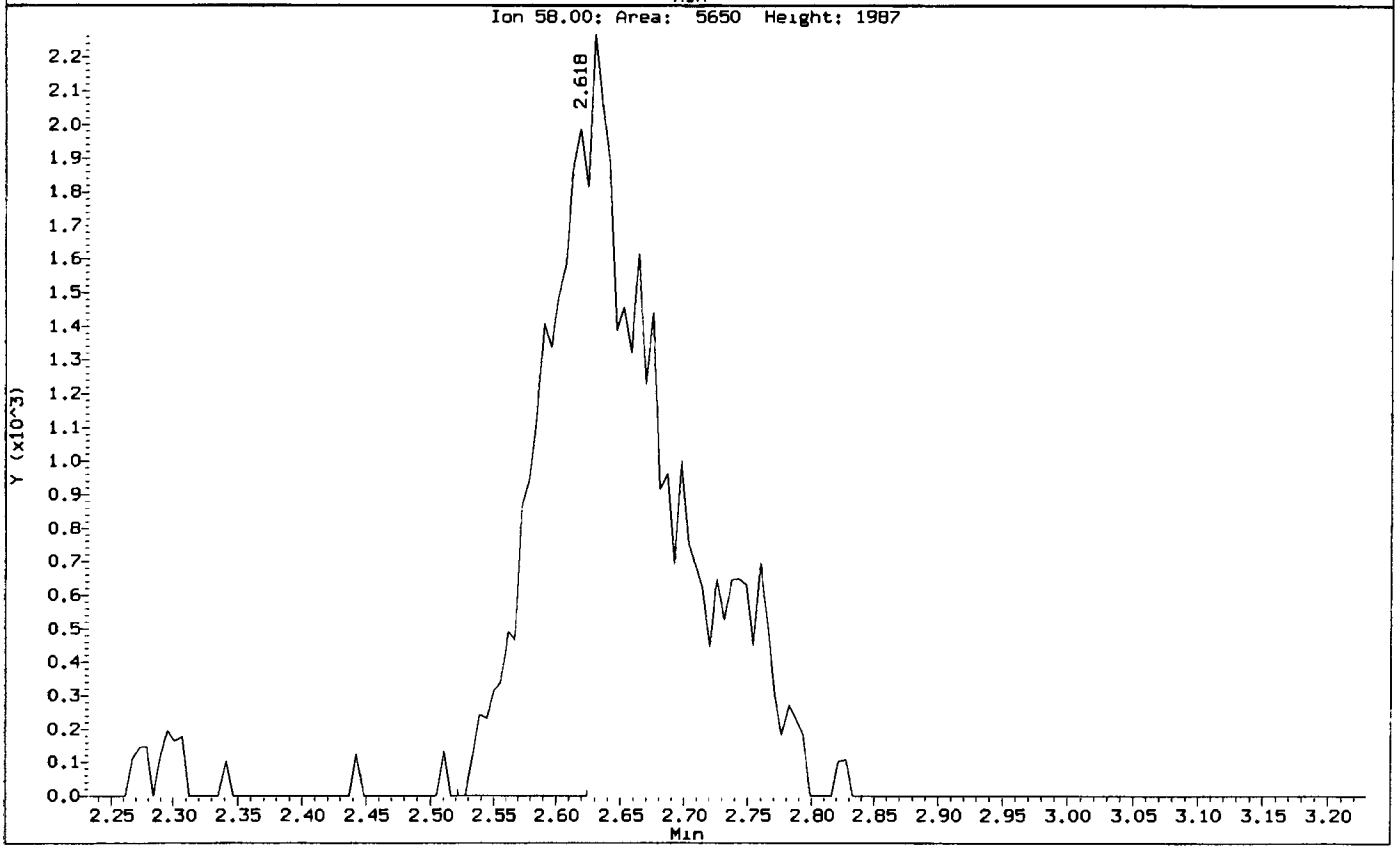




Data File: /chem1/nt5.1/11JUN13.b/0020611.d
Injection Date: 11-JUN-2013 11:20
Instrument: nt5.1
Client Sample ID: VSTD2

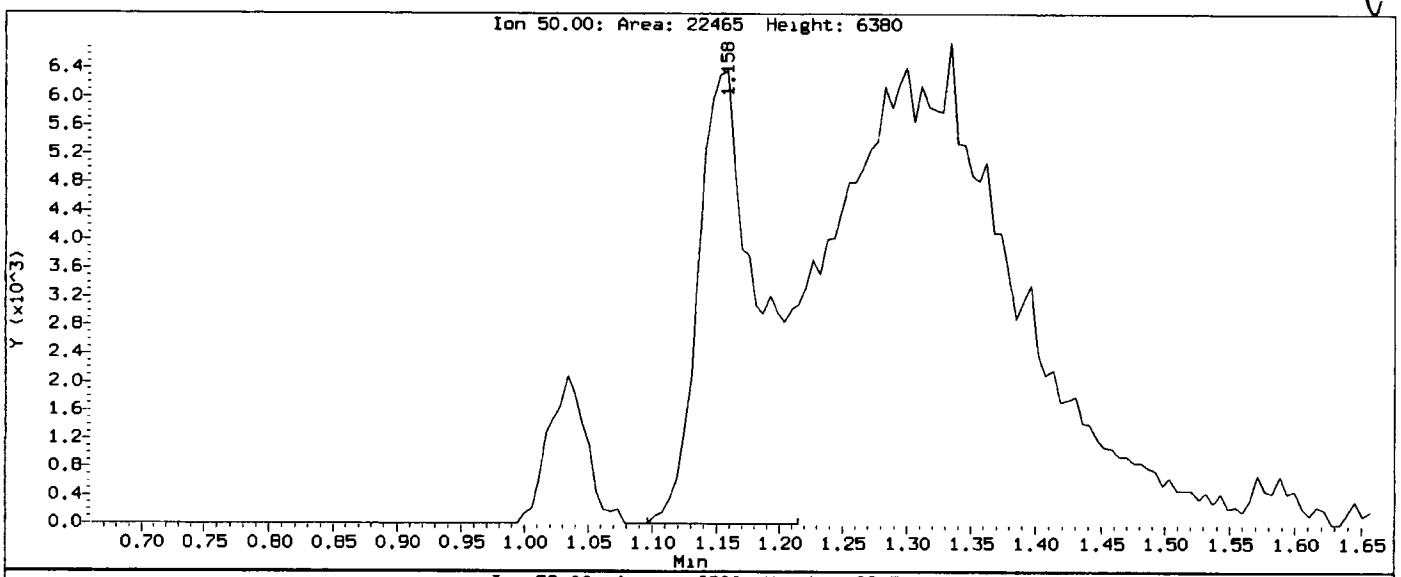
Compound: Acetone
CAS Number:

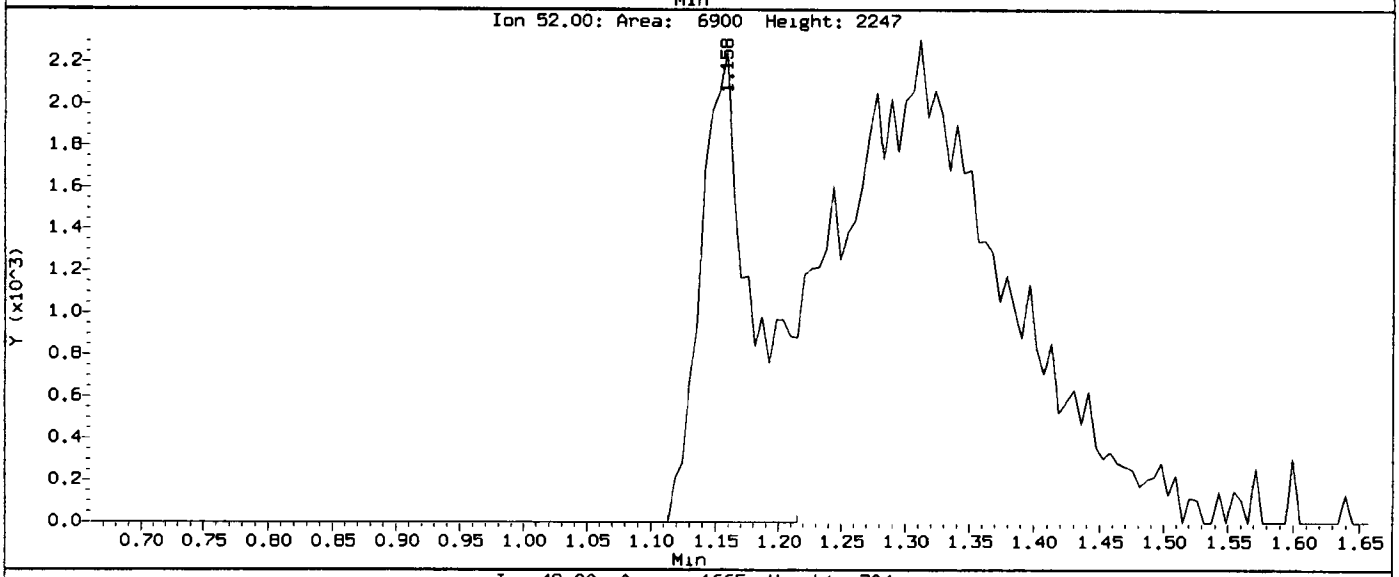


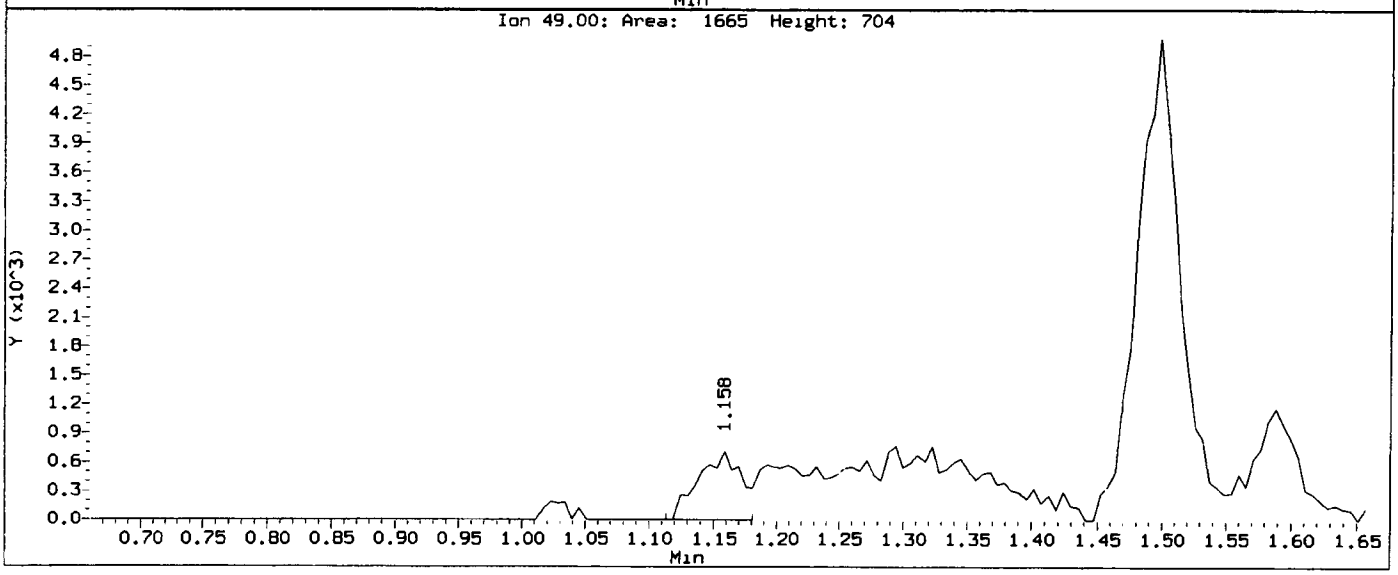


Data File: /chem1/nt5.i/11JUN13.b/0050611.d
Injection Date: 11-JUN-2013 10:57
Instrument: nt5.i
Client Sample ID: VSTD5

Compound: Chloromethane
CAS Number:



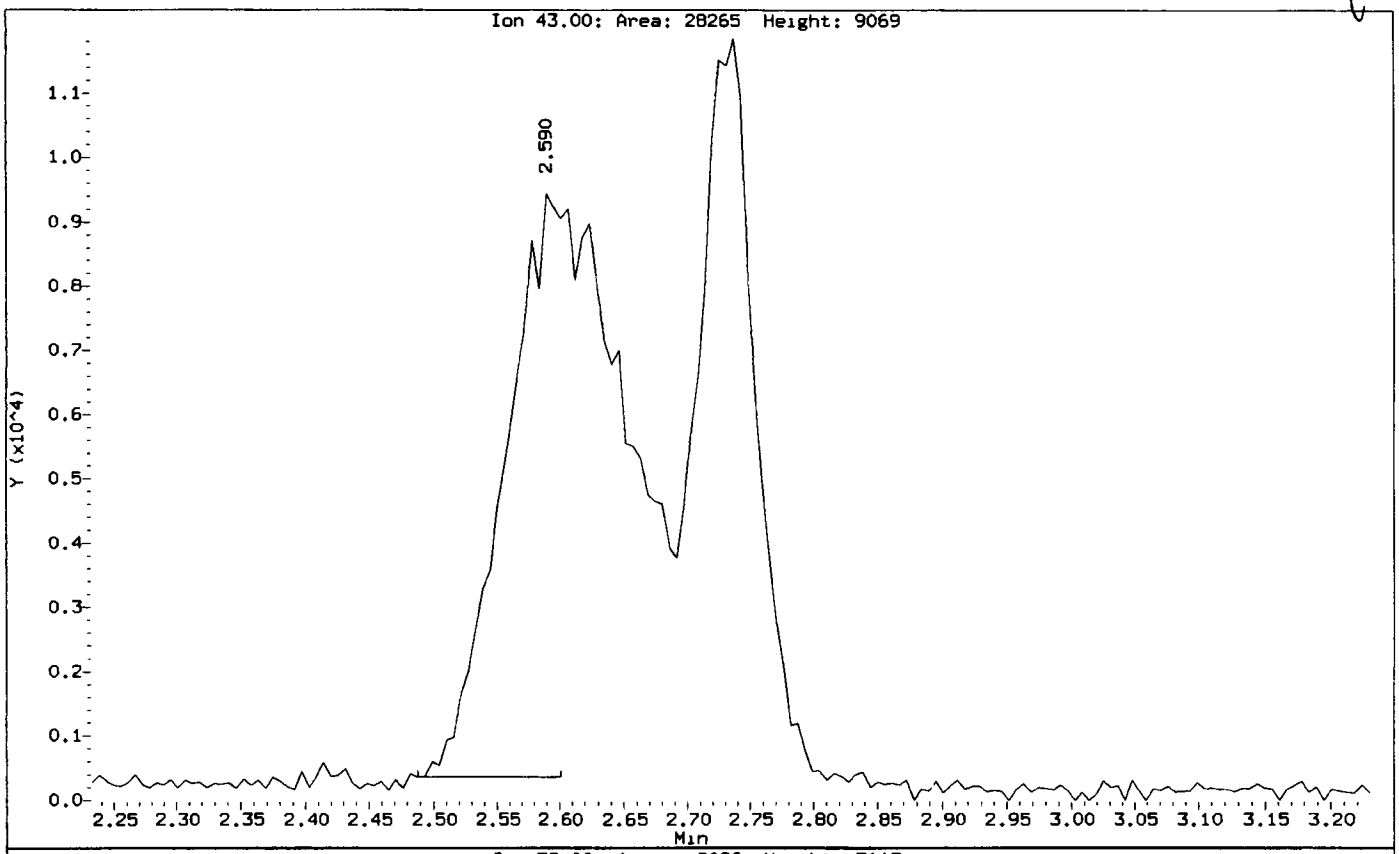


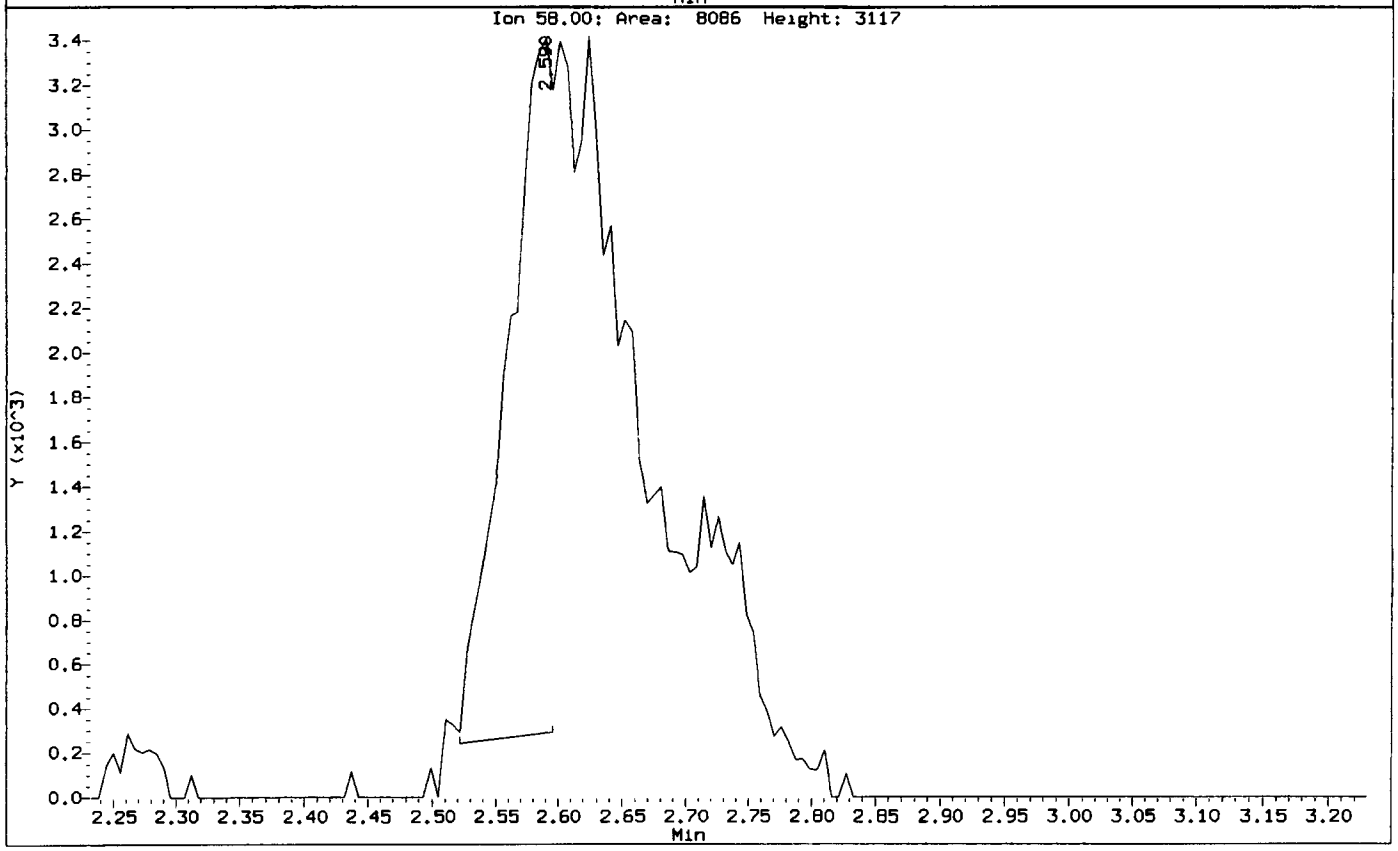


Data File: /chem1/nt5.i/11JUN13.b/0050611.d
Injection Date: 11-JUN-2013 10:57
Instrument: nt5.i
Client Sample ID: VSTD5

Compound: Acetone
CAS Number:

1 6 / 1 v / 4

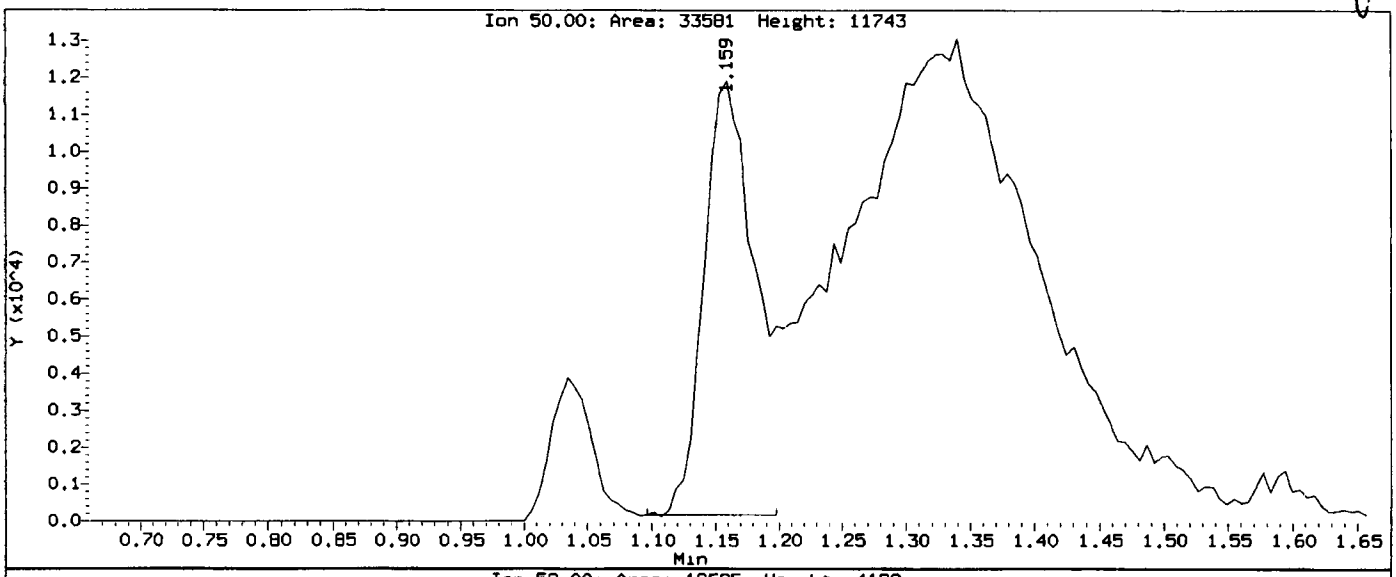


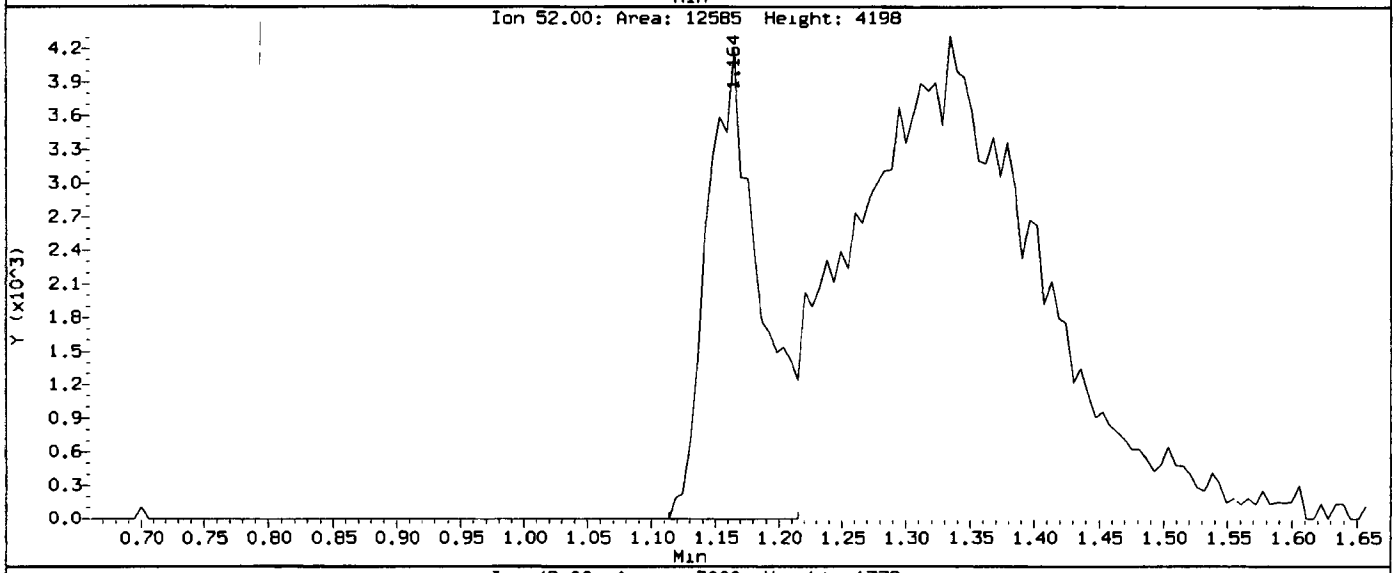


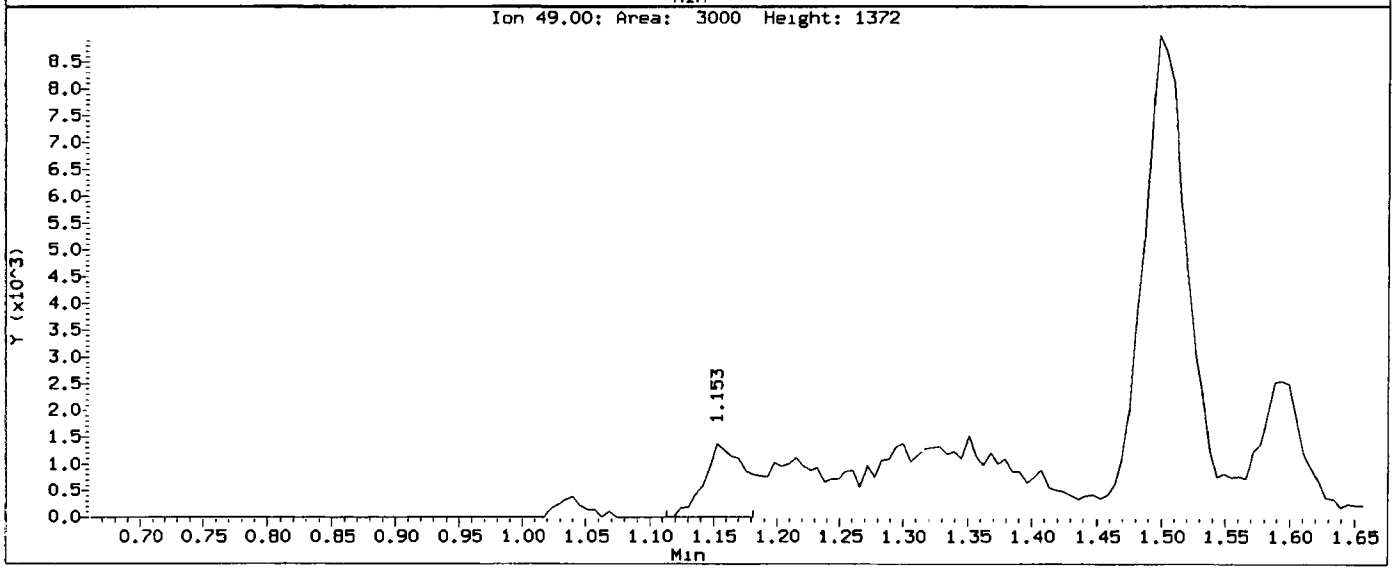
UTG1 : 08136

Data File: /chem1/nt5.i/11JUN13.b/0100611.d
Injection Date: 11-JUN-2013 10:33
Instrument: nt5.i
Client Sample ID: VSTD10

Compound: Chloromethane
CAS Number:



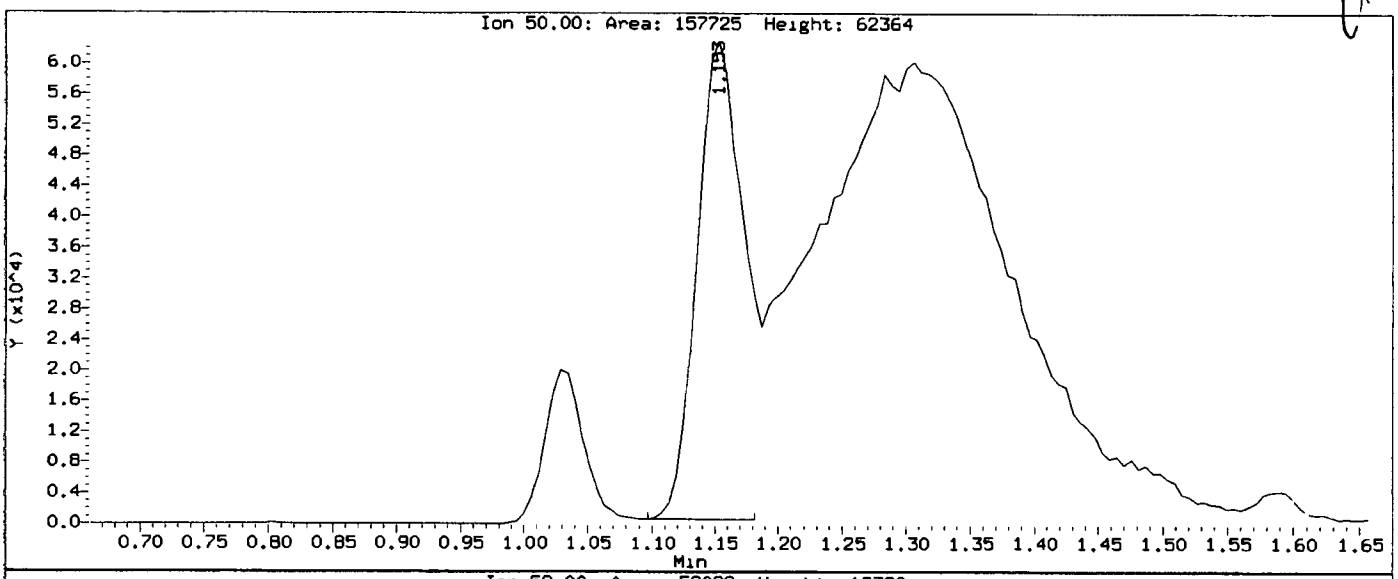


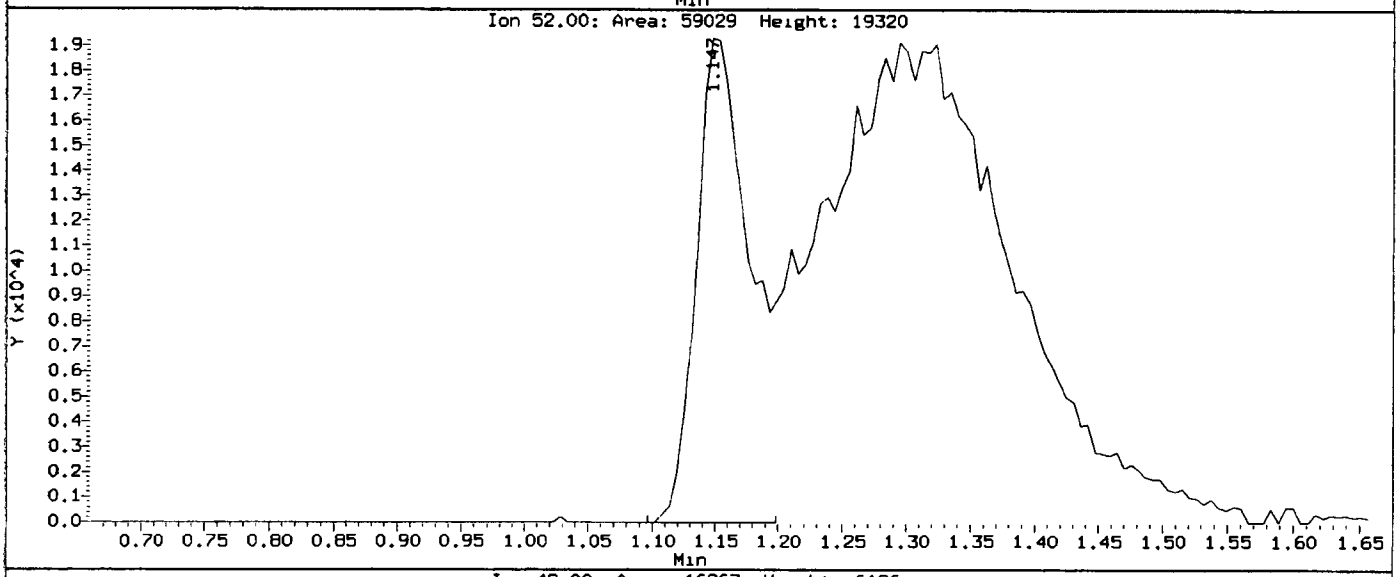


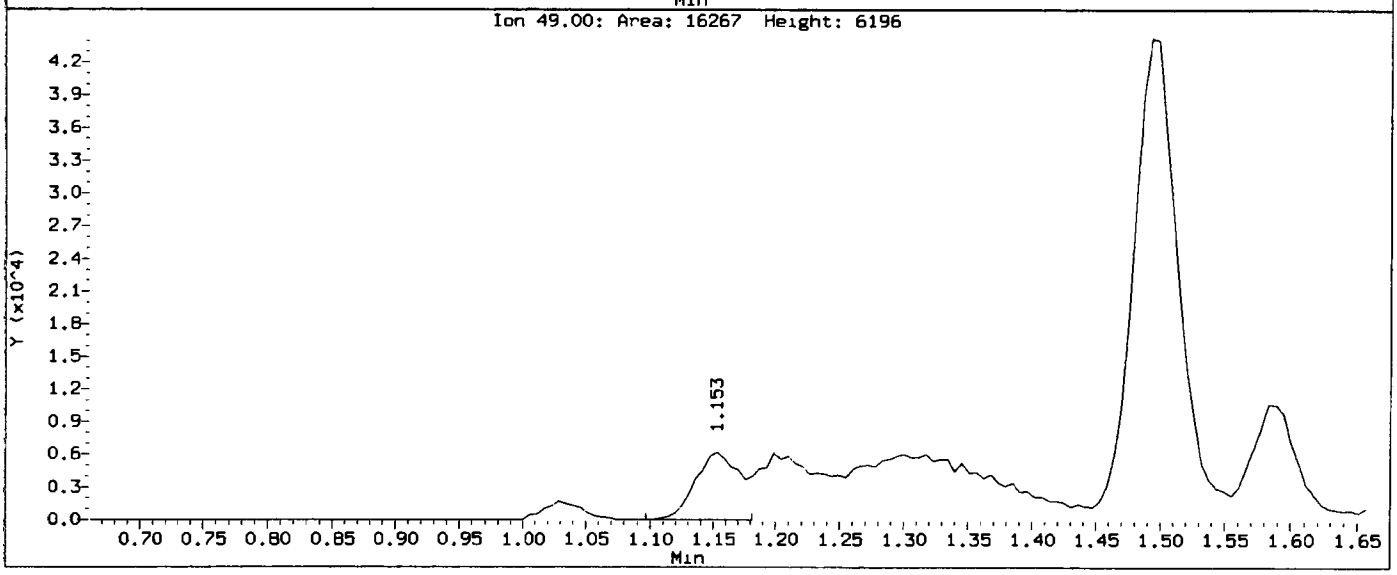
Data File: /chem1/nt5.i/11JUN13.b/0500611.d
Injection Date: 11-JUN-2013 10:09
Instrument: nt5.i
Client Sample ID: VSTD50

Compound: Chloromethane
CAS Number:

6/14/13

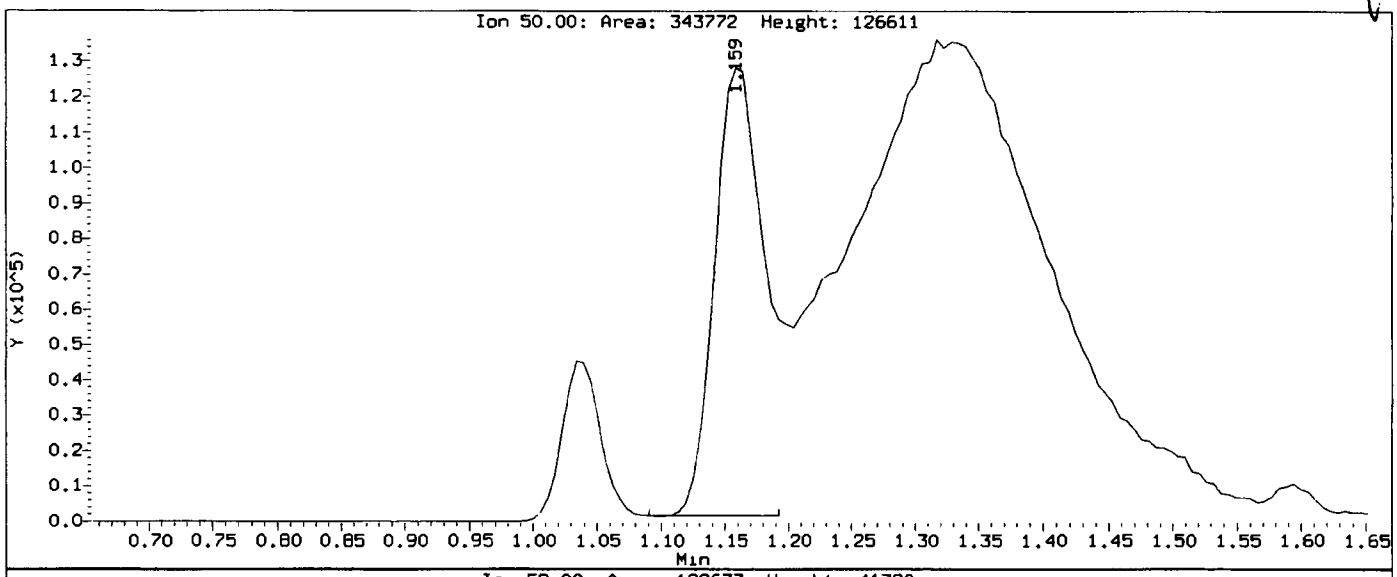


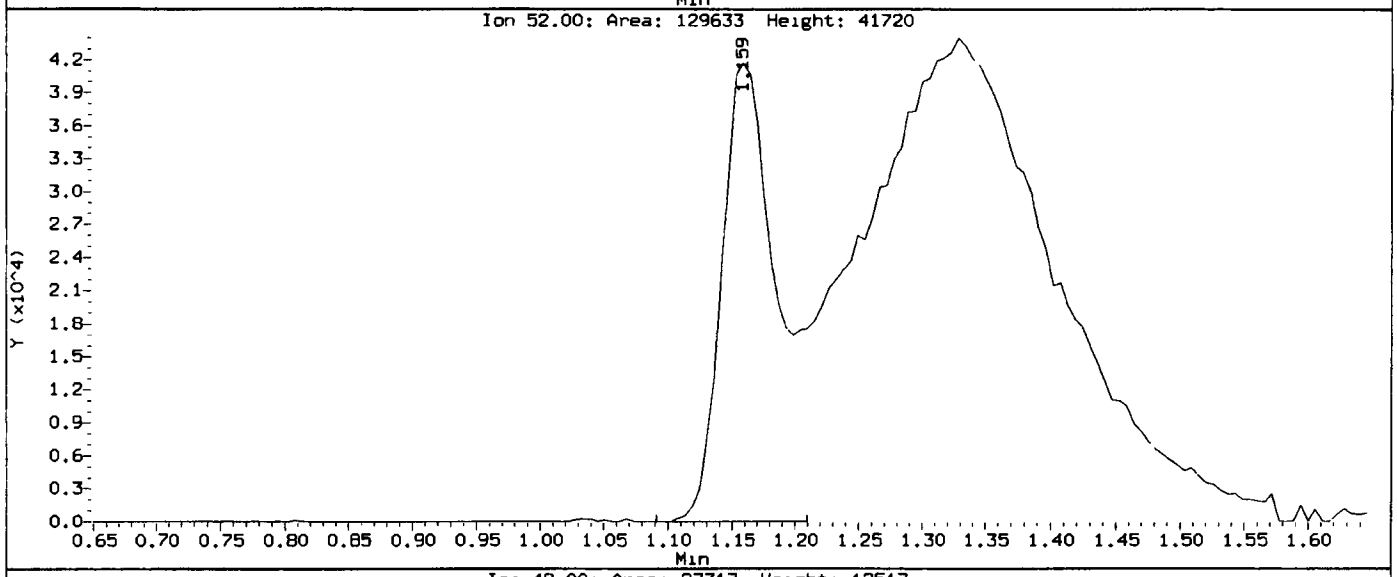


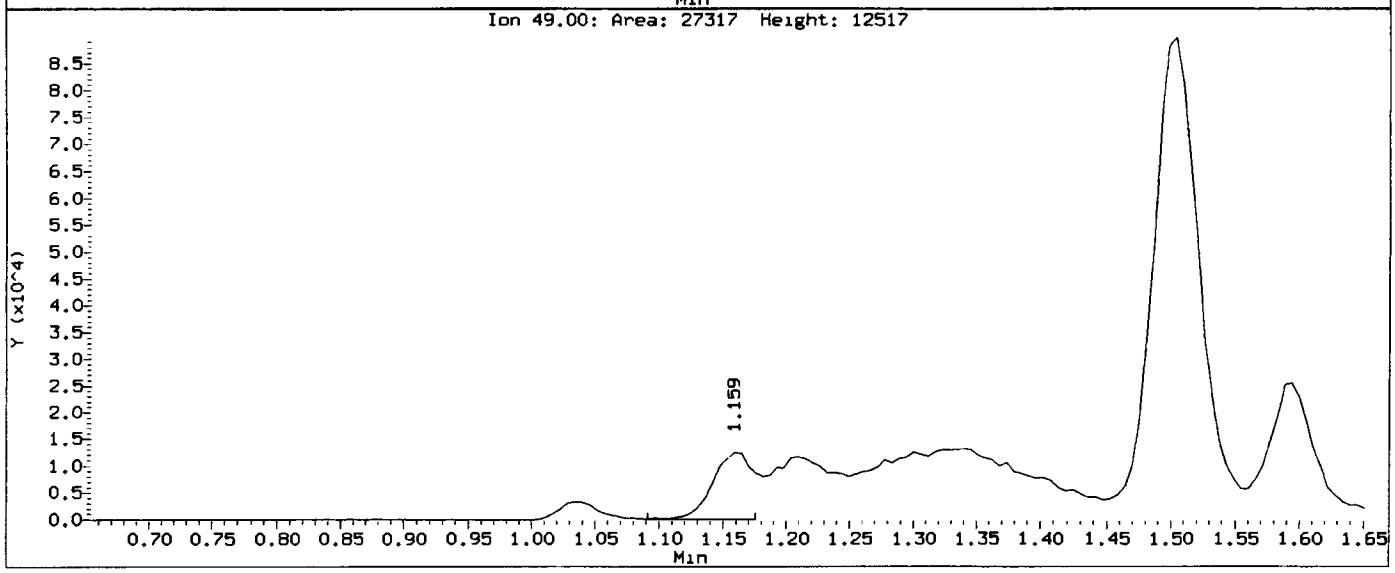


Data File: /chem1/nt5.i/11JUN13.b/1000611.d
Injection Date: 11-JUN-2013 09:45
Instrument: nt5.i
Client Sample ID: VSTD100

Compound: Chloromethane
CAS Number:

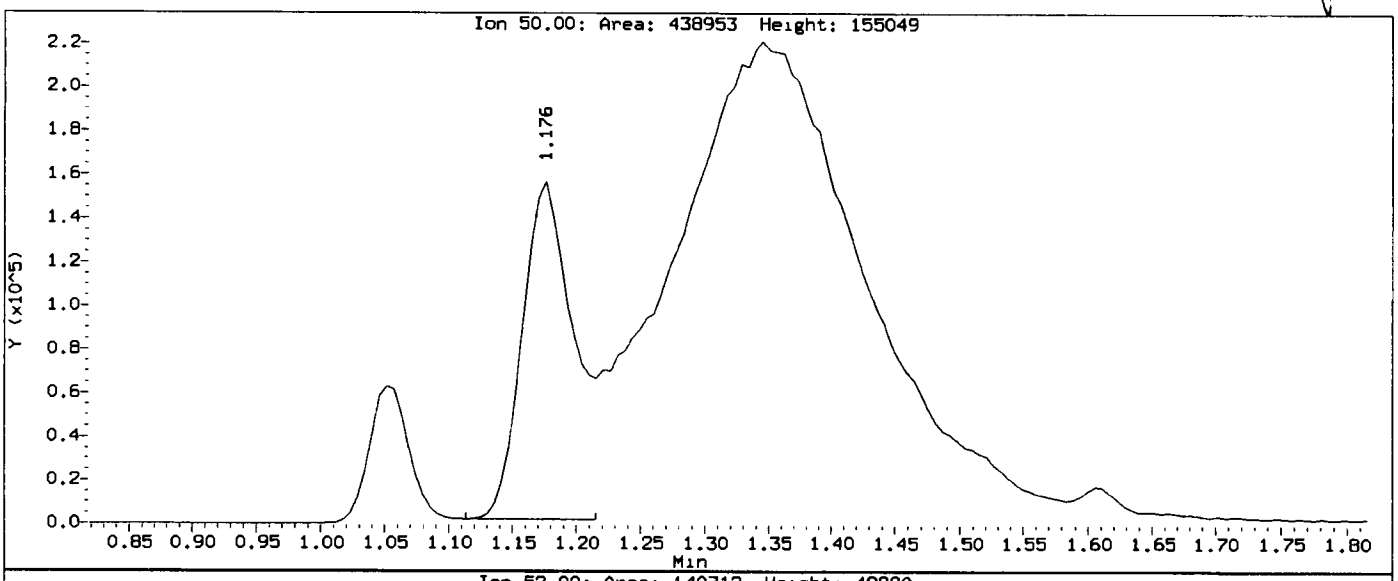


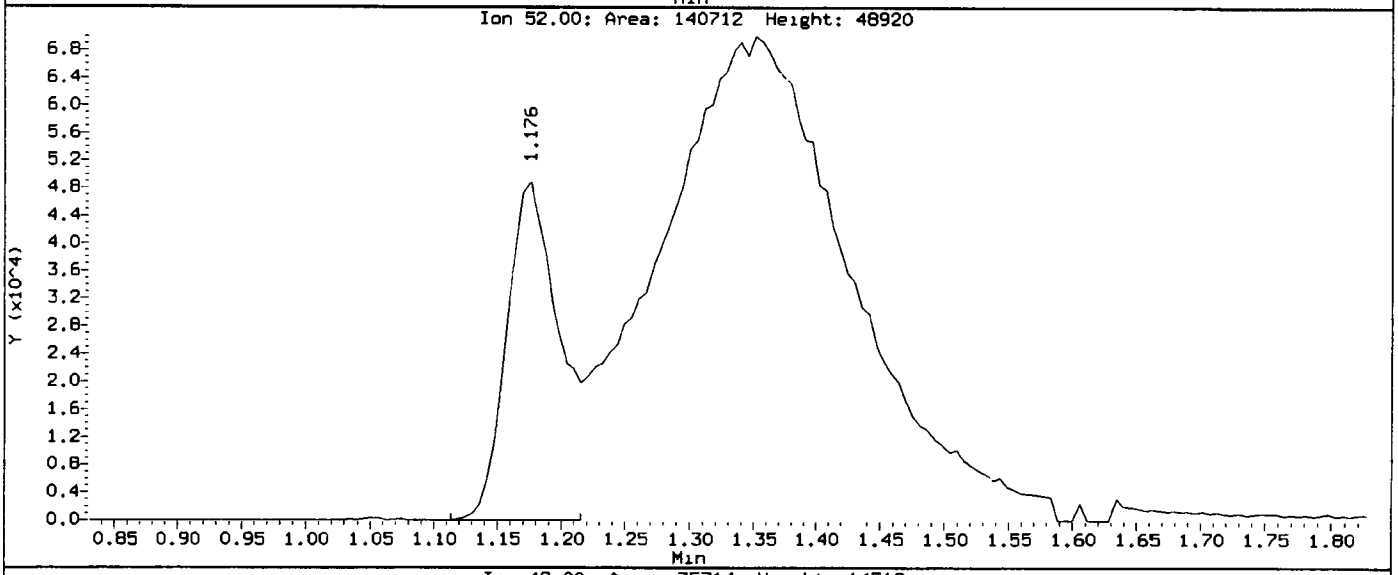


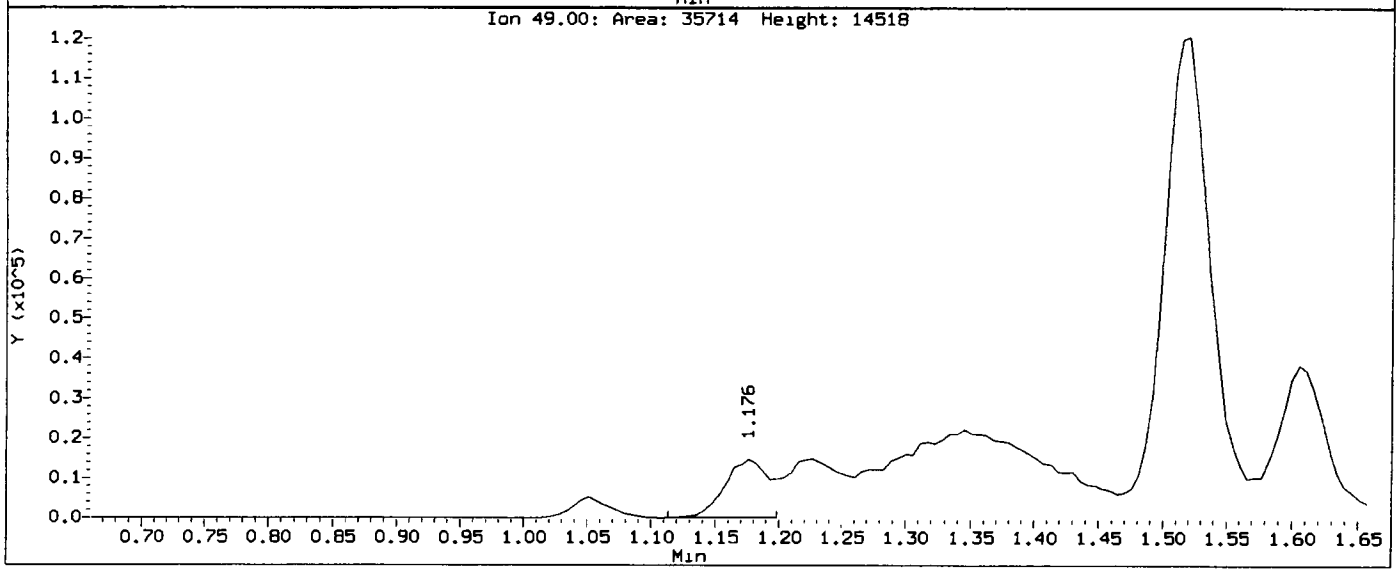


Data File: /chem1/nt5.i/11JUN13.b/1500611.d
Injection Date: 11-JUN-2013 09:21
Instrument: nt5.i
Client Sample ID: VSTD150

Compound: Chloromethane
CAS Number:

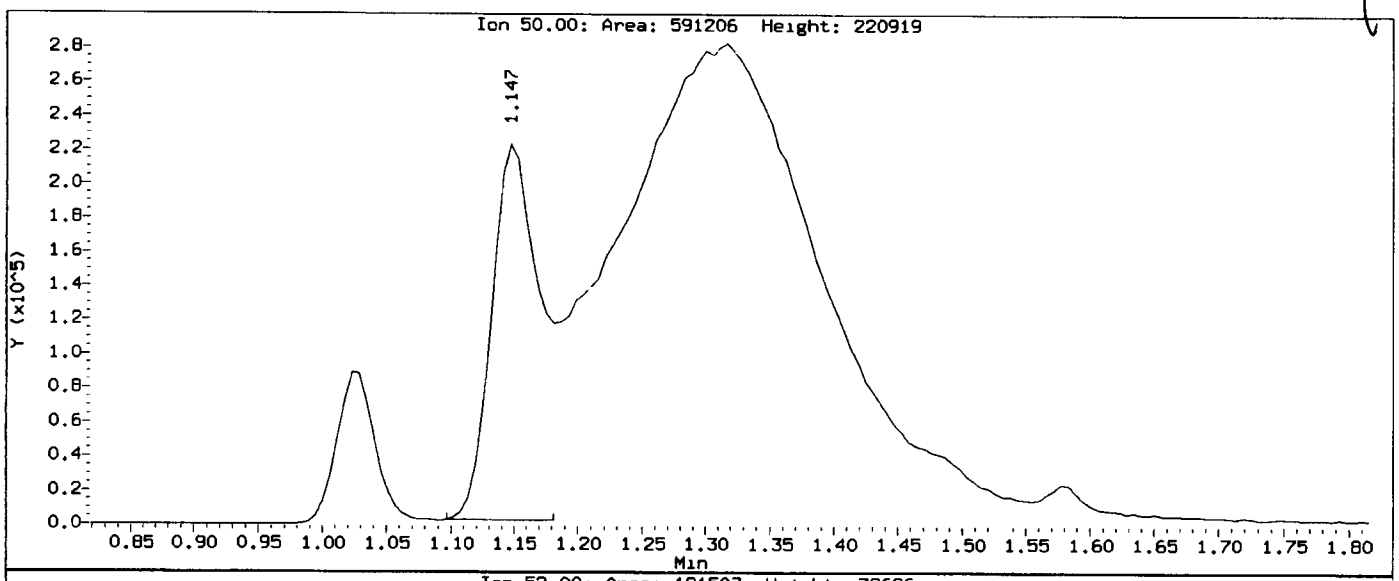


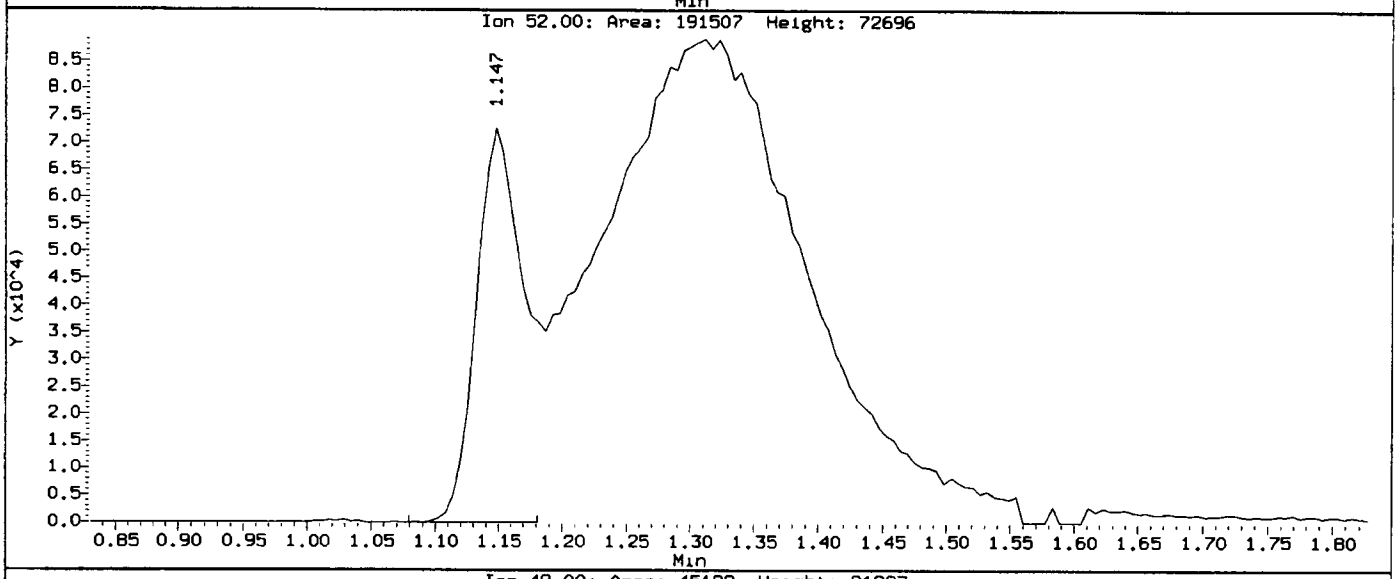


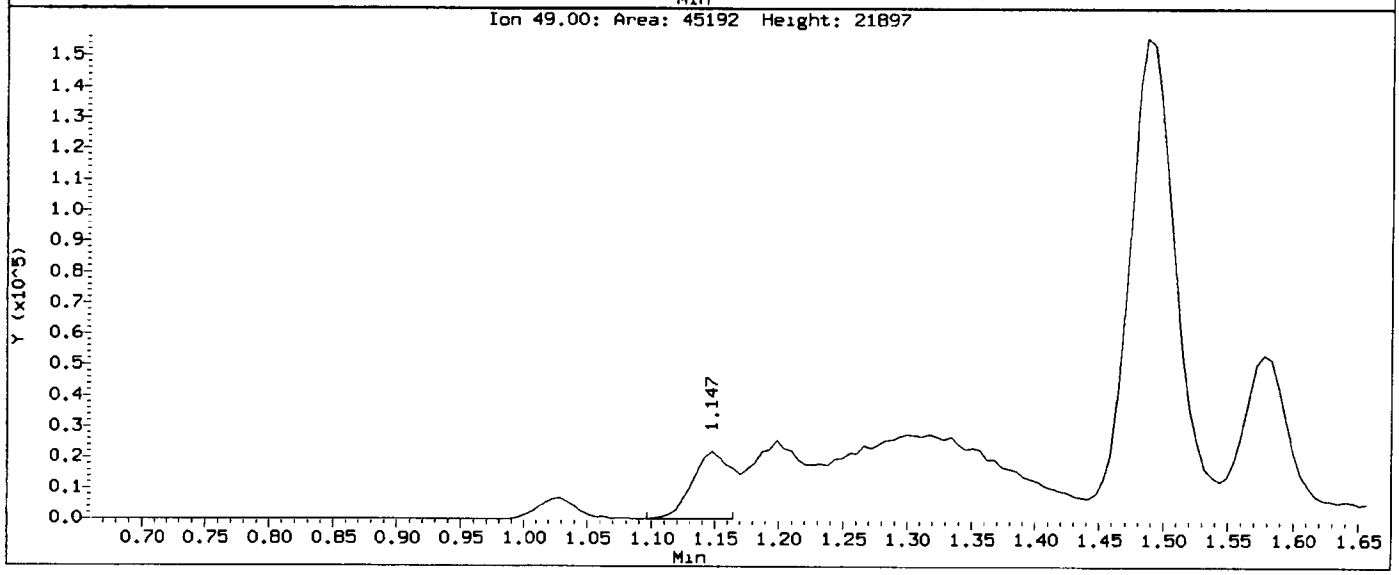


Data File: /chem1/nt5.i/11JUN13.b/2000611.d
Injection Date: 11-JUN-2013 08:57
Instrument: nt5.i
Client Sample ID: VSTD200

Compound: Chloromethane
CAS Number:

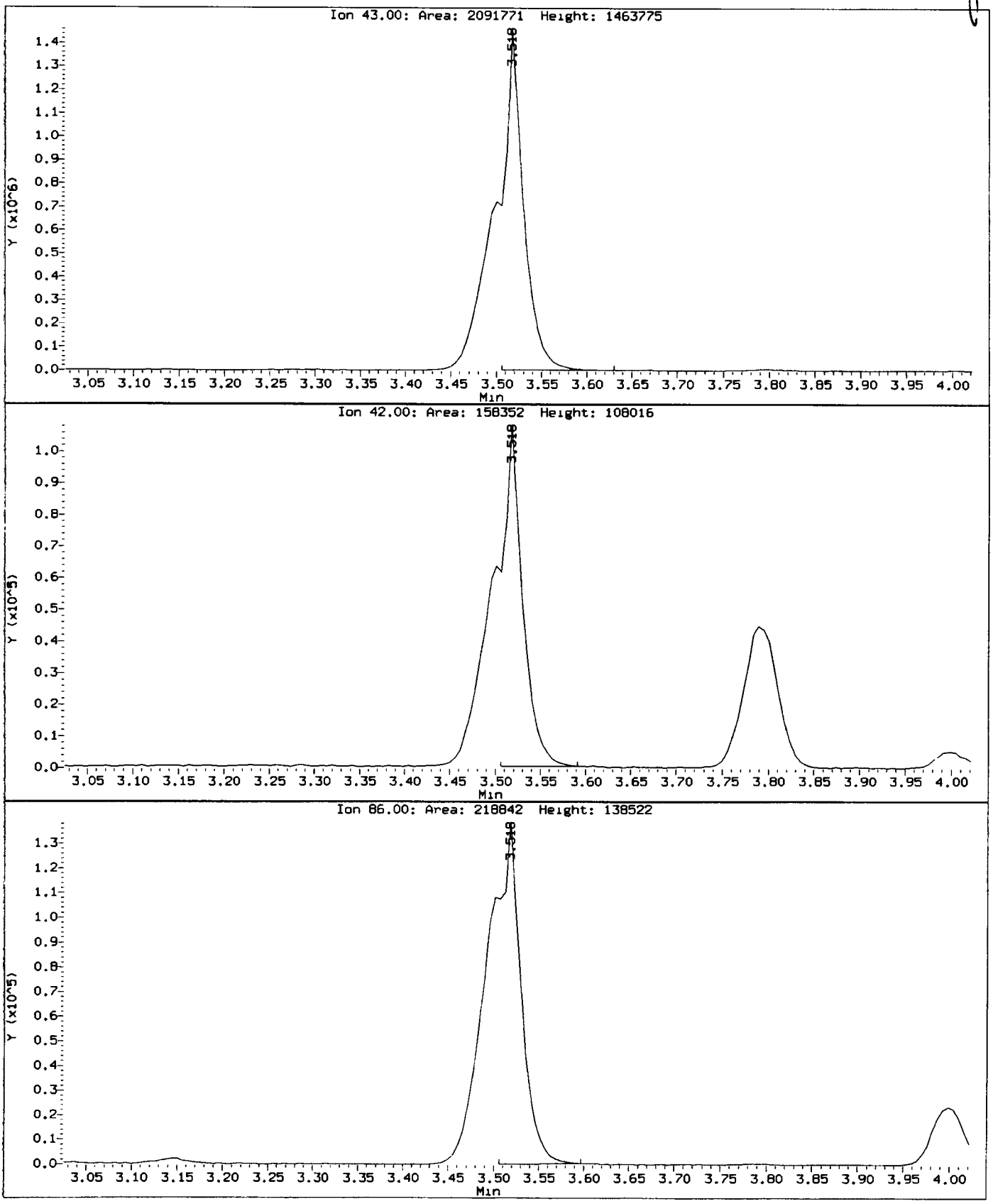






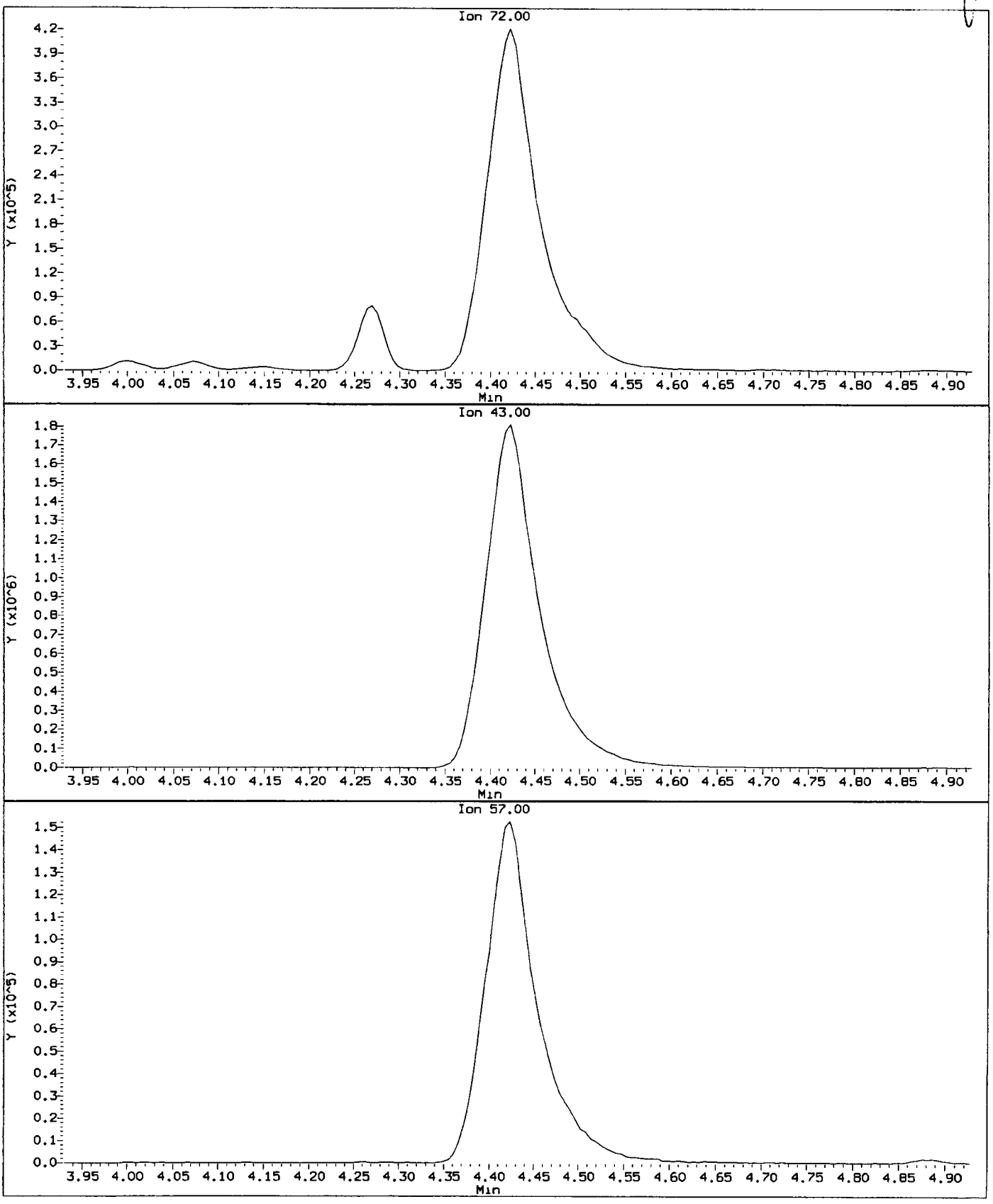
Data File: /chem1/nt5.i/11JUN13.b/2000611.d
Injection Date: 11-JUN-2013 08:57
Instrument: nt5.i
Client Sample ID: VSTD200

Compound: Vinyl Acetate
CAS Number:



Data File: /chem1/nt5.i/11JUN13.b/2000611.d
Injection Date: 11-JUN-2013 08:57
Instrument: nt5.i
Client Sample ID: VSTD200

Compound: 2-Butanone
CAS Number:



Volatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Data Review Checklist

ARI WORK Order: WJ87 Client ID: SAIC

METHOD: **NW-TPH**(Gas) **8021B**(BTEX) **NW-VPH**(VPH) **8260C**(VOA) **8260C**(SIM VOA) **524.3**(VOA) **RSK-175**(MEE)

Instrument: NT-2 NT-3 (NT-5) NT-7 NT-9 PID-1 PID-2 PID-3 FID-6

Purge Volume (mL) 5 Curve Date: 6/11/13 Analysis Start Date: 6/27/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
PH ≤ 2.0 / 5035 Preserved?	NA / (Y) / N / ____	Method Blank In Control?	(Y) / N / ✓
BFB Tune Meets Criteria?	NA / (Y) / N / ✓	Surrogate Recovery in Control?	(Y) / N / ✓
Internal STD within 50-200%?	NA / (Y) / N / ✓	LCS / LCSD Recovery Met?	(Y) / N / ✓
CCAL Meets %D	(Y) / N / ✓	LCS / LCSD RPD ≤30%?	(NA) / ____
ICAL Q flag applied?	NA / Y / (N) / ____	MS / MSD Recovery Met?	(NA) / Y / N / ____
CCAL Q Flag applied	NA / (Y) / N / ✓	MS / MSD RPD ≤30%?	(NA) / ____
Manual Integrations?	Y / (N) / ____	Samples Diluted?	Y / (N) / ____
Integration Summary?	(Y) / N / ✓	Special Analysis Request?	Y / (N) / ____

Bubbles/Headspace: (None) SM (≤ 2mm •) PB (2-4mm ●) LG (> 4mm) Head Space

Detail problems, corrective actions and/or other pertinent information below:

Sample D,C - I/S out ; reruns had I/S out as well
- both runs reported (matrix effect)

(Review 1)Analyst: _____ **Date:** 6/27/13

(Review 2)Reviewer: _____ **Date:** 6/27

Analytical Resources Inc.: Volatile Organics Instrument Log

NT-5 Serial No.:GC=US10228086, MS=US10462818

Date: 6/17/13 Analysis: 8260 Analyst: MB

GC Program: VOA_NT Column No: 93852 Column Type: MTX624

Instrument Tune (.U or .CT.): PAT100 EM Voltage: 1482

Inj. Vol: 5 Calibration File: V160617 Curve Date: 6/4/13

IS/SS	Ical/Ccal	LCS/ICV
B000647	B000647	B000647
B000647		

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt5.i/17JUN13.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF							
1	0914	bfb0617.d	BFB0617	BFB0617			1							
2	1036	cc0617.d	CC0617	VSTD50			1	4.67	484680	5.12	2091516	7.60	2522243	9.67	1415283
3	1114	lcs0617.d	LCS0617	LCS0617			1	4.66	483301	5.11	2061182	7.59	2482456	9.67	1394496
4	1138	lcs0617a.d	LCS0617	LCS0617			1	4.66	493949	5.11	2097198	7 60	2556589	9.67	1429119
5	1202	mb0617 d	MB0617	MB0617			1	4.65	489010	5.11	2089891	7.59	2571479	9.67	1412867
6	1327	wu06a.d	WU06A	EAL#147692			1	4.67	461577	5 12	1977097	7.60	2433497	9.67	1334197
7	1351	wu06b.d	WU06B	EAL#147693			1	4 66	432016	5.11	1821222	7.59	2165811	9.67	1148402
8	1415	wu06c.d	WU06C	EAL#147694			1	4.67	446811	5 12	1909253	7.59	2274295	9.67	1012829
9	1439	wu06d.d	WU06D	EAL#147695			1	4.66	431804	5.11	1876936	7.59	2348174	9.67	1298934
10	1547	wt86a.d	WT86A	CL-MH-SPS-20130605-			1	4.66	417913	5.11	1777139	7.59	2029133	9.67	906000
11	1610	wu24a.d	WU24A	Soil-RO-1			1	4.67	481979	5.12	2057356	7 59	2555114	9.67	1413973
12	1634	wu24b.d	WU24B	TB-061413	LL		1	4.66	500030	5 11	2109102	7.59	2629169	9.67	1482868
13	1754	wt81d.d	WT81D	AM-TB-01-20130612-W	LL		1	4.67	474415	5.12	2035103	7.59	2531220	9.67	1413163
14	1818	wt81b.d	WT81B	AM-SF4-EFF-20130612			1	4.67	339409	5.12	1413417	7.59	956180	9.67	210450
15	1842	wt81c.d	WT81C	AM-FD-01-20130612-S			1	4.67	367231	5.12	1508898	7 59	1160605	9.67	264025
16	1906	wt81b2 d	WT81B	AM-SF4-EFF-20130612			1	4.66	387246	5.11	1613544	7.59	1248240	9.66	292501
17	1930	wt81c2.d	WT81C	AM-FD-01-20130612-S			1	4.66	350229	5.11	1440287	7.59	1004334	9.66	201595
18	1953	wu18b.d	WU18B				1	4.67	498365	5.11	2108991	7.59	2634651	9.67	1481918
19	2017	wu18a.d	WU18A				1	4.65	492800	5.11	2064600	7.59	2446319	9.67	1118458
20	2129	wu18a2.d	WU18A				1	4.67	512458	5.12	2144206	7.59	2620854	9.67	1368602
21	2041	wt12c2 d	WT12C	U3			1	4.67	481644	5.12	2045031	7.59	2537043	9.67	1373065
22	2105	wt12c3.d	WT12C	U3			1	4.66	528608	5.10	2228266	7.59	2762206	9.67	1549134
23	2129	wu18a2.d	WU18A				1	4.67	512458	5.12	2144206	7.59	2620854	9.67	1368602

Mainter

6/18/13

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt5.i/17JUN13.b

ARI Job No.: BFB0 Method: bfb8260.m Instrument: nt5.i Date: 17-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0914	bfb0617.d	BFB0617	BFB0617	1	NO MANUAL INTEGRATION
1036	cc0617.d	CC0617	VSTD50	1	Chloromethane, Vinyl Chloride, Acrolein, Acetone,
1114	lcs0617.d	LCS0617	LCS0617	1	Chloromethane, Acetone,
1138	lcs0617a.d	LCS0617	LCS0617	1	Chloromethane, Acetone, Acrylonitrile,
1202	mb0617.d	MB0617	MB0617	1	Iodomethane, Pentafluorobenzene,
1818	wt81b.d	WT81B	AM-SF4-EFF	1	NO MANUAL INTEGRATION
1842	wt81c.d	WT81C	AM-FD-01-2	1	NO MANUAL INTEGRATION
1754	wt81d.d	WT81D	AM-TB-01-2	1	NO MANUAL INTEGRATION
1906	wt81b2.d	WT81B	AM-SF4-EFF	1	NO MANUAL INTEGRATION
1930	wt81c2.d	WT81C	AM-FD-01-2	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt5.i/17JUN13.b

Instrument: nt5.i Date: 17-JUN-2013 Method: VO121012S.m

INITIAL CAL: 11-JUN-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 17-JUN-2013

Compound	%D
112Trichloro122Trifluoroethane	23.9
Bromoethane	27.9
Iodomethane	29.8
Methylene Chloride	42.8
Trans-1,2-Dichloroethene	31.9
2-Chloroethyl Vinyl Ether	-52.3
1,2-Dibromo 3-Chloropropane	-20.5
Methyl tert butyl ether	25.7
d4-1,2-Dichloroethane	21.0

Data File: /chem1/nt5.i/17JUN13.b/bfb0617.d

Date : 17-JUN-2013 09:14

Client ID: BFB0617

Instrument: nt5.i

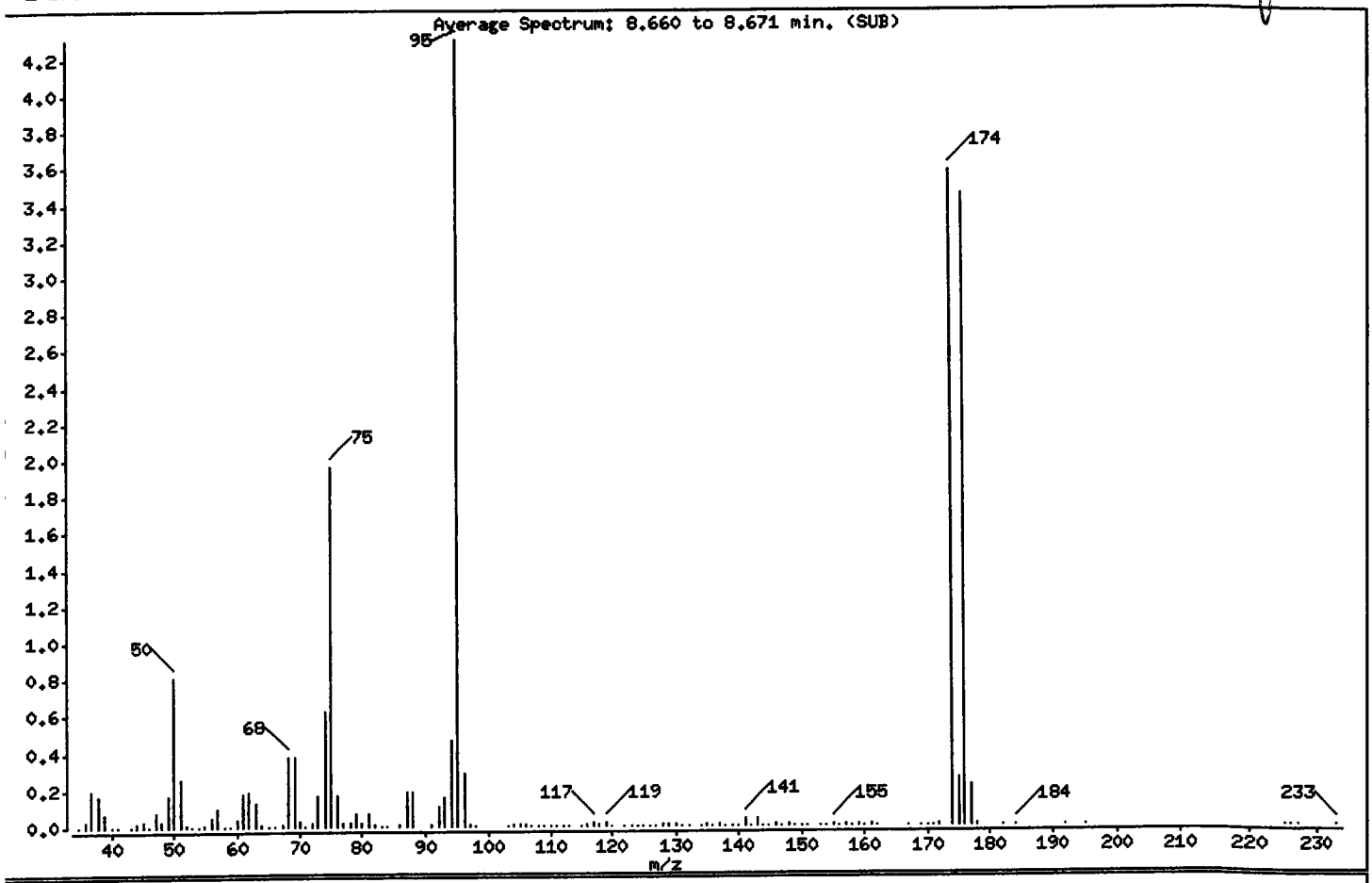
Sample Info: BFB0617,BFB0617,,1,17JUN13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	18.95
75	30.00 - 66.00% of mass 95	45.44
96	5.00 - 9.00% of mass 95	6.75
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 101.00% of mass 95	83.20
175	4.00 - 9.00% of mass 174	6.05 (7.28)
176	95.00 - 101.00% of mass 174	80.20 (96.40)
177	5.00 - 9.00% of mass 176	5.16 (6.43)

Data File: /chem1/nt5.i/17JUN13.b/bfb0617.d

Date : 17-JUN-2013 09:14

Client ID: BFB0617

Instrument: nt5.i

Sample Info: BFB0617,BFB0617,,1,17JUN13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

Data File: bfb0617.d

Spectrum: Average Spectrum: 8.660 to 8.671 min. (SUB)

Location of Maximum: 95.00

Number of points: 134

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	57	70.00	2880	111.00	106	148.00	1016
36.00	3450	71.00	319	112.00	307	149.00	200
37.00	19336	72.00	2339	113.00	194	150.00	307
38.00	16632	73.00	16744	115.00	360	151.00	200
39.00	6976	74.00	62424	116.00	1041	153.00	471
40.00	248	75.00	195648	117.00	1968	154.00	214
41.00	265	76.00	17216	118.00	1178	155.00	934
43.00	340	77.00	2409	119.00	1719	156.00	125
44.00	1743	78.00	1802	120.00	121	157.00	643
45.00	3283	79.00	6830	122.00	104	158.00	78
46.00	344	80.00	2270	123.00	129	159.00	578
47.00	7730	81.00	7334	124.00	214	160.00	35
48.00	2494	82.00	1321	125.00	202	161.00	718
49.00	16872	83.00	113	126.00	180	162.00	67
50.00	81600	84.00	190	127.00	163	167.00	51
51.00	25888	86.00	561	128.00	1404	169.00	39
52.00	1047	87.00	19104	129.00	556	170.00	185
53.00	97	88.00	18640	130.00	1326	171.00	123
54.00	190	91.00	1006	131.00	489	172.00	811
55.00	988	92.00	10682	132.00	39	174.00	358272
56.00	5200	93.00	16224	134.00	322	175.00	26072
57.00	9942	94.00	46392	135.00	826	176.00	345408
58.00	423	95.00	430656	136.00	108	177.00	22224
59.00	191	96.00	29088	137.00	763	178.00	531
60.00	3883	97.00	907	138.00	36	182.00	117
61.00	17752	98.00	41	139.00	199	184.00	123
62.00	18632	103.00	210	140.00	227	192.00	40
63.00	13365	104.00	1464	141.00	3666	195.00	35
64.00	1278	105.00	629	142.00	336	225.00	36
65.00	213	106.00	1308	143.00	3555	226.00	34
66.00	104	107.00	465	144.00	312	227.00	67
67.00	944	108.00	37	145.00	378	233.00	77
68.00	37848	109.00	51	146.00	541		
69.00	37776	110.00	31	147.00	296		

Data File: /chem1/nt5.i/17JUN13.b/bfb0617.d

Date : 17-JUN-2013 09:14

Client ID: BFB0617

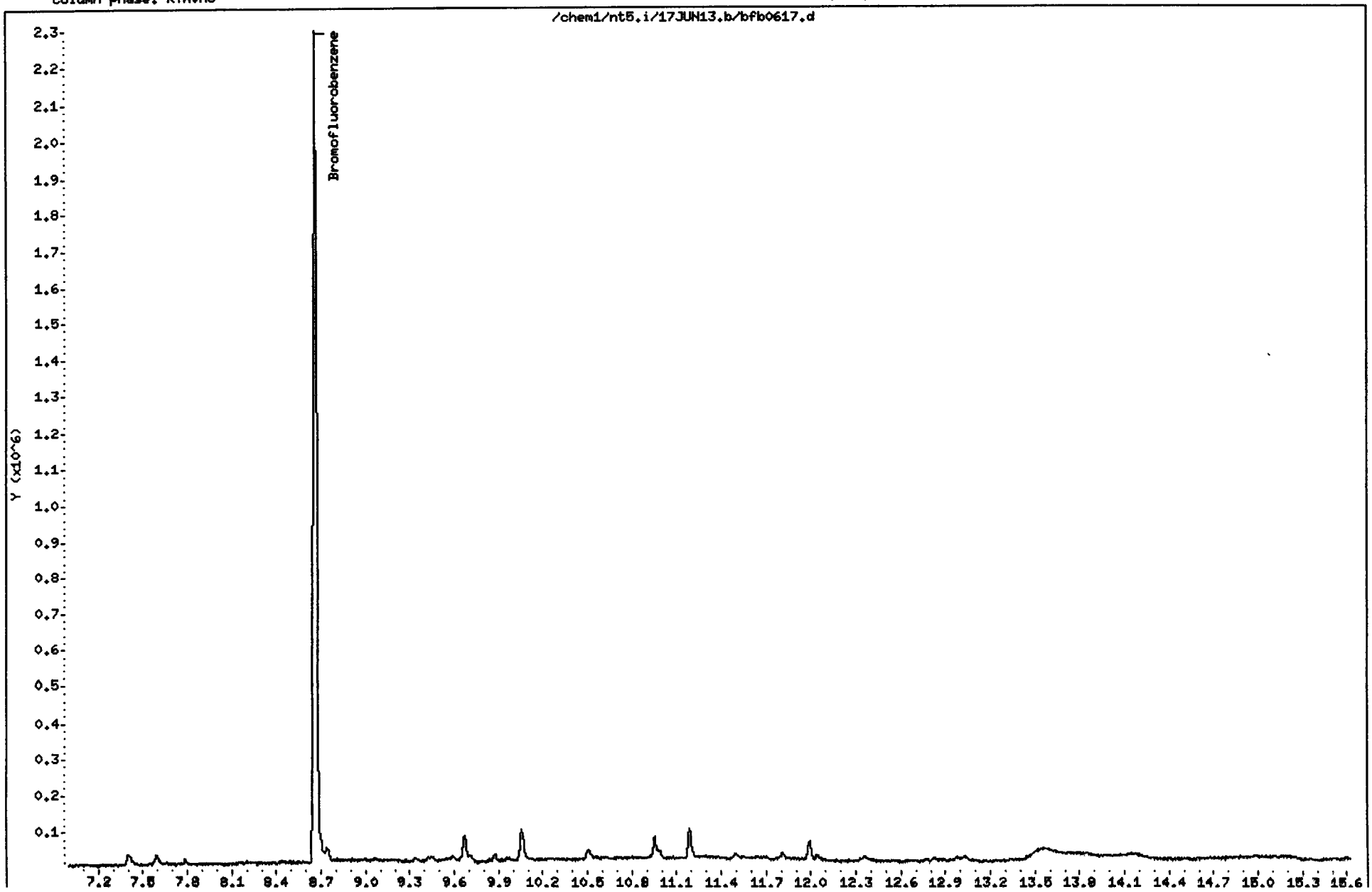
Instrument: nt5.i

Sample Info: BFB0617,BFB0617,,1,17JUN13,,

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18



Analytical Resources, Inc.

8260C

ata file : /chem1/nt5.i/17JUN13.b/cc0617.d
ab Smp Id: CC0617 Client Smp ID: VSTD50
nj Date : 17-JUN-2013 10:36
perator : PB Inst ID: nt5.i
mp Info : CC0617,5,5,0,0.2
isc Info : 13-
omment :
ethod : /chem1/nt5.i/17JUN13.b/VO121012S.m
eth Date : 17-Jun-2013 10:55 patrickb Quant Type: ISTD
al Date : 11-JUN-2013 08:57 Cal File: 2000611.d
ls bottle: 1 Continuing Calibration Sample
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa.sub
arget Version: 3.50
rocessing Host: cserv3

oncentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

pnd Variable Local Compound Variable

						AMOUNTS	
	QUANT SIG					CAL-AMT	ON-COL
mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/Kg)	(ug/Kg)
1 Dichlorodifluoromethane	85	1.057	1.057	(0.226)	474351	50.0000	55.201
2 Chloromethane	50	1.176	1.176	(0.252)	916242	50.0000	53.541(M)
3 Vinyl Chloride	62	1.226	1.226	(0.263)	902481	50.0000	54.511(M)
4 Bromomethane	94	1.436	1.436	(0.307)	482160	50.0000	58.139
5 Chloroethane	64	1.521	1.521	(0.326)	586074	50.0000	59.460
6 Trichlorofluoromethane	101	1.611	1.611	(0.345)	1010407	50.0000	58.741
7 1,1-Dichloroethene	96	1.973	1.973	(0.422)	684020	50.0000	58.899
8 Carbon Disulfide	76	1.973	1.973	(0.422)	2243529	50.0000	59.447
9 112Trichloro122Trifluoroethane	101	2.018	2.018	(0.432)	633341	50.0000	61.953
10 Iodomethane	142	2.075	2.075	(0.444)	668186	50.0000	64.889
11 Bromoethane	108	2.171	2.171	(0.465)	456386	50.0000	63.949
12 Acrolein	56	2.335	2.335	(0.500)	720252	250.000	293.97(M)
13 Methylene Chloride	84	2.454	2.454	(0.525)	752415	50.0000	71.388
14 Acetone	43	2.754	2.754	(0.589)	644244	250.000	261.58(M)

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
15 Trans-1,2-Dichloroethene	96	2.590	2.590	(0.554)	734189	50.0000	65.963
16 Methyl tert butyl ether	73	2.754	2.754	(0.589)	2024153	50.0000	62.875
17 1,1-Dichloroethane	63	3.201	3.201	(0.685)	1325464	50.0000	54.882
18 Acrylonitrile	53	3.370	3.370	(0.721)	239888	50.0000	46.057
19 Vinyl Acetate	43	3.540	3.540	(0.758)	1692898	50.0000	51.305
20 Cis-1,2-Dichloroethene	96	3.744	3.744	(0.801)	765743	50.0000	54.338
22 2,2-Dichloropropane	77	3.840	3.840	(0.822)	1135486	50.0000	56.527
23 Bromochloromethane	128	3.930	3.930	(0.841)	327659	50.0000	51.922
24 Chloroform	83	4.027	4.027	(0.862)	1179972	50.0000	52.188
25 Carbon Tetrachloride	117	4.117	4.117	(0.804)	922014	50.0000	45.904
27 Dibromofluoromethane	111	4.196	4.196	(0.898)	800496	50.0000	57.580
26 1,1,1-Trichloroethane	97	4.185	4.185	(0.896)	1085283	50.0000	53.401
28 1,1-Dichloropropene	75	4.304	4.304	(0.841)	1098256	50.0000	46.654
29 2-Butanone	72	4.457	4.457	(0.954)	417664	250.000	255.30(Q)
30 Benzene	78	4.530	4.530	(0.885)	3128752	50.0000	47.300
31 Pentafluorobenzene	168	4.672	4.672	(1.000)	484680	50.0000	
32 d4-1,2-Dichloroethane	65	4.666	4.666	(0.999)	785998	50.0000	60.511
33 1,2-Dichloroethane	62	4.722	4.722	(0.923)	948160	50.0000	45.440
34 Trichloroethene	95	5.067	5.067	(0.990)	770394	50.0000	47.706
35 1,4-Difluorobenzene	114	5.118	5.118	(1.000)	2091516	50.0000	
37 Dibromomethane	93	5.424	5.424	(1.060)	395695	50.0000	45.513
38 1,2-Dichloropropane	63	5.514	5.514	(1.077)	864617	50.0000	46.111
39 Bromodichloromethane	83	5.588	5.588	(1.092)	943028	50.0000	46.517
40 2-Chloroethyl Vinyl Ether	63	6.125	6.125	(1.197)	235188	50.0000	23.868
41 Cis 1,3-dichloropropene	75	6.137	6.137	(1.199)	1226119	50.0000	46.511
42 d8-Toluene	98	6.295	6.295	(1.230)	3092864	50.0000	50.465
43 Toluene	92	6.335	6.335	(1.238)	1977546	50.0000	46.970
44 Tetrachloroethene	166	6.646	6.646	(0.875)	811607	50.0000	46.484
45 4-Methyl-2-Pentanone	58	6.708	6.708	(1.311)	1636289	250.000	221.48
46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.308)	1090582	50.0000	46.531
47 1,1,2-Trichloroethane	97	6.827	6.827	(1.334)	599243	50.0000	45.516
48 Chlorodibromomethane	129	6.963	6.963	(0.917)	682690	50.0000	45.317
49 1,3-Dichloropropane	76	7.047	7.047	(0.928)	1100790	50.0000	44.289
50 1,2-Dibromoethane	107	7.138	7.138	(1.395)	581191	50.0000	45.077
51 2-Hexanone	43	7.415	7.415	(0.976)	2678337	250.000	209.03
52 d5-Chlorobenzene	117	7.596	7.596	(1.000)	2522243	50.0000	
53 Chlorobenzene	112	7.607	7.607	(1.001)	1958615	50.0000	45.624
54 Ethyl Benzene	91	7.658	7.658	(1.008)	3537214	50.0000	48.044
55 1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.010)	694937	50.0000	45.452
56 m,p-xylene	106	7.794	7.794	(1.026)	2657478	100.000	94.734
57 o-Xylene	106	8.156	8.156	(1.074)	1297750	50.0000	46.513
58 Styrene	104	8.201	8.201	(1.080)	2161302	50.0000	47.846
59 Bromoform	173	8.196	8.196	(0.847)	468013	50.0000	42.222
60 Isopropyl Benzene	105	8.445	8.445	(0.873)	3329484	50.0000	46.890
62 4-Bromofluorobenzene	95	8.665	8.665	(1.141)	1403139	50.0000	50.987
63 Bromobenzene	156	8.739	8.739	(0.903)	806953	50.0000	43.072
64 N-Propyl Benzene	91	8.812	8.812	(0.911)	3947266	50.0000	46.902

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65 1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	745350	50.0000	40.249
66 2-Chloro Toluene	91	8.920	8.920	(0.922)	2404407	50.0000	45.097
67 1,3,5-Trimethyl Benzene	105	9.005	9.005	(0.931)	2811003	50.0000	46.540
68 1,2,3-Trichloropropane	110	8.971	8.971	(0.927)	226477	50.0000	40.402
69 Trans-1,4-Dichloro 2-Butene	53	9.027	9.027	(0.933)	279787	50.0000	40.685
70 4-Chloro Toluene	91	9.073	9.073	(0.938)	2515252	50.0000	45.542
71 T-Butyl Benzene	119	9.276	9.276	(0.959)	2482245	50.0000	46.721
72 1,2,4-Trimethylbenzene	105	9.344	9.344	(0.966)	2787706	50.0000	46.936
73 S-Butyl Benzene	105	9.440	9.440	(0.976)	3650759	50.0000	47.239
74 4-Isopropyl Toluene	119	9.587	9.587	(0.991)	3047175	50.0000	48.054
75 1,3-Dichlorobenzene	146	9.599	9.599	(0.992)	1540717	50.0000	44.356
76 d4-1,4-Dichlorobenzene	152	9.672	9.672	(1.000)	1415283	50.0000	
77 1,4-Dichlorobenzene	146	9.684	9.684	(1.001)	1577534	50.0000	44.064
78 N-Butyl Benzene	91	9.972	9.972	(1.031)	2934855	50.0000	48.089
79 d4-1,2-Dichlorobenzene	152	10.057	10.057	(1.040)	1458872	50.0000	50.599
80 1,2-Dichlorobenzene	146	10.063	10.063	(1.040)	1450772	50.0000	42.942
81 1,2-Dibromo 3-Chloropropane	75	10.821	10.821	(1.119)	142581	50.0000	39.763
82 Hexachloro 1,3-Butadiene	225	11.505	11.505	(1.189)	707267	50.0000	47.176
83 1,2,4-Trichlorobenzene	180	11.488	11.488	(1.188)	1136400	50.0000	46.648
84 Naphthalene	128	11.805	11.805	(1.220)	2240221	50.0000	41.897
85 1,2,3-Trichlorobenzene	180	11.986	11.986	(1.239)	1045564	50.0000	44.403

C Flag Legend

- Qualifier signal failed the ratio test.
- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: cc0617.d
ab Smp Id: CC0617
nalysis Type: VOA
uant Type: ISTD
perator: PB
ethod File: /chem1/nt5.i/17JUN13.b/VO121012S.m
isc Info: 13-

Calibration Date: 17-JUN-2013
Calibration Time: 09:51
Client Smp ID: VSTD50
Level: LOW
Sample Type: SOIL

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	484680	5.45
35 1,4-Difluorobenze	1692431	846216	3384862	2091516	23.58
52 d5-Chlorobenzene	1987215	993608	3974430	2522243	26.92
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1415283	31.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.66	4.16	5.16	4.67	0.24
35 1,4-Difluorobenze	5.11	4.61	5.61	5.12	0.22
52 d5-Chlorobenzene	7.59	7.09	8.09	7.60	0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.06

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.
T UPPER LIMIT = + 0.50 minutes of internal standard RT.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

nstrument ID: nt5.i Injection Date: 17-JUN-2013 10:36
ab File ID: cc0617.d Init. Cal. Date(s): 11-JUN-2013 11-JUN-2013
nalysis Type: SOIL Init. Cal. Times: 08:33 12:45
ab Sample ID: CC0617 Quant Type: ISTD
ethod: /chem1/nt5.i/17JUN13.b/VO121012S.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Dichlorodifluoromethane	0.88647	0.97869	0.97869	0.100	10.40283	20.00000	Averaged	
2 Chloromethane	1.76539	1.89041	1.89041	0.100	7.08179	20.00000	Averaged	
3 Vinyl Chloride	1.70791	1.86201	1.86201	0.100	9.02285	20.00000	Averaged	
4 Bromomethane	0.85554	0.99480	0.99480	0.100	16.27764	20.00000	Averaged	
5 Chloroethane	1.01682	1.20920	1.20920	0.100	18.91963	20.00000	Averaged	
6 Trichlorofluoromethane	1.77446	2.08469	2.08469	0.100	17.48275	20.00000	Averaged	
7 1,1-Dichloroethene	1.19804	1.41128	1.41128	0.100	17.79881	20.00000	Averaged	
8 Carbon Disulfide	3.89329	4.62889	4.62889	0.010	18.89393	20.00000	Averaged	
9 112Trichloro122Trifluoroeth	1.05460	1.30672	1.30672	0.010	23.90668	20.00000	Averaged	<-
10 Iodomethane	64.88879	50.00000	1.37861	0.010	29.77758	20.00000	Linear	<-
11 Bromoethane	0.73623	0.94162	0.94162	0.100	27.89776	20.00000	Averaged	<-
12 Acrolein	0.25275	0.29721	0.29721	0.000	17.58845	20.00000	Averaged	
13 Methylene Chloride	71.38780	50.00000	1.55240	0.010	42.77560	20.00000	Linear	<-
14 Acetone	262	250	0.26584	0.001	4.63196	20.00000	Quadratic	
15 Trans-1,2-Dichloroethene	1.14821	1.51479	1.51479	0.010	31.92608	20.00000	Averaged	<-
16 Methyl tert butyl ether	3.32109	4.17627	4.17627	0.100	25.75000	20.00000	Averaged	<-
17 1,1-Dichloroethane	2.49147	2.73472	2.73472	0.100	9.76319	20.00000	Averaged	
18 Acrylonitrile	0.53731	0.49494	0.49494	0.001	-7.88538	20.00000	Averaged	
19 Vinyl Acetate	3.40400	3.49282	3.49282	0.010	2.60910	20.00000	Averaged	
20 Cis-1,2-Dichloroethene	1.45377	1.57989	1.57989	0.010	8.67584	20.00000	Averaged	
22 2,2-Dichloropropane	2.07224	2.34275	2.34275	0.010	13.05417	20.00000	Averaged	
23 Bromochloromethane	0.65100	0.67603	0.67603	0.050	3.84478	20.00000	Averaged	
24 Chloroform	2.33246	2.43454	2.43454	0.100	4.37628	20.00000	Averaged	
25 Carbon Tetrachloride	0.48017	0.44084	0.44084	0.100	-8.19156	20.00000	Averaged	
$ 27 Dibromofluoromethane	1.43418	1.65160	1.65160	0.100	15.15974	20.00000	Averaged	
26 1,1,1-Trichloroethane	2.09656	2.23917	2.23917	0.100	6.80218	20.00000	Averaged	
28 1,1-Dichloropropene	0.56276	0.52510	0.52510	0.010	-6.69187	20.00000	Averaged	
29 2-Butanone	0.16877	0.17235	0.17235	0.001	2.11924	20.00000	Averaged	
30 Benzene	1.58130	1.49593	1.49593	0.100	-5.39914	20.00000	Averaged	
$ 32 d4-1,2-Dichloroethane	1.34000	1.62168	1.62168	0.010	21.02149	20.00000	Averaged	<-
33 1,2-Dichloroethane	0.49883	0.45334	0.45334	0.100	-9.12086	20.00000	Averaged	
34 Trichloroethene	0.38605	0.36834	0.36834	0.100	-4.58706	20.00000	Averaged	
37 Dibromomethane	0.20784	0.18919	0.18919	0.010	-8.97364	20.00000	Averaged	
38 1,2-Dichloropropane	0.44826	0.41339	0.41339	0.100	-7.77880	20.00000	Averaged	
39 Bromodichloromethane	0.48464	0.45088	0.45088	0.100	-6.96627	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

nstrument ID: nt5.i Injection Date: 17-JUN-2013 10:36
ab File ID: cc0617.d Init. Cal. Date(s): 11-JUN-2013 11-JUN-2013
nalysis Type: SOIL Init. Cal. Times: 08:33 12:45
ab Sample ID: CC0617 Quant Type: ISTD
ethod: /chem1/nt5.i/17JUN13.b/VO121012S.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
40 2-Chloroethyl Vinyl Ether	0.23557	0.11245	0.11245	0.000	-52.26432	20.00000	Averaged	<-
41 Cis 1,3-dichloropropene	0.63020	0.58623	0.58623	0.100	-6.97708	20.00000	Averaged	
$ 42 d8-Toluene	1.46515	1.47877	1.47877	0.010	0.92910	20.00000	Averaged	
43 Toluene	1.00649	0.94551	0.94551	0.100	-6.05910	20.00000	Averaged	
44 Tetrachloroethene	0.34612	0.32178	0.32178	0.100	-7.03200	20.00000	Averaged	
45 4-Methyl-2-Pentanone	0.17662	0.15647	0.15647	0.000	-11.40982	20.00000	Averaged	
46 Trans 1,3-Dichloropropene	0.56030	0.52143	0.52143	0.010	-6.93729	20.00000	Averaged	
47 1,1,2-Trichloroethane	0.31474	0.28651	0.28651	0.100	-8.96763	20.00000	Averaged	
48 Chlorodibromomethane	0.29864	0.27067	0.27067	0.100	-9.36624	20.00000	Averaged	
49 1,3-Dichloropropane	0.49271	0.43643	0.43643	0.100	-11.42156	20.00000	Averaged	
50 1,2-Dibromoethane	0.30823	0.27788	0.27788	0.010	-9.84658	20.00000	Averaged	
51 2-Hexanone	0.25400	0.21238	0.21238	0.010	-16.38790	20.00000	Averaged	
53 Chlorobenzene	0.85102	0.77654	0.77654	0.300	-8.75226	20.00000	Averaged	
54 Ethyl Benzene	1.45952	1.40241	1.40241	0.100	-3.91295	20.00000	Averaged	
55 1,1,1,2-Tetrachloroethane	0.30310	0.27552	0.27552	0.010	-9.09684	20.00000	Averaged	
56 m,p-xylene	0.55609	0.52681	0.52681	0.100	-5.26609	20.00000	Averaged	
57 o-Xylene	0.55310	0.51452	0.51452	0.100	-6.97410	20.00000	Averaged	
58 Styrene	0.89548	0.85690	0.85690	0.100	-4.30890	20.00000	Averaged	
59 Bromoform	0.39161	0.33069	0.33069	0.100	-15.55690	20.00000	Averaged	
60 Isopropyl Benzene	2.50854	2.35252	2.35252	0.010	-6.21964	20.00000	Averaged	
$ 62 4-Bromofluorobenzene	0.54554	0.55631	0.55631	0.200	1.97343	20.00000	Averaged	
63 Bromobenzene	0.66188	0.57017	0.57017	0.010	-13.85544	20.00000	Averaged	
64 N-Propyl Benzene	2.97324	2.78903	2.78903	0.010	-6.19561	20.00000	Averaged	
65 1,1,2,2-Tetrachloroethane	0.65423	0.52664	0.52664	0.300	-19.50195	20.00000	Averaged	
66 2-Chloro Toluene	1.88361	1.69889	1.69889	0.010	-9.80694	20.00000	Averaged	
67 1,3,5-Trimethyl Benzene	2.13384	1.98618	1.98618	0.010	-6.92009	20.00000	Averaged	
68 1,2,3-Trichloropropane	0.19804	0.16002	0.16002	0.010	-19.19573	20.00000	Averaged	
69 Trans-1,4-Dichloro 2-Butene	0.24295	0.19769	0.19769	0.001	-18.63051	20.00000	Averaged	
70 4-Chloro Toluene	1.95119	1.77721	1.77721	0.010	-8.91651	20.00000	Averaged	
71 T-Butyl Benzene	1.87698	1.75389	1.75389	0.010	-6.55796	20.00000	Averaged	
72 1,2,4-Trimethylbenzene	2.09828	1.96972	1.96972	0.010	-6.12719	20.00000	Averaged	
73 S-Butyl Benzene	2.73030	2.57953	2.57953	0.010	-5.52235	20.00000	Averaged	
74 4-Isopropyl Toluene	2.24024	2.15305	2.15305	0.010	-3.89199	20.00000	Averaged	
75 1,3-Dichlorobenzene	1.22714	1.08863	1.08863	0.100	-11.28722	20.00000	Averaged	
77 1,4-Dichlorobenzene	1.26479	1.11464	1.11464	0.100	-11.87164	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

nstrument ID: nt5.i Injection Date: 17-JUN-2013 10:36
ab File ID: cc0617.d Init. Cal. Date(s): 11-JUN-2013 11-JUN-2013
nalysis Type: SOIL Init. Cal. Times: 08:33 12:45
ab Sample ID: CC0617 Quant Type: ISTD
ethod: /chem1/nt5.i/17JUN13.b/VO121012S.m

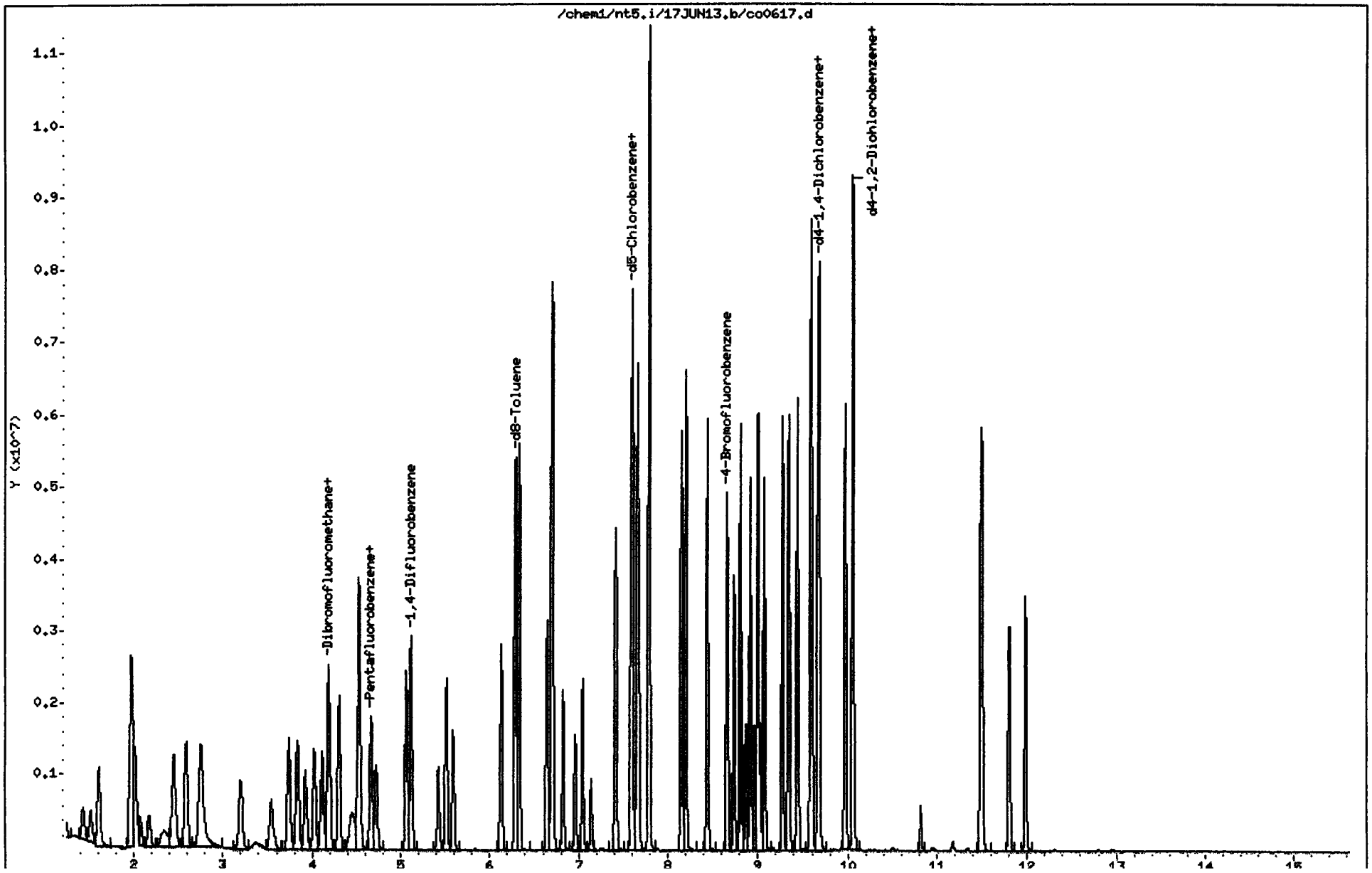
COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 N-Butyl Benzene	2.15610	2.07369	2.07369	0.010	-3.82246	20.00000	Averaged	
$ 79 d4-1,2-Dichlorobenzene	1.01860	1.03080	1.03080	0.010	1.19761	20.00000	Averaged	
80 1,2-Dichlorobenzene	1.19355	1.02508	1.02508	0.100	-14.11505	20.00000	Averaged	
81 1,2-Dibromo 3-Chloropropane	0.12668	0.10074	0.10074	0.010	-20.47445	20.00000	Averaged	<-
82 Hexachloro 1,3-Butadiene	0.52965	0.49974	0.49974	0.010	-5.64768	20.00000	Averaged	
83 1,2,4-Trichlorobenzene	0.86064	0.80295	0.80295	0.010	-6.70362	20.00000	Averaged	
84 Naphthalene	1.88899	1.58288	1.58288	0.010	-16.20504	20.00000	Averaged	
85 1,2,3-Trichlorobenzene	0.83188	0.73877	0.73877	0.010	-11.19315	20.00000	Averaged	

Data File: /chem1/nt5.i/17JUN13.b/cc0617.d
Date : 17-JUN-2013 10:36
Client ID: VSTD50
Sample Info: CC0617,5,5,0,0,2

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Analytical Resources, Inc.

8260C

)ata file : /chem1/nt5.i/17JUN13.b/mb0617.d
.ab Smp Id: MB0617 Client Smp ID: MB0617
:nj Date : 17-JUN-2013 12:02
)perator : PB Inst ID: nt5.i
;mp Info : MB0617,5,5,0,2
lisc Info : 13-12782
:omment :
lethod : /chem1/nt5.i/17JUN13.b/VO121012S.m
leth Date : 17-Jun-2013 15:12 patrickb Quant Type: ISTD
:al Date : 11-JUN-2013 08:57 Cal File: 2000611.d
.ls bottle: 1 QC Sample: BLANK
)il Factor: 1.00000
:ntegrator: HP RTE Compound Sublist: voa.sub
'arget Version: 3.50
'rocessing Host: cserv3

6/19/13

:oncentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

:pnd Variable Local Compound Variable

	ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1	Dichlorodifluoromethane	85	Compound Not Detected.					
2	Chloromethane	50	Compound Not Detected.					
3	Vinyl Chloride	62	Compound Not Detected.					
4	Bromomethane	94	Compound Not Detected.					
5	Chloroethane	64	Compound Not Detected.					
6	Trichlorofluoromethane	101	Compound Not Detected.					
7	1,1-Dichloroethene	96	Compound Not Detected.					
8	Carbon Disulfide	76	Compound Not Detected.					
9	112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10	Iodomethane	142	2.047	2.075	(0.440)	10064	0.96868	0.9687(M)
11	Bromoethane	108	Compound Not Detected.					
12	Acrolein	56	Compound Not Detected.					
13	Methylene Chloride	84	2.420	2.454	(0.520)	43955	4.13345	4.133
14	Acetone	43	Compound Not Detected.					

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)	
15 Trans-1,2-Dichloroethene	96	Compound Not Detected.						
16 Methyl tert butyl ether	73	Compound Not Detected.						
17 1,1-Dichloroethane	63	Compound Not Detected.						
18 Acrylonitrile	53	Compound Not Detected.						
19 Vinyl Acetate	43	Compound Not Detected.						
20 Cis-1,2-Dichloroethene	96	Compound Not Detected.						
22 2,2-Dichloropropane	77	Compound Not Detected.						
23 Bromochloromethane	128	Compound Not Detected.						
24 Chloroform	83	Compound Not Detected.						
25 Carbon Tetrachloride	117	Compound Not Detected.						
27 Dibromofluoromethane	111	4.174	4.196	(0.897)	811662	57.8661	57.866	
26 1,1,1-Trichloroethane	97	Compound Not Detected.						
28 1,1-Dichloropropene	75	Compound Not Detected.						
29 2-Butanone	72	Compound Not Detected.						
30 Benzene	78	Compound Not Detected.						
31 Pentafluorobenzene	168	4.654	4.672	(1.000)	489010	50.0000		(M)
32 d4-1,2-Dichloroethane	65	4.649	4.666	(0.999)	799312	60.9909	60.991	
33 1,2-Dichloroethane	62	Compound Not Detected.						
34 Trichloroethene	95	Compound Not Detected.						
35 1,4-Difluorobenzene	114	5.107	5.118	(1.000)	2089891	50.0000		
37 Dibromomethane	93	Compound Not Detected.						
38 1,2-Dichloropropane	63	Compound Not Detected.						
39 Bromodichloromethane	83	Compound Not Detected.						
40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.						
41 Cis 1,3-dichloropropene	75	Compound Not Detected.						
42 d8-Toluene	98	6.284	6.295	(1.230)	3105615	50.7120	50.712	
43 Toluene	92	Compound Not Detected.						
44 Tetrachloroethene	166	Compound Not Detected.						
45 4-Methyl-2-Pentanone	58	Compound Not Detected.						
46 Trans 1,3-Dichloropropene	75	Compound Not Detected.						
47 1,1,2-Trichloroethane	97	Compound Not Detected.						
48 Chlorodibromomethane	129	Compound Not Detected.						
49 1,3-Dichloropropane	76	Compound Not Detected.						
50 1,2-Dibromoethane	107	Compound Not Detected.						
51 2-Hexanone	43	Compound Not Detected.						
52 d5-Chlorobenzene	117	7.590	7.596	(1.000)	2571479	50.0000		
53 Chlorobenzene	112	Compound Not Detected.						
54 Ethyl Benzene	91	Compound Not Detected.						
55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
56 m,p-xylene	106	Compound Not Detected.						
57 o-Xylene	106	Compound Not Detected.						
58 Styrene	104	Compound Not Detected.						
59 Bromoform	173	Compound Not Detected.						
60 Isopropyl Benzene	105	Compound Not Detected.						
62 4-Bromofluorobenzene	95	8.660	8.665	(1.141)	1417037	50.5058	50.506	
63 Bromobenzene	156	Compound Not Detected.						
64 N-Propyl Benzene	91	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
76	d4-1,4-Dichlorobenzene	152	9.666	9.672	(1.000)	1412867	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
79	d4-1,2-Dichlorobenzene	152	10.051	10.057	(1.040)	1468147	51.0076	51.008
80	1,2-Dichlorobenzene	146	10.057	10.063	(1.040)	48492	1.43781	1.438(Q)
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	11.477	11.488	(1.187)	57534	2.36576	2.366
84	Naphthalene	128	11.793	11.805	(1.220)	61984	1.16123	1.161
85	1,2,3-Trichlorobenzene	180	11.969	11.986	(1.238)	14268	0.60698	0.6070

C Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

:nstrument ID: nt5.i
:ab File ID: mb0617.d
:ab Smp Id: MB0617
:nalysis Type: VOA
:uant Type: ISTD
:perator: PB
:ethod File: /chem1/nt5.i/17JUN13.b/VO121012S.m
:isc Info: 13-12782

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: MB0617
Level: LOW
Sample Type: SOIL

'est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	489010	6.39
35 1,4-Difluorobenze	1692431	846216	3384862	2089891	23.48
52 d5-Chlorobenzene	1987215	993608	3974430	2571479	29.40
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1412867	31.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.65	-0.36
35 1,4-Difluorobenze	5.12	4.62	5.62	5.11	-0.22
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.08
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.06

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.
T UPPER LIMIT = + 0.50 minutes of internal standard RT.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

lient Name: Client SDG: 17JUN13
ample Matrix: SOLID Fraction: VOA
ab Smp Id: MB0617 Client Smp ID: MB0617
evel: LOW Operator: PB
ata Type: MS DATA SampleType: BLANK
pikeList File: all.spk Quant Type: ISTD
ublist File: voa.sub
ethod File: /chem1/nt5.i/17JUN13.b/VO121012S.m
isc Info: 13-12782

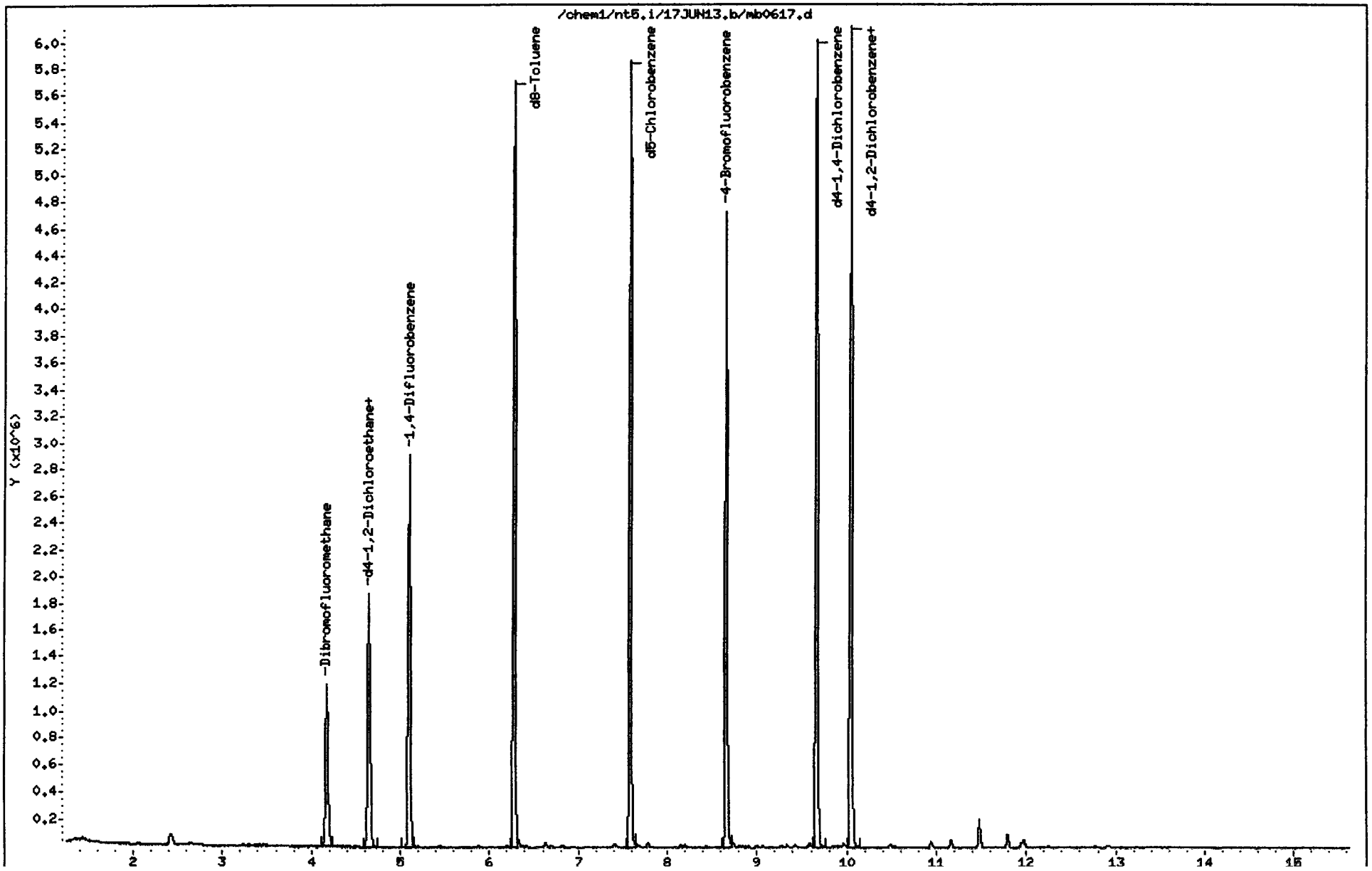
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	57.866	115.73	70-130
$ 32 d4-1,2-Dichloroeth	50.000	60.991	121.98	80-149
$ 42 d8-Toluene	50.000	50.712	101.42	77-120
$ 62 4-Bromofluorobenze	50.000	50.506	101.01	80-120
$ 79 d4-1,2-Dichloroben	50.000	51.008	102.02	80-120

Data File: /chem1/nt5.i/17JUN13.b/mb0617.d
Date : 17-JUN-2013 12:02
Client ID: MB0617
Sample Info: MB0617,5,5,0,2

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



O-ELUTION SUMMARY FOR FILE - mb0617.d

ab ID: MB0617, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

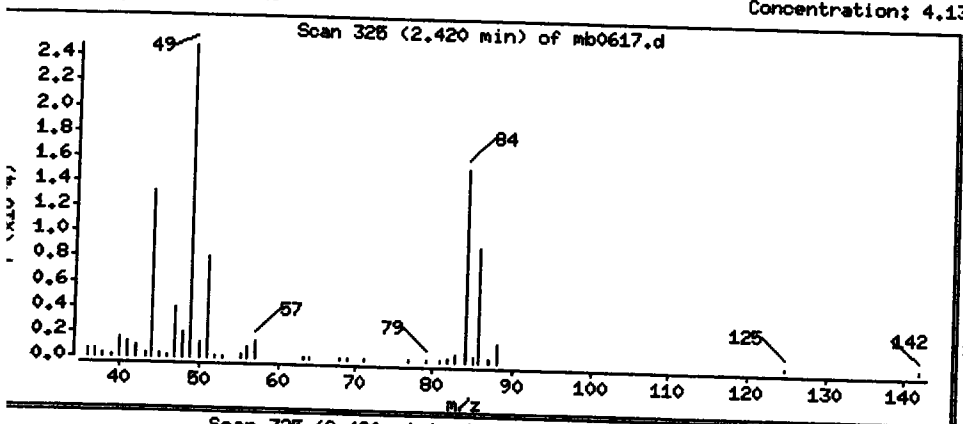
Operator: PB

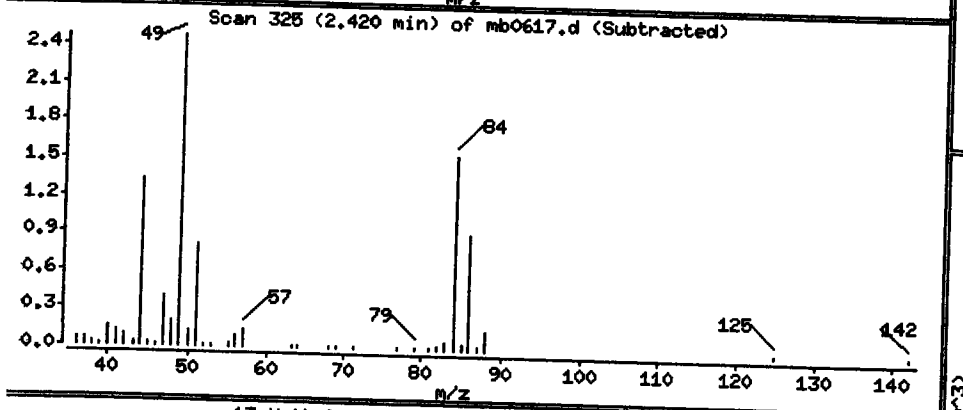
Column phase: RTXVMS

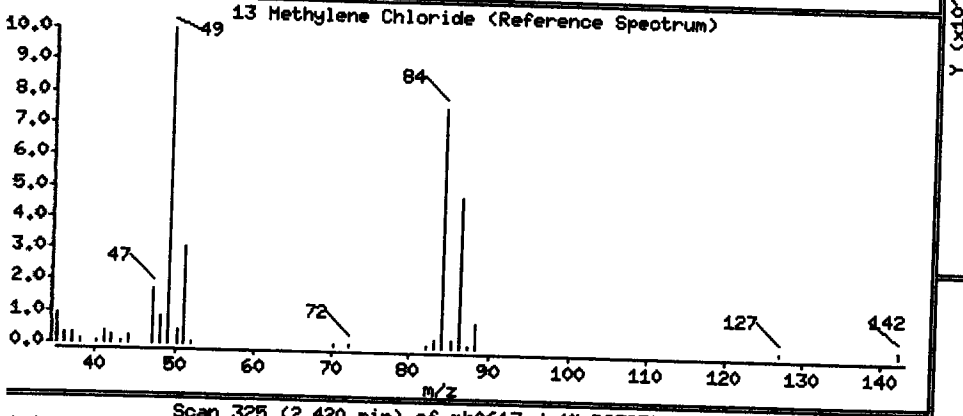
Column diameter: 0.18

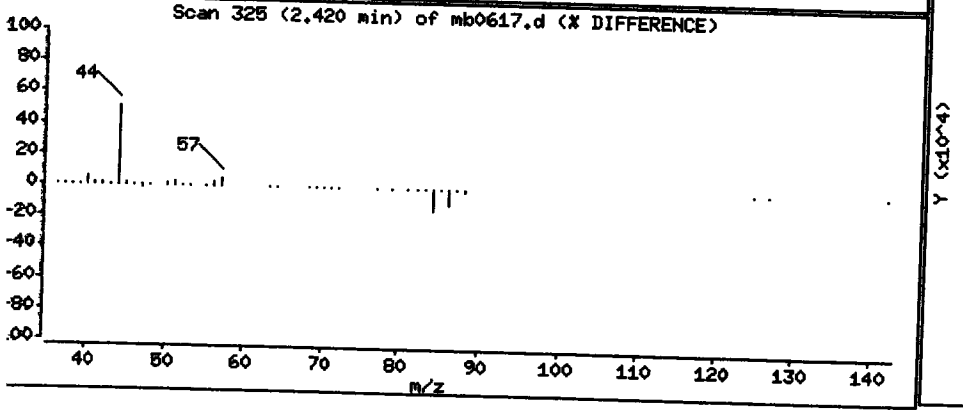
13 Methylene Chloride

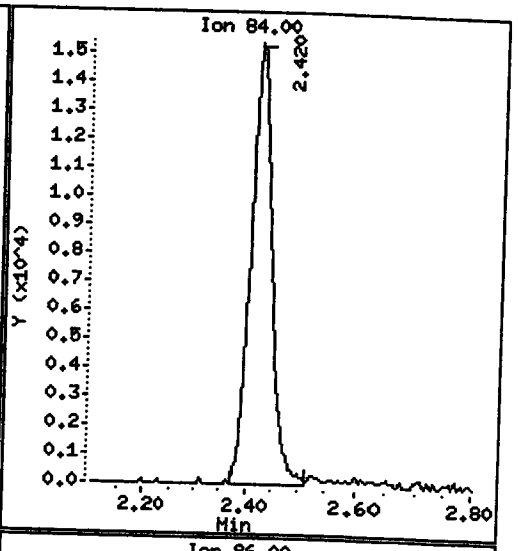
Concentration: 4.133 ug/Kg

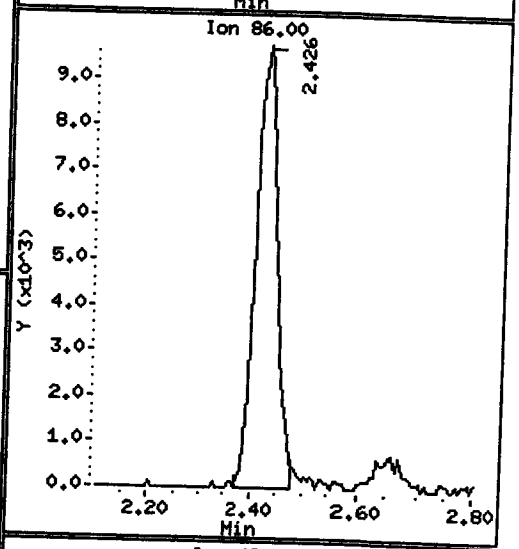


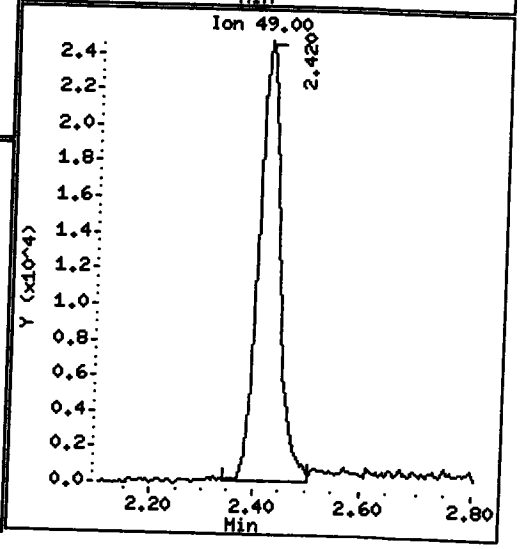












Data File: /ohem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

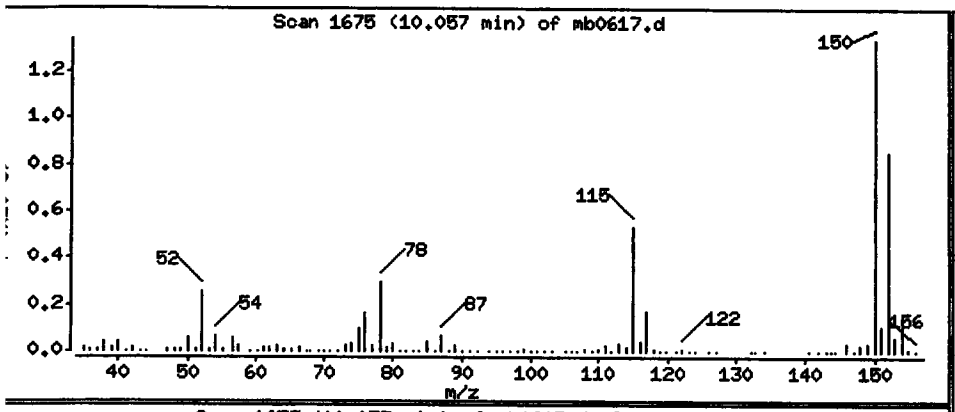
Operator: PB

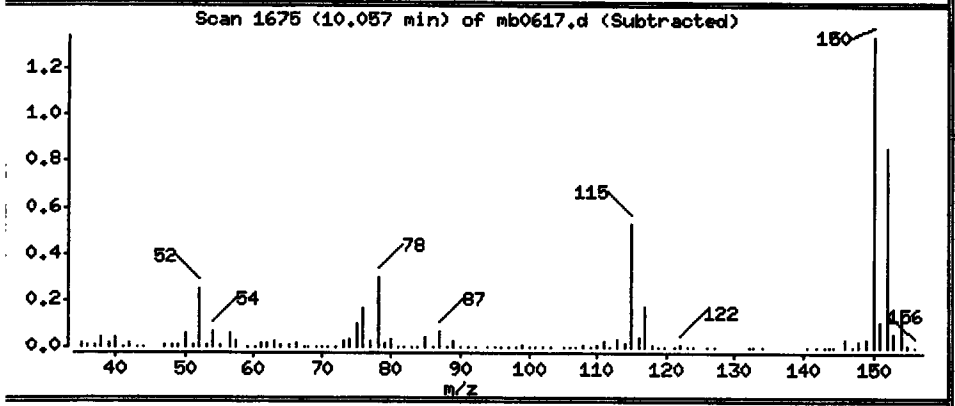
Column phase: RTXVMS

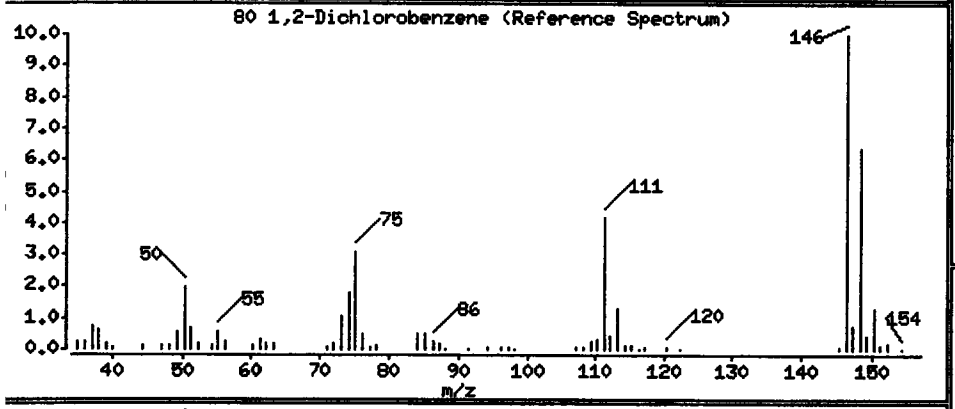
Column diameter: 0.18

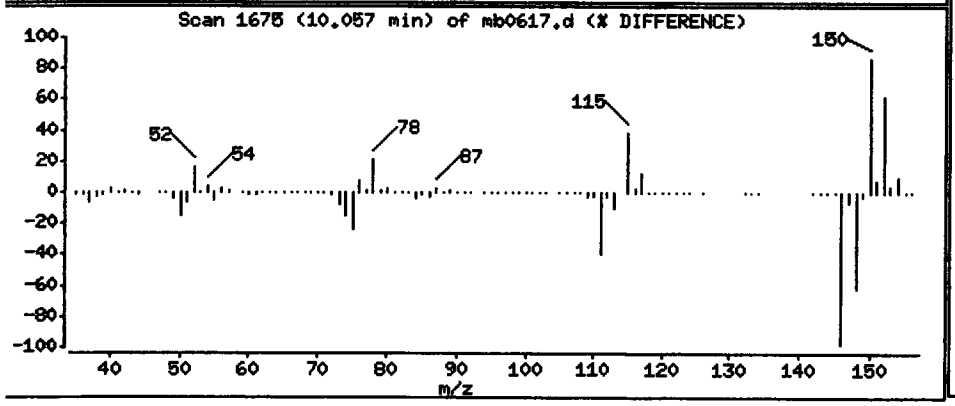
80 1,2-Dichlorobenzene

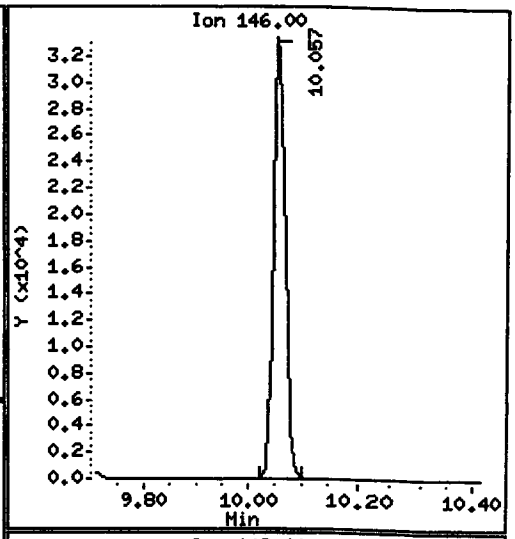
Concentration: 1.438 ug/Kg

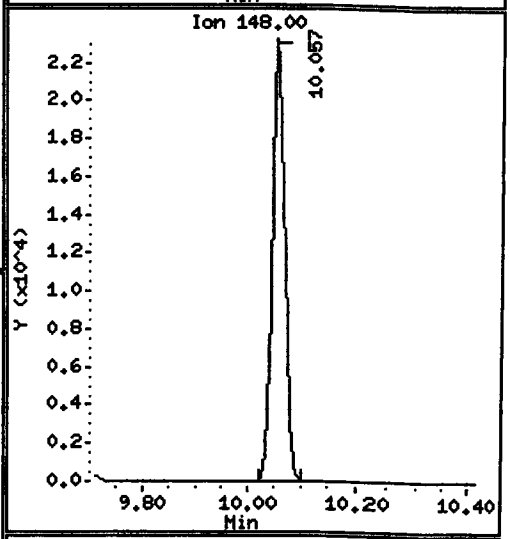


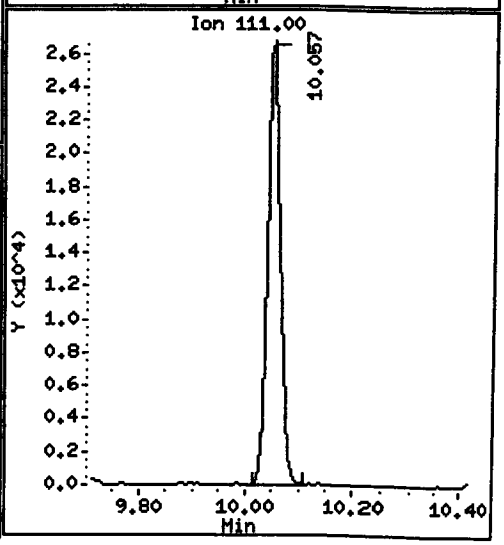












Data File: /chem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

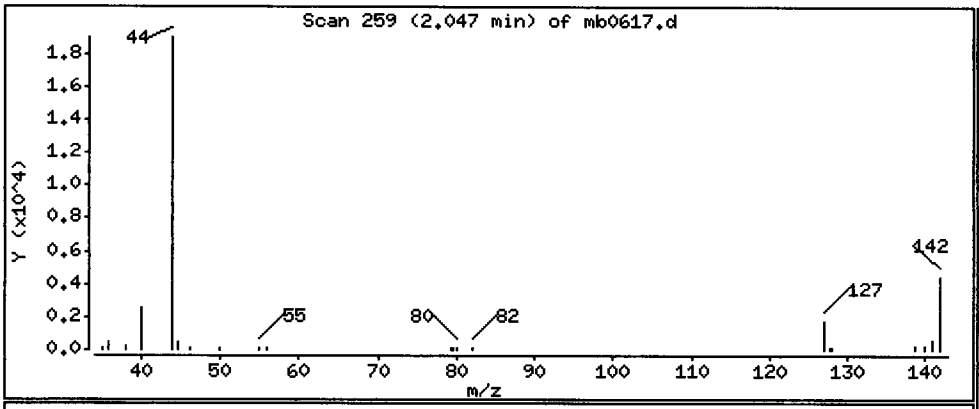
Operator: PB

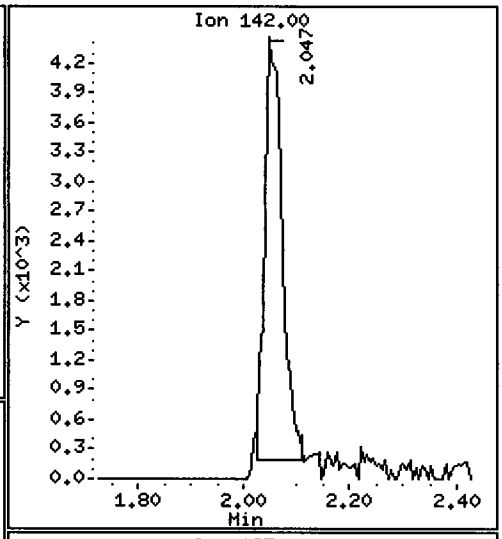
Column phase: RTXVMS

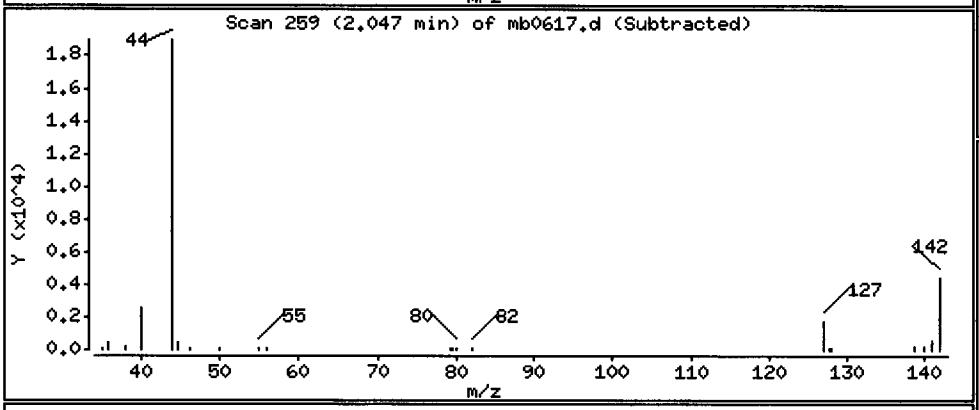
Column diameter: 0.18

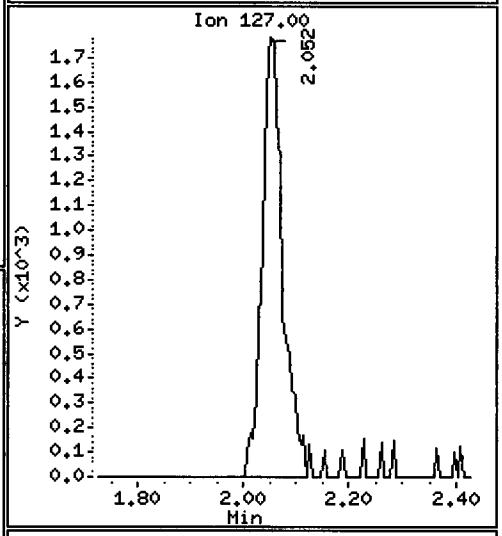
10 Iodomethane

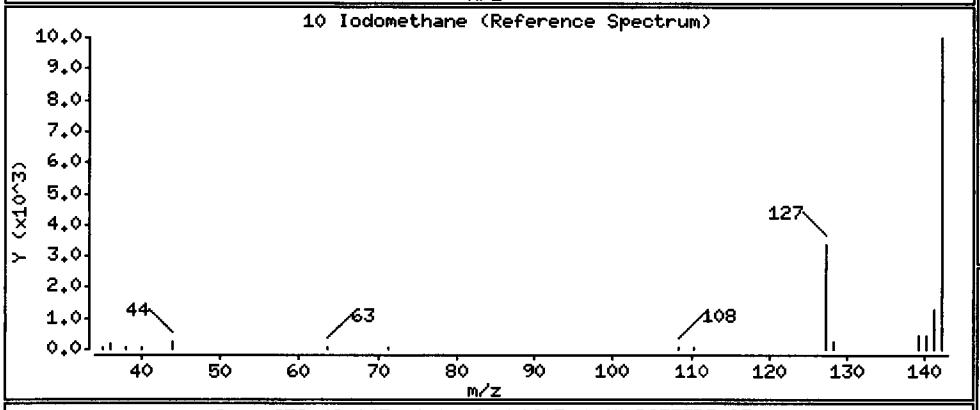
Concentration: 0.9687 ug/Kg

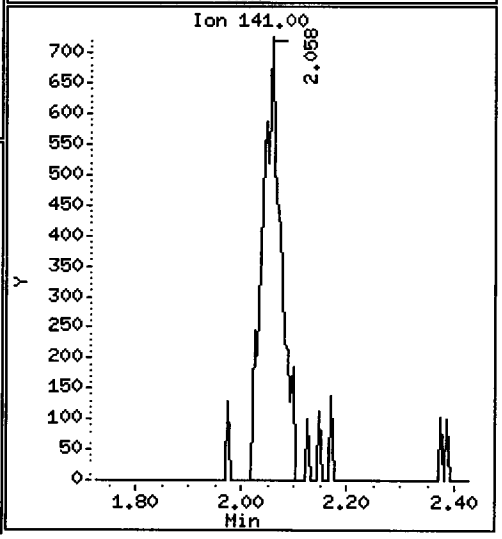


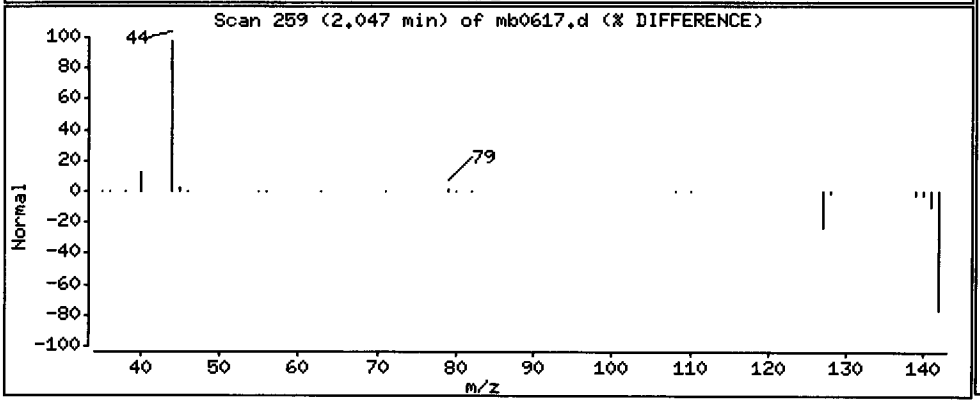












Data File: /chem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

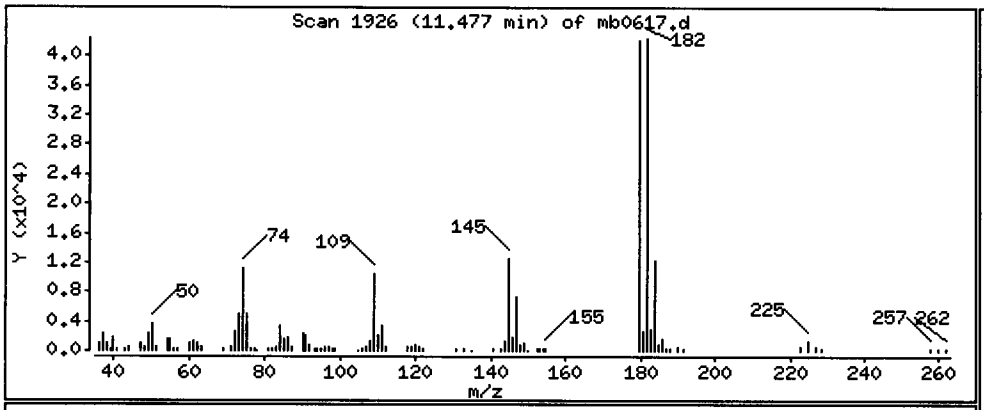
Operator: PB

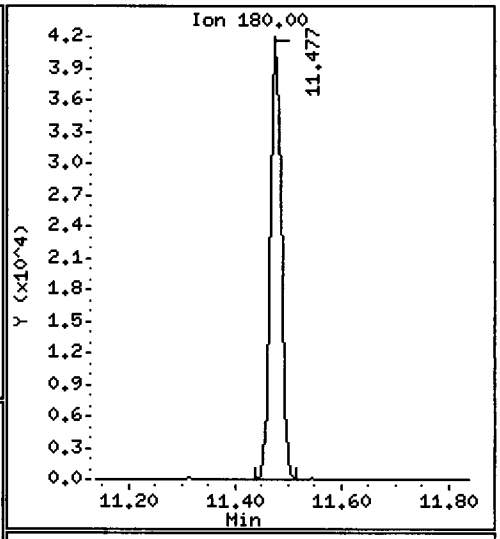
Column phase: RTXVMS

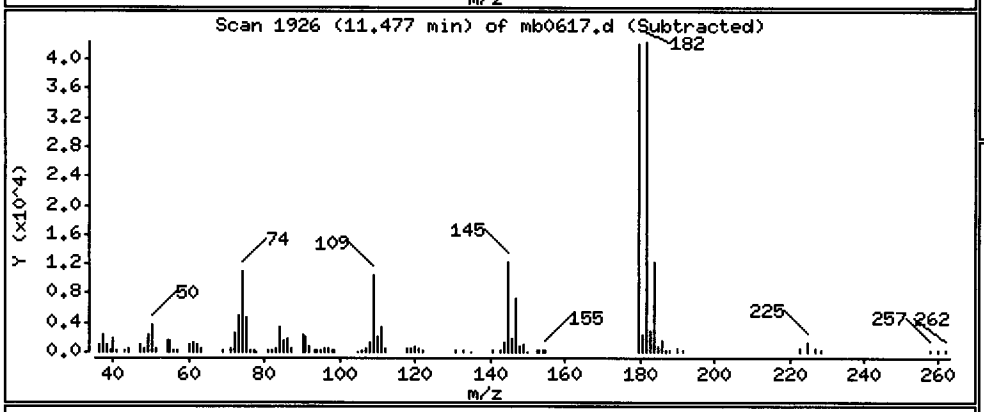
Column diameter: 0.18

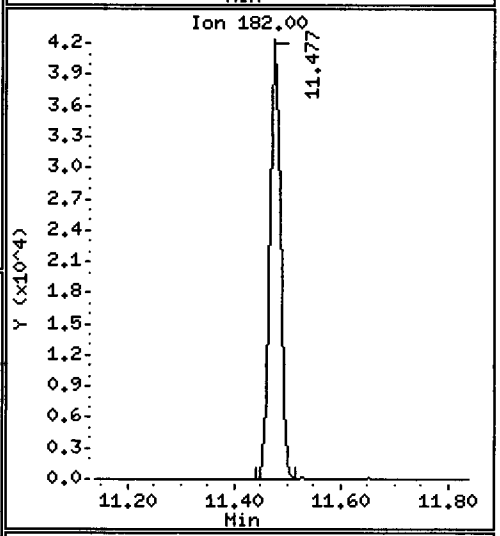
83 1,2,4-Trichlorobenzene

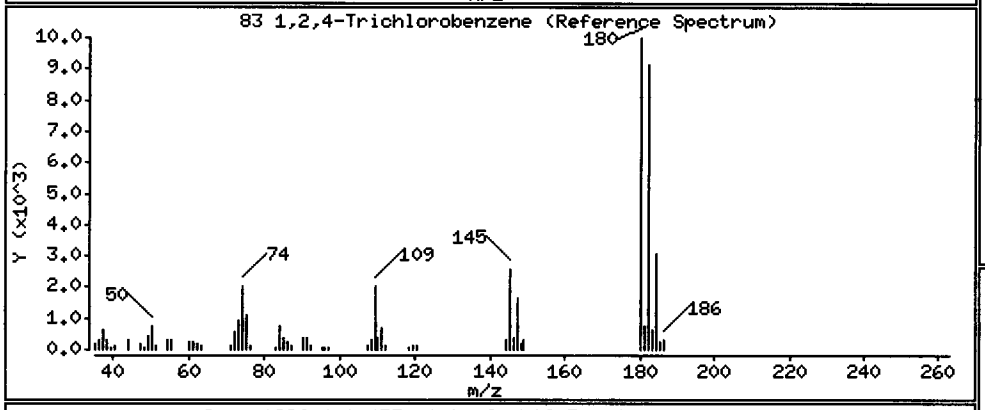
Concentration: 2.366 ug/Kg

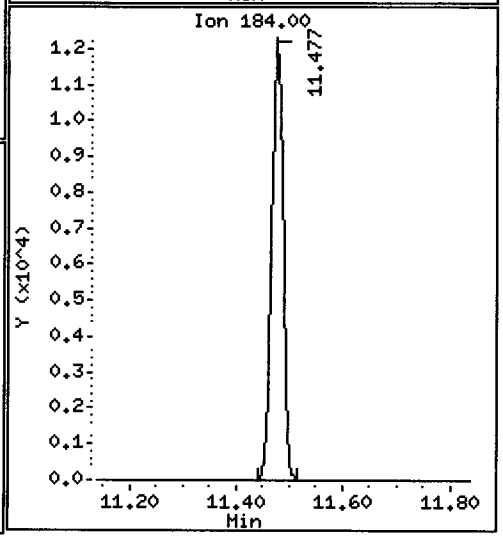


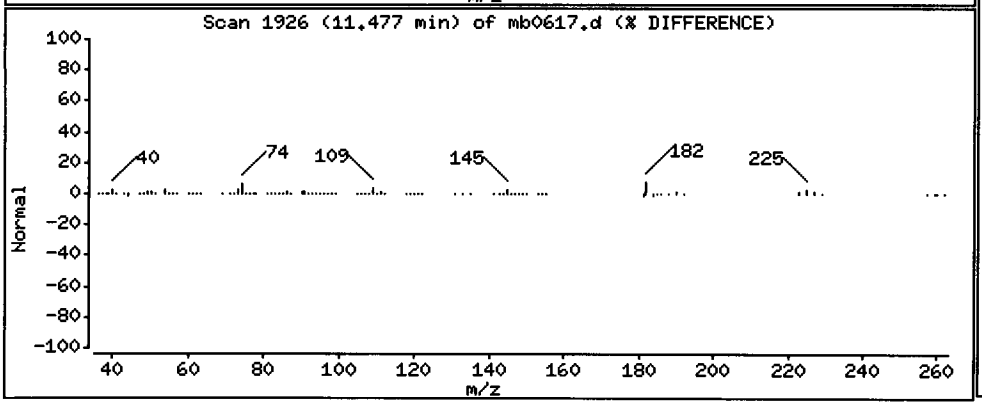












Data File: /chem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

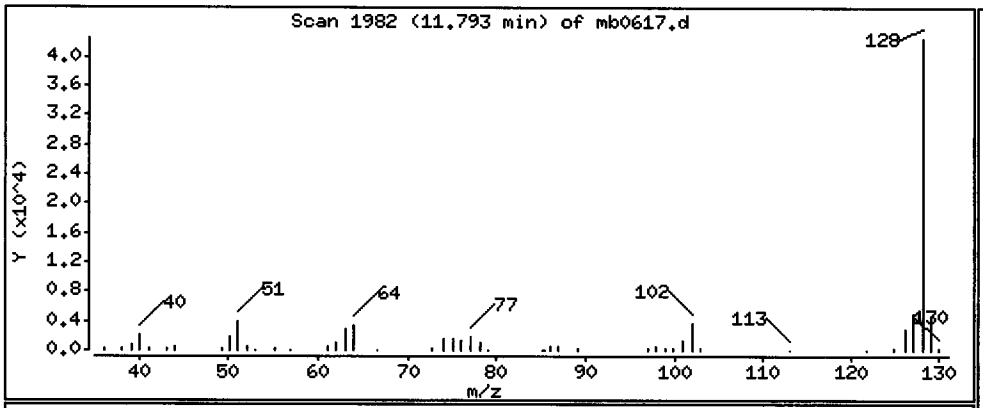
Operator: PB

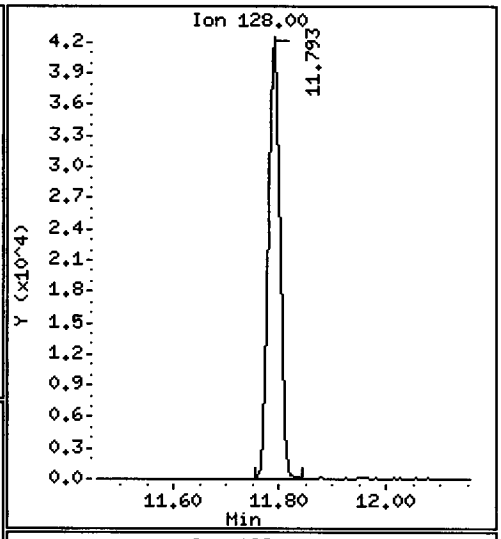
Column phase: RTXVMS

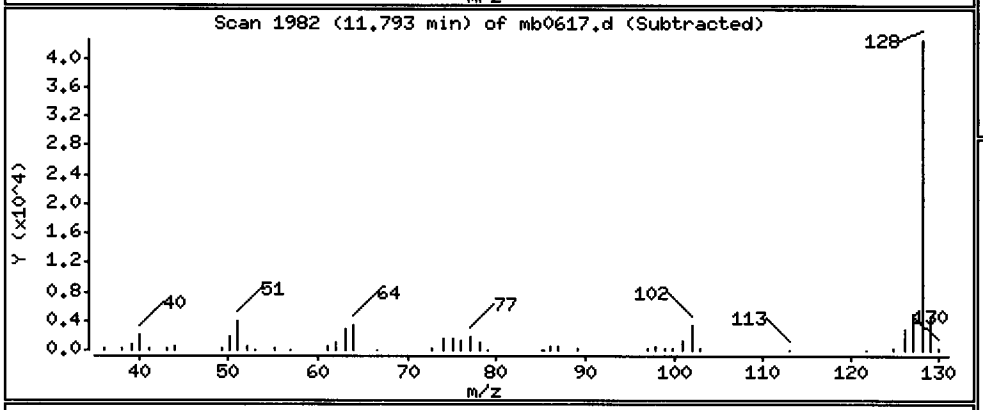
Column diameter: 0.18

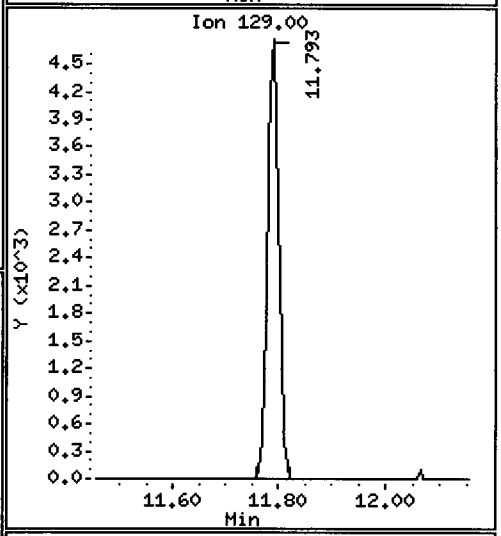
84 Naphthalene

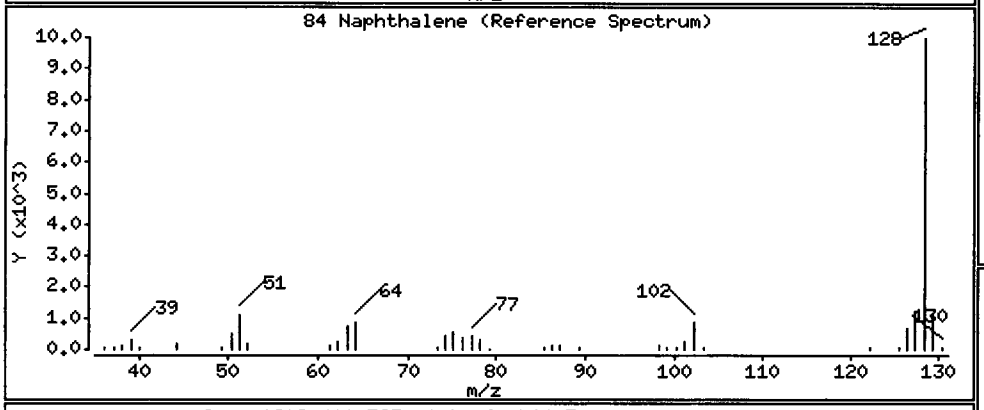
Concentration: 1.161 ug/Kg

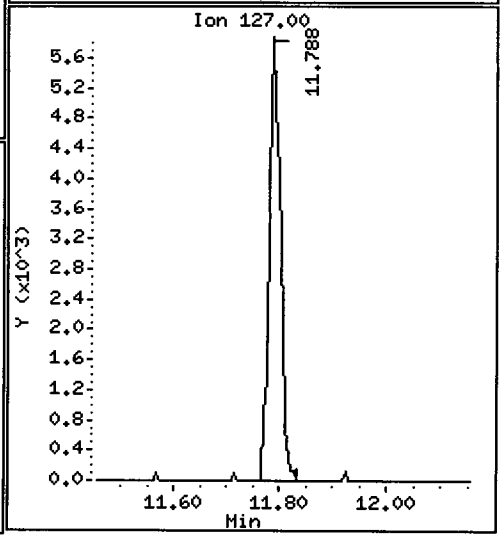


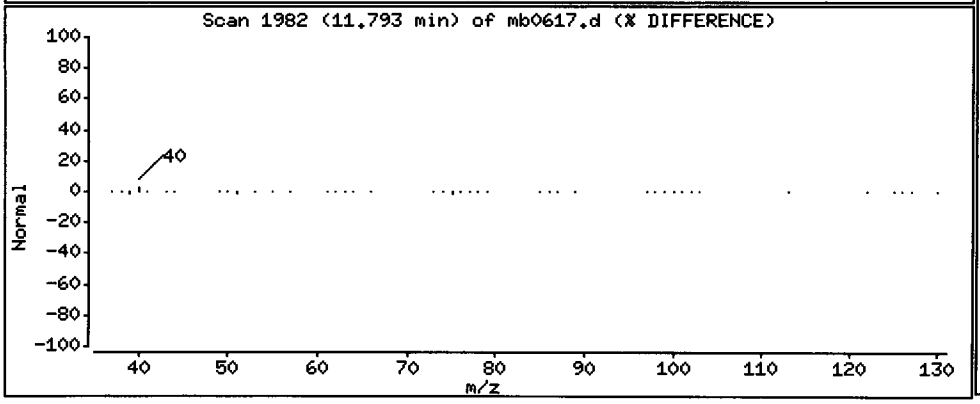












Data File: /chem1/nt5.i/17JUN13.b/mb0617.d

Date : 17-JUN-2013 12:02

Client ID: MB0617

Instrument: nt5.i

Sample Info: MB0617,5,5,0,2

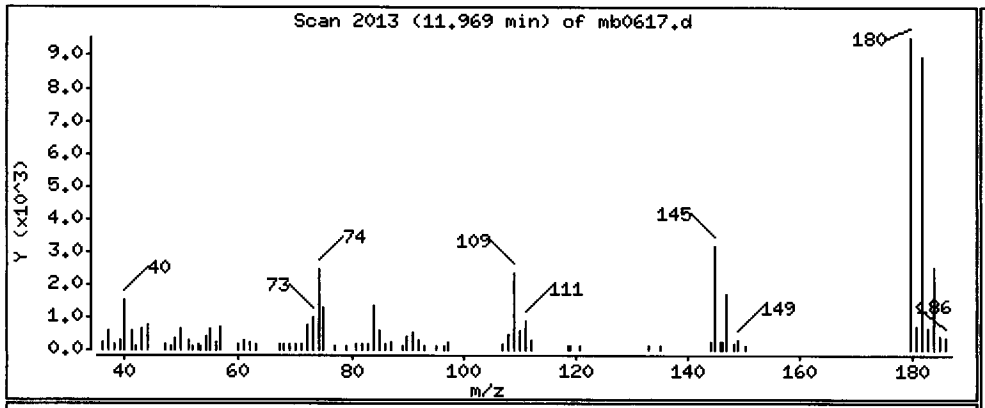
Operator: PB

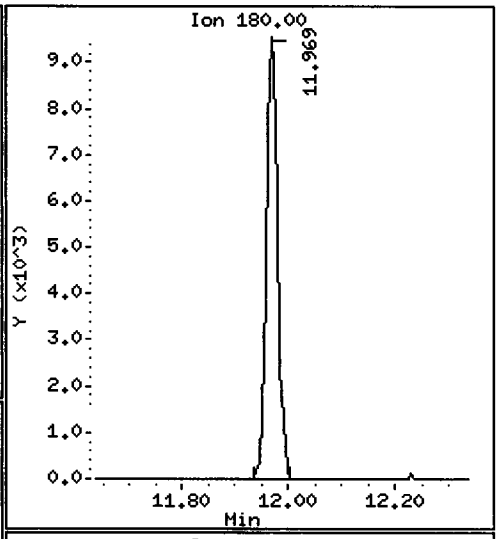
Column phase: RTXVMS

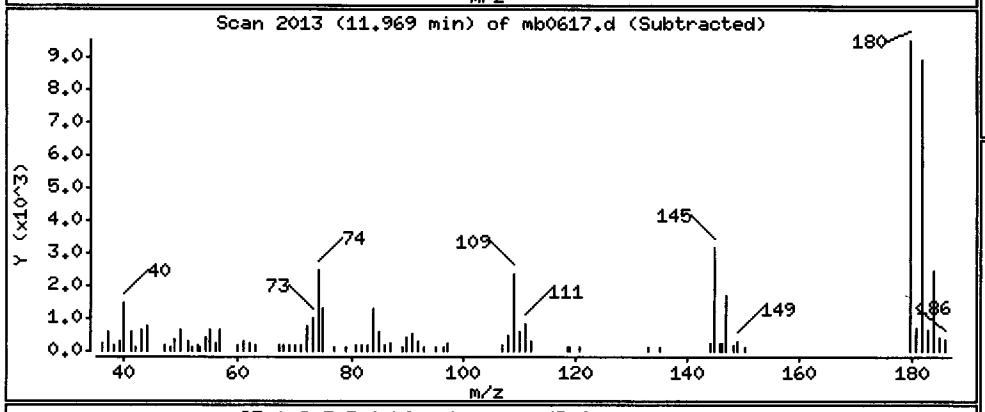
Column diameter: 0.18

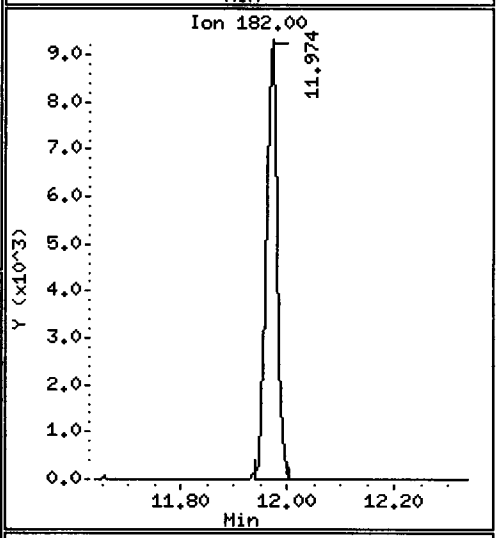
85 1,2,3-Trichlorobenzene

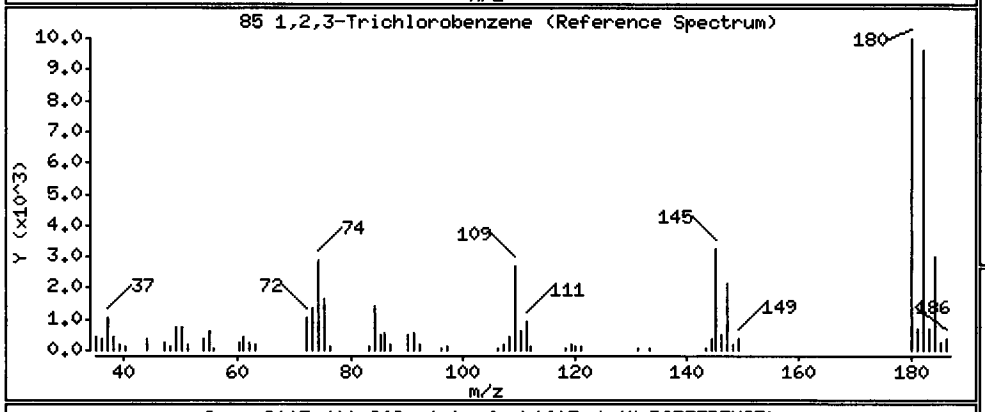
Concentration: 0.6070 ug/Kg

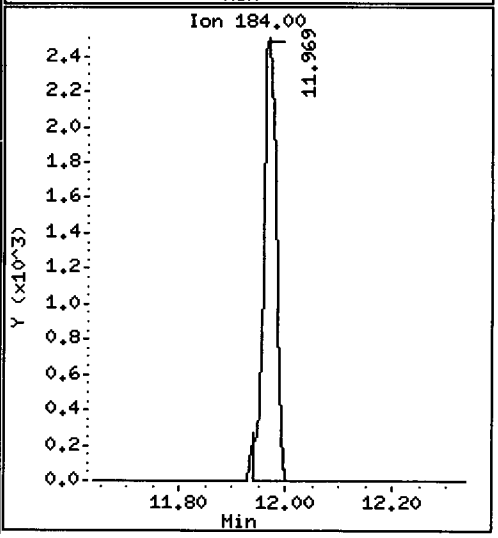


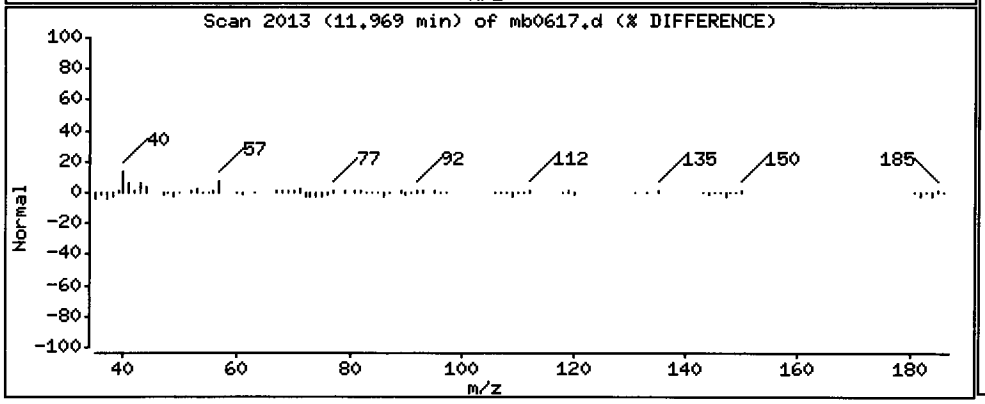












Analytical Resources, Inc.

8260C

ata file : /chem1/nt5.i/17JUN13.b/lcs0617a.d
ab Smp Id: LCS0617 Client Smp ID: LCS0617
nj Date : 17-JUN-2013 11:38
perator : PB Inst ID: nt5.i
mp Info : LCS0617,5,5,0,2
isc Info : 13-12782
omment :
ethod : /chem1/nt5.i/17JUN13.b/VO121012S.m
eth Date : 17-Jun-2013 15:12 patrickb Quant Type: ISTD
al Date : 11-JUN-2013 08:57 Cal File: 2000611.d
ls bottle: 1 QC Sample: LCSD
il Factor: 1.00000
ntegrator: HP RTE Compound Sublist: voa.sub
arget Version: 3.50
rocessing Host: cserv3

6/17/13

oncentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

pnd Variable Local Compound Variable

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	1.040	1.057	(0.223)	434547	49.6204	49.620
2 Chloromethane	50	1.362	1.176	(0.292)	867690	49.7523	49.752(M)
3 Vinyl Chloride	62	1.210	1.226	(0.260)	867250	51.4004	51.400
4 Bromomethane	94	1.419	1.436	(0.304)	434083	51.3595	51.360
5 Chloroethane	64	1.504	1.521	(0.323)	523146	52.0795	52.080
6 Trichlorofluoromethane	101	1.594	1.611	(0.342)	921077	52.5432	52.543
7 1,1-Dichloroethene	96	1.956	1.973	(0.420)	621184	52.4850	52.485
8 Carbon Disulfide	76	1.962	1.973	(0.421)	2047704	53.2400	53.240
9 112Trichloro122Trifluoroethane	101	2.002	2.018	(0.429)	576854	55.3689	55.369
10 Iodomethane	142	2.058	2.075	(0.442)	574932	54.7850	54.785
11 Bromoethane	108	2.154	2.171	(0.462)	403224	55.4396	55.440
12 Acrolein	56	2.279	2.335	(0.489)	763587	305.810	305.81(Q)
13 Methylene Chloride	84	2.432	2.454	(0.522)	589086	54.8426	54.843
14 Acetone	43	2.703	2.754	(0.580)	611044	236.751	236.75(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
15	Trans-1,2-Dichloroethene	96	2.573	2.590	(0.552)	566312	49.9254	49.925
16	Methyl tert butyl ether	73	2.737	2.754	(0.587)	1739195	53.0098	53.010
17	1,1-Dichloroethane	63	3.178	3.201	(0.682)	1191166	48.3954	48.395
18	Acrylonitrile	53	3.325	3.370	(0.714)	267054	50.3109	50.311 (M)
19	Vinyl Acetate	43	3.523	3.540	(0.756)	1753088	52.1317	52.132
20	Cis-1,2-Dichloroethene	96	3.727	3.744	(0.800)	722206	50.2868	50.287
22	2,2-Dichloropropane	77	3.823	3.840	(0.820)	1049816	51.2815	51.282
23	Bromochloromethane	128	3.914	3.930	(0.840)	312931	48.6580	48.658
24	Chloroform	83	4.015	4.027	(0.862)	1117682	48.5055	48.506
25	Carbon Tetrachloride	117	4.100	4.117	(0.802)	907397	45.0541	45.054
27	Dibromofluoromethane	111	4.185	4.196	(0.898)	870807	61.4620	61.462
26	1,1,1-Trichloroethane	97	4.174	4.185	(0.896)	1062874	51.3171	51.317
28	1,1-Dichloropropene	75	4.293	4.304	(0.840)	1032628	43.7473	43.747
29	2-Butanone	72	4.406	4.457	(0.945)	430220	258.038	258.04 (Q)
30	Benzene	78	4.525	4.530	(0.885)	2946783	44.4287	44.429
31	Pentafluorobenzene	168	4.660	4.672	(1.000)	493949	50.0000	
32	d4-1,2-Dichloroethane	65	4.655	4.666	(0.999)	790313	59.7012	59.701
33	1,2-Dichloroethane	62	4.717	4.722	(0.923)	923805	44.1524	44.152
34	Trichloroethene	95	5.056	5.067	(0.989)	713761	44.0797	44.080
35	1,4-Difluorobenzene	114	5.113	5.118	(1.000)	2097198	50.0000	
37	Dibromomethane	93	5.413	5.424	(1.059)	391256	44.8807	44.881
38	1,2-Dichloropropane	63	5.509	5.514	(1.077)	818133	43.5134	43.513
39	Bromodichloromethane	83	5.582	5.588	(1.092)	904462	44.4936	44.494
40	2-Chloroethyl Vinyl Ether	63	6.120	6.125	(1.197)	226707	22.9448	22.945
41	Cis 1,3-dichloropropene	75	6.131	6.137	(1.199)	1176118	44.4939	44.494
42	d8-Toluene	98	6.290	6.295	(1.230)	3117576	50.7299	50.730
43	Toluene	92	6.329	6.335	(1.238)	1849259	43.8044	43.804
44	Tetrachloroethene	166	6.646	6.646	(0.875)	755355	42.6810	42.681
45	4-Methyl-2-Pentanone	58	6.702	6.708	(1.311)	1710578	230.903	230.90
46	Trans 1,3-Dichloropropene	75	6.697	6.697	(1.310)	1058323	45.0326	45.033
47	1,1,2-Trichloroethane	97	6.827	6.827	(1.335)	588231	44.5587	44.559
48	Chlorodibromomethane	129	6.963	6.963	(0.917)	666871	43.6721	43.672
49	1,3-Dichloropropane	76	7.042	7.047	(0.927)	1084801	43.0596	43.060
50	1,2-Dibromoethane	107	7.138	7.138	(1.396)	574716	44.4537	44.454
51	2-Hexanone	43	7.415	7.415	(0.976)	2822664	217.335	217.33
52	d5-Chlorobenzene	117	7.596	7.596	(1.000)	2556589	50.0000	
53	Chlorobenzene	112	7.608	7.607	(1.001)	1853886	42.6042	42.604
54	Ethyl Benzene	91	7.659	7.658	(1.008)	3322611	44.5224	44.522
55	1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.010)	661403	42.6772	42.677
56	m,p-xylene	106	7.789	7.794	(1.025)	2513396	88.3940	88.394
57	o-Xylene	106	8.151	8.156	(1.073)	1230875	43.5234	43.523
58	Styrene	104	8.202	8.201	(1.080)	2055671	44.8958	44.896
59	Bromoform	173	8.196	8.196	(0.848)	465927	41.6264	41.626
60	Isopropyl Benzene	105	8.439	8.445	(0.873)	3126654	43.6073	43.607
62	4-Bromofluorobenzene	95	8.660	8.665	(1.140)	1424291	51.0600	51.060
63	Bromobenzene	156	8.739	8.739	(0.904)	771631	40.7882	40.788
64	N-Propyl Benzene	91	8.807	8.812	(0.911)	3702456	43.5674	43.567

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	766648	40.9983	40.998
66	2-Chloro Toluene	91	8.920	8.920	(0.923)	2270508	42.1729	42.173
67	1,3,5-Trimethyl Benzene	105	8.999	9.005	(0.931)	2639153	43.2717	43.272
68	1,2,3-Trichloropropane	110	8.971	8.971	(0.928)	236835	41.8409	41.841
69	Trans-1,4-Dichloro 2-Butene	53	9.027	9.027	(0.934)	299712	43.1602	43.160
70	4-Chloro Toluene	91	9.073	9.073	(0.939)	2370668	42.5083	42.508
71	T-Butyl Benzene	119	9.271	9.276	(0.959)	2330026	43.4314	43.431(R)
72	1,2,4-Trimethylbenzene	105	9.339	9.344	(0.966)	2616315	43.6242	43.624
73	S-Butyl Benzene	105	9.435	9.440	(0.976)	3408880	43.6820	43.682
74	4-Isopropyl Toluene	119	9.582	9.587	(0.991)	2839173	44.3403	44.340
75	1,3-Dichlorobenzene	146	9.593	9.599	(0.992)	1450470	41.3539	41.354
76	d4-1,4-Dichlorobenzene	152	9.667	9.672	(1.000)	1429119	50.0000	
77	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	1489291	41.1966	41.197
78	N-Butyl Benzene	91	9.967	9.972	(1.031)	2699522	43.8045	43.805
79	d4-1,2-Dichlorobenzene	152	10.051	10.057	(1.040)	1477658	50.7542	50.754
80	1,2-Dichlorobenzene	146	10.063	10.063	(1.041)	1399133	41.0130	41.013
81	1,2-Dibromo 3-Chloropropane	75	10.809	10.821	(1.118)	151210	41.7610	41.761
82	Hexachloro 1,3-Butadiene	225	11.488	11.505	(1.188)	660921	43.6580	43.658
83	1,2,4-Trichlorobenzene	180	11.477	11.488	(1.187)	1068091	43.4197	43.420
84	Naphthalene	128	11.788	11.805	(1.219)	2273674	42.1114	42.111
85	1,2,3-Trichlorobenzene	180	11.975	11.986	(1.239)	1008457	42.4129	42.413

C Flag Legend

- Qualifier signal failed the ratio test.
- Spike/Surrogate failed recovery limits.
- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

nstrument ID: nt5.i
ab File ID: lcs0617a.d
ab Smp Id: LCS0617
nalysis Type: VOA
uant Type: ISTD
perator: PB
ethod File: /chem1/nt5.i/17JUN13.b/VO121012S.m
isc Info: 13-12782

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: LCS0617
Level: LOW
Sample Type: SOIL

est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	493949	7.47
35 1,4-Difluorobenze	1692431	846216	3384862	2097198	23.92
52 d5-Chlorobenzene	1987215	993608	3974430	2556589	28.65
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1429119	32.89

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.66	-0.24
35 1,4-Difluorobenze	5.12	4.62	5.62	5.11	-0.11
52 d5-Chlorobenzene	7.60	7.10	8.10	7.60	0.00
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.06

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.
T UPPER LIMIT = + 0.50 minutes of internal standard RT.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 17JUN13
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: LCS0617 Client Smp ID: LCS0617
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCSD
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12782

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	49.620	99.24	53-148
2	Chloromethane	50.000	49.752	99.50	64-125
3	Vinyl Chloride	50.000	51.400	102.80	63-137
4	Bromomethane	50.000	51.360	102.72	57-136
5	Chloroethane	50.000	52.080	104.16	64-131
6	Trichlorofluoromet	50.000	52.543	105.09	69-132
12	Acrolein	250.00	305.81	122.32	54-137
9	112Trichloro122Tri	50.000	55.369	110.74	74-130
14	Acetone	250.00	236.75	94.70	60-131
7	1,1-Dichloroethene	50.000	52.485	104.97	75-126
11	Bromoethane	50.000	55.440	110.88	76-126
10	Iodomethane	50.000	54.785	109.57	65-139
13	Methylene Chloride	50.000	54.843	109.69	70-123
8	Carbon Disulfide	50.000	53.240	106.48	71-129
18	Acrylonitrile	50.000	50.311	100.62	67-125
15	Trans-1,2-Dichloro	50.000	49.925	99.85	80-120
19	Vinyl Acetate	50.000	52.132	104.26	60-136
17	1,1-Dichloroethane	50.000	48.395	96.79	80-120
29	2-Butanone	250.00	258.04	103.22	70-120
22	2,2-Dichloropropan	50.000	51.282	102.56	74-123
20	Cis-1,2-Dichloroet	50.000	50.287	100.57	80-120
24	Chloroform	50.000	48.506	97.01	80-120
23	Bromochloromethane	50.000	48.658	97.32	80-120
26	1,1,1-Trichloroeth	50.000	51.317	102.63	77-121
28	1,1-Dichloropropen	50.000	43.747	87.49	80-120
25	Carbon Tetrachlori	50.000	45.054	90.11	77-122
33	1,2-Dichloroethane	50.000	44.152	88.30	76-120
30	Benzene	50.000	44.429	88.86	80-120
34	Trichloroethene	50.000	44.080	88.16	80-120
38	1,2-Dichloropropan	50.000	43.513	87.03	80-120
39	Bromodichlorometha	50.000	44.494	88.99	77-121
37	Dibromomethane	50.000	44.881	89.76	80-120
40	2-Chloroethyl Viny	50.000	22.945	45.89	10-191

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
45	4-Methyl-2-Pentano	250.00	230.90	92.36	67-120
41	Cis 1,3-dichloropr	50.000	44.494	88.99	74-120
43	Toluene	50.000	43.804	87.61	80-120
46	Trans 1,3-Dichloro	50.000	45.033	90.07	65-120
51	2-Hexanone	250.00	217.33	86.93	65-130
47	1,1,2-Trichloroeth	50.000	44.559	89.12	80-120
49	1,3-Dichloropropan	50.000	43.060	86.12	80-120
44	Tetrachloroethene	50.000	42.681	85.36	80-121
48	Chlorodibromometha	50.000	43.672	87.34	64-120
50	1,2-Dibromoethane	50.000	44.454	88.91	75-120
53	Chlorobenzene	50.000	42.604	85.21	80-120
55	1,1,1,2-Tetrachlor	50.000	42.677	85.35	69-121
54	Ethyl Benzene	50.000	44.522	89.04	80-127
56	m,p-xylene	100.00	88.394	88.39	80-125
57	o-Xylene	50.000	43.523	87.05	78-120
58	Styrene	50.000	44.896	89.79	80-123
60	Isopropyl Benzene	50.000	43.607	87.21	80-127
59	Bromoform	50.000	41.626	83.25	60-120
65	1,1,2,2-Tetrachlor	50.000	40.998	82.00	74-120
68	1,2,3-Trichloropro	50.000	41.841	83.68	72-121
69	Trans-1,4-Dichloro	50.000	43.160	86.32	65-126
64	N-Propyl Benzene	50.000	43.567	87.13	80-132
63	Bromobenzene	50.000	40.788	81.58	80-120
67	1,3,5-Trimethyl Be	50.000	43.272	86.54	80-125
66	2-Chloro Toluene	50.000	42.173	84.35	80-125
70	4-Chloro Toluene	50.000	42.508	85.02	80-127
71	T-Butyl Benzene	50.000	43.431	86.86*	87-122
72	1,2,4-Trimethylben	50.000	43.624	87.25	80-126
73	S-Butyl Benzene	50.000	43.682	87.36	80-134
74	4-Isopropyl Toluen	50.000	44.340	88.68	80-131
75	1,3-Dichlorobenzen	50.000	41.354	82.71	80-120
77	1,4-Dichlorobenzen	50.000	41.197	82.39	80-120
78	N-Butyl Benzene	50.000	43.805	87.61	80-138
80	1,2-Dichlorobenzen	50.000	41.013	82.03	80-120
81	1,2-Dibromo 3-Chlo	50.000	41.761	83.52	59-120
83	1,2,4-Trichloroben	50.000	43.420	86.84	78-130
82	Hexachloro 1,3-But	50.000	43.658	87.32	76-129
84	Naphthalene	50.000	42.111	84.22	66-120
85	1,2,3-Trichloroben	50.000	42.413	84.83	73-123

SURROGATE COMPOUND		AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27	Dibromofluorometha	50.000	61.462	122.92	70-130

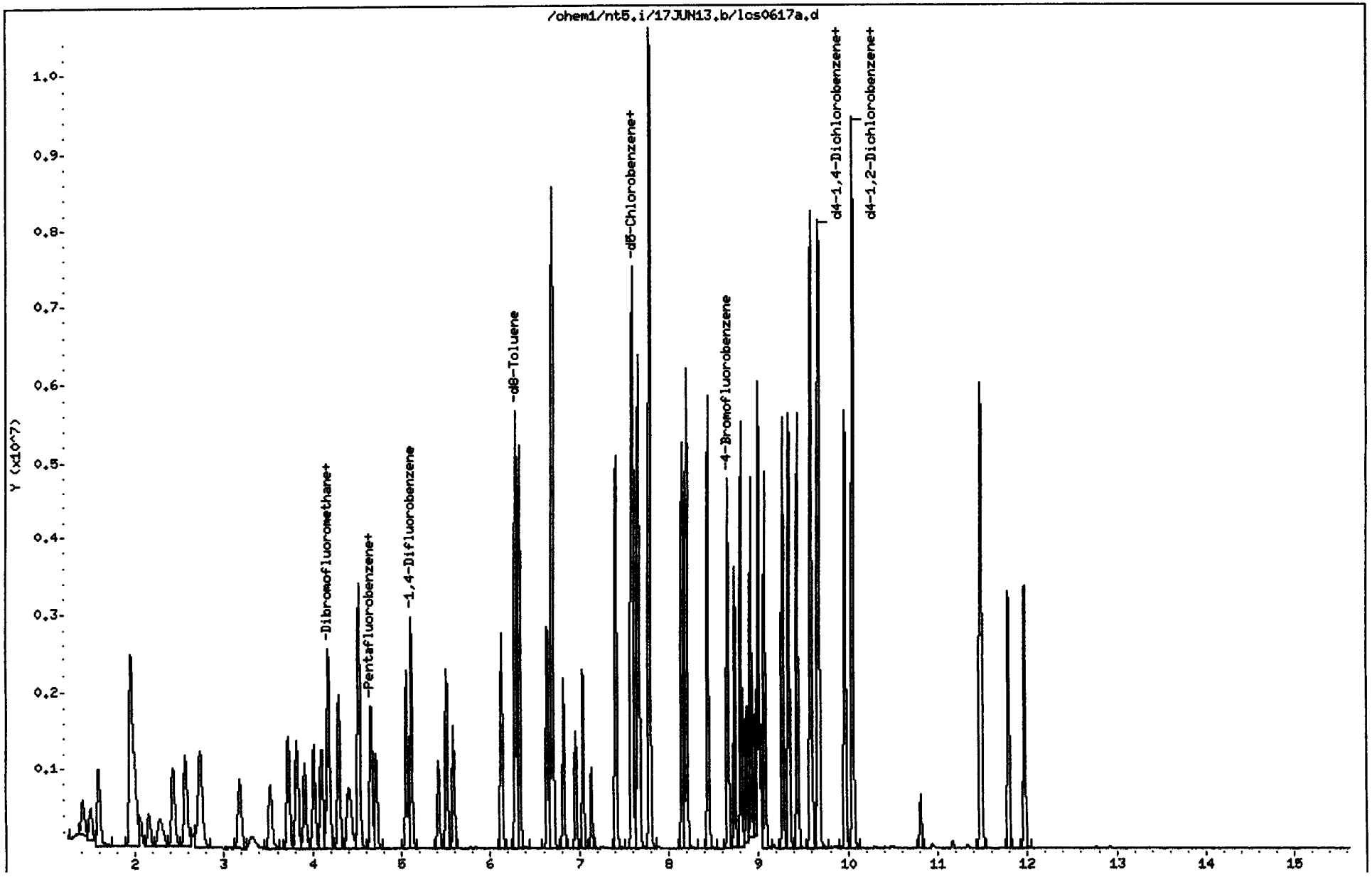
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	59.701	119.40	80-149
$ 42 d8-Toluene	50.000	50.730	101.46	77-120
$ 62 4-Bromofluorobenze	50.000	51.060	102.12	80-120
$ 79 d4-1,2-Dichloroben	50.000	50.754	101.51	80-120

Data File: /chem1/nt5.i/17JUN13.b/lcs0617a.d
Date : 17-JUN-2013 11:38
Client ID: LCS0617
Sample Info: LCS0617,5,5,0,2

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Analytical Resources, Inc.

8260C

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;ab Smp Id: LCS0617 Client Smp ID: LCS0617
:nj Date : 17-JUN-2013 11:14
)perator : PB Inst ID: nt5.i
;mp Info : LCS0617,5,5,0,2
Disc Info : 13-12782
'omment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 17-Jun-2013 15:12 patrickb Quant Type: ISTD
:al Date : 11-JUN-2013 08:57 Cal File: 2000611.d
.ls bottle: 1 QC Sample: LCS
)il Factor: 1.00000
:ntegrator: HP RTE Compound Sublist: voa.sub
'arget Version: 3.50
'rocessing Host: cserv3

6/17/13

'oncentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	% Moisture (not decanted)

'pnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1	Dichlorodifluoromethane	85	1.034	1.057	(0.222)	449890	52.5042	52.504
2	Chloromethane	50	1.153	1.176	(0.247)	914093	53.5677	53.568(M)
3	Vinyl Chloride	62	1.204	1.226	(0.258)	938362	56.8404	56.840
4	Bromomethane	94	1.407	1.436	(0.302)	451945	54.6510	54.651
5	Chloroethane	64	1.498	1.521	(0.321)	557396	56.7117	56.712
6	Trichlorofluoromethane	101	1.588	1.611	(0.341)	959255	55.9267	55.927
7	1,1-Dichloroethene	96	1.945	1.973	(0.417)	648924	56.0368	56.037
8	Carbon Disulfide	76	1.950	1.973	(0.419)	2131443	56.6382	56.638
9	112Trichloro122Trifluoroethane	101	1.996	2.018	(0.428)	610895	59.9282	59.928
10	Iodomethane	142	2.052	2.075	(0.440)	629616	61.3176	61.318
11	Bromoethane	108	2.148	2.171	(0.461)	433487	60.9136	60.914
12	Acrolein	56	2.307	2.335	(0.495)	822346	336.599	336.60(Q)
13	Methylene Chloride	84	2.426	2.454	(0.520)	709573	67.5151	67.515(R)
14	Acetone	43	2.731	2.754	(0.586)	604110	240.168	240.17(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
15 Trans-1,2-Dichloroethene	96	2.567	2.590	(0.551)	694998	62.6201	62.620(R)
16 Methyl tert butyl ether	73	2.731	2.754	(0.586)	1981766	61.7340	61.734
17 1,1-Dichloroethane	63	3.178	3.201	(0.682)	1228131	50.9966	50.997
18 Acrylonitrile	53	3.348	3.370	(0.718)	225092	43.3399	43.340(Q)
19 Vinyl Acetate	43	3.523	3.540	(0.756)	1693153	51.4587	51.459
20 Cis-1,2-Dichloroethene	96	3.727	3.744	(0.800)	735671	52.3529	52.353
22 2,2-Dichloropropane	77	3.823	3.840	(0.820)	1081364	53.9864	53.986
23 Bromochloromethane	128	3.913	3.930	(0.840)	316351	50.2735	50.274
24 Chloroform	83	4.010	4.027	(0.860)	1140773	50.5984	50.598
25 Carbon Tetrachloride	117	4.100	4.117	(0.802)	884627	44.6910	44.691
27 Dibromofluoromethane	111	4.179	4.196	(0.897)	782599	56.4532	56.453
26 1,1,1-Trichloroethane	97	4.168	4.185	(0.894)	1038522	51.2460	51.246
28 1,1-Dichloropropene	75	4.292	4.304	(0.840)	997521	42.9985	42.998
29 2-Butanone	72	4.439	4.457	(0.953)	425261	260.683	260.68(Q)
30 Benzene	78	4.519	4.530	(0.884)	3005911	46.1121	46.112
31 Pentafluorobenzene	168	4.660	4.672	(1.000)	483301	50.0000	
32 d4-1,2-Dichloroethane	65	4.654	4.666	(0.999)	778398	60.0966	60.097
33 1,2-Dichloroethane	62	4.711	4.722	(0.921)	941049	45.7625	45.762
34 Trichloroethene	95	5.056	5.067	(0.989)	737898	46.3666	46.367
35 1,4-Difluorobenzene	114	5.113	5.118	(1.000)	2061182	50.0000	
37 Dibromomethane	93	5.412	5.424	(1.059)	394197	46.0082	46.008
38 1,2-Dichloropropane	63	5.509	5.514	(1.077)	839371	45.4230	45.423
39 Bromodichloromethane	83	5.582	5.588	(1.092)	920432	46.0704	46.070
40 2-Chloroethyl Vinyl Ether	63	6.120	6.125	(1.197)	221069	22.7652	22.765
41 Cis 1,3-dichloropropene	75	6.131	6.137	(1.199)	1199661	46.1775	46.178
42 d8-Toluene	98	6.289	6.295	(1.230)	3026020	50.1005	50.101
43 Toluene	92	6.329	6.335	(1.238)	1891272	45.5824	45.582
44 Tetrachloroethene	166	6.640	6.646	(0.875)	778774	45.3184	45.318
45 4-Methyl-2-Pentanone	58	6.702	6.708	(1.311)	1670548	229.440	229.44
46 Trans 1,3-Dichloropropene	75	6.697	6.697	(1.310)	1075842	46.5780	46.578
47 1,1,2-Trichloroethane	97	6.827	6.827	(1.335)	589143	45.4076	45.408
48 Chlorodibromomethane	129	6.957	6.963	(0.917)	669781	45.1726	45.173
49 1,3-Dichloropropane	76	7.042	7.047	(0.928)	1086197	44.4025	44.403
50 1,2-Dibromoethane	107	7.138	7.138	(1.396)	575797	45.3156	45.316
51 2-Hexanone	43	7.415	7.415	(0.977)	2752645	218.273	218.27
52 d5-Chlorobenzene	117	7.590	7.596	(1.000)	2482456	50.0000	
53 Chlorobenzene	112	7.607	7.607	(1.002)	1893616	44.8167	44.817
54 Ethyl Benzene	91	7.658	7.658	(1.009)	3385690	46.7225	46.723
55 1,1,1,2-Tetrachloroethane	131	7.675	7.675	(1.011)	677332	45.0102	45.010
56 m,p-xylene	106	7.788	7.794	(1.026)	2565002	92.9028	92.903
57 o-Xylene	106	8.156	8.156	(1.075)	1256695	45.7634	45.763
58 Styrene	104	8.201	8.201	(1.080)	2115603	47.5845	47.585
59 Bromoform	173	8.196	8.196	(0.847)	466428	42.7058	42.706
60 Isopropyl Benzene	105	8.439	8.445	(0.872)	3202825	45.7788	45.779
62 4-Bromofluorobenzene	95	8.665	8.665	(1.142)	1388146	51.2504	51.250
63 Bromobenzene	156	8.739	8.739	(0.903)	789148	42.7498	42.750
64 N-Propyl Benzene	91	8.807	8.812	(0.910)	3822543	46.0973	46.097

mpounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65 1,1,2,2-Tetrachloroethane	83	8.869	8.869	(0.917)	751615	41.1923	41.192
66 2-Chloro Toluene	91	8.920	8.920	(0.922)	2323992	44.2380	44.238
67 1,3,5-Trimethyl Benzene	105	8.999	9.005	(0.930)	2724181	45.7748	45.775
68 1,2,3-Trichloropropane	110	8.971	8.971	(0.927)	233481	42.2725	42.272
69 Trans-1,4-Dichloro 2-Butene	53	9.027	9.027	(0.933)	280188	41.3504	41.350
70 4-Chloro Toluene	91	9.072	9.073	(0.938)	2444805	44.9261	44.926
71 T-Butyl Benzene	119	9.276	9.276	(0.959)	2382472	45.5115	45.512
72 1,2,4-Trimethylbenzene	105	9.344	9.344	(0.966)	2695077	46.0532	46.053
73 S-Butyl Benzene	105	9.440	9.440	(0.976)	3529408	46.3494	46.349
74 4-Isopropyl Toluene	119	9.587	9.587	(0.991)	2954257	47.2832	47.283
75 1,3-Dichlorobenzene	146	9.599	9.599	(0.992)	1505952	44.0018	44.002
76 d4-1,4-Dichlorobenzene	152	9.672	9.672	(1.000)	1394496	50.0000	
77 1,4-Dichlorobenzene	146	9.683	9.684	(1.001)	1544695	43.7901	43.790
78 N-Butyl Benzene	91	9.972	9.972	(1.031)	2836659	47.1726	47.173
79 d4-1,2-Dichlorobenzene	152	10.057	10.057	(1.040)	1430975	50.3711	50.371
80 1,2-Dichlorobenzene	146	10.062	10.063	(1.040)	1430253	42.9662	42.966
81 1,2-Dibromo 3-Chloropropane	75	10.815	10.821	(1.118)	148087	41.9139	41.914
82 Hexachloro 1,3-Butadiene	225	11.499	11.505	(1.189)	684798	46.3583	46.358
83 1,2,4-Trichlorobenzene	180	11.488	11.488	(1.188)	1118670	46.6049	46.605
84 Naphthalene	128	11.799	11.805	(1.220)	2263827	42.9701	42.970
85 1,2,3-Trichlorobenzene	180	11.986	11.986	(1.239)	1042497	44.9331	44.933

C Flag Legend

- Qualifier signal failed the ratio test.
- Spike/Surrogate failed recovery limits.
- Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

:nstrument ID: nt5.i
,ab File ID: lcs0617.d
,ab Smp Id: LCS0617
,nalysis Type: VOA
)uant Type: ISTD
)perator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Disc Info: 13-12782

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: LCS0617
Level: LOW
Sample Type: SOIL

'est Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	483301	5.15
35 1,4-Difluorobenze	1692431	846216	3384862	2061182	21.79
52 d5-Chlorobenzene	1987215	993608	3974430	2482456	24.92
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1394496	29.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.66	-0.24
35 1,4-Difluorobenze	5.12	4.62	5.62	5.11	-0.11
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.08
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	0.00

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.
T UPPER LIMIT = + 0.50 minutes of internal standard RT.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

lient Name: Client SDG: 17JUN13
ample Matrix: SOLID Fraction: VOA
ab Smp Id: LCS0617 Client Smp ID: LCS0617
evel: LOW Operator: PB
ata Type: MS DATA SampleType: LCS
pikeList File: all.spk Quant Type: ISTD
ublist File: voa.sub
ethod File: /chem1/nt5.i/17JUN13.b/VO121012S.m
isc Info: 13-12782

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	52.504	105.01	53-148
2	Chloromethane	50.000	53.568	107.14	64-125
3	Vinyl Chloride	50.000	56.840	113.68	63-137
4	Bromomethane	50.000	54.651	109.30	57-136
5	Chloroethane	50.000	56.712	113.42	64-131
6	Trichlorofluoromet	50.000	55.927	111.85	69-132
12	Acrolein	250.00	336.60	134.64	54-137
9	112Trichloro122Tri	50.000	59.928	119.86	74-130
14	Acetone	250.00	240.17	96.07	60-131
7	1,1-Dichloroethene	50.000	56.037	112.07	75-126
11	Bromoethane	50.000	60.914	121.83	76-126
10	Iodomethane	50.000	61.318	122.64	65-139
13	Methylene Chloride	50.000	67.515	135.03*	70-123
8	Carbon Disulfide	50.000	56.638	113.28	71-129
18	Acrylonitrile	50.000	43.340	86.68	67-125
15	Trans-1,2-Dichloro	50.000	62.620	125.24*	80-120
19	Vinyl Acetate	50.000	51.459	102.92	60-136
17	1,1-Dichloroethane	50.000	50.997	101.99	80-120
29	2-Butanone	250.00	260.68	104.27	70-120
22	2,2-Dichloropropan	50.000	53.986	107.97	74-123
20	Cis-1,2-Dichloroet	50.000	52.353	104.71	80-120
24	Chloroform	50.000	50.598	101.20	80-120
23	Bromochloromethane	50.000	50.274	100.55	80-120
26	1,1,1-Trichloroeth	50.000	51.246	102.49	77-121
28	1,1-Dichloropropen	50.000	42.998	86.00	80-120
25	Carbon Tetrachlori	50.000	44.691	89.38	77-122
33	1,2-Dichloroethane	50.000	45.762	91.52	76-120
30	Benzene	50.000	46.112	92.22	80-120
34	Trichloroethene	50.000	46.367	92.73	80-120
38	1,2-Dichloropropan	50.000	45.423	90.85	80-120
39	Bromodichlorometha	50.000	46.070	92.14	77-121
37	Dibromomethane	50.000	46.008	92.02	80-120
40	2-Chloroethyl Viny	50.000	22.765	45.53	10-191

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
45 4-Methyl-2-Pentano	250.00	229.44	91.78	67-120
41 Cis 1,3-dichloropr	50.000	46.178	92.36	74-120
43 Toluene	50.000	45.582	91.16	80-120
46 Trans 1,3-Dichloro	50.000	46.578	93.16	65-120
51 2-Hexanone	250.00	218.27	87.31	65-130
47 1,1,2-Trichloroeth	50.000	45.408	90.82	80-120
49 1,3-Dichloropropan	50.000	44.403	88.81	80-120
44 Tetrachloroethene	50.000	45.318	90.64	80-121
48 Chlorodibromometha	50.000	45.173	90.35	64-120
50 1,2-Dibromoethane	50.000	45.316	90.63	75-120
53 Chlorobenzene	50.000	44.817	89.63	80-120
55 1,1,1,2-Tetrachlor	50.000	45.010	90.02	69-121
54 Ethyl Benzene	50.000	46.723	93.45	80-127
56 m,p-xylene	100.00	92.903	92.90	80-125
57 o-Xylene	50.000	45.763	91.53	78-120
58 Styrene	50.000	47.585	95.17	80-123
60 Isopropyl Benzene	50.000	45.779	91.56	80-127
59 Bromoform	50.000	42.706	85.41	60-120
65 1,1,2,2-Tetrachlor	50.000	41.192	82.38	74-120
68 1,2,3-Trichloropro	50.000	42.272	84.54	72-121
69 Trans-1,4-Dichloro	50.000	41.350	82.70	65-126
64 N-Propyl Benzene	50.000	46.097	92.19	80-132
63 Bromobenzene	50.000	42.750	85.50	80-120
67 1,3,5-Trimethyl Be	50.000	45.775	91.55	80-125
66 2-Chloro Toluene	50.000	44.238	88.48	80-125
70 4-Chloro Toluene	50.000	44.926	89.85	80-127
71 T-Butyl Benzene	50.000	45.512	91.02	87-122
72 1,2,4-Trimethylben	50.000	46.053	92.11	80-126
73 S-Butyl Benzene	50.000	46.349	92.70	80-134
74 4-Isopropyl Toluen	50.000	47.283	94.57	80-131
75 1,3-Dichlorobenzen	50.000	44.002	88.00	80-120
77 1,4-Dichlorobenzen	50.000	43.790	87.58	80-120
78 N-Butyl Benzene	50.000	47.173	94.35	80-138
80 1,2-Dichlorobenzen	50.000	42.966	85.93	80-120
81 1,2-Dibromo 3-Chlo	50.000	41.914	83.83	59-120
83 1,2,4-Trichloroben	50.000	46.605	93.21	78-130
82 Hexachloro 1,3-But	50.000	46.358	92.72	76-129
84 Naphthalene	50.000	42.970	85.94	66-120
85 1,2,3-Trichloroben	50.000	44.933	89.87	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	56.453	112.91	70-130

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 32 d4-1,2-Dichloroeth	50.000	60.097	120.19	80-149
$ 42 d8-Toluene	50.000	50.101	100.20	77-120
$ 62 4-Bromofluorobenze	50.000	51.250	102.50	80-120
$ 79 d4-1,2-Dichloroben	50.000	50.371	100.74	80-120

Data File: /chem1/nt5.i/17JUN13.b/lcs0617.d

Date : 17-JUN-2013 11:14

Client ID: LCS0617

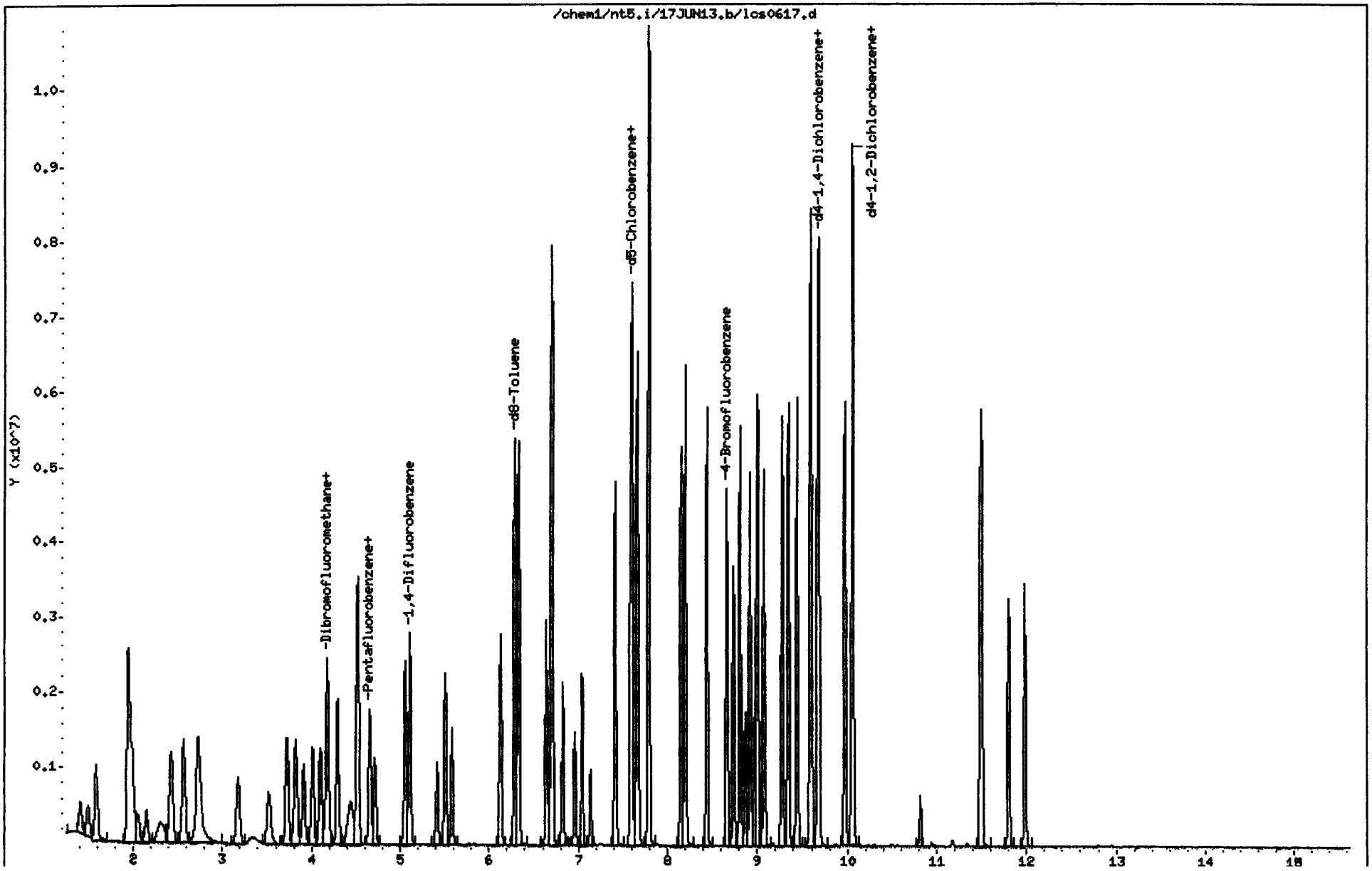
Sample Info: LCS0617,5,5,0,2

Instrument: nt5.i

Operator: PB

Column phase: RTXVMS

Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/17JUN13.b/wt81b.d
Lab Smp Id: WT81B Client Smp ID: AM-SF4-EFF-20130612
Inj Date : 17-JUN-2013 18:18
Operator : PB Inst ID: nt5.i
Smp Info : WT81B,5,6.17,0
Misc Info : 13-12637
Comment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 27-Jun-2013 07:53 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	6.17000	Sample Amount
M	60.10000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	1.611	1.611	(0.345)	30527	2.53433	5.147
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	1.979	1.973	(0.424)	1042565	39.4487	80.121
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	2.448	2.454	(0.524)	36825	4.98932	10.133
14 Acetone	43	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	4.027	4.027	(0.862)	29498	1.86305	3.784
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.196	4.196	(0.898)	604795	62.1229	126.17
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	4.360	4.457	(0.933)	114636	100.063	203.23(Q)
	30 Benzene	78	4.536	4.530	(0.886)	82316	1.84149	3.740
*	31 Pentafluorobenzene	168	4.672	4.672	(1.000)	339409	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.666	4.666	(0.999)	557424	61.2814	124.46
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.118	5.118	(1.000)	1413417	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.289	6.295	(1.229)	1688622	40.7708	82.806
	43 Toluene	92	6.335	6.335	(1.238)	74863	2.63121	5.344
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.691	6.708	(1.307)	1198422	240.030	487.50
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.591	7.596	(1.000)	956180	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	7.653	7.658	(1.008)	55523	1.98927	4.040
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	7.789	7.794	(1.026)	69477	6.53317	13.269
	57 o-Xylene	106	8.151	8.156	(1.074)	78285	7.40131	15.032
	58 Styrene	104	8.196	8.201	(1.080)	68531	4.00185	8.128
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	8.439	8.445	(0.873)	29678	2.81083	5.709
$	62 4-Bromofluorobenzene	95	8.660	8.665	(1.141)	322926	30.9533	62.866(R)
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	8.807	8.812	(0.911)	34603	2.76506	5.616
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	8.993	9.005	(0.930)	196305	21.8570	44.392
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	9.338	9.344	(0.966)	265338	30.0439	61.019
73	S-Butyl Benzene	105	9.435	9.440	(0.976)	40070	3.48682	7.082(Q)
74	4-Isopropyl Toluene	119	9.582	9.587	(0.991)	18080	1.91745	3.894
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.667	9.672	(1.000)	210450	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	10.046	10.057	(1.039)	202152	47.1515	95.765
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
84	Naphthalene	128	11.788	11.805	(1.219)	61419	7.72492	15.689
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: wt81b.d
Lab Smp Id: WT81B
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12637

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: AM-SF4-EFF-20130612
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
31 Pentafluorobenzen	459631	229816	919262	339409	-26.16	
35 1,4-Difluorobenze	1692431	846216	3384862	1413417	-16.49	
52 d5-Chlorobenzene	1987215	993608	3974430	956180	-51.88	<-
76 d4-1,4-Dichlorobe	1075398	537699	2150796	210450	-80.43	<-

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.67	0.00
35 1,4-Difluorobenze	5.12	4.62	5.62	5.12	0.00
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81B
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12637

Client SDG: WT81
Fraction: VOA
Client Smp ID: AM-SF4-EFF-20130612
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	62.123	124.25	70-130
$ 32 d4-1,2-Dichloroeth	50.000	61.281	122.56	80-149
$ 42 d8-Toluene	50.000	40.771	81.54	77-120
$ 62 4-Bromofluorobenze	50.000	30.953	61.91*	80-120
$ 79 d4-1,2-Dichloroben	50.000	47.151	94.30	80-120

Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

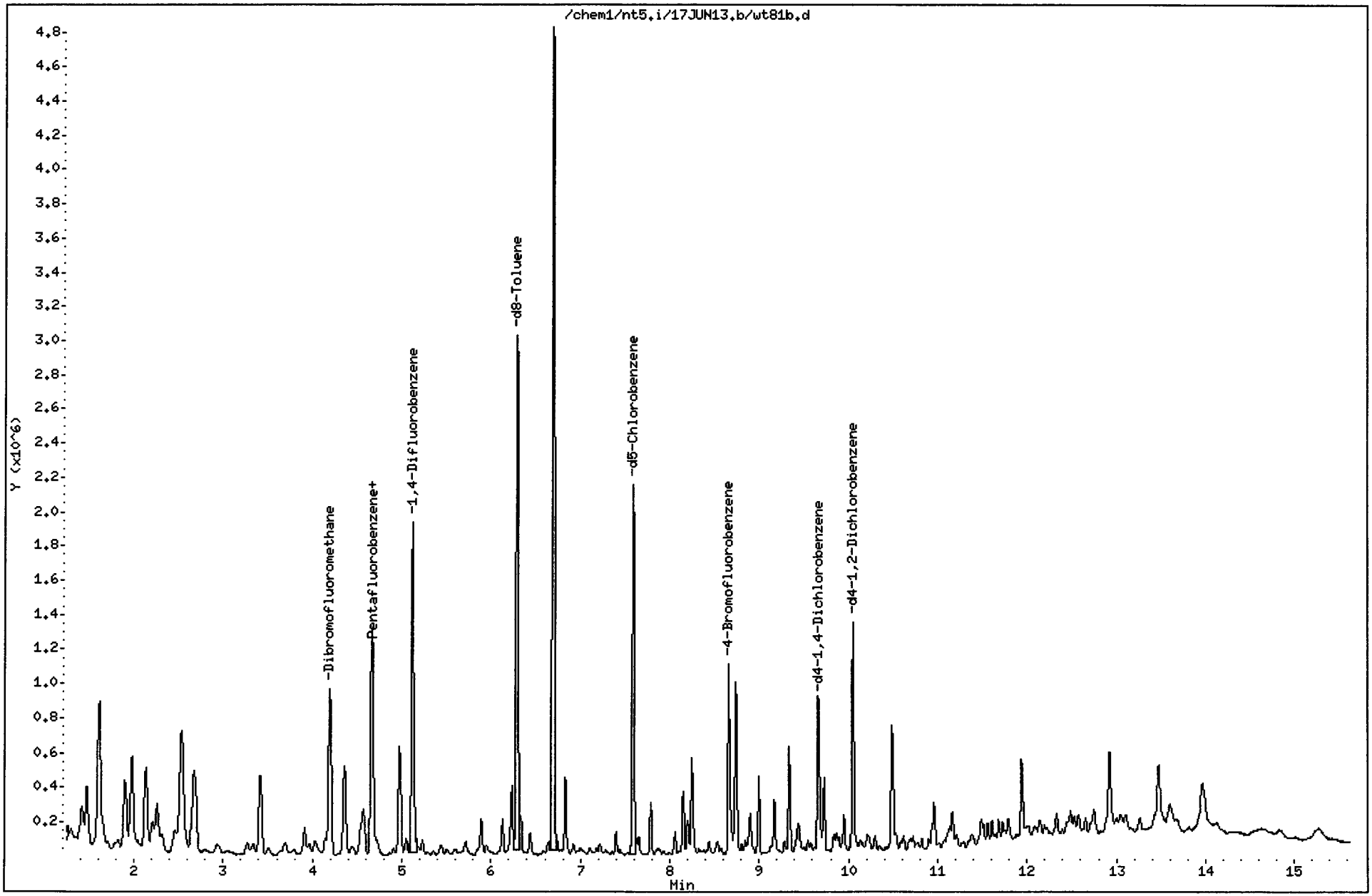
Sample Info: WT81B,5,6.17,0

Column phase: RTXVMS

Instrument: nt5.i

Operator: PB

Column diameter: 0.18



Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,17,0

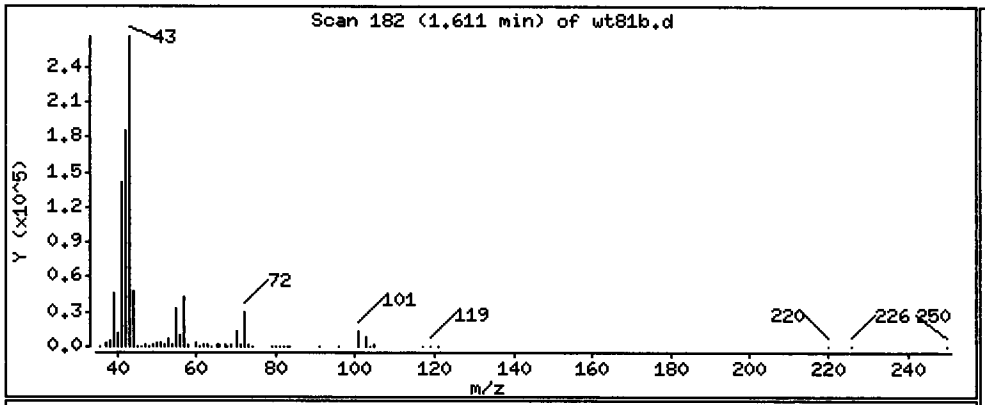
Operator: PB

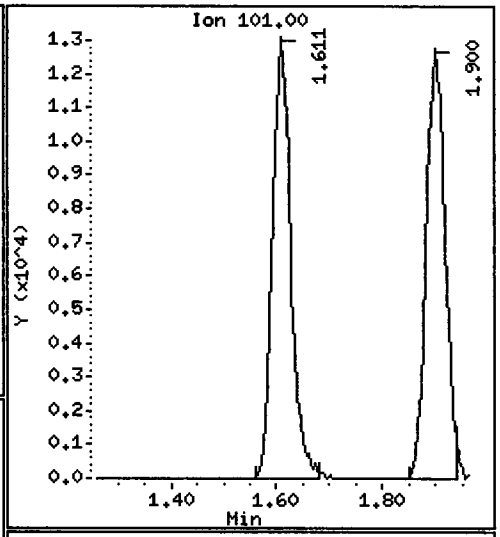
Column phase: RTXVMS

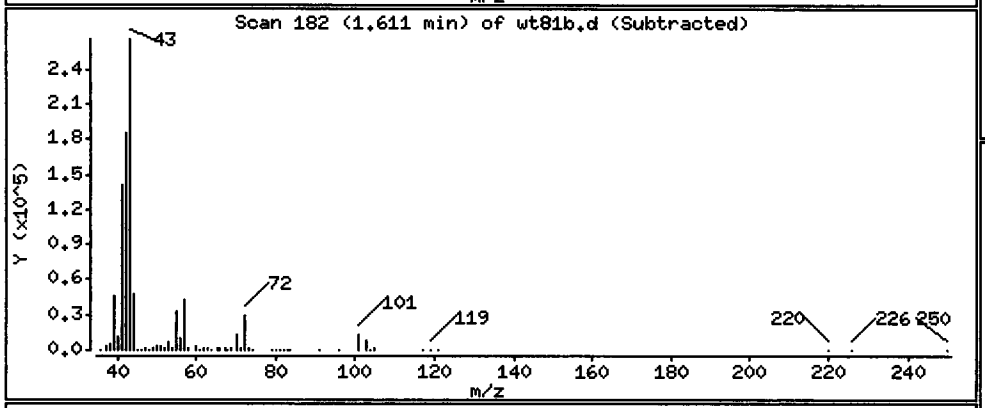
Column diameter: 0.18

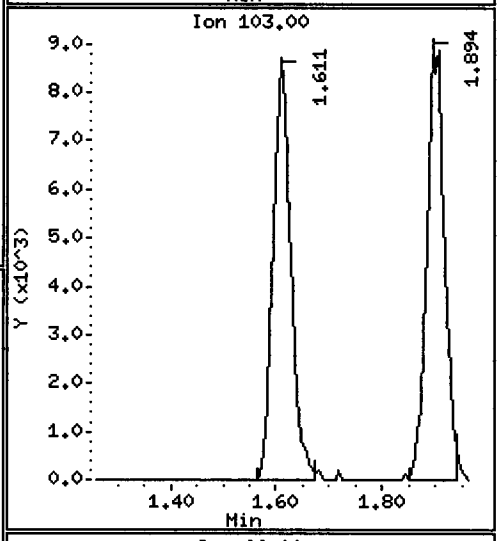
6 Trichlorofluoromethane

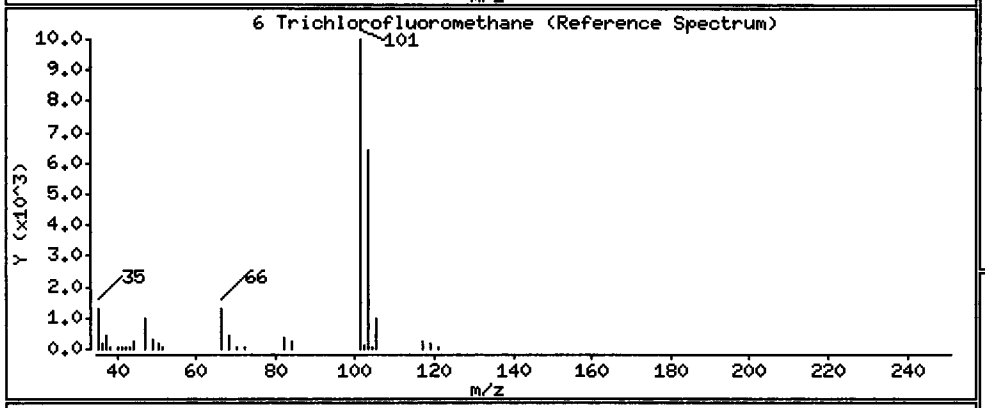
Concentration: 5.147 ug/Kg

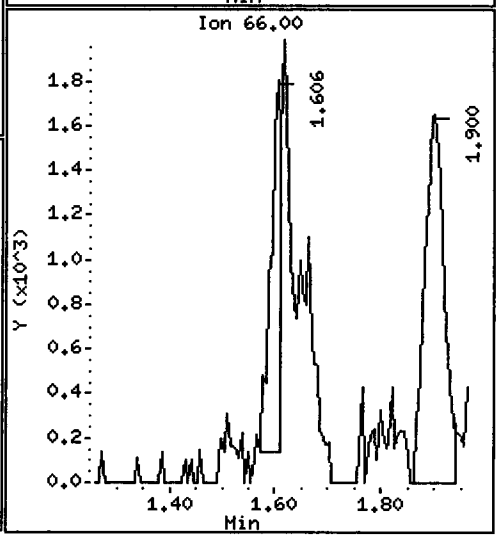


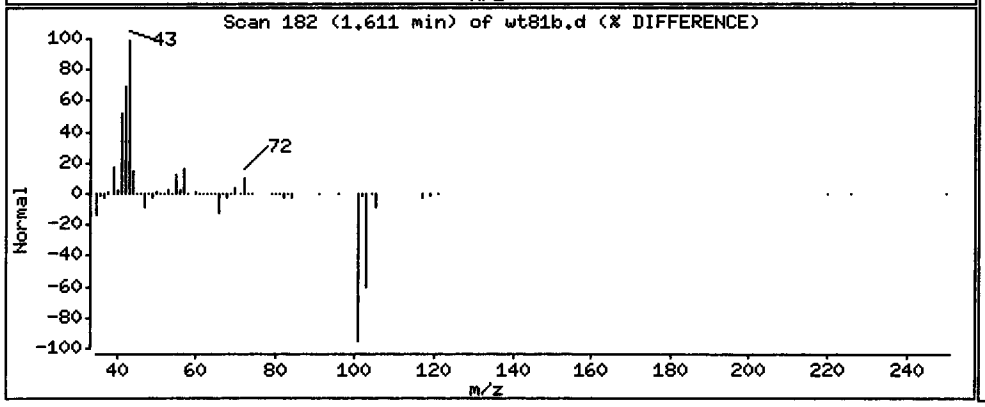












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

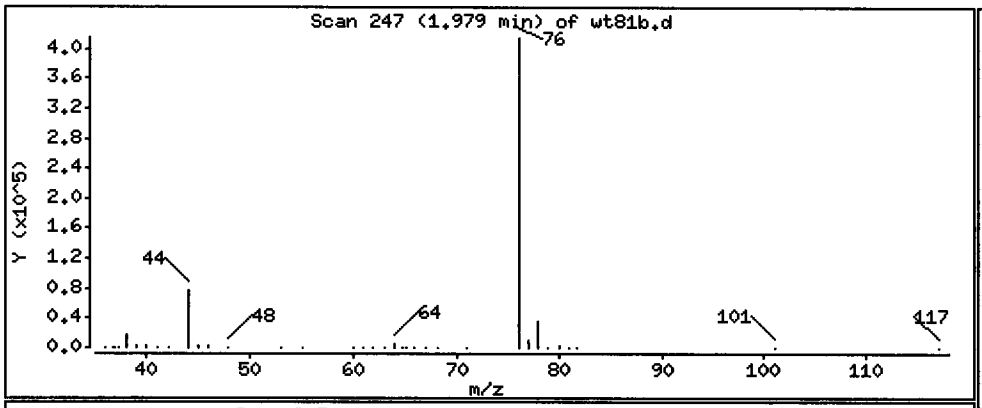
Operator: PB

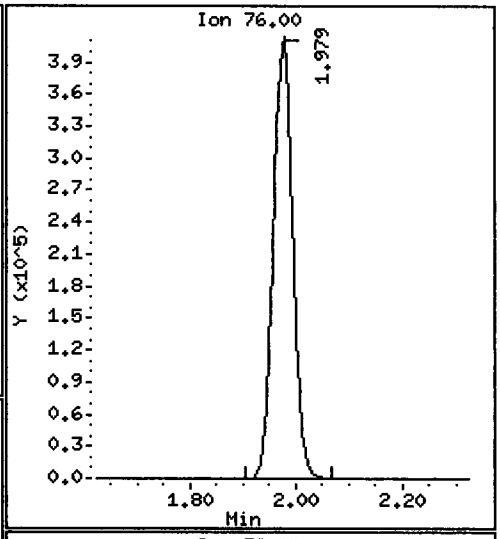
Column phase: RTXVMS

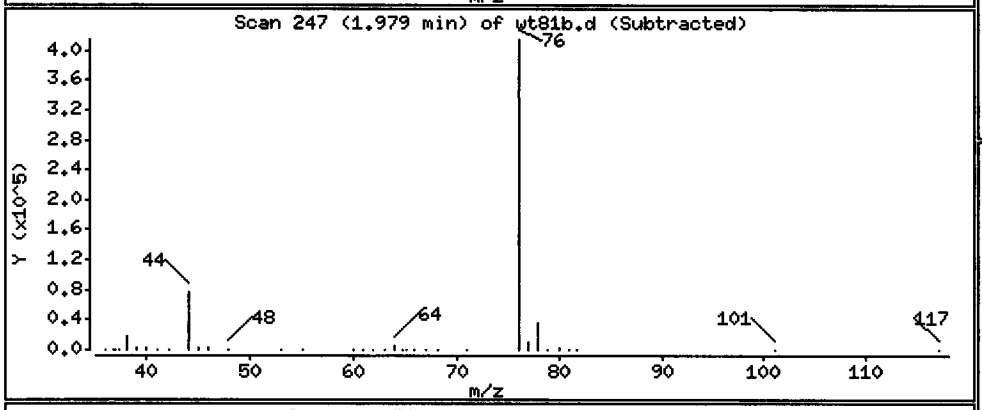
Column diameter: 0.18

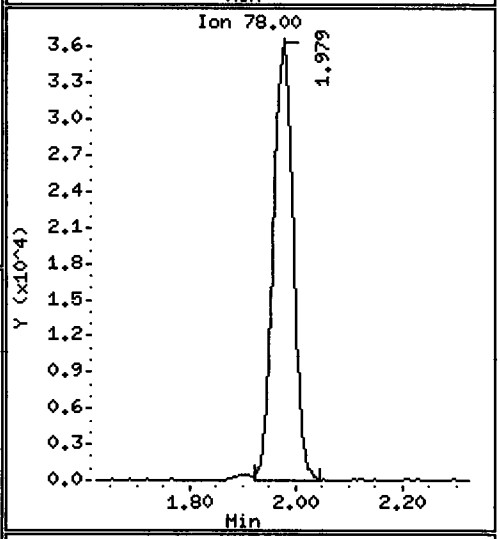
8 Carbon Disulfide

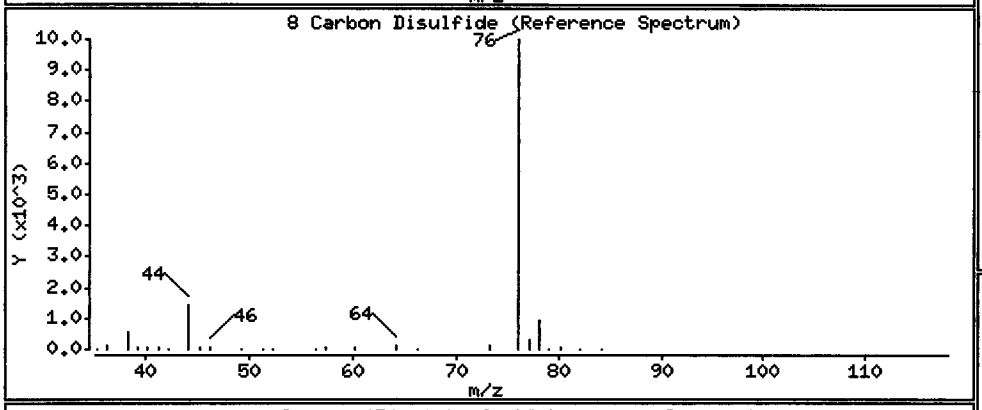
Concentration: 80.121 ug/Kg

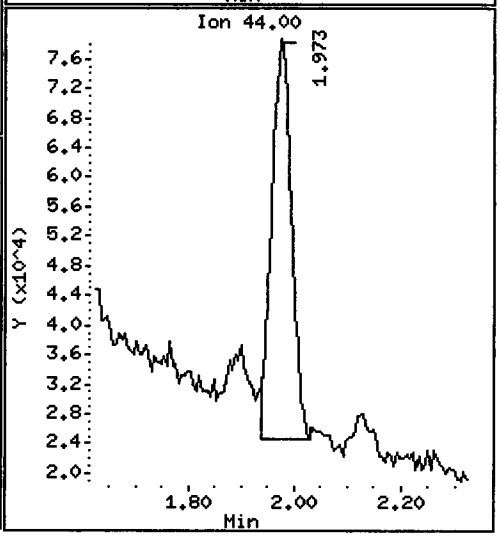


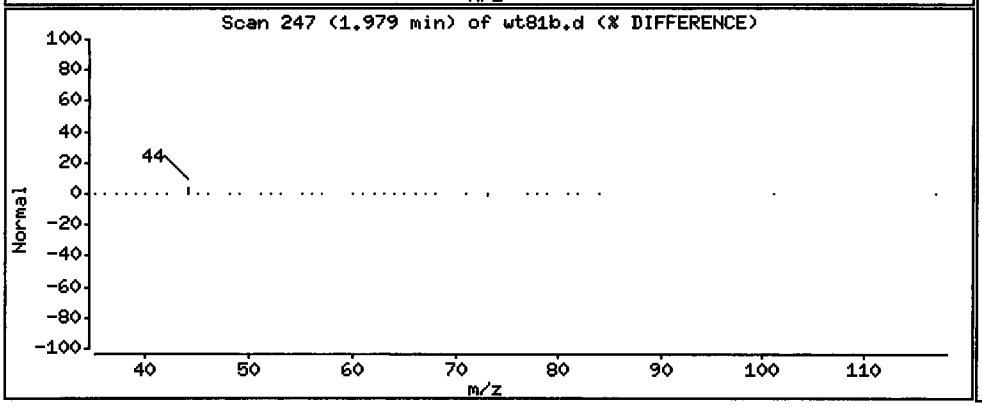












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

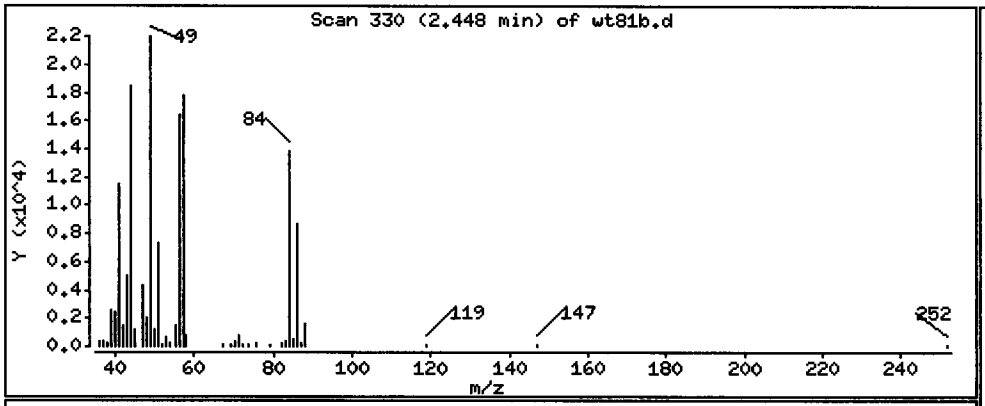
Operator: PB

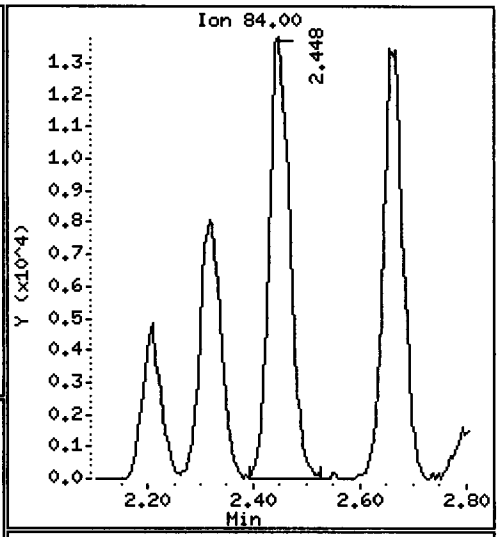
Column phase: RTXVMS

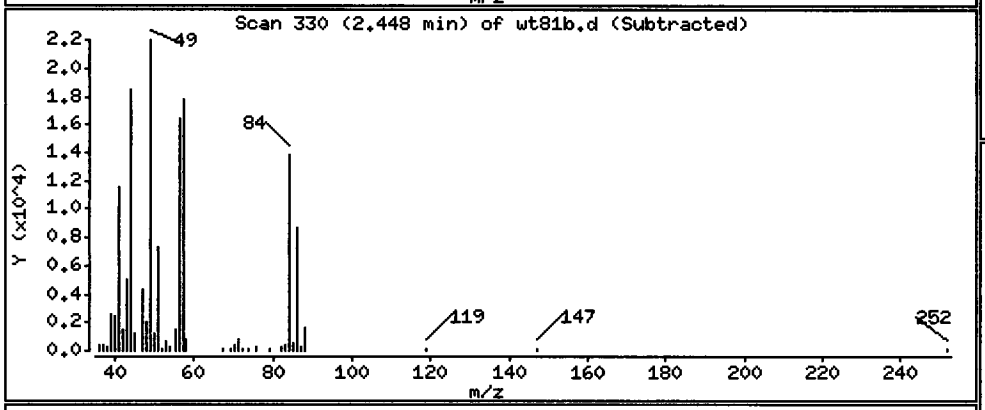
Column diameter: 0.18

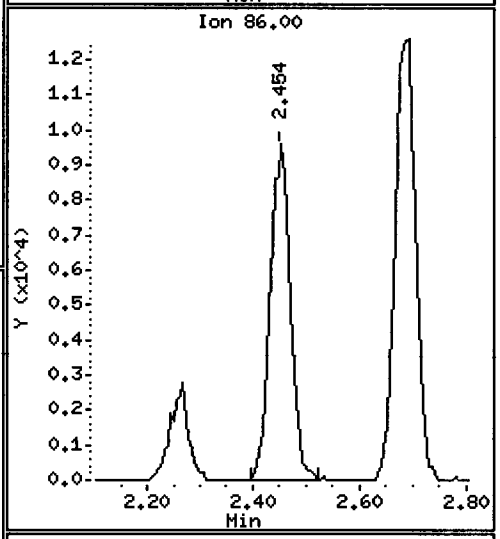
13 Methylene Chloride

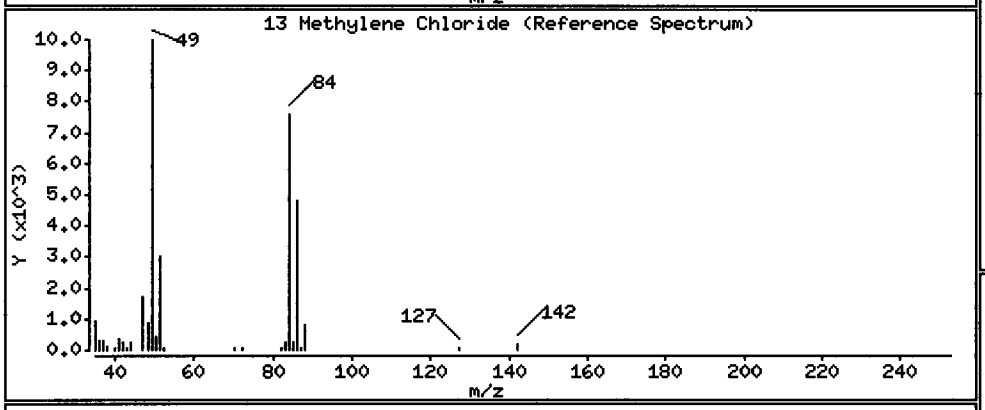
Concentration: 10.133 ug/Kg

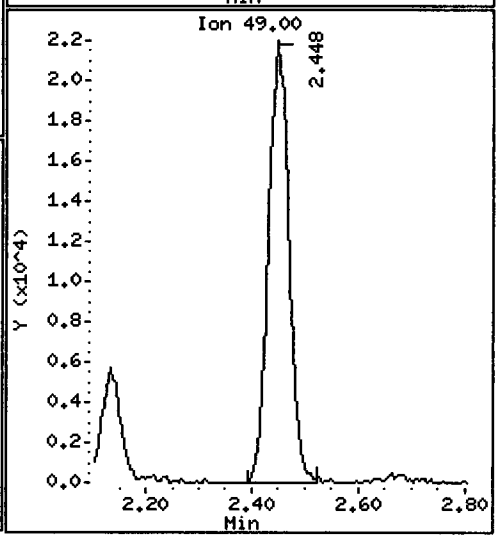


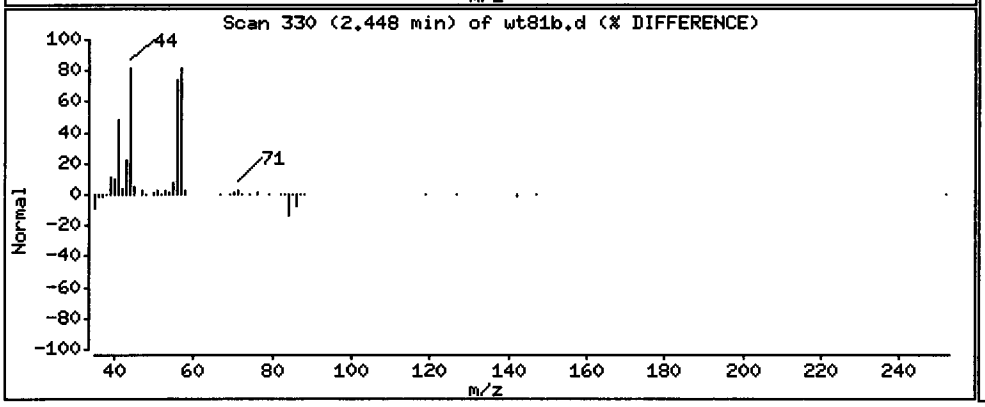












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,17,0

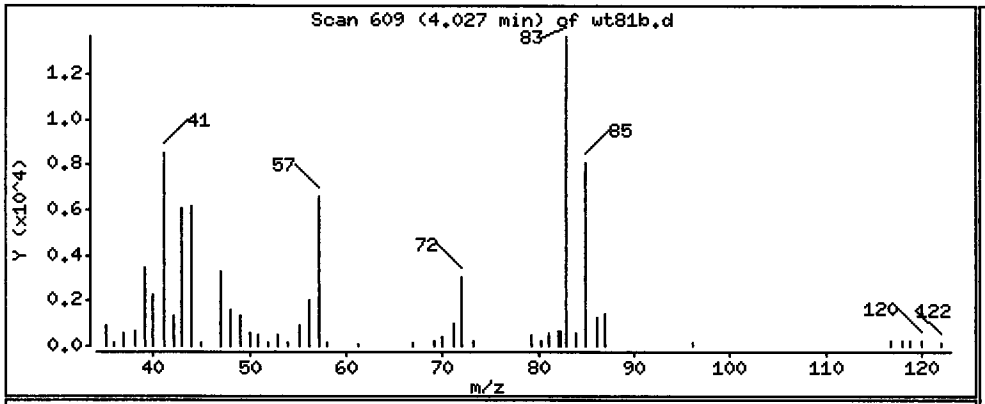
Operator: PB

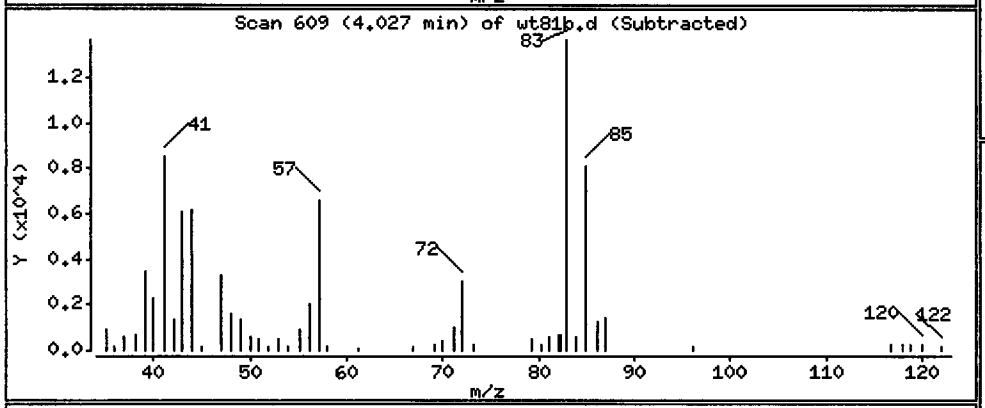
Column phase: RTXVMS

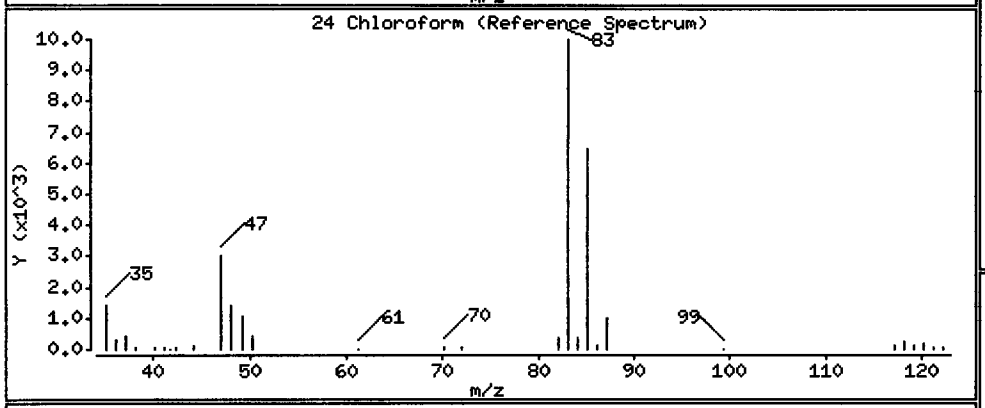
Column diameter: 0.18

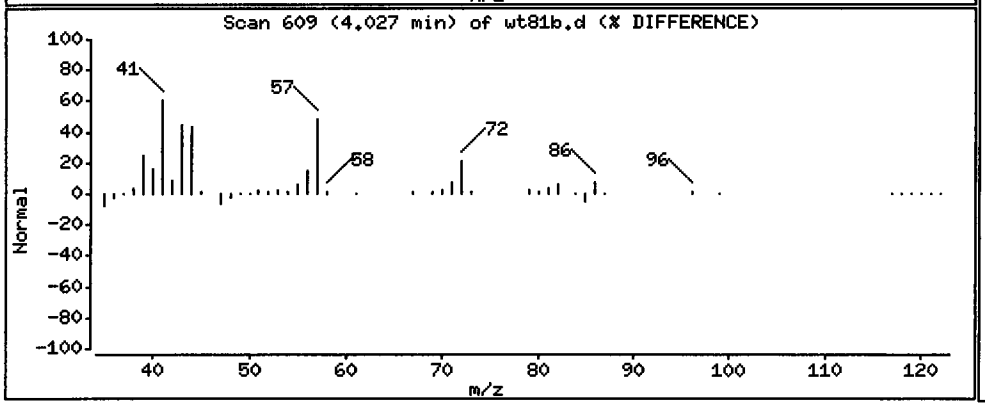
24 Chloroform

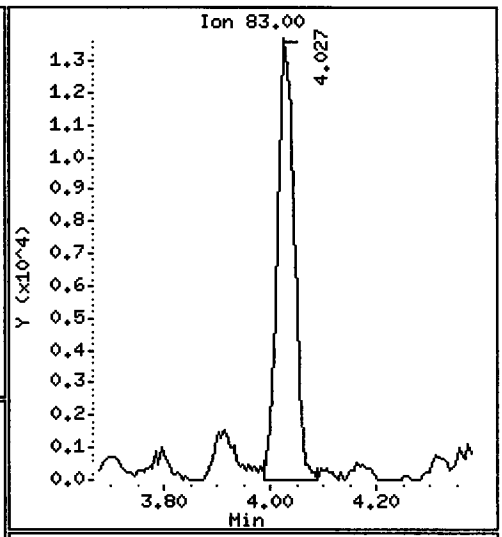
Concentration: 3.784 ug/Kg

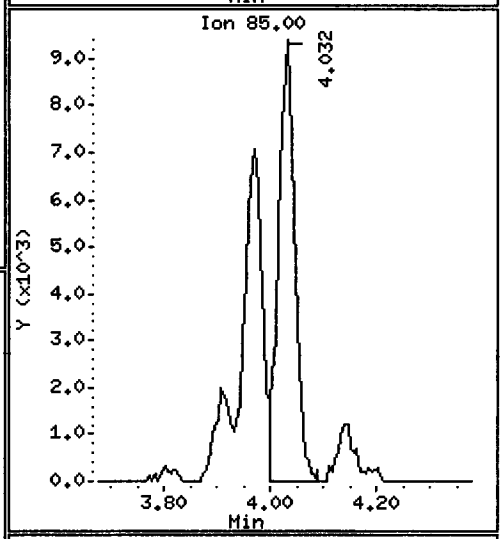


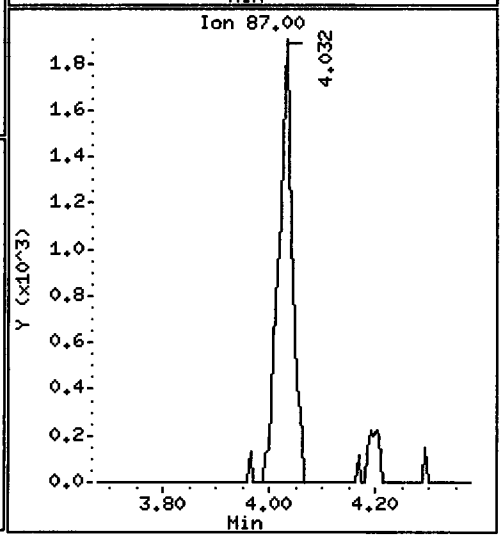












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

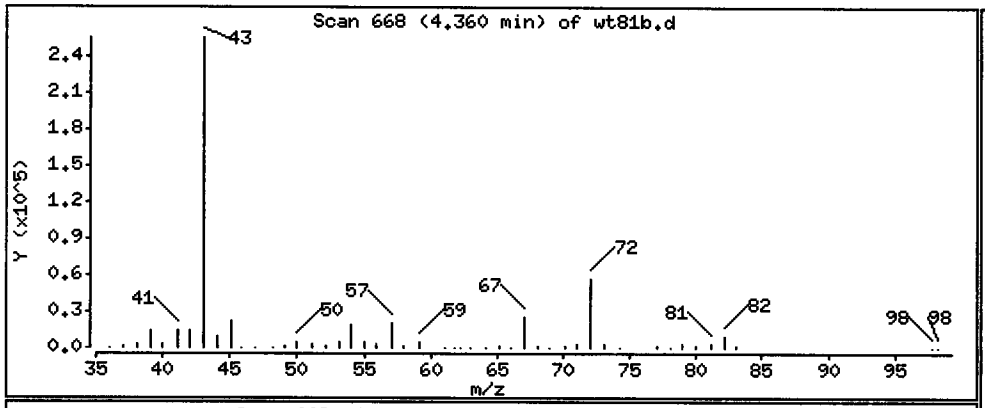
Operator: PB

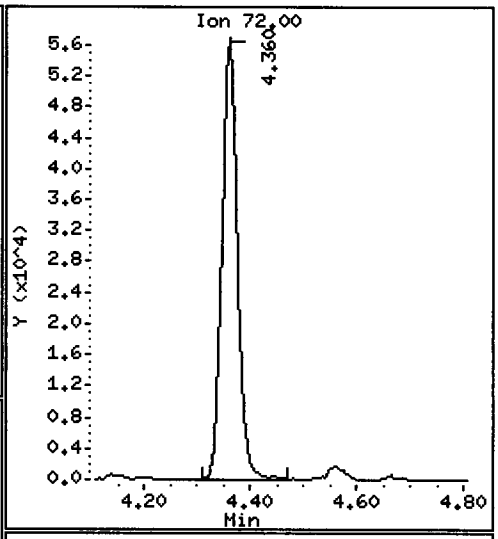
Column phase: RTXVMS

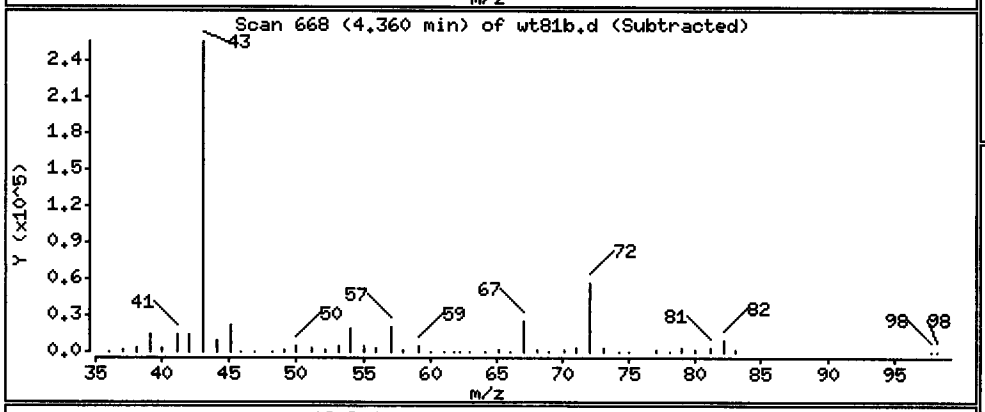
Column diameter: 0.18

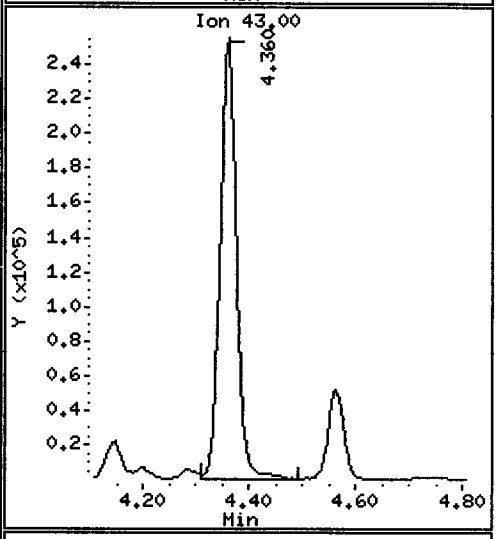
29 2-Butanone

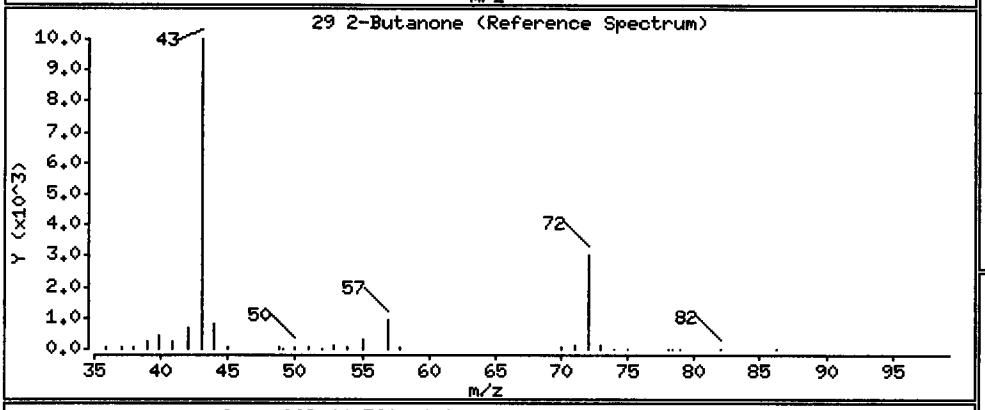
Concentration: 203.23 ug/Kg

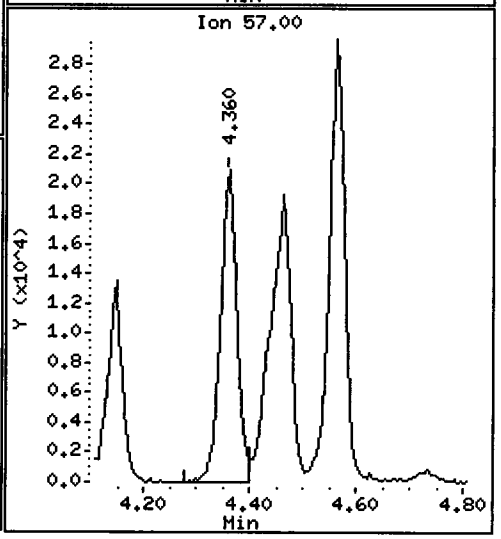


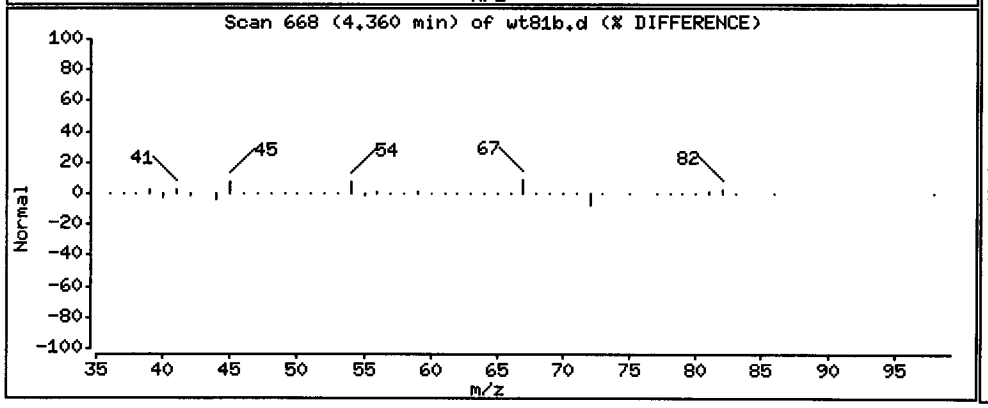












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,17,0

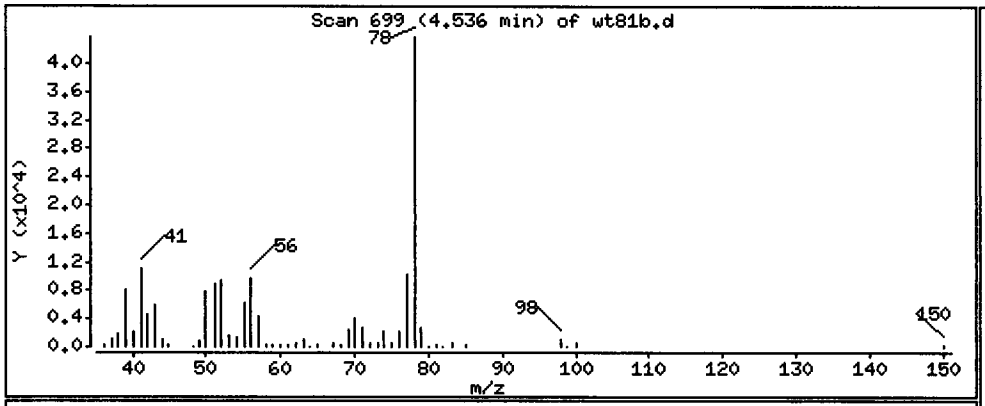
Operator: PB

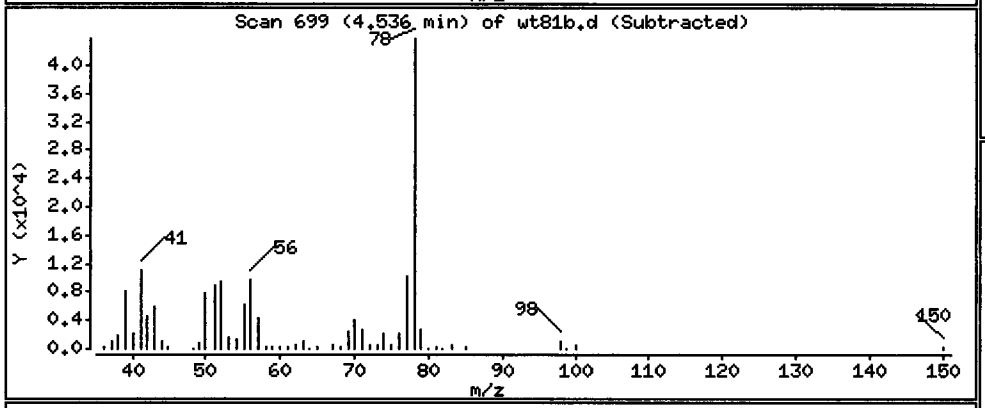
Column phase: RTXVMS

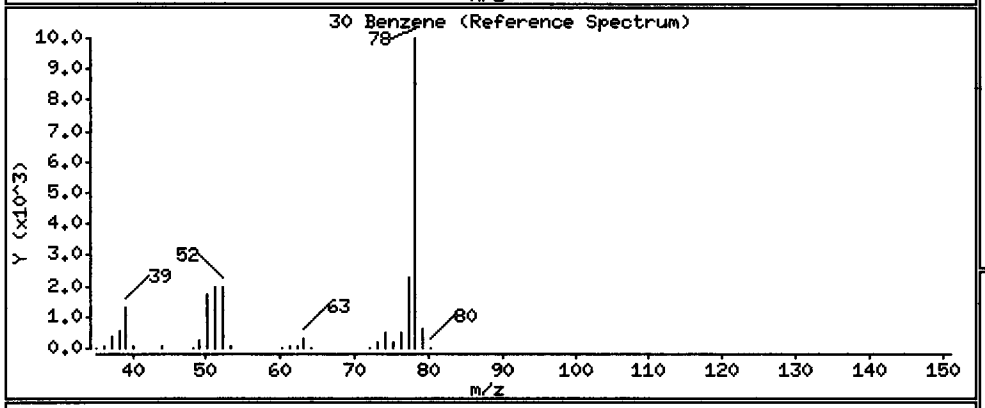
Column diameter: 0.18

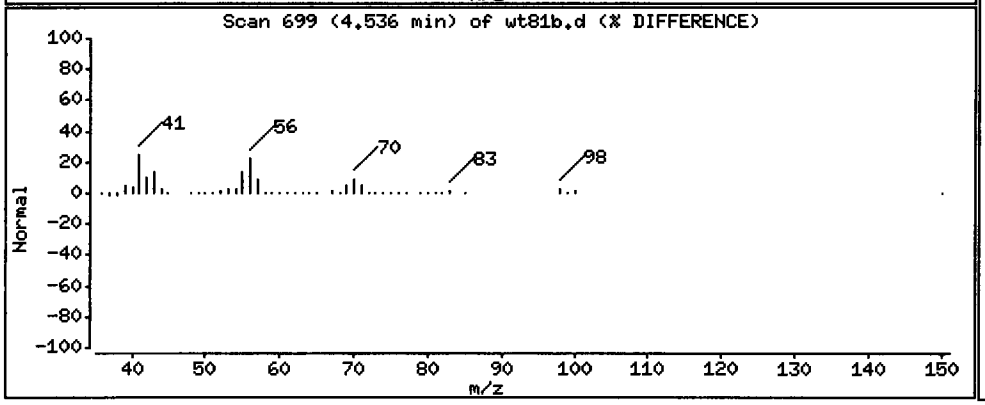
30 Benzene

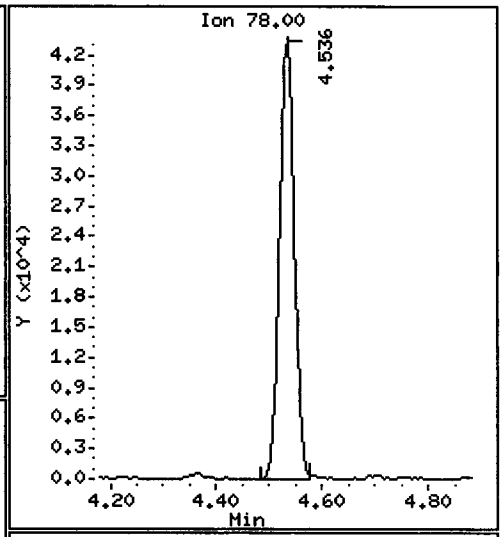
Concentration: 3.740 ug/Kg

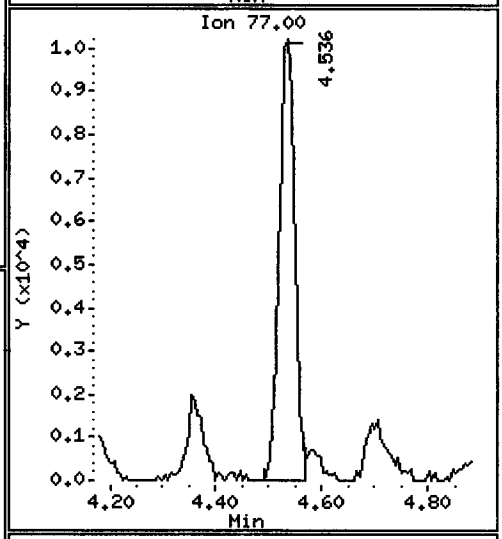


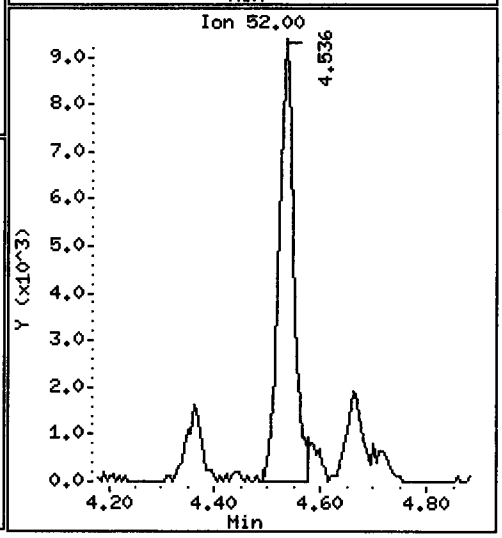












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

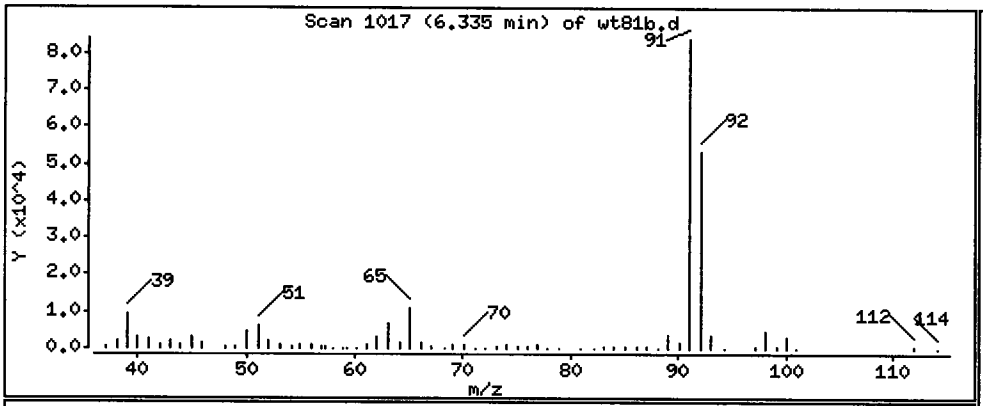
Operator: PB

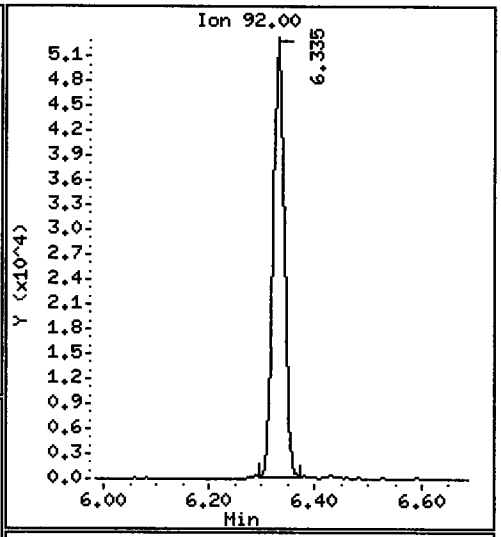
Column phase: RTXVMS

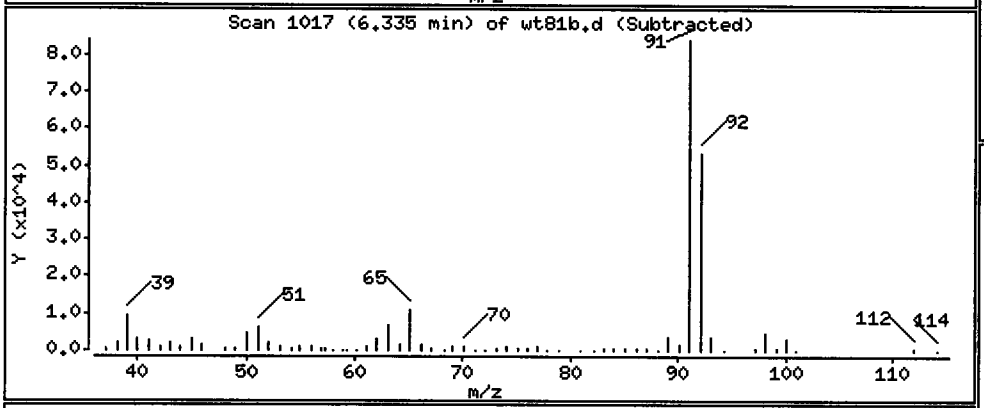
Column diameter: 0.18

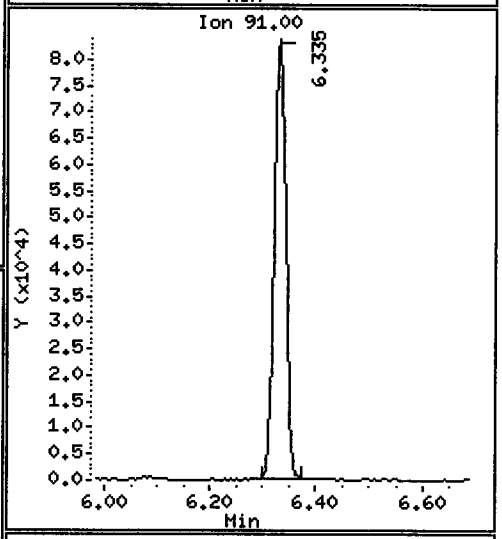
43 Toluene

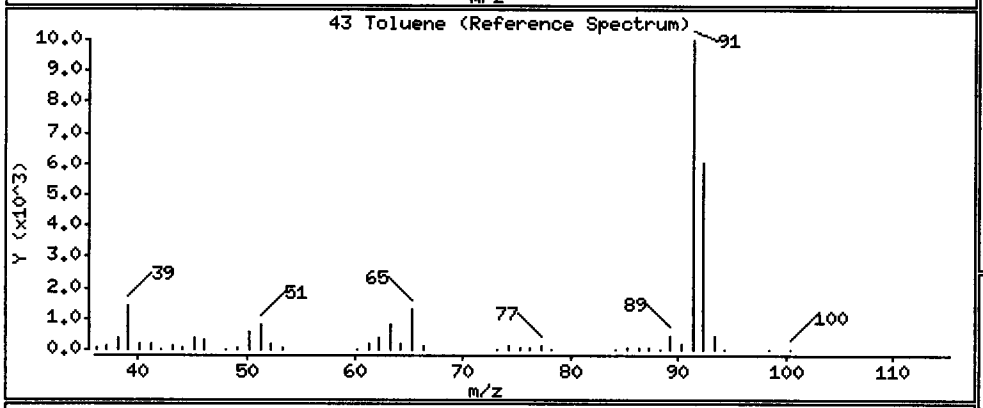
Concentration: 5.344 ug/Kg

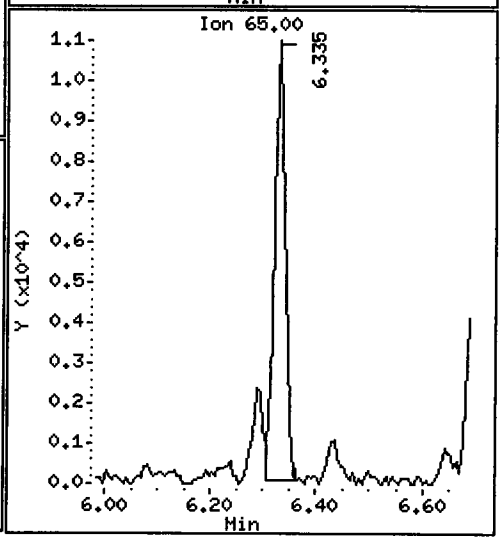


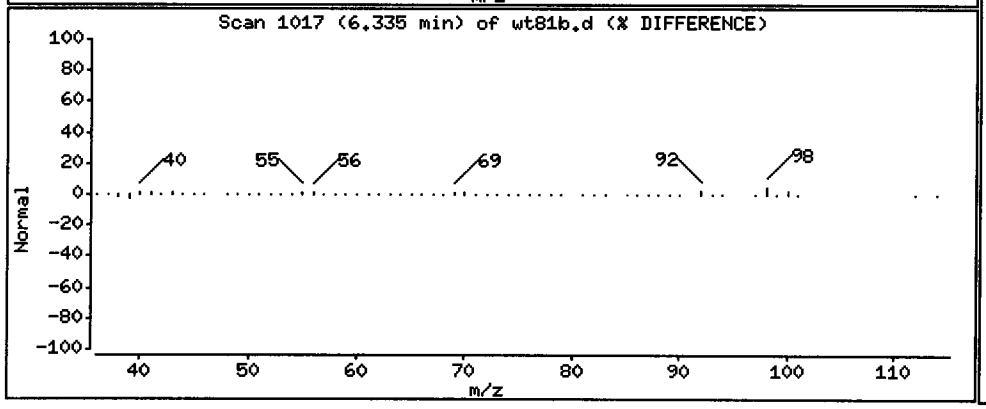












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

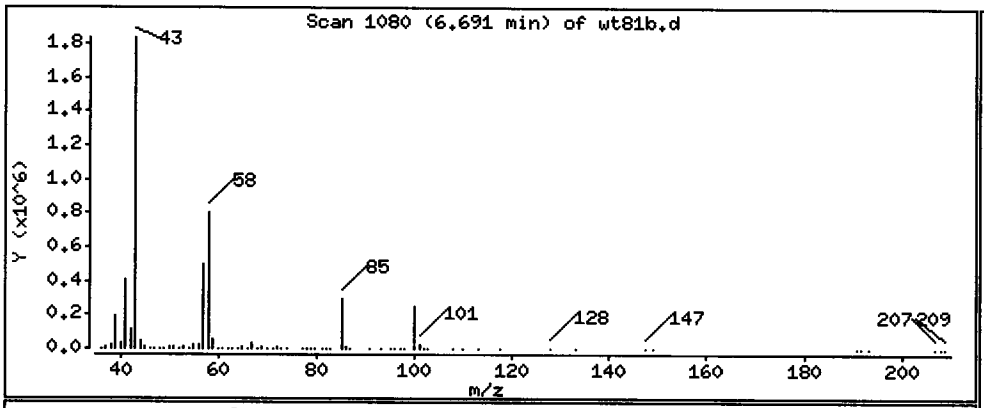
Operator: PB

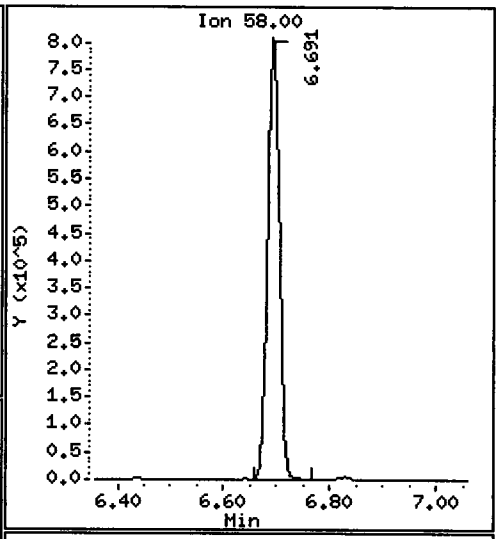
Column phase: RTXVMS

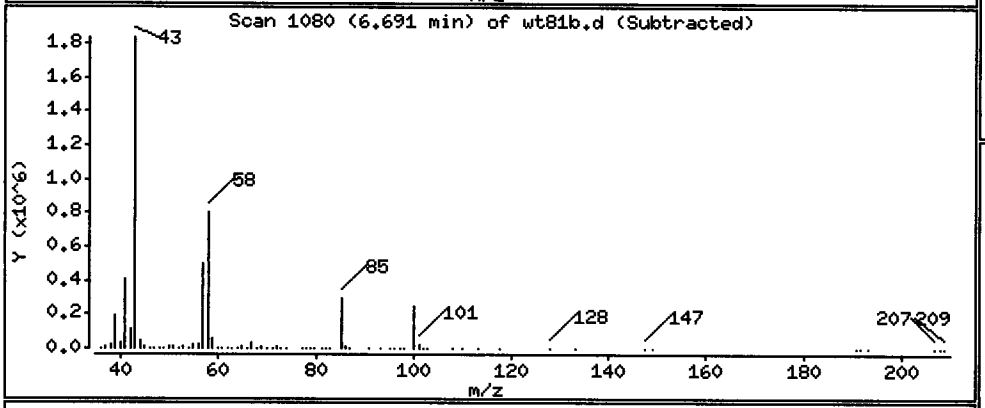
Column diameter: 0.18

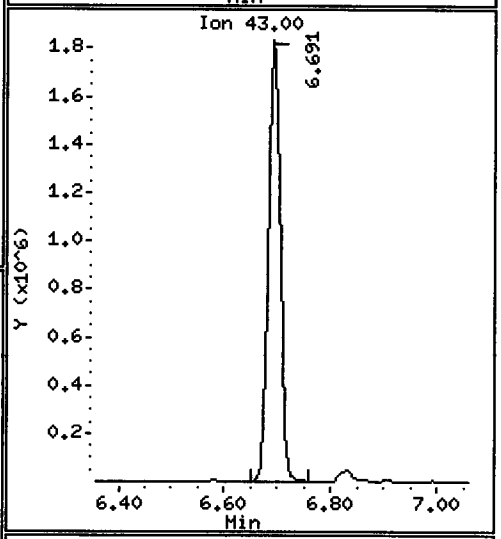
45 4-Methyl-2-Pentanone

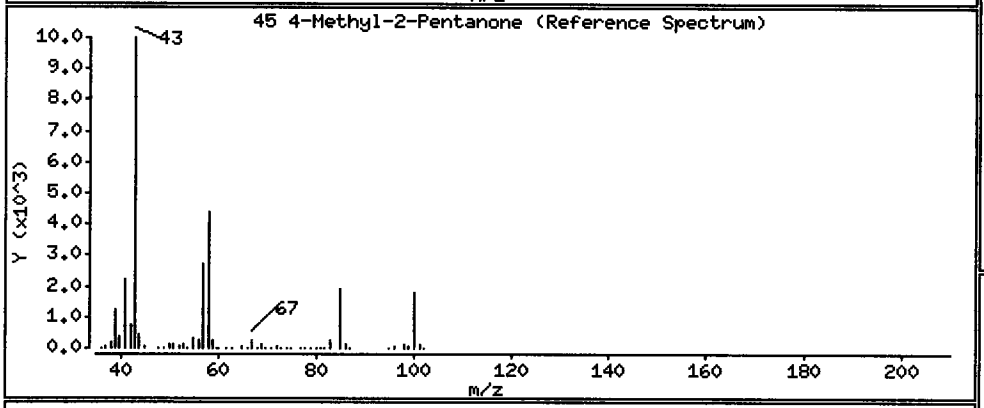
Concentration: 487.50 ug/Kg

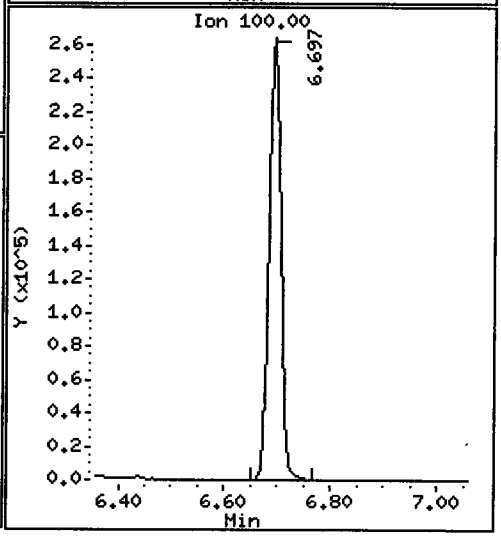


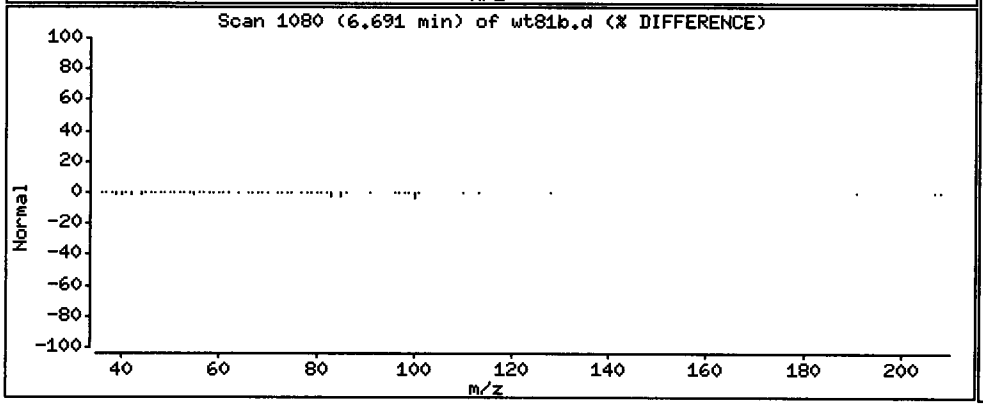












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

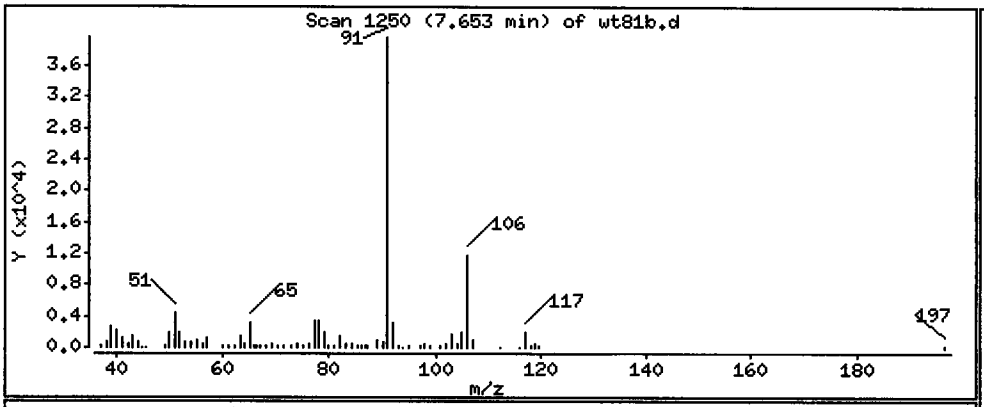
Operator: PB

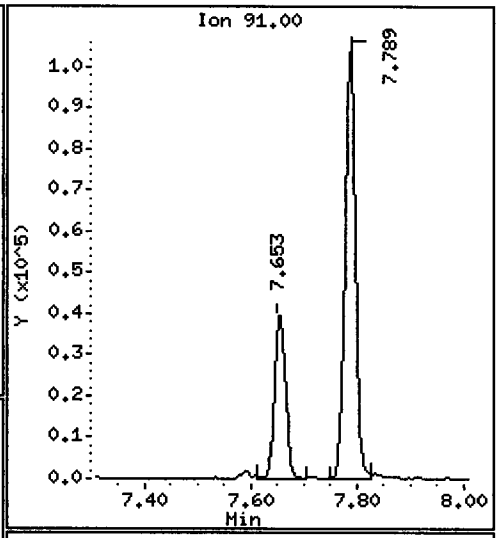
Column phase: RTXVMS

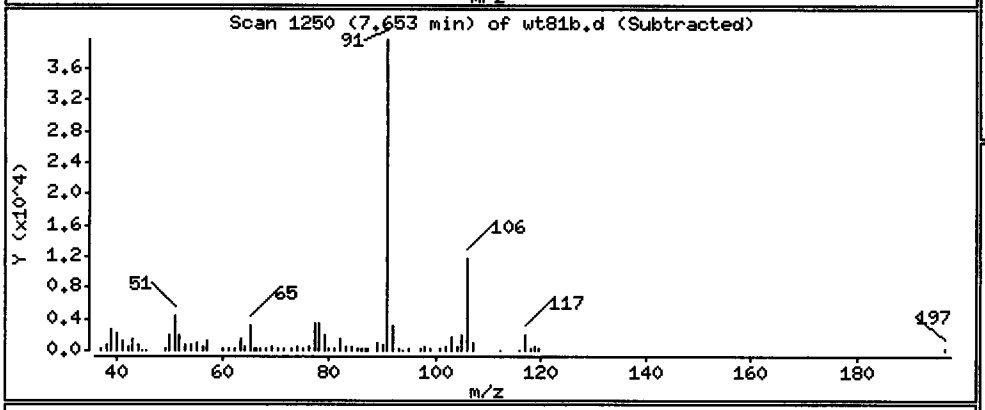
Column diameter: 0.18

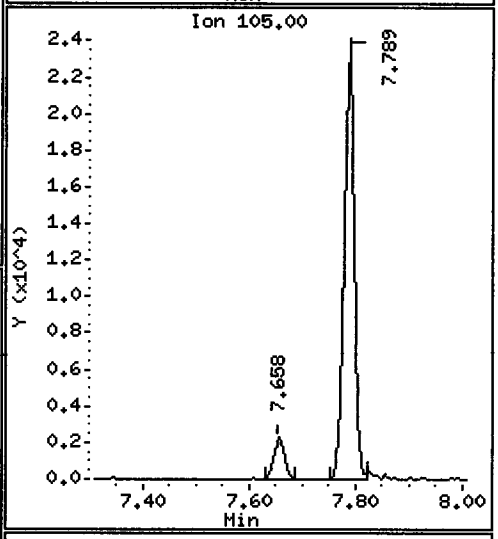
54 Ethyl Benzene

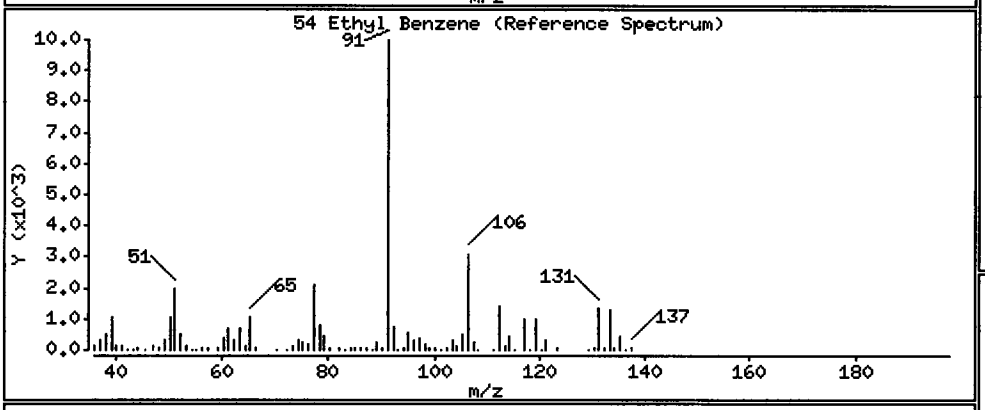
Concentration: 4.040 ug/Kg

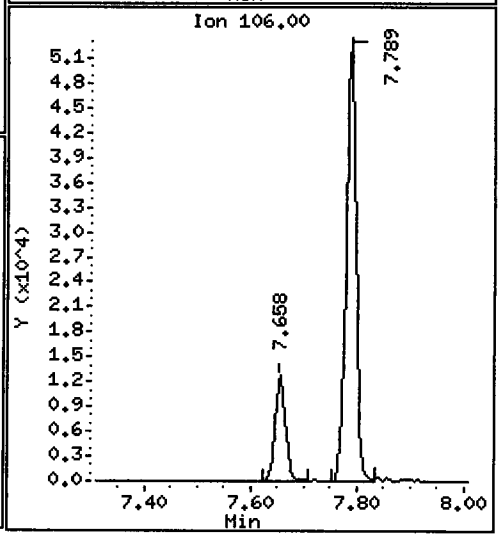


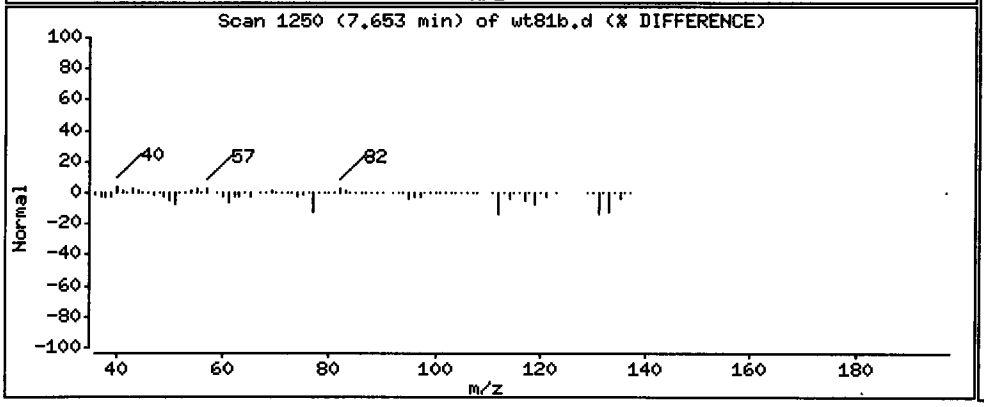












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

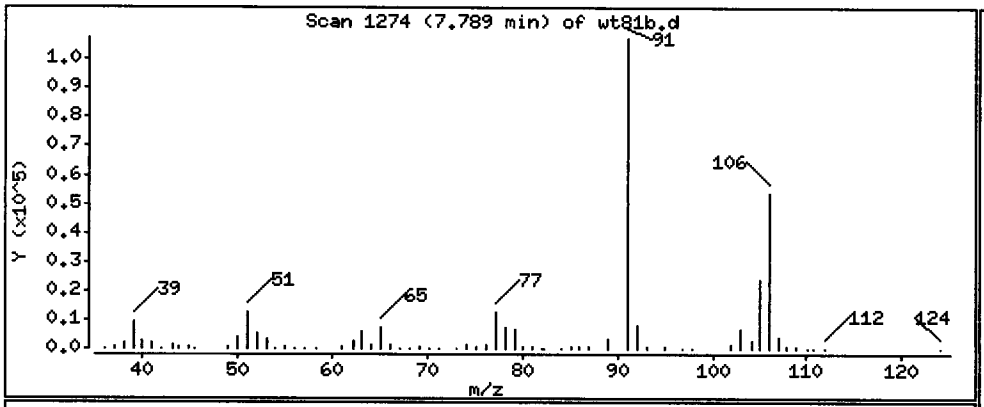
Operator: PB

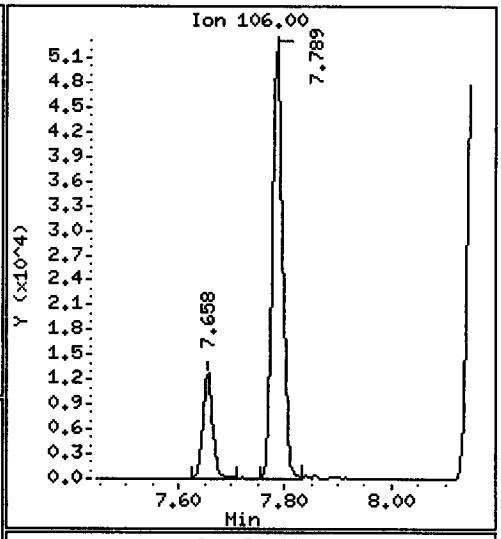
Column phase: RTXVMS

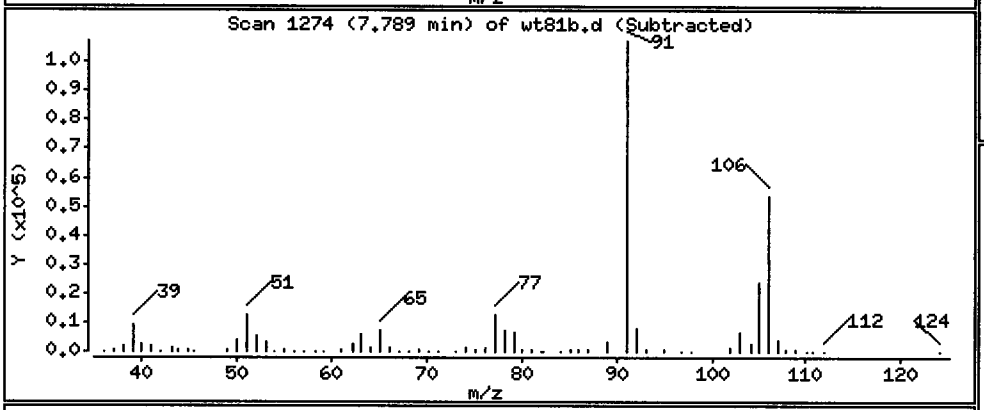
Column diameter: 0.18

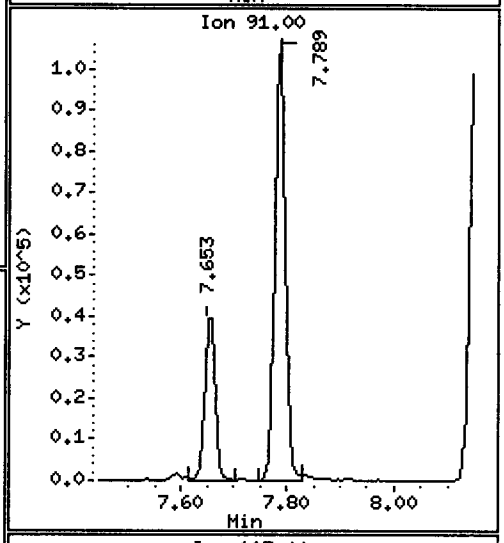
56 m,p-xylene

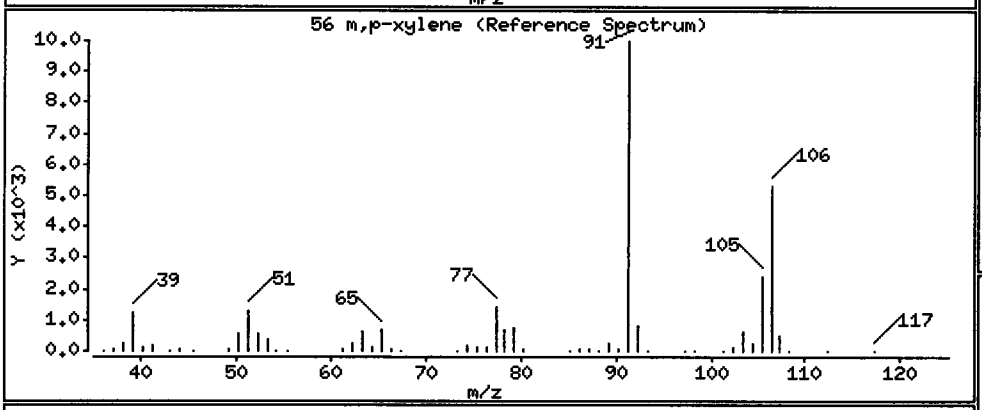
Concentration: 13.269 ug/Kg

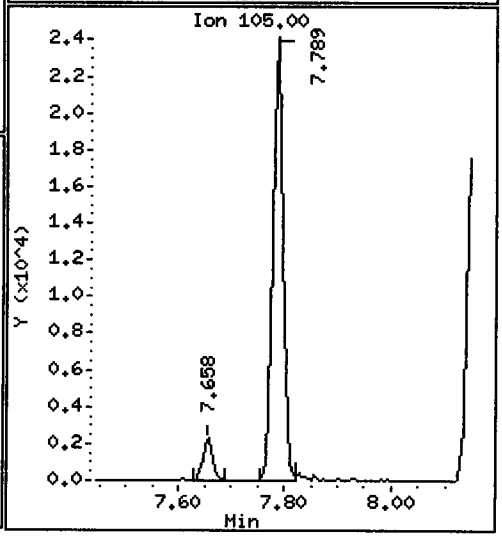


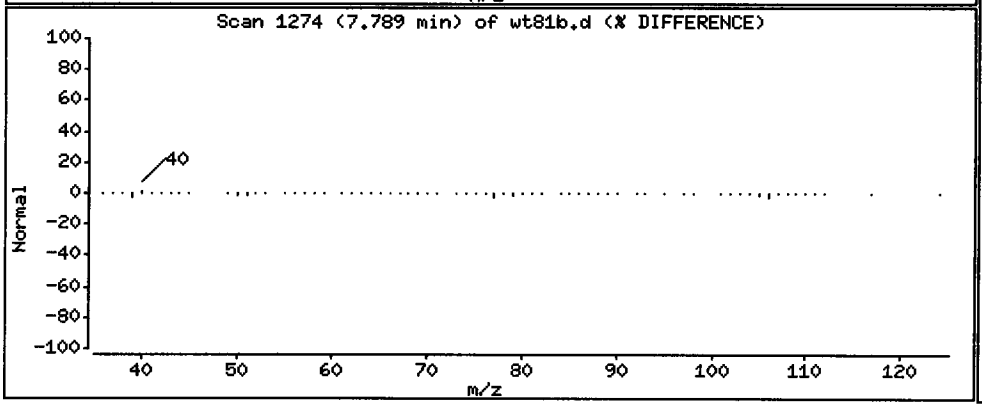












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

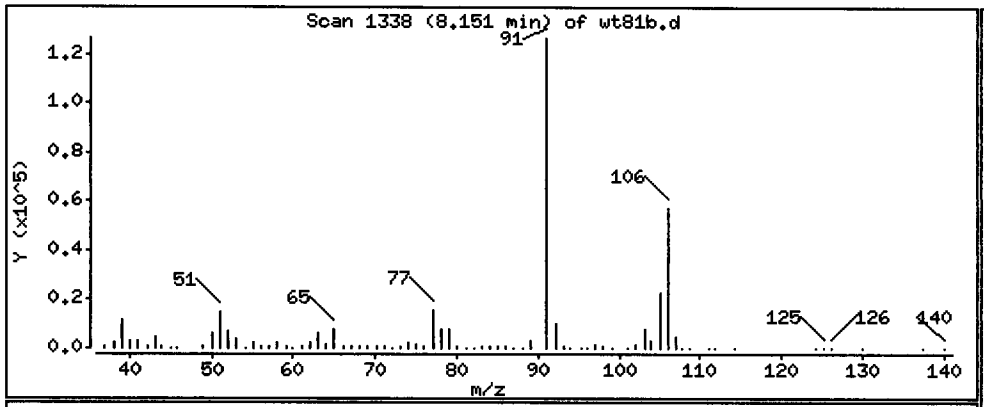
Operator: PB

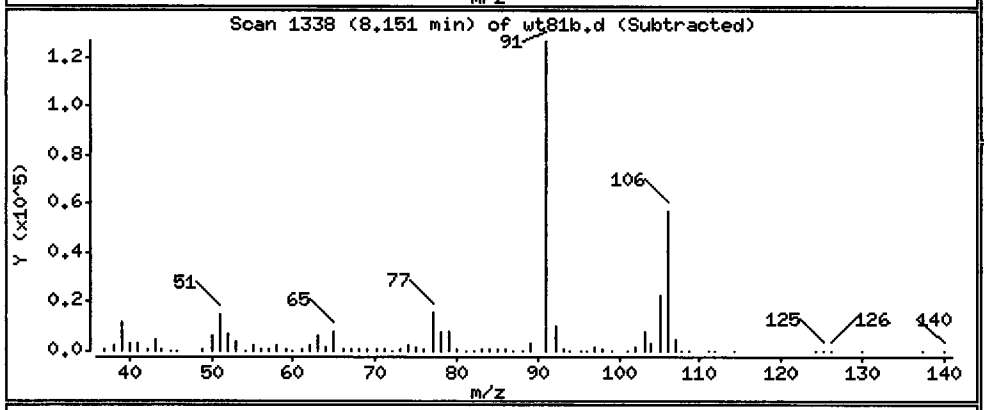
Column phase: RTXVMS

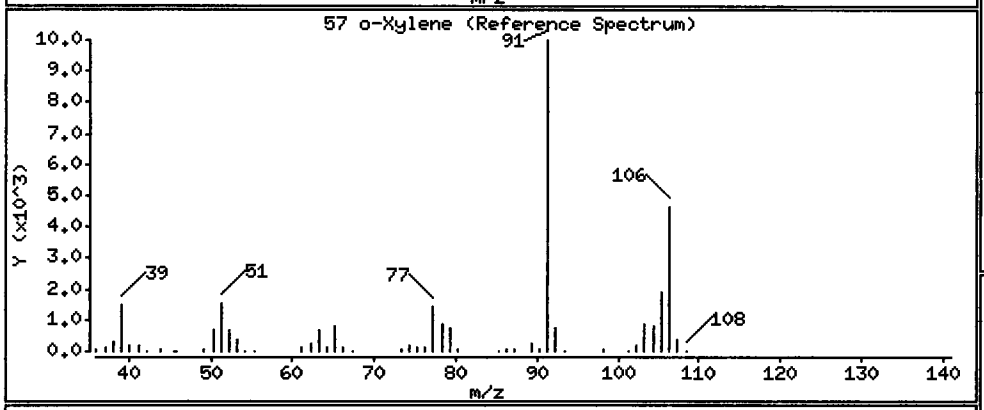
Column diameter: 0.18

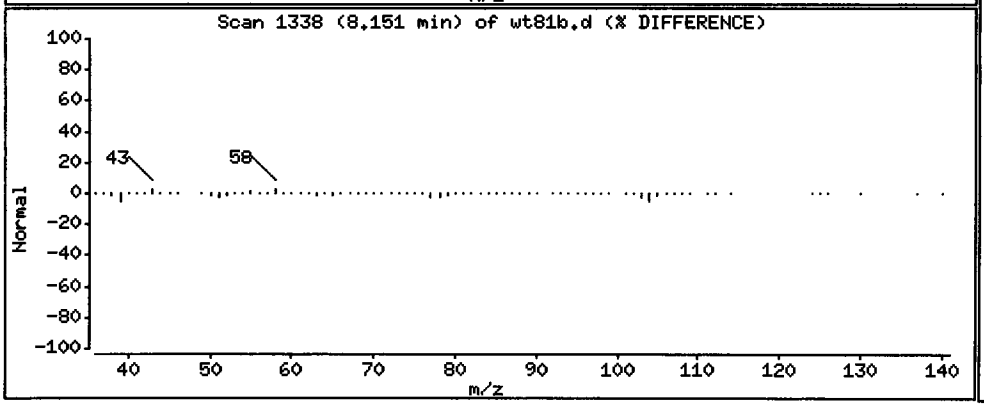
57 o-Xylene

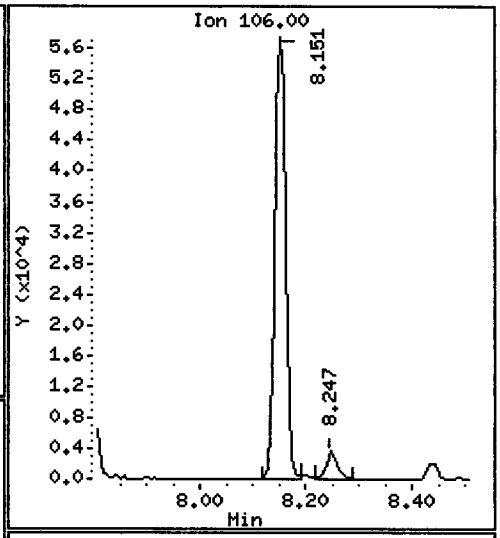
Concentration: 15.032 ug/Kg

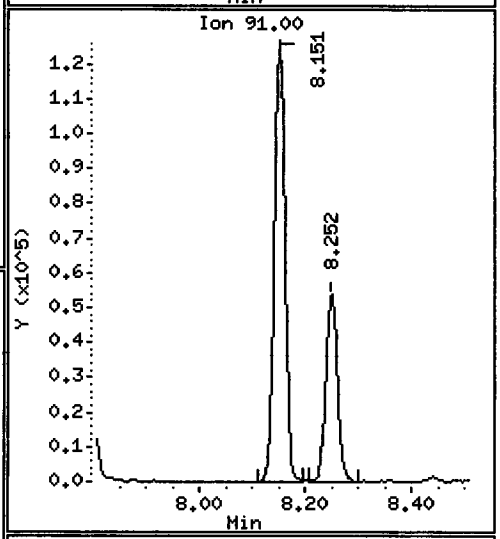


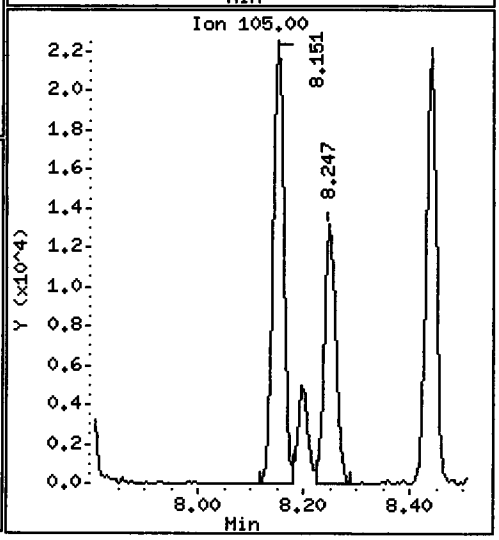












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

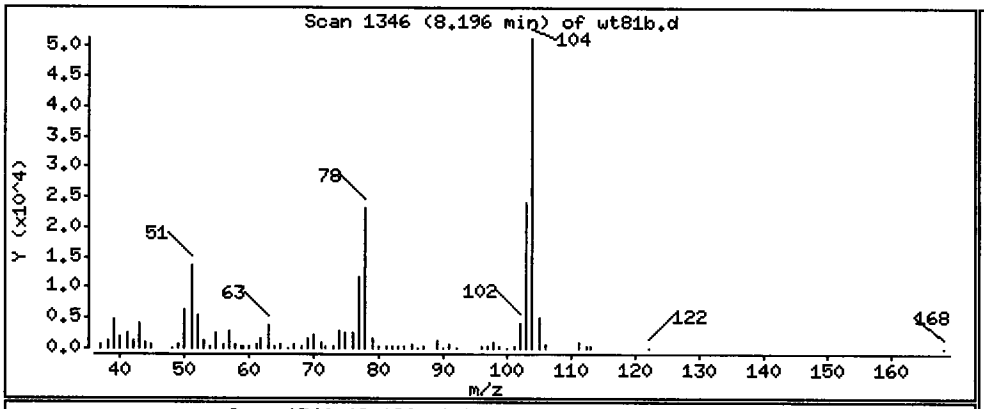
Operator: PB

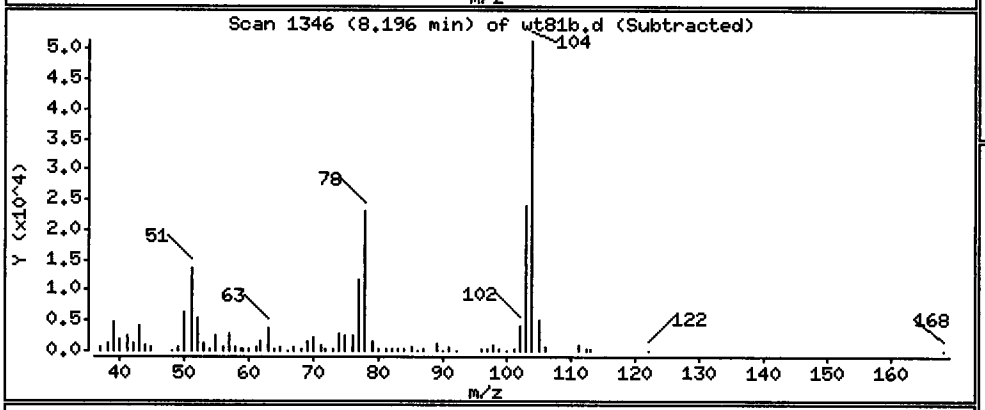
Column phase: RTXVMS

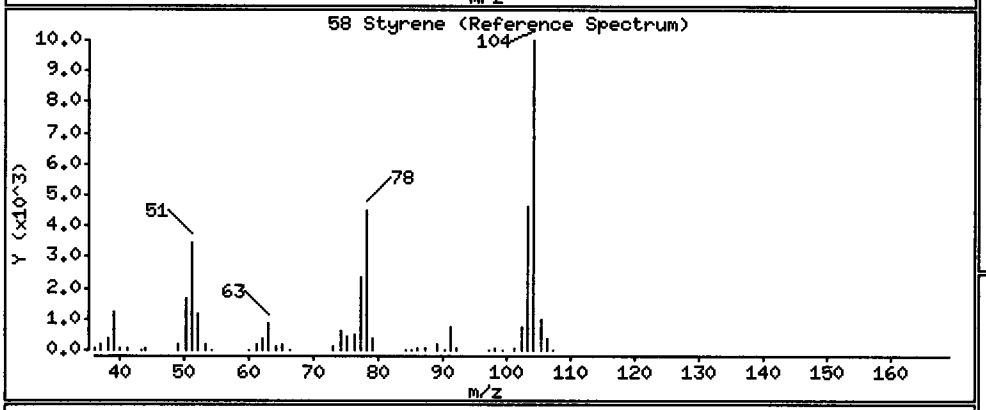
Column diameter: 0.18

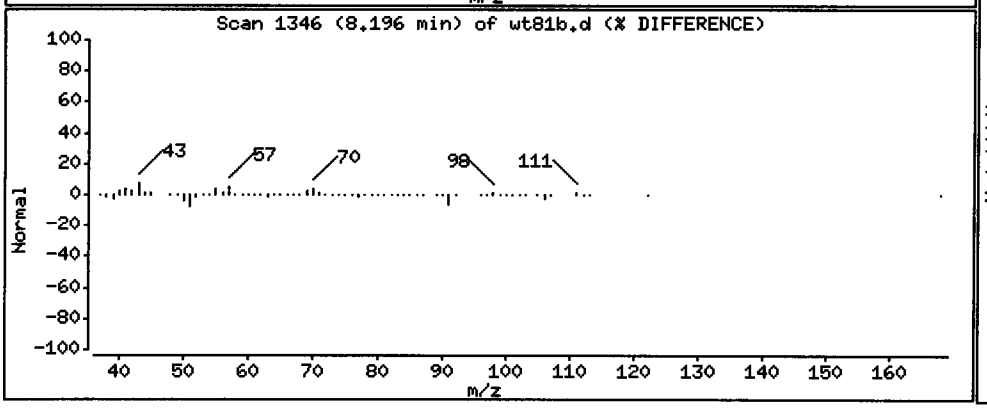
58 Styrene

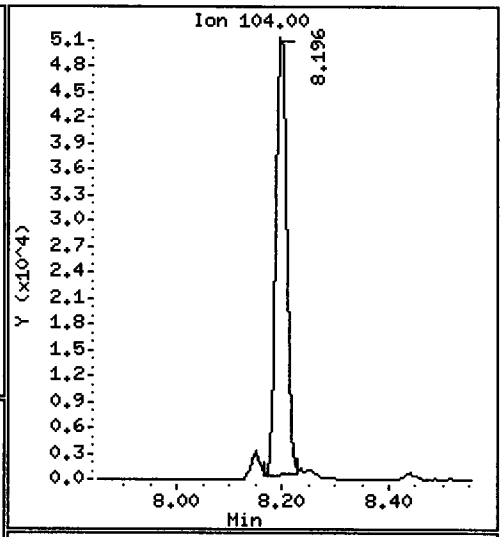
Concentration: 8.128 ug/Kg

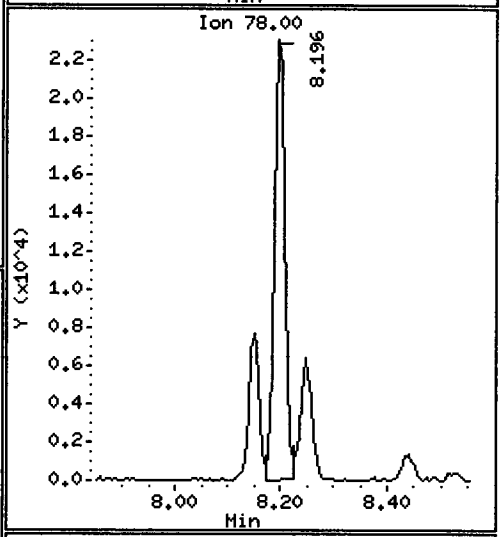


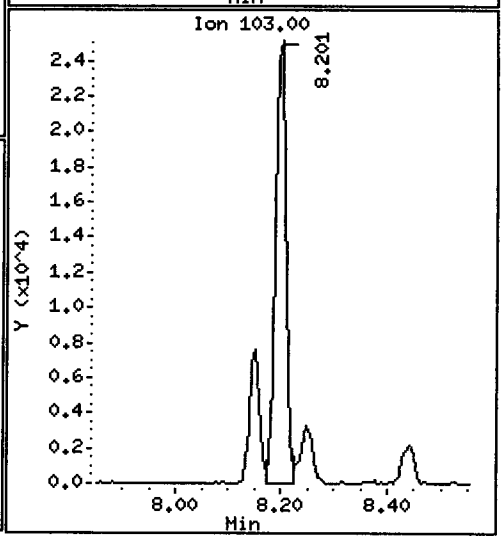












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

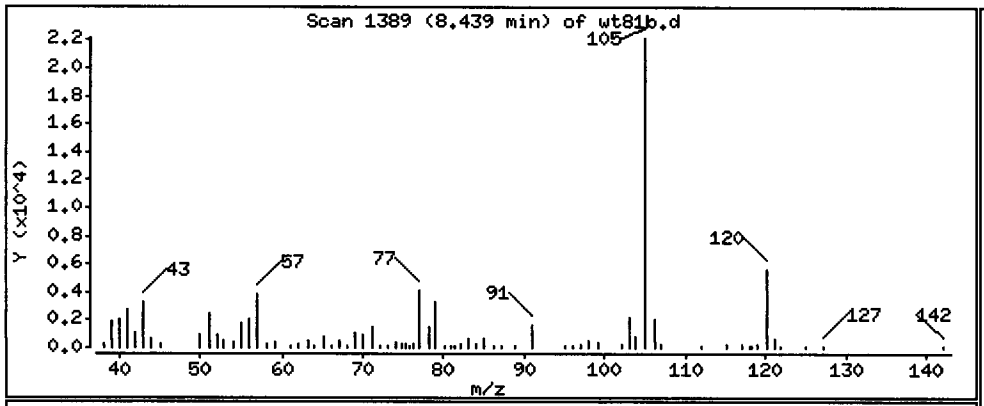
Operator: PB

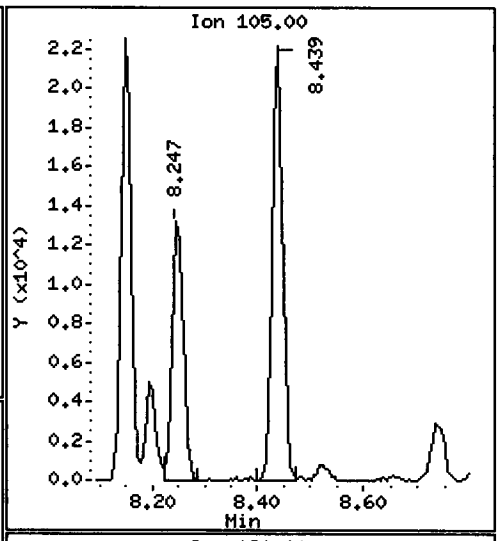
Column phase: RTXVMS

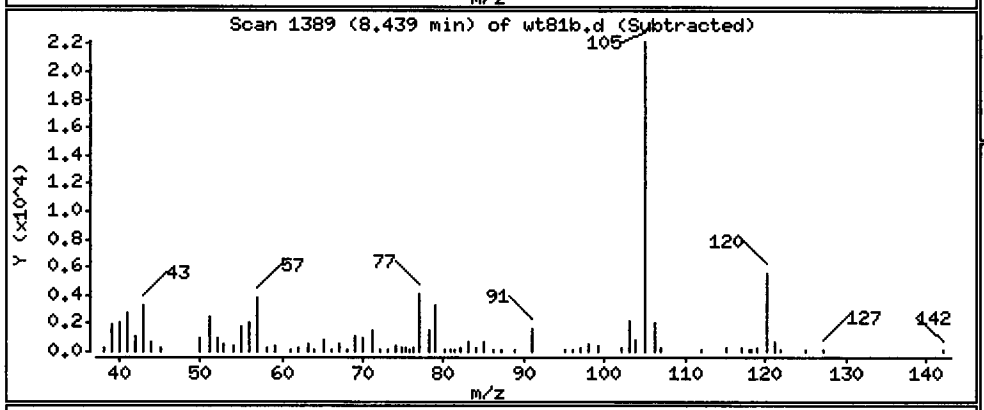
Column diameter: 0.18

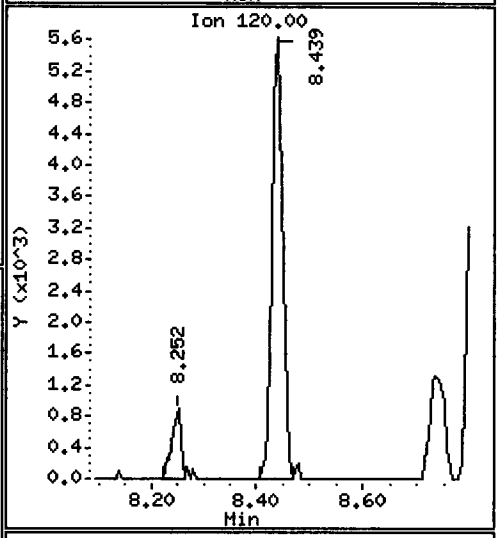
60 Isopropyl Benzene

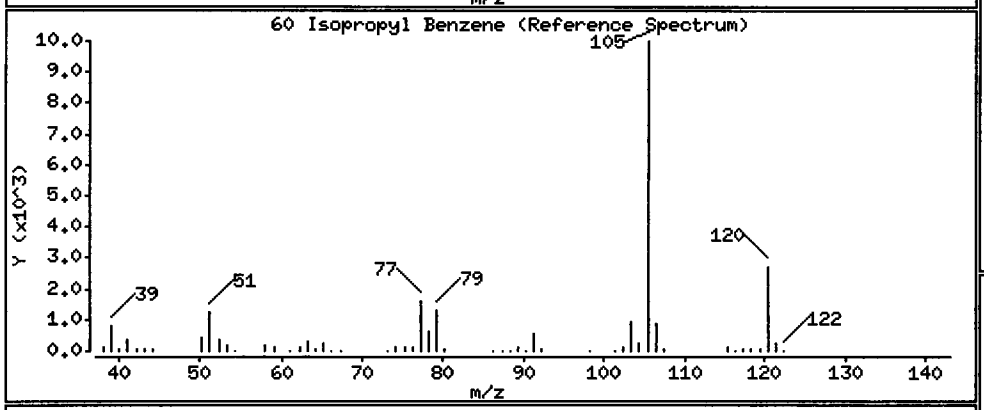
Concentration: 5.709 ug/Kg

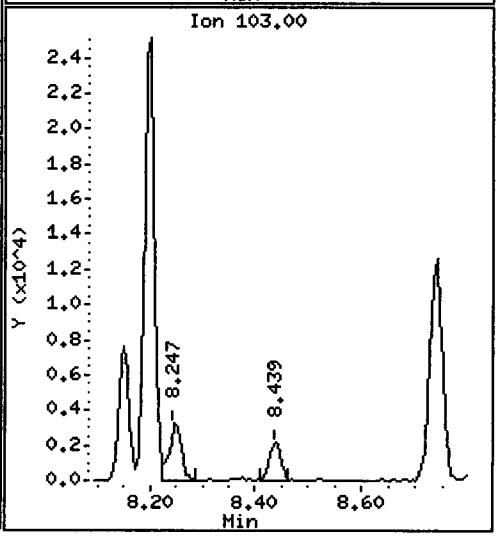


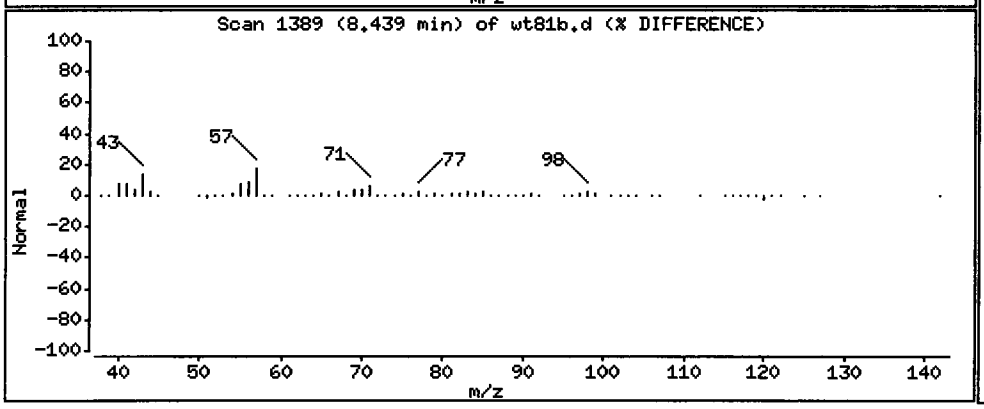












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

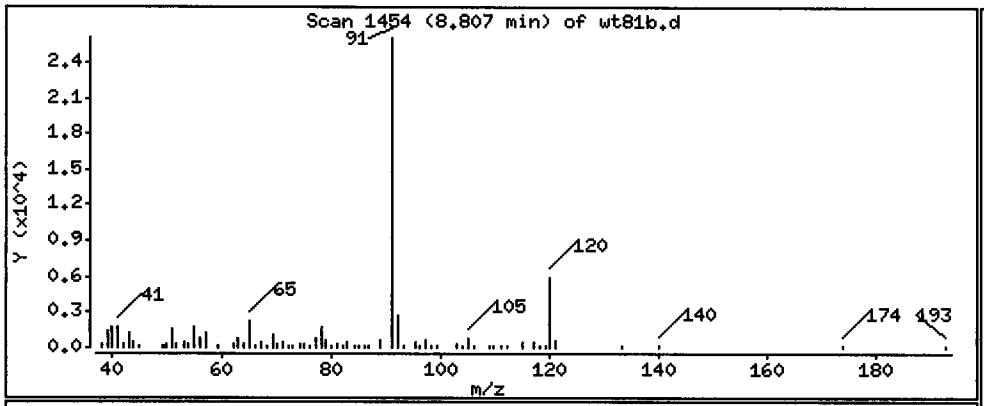
Operator: PB

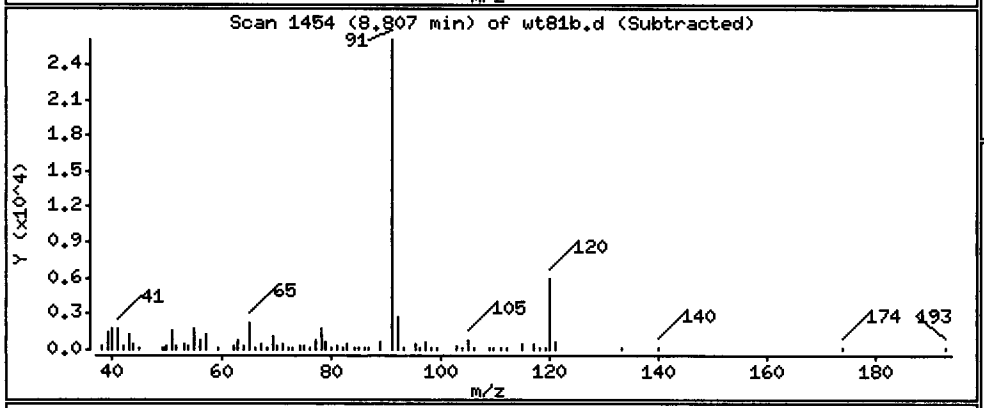
Column phase: RTXVMS

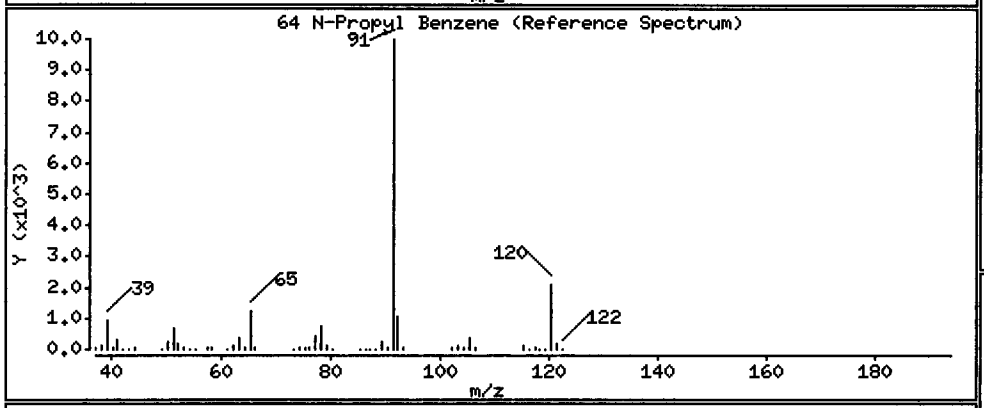
Column diameter: 0.18

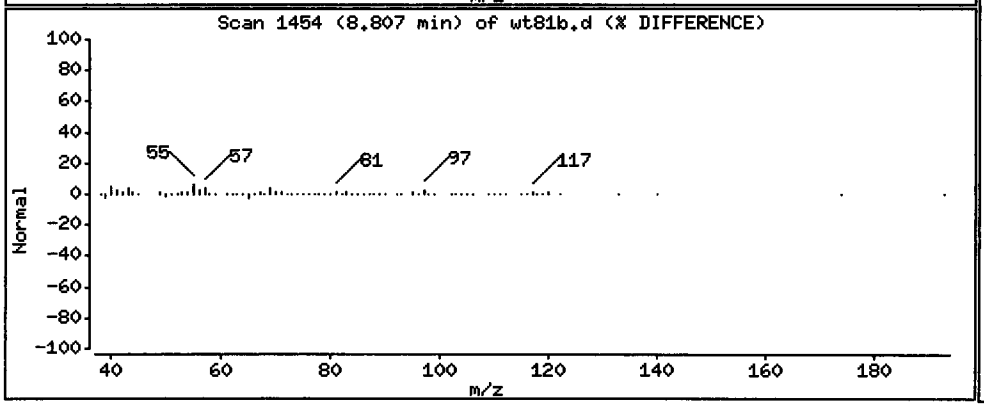
64 N-Propyl Benzene

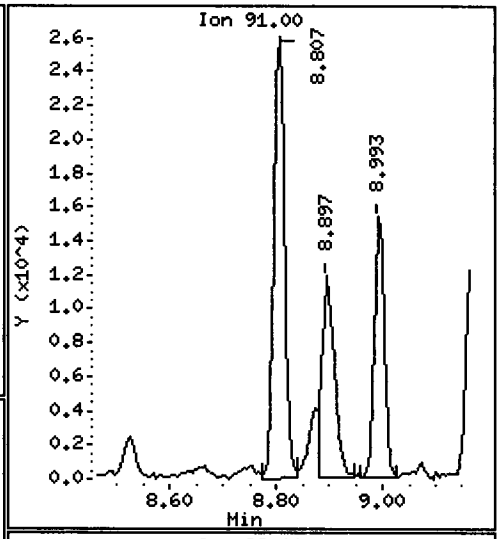
Concentration: 5.616 ug/Kg

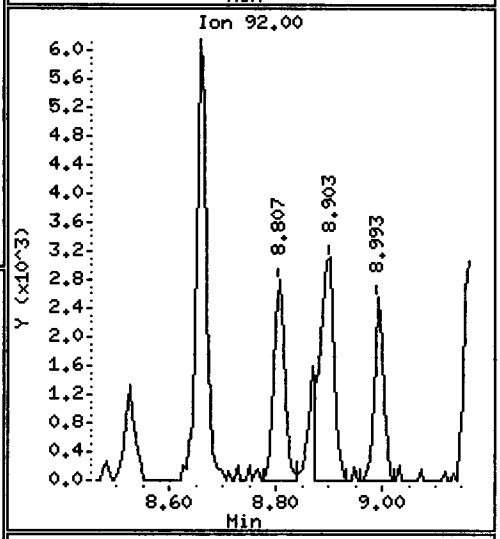


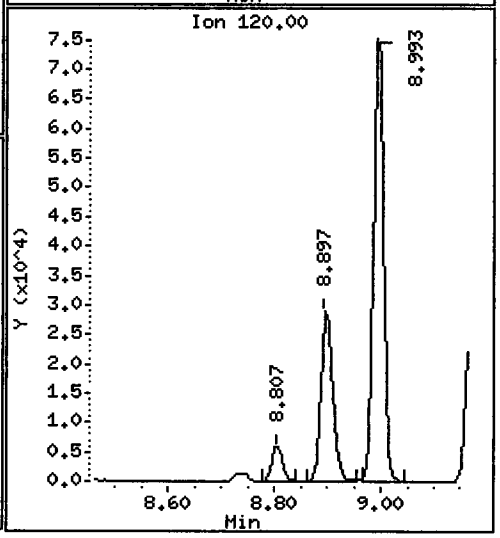












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,17,0

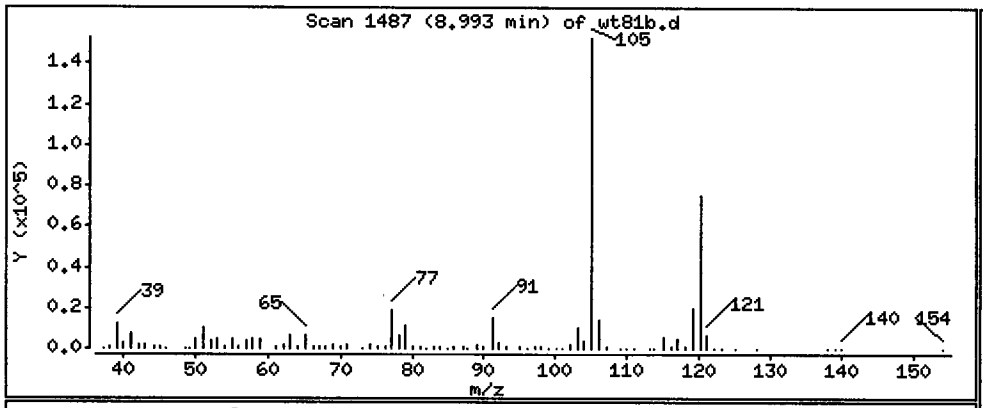
Operator: PB

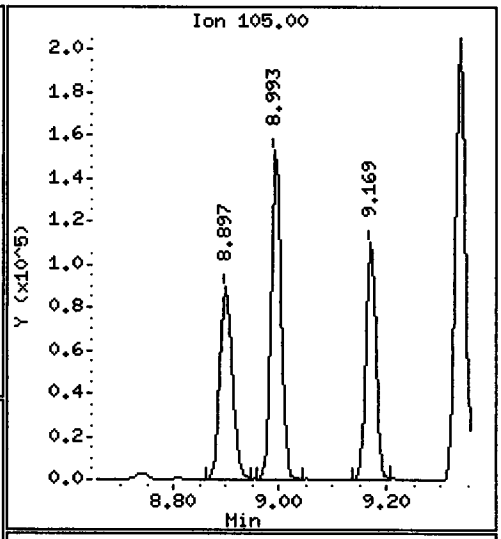
Column phase: RTXVMS

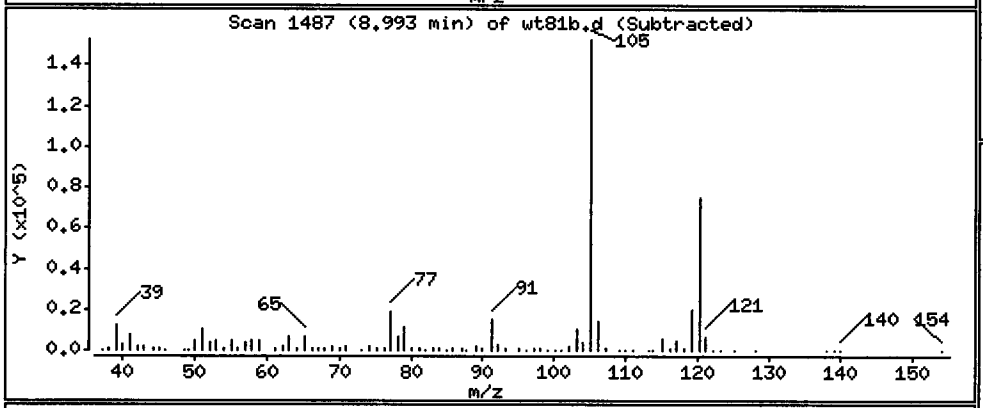
Column diameter: 0.18

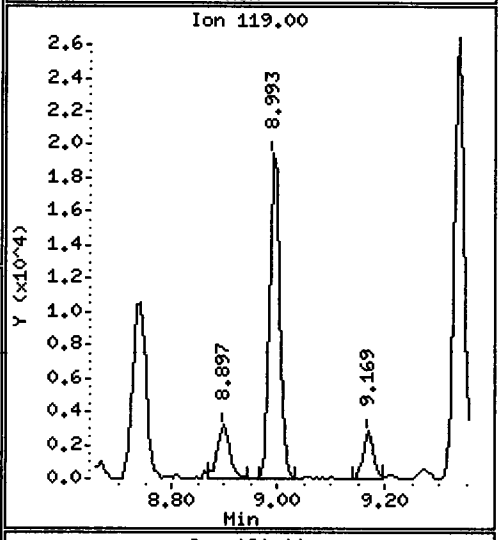
67 1,3,5-Trimethyl Benzene

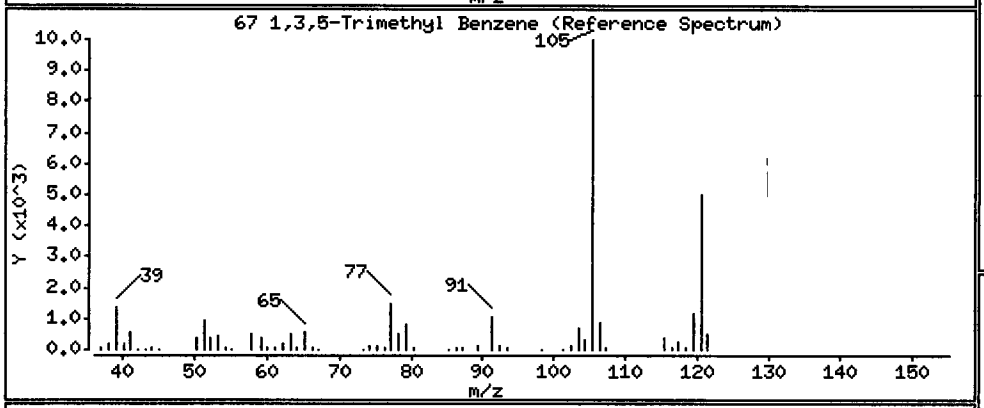
Concentration: 44.392 ug/Kg

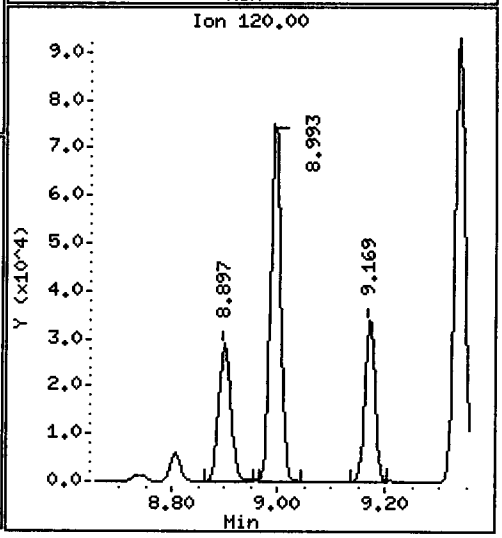


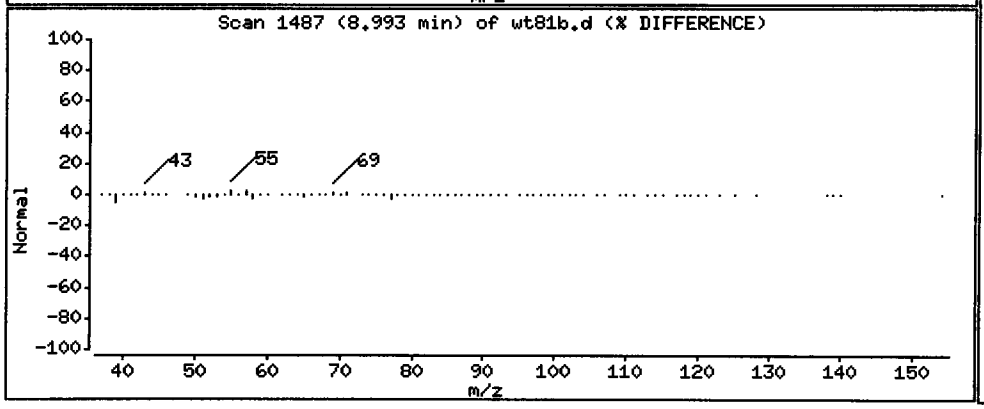












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

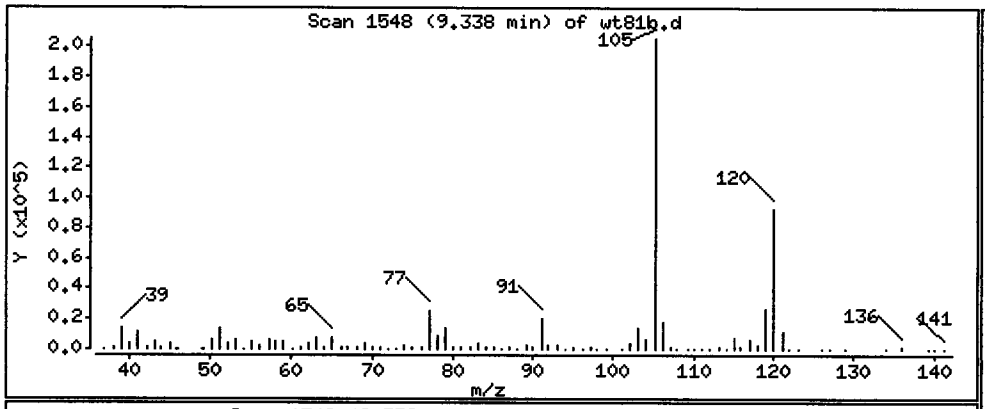
Operator: PB

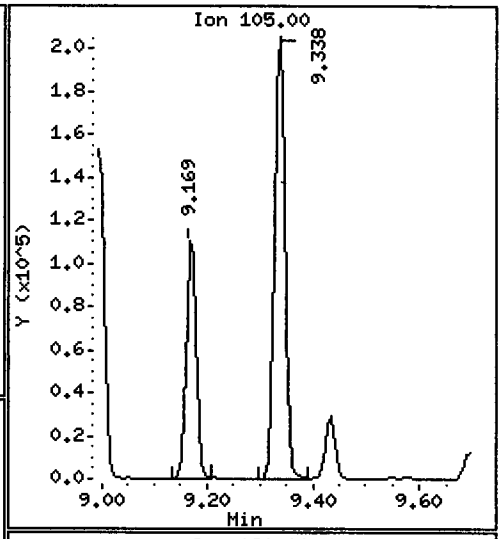
Column phase: RTXVMS

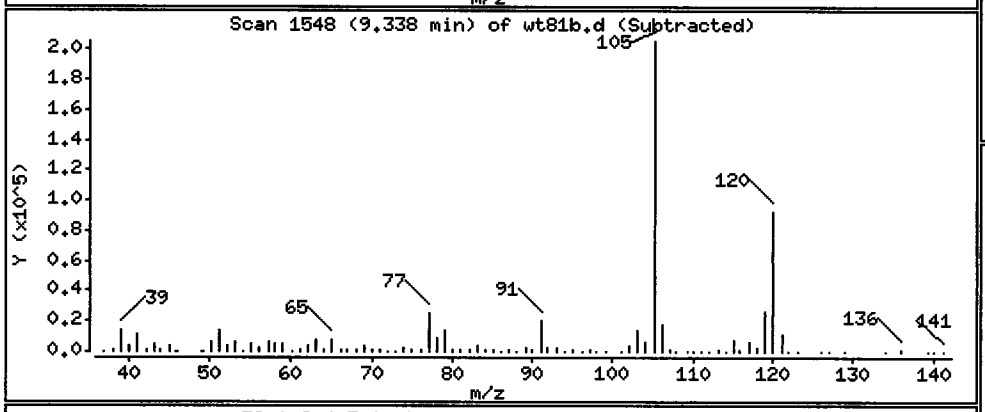
Column diameter: 0.18

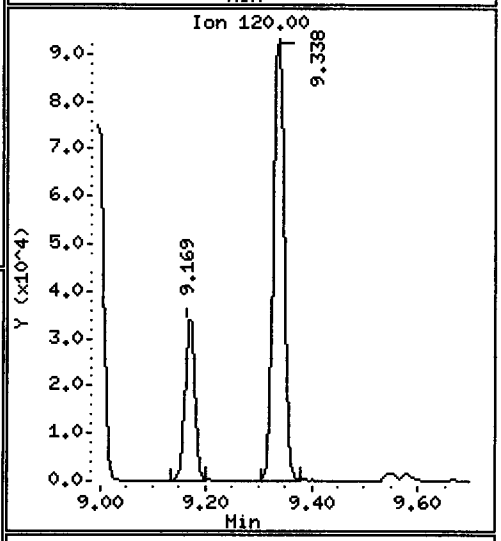
72 1,2,4-Trimethylbenzene

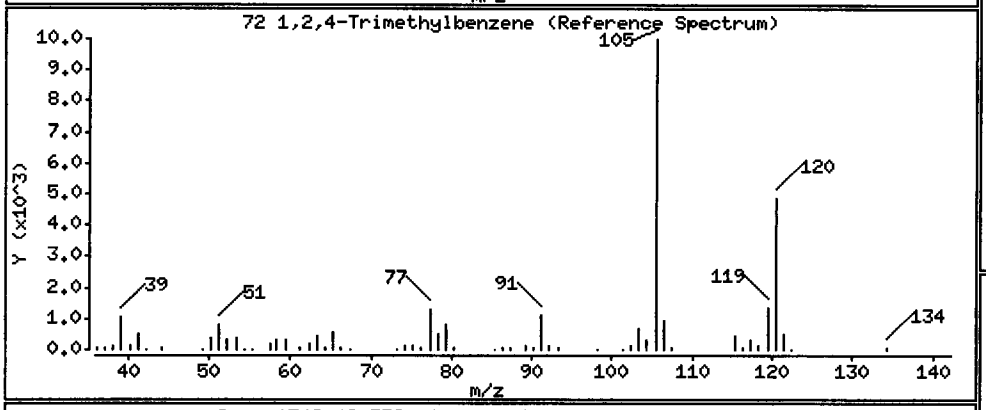
Concentration: 61.019 ug/Kg

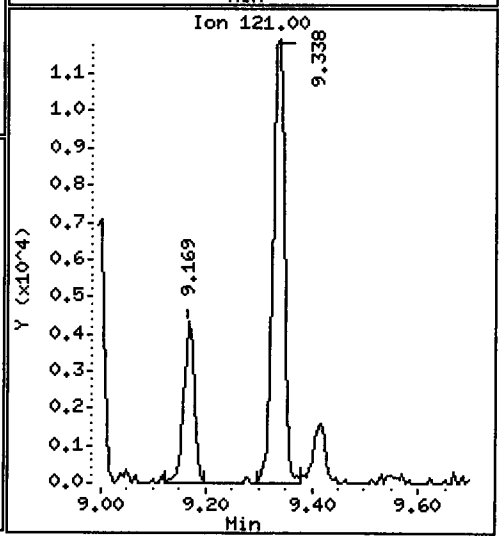


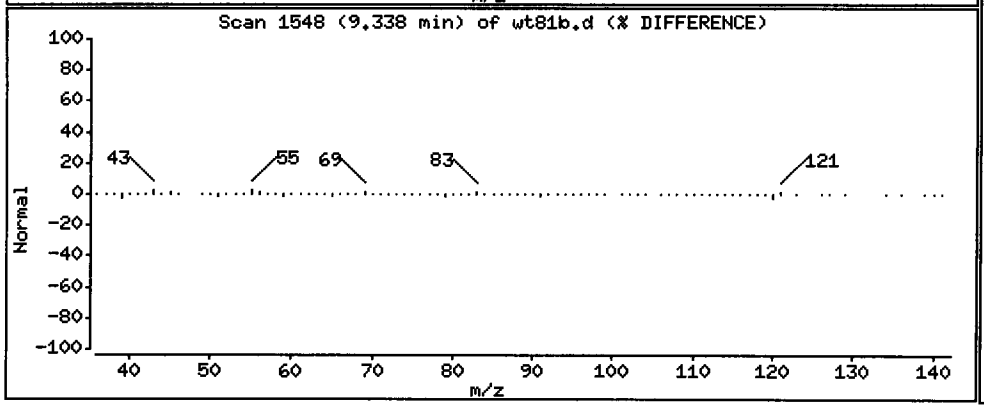












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

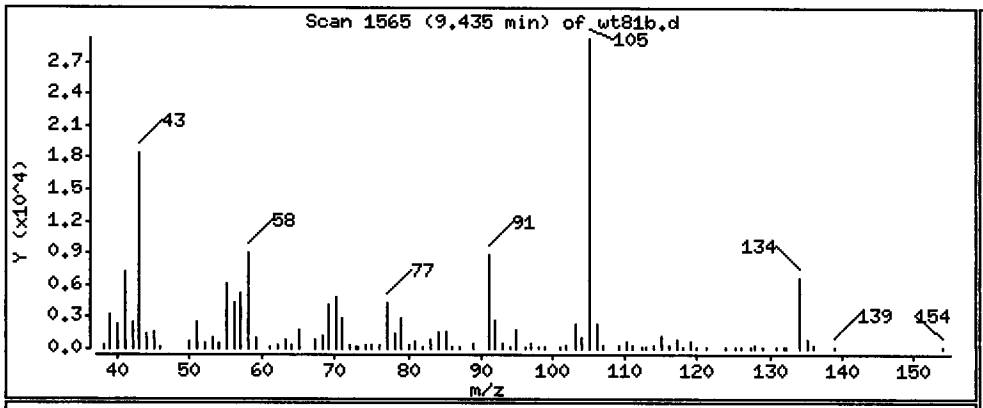
Operator: PB

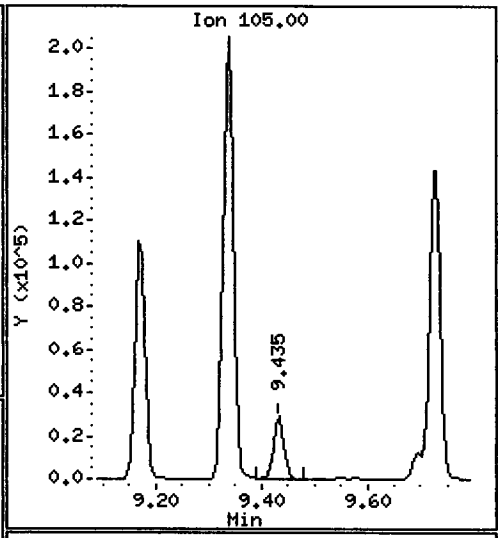
Column phase: RTXVMS

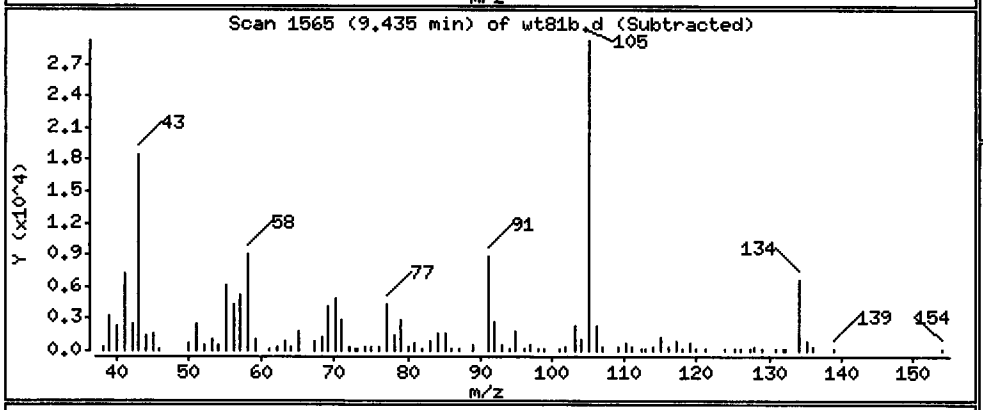
Column diameter: 0.18

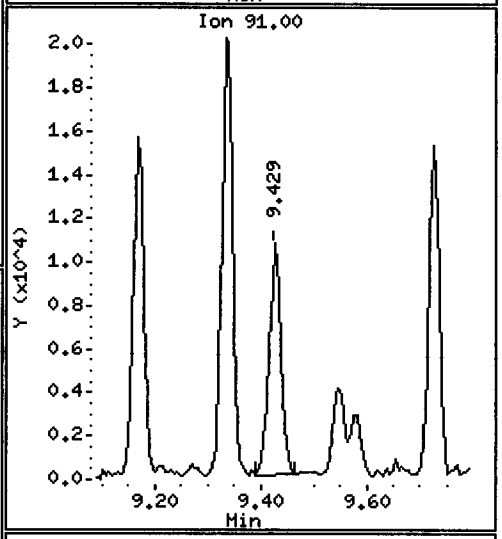
73 S-Butyl Benzene

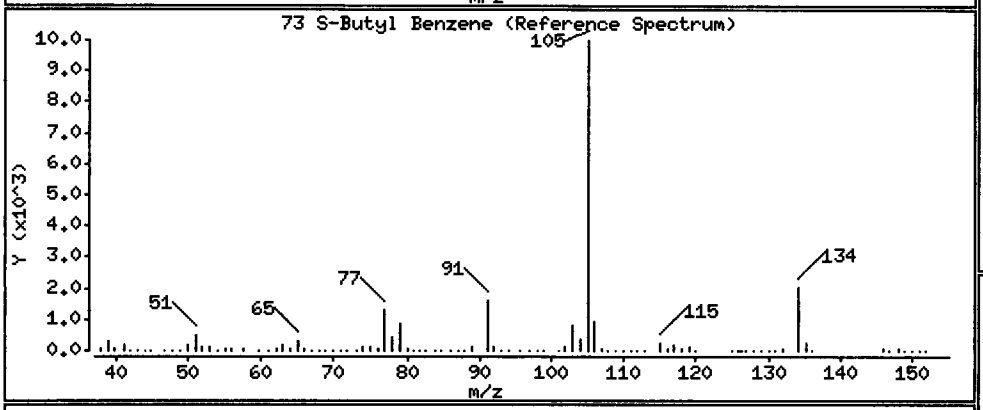
Concentration: 7.082 ug/Kg

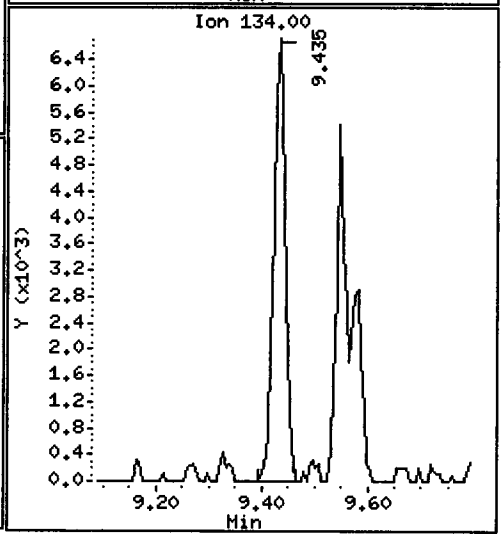


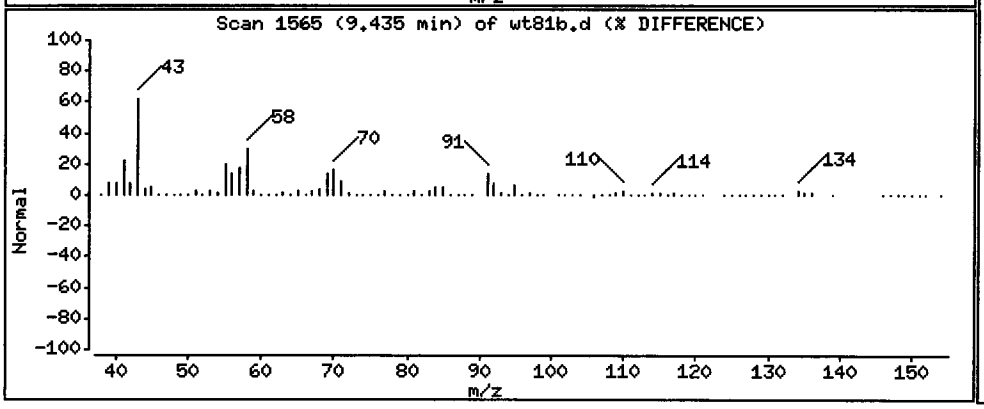












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.17,0

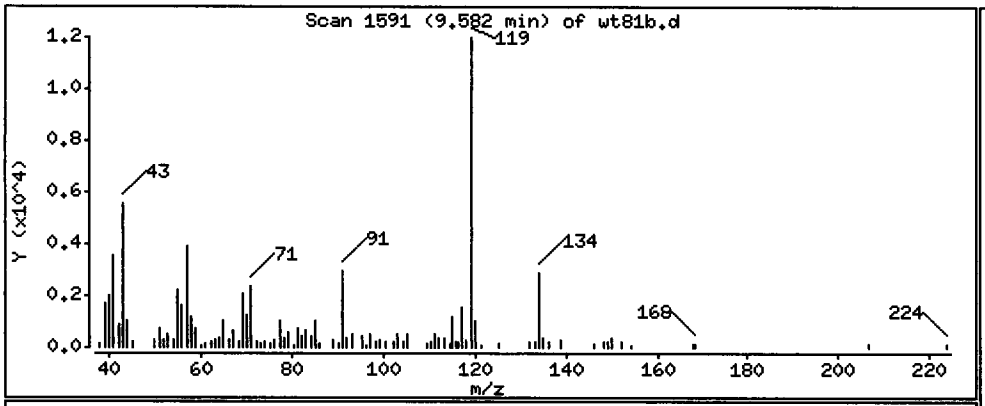
Operator: PB

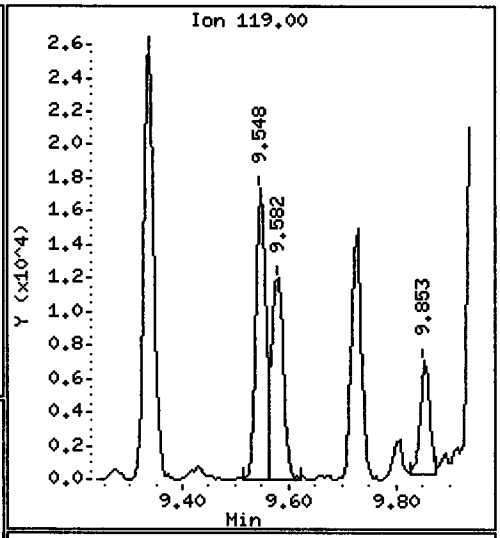
Column phase: RTXVMS

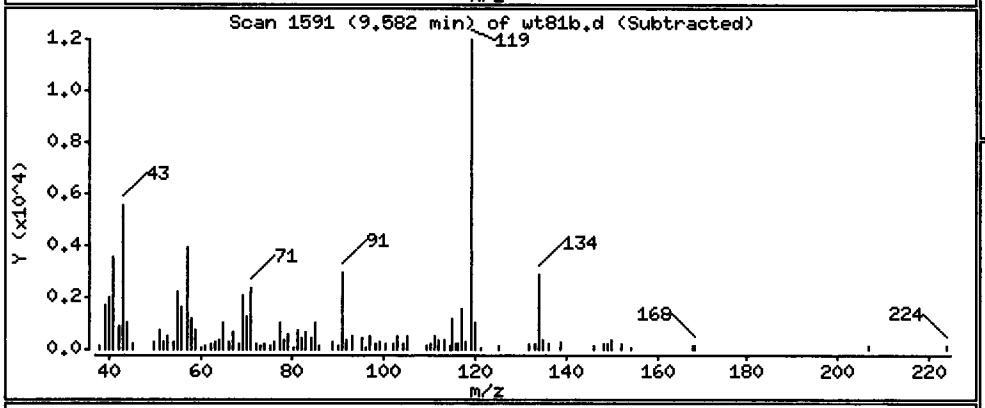
Column diameter: 0.18

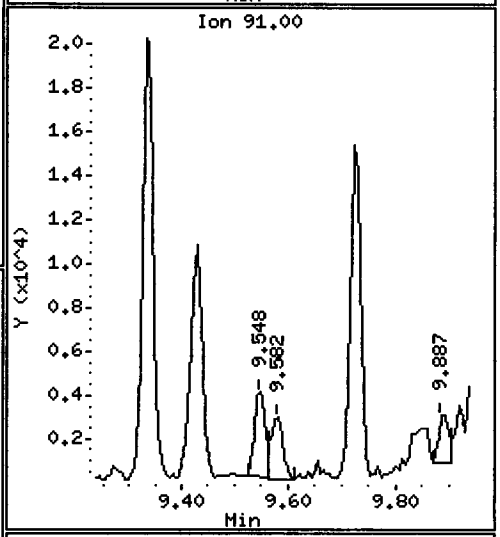
74 4-Isopropyl Toluene

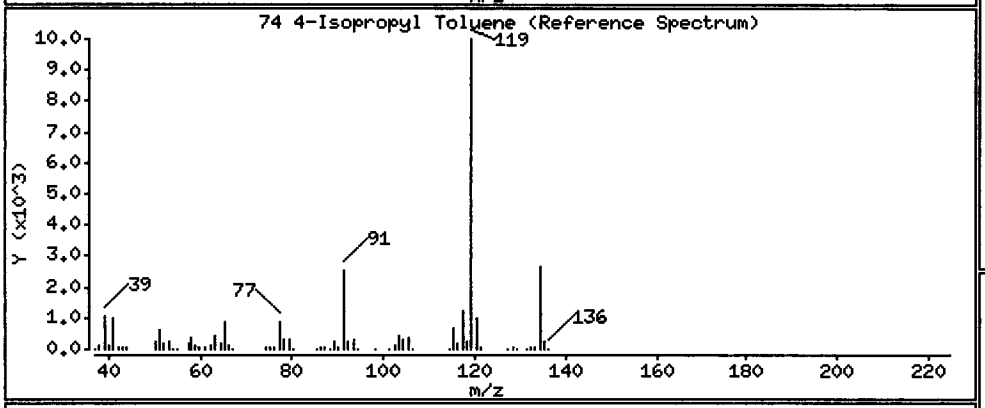
Concentration: 3.894 ug/Kg

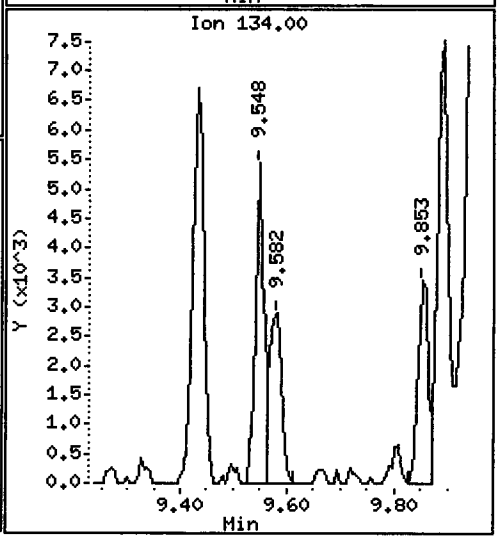


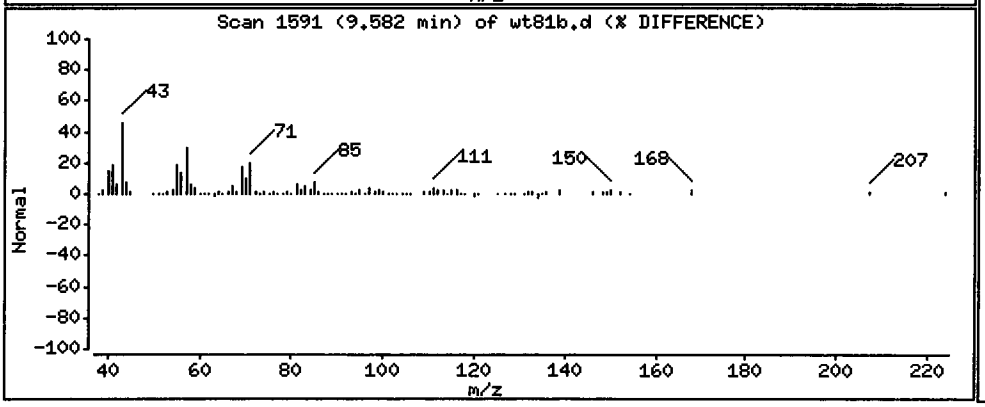












Data File: /chem1/nt5.i/17JUN13.b/wt81b.d

Date : 17-JUN-2013 18:18

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,17,0

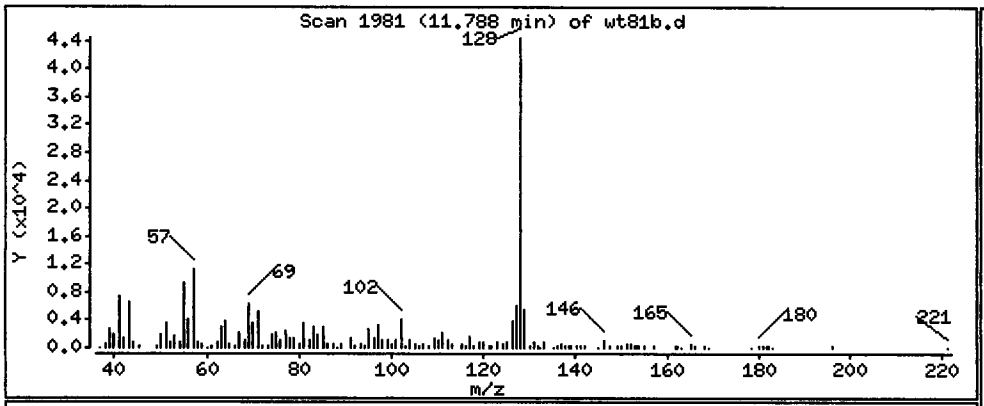
Operator: PB

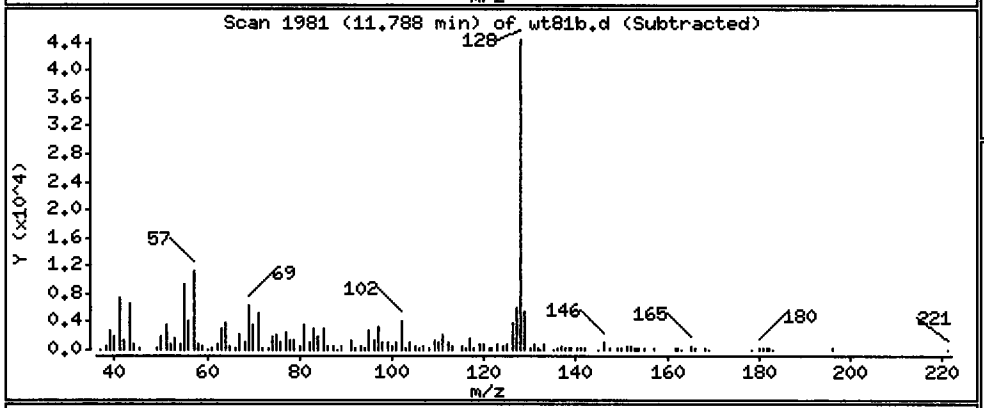
Column phase: RTXVMS

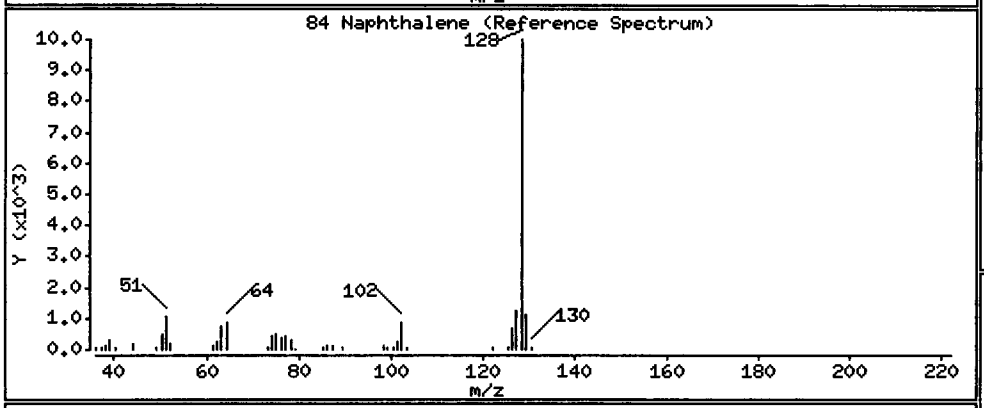
Column diameter: 0.18

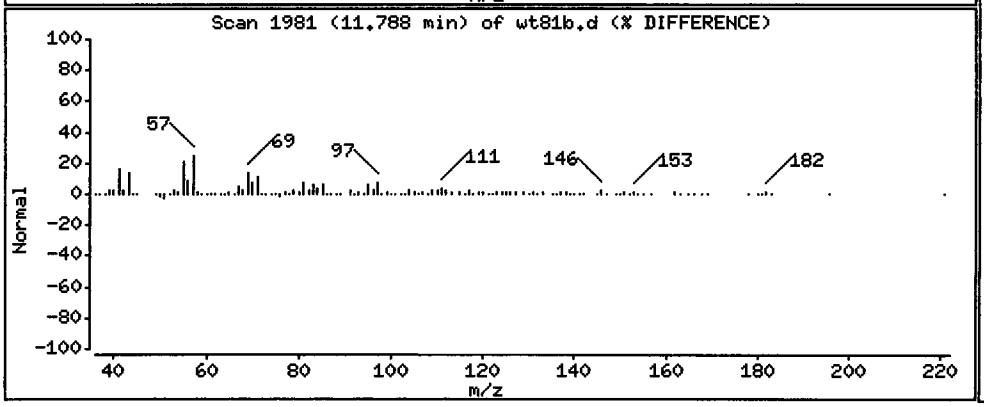
84 Naphthalene

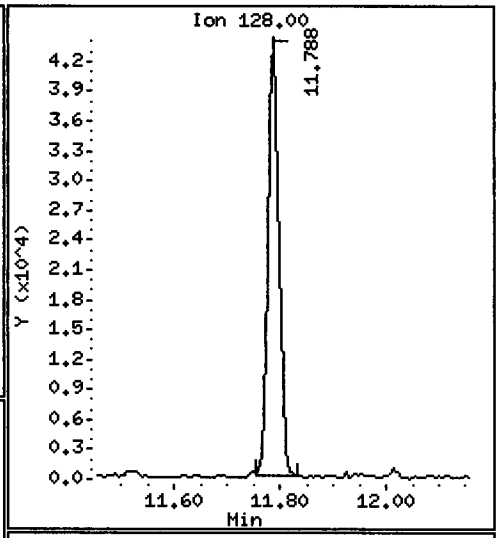
Concentration: 15.689 ug/Kg

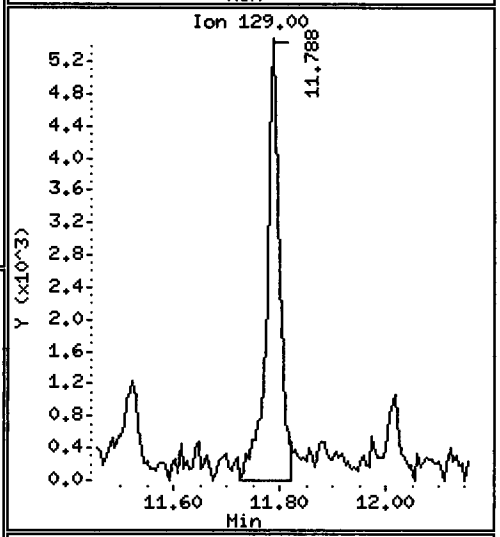


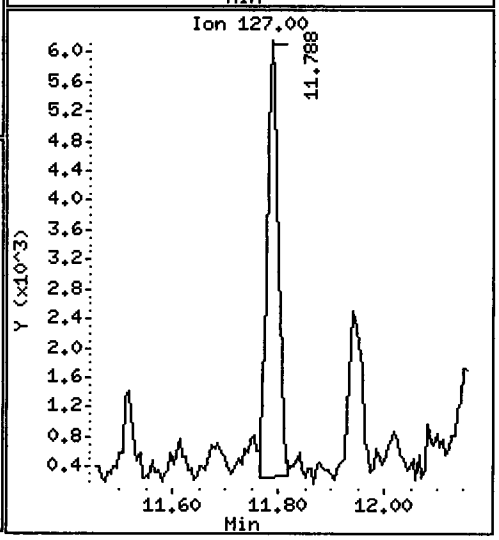












CO-ELUTION SUMMARY FOR FILE - wt81b.d

Lab ID: WT81B, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/17JUN13.b/wt81b2.d
Lab Smp Id: WT81B Client Smp ID: AM-SF4-EFF-20130612
Inj Date : 17-JUN-2013 19:06
Operator : PB Inst ID: nt5.i
Smp Info : WT81B,5,6.91,0
Misc Info : 13-12637
Comment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 27-Jun-2013 07:53 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	6.91000	Sample Amount
M	60.10000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	1.594	1.611	(0.342)	42067	3.06096	5.551
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	1.962	1.973	(0.421)	777497	25.7849	46.761
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	2.431	2.454	(0.522)	41806	4.96447	9.003
14 Acetone	43	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	4.015	4.027	(0.862)	23404	1.29556	2.350
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.185	4.196	(0.898)	626766	56.4268	102.33
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	4.406	4.457	(0.945)	166819	127.625	231.45(Q)
	30 Benzene	78	4.525	4.530	(0.885)	73671	1.44368	2.618
*	31 Pentafluorobenzene	168	4.660	4.672	(1.000)	387246	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.655	4.666	(0.999)	621575	59.8925	108.62
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.113	5.118	(1.000)	1613544	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.289	6.295	(1.230)	2043270	43.2147	78.370
	43 Toluene	92	6.329	6.335	(1.238)	70514	2.17097	3.937
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.697	6.708	(1.310)	885109	155.290	281.62
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	7.410	7.415	(0.976)	36163	5.70292	10.342
*	52 d5-Chlorobenzene	117	7.591	7.596	(1.000)	1248240	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	7.653	7.658	(1.008)	65552	1.79907	3.263
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	7.789	7.794	(1.026)	71050	5.11786	9.281
	57 o-Xylene	106	8.151	8.156	(1.074)	84797	6.14119	11.137
	58 Styrene	104	8.196	8.201	(1.080)	70025	3.13233	5.681
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	8.439	8.445	(0.874)	29202	1.98991	3.609
$	62 4-Bromofluorobenzene	95	8.660	8.665	(1.141)	451366	33.1416	60.103(R)
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	8.807	8.812	(0.912)	31037	1.78440	3.236
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	8.993	9.005	(0.931)	170248	13.6384	24.733
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	9.333	9.344	(0.966)	236915	19.3006	35.002
73	S-Butyl Benzene	105	9.429	9.440	(0.976)	36923	2.31169	4.192 (Q)
74	4-Isopropyl Toluene	119	9.576	9.587	(0.991)	15412	1.17600	2.133
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.661	9.672	(1.000)	292501	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	10.046	10.057	(1.040)	277718	46.6061	84.521
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
84	Naphthalene	128	11.788	11.805	(1.220)	72906	6.59745	11.965
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: wt81b2.d
Lab Smp Id: WT81B
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12637

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: AM-SF4-EFF-20130612
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	387246	-15.75
35 1,4-Difluorobenze	1692431	846216	3384862	1613544	-4.66
52 d5-Chlorobenzene	1987215	993608	3974430	1248240	-37.19
76 d4-1,4-Dichlorobe	1075398	537699	2150796	292501	-72.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.66	-0.24
35 1,4-Difluorobenze	5.12	4.62	5.62	5.11	-0.11
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.66	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81B
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12637

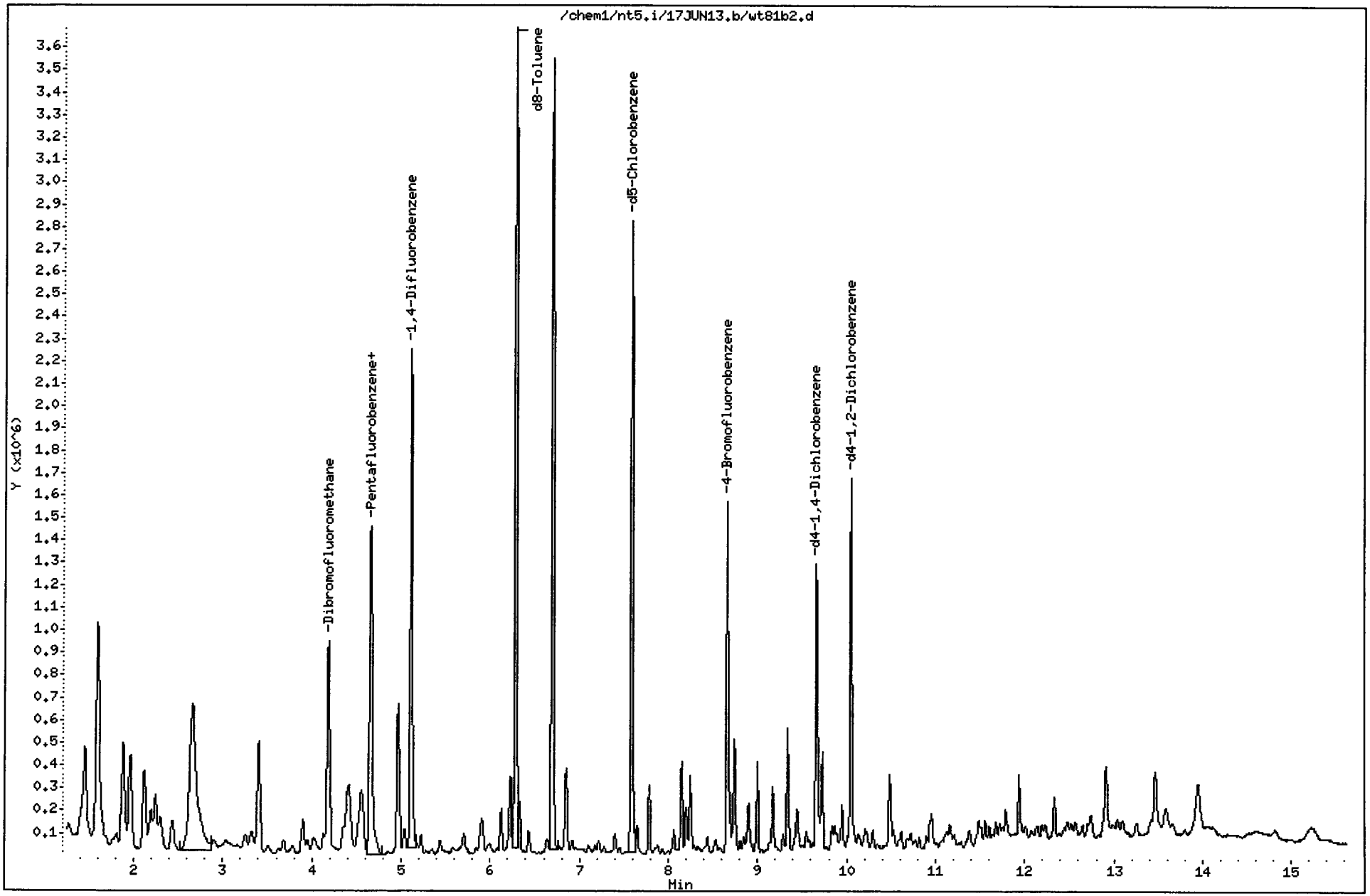
Client SDG: WT81
Fraction: VOA
Client Smp ID: AM-SF4-EFF-20130612
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	56.427	112.85	70-130
$ 32 d4-1,2-Dichloroeth	50.000	59.893	119.79	80-149
$ 42 d8-Toluene	50.000	43.215	86.43	77-120
$ 62 4-Bromofluorobenze	50.000	33.142	66.28*	80-120
$ 79 d4-1,2-Dichloroben	50.000	46.606	93.21	80-120

Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d
Date : 17-JUN-2013 19:06
Client ID: AM-SF4-EFF-20130612
Sample Info: WT81B,5,6.91,0

Instrument: nt5.i
Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

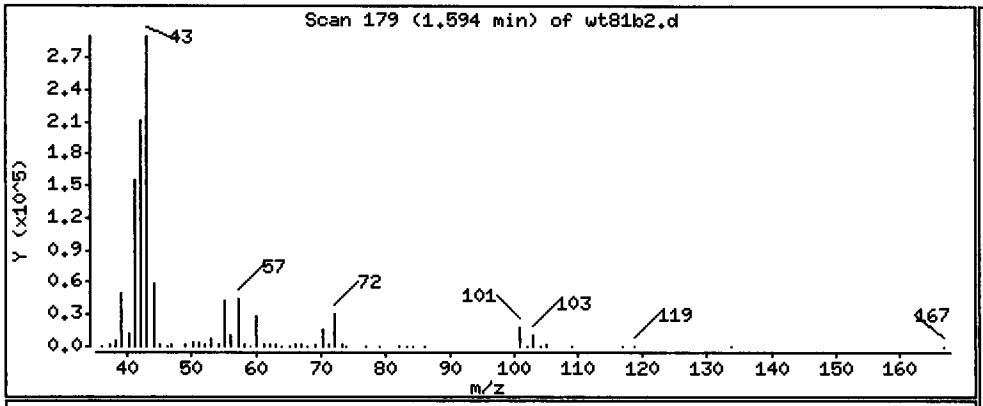
Operator: PB

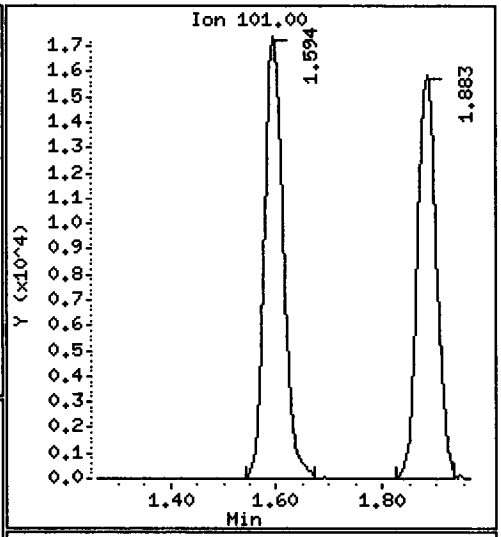
Column phase: RTXVMS

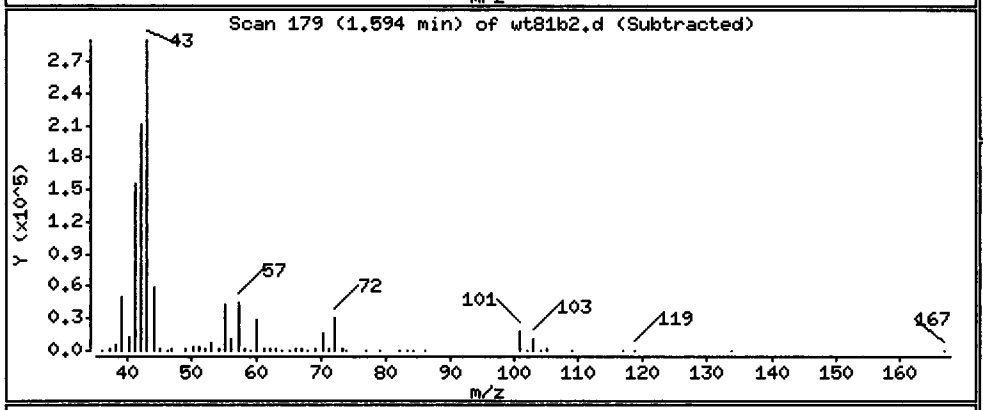
Column diameter: 0.18

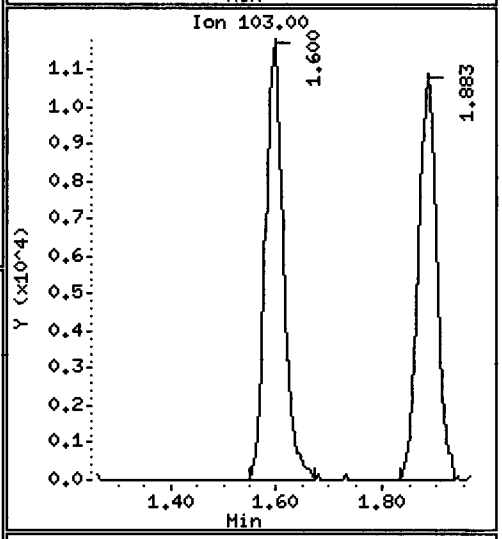
6 Trichlorofluoromethane

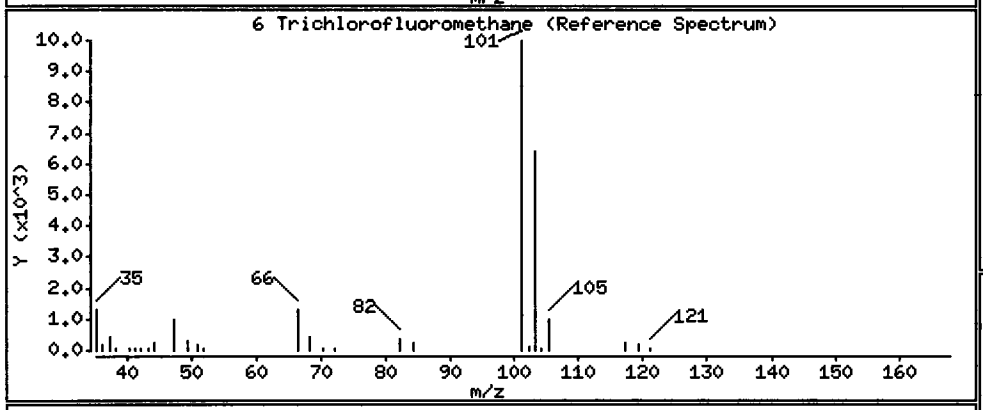
Concentration: 5.551 ug/Kg

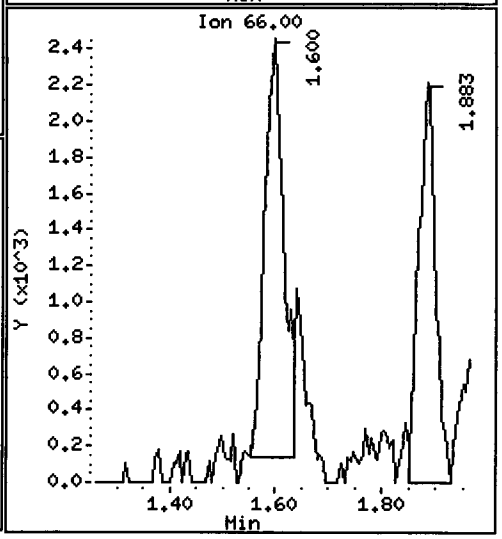


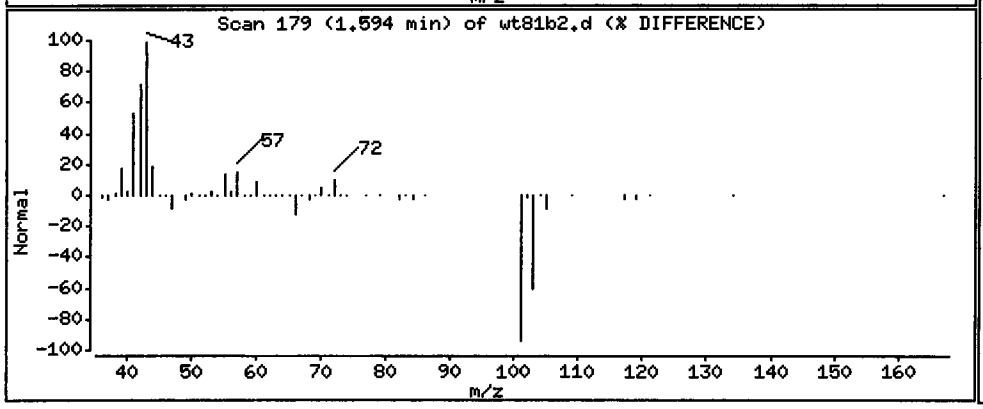












WT81-B0620

Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

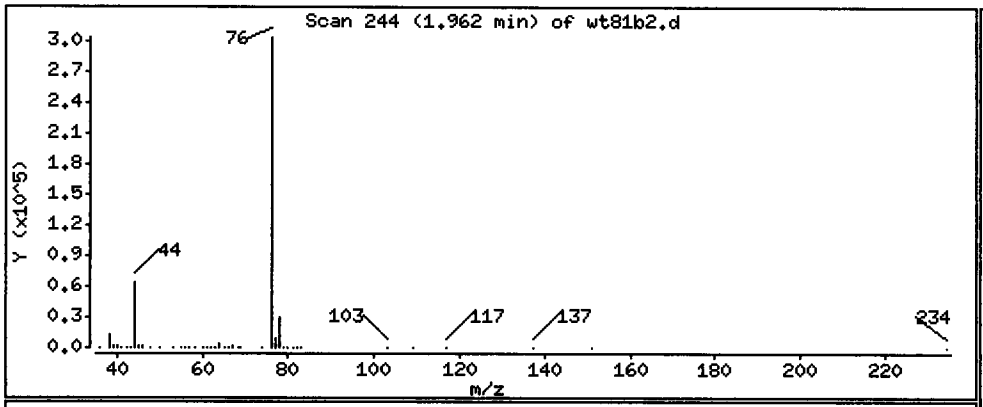
Operator: PB

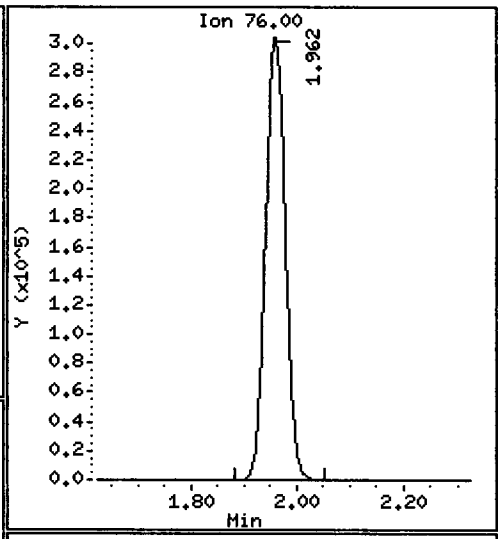
Column phase: RTXVMS

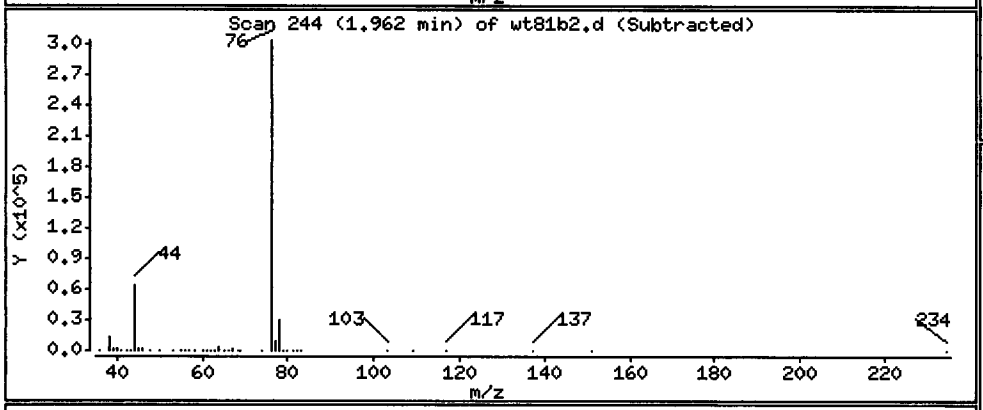
Column diameter: 0.18

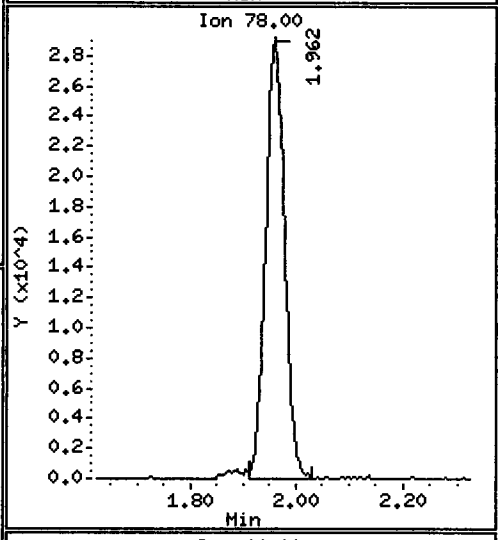
8 Carbon Disulfide

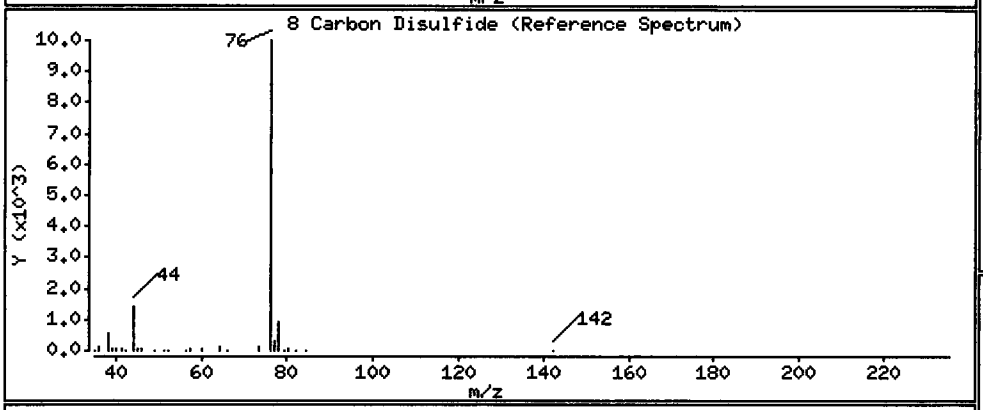
Concentration: 46.761 ug/Kg

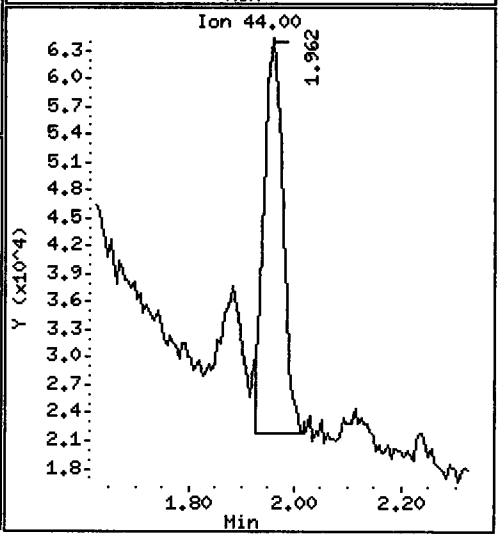


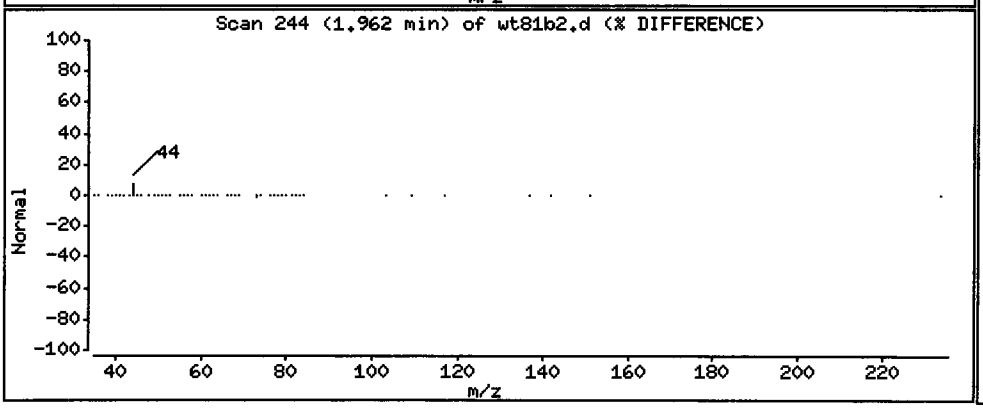












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

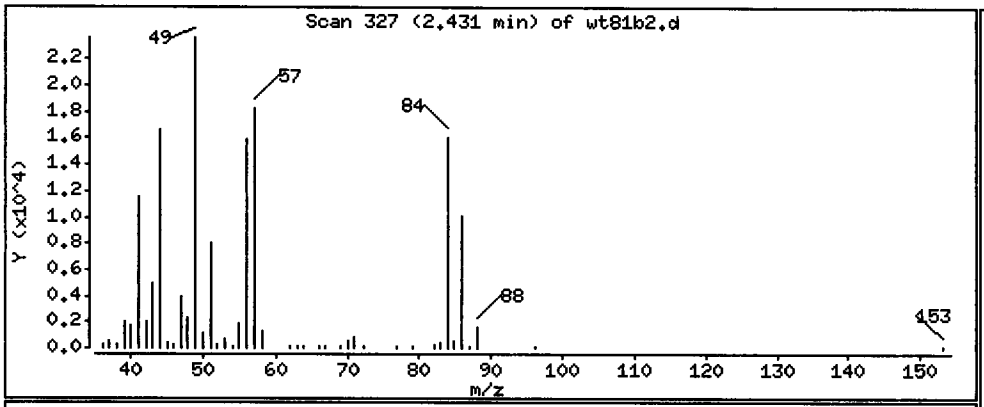
Operator: PB

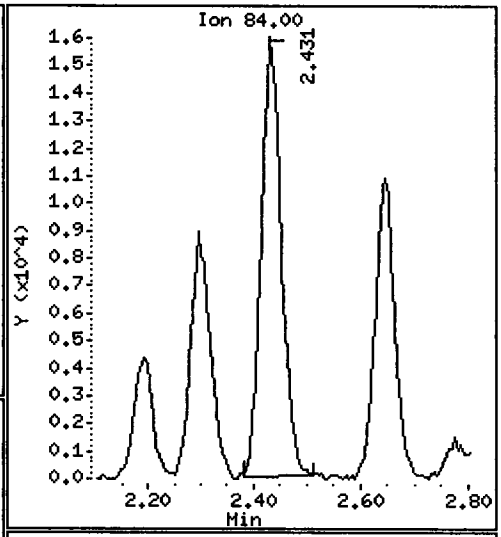
Column phase: RTXVMS

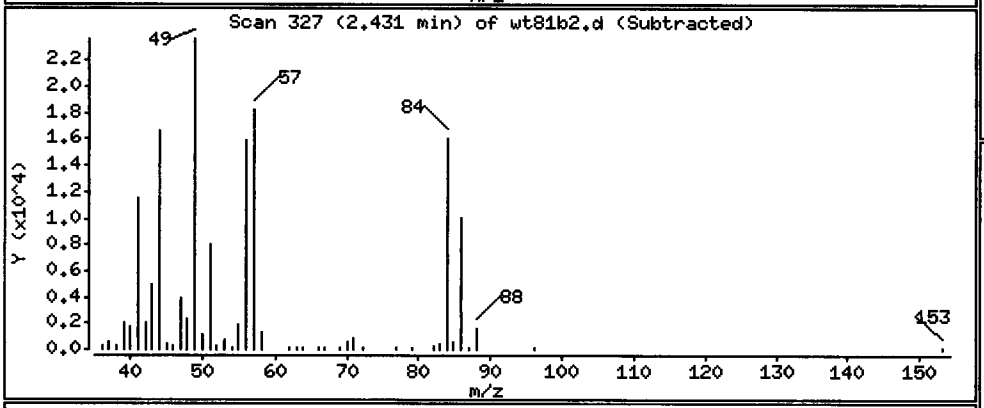
Column diameter: 0.18

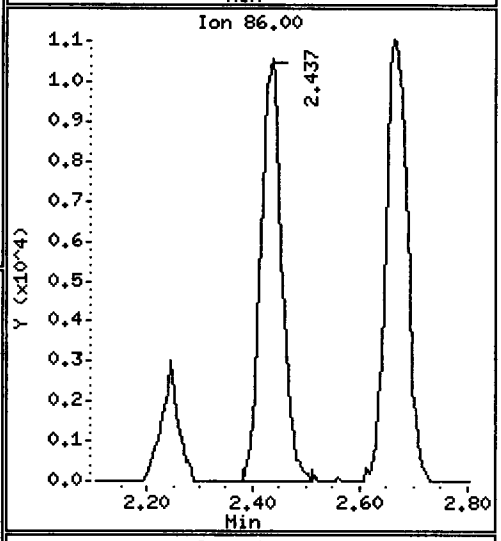
13 Methylene Chloride

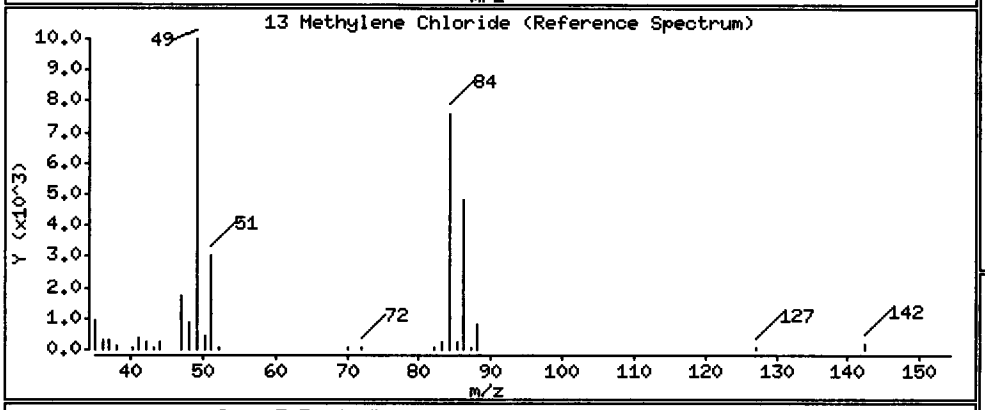
Concentration: 9.003 ug/Kg

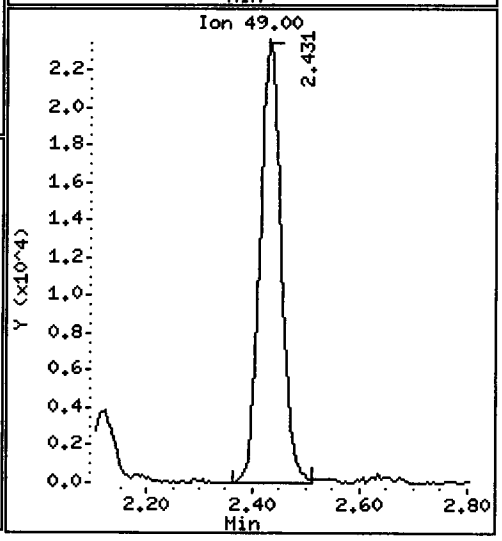


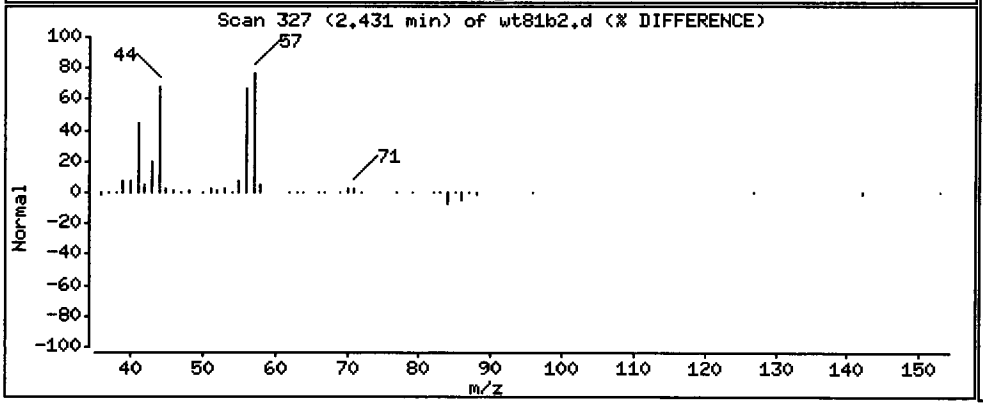












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

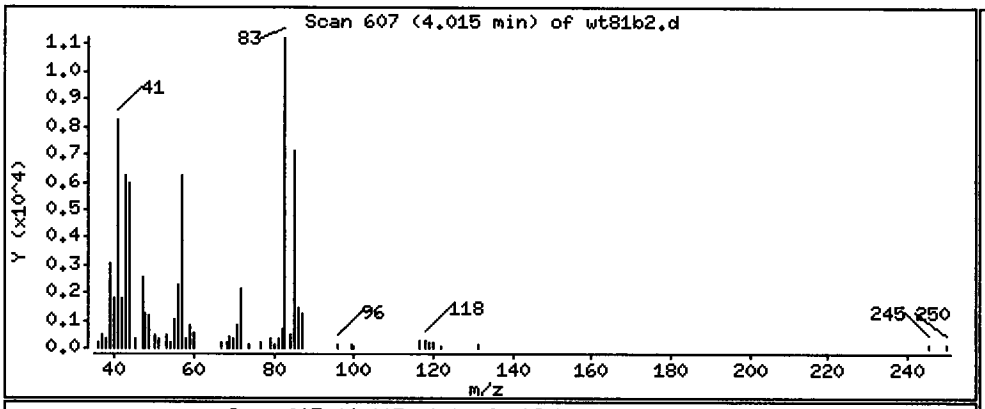
Operator: PB

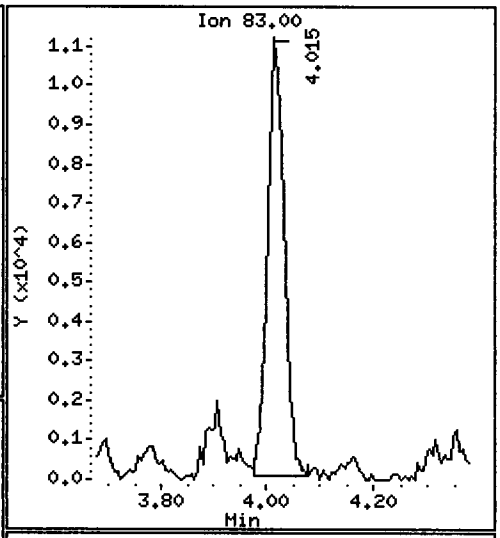
Column phase: RTXVMS

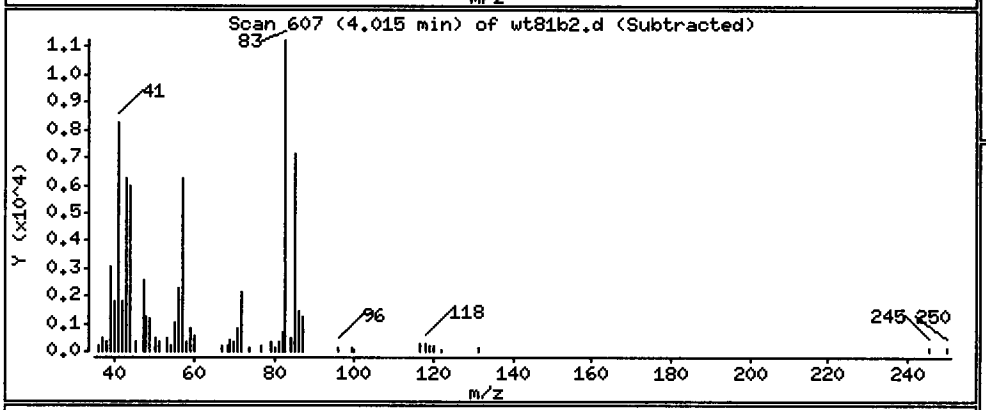
Column diameter: 0.18

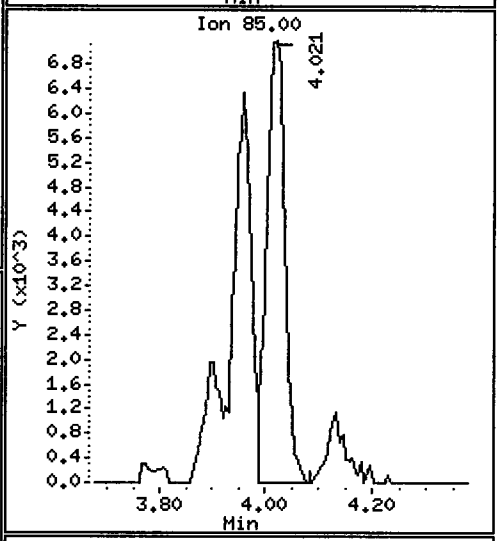
24 Chloroform

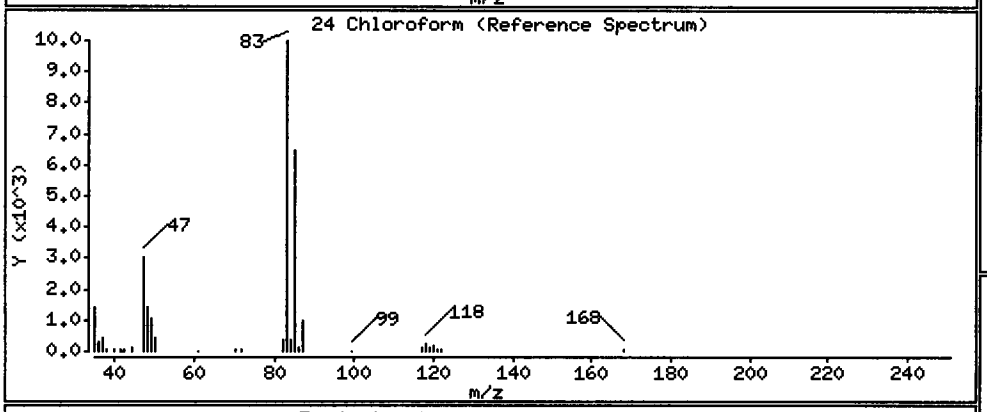
Concentration: 2.350 ug/Kg

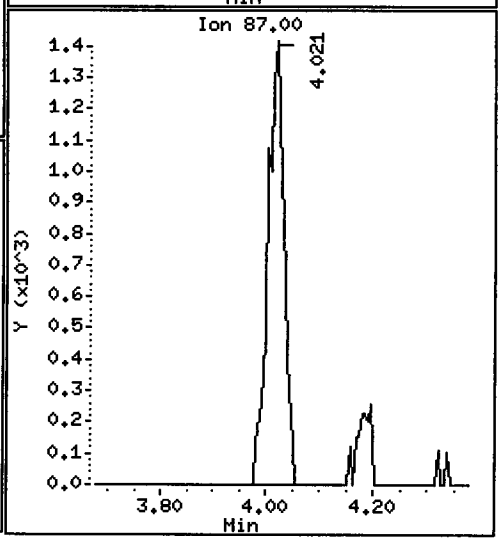


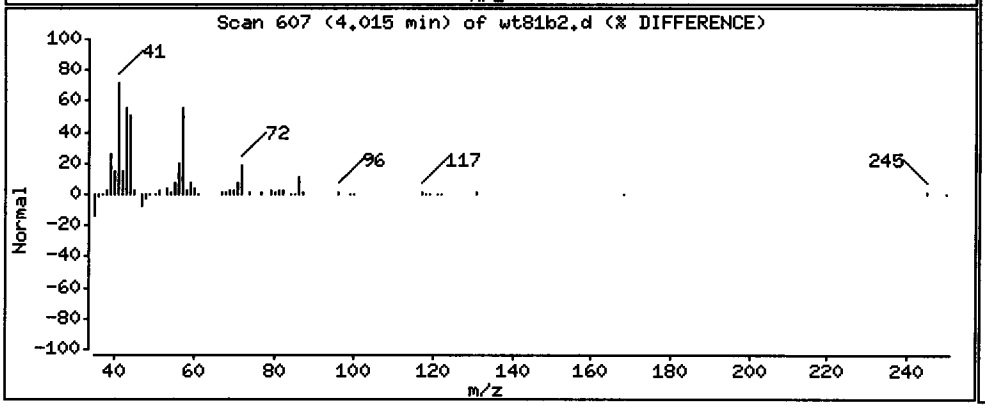












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

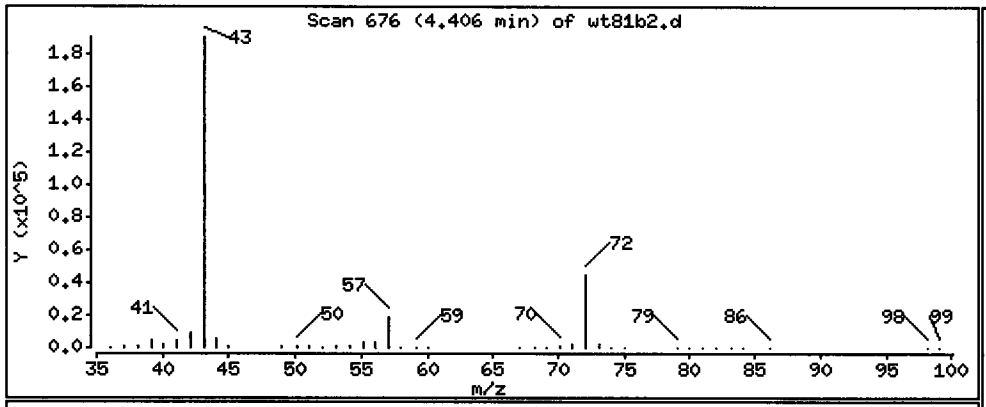
Operator: PB

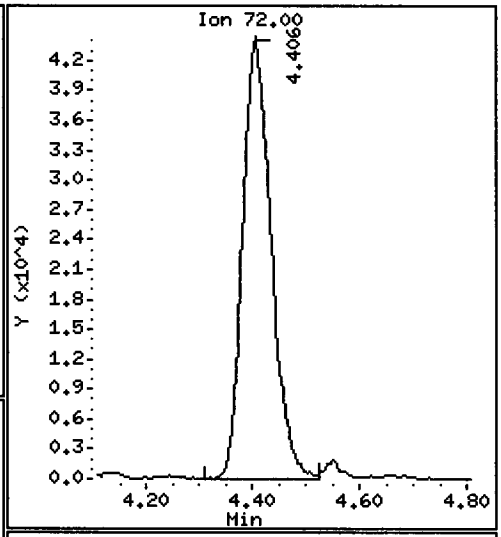
Column phase: RTXVMS

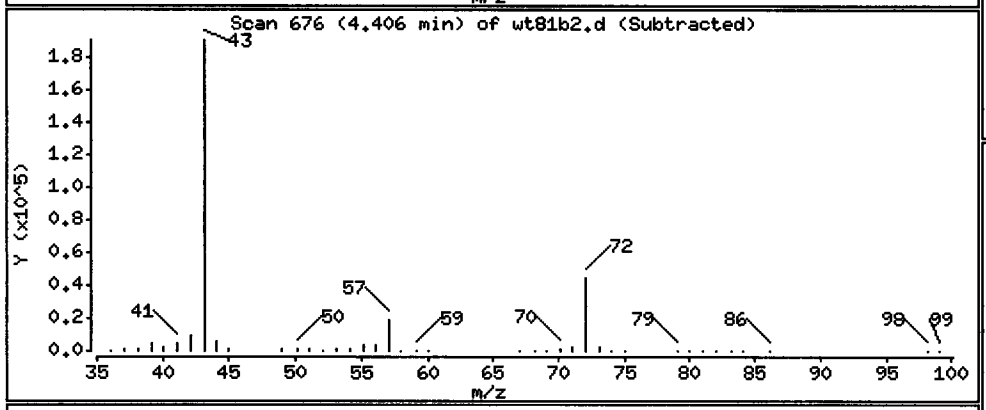
Column diameter: 0.18

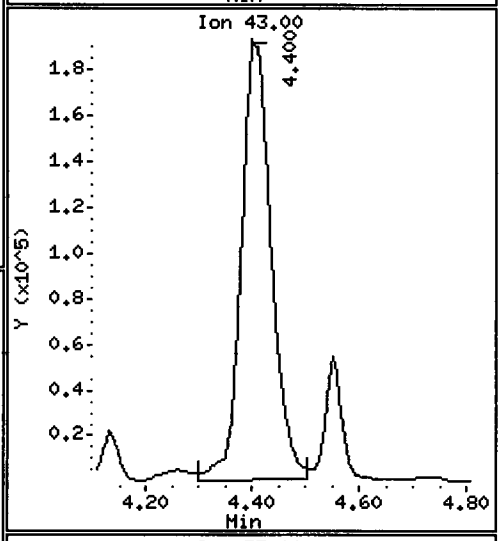
29 2-Butanone

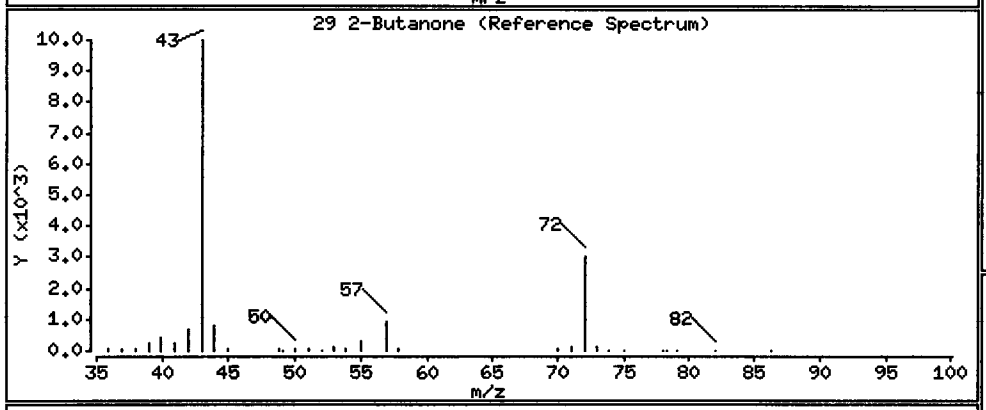
Concentration: 231.45 ug/Kg

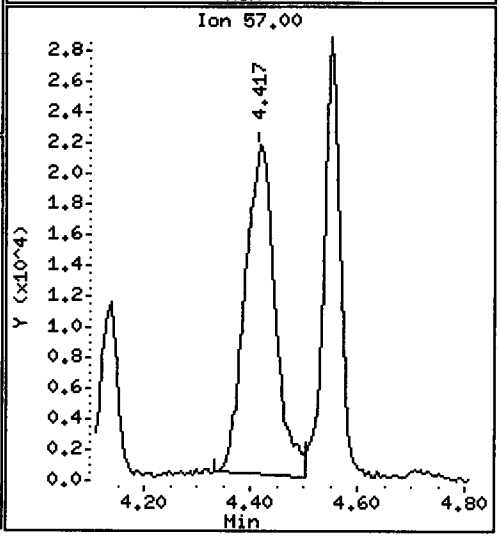


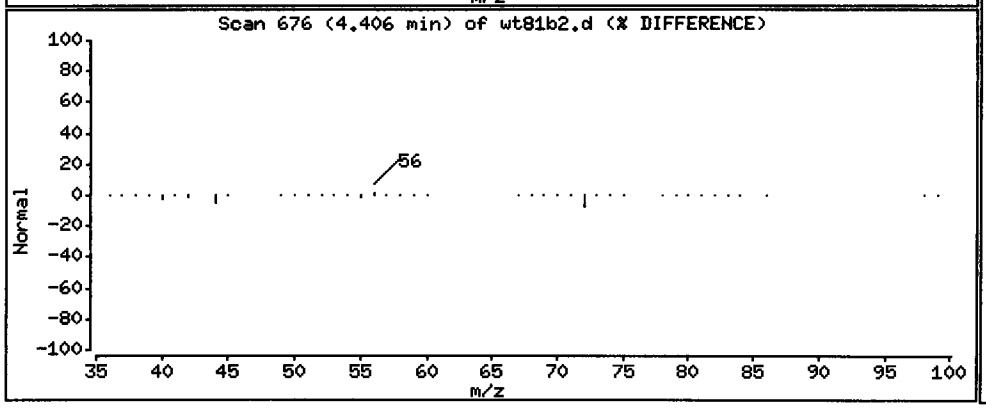












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

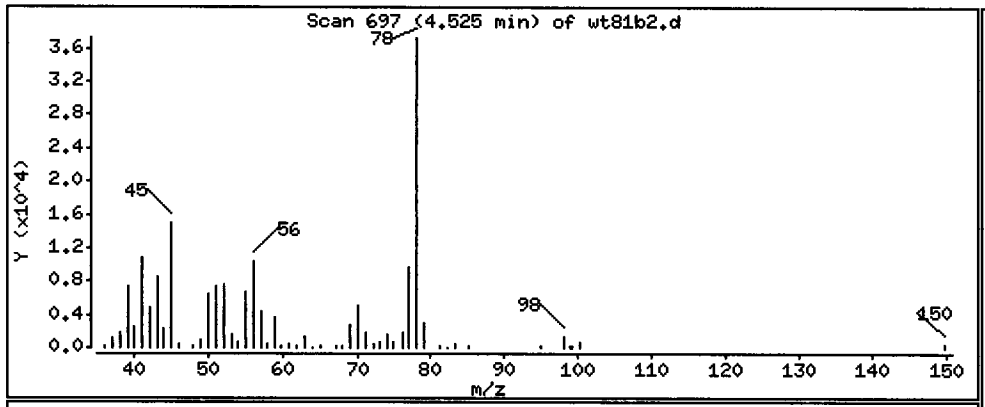
Operator: PB

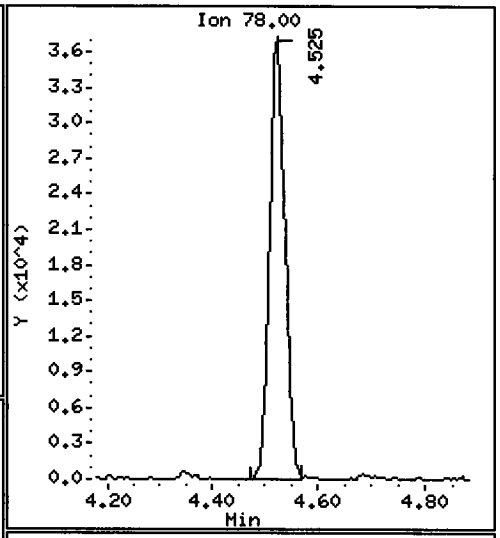
Column phase: RTXVMS

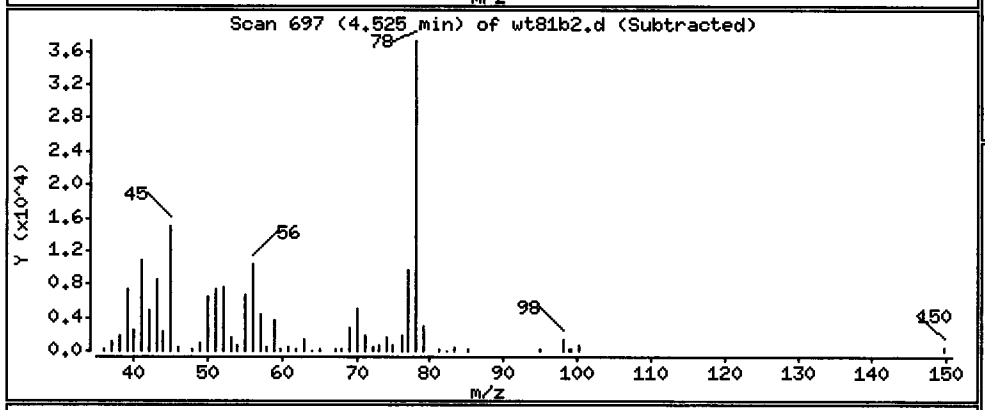
Column diameter: 0.18

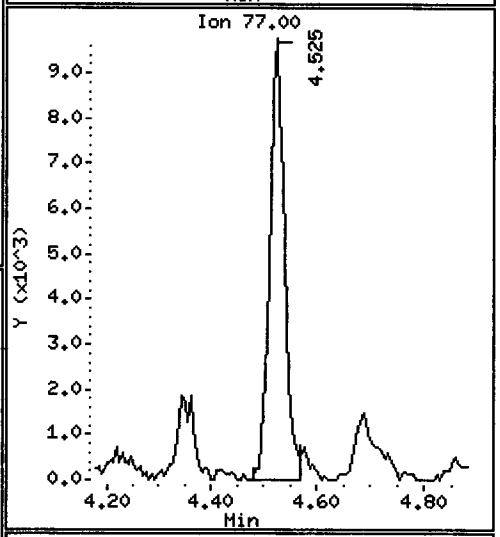
30 Benzene

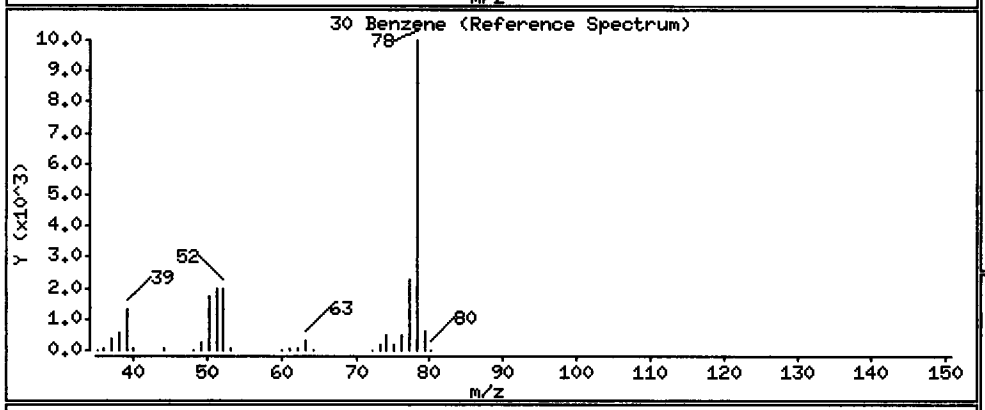
Concentration: 2.618 ug/Kg

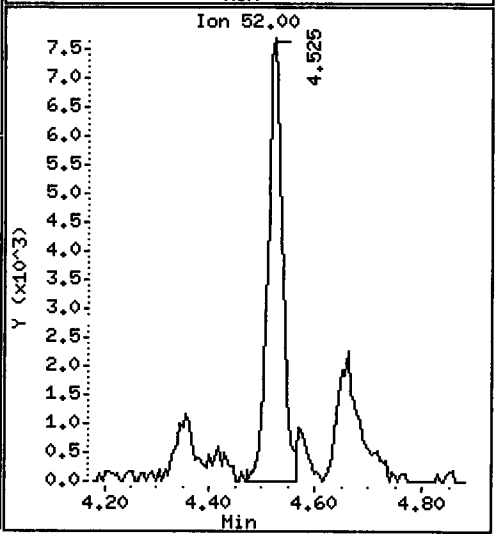


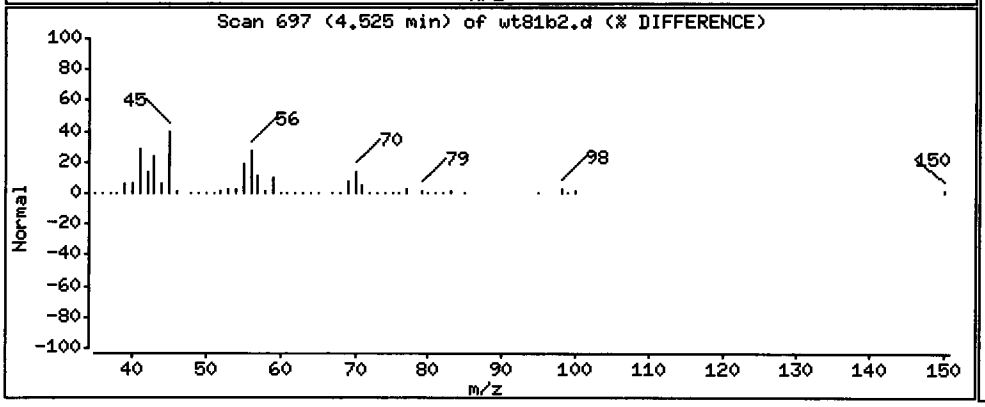












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

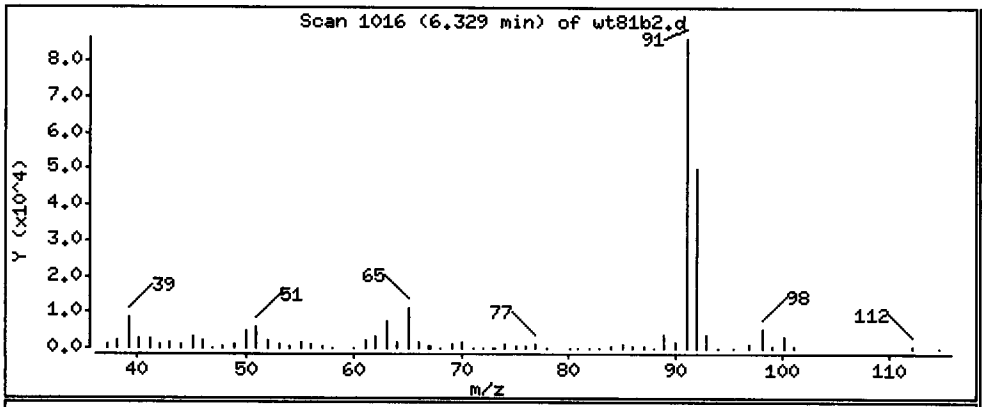
Operator: PB

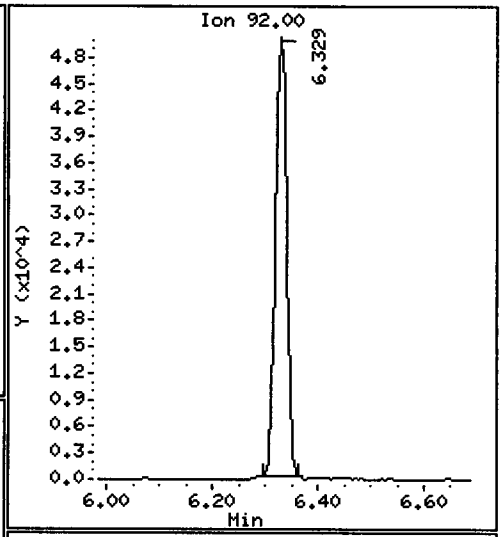
Column phase: RTXVMS

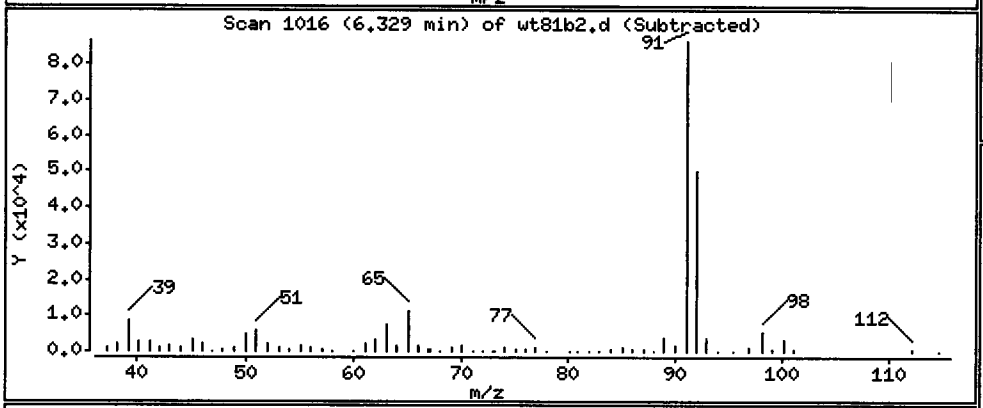
Column diameter: 0.18

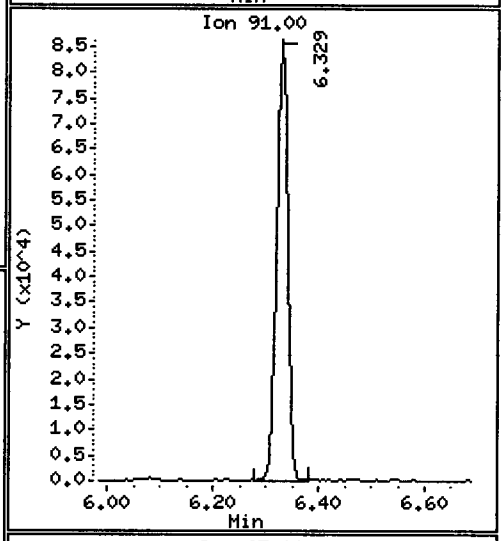
43 Toluene

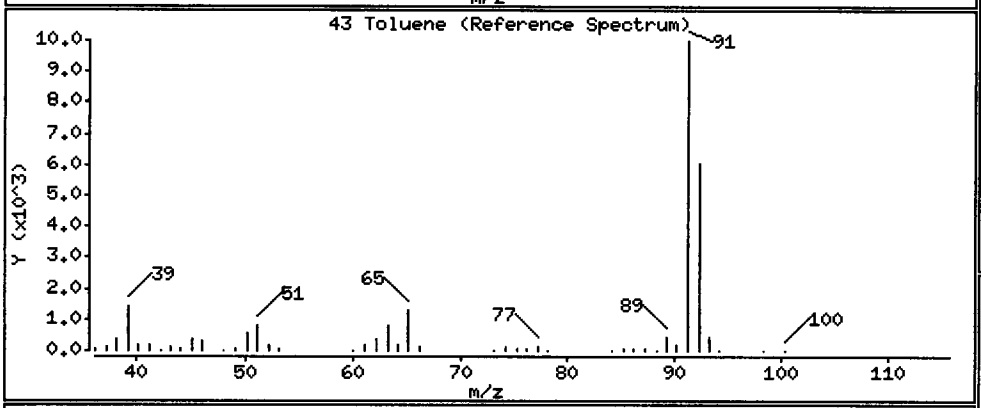
Concentration: 3.937 ug/Kg

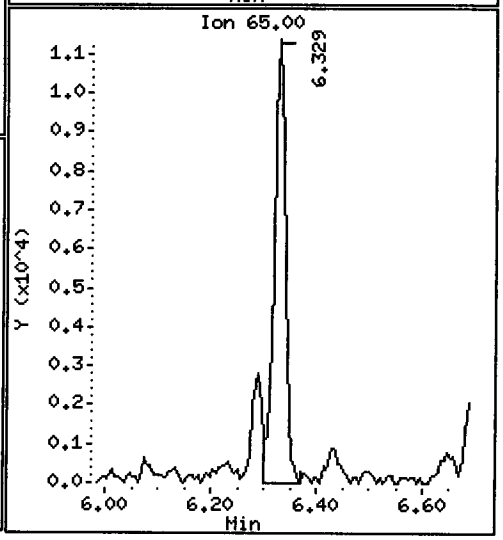


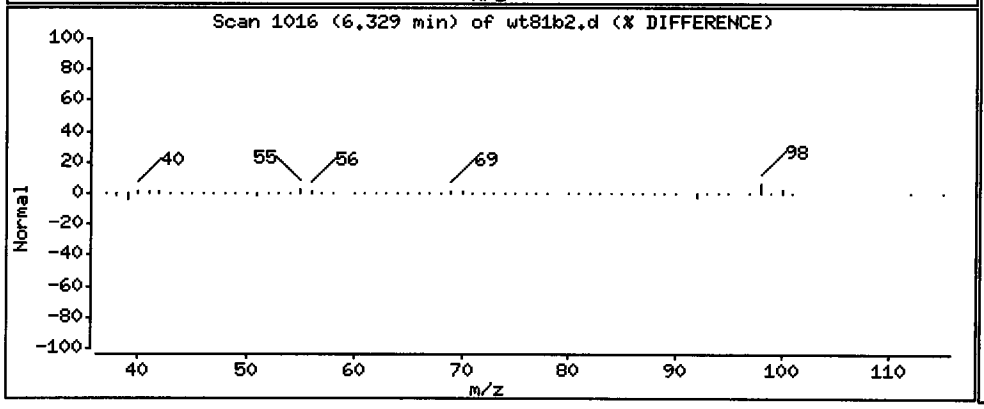












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

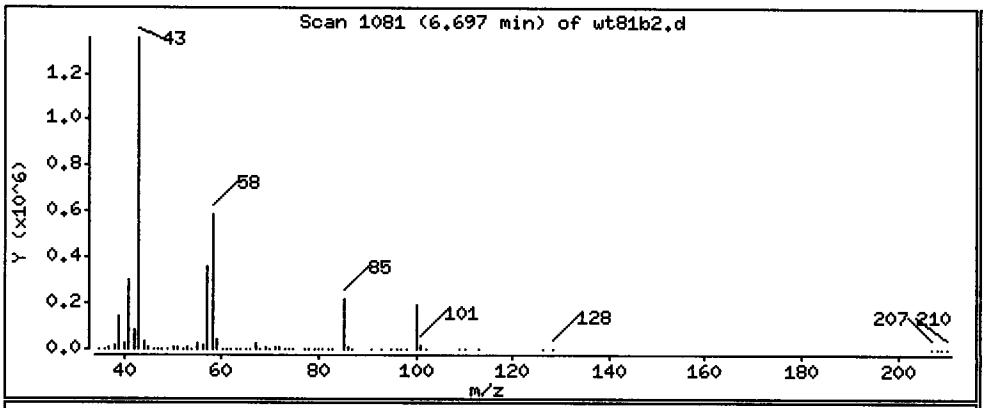
Operator: PB

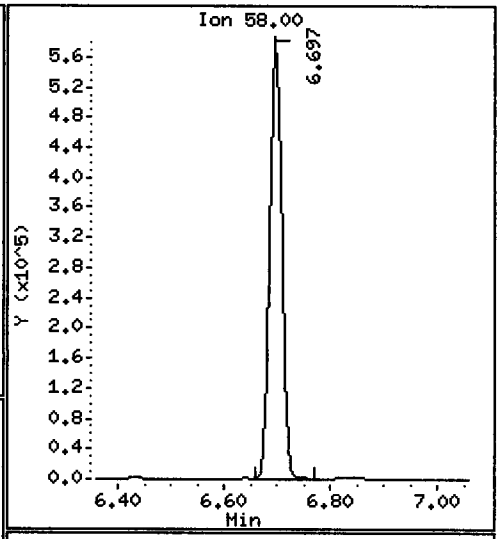
Column phase: RTXVMS

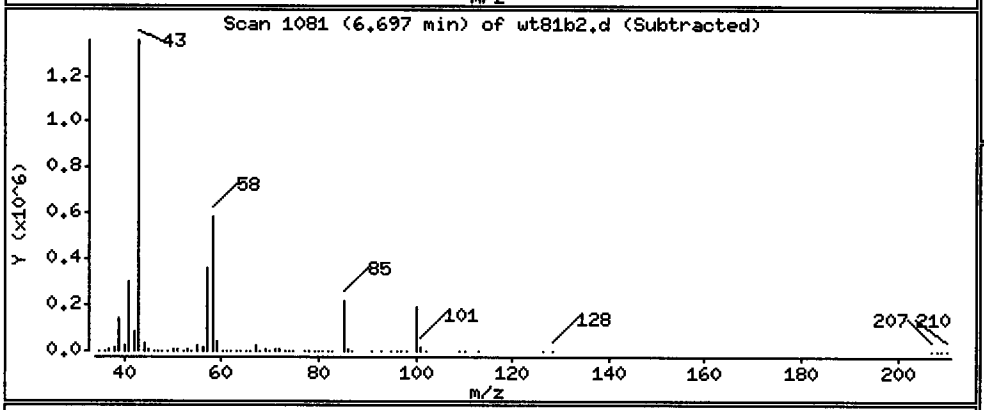
Column diameter: 0.18

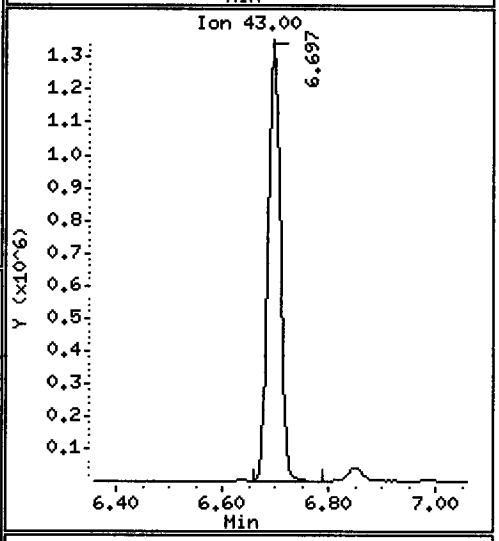
45 4-Methyl-2-Pentanone

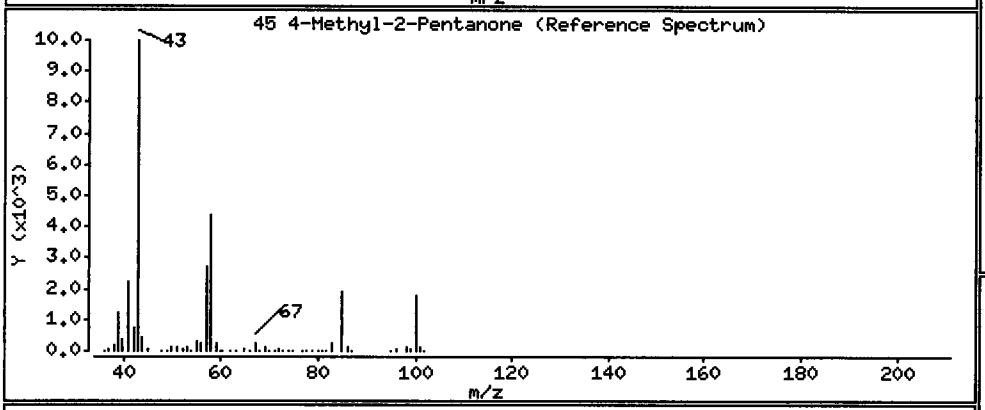
Concentration: 281.62 ug/Kg

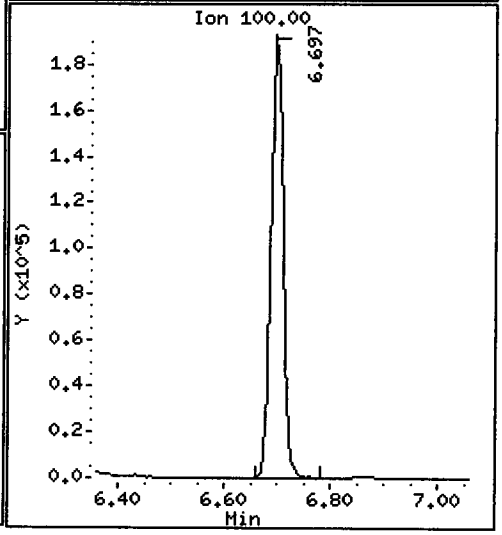


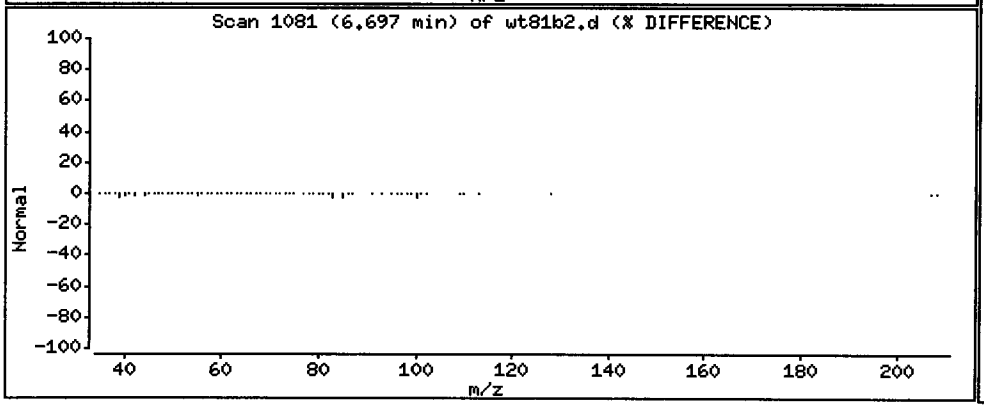












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,91,0

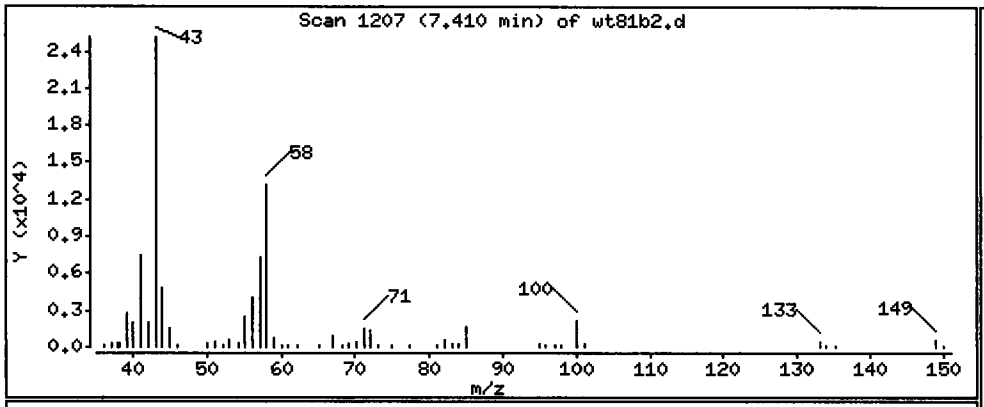
Operator: PB

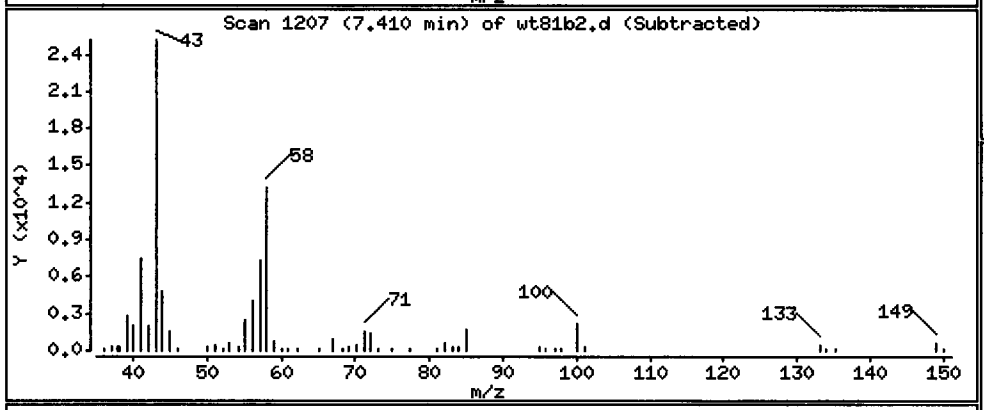
Column phase: RTXVMS

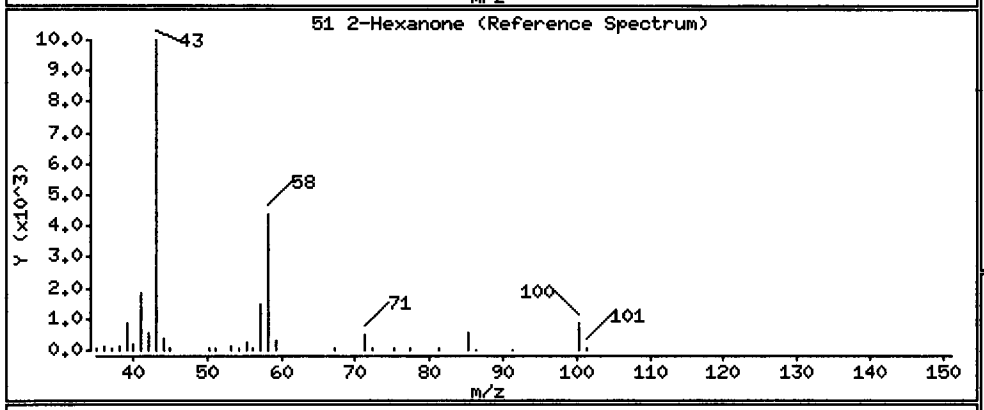
Column diameter: 0.18

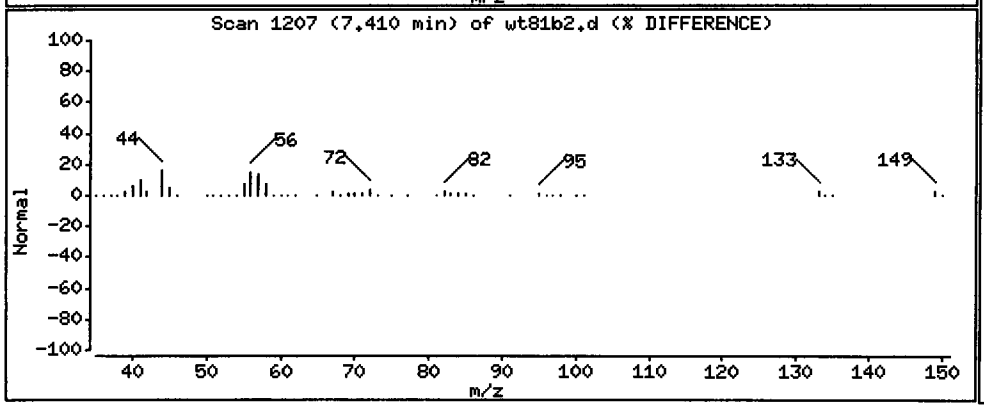
51 2-Hexanone

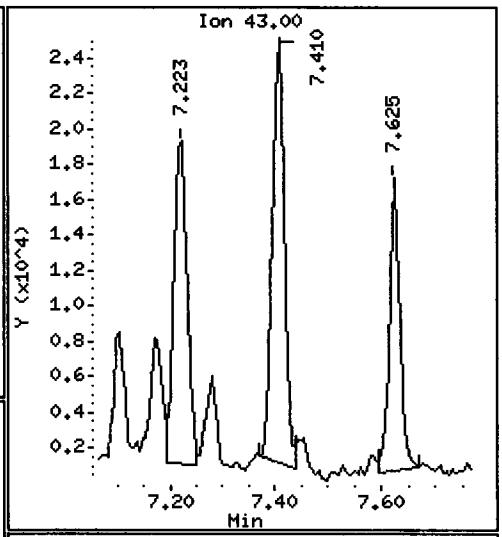
Concentration: 10.342 ug/Kg

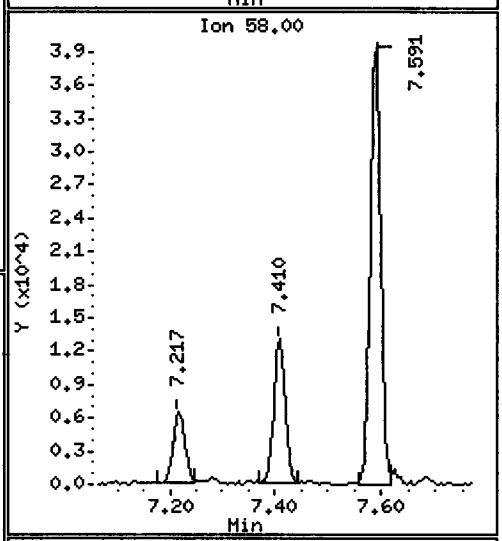


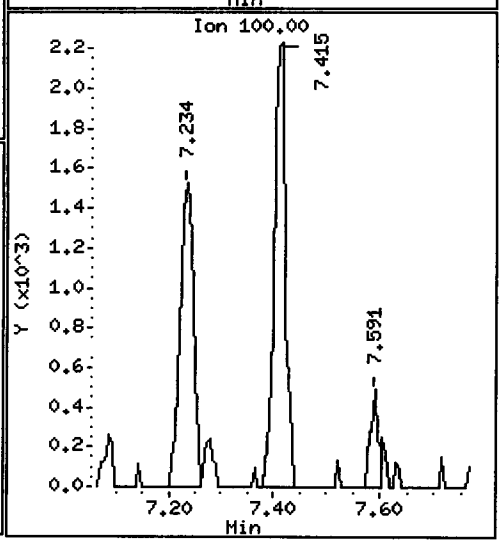












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,91,0

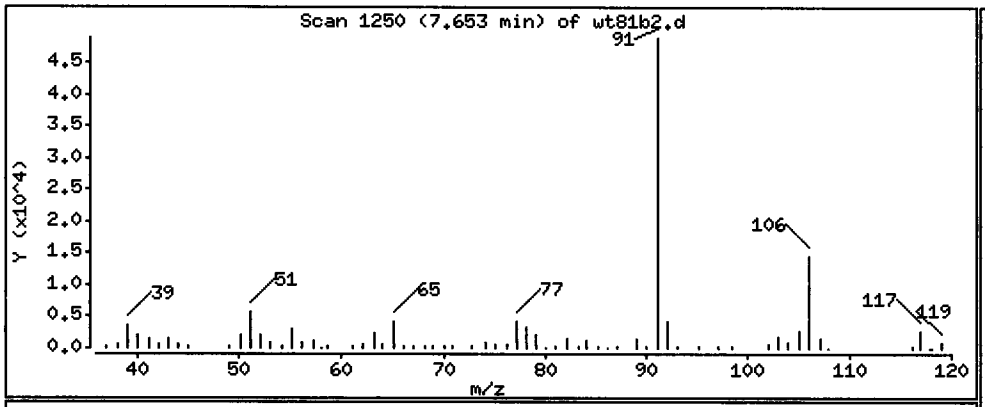
Operator: PB

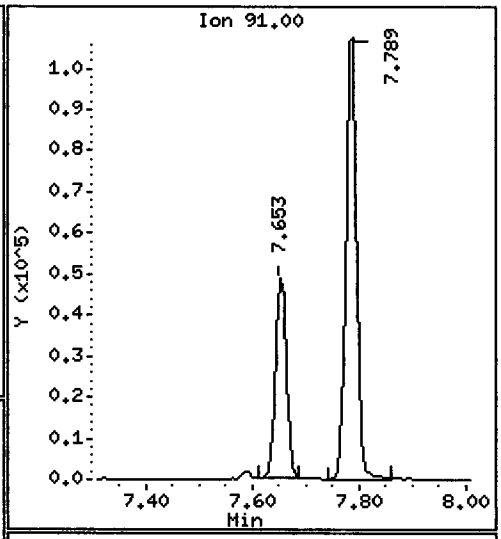
Column phase: RTXVMS

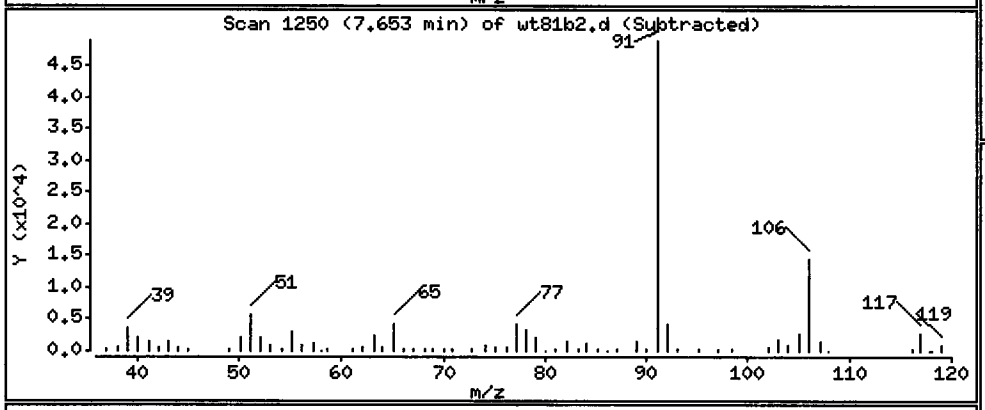
Column diameter: 0.18

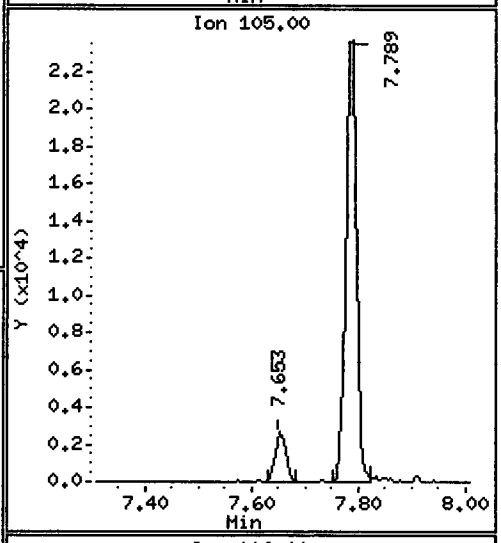
54 Ethyl Benzene

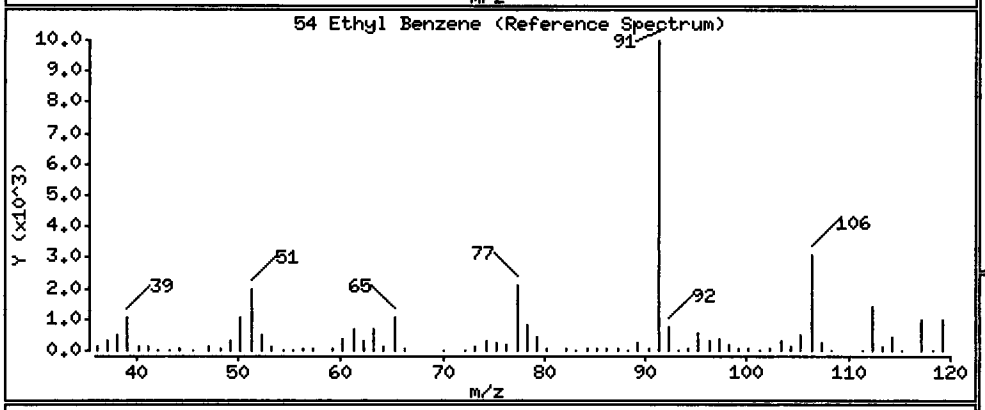
Concentration: 3.263 ug/Kg

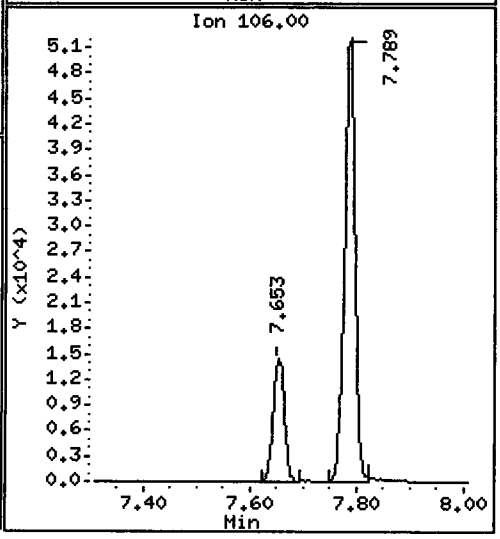


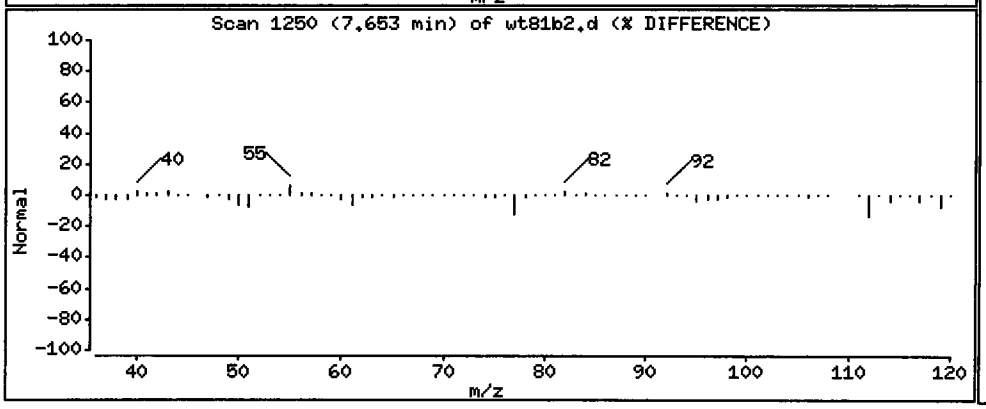












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

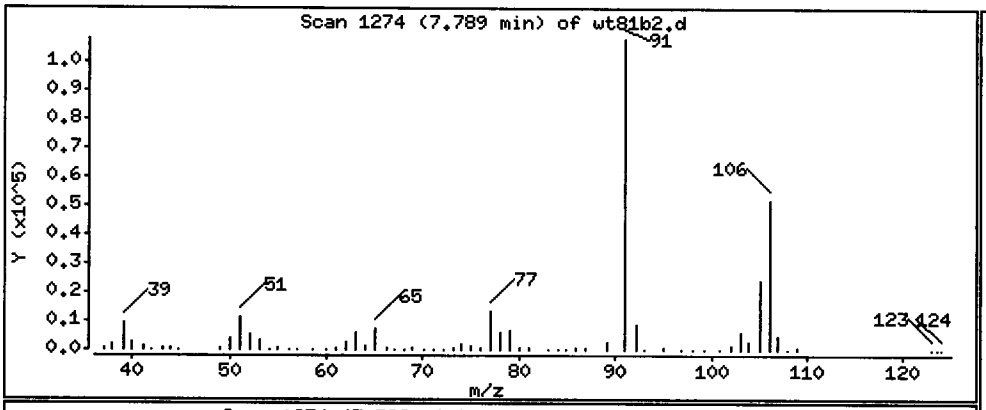
Operator: PB

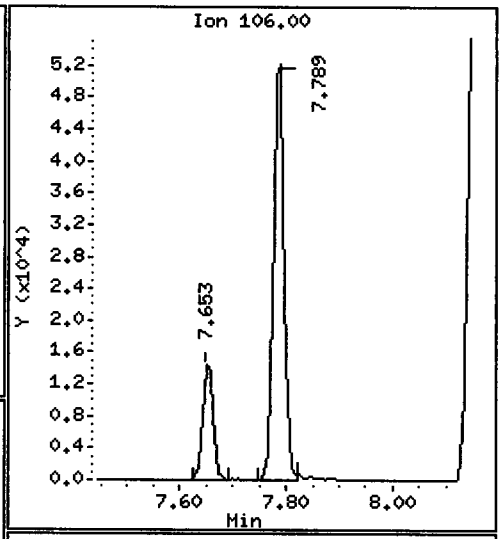
Column phase: RTXVMS

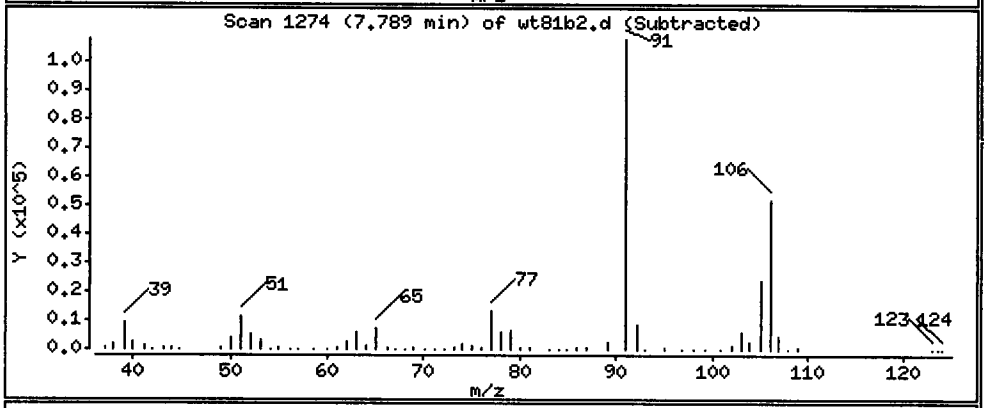
Column diameter: 0.18

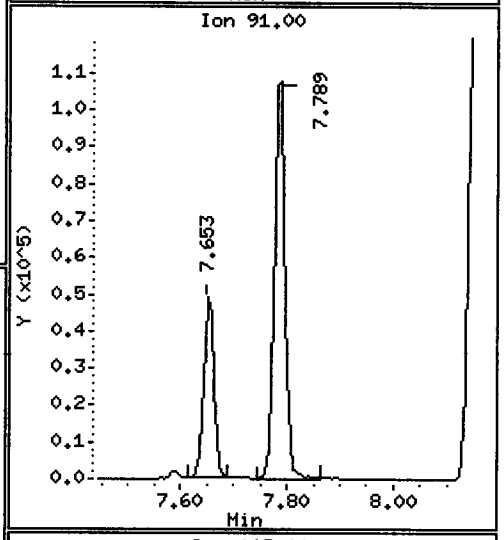
56 m,p-xylene

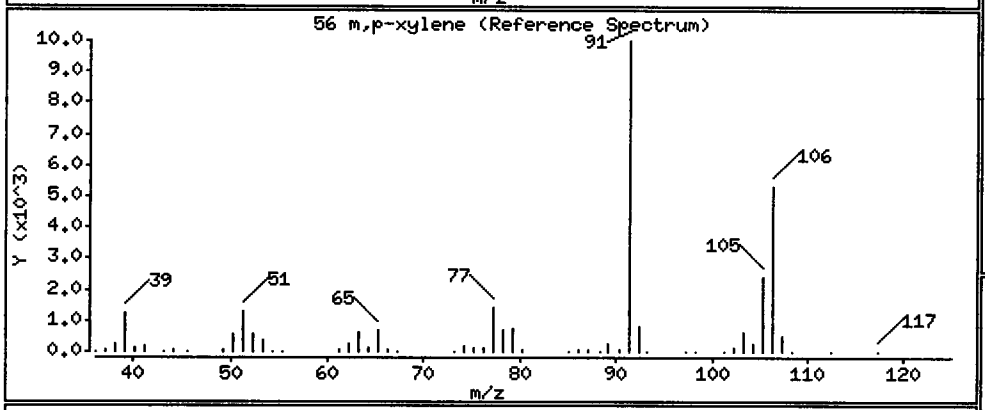
Concentration: 9.281 ug/Kg

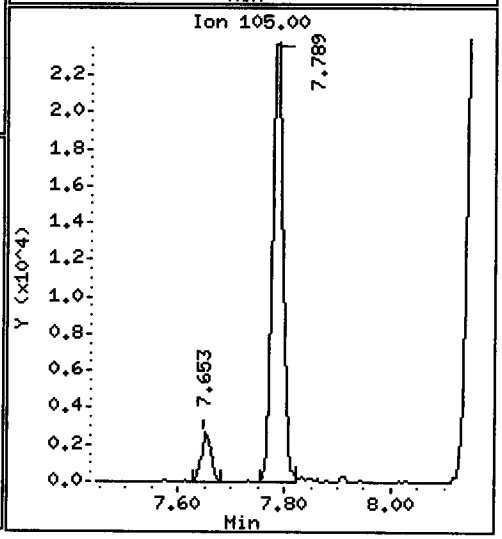


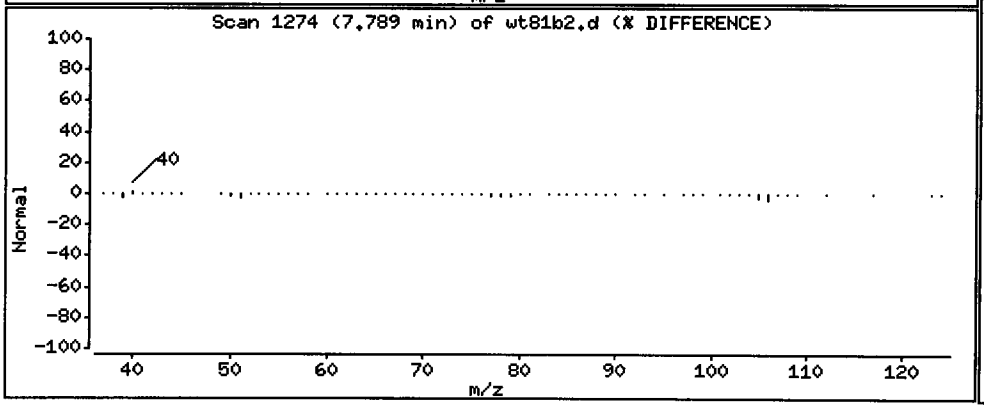












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

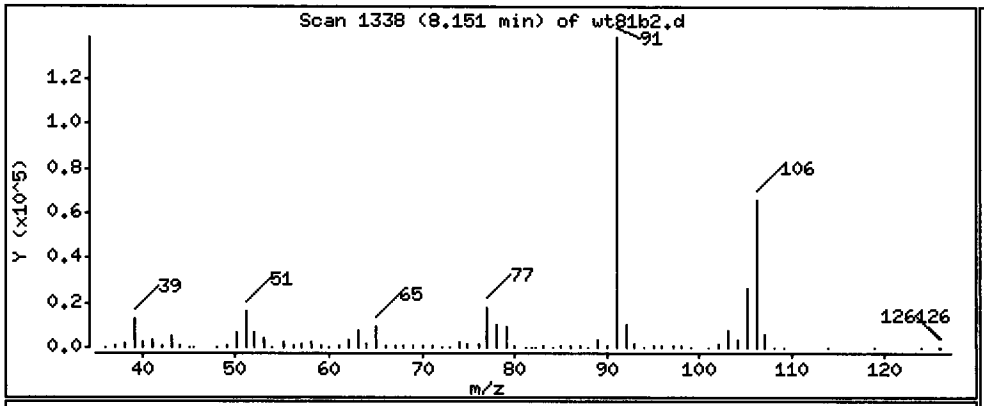
Operator: PB

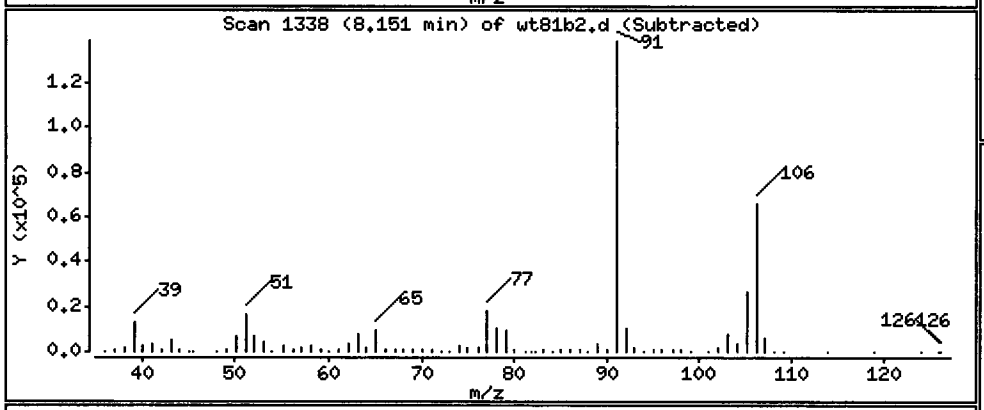
Column phase: RTXVMS

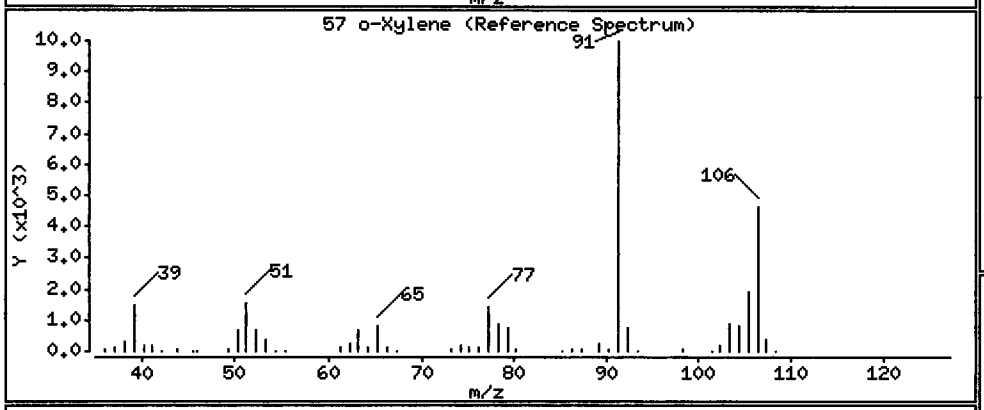
Column diameter: 0.18

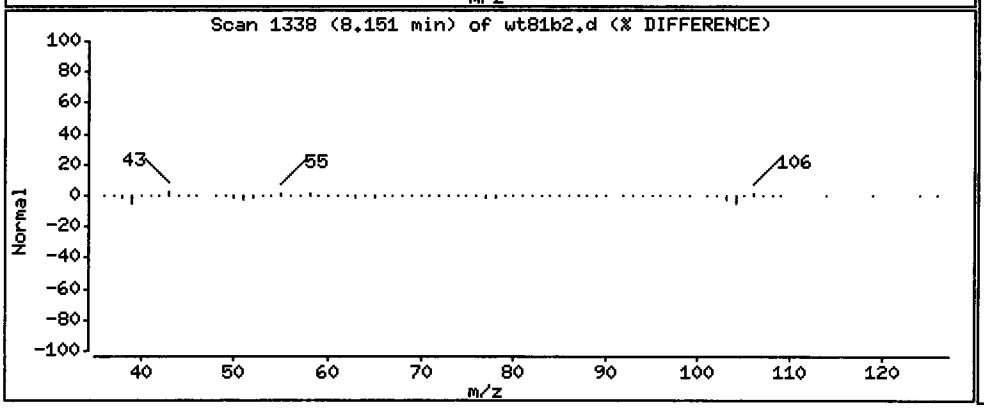
57 o-Xylene

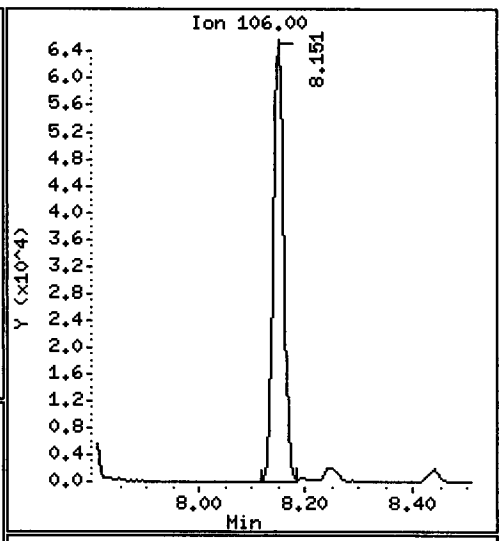
Concentration: 11.137 ug/Kg

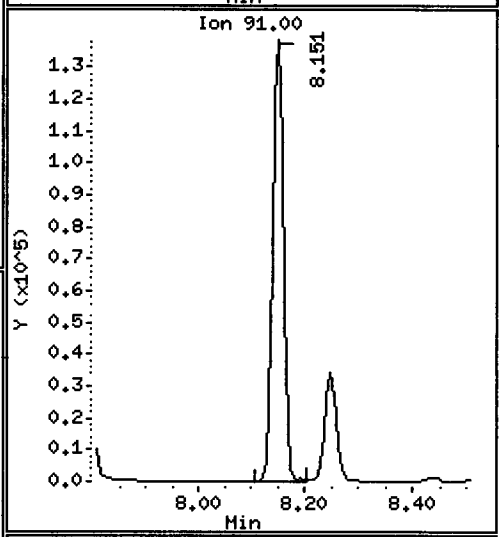


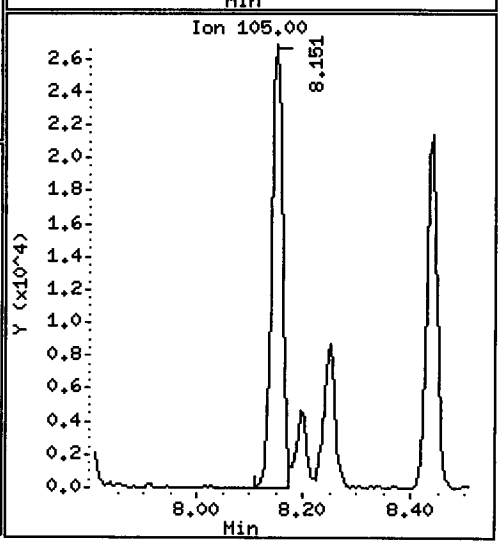












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

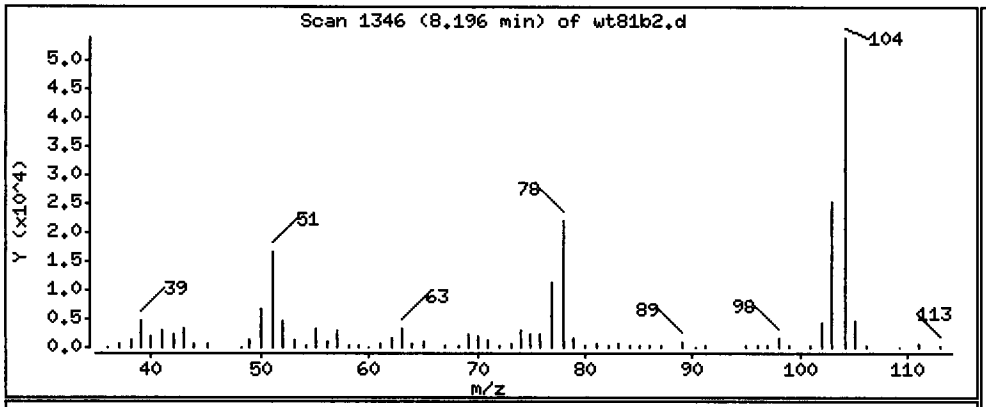
Operator: PB

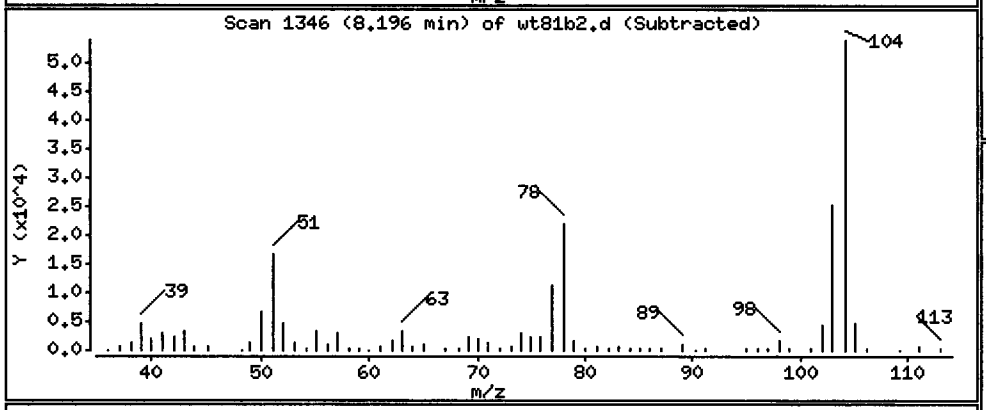
Column phase: RTXVMS

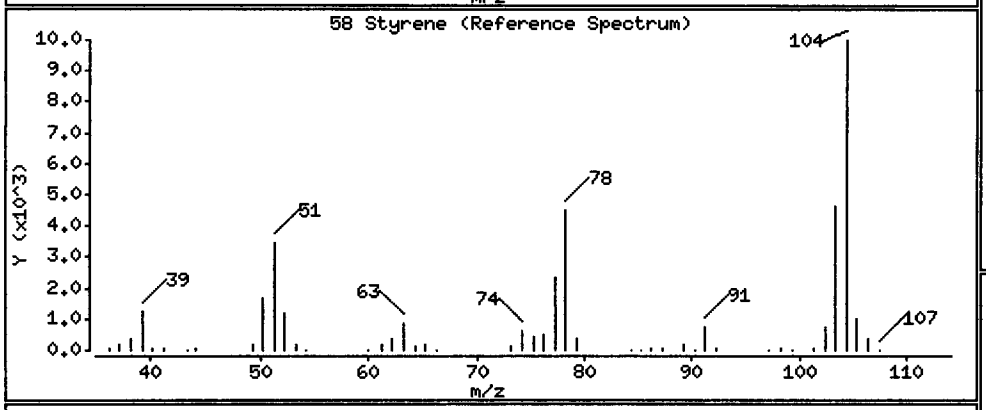
Column diameter: 0.18

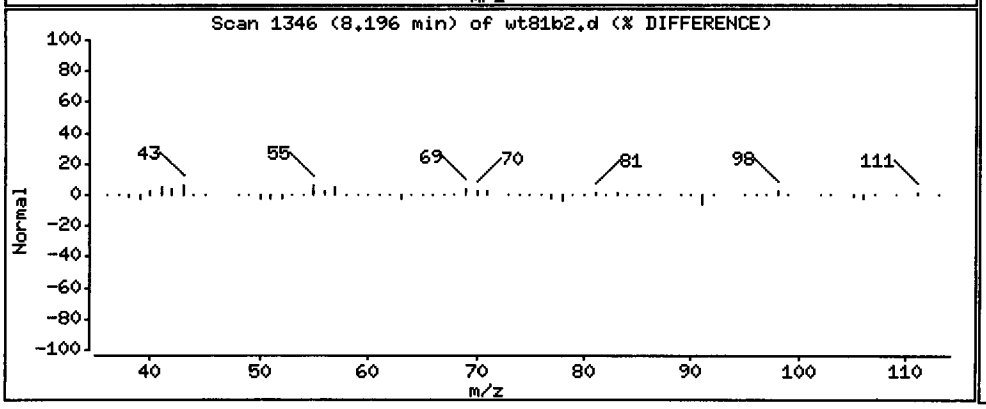
58 Styrene

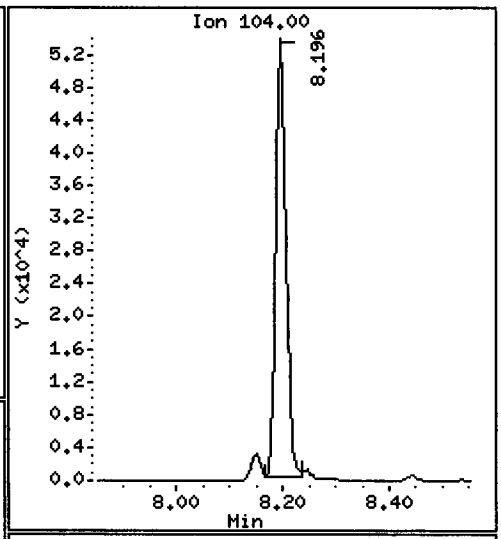
Concentration: 5.681 ug/Kg

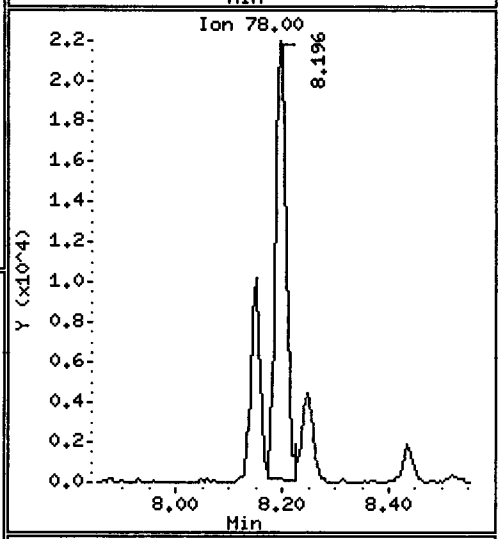


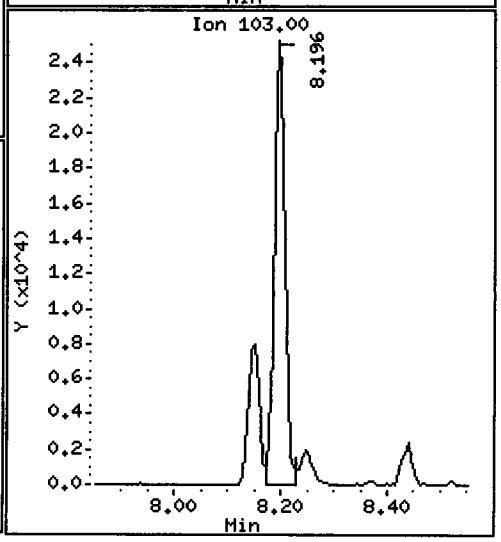












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6,91,0

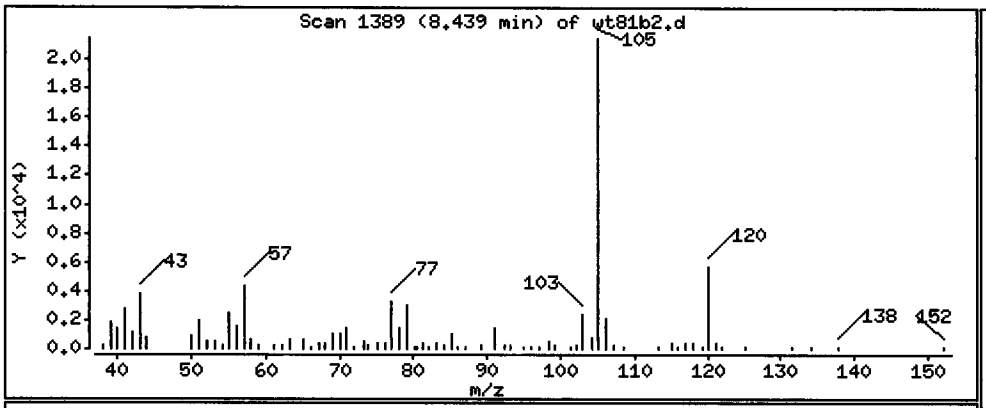
Operator: PB

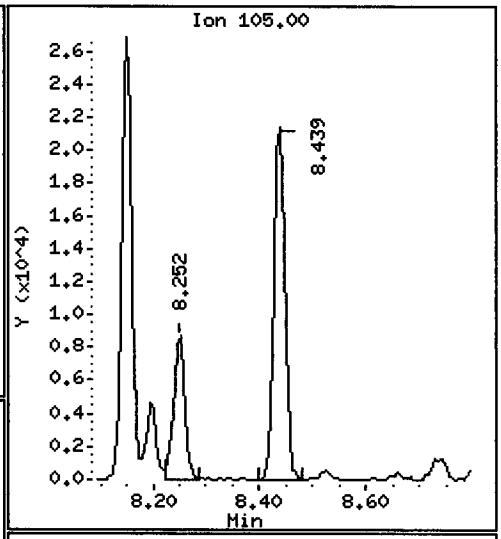
Column phase: RTXVMS

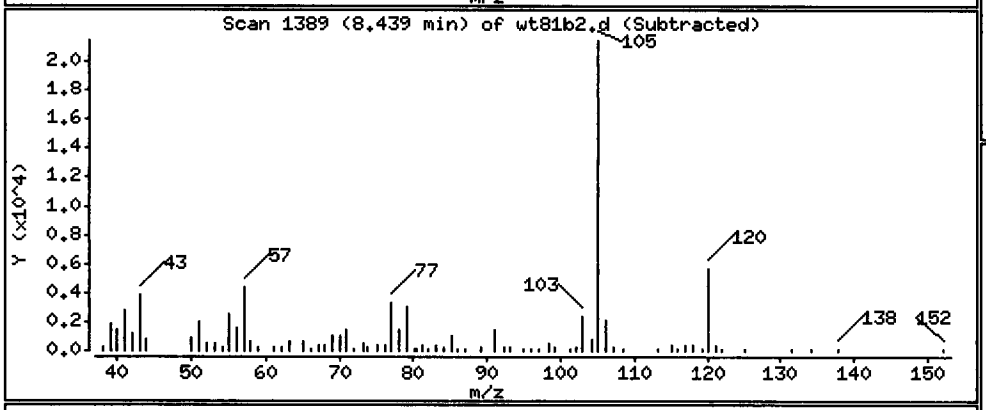
Column diameter: 0.18

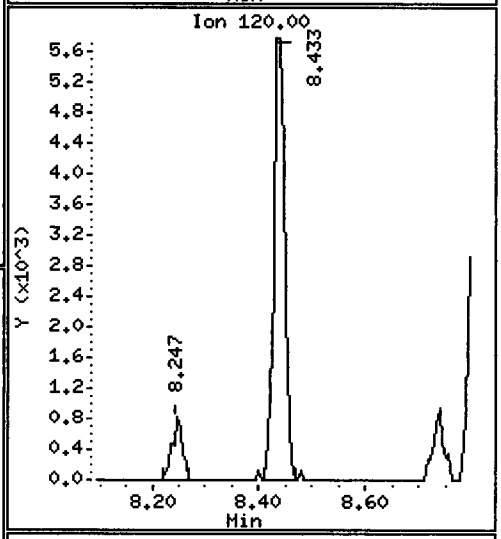
60 Isopropyl Benzene

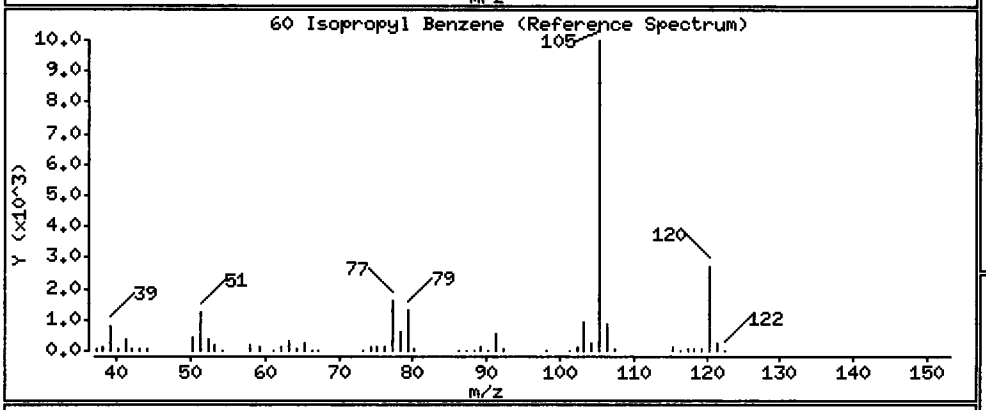
Concentration: 3.609 ug/Kg

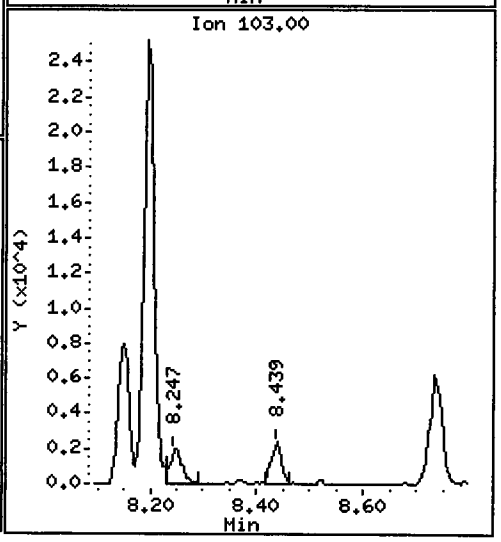


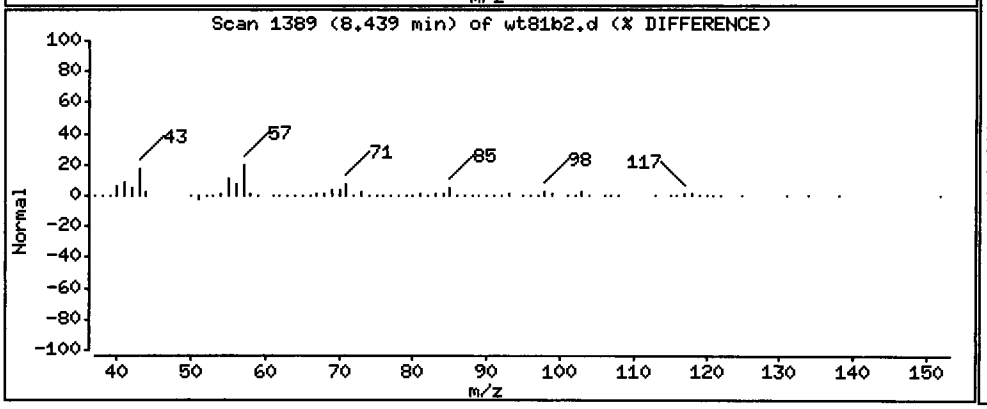












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.1

Sample Info: WT81B,5,6.91,0

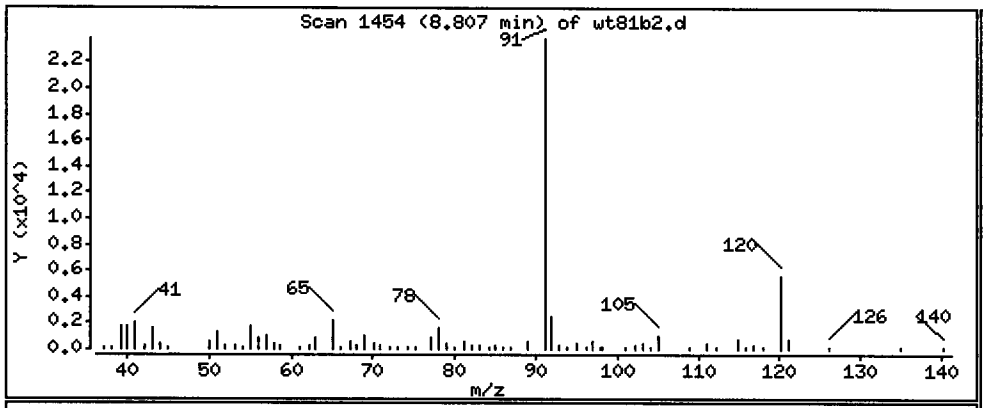
Operator: PB

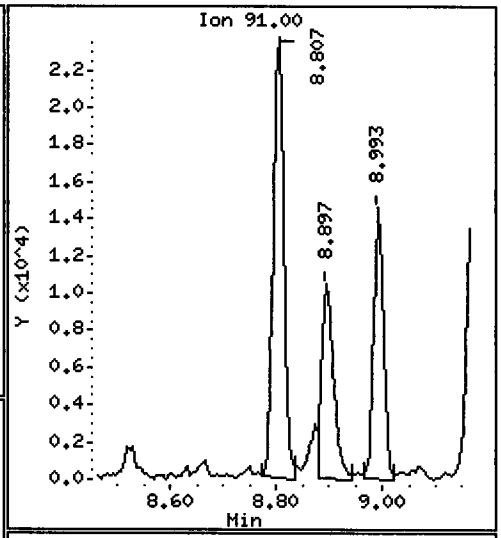
Column phase: RTXVMS

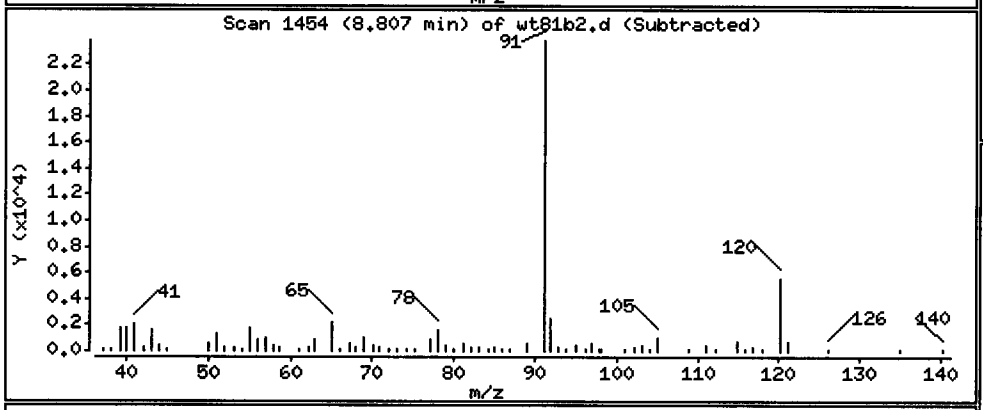
Column diameter: 0.18

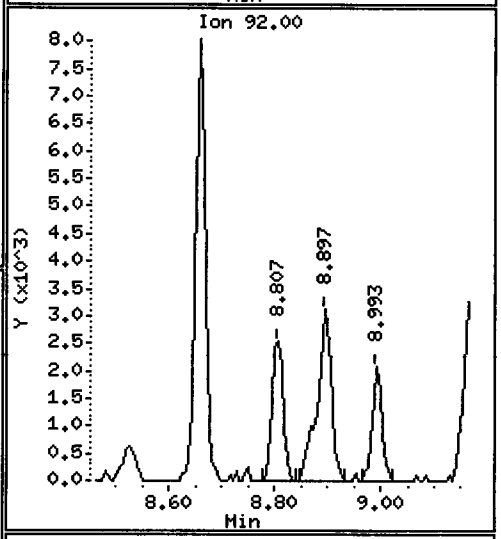
64 N-Propyl Benzene

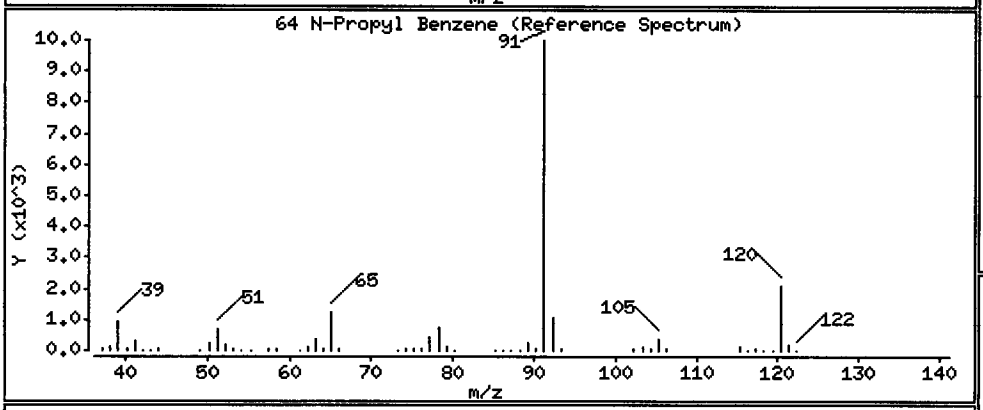
Concentration: 3.236 ug/Kg

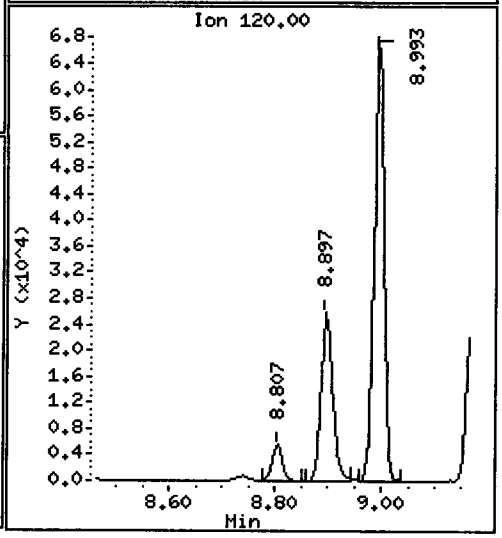


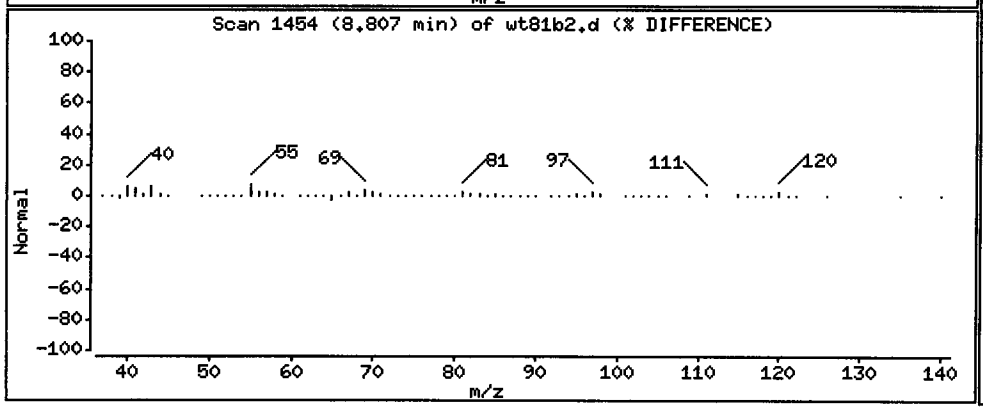












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

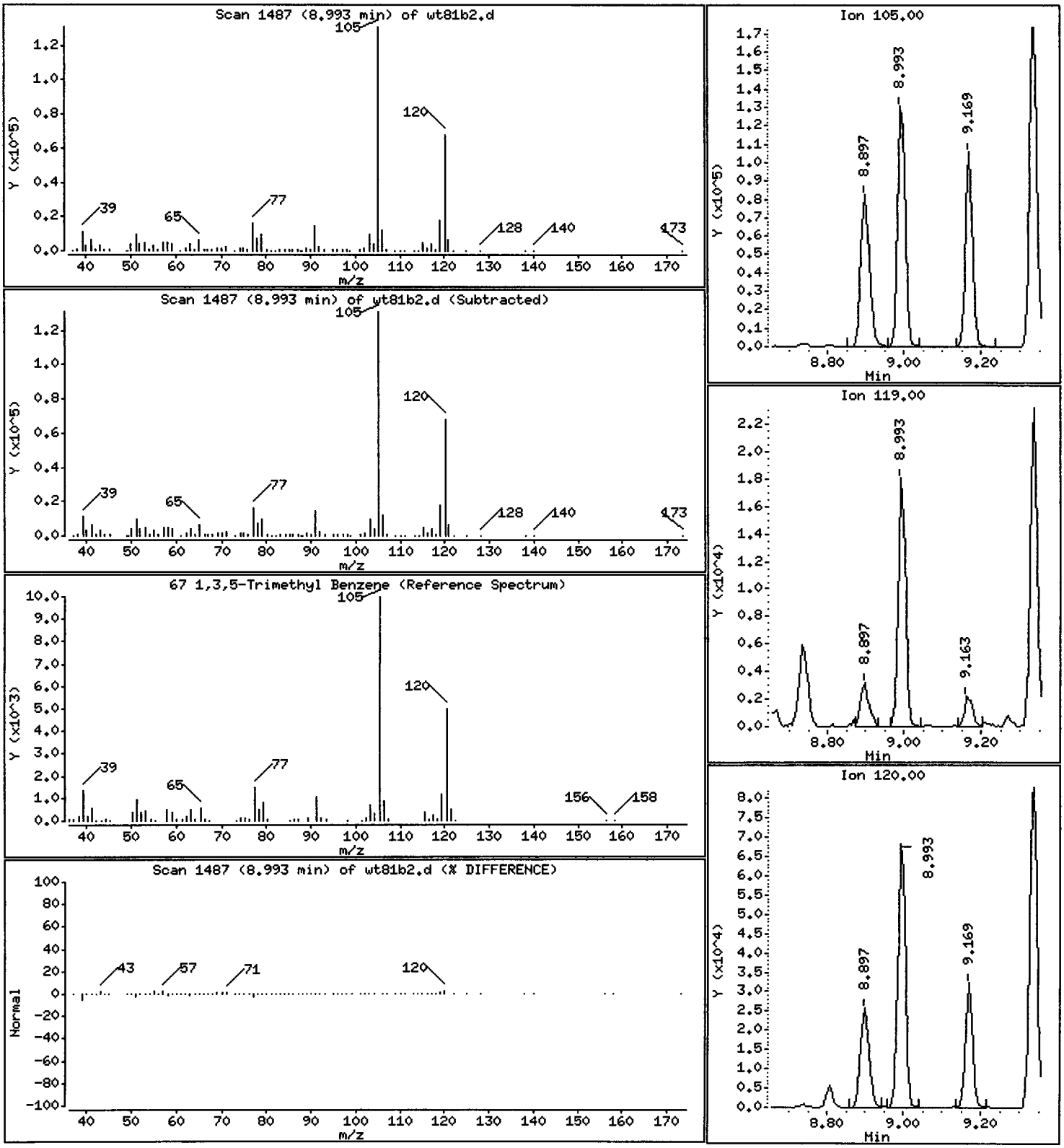
Operator: PB

Column phase: RTXVMS

Column diameter: 0.18

67 1,3,5-Trimethyl Benzene

Concentration: 24.733 ug/Kg



Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

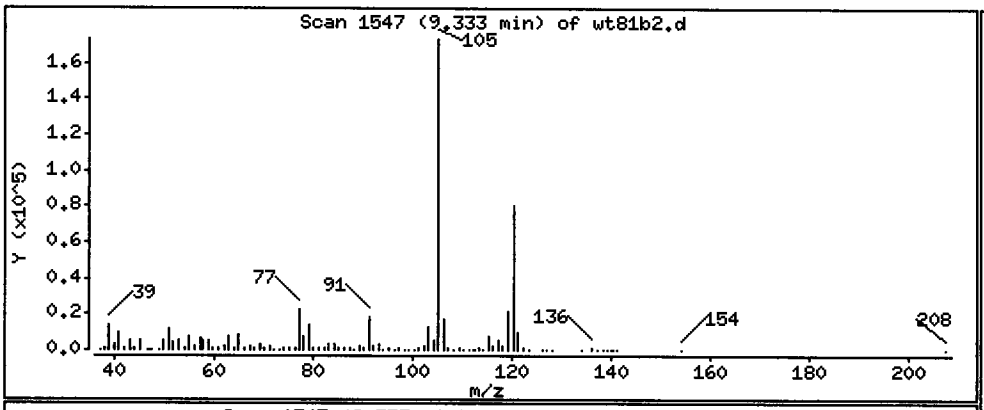
Operator: PB

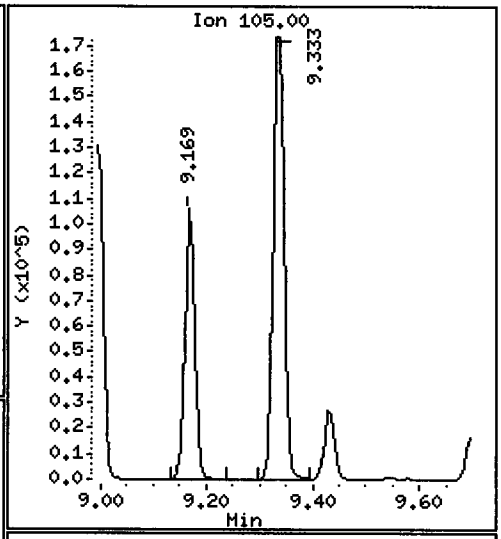
Column phase: RTXVMS

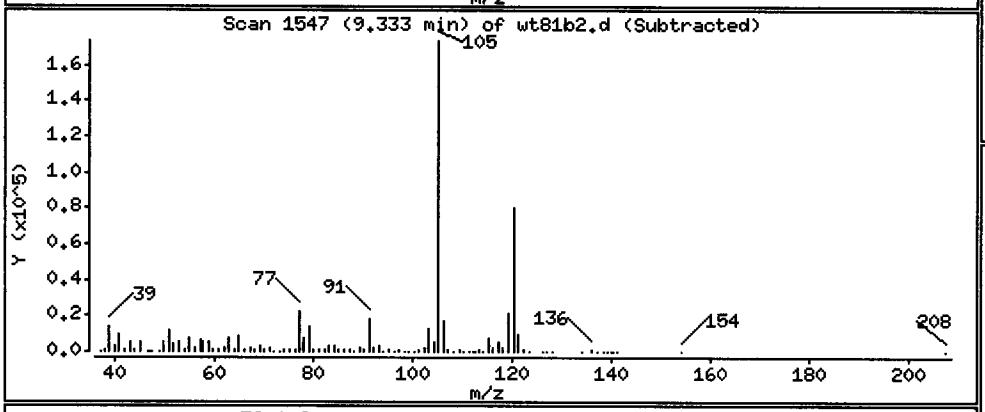
Column diameter: 0.18

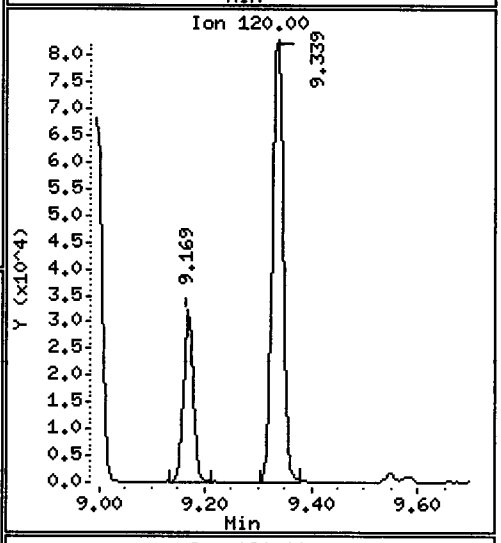
72 1,2,4-Trimethylbenzene

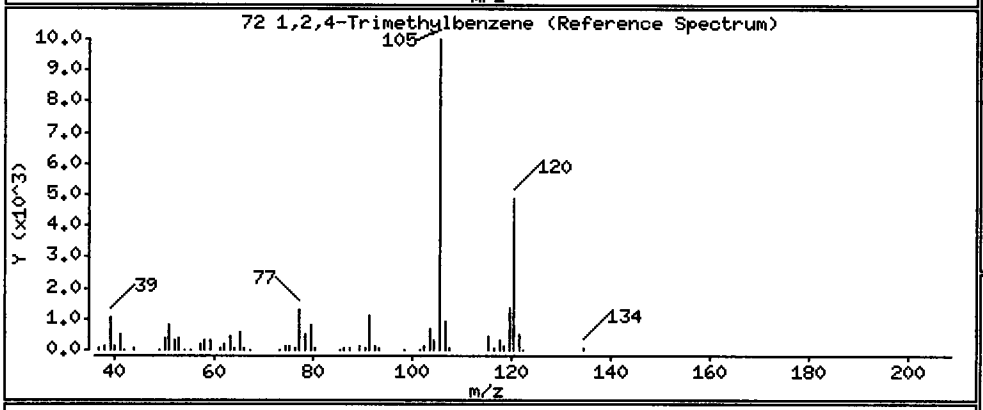
Concentration: 35.002 ug/Kg

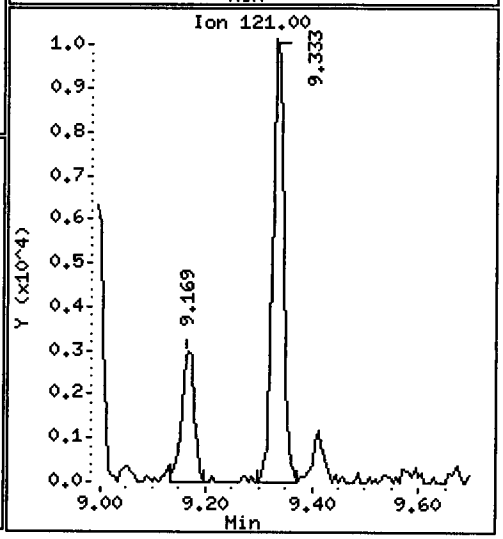


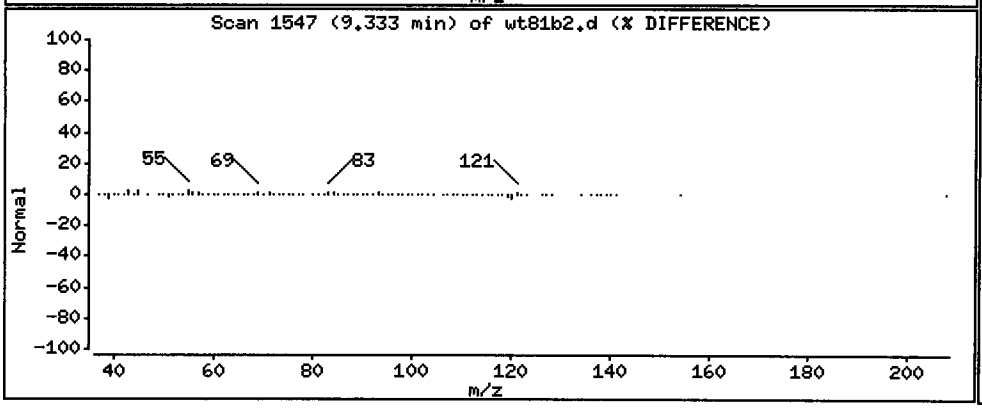












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

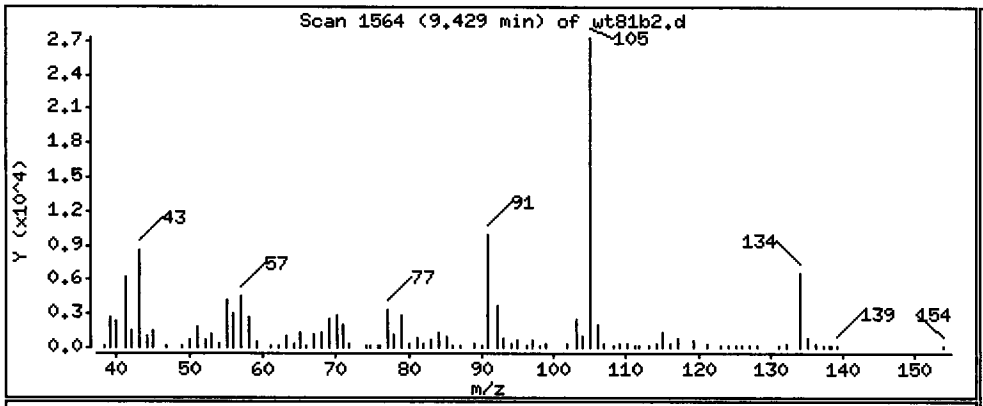
Operator: PB

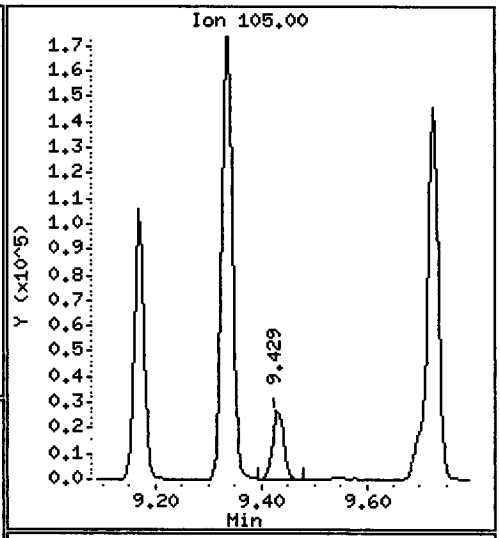
Column phase: RTXVMS

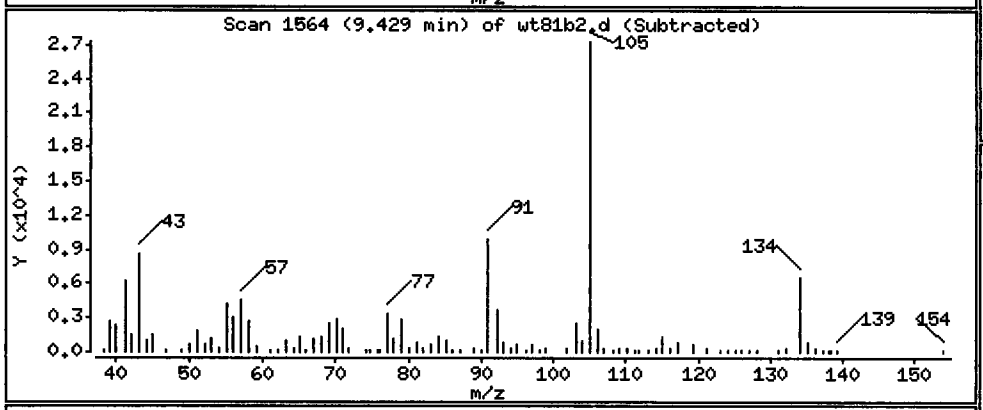
Column diameter: 0.18

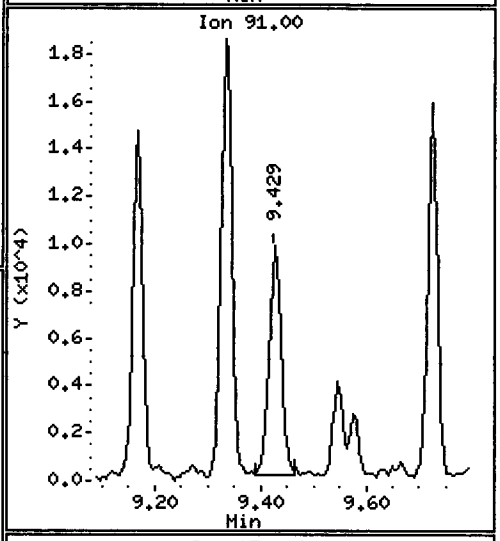
73 S-Butyl Benzene

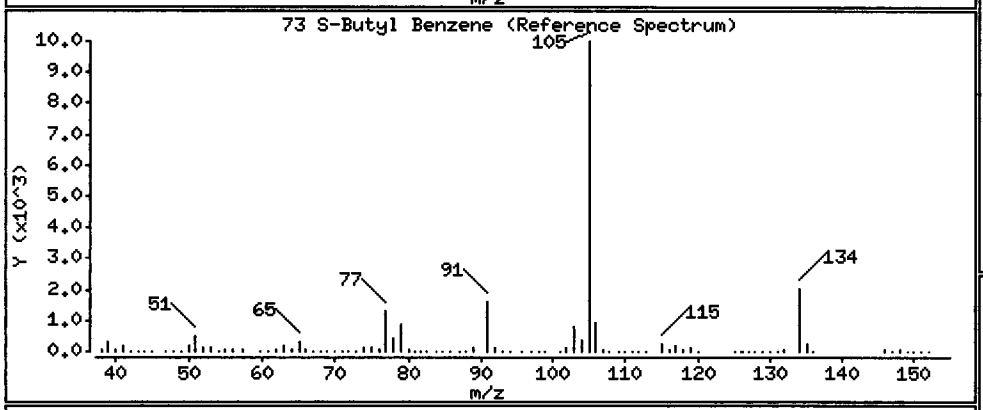
Concentration: 4.192 ug/Kg

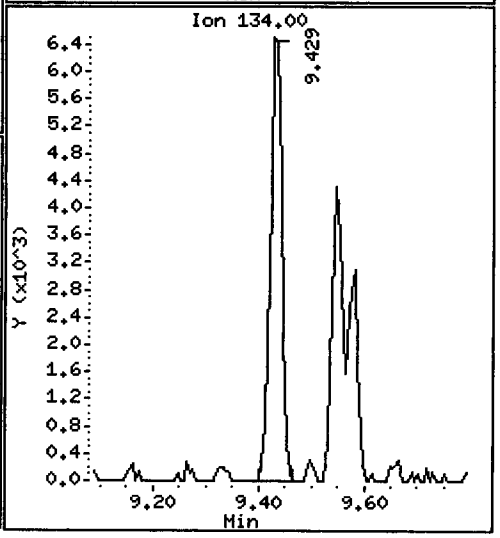


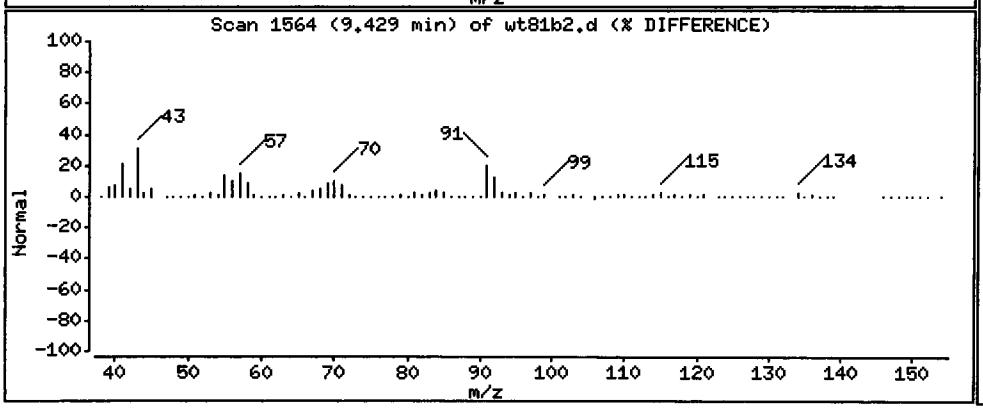












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

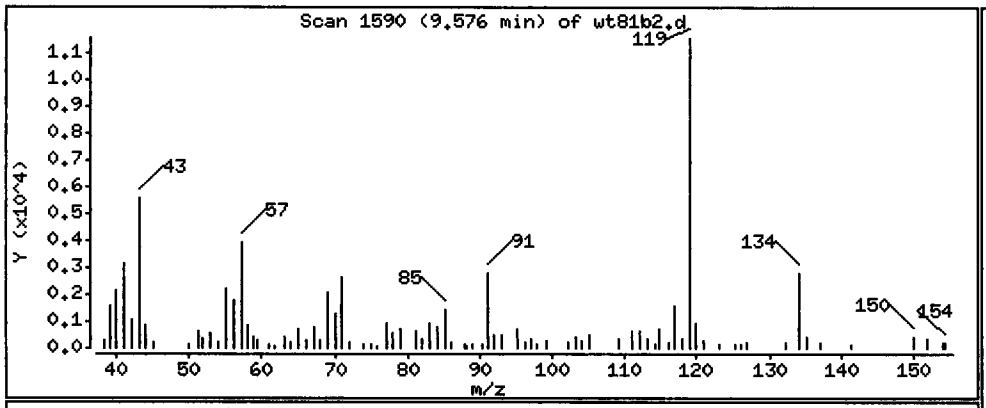
Operator: PB

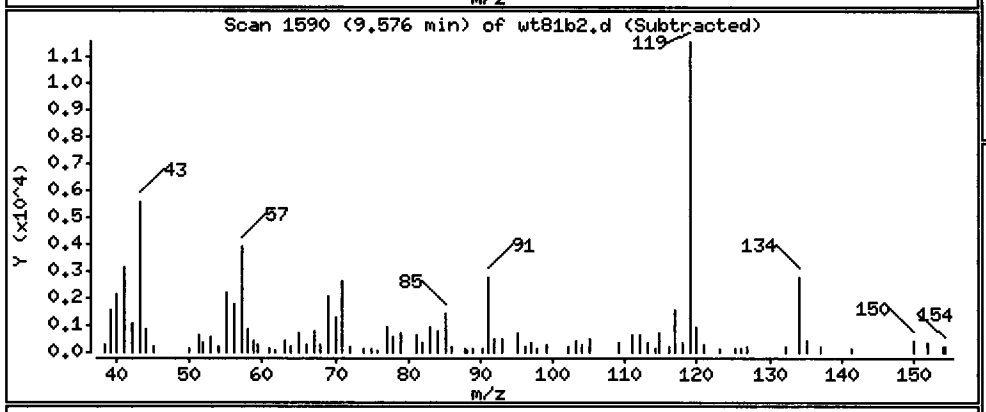
Column phase: RTXVMS

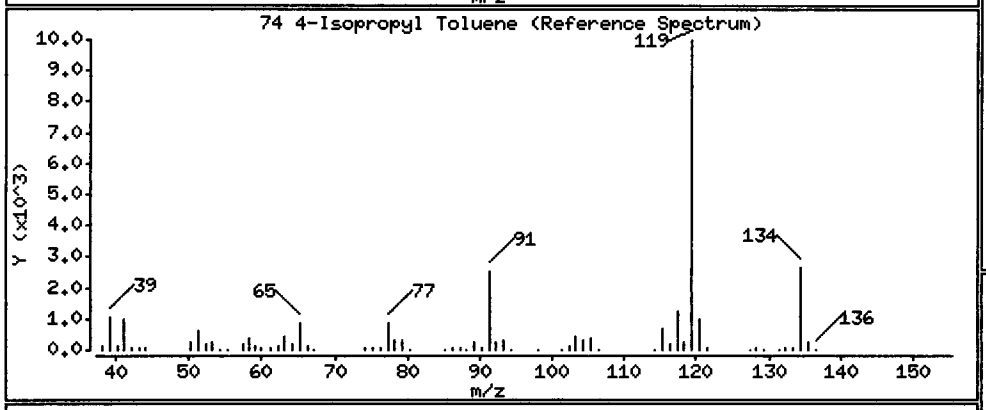
Column diameter: 0.18

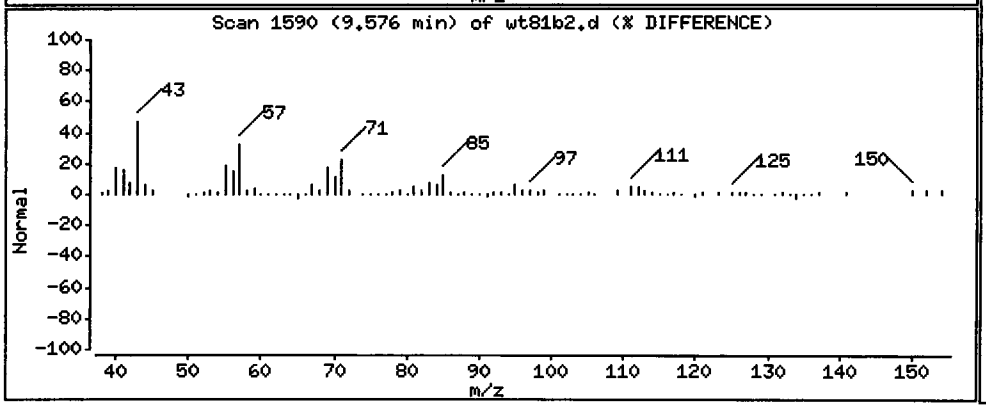
74 4-Isopropyl Toluene

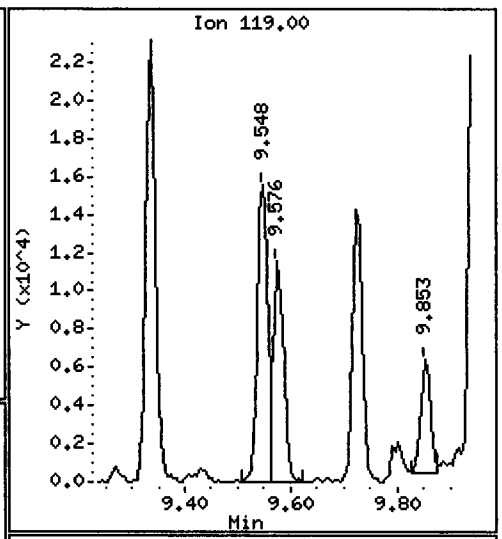
Concentration: 2.133 ug/Kg

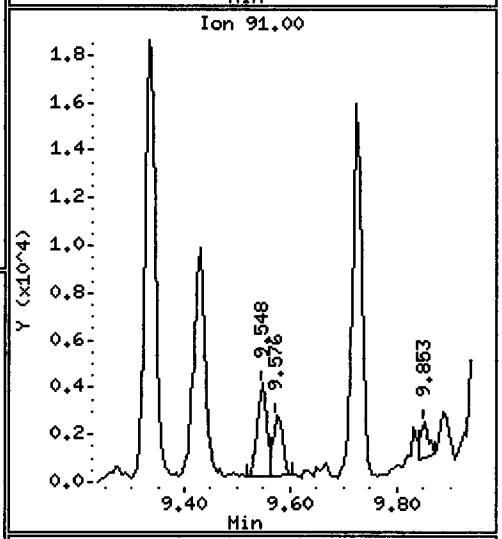


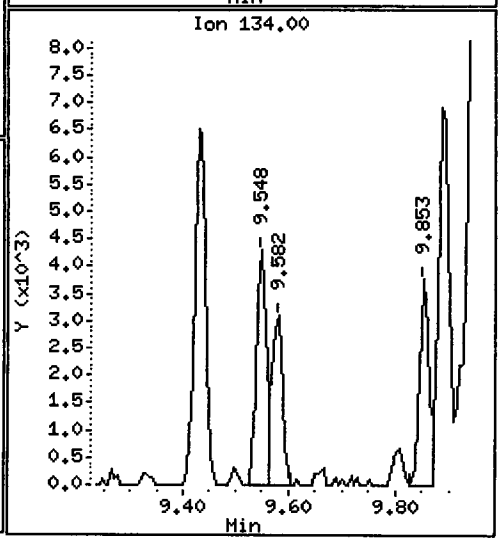












Data File: /chem1/nt5.i/17JUN13.b/wt81b2.d

Date : 17-JUN-2013 19:06

Client ID: AM-SF4-EFF-20130612

Instrument: nt5.i

Sample Info: WT81B,5,6.91,0

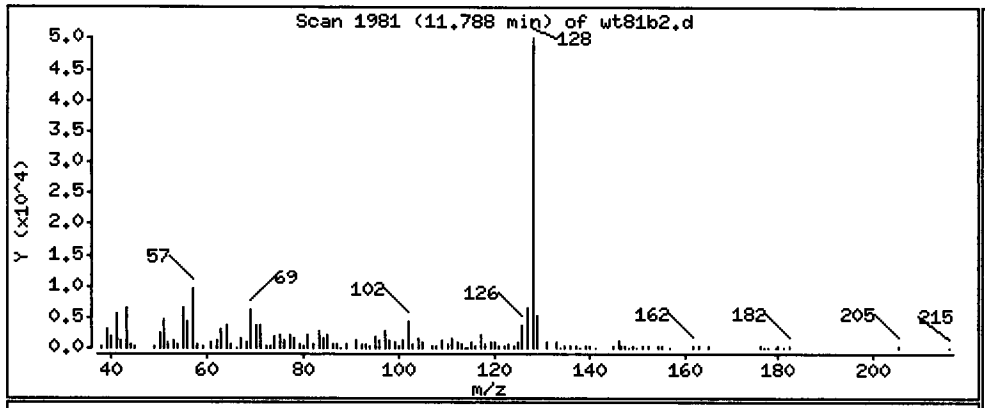
Operator: PB

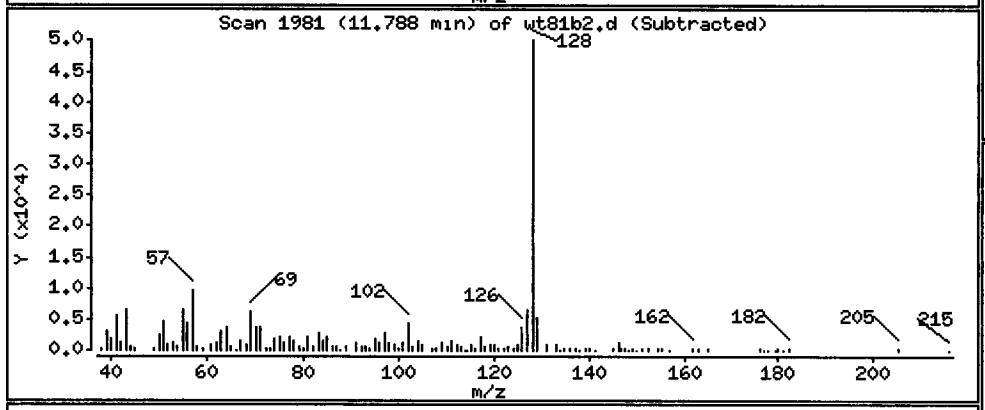
Column phase: RTXVMS

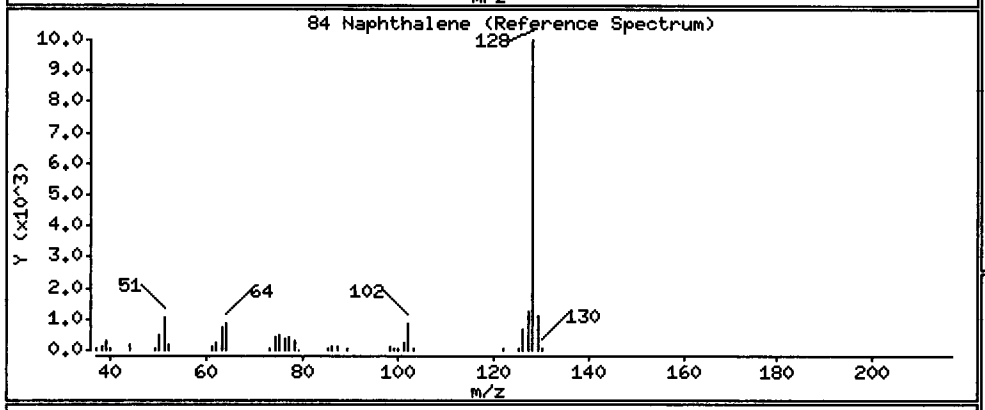
Column diameter: 0.18

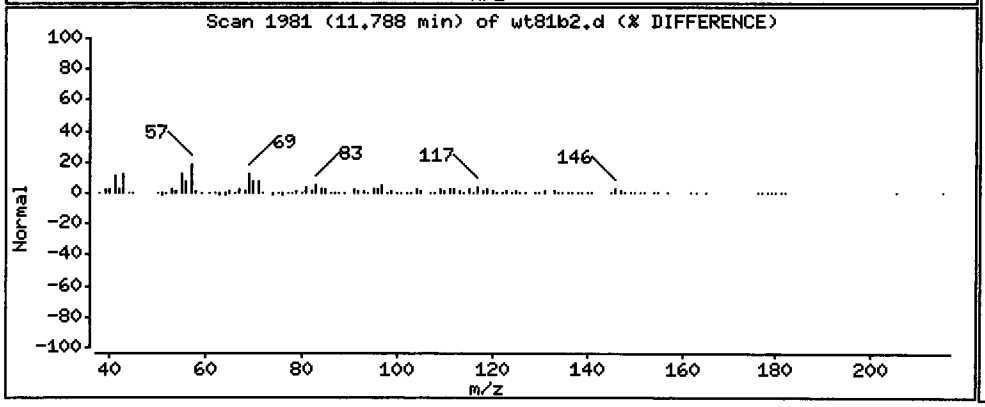
84 Naphthalene

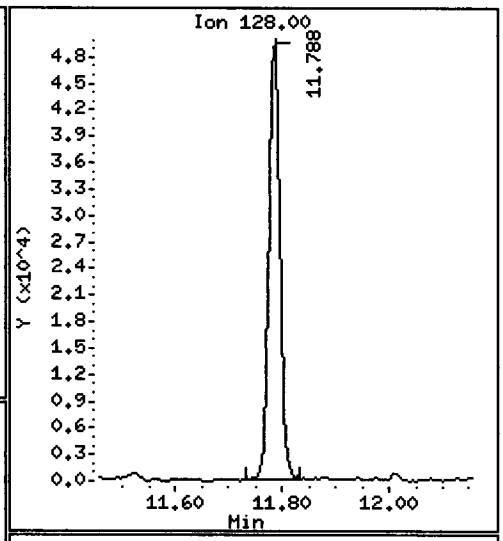
Concentration: 11.965 ug/Kg

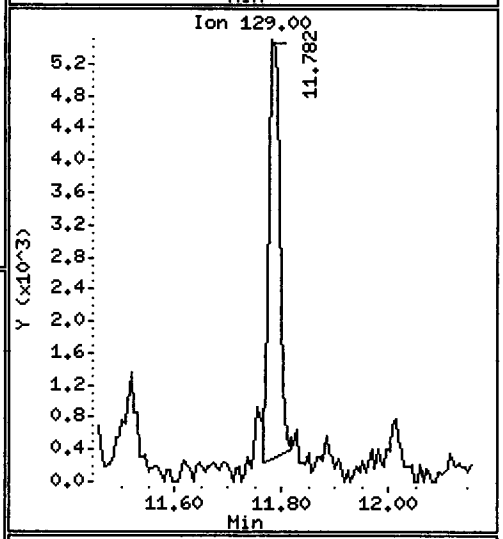


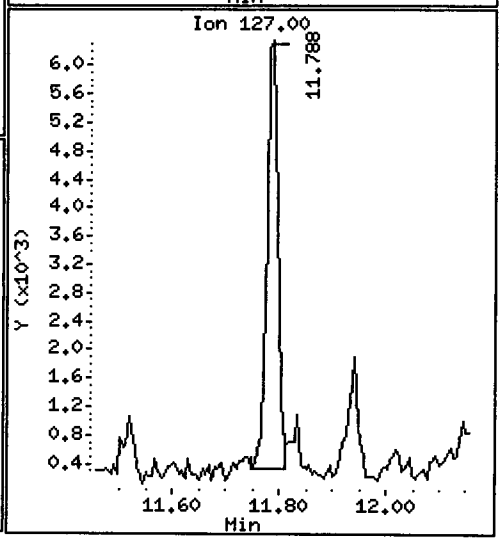












CO-ELUTION SUMMARY FOR FILE - wt81b2.d

Lab ID: WT81B, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/17JUN13.b/wt81c.d
Lab Smp Id: WT81C Client Smp ID: AM-FD-01-20130612-S
Inj Date : 17-JUN-2013 18:42
Operator : PB Inst ID: nt5.i
Smp Info : WT81C,5,8.66,0
Misc Info : 13-12638
Comment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 27-Jun-2013 07:53 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	8.66000	Sample Amount
M	60.20000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	1.611	1.611	(0.345)	31069	2.38392	3.458
7 1,1-Dichloroethene	96	Compound Not Detected.					
8 Carbon Disulfide	76	1.968	1.973	(0.422)	1031131	36.0602	52.311
9 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10 Iodomethane	142	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Acrolein	56	Compound Not Detected.					
13 Methylene Chloride	84	2.443	2.454	(0.524)	29493	3.69319	5.358
14 Acetone	43	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	4.027	4.027	(0.863)	22308	1.30220	1.889
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.191	4.196	(0.898)	635138	60.2970	87.471
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	4.389	4.457	(0.941)	326216	263.173	381.78(Q)
	30 Benzene	78	4.530	4.530	(0.885)	74299	1.55696	2.259
*	31 Pentafluorobenzene	168	4.666	4.672	(1.000)	367231	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.660	4.666	(0.999)	581302	59.0648	85.684
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.118	5.118	(1.000)	1508898	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.289	6.295	(1.229)	1907063	43.1312	62.569
	43 Toluene	92	6.329	6.335	(1.236)	55491	1.82693	2.650
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.697	6.708	(1.308)	820952	154.023	223.44
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	7.404	7.415	(0.975)	48265	8.18613	11.875
*	52 d5-Chlorobenzene	117	7.591	7.596	(1.000)	1160605	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	7.653	7.658	(1.008)	42562	1.25631	1.822
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	7.788	7.794	(1.026)	49256	3.81590	5.536
	57 o-Xylene	106	8.151	8.156	(1.074)	54975	4.28204	6.212
	58 Styrene	104	8.196	8.201	(1.080)	61222	2.94534	4.273
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	8.439	8.445	(0.873)	29603	2.23480	3.242
$	62 4-Bromofluorobenzene	95	8.660	8.665	(1.141)	405574	32.0279	46.462(R)
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	8.807	8.812	(0.911)	27449	1.74832	2.536
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	8.993	9.005	(0.930)	181544	16.1118	23.373
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	9.338	9.344	(0.966)	245227	22.1324	32.107
73	S-Butyl Benzene	105	9.435	9.440	(0.976)	68244	4.73346	6.867
74	4-Isopropyl Toluene	119	9.576	9.587	(0.991)	16082	1.35947	1.972
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.667	9.672	(1.000)	264025	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	10.046	10.057	(1.039)	255776	47.5534	68.984
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
84	Naphthalene	128	11.788	11.805	(1.219)	47210	4.73292	6.866
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: wt81c.d
Lab Smp Id: WT81C
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12638

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: AM-FD-01-20130612-S
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	367231	-20.10
35 1,4-Difluorobenze	1692431	846216	3384862	1508898	-10.84
52 d5-Chlorobenzene	1987215	993608	3974430	1160605	-41.60
76 d4-1,4-Dichlorobe	1075398	537699	2150796	264025	-75.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.67	-0.12
35 1,4-Difluorobenze	5.12	4.62	5.62	5.12	0.00
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.07
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81C
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12638

Client SDG: WT81
Fraction: VOA
Client Smp ID: AM-FD-01-20130612-S
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

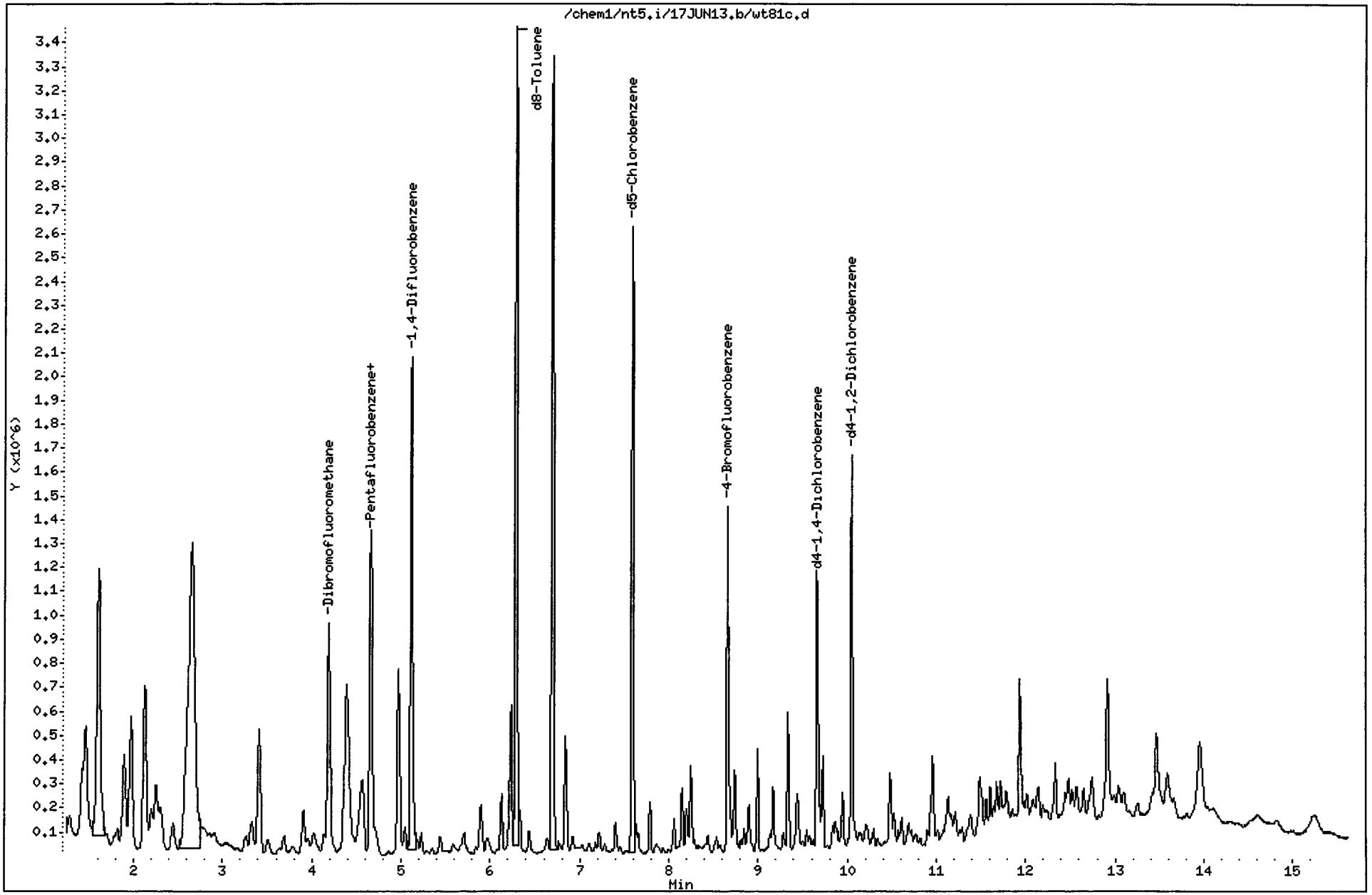
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	60.297	120.59	70-130
$ 32 d4-1,2-Dichloroeth	50.000	59.065	118.13	80-149
$ 42 d8-Toluene	50.000	43.131	86.26	77-120
$ 62 4-Bromofluorobenze	50.000	32.028	64.06*	80-120
$ 79 d4-1,2-Dichloroben	50.000	47.553	95.11	80-120

Data File: /chem1/nt5.i/17JUN13.b/wt81c.d
Date : 17-JUN-2013 18:42
Client ID: AM-FD-01-20130612-S
Sample Info: WT81C,5,8.66,0

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

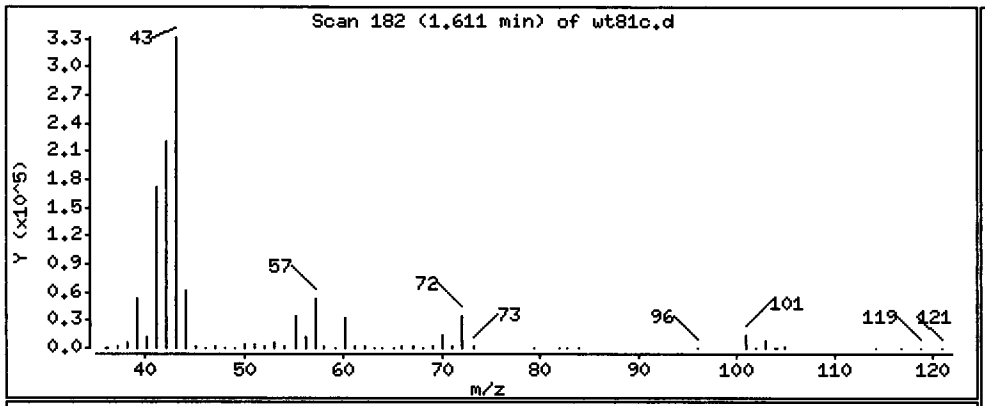
Operator: PB

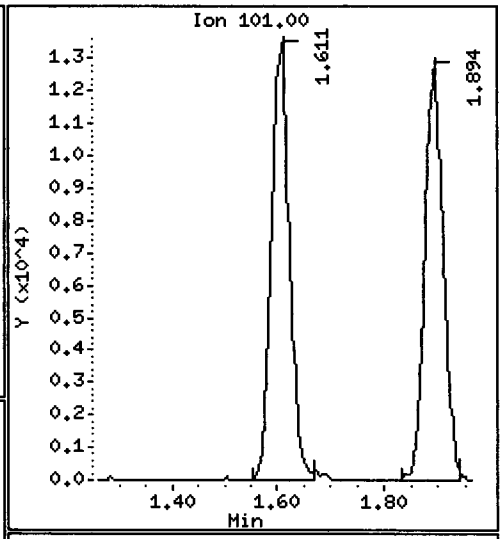
Column phase: RTXVMS

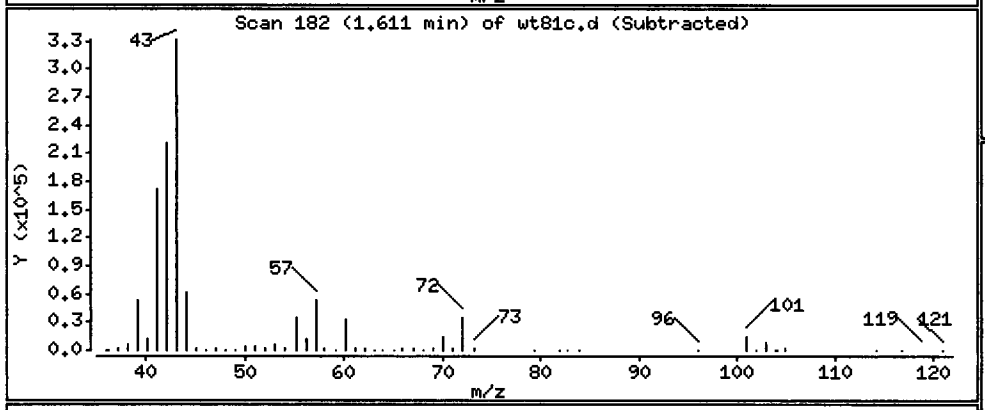
Column diameter: 0.18

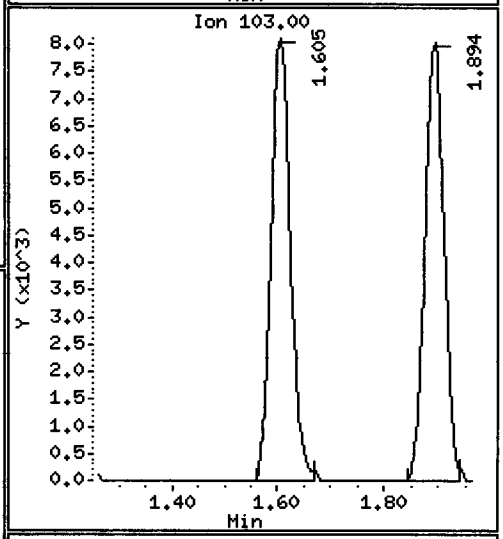
6 Trichlorofluoromethane

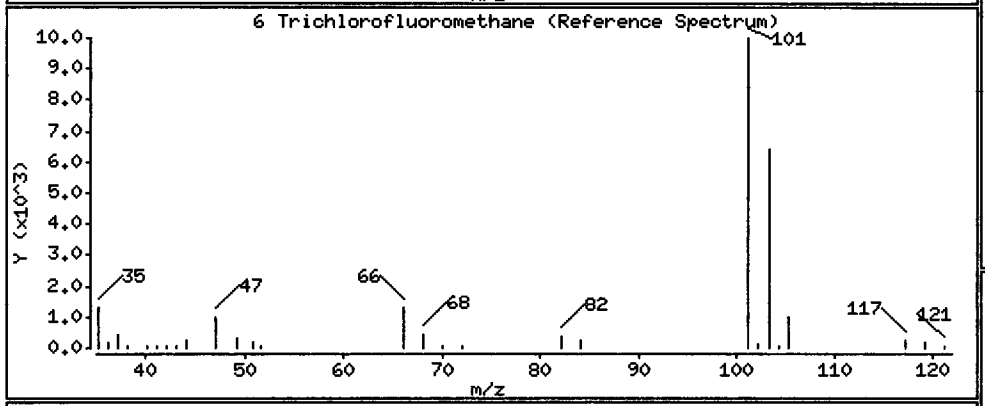
Concentration: 3.458 ug/Kg

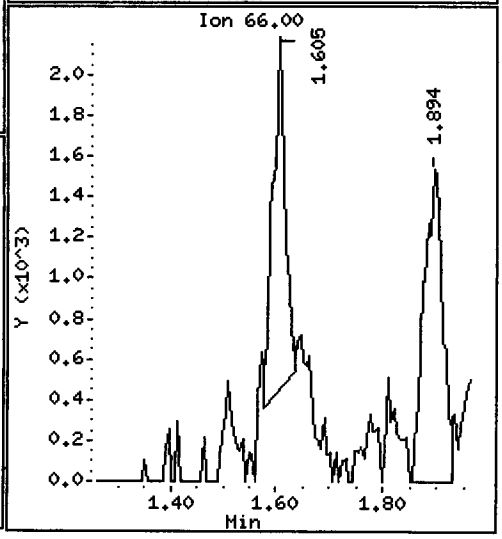


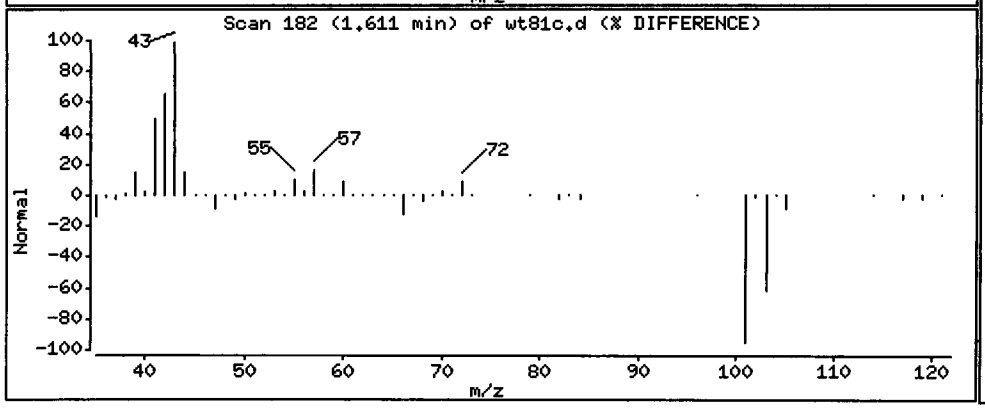












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

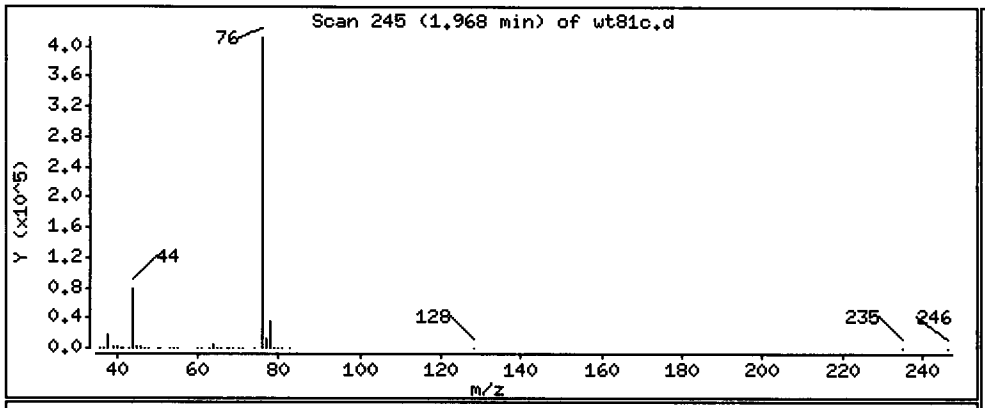
Operator: PB

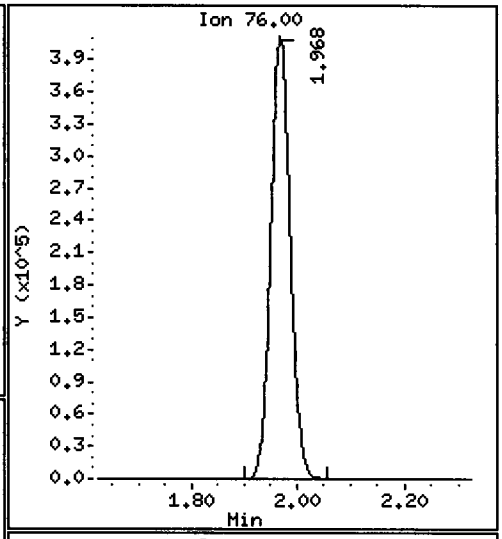
Column phase: RTXVMS

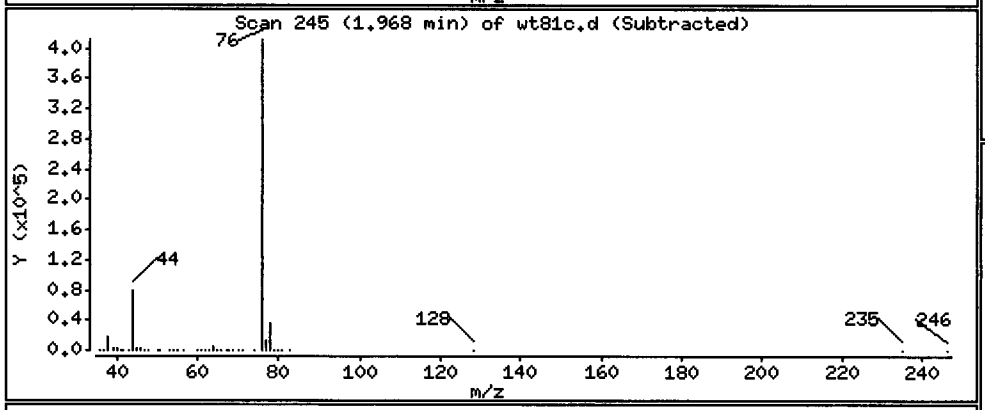
Column diameter: 0.18

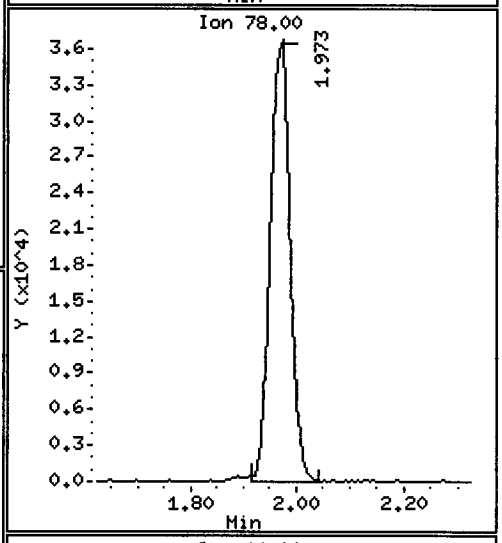
8 Carbon Disulfide

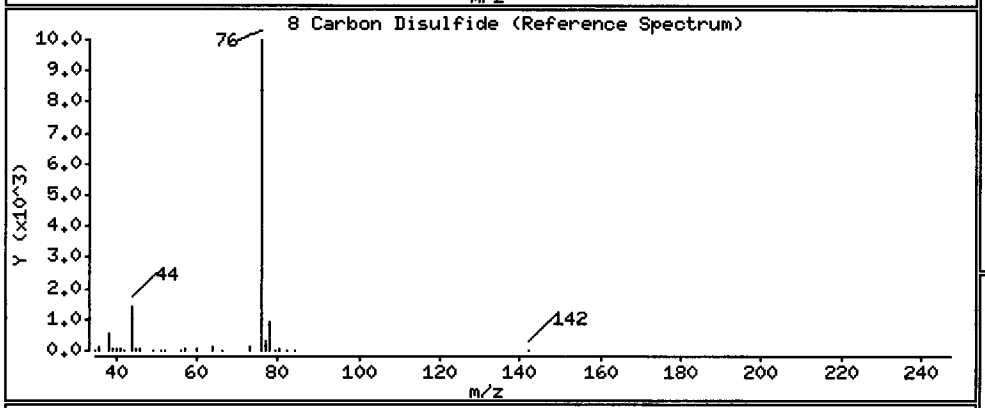
Concentration: 52.311 ug/Kg

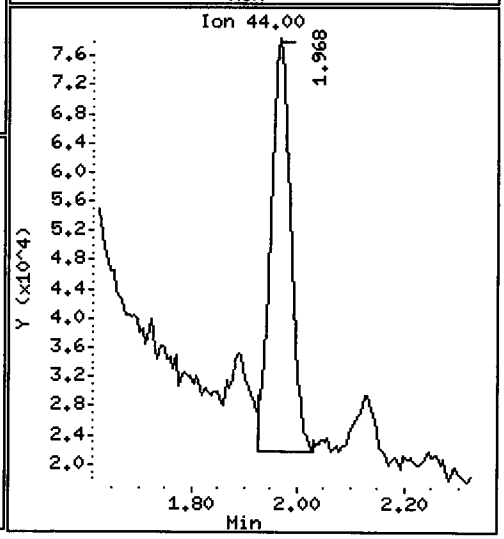


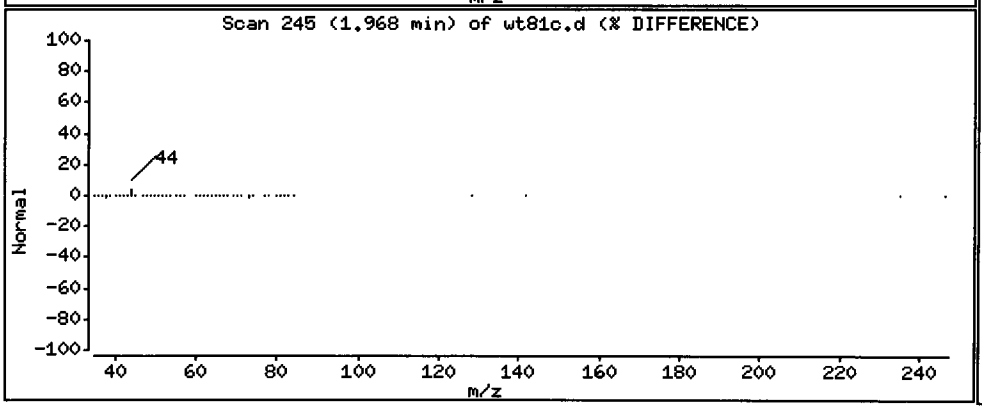












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

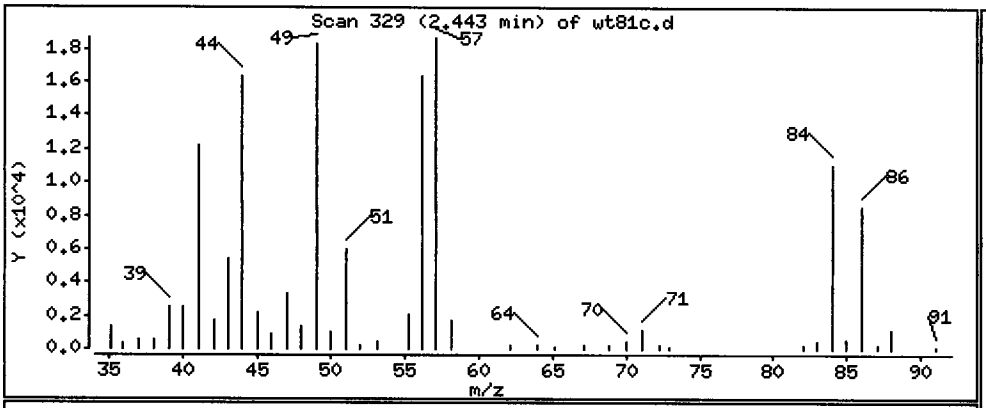
Operator: PB

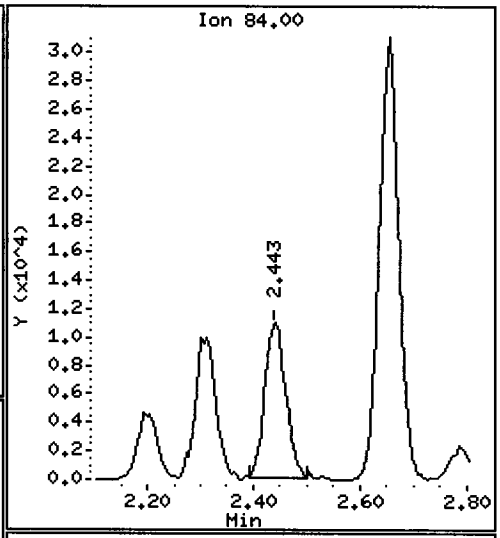
Column phase: RTXVMS

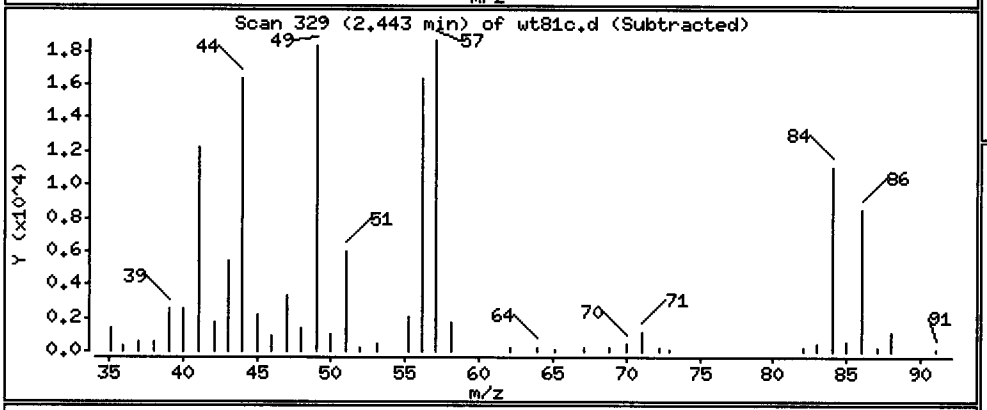
Column diameter: 0.18

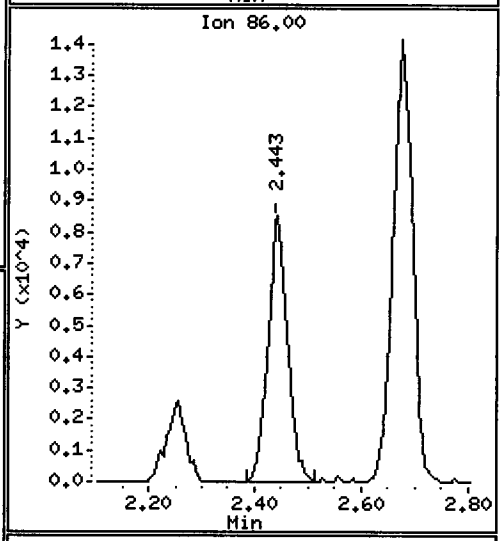
13 Methylene Chloride

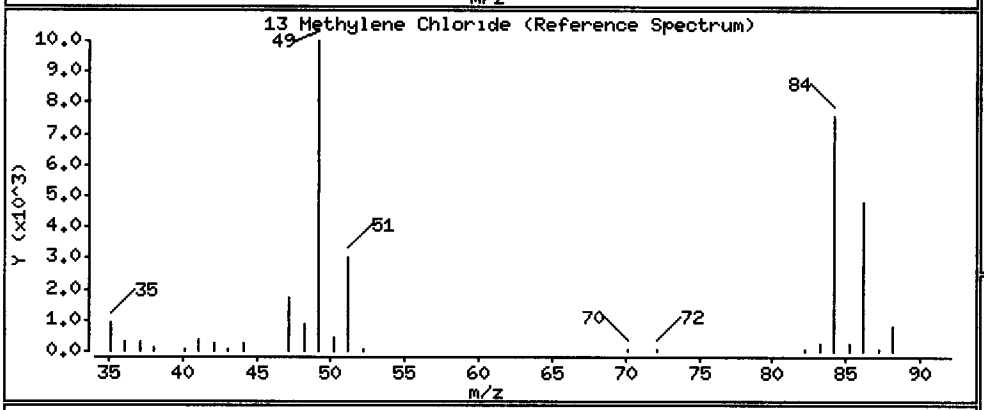
Concentration: 5.358 ug/Kg

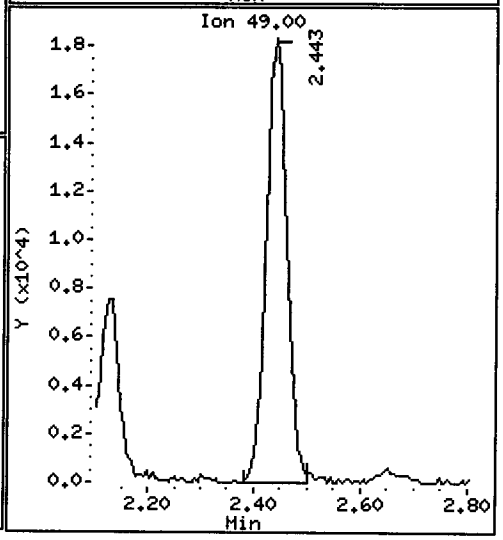


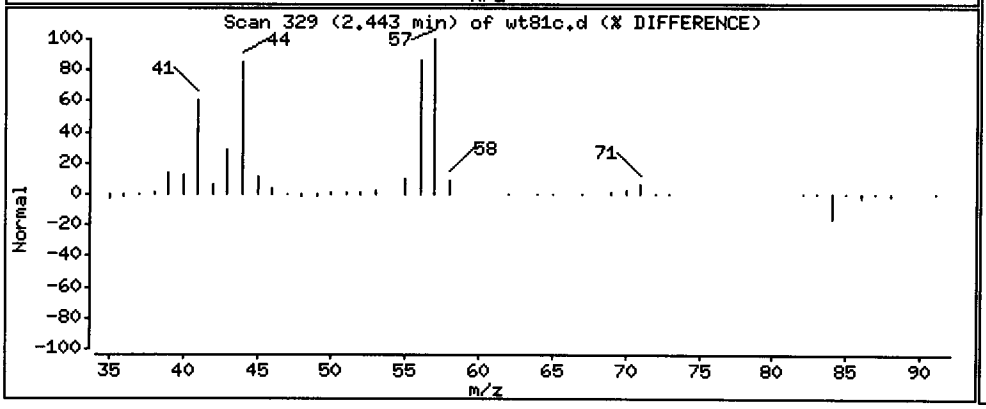












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

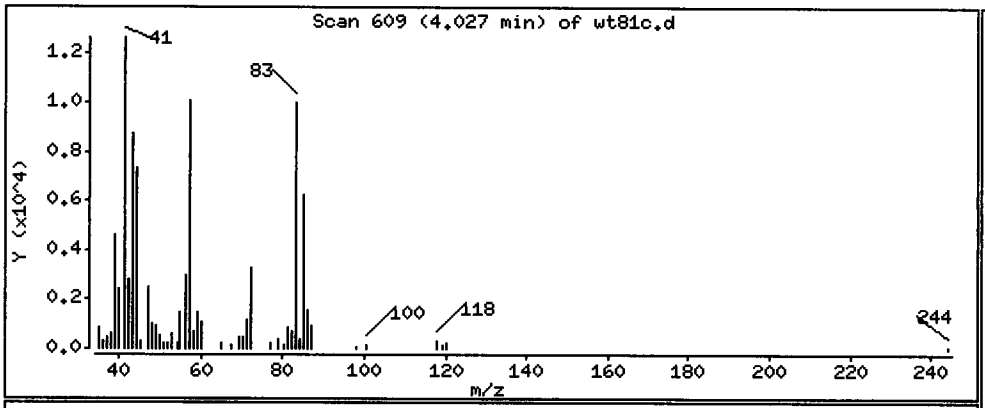
Operator: PB

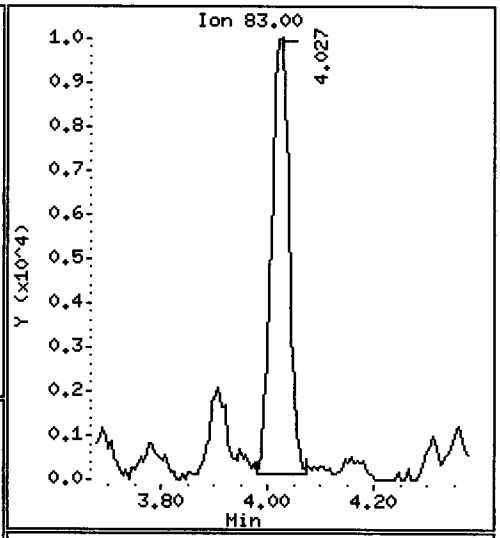
Column phase: RTXVMS

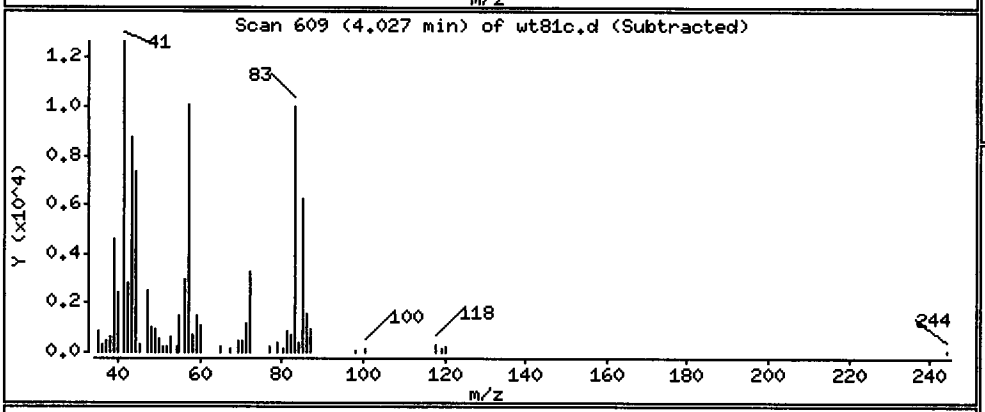
Column diameter: 0.18

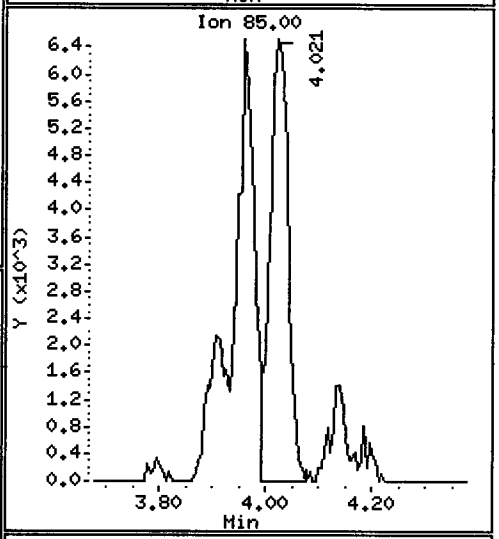
24 Chloroform

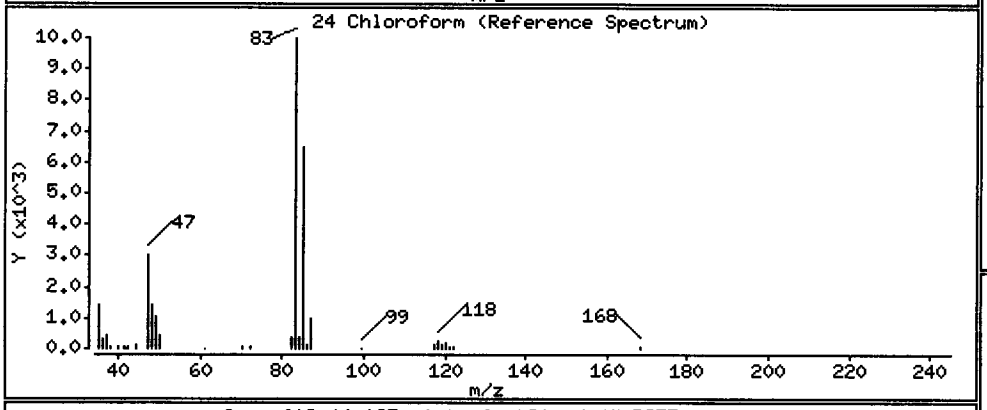
Concentration: 1.889 ug/Kg

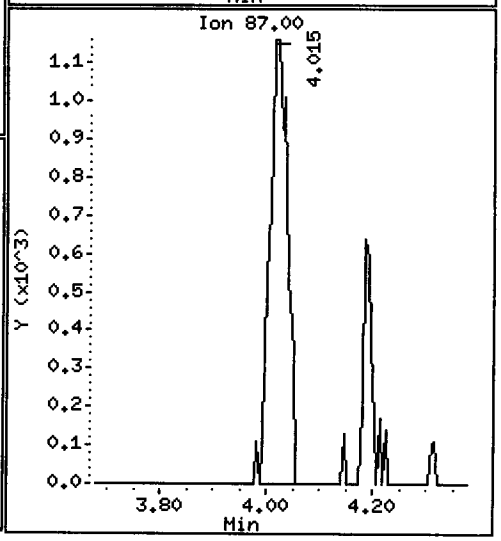


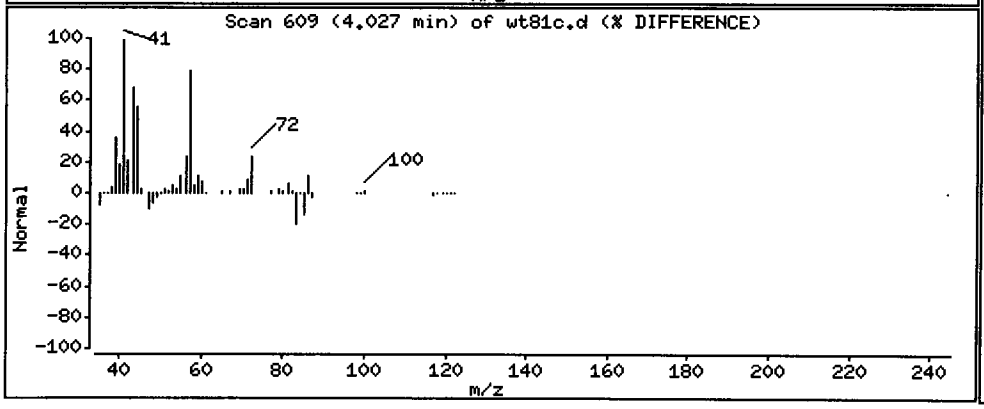












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

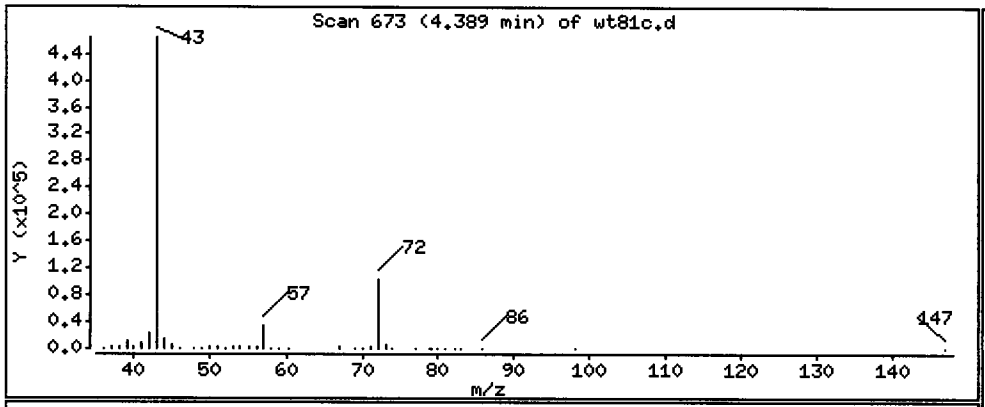
Operator: PB

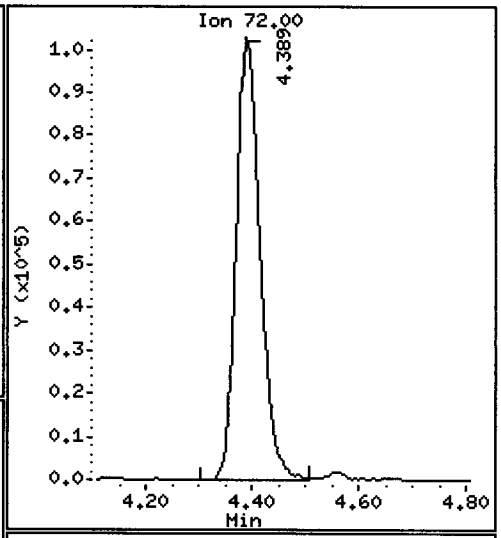
Column phase: RTXVMS

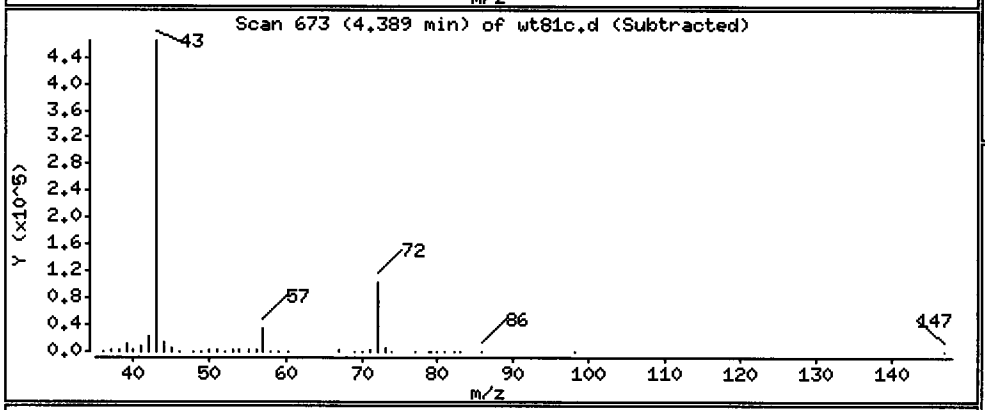
Column diameter: 0.18

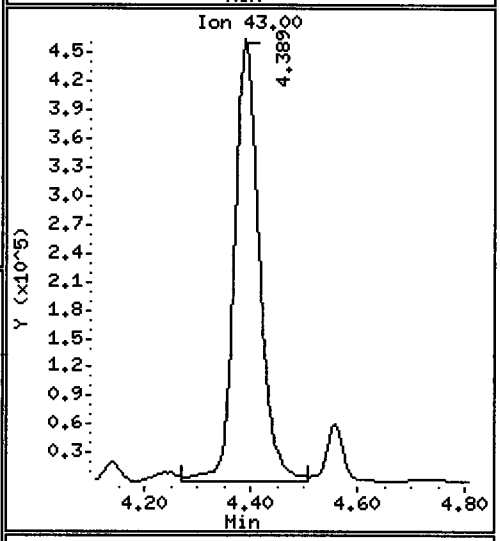
29 2-Butanone

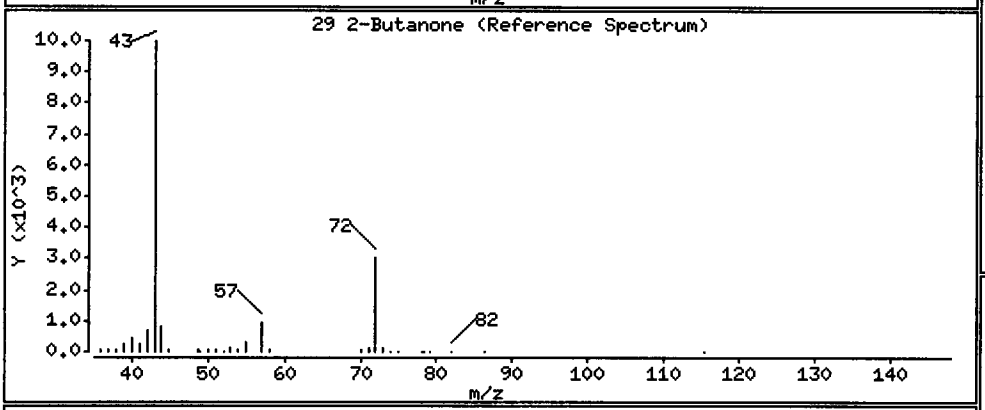
Concentration: 381.78 ug/Kg

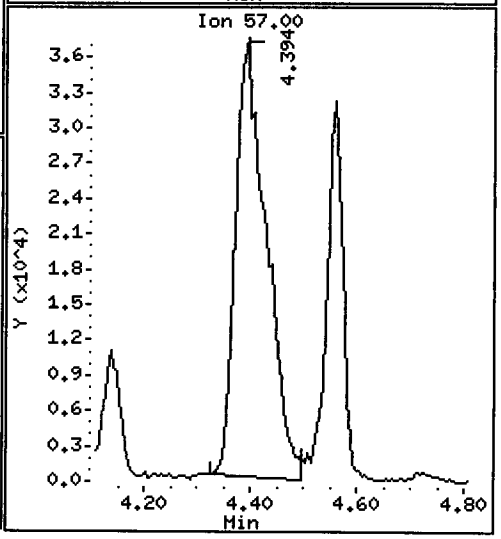


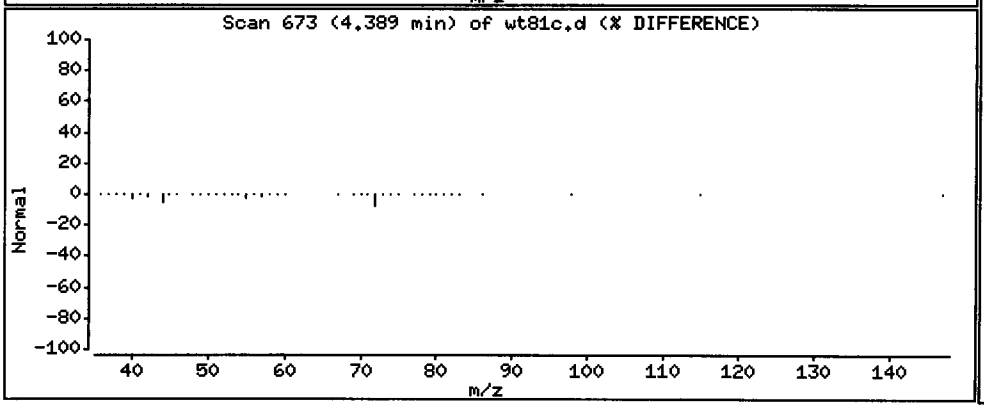












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

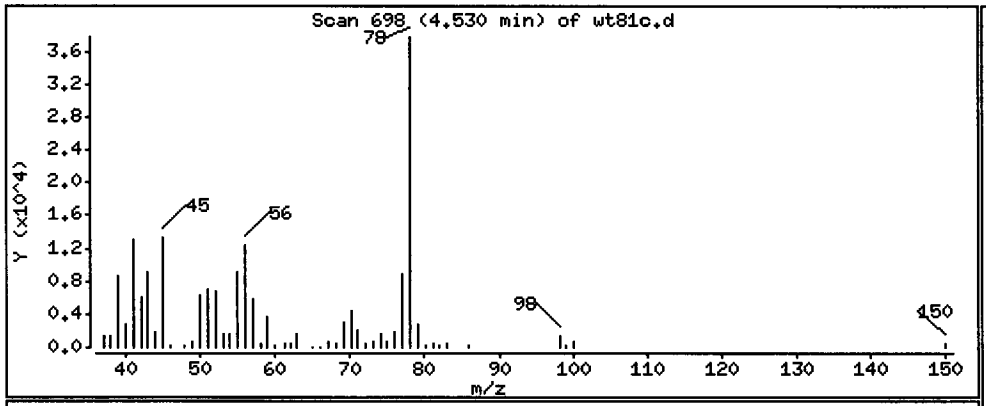
Operator: PB

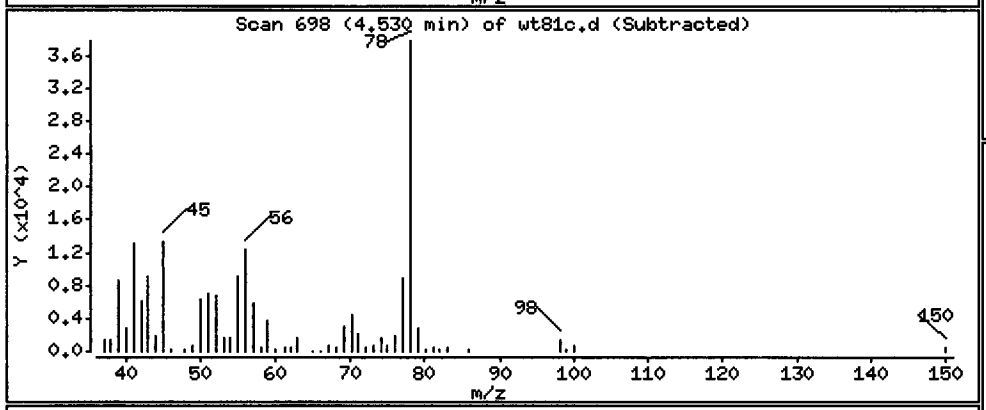
Column phase: RTXVMS

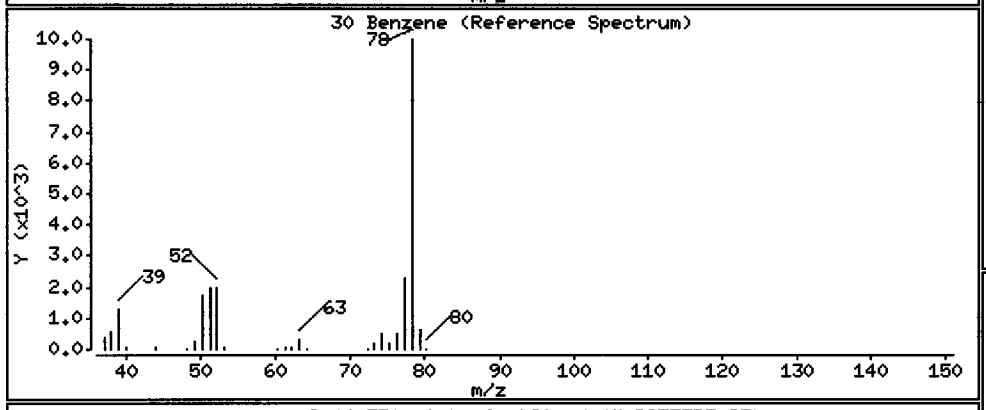
Column diameter: 0.18

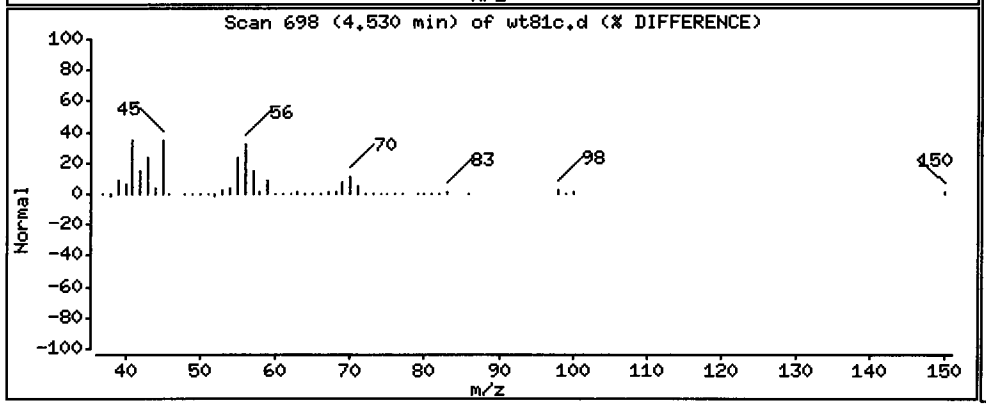
30 Benzene

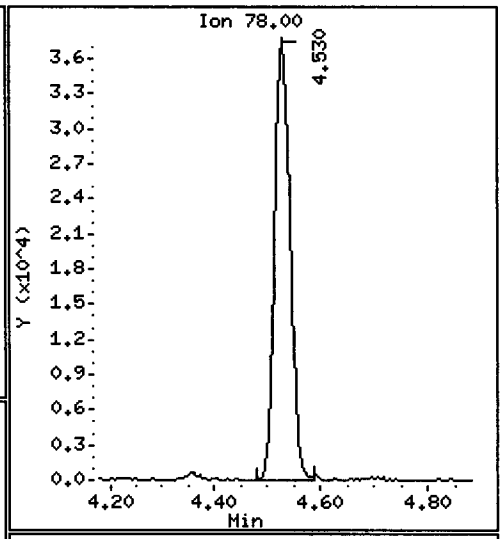
Concentration: 2.259 ug/Kg

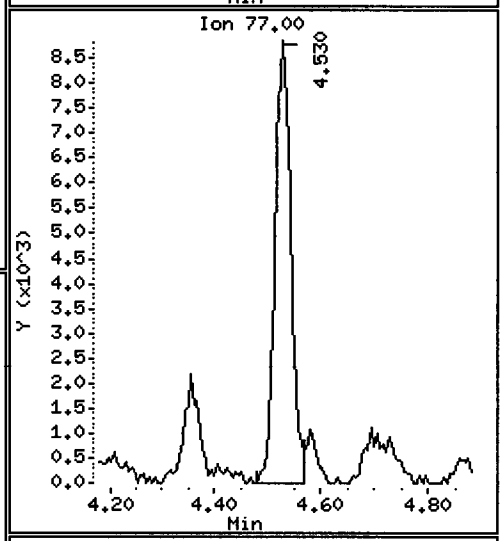


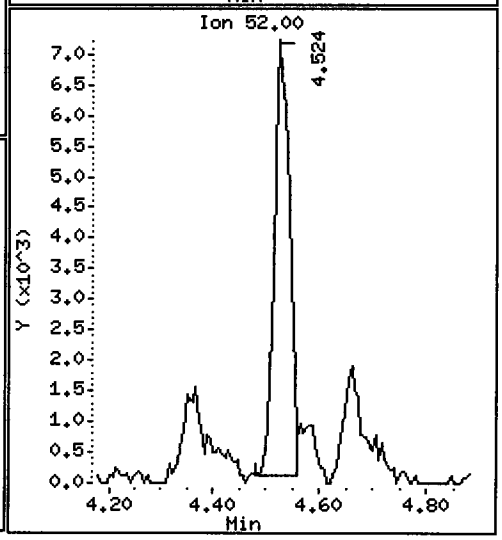












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8,66,0

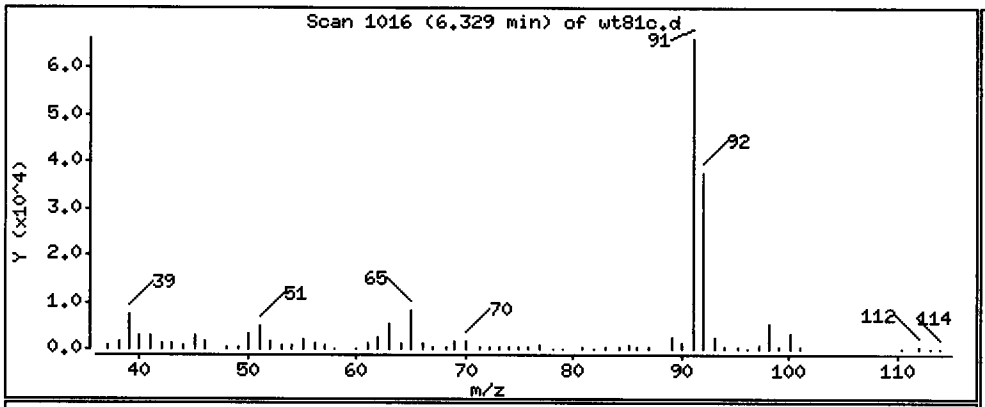
Operator: PB

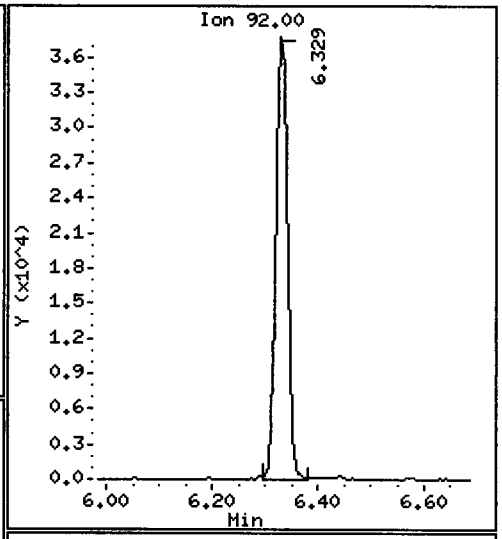
Column phase: RTXVMS

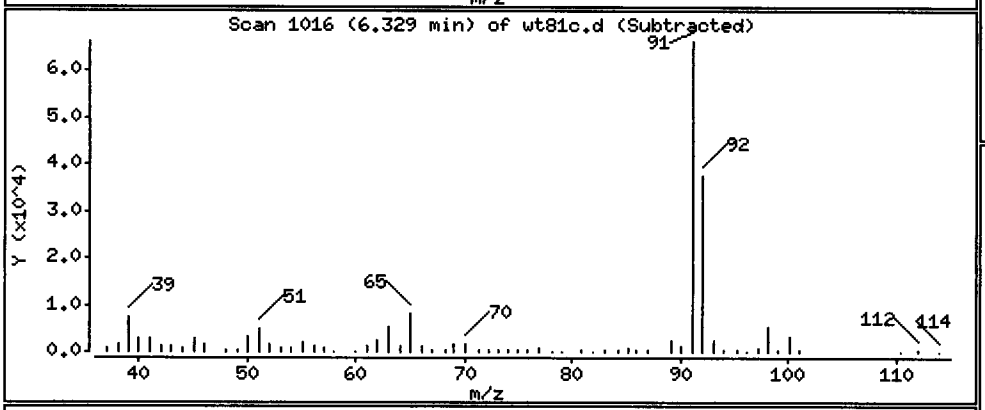
Column diameter: 0.18

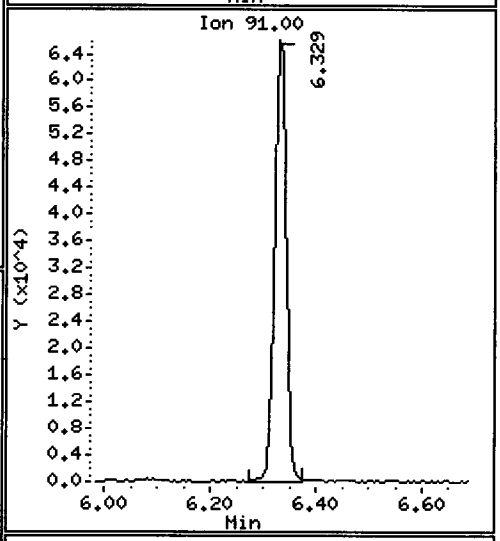
43 Toluene

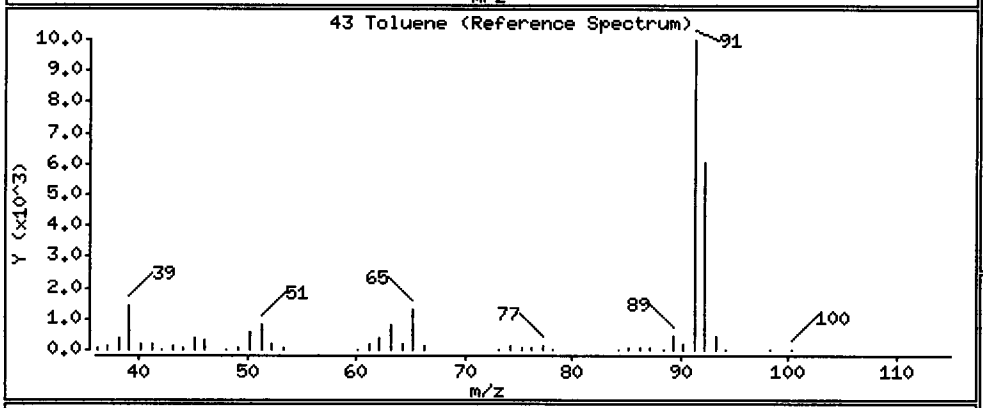
Concentration: 2.650 ug/Kg

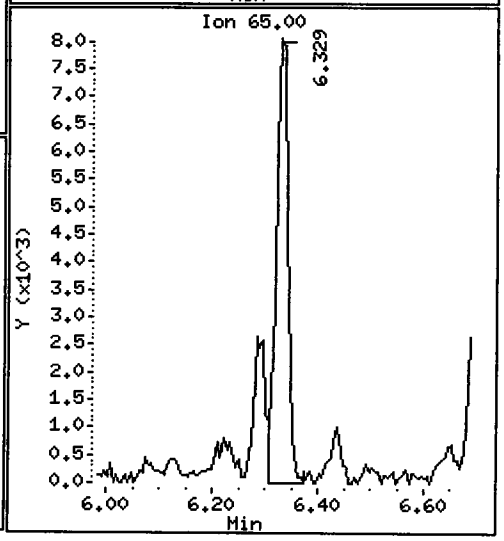


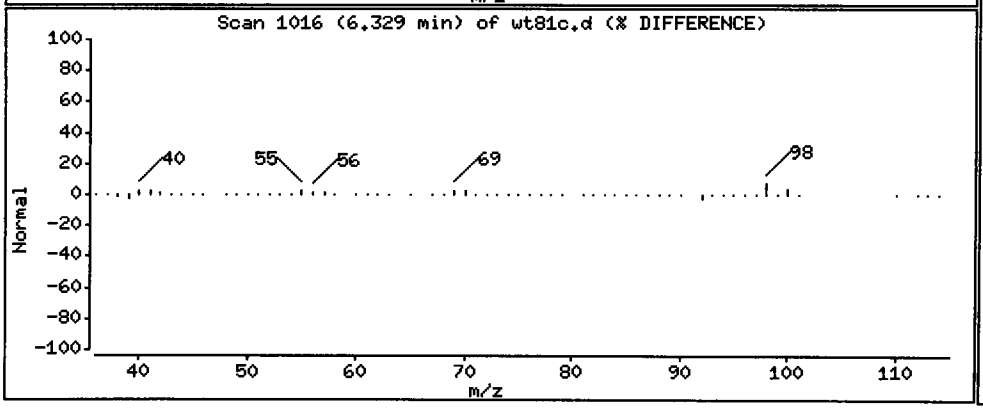












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

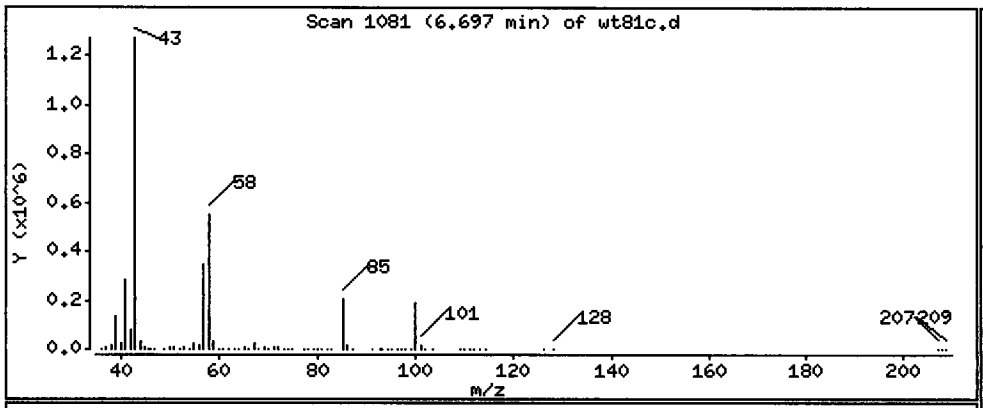
Operator: PB

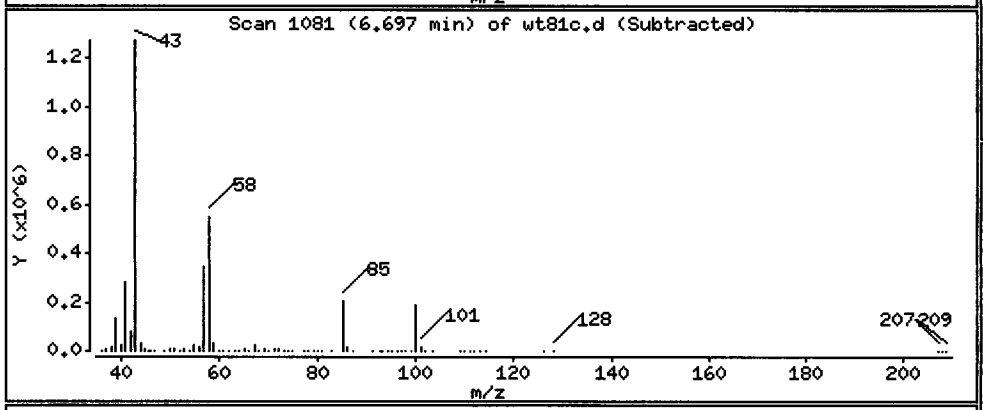
Column phase: RTXVMS

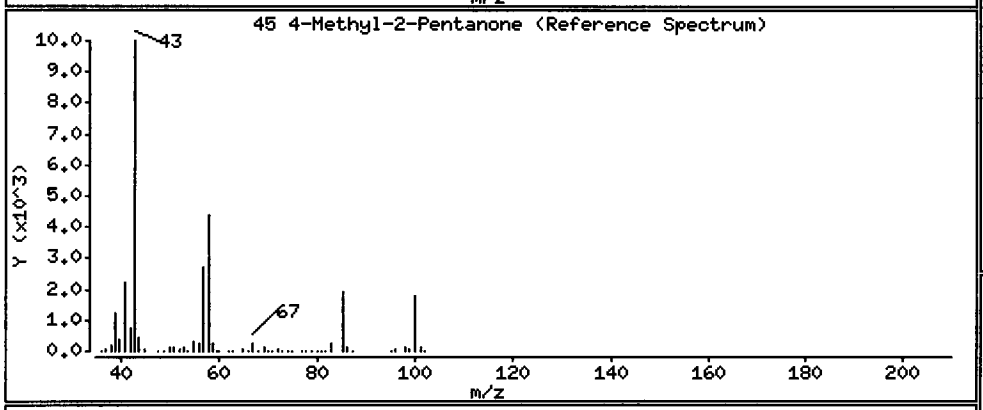
Column diameter: 0.18

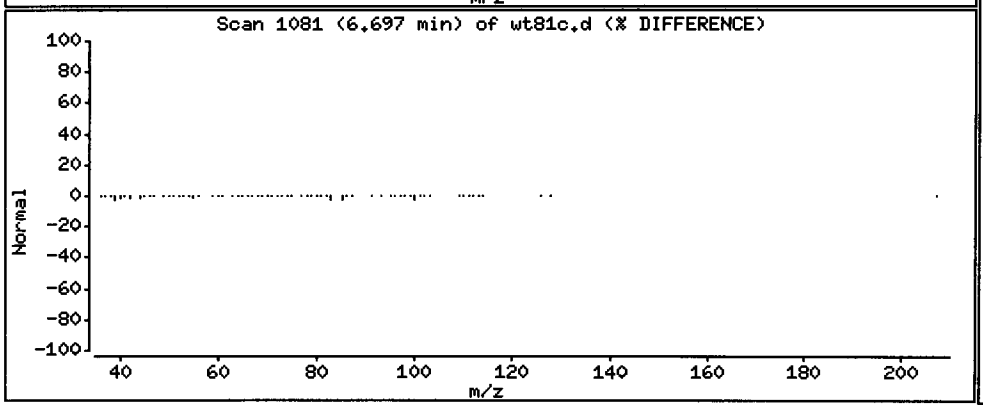
45 4-Methyl-2-Pentanone

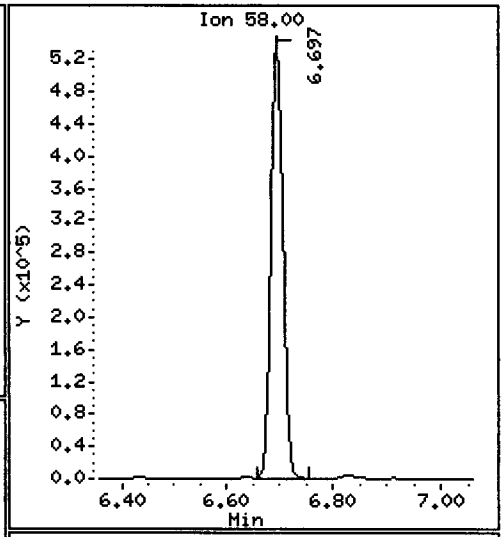
Concentration: 223.44 ug/Kg

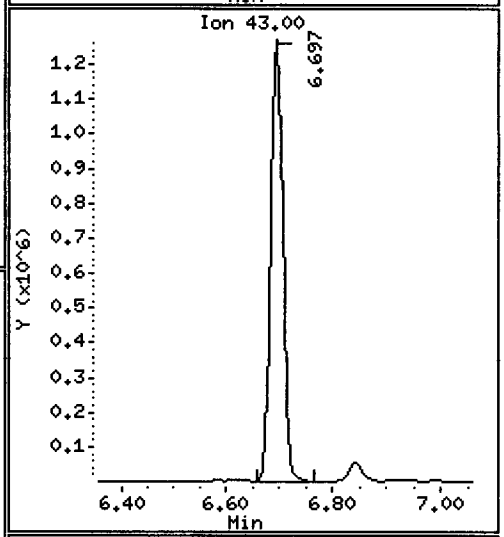


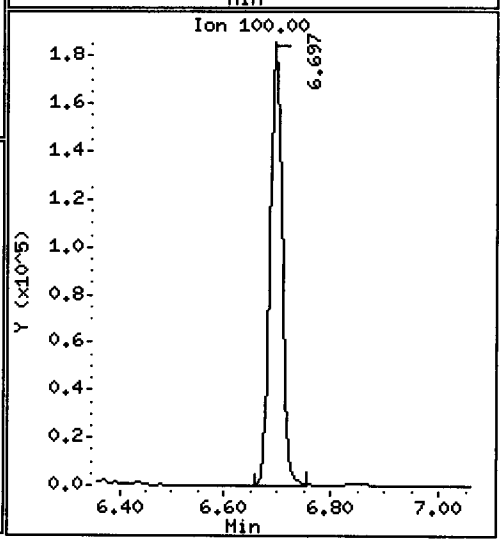












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

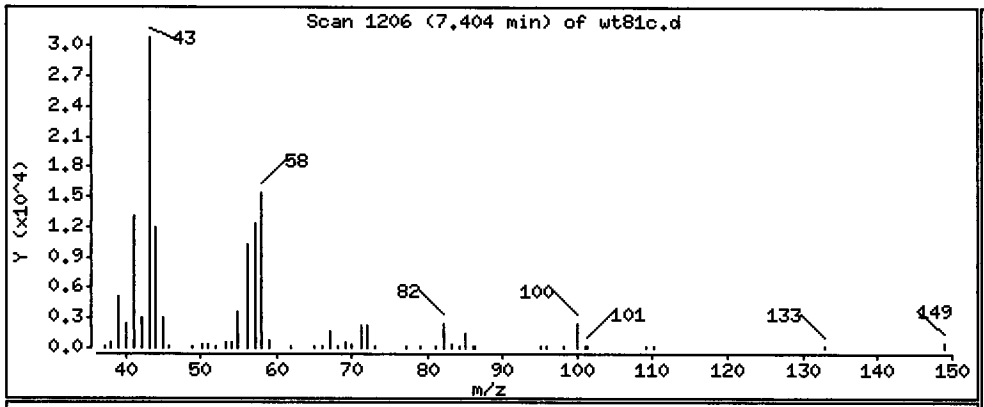
Operator: PB

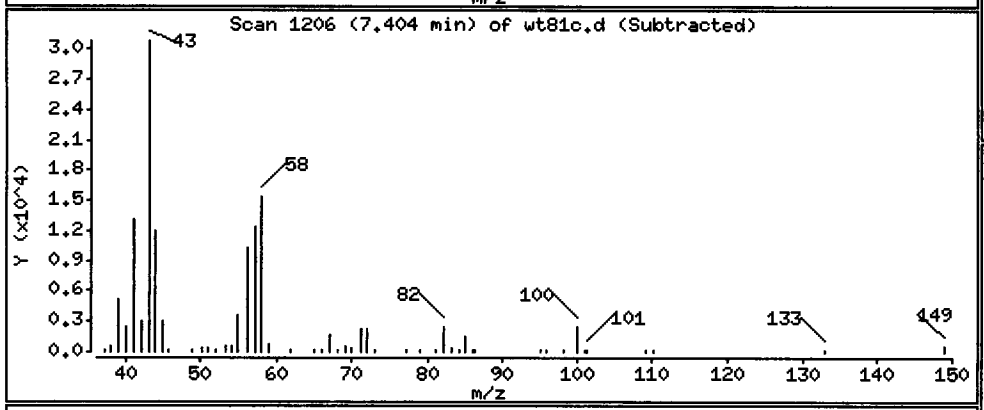
Column phase: RTXVMS

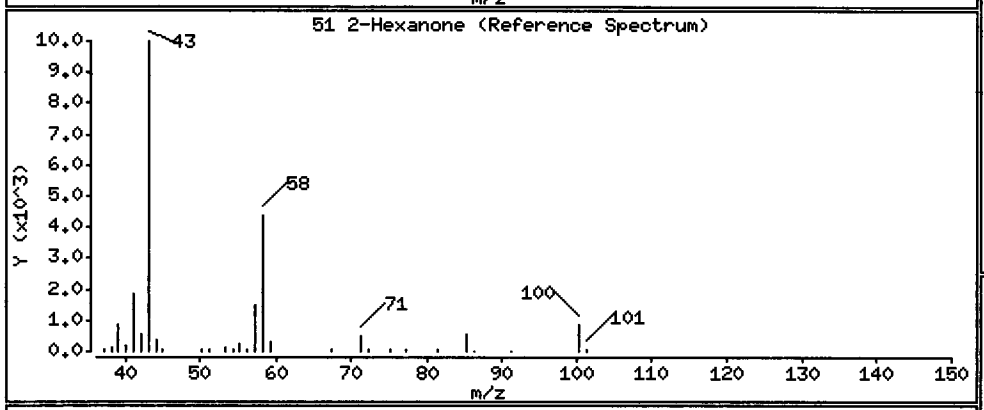
Column diameter: 0.18

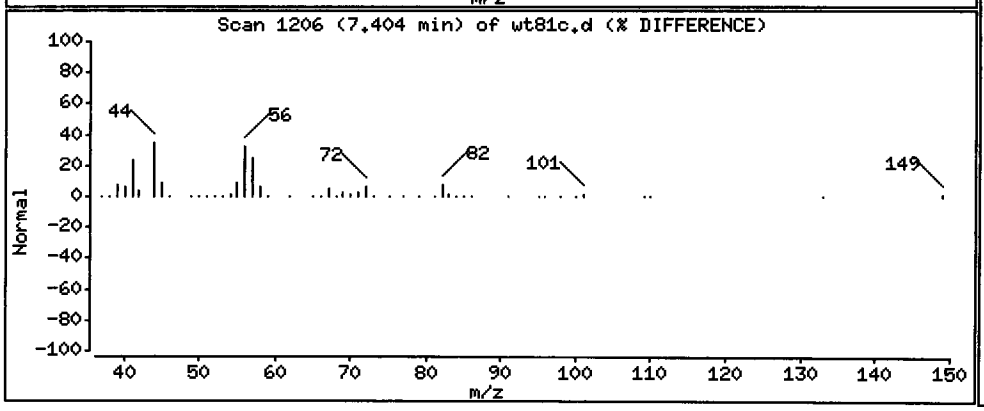
51 2-Hexanone

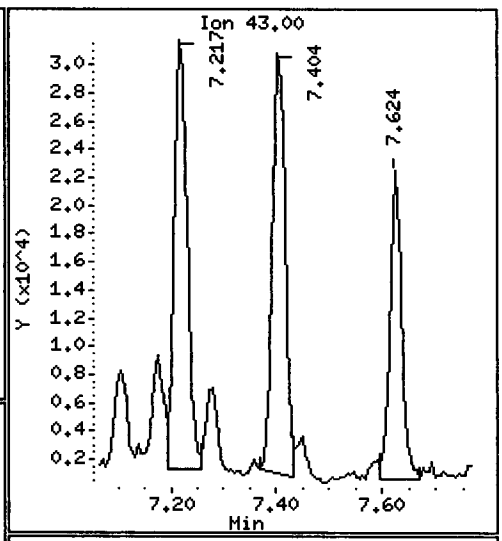
Concentration: 11.875 ug/Kg

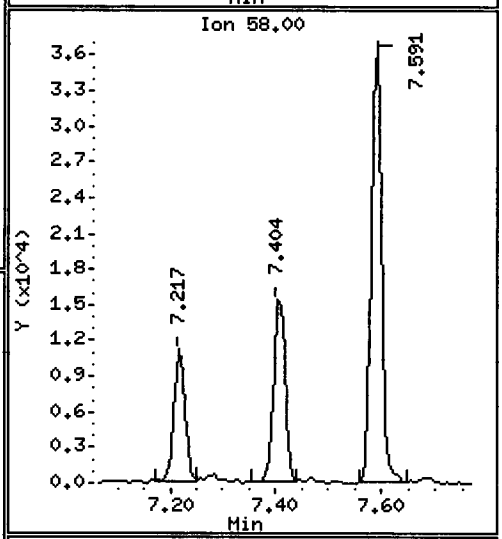


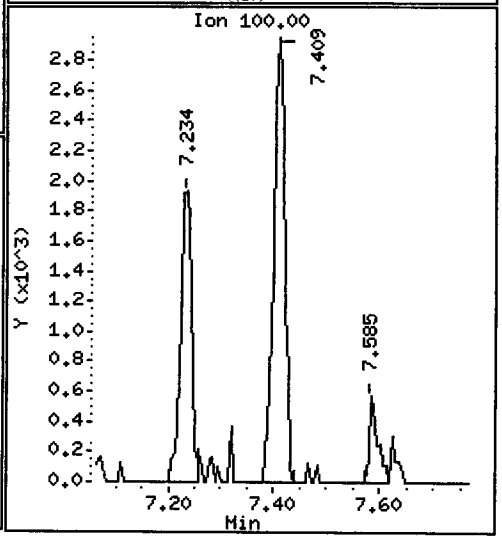












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

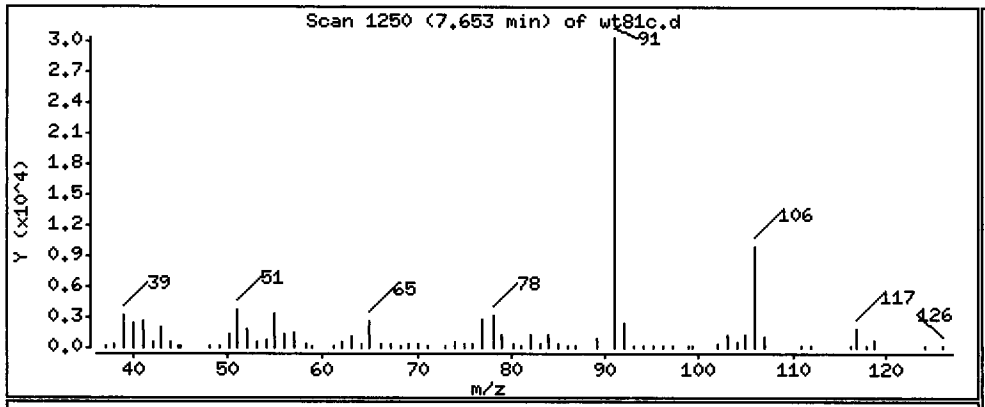
Operator: PB

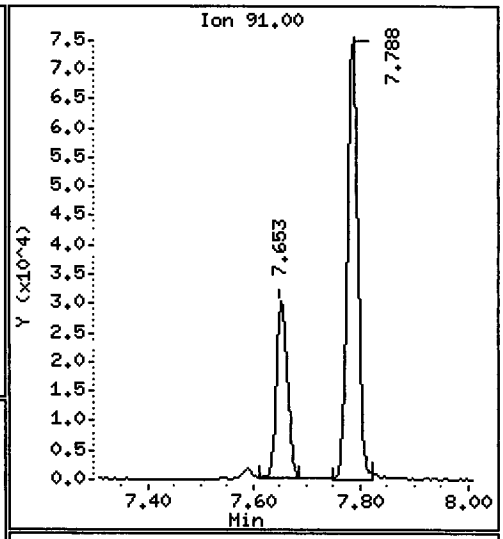
Column phase: RTXVMS

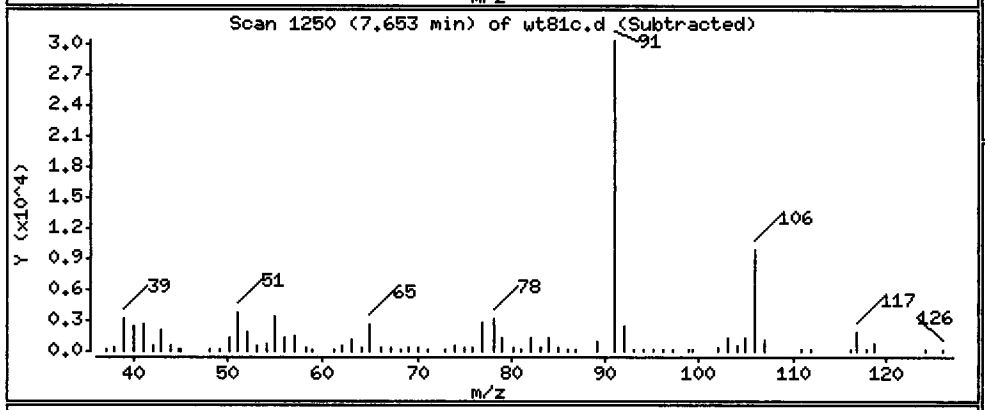
Column diameter: 0.18

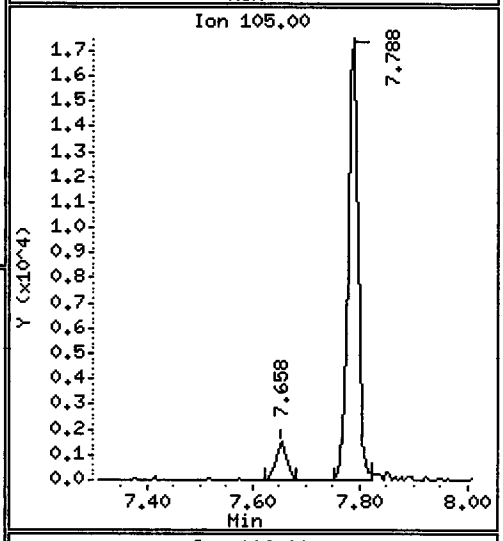
54 Ethyl Benzene

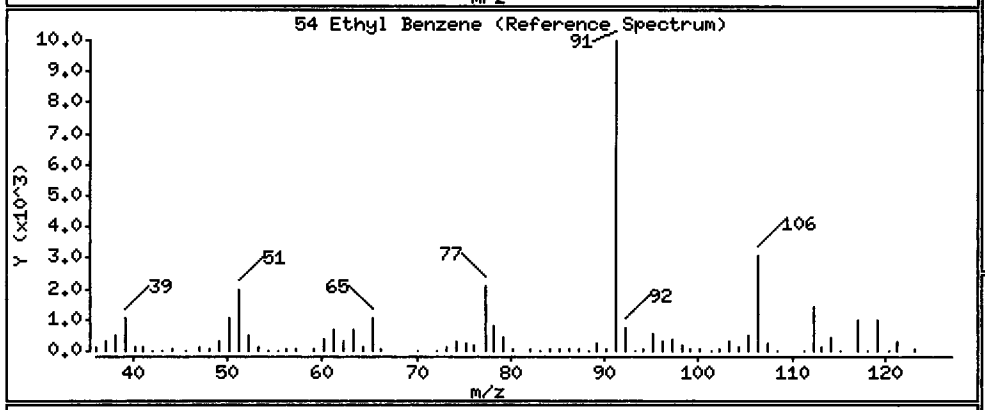
Concentration: 1.822 ug/Kg

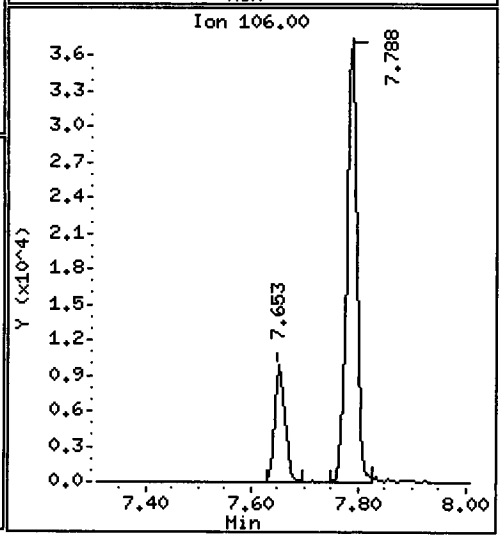


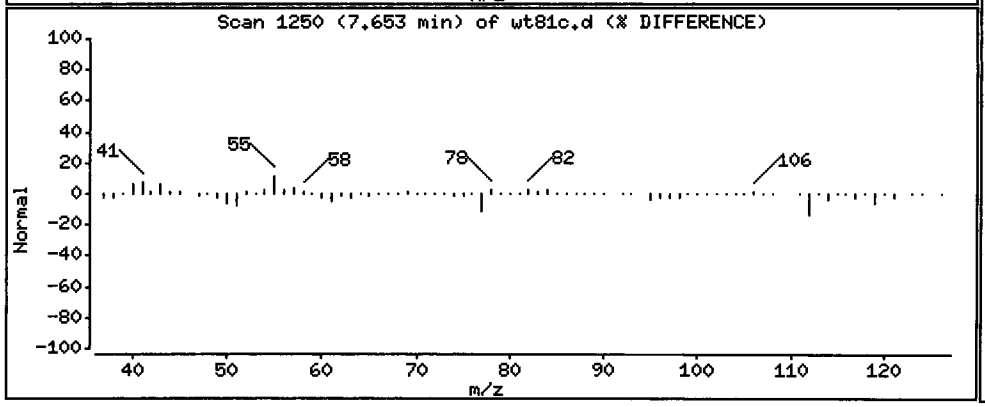












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

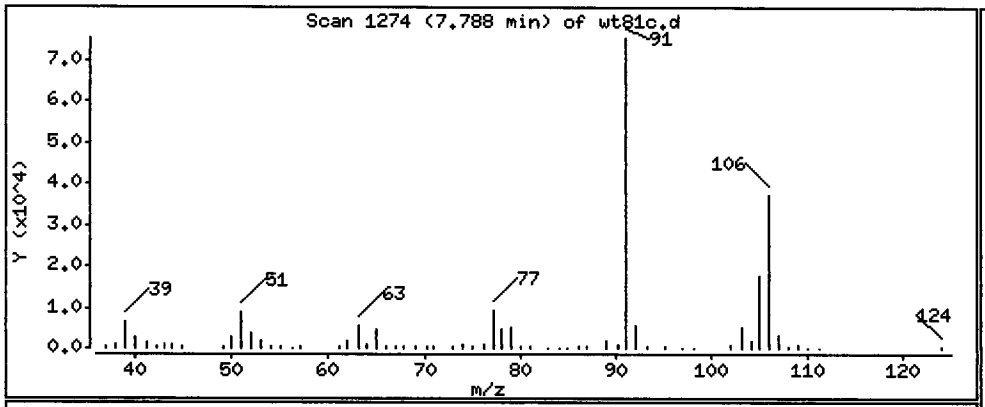
Operator: PB

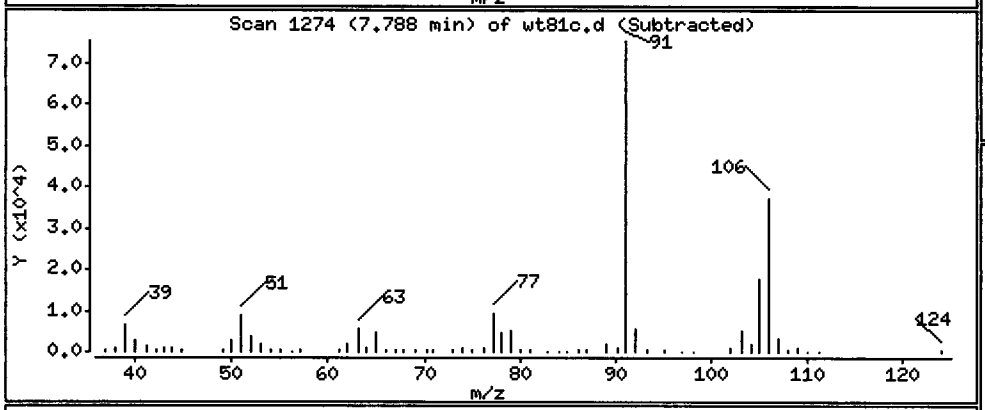
Column phase: RTXVMS

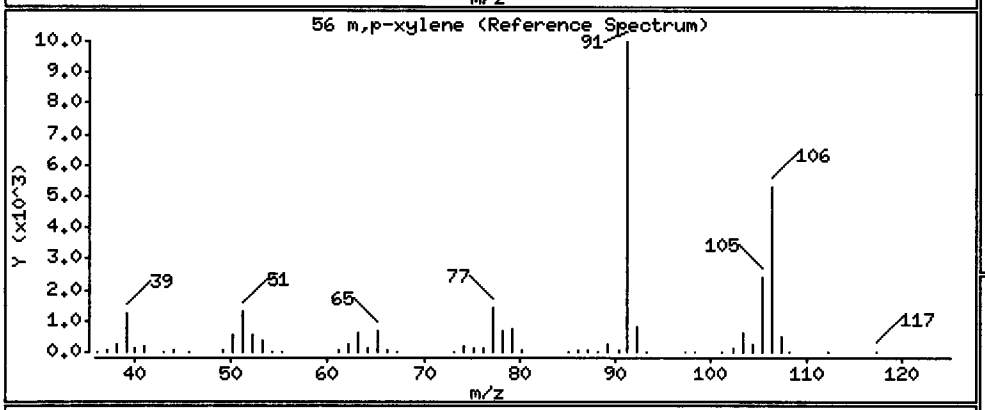
Column diameter: 0.18

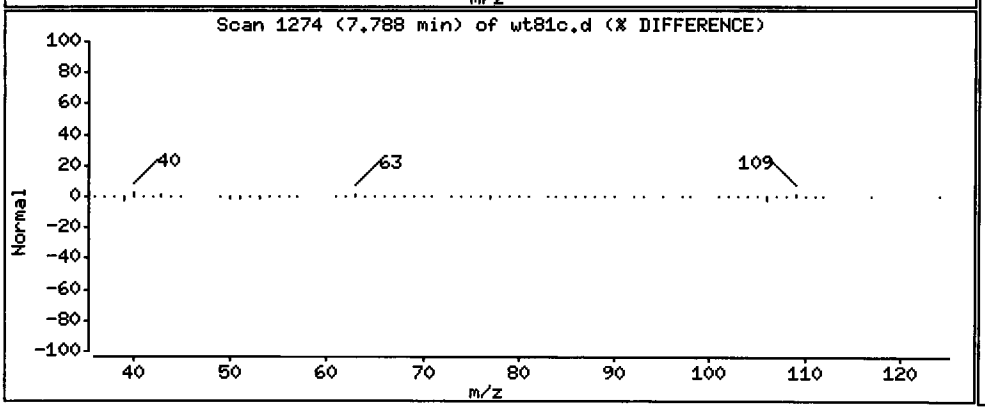
56 m,p-xylene

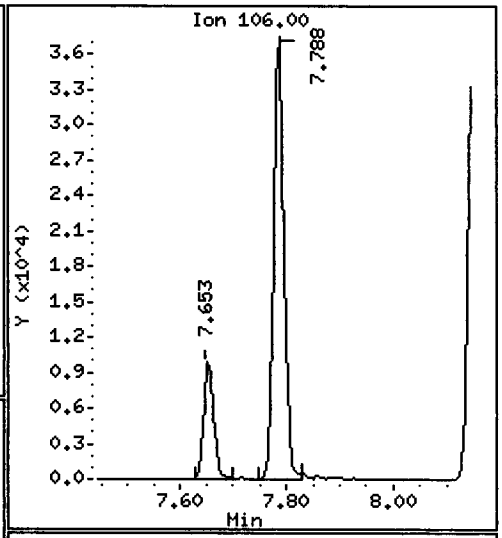
Concentration: 5.536 ug/Kg

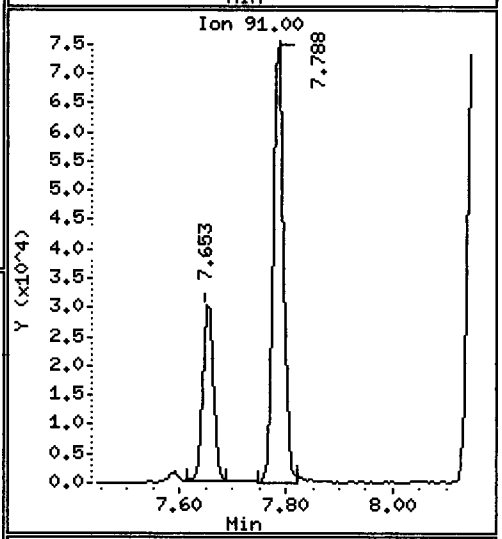


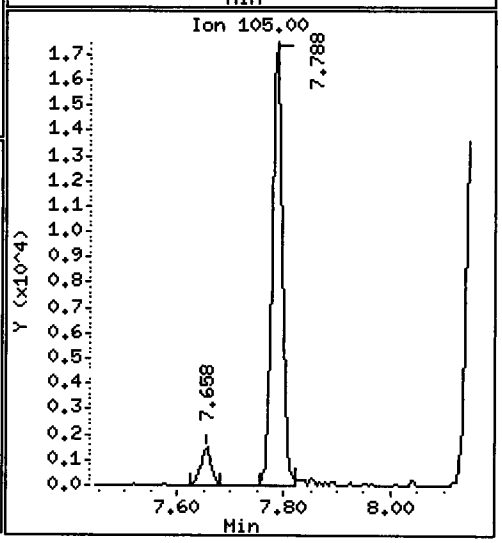












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

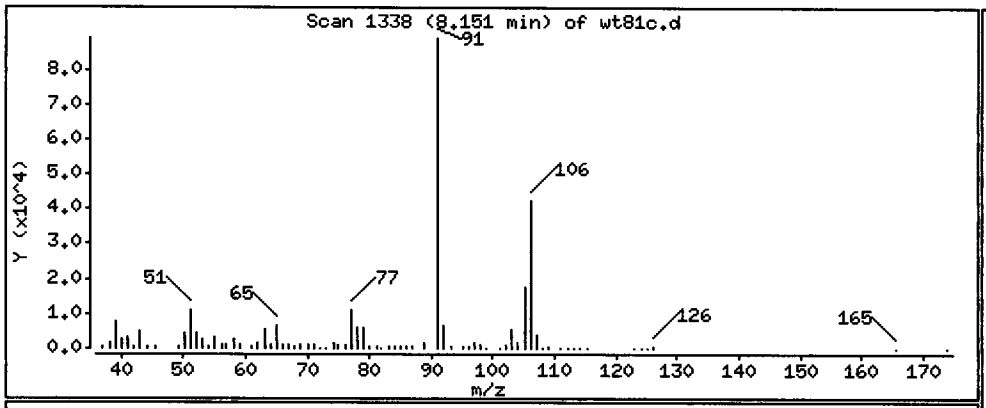
Operator: PB

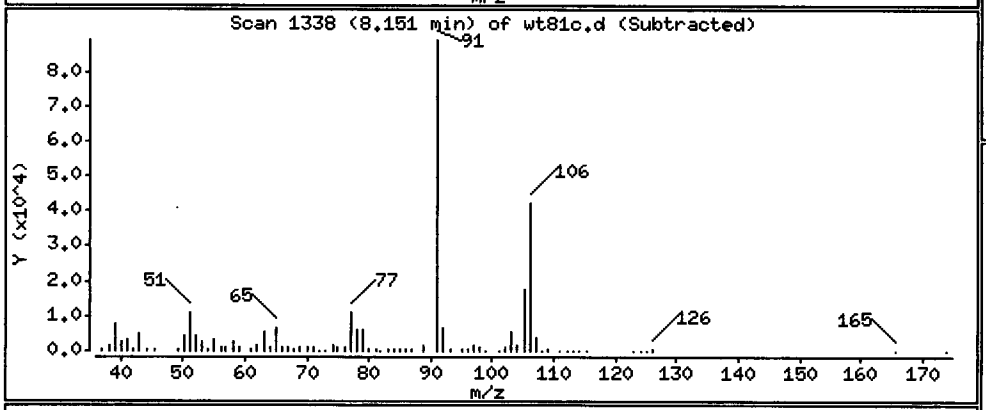
Column phase: RTXVMS

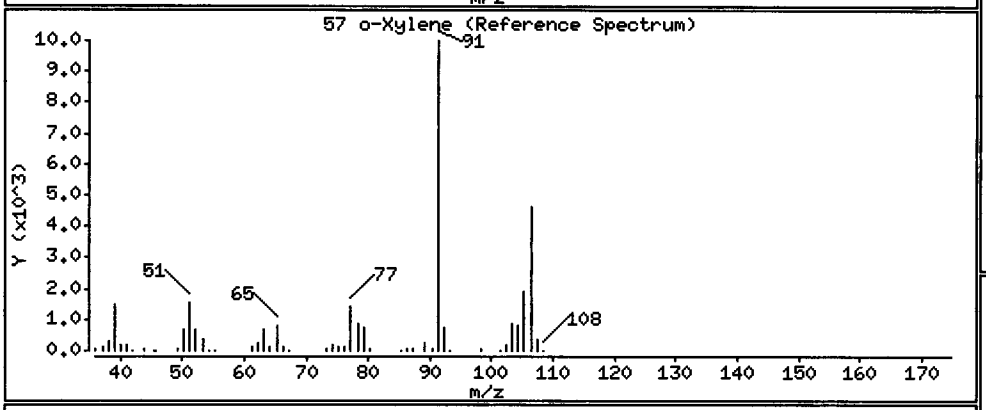
Column diameter: 0.18

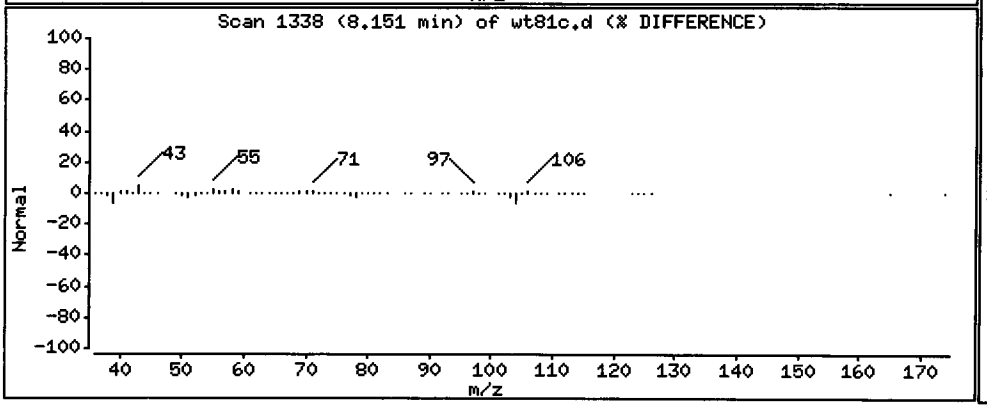
57 o-Xylene

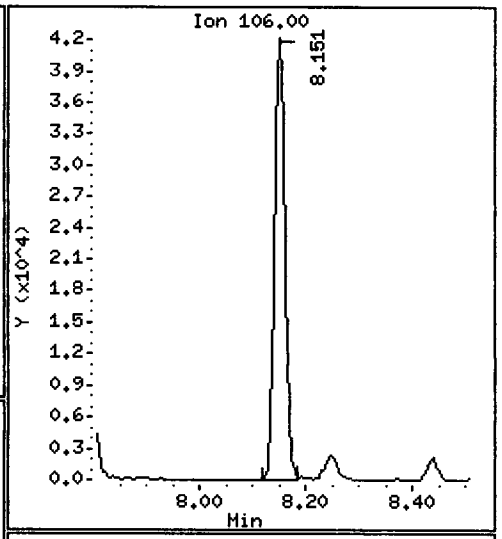
Concentration: 6.212 ug/Kg

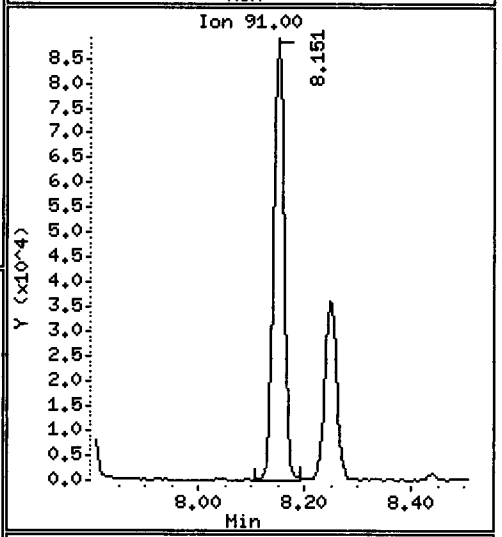


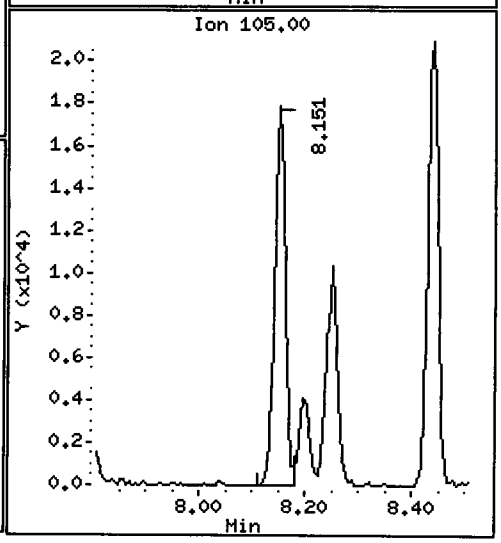












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

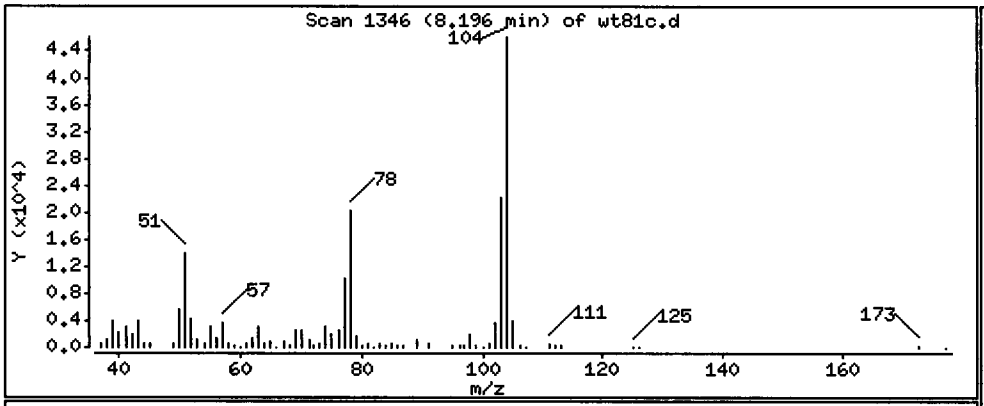
Operator: PB

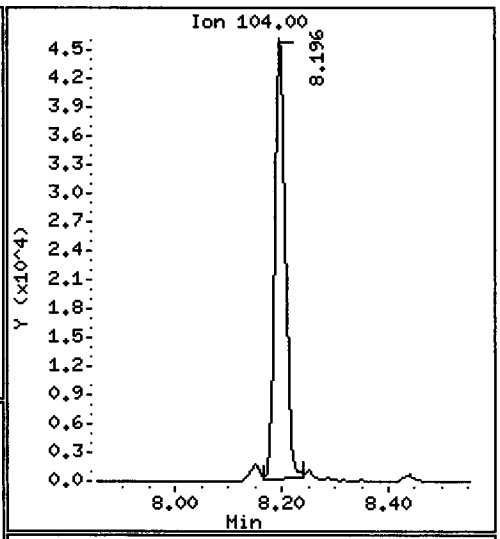
Column phase: RTXVMS

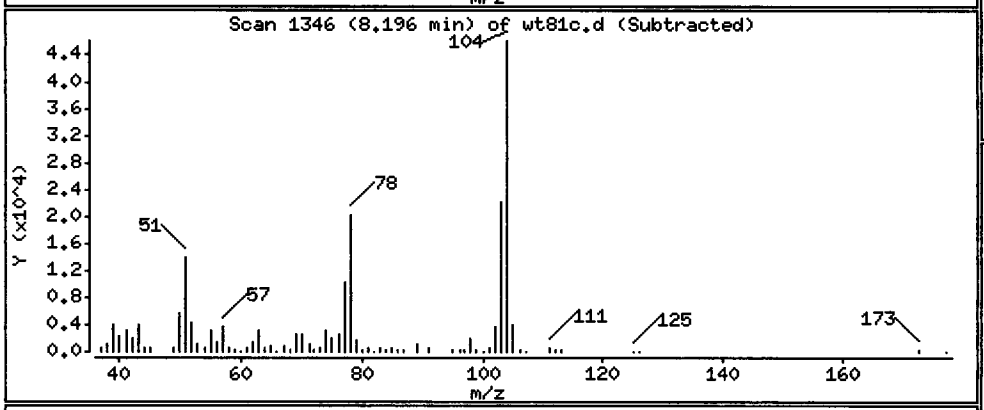
Column diameter: 0.18

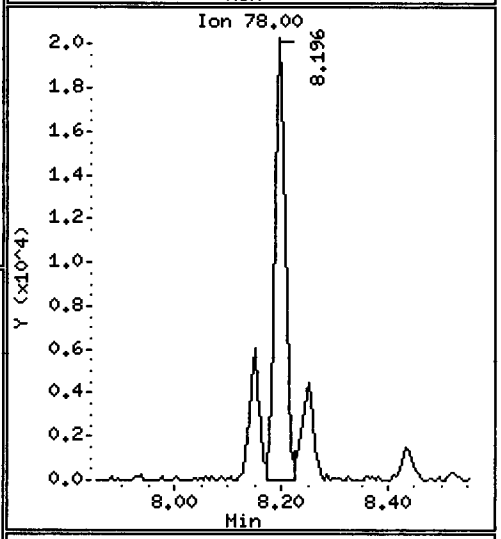
58 Styrene

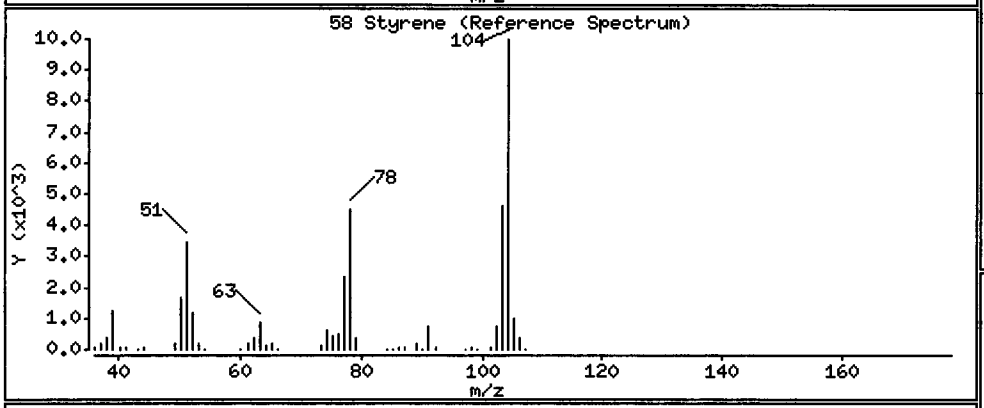
Concentration: 4.273 ug/Kg

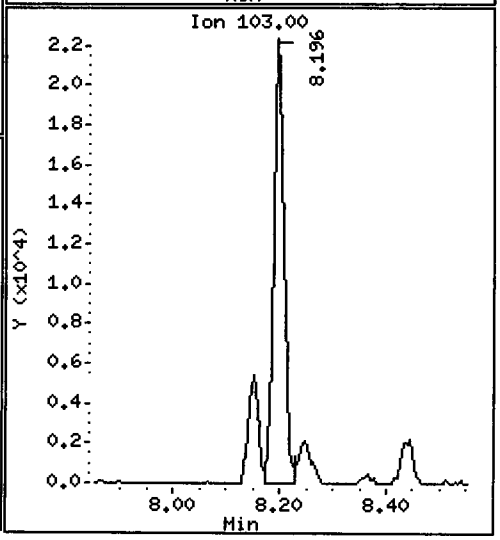


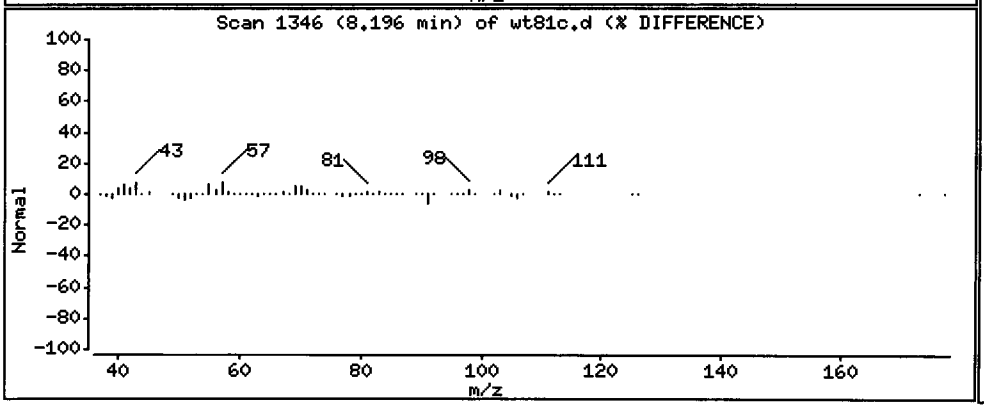












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

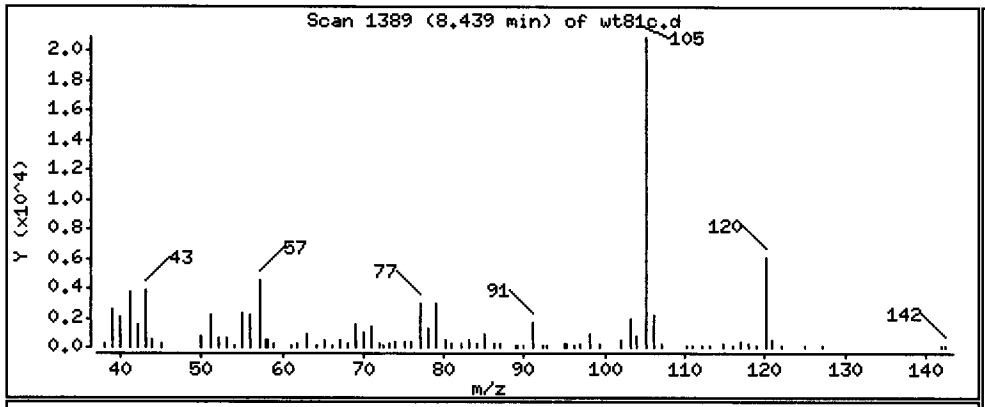
Operator: PB

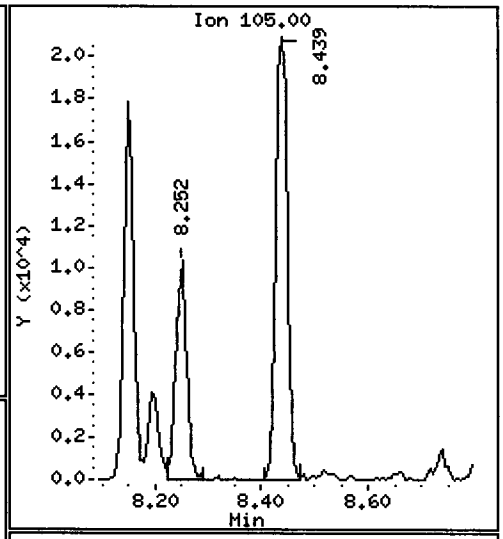
Column phase: RTXVMS

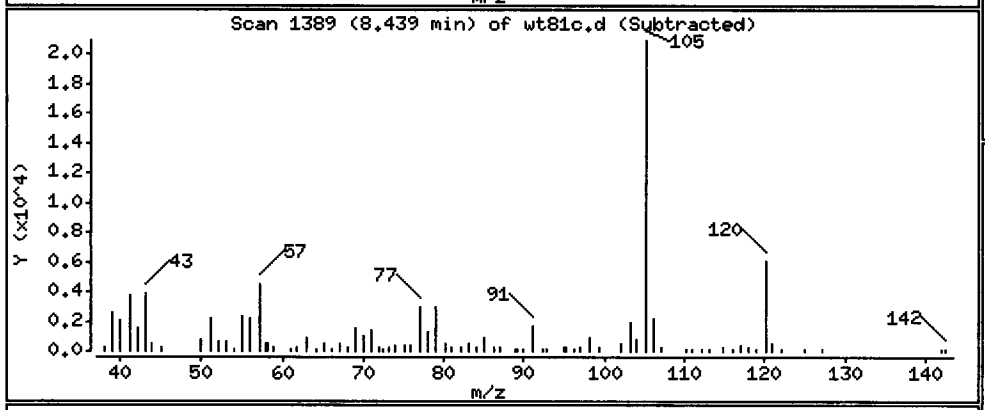
Column diameter: 0.18

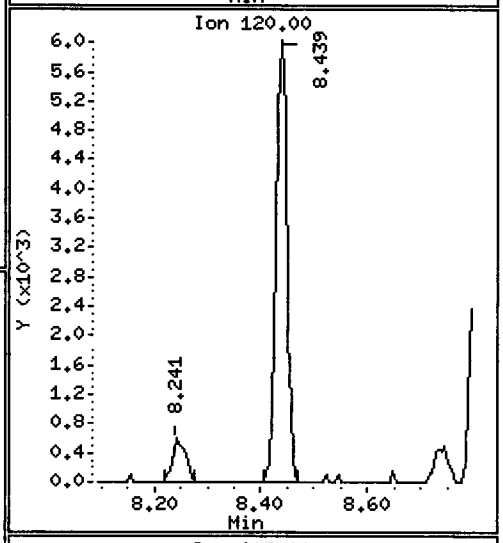
60 Isopropyl Benzene

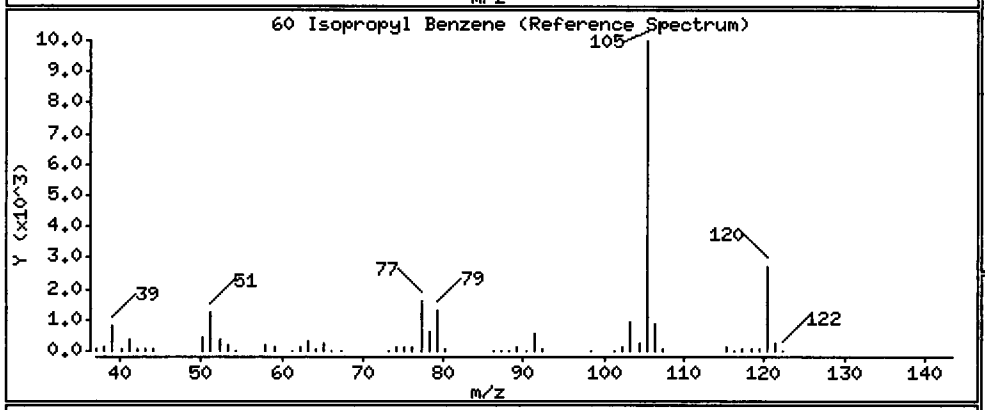
Concentration: 3.242 ug/Kg

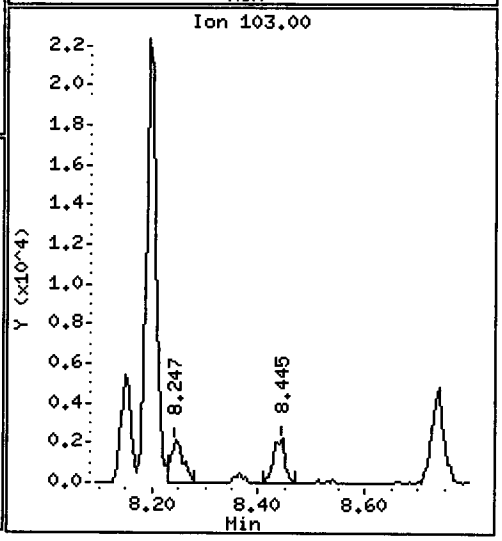


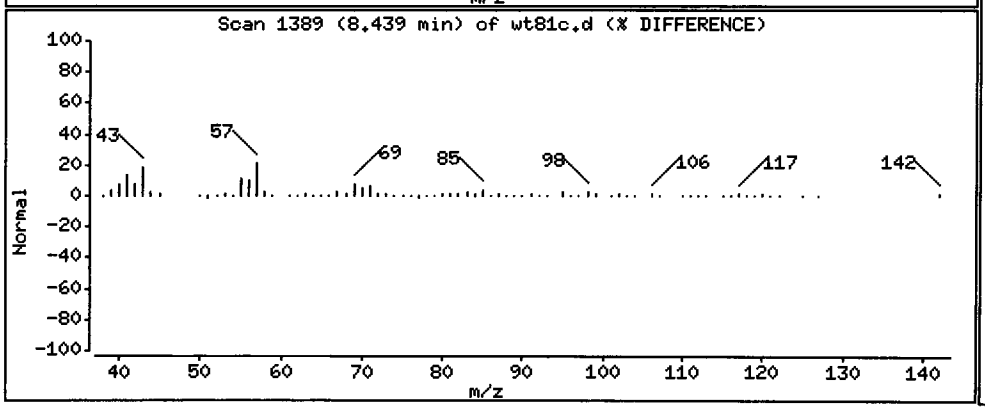












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

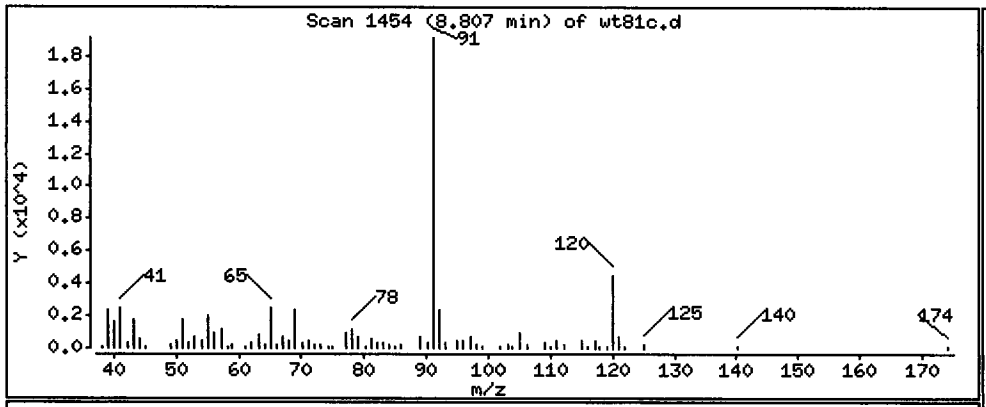
Operator: PB

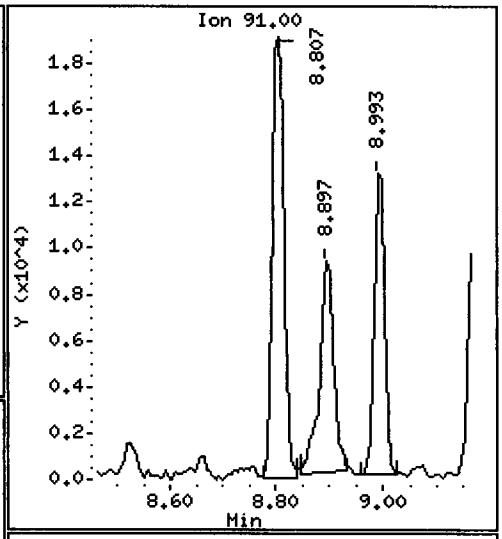
Column phase: RTXVMS

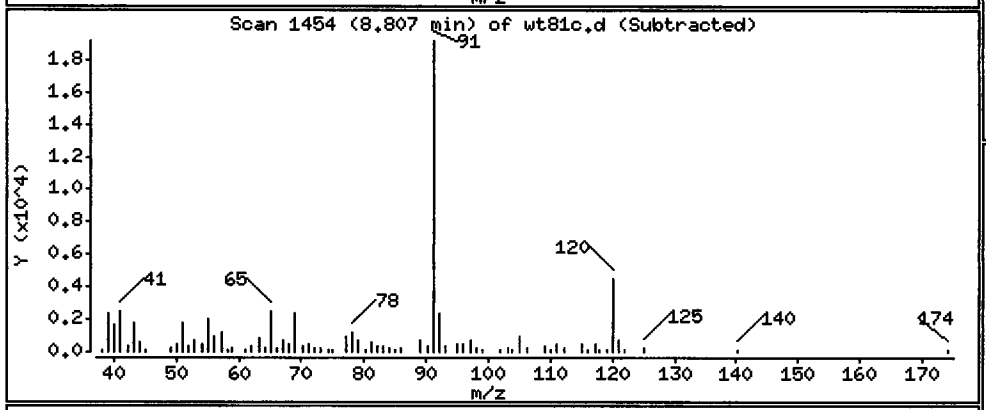
Column diameter: 0.18

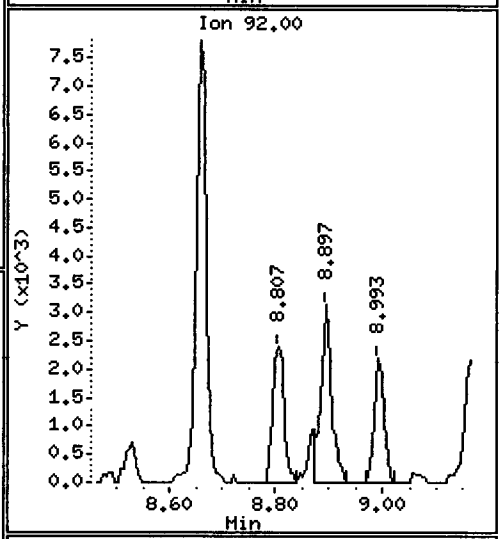
64 N-Propyl Benzene

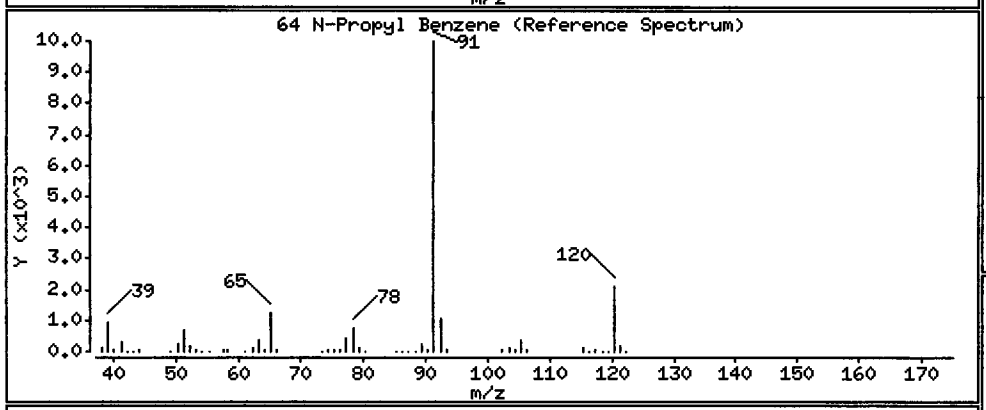
Concentration: 2.536 ug/Kg

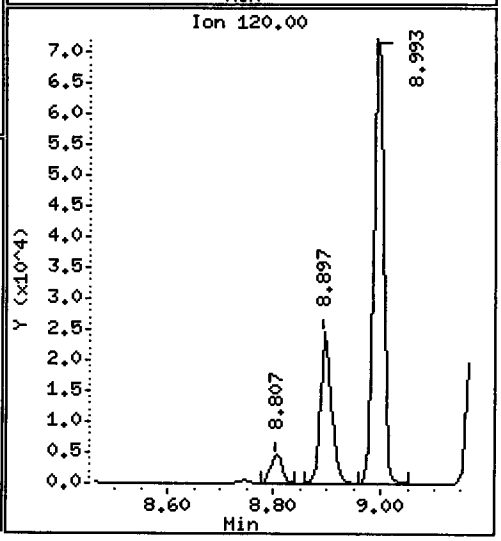


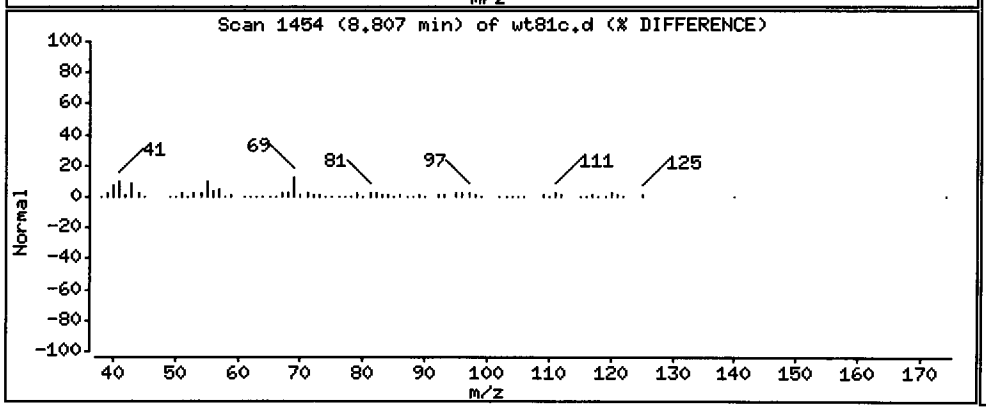












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

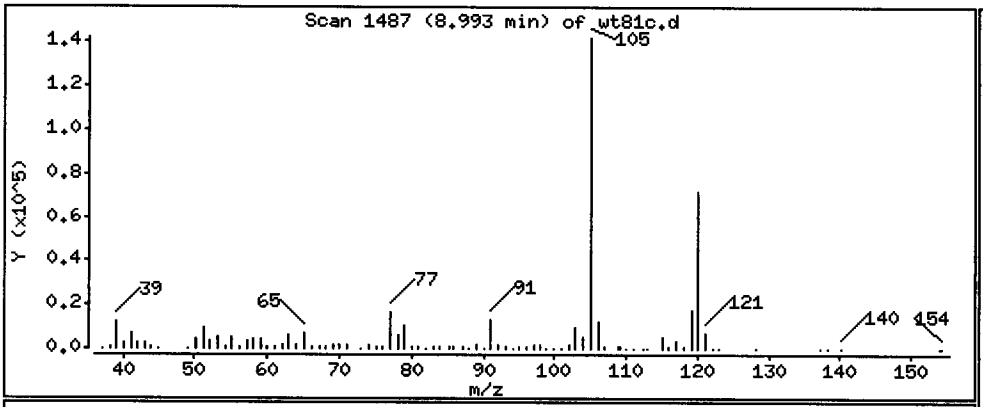
Operator: PB

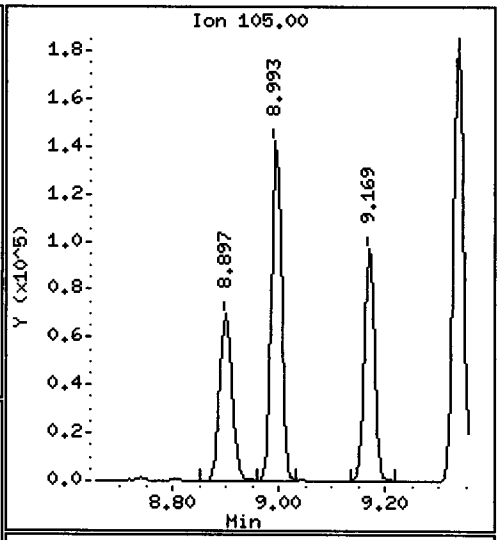
Column phase: RTXVMS

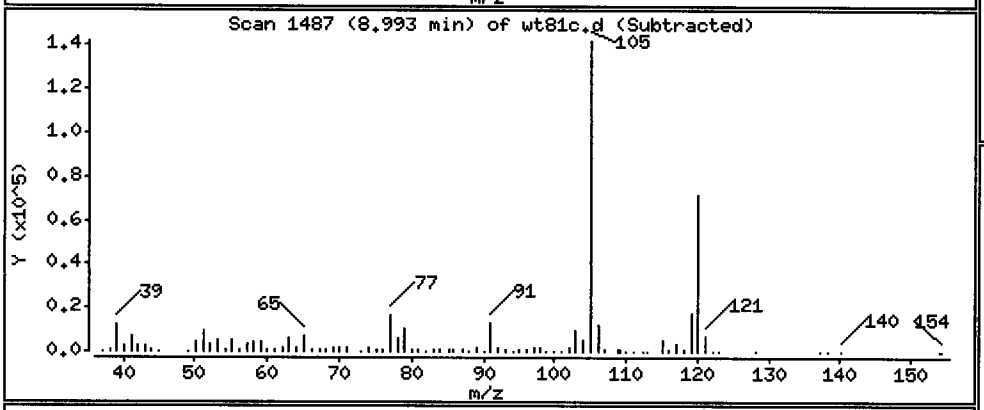
Column diameter: 0.18

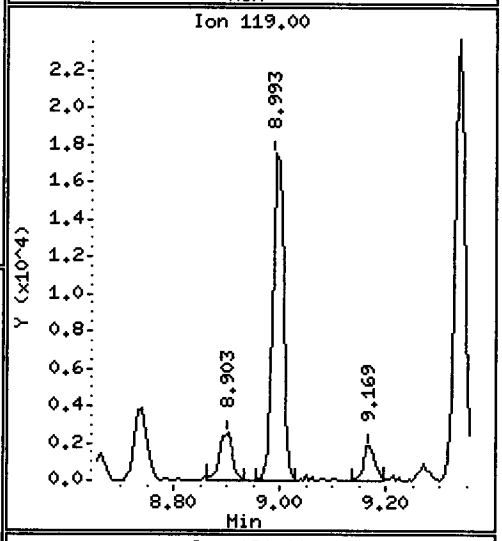
67 1,3,5-Trimethyl Benzene

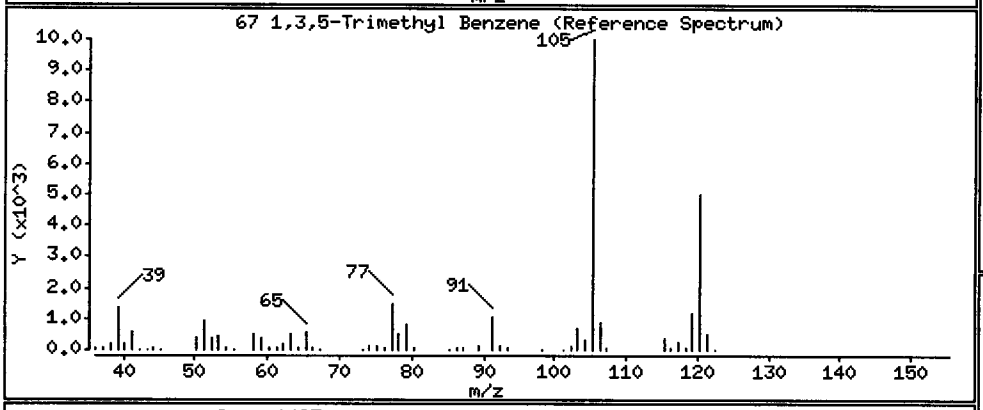
Concentration: 23.373 ug/Kg

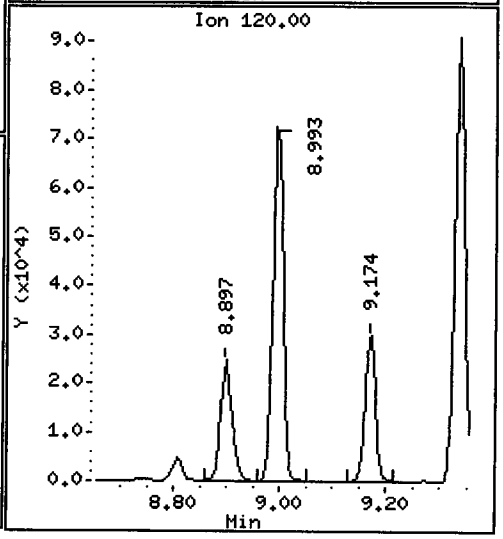


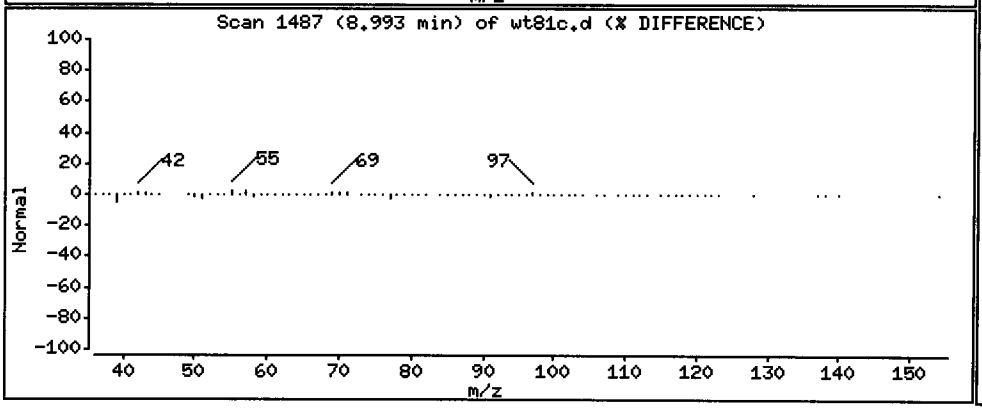












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

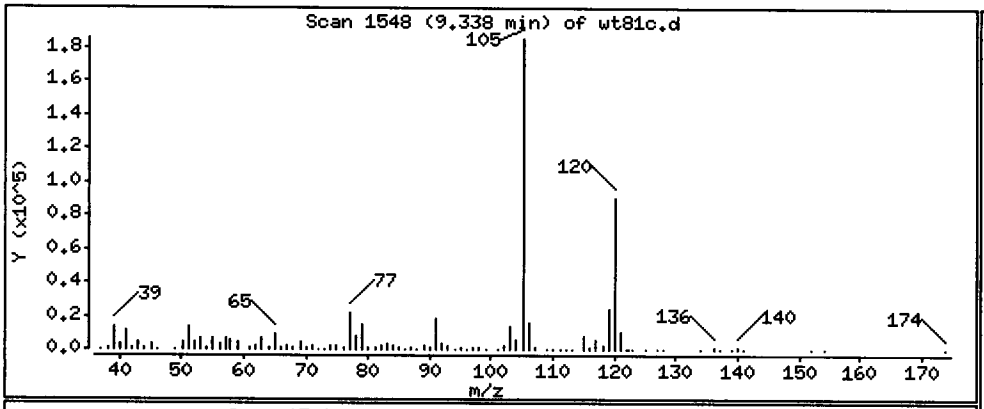
Operator: PB

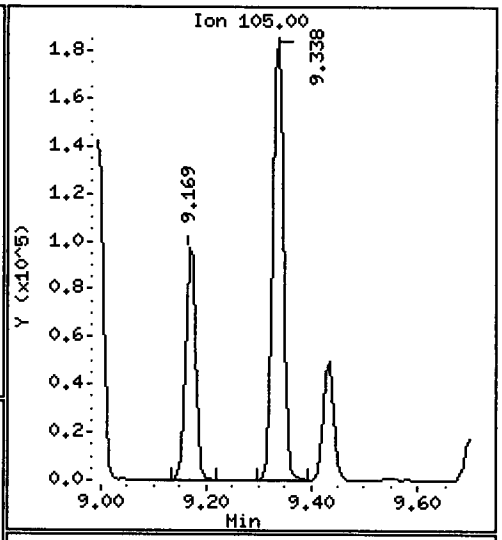
Column phase: RTXVMS

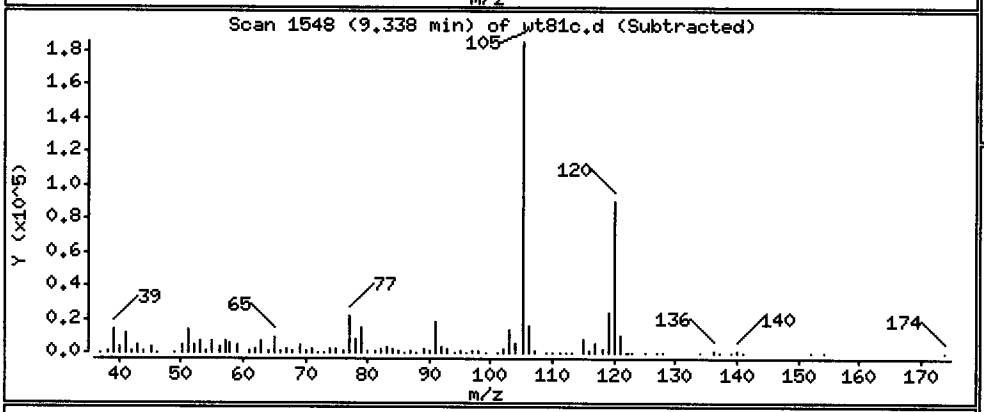
Column diameter: 0.18

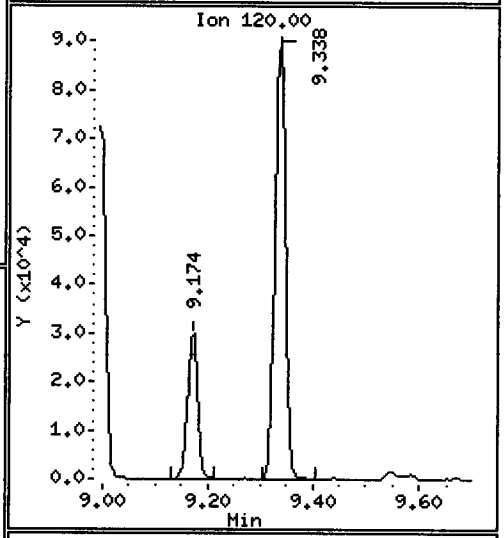
72 1,2,4-Trimethylbenzene

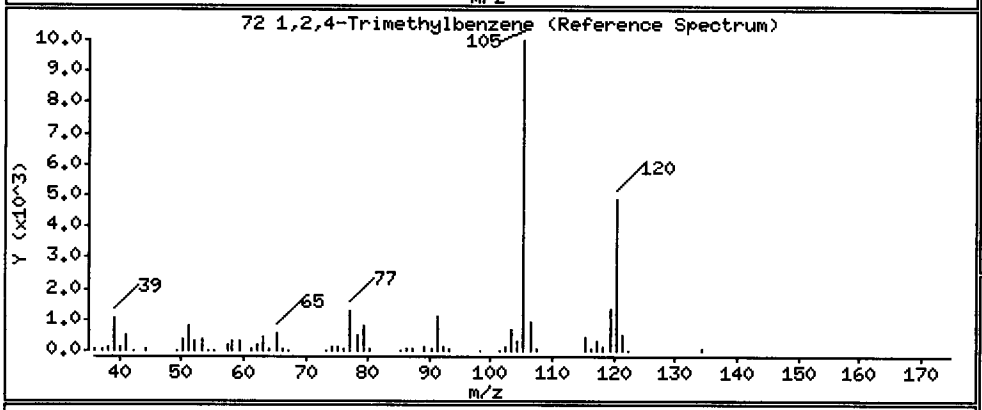
Concentration: 32.107 ug/Kg

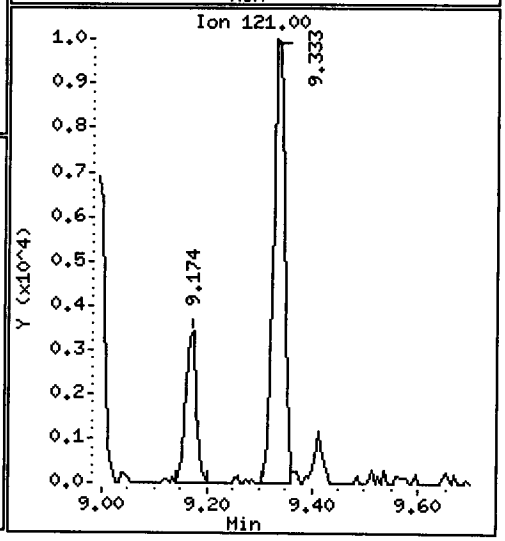


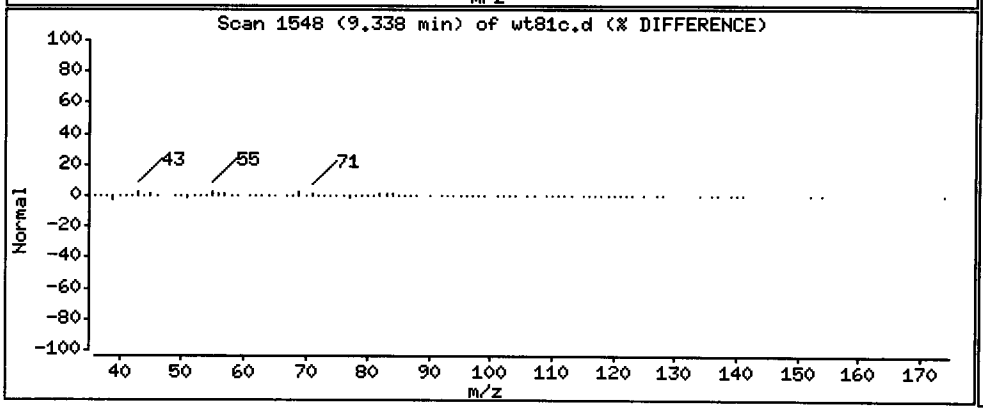












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

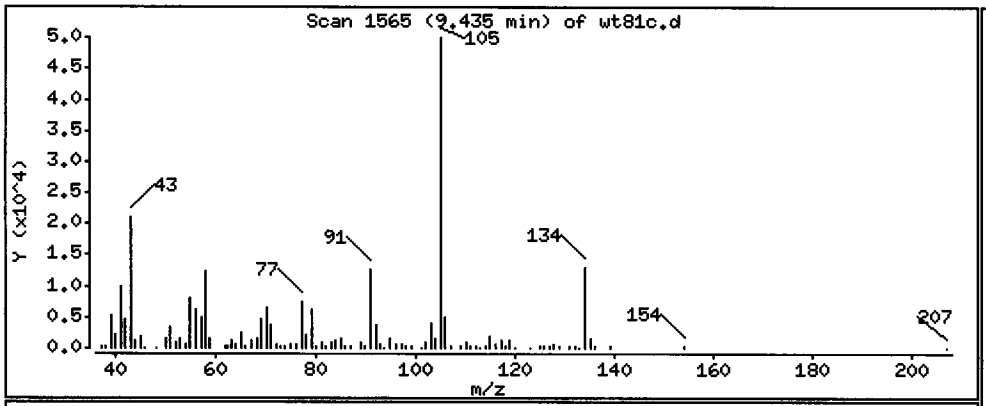
Operator: PB

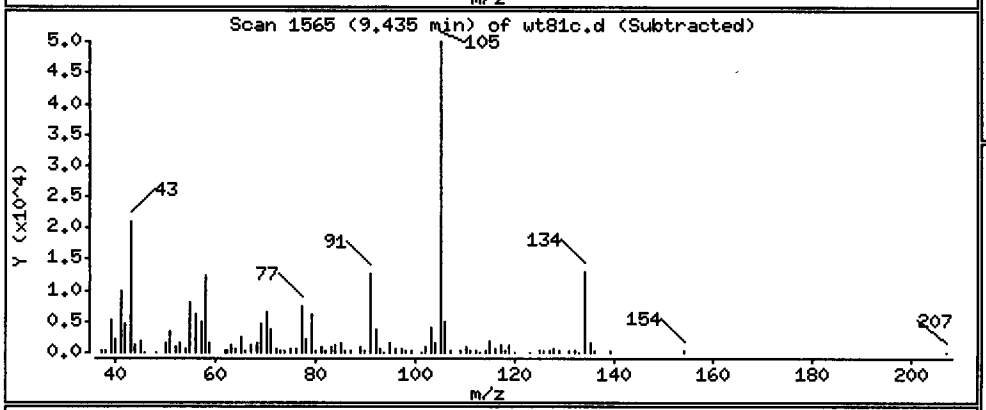
Column phase: RTXVMS

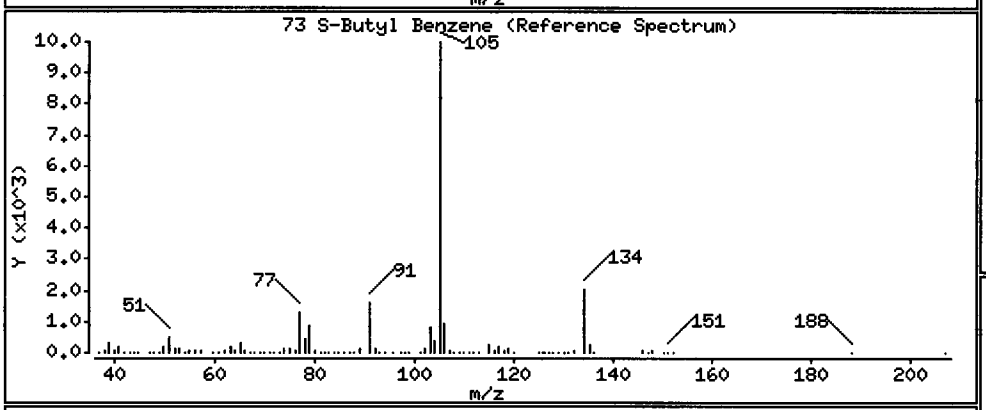
Column diameter: 0.18

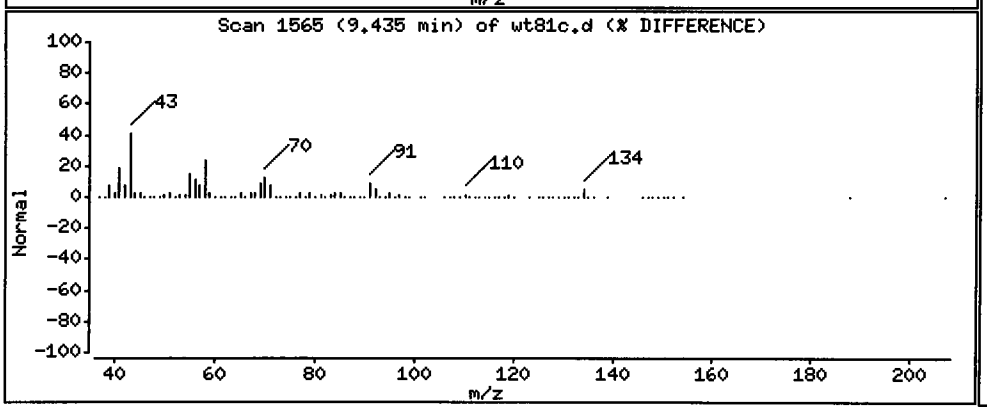
73 S-Butyl Benzene

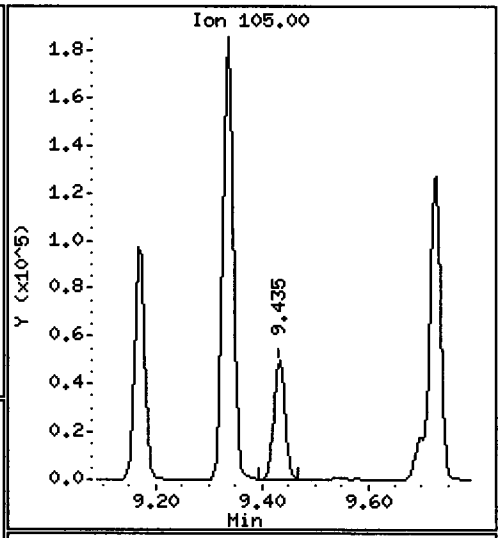
Concentration: 6.867 ug/Kg

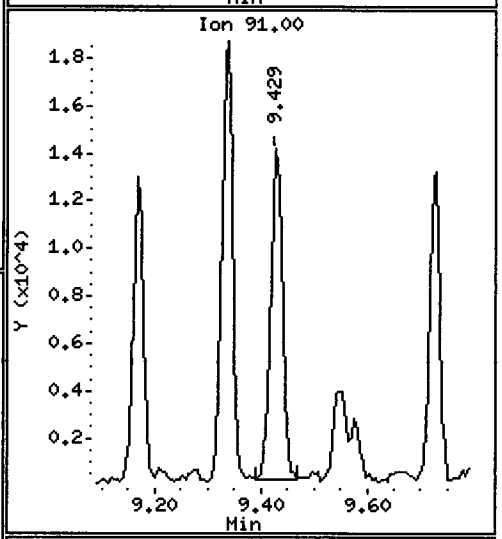


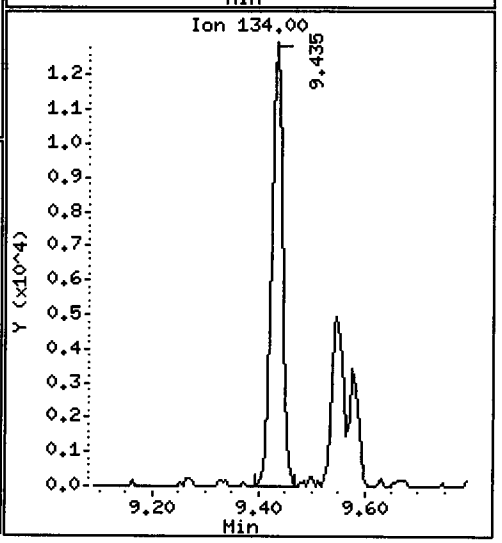












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

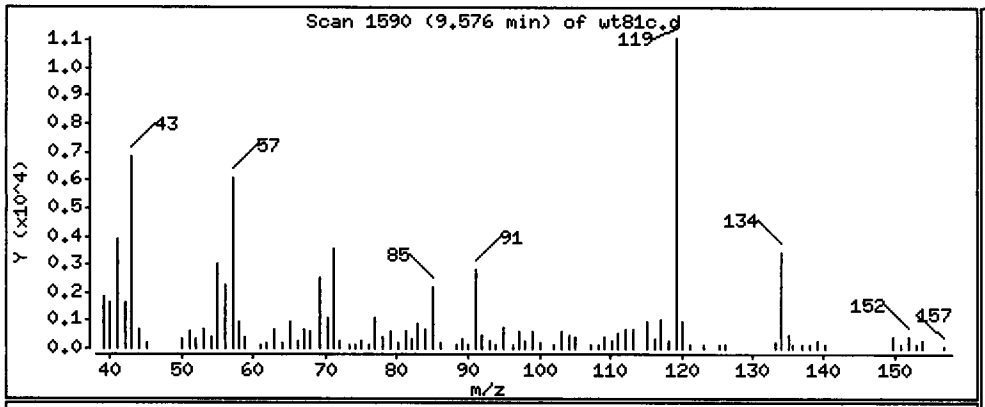
Operator: PB

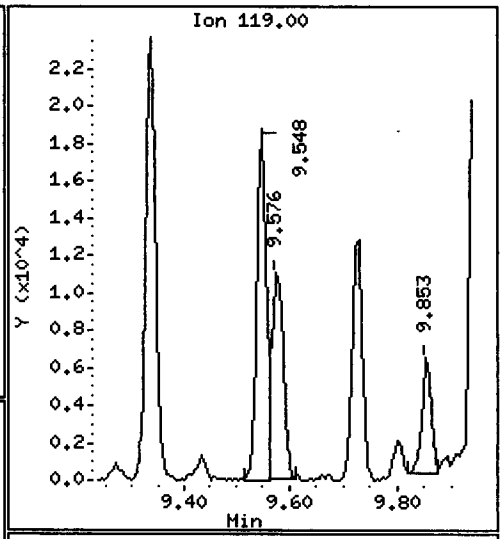
Column phase: RTXVMS

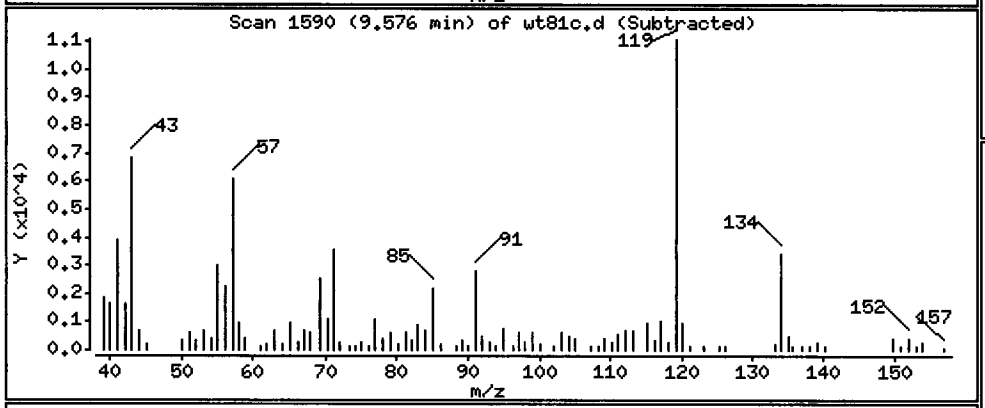
Column diameter: 0.18

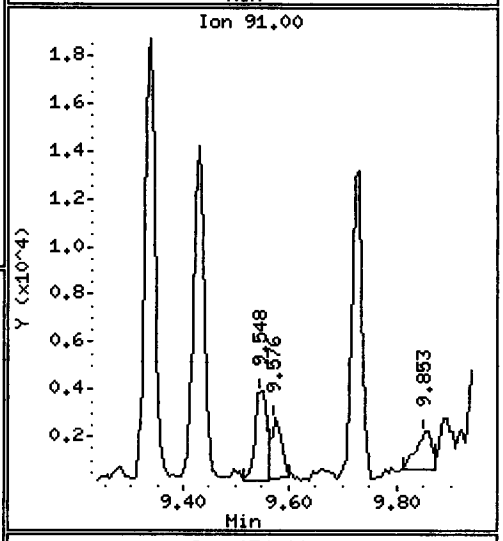
74 4-Isopropyl Toluene

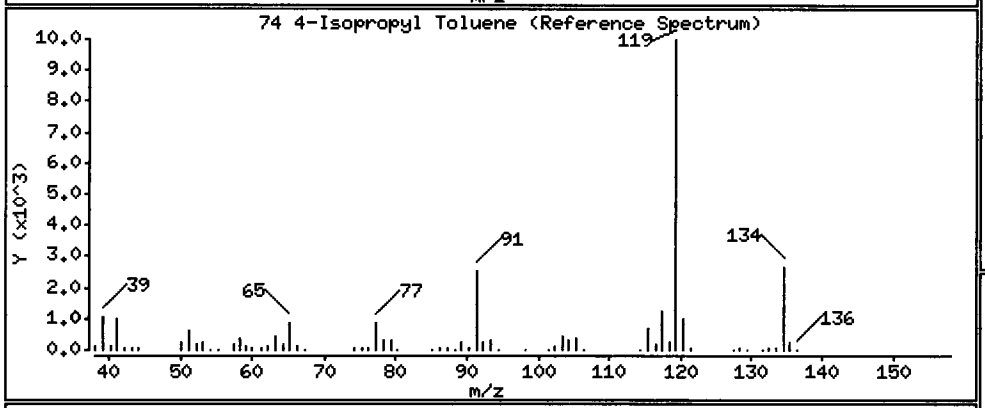
Concentration: 1.972 ug/Kg

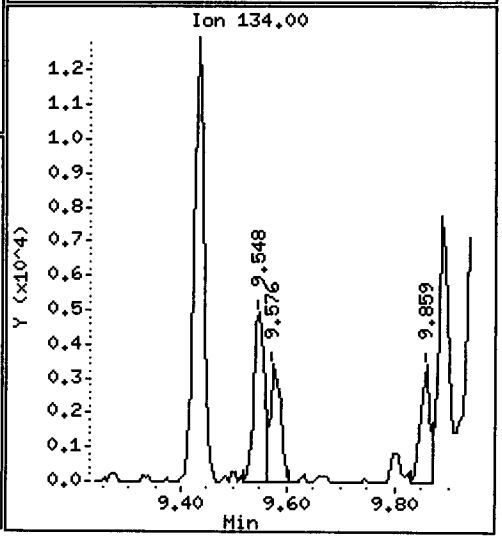


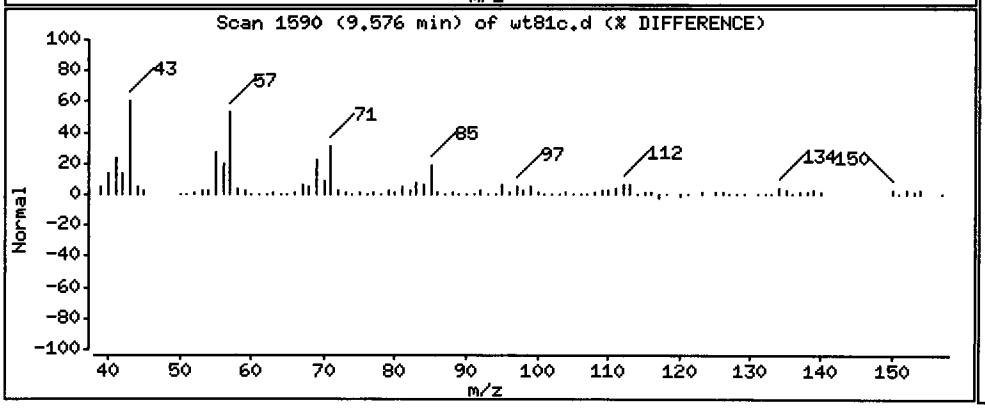












Data File: /chem1/nt5.i/17JUN13.b/wt81c.d

Date : 17-JUN-2013 18:42

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,8.66,0

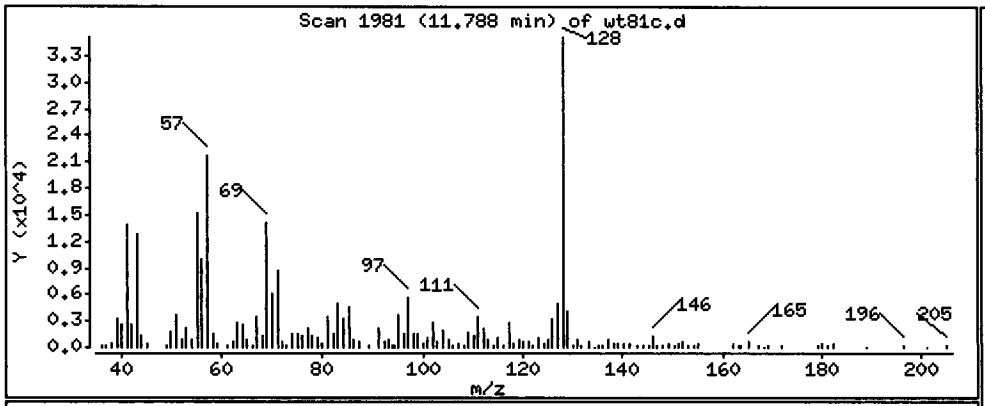
Operator: PB

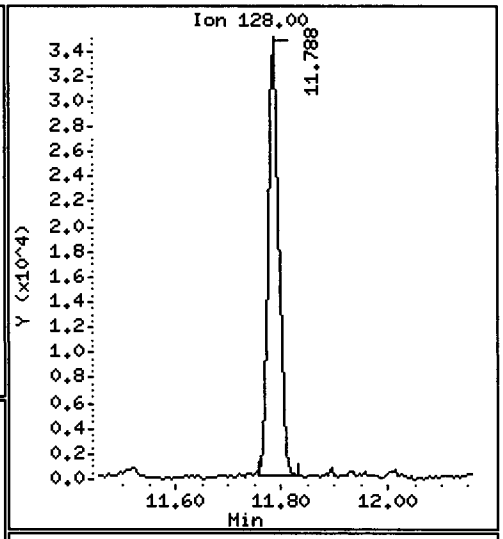
Column phase: RTXVMS

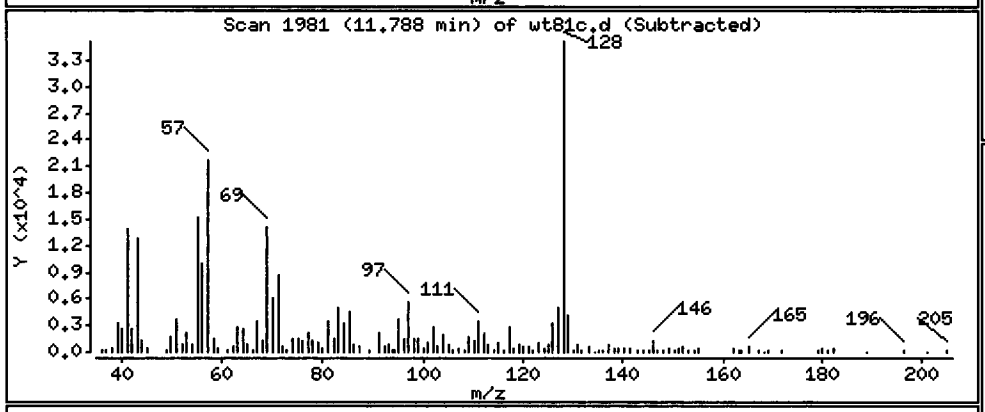
Column diameter: 0.18

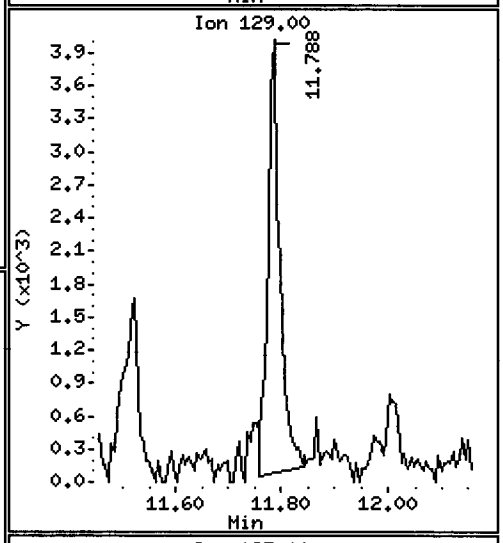
84 Naphthalene

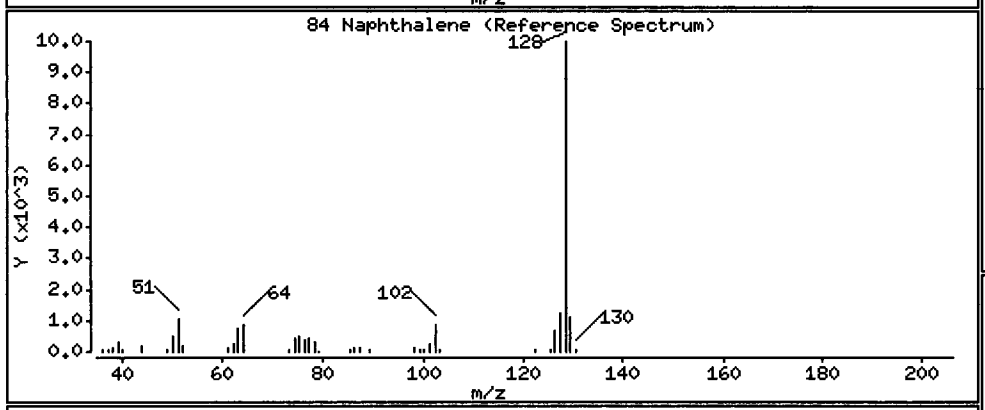
Concentration: 6.866 ug/Kg

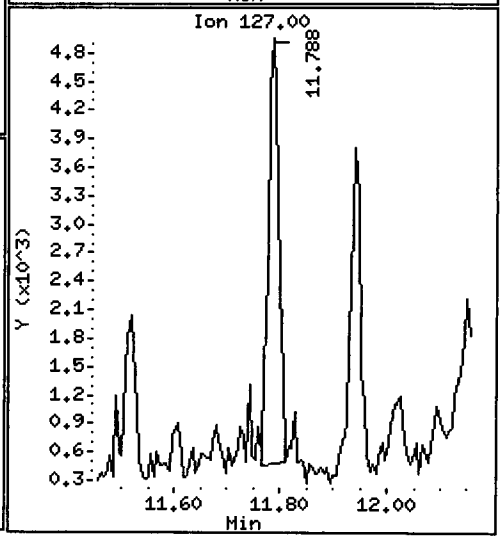


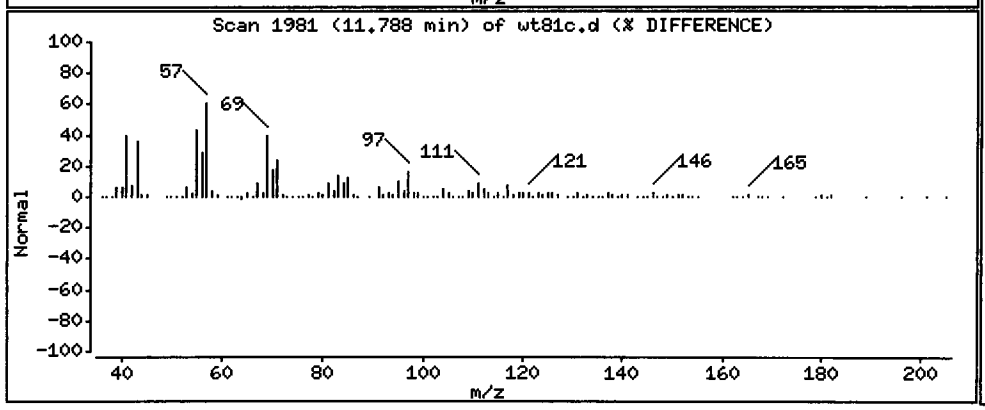












CO-ELUTION SUMMARY FOR FILE - wt81c.d

Lab ID: WT81C, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/17JUN13.b/wt81c2.d
Lab Smp Id: WT81C Client Smp ID: AM-FD-01-20130612-S
Inj Date : 17-JUN-2013 19:30
Operator : PB Inst ID: nt5.i
Smp Info : WT81C,5,7.42,0
Misc Info : 13-12638
Comment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 27-Jun-2013 07:53 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

6/27/13
VC

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	7.42000	Sample Amount
M	60.20000	% Moisture (not decanted)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1	Dichlorodifluoromethane	85	Compound Not Detected.					
2	Chloromethane	50	Compound Not Detected.					
3	Vinyl Chloride	62	Compound Not Detected.					
4	Bromomethane	94	Compound Not Detected.					
5	Chloroethane	64	Compound Not Detected.					
6	Trichlorofluoromethane	101	1.594	1.611	(0.342)	35466	2.85340	4.831
7	1,1-Dichloroethene	96	Compound Not Detected.					
8	Carbon Disulfide	76	1.950	1.973	(0.419)	953317	34.9573	59.186
9	112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10	Iodomethane	142	Compound Not Detected.					
11	Bromoethane	108	Compound Not Detected.					
12	Acrolein	56	Compound Not Detected.					
13	Methylene Chloride	84	2.426	2.454	(0.520)	39156	5.14124	8.705
14	Acetone	43	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	15 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	4.015	4.027	(0.862)	27351	1.67408	2.834
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.179	4.196	(0.897)	622207	61.9369	104.87
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	4.389	4.457	(0.942)	273333	231.215	391.47(Q)
	30 Benzene	78	4.519	4.530	(0.884)	83440	1.83181	3.101
*	31 Pentafluorobenzene	168	4.660	4.672	(1.000)	350229	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.654	4.666	(0.999)	564425	60.1340	101.81
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.113	5.118	(1.000)	1440287	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.289	6.295	(1.230)	1754459	41.5701	70.382
	43 Toluene	92	6.329	6.335	(1.238)	72205	2.49045	4.217
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	6.697	6.708	(1.310)	1065410	209.409	354.55
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	7.404	7.415	(0.975)	46433	9.10080	15.409
*	52 d5-Chlorobenzene	117	7.590	7.596	(1.000)	1004334	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	7.653	7.658	(1.008)	62528	2.13283	3.611
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	7.788	7.794	(1.026)	75479	6.75726	11.441
	57 o-Xylene	106	8.150	8.156	(1.074)	91409	8.22774	13.930
	58 Styrene	104	8.196	8.201	(1.080)	87893	4.88640	8.273
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	8.439	8.445	(0.874)	34955	3.45603	5.851
$	62 4-Bromofluorobenzene	95	8.659	8.665	(1.141)	330528	30.1629	51.069(R)
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	8.807	8.812	(0.912)	37726	3.14703	5.328
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	8.993	9.005	(0.931)	224220	26.0617	44.125
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	9.338	9.344	(0.967)	303391	35.8616	60.717
73	S-Butyl Benzene	105	9.434	9.440	(0.977)	51401	4.66929	7.906
74	4-Isopropyl Toluene	119	9.582	9.587	(0.992)	18595	2.05869	3.486
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.661	9.672	(1.000)	201595	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	10.045	10.057	(1.040)	192135	46.7835	79.209
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
84	Naphthalene	128	11.788	11.805	(1.220)	80359	10.5510	17.864
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: wt81c2.d
Lab Smp Id: WT81C
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12638

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: AM-FD-01-20130612-S
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	350229	-23.80
35 1,4-Difluorobenze	1692431	846216	3384862	1440287	-14.90
52 d5-Chlorobenzene	1987215	993608	3974430	1004334	-49.46
76 d4-1,4-Dichlorobe	1075398	537699	2150796	201595	-81.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.66	-0.24
35 1,4-Difluorobenze	5.12	4.62	5.62	5.11	-0.11
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.08
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.66	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81C
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12638

Client SDG: WT81
Fraction: VOA
Client Smp ID: AM-FD-01-20130612-S
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

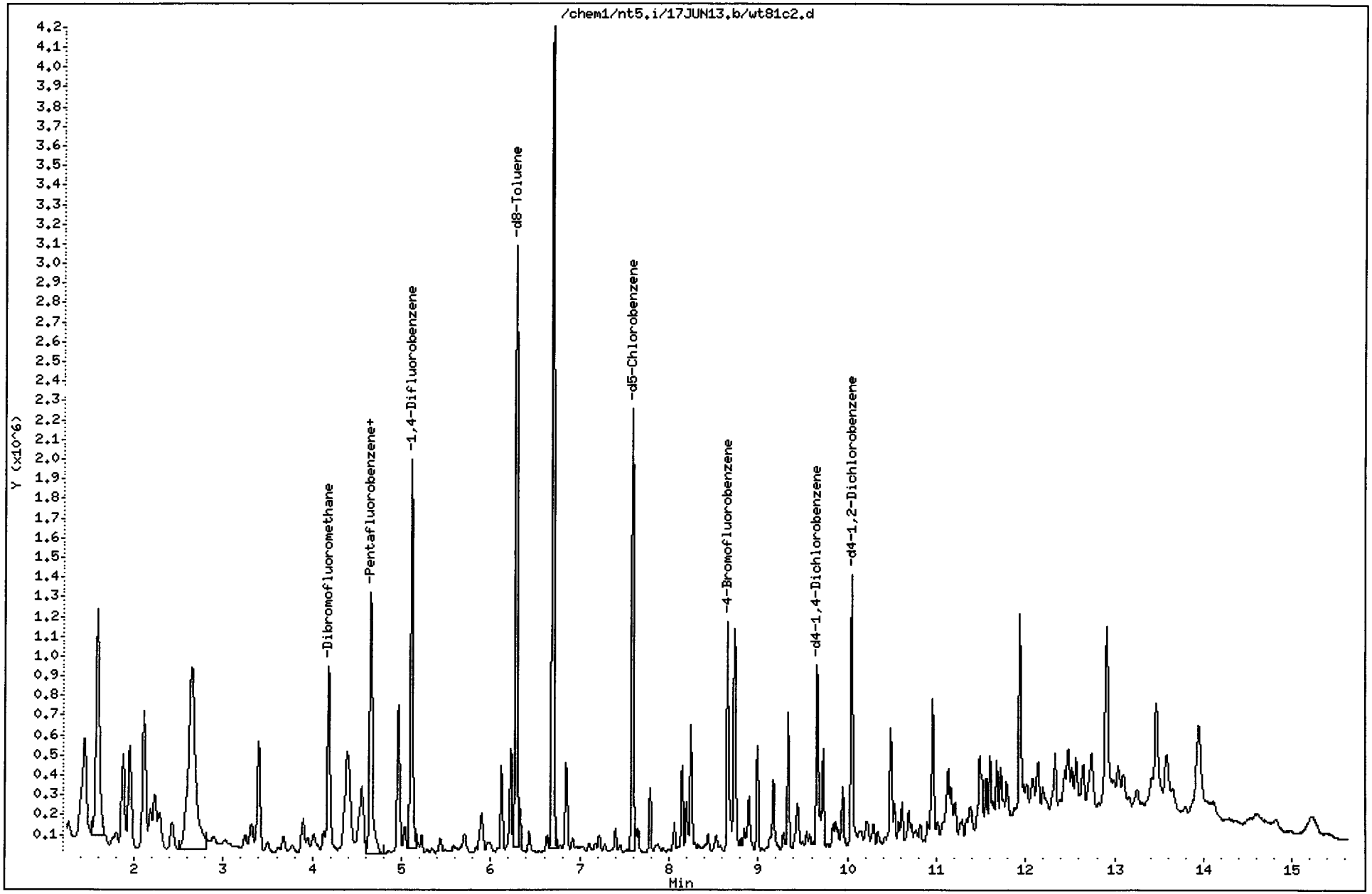
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	61.937	123.87	70-130
$ 32 d4-1,2-Dichloroeth	50.000	60.134	120.27	80-149
$ 42 d8-Toluene	50.000	41.570	83.14	77-120
$ 62 4-Bromofluorobenze	50.000	30.163	60.33*	80-120
$ 79 d4-1,2-Dichloroben	50.000	46.784	93.57	80-120

Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d
Date : 17-JUN-2013 19:30
Client ID: AM-FD-01-20130612-S
Sample Info: WT81C,5,7.42,0

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

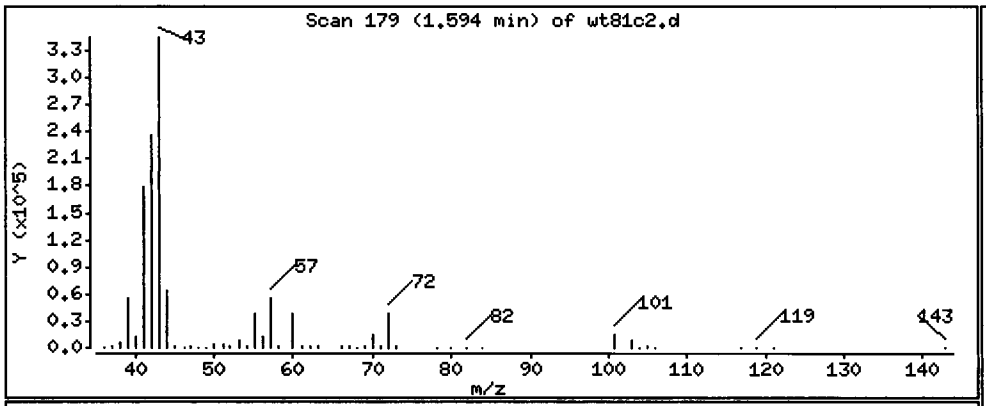
Operator: PB

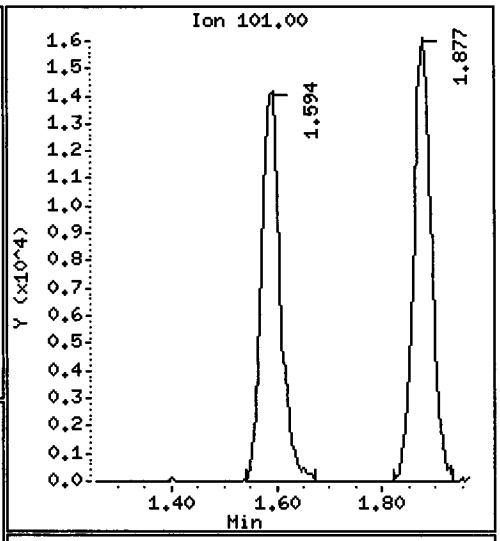
Column phase: RTXVMS

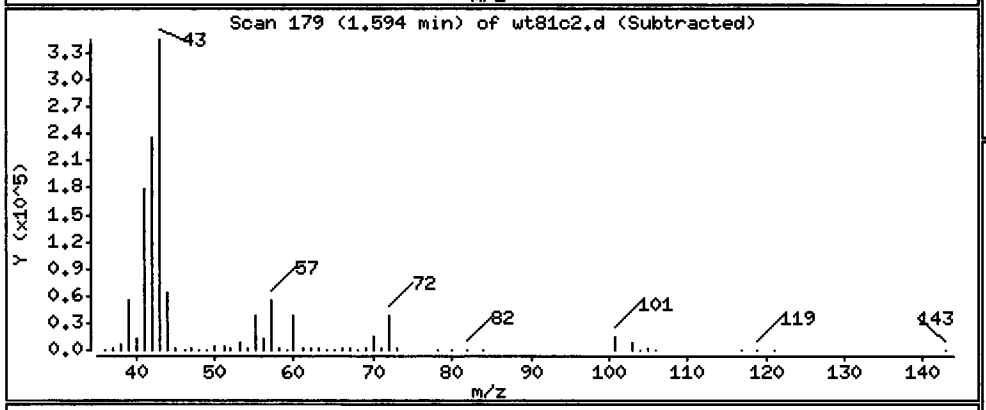
Column diameter: 0.18

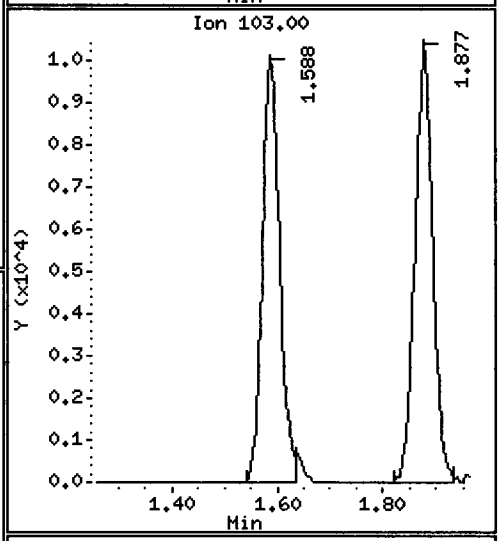
6 Trichlorofluoromethane

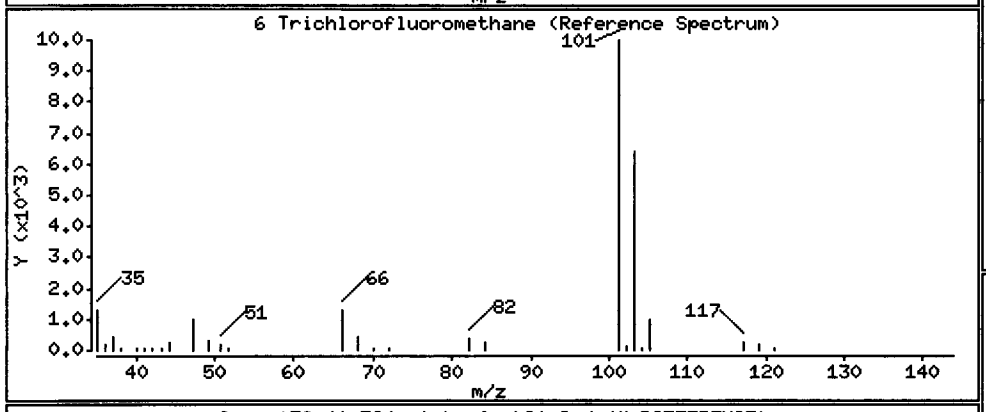
Concentration: 4.831 ug/Kg

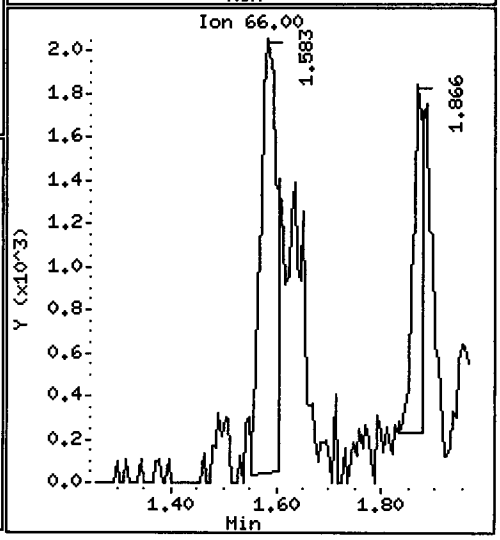


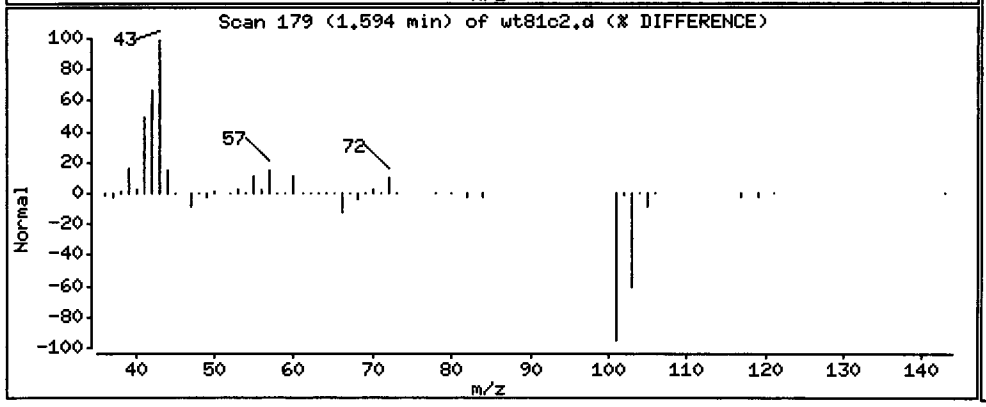












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

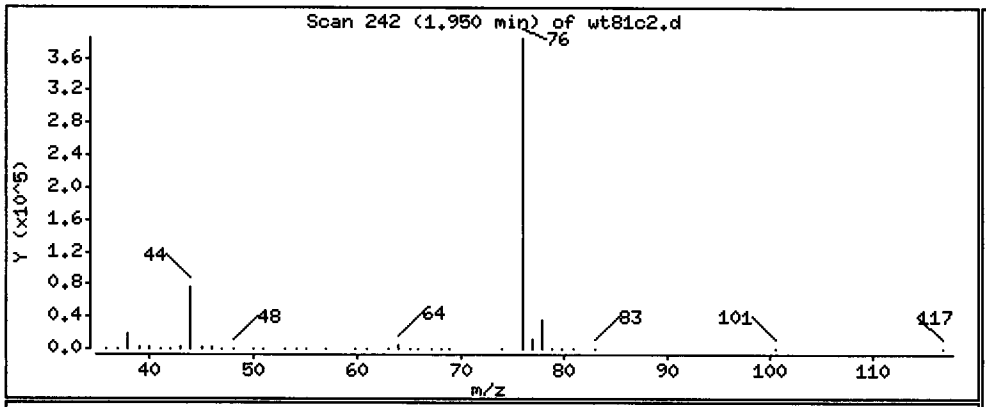
Operator: PB

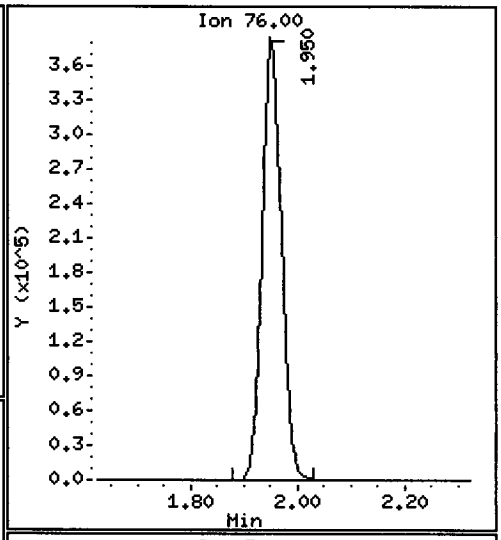
Column phase: RTXVMS

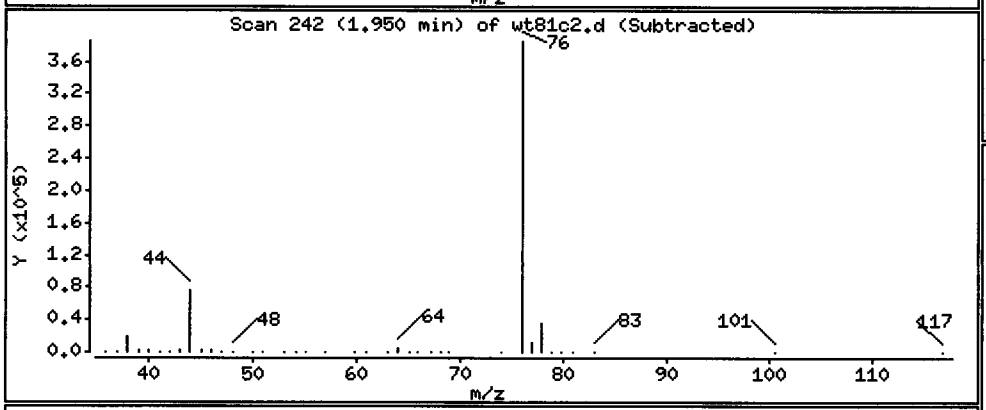
Column diameter: 0.18

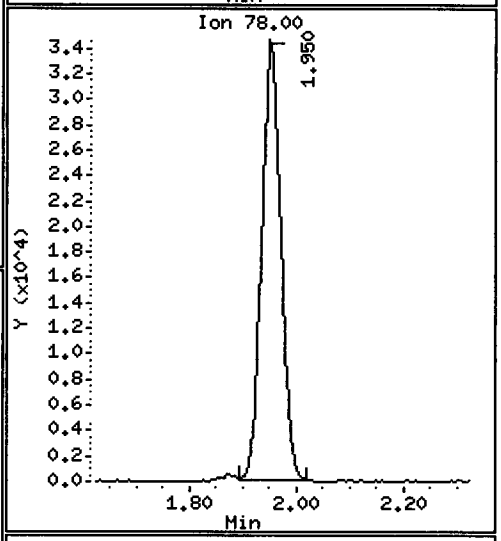
8 Carbon Disulfide

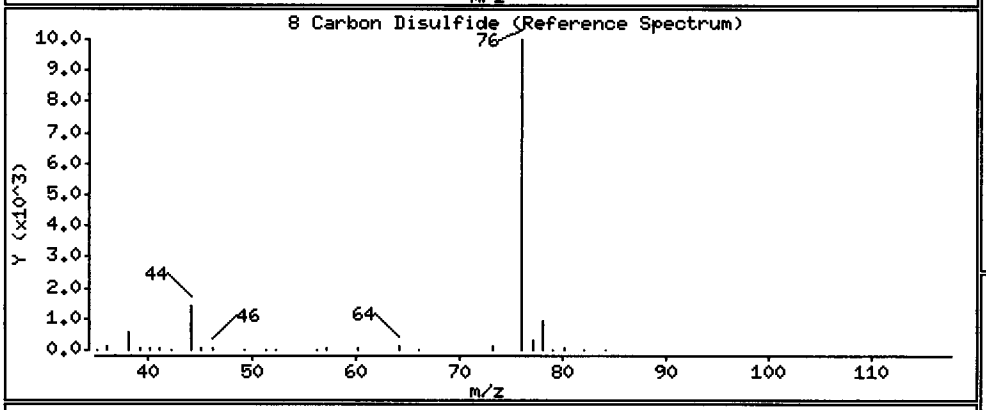
Concentration: 59.186 ug/Kg

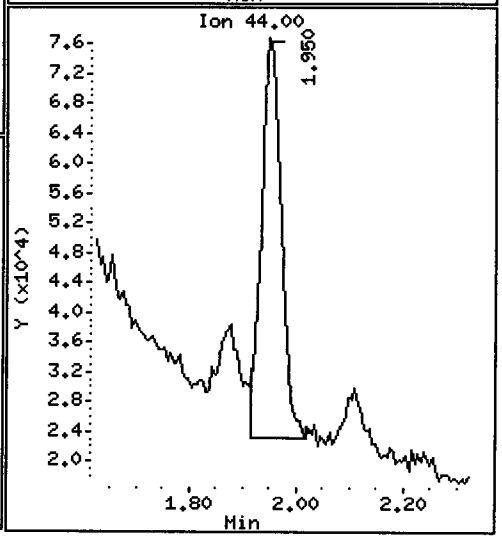


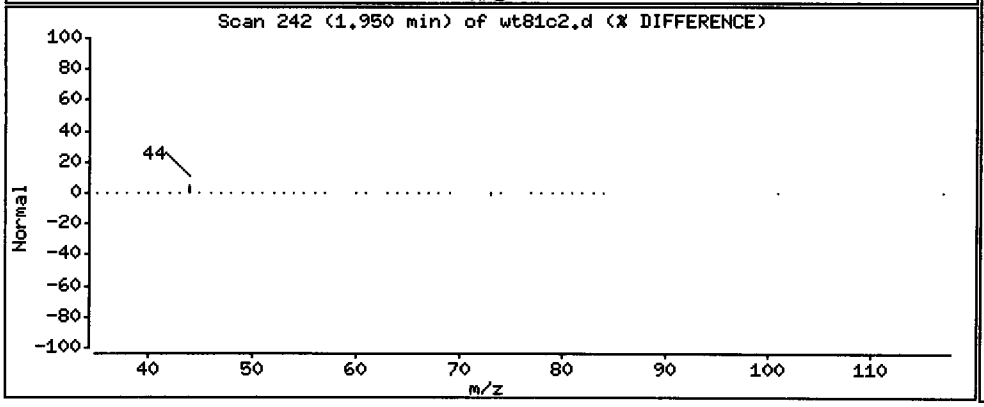












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

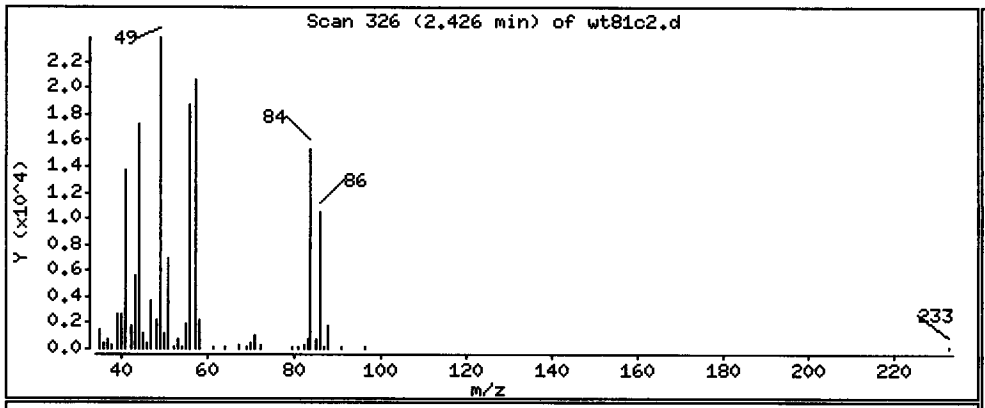
Operator: PB

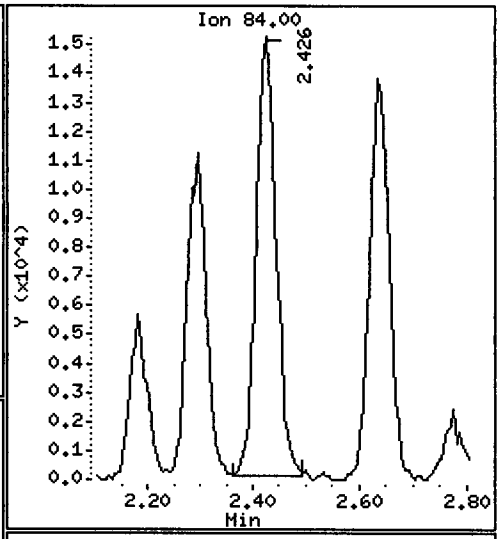
Column phase: RTXVMS

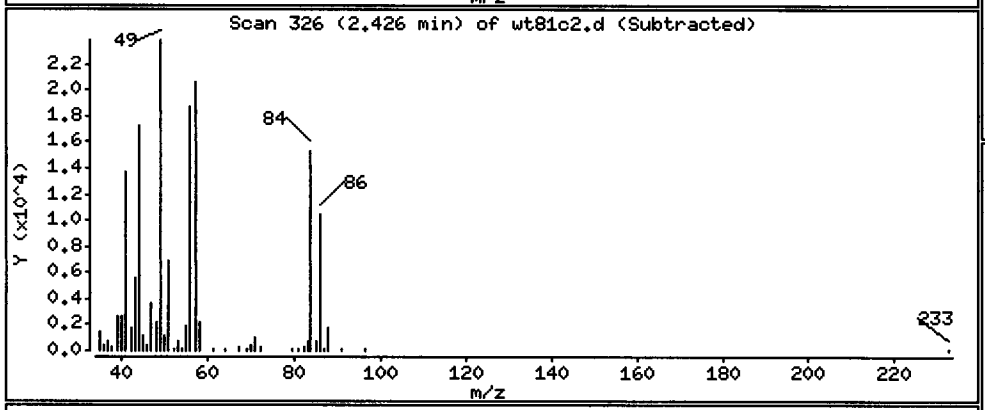
Column diameter: 0.18

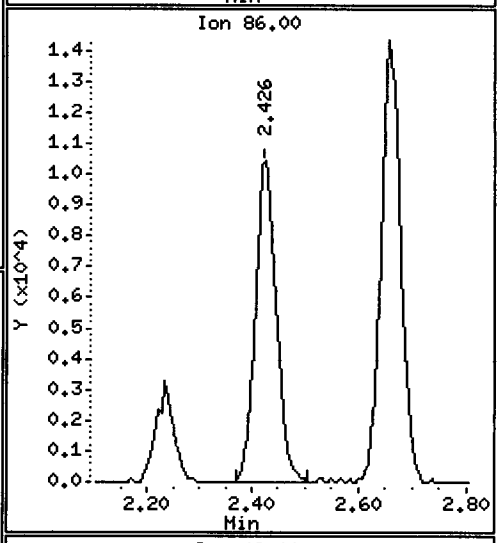
13 Methylene Chloride

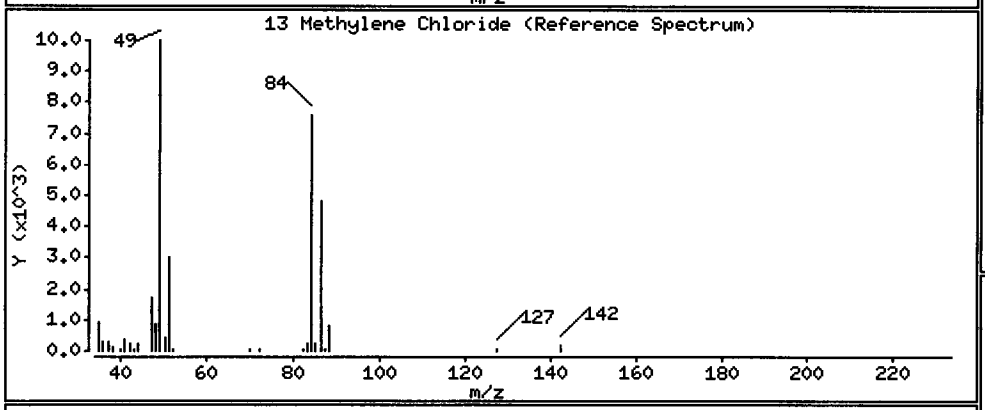
Concentration: 8.705 ug/Kg

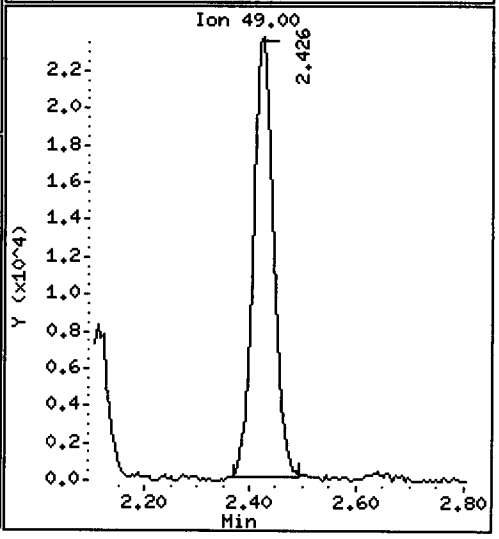


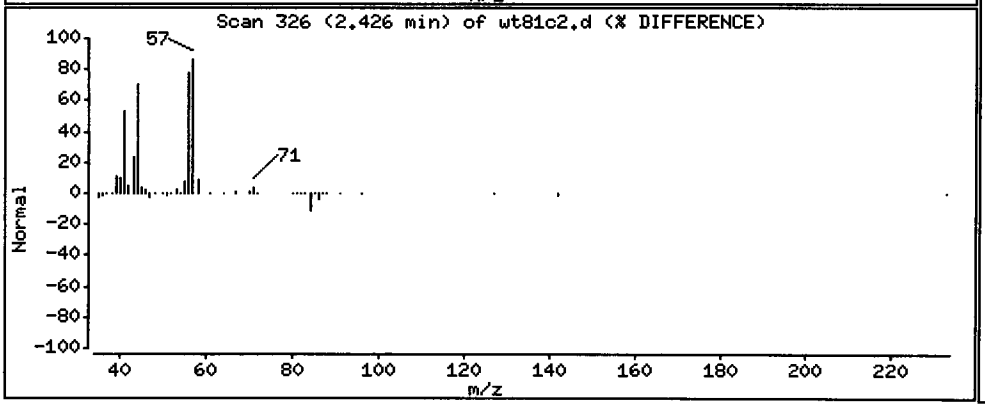












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

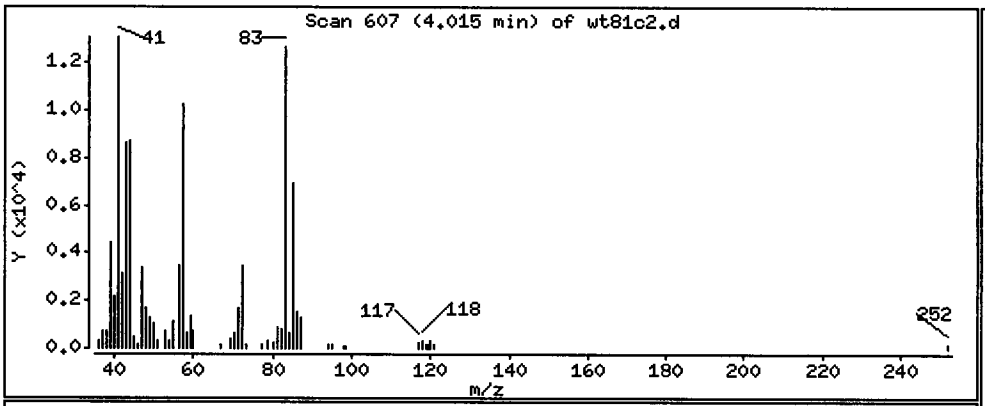
Operator: PB

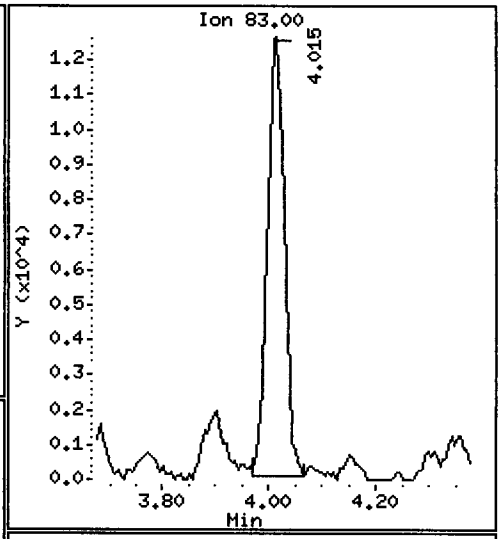
Column phase: RTXVMS

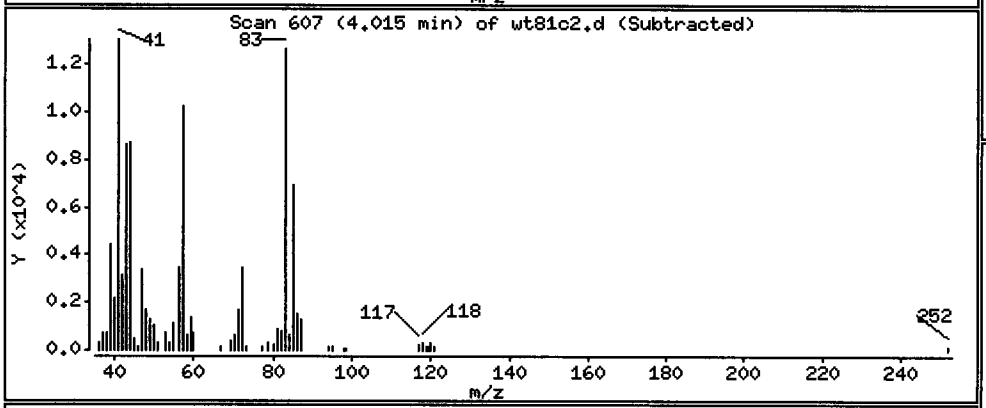
Column diameter: 0.18

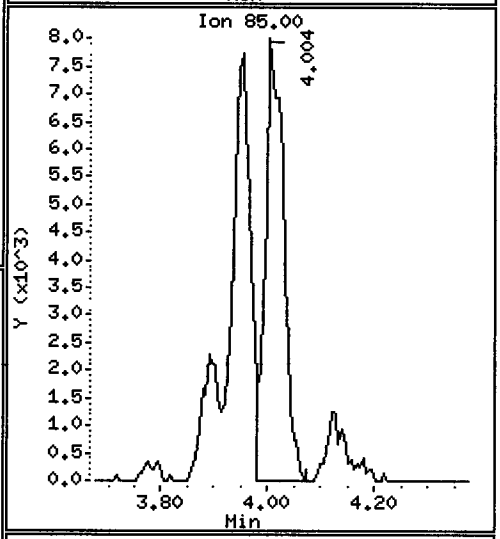
24 Chloroform

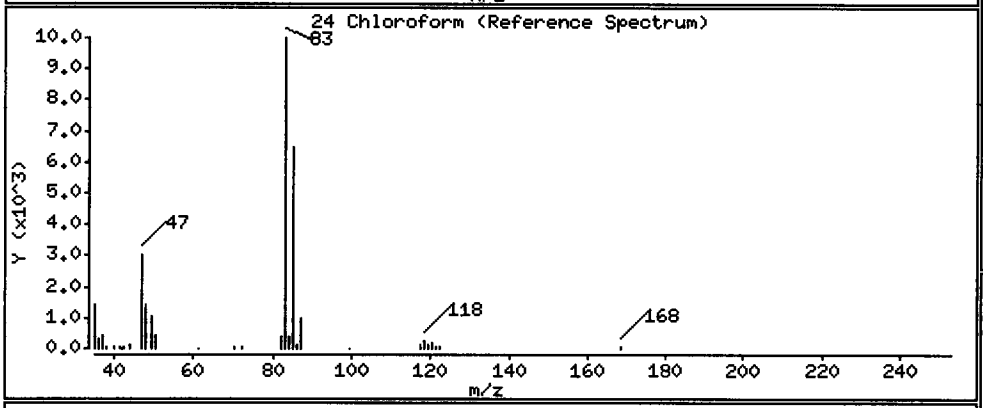
Concentration: 2.834 ug/Kg

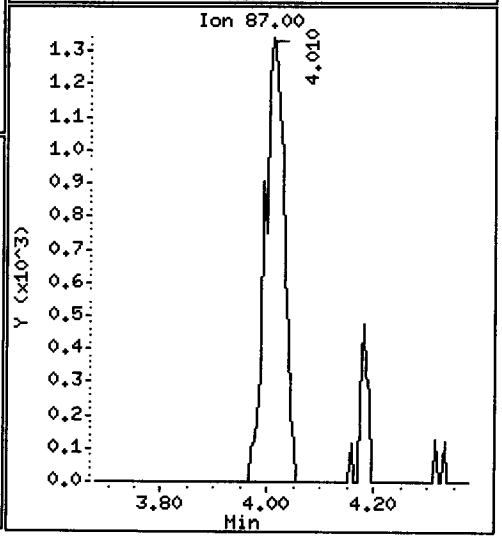


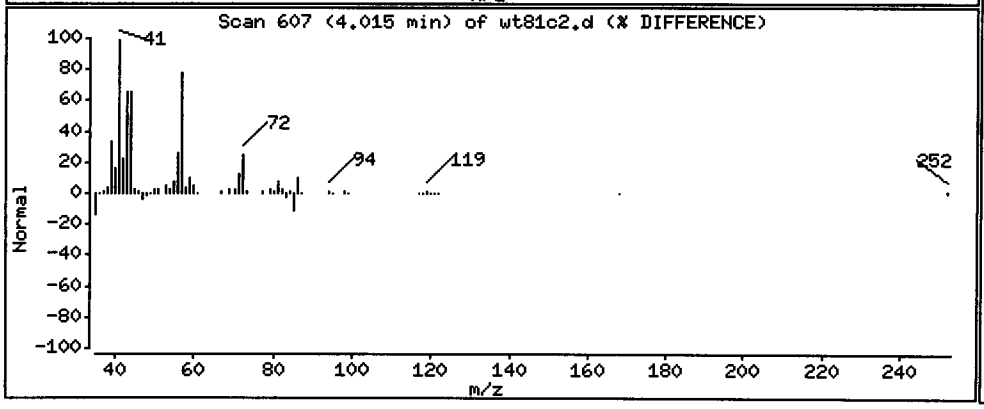












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

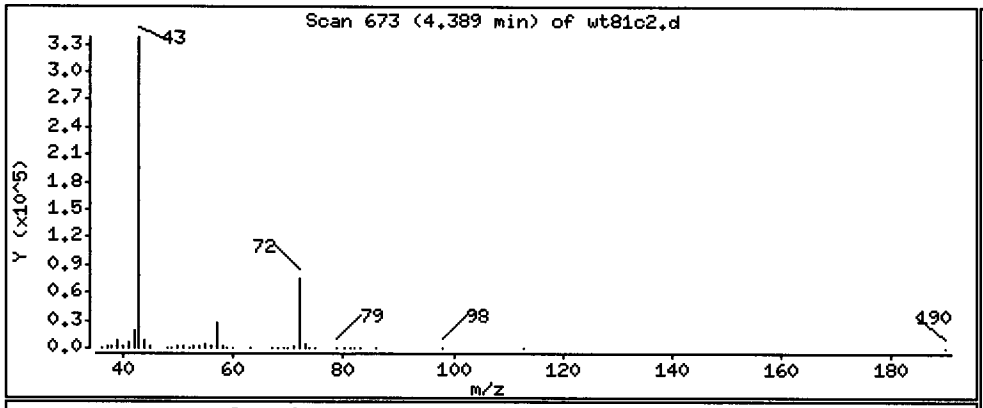
Operator: PB

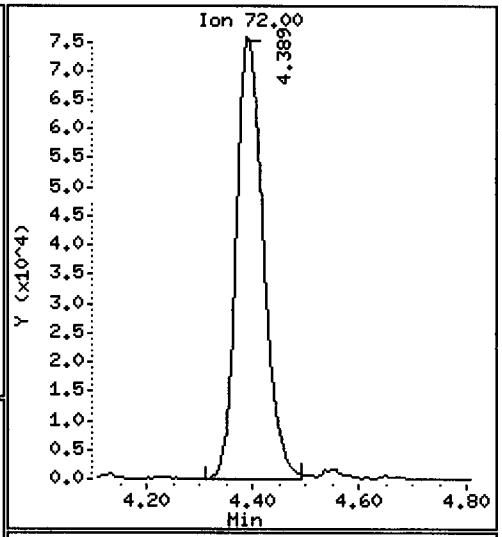
Column phase: RTXVMS

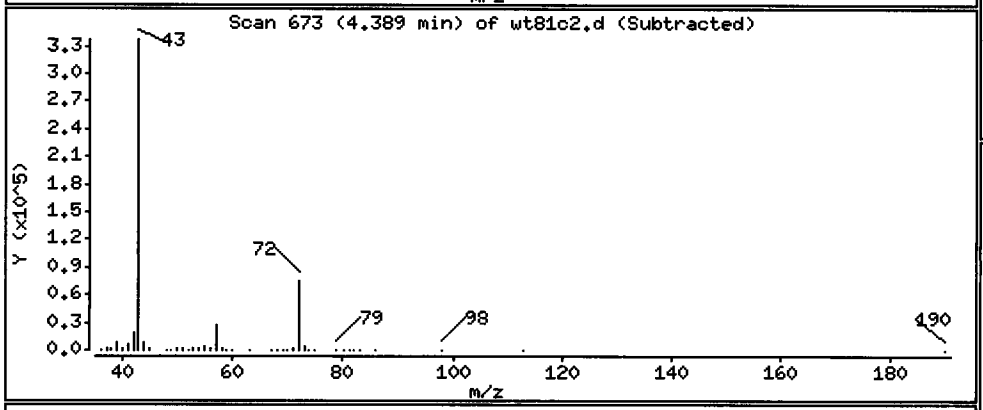
Column diameter: 0.18

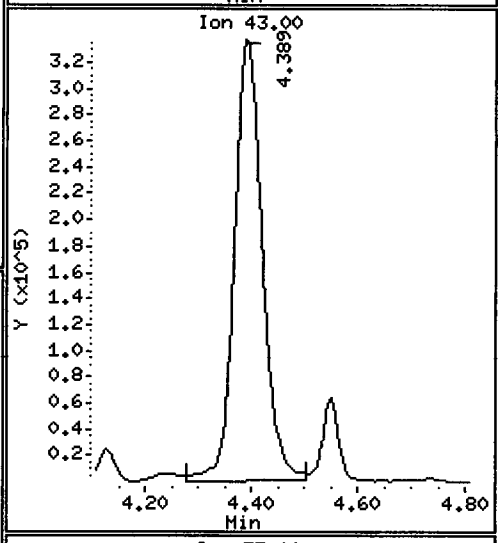
29 2-Butanone

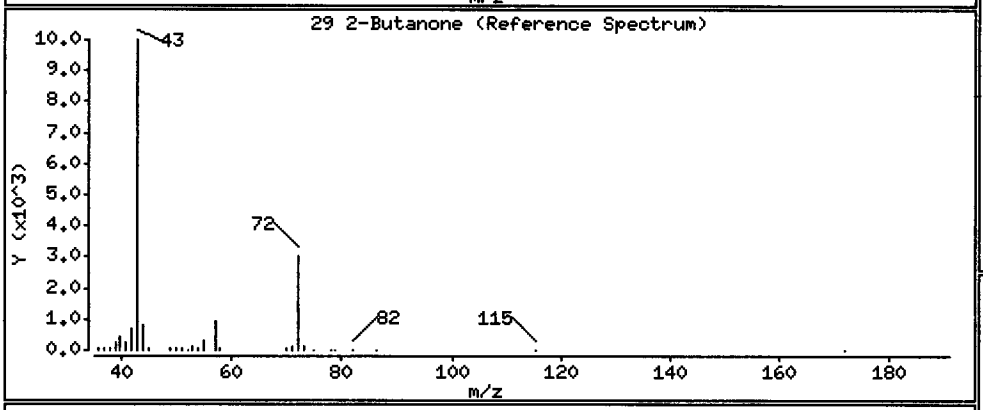
Concentration: 391.47 ug/Kg

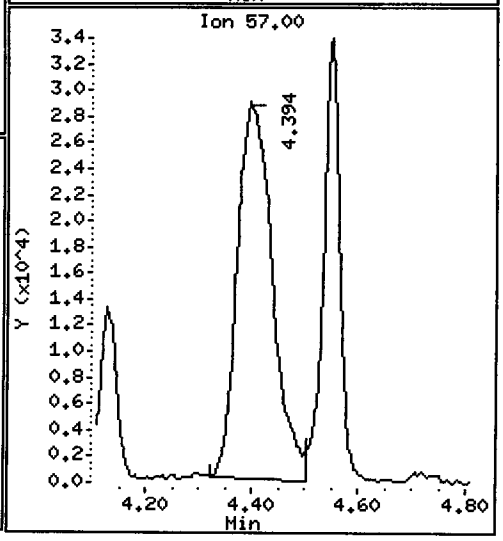


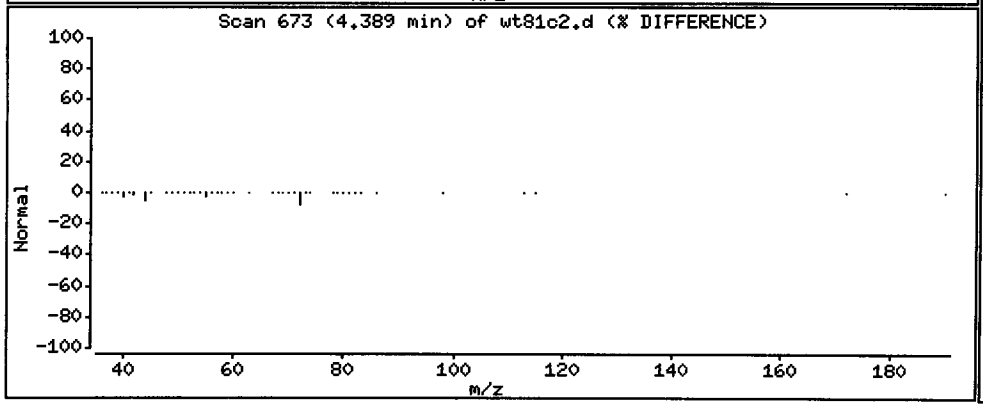












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

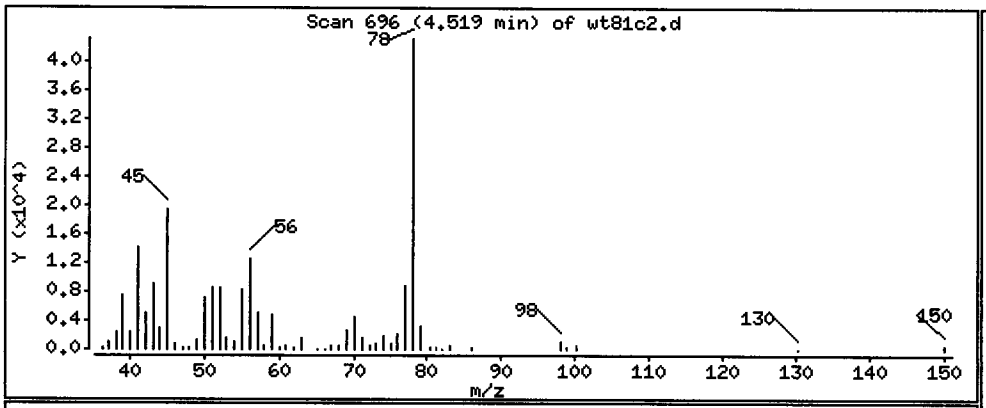
Operator: PB

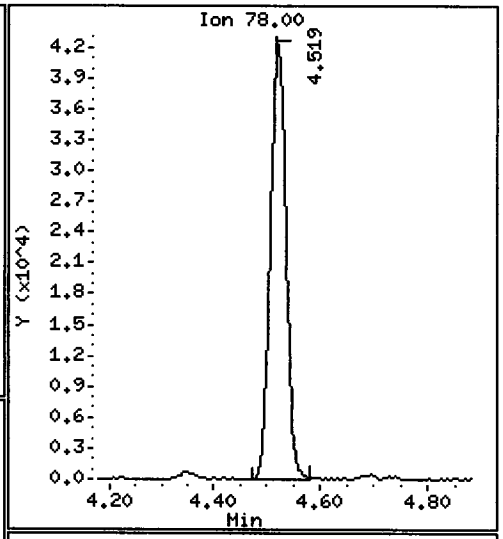
Column phase: RTXVMS

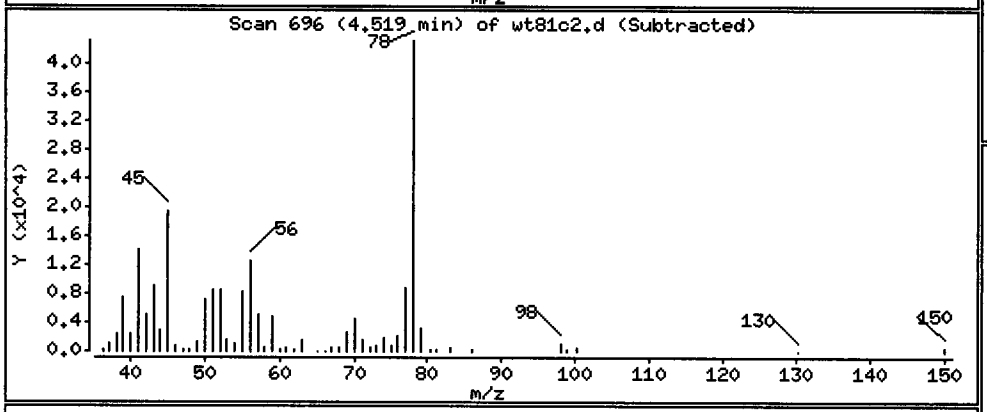
Column diameter: 0.18

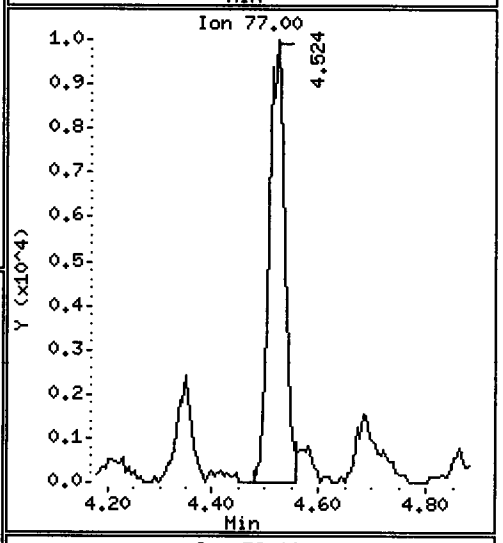
30 Benzene

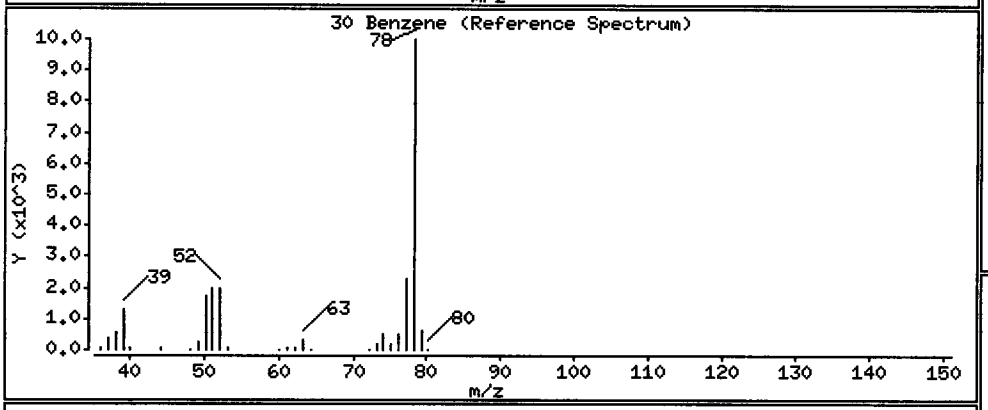
Concentration: 3.101 ug/Kg

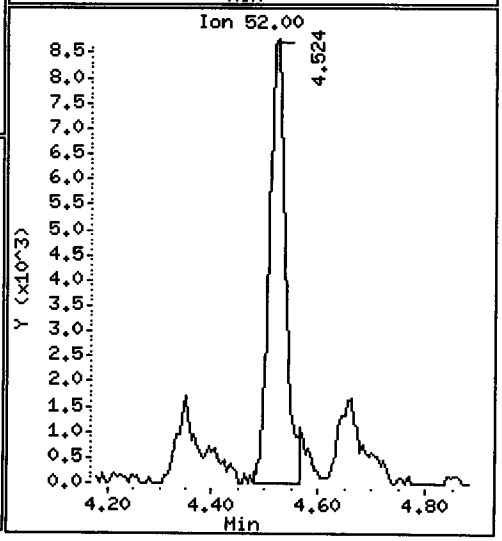


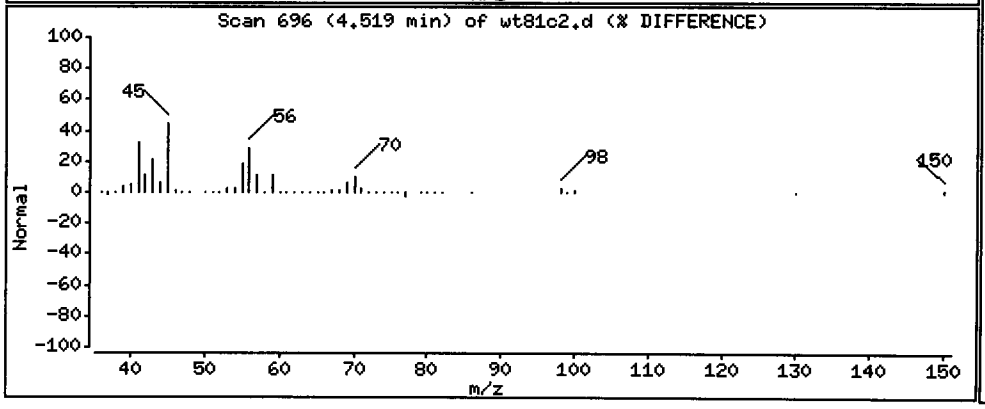












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

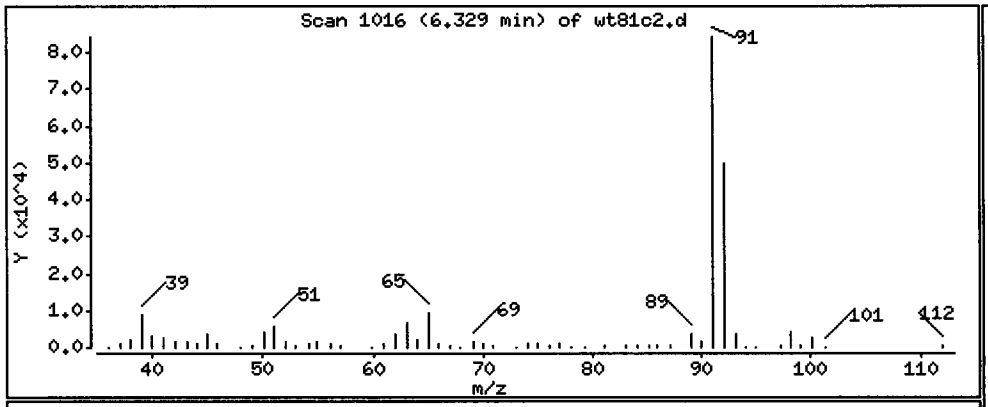
Operator: PB

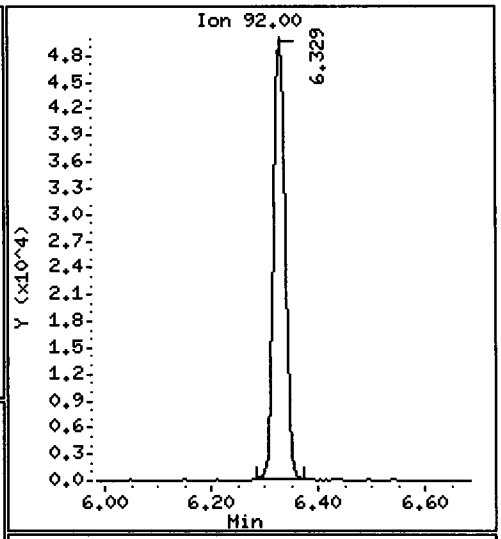
Column phase: RTXVMS

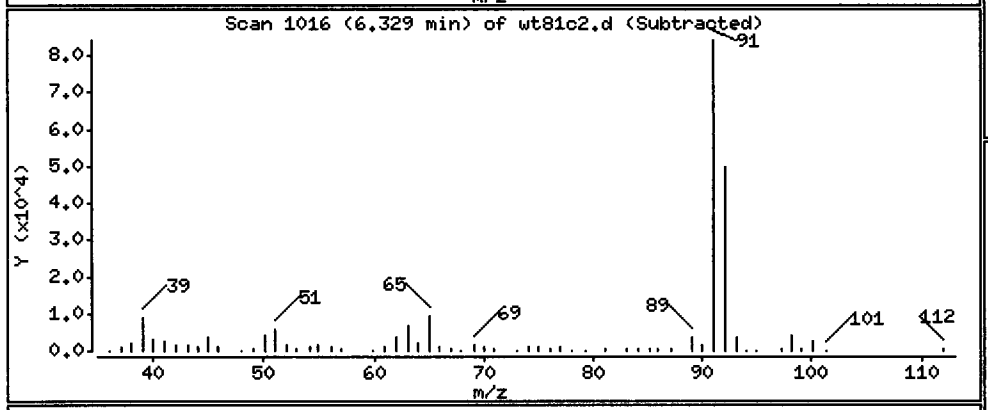
Column diameter: 0.18

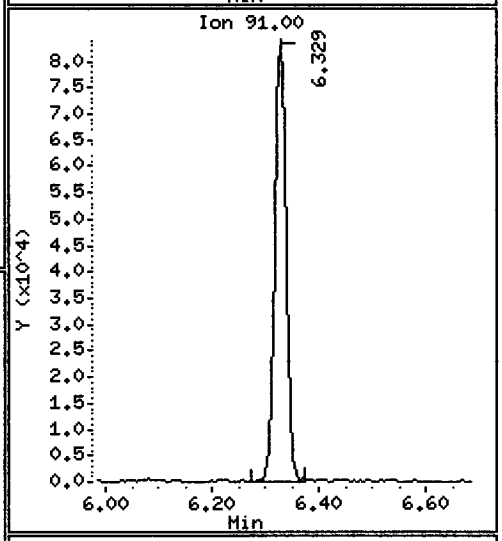
43 Toluene

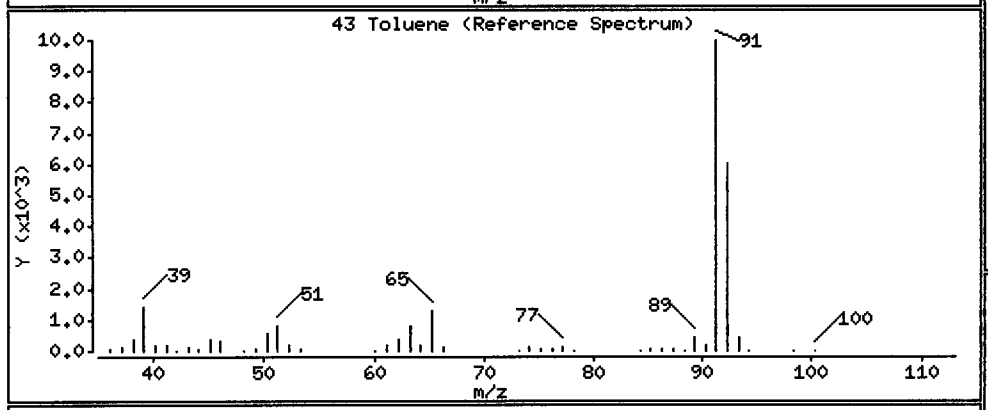
Concentration: 4.217 ug/Kg

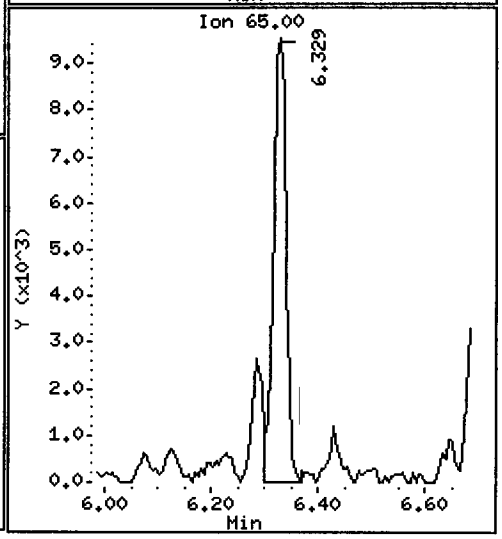


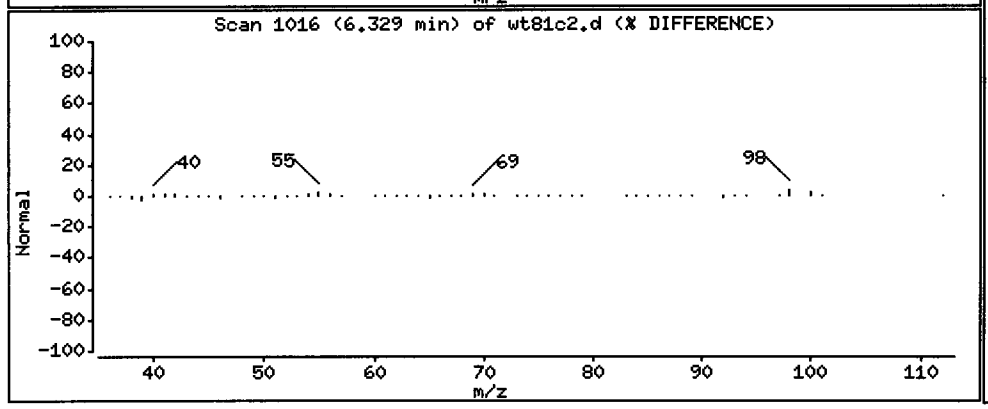












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

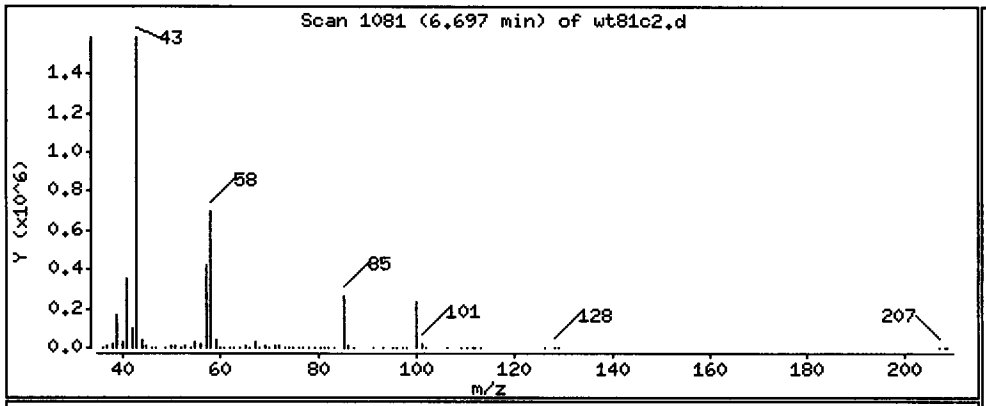
Operator: PB

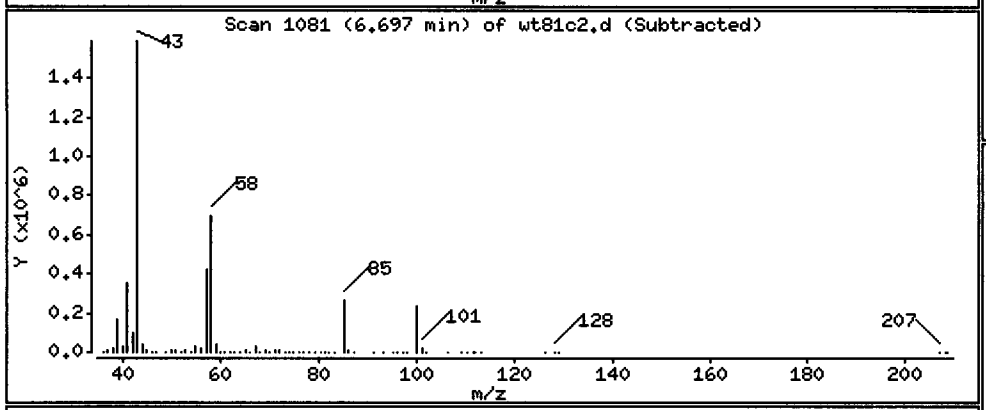
Column phase: RTXVMS

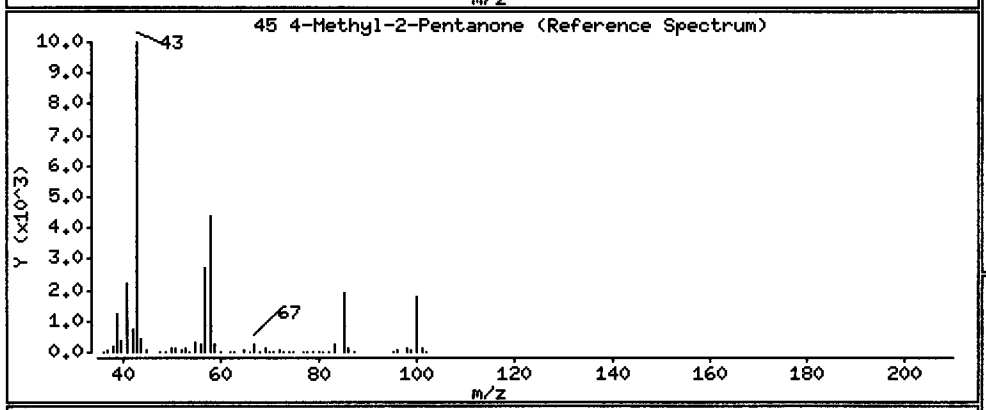
Column diameter: 0.18

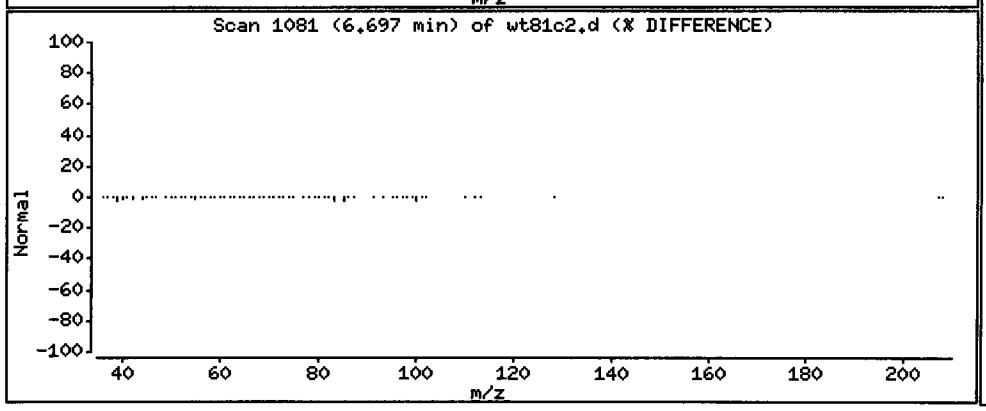
45 4-Methyl-2-Pentanone

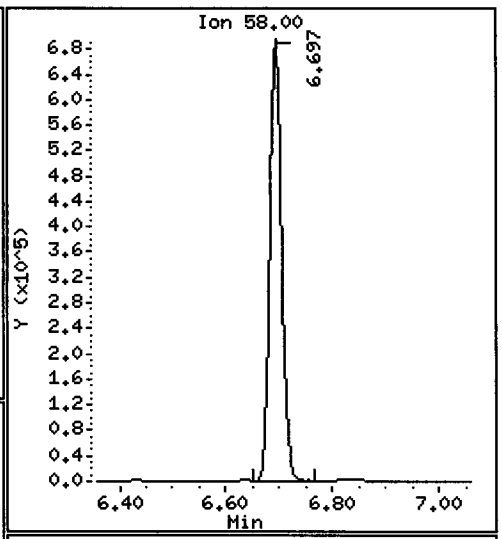
Concentration: 354.55 ug/Kg

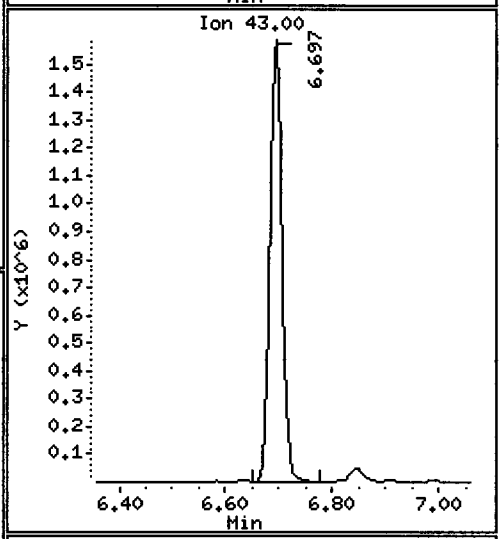


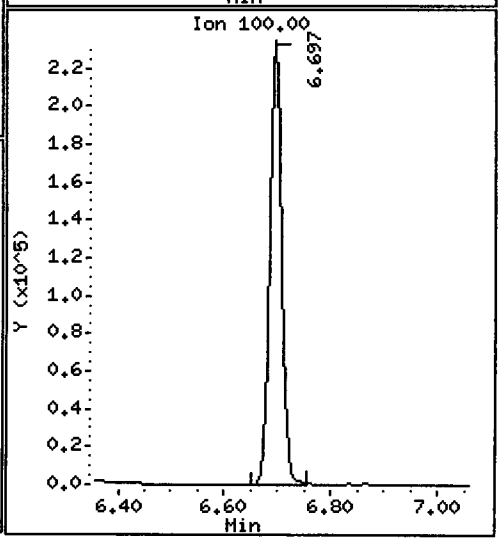












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

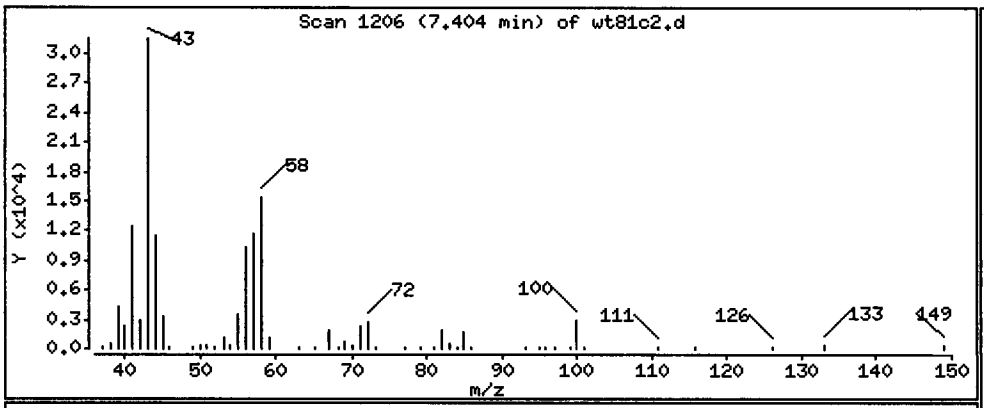
Operator: PB

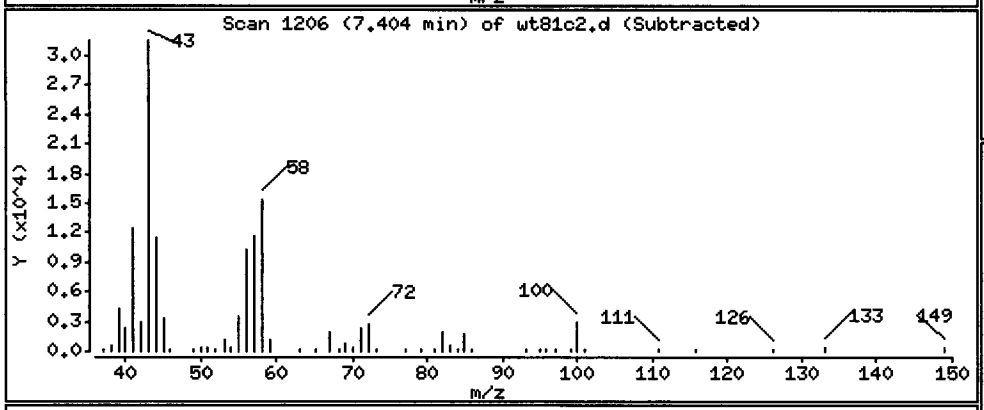
Column phase: RTXVMS

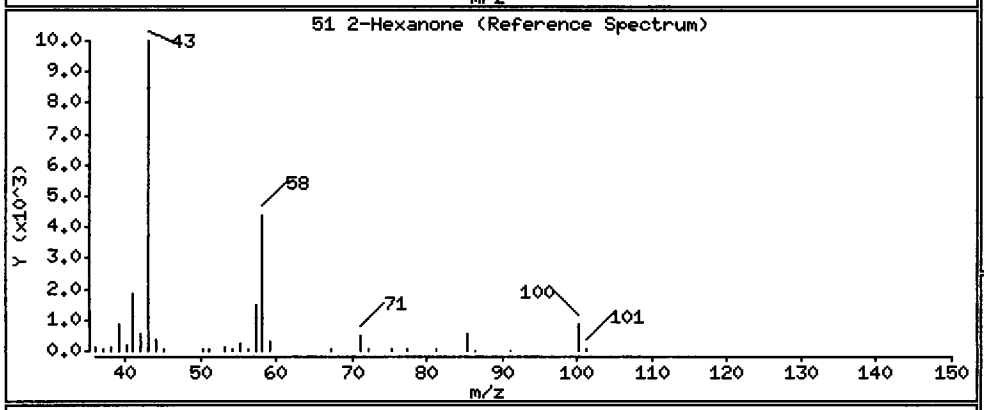
Column diameter: 0.18

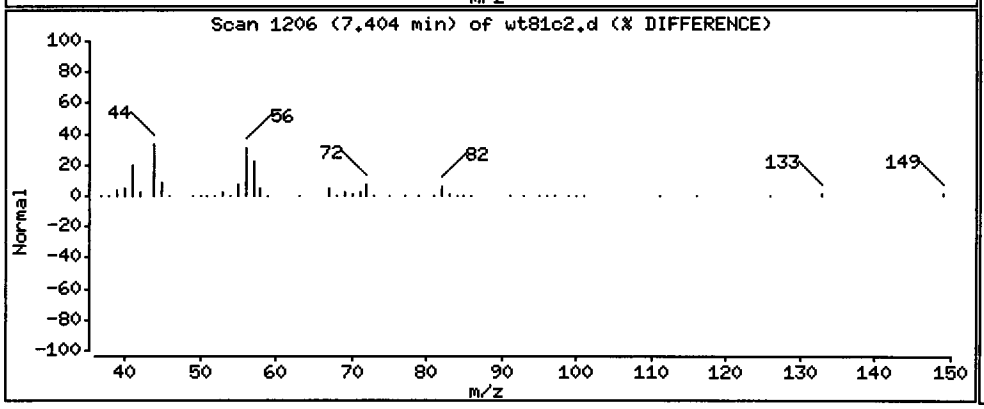
51 2-Hexanone

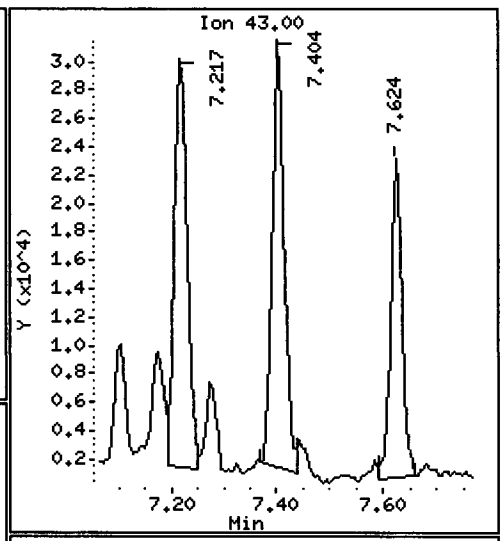
Concentration: 15.409 ug/Kg

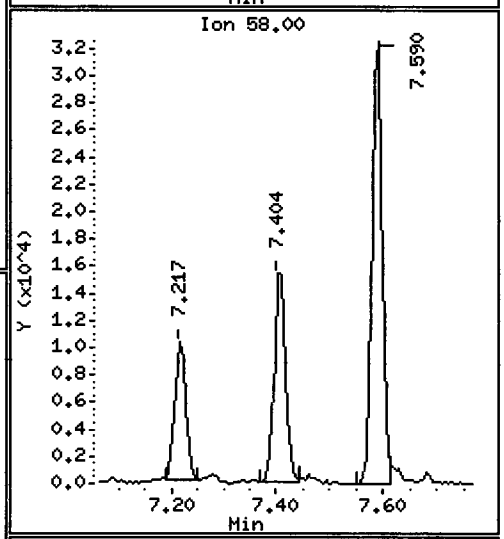


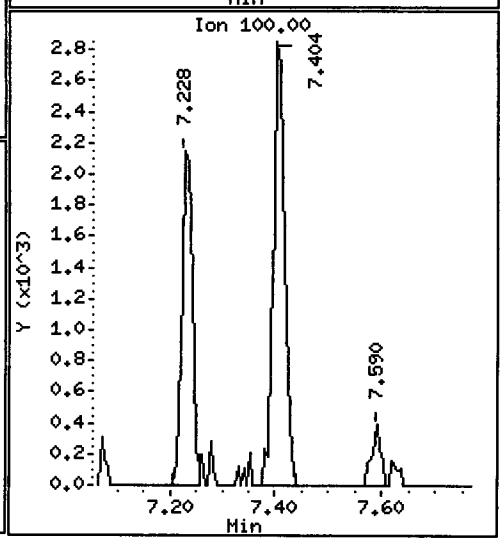












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

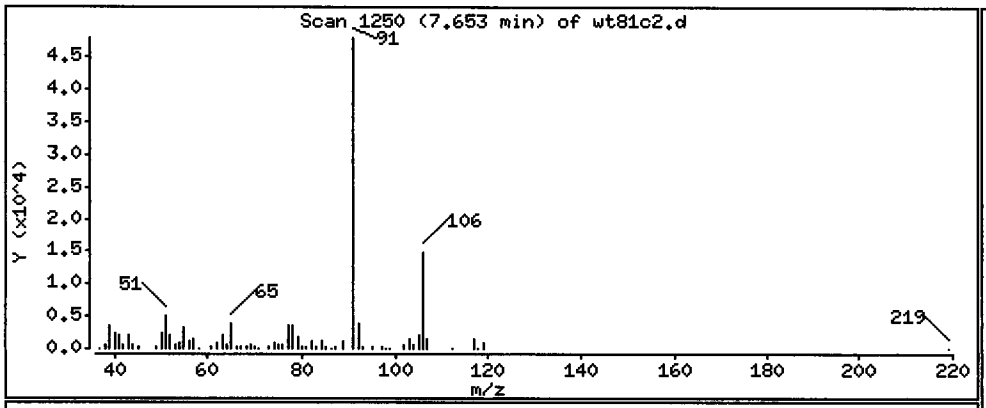
Operator: PB

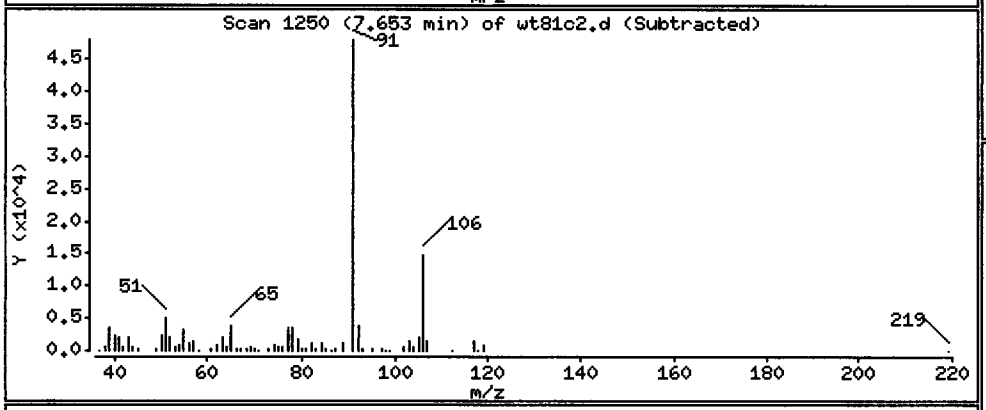
Column phase: RTXVMS

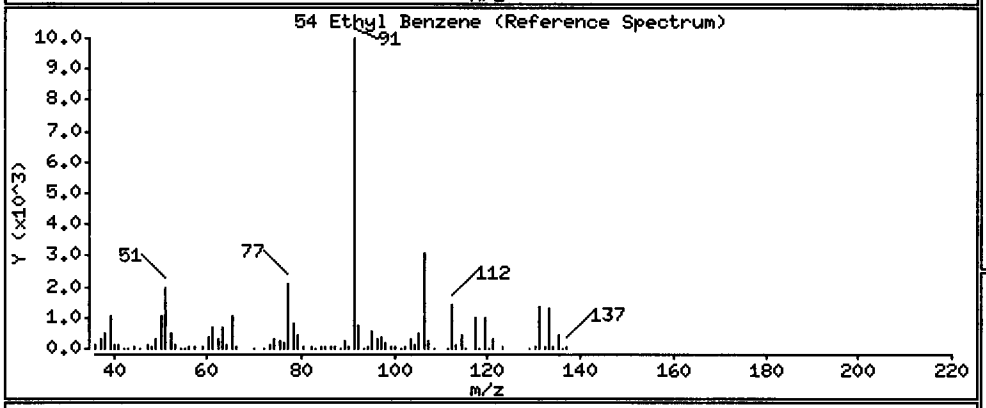
Column diameter: 0.18

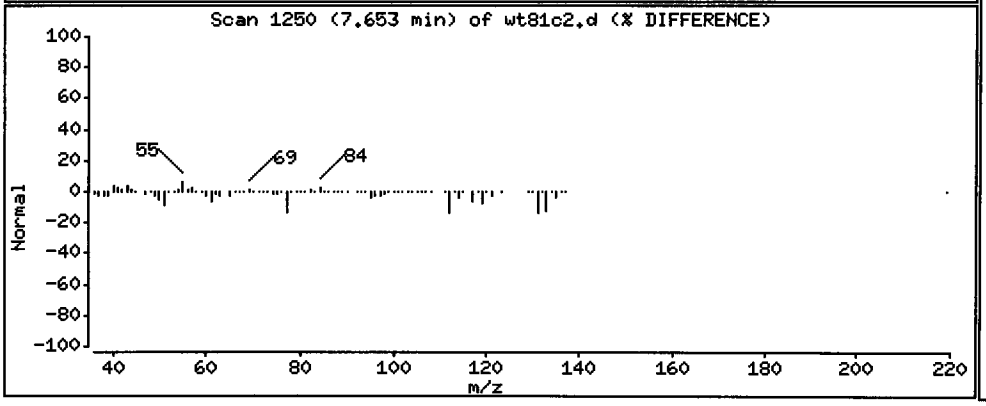
54 Ethyl Benzene

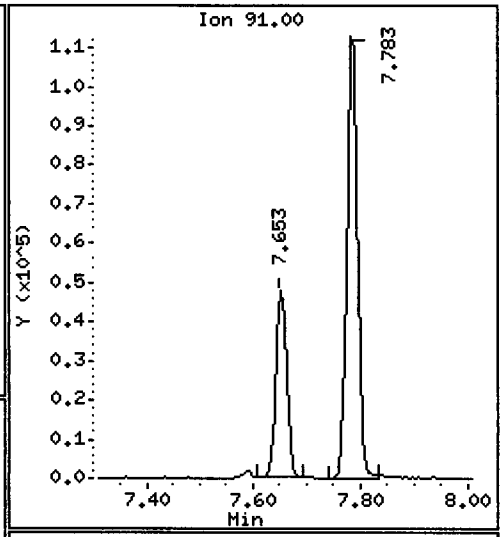
Concentration: 3.611 ug/Kg

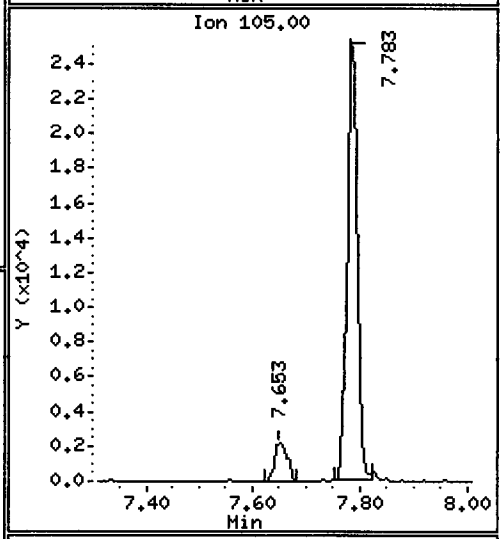


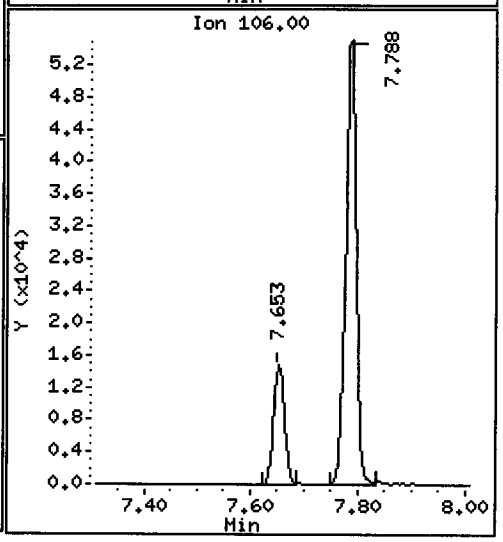












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

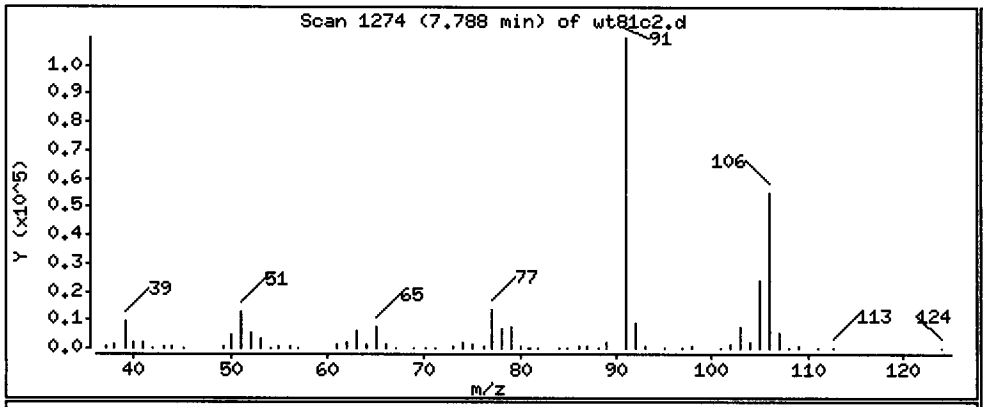
Operator: PB

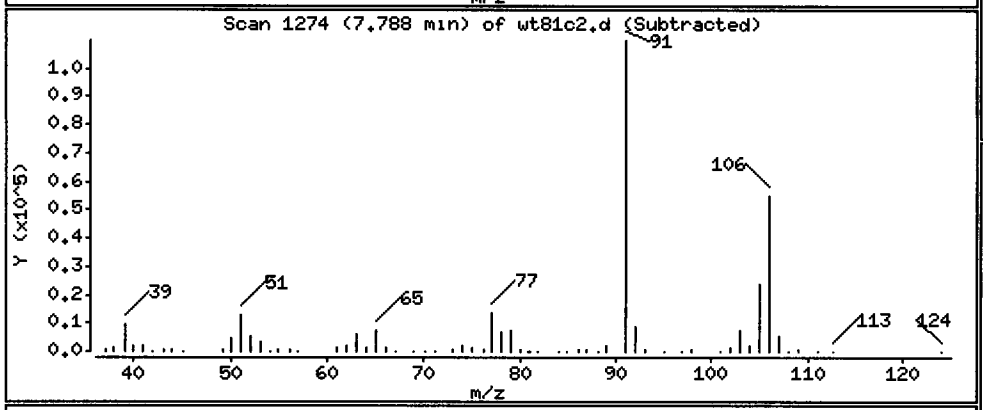
Column phase: RTXVMS

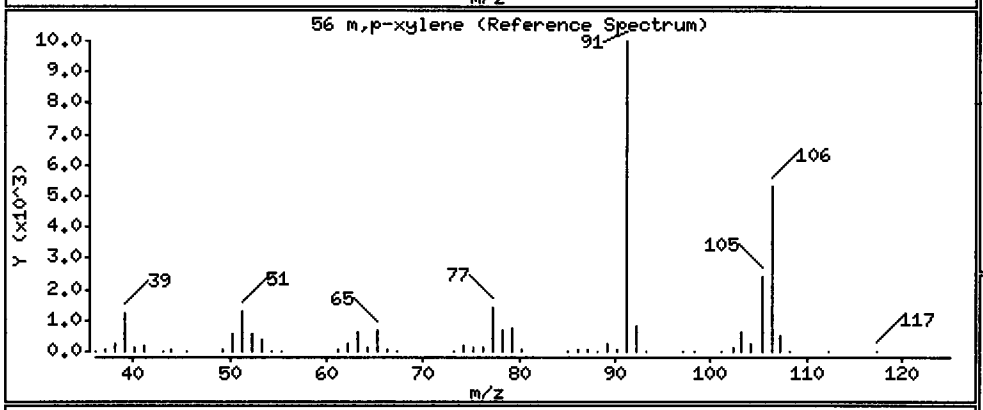
Column diameter: 0.18

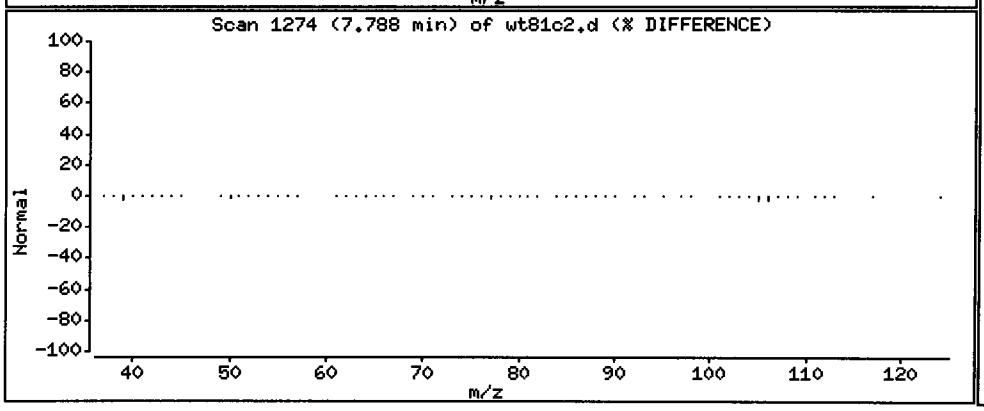
56 m,p-xylene

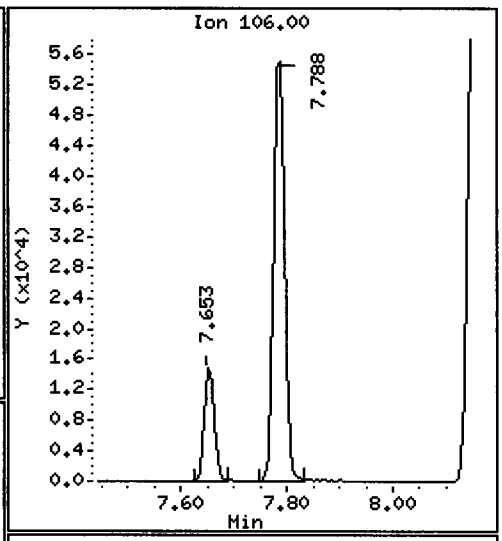
Concentration: 11.441 ug/Kg

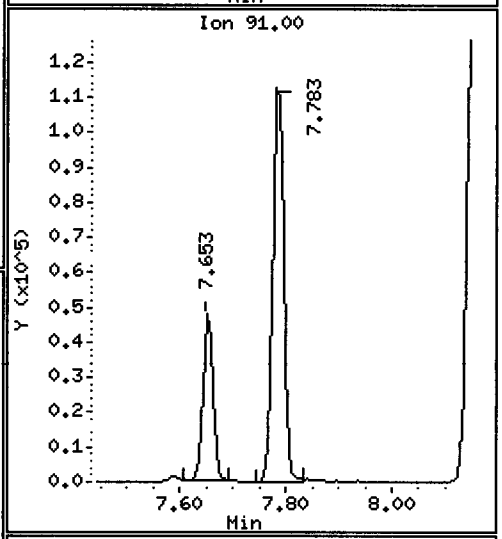


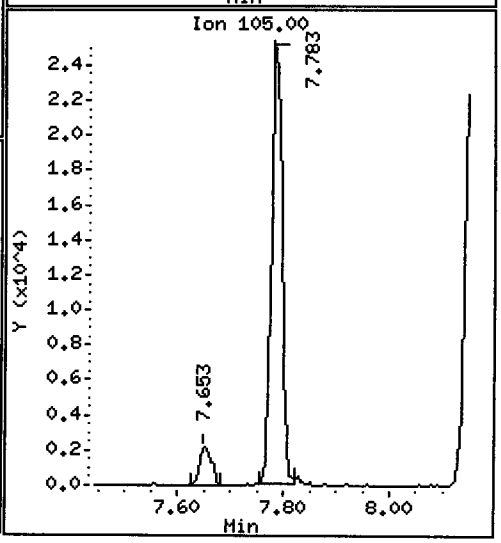












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

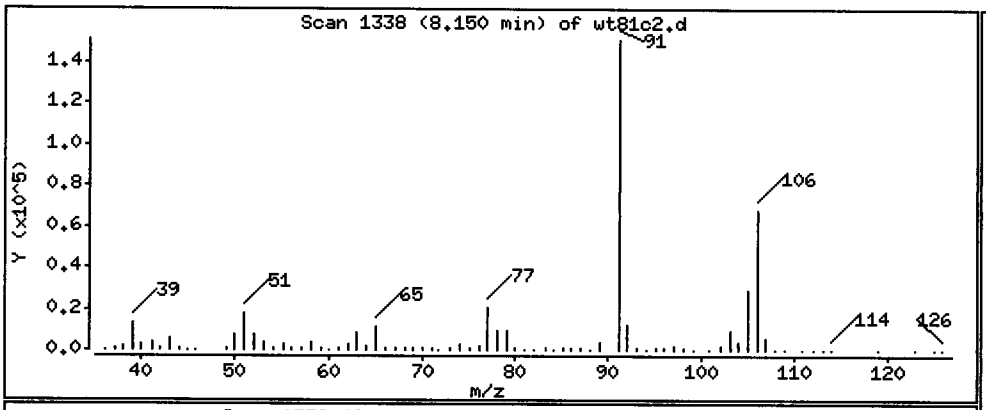
Operator: PB

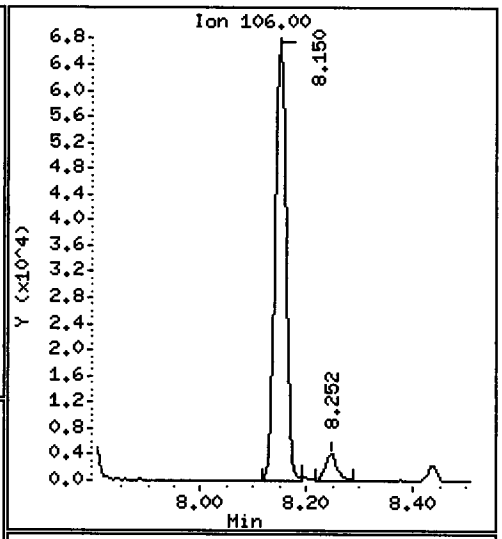
Column phase: RTXVMS

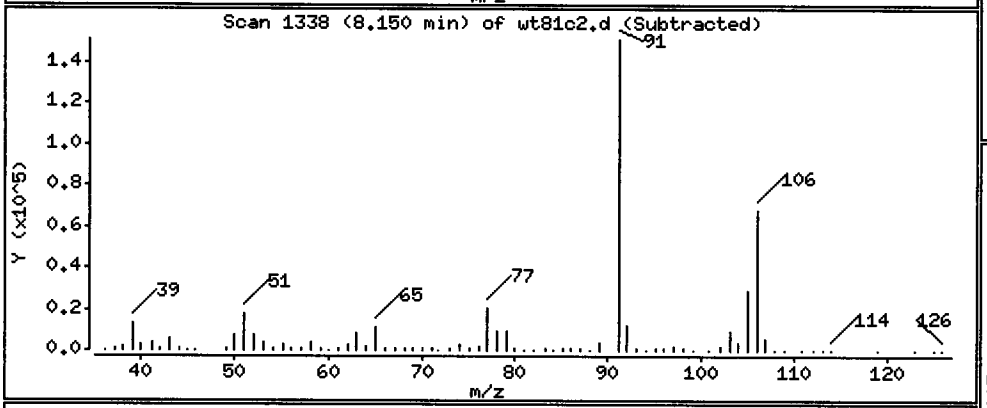
Column diameter: 0.18

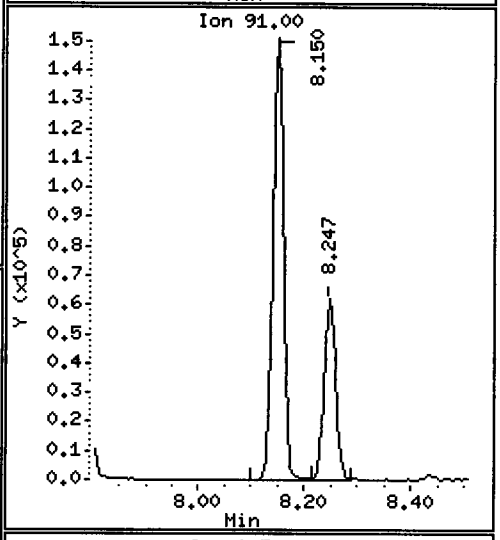
57 o-Xylene

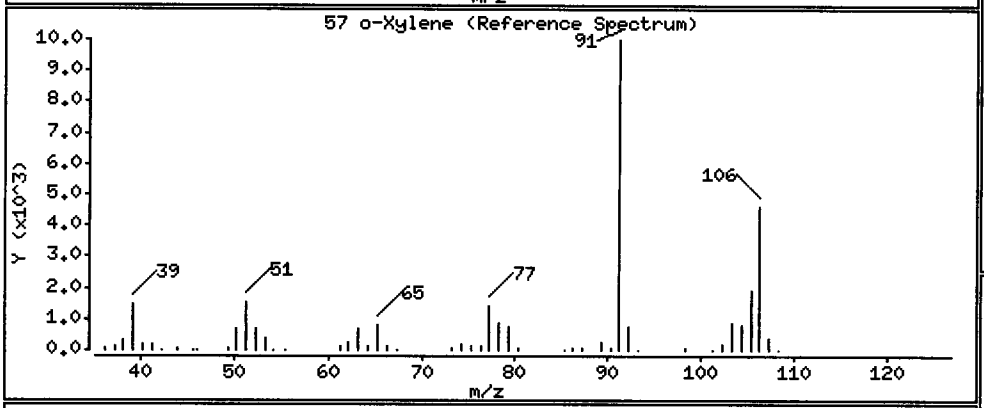
Concentration: 13.930 ug/Kg

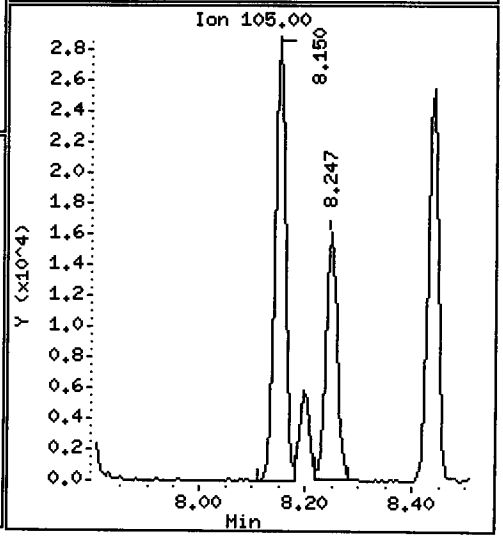


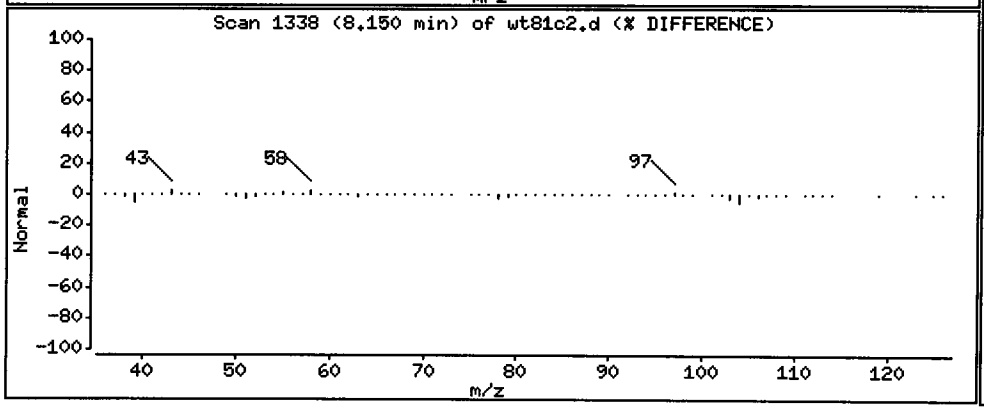












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

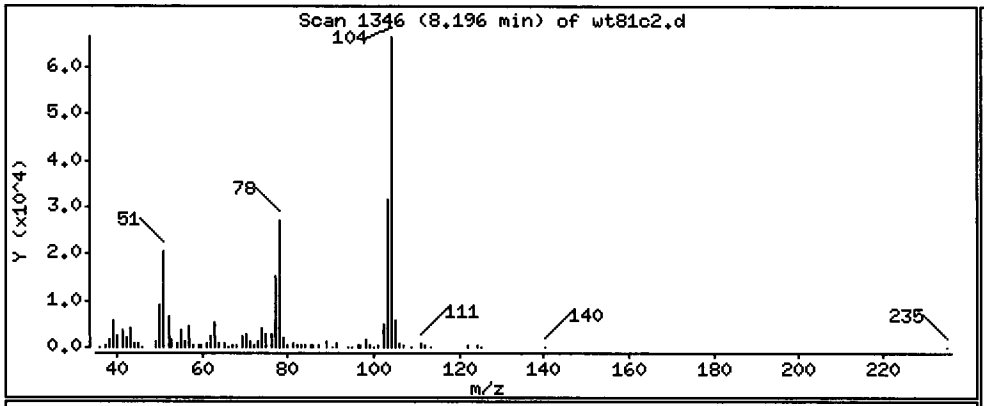
Operator: PB

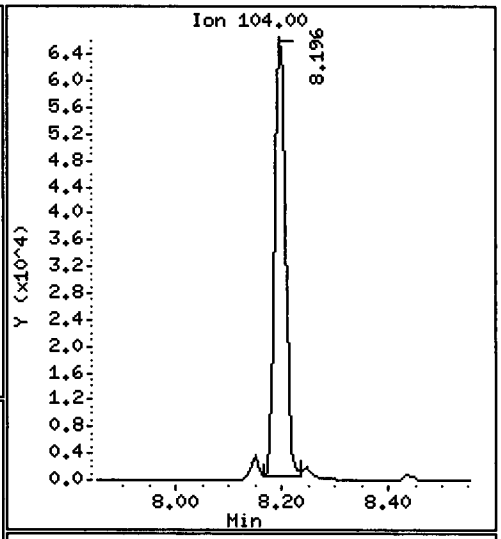
Column phase: RTXVMS

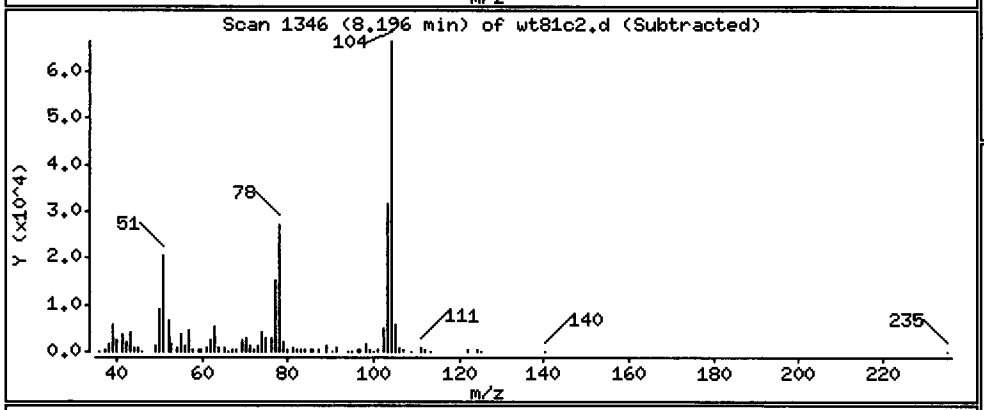
Column diameter: 0.18

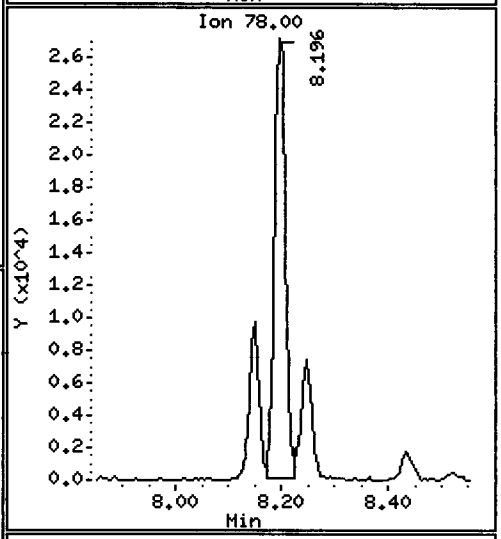
58 Styrene

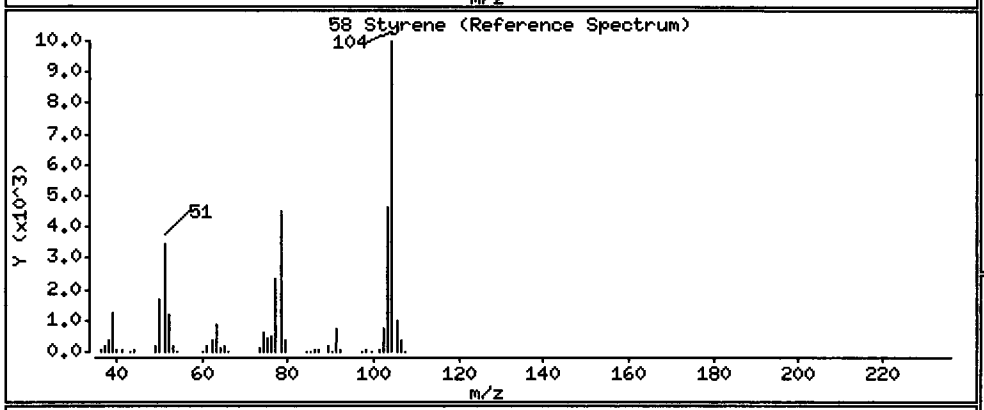
Concentration: 8.273 ug/Kg

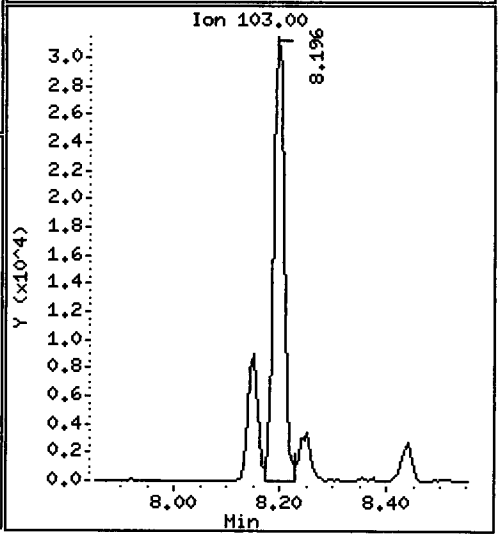


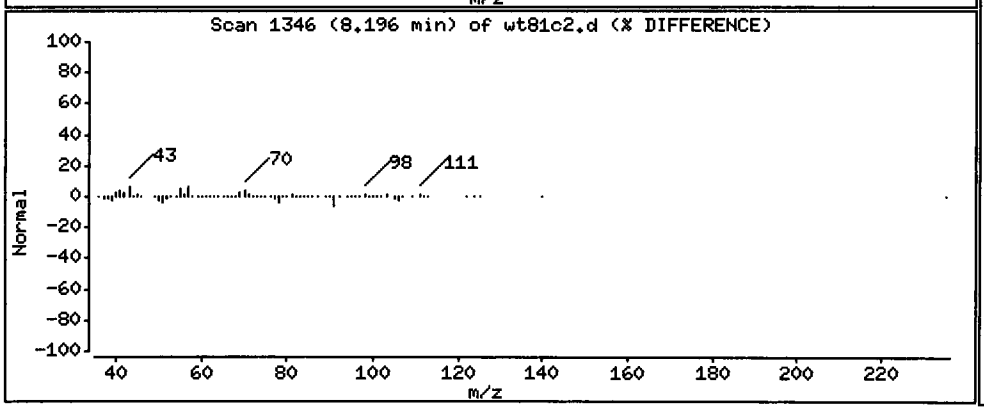












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

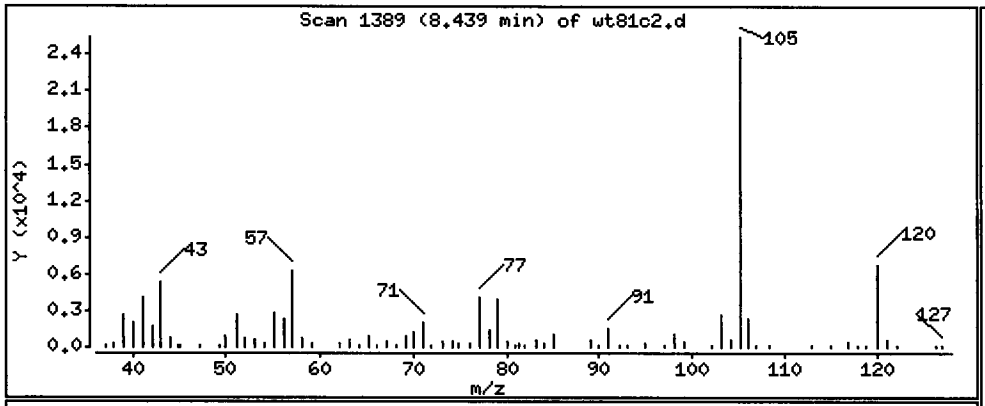
Operator: PB

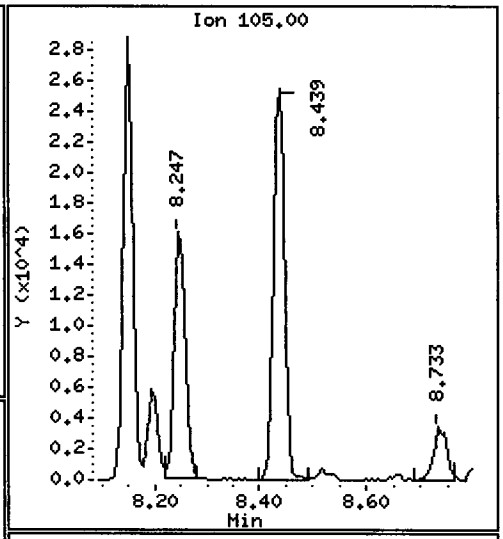
Column phase: RTXVMS

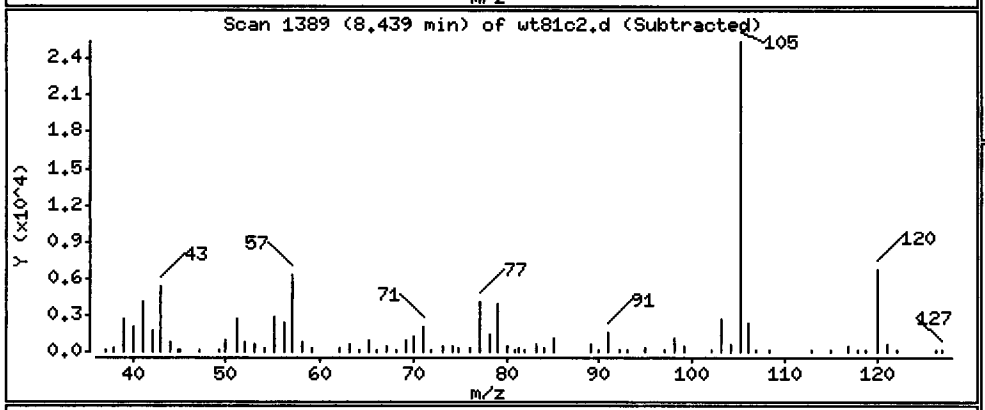
Column diameter: 0.18

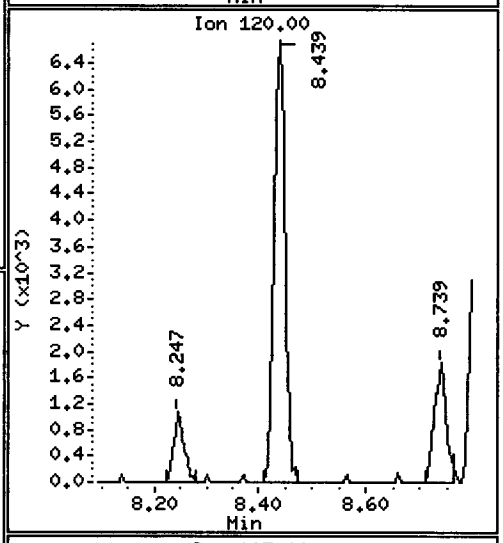
60 Isopropyl Benzene

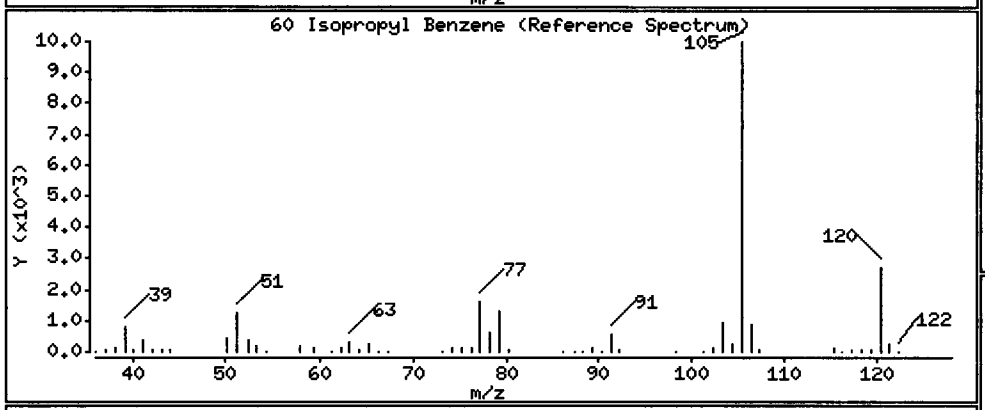
Concentration: 5.851 ug/Kg

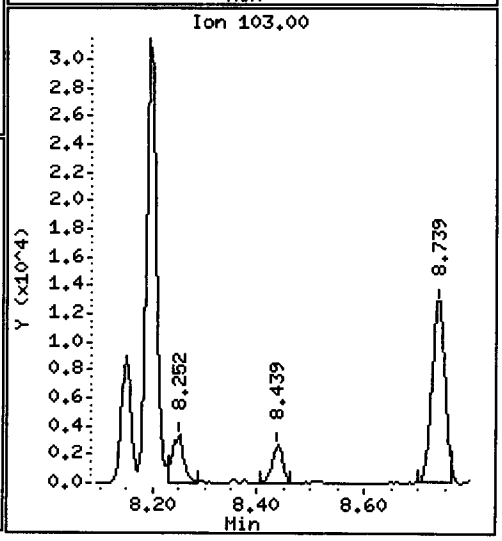


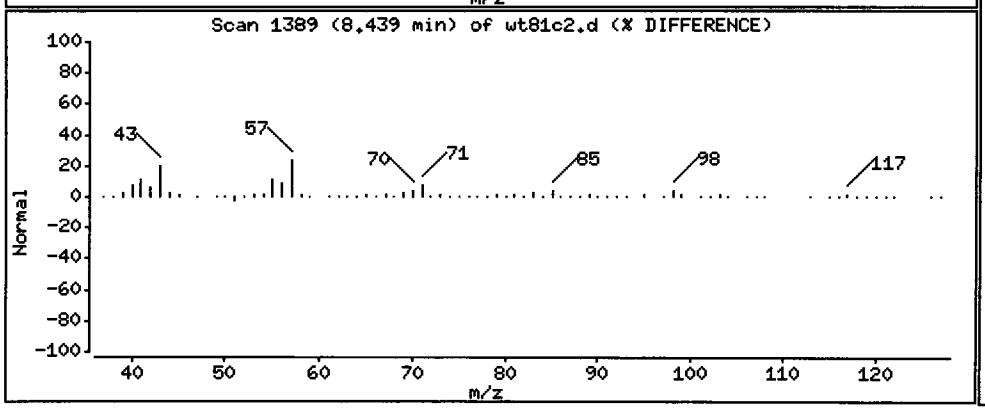












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

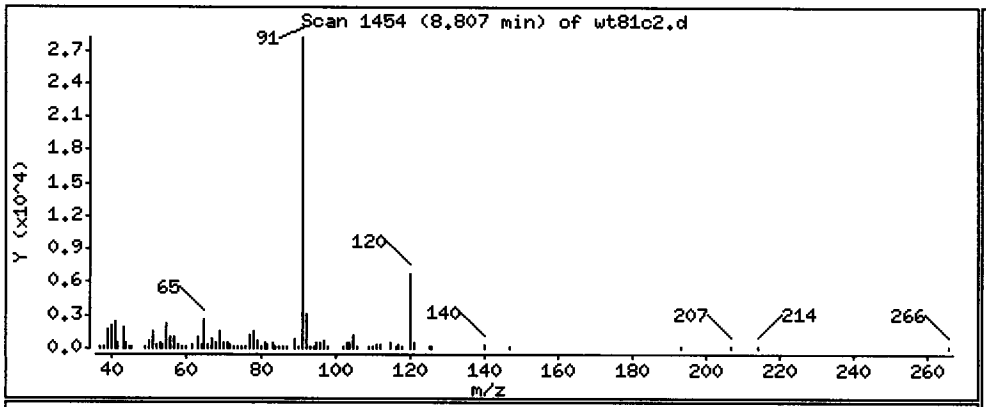
Operator: PB

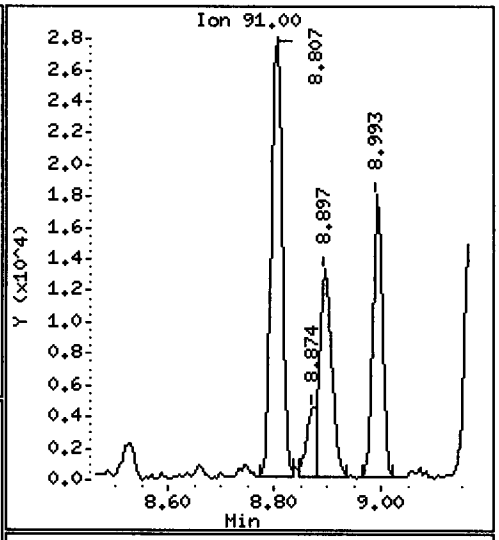
Column phase: RTXVMS

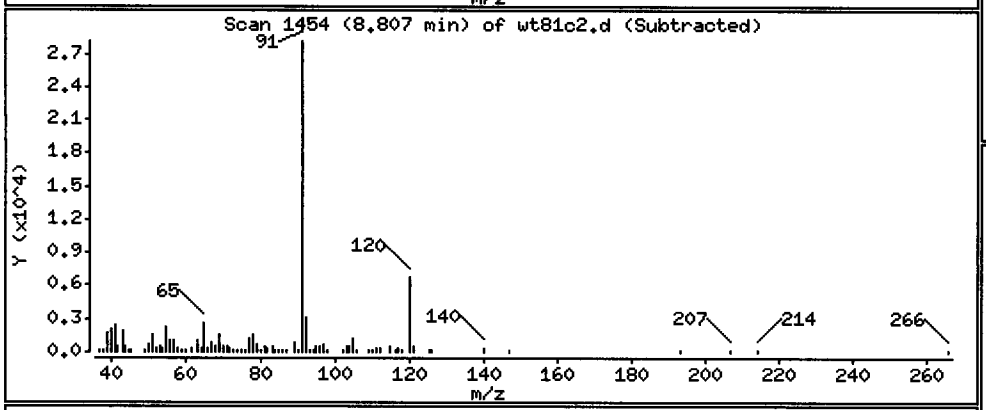
Column diameter: 0.18

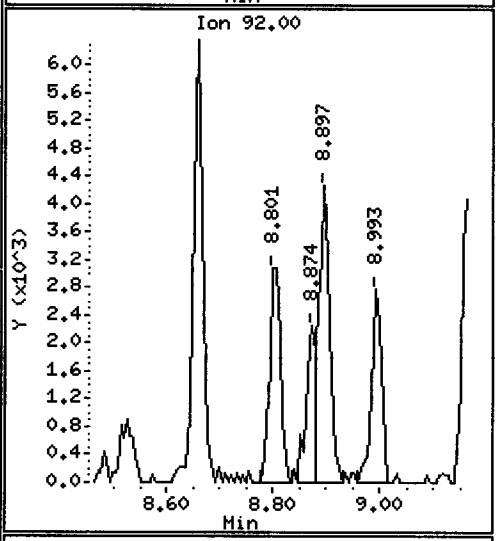
64 N-Propyl Benzene

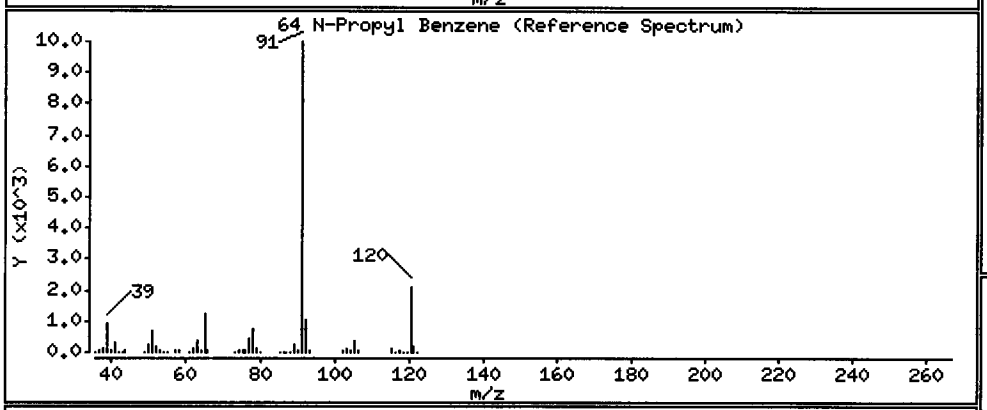
Concentration: 5.328 ug/Kg

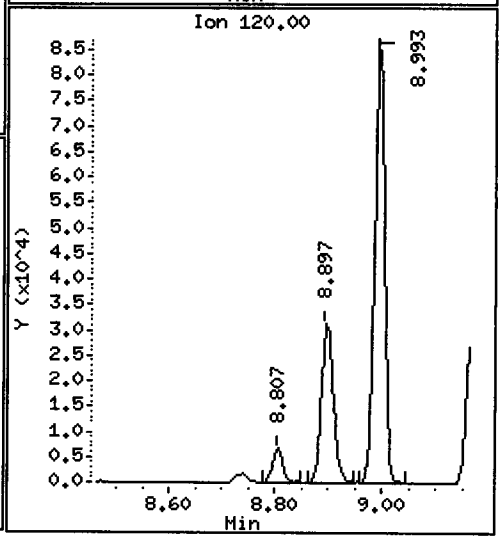


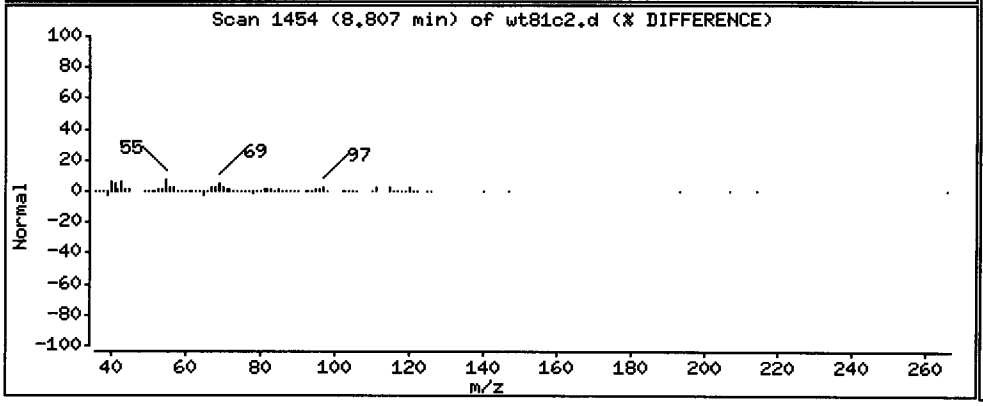












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

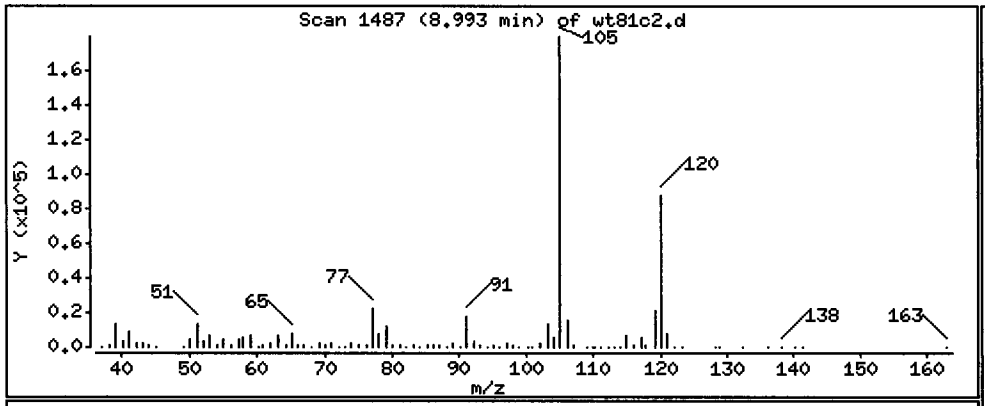
Operator: PB

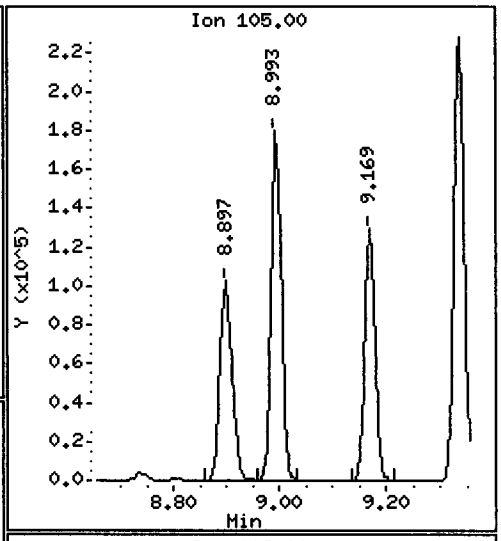
Column phase: RTXVMS

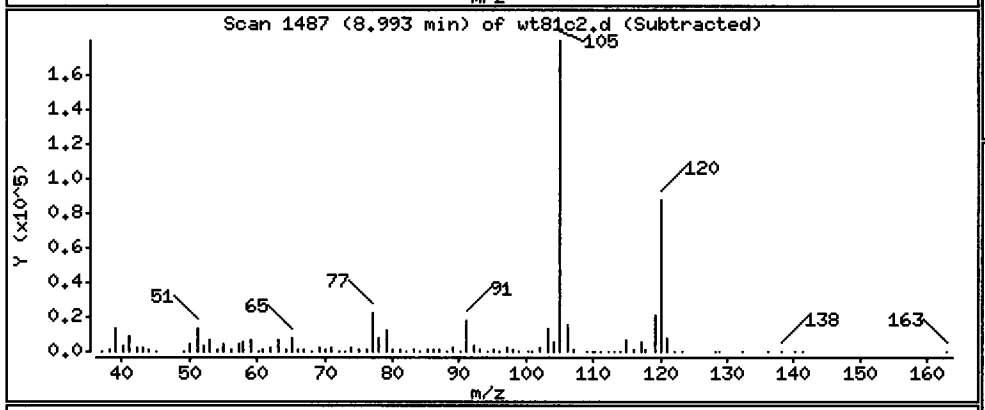
Column diameter: 0.18

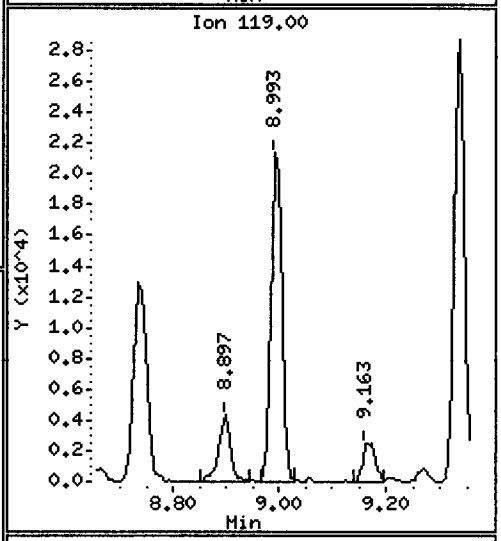
67 1,3,5-Trimethyl Benzene

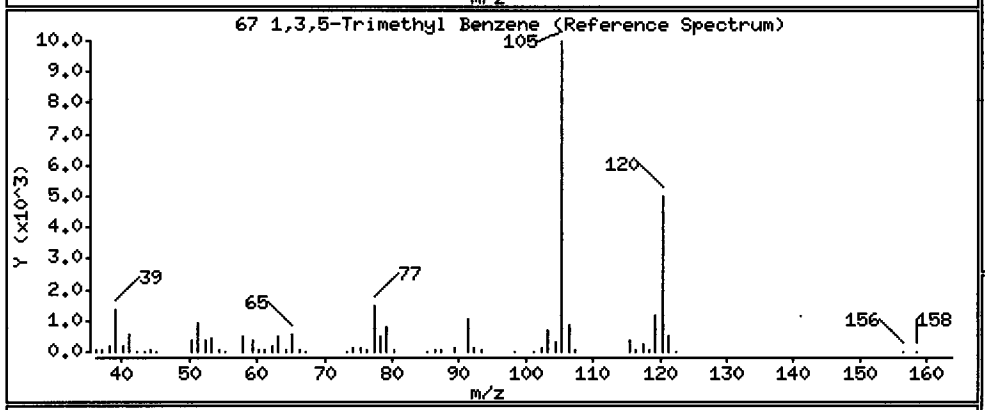
Concentration: 44.125 ug/Kg

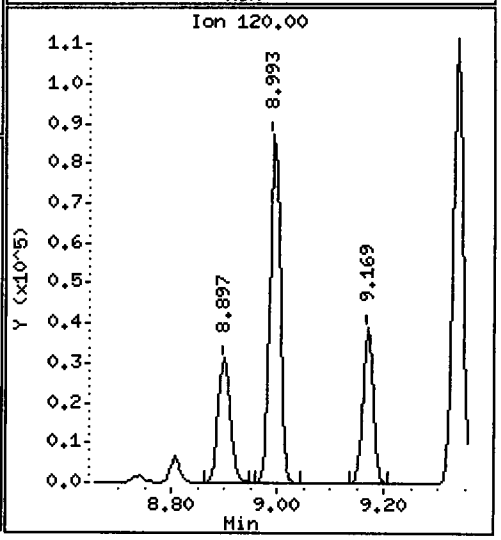


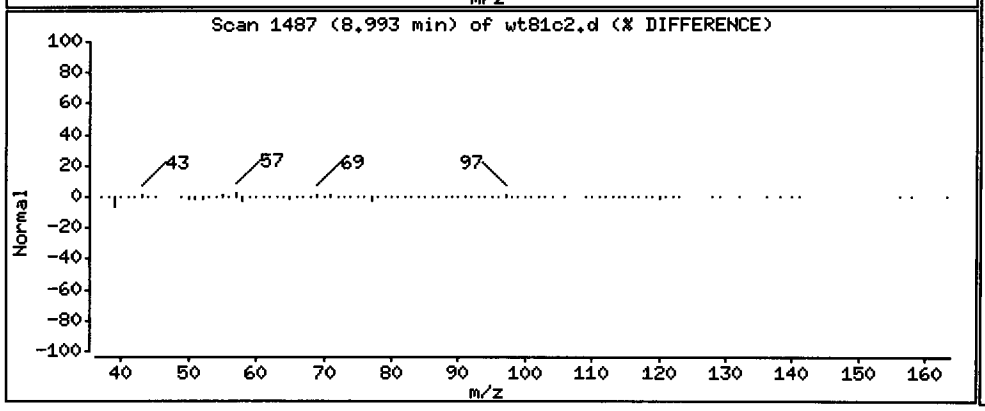












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

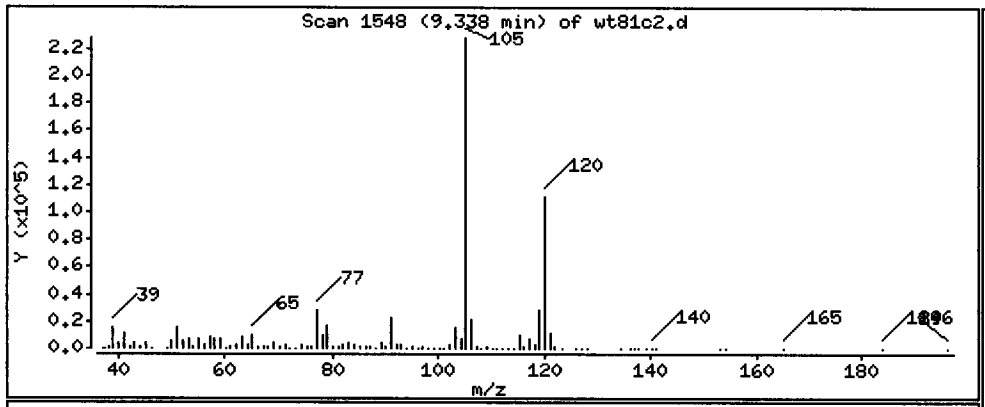
Operator: PB

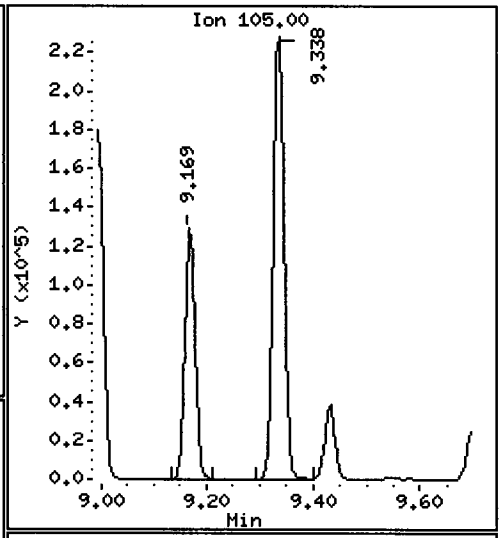
Column phase: RTXVMS

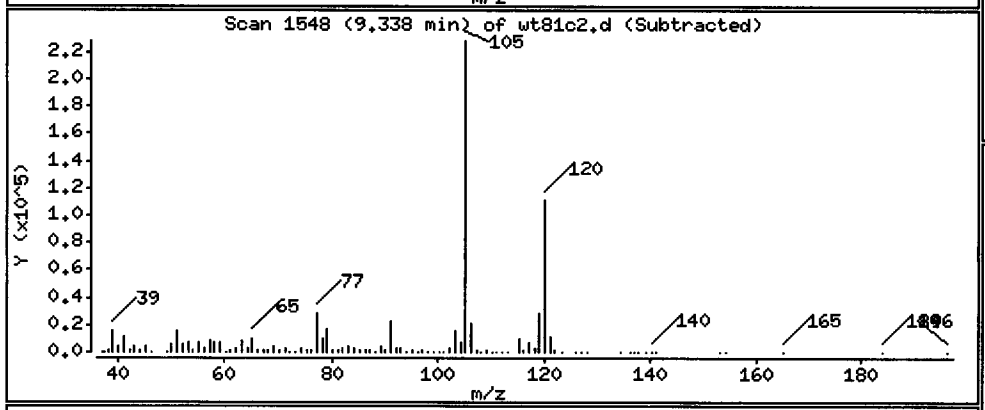
Column diameter: 0.18

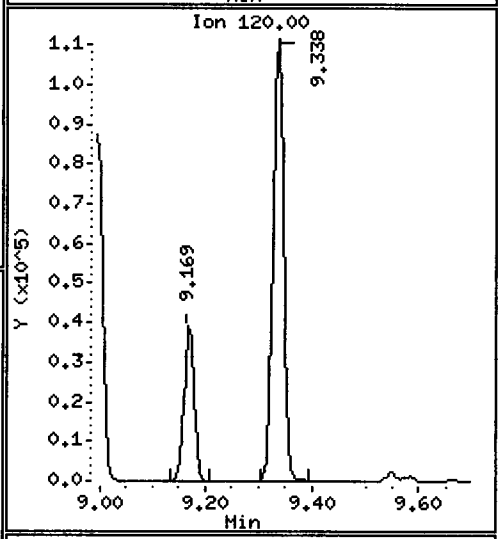
72 1,2,4-Trimethylbenzene

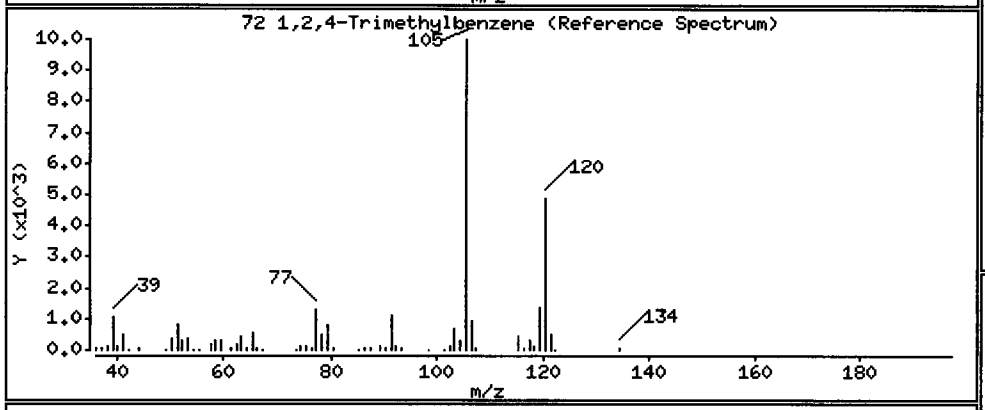
Concentration: 60.717 ug/Kg

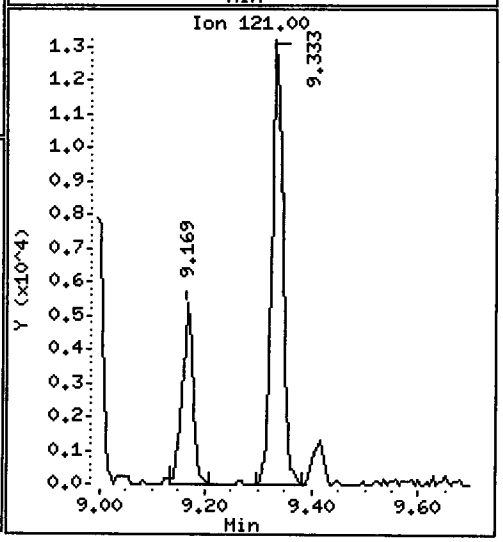


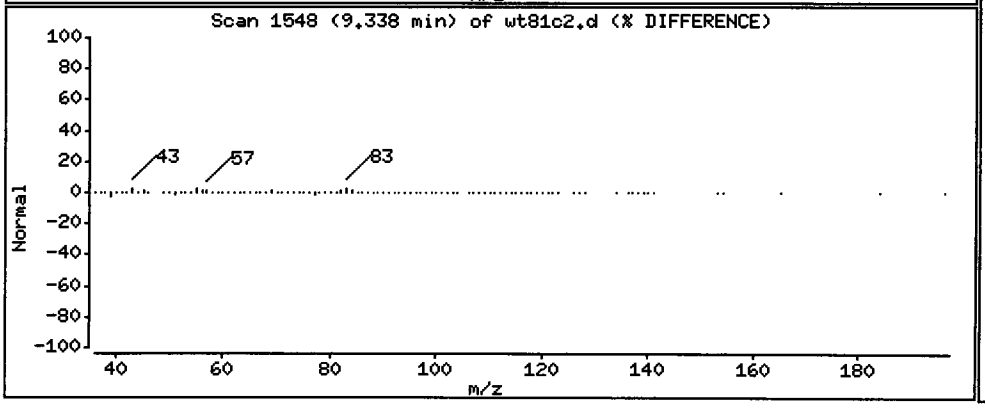












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

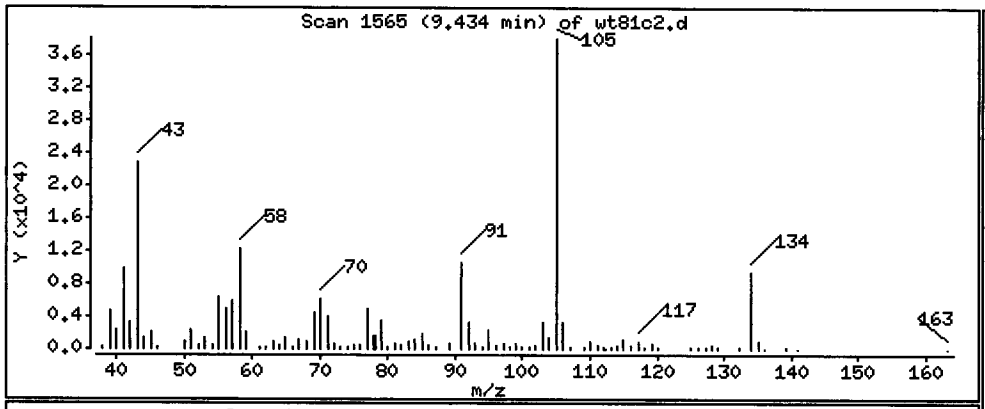
Operator: PB

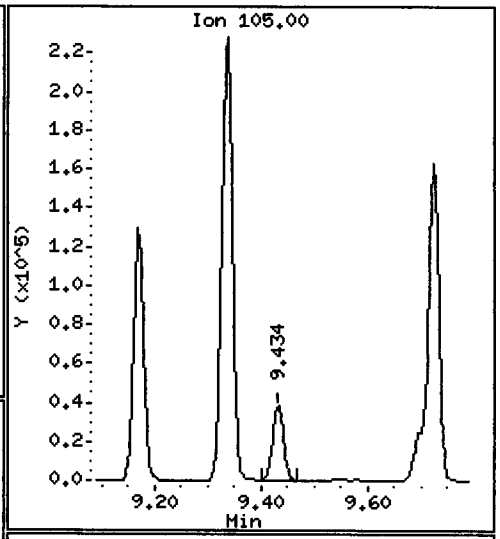
Column phase: RTXVMS

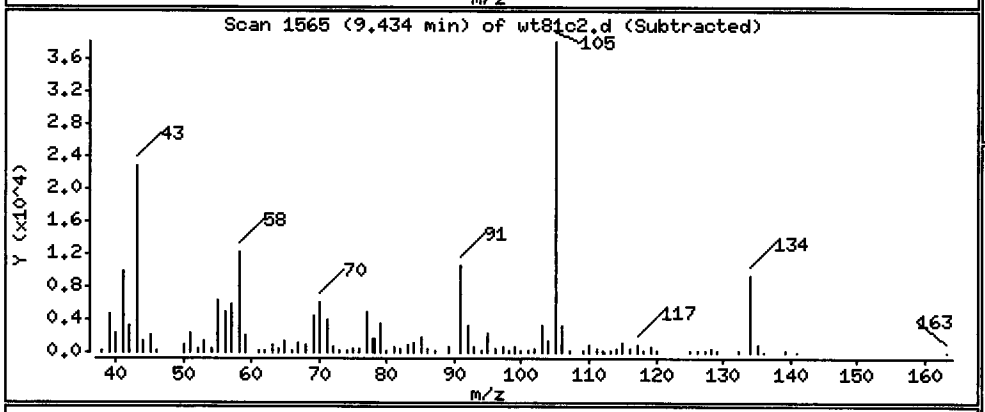
Column diameter: 0.18

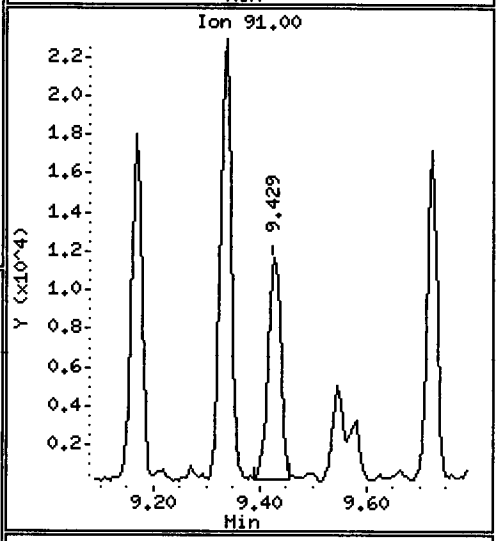
73 S-Butyl Benzene

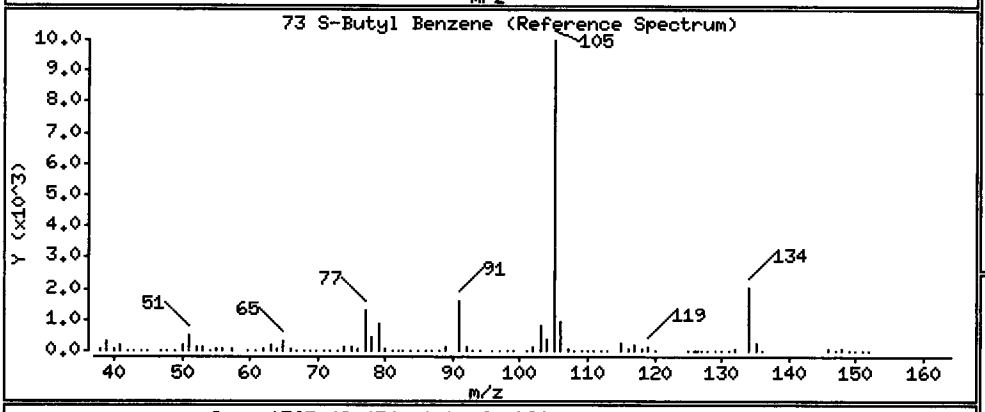
Concentration: 7.906 ug/Kg

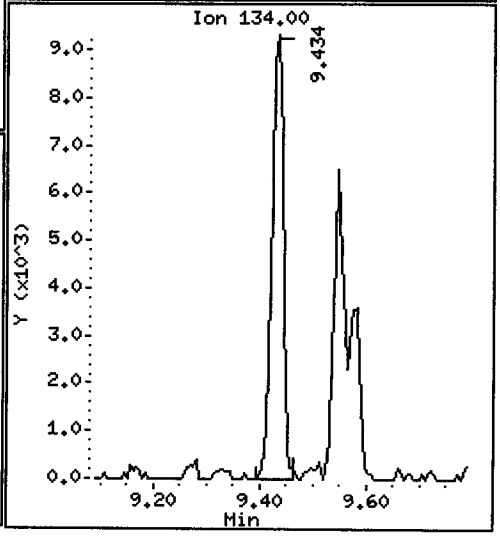


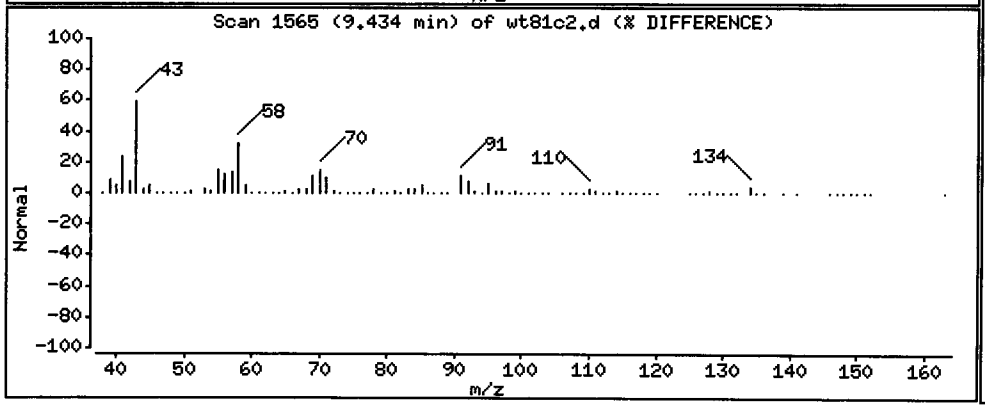












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

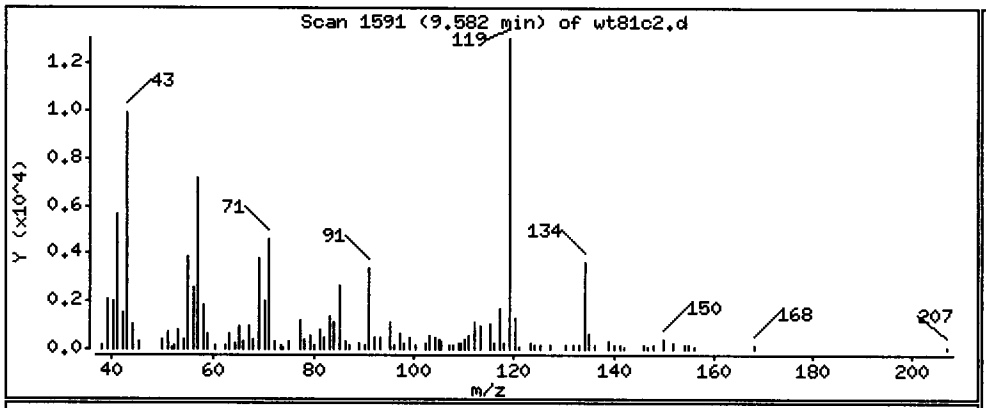
Operator: PB

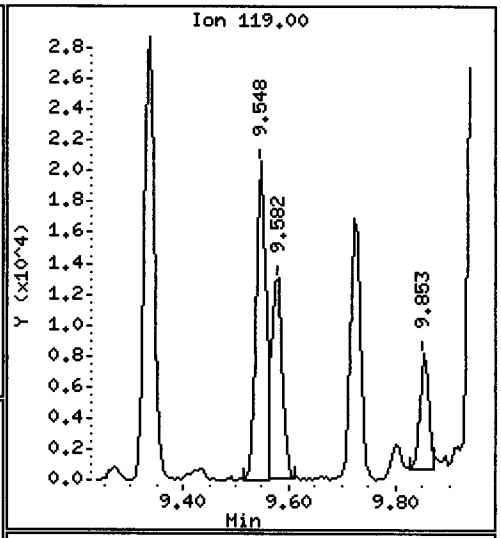
Column phase: RTXVMS

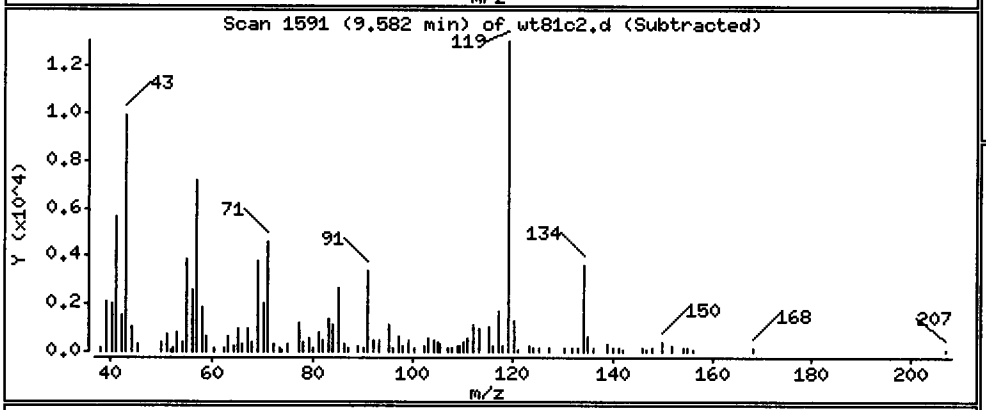
Column diameter: 0.18

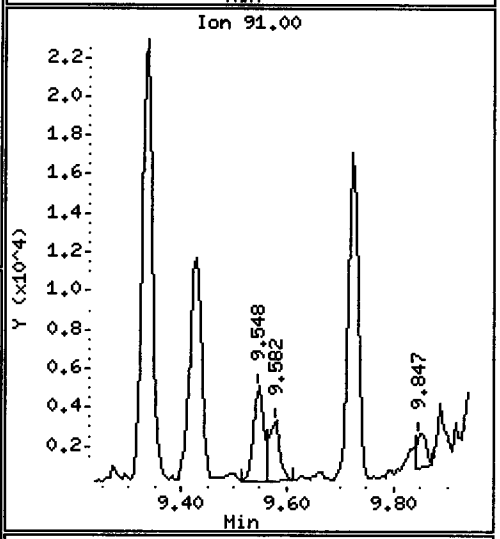
74 4-Isopropyl Toluene

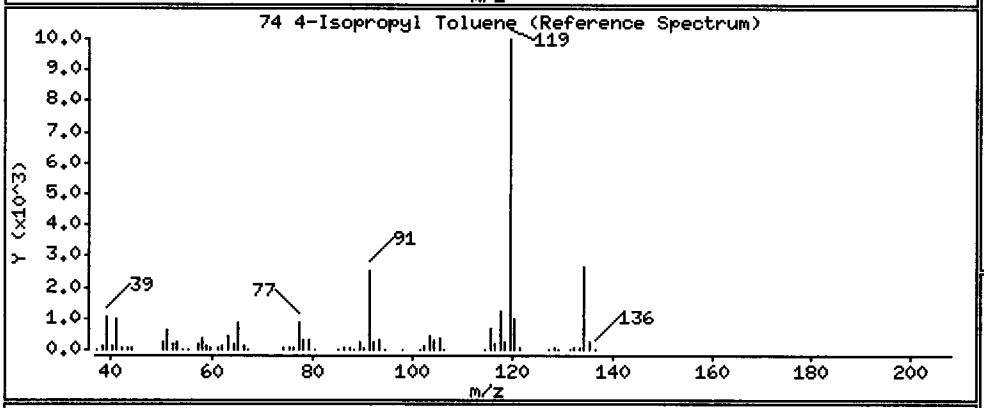
Concentration: 3.486 ug/Kg

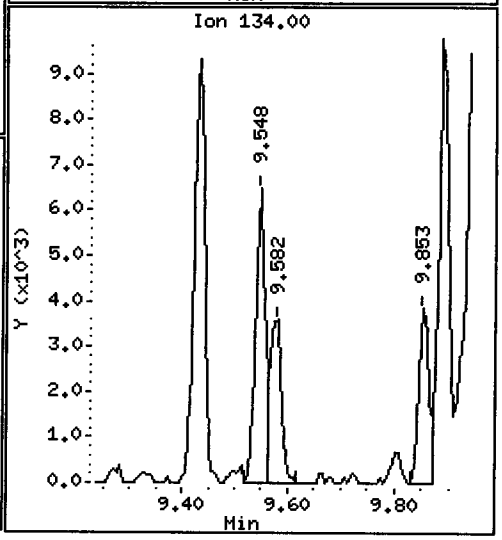


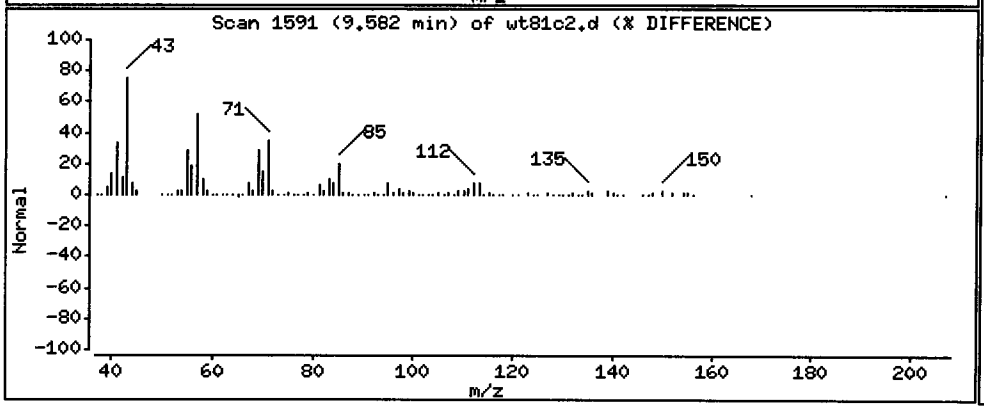












Data File: /chem1/nt5.i/17JUN13.b/wt81c2.d

Date : 17-JUN-2013 19:30

Client ID: AM-FD-01-20130612-S

Instrument: nt5.i

Sample Info: WT81C,5,7.42,0

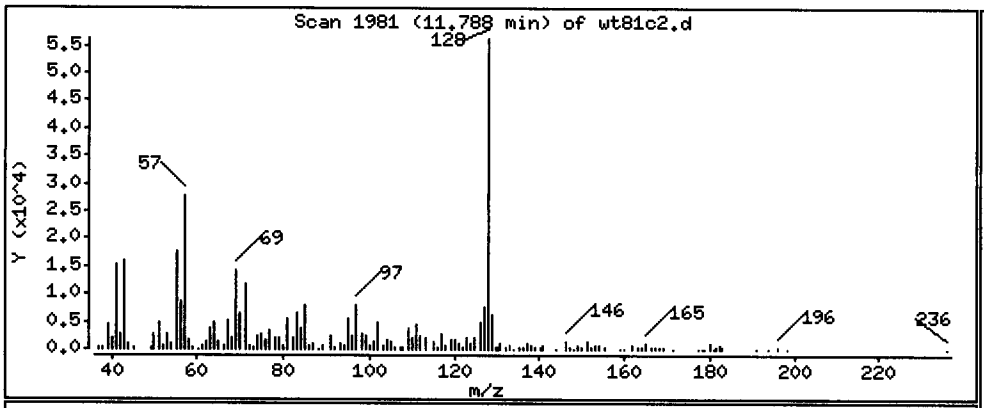
Operator: PB

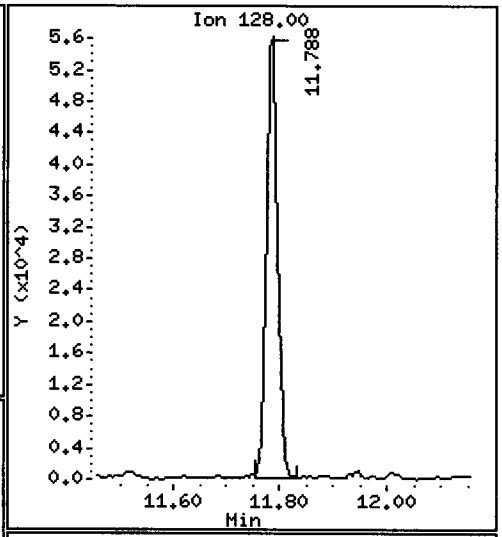
Column phase: RTXVMS

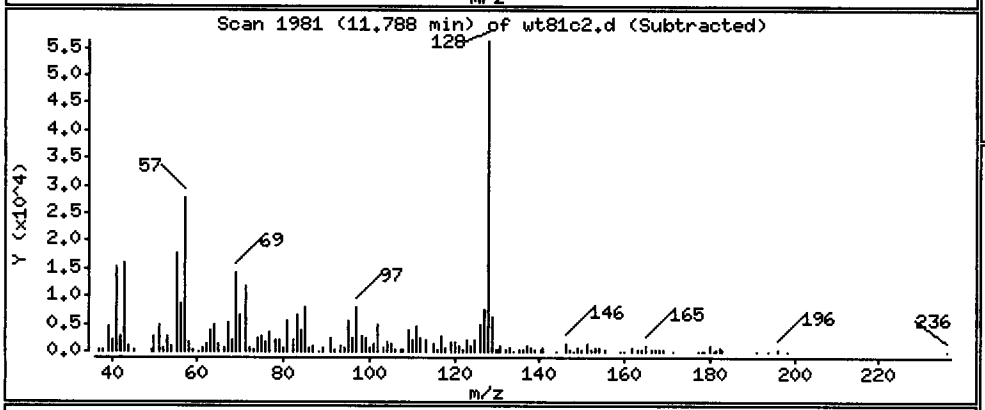
Column diameter: 0.18

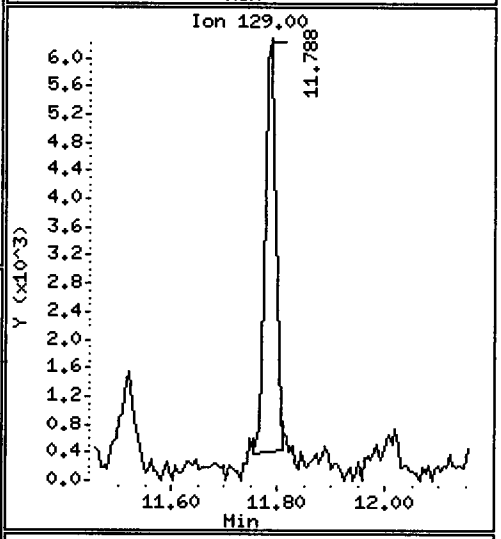
84 Naphthalene

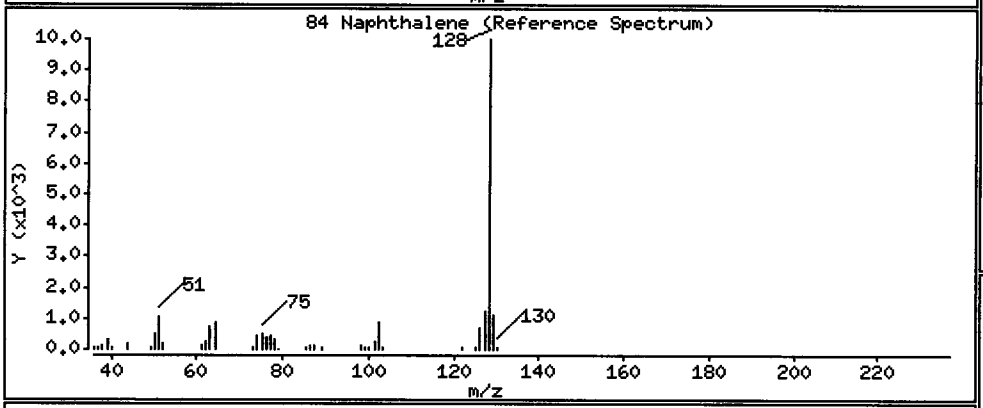
Concentration: 17.864 ug/Kg

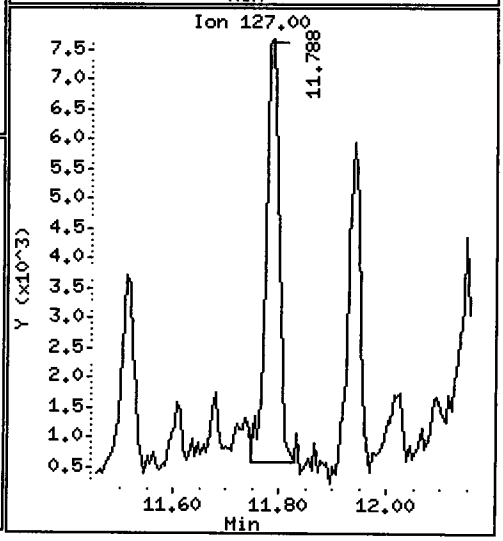


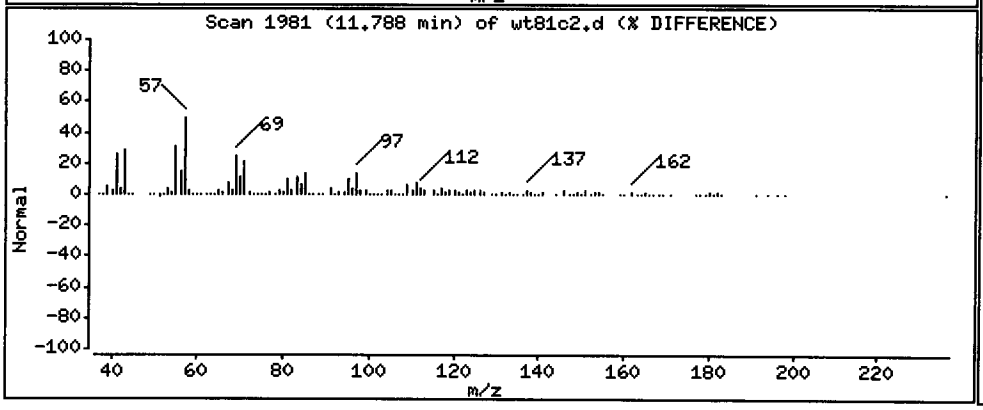












CO-ELUTION SUMMARY FOR FILE - wt81c2.d

Lab ID: WT81C, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

8260C

Data file : /chem1/nt5.i/17JUN13.b/wt81d.d
Lab Smp Id: WT81D Client Smp ID: AM-TB-01-20130612-W
Inj Date : 17-JUN-2013 17:54
Operator : PB Inst ID: nt5.i
Smp Info : WT81D,5,5,0
Misc Info : 13-12639
Comment :
Method : /chem1/nt5.i/17JUN13.b/VO121012S.m
Meth Date : 27-Jun-2013 07:53 patrickb Quant Type: ISTD
Cal Date : 11-JUN-2013 08:57 Cal File: 2000611.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	0.00000	Purge Volume (mL)
Sa	0.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/L)
1	Dichlorodifluoromethane	85	Compound Not Detected.					
2	Chloromethane	50	Compound Not Detected.					
3	Vinyl Chloride	62	Compound Not Detected.					
4	Bromomethane	94	Compound Not Detected.					
5	Chloroethane	64	Compound Not Detected.					
6	Trichlorofluoromethane	101	Compound Not Detected.					
7	1,1-Dichloroethene	96	Compound Not Detected.					
8	Carbon Disulfide	76	Compound Not Detected.					
9	112Trichloro122Trifluoroethane	101	Compound Not Detected.					
10	Iodomethane	142	Compound Not Detected.					
11	Bromoethane	108	Compound Not Detected.					
12	Acrolein	56	Compound Not Detected.					
13	Methylene Chloride	84	2.437	2.454	(0.522)	36350	3.52345	3.523
14	Acetone	43	2.680	2.754	(0.574)	9963	2.51968	2.520
15	Trans-1,2-Dichloroethene	96	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/L)
	16 Methyl tert butyl ether	73	Compound Not Detected.					
	17 1,1-Dichloroethane	63	Compound Not Detected.					
	18 Acrylonitrile	53	Compound Not Detected.					
	19 Vinyl Acetate	43	Compound Not Detected.					
	20 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
	22 2,2-Dichloropropane	77	Compound Not Detected.					
	23 Bromochloromethane	128	Compound Not Detected.					
	24 Chloroform	83	Compound Not Detected.					
	25 Carbon Tetrachloride	117	Compound Not Detected.					
$	27 Dibromofluoromethane	111	4.191	4.196	(0.898)	828989	60.9196	60.920
	26 1,1,1-Trichloroethane	97	Compound Not Detected.					
	28 1,1-Dichloropropene	75	Compound Not Detected.					
	29 2-Butanone	72	Compound Not Detected.					
	30 Benzene	78	Compound Not Detected.					
*	31 Pentafluorobenzene	168	4.666	4.672	(1.000)	474415	50.0000	
$	32 d4-1,2-Dichloroethane	65	4.654	4.666	(0.998)	770078	60.5679	60.568
	33 1,2-Dichloroethane	62	Compound Not Detected.					
	34 Trichloroethene	95	Compound Not Detected.					
*	35 1,4-Difluorobenzene	114	5.118	5.118	(1.000)	2035103	50.0000	
	37 Dibromomethane	93	Compound Not Detected.					
	38 1,2-Dichloropropane	63	Compound Not Detected.					
	39 Bromodichloromethane	83	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	42 d8-Toluene	98	6.289	6.295	(1.229)	3047947	51.1102	51.110
	43 Toluene	92	6.329	6.335	(1.237)	16417	0.40074	0.4007
	44 Tetrachloroethene	166	Compound Not Detected.					
	45 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	46 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 Chlorodibromomethane	129	Compound Not Detected.					
	49 1,3-Dichloropropane	76	Compound Not Detected.					
	50 1,2-Dibromoethane	107	Compound Not Detected.					
	51 2-Hexanone	43	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	7.590	7.596	(1.000)	2531220	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	60 Isopropyl Benzene	105	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	8.660	8.665	(1.141)	1399719	50.6821	50.682
	63 Bromobenzene	156	Compound Not Detected.					
	64 N-Propyl Benzene	91	Compound Not Detected.					
	65 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/L)
66	2-Chloro Toluene	91	Compound Not Detected.					
67	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
68	1,2,3-Trichloropropane	110	Compound Not Detected.					
69	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	9.666	9.672	(1.000)	1413163	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	10.051	10.057	(1.040)	1490669	51.7792	51.779
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
83	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt5.i
Lab File ID: wt81d.d
Lab Smp Id: WT81D
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12639

Calibration Date: 17-JUN-2013
Calibration Time: 10:36
Client Smp ID: AM-TB-01-20130612-W
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	459631	229816	919262	474415	3.22
35 1,4-Difluorobenze	1692431	846216	3384862	2035103	20.25
52 d5-Chlorobenzene	1987215	993608	3974430	2531220	27.38
76 d4-1,4-Dichlorobe	1075398	537699	2150796	1413163	31.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
31 Pentafluorobenzen	4.67	4.17	5.17	4.67	-0.12
35 1,4-Difluorobenze	5.12	4.62	5.62	5.12	0.00
52 d5-Chlorobenzene	7.60	7.10	8.10	7.59	-0.08
76 d4-1,4-Dichlorobe	9.67	9.17	10.17	9.67	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: LIQUID
Lab Smp Id: WT81D
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/nt5.i/17JUN13.b/VO121012S.m
Misc Info: 13-12639

Client SDG: WT81
Fraction: VOA
Client Smp ID: AM-TB-01-20130612-W
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

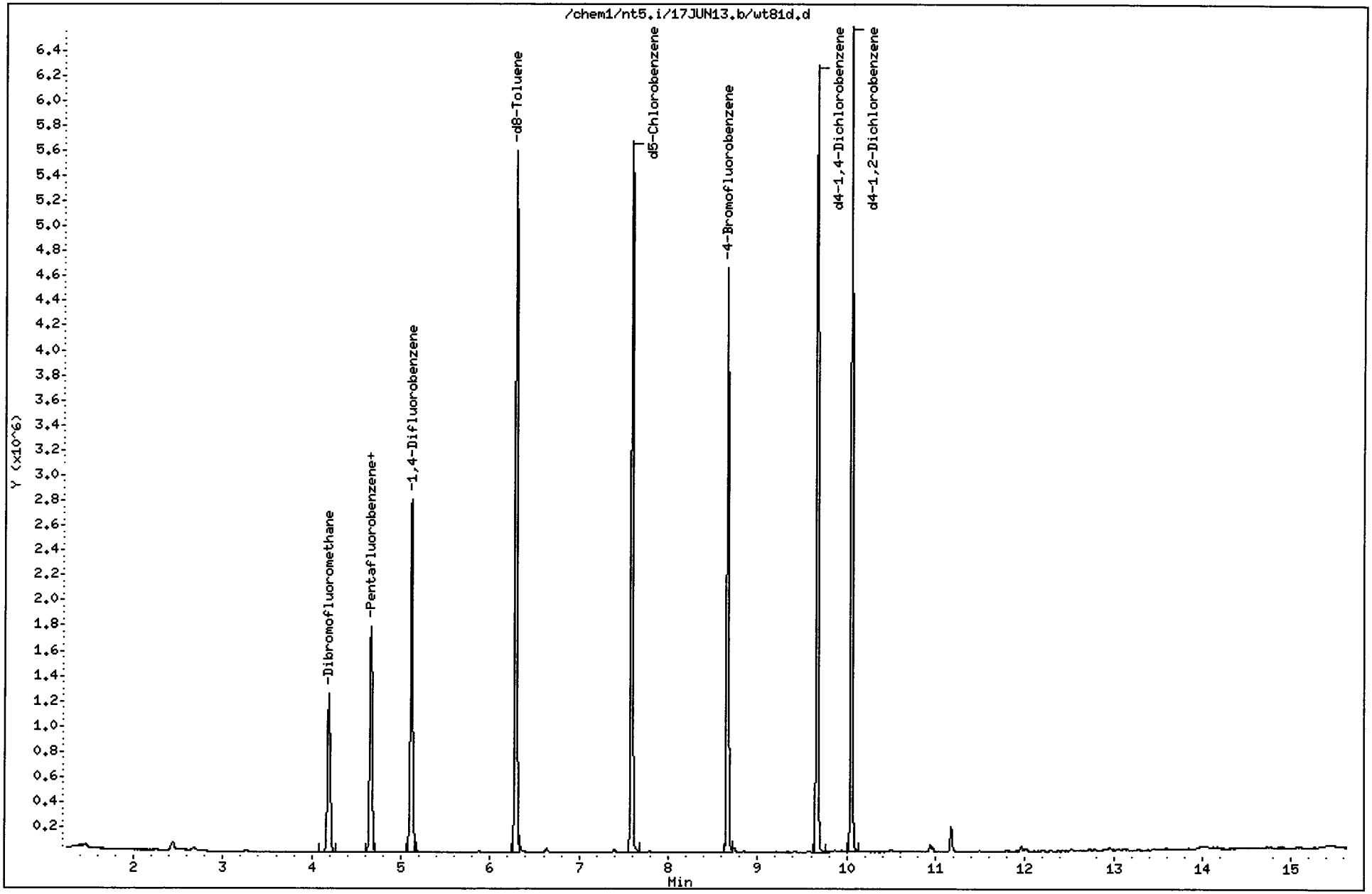
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 27 Dibromofluorometha	50.000	60.920	121.84	30-160
$ 32 d4-1,2-Dichloroeth	50.000	60.568	121.14	75-152
$ 42 d8-Toluene	50.000	51.110	102.22	82-115
$ 62 4-Bromofluorobenze	50.000	50.682	101.36	71-120
$ 79 d4-1,2-Dichloroben	50.000	51.779	103.56	80-121

Data File: /chem1/nt5.i/17JUN13.b/wt81d.d
Date : 17-JUN-2013 17:54
Client ID: AM-TB-01-20130612-W
Sample Info: WT81D,5,5,0

Instrument: nt5.i

Operator: PB
Column diameter: 0.18

Column phase: RTXVMS



Data File: /chem1/nt5.i/17JUN13.b/wt81d.d

Date : 17-JUN-2013 17:54

Client ID: AM-TB-01-20130612-W

Instrument: nt5.i

Sample Info: WT81D,5,5,0

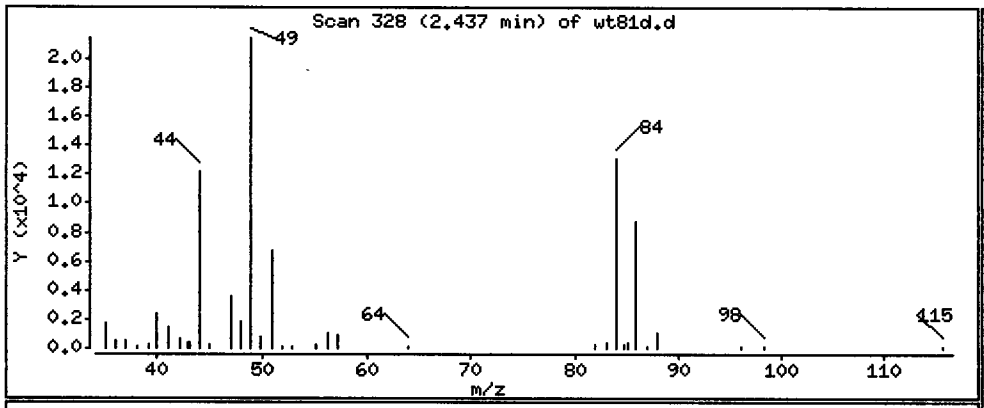
Operator: PB

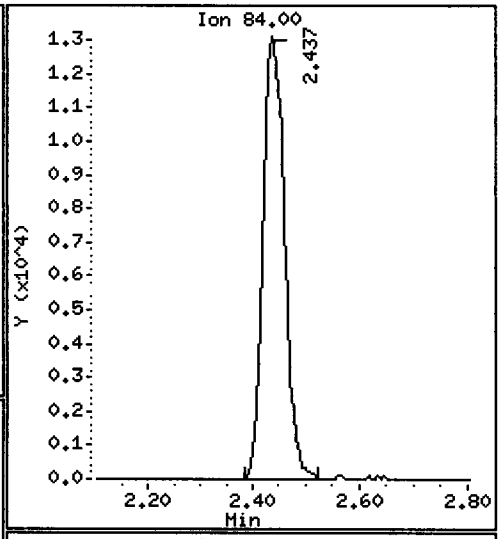
Column phase: RTXVMS

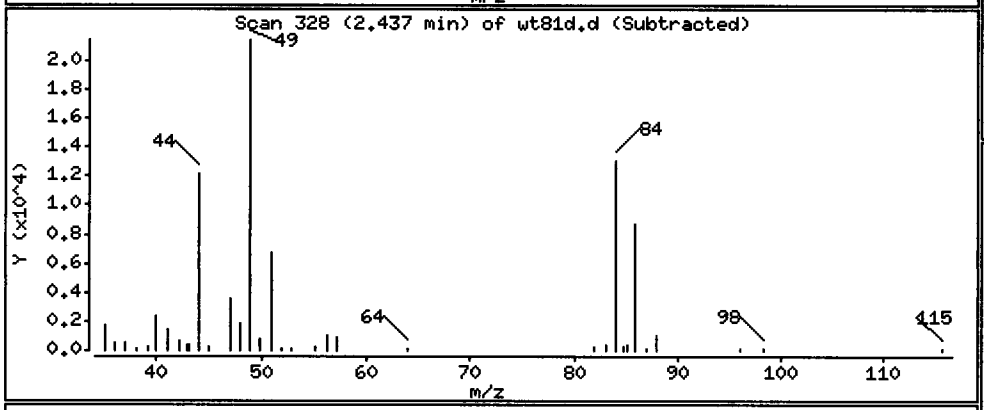
Column diameter: 0.18

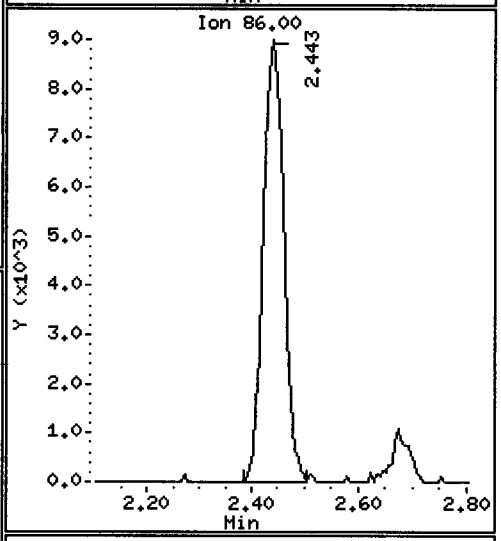
13 Methylene Chloride

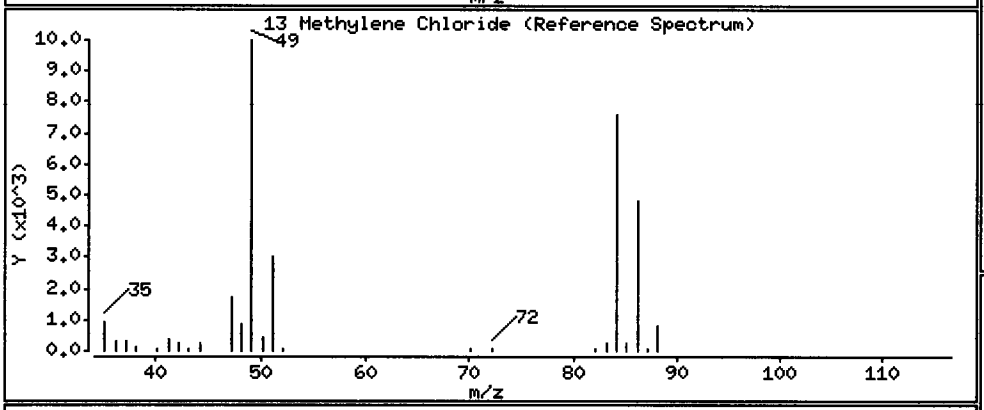
Concentration: 3.523 ug/L

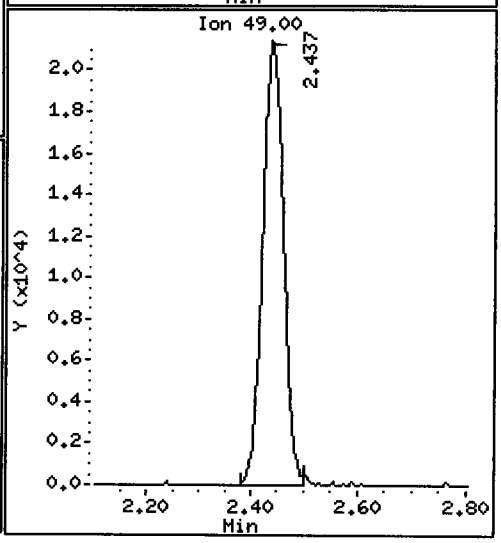


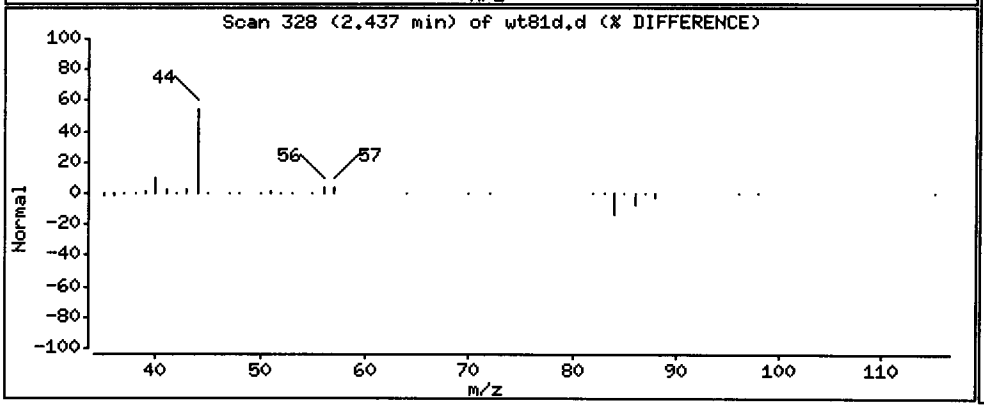












Data File: /chem1/nt5.i/17JUN13.b/wt81d.d

Date : 17-JUN-2013 17:54

Client ID: AM-TB-01-20130612-W

Instrument: nt5.i

Sample Info: WT81D,5,5,0

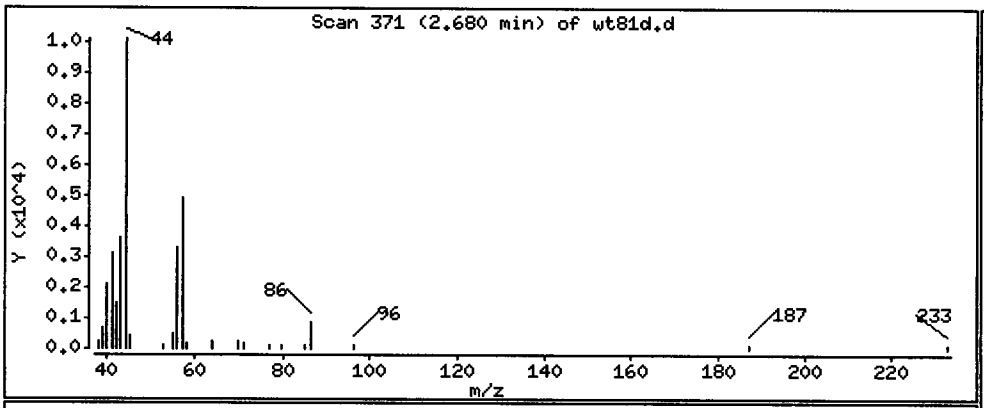
Operator: PB

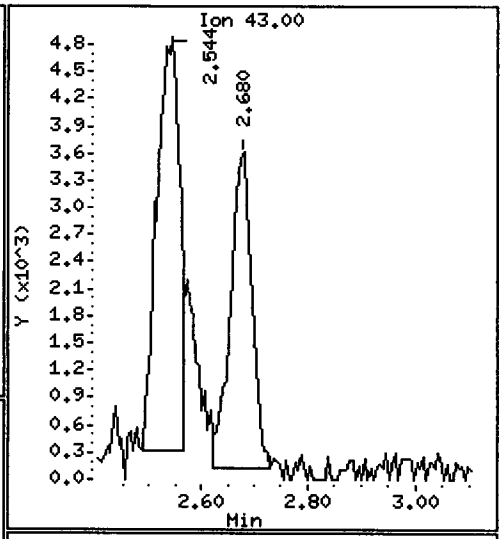
Column phase: RTXVMS

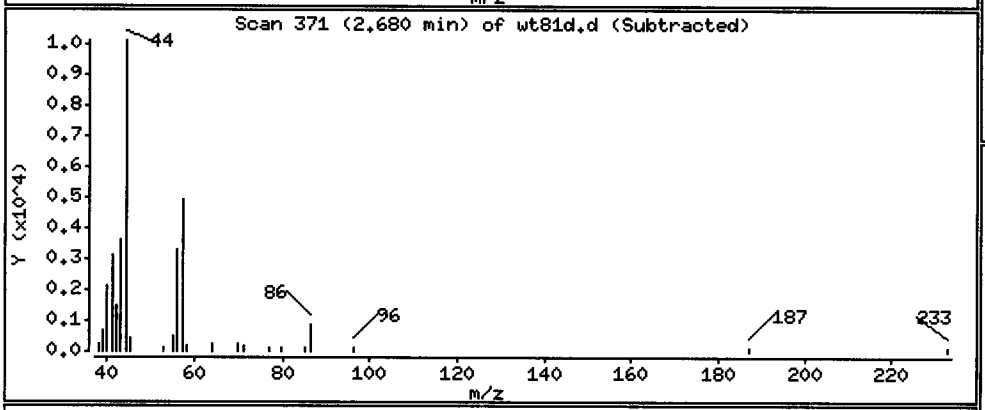
Column diameter: 0.18

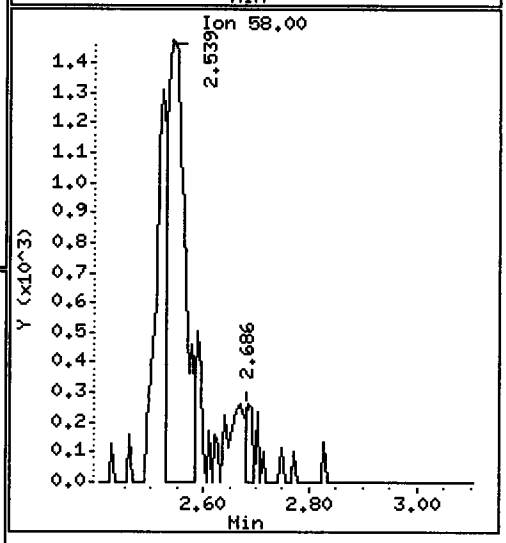
14 Acetone

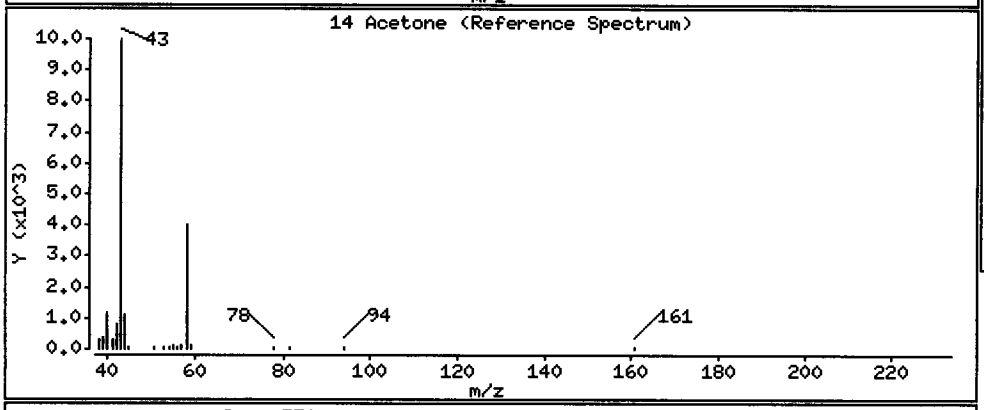
Concentration: 2.520 ug/L

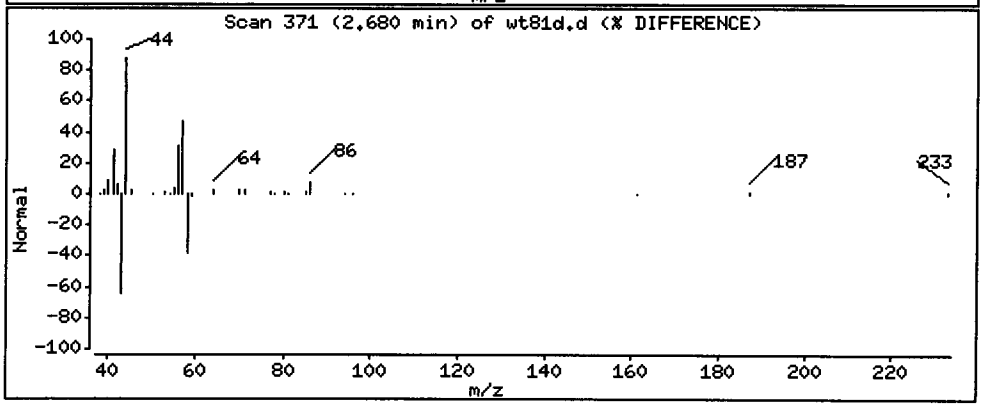












Data File: /chem1/nt5.i/17JUN13.b/wt81d.d

Date : 17-JUN-2013 17:54

Client ID: AM-TB-01-20130612-W

Instrument: nt5.i

Sample Info: WT81D,5,5,0

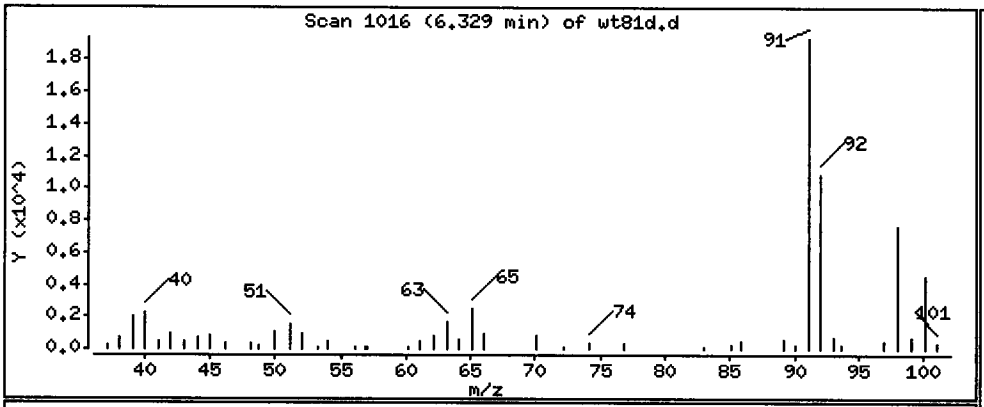
Operator: PB

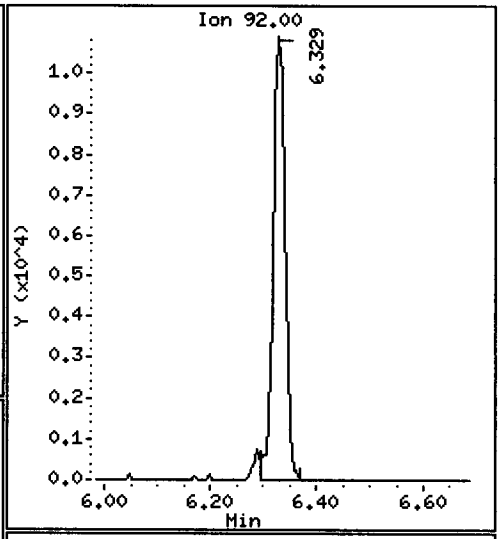
Column phase: RTXVMS

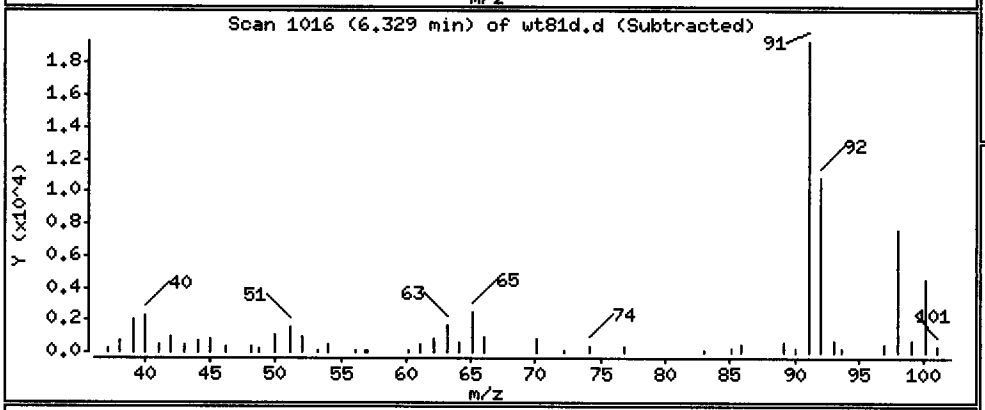
Column diameter: 0.18

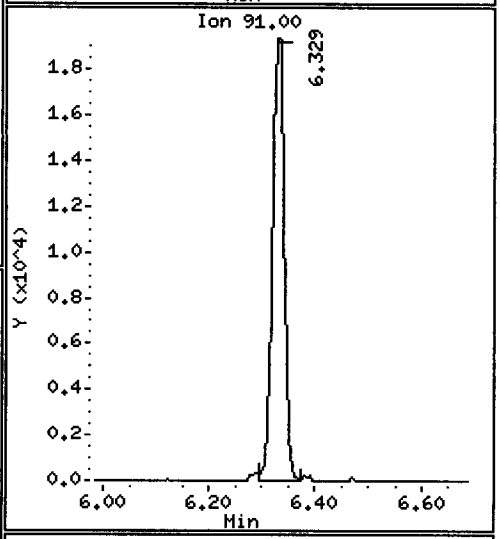
43 Toluene

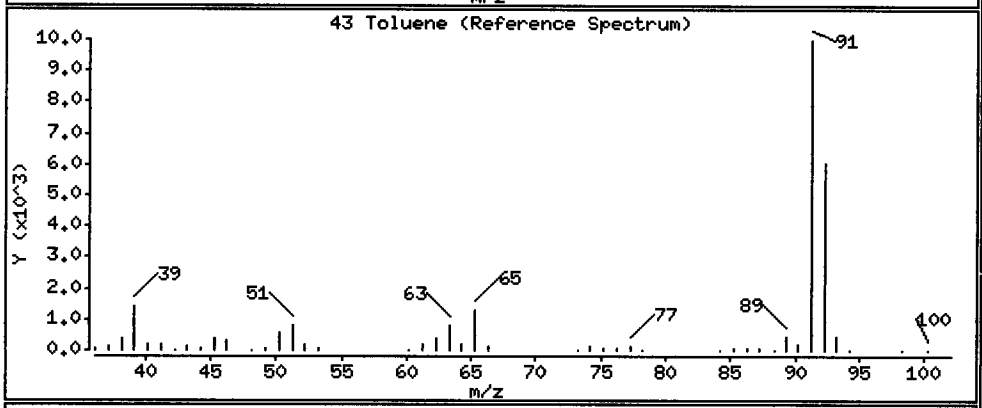
Concentration: 0.4007 ug/L

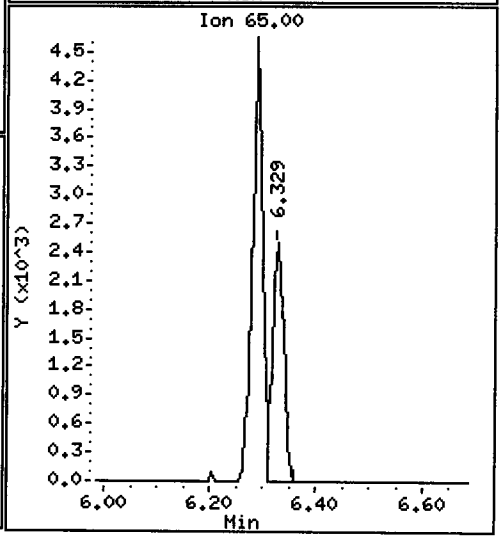


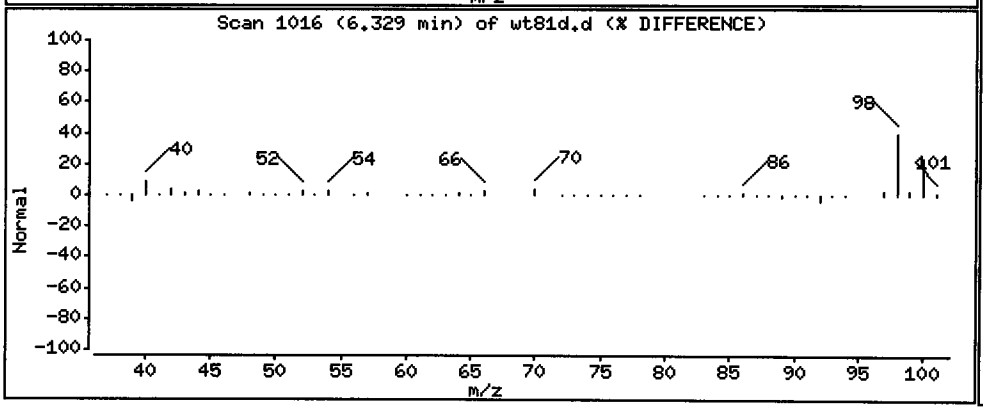












CO-ELUTION SUMMARY FOR FILE - wt81d.d

Lab ID: WT81D, Method: VO121012S.m, Instrument: nt5.i, Date: 17-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Analytical Chemists and Consultants

(8270D) BAN/SIM SVOA PSDDA-Soil/Sediment Microwave (3546) (SOP # 3304S)

Preparation Test BAN/SIM SVOA PSDDA # 9 (BANSBANSDMP)

PSDDA (5-20ppb)

ARI Job No(s) WT86, WT81 Page 1 of 1 Batch set up by: JH

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(REQ) GPC (1:1) 1 or 2	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	WT86 MBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	YL 06/18/13 Analyst/Date
	SBS	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave (1) 2 3 CT 06/18/13 Analyst/Date
	SBS Dup.	10.00g	(1:1) (Y) / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	KD 80-85°C 1 2 3 4 5 6 Analyst/Date 06/19/13
	~~QLS~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	
	~~QLS (SIM)~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	TurboVap 1 (2) 3
1	WT86 A	16.00	(1:1) (Y) / N	1mL	1mL	See Analyst Notes	CSZ 6/20/13 Analyst/Date
3	WT81 A	10.00	(1:1) (Y) / N	1mL	1mL		GPC Prep Filter (1:1)
8	B	7.03	(1:1) (Y) / N	1mL	1mL		CSZ 6/20/13 Analyst/Date
8	Bms	7.00	(1:1) (Y) / N	1mL	1mL		
8	Bmsd	7.00	(1:1) (Y) / N	1mL	1mL		Post GPC KD 80-85°C 1 2 3 4 5 6 06/21/13 Analyst/Date
8	C	7.00	(1:1) (Y) / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL	Reviewed by	TurboVap (1) 2 3 Analyst/Date SR 6/21/13
Analyst/Date	YL 06/18/13		CSZ 6/20/13	SR 6/21/13	SR 6/21/13	SR 6/21/13	

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2093-4)	100/150µg/mL	50µL	7/02/13	CT	AC
Full List Spike (Freezer)	7 (2065-5)	100µg/mL	50µL	1/29/14	CT	AC
Base Spike	56 (2065-2)	200µg/mL	50µL	7/31/13	CT	AC
Acid Spike	38 (2091-4)	100/150µg/mL	50µL	2/28/14	CT	AC
~~QLS Spike (14 in Freezer)~~	~~14( )~~	~~100/200µg/mL~~	~~20µL~~			
~~SIM QLS Spike (Freezer)~~	~~25( )~~	~~1µg/mL~~	~~50µL~~			
Extraction Time: 1150			Balance ID: B14642614			

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-rehomogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD (small ~~column~~ drying column with pre-deactivated glasswool-Blanks=5g sulfate)) to 5mL at 80- 85°C. 12. GPC Req. 13. (After GPC): KD at 80-85°. 14. TurboVap. 15. Vial in DCM.

A. Need Total Solids Y / (N) B. ~~Archive~~/Freeze (Y) N WT86 only

12654
12637

Revision 6
02/22/13

WT81 30C80

Reagent and Solutions Identification

(8270D) BAN/SIM SVOA PSDDA–Soil/Sediment
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WT86, WT81

(8270D) BAN/SIM SVOA PSDDA Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station: Pre-Deactivated Sodium Sulfate: (H# 157) Anhydrous Sodium Sulfate: (I# 9134 + jar date 5/24/13) 1:1 Methylene Chloride/Acetone: (H# 044) Methylene Chloride: (I# 8279) Pre-Deactivated Glas swool: (H# 184)	Microwave CT 6/18/13
Pre-GPC KD Station: Pre-Deactivated Glas swool: (H# 182) Anhydrous Sodium Sulfate: (I# 8132 + jar date 5/24/13) Methylene Chloride: (I# 8279)	Pre-GPC KD QR 6/19/13
GPC Filter Prep: Methylene Chloride: (I# 8279)	GPC Filter Prep CJZ 6/20/13
GPC Station: Acetone: (I# 8245) Methylene Chloride: (I# 8279)	GPC CJZ 6/20/13
Post GPC KD Station: Methylene Chloride: (I# 8279)	Post GPC KD QR 6/24/13
Vialing Station: Methylene Chloride: (I# 8279) Hexane: (I# N/A)	Vialing SP 6/21/13

WT81 : 86618

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WT81 Client ID: SAIC

Parameter: BAN/SIM SVOA Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other: C = wet	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)= A: sludge B: texture = pudding	AC 6-13-13
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GCMS analyst, (Centrifuge#1 used for all Centrifugations) reduced extraction weights for all samples, based on sample pre-screens.	JH 6/17/13

3056F

Revision 009
08/14/12

WT81 : 20611

Semivolatile Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) 805S(op-Pest)

Instrument: NT-4 NT-6 NT-8 (NT-10) NT11 NT12

Curve Date(s): 04/29/13 Internal Standard ID 1998-2 Expiration 07/03/13

DFTPP Tune Meets Criteria?	(YES) / NO	Minimum Response Factors Met/	(YES) / NO
DDT Breakdown <20%?	(YES) / NO	ICV Exceeding ±20%?	YES / NO
Peak Tailing Factor ≤2?	(YES) / NO	ICV Exceeding ±30%?	(YES) / NO
ICal Meets %RSD & r^2 Criteria?	(YES) / NO	Linear Fits Used?	Benzidine (YES) / (NO)
Q flag applied?	YES / (NO)	Quadratic Fits Used?	(YES) / NO
Manual Integrations for ICal?	(YES) / NO	Calibration Points Dropped?	(YES) / NO
Spectral Library Updated?	(YES) / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	2072-1	6/31/13	Ultra	2055-1	12/05/13
	2073-1	6/31/13		2054-1	12/31/13
	2004-2	10/25/14		2053-2	08/13/13
	B000112	10/15/13			
	1998-4	7/02/13			

Detail problems, corrective actions and/or other pertinent information below:

Benzoic acid, 2,4 Dinitrophenol, 4 Nitrophenol, Benzidine
4,6 Dinitro-2-methylphenol - quadratic fit used.

- Low point of the curve dropped for Benzoic acid, 4 Nitrophenol, 2,4 Dinitrophenol, Carbazol Benzidine

Analyst: YZ Date: 5/3/13

Reviewer: VD Date: 5.4.13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 4/29/13 Analysis: AOV/SIM AOV Analyst: YZ

GC Program: AOV_2 Column No: 247358 252945 Column Type: ZB5 MSI

Instrument Tune (.U or .CT.): BM28C4 EM Voltage: ~~1625~~ 1650

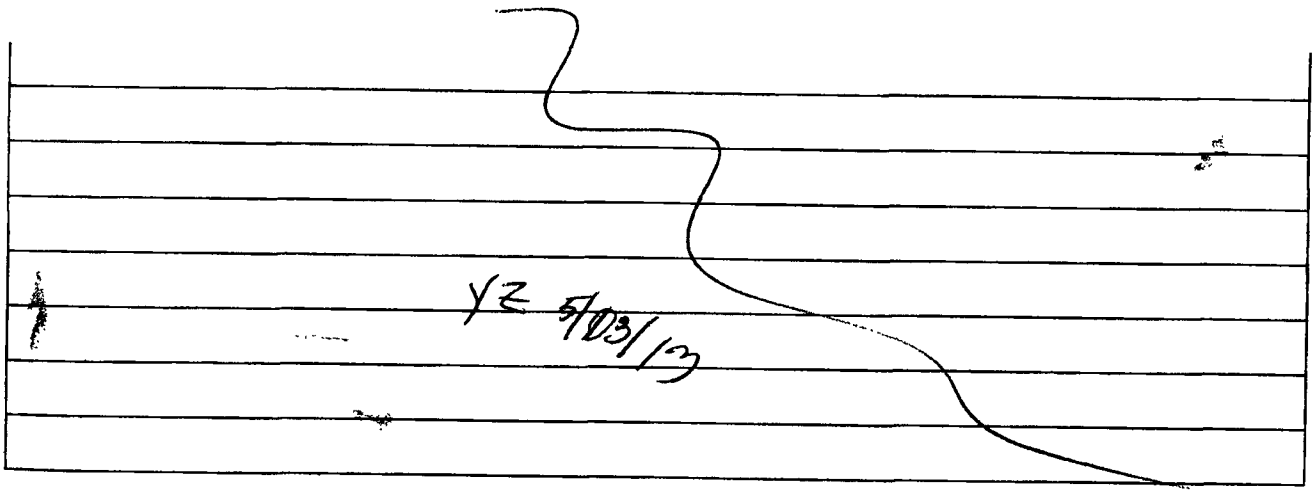
Calibration File: DF042 9 Curve Date: 04/29/13 Injection Vol.: 1 uL

IS/SS	Ical/Ccal		LCS/ICV
1998-2	~~2036-2~~	~~2050~~ 1,2	2053-1
	~~2044-2~~	~~1998-4~~	2054-1
	~~2068-2~~		2053-1
	2072-1	B000112	
	2073-1	1998-4	
	2064-2		

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130429.b

	Time	Filename	LabID	ClientId	DF											
1	1637	df0429.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1653	ic0429a.d	IC0429A		1	8.99	45250	11.64	166754	15.54	106910	18.82	179783	23.90	192841	26.35	184310	24.99	229567
3	1730	ic0429b.d	IC0429B		1	8.99	36696	11.65	136283	15.55	88131	18.83	152272	23.90	163943	26.36	160177	25.00	211292
4	1807	ic0429c.d	IC0429C		1	8.99	50496	11.64	186081	15.54	109826	18.81	184210	23.90	198580	26.34	178934	24.99	213453
5	1844	ic0429d.d	IC0429D		1	8.98	44580	11.64	164171	15.54	101406	18.81	169929	23.90	185129	26.35	168300	25.00	198625
6	1921	ic0429e.d	IC0429E		1	8.99	38285	11.65	142908	15.54	92187	18.82	160272	23.90	172225	26.36	166300	25.00	210890
7	2034	ic0429g.d	IC0429G		1	8.99	36591	11.64	137898	15.54	87308	18.82	150153	23.90	164553	26.36	152859	25.00	178975
8	2147	ic0429i.d	IC0429I		1	8.98	41602	11.64	157250	15.53	96337	18.81	159582	23.90	170666	26.35	157899	24.99	174102
9	2224	ic0429icv.d	IC0429ICV		1	8.98	41290	11.64	152009	15.53	98722	18.81	161863	23.90	175186	26.35	166766	24.99	197383



Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	77 Perylene-d12	26.349	26.357	26.342	26.349	26.357	26.357	26.350	26.349	23.349-29.349	26.352	0.006
	78 Indeno(1,2,3-cd)pyrene	28.690	28.713	28.674	28.682	28.705	28.697	28.690	28.690	25.690-31.690	28.693	0.013
	79 Dibenzo(a,h)anthracene	28.713	28.737	28.698	28.705	28.729	28.721	28.698	28.713	25.713-31.713	28.714	0.015
	80 Benzo(g,h,i)perylene	29.373	29.405	29.358	29.358	29.389	29.381	29.350	29.373	26.373-32.373	29.373	0.020
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
	90 N-Nitrosodimethylamine	4.366	4.389	4.382	4.366	4.374	4.351	4.366	4.366	1.366-7.366	4.371	0.013
	91 Aniline	8.414	8.421	8.406	8.406	8.414	8.406	8.406	8.414	5.414-11.414	8.410	0.006
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
	93 Benzidine	21.542	21.549	21.542	21.542	21.549	21.541	21.542	21.542	18.542-24.542	21.544	0.004
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
	98 Retene	22.316	22.316	22.308	22.316	22.323	22.315	22.316	22.316	19.316-25.316	22.316	0.004
	99 Perylene	26.396	26.411	26.388	26.396	26.411	26.403	26.388	26.396	23.396-29.396	26.399	0.010
	100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
	101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
	102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
	103 Pyridine	4.382	4.389	4.420	4.397	4.374	4.374	4.397	4.382	1.382-7.382	4.390	0.016
	188 2,6-Dichlorophenol	11.874	11.890	11.866	11.866	11.882	11.866	11.867	11.874	8.874-14.874	11.873	0.009
	189 N-Nitrosomethylethylam	5.818	5.825	5.833	5.818	5.825	5.817	5.818	5.818	2.818-8.818	5.822	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0429a	ic0429b	ic0429c	ic0429d	ic0429e	ic0429g	ic0429i
INJ.DATE:	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013
INJ.TIME:	16:53	17:30	18:07	18:44	19:21	20:34	21:47

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 1 2-Fluorophenol	6.629	6.636	6.636	6.628	6.628	6.628	6.629	6.629	3.629-9.629	6.631	0.004
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.785	15.785-21.785	+++++	+++++
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.645	5.645-11.645	+++++	+++++
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.455	14.455-20.455	+++++	+++++
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.696	17.696-23.696	+++++	+++++
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.219	16.219-22.219	+++++	+++++
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.949	19.949-25.949	+++++	+++++
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.195	16.195-22.195	+++++	+++++
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.559	16.559-22.559	+++++	+++++
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.503	17.503-23.503	+++++	+++++
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.827	4.827-10.827	+++++	+++++
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.842	12.842-18.842	+++++	+++++
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.212	44.212-50.212	+++++	+++++
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.746	44.746-50.746	+++++	+++++
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.216	45.216-51.216	+++++	+++++

Reviewer 1 _____ Date: 5/3/13
Reviewer 2 _____ Date: 5-4-13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.994	25.002	24.994	25.002	25.002	25.002	24.995	24.994	21.994-27.994	24.999	0.004
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.346	16.354	16.338	16.338	16.346	16.346	16.338	16.346	13.346-19.346	16.344	0.006
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	17.103	17.118	17.095	17.095	17.111	17.103	17.095	17.103	14.103-20.103	17.103	0.009
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.324	14.324-20.324	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.115	12.115-18.115	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.270	12.270-18.270	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.519	13.519-19.519	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.019	10.019-16.019	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.095	11.095-17.095	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.118	11.118-17.118	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.572	8.572-14.572	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
	105 1-methylnaphthalene	13.437	13.437	13.429	13.429	13.437	13.429	13.430	13.437	10.437-16.437	13.433	0.004
	151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
	152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
	153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
	154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
	155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
	156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
	157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
	158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
	159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
	160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
	161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
	162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
	163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
	164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
	165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
	166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
	167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
$	2 Phenol-d5	8.344	8.352	8.336	8.336	8.344	8.336	8.337	8.344	5.344-11.344	8.341	0.006
	3 Phenol	8.367	8.375	8.360	8.360	8.367	8.359	8.360	8.367	5.367-11.367	8.364	0.006
	4 Bis(2-Chloroethyl)ethe	8.522	8.530	8.522	8.522	8.529	8.522	8.522	8.522	5.522-11.522	8.524	0.004
$	5 2-Chlorophenol-d4	8.599	8.607	8.599	8.591	8.599	8.599	8.599	8.599	5.599-11.599	8.599	0.004

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6	2-Chlorophenol	8.630	8.638	8.630	8.622	8.630	8.622	8.622	8.630	5.630-11.630	8.628	0.006
7	1,3-Dichlorobenzene	8.917	8.917	8.917	8.909	8.917	8.916	8.909	8.917	5.917-11.917	8.914	0.004
* 8	1,4-Dichlorobenzene-d4	8.986	8.986	8.986	8.979	8.986	8.986	8.979	8.986	5.986-11.986	8.984	0.004
9	1,4-Dichlorobenzene	9.017	9.017	9.017	9.010	9.017	9.017	9.018	9.017	6.017-12.017	9.016	0.003
$ 10	1,2-Dichlorobenzene-d4	9.367	9.375	9.367	9.367	9.367	9.367	9.367	9.367	6.367-12.367	9.368	0.003
11	Benzyl alcohol	9.289	9.305	9.289	9.289	9.297	9.289	9.289	9.289	6.289-12.289	9.292	0.006
12	1,2-Dichlorobenzene	9.398	9.398	9.398	9.390	9.398	9.390	9.390	9.398	6.398-12.398	9.394	0.004
13	2-Methylphenol	9.553	9.561	9.553	9.545	9.553	9.553	9.553	9.553	6.553-12.553	9.553	0.005
14	2,2'-oxybis(1-Chloropr	9.623	9.623	9.623	9.623	9.623	9.623	9.623	9.623	6.623-12.623	9.623	0.000
15	4-Methylphenol	9.848	9.856	9.840	9.840	9.848	9.840	9.840	9.848	6.848-12.848	9.845	0.006
16	N-Nitroso-di-n-propyla	9.902	9.910	9.902	9.895	9.902	9.894	9.895	9.902	6.902-12.902	9.900	0.006
17	Hexachloroethane	10.027	10.027	10.027	10.019	10.026	10.026	10.027	10.027	7.027-13.027	10.025	0.003
$ 18	Nitrobenzene-d5	10.159	10.166	10.158	10.158	10.158	10.158	10.159	10.159	7.159-13.159	10.160	0.003
19	Nitrobenzene	10.197	10.205	10.197	10.197	10.197	10.197	10.190	10.197	7.197-13.197	10.197	0.004
20	Isophorone	10.686	10.709	10.686	10.686	10.694	10.686	10.686	10.686	7.686-13.686	10.691	0.009
21	2-Nitrophenol	10.872	10.879	10.872	10.872	10.879	10.871	10.872	10.872	7.872-13.872	10.874	0.004
22	2,4-Dimethylphenol	10.964	10.980	10.964	10.964	10.972	10.964	10.964	10.964	7.964-13.964	10.967	0.006
23	Bis(2-Chloroethoxy)met	11.180	11.188	11.172	11.172	11.180	11.172	11.172	11.180	8.180-14.180	11.176	0.006
24	Benzoic acid	11.226	11.280	11.064	11.110	11.303	11.164	11.080	11.226	8.226-14.226	11.175	0.096
25	2,4-Dichlorophenol	11.365	11.380	11.365	11.365	11.372	11.365	11.365	11.365	8.365-14.365	11.368	0.006
26	1,2,4-Trichlorobenzene	11.565	11.565	11.558	11.558	11.565	11.557	11.558	11.565	8.565-14.565	11.561	0.004
* 27	Naphthalene-d8	11.643	11.650	11.643	11.643	11.650	11.642	11.643	11.643	8.643-14.643	11.645	0.004
28	Naphthalene	11.689	11.697	11.689	11.689	11.689	11.689	11.681	11.689	8.689-14.689	11.689	0.004
29	4-Chloroaniline	11.859	11.874	11.851	11.851	11.859	11.851	11.843	11.859	8.859-14.859	11.855	0.010

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	30 Hexachlorobutadiene	12.098	12.106	12.106	12.098	12.106	12.098	12.099	12.098	9.098-15.098	12.102	0.004
	31 4-Chloro-3-methylpheno	12.919	12.927	12.911	12.911	12.919	12.911	12.911	12.919	9.919-15.919	12.915	0.006
	32 2-Methylnaphthalene	13.197	13.205	13.197	13.197	13.197	13.197	13.197	13.197	10.197-16.197	13.198	0.003
	33 Hexachlorocyclopentadi	13.716	13.716	13.708	13.708	13.716	13.716	13.708	13.716	10.716-16.716	13.712	0.004
	34 2,4,6-Trichlorophenol	13.878	13.894	13.878	13.878	13.886	13.878	13.879	13.878	10.878-16.878	13.882	0.006
	35 2,4,5-Trichlorophenol	13.956	13.964	13.956	13.956	13.956	13.956	13.948	13.956	10.956-16.956	13.956	0.004
$	36 2-Fluorobiphenyl	14.064	14.064	14.056	14.056	14.064	14.056	14.057	14.064	11.064-17.064	14.060	0.004
	37 2-Chloronaphthalene	14.265	14.273	14.258	14.257	14.265	14.265	14.258	14.265	11.265-17.265	14.263	0.006
	38 2-Nitroaniline	14.559	14.575	14.559	14.552	14.567	14.559	14.552	14.559	11.559-17.559	14.560	0.008
	39 Dimethylphthalate	15.055	15.070	15.047	15.055	15.062	15.055	15.047	15.055	12.055-18.055	15.056	0.008
	40 Acenaphthylene	15.202	15.202	15.194	15.194	15.194	15.194	15.194	15.202	12.202-18.202	15.196	0.004
	41 2,6-Dinitrotoluene	15.194	15.202	15.186	15.186	15.194	15.186	15.179	15.194	12.194-18.194	15.190	0.008
*	42 Acenaphthene-d10	15.542	15.550	15.542	15.542	15.542	15.542	15.535	15.542	12.542-18.542	15.542	0.004
	43 3-Nitroaniline	15.488	15.511	15.480	15.480	15.496	15.480	15.473	15.488	12.488-18.488	15.487	0.013
	44 Acenaphthene	15.612	15.619	15.612	15.612	15.612	15.611	15.604	15.612	12.612-18.612	15.612	0.004
	45 2,4-Dinitrophenol	15.712	15.743	15.712	15.704	15.727	15.712	15.705	15.712	12.712-18.712	15.717	0.014
	46 Dibenzofuran	15.967	15.983	15.959	15.967	15.975	15.967	15.960	15.967	12.967-18.967	15.968	0.008
	47 4-Nitrophenol	15.867	15.890	15.867	15.859	15.874	15.859	15.867	15.867	12.867-18.867	15.869	0.011
	48 2,4-Dinitrotoluene	16.060	16.075	16.052	16.052	16.068	16.052	16.052	16.060	13.060-19.060	16.059	0.009
	49 Fluorene	16.740	16.748	16.733	16.733	16.740	16.732	16.733	16.740	13.740-19.740	16.737	0.006
	50 Diethylphthalate	16.640	16.663	16.632	16.632	16.647	16.640	16.632	16.640	13.640-19.640	16.641	0.011
	51 4-Chlorophenyl-phenyle	16.756	16.756	16.748	16.756	16.756	16.756	16.748	16.756	13.756-19.756	16.754	0.004
	52 4-Nitroaniline	16.856	16.895	16.856	16.848	16.872	16.856	16.841	16.856	13.856-19.856	16.861	0.018
	53 4,6-Dinitro-2-methylph	16.964	16.995	16.949	16.949	16.972	16.956	16.949	16.964	13.964-19.964	16.962	0.017

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/ABN.m
Batch File: /chem1/nt10.i/20130429.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	54 N-Nitrosodiphenylamine	17.026	17.041	17.026	17.026	17.034	17.026	17.026	17.026	14.026-20.026	17.029	0.006
$	55 2,4,6-Tribromophenol	17.319	17.327	17.311	17.311	17.319	17.311	17.311	17.319	14.319-20.319	17.316	0.006
	56 4-Bromophenyl-phenylet	17.836	17.843	17.835	17.835	17.835	17.835	17.836	17.836	14.836-20.836	17.837	0.003
	57 Hexachlorobenzene	18.160	18.160	18.153	18.153	18.160	18.152	18.153	18.160	15.160-21.160	18.156	0.004
	58 Pentachlorophenol	18.555	18.563	18.547	18.547	18.555	18.547	18.548	18.555	15.555-21.555	18.552	0.006
*	59 Phenanthrene-d10	18.818	18.826	18.810	18.810	18.818	18.818	18.811	18.818	15.818-21.818	18.816	0.006
	60 Phenanthrene	18.865	18.872	18.857	18.857	18.865	18.864	18.857	18.865	15.865-21.865	18.862	0.006
	61 Anthracene	18.965	18.973	18.957	18.957	18.965	18.957	18.958	18.965	15.965-21.965	18.962	0.006
	62 Carbazole	19.313	19.321	19.313	19.313	19.321	19.313	19.314	19.313	16.313-22.313	19.316	0.004
	63 Di-n-butylphthalate	20.188	20.188	20.188	20.188	20.188	20.187	20.188	20.188	17.188-23.188	20.188	0.000
	64 Fluoranthene	21.286	21.286	21.279	21.278	21.286	21.286	21.279	21.286	18.286-24.286	21.283	0.004
	65 Pyrene	21.704	21.704	21.696	21.696	21.704	21.704	21.697	21.704	18.704-24.704	21.701	0.004
$	66 Terphenyl-d14	22.021	22.029	22.021	22.021	22.029	22.029	22.022	22.021	19.021-25.021	22.025	0.004
	67 Butylbenzylphthalate	22.974	22.974	22.966	22.974	22.974	22.974	22.974	22.974	19.974-25.974	22.973	0.003
	68 Benzo(a)anthracene	23.872	23.880	23.864	23.864	23.872	23.872	23.864	23.872	20.872-26.872	23.870	0.006
*	69 Chrysene-d12	23.895	23.903	23.895	23.895	23.903	23.903	23.895	23.895	20.895-26.895	23.898	0.004
	70 3,3'-Dichlorobenzidine	23.849	23.857	23.841	23.849	23.856	23.849	23.841	23.849	20.849-26.849	23.849	0.006
	71 Chrysene	23.942	23.949	23.934	23.942	23.949	23.941	23.934	23.942	20.942-26.942	23.942	0.006
	72 bis(2-Ethylhexyl)phtha	24.019	24.019	24.019	24.019	24.027	24.027	24.019	24.019	21.019-27.019	24.021	0.004
	73 Di-n-octylphthalate	25.010	25.010	25.002	25.010	25.018	25.017	25.002	25.010	22.010-28.010	25.010	0.006
	74 Benzo(b)fluoranthene	25.668	25.676	25.660	25.668	25.676	25.668	25.660	25.668	22.668-28.668	25.668	0.006
	75 Benzo(k)fluoranthene	25.707	25.722	25.699	25.707	25.714	25.714	25.699	25.707	22.707-28.707	25.709	0.009
	187 Total Benzofluoranthen	25.707	25.722	25.660	25.668	25.714	25.668	25.699	25.707	22.707-28.707	25.691	0.025
	76 Benzo(a)pyrene	26.249	26.257	26.241	26.241	26.256	26.249	26.241	26.249	23.249-29.249	26.248	0.007

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Average

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Calibration File Names:
Level 1: /chem1/nt10.i/20130429.b/ic0429c.d
Level 2: /chem1/nt10.i/20130429.b/ic0429i.d
Level 3: /chem1/nt10.i/20130429.b/ic0429d.d
Level 4: /chem1/nt10.i/20130429.b/ic0429g.d
Level 5: /chem1/nt10.i/20130429.b/ic0429a.d
Level 6: /chem1/nt10.i/20130429.b/ic0429e.d
Level 7: /chem1/nt10.i/20130429.b/ic0429b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

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Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	20 Level 7											
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.32264	1.26754	1.24075	1.27398	1.12394	1.24670						
	1.18447						AVRG		1.23715		5.24731	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						QUAD	0.000e+00	0.000e+00	0.000e+00	0.000e+00	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.70389	0.59747	0.62527	0.63990	0.63292	0.66830	0.67337						
								AVRG		0.64873		5.46363	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
161 1,2,3-Trichloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
162 1,2,3,4-Tetrachloronapthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	2.07745	2.01663	1.99013	2.15135	2.00628	2.20020					
	2.03355						AVRG		2.06794		3.85914
4 Bis(2-Chloroethyl)ether	1.56929	1.53896	1.46972	1.55326	1.37664	1.50058					
	1.40120						AVRG		1.48709		5.05358

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
6 2-Chlorophenol	1.55026	1.46704	1.47133	1.54154	1.50983	1.81549	1.80786	AVRG		1.59477		9.49947
7 1,3-Dichlorobenzene	1.69336	1.54473	1.58950	1.59956	1.55227	1.62846	1.59424	AVRG		1.60030		3.12454
9 1,4-Dichlorobenzene	1.71397	1.52647	1.51341	1.62532	1.53264	1.58116	1.54877	AVRG		1.57739		4.51793
11 Benzyl alcohol	0.85064	0.73516	0.83060	0.90072	0.88286	0.96932	0.91989	AVRG		0.86989		8.59920
12 1,2-Dichlorobenzene	1.62518	1.49204	1.50624	1.51578	1.45554	1.49728	1.47965	AVRG		1.51024		3.59480
13 2-Methylphenol	1.49001	1.40570	1.44998	1.54407	1.45837	1.56041	1.50801	AVRG		1.48808		3.66935
14 2,2'-oxybis(1-Chloropropane)	0.42611	0.44017	0.46397	0.48471	0.45795	0.47727	0.46264	AVRG		0.45898		4.42060

Analytical Resources, Inc.

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Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
15 4-Methylphenol	1.43729	1.35493	1.48973	1.59318	1.52748	1.67713					
	1.54128						AVRG		1.51729		6.88641
16 N-Nitroso-di-n-propylamine	0.95251	0.89419	0.87815	0.98621	0.88743	0.97695					
	0.92792						AVRG		0.92905		4.74330
17 Hexachloroethane	0.68931	0.65881	0.65446	0.68375	0.62023	0.66920					
	0.64417						AVRG		0.65999		3.59193
19 Nitrobenzene	0.39510	0.39280	0.38552	0.39982	0.36572	0.40371					
	0.38522						AVRG		0.38970		3.22892
20 Isophorone	0.71195	0.66432	0.67279	0.71065	0.68101	0.86242					
	0.82790						AVRG		0.73300		10.82033
21 2-Nitrophenol	0.20754	0.18635	0.20138	0.22080	0.22866	0.24164					
	0.24290						AVRG		0.21847		9.68506
22 2,4-Dimethylphenol	0.41192	0.37230	0.39344	0.41516	0.40245	0.42253					
	0.39424						AVRG		0.40172		4.20008

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
23 Bis(2-Chloroethoxy)methane	0.44346	0.43452	0.43284	0.44204	0.41435	0.44041						
	0.41838						AVRG		0.43229		2.68164	
24 Benzoic acid	+++++	0.16051	0.25143	0.30891	0.33851	0.37356						
	0.37918						AVRG		0.30202		27.71646	<-
25 2,4-Dichlorophenol	0.31803	0.28833	0.38510	0.39343	0.39479	0.41768						
	0.39114						AVRG		0.36979		12.81889	
26 1,2,4-Trichlorobenzene	0.41240	0.34976	0.36404	0.35417	0.34495	0.35336						
	0.35130						AVRG		0.36143		6.42232	
28 Naphthalene	1.20528	1.00604	1.04043	1.06395	1.02045	1.07273						
	1.04570						AVRG		1.06494		6.20233	
29 4-Chloroaniline	0.42433	0.36449	0.40631	0.42348	0.42526	0.48932						
	0.38118						AVRG		0.41634		9.58081	
30 Hexachlorobutadiene	0.23345	0.19983	0.21390	0.20892	0.20729	0.22093						
	0.21857						AVRG		0.21470		5.08490	

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1 / 20 Level 7	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
31 4-Chloro-3-methylphenol	0.26343	0.27218	0.31153	0.34377	0.34343	0.37735					
	0.36548						AVRG		0.32531		13.65102
32 2-Methylnaphthalene	0.74054	0.67388	0.68178	0.70154	0.68736	0.73921					
	0.72726						AVRG		0.70737		3.96516
33 Hexachlorocyclopentadiene	0.44835	0.39323	0.41506	0.42533	0.44262	0.46660					
	0.48996						AVRG		0.44016		7.36429
34 2,4,6-Trichlorophenol	0.38934	0.36825	0.40727	0.42611	0.43278	0.45335					
	0.46998						AVRG		0.42101		8.44390
35 2,4,5-Trichlorophenol	0.35538	0.37249	0.41863	0.44267	0.45433	0.49279					
	0.50176						AVRG		0.43401		12.87553
37 2-Chloronaphthalene	1.25763	1.04782	1.06917	1.09796	1.07105	1.12488					
	1.11166						AVRG		1.11145		6.27651
38 2-Nitroaniline	0.20469	0.22227	0.26060	0.28971	0.28861	0.31072					
	0.30122						AVRG		0.26826		15.20234

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
39 Dimethylphthalate	1.36489	1.13508	1.17192	1.19054	1.15985	1.20823							
	1.17494							AVRG		1.20078		6.32260	
40 Acenaphthylene	2.08676	1.80273	1.83141	1.81650	1.77233	2.12941							
	1.75642							AVRG		1.88508		8.21819	
41 2,6-Dinitrotoluene	0.26069	0.25725	0.27537	0.29601	0.28450	0.30512							
	0.29050							AVRG		0.28135		6.35382	
43 3-Nitroaniline	0.20751	0.21366	0.25373	0.25128	0.24013	0.25105							
	0.20850							AVRG		0.23227		9.23578	
44 Acenaphthene	1.30679	1.09641	1.08357	1.13351	1.06627	1.13513							
	1.13044							AVRG		1.13602		7.04098	
45 2,4-Dinitrophenol	+++++	0.09212	0.14513	0.19634	0.23880	0.27206							
	0.28220							AVRG		0.20444		36.60389	<-
46 Dibenzofuran	1.67283	1.49829	1.51991	1.55200	1.47200	1.58360							
	1.57471							AVRG		1.55334		4.27158	

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Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
47 4-Nitrophenol	+++++	0.07895	0.11479	0.15259	0.16439	0.18465						
	0.18270						AVRG		0.14635		28.48976	<-
48 2,4-Dinitrotoluene	0.30512	0.31097	0.36079	0.38342	0.37756	0.40613						
	0.39616						AVRG		0.36288		11.05203	
49 Fluorene	1.46413	1.26025	1.30008	1.33638	1.27146	1.34389						
	1.30199						AVRG		1.32546		5.15880	
50 Diethylphthalate	1.35396	1.14110	1.15749	1.20605	1.17048	1.22908						
	1.18817						AVRG		1.20662		5.91539	
51 4-Chlorophenyl-phenylether	0.73753	0.60252	0.61409	0.61582	0.59152	0.72584						
	0.67359						AVRG		0.65156		9.31141	
52 4-Nitroaniline	0.21006	0.19776	0.27062	0.24001	0.24443	0.27164						
	0.25433						AVRG		0.24126		11.76360	
53 4,6-Dinitro-2-methylphenol	0.10675	0.12341	0.16076	0.17466	0.18882	0.19809						
	0.19914						AVRG		0.16452		22.27885	<-

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
54 N-Nitrosodiphenylamine	0.49563	0.42947	0.47333	0.47261	0.45791	0.46123					
	0.45114						AVRG		0.46304		4.45876
56 4-Bromophenyl-phenylether	0.22767	0.21687	0.23028	0.22247	0.22312	0.22955					
	0.23436						AVRG		0.22633		2.59516
57 Hexachlorobenzene	0.32278	0.25772	0.26649	0.25845	0.25551	0.26286					
	0.26660						AVRG		0.27006		8.75648
58 Pentachlorophenol	0.15515	0.14017	0.17294	0.19921	0.21130	0.22141					
	0.22676						AVRG		0.18956		17.84287
60 Phenanthrene	1.22947	1.01265	1.08610	1.06561	1.04600	1.09893					
	1.09863						AVRG		1.09106		6.27534
61 Anthracene	1.19624	1.06794	1.09848	1.10290	1.07915	1.13739					
	1.14221						AVRG		1.11776		3.95191
62 Carbazole	+++++	0.79964	0.83444	0.64299	0.47569	0.60549					
	0.71548						AVRG		0.67896		19.54874

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Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
63 Di-n-butylphthalate	1.23468	1.00016	1.09465	1.11547	1.14103	1.23687					
	1.25417						AVRG		1.15386		8.08770
64 Fluoranthene	1.35769	1.17978	1.24657	1.24812	1.27294	1.33427					
	1.34952						AVRG		1.28413		5.11850
65 Pyrene	1.37184	1.13560	1.19244	1.19696	1.22185	1.25931					
	1.28506						AVRG		1.23758		6.17908
67 Butylbenzylphthalate	0.42623	0.34242	0.41245	0.41654	0.43945	0.45663					
	0.46466						AVRG		0.42263		9.55905
68 Benzo(a)anthracene	1.25572	1.03482	1.09368	1.07381	1.09465	1.13986					
	1.14667						AVRG		1.11989		6.34024
70 3,3'-Dichlorobenzidine	0.51204	0.36539	0.40605	0.35790	0.38490	0.47001					
	0.48944						AVRG		0.42653		14.75318
71 Chrysene	1.17786	0.95330	0.94998	0.97296	0.97716	1.02164					
	1.04126						AVRG		1.01345		7.90157

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Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	1.04908	0.94427	0.87137	0.90574	0.87139	0.90498					
	0.89449						AVRG		0.92019		6.73684
73 Di-n-octylphthalate	1.05463	0.94427	0.87137	0.90574	0.87139	0.90498					
	0.89449						AVRG		0.92098		6.94061
74 Benzo(b)fluoranthene	1.35044	1.05465	1.09386	1.12584	1.21507	1.24210					
	1.23295						AVRG		1.18784		8.59752
75 Benzo(k)fluoranthene	1.42924	1.14868	1.24463	1.22609	1.13947	1.22473					
	1.34515						AVRG		1.25114		8.31220
187 Total Benzofluoranthenes	1.30881	1.05407	1.12671	1.11857	1.11816	1.16984					
	1.17534						AVRG		1.15307		6.89595
76 Benzo(a)pyrene	1.15104	0.87256	0.97331	0.97345	1.00238	1.05501					
	1.07592						AVRG		1.01481		8.78911
78 Indeno(1,2,3-cd)pyrene	1.18245	1.01361	1.10322	1.12112	1.20413	1.27168					
	1.28789						AVRG		1.16916		8.32633

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	0.92380	0.73303	0.85483	0.88584	0.92025	0.96990					
	0.99039						AVRG		0.89686		9.55761
80 Benzo(g,h,i)perylene	1.04564	0.90225	0.98911	0.99122	1.00081	1.07106					
	1.08082						AVRG		1.01156		6.05123
90 N-Nitrosodimethylamine	0.88097	0.87544	0.88313	0.96297	0.85634	0.99623					
	0.92370						AVRG		0.91125		5.67695
91 Aniline	4.00230	3.88308	3.89376	4.21542	3.95352	4.21183					
	3.92480						AVRG		4.01210		3.56908
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++	8518	23877	29714	60043	110746					
	257371						QUAD	0.000e+00	8.17939	-1.16399	0.99615
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	5229	8851	20776	46252	111862	206286						
	402573						QUAD	0.000e+00	2.17724	-0.06444	0.99996	
99 Perylene	1.36017	1.09787	1.11603	1.09868	1.10144	1.16094						
	1.18529						AVRG		1.16006		8.15448	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.72677	0.80583	0.78852	0.86813	0.78009	0.84643						
	0.79117						AVRG		0.80099		5.76462	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
188 2,6-Dichlorophenol	0.60097	0.54247	0.59080	0.60713	0.60866	0.63218						
	0.61259						AVRG		0.59926		4.67591	
189 N-Nitrosomethylethylamine	1.30866	1.29196	1.30579	1.43515	1.30380	1.45857						
	1.41072						AVRG		1.35923		5.31332	
$ 1 2-Fluorophenol	1.34097	1.36474	1.37344	1.45728	1.43245	1.53225						
	1.49284						AVRG		1.42771		4.99388	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.74449	1.70146	1.73037	1.88081	1.85833	2.05451						
	1.96238						AVRG		1.84748		7.08965	
$ 5 2-Chlorophenol-d4	1.48208	1.31763	1.34482	1.41250	1.38956	1.44002						
	1.43020						AVRG		1.40240		4.04486	
$ 10 1,2-Dichlorobenzene-d4	0.98938	1.00149	0.99695	1.02158	0.98109	1.04380						
	1.02722						AVRG		1.00879		2.24119	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.42885	0.41732	0.41764	0.42993	0.40061	0.44115					
	0.41922						AVRG		0.42210		3.03179
$ 36 2-Fluorobiphenyl	1.56575	1.33869	1.34323	1.37457	1.33669	1.41362					
	1.40005						AVRG		1.39609		5.78874
$ 55 2,4,6-Tribromophenol	0.19995	0.17003	0.19549	0.21364	0.21873	0.24192					
	0.24098						AVRG		0.21154		12.14622
$ 66 Terphenyl-d14	0.89183	0.70027	0.75407	0.75999	0.76286	0.79419					
	0.78729						AVRG		0.77864		7.50175
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Method file : /chem1/nt10.i/20130429.b/ABN.m
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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

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Calibration File Names:
Level 1: /chem1/nt10.i/20130429.b/ic0429c.d
Level 2: /chem1/nt10.i/20130429.b/ic0429i.d
Level 3: /chem1/nt10.i/20130429.b/ic0429d.d
Level 4: /chem1/nt10.i/20130429.b/ic0429g.d
Level 5: /chem1/nt10.i/20130429.b/ic0429a.d
Level 6: /chem1/nt10.i/20130429.b/ic0429e.d
Level 7: /chem1/nt10.i/20130429.b/ic0429b.d

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	<-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+00		0.000e+00	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
120 2,3,4,6-Tetrachlorophenol	0.26333	0.25576	0.30846	0.32296	0.35171	0.37615	0.38141	AVRG		0.32283		15.66985	
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	20 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
111 Azobenzene (1,2-DP-Hydrazine)	1.32264	1.26754	1.24075	1.27398	1.12394	1.24670	1.18447	AVRG		1.23715		5.24731	
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+00	0.000e+00	0.000e+00	0.000e+00	<-

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 1-methylnaphthalene	0.70389	0.59747	0.62527	0.63990	0.63292	0.66830						
	0.67337						AVRG		0.64873		5.46363	
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
161 1,2,3-Trichloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
162 1,2,3,4-Tetrachloronapthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
3 Phenol	2.07745	2.01663	1.99013	2.15135	2.00628	2.20020					
	2.03355						AVRG		2.06794		3.85914
4 Bis(2-Chloroethyl)ether	1.56929	1.53896	1.46972	1.55326	1.37664	1.50058					
	1.40120						AVRG		1.48709		5.05358

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
6 2-Chlorophenol	1.55026	1.46704	1.47133	1.54154	1.50983	1.81549					
	1.80786						AVRG		1.59477		9.49947
7 1,3-Dichlorobenzene	1.69336	1.54473	1.58950	1.59956	1.55227	1.62846					
	1.59424						AVRG		1.60030		3.12454
9 1,4-Dichlorobenzene	1.71397	1.52647	1.51341	1.62532	1.53264	1.58116					
	1.54877						AVRG		1.57739		4.51793
11 Benzyl alcohol	0.85064	0.73516	0.83060	0.90072	0.88286	0.96932					
	0.91989						AVRG		0.86989		8.59920
12 1,2-Dichlorobenzene	1.62518	1.49204	1.50624	1.51578	1.45554	1.49728					
	1.47965						AVRG		1.51024		3.59480
13 2-Methylphenol	1.49001	1.40570	1.44998	1.54407	1.45837	1.56041					
	1.50801						AVRG		1.48808		3.66935
14 2,2'-oxybis(1-Chloropropane)	0.42611	0.44017	0.46397	0.48471	0.45795	0.47727					
	0.46264						AVRG		0.45898		4.42060

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	20 Level 7										
15 4-Methylphenol	1.43729	1.35493	1.48973	1.59318	1.52748	1.67713					
	1.54128						AVRG		1.51729		6.88641
16 N-Nitroso-di-n-propylamine	0.95251	0.89419	0.87815	0.98621	0.88743	0.97695					
	0.92792						AVRG		0.92905		4.74330
17 Hexachloroethane	0.68931	0.65881	0.65446	0.68375	0.62023	0.66920					
	0.64417						AVRG		0.65999		3.59193
19 Nitrobenzene	0.39510	0.39280	0.38552	0.39982	0.36572	0.40371					
	0.38522						AVRG		0.38970		3.22892
20 Isophorone	0.71195	0.66432	0.67279	0.71065	0.68101	0.86242					
	0.82790						AVRG		0.73300		10.82033
21 2-Nitrophenol	0.20754	0.18635	0.20138	0.22080	0.22866	0.24164					
	0.24290						AVRG		0.21847		9.68506
22 2,4-Dimethylphenol	0.41192	0.37230	0.39344	0.41516	0.40245	0.42253					
	0.39424						AVRG		0.40172		4.20008

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23 Bis(2-Chloroethoxy)methane	0.44346	0.43452	0.43284	0.44204	0.41435	0.44041	0.41838	AVRG		0.43229		2.68164
24 Benzoic acid	+++++	12620	41278	106496	282242	533852	1033515	QUAD	0.000e+00	2.88330	-0.03348	0.99937
25 2,4-Dichlorophenol	0.31803	0.28833	0.38510	0.39343	0.39479	0.41768	0.39114	AVRG		0.36979		12.81889
26 1,2,4-Trichlorobenzene	0.41240	0.34976	0.36404	0.35417	0.34495	0.35336	0.35130	AVRG		0.36143		6.42232
28 Naphthalene	1.20528	1.00604	1.04043	1.06395	1.02045	1.07273	1.04570	AVRG		1.06494		6.20233
29 4-Chloroaniline	0.42433	0.36449	0.40631	0.42348	0.42526	0.48932	0.38118	AVRG		0.41634		9.58081
30 Hexachlorobutadiene	0.23345	0.19983	0.21390	0.20892	0.20729	0.22093	0.21857	AVRG		0.21470		5.08490

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
31 4-Chloro-3-methylphenol	0.26343	0.27218	0.31153	0.34377	0.34343	0.37735					
	0.36548						AVRG		0.32531		13.65102
32 2-Methylnaphthalene	0.74054	0.67388	0.68178	0.70154	0.68736	0.73921					
	0.72726						AVRG		0.70737		3.96516
33 Hexachlorocyclopentadiene	0.44835	0.39323	0.41506	0.42533	0.44262	0.46660					
	0.48996						AVRG		0.44016		7.36429
34 2,4,6-Trichlorophenol	0.38934	0.36825	0.40727	0.42611	0.43278	0.45335					
	0.46998						AVRG		0.42101		8.44390
35 2,4,5-Trichlorophenol	0.35538	0.37249	0.41863	0.44267	0.45433	0.49279					
	0.50176						AVRG		0.43401		12.87553
37 2-Chloronaphthalene	1.25763	1.04782	1.06917	1.09796	1.07105	1.12488					
	1.11166						AVRG		1.11145		6.27651
38 2-Nitroaniline	0.20469	0.22227	0.26060	0.28971	0.28861	0.31072					
	0.30122						AVRG		0.26826		15.20234

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Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
39 Dimethylphthalate	1.36489	1.13508	1.17192	1.19054	1.15985	1.20823					
	1.17494						AVRG		1.20078		6.32260
40 Acenaphthylene	2.08676	1.80273	1.83141	1.81650	1.77233	2.12941					
	1.75642						AVRG		1.88508		8.21819
41 2,6-Dinitrotoluene	0.26069	0.25725	0.27537	0.29601	0.28450	0.30512					
	0.29050						AVRG		0.28135		6.35382
43 3-Nitroaniline	0.20751	0.21366	0.25373	0.25128	0.24013	0.25105					
	0.20850						AVRG		0.23227		9.23578
44 Acenaphthene	1.30679	1.09641	1.08357	1.13351	1.06627	1.13513					
	1.13044						AVRG		1.13602		7.04098
45 2,4-Dinitrophenol	+++++	4345	14717	42855	127651	250805					
	497418						QUAD	0.000e+00	4.08739	-0.09870	0.99880
46 Dibenzofuran	1.67283	1.49829	1.51991	1.55200	1.47200	1.58360					
	1.57471						AVRG		1.55334		4.27158

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Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
47 4-Nitrophenol	+++++	1862	5820	16653	43938	85112					
	161016						QUAD	0.000e+00	5.79130	-0.18557	0.99905
48 2,4-Dinitrotoluene	0.30512	0.31097	0.36079	0.38342	0.37756	0.40613					
	0.39616						AVRG		0.36288		11.05203
49 Fluorene	1.46413	1.26025	1.30008	1.33638	1.27146	1.34389					
	1.30199						AVRG		1.32546		5.15880
50 Diethylphthalate	1.35396	1.14110	1.15749	1.20605	1.17048	1.22908					
	1.18817						AVRG		1.20662		5.91539
51 4-Chlorophenyl-phenylether	0.73753	0.60252	0.61409	0.61582	0.59152	0.72584					
	0.67359						AVRG		0.65156		9.31141
52 4-Nitroaniline	0.21006	0.19776	0.27062	0.24001	0.24443	0.27164					
	0.25433						AVRG		0.24126		11.76360
53 4,6-Dinitro-2-methylphenol	3933	9847	27317	65565	169735	317489					
	606483						QUAD	0.000e+00	5.26585	-0.06370	0.99977

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
54 N-Nitrosodiphenylamine	0.49563	0.42947	0.47333	0.47261	0.45791	0.46123					
	0.45114						AVRG		0.46304		4.45876
56 4-Bromophenyl-phenylether	0.22767	0.21687	0.23028	0.22247	0.22312	0.22955					
	0.23436						AVRG		0.22633		2.59516
57 Hexachlorobenzene	0.32278	0.25772	0.26649	0.25845	0.25551	0.26286					
	0.26660						AVRG		0.27006		8.75648
58 Pentachlorophenol	0.15515	0.14017	0.17294	0.19921	0.21130	0.22141					
	0.22676						AVRG		0.18956		17.84287
60 Phenanthrene	1.22947	1.01265	1.08610	1.06561	1.04600	1.09893					
	1.09863						AVRG		1.09106		6.27534
61 Anthracene	1.19624	1.06794	1.09848	1.10290	1.07915	1.13739					
	1.14221						AVRG		1.11776		3.95191
62 Carbazole	+++++	0.79964	0.83444	0.64299	0.47569	0.60549					
	0.71548						AVRG		0.67896		19.54874

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
63 Di-n-butylphthalate	1.23468	1.00016	1.09465	1.11547	1.14103	1.23687					
	1.25417						AVRG		1.15386		8.08770
64 Fluoranthene	1.35769	1.17978	1.24657	1.24812	1.27294	1.33427					
	1.34952						AVRG		1.28413		5.11850
65 Pyrene	1.37184	1.13560	1.19244	1.19696	1.22185	1.25931					
	1.28506						AVRG		1.23758		6.17908
67 Butylbenzylphthalate	0.42623	0.34242	0.41245	0.41654	0.43945	0.45663					
	0.46466						AVRG		0.42263		9.55905
68 Benzo(a)anthracene	1.25572	1.03482	1.09368	1.07381	1.09465	1.13986					
	1.14667						AVRG		1.11989		6.34024
70 3,3'-Dichlorobenzidine	0.51204	0.36539	0.40605	0.35790	0.38490	0.47001					
	0.48944						AVRG		0.42653		14.75318
71 Chrysene	1.17786	0.95330	0.94998	0.97296	0.97716	1.02164					
	1.04126						AVRG		1.01345		7.90157

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
72 bis(2-Ethylhexyl)phthalate	1.04908	0.94427	0.87137	0.90574	0.87139	0.90498					
	0.89449						AVRG		0.92019		6.73684
73 Di-n-octylphthalate	1.05463	0.94427	0.87137	0.90574	0.87139	0.90498					
	0.89449						AVRG		0.92098		6.94061
74 Benzo(b)fluoranthene	1.35044	1.05465	1.09386	1.12584	1.21507	1.24210					
	1.23295						AVRG		1.18784		8.59752
75 Benzo(k)fluoranthene	1.42924	1.14868	1.24463	1.22609	1.13947	1.22473					
	1.34515						AVRG		1.25114		8.31220
187 Total Benzofluoranthenes	1.30881	1.05407	1.12671	1.11857	1.11816	1.16984					
	1.17534						AVRG		1.15307		6.89595
76 Benzo(a)pyrene	1.15104	0.87256	0.97331	0.97345	1.00238	1.05501					
	1.07592						AVRG		1.01481		8.78911
78 Indeno(1,2,3-cd)pyrene	1.18245	1.01361	1.10322	1.12112	1.20413	1.27168					
	1.28789						AVRG		1.16916		8.32633

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
79 Dibenzo(a,h)anthracene	0.92380	0.73303	0.85483	0.88584	0.92025	0.96990					
	0.99039						AVRG		0.89686		9.55761
80 Benzo(g,h,i)perylene	1.04564	0.90225	0.98911	0.99122	1.00081	1.07106					
	1.08082						AVRG		1.01156		6.05123
90 N-Nitrosodimethylamine	0.88097	0.87544	0.88313	0.96297	0.85634	0.99623					
	0.92370						AVRG		0.91125		5.67695
91 Aniline	4.00230	3.88308	3.89376	4.21542	3.95352	4.21183					
	3.92480						AVRG		4.01210		3.56908
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
93 Benzidine	+++++	8518	23877	29714	60043	110746					
	257371						QUAD	0.000e+00	8.17939	-1.16399	0.99615
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
98 Retene	0.52664	0.41489	0.44890	0.44972	0.46406	0.47911						
	0.49534						AVRG		0.46838		7.71935	
99 Perylene	1.36017	1.09787	1.11603	1.09868	1.10144	1.16094						
	1.18529						AVRG		1.16006		8.15448	
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
103 Pyridine	0.72677	0.80583	0.78852	0.86813	0.78009	0.84643						
	0.79117						AVRG		0.80099		5.76462	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	20 Level 7											
188 2,6-Dichlorophenol	0.60097	0.54247	0.59080	0.60713	0.60866	0.63218						
	0.61259						AVRG		0.59926		4.67591	
189 N-Nitrosomethylethylamine	1.30866	1.29196	1.30579	1.43515	1.30380	1.45857						
	1.41072						AVRG		1.35923		5.31332	
$ 1 2-Fluorophenol	1.34097	1.36474	1.37344	1.45728	1.43245	1.53225						
	1.49284						AVRG		1.42771		4.99388	
$ 137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 2 Phenol-d5	1.74449	1.70146	1.73037	1.88081	1.85833	2.05451						
	1.96238						AVRG		1.84748		7.08965	
$ 5 2-Chlorophenol-d4	1.48208	1.31763	1.34482	1.41250	1.38956	1.44002						
	1.43020						AVRG		1.40240		4.04486	
$ 10 1,2-Dichlorobenzene-d4	0.98938	1.00149	0.99695	1.02158	0.98109	1.04380						
	1.02722						AVRG		1.00879		2.24119	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Compound	0.2000 Level 1	0.5000 Level 2	1 Level 3	2 Level 4	5 Level 5	10 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	20 Level 7										
$ 18 Nitrobenzene-d5	0.42885	0.41732	0.41764	0.42993	0.40061	0.44115					
	0.41922						AVRG		0.42210		3.03179
$ 36 2-Fluorobiphenyl	1.56575	1.33869	1.34323	1.37457	1.33669	1.41362					
	1.40005						AVRG		1.39609		5.78874
$ 55 2,4,6-Tribromophenol	0.19995	0.17003	0.19549	0.21364	0.21873	0.24192					
	0.24098						AVRG		0.21154		12.14622
$ 66 Terphenyl-d14	0.89183	0.70027	0.75407	0.75999	0.76286	0.79419					
	0.78729						AVRG		0.77864		7.50175
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/ABN.m
Cal Date : 30-Apr-2013 11:53 yev

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 5/3/13

Data file : /chem1/nt10.i/20130429.b/ic0429a.d
Lab Smp Id: IC0429A
Inj Date : 29-APR-2013 16:53
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429A
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 16:53 Cal File: ic0429a.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.629	6.629	(0.738)	81023	5.00000	5.017
$	2	Phenol-d5	99	8.344	8.337	(0.929)	105112	5.00000	5.029
	3	Phenol	94	8.367	8.360	(0.931)	113480	5.00000	4.851
$	5	2-Chlorophenol-d4	132	8.599	8.599	(0.957)	78597	5.00000	4.954
	4	Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.948)	77866	5.00000	4.629
	6	2-Chlorophenol	128	8.630	8.622	(0.960)	85400	5.00000	4.734
	7	1,3-Dichlorobenzene	146	8.917	8.909	(0.992)	87800	5.00000	4.850
*	8	1,4-Dichlorobenzene-d4	152	8.986	8.979	(1.000)	45250	4.00000	
	9	1,4-Dichlorobenzene	146	9.017	9.018	(1.003)	86690	5.00000	4.858
$	10	1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.042)	55493	5.00000	4.863
	12	1,2-Dichlorobenzene	146	9.398	9.390	(1.046)	82329	5.00000	4.819
	11	Benzyl alcohol	108	9.289	9.289	(1.034)	49937	5.00000	5.075
	14	2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.071)	25903	5.00000	4.989
	13	2-Methylphenol	108	9.553	9.553	(1.063)	82489	5.00000	4.900
	17	Hexachloroethane	117	10.027	10.027	(1.116)	35082	5.00000	4.699
	16	N-Nitroso-di-n-propylamine	70	9.902	9.895	(1.102)	50195	5.00000	4.776
	15	4-Methylphenol	108	9.848	9.840	(1.096)	86398	5.00000	5.034
$	18	Nitrobenzene-d5	82	10.159	10.159	(0.873)	83504	5.00000	4.745
	19	Nitrobenzene	77	10.197	10.190	(0.876)	76232	5.00000	4.692
	20	Isophorone	82	10.686	10.686	(0.918)	141952	5.00000	4.645
	21	2-Nitrophenol	139	10.872	10.872	(0.934)	47662	5.00000	5.233
	22	2,4-Dimethylphenol	107	10.964	10.964	(0.942)	167774	10.0000	10.02
	23	Bis(2-Chloroethoxy)methane	93	11.180	11.172	(0.960)	86369	5.00000	4.793
	24	Benzoic acid	105	11.226	11.080	(0.964)	282242	20.0000	19.18
	25	2,4-Dichlorophenol	162	11.365	11.365	(0.976)	164580	10.0000	10.68
	26	1,2,4-Trichlorobenzene	180	11.565	11.558	(0.993)	71903	5.00000	4.772
*	27	Naphthalene-d8	136	11.643	11.643	(1.000)	166754	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.004)	212706	5.00000	4.791
	29 4-Chloroaniline	127	11.859	11.843	(1.019)	177286	10.0000	10.21
	30 Hexachlorobutadiene	225	12.098	12.099	(1.039)	43209	5.00000	4.828
	31 4-Chloro-3-methylphenol	107	12.919	12.911	(1.110)	143169	10.0000	10.56
	32 2-Methylnaphthalene	142	13.197	13.197	(1.134)	143274	5.00000	4.859
	33 Hexachlorocyclopentadiene	237	13.716	13.708	(0.882)	118300	10.0000	10.06
	34 2,4,6-Trichlorophenol	196	13.878	13.879	(0.893)	115672	10.0000	10.28
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	121431	10.0000	10.47
$	36 2-Fluorobiphenyl	172	14.064	14.057	(0.905)	178632	5.00000	4.787
	37 2-Chloronaphthalene	162	14.265	14.258	(0.918)	143132	5.00000	4.818
	38 2-Nitroaniline	65	14.559	14.552	(0.937)	77138	10.0000	10.76
	39 Dimethylphthalate	163	15.055	15.047	(0.969)	154999	5.00000	4.830
	40 Acenaphthylene	152	15.202	15.194	(0.978)	236850	5.00000	4.701
	41 2,6-Dinitrotoluene	165	15.194	15.179	(0.978)	76040	10.0000	10.11
*	42 Acenaphthene-d10	164	15.542	15.535	(1.000)	106910	4.00000	
	43 3-Nitroaniline	138	15.488	15.473	(0.997)	64182	10.0000	10.34
	44 Acenaphthene	153	15.612	15.604	(1.004)	142494	5.00000	4.693
	45 2,4-Dinitrophenol	184	15.712	15.705	(1.011)	127651	20.0000	18.96
	46 Dibenzofuran	168	15.967	15.960	(1.027)	196715	5.00000	4.738
	47 4-Nitrophenol	109	15.867	15.867	(1.021)	43938	10.0000	9.395
	48 2,4-Dinitrotoluene	165	16.060	16.052	(1.033)	100913	10.0000	10.40
	50 Diethylphthalate	149	16.640	16.632	(1.071)	156420	5.00000	4.850
	49 Fluorene	166	16.740	16.733	(1.077)	169915	5.00000	4.796
	51 4-Chlorophenyl-phenylether	204	16.756	16.748	(1.078)	79049	5.00000	4.539
	52 4-Nitroaniline	138	16.856	16.841	(1.085)	65331	10.0000	10.13
	53 4,6-Dinitro-2-methylphenol	198	16.964	16.949	(0.901)	169735	20.0000	19.66
	54 N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	102905	5.00000	4.945
$	55 2,4,6-Tribromophenol	330	17.319	17.311	(1.114)	29230	5.00000	5.170
	56 4-Bromophenyl-phenylether	248	17.836	17.836	(0.948)	50141	5.00000	4.929
	57 Hexachlorobenzene	284	18.160	18.153	(0.965)	57420	5.00000	4.731
	58 Pentachlorophenol	266	18.555	18.548	(0.986)	94970	10.0000	11.15
*	59 Phenanthrene-d10	188	18.818	18.811	(1.000)	179783	4.00000	
	60 Phenanthrene	178	18.865	18.857	(1.002)	235067	5.00000	4.794
	61 Anthracene	178	18.965	18.958	(1.008)	242517	5.00000	4.827
	62 Carbazole	167	19.313	19.314	(1.026)	106901	5.00000	3.503
	63 Di-n-butylphthalate	149	20.188	20.188	(1.073)	256423	5.00000	4.944
	64 Fluoranthene	202	21.286	21.279	(1.131)	286067	5.00000	4.956
	65 Pyrene	202	21.704	21.697	(0.908)	294528	5.00000	4.936
$	66 Terphenyl-d14	244	22.021	22.022	(0.922)	183888	5.00000	4.899
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	105931	5.00000	5.199
	68 Benzo(a)anthracene	228	23.872	23.864	(0.999)	263867	5.00000	4.887
*	69 Chrysene-d12	240	23.895	23.895	(1.000)	192841	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.849	23.841	(0.998)	185563	10.0000	9.024
	71 Chrysene	228	23.942	23.934	(1.002)	235545	5.00000	4.821
	72 bis(2-Ethylhexyl)phthalate	149	24.019	24.019	(0.961)	144972	5.00000	4.750(M)
*	134 Di-n-octylphthalate-d4	153	24.994	24.995	(1.000)	229567	4.00000	
	73 Di-n-octylphthalate	149	25.010	25.002	(1.001)	250054	5.00000	4.731

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.668	25.660	(0.974)	279937	5.00000	5.115
75	Benzo(k)fluoranthene	252	25.707	25.699	(0.976)	262519	5.00000	4.554
76	Benzo(a)pyrene	252	26.249	26.241	(0.996)	230935	5.00000	4.939
* 77	Perylene-d12	264	26.349	26.350	(1.000)	184310	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.690	28.690	(1.089)	277417	5.00000	5.150
79	Dibenzo(a,h)anthracene	278	28.713	28.698	(1.090)	212015	5.00000	5.130
80	Benzo(g,h,i)perylene	276	29.373	29.350	(1.115)	230573	5.00000	4.947
90	N-Nitrosodimethylamine	74	4.366	4.366	(0.486)	96874	10.0000	9.397
91	Aniline	93	8.414	8.406	(0.936)	223621	5.00000	4.927
93	Benzidine	184	21.542	21.542	(0.902)	60043	10.0000	9.736
103	Pyridine	79	4.382	4.397	(0.488)	88248	10.0000	9.739
105	1-methylnaphthalene	142	13.437	13.430	(1.154)	131928	5.00000	4.878
111	Azobenzene (1,2-DP-Hydrazine)	77	17.103	17.095	(1.100)	150200	5.00000	4.542
187	Total Benzofluoranthenes	252	25.707	25.699	(0.976)	515221	10.0000	9.694
99	Perylene	252	26.396	26.388	(1.002)	253757	5.00000	4.747
98	Retene	219	22.316	22.316	(0.934)	111862	5.00000	4.954
120	2,3,4,6-Tetrachlorophenol	232	16.346	16.338	(1.052)	47002	5.00000	5.447
188	2,6-Dichlorophenol	162	11.874	11.867	(1.020)	253741	10.0000	10.16
189	N-Nitrosomethylethylamine	88	5.818	5.818	(0.647)	147492	10.0000	9.592

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429a.d
Lab Smp Id: IC0429A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	45250	0.00
27 Naphthalene-d8	166754	83377	333508	166754	0.00
42 Acenaphthene-d10	106910	53455	213820	106910	0.00
59 Phenanthrene-d10	179783	89892	359566	179783	0.00
69 Chrysene-d12	192841	96420	385682	192841	0.00
134 Di-n-octylphthala	229567	114784	459134	229567	0.00
77 Perylene-d12	184310	92155	368620	184310	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.99	0.00
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
134 Di-n-octylphthala	24.99	24.49	25.49	24.99	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

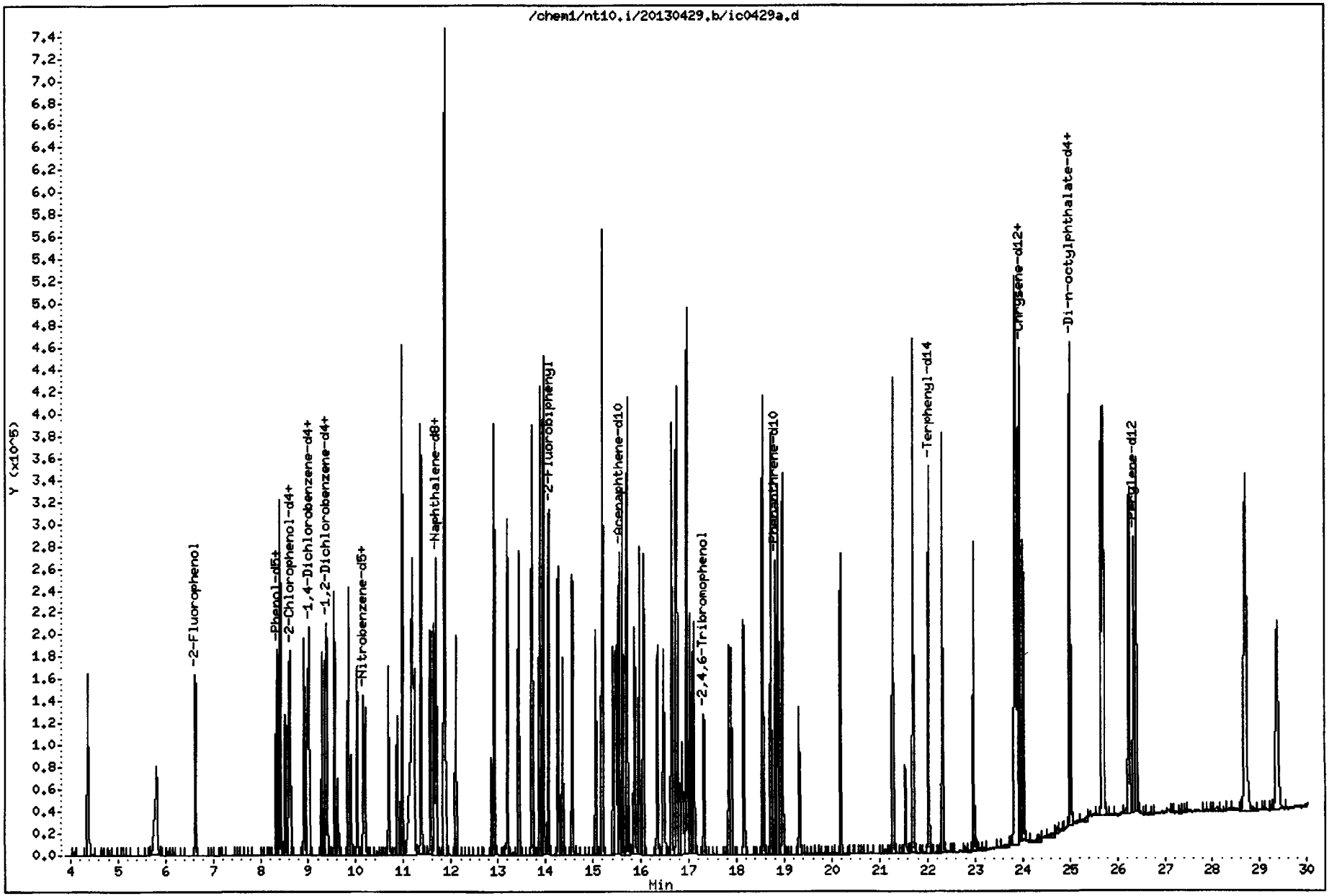
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429a.d
Date : 29-APR-2013 16:53
Client ID:
Sample Info: IC0429A

Instrument: nt10.i

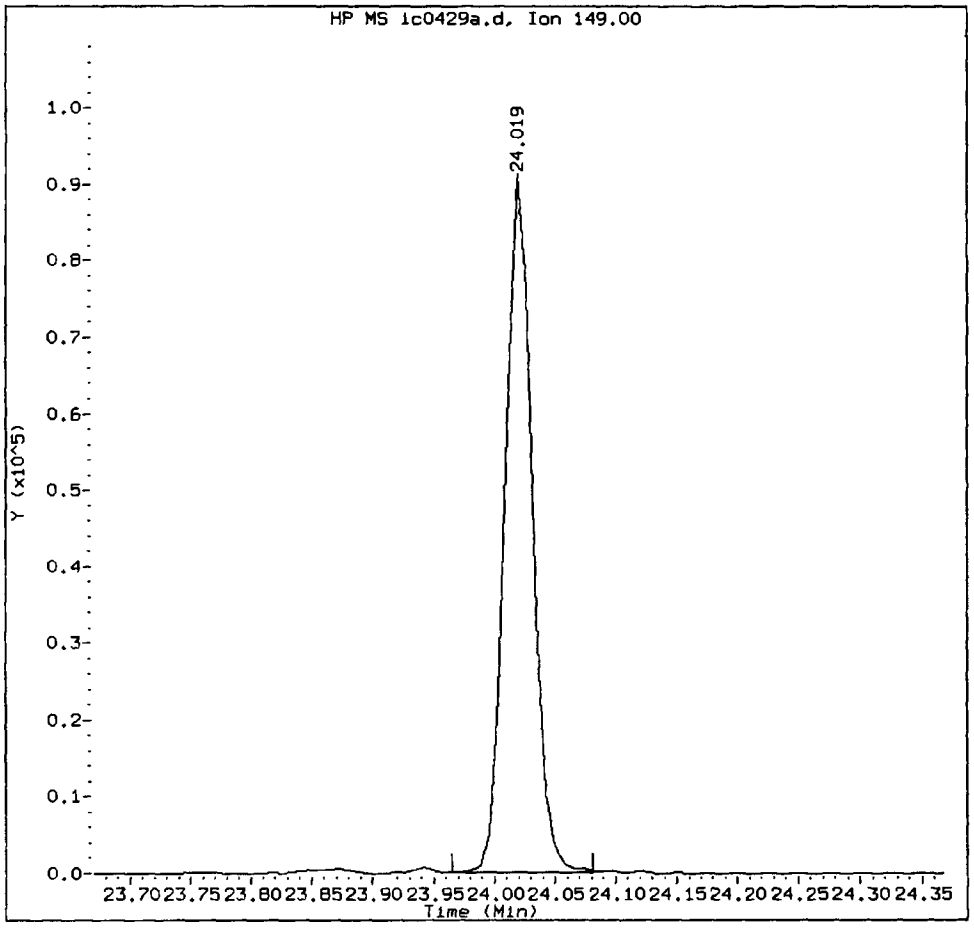
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429A, /chem1/nt10.i/20130429.b/ic0429a.d

bis(2-Ethylhexyl)phthalate Amount: 4.75 Area: 144972



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VR Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429a.d

Lab ID: IC0429A, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 5/3/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429b.d
Lab Smp Id: IC0429B
Inj Date : 29-APR-2013 17:30
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429B
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 17:30 Cal File: ic0429b.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.636	6.629	(0.738)	273907	20.0000	20.91
$	2 Phenol-d5	99	8.352	8.337	(0.929)	360057	20.0000	21.24
	3 Phenol	94	8.375	8.360	(0.932)	373116	20.0000	19.67
$	5 2-Chlorophenol-d4	132	8.607	8.599	(0.958)	262414	20.0000	20.40
	4 Bis(2-Chloroethyl)ether	93	8.530	8.522	(0.949)	257095	20.0000	18.85
	6 2-Chlorophenol	128	8.638	8.622	(0.961)	331706	20.0000	22.67
	7 1,3-Dichlorobenzene	146	8.917	8.909	(0.992)	292512	20.0000	19.92
*	8 1,4-Dichlorobenzene-d4	152	8.986	8.979	(1.000)	36696	4.00000	
	9 1,4-Dichlorobenzene	146	9.017	9.018	(1.003)	284169	20.0000	19.64
$	10 1,2-Dichlorobenzene-d4	152	9.375	9.367	(1.043)	188475	20.0000	20.37
	12 1,2-Dichlorobenzene	146	9.398	9.390	(1.046)	271486	20.0000	19.59
	11 Benzyl alcohol	108	9.305	9.289	(1.035)	168782	20.0000	21.15
	14 2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.071)	84885	20.0000	20.16
	13 2-Methylphenol	108	9.561	9.553	(1.064)	276689	20.0000	20.27
	17 Hexachloroethane	117	10.027	10.027	(1.116)	118193	20.0000	19.52
	16 N-Nitroso-di-n-propylamine	70	9.910	9.895	(1.103)	170255	20.0000	19.98
	15 4-Methylphenol	108	9.856	9.840	(1.097)	282794	20.0000	20.32
$	18 Nitrobenzene-d5	82	10.166	10.159	(0.873)	285663	20.0000	19.86
	19 Nitrobenzene	77	10.205	10.190	(0.876)	262495	20.0000	19.77
	20 Isophorone	82	10.709	10.686	(0.919)	564145	20.0000	22.59
	21 2-Nitrophenol	139	10.879	10.872	(0.934)	165519	20.0000	22.24
	22 2,4-Dimethylphenol	107	10.980	10.964	(0.942)	537286	40.0000	39.26
	23 Bis(2-Chloroethoxy)methane	93	11.188	11.172	(0.960)	285091	20.0000	19.36
	24 Benzoic acid	105	11.388	11.080	(0.977)	1043882	80.0000	79.78(M)
	25 2,4-Dichlorophenol	162	11.380	11.365	(0.977)	533058	40.0000	42.31
	26 1,2,4-Trichlorobenzene	180	11.565	11.558	(0.993)	239383	20.0000	19.44
*	27 Naphthalene-d8	136	11.650	11.643	(1.000)	136283	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.697	11.681	(1.004)	712555	20.0000	19.64
	29 4-Chloroaniline	127	11.874	11.843	(1.019)	519478	40.0000	36.62
	30 Hexachlorobutadiene	225	12.106	12.099	(1.039)	148934	20.0000	20.36
	31 4-Chloro-3-methylphenol	107	12.927	12.911	(1.110)	498092	40.0000	44.94
	32 2-Methylnaphthalene	142	13.205	13.197	(1.133)	495565	20.0000	20.56
	33 Hexachlorocyclopentadiene	237	13.716	13.708	(0.882)	431807	40.0000	44.53
	34 2,4,6-Trichlorophenol	196	13.894	13.879	(0.894)	414194	40.0000	44.65
	35 2,4,5-Trichlorophenol	196	13.964	13.948	(0.898)	442203	40.0000	46.24
$	36 2-Fluorobiphenyl	172	14.064	14.057	(0.904)	616937	20.0000	20.06
	37 2-Chloronaphthalene	162	14.273	14.258	(0.918)	489858	20.0000	20.00
	38 2-Nitroaniline	65	14.575	14.552	(0.937)	265470	40.0000	44.92
	39 Dimethylphthalate	163	15.070	15.047	(0.969)	517745	20.0000	19.57
	40 Acenaphthylene	152	15.202	15.194	(0.978)	773977	20.0000	18.64
	41 2,6-Dinitrotoluene	165	15.202	15.179	(0.978)	256022	40.0000	41.30
*	42 Acenaphthene-d10	164	15.550	15.535	(1.000)	88131	4.00000	
	43 3-Nitroaniline	138	15.511	15.473	(0.998)	183750	40.0000	35.91
	44 Acenaphthene	153	15.619	15.604	(1.004)	498134	20.0000	19.90
	45 2,4-Dinitrophenol	184	15.743	15.705	(1.012)	497418	80.0000	79.70
	46 Dibenzofuran	168	15.983	15.960	(1.028)	693905	20.0000	20.28
	47 4-Nitrophenol	109	15.890	15.867	(1.022)	161016	40.0000	39.85
	48 2,4-Dinitrotoluene	165	16.075	16.052	(1.034)	349138	40.0000	43.67
	50 Diethylphthalate	149	16.663	16.632	(1.072)	523573	20.0000	19.69
	49 Fluorene	166	16.748	16.733	(1.077)	573728	20.0000	19.65
	51 4-Chlorophenyl-phenylether	204	16.756	16.748	(1.078)	296820	20.0000	20.68
	52 4-Nitroaniline	138	16.895	16.841	(1.086)	224140	40.0000	42.17
	53 4,6-Dinitro-2-methylphenol	198	16.995	16.949	(0.903)	606483	80.0000	79.85
	54 N-Nitrosodiphenylamine	169	17.041	17.026	(0.905)	343477	20.0000	19.49
$	55 2,4,6-Tribromophenol	330	17.327	17.311	(1.114)	106190	20.0000	22.78
	56 4-Bromophenyl-phenylether	248	17.843	17.836	(0.948)	178429	20.0000	20.71
	57 Hexachlorobenzene	284	18.160	18.153	(0.965)	202975	20.0000	19.74
	58 Pentachlorophenol	266	18.563	18.548	(0.986)	345299	40.0000	47.85
*	59 Phenanthrene-d10	188	18.826	18.811	(1.000)	152272	4.00000	
	60 Phenanthrene	178	18.872	18.857	(1.002)	836454	20.0000	20.14
	61 Anthracene	178	18.973	18.958	(1.008)	869630	20.0000	20.44
	62 Carbazole	167	19.321	19.314	(1.026)	544741	20.0000	21.08
	63 Di-n-butylphthalate	149	20.188	20.188	(1.072)	954876	20.0000	21.74
	64 Fluoranthene	202	21.286	21.279	(1.131)	1027468	20.0000	21.02
	65 Pyrene	202	21.704	21.697	(0.908)	1044384	20.0000	20.77
$	66 Terphenyl-d14	244	22.029	22.022	(0.922)	639846	20.0000	20.22
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	377639	20.0000	21.99
	68 Benzo(a)anthracene	228	23.880	23.864	(0.999)	931914	20.0000	20.48
*	69 Chrysene-d12	240	23.903	23.895	(1.000)	162543	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.857	23.841	(0.998)	795550	40.0000	45.90
	71 Chrysene	228	23.949	23.934	(1.002)	846249	20.0000	20.55
	72 bis(2-Ethylhexyl)phthalate	149	24.019	24.019	(0.961)	538822	20.0000	19.18(M)
*	134 Di-n-octylphthalate-d4	153	25.002	24.995	(1.000)	211292	4.00000	
	73 Di-n-octylphthalate	149	25.010	25.002	(1.000)	944988	20.0000	19.42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.676	25.660	(0.974)	987454	20.0000	20.76
75	Benzo(k)fluoranthene	252	25.722	25.699	(0.976)	1077307	20.0000	21.50
76	Benzo(a)pyrene	252	26.257	26.241	(0.996)	861687	20.0000	21.20
* 77	Perylene-d12	264	26.357	26.350	(1.000)	160177	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.713	28.690	(1.089)	1031455	20.0000	22.03
79	Dibenzo(a,h)anthracene	278	28.737	28.698	(1.090)	793192	20.0000	22.09
80	Benzo(g,h,i)perylene	276	29.405	29.350	(1.116)	865612	20.0000	21.37
90	N-Nitrosodimethylamine	74	4.389	4.366	(0.488)	338961	40.0000	40.55
91	Aniline	93	8.421	8.406	(0.937)	720123	20.0000	19.56
93	Benzidine	184	21.549	21.542	(0.902)	257371	40.0000	40.13
103	Pyridine	79	4.389	4.397	(0.488)	290326	40.0000	39.51
105	1-methylnaphthalene	142	13.437	13.430	(1.153)	458844	20.0000	20.76
111	Azobenzene (1,2-DP-Hydrazine)	77	17.118	17.095	(1.101)	521942	20.0000	19.15
187	Total Benzofluoranthenes	252	25.722	25.699	(0.976)	1886688	40.0000	40.85
99	Perylene	252	26.411	26.388	(1.002)	949277	20.0000	20.43
98	Retene	219	22.316	22.316	(0.934)	402573	20.0000	21.15
120	2,3,4,6-Tetrachlorophenol	232	16.354	16.338	(1.052)	168064	20.0000	23.63
188	2,6-Dichlorophenol	162	11.890	11.867	(1.021)	834861	40.0000	40.89
189	N-Nitrosomethylethylamine	88	5.825	5.818	(0.648)	517676	40.0000	41.51

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429b.d
Lab Smp Id: IC0429B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	36696	-18.90
27 Naphthalene-d8	166754	83377	333508	136283	-18.27
42 Acenaphthene-d10	106910	53455	213820	88131	-17.57
59 Phenanthrene-d10	179783	89892	359566	152272	-15.30
69 Chrysene-d12	192841	96420	385682	162543	-15.71
134 Di-n-octylphthala	229567	114784	459134	211292	-7.96
77 Perylene-d12	184310	92155	368620	160177	-13.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.99	0.00
27 Naphthalene-d8	11.64	11.14	12.14	11.65	0.07
42 Acenaphthene-d10	15.54	15.04	16.04	15.55	0.05
59 Phenanthrene-d10	18.82	18.32	19.32	18.83	0.04
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.03
134 Di-n-octylphthala	24.99	24.49	25.49	25.00	0.03
77 Perylene-d12	26.35	25.85	26.85	26.36	0.03

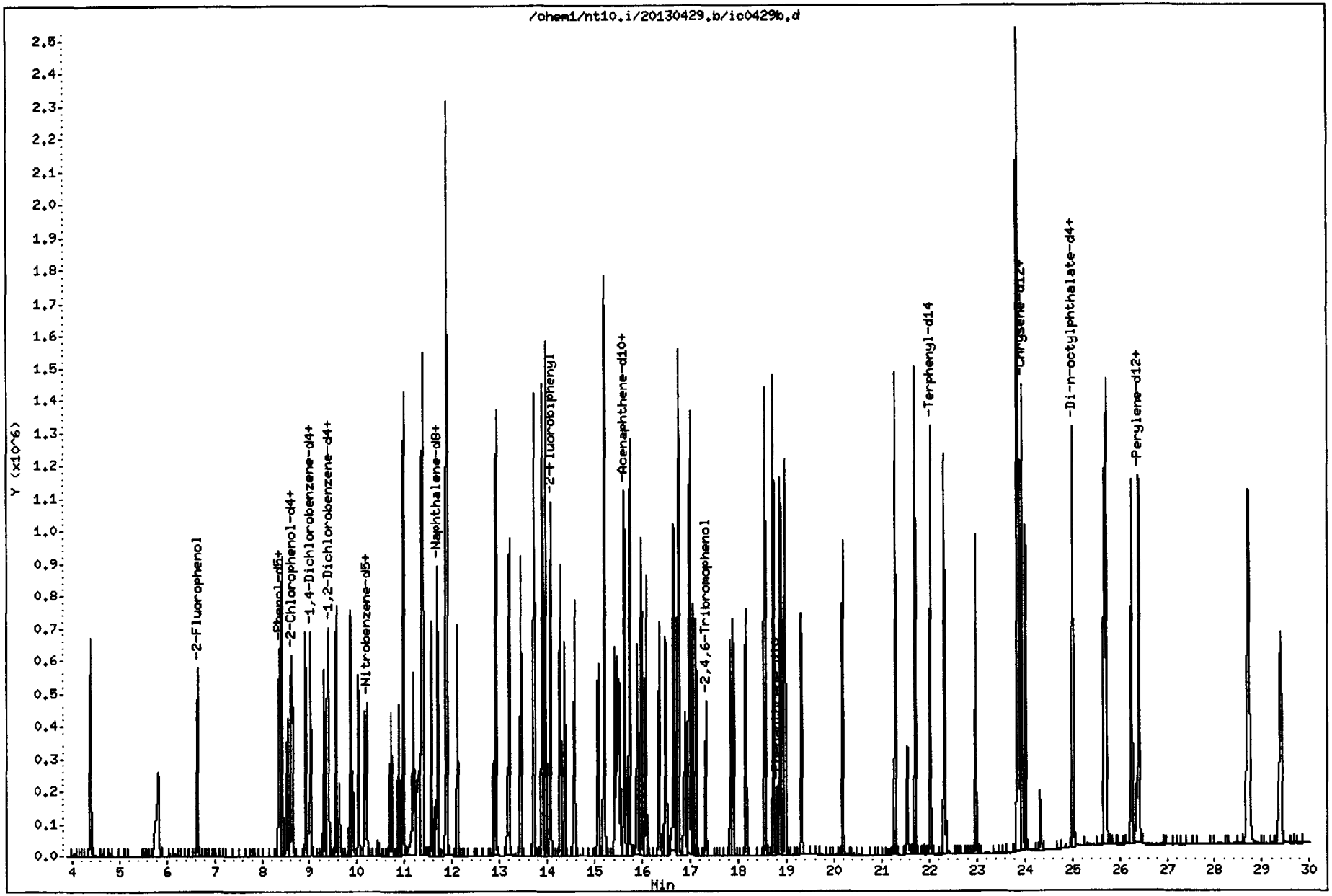
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429b.d
Date : 29-APR-2013 17:30
Client ID:
Sample Info: IC0429B

Instrument: nt10.i

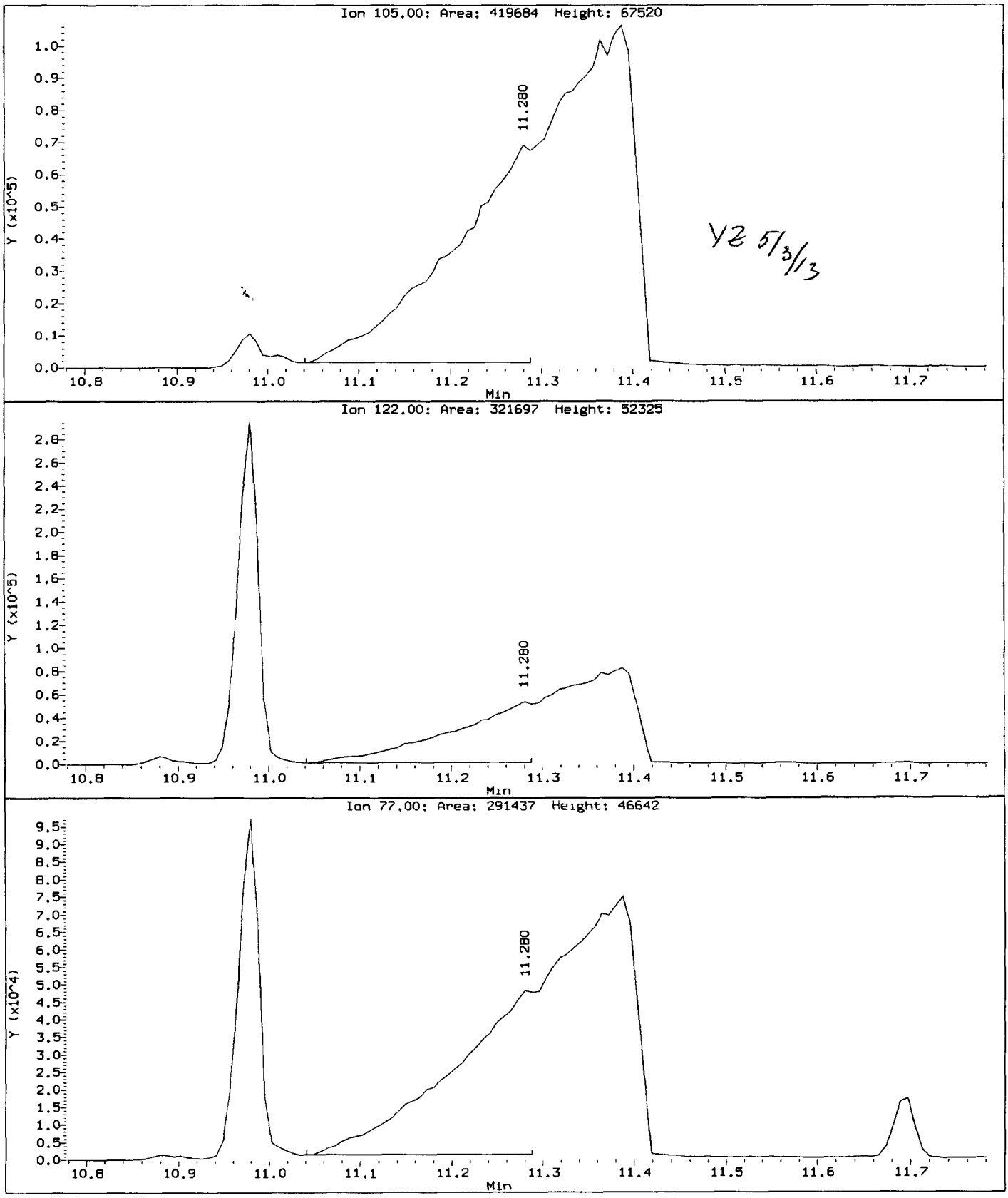
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



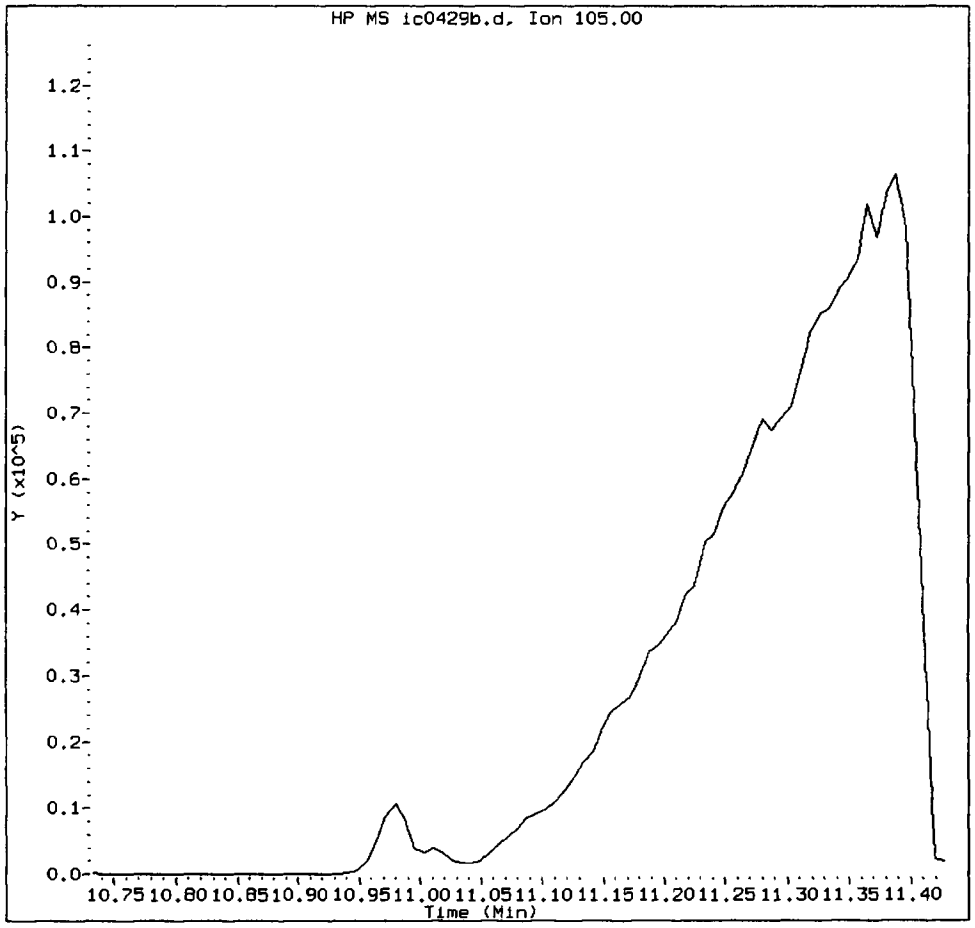
Data File: /chem1/nt10.i/20130429.b/ic0429b.d
Injection Date: 29-APR-2013 17:30
Instrument: nt10.i
Client Sample ID:

Compound: Benzoic acid
CAS Number: 65-85-0



IC0429B, /chem1/nt10.i/20130429.b/ic0429b.d

Benzoic acid Amount: 79.78 Area: 1043882



MANUAL INTEGRATION for Benzoic acid

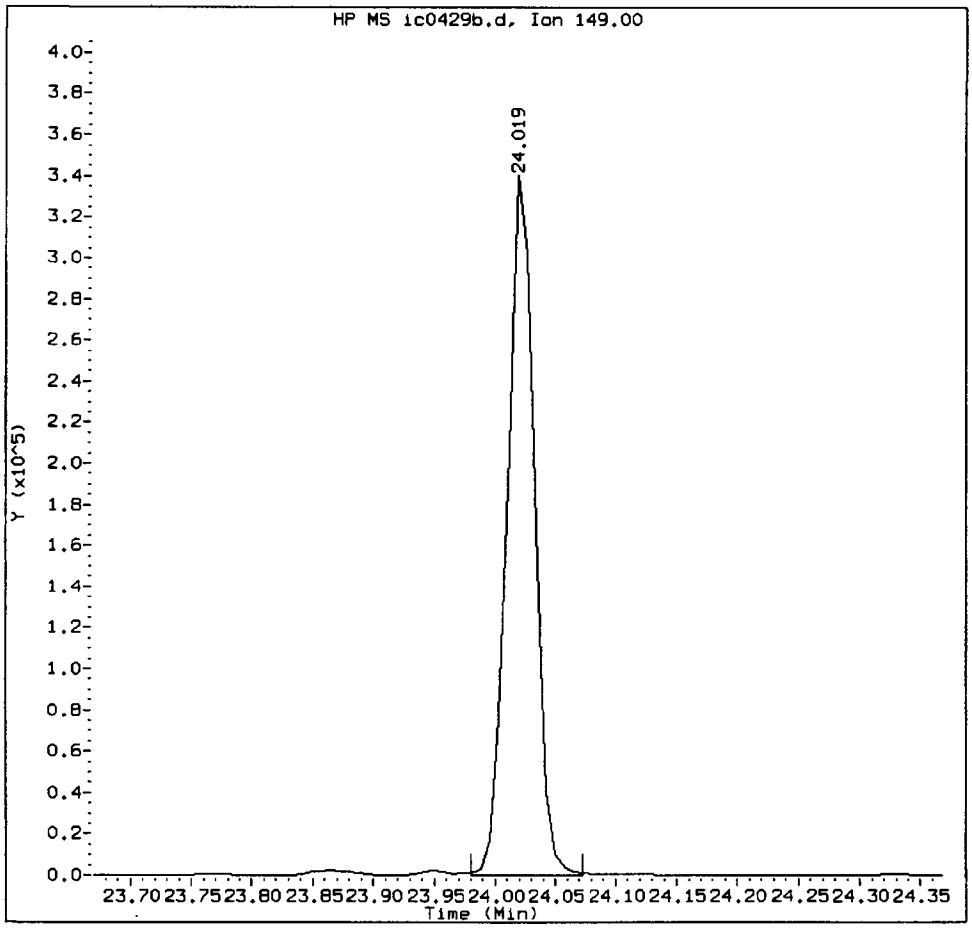
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/3/13

IC0429B, /chem1/nt10.i/20130429.b/ic0429b.d

bis(2-Ethylhexyl)phthalate Amount: 19.18 Area: 538822



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429b.d

Lab ID: IC0429B, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS
15.202	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429c.d
Lab Smp Id: IC0429C
Inj Date : 29-APR-2013 18:07
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429C
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 18:07 Cal File: ic0429c.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.636	6.629	(0.738)	3383	0.20000	0.1878
$	2 Phenol-d5	99	8.336	8.337	(0.928)	4401	0.20000	0.1889
	3 Phenol	94	8.360	8.360	(0.930)	5241	0.20000	0.2009
$	5 2-Chlorophenol-d4	132	8.599	8.599	(0.957)	3739	0.20000	0.2114
	4 Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.948)	3959	0.20000	0.2111
	6 2-Chlorophenol	128	8.630	8.622	(0.960)	3911	0.20000	0.1944
	7 1,3-Dichlorobenzene	146	8.917	8.909	(0.992)	4272	0.20000	0.2116
*	8 1,4-Dichlorobenzene-d4	152	8.986	8.979	(1.000)	50456	4.00000	
	9 1,4-Dichlorobenzene	146	9.017	9.018	(1.003)	4324	0.20000	0.2173
$	10 1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.042)	2496	0.20000	0.1962
	12 1,2-Dichlorobenzene	146	9.398	9.390	(1.046)	4100	0.20000	0.2152
	11 Benzyl alcohol	108	9.289	9.289	(1.034)	2146	0.20000	0.1956
	14 2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.071)	1075	0.20000	0.1857
	13 2-Methylphenol	108	9.553	9.553	(1.063)	3759	0.20000	0.2003
	17 Hexachloroethane	117	10.027	10.027	(1.116)	1739	0.20000	0.2089
	16 N-Nitroso-di-n-propylamine	70	9.902	9.895	(1.102)	2403	0.20000	0.2051
	15 4-Methylphenol	108	9.840	9.840	(1.095)	3626	0.20000	0.1895
$	18 Nitrobenzene-d5	82	10.158	10.159	(0.873)	3990	0.20000	0.2032
	19 Nitrobenzene	77	10.197	10.190	(0.876)	3676	0.20000	0.2028
	20 Isophorone	82	10.686	10.686	(0.918)	6624	0.20000	0.1943
	21 2-Nitrophenol	139	10.872	10.872	(0.934)	1931	0.20000	0.1900
	22 2,4-Dimethylphenol	107	10.964	10.964	(0.942)	7665	0.40000	0.4102
	23 Bis(2-Chloroethoxy)methane	93	11.172	11.172	(0.960)	4126	0.20000	0.2052
	24 Benzoic acid	105	11.064	11.080	(0.950)	4976	0.80000	0.3099
	25 2,4-Dichlorophenol	162	11.365	11.365	(0.976)	5918	0.40000	0.3440
	26 1,2,4-Trichlorobenzene	180	11.558	11.558	(0.993)	3837	0.20000	0.2282
*	27 Naphthalene-d8	136	11.643	11.643	(1.000)	186081	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.004)	11214	0.20000	0.2264
	29 4-Chloroaniline	127	11.851	11.843	(1.018)	7896	0.40000	0.4077
	30 Hexachlorobutadiene	225	12.106	12.099	(1.040)	2172	0.20000	0.2175
	31 4-Chloro-3-methylphenol	107	12.911	12.911	(1.109)	4902	0.40000	0.3239
	32 2-Methylnaphthalene	142	13.197	13.197	(1.134)	6890	0.20000	0.2094
	33 Hexachlorocyclopentadiene	237	13.708	13.708	(0.882)	4924	0.40000	0.4074
	34 2,4,6-Trichlorophenol	196	13.878	13.879	(0.893)	4276	0.40000	0.3699
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	3903	0.40000	0.3275
$	36 2-Fluorobiphenyl	172	14.056	14.057	(0.904)	8598	0.20000	0.2243
	37 2-Chloronaphthalene	162	14.258	14.258	(0.917)	6906	0.20000	0.2263
	38 2-Nitroaniline	65	14.559	14.552	(0.937)	2248	0.40000	0.3052
	39 Dimethylphthalate	163	15.047	15.047	(0.968)	7495	0.20000	0.2273
	40 Acenaphthylene	152	15.194	15.194	(0.978)	11459	0.20000	0.2214
	41 2,6-Dinitrotoluene	165	15.186	15.179	(0.977)	2863	0.40000	0.3706
*	42 Acenaphthene-d10	164	15.542	15.535	(1.000)	109826	4.00000	
	43 3-Nitroaniline	138	15.480	15.473	(0.996)	2279	0.40000	0.3574(M)
	44 Acenaphthene	153	15.612	15.604	(1.004)	7176	0.20000	0.2301
	45 2,4-Dinitrophenol	184	15.712	15.705	(1.011)	1264	0.80000	0.1881
	46 Dibenzofuran	168	15.959	15.960	(1.027)	9186	0.20000	0.2154
	47 4-Nitrophenol	109	15.867	15.867	(1.021)	600	0.40000	0.1265
	48 2,4-Dinitrotoluene	165	16.052	16.052	(1.033)	3351	0.40000	0.3363
	50 Diethylphthalate	149	16.632	16.632	(1.070)	7435	0.20000	0.2244
	49 Fluorene	166	16.733	16.733	(1.077)	8040	0.20000	0.2209
	51 4-Chlorophenyl-phenylether	204	16.748	16.748	(1.078)	4050	0.20000	0.2264
	52 4-Nitroaniline	138	16.856	16.841	(1.085)	2307	0.40000	0.3483
	53 4,6-Dinitro-2-methylphenol	198	16.949	16.949	(0.901)	3933	0.80000	0.4496
	54 N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	4565	0.20000	0.2141
$	55 2,4,6-Tribromophenol	330	17.311	17.311	(1.114)	1098	0.20000	0.1890
	56 4-Bromophenyl-phenylether	248	17.835	17.836	(0.948)	2097	0.20000	0.2012
	57 Hexachlorobenzene	284	18.153	18.153	(0.965)	2973	0.20000	0.2390
	58 Pentachlorophenol	266	18.547	18.548	(0.986)	2858	0.40000	0.3274
*	59 Phenanthrene-d10	188	18.810	18.811	(1.000)	184210	4.00000	
	60 Phenanthrene	178	18.857	18.857	(1.002)	11324	0.20000	0.2254
	61 Anthracene	178	18.957	18.958	(1.008)	11018	0.20000	0.2140
	62 Carbazole	167	19.313	19.314	(1.027)	8831	0.20000	0.2824
	63 Di-n-butylphthalate	149	20.188	20.188	(1.073)	11372	0.20000	0.2140
	64 Fluoranthene	202	21.279	21.279	(1.131)	12505	0.20000	0.2115
	65 Pyrene	202	21.696	21.697	(0.908)	13621	0.20000	0.2217
$	66 Terphenyl-d14	244	22.021	22.022	(0.922)	8855	0.20000	0.2291
	67 Butylbenzylphthalate	149	22.966	22.974	(0.961)	4232	0.20000	0.2017
	68 Benzo(a)anthracene	228	23.864	23.864	(0.999)	12468	0.20000	0.2243
*	69 Chrysene-d12	240	23.895	23.895	(1.000)	198580	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.841	23.841	(0.998)	10168	0.40000	0.4802
	71 Chrysene	228	23.934	23.934	(1.002)	11695	0.20000	0.2324
	72 bis(2-Ethylhexyl)phthalate	149	24.019	24.019	(0.961)	6713	0.20000	0.2377(M)
*	134 Di-n-octylphthalate-d4	153	24.994	24.995	(1.000)	212453	4.00000	
	73 Di-n-octylphthalate	149	25.002	25.002	(1.000)	11203	0.20000	0.2290

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.660	25.660	(0.974)	12082	0.20000	0.2274
75	Benzo(k)fluoranthene	252	25.699	25.699	(0.976)	12787	0.20000	0.2285
76	Benzo(a)pyrene	252	26.241	26.241	(0.996)	10298	0.20000	0.2268
* 77	Perylene-d12	264	26.342	26.350	(1.000)	178934	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.674	28.690	(1.089)	10579	0.20000	0.2023
79	Dibenzo(a,h)anthracene	278	28.698	28.698	(1.089)	8265	0.20000	0.2060
80	Benzo(g,h,i)perylene	276	29.358	29.350	(1.115)	9355	0.20000	0.2067
90	N-Nitrosodimethylamine	74	4.382	4.366	(0.488)	4445	0.40000	0.3867
91	Aniline	93	8.406	8.406	(0.935)	10097	0.20000	0.1995
93	Benzidine	184	21.542	21.542	(0.902)	6811	0.40000	1.117
103	Pyridine	79	4.420	4.397	(0.492)	3667	0.40000	0.3629
105	1-methylnaphthalene	142	13.429	13.430	(1.153)	6549	0.20000	0.2170
111	Azobenzene (1,2-DP-Hydrazine)	77	17.095	17.095	(1.100)	7263	0.20000	0.2138
187	Total Benzofluoranthenes	252	25.660	25.699	(0.974)	23419	0.40000	0.4539
99	Perylene	252	26.388	26.388	(1.002)	12169	0.20000	0.2345
98	Retene	219	22.308	22.316	(0.934)	5229	0.20000	0.2249
120	2,3,4,6-Tetrachlorophenol	232	16.338	16.338	(1.051)	1446	0.20000	0.1631
188	2,6-Dichlorophenol	162	11.866	11.867	(1.019)	11183	0.40000	0.4011
189	N-Nitrosomethylethylamine	88	5.833	5.818	(0.649)	6603	0.40000	0.3851

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429c.d
Lab Smp Id: IC0429C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	50456	11.50
27 Naphthalene-d8	166754	83377	333508	186081	11.59
42 Acenaphthene-d10	106910	53455	213820	109826	2.73
59 Phenanthrene-d10	179783	89892	359566	184210	2.46
69 Chrysene-d12	192841	96420	385682	198580	2.98
134 Di-n-octylphthala	229567	114784	459134	212453	-7.45
77 Perylene-d12	184310	92155	368620	178934	-2.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.99	0.00
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.81	-0.04
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
134 Di-n-octylphthala	24.99	24.49	25.49	24.99	0.00
77 Perylene-d12	26.35	25.85	26.85	26.34	-0.03

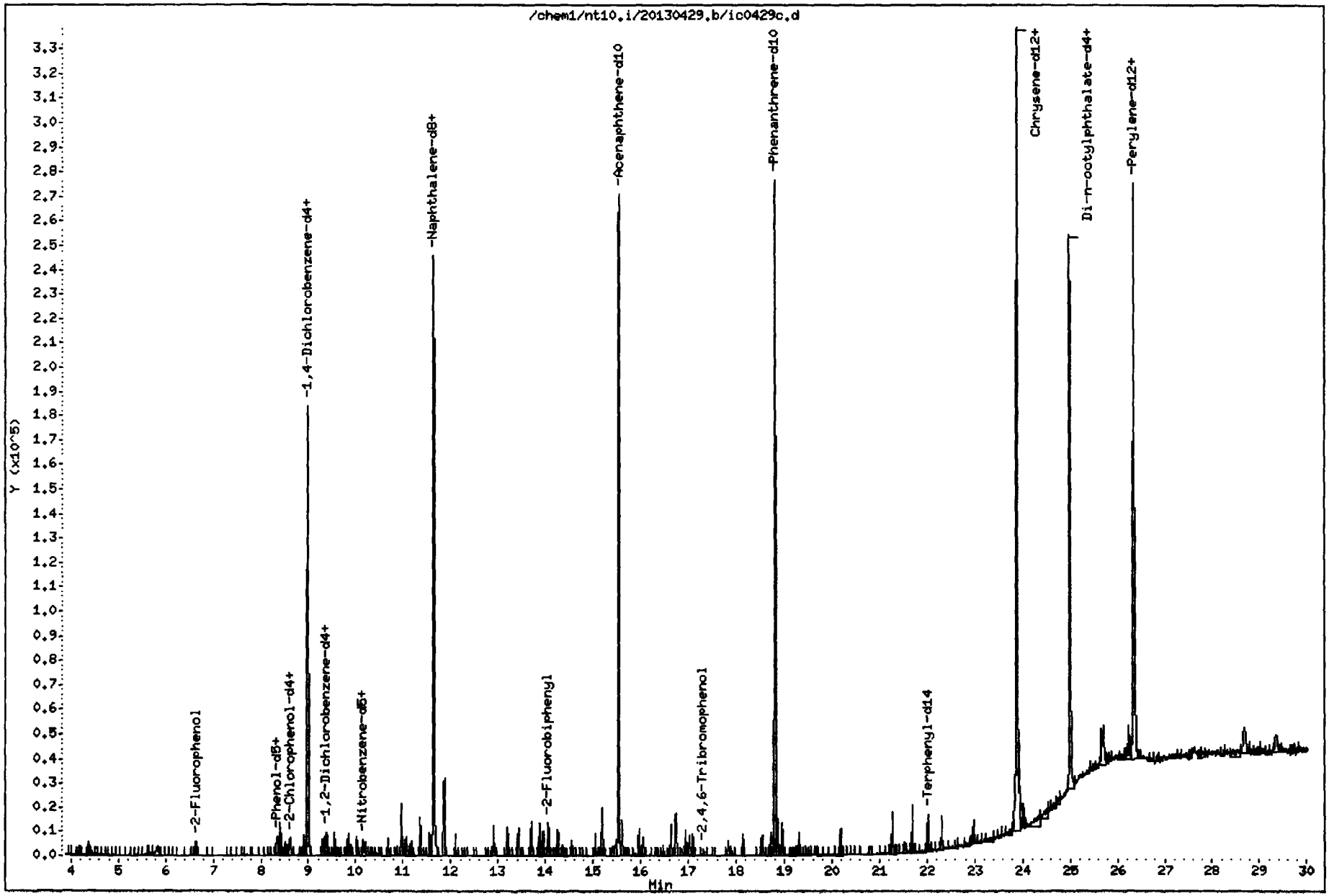
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429c.d
Date : 29-APR-2013 18:07
Client ID:
Sample Info: IC0429C

Instrument: nt10.i

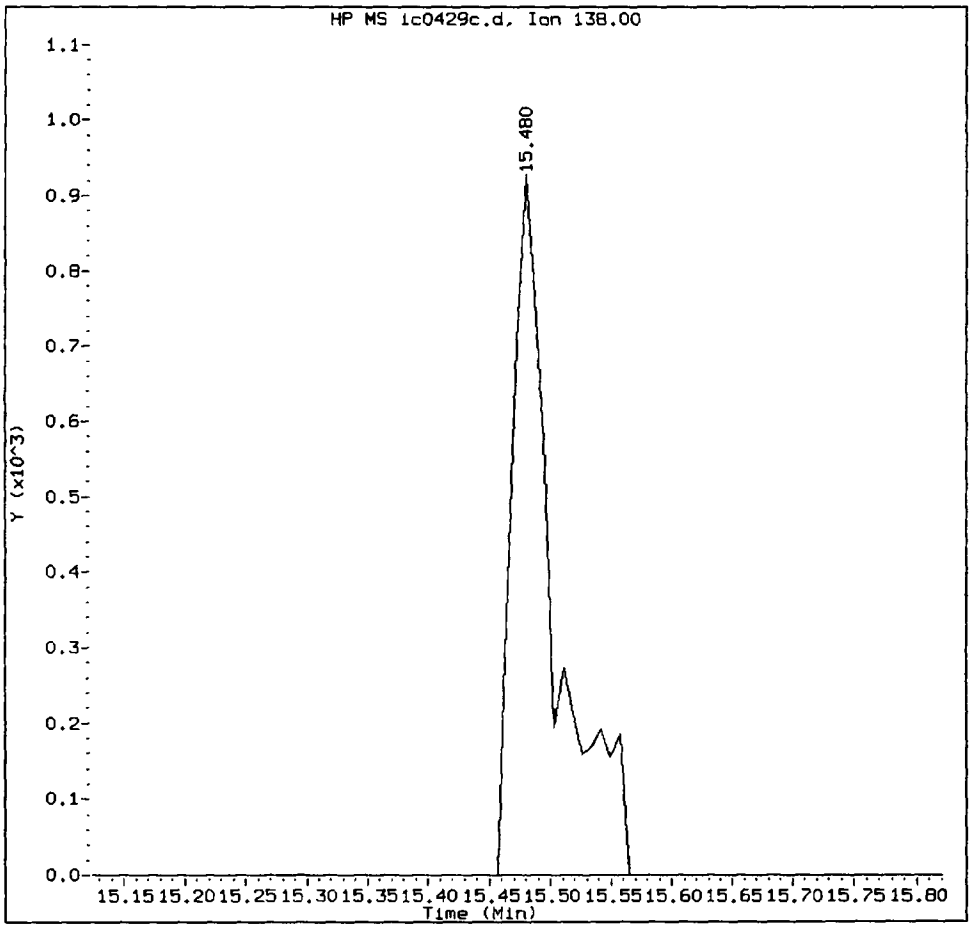
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429C, /chem1/nt10.i/20130429.b/ic0429c.d

3-Nitroaniline Amount: 0.36 Area: 2279



MANUAL INTEGRATION for 3-Nitroaniline

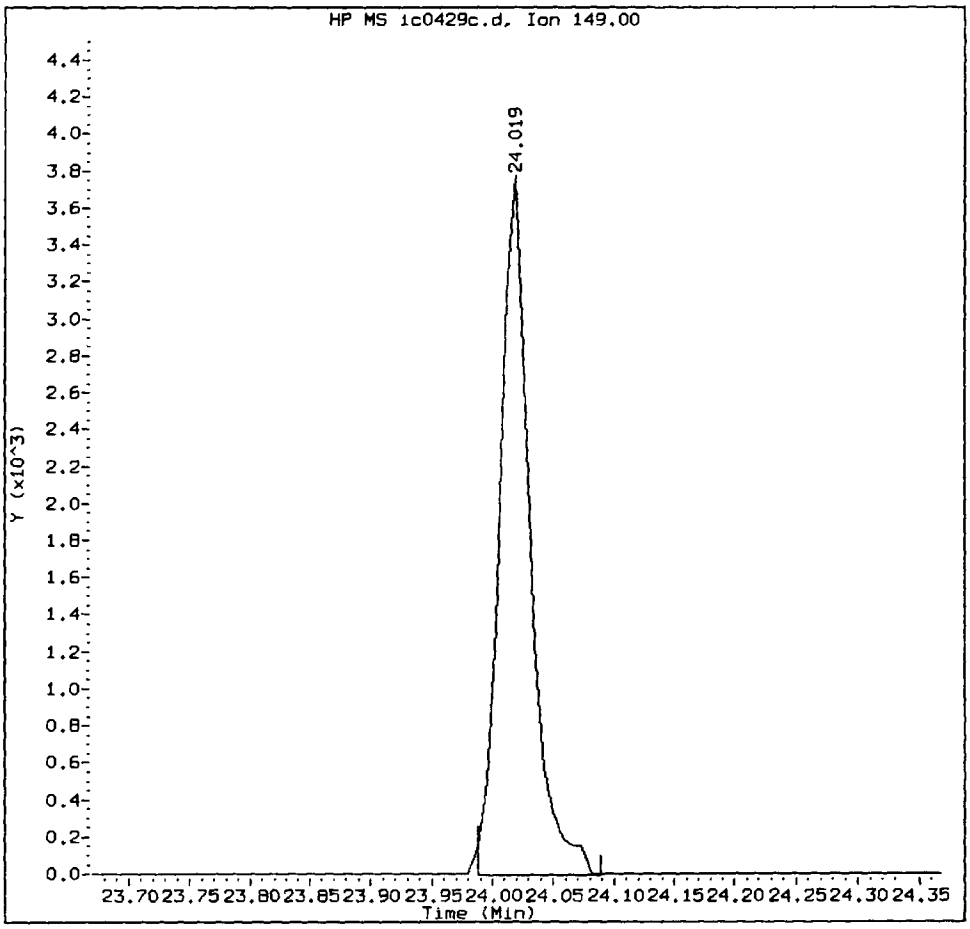
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VB Date: 5/3/13

IC0429C, /chem1/nt10.i/20130429.b/ic0429c.d

bis(2-Ethylhexyl)phthalate Amount: 0.24 Area: 6713



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/2/13

CO-ELUTION SUMMARY FOR FILE - ic0429c.d

Lab ID: IC0429C, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429d.d
Lab Smp Id: IC0429D
Inj Date : 29-APR-2013 18:44
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429D
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 18:44 Cal File: ic0429d.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.628	6.629	(0.738)	15307	1.00000	0.9620
$	2	Phenol-d5	99	8.336	8.337	(0.928)	19285	1.00000	0.9366
	3	Phenol	94	8.360	8.360	(0.931)	22180	1.00000	0.9624
$	5	2-Chlorophenol-d4	132	8.591	8.599	(0.957)	14988	1.00000	0.9589
	4	Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.949)	16380	1.00000	0.9883
	6	2-Chlorophenol	128	8.622	8.622	(0.960)	16398	1.00000	0.9226
	7	1,3-Dichlorobenzene	146	8.909	8.909	(0.992)	17715	1.00000	0.9933
*	8	1,4-Dichlorobenzene-d4	152	8.979	8.979	(1.000)	44580	4.00000	
	9	1,4-Dichlorobenzene	146	9.010	9.018	(1.003)	16867	1.00000	0.9594
$	10	1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.043)	11111	1.00000	0.9883
	12	1,2-Dichlorobenzene	146	9.390	9.390	(1.046)	16787	1.00000	0.9973
	11	Benzyl alcohol	108	9.289	9.289	(1.035)	9257	1.00000	0.9548
	14	2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.072)	5171	1.00000	1.011
	13	2-Methylphenol	108	9.545	9.553	(1.063)	16160	1.00000	0.9744
	17	Hexachloroethane	117	10.019	10.027	(1.116)	7294	1.00000	0.9916
	16	N-Nitroso-di-n-propylamine	70	9.895	9.895	(1.102)	9787	1.00000	0.9452
	15	4-Methylphenol	108	9.840	9.840	(1.096)	16603	1.00000	0.9818
$	18	Nitrobenzene-d5	82	10.158	10.159	(0.873)	17141	1.00000	0.9894
	19	Nitrobenzene	77	10.197	10.190	(0.876)	15823	1.00000	0.9893
	20	Isophorone	82	10.686	10.686	(0.918)	27613	1.00000	0.9178
	21	2-Nitrophenol	139	10.872	10.872	(0.934)	8265	1.00000	0.9218
	22	2,4-Dimethylphenol	107	10.964	10.964	(0.942)	32296	2.00000	1.959
	23	Bis(2-Chloroethoxy)methane	93	11.172	11.172	(0.960)	17765	1.00000	1.001
	24	Benzoic acid	105	11.110	11.080	(0.954)	41278	4.00000	2.905
	25	2,4-Dichlorophenol	162	11.365	11.365	(0.976)	31611	2.00000	2.083
	26	1,2,4-Trichlorobenzene	180	11.558	11.558	(0.993)	14941	1.00000	1.007
*	27	Naphthalene-d8	136	11.643	11.643	(1.000)	164171	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.004)	42702	1.00000	0.9770
	29 4-Chloroaniline	127	11.851	11.843	(1.018)	33352	2.00000	1.952
	30 Hexachlorobutadiene	225	12.098	12.099	(1.039)	8779	1.00000	0.9963
	31 4-Chloro-3-methylphenol	107	12.911	12.911	(1.109)	25572	2.00000	1.915
	32 2-Methylnaphthalene	142	13.197	13.197	(1.134)	27982	1.00000	0.9638
	33 Hexachlorocyclopentadiene	237	13.708	13.708	(0.882)	21045	2.00000	1.886
	34 2,4,6-Trichlorophenol	196	13.878	13.879	(0.893)	20650	2.00000	1.935
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	21226	2.00000	1.929
$	36 2-Fluorobiphenyl	172	14.056	14.057	(0.904)	34053	1.00000	0.9621
	37 2-Chloronaphthalene	162	14.257	14.258	(0.917)	27105	1.00000	0.9620
	38 2-Nitroaniline	65	14.552	14.552	(0.936)	13213	2.00000	1.943
	39 Dimethylphthalate	163	15.055	15.047	(0.969)	29710	1.00000	0.9760
	40 Acenaphthylene	152	15.194	15.194	(0.978)	46429	1.00000	0.9715
	41 2,6-Dinitrotoluene	165	15.186	15.179	(0.977)	13962	2.00000	1.957
*	42 Acenaphthene-d10	164	15.542	15.535	(1.000)	101406	4.00000	
	43 3-Nitroaniline	138	15.480	15.473	(0.996)	12865	2.00000	2.185
	44 Acenaphthene	153	15.612	15.604	(1.004)	27470	1.00000	0.9538
	45 2,4-Dinitrophenol	184	15.704	15.705	(1.010)	14717	4.00000	2.364
	46 Dibenzofuran	168	15.967	15.960	(1.027)	38532	1.00000	0.9785
	47 4-Nitrophenol	109	15.859	15.867	(1.020)	5820	2.00000	1.327
	48 2,4-Dinitrotoluene	165	16.052	16.052	(1.033)	18293	2.00000	1.988
	50 Diethylphthalate	149	16.632	16.632	(1.070)	29344	1.00000	0.9593
	49 Fluorene	166	16.733	16.733	(1.077)	32959	1.00000	0.9809
	51 4-Chlorophenyl-phenylether	204	16.756	16.748	(1.078)	15568	1.00000	0.9425
	52 4-Nitroaniline	138	16.848	16.841	(1.084)	13721	2.00000	2.243
	53 4,6-Dinitro-2-methylphenol	198	16.949	16.949	(0.901)	27317	4.00000	3.379
	54 N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	20108	1.00000	1.022
$	55 2,4,6-Tribromophenol	330	17.311	17.311	(1.114)	4956	1.00000	0.9242
	56 4-Bromophenyl-phenylether	248	17.835	17.836	(0.948)	9783	1.00000	1.017
	57 Hexachlorobenzene	284	18.153	18.153	(0.965)	11321	1.00000	0.9868
	58 Pentachlorophenol	266	18.547	18.548	(0.986)	14694	2.00000	1.825
*	59 Phenanthrene-d10	188	18.810	18.811	(1.000)	169929	4.00000	
	60 Phenanthrene	178	18.857	18.857	(1.002)	46140	1.00000	0.9955
	61 Anthracene	178	18.957	18.958	(1.008)	46666	1.00000	0.9828
	62 Carbazole	167	19.313	19.314	(1.027)	35449	1.00000	1.229
	63 Di-n-butylphthalate	149	20.188	20.188	(1.073)	46503	1.00000	0.9487
	64 Fluoranthene	202	21.278	21.279	(1.131)	52957	1.00000	0.9708
	65 Pyrene	202	21.696	21.697	(0.908)	55189	1.00000	0.9635
$	66 Terphenyl-d14	244	22.021	22.022	(0.922)	34900	1.00000	0.9684
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	19089	1.00000	0.9759
	68 Benzo(a)anthracene	228	23.864	23.864	(0.999)	50618	1.00000	0.9766
*	69 Chrysene-d12	240	23.895	23.895	(1.000)	185129	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.849	23.841	(0.998)	37586	2.00000	1.904
	71 Chrysene	228	23.942	23.934	(1.002)	43967	1.00000	0.9374
	72 bis(2-Ethylhexyl)phthalate	149	24.019	24.019	(0.961)	26029	1.00000	0.9857(M)
*	134 Di-n-octylphthalate-d4	153	25.002	24.995	(1.000)	198625	4.00000	
	73 Di-n-octylphthalate	149	25.010	25.002	(1.000)	43269	1.00000	0.9461

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.668	25.660	(0.974)	46024	1.00000	0.9209
75	Benzo(k)fluoranthene	252	25.707	25.699	(0.976)	52368	1.00000	0.9948
76	Benzo(a)pyrene	252	26.241	26.241	(0.996)	40952	1.00000	0.9591
* 77	Perylene-d12	264	26.349	26.350	(1.000)	168300	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.682	28.690	(1.089)	46418	1.00000	0.9436
79	Dibenzo(a,h)anthracene	278	28.705	28.698	(1.089)	35967	1.00000	0.9531
80	Benzo(g,h,i)perylene	276	29.358	29.350	(1.114)	41617	1.00000	0.9778
90	N-Nitrosodimethylamine	74	4.366	4.366	(0.486)	19685	2.00000	1.938
91	Aniline	93	8.406	8.406	(0.936)	43396	1.00000	0.9705
93	Benzidine	184	21.542	21.542	(0.902)	23877	2.00000	4.142
103	Pyridine	79	4.397	4.397	(0.490)	17576	2.00000	1.969
105	1-methylnaphthalene	142	13.429	13.430	(1.153)	25663	1.00000	0.9638
111	Azobenzene (1,2-DP-Hydrazine)	77	17.095	17.095	(1.100)	31455	1.00000	1.003
187	Total Benzofluoranthenes	252	25.668	25.699	(0.974)	94813	2.00000	1.954
99	Perylene	252	26.396	26.388	(1.002)	46957	1.00000	0.9620
98	Retene	219	22.316	22.316	(0.934)	20776	1.00000	0.9584
120	2,3,4,6-Tetrachlorophenol	232	16.338	16.338	(1.051)	7820	1.00000	0.9555
188	2,6-Dichlorophenol	162	11.866	11.867	(1.019)	48496	2.00000	1.972
189	N-Nitrosomethylethylamine	88	5.818	5.818	(0.648)	29106	2.00000	1.921

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429d.d
Lab Smp Id: IC0429D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	44580	-1.48
27 Naphthalene-d8	166754	83377	333508	164171	-1.55
42 Acenaphthene-d10	106910	53455	213820	101406	-5.15
59 Phenanthrene-d10	179783	89892	359566	169929	-5.48
69 Chrysene-d12	192841	96420	385682	185129	-4.00
134 Di-n-octylphthala	229567	114784	459134	198625	-13.48
77 Perylene-d12	184310	92155	368620	168300	-8.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.98	-0.09
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.81	-0.04
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
134 Di-n-octylphthala	24.99	24.49	25.49	25.00	0.03
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

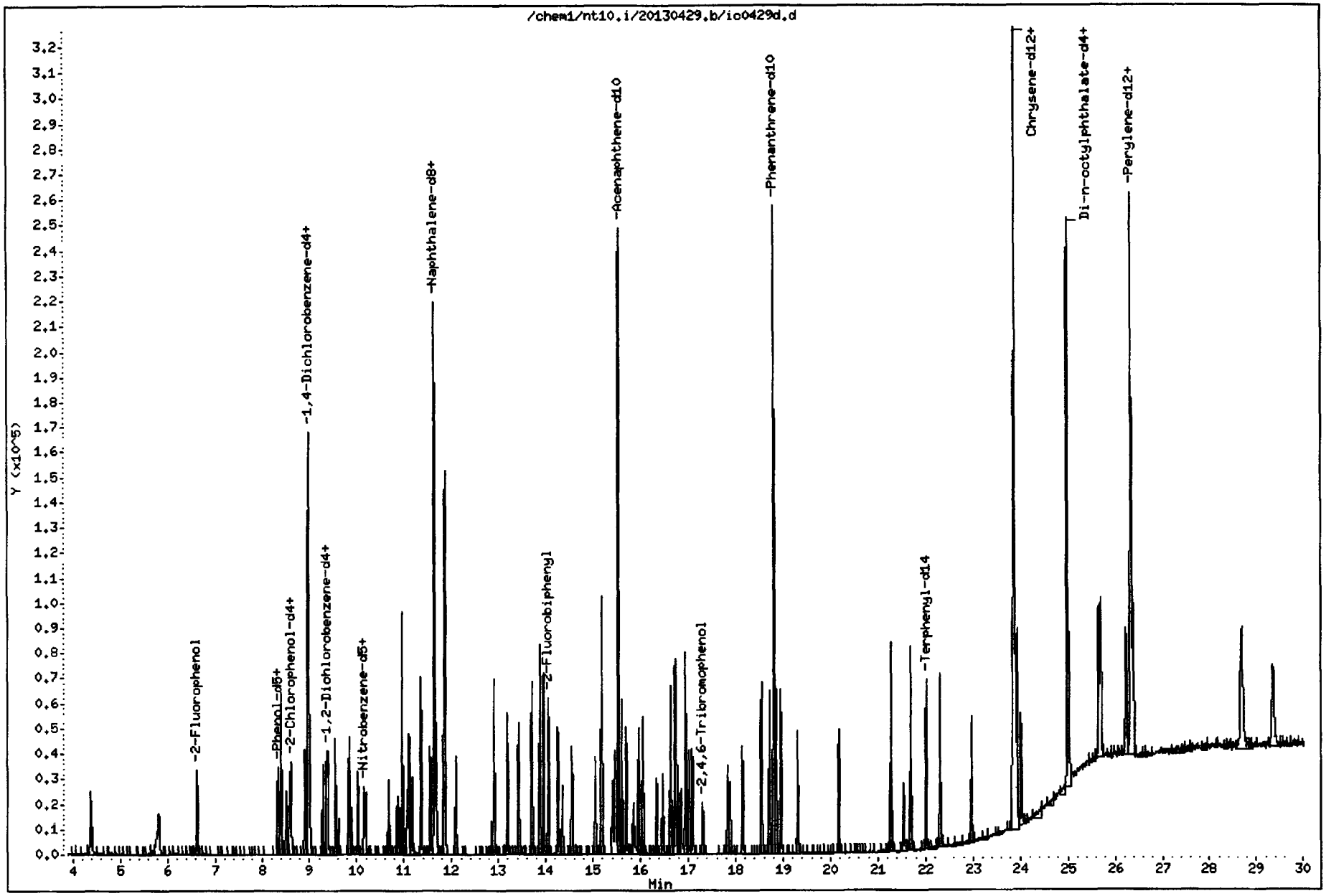
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429d.d
Date : 29-APR-2013 18:44
Client ID:
Sample Info: IC0429D

Instrument: nt10.i

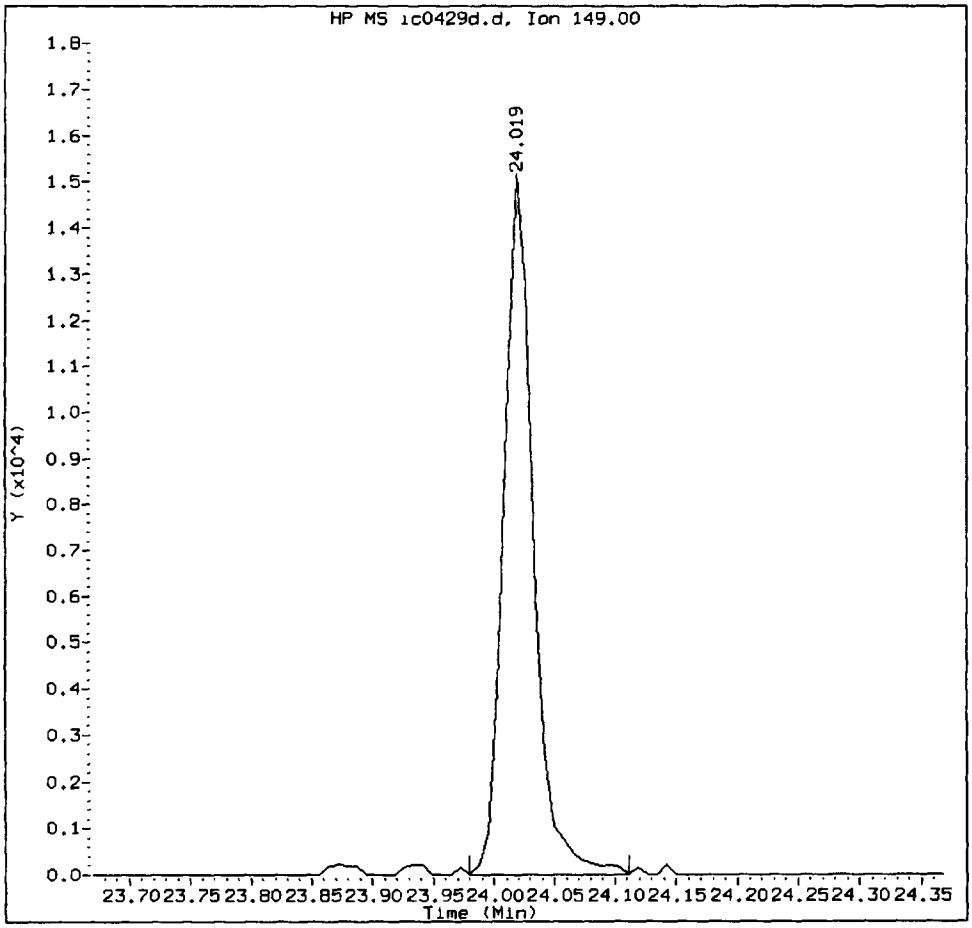
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429D, /chem1/nt10.i/20130429.b/ic0429d.d

bis(2-Ethylhexyl)phthalate Amount: 0.99 Area: 26029



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429d.d

Lab ID: IC0429D, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429e.d
Lab Smp Id: IC0429E
Inj Date : 29-APR-2013 19:21
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429E
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 19:21 Cal File: ic0429e.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.628	6.629	(0.738)	146655	10.0000	10.73
$	2 Phenol-d5	99	8.344	8.337	(0.929)	196642	10.0000	11.12
	3 Phenol	94	8.367	8.360	(0.931)	210587	10.0000	10.64
$	5 2-Chlorophenol-d4	132	8.599	8.599	(0.957)	137828	10.0000	10.27
	4 Bis(2-Chloroethyl)ether	93	8.529	8.522	(0.949)	143624	10.0000	10.09
	6 2-Chlorophenol	128	8.630	8.622	(0.960)	173765	10.0000	11.38
	7 1,3-Dichlorobenzene	146	8.917	8.909	(0.992)	155864	10.0000	10.18
*	8 1,4-Dichlorobenzene-d4	152	8.986	8.979	(1.000)	38285	4.00000	
	9 1,4-Dichlorobenzene	146	9.017	9.018	(1.003)	151337	10.0000	10.02
$	10 1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.042)	99905	10.0000	10.35
	12 1,2-Dichlorobenzene	146	9.398	9.390	(1.046)	143308	10.0000	9.914
	11 Benzyl alcohol	108	9.297	9.289	(1.035)	92776	10.0000	11.14
	14 2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.071)	45681	10.0000	10.40
	13 2-Methylphenol	108	9.553	9.553	(1.063)	149351	10.0000	10.49
	17 Hexachloroethane	117	10.026	10.027	(1.116)	64051	10.0000	10.14
	16 N-Nitroso-di-n-propylamine	70	9.902	9.895	(1.102)	93506	10.0000	10.52
	15 4-Methylphenol	108	9.848	9.840	(1.096)	160522	10.0000	11.05
$	18 Nitrobenzene-d5	82	10.158	10.159	(0.872)	157610	10.0000	10.45
	19 Nitrobenzene	77	10.197	10.190	(0.875)	144235	10.0000	10.36
	20 Isophorone	82	10.694	10.686	(0.918)	308116	10.0000	11.77
	21 2-Nitrophenol	139	10.879	10.872	(0.934)	86330	10.0000	11.06
	22 2,4-Dimethylphenol	107	10.972	10.964	(0.942)	301913	20.0000	21.04
	23 Bis(2-Chloroethoxy)methane	93	11.180	11.172	(0.960)	157345	10.0000	10.19
	24 Benzoic acid	105	11.303	11.080	(0.970)	533852	40.0000	41.16
	25 2,4-Dichlorophenol	162	11.372	11.365	(0.976)	298452	20.0000	22.59
	26 1,2,4-Trichlorobenzene	180	11.565	11.558	(0.993)	126245	10.0000	9.777
*	27 Naphthalene-d8	136	11.650	11.643	(1.000)	142908	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.003)	383254	10.0000	10.07
	29 4-Chloroaniline	127	11.859	11.843	(1.018)	349641	20.0000	23.51
	30 Hexachlorobutadiene	225	12.106	12.099	(1.039)	78933	10.0000	10.29
	31 4-Chloro-3-methylphenol	107	12.919	12.911	(1.109)	269630	20.0000	23.20
	32 2-Methylnaphthalene	142	13.197	13.197	(1.133)	264096	10.0000	10.45
	33 Hexachlorocyclopentadiene	237	13.716	13.708	(0.882)	215070	20.0000	21.20
	34 2,4,6-Trichlorophenol	196	13.886	13.879	(0.893)	208965	20.0000	21.54
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	227145	20.0000	22.71
$	36 2-Fluorobiphenyl	172	14.064	14.057	(0.905)	325794	10.0000	10.13
	37 2-Chloronaphthalene	162	14.265	14.258	(0.918)	259249	10.0000	10.12
	38 2-Nitroaniline	65	14.567	14.552	(0.937)	143221	20.0000	23.17
	39 Dimethylphthalate	163	15.062	15.047	(0.969)	278457	10.0000	10.06
	40 Acenaphthylene	152	15.194	15.194	(0.978)	490760	10.0000	11.30
	41 2,6-Dinitrotoluene	165	15.194	15.179	(0.978)	140641	20.0000	21.69
*	42 Acenaphthene-d10	164	15.542	15.535	(1.000)	92187	4.00000	
	43 3-Nitroaniline	138	15.496	15.473	(0.997)	115718	20.0000	21.62
	44 Acenaphthene	153	15.612	15.604	(1.004)	261611	10.0000	9.992
	45 2,4-Dinitrophenol	184	15.727	15.705	(1.012)	250805	40.0000	41.56
	46 Dibenzofuran	168	15.975	15.960	(1.028)	364969	10.0000	10.19
	47 4-Nitrophenol	109	15.874	15.867	(1.021)	85112	20.0000	20.75
	48 2,4-Dinitrotoluene	165	16.068	16.052	(1.034)	187198	20.0000	22.38
	50 Diethylphthalate	149	16.647	16.632	(1.071)	283263	10.0000	10.19
	49 Fluorene	166	16.740	16.733	(1.077)	309724	10.0000	10.14
	51 4-Chlorophenyl-phenylether	204	16.756	16.748	(1.078)	167282	10.0000	11.14
	52 4-Nitroaniline	138	16.872	16.841	(1.086)	125210	20.0000	22.52
	53 4,6-Dinitro-2-methylphenol	198	16.972	16.949	(0.902)	317489	40.0000	40.73
	54 N-Nitrosodiphenylamine	169	17.034	17.026	(0.905)	184807	10.0000	9.961
$	55 2,4,6-Tribromophenol	330	17.319	17.311	(1.114)	55755	10.0000	11.44
	56 4-Bromophenyl-phenylether	248	17.835	17.836	(0.948)	91977	10.0000	10.14
	57 Hexachlorobenzene	284	18.160	18.153	(0.965)	105323	10.0000	9.733
	58 Pentachlorophenol	266	18.555	18.548	(0.986)	177427	20.0000	23.36
*	59 Phenanthrene-d10	188	18.818	18.811	(1.000)	160272	4.00000	
	60 Phenanthrene	178	18.865	18.857	(1.002)	440318	10.0000	10.07
	61 Anthracene	178	18.965	18.958	(1.008)	455728	10.0000	10.18
	62 Carbazole	167	19.321	19.314	(1.027)	242608	10.0000	8.918
	63 Di-n-butylphthalate	149	20.188	20.188	(1.073)	495591	10.0000	10.72
	64 Fluoranthene	202	21.286	21.279	(1.131)	534614	10.0000	10.39
	65 Pyrene	202	21.704	21.697	(0.908)	542210	10.0000	10.18
$	66 Terphenyl-d14	244	22.029	22.022	(0.922)	341948	10.0000	10.20
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	196606	10.0000	10.80
	68 Benzo(a)anthracene	228	23.872	23.864	(0.999)	490781	10.0000	10.18
*	69 Chrysene-d12	240	23.903	23.895	(1.000)	172225	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.856	23.841	(0.998)	404734	20.0000	22.04
	71 Chrysene	228	23.949	23.934	(1.002)	439878	10.0000	10.08
	72 bis(2-Ethylhexyl)phthalate	149	24.027	24.019	(0.961)	275645	10.0000	9.831(M)
*	134 Di-n-octylphthalate-d4	153	25.002	24.995	(1.000)	210890	4.00000	
	73 Di-n-octylphthalate	149	25.018	25.002	(1.001)	477130	10.0000	9.826

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.676	25.660	(0.974)	516402	10.0000	10.46
75	Benzo(k)fluoranthene	252	25.714	25.699	(0.976)	509181	10.0000	9.789
76	Benzo(a)pyrene	252	26.256	26.241	(0.996)	438619	10.0000	10.40
* 77	Perylene-d12	264	26.357	26.350	(1.000)	166300	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.705	28.690	(1.089)	528701	10.0000	10.88
79	Dibenzo(a,h)anthracene	278	28.729	28.698	(1.090)	403235	10.0000	10.81
80	Benzo(g,h,i)perylene	276	29.389	29.350	(1.115)	445295	10.0000	10.59
90	N-Nitrosodimethylamine	74	4.374	4.366	(0.487)	190704	20.0000	21.87
91	Aniline	93	8.414	8.406	(0.936)	403125	10.0000	10.50
93	Benzidine	184	21.549	21.542	(0.902)	110746	20.0000	19.11
103	Pyridine	79	4.374	4.397	(0.487)	162027	20.0000	21.13
105	1-methylnaphthalene	142	13.437	13.430	(1.153)	238762	10.0000	10.30
111	Azobenzene (1,2-DP-Hydrazine)	77	17.111	17.095	(1.101)	287323	10.0000	10.08
167	Total Benzofluoranthenes	252	25.714	25.699	(0.976)	972720	20.0000	20.28
99	Perylene	252	26.411	26.388	(1.002)	482660	10.0000	10.01
98	Retene	219	22.323	22.316	(0.934)	206286	10.0000	10.23
120	2,3,4,6-Tetrachlorophenol	232	16.346	16.338	(1.052)	86691	10.0000	11.65
188	2,6-Dichlorophenol	162	11.882	11.867	(1.020)	451718	20.0000	21.10
189	N-Nitrosomethylethylamine	88	5.825	5.818	(0.648)	279207	20.0000	21.46

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429e.d
Lab Smp Id: IC0429E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	38285	-15.39
27 Naphthalene-d8	166754	83377	333508	142908	-14.30
42 Acenaphthene-d10	106910	53455	213820	92187	-13.77
59 Phenanthrene-d10	179783	89892	359566	160272	-10.85
69 Chrysene-d12	192841	96420	385682	172225	-10.69
134 Di-n-octylphthala	229567	114784	459134	210890	-8.14
77 Perylene-d12	184310	92155	368620	166300	-9.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.99	0.00
27 Naphthalene-d8	11.64	11.14	12.14	11.65	0.07
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.03
134 Di-n-octylphthala	24.99	24.49	25.49	25.00	0.03
77 Perylene-d12	26.35	25.85	26.85	26.36	0.03

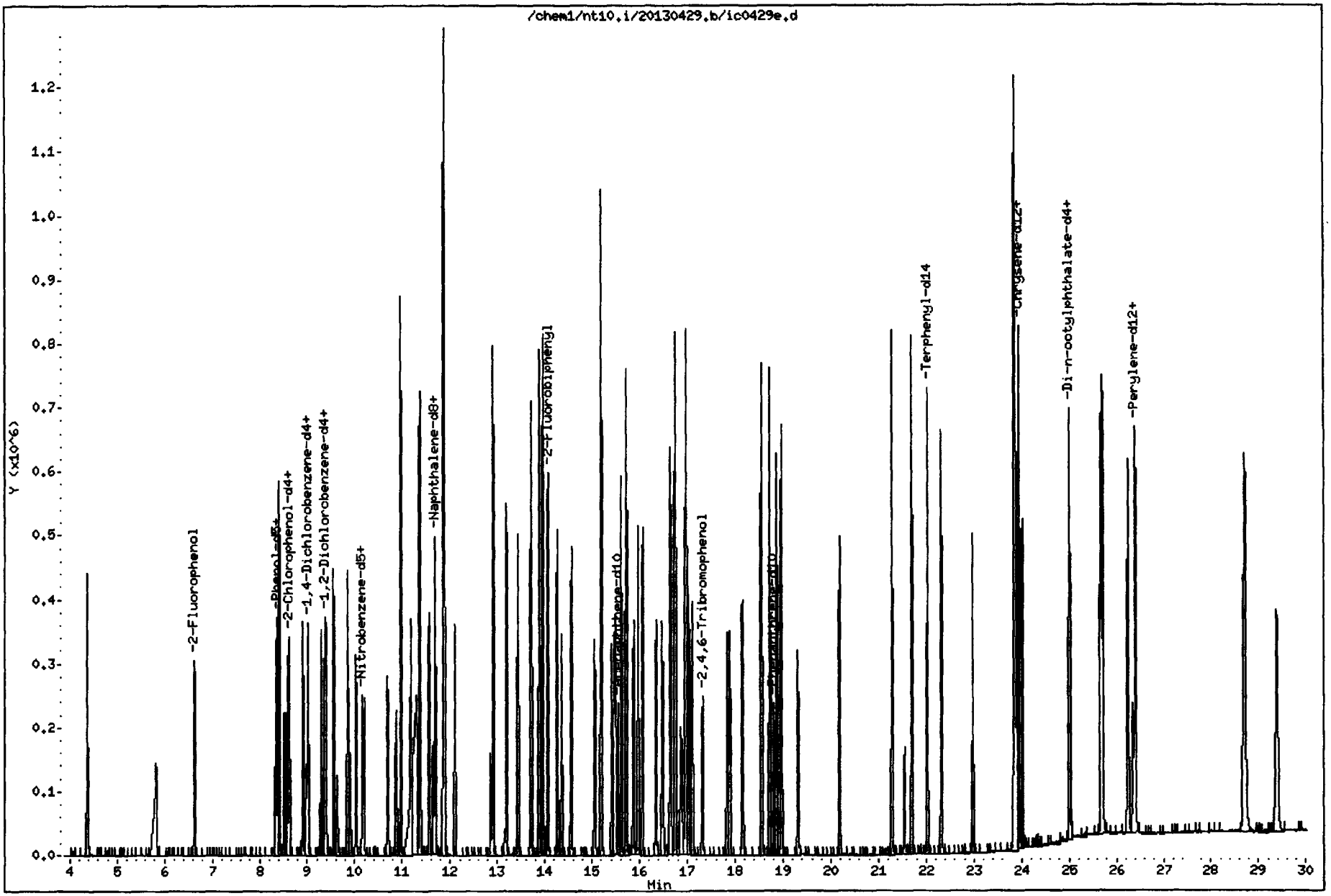
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429e.d
Date : 29-APR-2013 19:21
Client ID:
Sample Info: IC0429E

Instrument: nt10.i

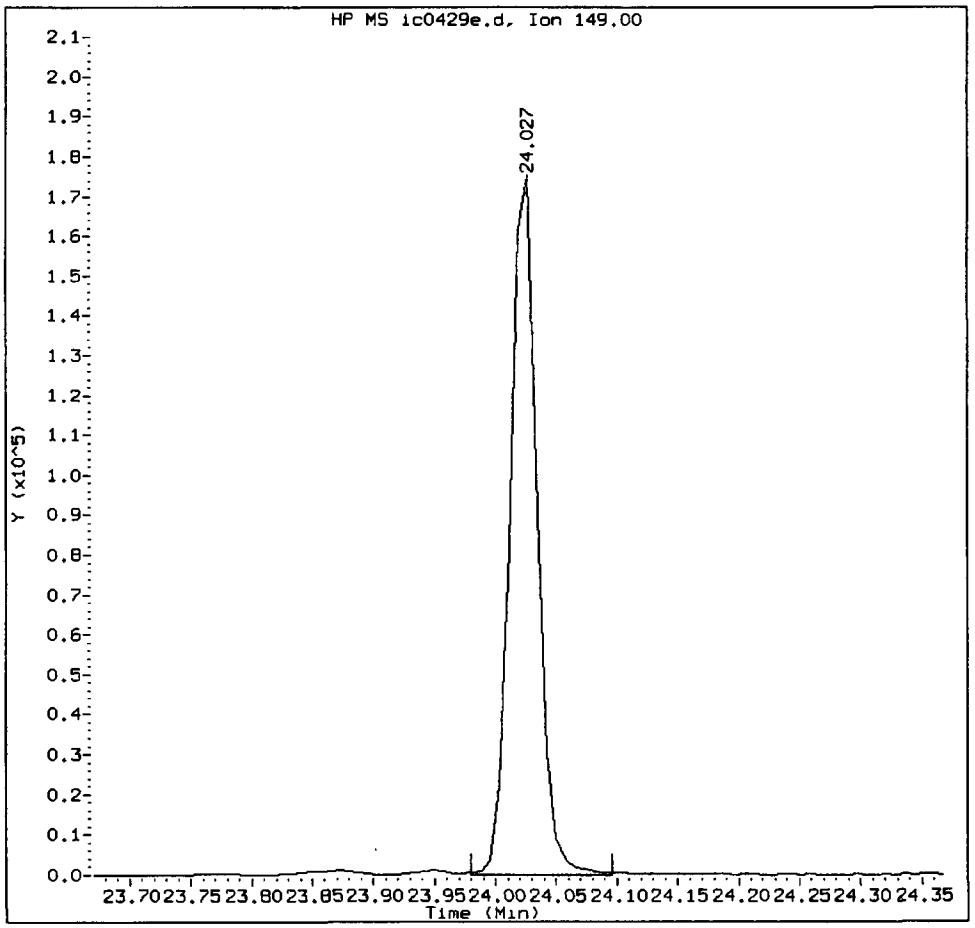
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429E, /chem1/nt10.i/20130429.b/ic0429e.d

bis(2-Ethylhexyl)phthalate Amount: 9.83 Area: 275645



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/9/13

CO-ELUTION SUMMARY FOR FILE - ic0429e.d

Lab ID: IC0429E, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS
15.194	Acenaphthylene and 2,6-Dinitrotoluene

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429g.d
Lab Smp Id: IC0429G
Inj Date : 29-APR-2013 20:34
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429G
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 20:34 Cal File: ic0429g.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

YZ 5/3/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.628	6.629	(0.738)	33327	2.50000	2.552
$	2 Phenol-d5	99	8.336	8.337	(0.928)	43013	2.50000	2.545
	3 Phenol	94	8.359	8.360	(0.930)	49200	2.50000	2.601
$	5 2-Chlorophenol-d4	132	8.599	8.599	(0.957)	32303	2.50000	2.518
	4 Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.948)	35522	2.50000	2.611
	6 2-Chlorophenol	128	8.622	8.622	(0.959)	35254	2.50000	2.417
	7 1,3-Dichlorobenzene	146	8.916	8.909	(0.992)	36581	2.50000	2.499
*	8 1,4-Dichlorobenzene-d4	152	8.986	8.979	(1.000)	36591	4.00000	
	9 1,4-Dichlorobenzene	146	9.017	9.018	(1.003)	37170	2.50000	2.576
$	10 1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.042)	23363	2.50000	2.532
	12 1,2-Dichlorobenzene	146	9.390	9.390	(1.045)	34665	2.50000	2.509
	11 Benzyl alcohol	108	9.289	9.289	(1.034)	20599	2.50000	2.589
	14 2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.071)	11085	2.50000	2.640
	13 2-Methylphenol	108	9.553	9.553	(1.063)	35312	2.50000	2.594
	17 Hexachloroethane	117	10.026	10.027	(1.116)	15637	2.50000	2.590
	16 N-Nitroso-di-n-propylamine	70	9.894	9.895	(1.101)	22554	2.50000	2.654
	15 4-Methylphenol	108	9.840	9.840	(1.095)	36435	2.50000	2.625
$	18 Nitrobenzene-d5	82	10.158	10.159	(0.873)	37054	2.50000	2.546
	19 Nitrobenzene	77	10.197	10.190	(0.876)	34459	2.50000	2.565
	20 Isophorone	82	10.686	10.686	(0.918)	61248	2.50000	2.424
	21 2-Nitrophenol	139	10.871	10.872	(0.934)	19030	2.50000	2.527
	22 2,4-Dimethylphenol	107	10.964	10.964	(0.942)	71562	5.00000	5.167
	23 Bis(2-Chloroethoxy)methane	93	11.172	11.172	(0.960)	38098	2.50000	2.556
	24 Benzoic acid	105	11.164	11.080	(0.959)	106496	10.0000	8.861
	25 2,4-Dichlorophenol	162	11.365	11.365	(0.976)	67816	5.00000	5.320
	26 1,2,4-Trichlorobenzene	180	11.557	11.558	(0.993)	30525	2.50000	2.450
*	27 Naphthalene-d8	136	11.642	11.643	(1.000)	137898	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.004)	91698	2.50000	2.498
	29 4-Chloroaniline	127	11.851	11.843	(1.018)	72996	5.00000	5.086
	30 Hexachlorobutadiene	225	12.098	12.099	(1.039)	18006	2.50000	2.433
	31 4-Chloro-3-methylphenol	107	12.911	12.911	(1.109)	59257	5.00000	5.284
	32 2-Methylnaphthalene	142	13.197	13.197	(1.134)	60463	2.50000	2.479
	33 Hexachlorocyclopentadiene	237	13.716	13.708	(0.882)	46418	5.00000	4.831
	34 2,4,6-Trichlorophenol	196	13.878	13.879	(0.893)	46504	5.00000	5.061
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	48311	5.00000	5.100
$	36 2-Fluorobiphenyl	172	14.056	14.057	(0.904)	75007	2.50000	2.461
	37 2-Chloronaphthalene	162	14.265	14.258	(0.918)	59913	2.50000	2.470
	38 2-Nitroaniline	65	14.559	14.552	(0.937)	31617	5.00000	5.400
	39 Dimethylphthalate	163	15.055	15.047	(0.969)	64965	2.50000	2.479
	40 Acenaphthylene	152	15.194	15.194	(0.978)	99122	2.50000	2.409
	41 2,6-Dinitrotoluene	165	15.186	15.179	(0.977)	32305	5.00000	5.261
*	42 Acenaphthene-d10	164	15.542	15.535	(1.000)	87308	4.00000	
	43 3-Nitroaniline	138	15.480	15.473	(0.996)	27423	5.00000	5.409
	44 Acenaphthene	153	15.611	15.604	(1.004)	61853	2.50000	2.494
	45 2,4-Dinitrophenol	184	15.712	15.705	(1.011)	42855	10.0000	7.930
	46 Dibenzofuran	168	15.967	15.960	(1.027)	84689	2.50000	2.498
	47 4-Nitrophenol	109	15.859	15.867	(1.020)	16653	5.00000	4.391
	48 2,4-Dinitrotoluene	165	16.052	16.052	(1.033)	41845	5.00000	5.283
	50 Diethylphthalate	149	16.640	16.632	(1.071)	65811	2.50000	2.499
	49 Fluorene	166	16.732	16.733	(1.077)	72923	2.50000	2.521
	51 4-Chlorophenyl-phenylether	204	16.756	16.748	(1.078)	33604	2.50000	2.363
	52 4-Nitroaniline	138	16.856	16.841	(1.085)	26194	5.00000	4.974
	53 4,6-Dinitro-2-methylphenol	198	16.956	16.949	(0.901)	65565	10.0000	9.149
	54 N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	44352	2.50000	2.552
$	55 2,4,6-Tribromophenol	330	17.311	17.311	(1.114)	11658	2.50000	2.525
	56 4-Bromophenyl-phenylether	248	17.835	17.836	(0.948)	20878	2.50000	2.457
	57 Hexachlorobenzene	284	18.152	18.153	(0.965)	24254	2.50000	2.393
	58 Pentachlorophenol	266	18.547	18.548	(0.986)	37390	5.00000	5.254
*	59 Phenanthrene-d10	188	18.818	18.811	(1.000)	150153	4.00000	
	60 Phenanthrene	178	18.864	18.857	(1.002)	100003	2.50000	2.442
	61 Anthracene	178	18.957	18.958	(1.007)	103502	2.50000	2.467
	62 Carbazole	167	19.313	19.314	(1.026)	60342	2.50000	2.368
	63 Di-n-butylphthalate	149	20.187	20.188	(1.073)	104682	2.50000	2.417
	64 Fluoranthene	202	21.286	21.279	(1.131)	117131	2.50000	2.430
	65 Pyrene	202	21.704	21.697	(0.908)	123102	2.50000	2.418
$	66 Terphenyl-d14	244	22.029	22.022	(0.922)	78162	2.50000	2.440
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	42839	2.50000	2.464
	68 Benzo(a)anthracene	228	23.872	23.864	(0.999)	110437	2.50000	2.397
*	69 Chrysene-d12	240	23.903	23.895	(1.000)	164553	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.849	23.841	(0.998)	73617	5.00000	4.195
	71 Chrysene	228	23.941	23.934	(1.002)	100065	2.50000	2.400
	72 bis(2-Ethylhexyl)phthalate	149	24.027	24.019	(0.961)	59748	2.50000	2.511(M)
*	134 Di-n-octylphthalate-d4	153	25.002	24.995	(1.000)	178975	4.00000	
	73 Di-n-octylphthalate	149	25.017	25.002	(1.001)	101315	2.50000	2.459

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.668	25.660	(0.974)	107559	2.50000	2.369
75	Benzo(k)fluoranthene	252	25.714	25.699	(0.976)	117137	2.50000	2.450
76	Benzo(a)pyrene	252	26.249	26.241	(0.996)	93000	2.50000	2.398
* 77	Perylene-d12	264	26.357	26.350	(1.000)	152859	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.697	28.690	(1.089)	107108	2.50000	2.397
79	Dibenzo(a,h)anthracene	278	28.721	28.698	(1.090)	84630	2.50000	2.469
80	Benzo(g,h,i)perylene	276	29.381	29.350	(1.115)	94698	2.50000	2.450
90	N-Nitrosodimethylamine	74	4.351	4.366	(0.484)	44045	5.00000	5.284
91	Aniline	93	8.406	8.406	(0.935)	96404	2.50000	2.627
93	Benzidine	184	21.541	21.542	(0.901)	29714	5.00000	5.756
103	Pyridine	79	4.374	4.397	(0.487)	39707	5.00000	5.419
105	1-methylnaphthalene	142	13.429	13.430	(1.153)	55151	2.50000	2.466
111	Azobenzene (1,2-DP-Hydrazine)	77	17.103	17.095	(1.100)	69518	2.50000	2.574
187	Total Benzofluoranthenes	252	25.668	25.699	(0.974)	213730	5.00000	4.849
99	Perylene	252	26.403	26.388	(1.002)	104964	2.50000	2.368
98	Retene	219	22.315	22.316	(0.934)	46252	2.50000	2.400
120	2,3,4,6-Tetrachlorophenol	232	16.346	16.338	(1.052)	17623	2.50000	2.501
188	2,6-Dichlorophenol	162	11.866	11.867	(1.019)	104652	5.00000	5.066
189	N-Nitrosomethylethylamine	88	5.817	5.818	(0.647)	65642	5.00000	5.279

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429g.d
Lab Smp Id: IC0429G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	36591	-19.14
27 Naphthalene-d8	166754	83377	333508	137898	-17.30
42 Acenaphthene-d10	106910	53455	213820	87308	-18.34
59 Phenanthrene-d10	179783	89892	359566	150153	-16.48
69 Chrysene-d12	192841	96420	385682	164553	-14.67
134 Di-n-octylphthala	229567	114784	459134	178975	-22.04
77 Perylene-d12	184310	92155	368620	152859	-17.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.99	0.00
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.03
134 Di-n-octylphthala	24.99	24.49	25.49	25.00	0.03
77 Perylene-d12	26.35	25.85	26.85	26.36	0.03

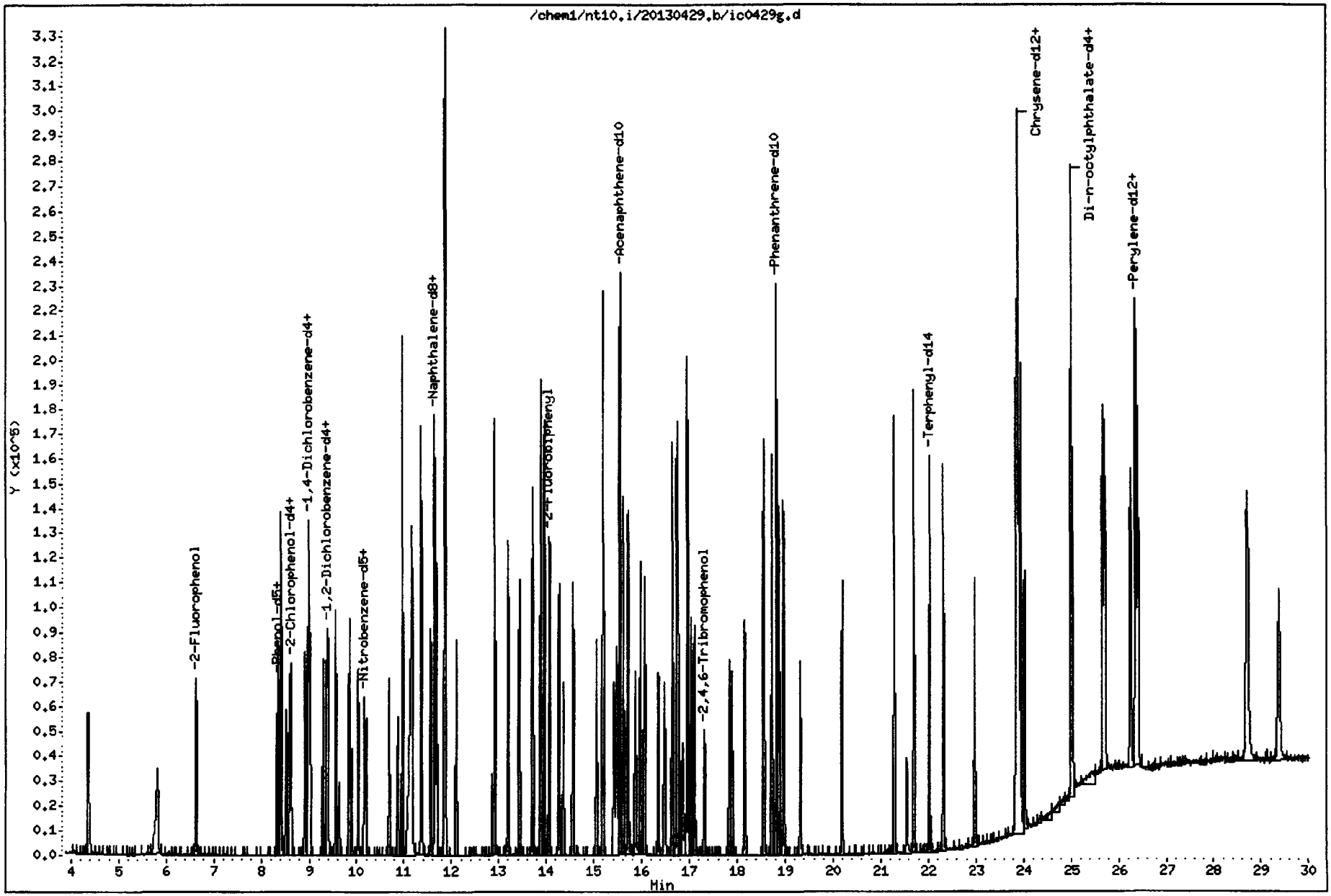
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429g.d
Date : 29-APR-2013 20:34
Client ID:
Sample Info: IC0429G

Instrument: nt10.i

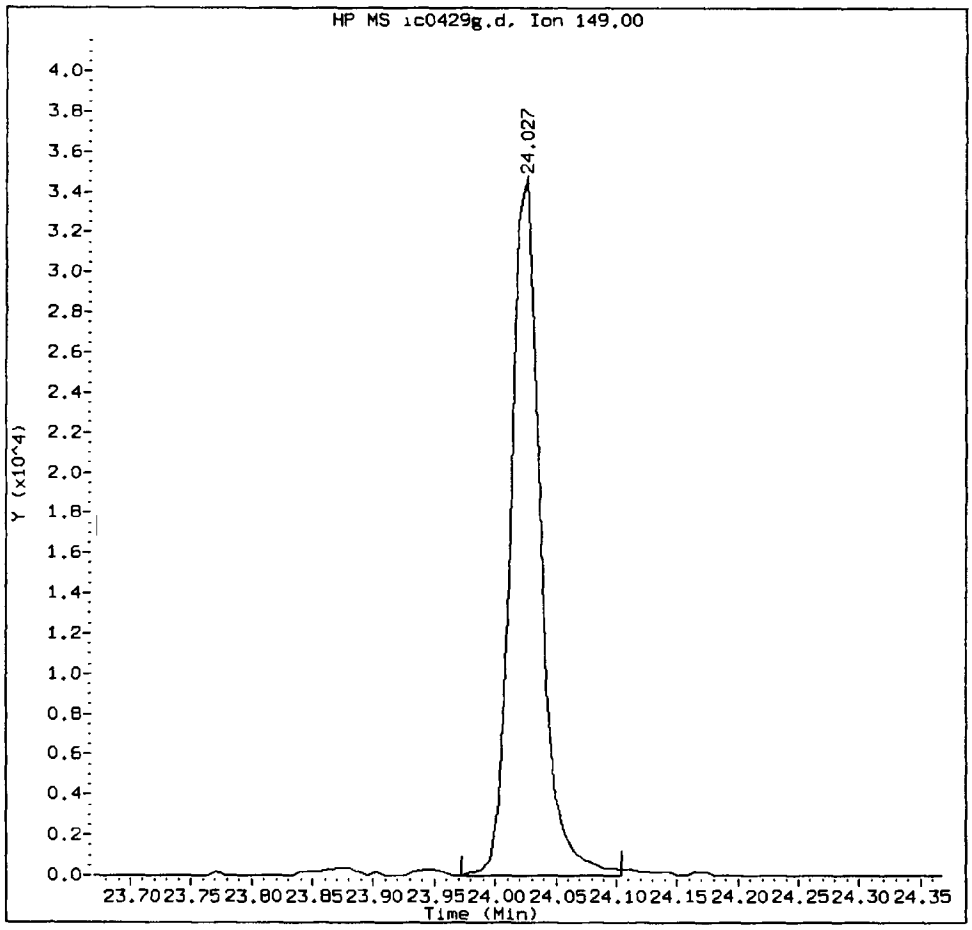
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429G, /chem1/nt10.i/20130429.b/ic0429g.d

bis(2-Ethylhexyl)phthalate Amount: 2.51 Area: 59748



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429g.d

Lab ID: IC0429G, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 5/3/13

Data file : /chem1/nt10.i/20130429.b/ic0429i.d
Lab Smp Id: IC0429I
Inj Date : 29-APR-2013 21:47
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429I
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.629	6.629	(0.738)	7097	0.50000	0.4779
$	2 Phenol-d5	99	8.337	8.337	(0.928)	8848	0.50000	0.4605
	3 Phenol	94	8.360	8.360	(0.931)	10487	0.50000	0.4876
$	5 2-Chlorophenol-d4	132	8.599	8.599	(0.958)	6852	0.50000	0.4698
	4 Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.949)	8003	0.50000	0.5174
	6 2-Chlorophenol	128	8.622	8.622	(0.960)	7629	0.50000	0.4600
	7 1,3-Dichlorobenzene	146	8.909	8.909	(0.992)	8033	0.50000	0.4826
*	8 1,4-Dichlorobenzene-d4	152	8.979	8.979	(1.000)	41602	4.00000	
	9 1,4-Dichlorobenzene	146	9.018	9.018	(1.004)	7938	0.50000	0.4839
$	10 1,2-Dichlorobenzene-d4	152	9.367	9.367	(1.043)	5208	0.50000	0.4964
	12 1,2-Dichlorobenzene	146	9.390	9.390	(1.046)	7759	0.50000	0.4940
	11 Benzyl alcohol	108	9.289	9.289	(1.035)	3823	0.50000	0.4226
	14 2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.072)	2289	0.50000	0.4795
	13 2-Methylphenol	108	9.553	9.553	(1.064)	7310	0.50000	0.4723
	17 Hexachloroethane	117	10.027	10.027	(1.117)	3426	0.50000	0.4991
	16 N-Nitroso-di-n-propylamine	70	9.895	9.895	(1.102)	4650	0.50000	0.4812
	15 4-Methylphenol	108	9.840	9.840	(1.096)	7046	0.50000	0.4465
$	18 Nitrobenzene-d5	82	10.159	10.159	(0.873)	8203	0.50000	0.4943
	19 Nitrobenzene	77	10.190	10.190	(0.875)	7721	0.50000	0.5040
	20 Isophorone	82	10.686	10.686	(0.918)	13058	0.50000	0.4531
	21 2-Nitrophenol	139	10.872	10.872	(0.934)	3663	0.50000	0.4265
	22 2,4-Dimethylphenol	107	10.964	10.964	(0.942)	14636	1.00000	0.9268
	23 Bis(2-Chloroethoxy)methane	93	11.172	11.172	(0.960)	8541	0.50000	0.5026
	24 Benzoic acid	105	11.080	11.080	(0.952)	12620	2.00000	0.9294
	25 2,4-Dichlorophenol	162	11.365	11.365	(0.976)	11335	1.00000	0.7797
	26 1,2,4-Trichlorobenzene	180	11.558	11.558	(0.993)	6875	0.50000	0.4839
*	27 Naphthalene-d8	136	11.643	11.643	(1.000)	157250	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
28	Naphthalene	128	11.681	11.681	(1.003)	19775	0.50000	0.4723
29	4-Chloroaniline	127	11.843	11.843	(1.017)	14329	1.00000	0.8755
30	Hexachlorobutadiene	225	12.099	12.099	(1.039)	3928	0.50000	0.4654
31	4-Chloro-3-methylphenol	107	12.911	12.911	(1.109)	10700	1.00000	0.8367
32	2-Methylnaphthalene	142	13.197	13.197	(1.134)	13246	0.50000	0.4763
33	Hexachlorocyclopentadiene	237	13.708	13.708	(0.882)	9274	1.00000	0.8934
34	2,4,6-Trichlorophenol	196	13.879	13.879	(0.893)	8685	1.00000	0.8747
35	2,4,5-Trichlorophenol	196	13.948	13.948	(0.898)	8785	1.00000	0.8583
$ 36	2-Fluorobiphenyl	172	14.057	14.057	(0.905)	15786	0.50000	0.4794
37	2-Chloronaphthalene	162	14.258	14.258	(0.918)	12356	0.50000	0.4714
38	2-Nitroaniline	65	14.552	14.552	(0.937)	5242	1.00000	0.8286
39	Dimethylphthalate	163	15.047	15.047	(0.969)	13385	0.50000	0.4726
40	Acenaphthylene	152	15.194	15.194	(0.978)	21258	0.50000	0.4782
41	2,6-Dinitrotoluene	165	15.179	15.179	(0.977)	6067	1.00000	0.9143
* 42	Acenaphthene-d10	164	15.535	15.535	(1.000)	94337	4.00000	
43	3-Nitroaniline	138	15.473	15.473	(0.996)	5039	1.00000	0.9199
44	Acenaphthene	153	15.604	15.604	(1.004)	12929	0.50000	0.4826
45	2,4-Dinitrophenol	184	15.705	15.705	(1.011)	4345	2.00000	0.7522
46	Dibenzofuran	168	15.960	15.960	(1.027)	17668	0.50000	0.4823
47	4-Nitrophenol	109	15.867	15.867	(1.021)	1862	1.00000	0.4569
48	2,4-Dinitrotoluene	165	16.052	16.052	(1.033)	7334	1.00000	0.8570
50	Diethylphthalate	149	16.632	16.632	(1.071)	13456	0.50000	0.4729
49	Fluorene	166	16.733	16.733	(1.077)	14861	0.50000	0.4754
51	4-Chlorophenyl-phenylether	204	16.748	16.748	(1.078)	7105	0.50000	0.4624
52	4-Nitroaniline	138	16.841	16.841	(1.084)	4664	1.00000	0.8197
53	4,6-Dinitro-2-methylphenol	198	16.949	16.949	(0.901)	9847	2.00000	1.299
54	N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	8567	0.50000	0.4637
$ 55	2,4,6-Tribromophenol	330	17.311	17.311	(1.114)	2005	0.50000	0.4019
56	4-Bromophenyl-phenylether	248	17.836	17.836	(0.948)	4326	0.50000	0.4791
57	Hexachlorobenzene	284	18.153	18.153	(0.965)	5141	0.50000	0.4772
58	Pentachlorophenol	266	18.548	18.548	(0.986)	5592	1.00000	0.7394
* 59	Phenanthrene-d10	188	18.811	18.811	(1.000)	159582	4.00000	
60	Phenanthrene	178	18.857	18.857	(1.002)	20200	0.50000	0.4641
61	Anthracene	178	18.958	18.958	(1.008)	21303	0.50000	0.4777
62	Carbazole	167	19.314	19.314	(1.027)	15951	0.50000	0.5889
63	Di-n-butylphthalate	149	20.188	20.188	(1.073)	19951	0.50000	0.4334
64	Fluoranthene	202	21.279	21.279	(1.131)	23534	0.50000	0.4594
65	Pyrene	202	21.697	21.697	(0.908)	24226	0.50000	0.4588
$ 66	Terphenyl-d14	244	22.022	22.022	(0.922)	14939	0.50000	0.4497
67	Butylbenzylphthalate	149	22.974	22.974	(0.961)	7305	0.50000	0.4051
68	Benzo(a)anthracene	228	23.864	23.864	(0.999)	22076	0.50000	0.4620
* 69	Chrysene-d12	240	23.895	23.895	(1.000)	170666	4.00000	
70	3,3'-Dichlorobenzidine	252	23.841	23.841	(0.998)	15590	1.00000	0.8567
71	Chrysene	228	23.934	23.934	(1.002)	20337	0.50000	0.4703
72	bis(2-Ethylhexyl)phthalate	149	24.019	24.019	(0.961)	10757	0.50000	0.4647(M)
* 134	Di-n-octylphthalate-d4	153	24.995	24.995	(1.000)	174102	4.00000	
73	Di-n-octylphthalate	149	25.002	25.002	(1.000)	20550	0.50000	0.5126

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	25.660	25.660	(0.974)	20816	0.50000	0.4439
75	Benzo(k)fluoranthene	252	25.699	25.699	(0.975)	22672	0.50000	0.4591
76	Benzo(a)pyrene	252	26.241	26.241	(0.996)	17222	0.50000	0.4299
* 77	Perylene-d12	264	26.350	26.350	(1.000)	157899	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.690	28.690	(1.089)	20006	0.50000	0.4335
79	Dibenzo(a,h)anthracene	278	28.698	28.698	(1.089)	14468	0.50000	0.4087
80	Benzo(g,h,i)perylene	276	29.350	29.350	(1.114)	17808	0.50000	0.4460
90	N-Nitrosodimethylamine	74	4.366	4.366	(0.486)	9105	1.00000	0.9607
91	Aniline	93	8.406	8.406	(0.936)	20193	0.50000	0.4839
93	Benzidine	184	21.542	21.542	(0.902)	8518	1.00000	1.621
103	Pyridine	79	4.397	4.397	(0.490)	8381	1.00000	1.006
105	1-methylnaphthalene	142	13.430	13.430	(1.153)	11744	0.50000	0.4605
111	Azobenzene (1,2-DP-Hydrazine)	77	17.095	17.095	(1.100)	14947	0.50000	0.5123
187	Total Benzofluoranthenes	252	25.699	25.699	(0.975)	41609	1.00000	0.9139
99	Perylene	252	26.388	26.388	(1.001)	21669	0.50000	0.4732
98	Retene	219	22.316	22.316	(0.934)	8851	0.50000	0.4429
120	2,3,4,6-Tetrachlorophenol	232	16.338	16.338	(1.052)	3016	0.50000	0.3961
188	2,6-Dichlorophenol	162	11.867	11.867	(1.019)	21326	1.00000	0.9052
189	N-Nitrosomethylethylamine	88	5.818	5.818	(0.648)	13437	1.00000	0.9505

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429i.d
Lab Smp Id: IC0429I
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	41602	-8.06
27 Naphthalene-d8	166754	83377	333508	157250	-5.70
42 Acenaphthene-d10	106910	53455	213820	94337	-11.76
59 Phenanthrene-d10	179783	89892	359566	159582	-11.24
69 Chrysene-d12	192841	96420	385682	170666	-11.50
134 Di-n-octylphthala	229567	114784	459134	174102	-24.16
77 Perylene-d12	184310	92155	368620	157899	-14.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.98	-0.08
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.53	-0.05
59 Phenanthrene-d10	18.82	18.32	19.32	18.81	-0.04
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
134 Di-n-octylphthala	24.99	24.49	25.49	24.99	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

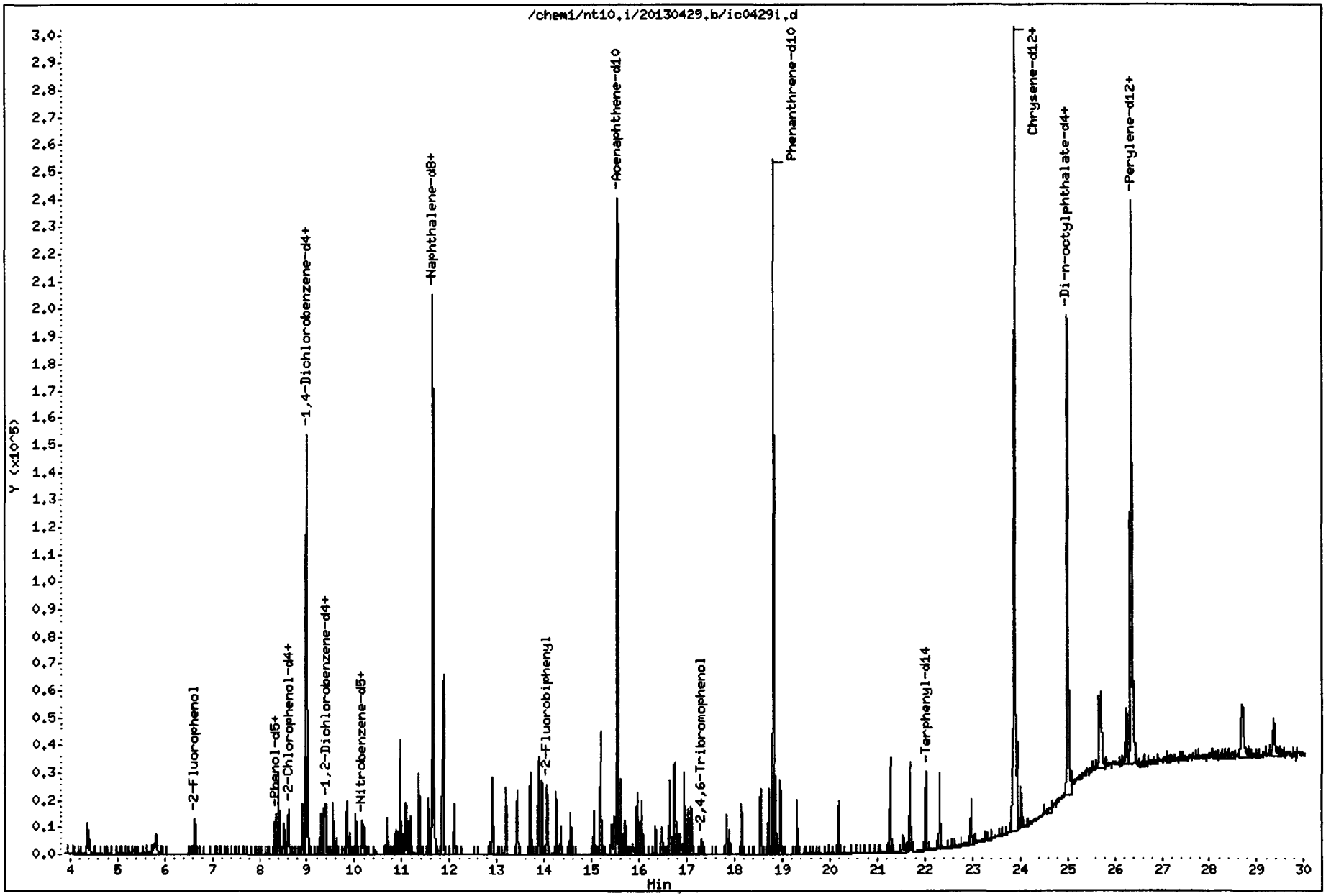
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/ic0429i.d
Date : 29-APR-2013 21:47
Client ID:
Sample Info: IC0429I

Instrument: nt10.i

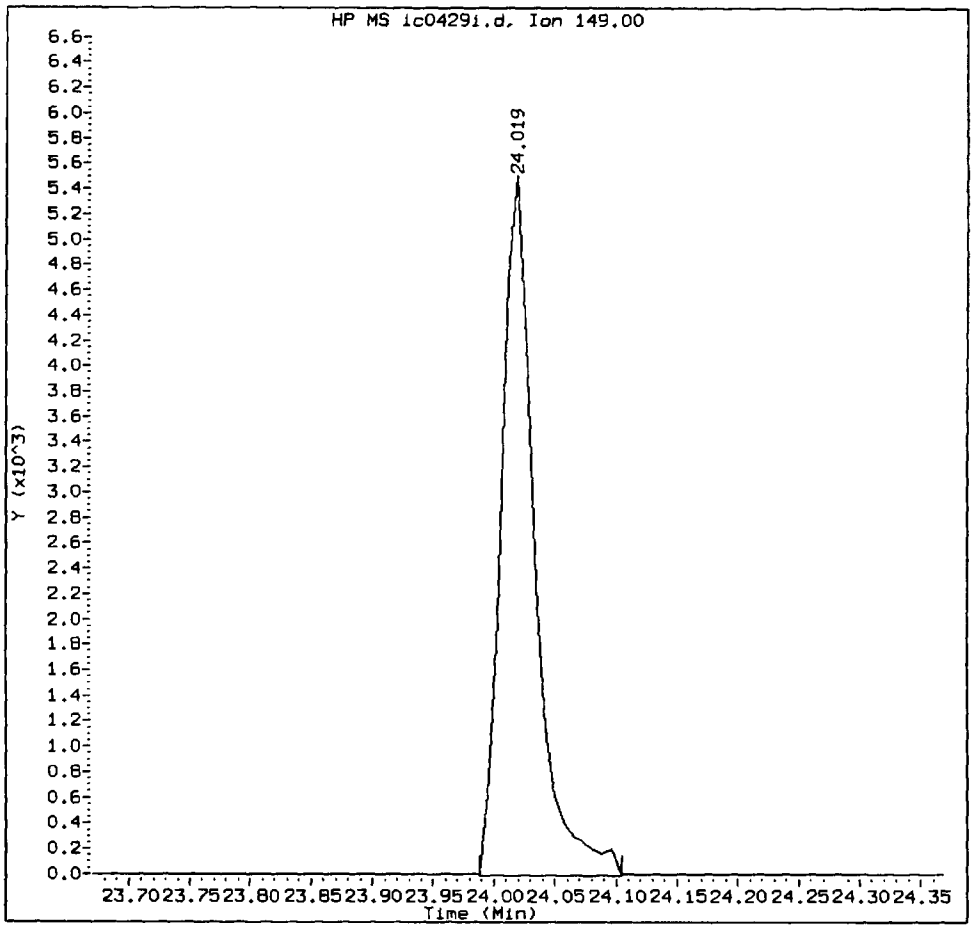
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429I, /chem1/nt10.i/20130429.b/ic0429i.d

bis(2-Ethylhexyl)phthalate Amount: 0.46 Area: 10757



MANUAL INTEGRATION for bis(2-Ethylhexyl)phthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/4/13

CO-ELUTION SUMMARY FOR FILE - ic0429i.d

Lab ID: IC0429I, Method: ABN.m, Instrument: nt10.i, Date: 29-APR-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130429.b/ic0429icv.d
Lab Smp Id: IC0429ICV
Inj Date : 29-APR-2013 22:24
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : IC0429ICV
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130429.b/ABN.m
Meth Date : 01-May-2013 11:15 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAHDR.sub
Target Version: 3.50

YZ 5/3/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$ 1	2-Fluorophenol	112	Compound Not Detected.					
$ 2	Phenol-d5	99	Compound Not Detected.					
3	Phenol	94	8.360	8.360	(0.931)	111426	5.21984	5.220
$ 5	2-Chlorophenol-d4	132	Compound Not Detected.					
4	Bis(2-Chloroethyl)ether	93	8.522	8.522	(0.949)	81953	5.33870	5.339
6	2-Chlorophenol	128	8.622	8.622	(0.960)	80570	4.89423	4.894
7	1,3-Dichlorobenzene	146	8.909	8.909	(0.992)	84507	5.11566	5.116
* 8	1,4-Dichlorobenzene-d4	152	8.979	8.979	(1.000)	41290	4.00000	
9	1,4-Dichlorobenzene	146	9.017	9.018	(1.004)	84755	5.20517	5.205
$ 10	1,2-Dichlorobenzene-d4	152	Compound Not Detected.					
12	1,2-Dichlorobenzene	146	9.390	9.390	(1.046)	79538	5.10200	5.102
11	Benzyl alcohol	108	9.289	9.289	(1.035)	44014	4.90168	4.902
14	2,2'-oxybis(1-Chloropropane)	121	9.623	9.623	(1.072)	24983	5.27307	5.273
13	2-Methylphenol	108	9.545	9.553	(1.063)	84376	5.49292	5.493
17	Hexachloroethane	117	10.019	10.027	(1.116)	35524	5.21434	5.214
16	N-Nitroso-di-n-propylamine	70	9.895	9.895	(1.102)	51945	5.41648	5.416
15	4-Methylphenol	108	9.840	9.840	(1.096)	87603	5.59319	5.593
$ 18	Nitrobenzene-d5	82	Compound Not Detected.					
19	Nitrobenzene	77	10.190	10.190	(0.875)	79523	5.36973	5.370
20	Isophorone	82	10.686	10.686	(0.918)	173340	6.22278	6.223
21	2-Nitrophenol	139	10.872	10.872	(0.934)	42978	5.17676	5.177
22	2,4-Dimethylphenol	107	10.964	10.964	(0.942)	164268	10.7602	10.76
23	Bis(2-Chloroethoxy)methane	93	11.172	11.172	(0.960)	90256	5.49412	5.494
24	Benzoic acid	105	11.234	11.080	(0.965)	282915	21.0014	21.00
25	2,4-Dichlorophenol	162	11.365	11.365	(0.976)	155797	11.0867	11.09
26	1,2,4-Trichlorobenzene	180	11.558	11.558	(0.993)	70353	5.12215	5.122
* 27	Naphthalene-d8	136	11.643	11.643	(1.000)	152009	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	28 Naphthalene	128	11.689	11.681	(1.004)	191530	4.73263	4.733
	29 4-Chloroaniline	127	11.851	11.843	(1.018)	173412	10.9603	10.96
	30 Hexachlorobutadiene	225	12.098	12.099	(1.039)	42367	5.19271	5.193
	31 4-Chloro-3-methylphenol	107	12.911	12.911	(1.109)	147122	11.9007	11.90
	32 2-Methylnaphthalene	142	13.197	13.197	(1.134)	129228	4.80733	4.807
	33 Hexachlorocyclopentadiene	237	13.708	13.708	(0.882)	107971	10.2504	10.25
	34 2,4,6-Trichlorophenol	196	13.878	13.879	(0.893)	112509	11.1670	11.17
	35 2,4,5-Trichlorophenol	196	13.956	13.948	(0.898)	125520	12.0854	12.09
$	36 2-Fluorobiphenyl	172	Compound Not Detected.					
	37 2-Chloronaphthalene	162	14.258	14.258	(0.918)	142918	5.37333	5.373
	38 2-Nitroaniline	65	14.559	14.552	(0.937)	73989	11.5256	11.53
	39 Dimethylphthalate	163	15.055	15.047	(0.969)	152060	5.29173	5.292
	40 Acenaphthylene	152	15.194	15.194	(0.978)	207472	4.59913	4.599
	41 2,6-Dinitrotoluene	165	15.186	15.179	(0.978)	75138	11.1601	11.16
*	42 Acenaphthene-d10	164	15.534	15.535	(1.000)	95722	4.00000	
	43 3-Nitroaniline	138	15.488	15.473	(0.997)	71502	12.8642	12.86
	44 Acenaphthene	153	15.612	15.604	(1.005)	131114	4.82292	4.823
	45 2,4-Dinitrophenol	184	15.712	15.705	(1.011)	126391	20.8995	20.90
	46 Dibenzofuran	168	15.967	15.960	(1.028)	179601	4.83159	4.832
	47 4-Nitrophenol	109	15.867	15.867	(1.021)	43830	10.4514	10.45
	48 2,4-Dinitrotoluene	165	16.052	16.052	(1.033)	100486	11.5716	11.57
	50 Diethylphthalate	149	16.640	16.632	(1.071)	148426	5.14027	5.140
	49 Fluorene	166	16.733	16.733	(1.077)	152283	4.80101	4.801
	51 4-Chlorophenyl-phenylether	204	16.748	16.748	(1.078)	77730	4.98522	4.985
	52 4-Nitroaniline	138	16.856	16.841	(1.085)	68038	11.7844	11.78
	53 4,6-Dinitro-2-methylphenol	198	16.964	16.949	(0.902)	169347	21.7583	21.76
	54 N-Nitrosodiphenylamine	169	17.026	17.026	(0.905)	102490	5.46980	5.470
$	55 2,4,6-Tribromophenol	330	Compound Not Detected.					
	56 4-Bromophenyl-phenylether	248	17.836	17.836	(0.948)	49463	5.40070	5.401
	57 Hexachlorobenzene	284	18.153	18.153	(0.965)	56636	5.18261	5.183
	58 Pentachlorophenol	266	18.547	18.548	(0.986)	90998	11.8629	11.86
*	59 Phenanthrene-d10	188	18.811	18.811	(1.000)	161863	4.00000	
	60 Phenanthrene	178	18.865	18.857	(1.003)	216640	4.90686	4.907
	61 Anthracene	178	18.958	18.958	(1.008)	219969	4.86323	4.863
	62 Carbazole	167	19.313	19.314	(1.027)	146715	5.34003	5.340
	63 Di-n-butylphthalate	149	20.188	20.188	(1.073)	259155	5.55031	5.550
	64 Fluoranthene	202	21.279	21.279	(1.131)	257141	4.94850	4.949
	65 Pyrene	202	21.696	21.697	(0.908)	264541	4.88069	4.881
$	66 Terphenyl-d14	244	Compound Not Detected.					
	67 Butylbenzylphthalate	149	22.974	22.974	(0.961)	106153	5.73506	5.735
	68 Benzo(a)anthracene	228	23.872	23.864	(0.999)	240855	4.91069	4.911
*	69 Chrysene-d12	240	23.895	23.895	(1.000)	175186	4.00000	
	70 3,3'-Dichlorobenzidine	252	23.841	23.841	(0.998)	155141	8.30491	8.305
	71 Chrysene	228	23.942	23.934	(1.002)	214847	4.84048	4.840
	72 bis(2-Ethylhexyl)phthalate	149	25.010	24.019	(1.001)	242465	5.33975	5.340
*	134 Di-n-octylphthalate-d4	153	24.995	24.995	(1.000)	197383	4.00000	
	73 Di-n-octylphthalate	149	25.010	25.002	(1.001)	242465	5.33515	5.335

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
74	Benzo(b)fluoranthene	252	25.668	25.660	(0.974)	227705	4.59796	4.598
75	Benzo(k)fluoranthene	252	25.707	25.699	(0.976)	268725	5.15172	5.152
76	Benzo(a)pyrene	252	26.249	26.241	(0.996)	203839	4.81788	4.818
* 77	Perylene-d12	264	26.349	26.350	(1.000)	166766	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.690	28.690	(1.089)	251131	5.15203	5.152
79	Dibenzo(a,h)anthracene	278	28.713	28.698	(1.090)	191446	5.12002	5.120
80	Benzo(g,h,i)perylene	276	29.373	29.350	(1.115)	209597	4.96989	4.970
90	N-Nitrosodimethylamine	74	4.358	4.366	(0.485)	105643	11.2307	11.23
91	Aniline	93	8.406	8.406	(0.936)	203803	4.92093	4.921
93	Benzidine	184	21.542	21.542	(0.902)	86479	15.0162	15.02(R)
103	Pyridine	79	4.374	4.397	(0.487)	90444	10.9387	10.94
105	1-methylnaphthalene	142	13.430	13.430	(1.153)	118938	4.82444	4.824
111	Azobenzene (1,2-DP-Hydrazine)	77	17.103	17.095	(1.101)	163298	5.51577	5.516
187	Total Benzofluoranthenes	252	25.707	25.699	(0.976)	469919	9.77502	9.775
99	Perylene	252	26.404	26.388	(1.002)	212820	4.40032	4.400
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					
188	2,6-Dichlorophenol	162	Compound Not Detected.					
189	N-Nitrosomethylethylamine	88	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429icv.d
Lab Smp Id: IC0429ICV
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 16:53

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	41290	-8.75
27 Naphthalene-d8	166754	83377	333508	152009	-8.84
42 Acenaphthene-d10	106910	53455	213820	95722	-10.46
59 Phenanthrene-d10	179783	89892	359566	161863	-9.97
69 Chrysene-d12	192841	96420	385682	175186	-9.16
134 Di-n-octylphthala	229567	114784	459134	197383	-14.02
77 Perylene-d12	184310	92155	368620	166766	-9.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.99	8.49	9.49	8.98	-0.09
27 Naphthalene-d8	11.64	11.14	12.14	11.64	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.53	-0.05
59 Phenanthrene-d10	18.82	18.32	19.32	18.81	-0.04
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
134 Di-n-octylphthala	24.99	24.49	25.49	24.99	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20130429
Sample Matrix: NONE Fraction: SV
Lab Smp Id: IC0429ICV
Level: Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: ICVS.spk Quant Type: ISTD
Sublist File: PSDDAHDR.sub
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

SPIKE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
3 Phenol	5.000	5.220	104.40	
4 Bis(2-Chloroethyl)	5.000	5.339	106.77	
6 2-Chlorophenol	5.000	4.894	97.88	
7 1,3-Dichlorobenzen	5.000	5.116	102.31	
9 1,4-Dichlorobenzen	5.000	5.205	104.10	
11 Benzyl alcohol	5.000	4.902	98.03	
12 1,2-Dichlorobenzen	5.000	5.102	102.04	
13 2-Methylphenol	5.000	5.493	109.86	
14 2,2'-oxybis(1-Chlo	5.000	5.273	105.46	
15 4-Methylphenol	5.000	5.593	111.86	
16 N-Nitroso-di-n-pro	5.000	5.416	108.33	
17 Hexachloroethane	5.000	5.214	104.29	
19 Nitrobenzene	5.000	5.370	107.39	
20 Isophorone	5.000	6.223	124.46	
21 2-Nitrophenol	5.000	5.177	103.54	
22 2,4-Dimethylphenol	10.00	10.76	107.60	
23 Bis(2-Chloroethoxy	5.000	5.494	109.88	
24 Benzoic acid	20.00	21.00	105.01	
25 2,4-Dichlorophenol	10.00	11.09	110.87	
26 1,2,4-Trichloroben	5.000	5.122	102.44	
28 Naphthalene	5.000	4.733	94.65	
29 4-Chloroaniline	10.00	10.96	109.60	
30 Hexachlorobutadien	5.000	5.193	103.85	
31 4-Chloro-3-methylp	10.00	11.90	119.01	
32 2-Methylnaphthalen	5.000	4.807	96.15	
33 Hexachlorocyclopen	10.00	10.25	102.50	
34 2,4,6-Trichlorophe	10.00	11.17	111.67	
35 2,4,5-Trichlorophe	10.00	12.09	120.85	
37 2-Chloronaphthalen	5.000	5.373	107.47	
38 2-Nitroaniline	10.00	11.53	115.26	
39 Dimethylphthalate	5.000	5.292	105.83	
40 Acenaphthylene	5.000	4.599	91.98	
41 2,6-Dinitrotoluene	10.00	11.16	111.60	

SPIKE	COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
43	3-Nitroaniline	10.00	12.86	128.64	
44	Acenaphthene	5.000	4.823	96.46	
45	2,4-Dinitrophenol	20.00	20.90	104.50	
46	Dibenzofuran	5.000	4.832	96.63	
47	4-Nitrophenol	10.00	10.45	104.51	
48	2,4-Dinitrotoluene	10.00	11.57	115.72	
49	Fluorene	5.000	4.801	96.02	
50	Diethylphthalate	5.000	5.140	102.81	
51	4-Chlorophenyl-phe	5.000	4.985	99.70	
52	4-Nitroaniline	10.00	11.78	117.84	
53	4,6-Dinitro-2-meth	20.00	21.76	108.79	
54	N-Nitrosodiphenyla	5.000	5.470	109.40	
56	4-Bromophenyl-phen	5.000	5.401	108.01	
57	Hexachlorobenzene	5.000	5.183	103.65	
58	Pentachlorophenol	10.00	11.86	118.63	
60	Phenanthrene	5.000	4.907	98.14	
61	Anthracene	5.000	4.863	97.26	
63	Di-n-butylphthalat	5.000	5.550	111.01	
64	Fluoranthene	5.000	4.949	98.97	
65	Pyrene	5.000	4.881	97.61	
67	Butylbenzylphthala	5.000	5.735	114.70	
68	Benzo(a)anthracene	5.000	4.911	98.21	
70	3,3'-Dichlorobenzi	10.00	8.305	83.05	
71	Chrysene	5.000	4.840	96.81	
72	bis(2-Ethylhexyl)p	5.000	5.340	106.80	
73	Di-n-octylphthalat	5.000	5.335	106.70	
74	Benzo(b)fluoranthe	5.000	4.598	91.96	
75	Benzo(k)fluoranthe	5.000	5.152	103.03	
76	Benzo(a)pyrene	5.000	4.818	96.36	
78	Indeno(1,2,3-cd)py	5.000	5.152	103.04	
79	Dibenzo(a,h)anthra	5.000	5.120	102.40	
80	Benzo(g,h,i)peryle	5.000	4.970	99.40	
90	N-Nitrosodimethyla	10.00	11.23	112.31	
91	Aniline	5.000	4.921	98.42	
93	Benzidine	10.00	15.02	150.16*	
105	1-methylnaphthalen	5.000	4.824	96.49	
120	2,3,4,6-Tetrachlo	5.000	0.000	*	
151	1,2,4,5-Tetrachlo	5.000	0.000	*	
110	Tetrachloroguaiac	10.00	0.000	*	
109	3,4,5-Trichlorogu	5.000	0.000	*	
181	3,4,6-Trichlorogu	5.000	0.000	*	
108	4,5,6-Trichlorogu	5.000	0.000	*	
184	3,4-Dichloroguaia	5.000	0.000	*	
107	4,5-Dichloroguaia	10.00	0.000	*	
182	4,6-Dichloroguaia	10.00	0.000	*	
185	4-Chloroguaiacol	2.500	0.000	*	
106	Guaiacol	5.000	0.000	*	

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20130429
Sample Matrix: NONE Fraction: SV
Lab Smp Id: IC0429ICV
Level: Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: ICVS.spk Quant Type: ISTD
Sublist File: PSDDAHDR.sub
Method File: /chem1/nt10.i/20130429.b/ABN.m
Misc Info:

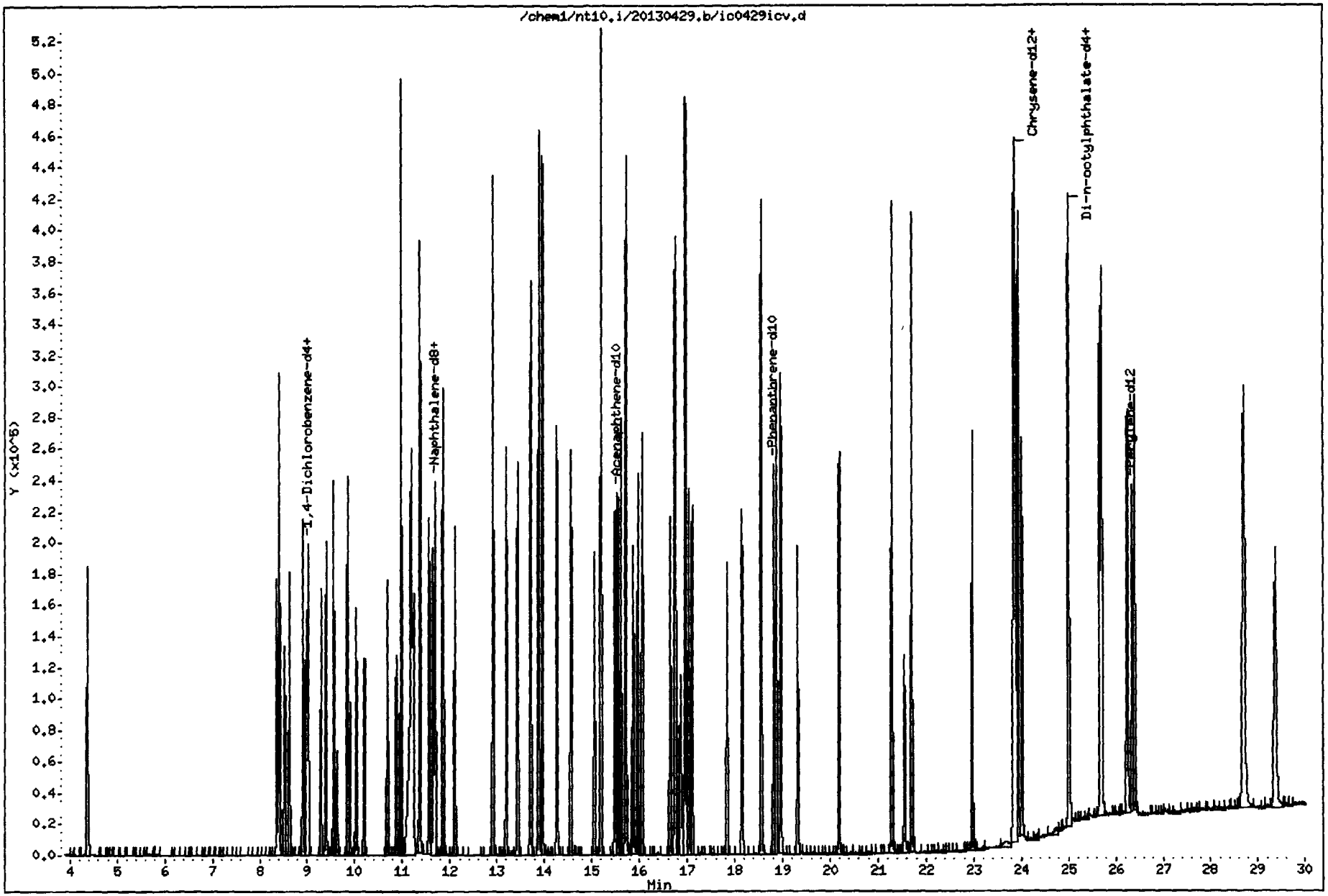
SURROGATE COMPOUND	AMOUNT ADDED ug/mL	AMOUNT RECOVERED ug/mL	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	7.500	0.000	*	
$ 2 Phenol-d5	7.500	0.000	*	
$ 5 2-Chlorophenol-d4	7.500	0.000	*	
$ 10 1,2-Dichlorobenze	5.000	0.000	*	
$ 18 Nitrobenzene-d5	5.000	0.000	*	
$ 36 2-Fluorobiphenyl	5.000	0.000	*	
$ 55 2,4,6-Tribromophe	7.500	0.000	*	
$ 66 Terphenyl-d14	5.000	0.000	*	

Data File: /chem1/nt10.i/20130429.b/ic0429icv.d
Date : 29-APR-2013 22:24
Client ID:
Sample Info: IC0429ICV

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

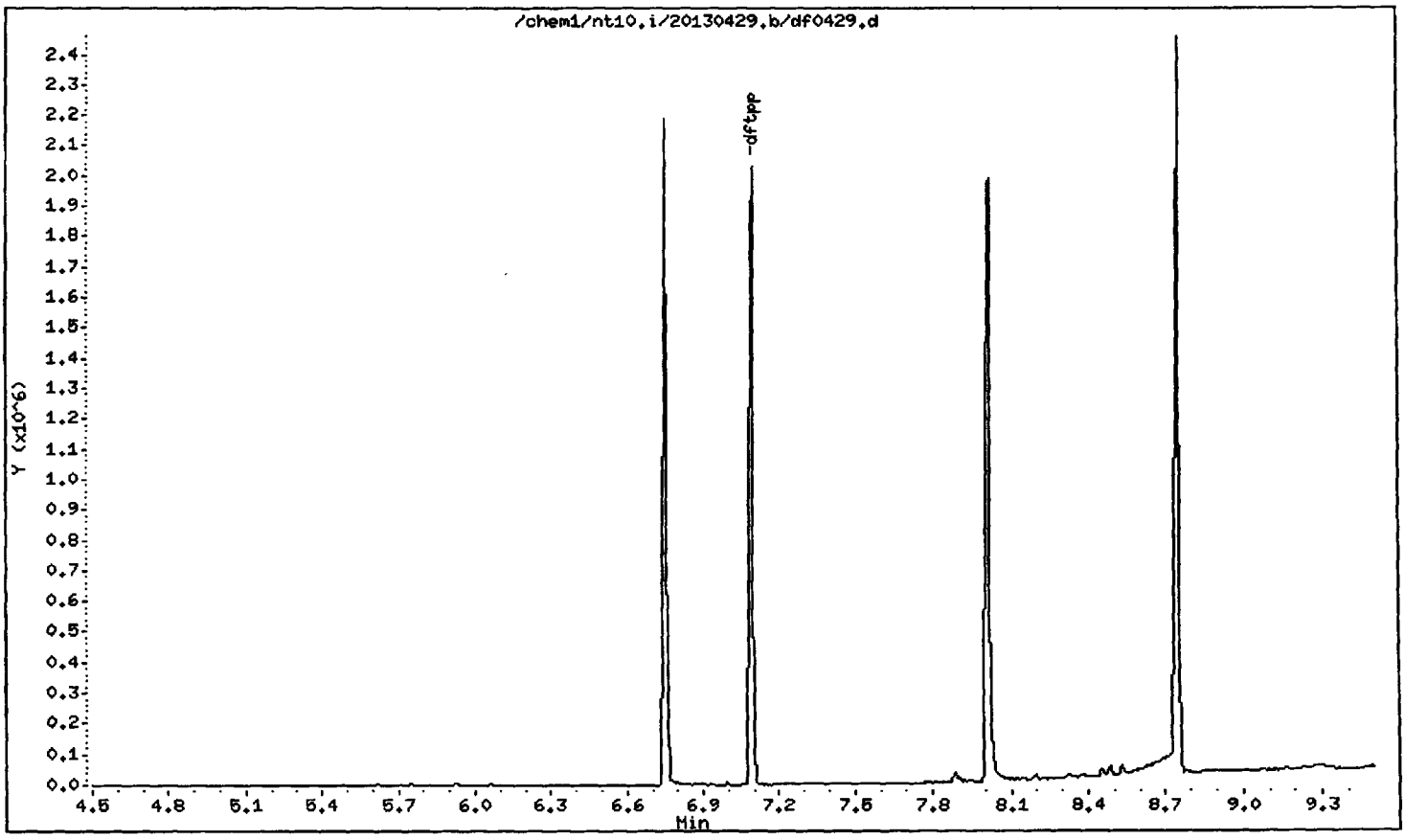
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /ohem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

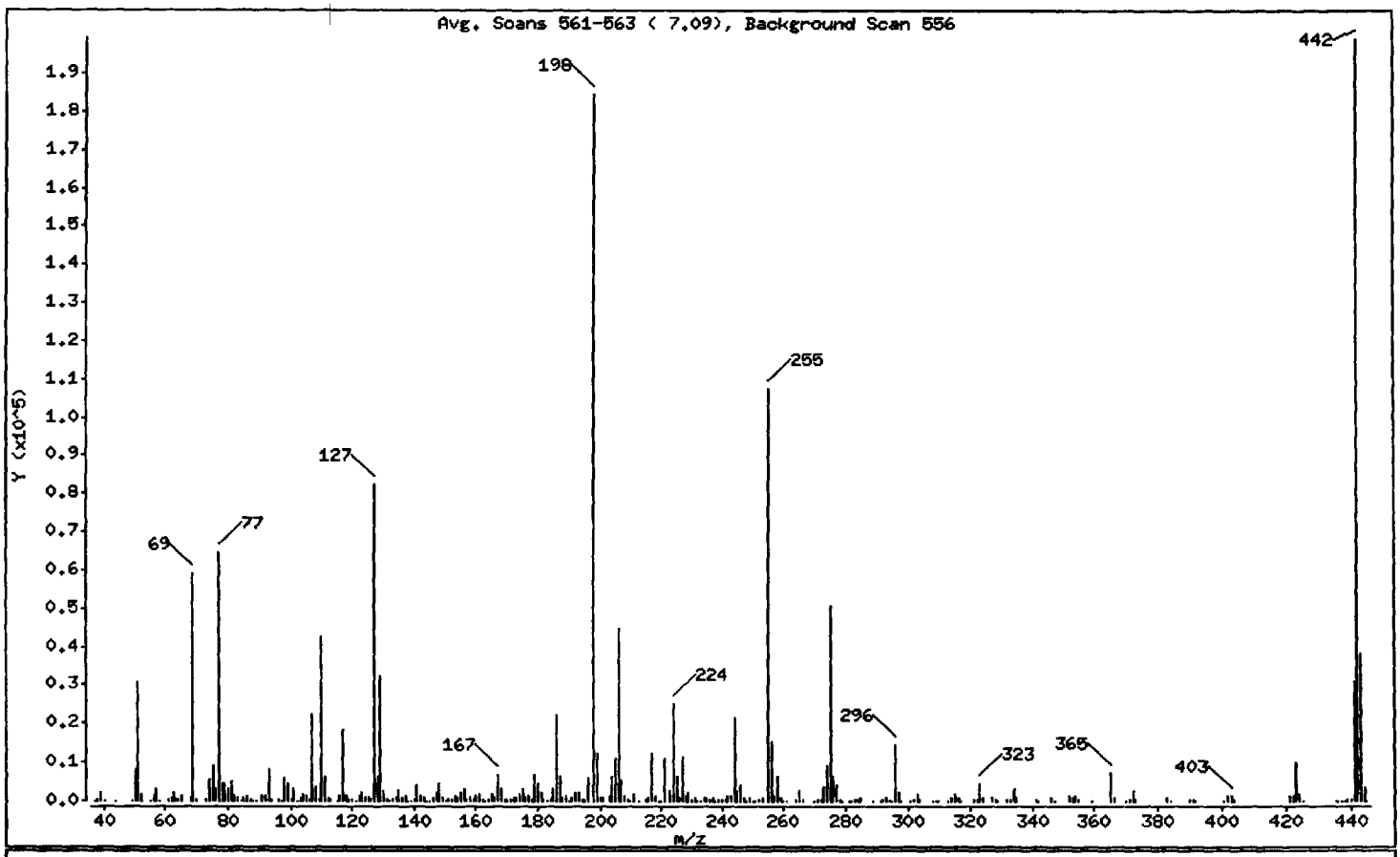
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	16.70
68	Less than 2.00% of mass 69	0.51 (1.60)
69	Mass 69 relative abundance	31.97
70	Less than 2.00% of mass 69	0.15 (0.46)
127	10.00 - 80.00% of mass 198	44.78
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 60.00% of mass 198	27.44
365	Greater than 1.00% of mass 198	4.00
441	0.01 - 24.00% of mass 442	16.80 (15.56)
442	50.00 - 200.00% of mass 198	107.98
443	15.00 - 24.00% of mass 442	20.84 (19.30)

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556

Location of Maximum: 442.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	128.00	6232	203.00	1259	289.00	149
38.00	415	129.00	32664	204.00	6492	291.00	55
39.00	2393	130.00	2738	205.00	11023	292.00	248
40.00	132	131.00	547	206.00	44808	293.00	944
44.00	78	132.00	207	207.00	5716	294.00	225
49.00	203	133.00	272	208.00	1602	295.00	86
50.00	8343	134.00	858	209.00	559	296.00	14604
51.00	30808	135.00	2801	210.00	130	297.00	2070
52.00	1637	136.00	916	211.00	1868	298.00	119
55.00	158	137.00	1248	213.00	64	301.00	172
56.00	1274	138.00	214	215.00	464	302.00	318
57.00	3130	139.00	128	216.00	999	303.00	1693
58.00	121	140.00	298	217.00	12350	304.00	431
61.00	576	141.00	4004	218.00	1562	308.00	140
62.00	758	142.00	1332	219.00	107	309.00	66
63.00	2110	143.00	918	220.00	86	310.00	122
64.00	365	144.00	184	221.00	10806	313.00	127
65.00	1151	145.00	229	223.00	2947	314.00	769
68.00	946	146.00	756	224.00	25312	315.00	1728
69.00	58984	147.00	2094	225.00	6355	316.00	922
70.00	271	148.00	4544	226.00	766	317.00	88
73.00	494	149.00	885	227.00	11288	321.00	436
74.00	5693	150.00	191	228.00	1533	322.00	230
75.00	9303	151.00	532	229.00	2272	323.00	4678
76.00	3182	152.00	251	230.00	340	324.00	920
77.00	64696	153.00	1367	231.00	1037	327.00	968
78.00	4399	154.00	1025	232.00	136	328.00	465
79.00	4595	155.00	2332	233.00	163	329.00	50
80.00	3355	156.00	3268	234.00	787	332.00	367
81.00	4879	157.00	652	235.00	849	333.00	490
82.00	1244	158.00	750	236.00	522	334.00	3152
83.00	1132	159.00	624	237.00	861	335.00	753
84.00	59	160.00	1324	238.00	117	341.00	568
85.00	783	161.00	1910	239.00	422	342.00	139
86.00	1346	162.00	596	240.00	404	346.00	1068

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556

Location of Maximum: 442.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	634	163.00	120	241.00	673	347.00	165
88.00	209	164.00	312	242.00	1491	352.00	1522
89.00	58	165.00	1684	243.00	1585	353.00	1048
91.00	1173	166.00	900	244.00	21560	354.00	1434
92.00	1265	167.00	7028	245.00	2828	355.00	307
93.00	8038	168.00	3167	246.00	4226	359.00	51
94.00	544	169.00	640	247.00	836	365.00	7383
96.00	486	170.00	289	248.00	173	366.00	950
97.00	173	171.00	367	249.00	766	370.00	83
98.00	5992	172.00	736	250.00	145	371.00	406
99.00	4376	173.00	984	251.00	198	372.00	2676
100.00	452	174.00	1650	252.00	278	373.00	680
101.00	3021	175.00	3419	253.00	722	383.00	692
102.00	131	176.00	1090	255.00	107624	384.00	117
103.00	907	177.00	1541	256.00	15761	390.00	337
104.00	1840	178.00	570	257.00	1160	391.00	291
105.00	1589	179.00	6738	258.00	6194	392.00	71
106.00	548	180.00	4416	259.00	1028	401.00	221
107.00	22656	181.00	2092	260.00	162	402.00	1163
108.00	3534	182.00	309	261.00	213	403.00	1545
109.00	609	183.00	166	264.00	253	404.00	599
110.00	42496	184.00	593	265.00	2547	421.00	1426
111.00	6272	185.00	3035	266.00	526	422.00	1250
112.00	744	186.00	22616	270.00	181	423.00	9992
113.00	246	187.00	6353	271.00	299	424.00	1966
115.00	56	188.00	695	272.00	416	425.00	183
116.00	1316	189.00	1391	273.00	3826	435.00	62
117.00	18496	190.00	224	274.00	8949	436.00	62
118.00	1424	191.00	864	275.00	50632	437.00	225
119.00	236	192.00	2063	276.00	6580	438.00	213
120.00	238	193.00	2223	277.00	4111	439.00	328
121.00	63	194.00	423	278.00	606	440.00	329
122.00	1437	195.00	416	279.00	122	441.00	31000
123.00	2280	196.00	5832	281.00	202	442.00	199232
124.00	999	198.00	184512	282.00	126	443.00	38448

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

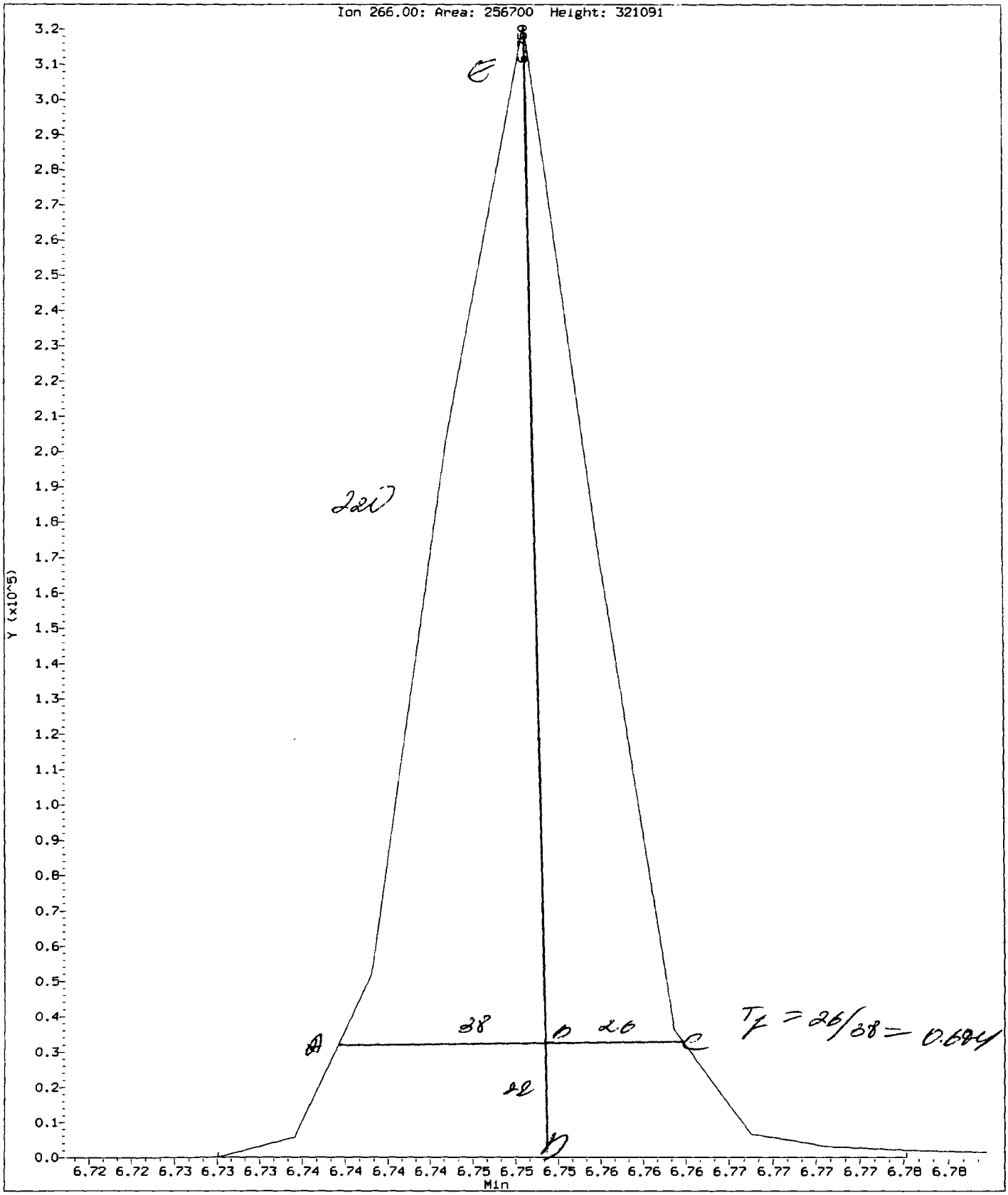
Column diameter: 0.25

Data File: df0429.d
Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556
Location of Maximum: 442.00
Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	975	199.00	12407	283.00	532	444.00	3465
126.00	347	200.00	963	284.00	335	445.00	131
127.00	82624	201.00	1058	285.00	774		

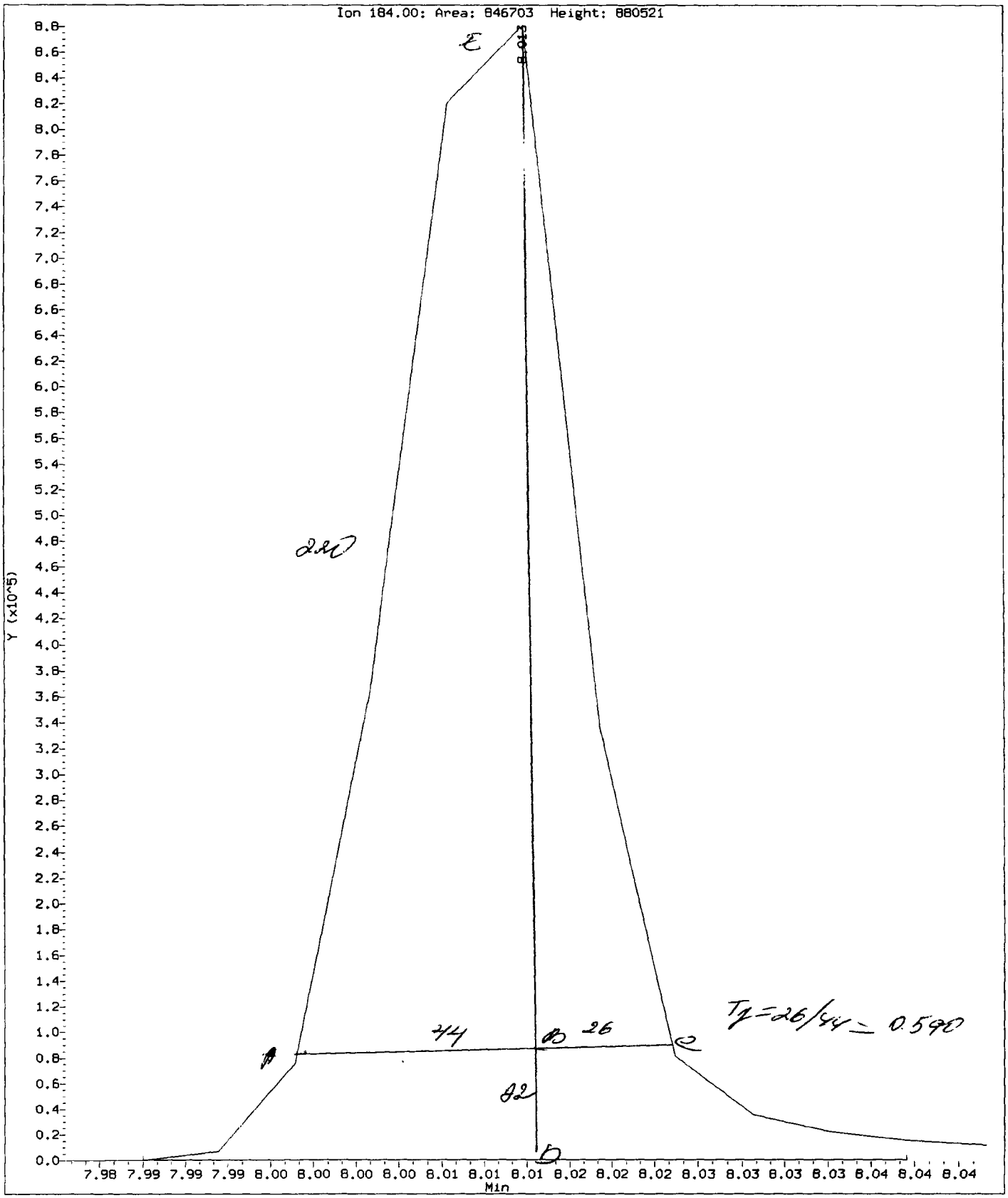
Data File: /chem1/nt10.i/20130429.b/ddt.b/df0429.d
Injection Date: 29-APR-2013 16:37
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20130429.b/ddt.b/df0429.d
Injection Date: 29-APR-2013 16:37
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130429.b/ddt.b/df0429.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130429.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 29-APR-2013 16:37 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.750	256700
Benzidine	8.013	846703
4,4'-DDE	8.195	1804
4,4'-DDD	8.483	6740
4,4'-DDT	8.745	445165

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 1804 + 6740) * 100}{(\ 1804 + 6740 + 445165)}$$

DDT Percent Breakdown = 1.9 %

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: LLT81 Client ID: SAIC

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 04/29/13 Analysis Start Date: 06/22/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	Y / N / ✓	Internal Standard within 50-200%?	Y / N / ✓
DDT Breakdown <20%?	Y / N / ✓	Retention Times within Windows?	Y / N / ✓
Peak Tailing Factor ≤2?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCAL Meets %D?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
ICAL Q Flag applied?	Y / N / ✓	LCS / LCSD RPD ≤ 30%?	NA / ✓ ✓
CCAL Q flag applied?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Surrogate Recovery met?	Y / N / ✓	MS / MSD RPD ≤ 30%? See Form III	NA / ✓
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / 3X ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ✓

Detail problems, corrective actions and/or other pertinent information below.

- # samples were re-run at 3X dilution on 06/26/13. Dilution runs reported.

(Review 1) Analyst: VE **Date:** 6/27/13

(Review 2) Reviewer: [signature] **Date:** 6/27/13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 06/22/13 Analysis: ABN/SIMABN Analyst: YZ

GC Program: ABN_2 Column No: 252 947 Column Type: ZB5msi

Instrument Tune (.U or .CT.): 130284 EM Voltage: 1753

Calibration File: DF0622 Curve Date: 4/29/13 Injection Vol.: 1uL

IS/SS	Ical/Ccal	LCS/ICV
1998-2	B670	
	B582	
	B112	
	2064-2	
	1998-2.	

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b

	Time	Filename	LabID	ClientId	DF											
1	0936	df0622.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	0951	cc0622.d	ABN 5		1	7 44	41183	10.01	151126	13.82	95266	17 02	155782	22.32	157404	24.61	142204	23.59	191916
3	1146	wt86mb.d	WT86MBS1	WT86MBS1	1	7.44	46197	10.01	179260	13 80	105476	17.00	175575	22.29	182527	24 59	161139	23.57	219509
4	1223	wt86sb.d	WT86LCSS1	WT86LCSS1	1	7 43	42386	10 01	154465	13.81	93462	17 01	149471	22.30	170771	24.59	148251	23.57	208151
5	1259	wt86sbd d	WT86LCSDS1	WT86LCSDS1	1	7 43	41866	10.01	154379	13.81	92653	17 01	149219	22.30	163879	24 59	145378	23 57	204937
6	1336	wt86a.d	WT86A	CL-MH-SPS-20	1	7 44	31616	10 01	132870	13.81	72086	17.03	95346	22.36	137971	24 66	132418	23 63	186331
7	1413	wt81a d	WT81A	AM-VT-INF-20	1	7.44	36796	10.01	138603	13 82	77674	17.02	117697	22.37	140693	24.67	132389	23.63	182867
8	1450	wt81b d	WT81B	AM-SF4-EFF-2	1	7.44	38981	10 01	151430	13.82	88774	17.03	131775	22.39	153613	24 72	131964	23.66	187990
9	1527	wt81bms d	WT81BMS	AM-SF4-EFF-2	1	7 44	36216	10.02	136482	13.82	80200	17 04	124262	22.39	149508	24.73	113901	23 66	176747
10	1604	wt81bmsd d	WT81BMSD	AM-SF4-EFF-2	1	7 44	36591	10.02	135676	13 83	83621	17.04	127875	22.40	156537	24.73	107530	23.66	177123
11	1640	wt81c.d	WT81C	AM-FD-01-201	1	7 45	38032	10.02	143479	13 83	86661	17.03	130752	22.39	155967	24 72	110092	23.66	185613

YZ 6/24/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b

ARI Job No.: WT86 Method: ABN.m Instrument: nt10.i Date: 22-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1146	wt86mb.d	WT86MBS1	WT86MBS1	1	NO MANUAL INTEGRATION
1223	wt86sb.d	WT86LCSS1	WT86LCSS1	1	NO MANUAL INTEGRATION
1259	wt86sbd.d	WT86LCSDS1	WT86LCSDS1	1	NO MANUAL INTEGRATION
1527	wt81bms.d	WT81BMS	AM-SF4-EFF	1	4-Nitroaniline, Butylbenzylphthalate, Chrysene-d12, Di-n-octylphthalate, Dibenzo(a,h)anthracene,
1604	wt81bmsd.d	WT81BMSD	AM-SF4-EFF	1	Chrysene-d12, Di-n-octylphthalate, Dibenzo(a,h)anthracene,
1305	wt81a3.d	WT81A	AM-VT-INF-	3	Di-n-octylphthalate, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene,
1342	wt81b3.d	WT81B	AM-SF4-EFF	3	Phenol, N-Nitrosodiphenylamine, Butylbenzylphthalate, Di-n-octylphthalate, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene,
1419	wt81c3.d	WT81C	AM-FD-01-2	3	Butylbenzylphthalate, Di-n-octylphthalate, Dibenzo(a,h)anthracene,

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b

Instrument: nt10.i Date: 22-JUN-2013 Method: ABN.m

INITIAL CAL: 29-APR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 22-JUN-2013

Compound	%D
Hexachlorocyclopentadiene	-40.9
3-Nitroaniline	25.5
4-Nitroaniline	-25.9
Carbazole	21.6
3,3'-Dichlorobenzidine	28.5

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

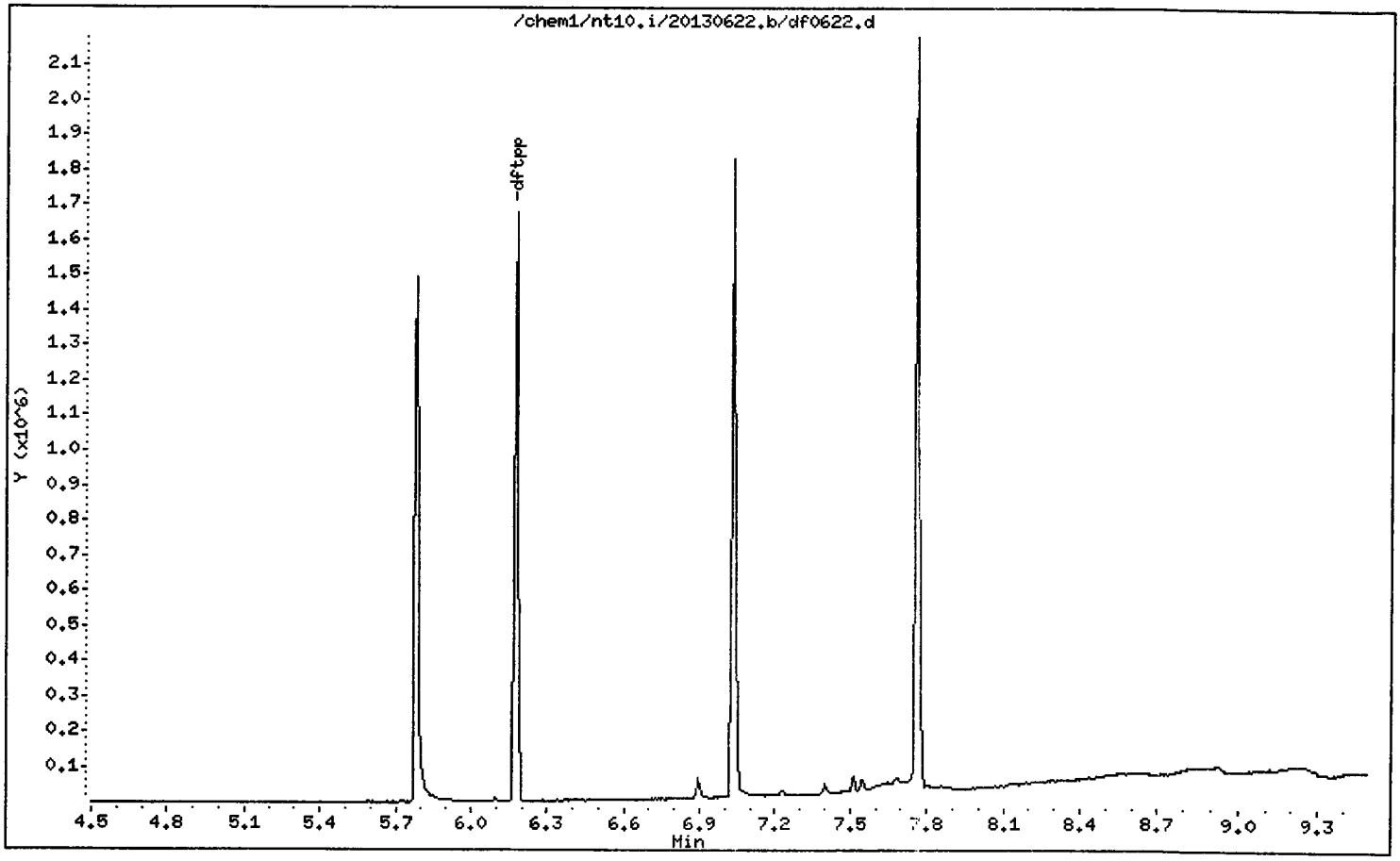
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

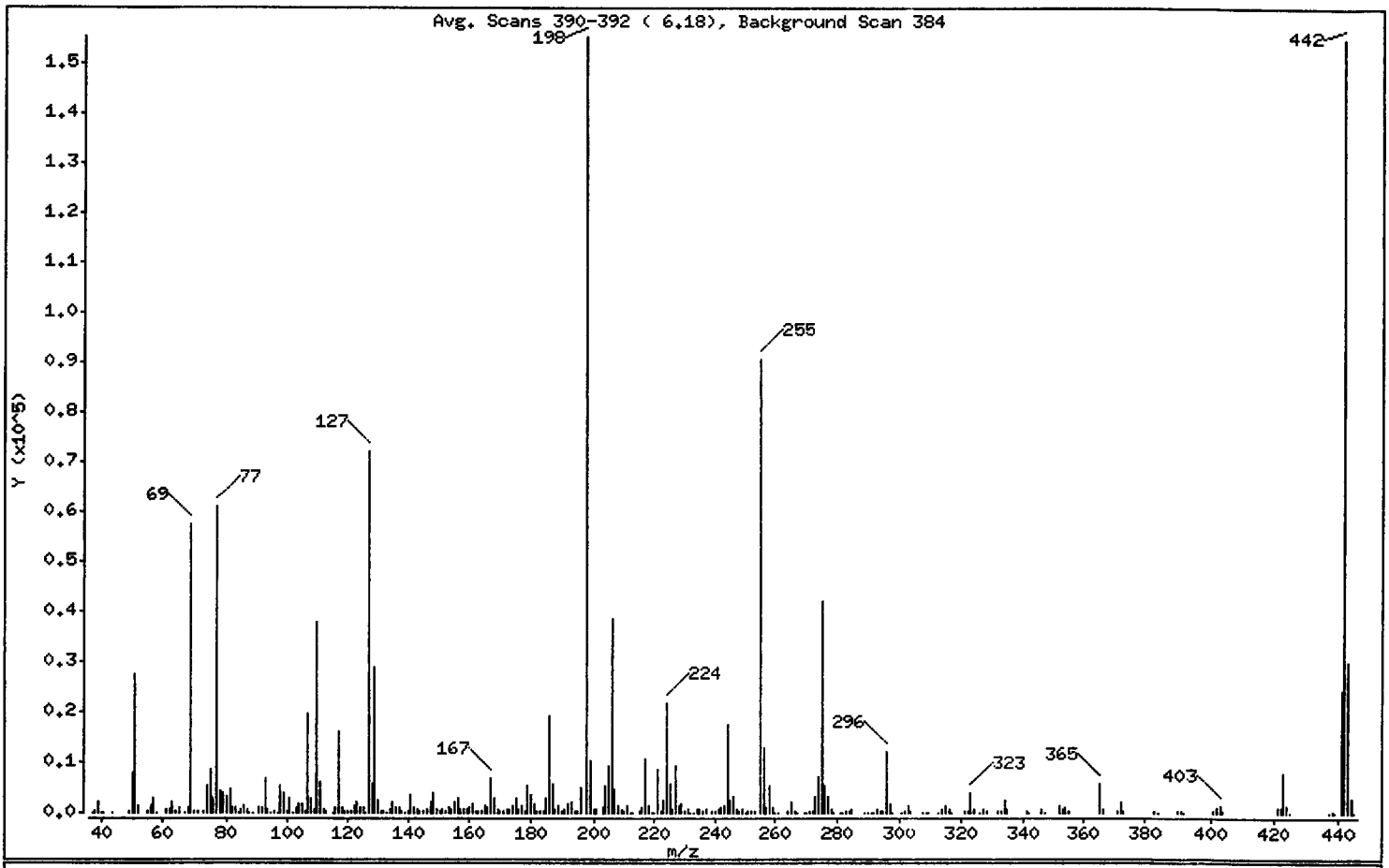
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	17.78
68	Less than 2.00% of mass 69	0.61 (1.64)
69	Mass 69 relative abundance	37.06
70	Less than 2.00% of mass 69	0.23 (0.63)
127	10.00 - 80.00% of mass 198	46.37
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 60.00% of mass 198	27.02
365	Greater than 1.00% of mass 198	3.72
441	0.01 - 24.00% of mass 442	15.52 (15.54)
442	50.00 - 200.00% of mass 198	99.87
443	15.00 - 24.00% of mass 442	19.28 (19.30)

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0622.d

Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384

Location of Maximum: 198.00

Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	133	125.00	968	200.00	788	282.00	62
38.00	358	126.00	144	201.00	829	283.00	448
39.00	2193	127.00	72112	203.00	1158	284.00	261
40.00	134	128.00	5661	204.00	5534	285.00	620
41.00	65	129.00	29008	205.00	9198	289.00	60
44.00	50	130.00	2366	206.00	38584	290.00	62
49.00	209	131.00	497	207.00	4803	291.00	52
50.00	7697	132.00	277	208.00	1502	292.00	73
51.00	27640	133.00	90	209.00	558	293.00	753
52.00	1532	134.00	791	210.00	192	294.00	246
55.00	184	135.00	2126	211.00	1521	295.00	368
56.00	1387	136.00	920	212.00	117	296.00	12175
57.00	2895	137.00	1086	213.00	55	297.00	1736
58.00	129	138.00	236	215.00	402	298.00	51
61.00	641	139.00	150	216.00	933	301.00	156
62.00	701	140.00	365	217.00	10739	302.00	265
63.00	2075	141.00	3631	218.00	1297	303.00	1410
64.00	194	142.00	1118	219.00	50	304.00	357
65.00	998	143.00	839	220.00	111	308.00	121
67.00	84	144.00	207	221.00	8599	309.00	56
68.00	946	145.00	224	222.00	423	310.00	132
69.00	57624	146.00	543	223.00	2387	313.00	127
70.00	365	147.00	1967	224.00	21672	314.00	593
71.00	224	148.00	3953	225.00	5582	315.00	1477
73.00	391	149.00	824	226.00	606	316.00	720
74.00	5312	150.00	196	227.00	9128	317.00	174
75.00	8744	151.00	545	228.00	1319	321.00	429
76.00	2834	152.00	329	229.00	1915	322.00	252
77.00	61120	153.00	1124	230.00	285	323.00	3876
78.00	4208	154.00	833	231.00	795	324.00	624
79.00	3895	155.00	2029	232.00	77	326.00	63
80.00	3213	156.00	2943	233.00	145	327.00	782
81.00	4513	157.00	663	234.00	563	328.00	365
82.00	1237	158.00	675	235.00	665	332.00	296
83.00	920	159.00	539	236.00	493	333.00	385

Date : 22-JUN-2013 09:36

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi Column diameter: 0.25

Data File: df0622.d
Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384
Location of Maximum: 198.00
Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	63	160.00	1202	237.00	727	334.00	2556
85.00	822	161.00	1643	239.00	342	335.00	694
86.00	1280	162.00	486	240.00	258	341.00	527
87.00	590	163.00	248	241.00	576	342.00	68
88.00	159	164.00	232	242.00	1204	346.00	820
89.00	107	165.00	1427	243.00	1479	347.00	135
91.00	1032	166.00	932	244.00	17624	352.00	1277
92.00	1249	167.00	6712	245.00	2422	353.00	823
93.00	6941	168.00	2689	246.00	3353	354.00	1121
94.00	548	169.00	610	247.00	717	355.00	273
95.00	106	170.00	252	248.00	180	369.00	5787
96.00	289	171.00	310	249.00	674	366.00	847
97.00	102	172.00	745	250.00	68	371.00	344
98.00	5528	173.00	869	251.00	264	372.00	2157
99.00	4066	174.00	1596	252.00	283	373.00	521
100.00	353	175.00	2862	253.00	416	383.00	490
101.00	2681	176.00	869	255.00	90744	384.00	79
102.00	145	177.00	1371	256.00	12919	390.00	292
103.00	1016	178.00	497	257.00	1013	391.00	219
104.00	1849	179.00	5452	258.00	5350	392.00	69
105.00	1707	180.00	3617	259.00	922	401.00	191
106.00	505	181.00	1765	260.00	126	402.00	927
107.00	19640	182.00	233	261.00	124	403.00	1298
108.00	2953	183.00	192	264.00	295	404.00	387
109.00	741	184.00	517	265.00	2012	421.00	1049
110.00	37872	185.00	2748	266.00	337	422.00	1029
111.00	5993	186.00	19232	267.00	30	423.00	7725
112.00	706	187.00	5735	269.00	57	424.00	1547
113.00	184	188.00	571	270.00	129	425.00	68
115.00	115	189.00	1304	271.00	276	437.00	62
116.00	1159	190.00	260	272.00	216	438.00	245
117.00	15966	191.00	563	273.00	3074	439.00	125
118.00	1172	192.00	1820	274.00	7237	441.00	24128
119.00	257	193.00	2158	275.00	42008	442.00	155264
120.00	287	194.00	429	276.00	5522	443.00	29976

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0622.d

Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384

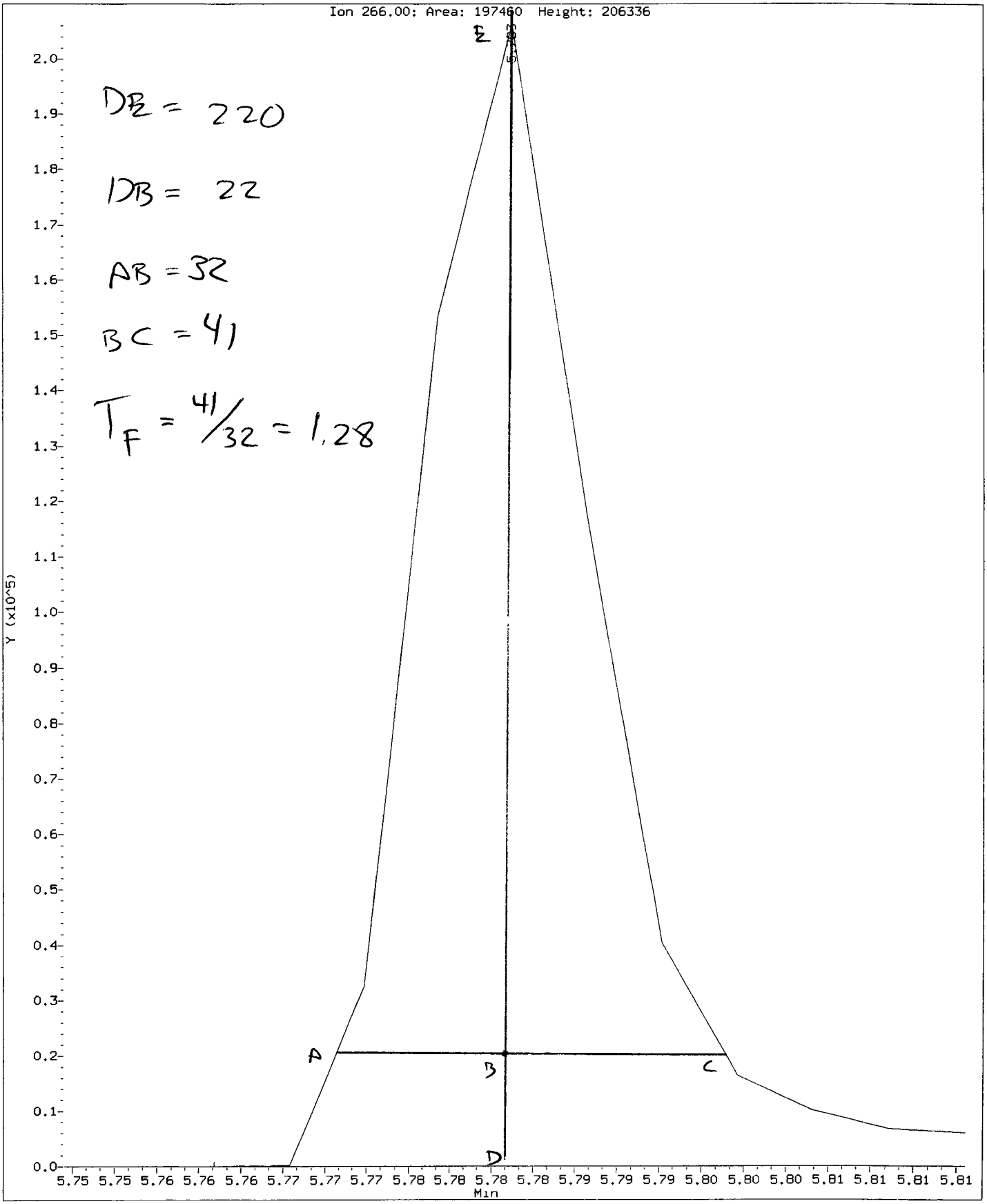
Location of Maximum: 198.00

Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	198	195.00	480	277.00	3295	444.00	2703
122.00	1341	196.00	4854	278.00	591	445.00	155
123.00	2060	198.00	155456	279.00	61		
124.00	932	199.00	10422	281.00	44		

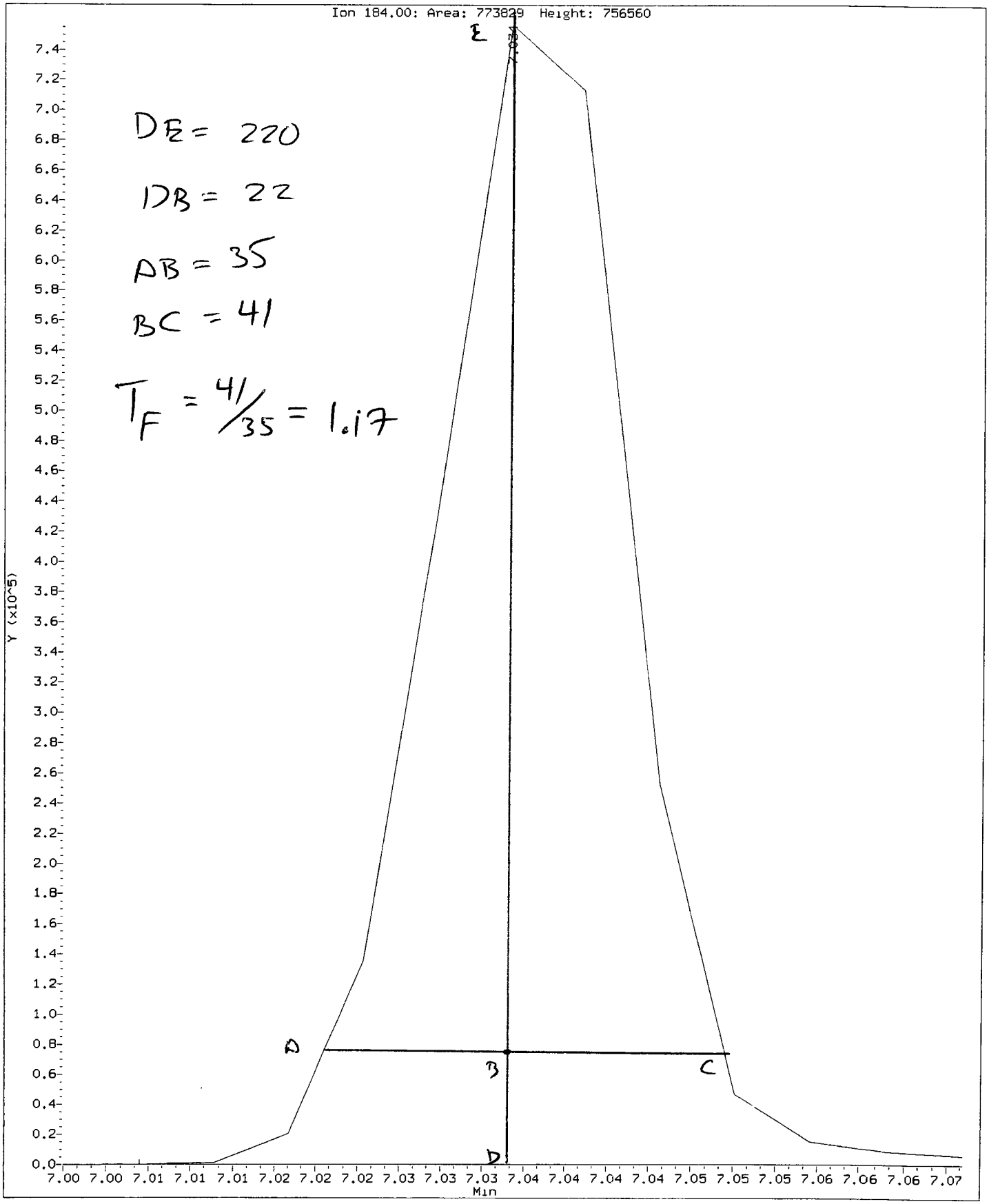
Data File: /chem1/nt10.i/20130622.b/DDT.b/df0622.d
Injection Date: 22-JUN-2013 09:36
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20130622.b/DDT.b/df0622.d
Injection Date: 22-JUN-2013 09:36
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130622.b/DDT.b/df0622.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130622.b/DDT.b/sw846ddt.m Misc: 11-
Analysis Date: 22-JUN-2013 09:36 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	5.783	197459
Benzidine	7.034	773828
4,4'-DDE	7.227	1776
4,4'-DDD	7.515	8138
4,4'-DDT	7.767	410468

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(1776 + 8138) * 100}{(1776 + 8138 + 410468)}$$

DDT Percent Breakdown = 2.4 %

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130622.b/cc0622.d
Lab Smp Id: ABN 5
Inj Date : 22-JUN-2013 09:51
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN 5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 22-Jun-2013 10:34 van Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	5.243	5.243	(0.705)	75681	5.00000	5.149
$	2 Phenol-d5	99	6.943	6.943	(0.933)	96570	5.00000	5.077
	3 Phenol	94	6.959	6.959	(0.936)	106273	5.00000	4.991
$	5 2-Chlorophenol-d4	132	7.090	7.090	(0.953)	73097	5.00000	5.063
	4 Bis(2-Chloroethyl)ether	93	7.051	7.051	(0.948)	71981	5.00000	4.701
	6 2-Chlorophenol	128	7.113	7.113	(0.956)	80925	5.00000	4.929
	7 1,3-Dichlorobenzene	146	7.369	7.369	(0.991)	80182	5.00000	4.866
*	8 1,4-Dichlorobenzene-d4	152	7.438	7.438	(1.000)	41183	4.00000	
	9 1,4-Dichlorobenzene	146	7.469	7.469	(1.004)	79971	5.00000	4.924
$	10 1,2-Dichlorobenzene-d4	152	7.803	7.803	(1.049)	51901	5.00000	4.997
	12 1,2-Dichlorobenzene	146	7.834	7.834	(1.053)	75568	5.00000	4.860
	11 Benzyl alcohol	108	7.795	7.795	(1.048)	36193	5.00000	4.041
	14 2,2'-oxybis(1-Chloropropane)	121	8.114	8.114	(1.091)	23669	5.00000	5.009
	13 2-Methylphenol	108	8.098	8.098	(1.089)	76092	5.00000	4.967
	17 Hexachloroethane	117	8.432	8.432	(1.134)	32800	5.00000	4.827
	16 N-Nitroso-di-n-propylamine	70	8.378	8.378	(1.126)	50483	5.00000	5.278
	15 4-Methylphenol	108	8.393	8.393	(1.128)	80834	5.00000	5.174
$	18 Nitrobenzene-d5	82	8.587	8.587	(0.858)	81208	5.00000	5.092
	19 Nitrobenzene	77	8.626	8.626	(0.862)	74632	5.00000	5.069
	20 Isophorone	82	9.115	9.115	(0.910)	137195	5.00000	4.954
	21 2-Nitrophenol	139	9.286	9.286	(0.928)	44412	5.00000	5.381
	22 2,4-Dimethylphenol	107	9.464	9.464	(0.945)	142113	10.0000	9.363
	23 Bis(2-Chloroethoxy)methane	93	9.641	9.641	(0.963)	83091	5.00000	5.087
	24 Benzoic acid	105	9.795	9.795	(0.978)	239598	20.0000	17.99
	25 2,4-Dichlorophenol	162	9.795	9.795	(0.978)	141941	10.0000	10.16
	26 1,2,4-Trichlorobenzene	180	9.949	9.949	(0.994)	75695	5.00000	5.617

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
*	27 Naphthalene-d8	136	10.011	10.011	(1.000)	151126	4.00000	
	28 Naphthalene	128	10.057	10.057	(1.005)	194123	5.00000	4.825
	29 4-Chloroaniline	127	10.266	10.266	(1.025)	161505	10.0000	10.27
	30 Hexachlorobutadiene	225	10.490	10.490	(1.048)	40811	5.00000	5.031
	31 4-Chloro-3-methylphenol	107	11.380	11.380	(1.137)	134525	10.0000	10.95
	32 2-Methylnaphthalene	142	11.535	11.535	(1.152)	131297	5.00000	4.913
	33 Hexachlorocyclopentadiene	237	12.053	12.053	(0.872)	61974	10.0000	5.912
	34 2,4,6-Trichlorophenol	196	12.246	12.246	(0.886)	104148	10.0000	10.39
	35 2,4,5-Trichlorophenol	196	12.324	12.324	(0.892)	111902	10.0000	10.83
$	36 2-Fluorobiphenyl	172	12.417	12.417	(0.899)	159143	5.00000	4.786
	37 2-Chloronaphthalene	162	12.572	12.572	(0.910)	127912	5.00000	4.832
	38 2-Nitroaniline	65	12.904	12.904	(0.934)	72252	10.0000	11.31
	39 Dimethylphthalate	163	13.431	13.431	(0.972)	141843	5.00000	4.960
	40 Acenaphthylene	152	13.469	13.469	(0.975)	201717	5.00000	4.493
	41 2,6-Dinitrotoluene	165	13.539	13.539	(0.980)	69018	10.0000	10.30
*	42 Acenaphthene-d10	164	13.818	13.818	(1.000)	95266	4.00000	
	43 3-Nitroaniline	138	13.818	13.818	(1.000)	69416	10.0000	12.55
	44 Acenaphthene	153	13.879	13.879	(1.004)	127822	5.00000	4.724
	45 2,4-Dinitrophenol	184	14.049	14.049	(1.017)	109114	20.0000	18.21
	46 Dibenzofuran	168	14.243	14.243	(1.031)	175148	5.00000	4.734
	47 4-Nitrophenol	109	14.305	14.305	(1.035)	41393	10.0000	9.925
	48 2,4-Dinitrotoluene	165	14.390	14.390	(1.041)	91622	10.0000	10.60
	50 Diethylphthalate	149	15.000	15.000	(1.086)	135222	5.00000	4.705
	49 Fluorene	166	14.993	14.993	(1.085)	151161	5.00000	4.788
	51 4-Chlorophenyl-phenylether	204	15.047	15.047	(1.089)	68485	5.00000	4.413
	52 4-Nitroaniline	138	15.163	15.163	(1.097)	42550	10.0000	7.405
	53 4,6-Dinitro-2-methylphenol	198	15.271	15.271	(0.897)	144429	20.0000	19.31
	54 N-Nitrosodiphenylamine	169	15.332	15.332	(0.901)	92852	5.00000	5.149
$	55 2,4,6-Tribromophenol	330	15.571	15.571	(1.127)	26226	5.00000	5.206
	56 4-Bromophenyl-phenylether	248	16.103	16.103	(0.946)	44629	5.00000	5.040
	57 Hexachlorobenzene	284	16.374	16.374	(0.962)	52587	5.00000	5.000
	58 Pentachlorophenol	266	16.799	16.799	(0.987)	69275	10.0000	9.384
*	59 Phenanthrene-d10	188	17.016	17.016	(1.000)	155782	4.00000	
	60 Phenanthrene	178	17.063	17.063	(1.003)	201986	5.00000	4.754
	61 Anthracene	178	17.163	17.163	(1.009)	207063	5.00000	4.757
	62 Carbazole	167	17.573	17.573	(1.033)	160803	5.00000	6.081
	63 Di-n-butylphthalate	149	18.610	18.610	(1.094)	233718	5.00000	5.201
	64 Fluoranthene	202	19.631	19.631	(1.154)	246769	5.00000	4.934
	65 Pyrene	202	20.049	20.049	(0.898)	243884	5.00000	5.111
$	66 Terphenyl-d14	244	20.467	20.467	(0.917)	145548	5.00000	4.750
	67 Butylbenzylphthalate	149	21.497	21.497	(0.963)	93543	5.00000	5.625
	68 Benzo(a)anthracene	228	22.294	22.294	(0.999)	218791	5.00000	4.953
*	69 Chrysene-d12	240	22.317	22.317	(1.000)	157404	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.325	22.325	(1.000)	215633	10.0000	12.85
	71 Chrysene	228	22.364	22.364	(1.002)	190690	5.00000	4.782
	72 bis(2-Ethylhexyl)phthalate	149	22.604	22.604	(0.958)	139584	5.00000	5.471
*	134 Di-n-octylphthalate-d4	153	23.587	23.587	(1.000)	191816	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
73	Di-n-octylphthalate	149	23.602	23.602	(1.001)	206362	5.00000	4.670
74	Benzo(b)fluoranthene	252	24.059	24.090	(0.978)	227608	5.00000	5.390(H)
75	Benzo(k)fluoranthene	252	24.090	24.090	(0.979)	215494	5.00000	4.845
76	Benzo(a)pyrene	252	24.524	24.524	(0.997)	178461	5.00000	4.947
* 77	Perylene-d12	264	24.609	24.609	(1.000)	142204	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.151	26.151	(1.063)	223198	5.00000	5.370
79	Dibenzo(a,h)anthracene	278	26.175	26.175	(1.064)	174053	5.00000	5.459
80	Benzo(g,h,i)perylene	276	26.571	26.571	(1.080)	189408	5.00000	5.267
90	N-Nitrosodimethylamine	74	3.042	3.042	(0.409)	88647	10.0000	9.449
91	Aniline	93	6.912	6.912	(0.929)	212694	5.00000	5.149
93	Benzidine	184	19.972	19.972	(0.895)	56549	10.0000	11.17
103	Pyridine	79	3.035	3.035	(0.408)	74891	10.0000	9.081
105	1-methylnaphthalene	142	11.767	11.767	(1.175)	118447	5.00000	4.833
111	Azobenzene (1,2-DP-Hydrazine)	77	15.386	15.386	(1.114)	138071	5.00000	4.686
187	Total Benzofluoranthenes	252	24.090	24.090	(0.979)	411601	10.0000	10.04
99	Perylene	252	24.640	24.640	(1.001)	192064	5.00000	4.672
98	Retene	219	20.746	20.746	(0.930)	90756	5.00000	4.924
120	2,3,4,6-Tetrachlorophenol	232	14.645	14.645	(1.060)	39757	5.00000	5.171

QC Flag Legend

H - Operator selected an alternate compound hit.

6/22/13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0622.d
Lab Smp Id: ABN 5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info:

Calibration Date: 22-JUN-2013
Calibration Time: 09:02

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	41183	-8.99
27 Naphthalene-d8	166754	83377	333508	151126	-9.37
42 Acenaphthene-d10	106910	53455	213820	95266	-10.89
59 Phenanthrene-d10	179783	89892	359566	155782	-13.35
69 Chrysene-d12	192841	96420	385682	157404	-18.38
134 Di-n-octylphthala	229567	114784	459134	191916	-16.40
77 Perylene-d12	184310	92155	368620	142204	-22.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.82	13.32	14.32	13.82	0.00
59 Phenanthrene-d10	17.02	16.52	17.52	17.02	0.00
69 Chrysene-d12	22.32	21.82	22.82	22.32	0.00
134 Di-n-octylphthala	23.59	23.09	24.09	23.59	0.00
77 Perylene-d12	24.61	24.11	25.11	24.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0622.d
Analysis Type:
Lab Sample ID: ABN 5
Method: /chem1/nt10.i/20130622.b/ABN.m

Injection Date: 22-JUN-2013 09:51
Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Init. Cal. Times: 16:53 21:47
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.42771	1.47012	1.47012	0.010	2.97064	20.00000	Averaged	
$ 2 Phenol-d5	1.84748	1.87589	1.87589	0.010	1.53788	20.00000	Averaged	
3 Phenol	2.06794	2.06438	2.06438	0.100	-0.17207	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.40240	1.41993	1.41993	0.010	1.24981	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.48709	1.39825	1.39825	0.700	-5.97463	20.00000	Averaged	
6 2-Chlorophenol	1.59477	1.57199	1.57199	0.800	-1.42837	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.60030	1.55756	1.55756	0.010	-2.67089	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.57739	1.55347	1.55347	0.010	-1.51684	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	1.00879	1.00820	1.00820	0.010	-0.05873	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.51024	1.46792	1.46792	0.010	-2.80221	20.00000	Averaged	
11 Benzyl alcohol	0.86989	0.70306	0.70306	0.010	-19.17770	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.45898	0.45978	0.45978	0.010	0.17521	20.00000	Averaged	
13 2-Methylphenol	1.48808	1.47812	1.47812	0.700	-0.66947	20.00000	Averaged	
17 Hexachloroethane	0.65999	0.63714	0.63714	0.300	-3.46198	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.92905	0.98065	0.98065	0.500	5.55369	20.00000	Averaged	
15 4-Methylphenol	1.51729	1.57022	1.57022	0.600	3.48840	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.42210	0.42988	0.42988	0.010	1.84302	20.00000	Averaged	
19 Nitrobenzene	0.38970	0.39507	0.39507	0.200	1.37852	20.00000	Averaged	
20 Isophorone	0.73300	0.72625	0.72625	0.300	-0.92118	20.00000	Averaged	
21 2-Nitrophenol	0.21847	0.23510	0.23510	0.100	7.61391	20.00000	Averaged	
22 2,4-Dimethylphenol	0.40172	0.37615	0.37615	0.200	-6.36618	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.43229	0.43985	0.43985	0.050	1.74971	20.00000	Averaged	
24 Benzoic acid	17.99300	20.00000	0.31708	0.010	-10.03500	20.00000	Quadratic	
25 2,4-Dichlorophenol	0.36979	0.37569	0.37569	0.100	1.59627	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.36143	0.40599	0.40599	0.010	12.33041	20.00000	Averaged	
28 Naphthalene	1.06494	1.02761	1.02761	0.100	-3.50569	20.00000	Averaged	
29 4-Chloroaniline	0.41634	0.42747	0.42747	0.010	2.67150	20.00000	Averaged	
30 Hexachlorobutadiene	0.21470	0.21604	0.21604	0.010	0.62531	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.32531	0.35606	0.35606	0.200	9.45278	20.00000	Averaged	
32 2-Methylnaphthalene	0.70737	0.69503	0.69503	0.300	-1.74343	20.00000	Averaged	
33 Hexachlorocyclopentadiene	0.44016	0.26022	0.26022	0.001	-40.88176	20.00000	Averaged	<-
34 2,4,6-Trichlorophenol	0.42101	0.43730	0.43730	0.200	3.86765	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.43401	0.46985	0.46985	0.200	8.25930	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.39609	1.33641	1.33641	0.700	-4.27453	20.00000	Averaged	
37 2-Chloronaphthalene	1.11145	1.07415	1.07415	0.700	-3.35623	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0622.d
Analysis Type:
Lab Sample ID: ABN 5
Method: /chem1/nt10.i/20130622.b/ABN.m

Injection Date: 22-JUN-2013 09:51
Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Init. Cal. Times: 16:53 21:47
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.26826	0.30337	0.30337	0.010	13.08955	20.00000	Averaged	
39 Dimethylphthalate	1.20078	1.19113	1.19113	0.010	-0.80336	20.00000	Averaged	
40 Acenaphthylene	1.88508	1.69393	1.69393	0.900	-10.14043	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.28135	0.28979	0.28979	0.100	3.00153	20.00000	Averaged	
43 3-Nitroaniline	0.23227	0.29147	0.29147	0.010	25.48787	20.00000	Averaged	<-
44 Acenaphthene	1.13602	1.07339	1.07339	0.100	-5.51299	20.00000	Averaged	
45 2,4-Dinitrophenol	18.20824	20.00000	0.22907	0.030	-8.95879	20.00000	Quadratic	
46 Dibenzofuran	1.55334	1.47082	1.47082	0.800	-5.31233	20.00000	Averaged	
47 4-Nitrophenol	9.92513	10.00000	0.17380	0.010	-0.74872	20.00000	Quadratic	
48 2,4-Dinitrotoluene	0.36288	0.38470	0.38470	0.200	6.01362	20.00000	Averaged	
50 Diethylphthalate	1.20662	1.13554	1.13554	0.010	-5.89071	20.00000	Averaged	
49 Fluorene	1.32546	1.26938	1.26938	0.100	-4.23056	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.65156	0.57511	0.57511	0.100	-11.73355	20.00000	Averaged	
52 4-Nitroaniline	0.24126	0.17866	0.17866	0.010	-25.94945	20.00000	Averaged	<-
53 4,6-Dinitro-2-methylphenol	19.30933	20.00000	0.18542	0.001	-3.95337	20.00000	Quadratic	
54 N-Nitrosodiphenylamine	0.46304	0.47683	0.47683	0.010	2.97692	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.21154	0.22024	0.22024	0.010	4.11497	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.22633	0.22816	0.22816	0.100	0.80781	20.00000	Averaged	
57 Hexachlorobenzene	0.27006	0.27006	0.27006	0.100	0.00012	20.00000	Averaged	
58 Pentachlorophenol	0.18956	0.17788	0.17788	0.010	-6.16482	20.00000	Averaged	
60 Phenanthrene	1.09106	1.03727	1.03727	0.700	-4.92924	20.00000	Averaged	
61 Anthracene	1.11776	1.06335	1.06335	0.700	-4.86729	20.00000	Averaged	
62 Carbazole	0.67896	0.82578	0.82578	0.010	21.62556	20.00000	Averaged	<-
63 Di-n-butylphthalate	1.15386	1.20023	1.20023	0.010	4.01822	20.00000	Averaged	
64 Fluoranthene	1.28413	1.26725	1.26725	0.600	-1.31433	20.00000	Averaged	
65 Pyrene	1.23758	1.26494	1.26494	0.500	2.21092	20.00000	Averaged	
$ 66 Terphenyl-d14	0.77864	0.73974	0.73974	0.010	-4.99624	20.00000	Averaged	
67 Butylbenzylphthalate	0.42263	0.47543	0.47543	0.010	12.49272	20.00000	Averaged	
68 Benzo(a)anthracene	1.11989	1.10946	1.10946	0.700	-0.93144	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.42653	0.54797	0.54797	0.010	28.47158	20.00000	Averaged	<-
71 Chrysene	1.01345	0.96917	0.96917	0.700	-4.36388	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.53180	0.58186	0.58186	0.010	9.41233	20.00000	Averaged	
73 Di-n-octylphthalate	0.92098	0.86022	0.86022	0.010	-6.59798	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.18784	1.21232	1.21232	0.700	2.06090	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.25114	1.21231	1.21231	0.700	-3.10386	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 22-JUN-2013 09:51
Lab File ID: cc0622.d Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Analysis Type: Init. Cal. Times: 16:53 21:47
Lab Sample ID: ABN 5 Quant Type: ISTD
Method: /chem1/nt10.i/20130622.b/ABN.m

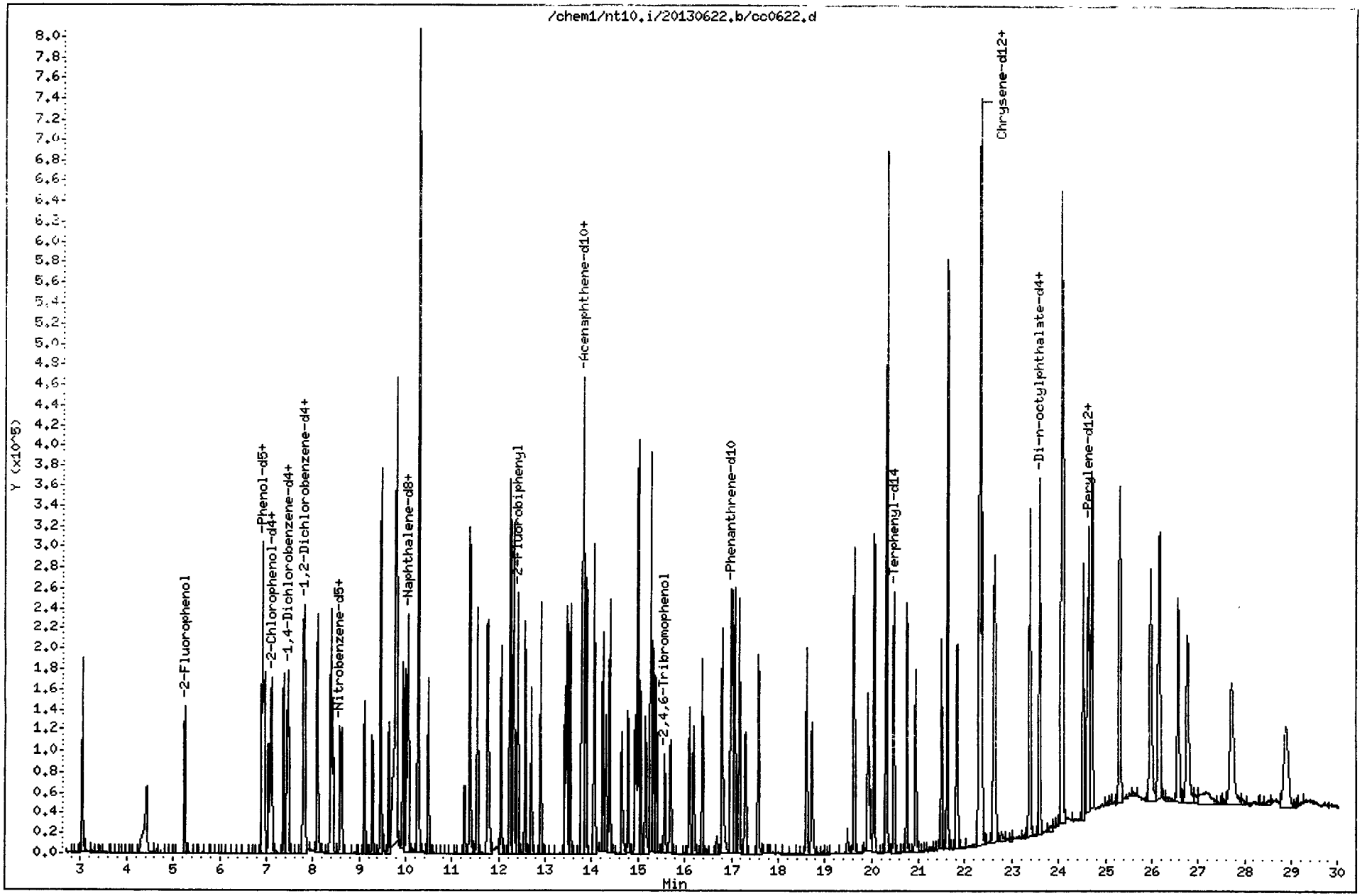
COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 Benzo(a)pyrene	1.01481	1.00397	1.00397	0.700	-1.06774	20.00000	Averaged
78 Indeno(1,2,3-cd)pyrene	1.16916	1.25565	1.25565	0.500	7.39767	20.00000	Averaged
79 Dibenzo(a,h)anthracene	0.89686	0.97917	0.97917	0.400	9.17734	20.00000	Averaged
80 Benzo(g,h,i)perylene	1.01156	1.06556	1.06556	0.500	5.33908	20.00000	Averaged
90 N-Nitrosodimethylamine	0.91125	0.86100	0.86100	0.010	-5.51493	20.00000	Averaged
91 Aniline	4.01210	4.13163	4.13163	0.010	2.97910	20.00000	Averaged
93 Benzidine	11.17184	10.00000	0.14396	0.010	11.71844	20.00000	Quadratic
103 Pyridine	0.80099	0.72739	0.72739	0.010	-9.18949	20.00000	Averaged
105 1-methylnaphthalene	0.64873	0.62701	0.62701	0.010	-3.34814	20.00000	Averaged
111 Azobenzene (1,2-DP-Hydrazin	1.23715	1.15946	1.15946	0.010	-6.27908	20.00000	Averaged
187 Total Benzofluoranthenes	1.15343	1.15777	1.15777	0.010	0.37611	20.00000	Averaged
99 Perylene	1.16006	1.08387	1.08387	0.010	-6.56750	20.00000	Averaged
98 Retene	0.46838	0.46127	0.46127	0.010	-1.51889	20.00000	Averaged
120 2,3,4,6-Tetrachlorophenol	0.32282	0.33387	0.33387	0.010	3.42004	20.00000	Averaged

Data File: /chem1/nt10.i/20130622.b/cc0622.d
Date : 22-JUN-2013 09:51
Client ID:
Sample Info: ABN 5

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - cc0622.d

Lab ID: ABN 5, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS
13.818	Acenaphthene-d10 and 3-Nitroaniline

Analytical Resources, Inc.

YZ 6/27/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130622.b/wt86mb.d
Lab Smp Id: WT86MBS1 Client Smp ID: WT86MBS1
Inj Date : 22-JUN-2013 11:46
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT86MBS1
Misc Info : 13-12654
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 26-Jun-2013 13:54 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1	2-Fluorophenol	112	5.259	5.243	(0.707)	81103	4.91862	491.9
$	2	Phenol-d5	99	6.936	6.943	(0.932)	107390	5.03304	503.3
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	7.083	7.090	(0.952)	83011	5.12518	512.5
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	7.439	7.438	(1.000)	46197	4.00000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	7.803	7.803	(1.049)	39102	3.35618	335.6
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	8.587	8.587	(0.858)	64897	3.43071	343.1
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.011	10.011	(1.000)	179260	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.402	12.417	(0.898)	126679	3.44111	344.1
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.802	13.818	(1.000)	105476	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	Compound Not Detected.					
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	Compound Not Detected.					
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55 2,4,6-Tribromophenol	330	15.556	15.571	(1.127)	32828	5.88530	588.5
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.001	17.016	(1.000)	175575	4.00000	
	60 Phenanthrene	178	Compound Not Detected.					
	61 Anthracene	178	Compound Not Detected.					
	62 Carbazole	167	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	63 Di-n-butylphthalate	149	Compound Not Detected.					
	64 Fluoranthene	202	Compound Not Detected.					
	65 Pyrene	202	Compound Not Detected.					
$	66 Terphenyl-d14	244	20.452	20.467	(0.917)	149839	4.21715	421.7
	67 Butylbenzylphthalate	149	Compound Not Detected.					
	68 Benzo(a)anthracene	228	Compound Not Detected.					
*	69 Chrysene-d12	240	22.294	22.317	(1.000)	182527	4.00000	
	70 3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71 Chrysene	228	Compound Not Detected.					
	72 bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134 Di-n-octylphthalate-d4	153	23.572	23.587	(1.000)	219509	4.00000	
	73 Di-n-octylphthalate	149	Compound Not Detected.					
	74 Benzo(b)fluoranthene	252	Compound Not Detected.					
	75 Benzo(k)fluoranthene	252	Compound Not Detected.					
	76 Benzo(a)pyrene	252	Compound Not Detected.					
*	77 Perylene-d12	264	24.586	24.609	(1.000)	161139	4.00000	
	78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80 Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	142	Compound Not Detected.					
	111 Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
	187 Total Benzofluoranthenes	252	Compound Not Detected.					
	99 Perylene	252	Compound Not Detected.					
	98 Retene	219	Compound Not Detected.					
	120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86mb.d
Lab Smp Id: WT86MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 09:51
Client Smp ID: WT86MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	46197	2.09
27 Naphthalene-d8	166754	83377	333508	179260	7.50
42 Acenaphthene-d10	106910	53455	213820	105476	-1.34
59 Phenanthrene-d10	179783	89892	359566	175575	-2.34
69 Chrysene-d12	192841	96420	385682	182527	-5.35
134 Di-n-octylphthala	229567	114784	459134	219509	-4.38
77 Perylene-d12	184310	92155	368620	161139	-12.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.82	13.32	14.32	13.80	-0.11
59 Phenanthrene-d10	17.02	16.52	17.52	17.00	-0.09
69 Chrysene-d12	22.32	21.82	22.82	22.29	-0.10
134 Di-n-octylphthala	23.59	23.09	24.09	23.57	-0.06
77 Perylene-d12	24.61	24.11	25.11	24.59	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

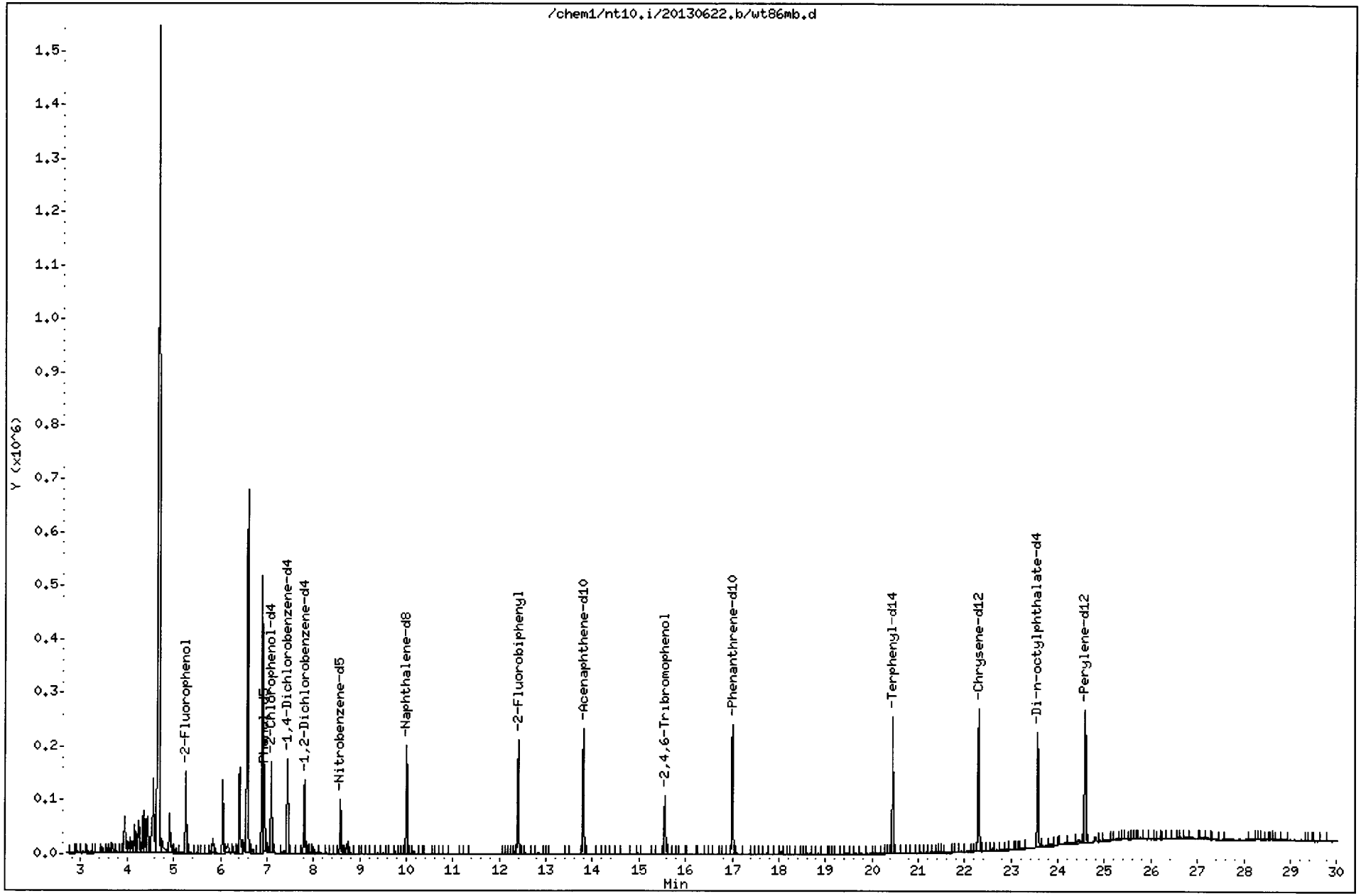
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43	3-Nitroaniline	1500	0.000	*	22-113
44	Acenaphthene	500.0	0.000	*	45-100
45	2,4-Dinitrophenol	2750	0.000	*	10-105
46	Dibenzofuran	500.0	0.000	*	43-103
47	4-Nitrophenol	1500	0.000	*	15-138
48	2,4-Dinitrotoluene	1500	0.000	*	35-127
49	Fluorene	500.0	0.000	*	45-107
50	Diethylphthalate	500.0	0.000	*	50-120
51	4-Chlorophenyl-ph	500.0	0.000	*	32-116
52	4-Nitroaniline	1500	0.000	*	24-125
53	4,6-Dinitro-2-met	2750	0.000	*	24-119
54	N-Nitrosodiphenyl	500.0	0.000	*	36-111
56	4-Bromophenyl-phe	500.0	0.000	*	39-114
57	Hexachlorobenzene	500.0	0.000	*	33-113
58	Pentachlorophenol	1500	0.000	*	16-120
60	Phenanthrene	500.0	0.000	*	49-112
61	Anthracene	500.0	0.000	*	45-106
62	Carbazole	500.0	0.000	*	43-135
63	Di-n-butylphthala	500.0	0.000	*	48-126
64	Fluoranthene	500.0	0.000	*	53-118
65	Pyrene	500.0	0.000	*	48-121
67	Butylbenzylphthal	500.0	0.000	*	45-132
68	Benzo(a)anthracene	500.0	0.000	*	49-115
70	3,3'-Dichlorobenz	1500	0.000	*	10-100
71	Chrysene	500.0	0.000	*	47-115
72	bis(2-Ethylhexyl)	500.0	0.000	*	34-130
73	Di-n-octylphthala	500.0	0.000	*	28-124
74	Benzo(b)fluoranth	500.0	0.000	*	42-132
75	Benzo(k)fluoranth	500.0	0.000	*	39-129
76	Benzo(a)pyrene	500.0	0.000	*	42-113
78	Indeno(1,2,3-cd)p	500.0	0.000	*	42-123
79	Dibenzo(a,h)anthr	500.0	0.000	*	30-133
80	Benzo(g,h,i)peryl	500.0	0.000	*	38-126
91	Aniline	1500	0.000	*	10-134
111	Azobenzene (1,2-D	500.0	0.000	*	35-112
90	N-Nitrosodimethyl	1500	0.000	*	17-100
105	1-methylnaphthale	500.0	0.000	*	42-100
103	Pyridine	1000	0.000	*	10-147
187	Total Benzofluora	1000	0.000	*	30-160

SURROGATE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	491.9	65.58	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	503.3	67.11	29-120
$ 5 2-Chlorophenol-d4	750.0	512.5	68.34	31-120
$ 10 1,2-Dichlorobenzen	500.0	335.6	67.12	32-120
$ 18 Nitrobenzene-d5	500.0	343.1	68.61	30-120
$ 36 2-Fluorobiphenyl	500.0	344.1	68.82	35-120
$ 55 2,4,6-Tribromophen	750.0	588.5	78.47	24-134
$ 66 Terphenyl-d14	500.0	421.7	84.34	37-120

Data File: /chem1/nt10.i/20130622.b/wt86mb.d
Date : 22-JUN-2013 11:46
Client ID: WT86MBS1
Sample Info: WT86MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt86mb.d

Lab ID: WT86MBS1, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Y26/27/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130622.b/wt86sb.d
Lab Smp Id: WT86LCSS1 Client Smp ID: WT86LCSS1
Inj Date : 22-JUN-2013 12:23
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT86LCSS1
Misc Info : 13-12654
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 27-Jun-2013 11:34 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.236	5.243	(0.705)	76281	5.04213	504.2
$ 2	Phenol-d5	99	6.928	6.943	(0.932)	101383	5.17873	517.9
3	Phenol	94	6.951	6.959	(0.935)	67004	3.05773	305.8
$ 5	2-Chlorophenol-d4	132	7.075	7.090	(0.952)	76302	5.13453	513.5
4	Bis(2-Chloroethyl)ether	93	7.036	7.051	(0.947)	52398	3.32517	332.5
6	2-Chlorophenol	128	7.106	7.113	(0.956)	50060	2.96232	296.2
7	1,3-Dichlorobenzene	146	7.353	7.369	(0.990)	52733	3.10969	311.0
* 8	1,4-Dichlorobenzene-d4	152	7.431	7.438	(1.000)	42386	4.00000	
9	1,4-Dichlorobenzene	146	7.462	7.469	(1.004)	51949	3.10796	310.8
$ 10	1,2-Dichlorobenzene-d4	152	7.796	7.803	(1.049)	34960	3.27046	327.0
12	1,2-Dichlorobenzene	146	7.819	7.834	(1.052)	50976	3.18534	318.5
11	Benzyl alcohol	108	7.788	7.795	(1.048)	32282	3.50216	350.2
14	2,2'-oxybis(1-Chloropropane)	121	8.106	8.114	(1.091)	16586	3.41027	341.0
13	2-Methylphenol	108	8.091	8.098	(1.089)	44176	2.80155	280.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	8.424	8.432	(1.134)	22327	3.19248	319.2
	16 N-Nitroso-di-n-propylamine	70	8.370	8.378	(1.126)	35435	3.59940	359.9
	15 4-Methylphenol	108	8.393	8.393	(1.130)	94654	5.88720	588.7
$	18 Nitrobenzene-d5	82	8.580	8.587	(0.857)	57232	3.51116	351.1
	19 Nitrobenzene	77	8.618	8.626	(0.861)	54591	3.62761	362.8
	20 Isophorone	82	9.107	9.115	(0.910)	95248	3.36495	336.5
	21 2-Nitrophenol	139	9.278	9.286	(0.927)	27041	3.20528	320.5
	22 2,4-Dimethylphenol	107	9.456	9.464	(0.945)	107236	6.91270	691.3
	23 Bis(2-Chloroethoxy)methane	93	9.633	9.641	(0.962)	62878	3.76666	376.7
	24 Benzoic acid	105	9.780	9.795	(0.977)	208235	15.3489	1535
	25 2,4-Dichlorophenol	162	9.787	9.795	(0.978)	131792	9.22930	922.9
	26 1,2,4-Trichlorobenzene	180	9.942	9.949	(0.993)	56009	4.01298	401.3
*	27 Naphthalene-d8	136	10.011	10.011	(1.000)	154465	4.00000	
	28 Naphthalene	128	10.050	10.057	(1.004)	127779	3.10716	310.7
	29 4-Chloroaniline	127	10.258	10.266	(1.025)	71910	4.47273	447.3
	30 Hexachlorobutadiene	225	10.482	10.490	(1.047)	27588	3.32751	332.8
	31 4-Chloro-3-methylphenol	107	11.372	11.380	(1.136)	152351	12.1277	1213
	32 2-Methylnaphthalene	142	11.535	11.535	(1.152)	92023	3.36886	336.9
	33 Hexachlorocyclopentadiene	237	12.046	12.053	(0.872)	67466	6.55990	656.0
	34 2,4,6-Trichlorophenol	196	12.239	12.246	(0.886)	108111	10.9900	1099
	35 2,4,5-Trichlorophenol	196	12.316	12.324	(0.892)	115808	11.4200	1142
$	36 2-Fluorobiphenyl	172	12.409	12.417	(0.899)	114657	3.51490	351.5
	37 2-Chloronaphthalene	162	12.564	12.572	(0.910)	95130	3.66313	366.3
	38 2-Nitroaniline	65	12.897	12.904	(0.934)	89519	14.2820	1428
	39 Dimethylphthalate	163	13.423	13.431	(0.972)	121226	4.32074	432.1
	40 Acenaphthylene	152	13.462	13.469	(0.975)	140244	3.18405	318.4
	41 2,6-Dinitrotoluene	165	13.531	13.539	(0.980)	84950	12.9224	1292
*	42 Acenaphthene-d10	164	13.810	13.818	(1.000)	93462	4.00000	
	43 3-Nitroaniline	138	13.810	13.818	(1.000)	50362	9.27989	928.0
	44 Acenaphthene	153	13.872	13.879	(1.004)	90130	3.39554	339.6
	45 2,4-Dinitrophenol	184	14.042	14.049	(1.017)	95328	16.2653	1627
	46 Dibenzofuran	168	14.235	14.243	(1.031)	131957	3.63573	363.6
	47 4-Nitrophenol	109	14.297	14.305	(1.035)	47957	11.6910	1169
	48 2,4-Dinitrotoluene	165	14.374	14.390	(1.041)	114800	13.5396	1354
	50 Diethylphthalate	149	14.993	15.000	(1.086)	122075	4.32994	433.0
	49 Fluorene	166	14.977	14.993	(1.085)	108556	3.50521	350.5
	51 4-Chlorophenyl-phenylether	204	15.039	15.047	(1.089)	55132	3.62139	362.1
	52 4-Nitroaniline	138	15.163	15.163	(1.098)	44818	7.95031	795.0
	53 4,6-Dinitro-2-methylphenol	198	15.255	15.271	(0.897)	139463	19.4312	1943
	54 N-Nitrosodiphenylamine	169	15.325	15.332	(0.901)	69894	4.03943	403.9
$	55 2,4,6-Tribromophenol	330	15.556	15.571	(1.126)	31223	6.31709	631.7
	56 4-Bromophenyl-phenylether	248	16.088	16.103	(0.946)	35823	4.23564	423.6
	57 Hexachlorobenzene	284	16.366	16.374	(0.962)	38330	3.79826	379.8
	58 Pentachlorophenol	266	16.784	16.799	(0.987)	79040	11.1583	1116
*	59 Phenanthrene-d10	188	17.009	17.016	(1.000)	149471	4.00000	
	60 Phenanthrene	178	17.055	17.063	(1.003)	161498	3.96117	396.1
	61 Anthracene	178	17.148	17.163	(1.008)	144540	3.46053	346.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.566	17.573	(1.033)	149348	5.88655	588.7
63	Di-n-butylphthalate	149	18.595	18.610	(1.093)	208546	4.83672	483.7
64	Fluoranthene	202	19.608	19.631	(1.153)	194847	4.06059	406.1
65	Pyrene	202	20.034	20.049	(0.898)	205183	3.88342	388.3
$ 66	Terphenyl-d14	244	20.452	20.467	(0.917)	136218	4.09771	409.8
67	Butylbenzylphthalate	149	21.481	21.497	(0.963)	89277	4.94800	494.8
68	Benzo(a)anthracene	228	22.271	22.294	(0.999)	175668	3.67421	367.4
* 69	Chrysene-d12	240	22.302	22.317	(1.000)	170771	4.00000	
70	3,3'-Dichlorobenzidine	252	22.302	22.325	(1.000)	68356	3.75379	375.4
71	Chrysene	228	22.341	22.364	(1.002)	153178	3.54030	354.0
72	bis(2-Ethylhexyl)phthalate	149	22.589	22.604	(0.958)	113166	4.08930	408.9
* 134	Di-n-octylphthalate-d4	153	23.572	23.587	(1.000)	208151	4.00000	
73	Di-n-octylphthalate	149	23.579	23.602	(1.000)	188319	3.92938	392.9
74	Benzo(b)fluoranthene	252	24.036	24.059	(0.978)	166254	3.77638	377.6
75	Benzo(k)fluoranthene	252	24.075	24.090	(0.979)	199541	4.30316	430.3
76	Benzo(a)pyrene	252	24.501	24.524	(0.997)	135468	3.60176	360.2
* 77	Perylene-d12	264	24.586	24.609	(1.000)	148251	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.128	26.151	(1.063)	177282	4.09123	409.1
79	Dibenzo(a,h)anthracene	278	26.159	26.175	(1.064)	125121	3.76415	376.4
80	Benzo(g,h,i)perylene	276	26.548	26.571	(1.080)	146533	3.90847	390.8
90	N-Nitrosodimethylamine	74	3.035	3.042	(0.408)	86724	8.98126	898.1
91	Aniline	93	6.905	6.912	(0.929)	94745	2.22855	222.9
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.035	3.035	(0.408)	111272	13.1098	1311
105	1-methylnaphthalene	142	11.751	11.767	(1.174)	89050	3.55466	355.5
111	Azobenzene (1,2-DP-Hydrazine)	77	15.379	15.386	(1.114)	106199	3.67388	367.4
187	Total Benzofluoranthenes	252	24.036	24.090	(0.978)	336990	7.88291	788.3
99	Perylene	252	24.625	24.640	(1.002)	72825	1.69381	169.4
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	14.637	14.645	(1.060)	30271	4.01315	401.3

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86sb.d
Lab Smp Id: WT86LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 09:51
Client Smp ID: WT86LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	42386	-6.33
27 Naphthalene-d8	166754	83377	333508	154465	-7.37
42 Acenaphthene-d10	106910	53455	213820	93462	-12.58
59 Phenanthrene-d10	179783	89892	359566	149471	-16.86
69 Chrysene-d12	192841	96420	385682	170771	-11.44
134 Di-n-octylphthala	229567	114784	459134	208151	-9.33
77 Perylene-d12	184310	92155	368620	148251	-19.56

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.43	-0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.82	13.32	14.32	13.81	-0.05
59 Phenanthrene-d10	17.02	16.52	17.52	17.01	-0.04
69 Chrysene-d12	22.32	21.82	22.82	22.30	-0.07
134 Di-n-octylphthala	23.59	23.09	24.09	23.57	-0.06
77 Perylene-d12	24.61	24.11	25.11	24.59	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: F&B
Sample Matrix: SOLID
Lab Smp Id: WT86LCSS1
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12654

Client SDG: WT86
Fraction: SV
Client Smp ID: WT86LCSS1
Operator: VTS/YZ
SampleType: LCS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	305.8	61.15	34-105
4	Bis(2-Chloroethyl)	500.0	332.5	66.50	36-100
6	2-Chlorophenol	500.0	296.2	59.25	39-100
7	1,3-Dichlorobenzen	500.0	311.0	62.19	40-100
9	1,4-Dichlorobenzen	500.0	310.8	62.16	39-100
11	Benzyl alcohol	500.0	350.2	70.04	19-117
12	1,2-Dichlorobenzen	500.0	318.5	63.71	32-100
13	2-Methylphenol	500.0	280.2	56.03	28-100
14	2,2'-oxybis(1-Chlo	500.0	341.0	68.21	32-100
15	4-Methylphenol	1000	588.7	58.87	29-100
16	N-Nitroso-di-n-pro	500.0	359.9	71.99	30-100
17	Hexachloroethane	500.0	319.2	63.85	38-100
19	Nitrobenzene	500.0	362.8	72.55	36-100
20	Isophorone	500.0	336.5	67.30	37-101
21	2-Nitrophenol	500.0	320.5	64.11	37-101
22	2,4-Dimethylphenol	1500	691.3	46.08	10-100
23	Bis(2-Chloroethoxy	500.0	376.7	75.33	39-100
24	Benzoic acid	2750	1535	55.81	10-107
25	2,4-Dichlorophenol	1500	922.9	61.53	28-112
26	1,2,4-Trichloroben	500.0	401.3	80.26	35-103
28	Naphthalene	500.0	310.7	62.14	43-100
29	4-Chloroaniline	1500	447.3	29.82	11-100
30	Hexachlorobutadien	500.0	332.8	66.55	37-100
31	4-Chloro-3-methylp	1500	1213	80.85	32-117
32	2-Methylnaphthalen	500.0	336.9	67.38	43-100
33	Hexachlorocyclopen	1500	656.0	43.73	10-103
34	2,4,6-Trichlorophe	1500	1099	73.27	30-113
35	2,4,5-Trichlorophe	1500	1142	76.13	28-118
37	2-Chloronaphthalen	500.0	366.3	73.26	40-100
38	2-Nitroaniline	1500	1428	95.21	31-126
39	Dimethylphthalate	500.0	432.1	86.41	43-114
40	Acenaphthylene	500.0	318.4	63.68	42-102
41	2,6-Dinitrotoluene	1500	1292	86.15	33-123

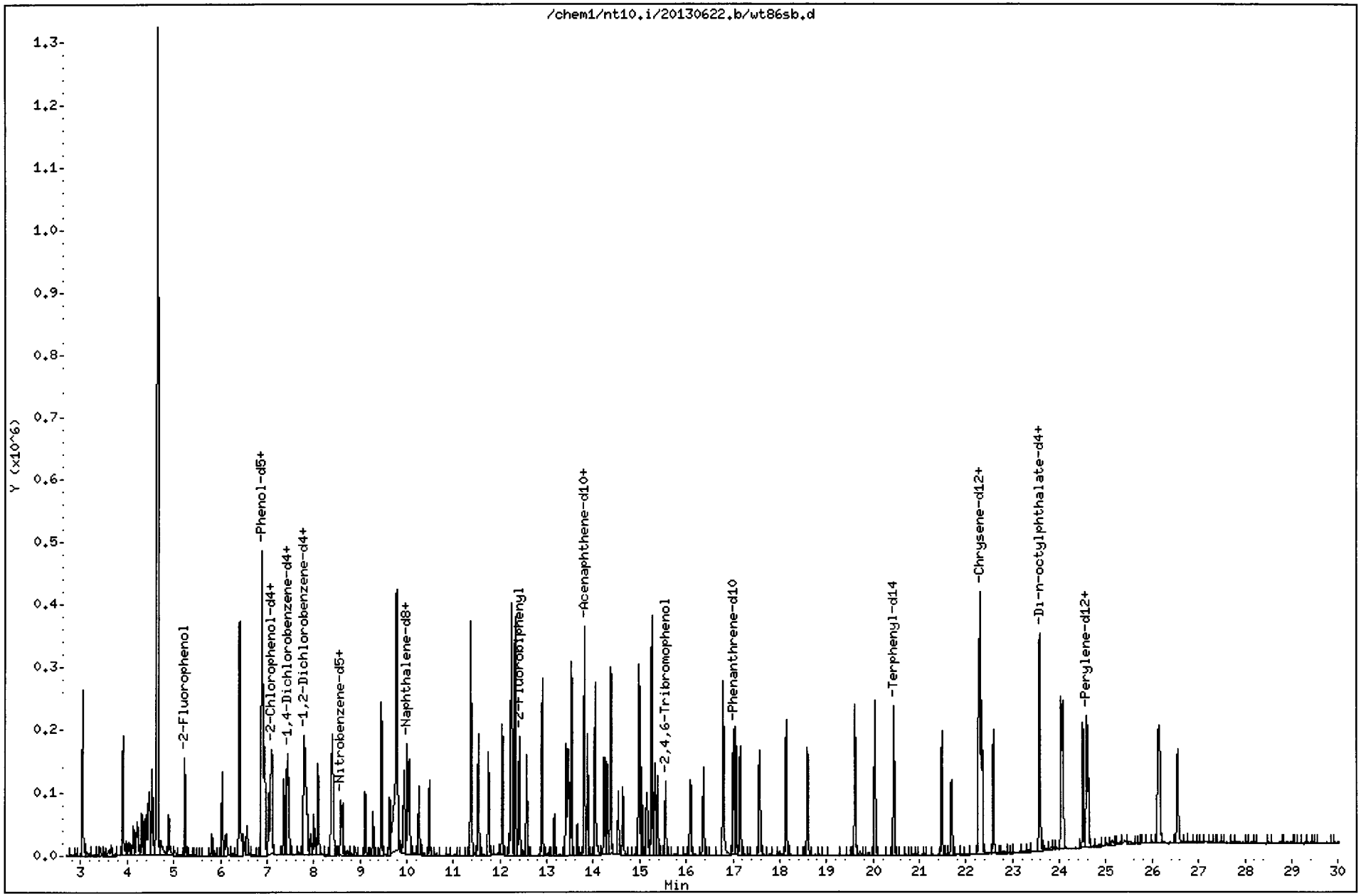
SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	1500	928.0	61.87	22-113
44 Acenaphthene	500.0	339.6	67.91	45-100
45 2,4-Dinitrophenol	2750	1627	59.15	10-105
46 Dibenzofuran	500.0	363.6	72.71	43-103
47 4-Nitrophenol	1500	1169	77.94	15-138
48 2,4-Dinitrotoluene	1500	1354	90.26	35-127
49 Fluorene	500.0	350.5	70.10	45-107
50 Diethylphthalate	500.0	433.0	86.60	50-120
51 4-Chlorophenyl-phe	500.0	362.1	72.43	32-116
52 4-Nitroaniline	1500	795.0	53.00	24-125
53 4,6-Dinitro-2-meth	2750	1943	70.66	24-119
54 N-Nitrosodiphenyla	500.0	403.9	80.79	36-111
56 4-Bromophenyl-phen	500.0	423.6	84.71	39-114
57 Hexachlorobenzene	500.0	379.8	75.97	33-113
58 Pentachlorophenol	1500	1116	74.39	16-120
60 Phenanthrene	500.0	396.1	79.22	49-112
61 Anthracene	500.0	346.1	69.21	45-106
62 Carbazole	500.0	588.7	117.73	43-135
63 Di-n-butylphthalat	500.0	483.7	96.73	48-126
64 Fluoranthene	500.0	406.1	81.21	53-118
65 Pyrene	500.0	388.3	77.67	48-121
67 Butylbenzylphthala	500.0	494.8	98.96	45-132
68 Benzo(a)anthracene	500.0	367.4	73.48	49-115
70 3,3'-Dichlorobenzi	1500	375.4	25.03	10-100
71 Chrysene	500.0	354.0	70.81	47-115
72 bis(2-Ethylhexyl)p	500.0	408.9	81.79	34-130
73 Di-n-octylphthalat	500.0	392.9	78.59	28-124
74 Benzo(b)fluoranthe	500.0	377.6	75.53	42-132
75 Benzo(k)fluoranthe	500.0	430.3	86.06	39-129
76 Benzo(a)pyrene	500.0	360.2	72.04	42-113
78 Indeno(1,2,3-cd)py	500.0	409.1	81.82	42-123
79 Dibenzo(a,h)anthra	500.0	376.4	75.28	30-133
80 Benzo(g,h,i)peryle	500.0	390.8	78.17	38-126
91 Aniline	1500	222.9	14.86	10-134
111 Azobenzene (1,2-DP	500.0	367.4	73.48	35-112
90 N-Nitrosodimethyla	1500	898.1	59.88	17-100
105 1-methylnaphthalen	500.0	355.5	71.09	42-100
103 Pyridine	1000	1311	131.10	10-147
187 Total Benzofluoran	1000	788.3	78.83	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	504.2	67.23	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	517.9	69.05	29-120
$ 5 2-Chlorophenol-d4	750.0	513.5	68.46	31-120
$ 10 1,2-Dichlorobenzen	500.0	327.0	65.41	32-120
$ 18 Nitrobenzene-d5	500.0	351.1	70.22	30-120
$ 36 2-Fluorobiphenyl	500.0	351.5	70.30	35-120
$ 55 2,4,6-Tribromophen	750.0	631.7	84.23	24-134
$ 66 Terphenyl-d14	500.0	409.8	81.95	37-120

Data File: /chem1/nt10.i/20130622.b/wt86sb.d
Date : 22-JUN-2013 12:23
Client ID: WT86LCSS1
Sample Info: WT86LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt86sb.d

Lab ID: WT86LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS
13.810	Acenaphthene-d10 and 3-Nitroaniline

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/wt86sbd.d
Lab Smp Id: WT86LCSDS1 Client Smp ID: WT86LCSDS1
Inj Date : 22-JUN-2013 12:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT86LCSDS1
Misc Info : 13-12654
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 27-Jun-2013 11:34 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.236	5.243	(0.705)	73676	4.93043	493.0
$	2 Phenol-d5	99	6.928	6.943	(0.932)	100458	5.19522	519.5
	3 Phenol	94	6.951	6.959	(0.935)	65749	3.03773	303.8
$	5 2-Chlorophenol-d4	132	7.075	7.090	(0.952)	73516	5.00850	500.9
	4 Bis(2-Chloroethyl)ether	93	7.036	7.051	(0.947)	53777	3.45507	345.5
	6 2-Chlorophenol	128	7.106	7.113	(0.956)	50133	3.00348	300.3
	7 1,3-Dichlorobenzene	146	7.353	7.369	(0.990)	54249	3.23883	323.9
*	8 1,4-Dichlorobenzene-d4	152	7.431	7.438	(1.000)	41866	4.00000	
	9 1,4-Dichlorobenzene	146	7.462	7.469	(1.004)	54122	3.27818	327.8
$	10 1,2-Dichlorobenzene-d4	152	7.795	7.803	(1.049)	33057	3.13085	313.1
	12 1,2-Dichlorobenzene	146	7.819	7.834	(1.052)	51182	3.23794	323.8
	11 Benzyl alcohol	108	7.780	7.795	(1.047)	32845	3.60750	360.7
	14 2,2'-oxybis(1-Chloropropane)	121	8.106	8.114	(1.091)	16339	3.40121	340.1
	13 2-Methylphenol	108	8.083	8.098	(1.088)	43685	2.80482	280.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	8.424	8.432	(1.134)	22954	3.32290	332.3
	16 N-Nitroso-di-n-propylamine	70	8.370	8.378	(1.126)	34454	3.54322	354.3
	15 4-Methylphenol	108	8.393	8.393	(1.130)	93846	5.90944	590.9
$	18 Nitrobenzene-d5	82	8.580	8.587	(0.857)	55366	3.39858	339.9
	19 Nitrobenzene	77	8.618	8.626	(0.861)	54099	3.59692	359.7
	20 Isophorone	82	9.107	9.115	(0.910)	95264	3.36739	336.7
	21 2-Nitrophenol	139	9.278	9.286	(0.927)	27618	3.27549	327.5
	22 2,4-Dimethylphenol	107	9.456	9.464	(0.945)	104946	6.76885	676.9
	23 Bis(2-Chloroethoxy)methane	93	9.633	9.641	(0.962)	63401	3.80011	380.0
	24 Benzoic acid	105	9.772	9.795	(0.976)	198779	14.6720	1467
	25 2,4-Dichlorophenol	162	9.787	9.795	(0.978)	130080	9.11449	911.4
	26 1,2,4-Trichlorobenzene	180	9.942	9.949	(0.993)	57307	4.10827	410.8
*	27 Naphthalene-d8	136	10.011	10.011	(1.000)	154379	4.00000	
	28 Naphthalene	128	10.050	10.057	(1.004)	130019	3.16339	316.3
	29 4-Chloroaniline	127	10.258	10.266	(1.025)	78313	4.87370	487.4
	30 Hexachlorobutadiene	225	10.482	10.490	(1.047)	28372	3.42398	342.4
	31 4-Chloro-3-methylphenol	107	11.372	11.380	(1.136)	147966	11.7852	1179
	32 2-Methylnaphthalene	142	11.535	11.535	(1.152)	92331	3.38202	338.2
	33 Hexachlorocyclopentadiene	237	12.045	12.053	(0.872)	69785	6.84463	684.5
	34 2,4,6-Trichlorophenol	196	12.239	12.246	(0.886)	106186	10.8886	1089
	35 2,4,5-Trichlorophenol	196	12.316	12.324	(0.892)	109805	10.9226	1092
$	36 2-Fluorobiphenyl	172	12.409	12.417	(0.899)	110539	3.41825	341.8
	37 2-Chloronaphthalene	162	12.564	12.572	(0.910)	95124	3.69488	369.5
	38 2-Nitroaniline	65	12.897	12.904	(0.934)	87285	14.0471	1405
	39 Dimethylphthalate	163	13.423	13.431	(0.972)	119711	4.30399	430.4
	40 Acenaphthylene	152	13.470	13.469	(0.975)	137200	3.14213	314.2
	41 2,6-Dinitrotoluene	165	13.531	13.539	(0.980)	83815	12.8611	1286
*	42 Acenaphthene-d10	164	13.810	13.818	(1.000)	92653	4.00000	
	43 3-Nitroaniline	138	13.810	13.818	(1.000)	52770	9.80850	980.8
	44 Acenaphthene	153	13.872	13.879	(1.004)	91855	3.49074	349.1
	45 2,4-Dinitrophenol	184	14.042	14.049	(1.017)	93669	16.1253	1613
	46 Dibenzofuran	168	14.235	14.243	(1.031)	130256	3.62020	362.0
	47 4-Nitrophenol	109	14.297	14.305	(1.035)	46515	11.4426	1144
	48 2,4-Dinitrotoluene	165	14.382	14.390	(1.041)	113465	13.4990	1350
	50 Diethylphthalate	149	14.993	15.000	(1.086)	123316	4.41215	441.2
	49 Fluorene	166	14.985	14.993	(1.085)	108497	3.53389	353.4
	51 4-Chlorophenyl-phenylether	204	15.039	15.047	(1.089)	53715	3.55912	355.9
	52 4-Nitroaniline	138	15.163	15.163	(1.098)	45920	8.21692	821.7
	53 4,6-Dinitro-2-methylphenol	198	15.263	15.271	(0.897)	139548	19.4754	1948
	54 N-Nitrosodiphenylamine	169	15.325	15.332	(0.901)	71847	4.15931	415.9
$	55 2,4,6-Tribromophenol	330	15.556	15.571	(1.126)	29271	5.97387	597.4
	56 4-Bromophenyl-phenylether	248	16.088	16.103	(0.946)	34939	4.13810	413.8
	57 Hexachlorobenzene	284	16.366	16.374	(0.962)	37768	3.74889	374.9
	58 Pentachlorophenol	266	16.784	16.799	(0.987)	76212	10.7772	1078
*	59 Phenanthrene-d10	188	17.009	17.016	(1.000)	149219	4.00000	
	60 Phenanthrene	178	17.055	17.063	(1.003)	161456	3.96683	396.7
	61 Anthracene	178	17.156	17.163	(1.009)	144683	3.46981	347.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.566	17.573	(1.033)	147781	5.83462	583.5
63	Di-n-butylphthalate	149	18.595	18.610	(1.093)	205068	4.76409	476.4
64	Fluoranthene	202	19.616	19.631	(1.153)	194030	4.05039	405.0
65	Pyrene	202	20.041	20.049	(0.899)	194811	3.84218	384.2
$ 66	Terphenyl-d14	244	20.452	20.467	(0.917)	126242	3.95733	395.7
67	Butylbenzylphthalate	149	21.489	21.497	(0.964)	87805	5.07108	507.1
68	Benzo(a)anthracene	228	22.279	22.294	(0.999)	167604	3.65298	365.3
* 69	Chrysene-d12	240	22.302	22.317	(1.000)	163879	4.00000	
70	3,3'-Dichlorobenzidine	252	22.310	22.325	(1.000)	82885	4.74308	474.3
71	Chrysene	228	22.349	22.364	(1.002)	152401	3.67047	367.0
72	bis(2-Ethylhexyl)phthalate	149	22.589	22.604	(0.958)	104510	3.83573	383.6
* 134	Di-n-octylphthalate-d4	153	23.572	23.587	(1.000)	204937	4.00000	
73	Di-n-octylphthalate	149	23.579	23.602	(1.000)	165211	3.50128	350.1
74	Benzo(b)fluoranthene	252	24.036	24.059	(0.978)	182974	4.23830	423.8
75	Benzo(k)fluoranthene	252	24.075	24.090	(0.979)	171093	3.76259	376.3
76	Benzo(a)pyrene	252	24.509	24.524	(0.997)	133207	3.61164	361.2
* 77	Perylene-d12	264	24.586	24.609	(1.000)	145378	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.136	26.151	(1.063)	177730	4.18263	418.3
79	Dibenzo(a,h)anthracene	278	26.159	26.175	(1.064)	129225	3.96444	396.4
80	Benzo(g,h,i)perylene	276	26.555	26.571	(1.080)	145481	3.95710	395.7
90	N-Nitrosodimethylamine	74	3.043	3.042	(0.409)	85967	9.01344	901.3
91	Aniline	93	6.897	6.912	(0.928)	98965	2.35672	235.7
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.043	3.035	(0.409)	122154	14.5707	1457
105	1-methylnaphthalene	142	11.759	11.767	(1.175)	90204	3.60273	360.3
111	Azobenzene (1,2-DP-Hydrazine)	77	15.379	15.386	(1.114)	107714	3.75882	375.9
187	Total Benzofluoranthenes	252	24.075	24.090	(0.979)	327666	7.81628	781.6
99	Perylene	252	24.625	24.640	(1.002)	70292	1.66720	166.7
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	14.637	14.645	(1.060)	30877	4.12923	412.9

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86sbd.d
Lab Smp Id: WT86LCSDS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 09:51
Client Smp ID: WT86LCSDS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	41866	-7.48
27 Naphthalene-d8	166754	83377	333508	154379	-7.42
42 Acenaphthene-d10	106910	53455	213820	92653	-13.34
59 Phenanthrene-d10	179783	89892	359566	149219	-17.00
69 Chrysene-d12	192841	96420	385682	163879	-15.02
134 Di-n-octylphthala	229567	114784	459134	204937	-10.73
77 Perylene-d12	184310	92155	368620	145378	-21.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.43	-0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.82	13.32	14.32	13.81	-0.05
59 Phenanthrene-d10	17.02	16.52	17.52	17.01	-0.04
69 Chrysene-d12	22.32	21.82	22.82	22.30	-0.07
134 Di-n-octylphthala	23.59	23.09	24.09	23.57	-0.06
77 Perylene-d12	24.61	24.11	25.11	24.59	-0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: F&B
Sample Matrix: SOLID
Lab Smp Id: WT86LCSDS1
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12654

Client SDG: WT86
Fraction: SV
Client Smp ID: WT86LCSDS1
Operator: VTS/YZ
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	500.0	303.8	60.75	34-105
4 Bis(2-Chloroethyl)	500.0	345.5	69.10	36-100
6 2-Chlorophenol	500.0	300.3	60.07	39-100
7 1,3-Dichlorobenzen	500.0	323.9	64.78	40-100
9 1,4-Dichlorobenzen	500.0	327.8	65.56	39-100
11 Benzyl alcohol	500.0	360.7	72.15	19-117
12 1,2-Dichlorobenzen	500.0	323.8	64.76	32-100
13 2-Methylphenol	500.0	280.5	56.10	28-100
14 2,2'-oxybis(1-Chlo	500.0	340.1	68.02	32-100
15 4-Methylphenol	1000	590.9	59.09	29-100
16 N-Nitroso-di-n-pro	500.0	354.3	70.86	30-100
17 Hexachloroethane	500.0	332.3	66.46	38-100
19 Nitrobenzene	500.0	359.7	71.94	36-100
20 Isophorone	500.0	336.7	67.35	37-101
21 2-Nitrophenol	500.0	327.5	65.51	37-101
22 2,4-Dimethylphenol	1500	676.9	45.13	10-100
23 Bis(2-Chloroethoxy	500.0	380.0	76.00	39-100
24 Benzoic acid	2750	1467	53.35	10-107
25 2,4-Dichlorophenol	1500	911.4	60.76	28-112
26 1,2,4-Trichloroben	500.0	410.8	82.17	35-103
28 Naphthalene	500.0	316.3	63.27	43-100
29 4-Chloroaniline	1500	487.4	32.49	11-100
30 Hexachlorobutadien	500.0	342.4	68.48	37-100
31 4-Chloro-3-methylp	1500	1179	78.57	32-117
32 2-Methylnaphthalen	500.0	338.2	67.64	43-100
33 Hexachlorocyclopen	1500	684.5	45.63	10-103
34 2,4,6-Trichlorophe	1500	1089	72.59	30-113
35 2,4,5-Trichlorophe	1500	1092	72.82	28-118
37 2-Chloronaphthalen	500.0	369.5	73.90	40-100
38 2-Nitroaniline	1500	1405	93.65	31-126
39 Dimethylphthalate	500.0	430.4	86.08	43-114
40 Acenaphthylene	500.0	314.2	62.84	42-102
41 2,6-Dinitrotoluene	1500	1286	85.74	33-123

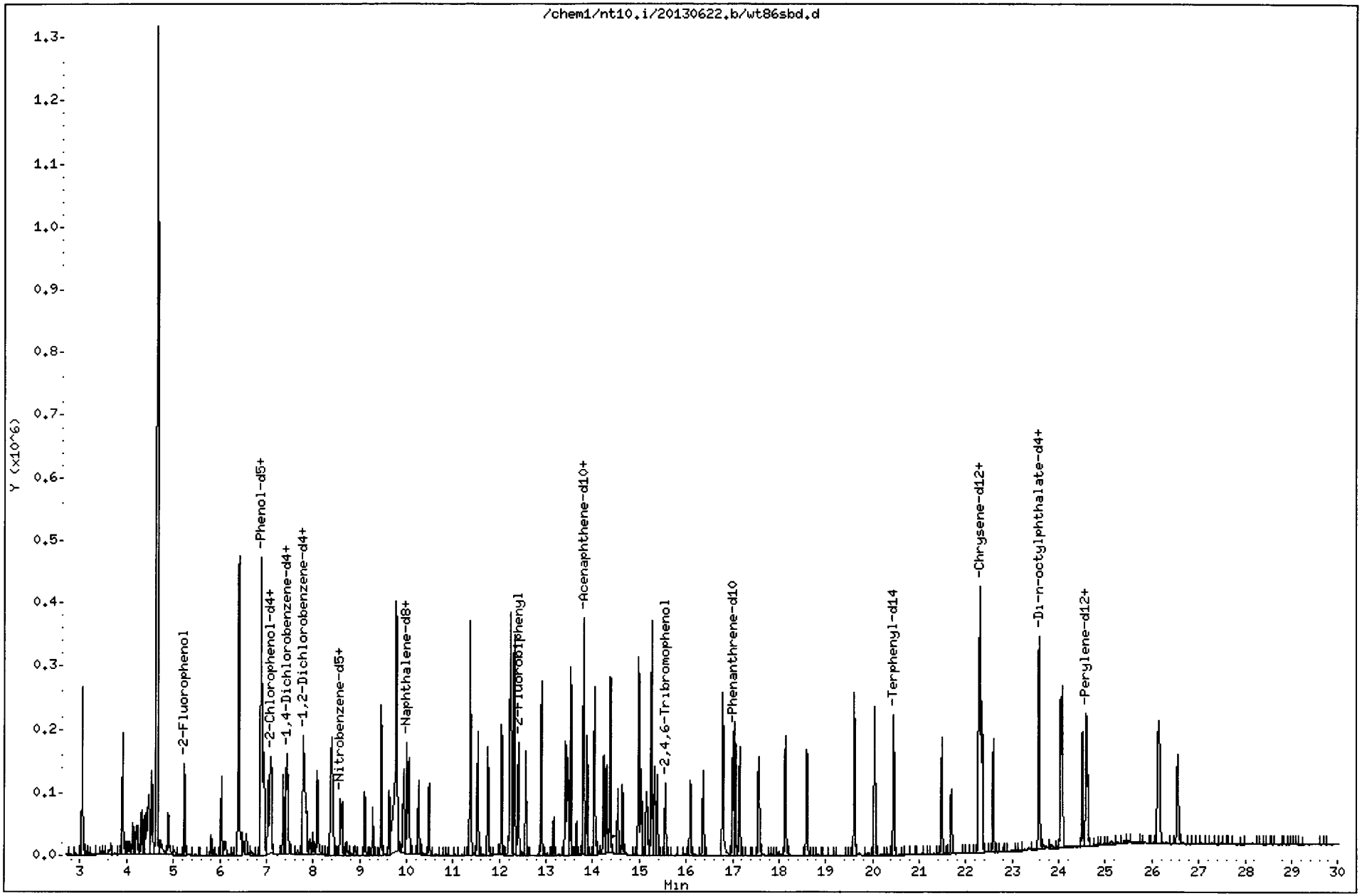
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43	3-Nitroaniline	1500	980.8	65.39	22-113
44	Acenaphthene	500.0	349.1	69.81	45-100
45	2,4-Dinitrophenol	2750	1613	58.64	10-105
46	Dibenzofuran	500.0	362.0	72.40	43-103
47	4-Nitrophenol	1500	1144	76.28	15-138
48	2,4-Dinitrotoluene	1500	1350	89.99	35-127
49	Fluorene	500.0	353.4	70.68	45-107
50	Diethylphthalate	500.0	441.2	88.24	50-120
51	4-Chlorophenyl-phe	500.0	355.9	71.18	32-116
52	4-Nitroaniline	1500	821.7	54.78	24-125
53	4,6-Dinitro-2-meth	2750	1948	70.82	24-119
54	N-Nitrosodiphenyla	500.0	415.9	83.19	36-111
56	4-Bromophenyl-phen	500.0	413.8	82.76	39-114
57	Hexachlorobenzene	500.0	374.9	74.98	33-113
58	Pentachlorophenol	1500	1078	71.85	16-120
60	Phenanthrene	500.0	396.7	79.34	49-112
61	Anthracene	500.0	347.0	69.40	45-106
62	Carbazole	500.0	583.5	116.69	43-135
63	Di-n-butylphthalat	500.0	476.4	95.28	48-126
64	Fluoranthene	500.0	405.0	81.01	53-118
65	Pyrene	500.0	384.2	76.84	48-121
67	Butylbenzylphthala	500.0	507.1	101.42	45-132
68	Benzo(a)anthracene	500.0	365.3	73.06	49-115
70	3,3'-Dichlorobenzi	1500	474.3	31.62	10-100
71	Chrysene	500.0	367.0	73.41	47-115
72	bis(2-Ethylhexyl)p	500.0	383.6	76.71	34-130
73	Di-n-octylphthalat	500.0	350.1	70.03	28-124
74	Benzo(b)fluoranthe	500.0	423.8	84.77	42-132
75	Benzo(k)fluoranthe	500.0	376.3	75.25	39-129
76	Benzo(a)pyrene	500.0	361.2	72.23	42-113
78	Indeno(1,2,3-cd)py	500.0	418.3	83.65	42-123
79	Dibenzo(a,h)anthra	500.0	396.4	79.29	30-133
80	Benzo(g,h,i)peryle	500.0	395.7	79.14	38-126
91	Aniline	1500	235.7	15.71	10-134
111	Azobenzene (1,2-DP	500.0	375.9	75.18	35-112
90	N-Nitrosodimethyla	1500	901.3	60.09	17-100
105	1-methylnaphthalen	500.0	360.3	72.05	42-100
103	Pyridine	1000	1457	145.71	10-147
187	Total Benzofluoran	1000	781.6	78.16	30-160

SURROGATE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	493.0	65.74	27-120

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	750.0	519.5	69.27	29-120
$ 5 2-Chlorophenol-d4	750.0	500.9	66.78	31-120
$ 10 1,2-Dichlorobenzen	500.0	313.1	62.62	32-120
$ 18 Nitrobenzene-d5	500.0	339.9	67.97	30-120
$ 36 2-Fluorobiphenyl	500.0	341.8	68.36	35-120
$ 55 2,4,6-Tribromophen	750.0	597.4	79.65	24-134
$ 66 Terphenyl-d14	500.0	395.7	79.15	37-120

Data File: /chem1/nt10.i/20130622.b/wt86sbd.d
Date : 22-JUN-2013 12:59
Client ID: WT86LCSDS1
Sample Info: WT86LCSDS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt86sbd.d

Lab ID: WT86LCSDS1, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS
13.810	Acenaphthene-d10 and 3-Nitroaniline

Analytical Resources, Inc.

YZ 6/28/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130622.b/wt81bms.d
Lab Smp Id: WT81BMS Client Smp ID: AM-SF4-EFF-2013 MS
Inj Date : 22-JUN-2013 15:27
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT81BMS
Misc Info : 13-12637
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 27-Jun-2013 11:34 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	6.99000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.251	5.243	(0.706)	59706	4.61889	1656
$	2 Phenol-d5	99	6.967	6.943	(0.937)	84502	5.05181	1811
	3 Phenol	94	6.990	6.959	(0.940)	60624	3.23792	1161
$	5 2-Chlorophenol-d4	132	7.090	7.090	(0.953)	64132	5.05082	1811
	4 Bis(2-Chloroethyl)ether	93	7.044	7.051	(0.947)	38305	2.84496	1020
	6 2-Chlorophenol	128	7.121	7.113	(0.957)	44358	3.07209	1102
	7 1,3-Dichlorobenzene	146	7.361	7.369	(0.990)	40187	2.77359	994.5
*	8 1,4-Dichlorobenzene-d4	152	7.438	7.438	(1.000)	36216	4.00000	
	9 1,4-Dichlorobenzene	146	7.469	7.469	(1.004)	40992	2.87025	1029
$	10 1,2-Dichlorobenzene-d4	152	7.803	7.803	(1.049)	27660	3.02839	1086
	12 1,2-Dichlorobenzene	146	7.826	7.834	(1.052)	39296	2.87383	1030
	11 Benzyl alcohol	108	7.803	7.795	(1.049)	27774	3.52644	1264
	14 2,2'-oxybis(1-Chloropropane)	121	8.114	8.114	(1.091)	13186	3.17309	1138
	13 2-Methylphenol	108	8.106	8.098	(1.090)	40750	3.02455	1084

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	8.432	8.432	(1.134)	17391	2.91034	1044
	16 N-Nitroso-di-n-propylamine	70	8.378	8.378	(1.126)	35767	4.25209	1525
	15 4-Methylphenol	108	8.409	8.393	(1.130)	110024	8.00901	2872
$	18 Nitrobenzene-d5	82	8.587	8.587	(0.857)	46372	3.21975	1154
	19 Nitrobenzene	77	8.626	8.626	(0.861)	42404	3.18905	1143
	20 Isophorone	82	9.123	9.115	(0.911)	80347	3.21253	1152
	21 2-Nitrophenol	139	9.293	9.286	(0.928)	22572	3.02808	1086
	22 2,4-Dimethylphenol	107	9.471	9.464	(0.945)	168535	12.2957	4409
	23 Bis(2-Chloroethoxy)methane	93	9.641	9.641	(0.962)	51804	3.51217	1259
	24 Benzoic acid	105	9.757	9.795	(0.974)	70959	5.98571	2146
	25 2,4-Dichlorophenol	162	9.810	9.795	(0.979)	124301	9.85166	3532
	26 1,2,4-Trichlorobenzene	180	9.949	9.949	(0.993)	47363	3.84064	1377
*	27 Naphthalene-d8	136	10.019	10.011	(1.000)	136482	4.00000	
	28 Naphthalene	128	10.057	10.057	(1.004)	123097	3.38771	1215
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	10.490	10.490	(1.047)	24791	3.38414	1213
	31 4-Chloro-3-methylphenol	107	11.395	11.380	(1.137)	147326	13.2729	4759
	32 2-Methylnaphthalene	142	11.542	11.535	(1.152)	90778	3.76116	1349
	33 Hexachlorocyclopentadiene	237	12.053	12.053	(0.872)	996	0.11286	40.47(R)
	34 2,4,6-Trichlorophenol	196	12.254	12.246	(0.887)	109319	12.9505	4643
	35 2,4,5-Trichlorophenol	196	12.347	12.324	(0.894)	107053	12.3023	4411
$	36 2-Fluorobiphenyl	172	12.417	12.417	(0.899)	105911	3.78368	1357
	37 2-Chloronaphthalene	162	12.572	12.572	(0.910)	88871	3.98800	1430
	38 2-Nitroaniline	65	12.912	12.904	(0.934)	64458	11.9842	4297
	39 Dimethylphthalate	163	13.431	13.431	(0.972)	103032	4.27952	1534
	40 Acenaphthylene	152	13.477	13.469	(0.975)	142931	3.78166	1356
	41 2,6-Dinitrotoluene	165	13.547	13.539	(0.980)	69340	12.2921	4407
*	42 Acenaphthene-d10	164	13.818	13.818	(1.000)	80200	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	13.887	13.879	(1.005)	114384	5.02187	1801(R)
	45 2,4-Dinitrophenol	184	14.073	14.049	(1.018)	45996	9.24689	3315
	46 Dibenzofuran	168	14.243	14.243	(1.031)	159025	5.10606	1831
	47 4-Nitrophenol	109	14.366	14.305	(1.040)	13619	3.91235	1403
	48 2,4-Dinitrotoluene	165	14.405	14.390	(1.043)	96060	13.2028	4734
	50 Diethylphthalate	149	15.000	15.000	(1.086)	97502	4.03023	1445
	49 Fluorene	166	15.000	14.993	(1.086)	154060	5.79709	2079(R)
	51 4-Chlorophenyl-phenylether	204	15.062	15.047	(1.090)	54600	4.17951	1499
	52 4-Nitroaniline	138	15.209	15.163	(1.101)	13752	2.84288	1019(RM)
	53 4,6-Dinitro-2-methylphenol	198	15.294	15.271	(0.898)	80276	13.5011	4841
	54 N-Nitrosodiphenylamine	169	15.348	15.332	(0.901)	70312	4.88797	1753
$	55 2,4,6-Tribromophenol	330	15.587	15.571	(1.128)	28225	6.65483	2386
	56 4-Bromophenyl-phenylether	248	16.119	16.103	(0.946)	29383	4.17900	1498
	57 Hexachlorobenzene	284	16.397	16.374	(0.962)	35218	4.19788	1505
	58 Pentachlorophenol	266	16.831	16.799	(0.988)	40200	6.82645	2448
*	59 Phenanthrene-d10	188	17.039	17.016	(1.000)	124262	4.00000	
	60 Phenanthrene	178	17.086	17.063	(1.003)	590212	17.4134	6244(R)
	61 Anthracene	178	17.179	17.163	(1.008)	199605	5.74838	2061(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.604	17.573	(1.033)	146008	6.92240	2482(R)
63	Di-n-butylphthalate	149	18.633	18.610	(1.094)	177595	4.95448	1776
64	Fluoranthene	202	19.670	19.631	(1.154)	1157469	29.0150	10400(R)
65	Pyrene	202	20.095	20.049	(1.000)	1047718	22.6499	8121(R)
$ 66	Terphenyl-d14	244	20.506	20.467	(1.000)	107298	3.68679	1322
67	Butylbenzylphthalate	149	21.543	21.497	(0.000)	92341	5.84567	2096(M)
68	Benzo(a)anthracene	228	22.372	22.294	(1.000)	285034	6.80955	2442(R)
* 69	Chrysene-d12	240	22.395	22.317	(1.000)	149508	4.00000	(M)
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.434	22.364	(1.000)	511417	13.5011	4841(RH)
72	bis(2-Ethylhexyl)phthalate	149	22.666	22.604	(0.958)	1053813	44.8459	16080(R)
* 134	Di-n-octylphthalate-d4	153	23.665	23.587	(1.000)	176747	4.00000	
73	Di-n-octylphthalate	149	23.672	23.602	(1.000)	206058	5.06345	1815(M)
74	Benzo(b)fluoranthene	252	24.191	24.059	(0.978)	563066	16.6469	5969(R)
75	Benzo(k)fluoranthene	252	24.191	24.090	(0.978)	563066	15.8047	5667(R)
76	Benzo(a)pyrene	252	24.640	24.524	(0.997)	193269	6.68823	2398(R)
* 77	Perylene-d12	264	24.725	24.609	(1.000)	113901	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.307	26.151	(1.064)	104268	3.13192	1123
79	Dibenzo(a,h)anthracene	278	26.322	26.175	(1.065)	63147	2.47263	886.6(M)
80	Benzo(g,h,i)perylene	276	26.742	26.571	(1.082)	101139	3.51124	1259
90	N-Nitrosodimethylamine	74	3.027	3.042	(0.407)	61296	7.42937	2664
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.058	3.035	(0.411)	65419	9.02063	3234
105	1-methylnaphthalene	142	11.767	11.767	(1.174)	85477	3.86161	1385
111	Azobenzene (1,2-DP-Hydrazine)	77	15.394	15.386	(1.114)	92029	3.71013	1330
187	Total Benzofluoranthenes	252	24.191	24.090	(0.978)	561583	17.0983	6131(R)
99	Perylene	252	24.756	24.640	(1.001)	93189	2.82110	1012
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	14.668	14.645	(1.062)	22931	3.54276	1270

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81bms.d
Lab Smp Id: WT81BMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12637

Calibration Date: 22-JUN-2013
Calibration Time: 09:51
Client Smp ID: AM-SF4-EFF-2013
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	36216	-19.96
27 Naphthalene-d8	166754	83377	333508	136482	-18.15
42 Acenaphthene-d10	106910	53455	213820	80200	-24.98
59 Phenanthrene-d10	179783	89892	359566	124262	-30.88
69 Chrysene-d12	192841	96420	385682	149508	-22.47
134 Di-n-octylphthala	229567	114784	459134	176747	-23.01
77 Perylene-d12	184310	92155	368620	113901	-38.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.08
42 Acenaphthene-d10	13.82	13.32	14.32	13.82	0.00
59 Phenanthrene-d10	17.02	16.52	17.52	17.04	0.14
69 Chrysene-d12	22.32	21.82	22.82	22.39	0.35
134 Di-n-octylphthala	23.59	23.09	24.09	23.66	0.33
77 Perylene-d12	24.61	24.11	25.11	24.73	0.47

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81BMS
Client Smp ID: AM-SF4-EFF-2013 MS
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: PSDDALCS.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12637

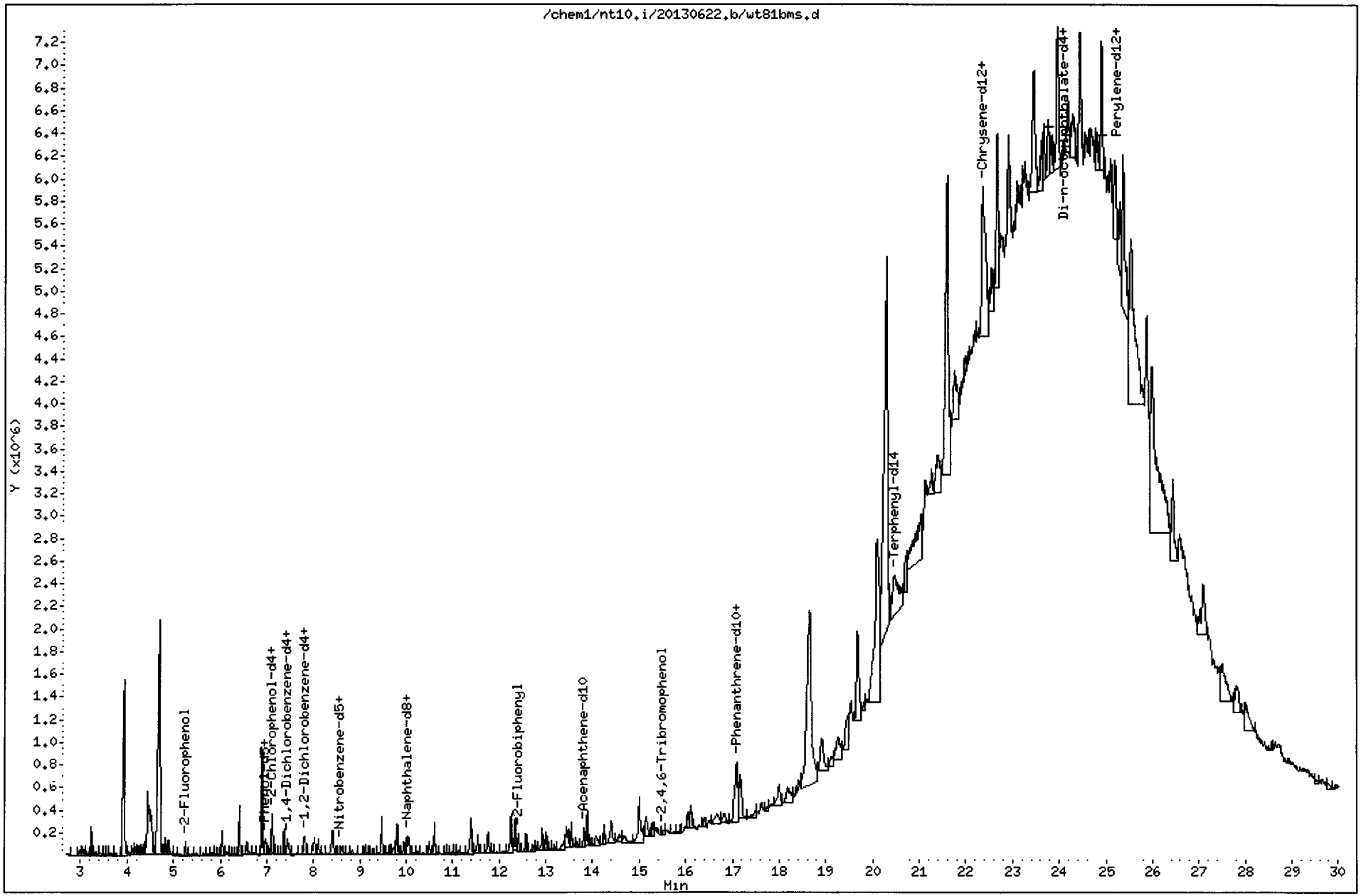
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	1793	1161	64.76	34-105
4	Bis(2-Chloroethyl)	1793	1020	56.90	36-100
6	2-Chlorophenol	1793	1102	61.44	39-100
7	1,3-Dichlorobenzen	1793	994.5	55.47	40-100
9	1,4-Dichlorobenzen	1793	1029	57.40	39-100
11	Benzyl alcohol	1793	1264	70.53	19-117
12	1,2-Dichlorobenzen	1793	1030	57.48	32-100
13	2-Methylphenol	1793	1084	60.49	28-100
14	2,2'-oxybis(1-Chlo	1793	1138	63.46	32-100
15	4-Methylphenol	3586	2872	80.09	29-100
16	N-Nitroso-di-n-pro	1793	1525	85.04	30-100
17	Hexachloroethane	1793	1044	58.21	38-100
19	Nitrobenzene	1793	1143	63.78	36-100
20	Isophorone	1793	1152	64.25	37-101
21	2-Nitrophenol	1793	1086	60.56	37-101
22	2,4-Dimethylphenol	5378	4409	81.97	10-100
23	Bis(2-Chloroethoxy	1793	1259	70.24	39-100
24	Benzoic acid	9860	2146	21.77	10-107
25	2,4-Dichlorophenol	5378	3532	65.68	28-112
26	1,2,4-Trichloroben	1793	1377	76.81	35-103
28	Naphthalene	1793	1215	67.75	43-100
29	4-Chloroaniline	5378	0.000	*	11-100
30	Hexachlorobutadien	1793	1213	67.68	37-100
31	4-Chloro-3-methylp	5378	4759	88.49	32-117
32	2-Methylnaphthalen	1793	1349	75.22	43-100
33	Hexachlorocyclopen	5378	40.47	0.75*	10-103
34	2,4,6-Trichlorophe	5378	4643	86.34	30-113
35	2,4,5-Trichlorophe	5378	4411	82.02	28-118
37	2-Chloronaphthalen	1793	1430	79.76	40-100
38	2-Nitroaniline	5378	4297	79.89	31-126
39	Dimethylphthalate	1793	1534	85.59	43-114
40	Acenaphthylene	1793	1356	75.63	42-102
41	2,6-Dinitrotoluene	5378	4407	81.95	33-123

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	5378	0.000	*	22-113
44 Acenaphthene	1793	1801	100.44*	45-100
45 2,4-Dinitrophenol	9860	3315	33.63	10-105
46 Dibenzofuran	1793	1831	102.12	43-103
47 4-Nitrophenol	5378	1403	26.08	15-138
48 2,4-Dinitrotoluene	5378	4734	88.02	35-127
49 Fluorene	1793	2079	115.94*	45-107
50 Diethylphthalate	1793	1445	80.60	50-120
51 4-Chlorophenyl-phe	1793	1499	83.59	32-116
52 4-Nitroaniline	5378	1019	18.95*	24-125
53 4,6-Dinitro-2-meth	9860	4841	49.09	24-119
54 N-Nitrosodiphenyla	1793	1753	97.76	36-111
56 4-Bromophenyl-phen	1793	1498	83.58	39-114
57 Hexachlorobenzene	1793	1505	83.96	33-113
58 Pentachlorophenol	5378	2448	45.51	16-120
60 Phenanthrene	1793	6244	348.27*	49-112
61 Anthracene	1793	2061	114.97*	45-106
62 Carbazole	1793	2482	138.45*	43-135
63 Di-n-butylphthalat	1793	1776	99.09	48-126
64 Fluoranthene	1793	10400	580.30*	53-118
65 Pyrene	1793	8121	453.00*	48-121
67 Butylbenzylphthala	1793	2096	116.91	45-132
68 Benzo(a)anthracene	1793	2442	136.19*	49-115
70 3,3'-Dichlorobenz	5378	0.000	*	10-100
71 Chrysene	1793	4841	270.02*	47-115
72 bis(2-Ethylhexyl)p	1793	16080	896.92*	34-130
73 Di-n-octylphthalat	1793	1815	101.27	28-124
74 Benzo(b)fluoranthe	1793	5969	332.94*	42-132
75 Benzo(k)fluoranthe	1793	5667	316.09*	39-129
76 Benzo(a)pyrene	1793	2398	133.76*	42-113
78 Indeno(1,2,3-cd)py	1793	1123	62.64	42-123
79 Dibenzo(a,h)anthra	1793	886.6	49.45	30-133
80 Benzo(g,h,i)peryle	1793	1259	70.22	38-126
91 Aniline	5378	0.000	*	10-134
111 Azobenzene (1,2-DP	1793	1330	74.20	35-112
90 N-Nitrosodimethyla	5378	2664	49.53	17-100
105 1-methylnaphthalen	1793	1385	77.23	42-100
103 Pyridine	3586	3234	90.21	10-147
187 Total Benzofluoran	3586	6131	170.98*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2689	1656	61.59	27-120

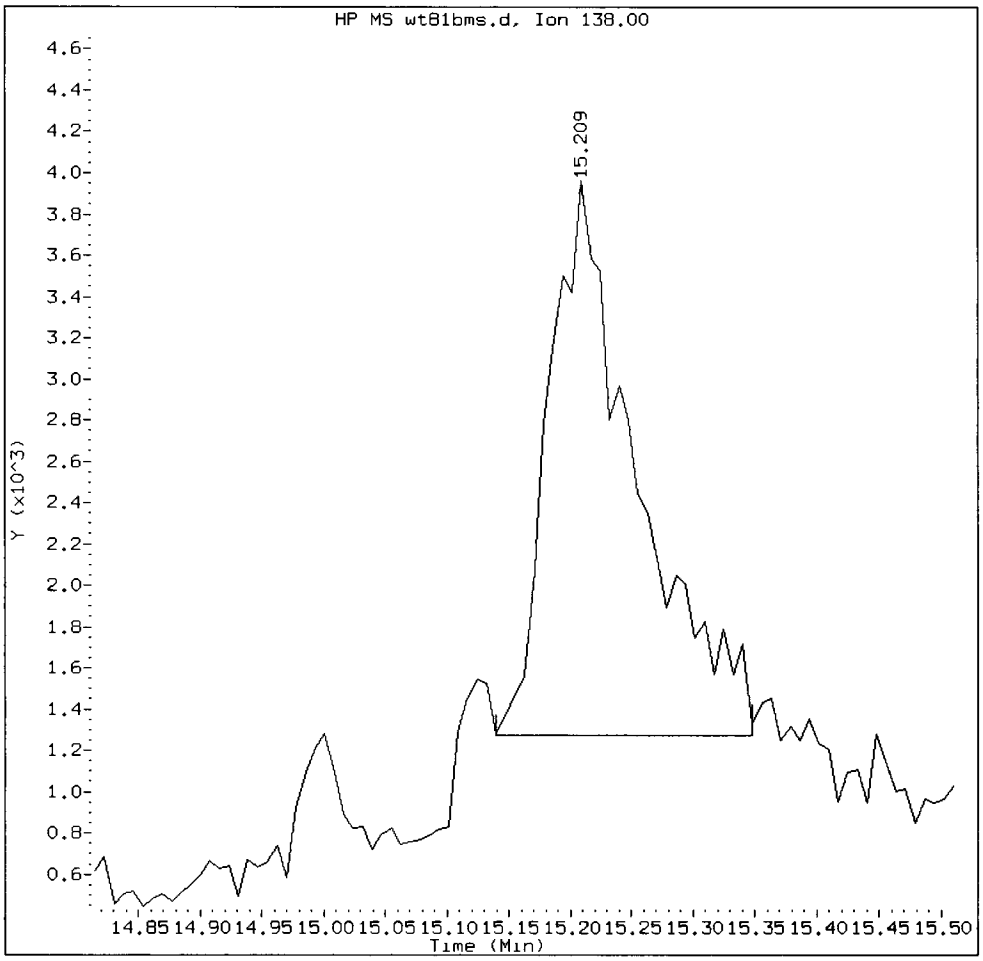
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	2689	1811	67.36	29-120
$ 5 2-Chlorophenol-d4	2689	1811	67.34	31-120
$ 10 1,2-Dichlorobenzen	1793	1086	60.57	32-120
$ 18 Nitrobenzene-d5	1793	1154	64.40	30-120
$ 36 2-Fluorobiphenyl	1793	1357	75.67	35-120
$ 55 2,4,6-Tribromophen	2689	2386	88.73	24-134
$ 66 Terphenyl-d14	1793	1322	73.74	37-120

Data File: /chem1/nt10.i/20130622.b/wt81bms.d
Date : 22-JUN-2013 15:27
Client ID: AM-SF4-EFF-2013 MS
Instrument: nt10.i
Sample Info: WT81BMS
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



WT81BMS, /chem1/nt10.i/20130622.b/wt81bms.d

4-Nitroaniline Amount: 2.84 Area: 13752



MANUAL INTEGRATION for 4-Nitroaniline

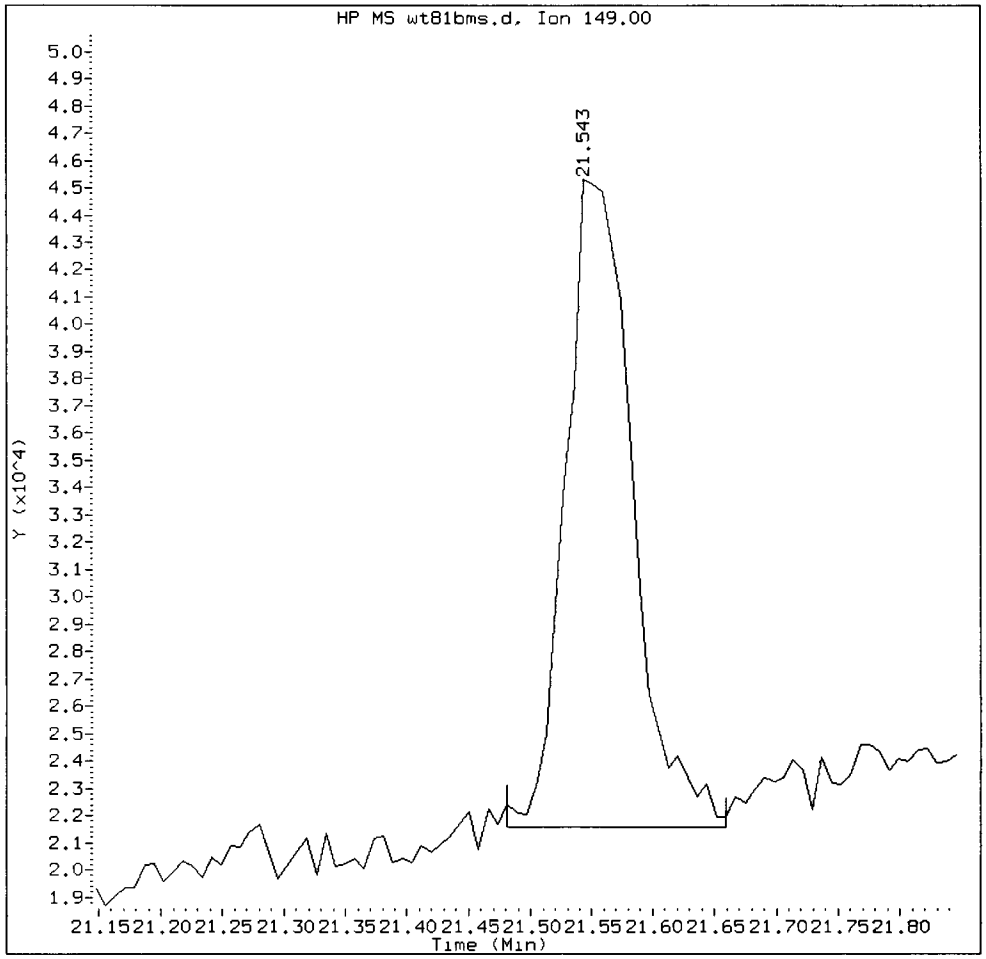
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VE Date: 6/27/13

WT81BMS, /chem1/nt10.i/20130622.b/wt81bms.d

Butylbenzylphthalate Amount: 5.85 Area: 92341



MANUAL INTEGRATION for Butylbenzylphthalate

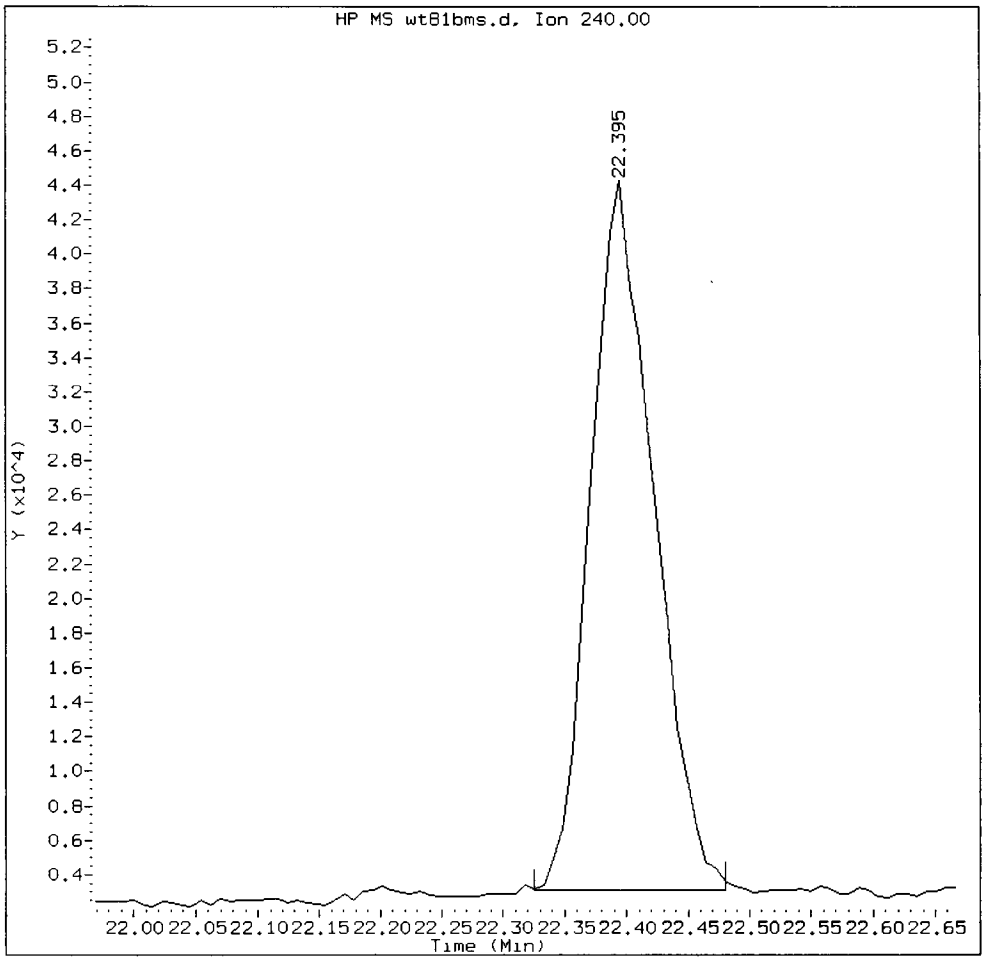
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VE Date: 6/27/13

WT81BMS, /chem1/nt10.i/20130622.b/wt81bms.d

Chrysene-d12 Amount: 4.00 Area: 149508



MANUAL INTEGRATION for Chrysene-d12

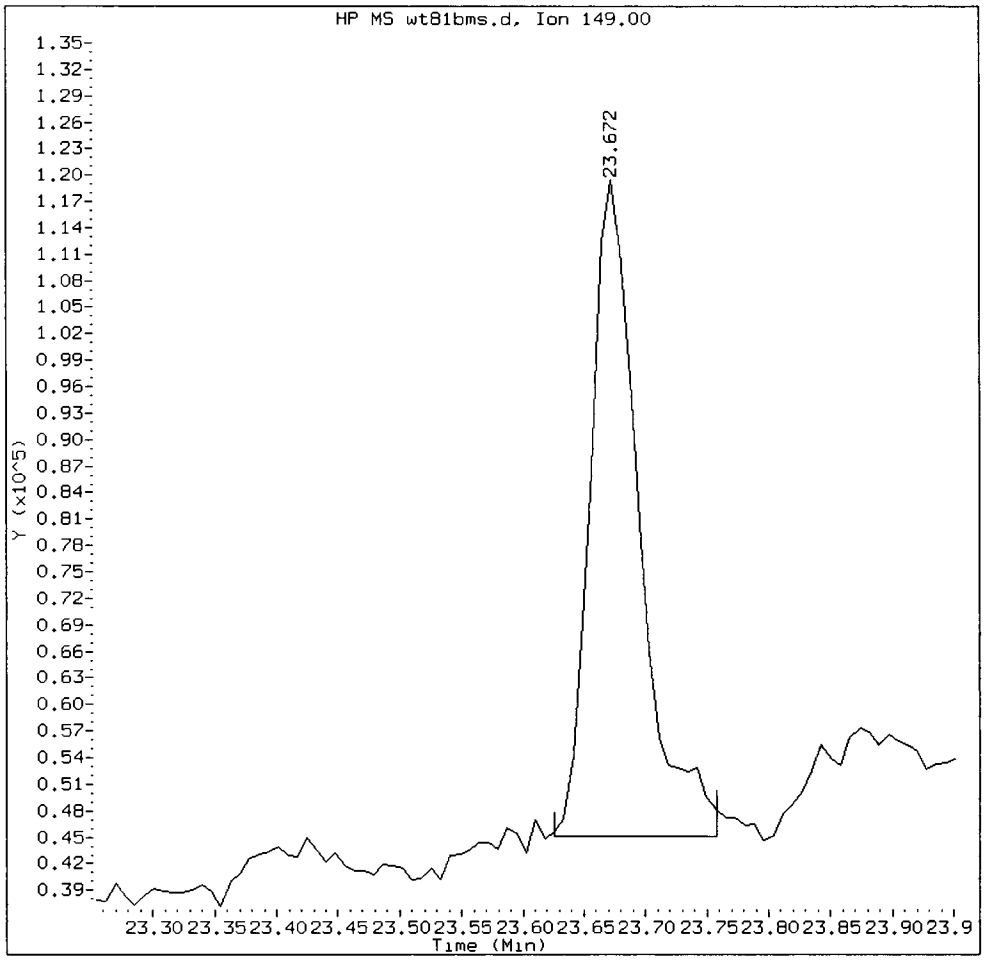
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YE Date: 6/27/13

WT81BMS, /chem1/nt10.i/20130622.b/wt81bms.d

Di-n-octylphthalate Amount: 5.06 Area: 206058



MANUAL INTEGRATION for Di-n-octylphthalate

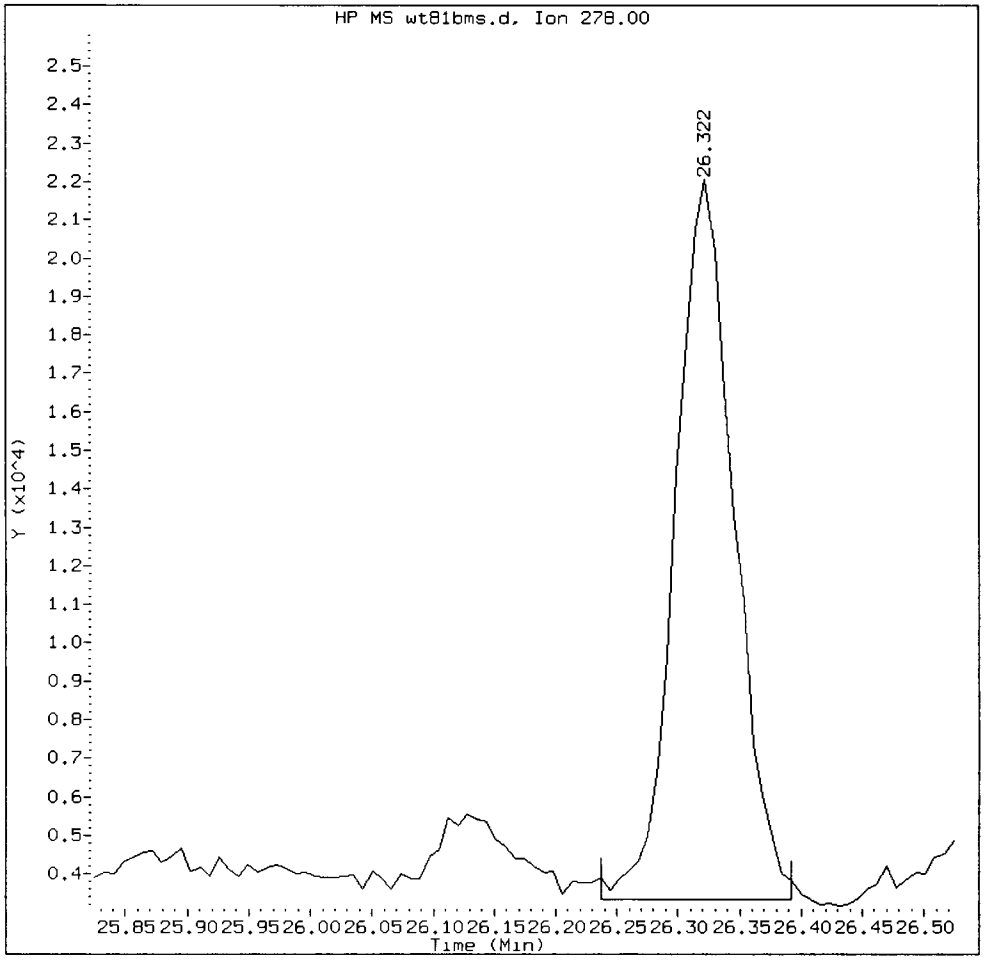
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/27/13

WT81BMS, /chem1/nt10.i/20130622.b/wt81bms.d

Dibenzo(a,h)anthracene Amount: 2.47 Area: 63147



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VE Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81bms.d

Lab ID: WT81BMS, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS
24.191	Benzo(k)fluoranthene and Benzo(b)fluoranthene
7.803	1,2-Dichlorobenzene-d4 and Benzyl alcohol

Analytical Resources, Inc.

YZ 6/27/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130622.b/wt81bmsd.d
Lab Smp Id: WT81BMSD Client Smp ID: AM-SF4-EFF-2013 MSD
Inj Date : 22-JUN-2013 16:04
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT81BMSD
Misc Info : 13-12637
Comment : 1ul Injection
Method : /chem1/nt10.i/20130622.b/ABN.m
Meth Date : 27-Jun-2013 11:34 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	6.99000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.259	5.243	(0.707)	59862	4.58350	1643
$ 2	Phenol-d5	99	6.966	6.943	(0.937)	83599	4.94661	1774
3	Phenol	94	6.990	6.959	(0.940)	60026	3.17312	1138
$ 5	2-Chlorophenol-d4	132	7.090	7.090	(0.953)	64092	4.99594	1791
4	Bis(2-Chloroethyl)ether	93	7.044	7.051	(0.947)	40162	2.95232	1059
6	2-Chlorophenol	128	7.121	7.113	(0.957)	45040	3.08736	1107
7	1,3-Dichlorobenzene	146	7.369	7.369	(0.991)	41633	2.84394	1020
* 8	1,4-Dichlorobenzene-d4	152	7.438	7.438	(1.000)	36591	4.00000	
9	1,4-Dichlorobenzene	146	7.469	7.469	(1.004)	42537	2.94790	1057
$ 10	1,2-Dichlorobenzene-d4	152	7.803	7.803	(1.049)	28238	3.05999	1097
12	1,2-Dichlorobenzene	146	7.826	7.834	(1.052)	41422	2.99826	1075
11	Benzyl alcohol	108	7.803	7.795	(1.049)	28688	3.60516	1293
14	2,2'-oxybis(1-Chloropropane)	121	8.114	8.114	(1.091)	13804	3.28776	1179
13	2-Methylphenol	108	8.106	8.098	(1.090)	40703	2.99010	1072

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	8.432	8.432	(1.134)	18485	3.06172	1098
	16 N-Nitroso-di-n-propylamine	70	8.378	8.378	(1.126)	32754	3.85399	1382
	15 4-Methylphenol	108	8.409	8.393	(1.130)	108148	7.79177	2794
$	18 Nitrobenzene-d5	82	8.595	8.587	(0.858)	47302	3.30384	1185
	19 Nitrobenzene	77	8.626	8.626	(0.861)	43864	3.31845	1190
	20 Isophorone	82	9.123	9.115	(0.911)	81435	3.27538	1174
	21 2-Nitrophenol	139	9.293	9.286	(0.928)	22900	3.09033	1108
	22 2,4-Dimethylphenol	107	9.471	9.464	(0.945)	164343	12.0611	4324
	23 Bis(2-Chloroethoxy)methane	93	9.641	9.641	(0.962)	53505	3.64904	1308
	24 Benzoic acid	105	9.764	9.795	(0.975)	68758	5.83552	2092
	25 2,4-Dichlorophenol	162	9.810	9.795	(0.979)	118206	9.42424	3379
	26 1,2,4-Trichlorobenzene	180	9.949	9.949	(0.993)	48179	3.93001	1409
*	27 Naphthalene-d8	136	10.019	10.011	(1.000)	135676	4.00000	
	28 Naphthalene	128	10.057	10.057	(1.004)	125533	3.47528	1246
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	10.490	10.490	(1.047)	26018	3.57273	1281
	31 4-Chloro-3-methylphenol	107	11.403	11.380	(1.138)	125639	11.3863	4083
	32 2-Methylnaphthalene	142	11.542	11.535	(1.152)	94558	3.94105	1413
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	12.262	12.246	(0.887)	104794	11.9065	4269
	35 2,4,5-Trichlorophenol	196	12.347	12.324	(0.893)	97905	10.7907	3869
$	36 2-Fluorobiphenyl	172	12.417	12.417	(0.898)	103133	3.53370	1267
	37 2-Chloronaphthalene	162	12.579	12.572	(0.910)	88487	3.80832	1365
	38 2-Nitroaniline	65	12.920	12.904	(0.934)	64555	11.5112	4127
	39 Dimethylphthalate	163	13.438	13.431	(0.972)	111805	4.45393	1597
	40 Acenaphthylene	152	13.477	13.469	(0.975)	137501	3.48916	1251
	41 2,6-Dinitrotoluene	165	13.547	13.539	(0.980)	69759	11.8605	4253
*	42 Acenaphthene-d10	164	13.825	13.818	(1.000)	83621	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	13.887	13.879	(1.004)	116805	4.91837	1763
	45 2,4-Dinitrophenol	184	14.065	14.049	(1.017)	35148	6.80238	2439
	46 Dibenzofuran	168	14.250	14.243	(1.031)	158702	4.88722	1752
	47 4-Nitrophenol	109	14.374	14.305	(1.040)	11815	3.25825	1168
	48 2,4-Dinitrotoluene	165	14.405	14.390	(1.042)	90447	11.9228	4275
	50 Diethylphthalate	149	15.000	15.000	(1.085)	101627	4.02888	1445
	49 Fluorene	166	15.000	14.993	(1.085)	152687	5.51038	1976(R)
	51 4-Chlorophenyl-phenylether	204	15.054	15.047	(1.089)	49052	3.60121	1291
	52 4-Nitroaniline	138	15.217	15.163	(1.101)	14407	2.85644	1024(R)
	53 4,6-Dinitro-2-methylphenol	198	15.286	15.271	(0.897)	76011	12.4304	4457
	54 N-Nitrosodiphenylamine	169	15.340	15.332	(0.900)	72165	4.87504	1748
$	55 2,4,6-Tribromophenol	330	15.579	15.571	(1.127)	27708	6.26567	2247
	56 4-Bromophenyl-phenylether	248	16.111	16.103	(0.946)	28623	3.95589	1418
	57 Hexachlorobenzene	284	16.397	16.374	(0.962)	32451	3.75877	1348
	58 Pentachlorophenol	266	16.838	16.799	(0.988)	38527	6.35750	2279
*	59 Phenanthrene-d10	188	17.039	17.016	(1.000)	127875	4.00000	
	60 Phenanthrene	178	17.093	17.063	(1.003)	553898	15.8803	5694(R)
	61 Anthracene	178	17.186	17.163	(1.009)	205530	5.75177	2062(R)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.604	17.573	(1.033)	143823	6.62614	2376
63	Di-n-butylphthalate	149	18.633	18.610	(1.094)	168194	4.55964	1635
64	Fluoranthene	202	19.678	19.631	(1.155)	986092	24.0206	8613(R)
65	Pyrene	202	20.095	20.049	(1.000)	904195	18.6695	6694(R)
$ 66	Terphenyl-d14	244	20.506	20.467	(1.000)	105141	3.45046	1237
67	Butylbenzylphthalate	149	21.558	21.497	(1.000)	75425	4.56040	1635
68	Benzo(a)anthracene	228	22.372	22.294	(1.000)	237852	5.42720	1946
* 69	Chrysene-d12	240	22.403	22.317	(1.000)	156537	4.00000	(M)
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.441	22.364	(1.000)	450119	11.3493	4069(RH)
72	bis(2-Ethylhexyl)phthalate	149	22.666	22.604	(0.958)	1029202	43.7056	15670(R)
* 134	Di-n-octylphthalate-d4	153	23.664	23.587	(1.000)	177123	4.00000	
73	Di-n-octylphthalate	149	23.680	23.602	(1.001)	221802	5.43875	1950(M)
74	Benzo(b)fluoranthene	252	24.175	24.059	(0.978)	477621	14.9573	5363(R)
75	Benzo(k)fluoranthene	252	24.175	24.090	(0.978)	477616	14.2005	5092(R)
76	Benzo(a)pyrene	252	24.640	24.524	(0.997)	164785	6.04038	2166(R)
* 77	Perylene-d12	264	24.725	24.609	(1.000)	107530	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.291	26.151	(1.063)	87829	2.79444	1002
79	Dibenzo(a,h)anthracene	278	26.322	26.175	(1.065)	51872	2.15148	771.4(M)
80	Benzo(g,h,i)perylene	276	26.734	26.571	(1.081)	83093	3.05565	1096
90	N-Nitrosodimethylamine	74	3.035	3.042	(0.408)	62629	7.51314	2694
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	3.066	3.035	(0.412)	71967	9.82183	3522
105	1-methylnaphthalene	142	11.767	11.767	(1.174)	87371	3.97063	1424
111	Azobenzene (1,2-DP-Hydrazine)	77	15.394	15.386	(1.113)	88462	3.42043	1226
187	Total Benzofluoranthenes	252	24.175	24.090	(0.978)	490533	15.8200	5672
99	Perylene	252	24.756	24.640	(1.001)	83252	2.66960	957.2
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	14.660	14.645	(1.060)	25737	3.81361	1367

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81bmsd.d
Lab Smp Id: WT81BMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12637

Calibration Date: 22-JUN-2013
Calibration Time: 09:51
Client Smp ID: AM-SF4-EFF-2013
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	36591	-19.14
27 Naphthalene-d8	166754	83377	333508	135676	-18.64
42 Acenaphthene-d10	106910	53455	213820	83621	-21.78
59 Phenanthrene-d10	179783	89892	359566	127875	-28.87
69 Chrysene-d12	192841	96420	385682	156537	-18.83
134 Di-n-octylphthala	229567	114784	459134	177123	-22.84
77 Perylene-d12	184310	92155	368620	107530	-41.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.08
42 Acenaphthene-d10	13.82	13.32	14.32	13.83	0.06
59 Phenanthrene-d10	17.02	16.52	17.52	17.04	0.14
69 Chrysene-d12	22.32	21.82	22.82	22.40	0.38
134 Di-n-octylphthala	23.59	23.09	24.09	23.66	0.33
77 Perylene-d12	24.61	24.11	25.11	24.73	0.47

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81BMSD
Client Smp ID: AM-SF4-EFF-2013 MSD
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MSD
SpikeList File: PSDDALCS.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130622.b/ABN.m
Misc Info: 13-12637

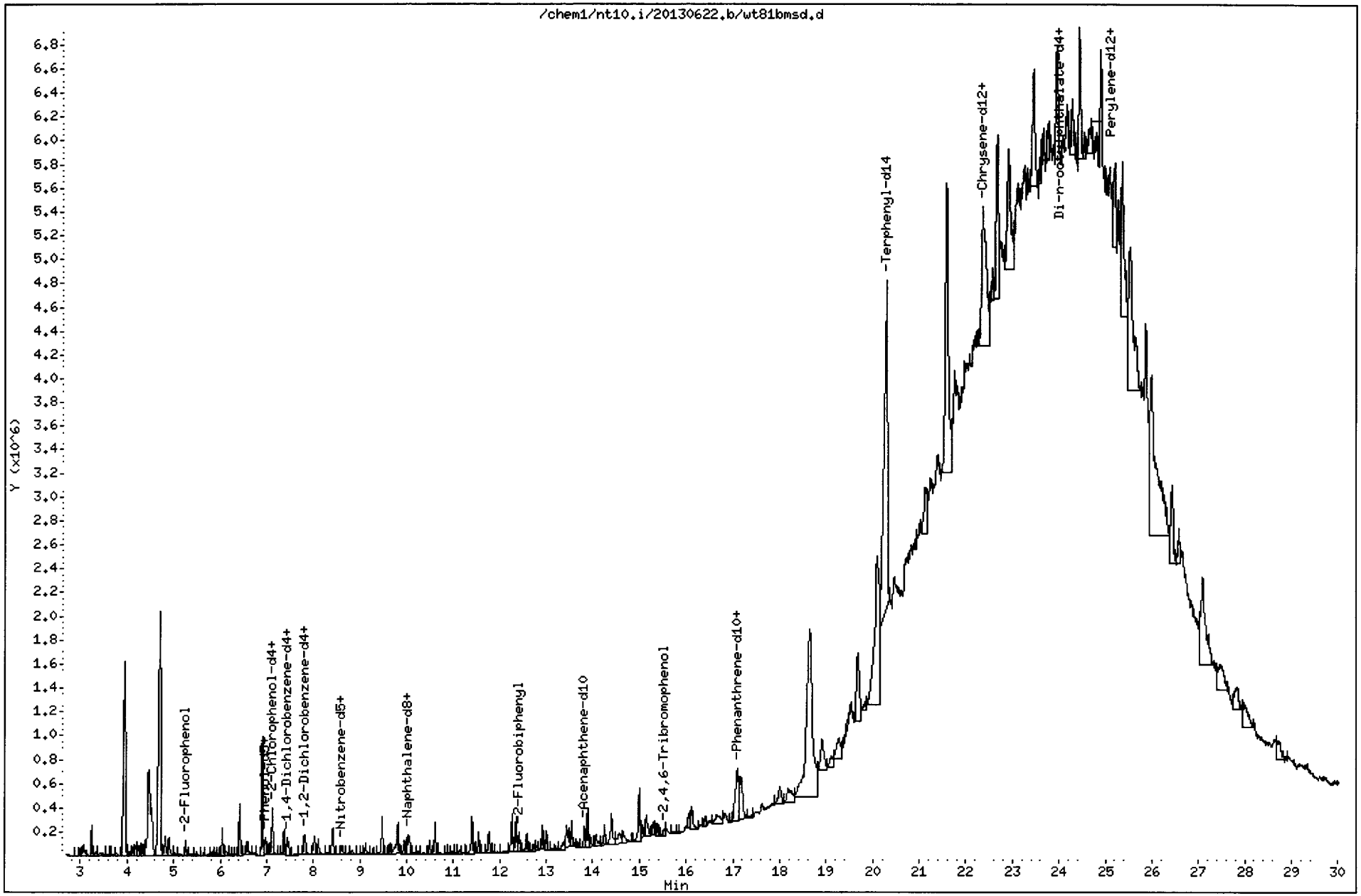
SPIKE	COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	1793	1138	63.46	34-105
4	Bis(2-Chloroethyl)	1793	1059	59.05	36-100
6	2-Chlorophenol	1793	1107	61.75	39-100
7	1,3-Dichlorobenzen	1793	1020	56.88	40-100
9	1,4-Dichlorobenzen	1793	1057	58.96	39-100
11	Benzyl alcohol	1793	1293	72.10	19-117
12	1,2-Dichlorobenzen	1793	1075	59.97	32-100
13	2-Methylphenol	1793	1072	59.80	28-100
14	2,2'-oxybis(1-Chlo	1793	1179	65.76	32-100
15	4-Methylphenol	3586	2794	77.92	29-100
16	N-Nitroso-di-n-pro	1793	1382	77.08	30-100
17	Hexachloroethane	1793	1098	61.23	38-100
19	Nitrobenzene	1793	1190	66.37	36-100
20	Isophorone	1793	1174	65.51	37-101
21	2-Nitrophenol	1793	1108	61.81	37-101
22	2,4-Dimethylphenol	5378	4324	80.41	10-100
23	Bis(2-Chloroethoxy	1793	1308	72.98	39-100
24	Benzoic acid	9860	2092	21.22	10-107
25	2,4-Dichlorophenol	5378	3379	62.83	28-112
26	1,2,4-Trichloroben	1793	1409	78.60	35-103
28	Naphthalene	1793	1246	69.51	43-100
29	4-Chloroaniline	5378	0.000	*	11-100
30	Hexachlorobutadien	1793	1281	71.45	37-100
31	4-Chloro-3-methylp	5378	4083	75.91	32-117
32	2-Methylnaphthalen	1793	1413	78.82	43-100
33	Hexachlorocyclope	5378	0.000	*	10-103
34	2,4,6-Trichlorophe	5378	4269	79.38	30-113
35	2,4,5-Trichlorophe	5378	3869	71.94	28-118
37	2-Chloronaphthalen	1793	1365	76.17	40-100
38	2-Nitroaniline	5378	4127	76.74	31-126
39	Dimethylphthalate	1793	1597	89.08	43-114
40	Acenaphthylene	1793	1251	69.78	42-102
41	2,6-Dinitrotoluene	5378	4253	79.07	33-123

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
43 3-Nitroaniline	5378	0.000	*	22-113
44 Acenaphthene	1793	1763	98.37	45-100
45 2,4-Dinitrophenol	9860	2439	24.74	10-105
46 Dibenzofuran	1793	1752	97.74	43-103
47 4-Nitrophenol	5378	1168	21.72	15-138
48 2,4-Dinitrotoluene	5378	4275	79.49	35-127
49 Fluorene	1793	1976	110.21*	45-107
50 Diethylphthalate	1793	1445	80.58	50-120
51 4-Chlorophenyl-phe	1793	1291	72.02	32-116
52 4-Nitroaniline	5378	1024	19.04*	24-125
53 4,6-Dinitro-2-meth	9860	4457	45.20	24-119
54 N-Nitrosodiphenyla	1793	1748	97.50	36-111
56 4-Bromophenyl-phen	1793	1418	79.12	39-114
57 Hexachlorobenzene	1793	1348	75.18	33-113
58 Pentachlorophenol	5378	2279	42.38	16-120
60 Phenanthrene	1793	5694	317.61*	49-112
61 Anthracene	1793	2062	115.04*	45-106
62 Carbazole	1793	2376	132.52	43-135
63 Di-n-butylphthalat	1793	1635	91.19	48-126
64 Fluoranthene	1793	8613	480.41*	53-118
65 Pyrene	1793	6694	373.39*	48-121
67 Butylbenzylphthala	1793	1635	91.21	45-132
68 Benzo(a)anthracene	1793	1946	108.54	49-115
70 3,3'-Dichlorobenz	5378	0.000	*	10-100
71 Chrysene	1793	4069	226.99*	47-115
72 bis(2-Ethylhexyl)p	1793	15670	874.11*	34-130
73 Di-n-octylphthalat	1793	1950	108.78	28-124
74 Benzo(b)fluoranthe	1793	5363	299.15*	42-132
75 Benzo(k)fluoranthe	1793	5092	284.01*	39-129
76 Benzo(a)pyrene	1793	2166	120.81*	42-113
78 Indeno(1,2,3-cd)py	1793	1002	55.89	42-123
79 Dibenzo(a,h)anthra	1793	771.4	43.03	30-133
80 Benzo(g,h,i)peryle	1793	1096	61.11	38-126
91 Aniline	5378	0.000	*	10-134
111 Azobenzene (1,2-DP	1793	1226	68.41	35-112
90 N-Nitrosodimethyla	5378	2694	50.09	17-100
105 1-methylnaphthalen	1793	1424	79.41	42-100
103 Pyridine	3586	3522	98.22	10-147
187 Total Benzofluoran	3586	5672	158.20	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2689	1643	61.11	27-120

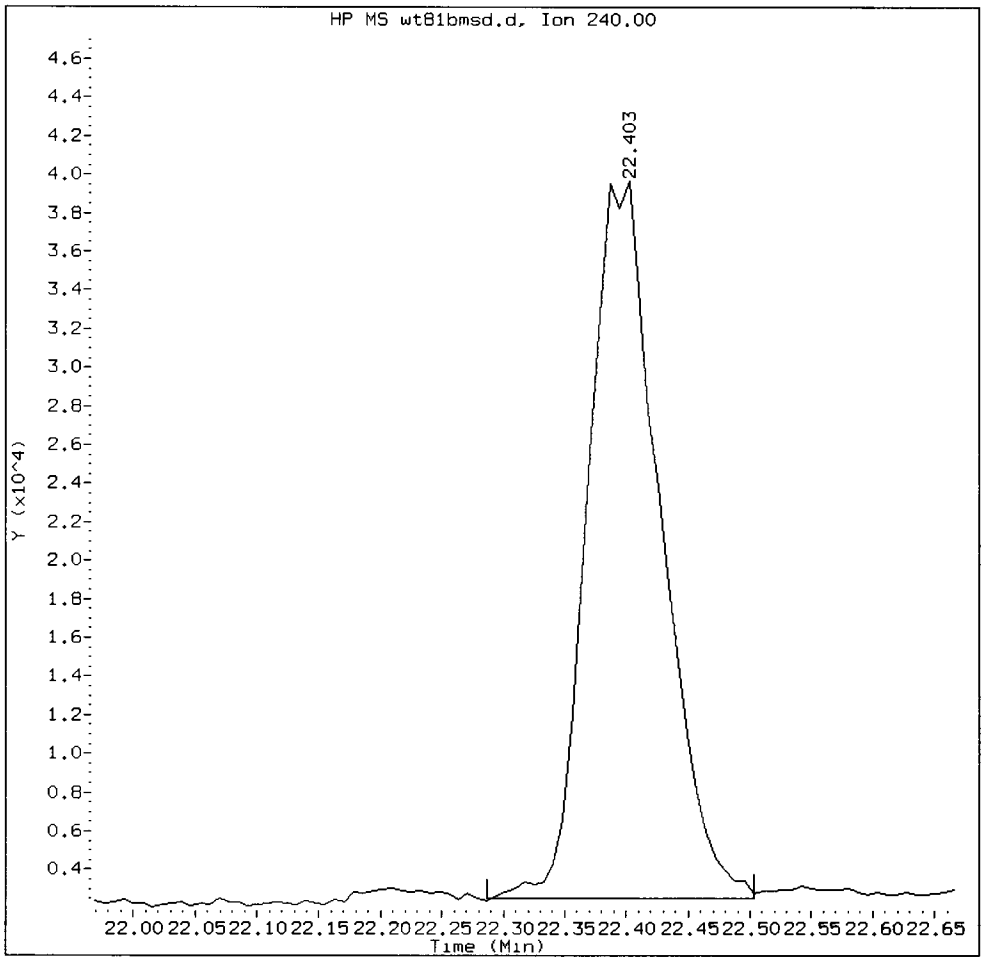
SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 2 Phenol-d5	2689	1774	65.95	29-120
$ 5 2-Chlorophenol-d4	2689	1791	66.61	31-120
$ 10 1,2-Dichlorobenzen	1793	1097	61.20	32-120
$ 18 Nitrobenzene-d5	1793	1185	66.08	30-120
$ 36 2-Fluorobiphenyl	1793	1267	70.67	35-120
$ 55 2,4,6-Tribromophen	2689	2247	83.54	24-134
$ 66 Terphenyl-d14	1793	1237	69.01	37-120

Data File: /chem1/nt10.i/20130622.b/wt81bmsd.d
Date : 22-JUN-2013 16:04
Client ID: AM-SF4-EFF-2013 MSD
Instrument: nt10.i
Sample Info: WT81BMSD
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25



WT81BMSD, /chem1/nt10.i/20130622.b/wt81bmsd.d

Chrysene-d12 Amount: 4.00 Area: 156537



MANUAL INTEGRATION for Chrysene-d12

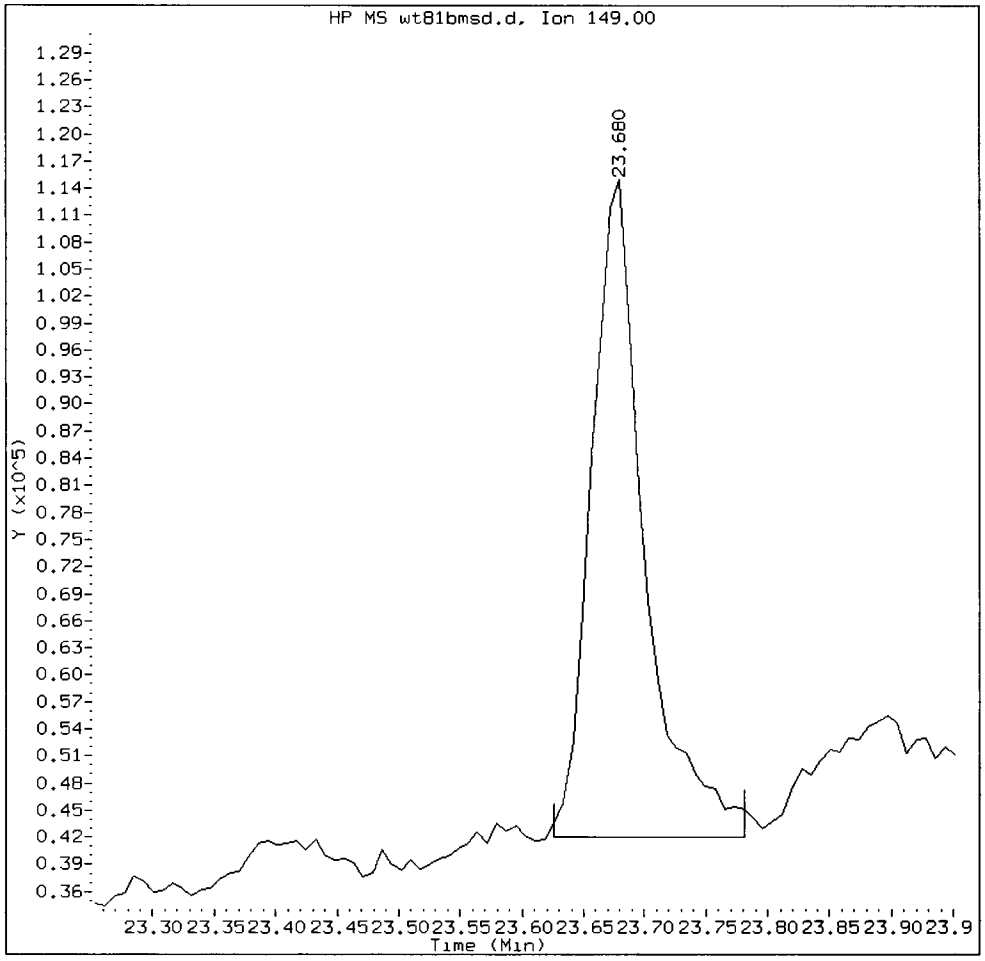
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VC Date: 6/27/13

WT81BMSD, /chem1/nt10.i/20130622.b/wt81bmsd.d

Di-n-octylphthalate Amount: 5.44 Area: 221802



MANUAL INTEGRATION for Di-n-octylphthalate

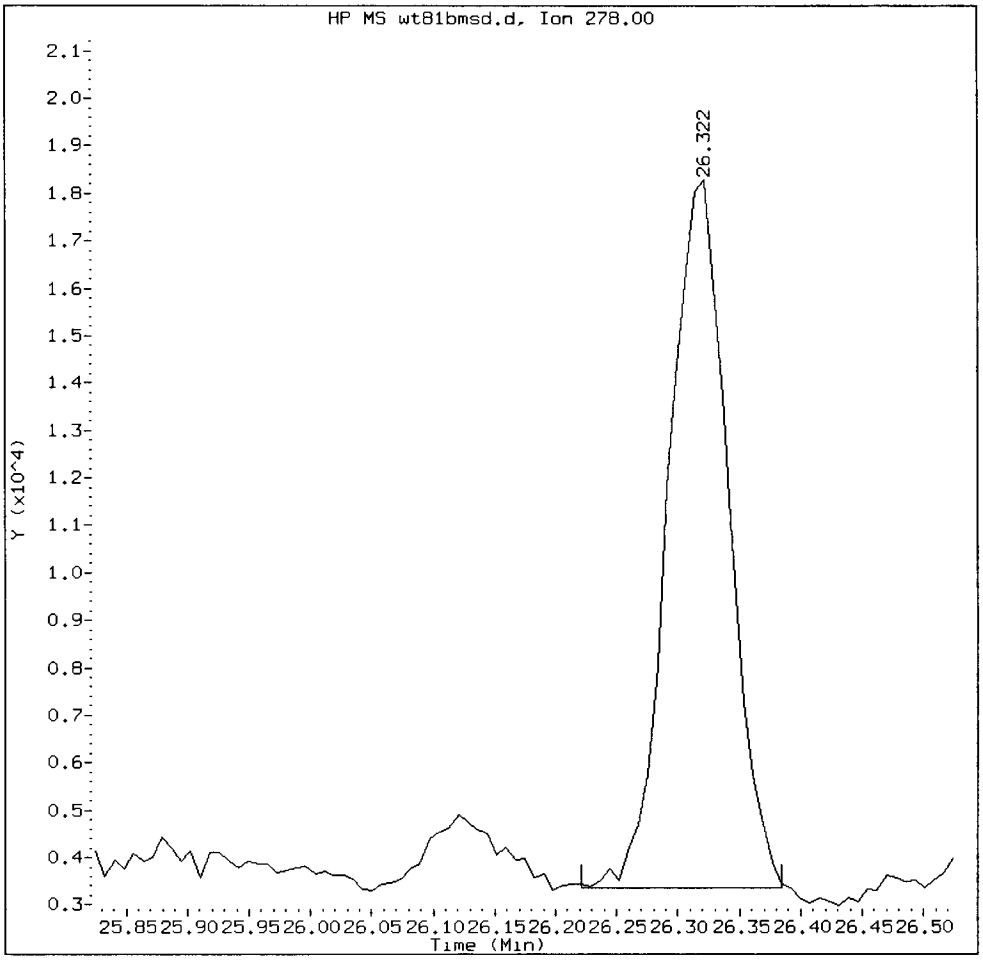
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

WT81BMSD, /chem1/nt10.i/20130622.b/wt81bmsd.d

Dibenzo(a,h)anthracene Amount: 2.15 Area: 51872



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VE Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81bmsd.d

Lab ID: WT81BMSD, Method: ABN.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS
24.175	Benzo(k)fluoranthene and Benzo(b)fluoranthene
7.803	1,2-Dichlorobenzene-d4 and Benzyl alcohol

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 6/26/13 Analysis: ~~DBN/SIM Gas~~ Analyst: YZ

GC Program: DBN_2 Column No: 252947 Column Type: ZB5msi

Instrument Tune (.U or .CT.): B0228U EM Voltage: 1753

Calibration File: DF0626 Curve Date: 04/29/13 Injection Vol.: 1 µL

IS/SS	Ical/Ccal	LCS/ICV
1998-21	B676	
	B582	
	B112	
	2064-2	
	1998-2	

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130626.b

	Time	Filename	LabID	ClientId	DF													
1	1132	df0626.d	DFTPP	DFTPP	1	NO ISTDS FOUND												
2	1146	cc0626.d	CC0626		1	7.32	49019	9.90	179500	13.71	112148	16 92	185920	22 26	200276	24.56	169291	23.55	237736
3	1305	wt81a3.d	WT81A	AM-VT-INF-20	3	7 34	51840	9.90	191094	13.72	108499	16.92	155499	22.28	162360	24.59	164427	23 56	216448
4	1342	wt81b3.d	WT81B	AM-SF4-EFF-2	3	7 33	52622	9 90	195802	13.71	120013	16 92	172514	22.27	176547	24.59	174000	23 56	225345
5	1419	wt81c3.d	WT81C	AM-FD-01-201	3	7.33	46914	9.90	178855	13.71	106457	16 92	157292	22.28	157178	24 59	156687	23 57	200837
6	1456	wu10t2 d	WU10T		2	7.33	45746	9 91	184523	13.72	107224	16 93	168953	22.27	158492	24 58	160728	23 56	212337
7	1532	wu00mb.d	WU00MBS1		1	7 33	43866	9.90	159003	13.71	98699	16.92	164108	22.26	157882	24 56	151108	23.54	201207
8	1609	wu00sb.d	WU00LCSS1		1	7 32	46996	9.90	171307	13.71	106534	16 92	176350	22.26	193689	24 56	162572	23.54	230677
9	1646	wu00sbd.d	WU00LCSDS1		1	7.32	48500	9.90	174279	13.71	108478	16.92	180805	22.26	201847	24 56	174745	23.54	248471
10	1723	wu00a d	WU00A		5	7 32	49475	9.90	178137	13.71	110316	16.92	180574	22.25	169923	24 55	164178	23 54	224199
11	1800	wu00b d	WU00B		5	7.32	48676	9.90	175305	13.70	107577	16.91	170504	22 25	167349	24.56	158896	23.54	217286
12	1836	wu00c.d	WU00C		5	7.32	49793	9.90	175360	13.70	109402	16.91	182036	22.24	169725	24.55	162937	23.53	217697
13	1913	wu00d d	WU00D		5	7.32	49521	9.90	176400	13.70	110683	16.90	183607	22 23	166699	24.54	164053	23.53	220496
14	1950	wu00e d	WU00E		5	7.32	48758	9.90	184657	13.69	108282	16.90	173425	22.23	162285	24.53	162092	23.52	211457
15	2027	wu00f.d	WU00F		5	7.32	49301	9 89	187430	13.69	109140	16.89	171548	22.22	162860	24 52	160660	23.50	213944
16	2103	wu38mb d	WU38MBS1		1	7 32	48392	9.89	174274	13.69	107195	16.89	176479	22.21	177717	24 50	159362	23.49	218648
17	2140	wu38sb.d	WU38LCSS1		1	7 32	45943	9.89	167432	13.68	104399	16.88	172311	22.19	194612	24.49	164615	23 48	236227
18	2216	wu38qls.d	WU38QLS		1	7.32	49689	9.88	174449	13.67	108548	16.87	177149	22.19	203478	24.48	177896	23.46	249956
19	2253	wu38a.d	WU38A		5	7.32	42384	9.88	156822	13.67	99334	16.86	147093	22.20	150405	24.50	148972	23.48	201386
20	2330	wu38b.d	WU38B		5	7.28	41052	9.83	184202	13.60	103063	16.78	145351	22.07	150176	24.35	164029	23.34	199859

YZ 6/27/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130626.b

Instrument: nt10.i Date: 26-JUN-2013 Method: ABN.m

INITIAL CAL: 29-APR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 26-JUN-2013

Compound	%D
Benzoic acid	-27.8
4-Chloroaniline	-25.0
Hexachlorocyclopentadiene	-36.2
3-Nitroaniline	-30.8
2,4-Dinitrophenol	-57.8
4,6-Dinitro-2-methylphenol	-26.1
Benzidine	-22.2

Data File: /chem1/nt10.i/20130626.b/df0626.d

Date : 26-JUN-2013 11:32

Client ID: DFTPP

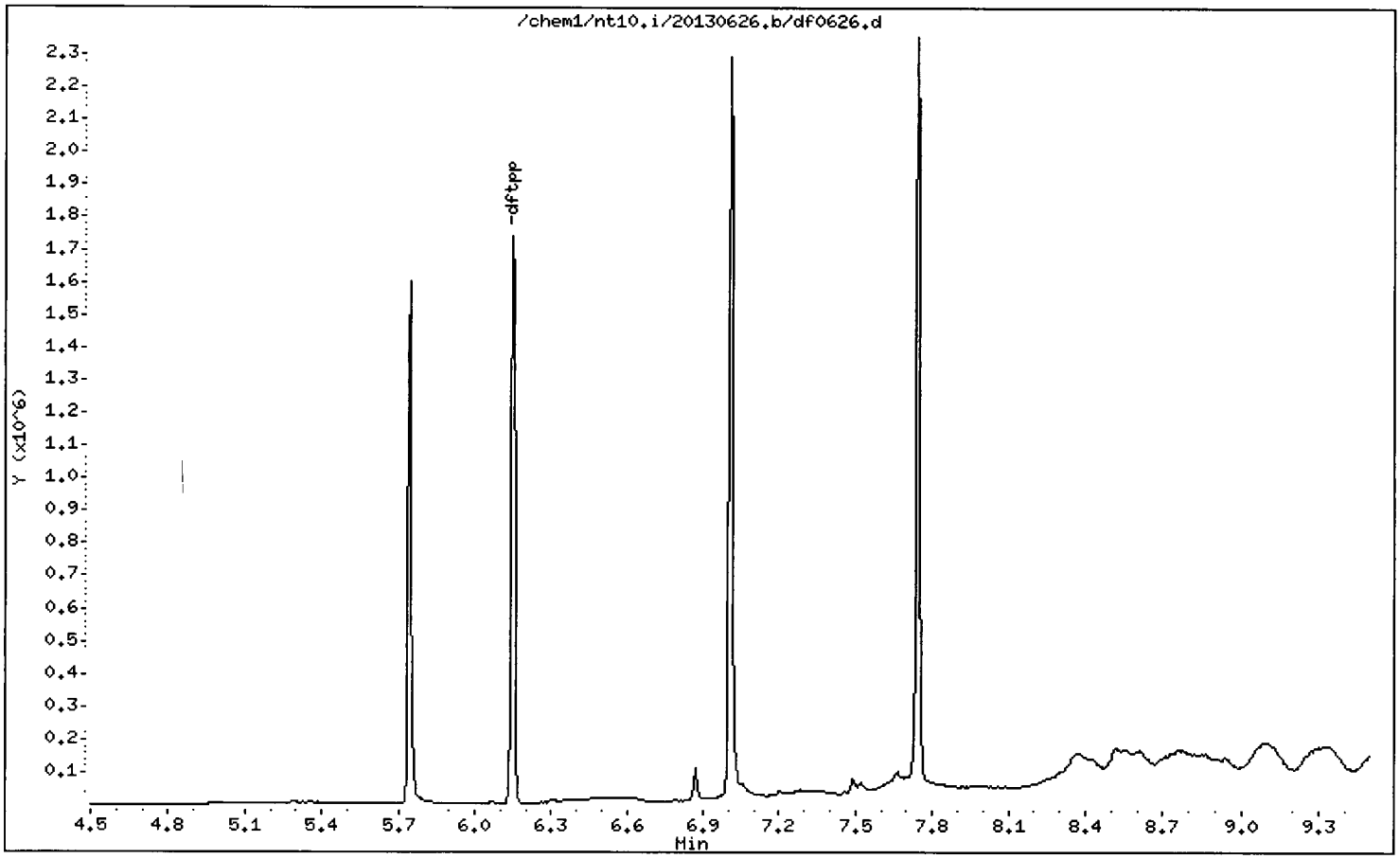
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130626.b/df0626.d

Date : 26-JUN-2013 11:32

Client ID: DFTPP

Instrument: nt10.i

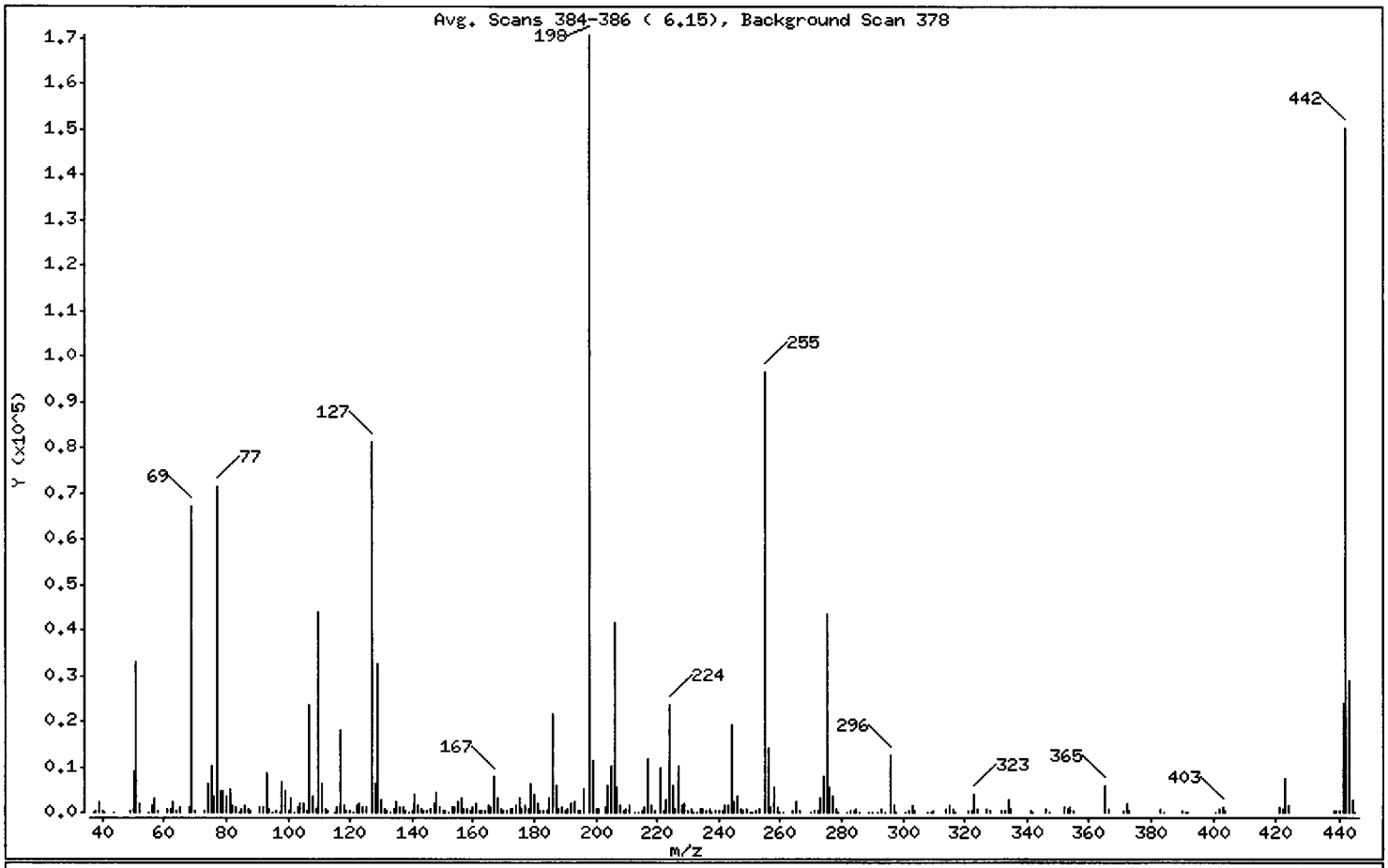
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	19.34
68	Less than 2.00% of mass 69	0.65 (1.64)
69	Mass 69 relative abundance	39.26
70	Less than 2.00% of mass 69	0.24 (0.62)
127	10.00 - 80.00% of mass 198	47.47
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 60.00% of mass 198	25.43
365	Greater than 1.00% of mass 198	3.34
441	0.01 - 24.00% of mass 442	13.94 (15.82)
442	50.00 - 200.00% of mass 198	88.11
443	15.00 - 24.00% of mass 442	17.12 (19.43)

Data File: /chem1/nt10.i/20130626.b/df0626.d

Date : 26-JUN-2013 11:32

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0626.d

Spectrum: Avg. Scans 384-386 (6.15), Background Scan 378

Location of Maximum: 198.00

Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	69	124.00	1081	198.00	170688	279.00	59
38.00	486	125.00	1011	199.00	11570	282.00	111
39.00	2530	127.00	81032	200.00	881	283.00	470
40.00	214	128.00	6121	201.00	846	284.00	255
41.00	131	129.00	32728	203.00	1173	285.00	637
44.00	53	130.00	2833	204.00	6081	286.00	55
49.00	258	131.00	640	205.00	10237	289.00	158
50.00	8833	132.00	303	206.00	41656	290.00	123
51.00	33008	133.00	150	207.00	5518	292.00	140
52.00	1896	134.00	899	208.00	1386	293.00	801
55.00	94	135.00	2376	209.00	536	294.00	182
56.00	1482	136.00	1003	210.00	608	296.00	12709
57.00	3139	137.00	1234	211.00	1647	297.00	1704
58.00	214	138.00	273	213.00	55	298.00	56
60.00	112	139.00	136	214.00	54	301.00	108
61.00	734	140.00	372	215.00	492	302.00	200
62.00	810	141.00	4036	216.00	1021	303.00	1436
63.00	2260	142.00	1387	217.00	11865	304.00	376
64.00	378	143.00	952	218.00	1503	308.00	185
65.00	1233	144.00	250	219.00	220	309.00	64
67.00	24	145.00	252	221.00	9975	310.00	202
68.00	1102	146.00	668	222.00	427	314.00	671
69.00	67008	147.00	2055	223.00	2638	315.00	1475
70.00	418	148.00	4429	224.00	23456	316.00	779
73.00	316	149.00	997	225.00	5876	317.00	55
74.00	6391	150.00	265	226.00	645	321.00	402
75.00	10315	151.00	529	227.00	10033	322.00	197
76.00	3396	152.00	68	228.00	1480	323.00	3740
77.00	71440	153.00	1289	229.00	2013	324.00	780
78.00	4690	154.00	1012	230.00	324	327.00	840
79.00	4535	155.00	2315	231.00	934	328.00	385
80.00	3725	156.00	3171	232.00	92	332.00	341
81.00	5098	157.00	774	233.00	144	333.00	428
82.00	1374	158.00	732	234.00	658	334.00	2602
83.00	1171	159.00	551	235.00	730	335.00	700

Date : 26-JUN-2013 11:32

Client ID: DFTPP Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1 Column diameter: 0.25

Data File: df0626.d
Spectrum: Avg. Scans 384-386 (6,15), Background Scan 378
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	183	160.00	1193	236.00	442	341.00	538
85.00	811	161.00	1811	237.00	836	342.00	55
86.00	1471	162.00	566	238.00	57	346.00	909
87.00	738	163.00	224	239.00	419	347.00	55
88.00	285	164.00	262	240.00	308	352.00	1232
91.00	1205	165.00	1489	241.00	532	353.00	842
92.00	1225	166.00	1271	242.00	1470	354.00	1194
93.00	8441	167.00	7750	243.00	1521	355.00	258
94.00	595	168.00	2996	244.00	19096	365.00	5701
95.00	156	169.00	694	245.00	2530	366.00	833
96.00	469	170.00	270	246.00	3545	371.00	350
97.00	116	171.00	326	247.00	789	372.00	2089
98.00	6581	172.00	753	248.00	199	373.00	470
99.00	4768	173.00	913	249.00	695	383.00	599
100.00	398	174.00	1638	250.00	54	384.00	144
101.00	3113	175.00	3017	251.00	178	390.00	283
102.00	192	176.00	928	252.00	267	391.00	179
103.00	1033	177.00	1518	253.00	601	392.00	140
104.00	1889	178.00	625	255.00	96536	401.00	83
105.00	1935	179.00	6149	256.00	13952	402.00	869
106.00	562	180.00	4066	257.00	1190	403.00	1228
107.00	23352	181.00	1870	258.00	5623	404.00	485
108.00	3645	182.00	338	259.00	982	421.00	1073
109.00	641	183.00	215	260.00	116	422.00	964
110.00	43880	184.00	504	261.00	133	423.00	7554
111.00	6427	185.00	2967	264.00	262	424.00	1527
112.00	792	186.00	21576	265.00	2366	425.00	50
113.00	279	187.00	6039	266.00	328	437.00	69
115.00	192	188.00	644	270.00	126	438.00	280
116.00	1323	189.00	1371	271.00	244	439.00	500
117.00	18168	190.00	243	272.00	342	440.00	259
118.00	1409	191.00	684	273.00	3207	441.00	23800
119.00	249	192.00	1870	274.00	7740	442.00	150400
120.00	323	193.00	2227	275.00	43408	443.00	29224
121.00	191	194.00	464	276.00	5597	444.00	2658

Data File: /chem1/nt10.i/20130626.b/df0626.d

Date : 26-JUN-2013 11:32

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5ms1

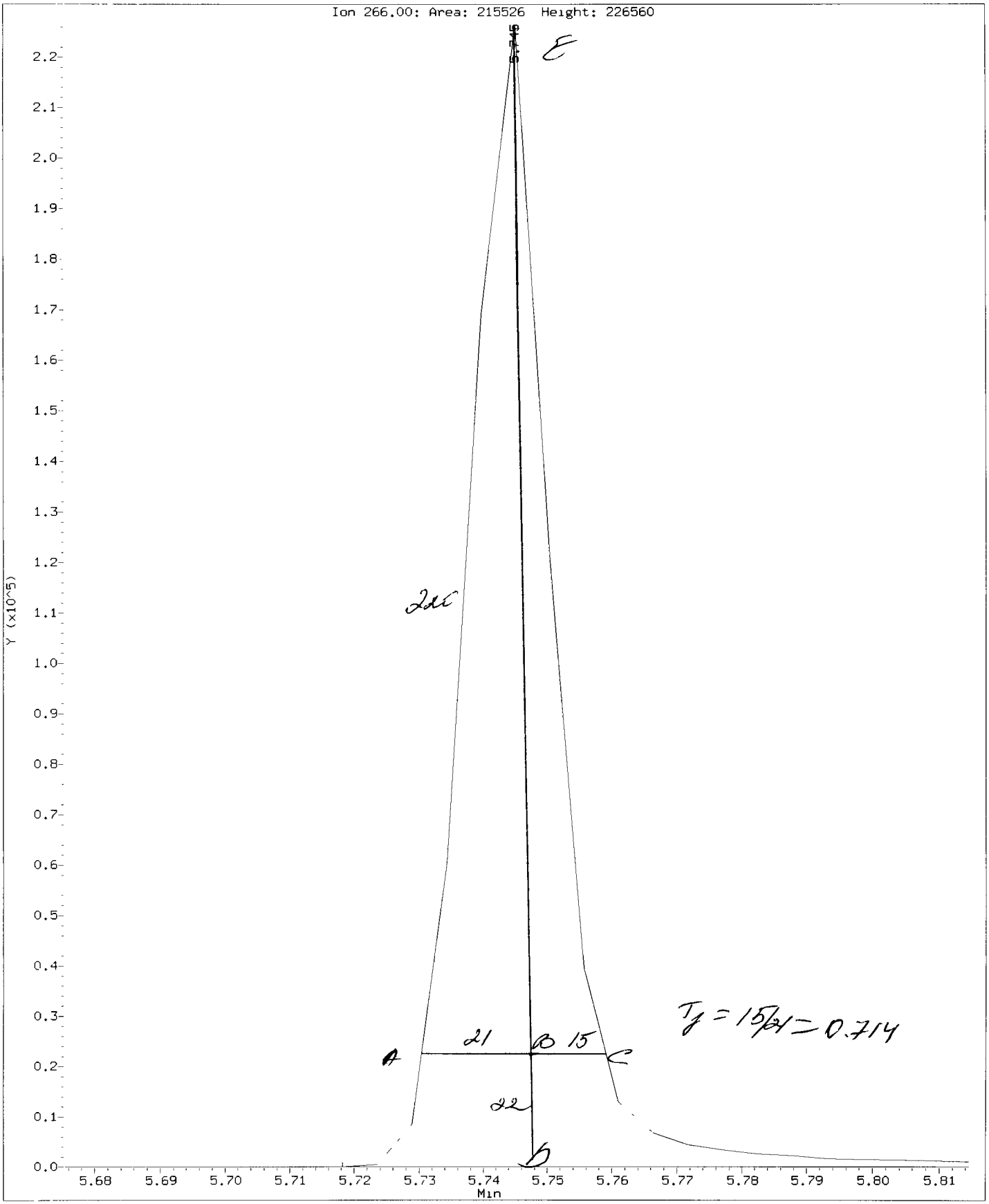
Column diameter: 0.25

Data File: df0626.d
Spectrum: Avg. Scans 384-386 (6.15), Background Scan 378
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	1507	195.00	427	277.00	3665	445.00	75
123.00	2153	196.00	5193	278.00	613		

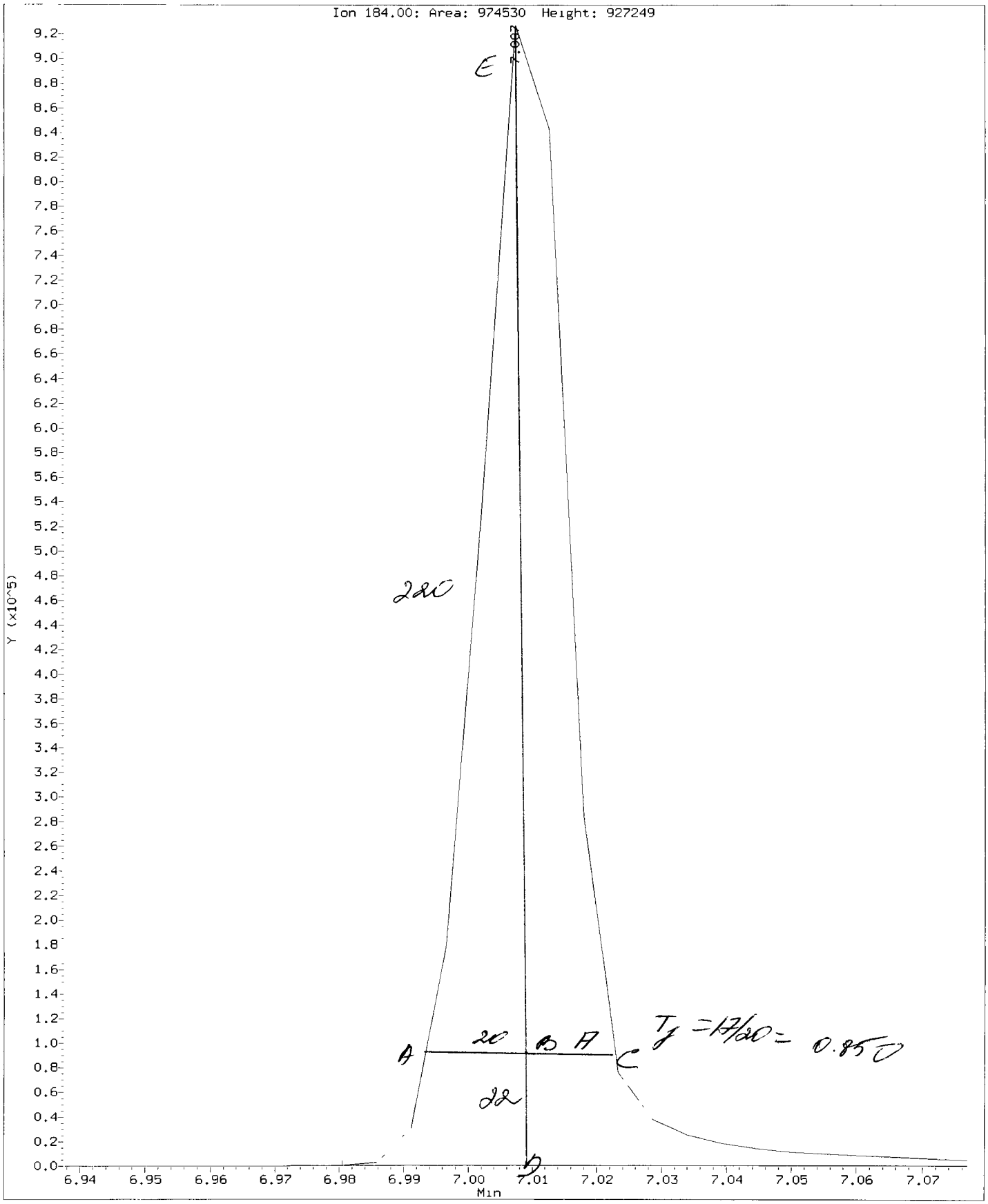
Data File: /chem1/nt10.1/20130626.b/ddt.b/df0626.d
Injection Date: 26-JUN-2013 11:32
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.1/20130626.b/ddt.b/df0626.d
Injection Date: 26-JUN-2013 11:32
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130626.b/ddt.b/df0626.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130626.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 26-JUN-2013 11:32 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	5.745	215526
Benzidine	7.007	974530
4,4'-DDE	7.200	1248
4,4'-DDD	7.489	10994
4,4'-DDT	7.740	461508

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 1248 + 10994) * 100}{(\ 1248 + 10994 + 461508)}$$

DDT Percent Breakdown = 2.6 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 26-JUN-2013 11:46
Lab File ID: cc0626.d Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Analysis Type: Init. Cal. Times: 16:53 21:47
Lab Sample ID: CC0626 Quant Type: ISTD
Method: /chem1/nt10.i/20130626.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.42771	1.23129	1.23129	0.010	-13.75741	20.00000	Averaged	
$ 2 Phenol-d5	1.84748	1.59706	1.59706	0.010	-13.55448	20.00000	Averaged	
3 Phenol	2.06794	1.71338	1.71338	0.100	-17.14584	20.00000	Averaged	
$ 5 2-Chlorophenol-d4	1.40240	1.24988	1.24988	0.010	-10.87560	20.00000	Averaged	
4 Bis(2-Chloroethyl)ether	1.48709	1.26557	1.26557	0.700	-14.89665	20.00000	Averaged	
6 2-Chlorophenol	1.59477	1.48813	1.48813	0.800	-6.68691	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.60030	1.45101	1.45101	0.010	-9.32890	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.57739	1.44817	1.44817	0.010	-8.19192	20.00000	Averaged	
$ 10 1,2-Dichlorobenzene-d4	1.00879	0.94262	0.94262	0.010	-6.55898	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.51024	1.37330	1.37330	0.010	-9.06791	20.00000	Averaged	
11 Benzyl alcohol	0.86989	0.76024	0.76024	0.010	-12.60411	20.00000	Averaged	
14 2,2'-oxybis(1-Chloropropane	0.45898	0.42723	0.42723	0.010	-6.91673	20.00000	Averaged	
13 2-Methylphenol	1.48808	1.30731	1.30731	0.700	-12.14757	20.00000	Averaged	
17 Hexachloroethane	0.65999	0.61235	0.61235	0.300	-7.21874	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.92905	0.90203	0.90203	0.500	-2.90801	20.00000	Averaged	
15 4-Methylphenol	1.51729	1.26069	1.26069	0.600	-16.91185	20.00000	Averaged	
$ 18 Nitrobenzene-d5	0.42210	0.37572	0.37572	0.010	-10.98752	20.00000	Averaged	
19 Nitrobenzene	0.38970	0.35055	0.35055	0.200	-10.04579	20.00000	Averaged	
20 Isophorone	0.73300	0.66745	0.66745	0.300	-8.94272	20.00000	Averaged	
21 2-Nitrophenol	0.21847	0.20613	0.20613	0.100	-5.64823	20.00000	Averaged	
22 2,4-Dimethylphenol	0.40172	0.36289	0.36289	0.200	-9.66686	20.00000	Averaged	
23 Bis(2-Chloroethoxy)methane	0.43229	0.39600	0.39600	0.050	-8.39368	20.00000	Averaged	
24 Benzoic acid	14.43850	20.00000	0.25335	0.010	-27.80751	20.00000	Quadratic	<-
25 2,4-Dichlorophenol	0.36979	0.32265	0.32265	0.100	-12.74626	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.36143	0.32959	0.32959	0.010	-8.80840	20.00000	Averaged	
28 Naphthalene	1.06494	0.95359	0.95359	0.100	-10.45594	20.00000	Averaged	
29 4-Chloroaniline	0.41634	0.31226	0.31226	0.010	-24.99783	20.00000	Averaged	<-
30 Hexachlorobutadiene	0.21470	0.20528	0.20528	0.010	-4.38859	20.00000	Averaged	
31 4-Chloro-3-methylphenol	0.32531	0.32275	0.32275	0.200	-0.78700	20.00000	Averaged	
32 2-Methylnaphthalene	0.70737	0.62192	0.62192	0.300	-12.07890	20.00000	Averaged	
33 Hexachlorocyclopentadiene	0.44016	0.28083	0.28083	0.001	-36.19958	20.00000	Averaged	<-
34 2,4,6-Trichlorophenol	0.42101	0.40681	0.40681	0.200	-3.37305	20.00000	Averaged	
35 2,4,5-Trichlorophenol	0.43401	0.41816	0.41816	0.200	-3.65124	20.00000	Averaged	
$ 36 2-Fluorobiphenyl	1.39609	1.25847	1.25847	0.010	-9.85710	20.00000	Averaged	
37 2-Chloronaphthalene	1.11145	1.02797	1.02797	0.700	-7.51102	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 26-JUN-2013 11:46
Lab File ID: cc0626.d Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Analysis Type: Init. Cal. Times: 16:53 21:47
Lab Sample ID: CC0626 Quant Type: ISTD
Method: /chem1/nt10.i/20130626.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
38 2-Nitroaniline	0.26826	0.29173	0.29173	0.010	8.74804	20.00000	Averaged	
39 Dimethylphthalate	1.20078	1.13151	1.13151	0.010	-5.76848	20.00000	Averaged	
40 Acenaphthylene	1.88508	1.65757	1.65757	0.900	-12.06918	20.00000	Averaged	
41 2,6-Dinitrotoluene	0.28135	0.28125	0.28125	0.100	-0.03611	20.00000	Averaged	
43 3-Nitroaniline	0.23227	0.16070	0.16070	0.010	-30.81270	20.00000	Averaged	<-
44 Acenaphthene	1.13602	1.03107	1.03107	0.100	-9.23796	20.00000	Averaged	
45 2,4-Dinitrophenol	8.43553	20.00000	0.10451	0.030	-57.82234	20.00000	Quadratic	<-
46 Dibenzofuran	1.55334	1.40589	1.40589	0.800	-9.49206	20.00000	Averaged	
47 4-Nitrophenol	8.30214	10.00000	0.14504	0.010	-16.97863	20.00000	Quadratic	
48 2,4-Dinitrotoluene	0.36288	0.36121	0.36121	0.200	-0.46017	20.00000	Averaged	
50 Diethylphthalate	1.20662	1.22989	1.22989	0.010	1.92865	20.00000	Averaged	
49 Fluorene	1.32546	1.26860	1.26860	0.100	-4.28936	20.00000	Averaged	
51 4-Chlorophenyl-phenylether	0.65156	0.63814	0.63814	0.100	-2.06008	20.00000	Averaged	
52 4-Nitroaniline	0.24126	0.21278	0.21278	0.010	-11.80801	20.00000	Averaged	
53 4,6-Dinitro-2-methylphenol	14.77354	20.00000	0.14149	0.001	-26.13232	20.00000	Quadratic	<-
54 N-Nitrosodiphenylamine	0.46304	0.44670	0.44670	0.010	-3.52988	20.00000	Averaged	
$ 55 2,4,6-Tribromophenol	0.21154	0.22066	0.22066	0.010	4.31289	20.00000	Averaged	
56 4-Bromophenyl-phenylether	0.22633	0.21648	0.21648	0.100	-4.35087	20.00000	Averaged	
57 Hexachlorobenzene	0.27006	0.25403	0.25403	0.100	-5.93586	20.00000	Averaged	
58 Pentachlorophenol	0.18956	0.16326	0.16326	0.010	-13.87463	20.00000	Averaged	
60 Phenanthrene	1.09106	0.99637	0.99637	0.700	-8.67807	20.00000	Averaged	
61 Anthracene	1.11776	1.04583	1.04583	0.700	-6.43502	20.00000	Averaged	
62 Carbazole	0.67896	0.60657	0.60657	0.010	-10.66132	20.00000	Averaged	
63 Di-n-butylphthalate	1.15386	1.17558	1.17558	0.010	1.88188	20.00000	Averaged	
64 Fluoranthene	1.28413	1.21223	1.21223	0.600	-5.59867	20.00000	Averaged	
65 Pyrene	1.23758	1.17871	1.17871	0.600	-4.75714	20.00000	Averaged	
$ 66 Terphenyl-d14	0.77864	0.71034	0.71034	0.010	-8.77215	20.00000	Averaged	
67 Butylbenzylphthalate	0.42263	0.45866	0.45866	0.010	8.52521	20.00000	Averaged	
68 Benzo(a)anthracene	1.11989	1.04068	1.04068	0.700	-7.07309	20.00000	Averaged	
70 3,3'-Dichlorobenzidine	0.42653	0.37465	0.37465	0.010	-12.16314	20.00000	Averaged	
71 Chrysene	1.01345	0.94884	0.94884	0.700	-6.37508	20.00000	Averaged	
72 bis(2-Ethylhexyl)phthalate	0.53180	0.53154	0.53154	0.010	-0.04823	20.00000	Averaged	
73 Di-n-octylphthalate	0.92098	0.82583	0.82583	0.010	-10.33194	20.00000	Averaged	
74 Benzo(b)fluoranthene	1.18784	1.16724	1.16724	0.700	-1.73416	20.00000	Averaged	
75 Benzo(k)fluoranthene	1.25114	1.08632	1.08632	0.700	-13.17344	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 26-JUN-2013 11:46
Lab File ID: cc0626.d Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Analysis Type: Init. Cal. Times: 16:53 21:47
Lab Sample ID: CC0626 Quant Type: ISTD
Method: /chem1/nt10.i/20130626.b/ABN.m

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 Benzo(a)pyrene	1.01481	0.95075	0.95075	0.700	-6.31266	20.00000	Averaged	
78 Indeno(1,2,3-cd)pyrene	1.16916	1.13570	1.13570	0.500	-2.86155	20.00000	Averaged	
79 Dibenzo(a,h)anthracene	0.89686	0.87679	0.87679	0.400	-2.23806	20.00000	Averaged	
80 Benzo(g,h,i)perylene	1.01156	0.94109	0.94109	0.500	-6.96658	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.91125	0.79293	0.79293	0.010	-12.98534	20.00000	Averaged	
91 Aniline	4.01210	3.47659	3.47659	0.010	-13.34732	20.00000	Averaged	
93 Benzidine	7.77772	10.00000	0.09854	0.010	-22.22285	20.00000	Quadratic	<-
103 Pyridine	0.80099	0.65591	0.65591	0.010	-18.11262	20.00000	Averaged	
105 1-methylnaphthalene	0.64873	0.57562	0.57562	0.010	-11.26980	20.00000	Averaged	
111 Azobenzene (1,2-DP-Hydrazin	1.23715	1.14947	1.14947	0.010	-7.08715	20.00000	Averaged	
187 Total Benzofluoranthenes	1.15343	1.03989	1.03989	0.010	-9.84379	20.00000	Averaged	
99 Perylene	1.16006	1.02654	1.02654	0.010	-11.50990	20.00000	Averaged	
98 Retene	0.46838	0.44438	0.44438	0.010	-5.12352	20.00000	Averaged	
120 2,3,4,6-Tetrachlorophenol	0.32282	0.32654	0.32654	0.010	1.15090	20.00000	Averaged	

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/27/13

Data file : /chem1/nt10.i/20130626.b/cc0626.d
Lab Smp Id: CC0626
Inj Date : 26-JUN-2013 11:46
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0626
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20130626.b/ABN.m
Meth Date : 27-Jun-2013 11:35 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$ 1	2-Fluorophenol	112	5.136	5.136	(0.701)	75446	5.00000	4.312
$ 2	Phenol-d5	99	6.844	6.844	(0.934)	97858	5.00000	4.322
3	Phenol	94	6.867	6.867	(0.938)	104985	5.00000	4.143
$ 5	2-Chlorophenol-d4	132	6.975	6.975	(0.952)	76585	5.00000	4.456
4	Bis(2-Chloroethyl)ether	93	6.936	6.936	(0.947)	77546	5.00000	4.255
6	2-Chlorophenol	128	7.006	7.006	(0.957)	91183	5.00000	4.666
7	1,3-Dichlorobenzene	146	7.254	7.254	(0.990)	88909	5.00000	4.534
* 8	1,4-Dichlorobenzene-d4	152	7.323	7.323	(1.000)	49019	4.00000	
9	1,4-Dichlorobenzene	146	7.354	7.354	(1.004)	88735	5.00000	4.590
$ 10	1,2-Dichlorobenzene-d4	152	7.688	7.688	(1.050)	57758	5.00000	4.672
12	1,2-Dichlorobenzene	146	7.711	7.711	(1.053)	84147	5.00000	4.547
11	Benzyl alcohol	108	7.688	7.688	(1.050)	46583	5.00000	4.370
14	2,2'-oxybis(1-Chloropropane)	121	8.006	8.006	(1.093)	26178	5.00000	4.654
13	2-Methylphenol	108	7.999	7.999	(1.092)	80104	5.00000	4.393
17	Hexachloroethane	117	8.317	8.317	(1.136)	37521	5.00000	4.639
16	N-Nitroso-di-n-propylamine	70	8.270	8.270	(1.129)	55271	5.00000	4.855
15	4-Methylphenol	108	8.301	8.301	(1.134)	77247	5.00000	4.154
$ 18	Nitrobenzene-d5	82	8.480	8.480	(0.856)	84303	5.00000	4.451
19	Nitrobenzene	77	8.511	8.511	(0.859)	78655	5.00000	4.498
20	Isophorone	82	9.008	9.008	(0.910)	149760	5.00000	4.553
21	2-Nitrophenol	139	9.178	9.178	(0.927)	46250	5.00000	4.718
22	2,4-Dimethylphenol	107	9.364	9.364	(0.946)	162845	10.0000	9.033
23	Bis(2-Chloroethoxy)methane	93	9.533	9.533	(0.963)	88853	5.00000	4.580
24	Benzoic acid	105	9.703	9.703	(0.980)	227382	20.0000	14.44(M)
25	2,4-Dichlorophenol	162	9.695	9.695	(0.979)	144790	10.0000	8.725
26	1,2,4-Trichlorobenzene	180	9.834	9.834	(0.993)	73952	5.00000	4.560
* 27	Naphthalene-d8	136	9.903	9.903	(1.000)	179500	4.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	28 Naphthalene	128	9.942	9.942	(1.004)	213962	5.00000	4.477
	29 4-Chloroaniline	127	10.166	10.166	(1.026)	140128	10.0000	7.500
	30 Hexachlorobutadiene	225	10.375	10.375	(1.048)	46059	5.00000	4.781
	31 4-Chloro-3-methylphenol	107	11.296	11.296	(1.141)	144834	10.0000	9.921
	32 2-Methylnaphthalene	142	11.427	11.427	(1.154)	139544	5.00000	4.396
	33 Hexachlorocyclopentadiene	237	11.946	11.946	(0.871)	78735	10.0000	6.380
	34 2,4,6-Trichlorophenol	196	12.147	12.147	(0.886)	114058	10.0000	9.663
	35 2,4,5-Trichlorophenol	196	12.232	12.232	(0.892)	117240	10.0000	9.635
$	36 2-Fluorobiphenyl	172	12.309	12.309	(0.898)	176419	5.00000	4.507
	37 2-Chloronaphthalene	162	12.464	12.464	(0.909)	144106	5.00000	4.624
	38 2-Nitroaniline	65	12.805	12.805	(0.934)	81791	10.0000	10.87
	39 Dimethylphthalate	163	13.331	13.331	(0.972)	158621	5.00000	4.712
	40 Acenaphthylene	152	13.370	13.370	(0.975)	232366	5.00000	4.397
	41 2,6-Dinitrotoluene	165	13.439	13.439	(0.980)	78853	10.0000	9.996
*	42 Acenaphthene-d10	164	13.710	13.710	(1.000)	112148	4.00000	
	43 3-Nitroaniline	138	13.726	13.726	(1.001)	45055	10.0000	6.919
	44 Acenaphthene	153	13.780	13.780	(1.005)	144541	5.00000	4.538
	45 2,4-Dinitrophenol	184	13.957	13.957	(1.018)	58602	20.0000	8.436
	46 Dibenzofuran	168	14.135	14.135	(1.031)	197085	5.00000	4.525
	47 4-Nitrophenol	109	14.228	14.228	(1.038)	40665	10.0000	8.302(M)
	48 2,4-Dinitrotoluene	165	14.290	14.290	(1.042)	101272	10.0000	9.954
	50 Diethylphthalate	149	14.901	14.901	(1.087)	172412	5.00000	5.096
	49 Fluorene	166	14.885	14.885	(1.086)	177839	5.00000	4.786
	51 4-Chlorophenyl-phenylether	204	14.947	14.947	(1.090)	89457	5.00000	4.897
	52 4-Nitroaniline	138	15.086	15.086	(1.100)	59656	10.0000	8.819
	53 4,6-Dinitro-2-methylphenol	198	15.171	15.171	(0.897)	131527	20.0000	14.77
	54 N-Nitrosodiphenylamine	169	15.232	15.232	(0.900)	103813	5.00000	4.824
$	55 2,4,6-Tribromophenol	330	15.464	15.464	(1.128)	30933	5.00000	5.216
	56 4-Bromophenyl-phenylether	248	16.003	16.003	(0.946)	50311	5.00000	4.782
	57 Hexachlorobenzene	284	16.274	16.274	(0.962)	59036	5.00000	4.703
	58 Pentachlorophenol	266	16.707	16.707	(0.988)	75884	10.0000	8.613
*	59 Phenanthrene-d10	188	16.916	16.916	(1.000)	185920	4.00000	
	60 Phenanthrene	178	16.963	16.963	(1.003)	231557	5.00000	4.566
	61 Anthracene	178	17.063	17.063	(1.009)	243051	5.00000	4.678
	62 Carbazole	167	17.489	17.489	(1.034)	140967	5.00000	4.467
	63 Di-n-butylphthalate	149	18.526	18.526	(1.095)	273204	5.00000	5.094
	64 Fluoranthene	202	19.547	19.547	(1.155)	281723	5.00000	4.720
	65 Pyrene	202	19.972	19.972	(0.897)	295083	5.00000	4.762
$	66 Terphenyl-d14	244	20.398	20.398	(0.916)	177830	5.00000	4.561
	67 Butylbenzylphthalate	149	21.436	21.436	(0.963)	114822	5.00000	5.426
	68 Benzo(a)anthracene	228	22.225	22.225	(0.999)	260528	5.00000	4.646
*	69 Chrysene-d12	240	22.256	22.256	(1.000)	200276	4.00000	
	70 3,3'-Dichlorobenzidine	252	22.272	22.272	(1.001)	187585	10.0000	8.784
	71 Chrysene	228	22.295	22.295	(1.002)	237538	5.00000	4.681
	72 bis(2-Ethylhexyl)phthalate	149	22.551	22.551	(0.958)	157959	5.00000	4.998
*	134 Di-n-octylphthalate-d4	153	23.549	23.549	(1.000)	237736	4.00000	
	73 Di-n-octylphthalate	149	23.557	23.557	(1.000)	245411	5.00000	4.483

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
74	Benzo(b)fluoranthene	252	23.998	23.998	(0.977)	247005	5.00000	4.913
75	Benzo(k)fluoranthene	252	24.037	24.037	(0.979)	229881	5.00000	4.341
76	Benzo(a)pyrene	252	24.471	24.471	(0.997)	201191	5.00000	4.684
* 77	Perylene-d12	264	24.556	24.556	(1.000)	169291	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.098	26.098	(1.063)	240330	5.00000	4.857
79	Dibenzo(a,h)anthracene	278	26.121	26.121	(1.064)	185541	5.00000	4.888
80	Benzo(g,h,i)perylene	276	26.509	26.509	(1.080)	199147	5.00000	4.652
90	N-Nitrosodimethylamine	74	2.912	2.912	(0.398)	97171	10.0000	8.701
91	Aniline	93	6.797	6.797	(0.928)	213024	5.00000	4.333
93	Benzidine	184	19.911	19.911	(0.895)	49340	10.0000	7.778
103	Pyridine	79	2.912	2.912	(0.398)	80380	10.0000	8.189
105	1-methylnaphthalene	142	11.652	11.652	(1.177)	129155	5.00000	4.437
111	Azobenzene (1,2-DP-Hydrazine)	77	15.286	15.286	(1.115)	161138	5.00000	4.646
187	Total Benzofluoranthenes	252	24.037	24.037	(0.979)	440111	10.0000	9.016
99	Perylene	252	24.587	24.587	(1.001)	217229	5.00000	4.425
98	Retene	219	20.677	20.677	(0.929)	111249	5.00000	4.744
120	2,3,4,6-Tetrachlorophenol	232	14.545	14.545	(1.061)	45776	5.00000	5.058

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0626.d
Lab Smp Id: CC0626
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info:

Calibration Date: 26-JUN-2013
Calibration Time: 11:46
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	49019	8.33
27 Naphthalene-d8	166754	83377	333508	179500	7.64
42 Acenaphthene-d10	106910	53455	213820	112148	4.90
59 Phenanthrene-d10	179783	89892	359566	185920	3.41
69 Chrysene-d12	192841	96420	385682	200276	3.86
134 Di-n-octylphthala	229567	114784	459134	237736	3.56
77 Perylene-d12	184310	92155	368620	169291	-8.15

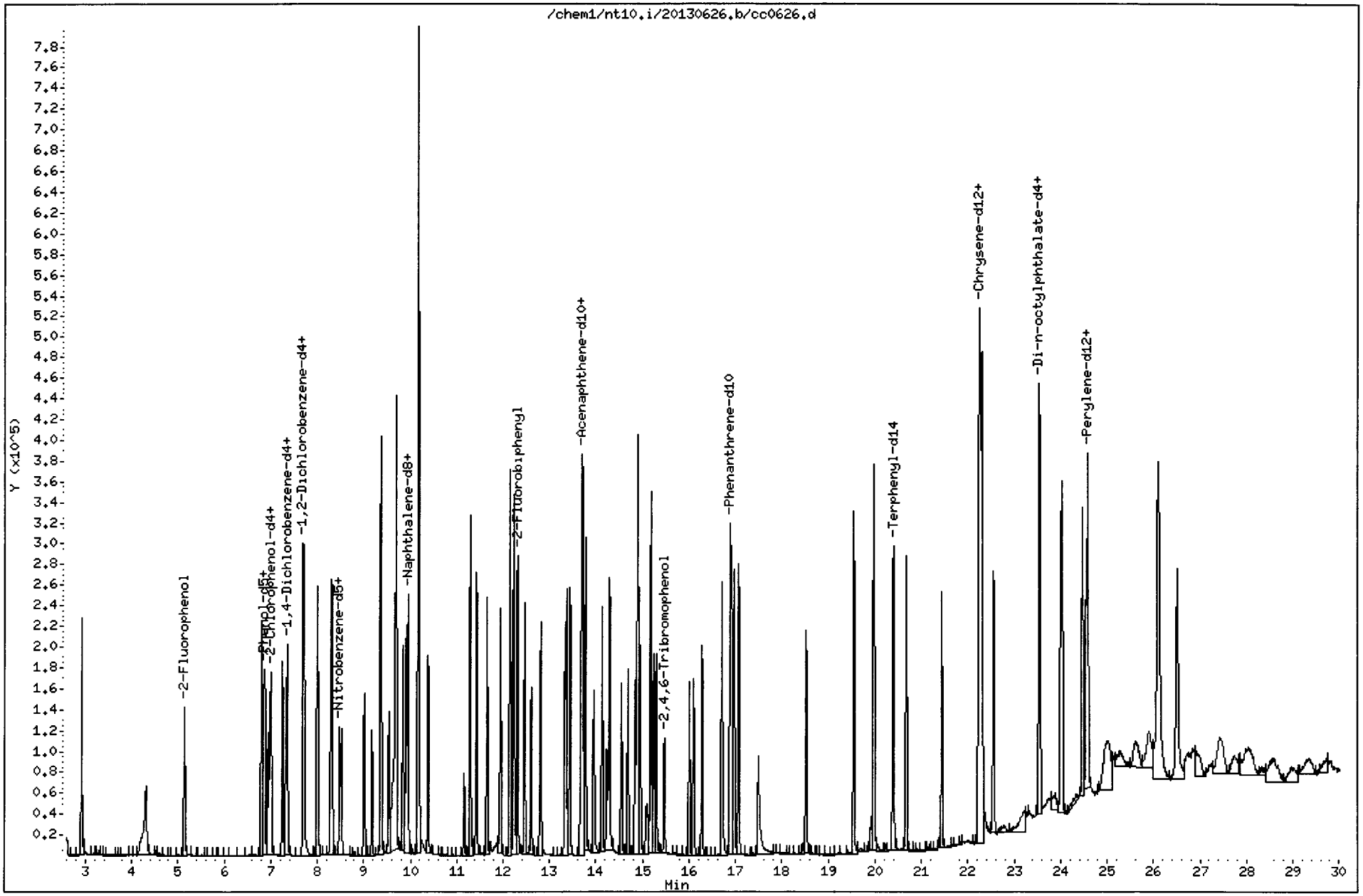
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.32	6.82	7.82	7.32	0.00
27 Naphthalene-d8	9.90	9.40	10.40	9.90	0.00
42 Acenaphthene-d10	13.71	13.21	14.21	13.71	0.00
59 Phenanthrene-d10	16.92	16.42	17.42	16.92	0.00
69 Chrysene-d12	22.26	21.76	22.76	22.26	0.00
134 Di-n-octylphthala	23.55	23.05	24.05	23.55	0.00
77 Perylene-d12	24.56	24.06	25.06	24.56	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130626.b/cc0626.d
Date : 26-JUN-2013 11:46
Client ID:
Sample Info: CC0626

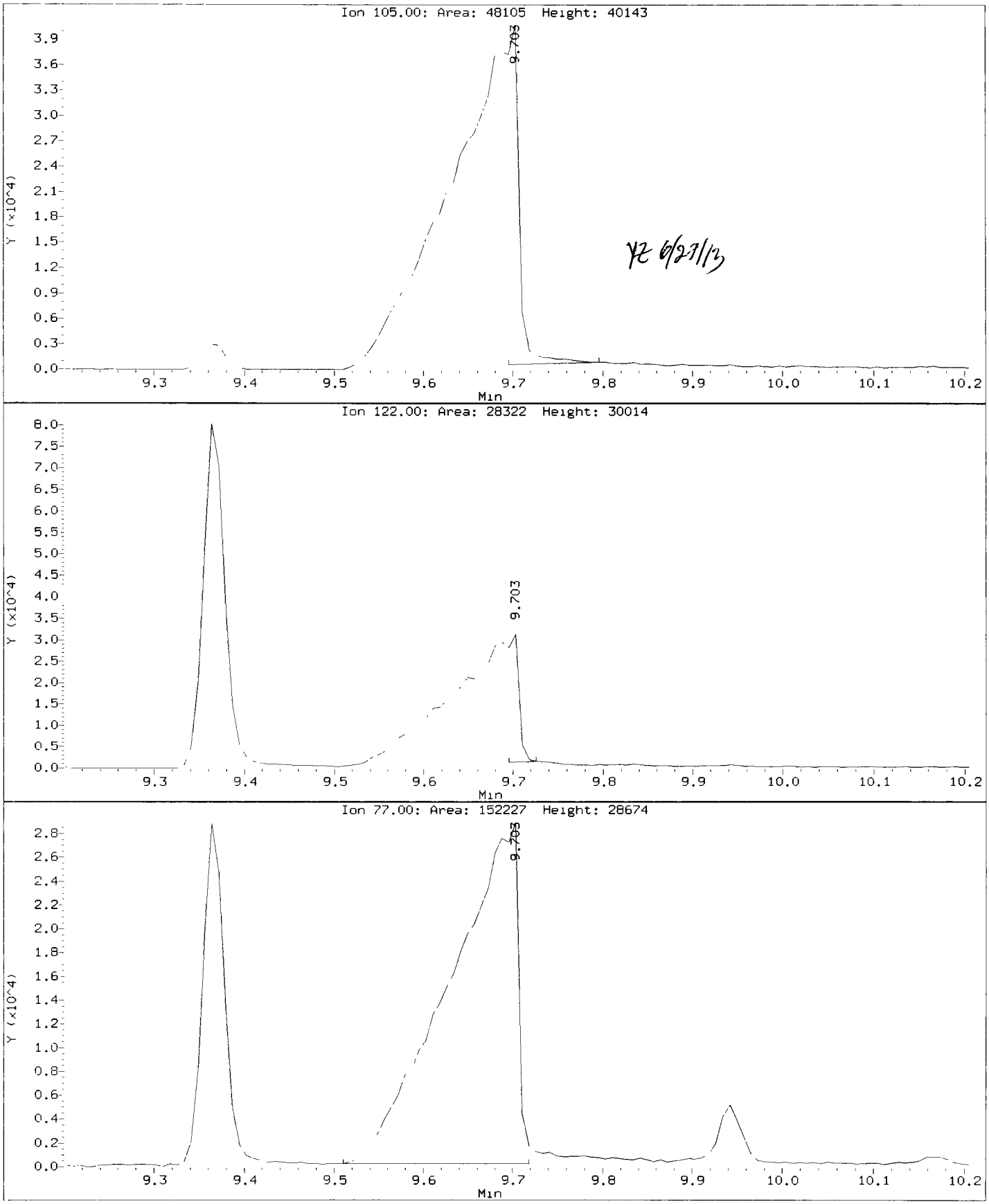
Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



Data File: /chem1/nt10.1/20130626.b/cc0626.d
Injection Date: 26-JUN-2013 11:46
Instrument: nt10.1
Client Sample ID:

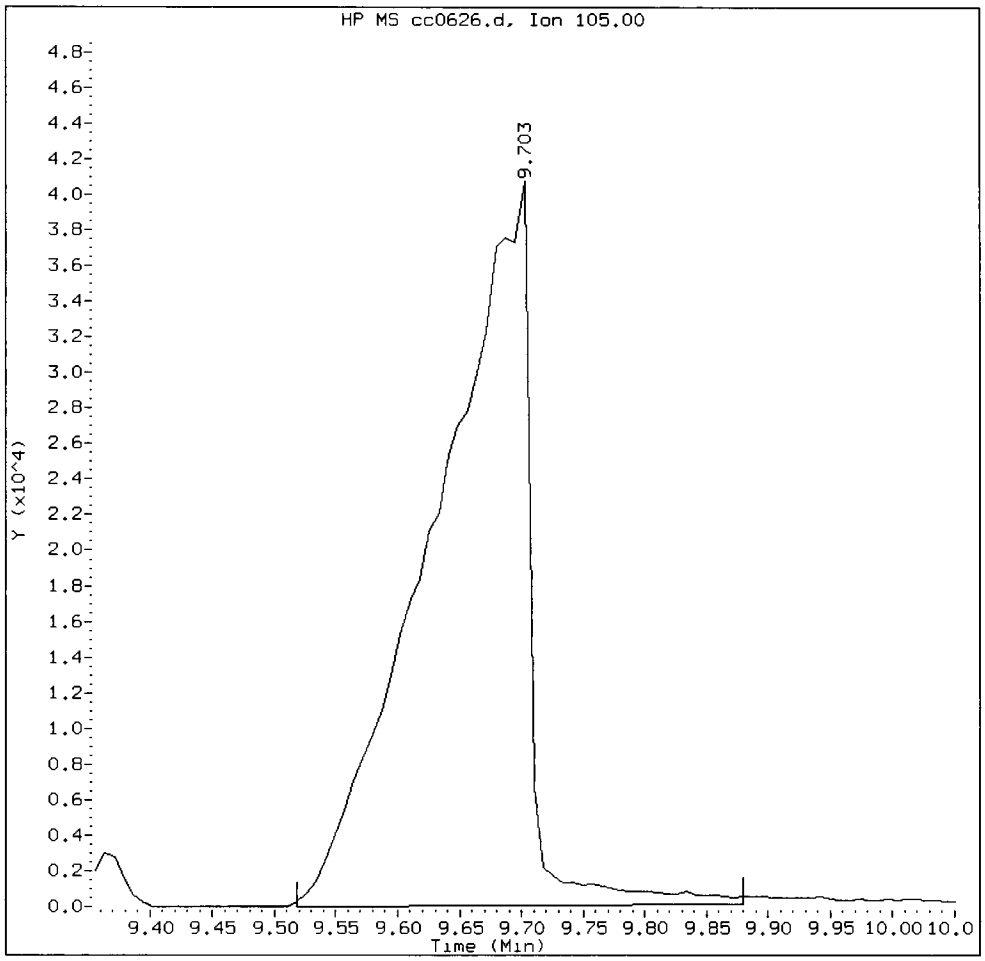
Compound: Benzoic acid
CAS Number: 65-85-0



YZ 6/27/13

CC0626, /chem1/nt10.i/20130626.b/cc0626.d

Benzoic acid Amount: 14.44 Area: 227382



MANUAL INTEGRATION for Benzoic acid

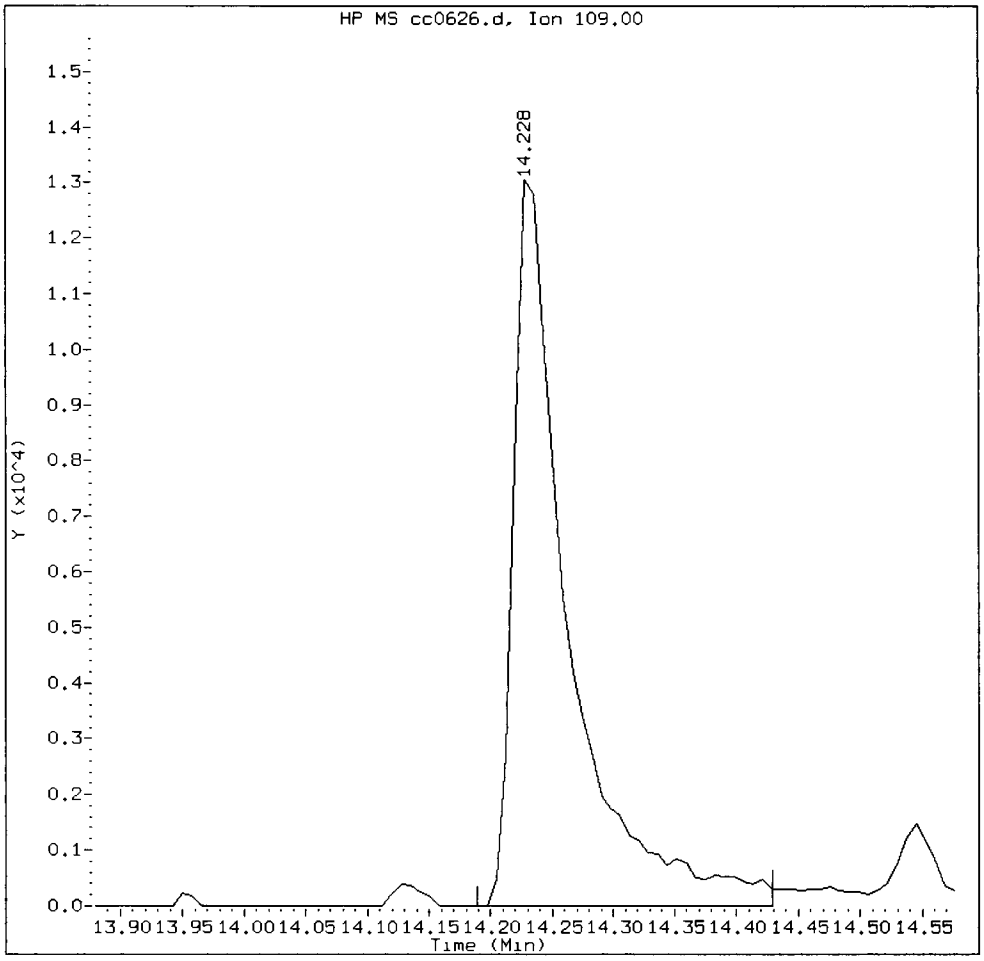
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

CC0626, /chem1/nt10.i/20130626.b/cc0626.d

4-Nitrophenol Amount: 8.30 Area: 40665



MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - cc0626.d

Lab ID: CC0626, Method: ABN.m, Instrument: nt10.i, Date: 26-JUN-2013

RT	CO-ELUTION COMPOUNDS
7.688	1,2-Dichlorobenzene-d4 and Benzyl alcohol

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 6/27/13

Data file : /chem1/nt10.i/20130626.b/wt81a3.d
Lab Smp Id: WT81A Client Smp ID: AM-VT-INF-20130612-
Inj Date : 26-JUN-2013 13:05
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT81A,3
Misc Info : 13-12636
Comment : 1ul Injection
Method : /chem1/nt10.i/20130626.b/ABN.m
Meth Date : 27-Jun-2013 11:35 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 1
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	56.90000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.182	5.136	(0.706)	27832	1.50418	1047(R)
$ 2	Phenol-d5	99	6.874	6.844	(0.937)	36073	1.50660	1049(R)
3	Phenol	94	6.898	6.867	(0.940)	20196	0.75357	524.5
$ 5	2-Chlorophenol-d4	132	6.998	6.975	(0.954)	29651	1.63140	1136(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.339	7.323	(1.000)	51840	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	7.704	7.688	(1.050)	12938	0.98961	688.8(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	7.704	7.688	(1.050)	1781	0.15798 J	110.0
14	2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
13	2-Methylphenol	108	8.014	7.999	(1.092)	3177	0.16474 J	114.7
17	Hexachloroethane	117	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	8.317	8.301	(1.133)	10279	0.52273	363.8
$	18 Nitrobenzene-d5	82	8.488	8.480	(0.857)	21936	1.08781	757.2(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	9.379	9.364	(0.947)	3118	0.16247 J	113.1
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	9.618	9.703	(0.971)	15542	0.94185	655.6(H)
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	9.903	9.903	(1.000)	191094	4.00000	
	28 Naphthalene	128	9.950	9.942	(1.005)	37449	0.73608	512.4
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	11.427	11.427	(1.154)	9532	0.28207	196.3
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.309	12.309	(0.897)	45207	1.19379	830.9(R)
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	13.370	13.370	(0.975)	16911	0.33073	230.2
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.718	13.710	(1.000)	108499	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	Compound Not Detected.					
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.135	14.135	(1.030)	8392	0.19917 J	138.6
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	14.885	14.885	(1.085)	9678	0.26919	187.4
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.240	15.232	(0.900)	5509	0.30604	213.0
$	55 2,4,6-Tribromophenol	330	15.471	15.464	(1.128)	10581	1.84407	1284
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	16.924	16.916	(1.000)	155499	4.00000	
	60 Phenanthrene	178	16.970	16.963	(1.003)	57271	1.35027	939.9
	61 Anthracene	178	17.071	17.063	(1.009)	10518	0.24206	168.5
	62 Carbazole	167	17.497	17.489	(1.034)	15668	0.59361	413.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
63	Di-n-butylphthalate	149	18.533	18.526	(1.095)	13065	0.29126	202.7
64	Fluoranthene	202	19.555	19.547	(1.155)	59938	1.20068	835.7
65	Pyrene	202	19.980	19.972	(0.897)	66119	1.31624	916.2
$ 66	Terphenyl-d14	244	20.421	20.398	(0.917)	38076	1.20474	838.6(R)
67	Butylbenzylphthalate	149	21.459	21.436	(0.963)	31695	1.84763	1286
68	Benzo(a)anthracene	228	22.249	22.225	(0.999)	13953	0.30695	213.7
* 69	Chrysene-d12	240	22.279	22.256	(1.000)	162360	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.318	22.295	(1.002)	36628	0.89041	619.8
72	bis(2-Ethylhexyl)phthalate	149	22.574	22.551	(0.958)	210081	7.30036	5081
* 134	Di-n-octylphthalate-d4	153	23.565	23.549	(1.000)	216448	4.00000	
73	Di-n-octylphthalate	149	23.580	23.557	(1.001)	7389	0.14827	103.2(M)
74	Benzo(b)fluoranthene	252	24.037	23.998	(0.978)	33508	0.68624	477.7
75	Benzo(k)fluoranthene	252	24.037	24.037	(0.978)	33508	0.65152	453.5
76	Benzo(a)pyrene	252	24.501	24.471	(0.997)	10815	0.25926	180.5
* 77	Perylene-d12	264	24.587	24.556	(1.000)	164427	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.144	26.098	(1.063)	12812	0.26658	185.6(M)
79	Dibenzo(a,h)anthracene	278	26.152	26.121	(1.064)	4495	0.12192	84.87(M)
80	Benzo(g,h,i)perylene	276	26.556	26.509	(1.080)	19546	0.47006	327.2
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	11.659	11.652	(1.177)	7025	0.22667	157.8
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.037	24.037	(0.978)	32362	0.68254	475.1
99	Perylene	252	24.618	24.587	(1.001)	7358	0.15430	107.4
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81a3.d
Lab Smp Id: WT81A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12636

Calibration Date: 26-JUN-2013
Calibration Time: 11:46
Client Smp ID: AM-VT-INF-201306
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	51840	14.56
27 Naphthalene-d8	166754	83377	333508	191094	14.60
42 Acenaphthene-d10	106910	53455	213820	108499	1.49
59 Phenanthrene-d10	179783	89892	359566	155499	-13.51
69 Chrysene-d12	192841	96420	385682	162360	-15.81
134 Di-n-octylphthala	229567	114784	459134	216448	-5.71
77 Perylene-d12	184310	92155	368620	164427	-10.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.32	6.82	7.82	7.34	0.21
27 Naphthalene-d8	9.90	9.40	10.40	9.90	0.00
42 Acenaphthene-d10	13.71	13.21	14.21	13.72	0.06
59 Phenanthrene-d10	16.92	16.42	17.42	16.92	0.05
69 Chrysene-d12	22.26	21.76	22.76	22.28	0.10
134 Di-n-octylphthala	23.55	23.05	24.05	23.56	0.07
77 Perylene-d12	24.56	24.06	25.06	24.59	0.13

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

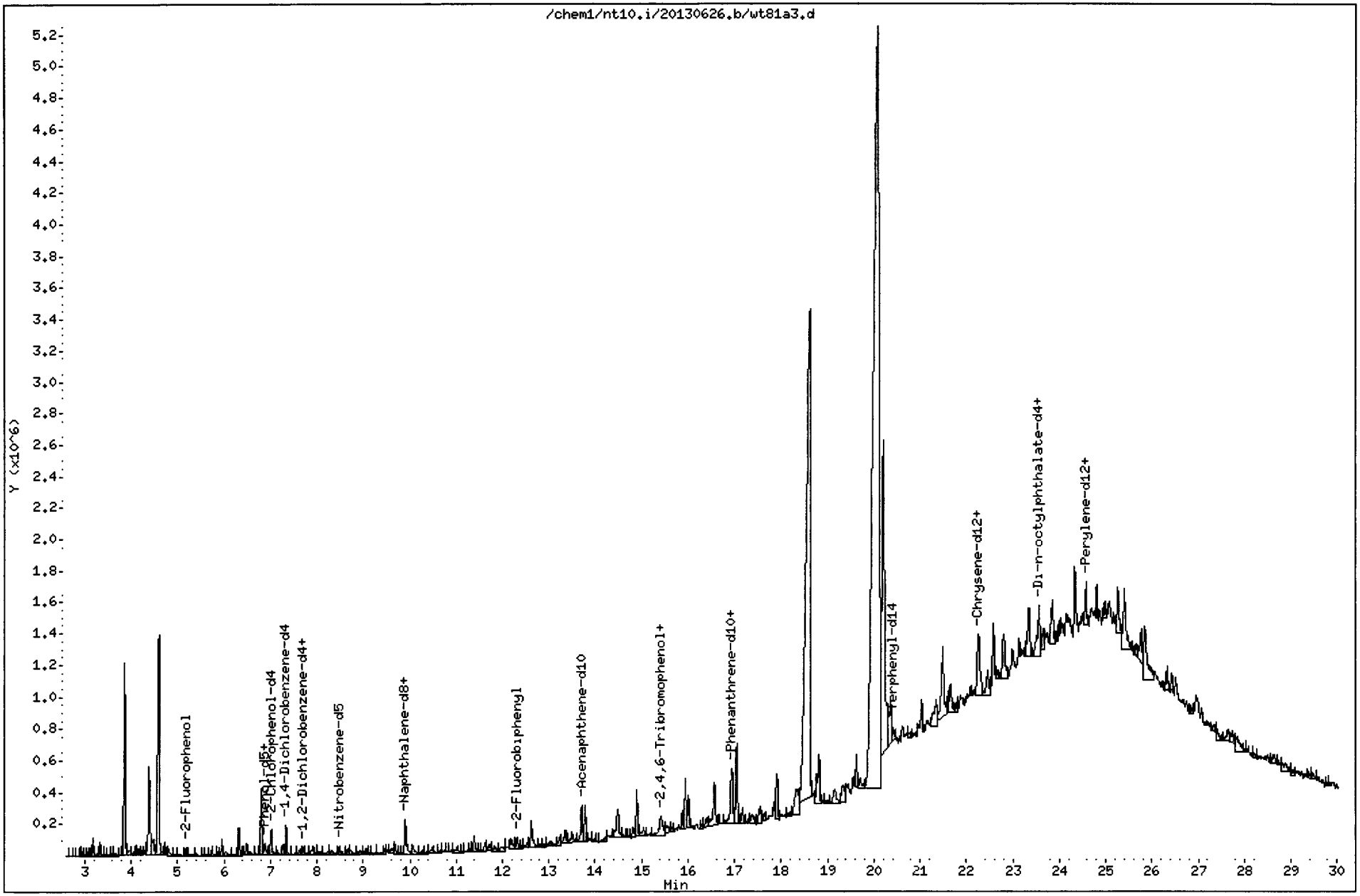
Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81A
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12636

Client SDG: WT81
Fraction: SV
Client Smp ID: AM-VT-INF-20130612-
Operator: VTS/YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	1740	1047	60.17	27-120
$ 2 Phenol-d5	1740	1049	60.26	29-120
$ 5 2-Chlorophenol-d4	1740	1136	65.26	31-120
$ 10 1,2-Dichlorobenzen	1160	688.8	59.38	32-120
$ 18 Nitrobenzene-d5	1160	757.2	65.27	30-120
$ 36 2-Fluorobiphenyl	1160	830.9	71.63	35-120
$ 55 2,4,6-Tribromophen	1740	1284	73.76	24-134
$ 66 Terphenyl-d14	1160	838.6	72.28	37-120

Data File: /chem1/nt10.i/20130626.b/wt81a3.d
Date : 26-JUN-2013 13:05
Client ID: AM-VT-INF-20130612-
Sample Info: WT81A,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

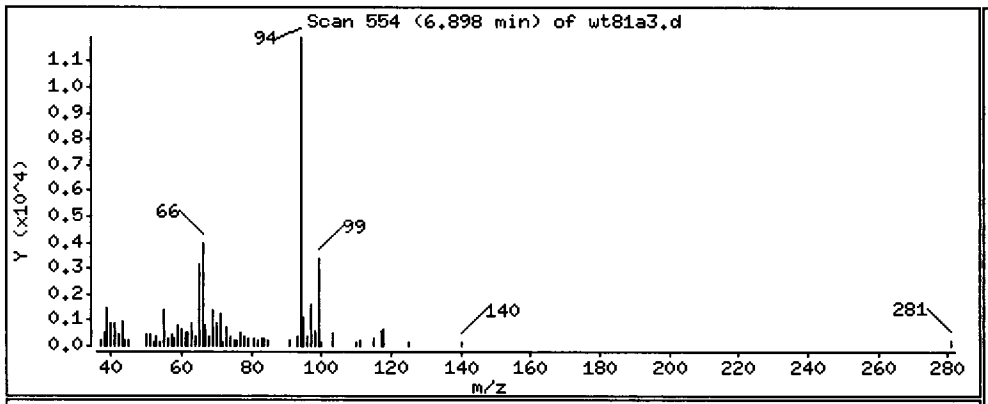
Operator: VTS/YZ

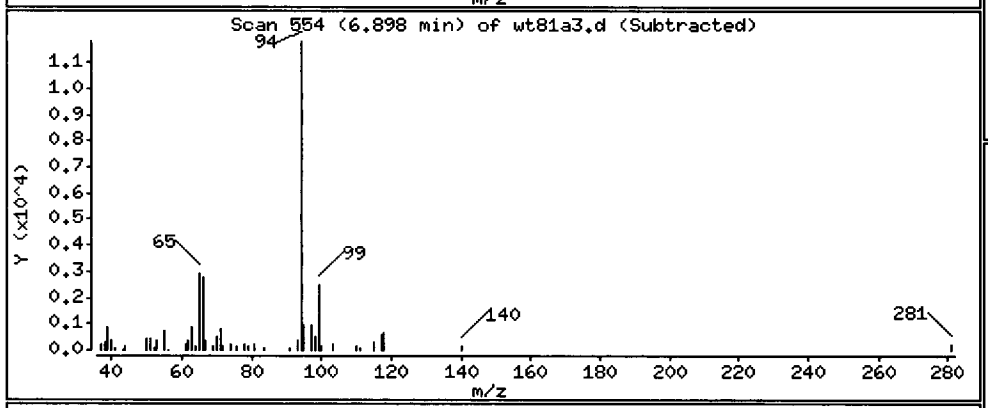
Column phase: ZB-5msi

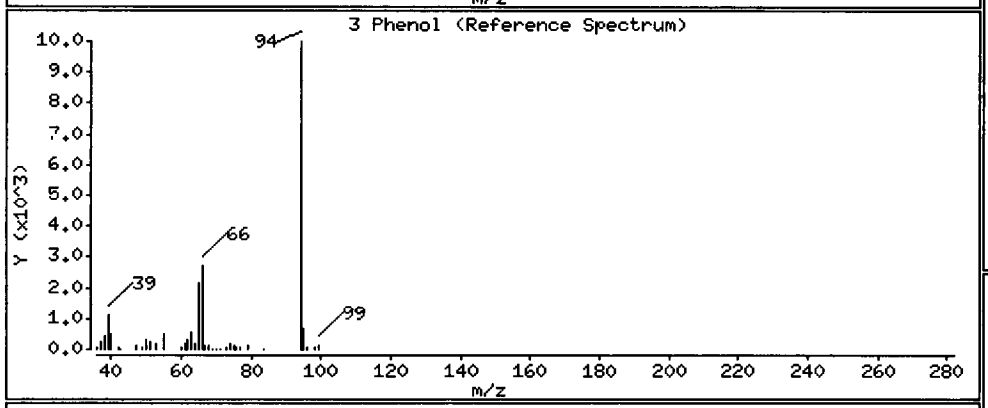
Column diameter: 0.25

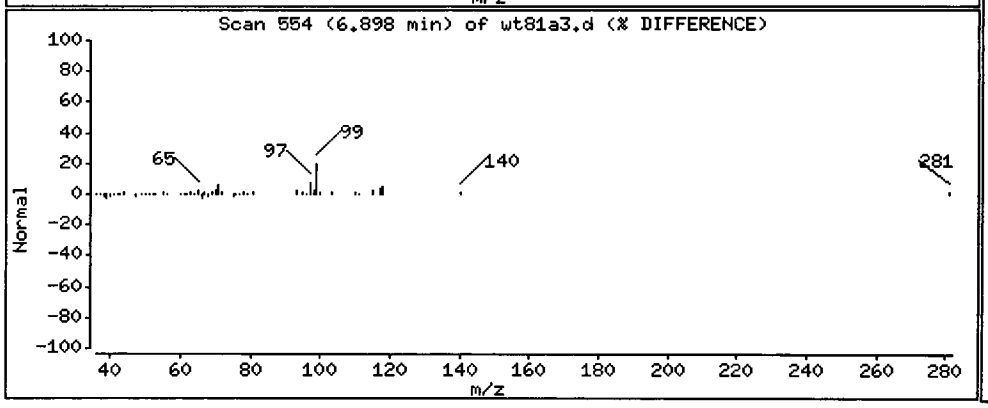
3 Phenol

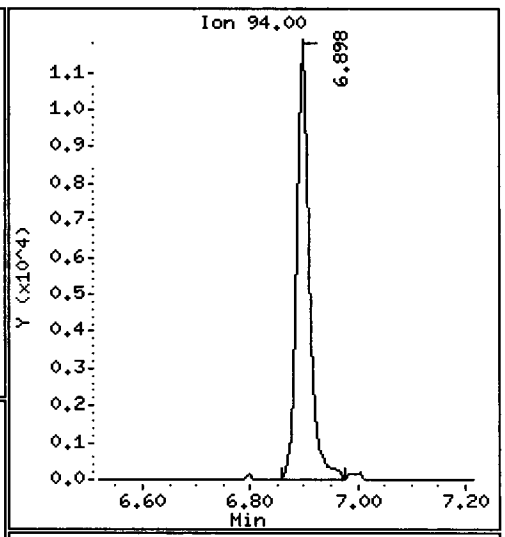
Concentration: 524.5 ug/kg

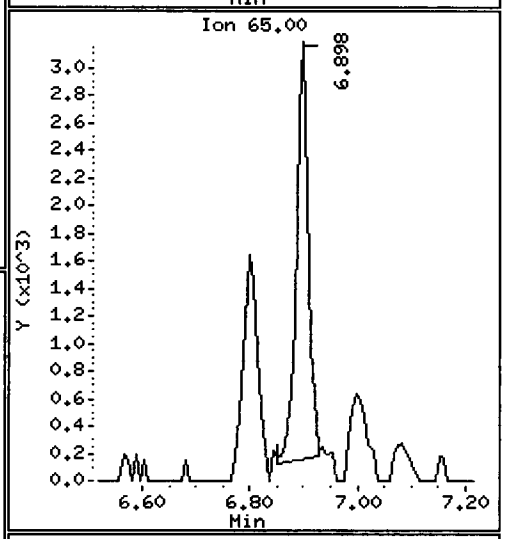


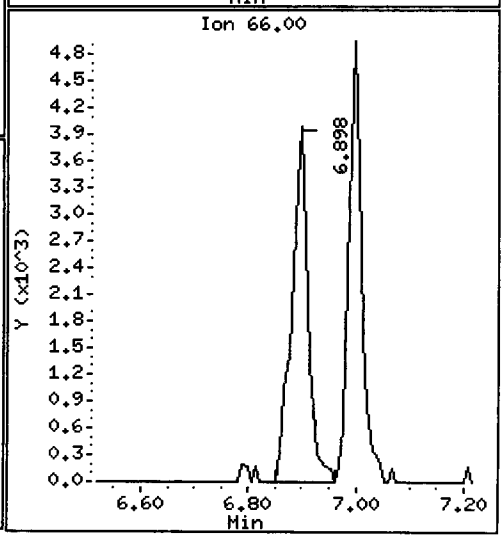












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

Operator: VTS/YZ

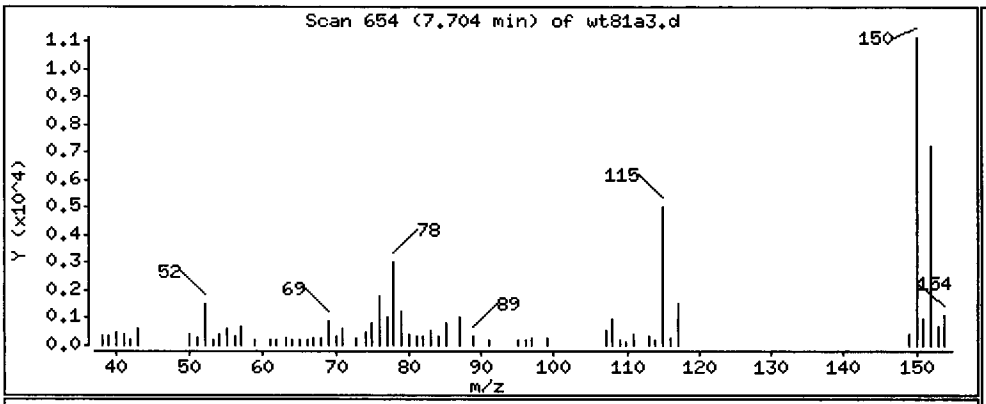
Column phase: ZB-5msi

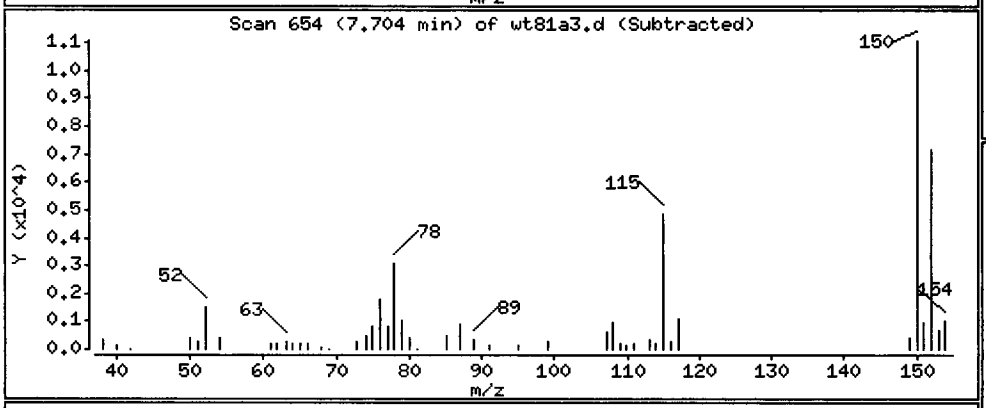
Column diameter: 0.25

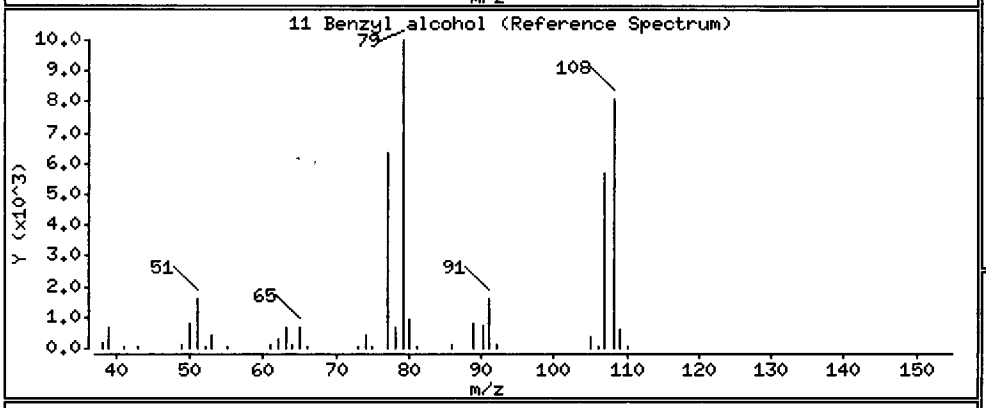
11 Benzyl alcohol

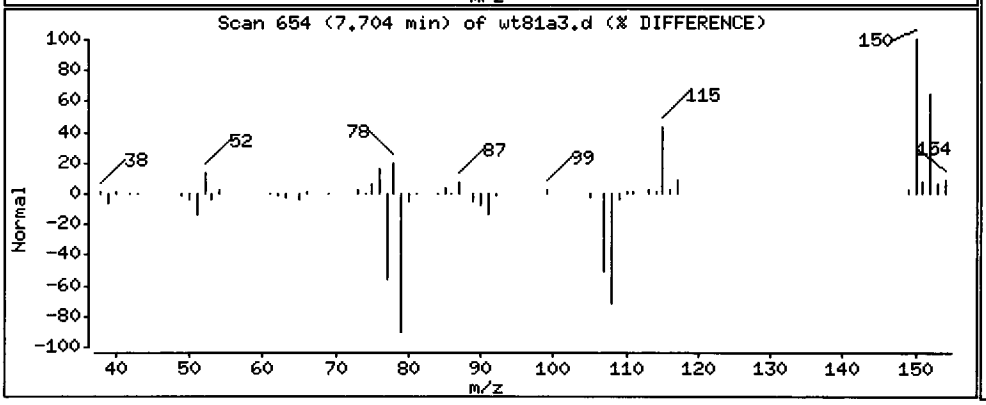
Concentration: 110.0 ug/kg

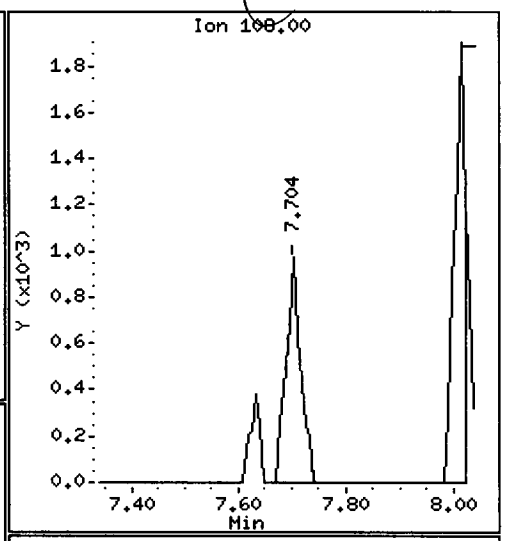
CTYRL

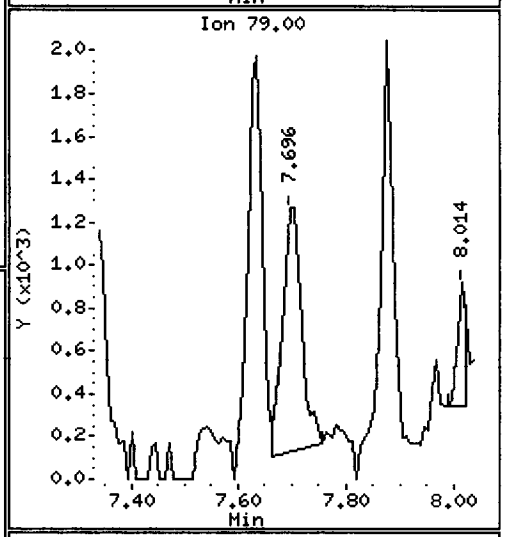


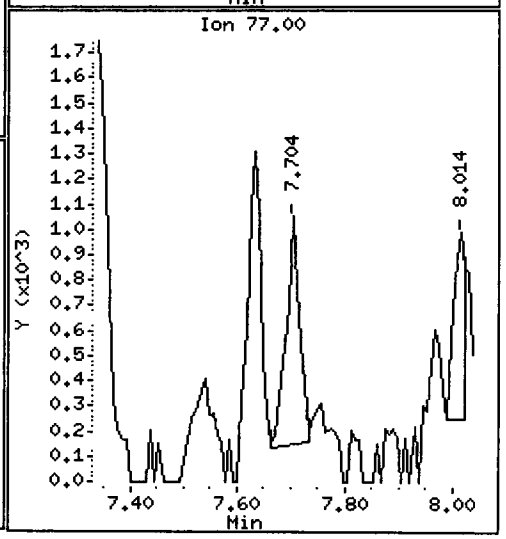












VT91 : 8836

Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

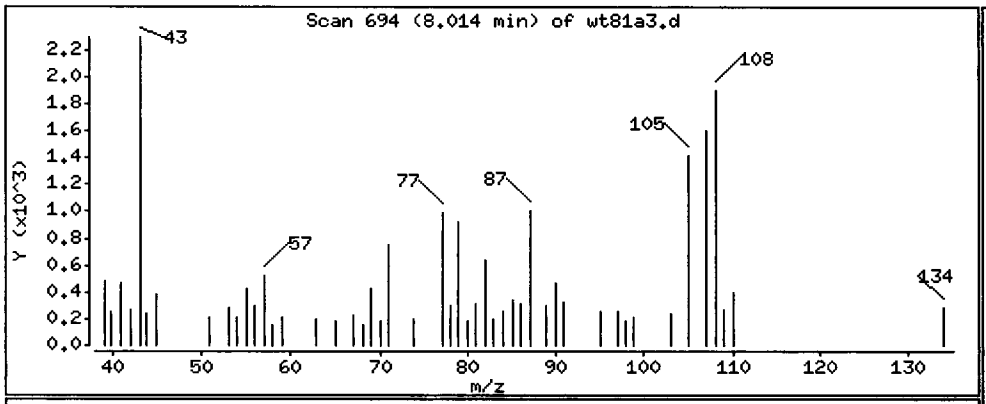
Operator: VTS/YZ

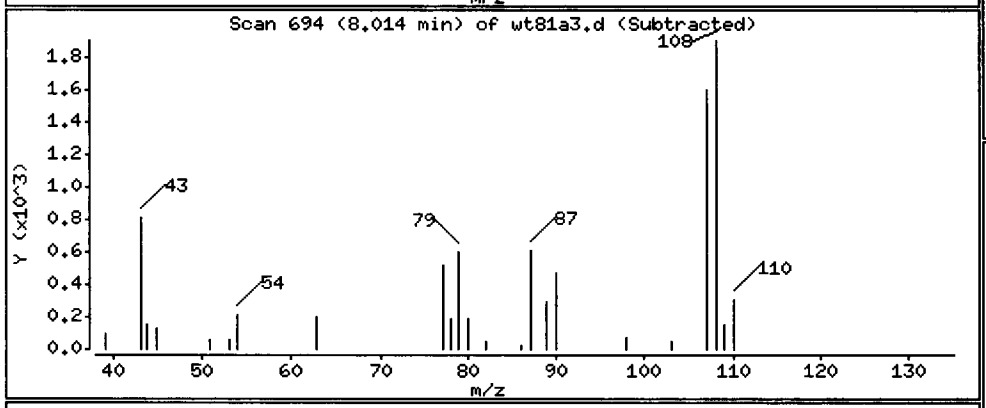
Column phase: ZB-5ms

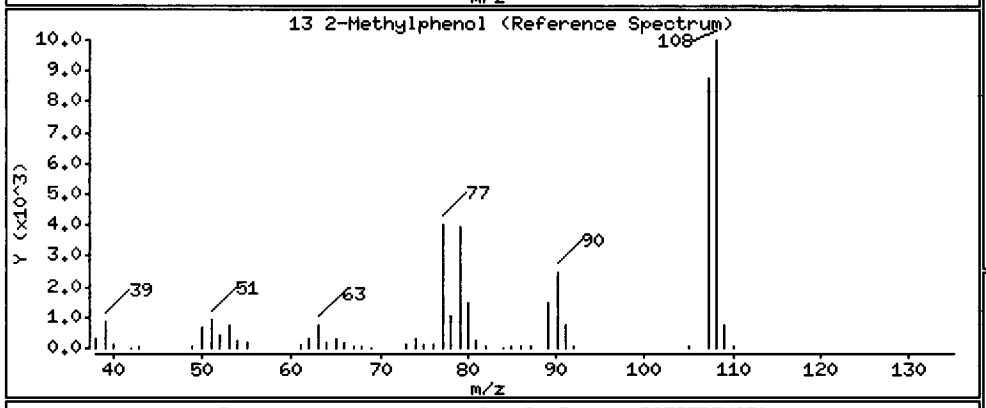
Column diameter: 0.25

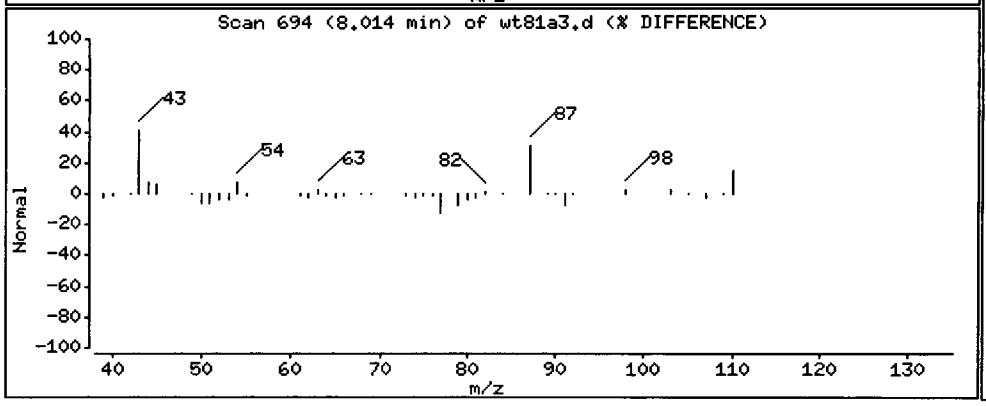
13 2-Methylphenol

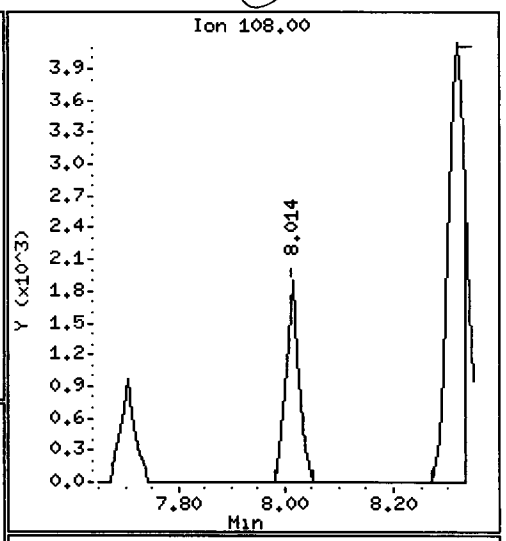
Concentration: 114.7 ug/kg

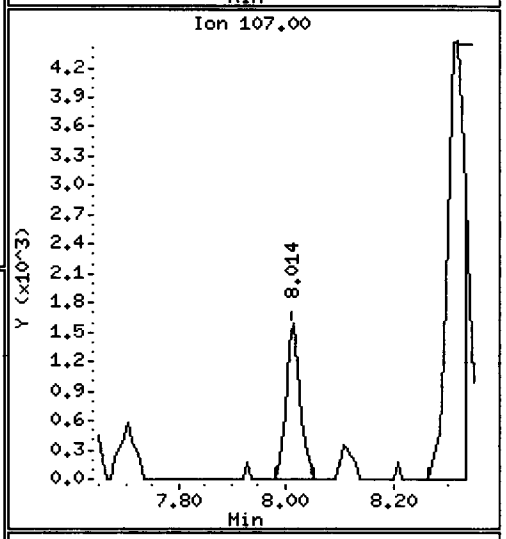


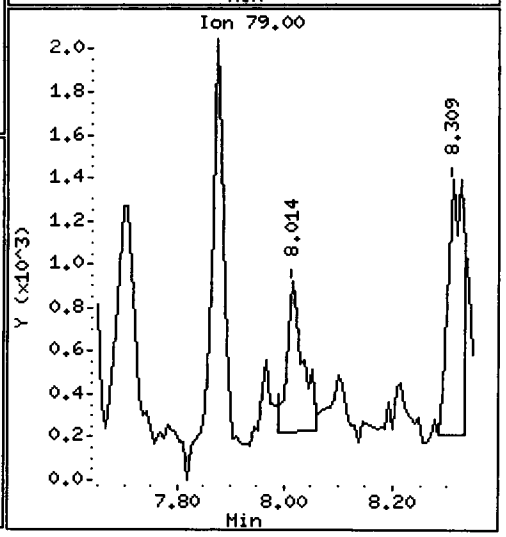












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

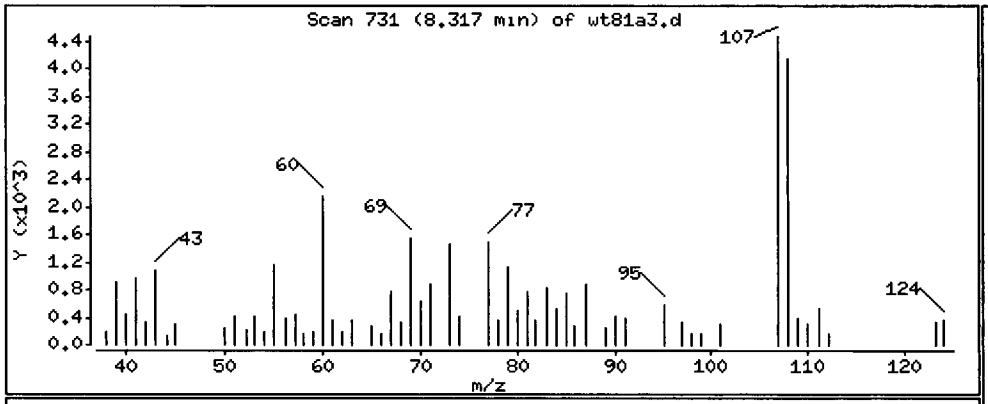
Operator: VTS/YZ

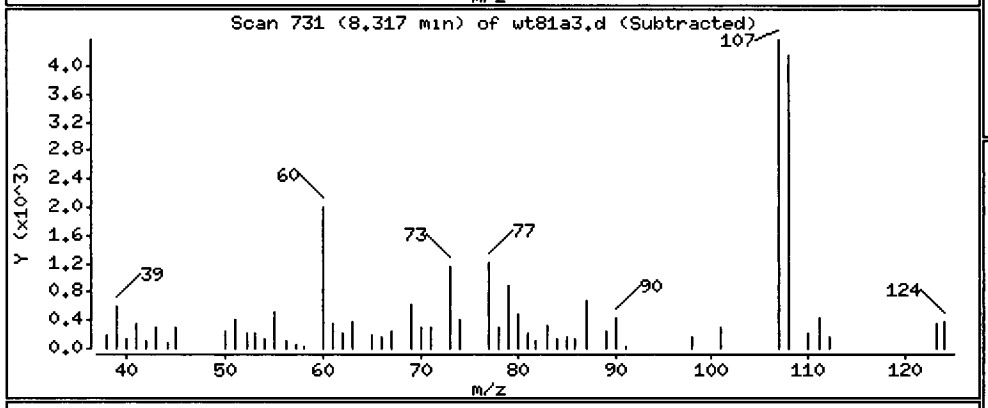
Column phase: ZB-5msi

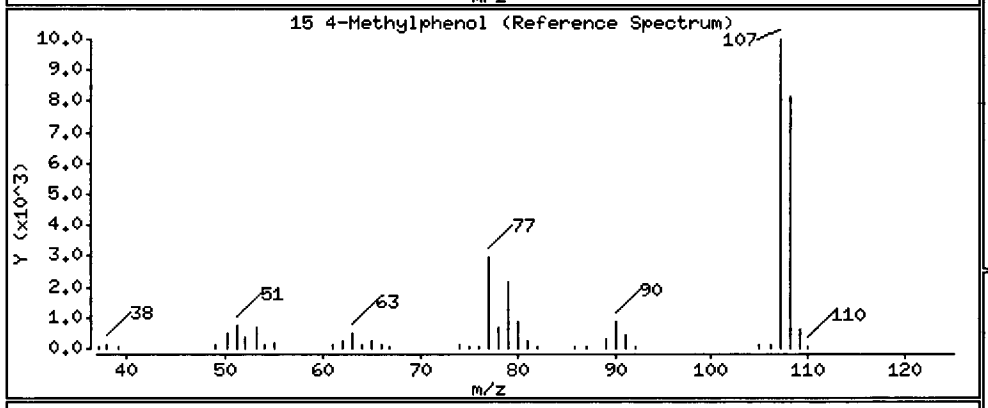
Column diameter: 0.25

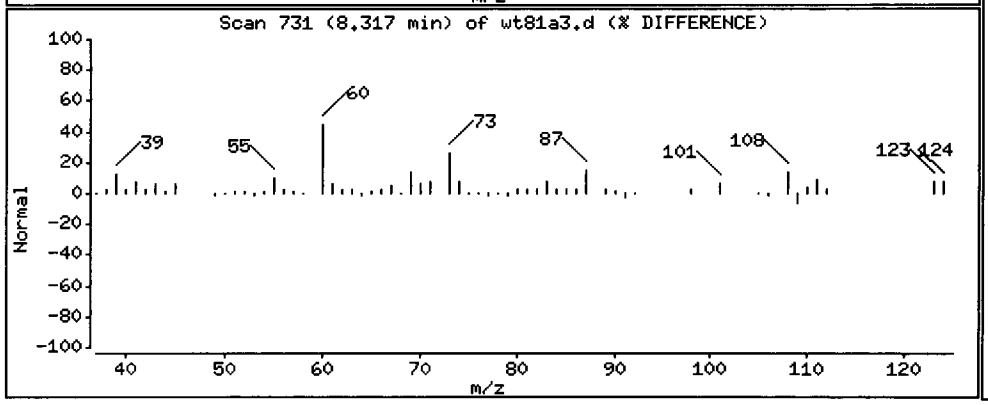
15 4-Methylphenol

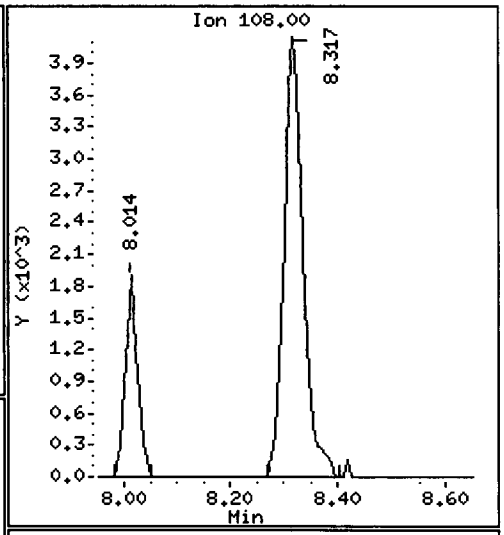
Concentration: 363.8 ug/kg

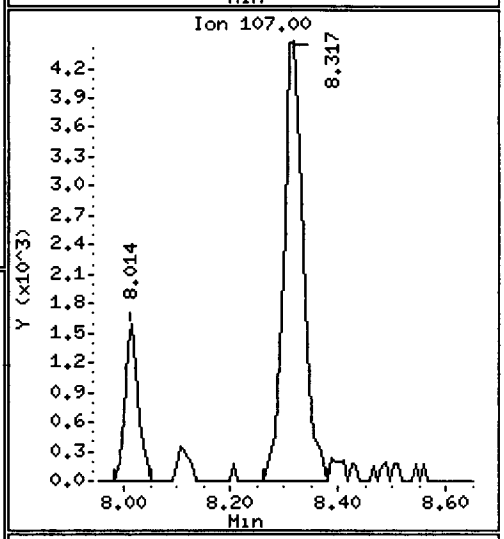


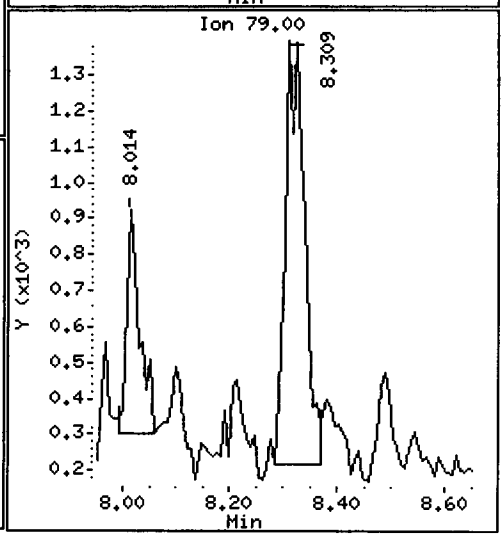












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

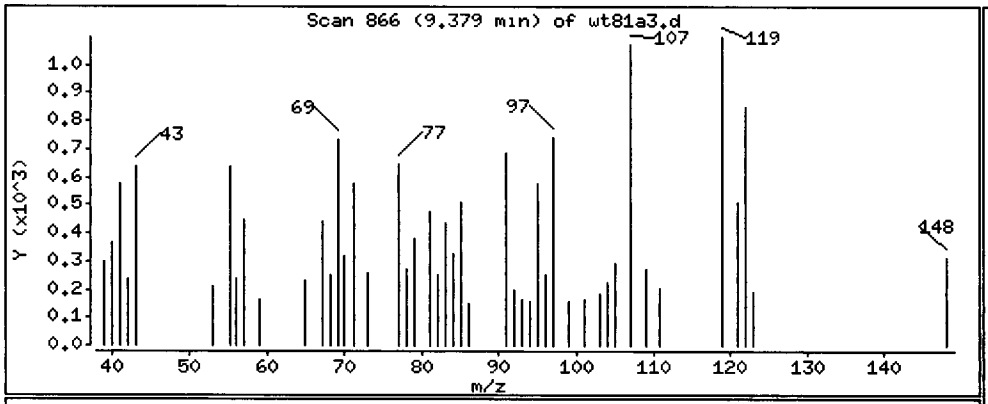
Operator: VTS/YZ

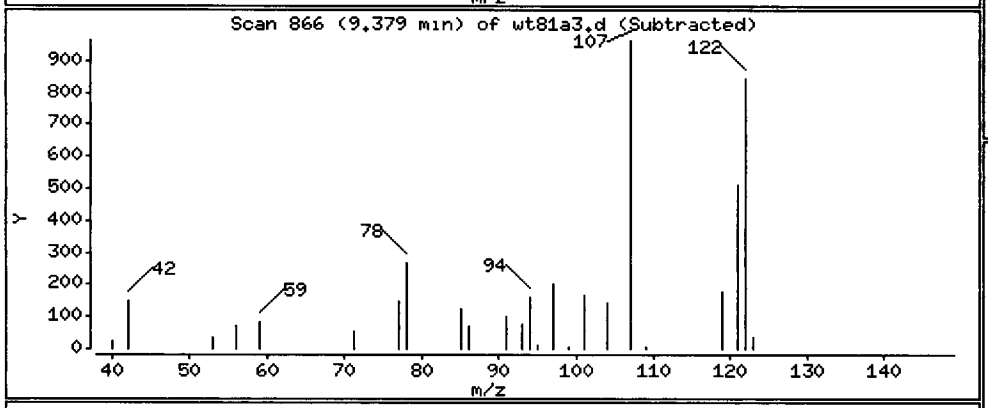
Column phase: ZB-5ms1

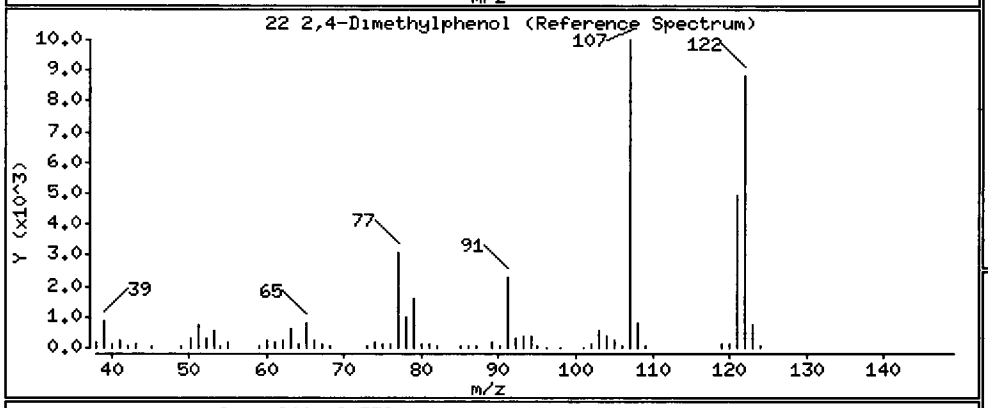
Column diameter: 0.25

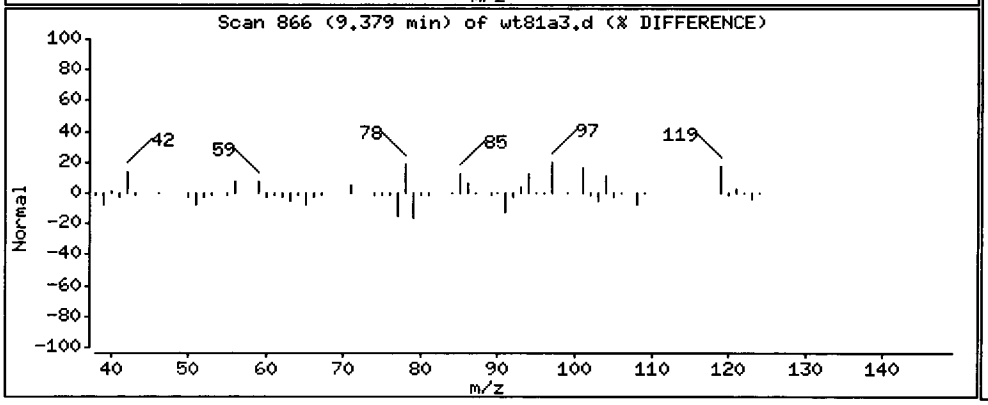
22 2,4-Dimethylphenol

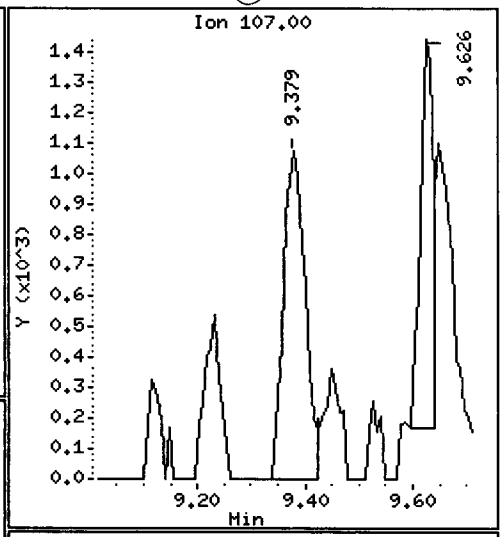
Concentration: 113.1 ug/kg

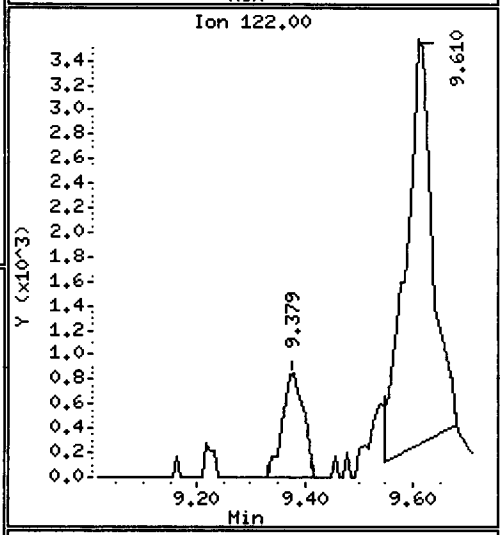


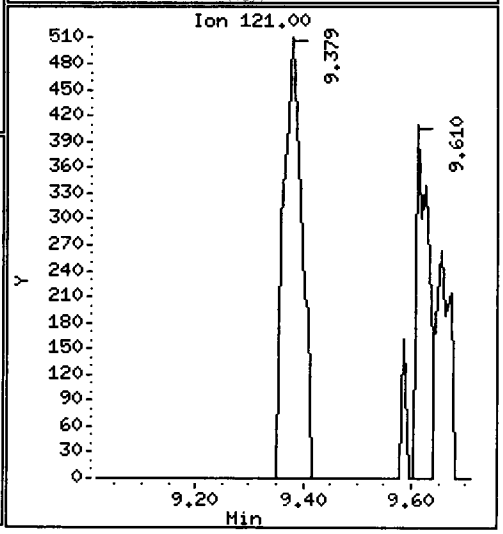












WT81 : 8888

Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

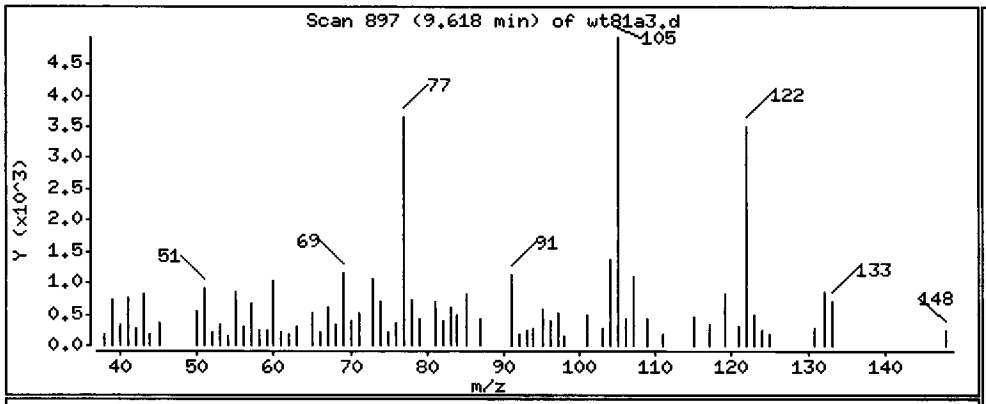
Operator: VTS/YZ

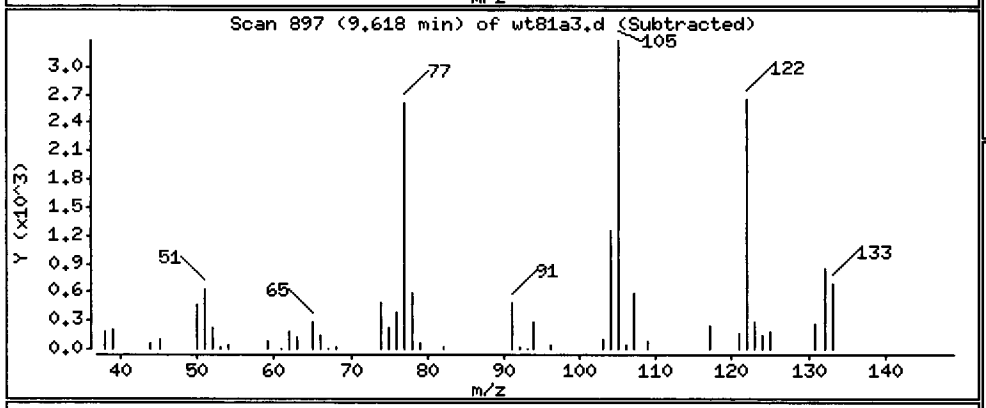
Column phase: ZB-5msi

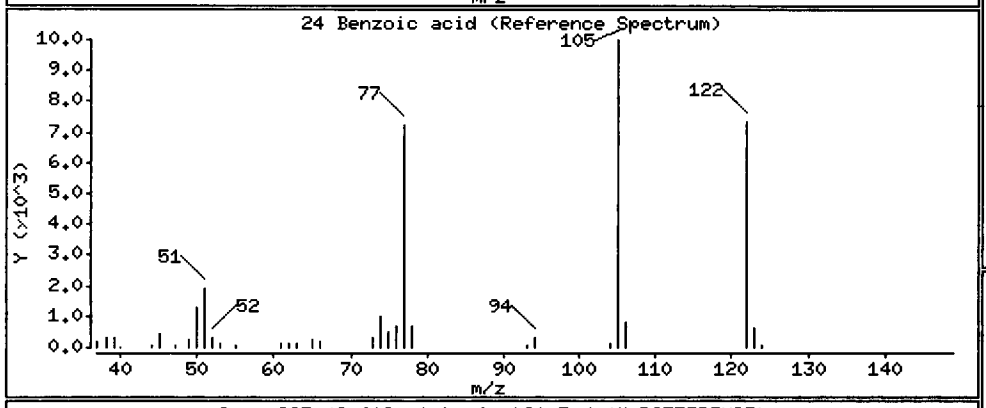
Column diameter: 0.25

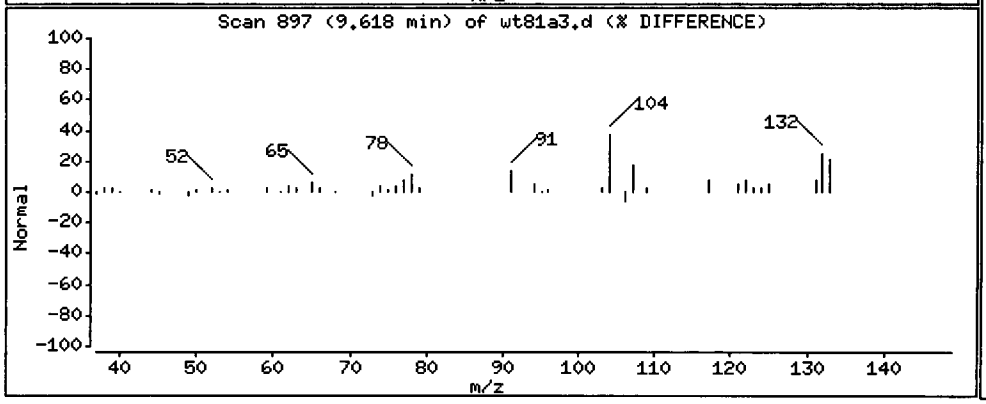
24 Benzoic acid

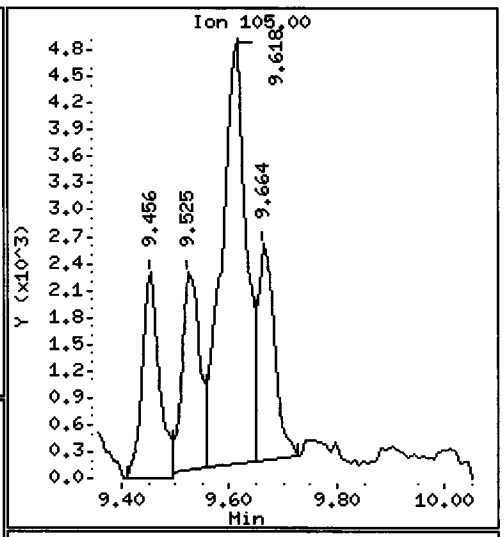
Concentration: 655.6 ug/kg

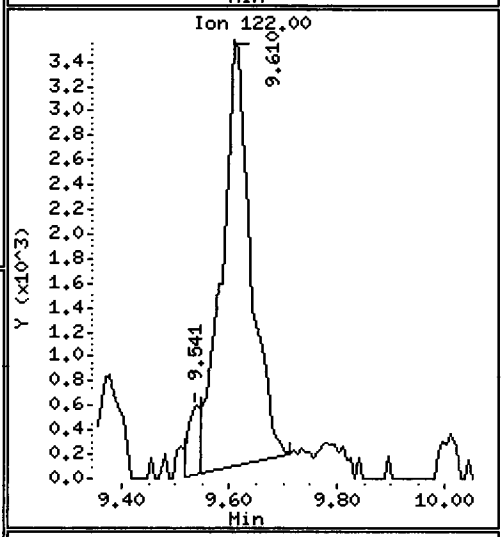


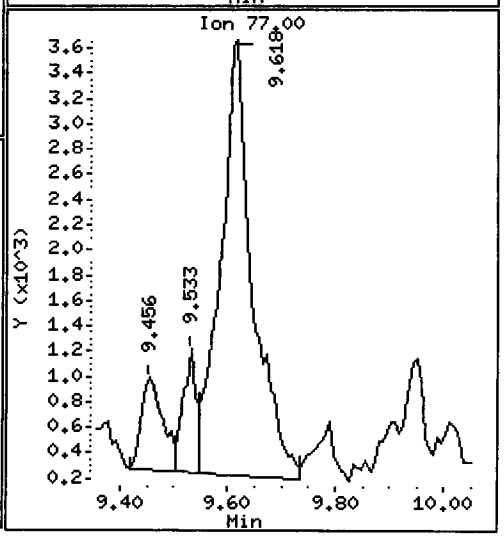












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

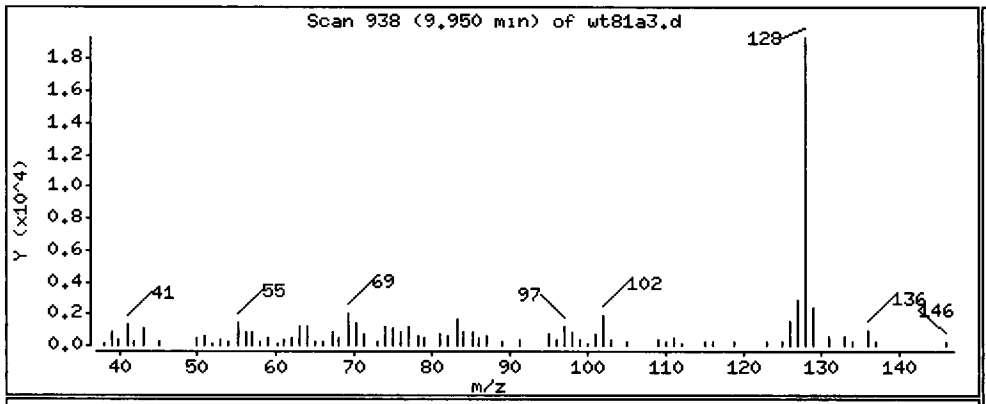
Operator: VTS/YZ

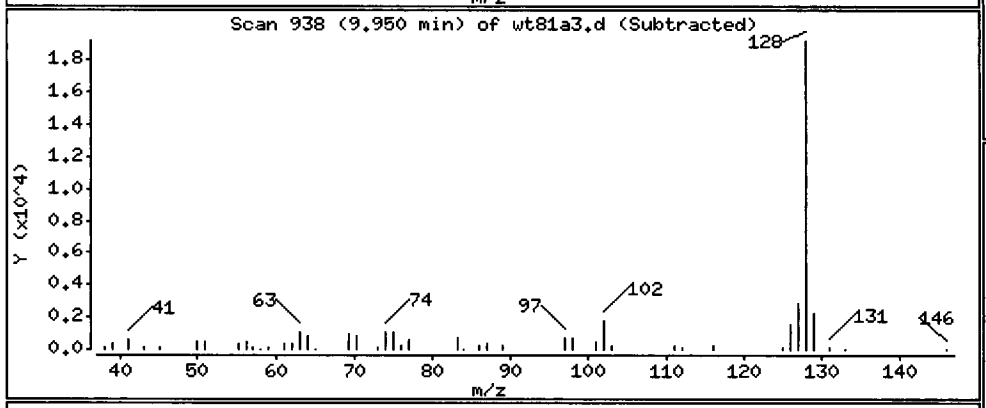
Column phase: ZB-5ms1

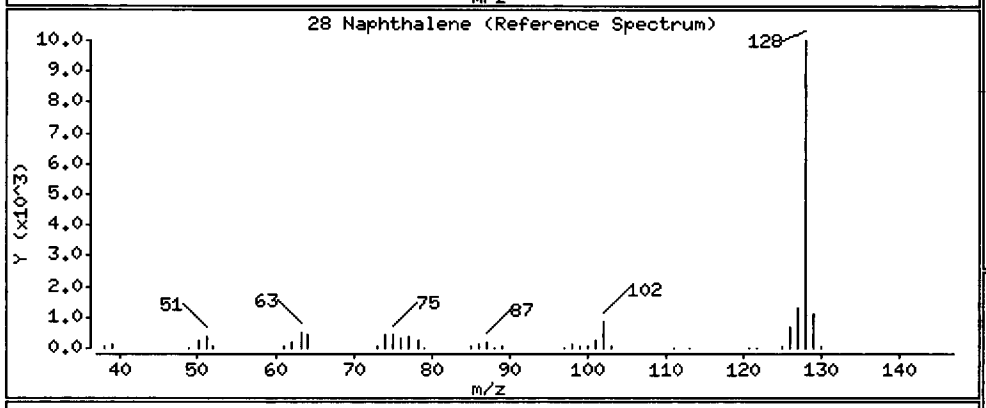
Column diameter: 0.25

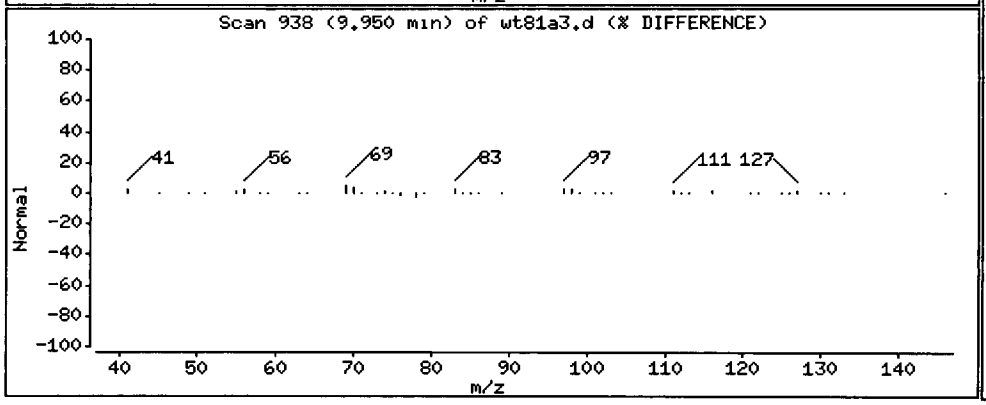
28 Naphthalene

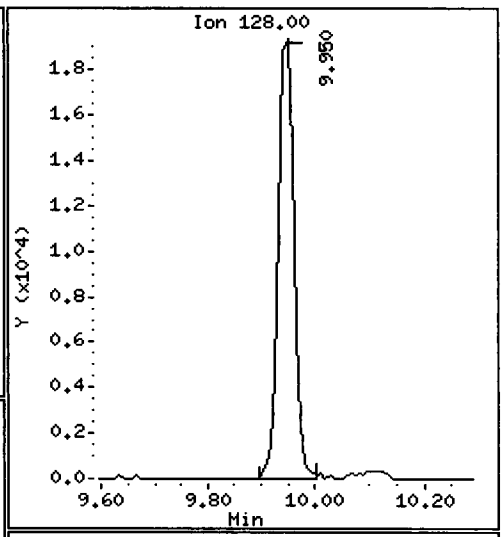
Concentration: 512.4 ug/kg

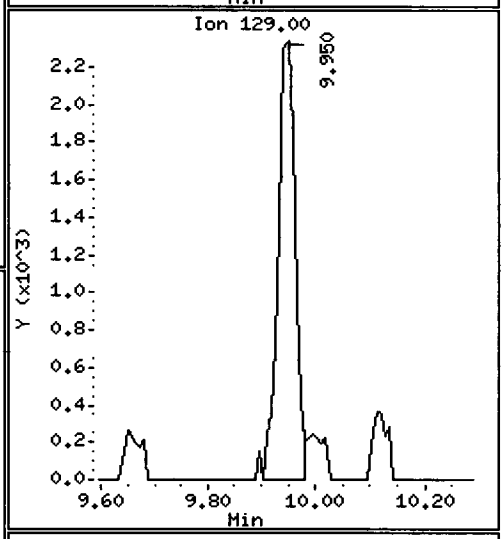


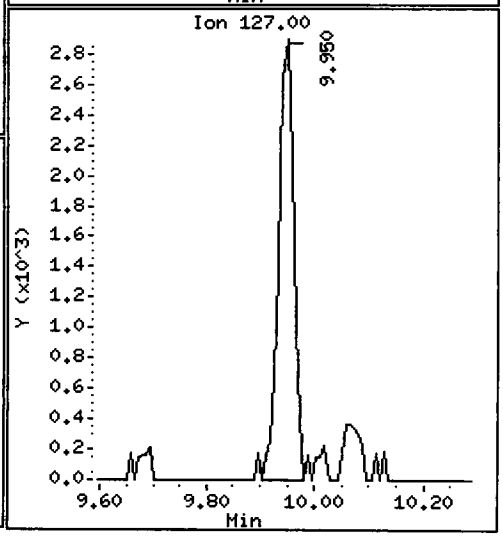












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

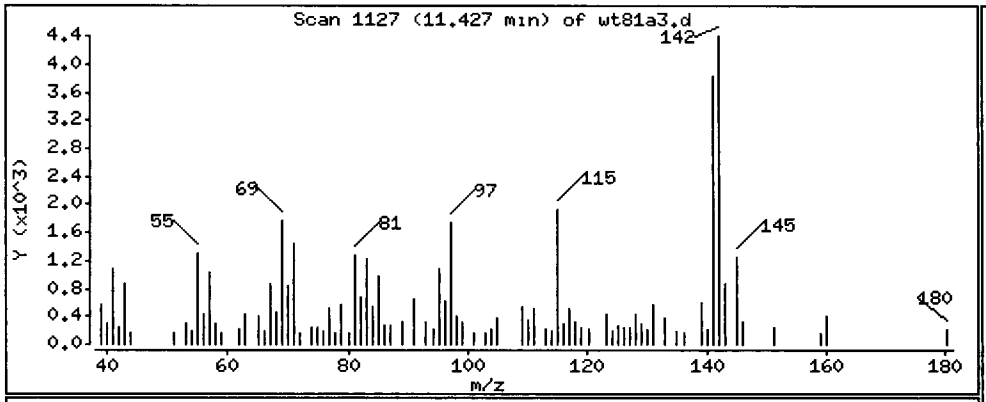
Operator: VTS/YZ

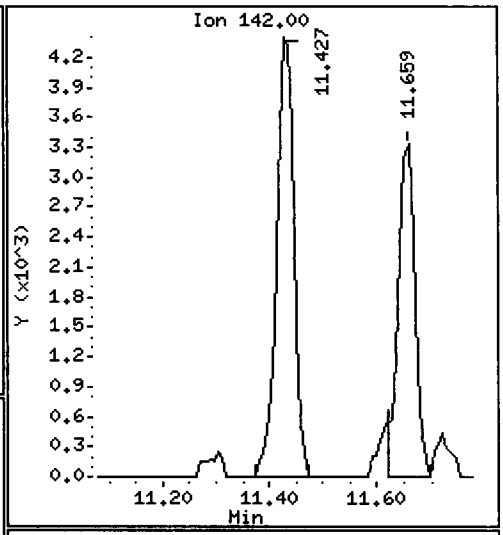
Column phase: ZB-5msi

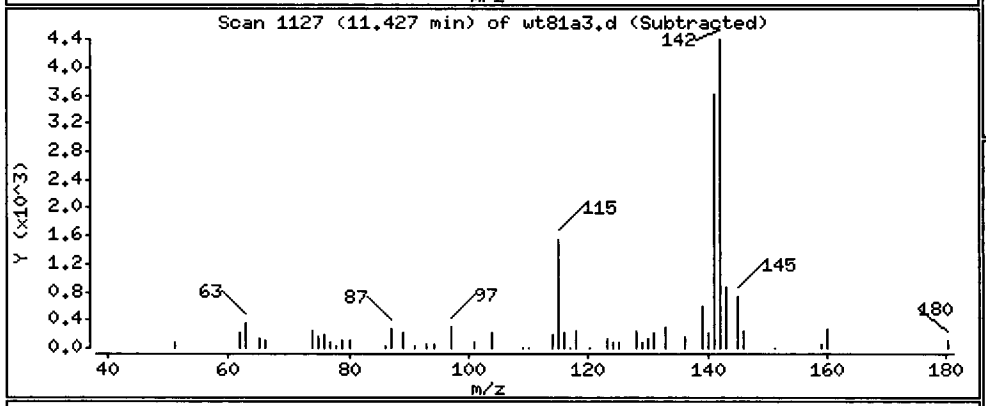
Column diameter: 0.25

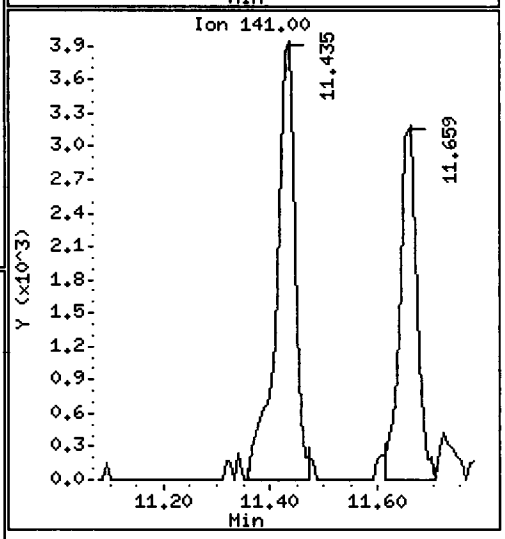
32 2-Methylnaphthalene

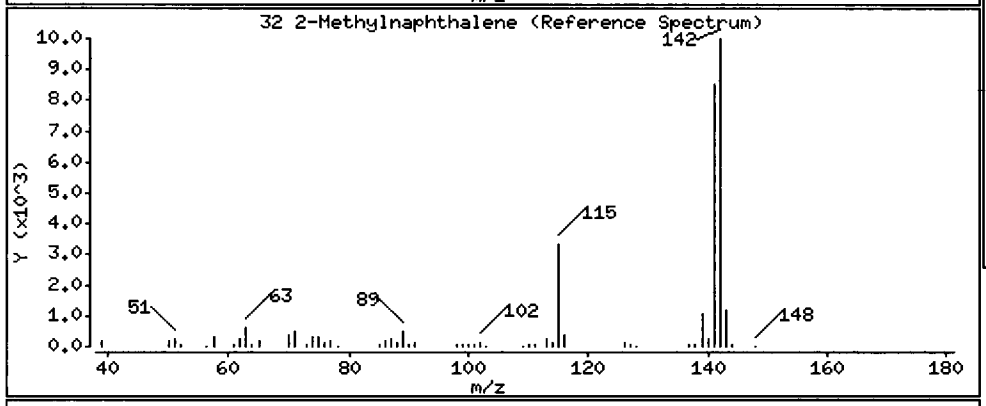
Concentration: 196.3 ug/kg

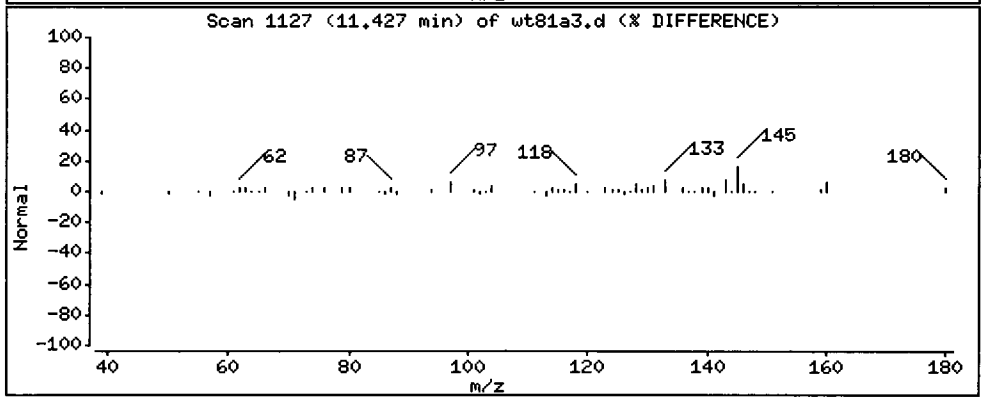












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

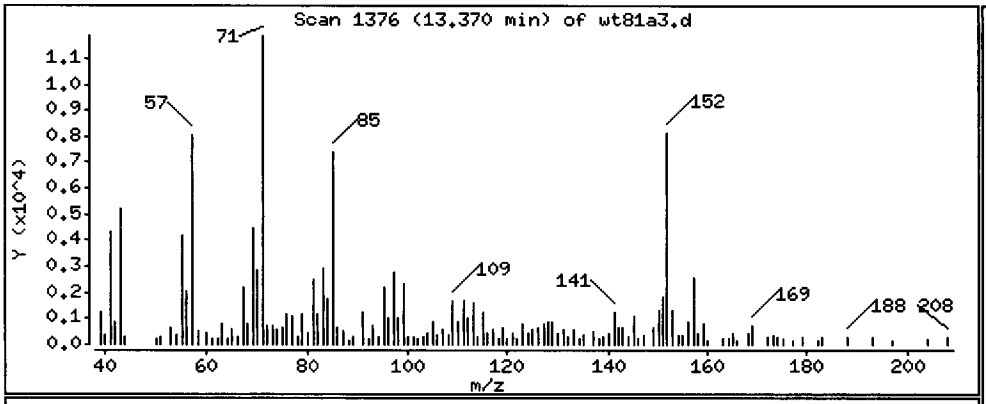
Operator: VTS/YZ

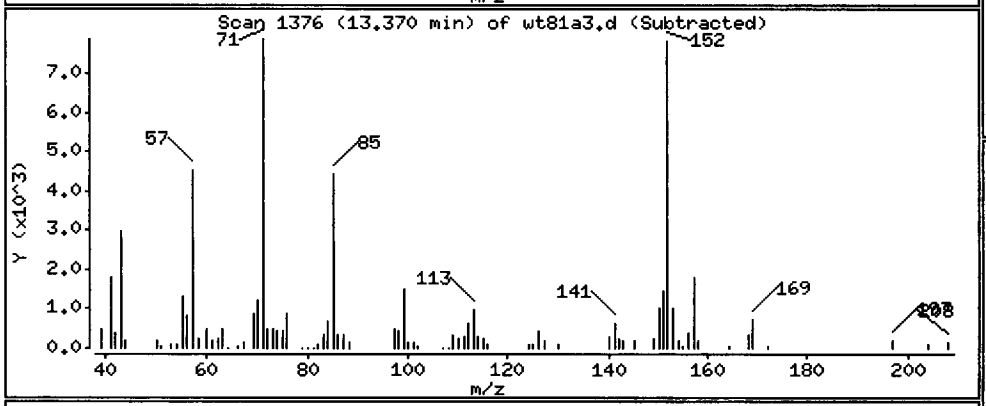
Column phase: ZB-5msi

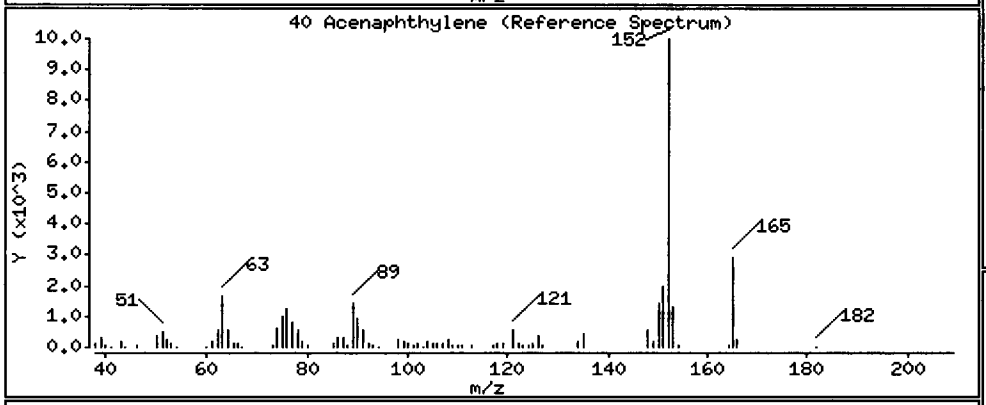
Column diameter: 0.25

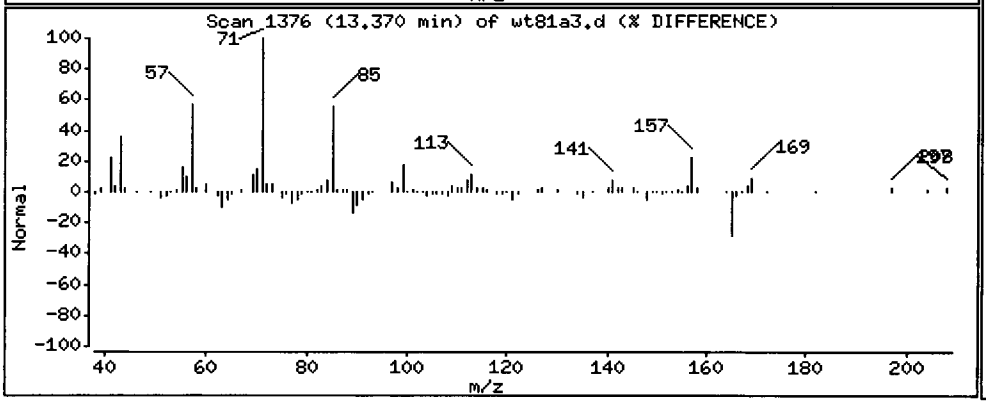
40 Acenaphthylene

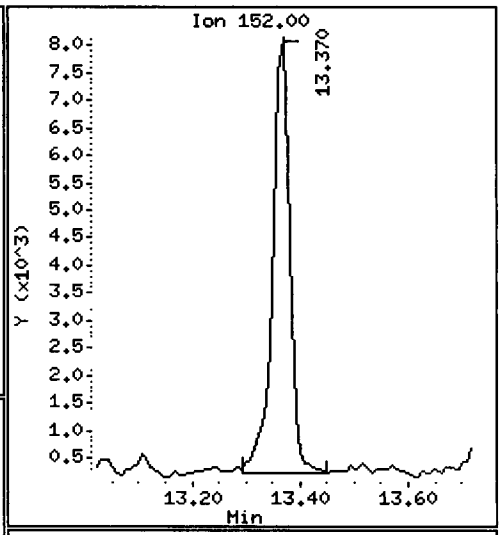
Concentration: 230.2 ug/kg

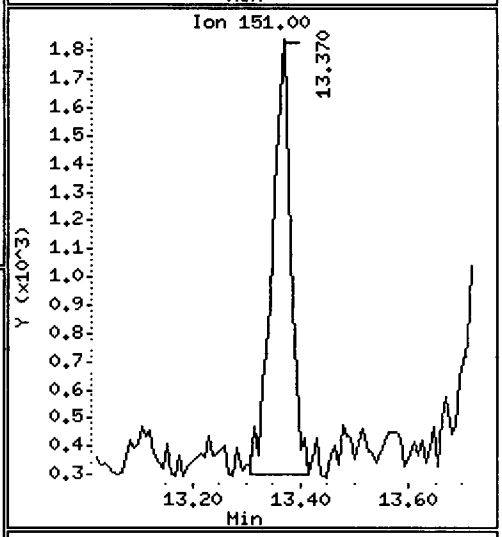


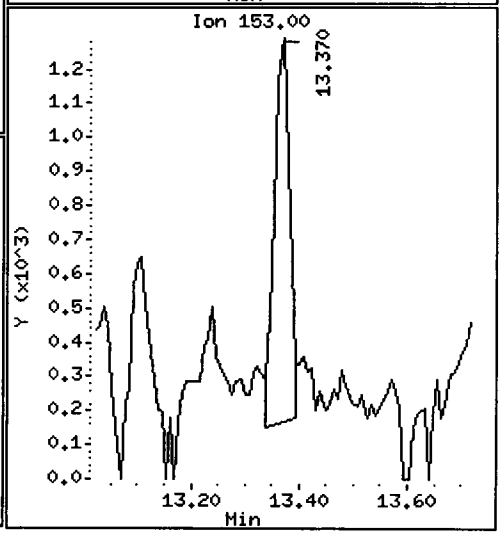












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

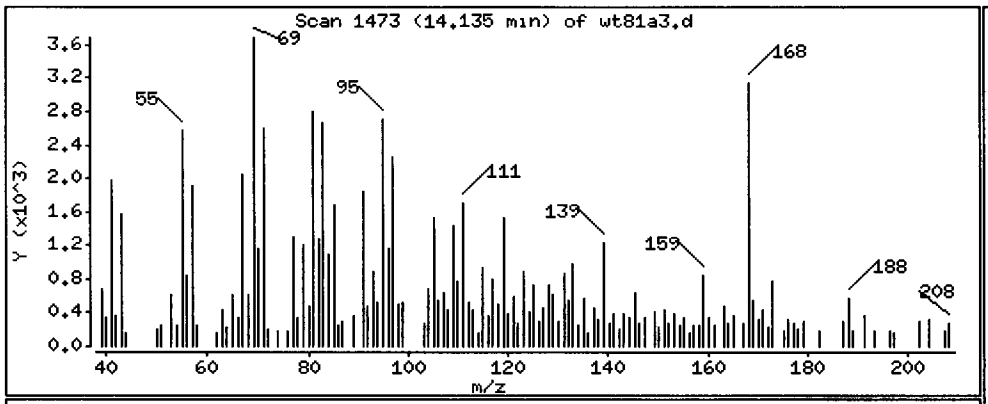
Operator: VTS/YZ

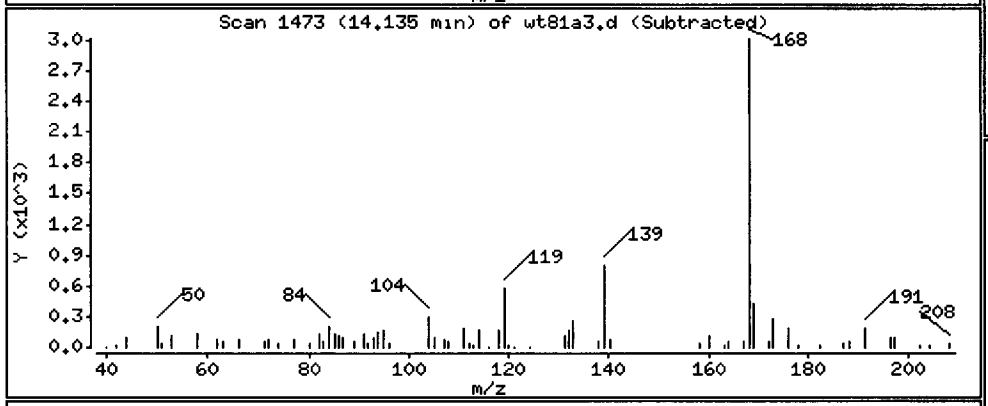
Column phase: ZB-5msi

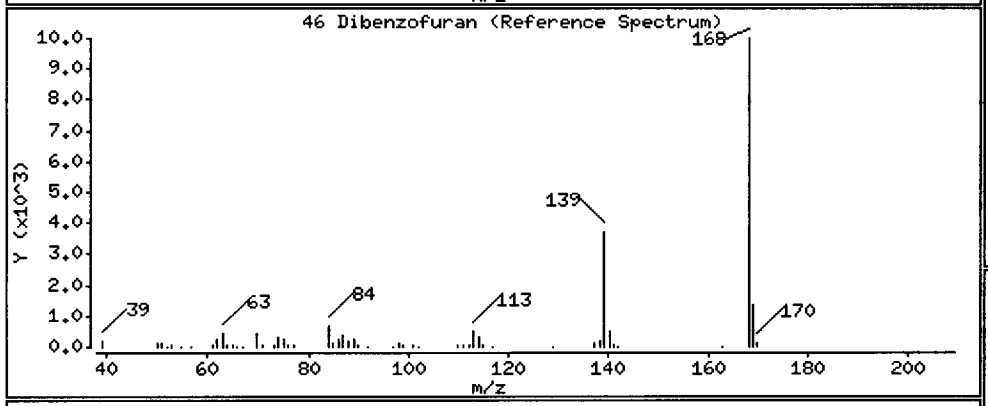
Column diameter: 0.25

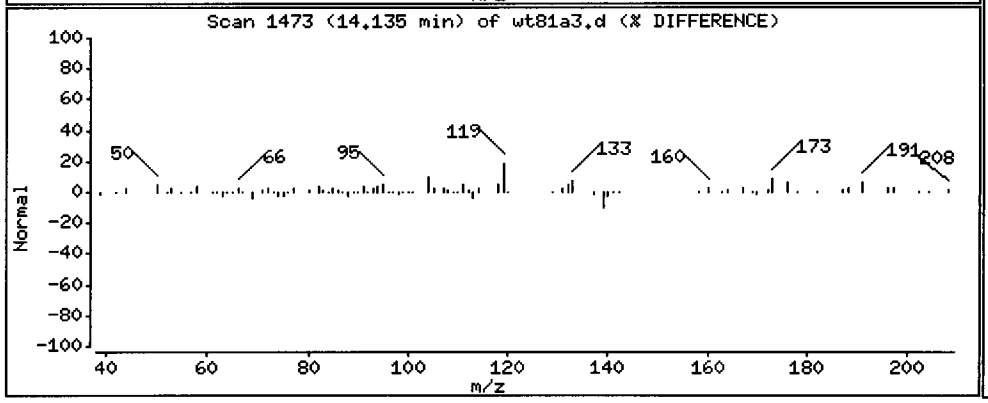
46 Dibenzofuran

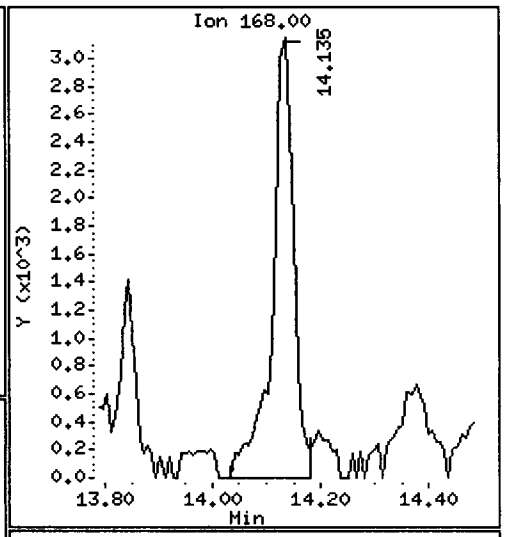
Concentration: 138.6 ug/kg

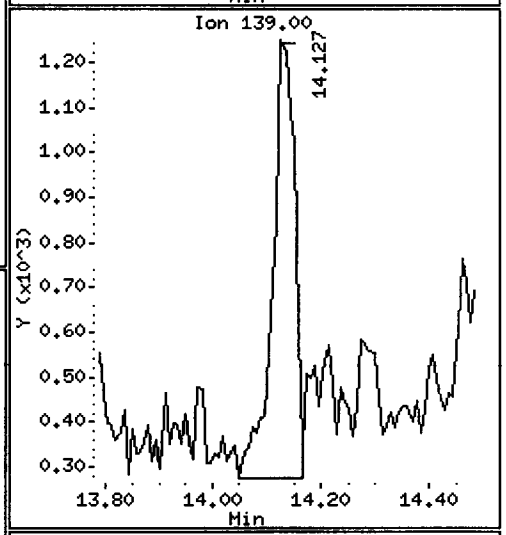


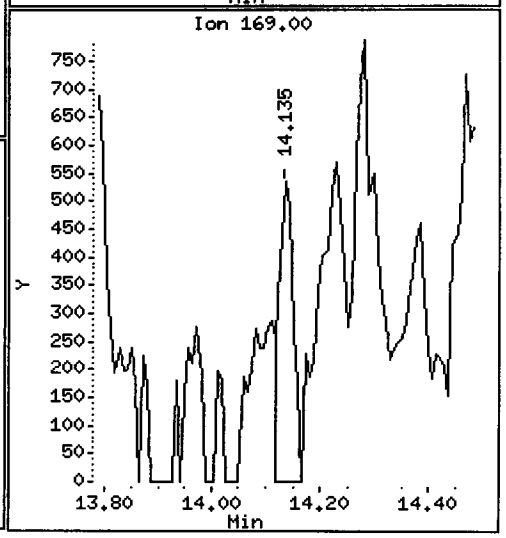












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

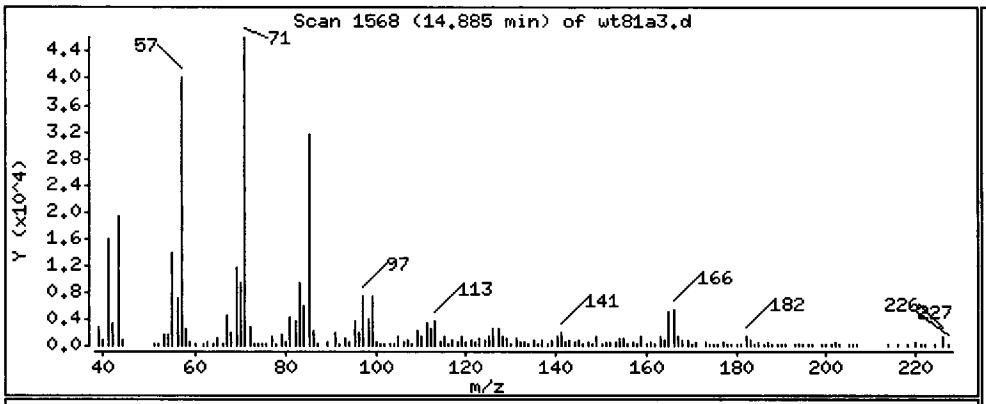
Operator: VTS/YZ

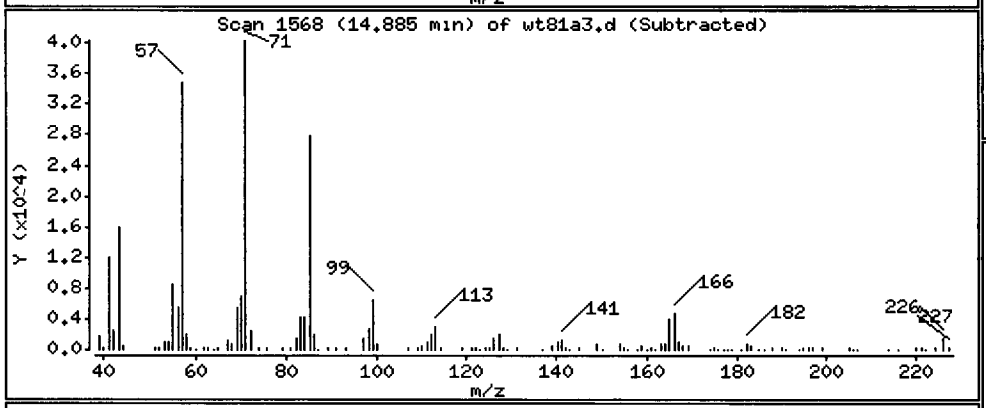
Column phase: ZB-5ms1

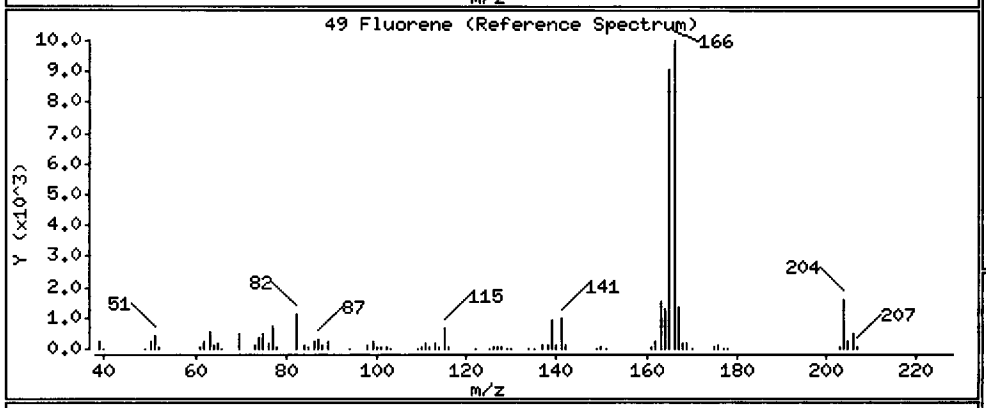
Column diameter: 0.25

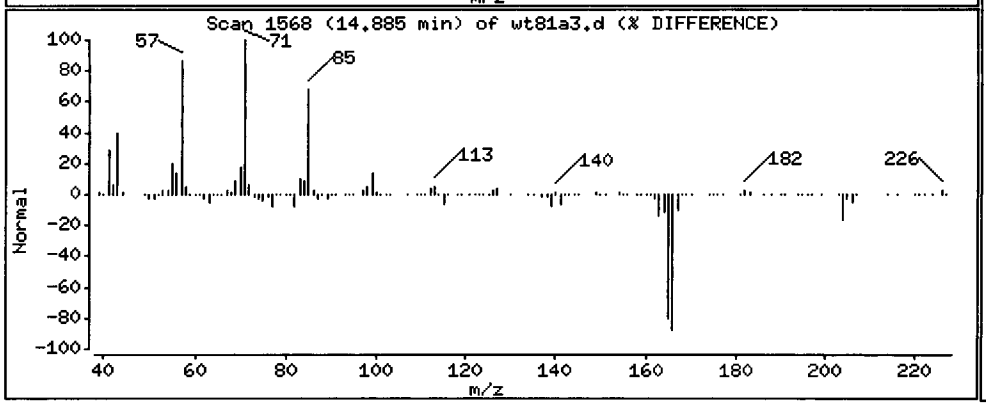
49 Fluorene

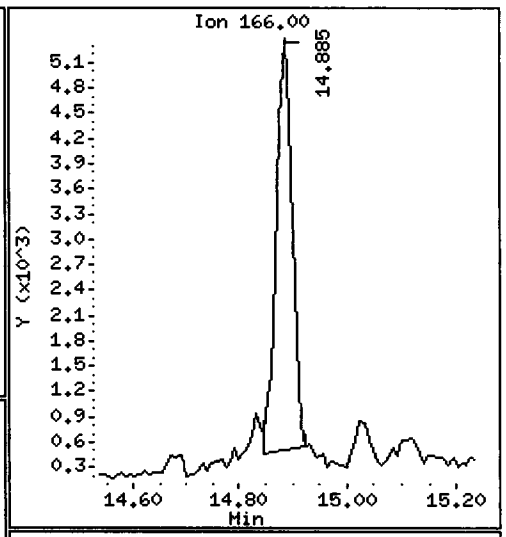
Concentration: 187.4 ug/kg

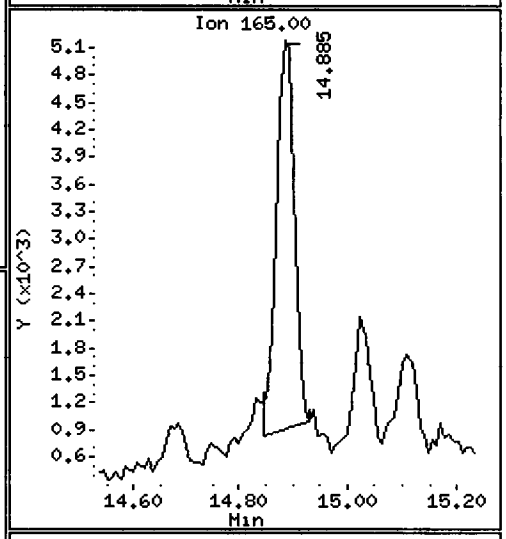


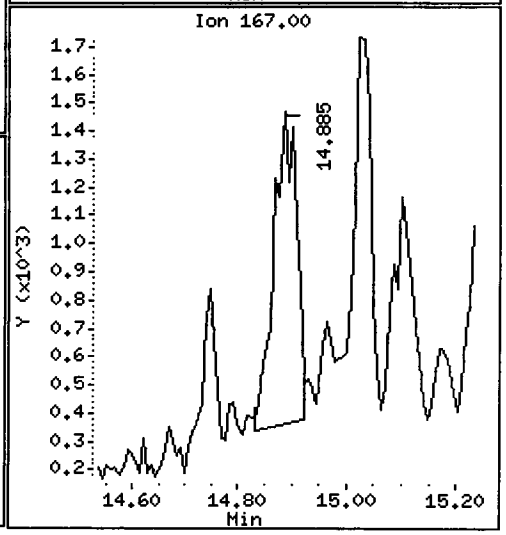












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

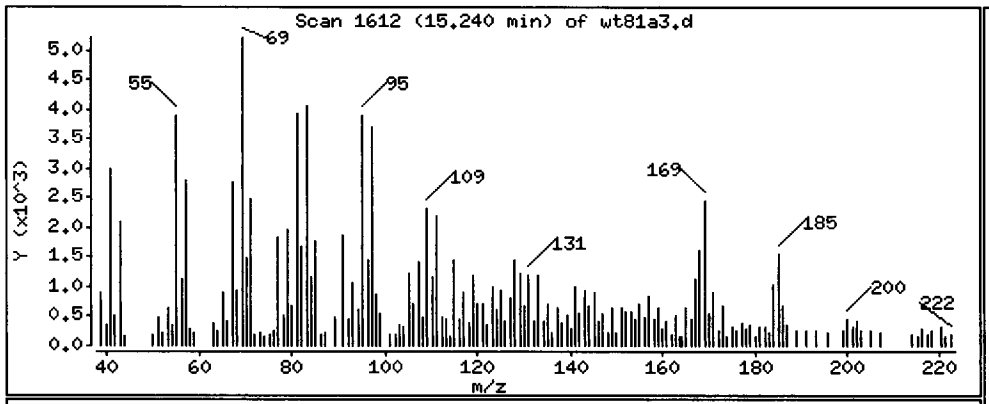
Operator: VTS/YZ

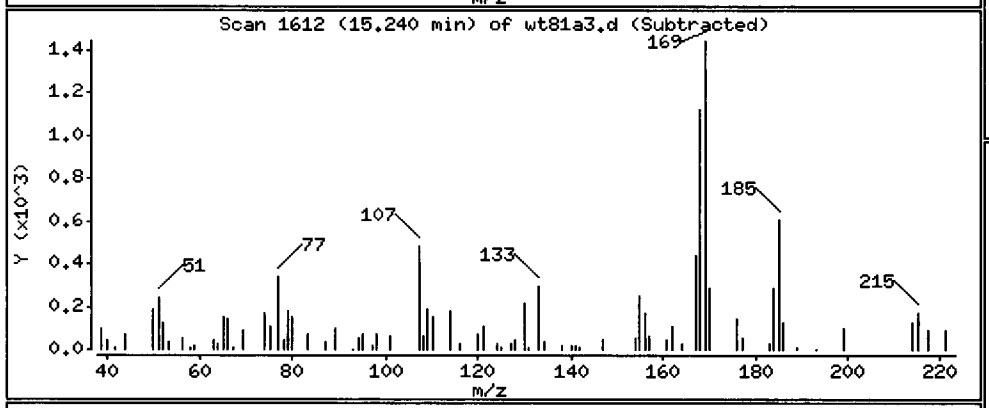
Column phase: ZB-5ms1

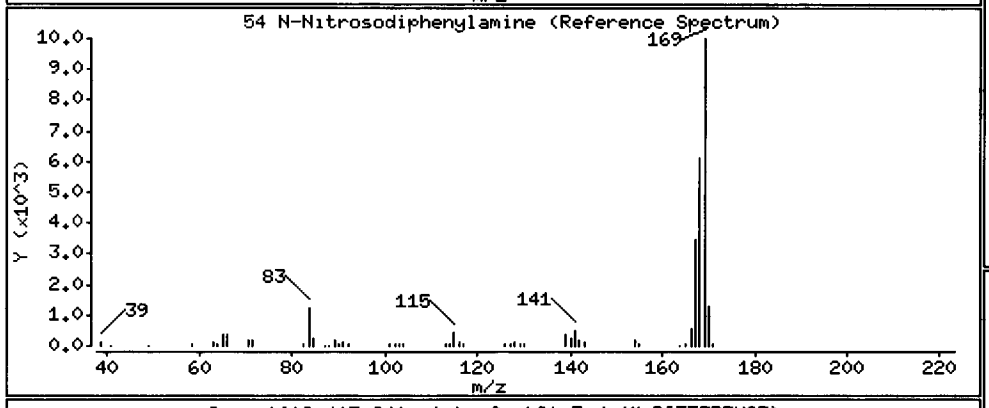
Column diameter: 0.25

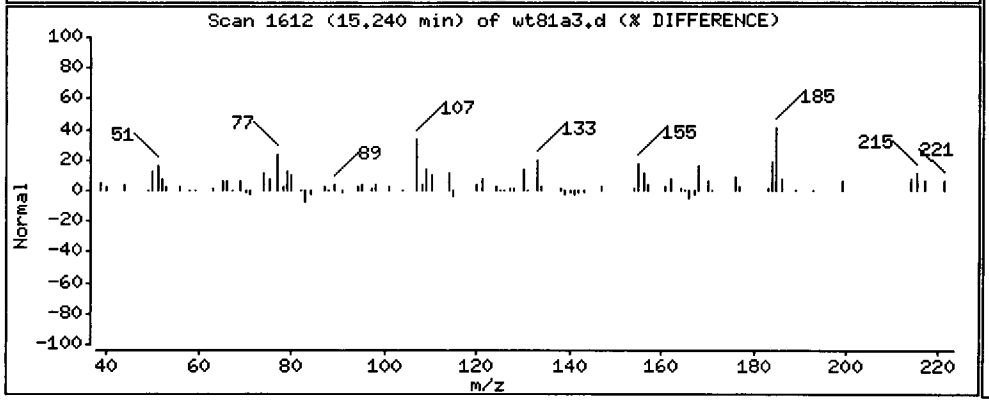
54 N-Nitrosodiphenylamine

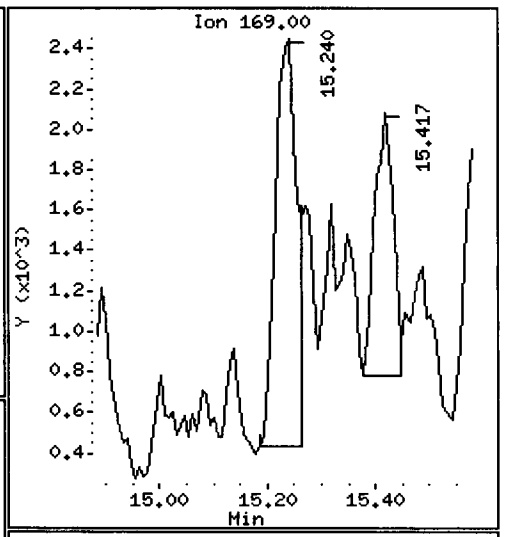
Concentration: 213.0 ug/kg

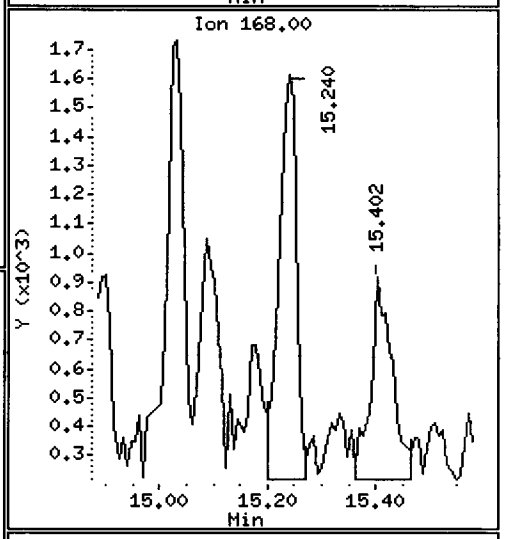


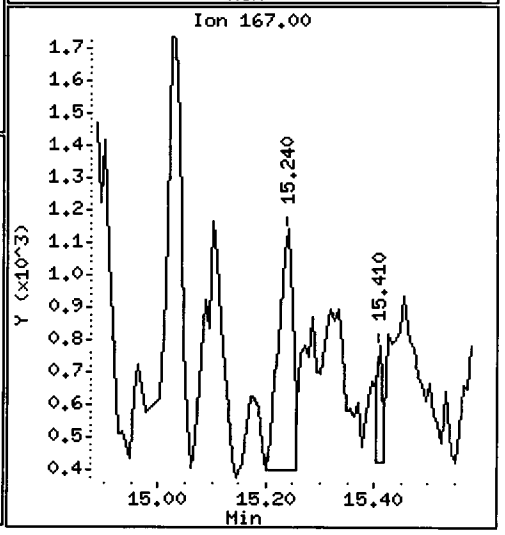












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

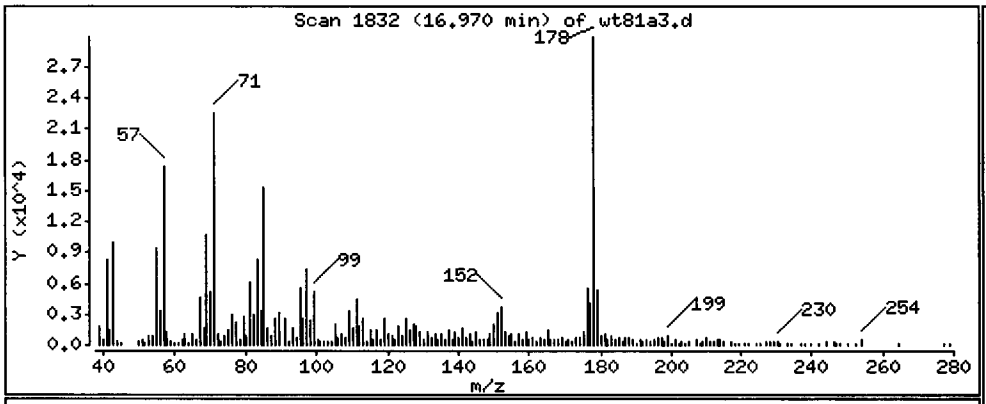
Operator: VTS/YZ

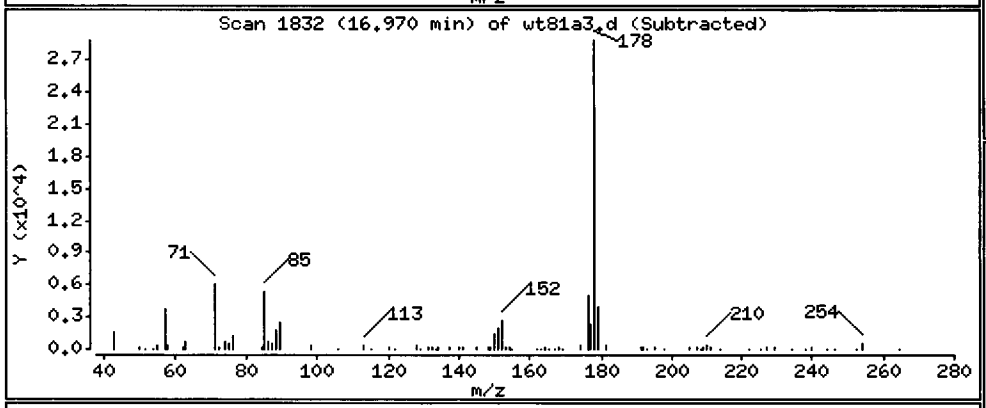
Column phase: ZB-5msi

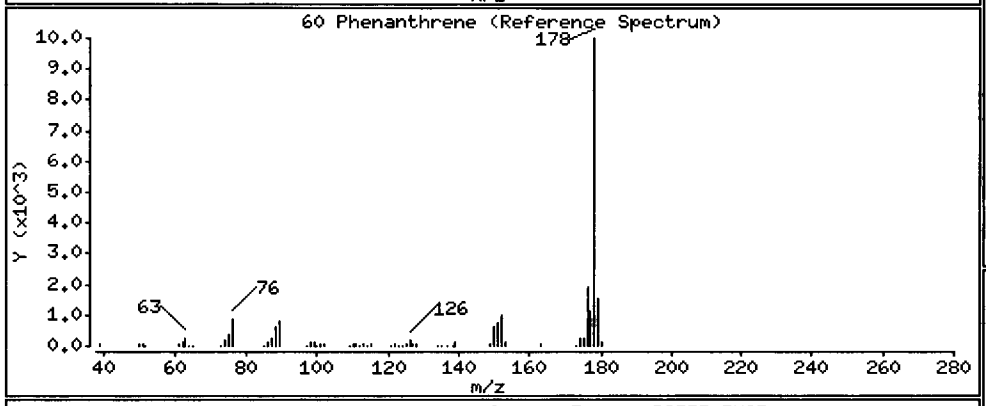
Column diameter: 0.25

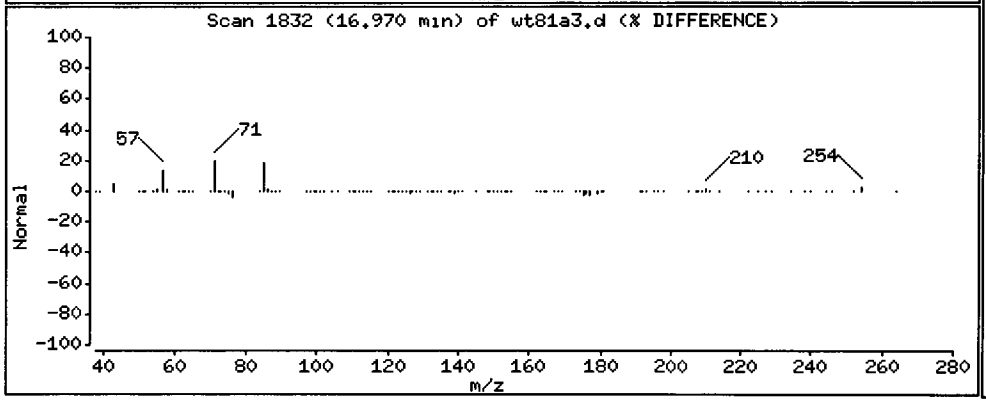
60 Phenanthrene

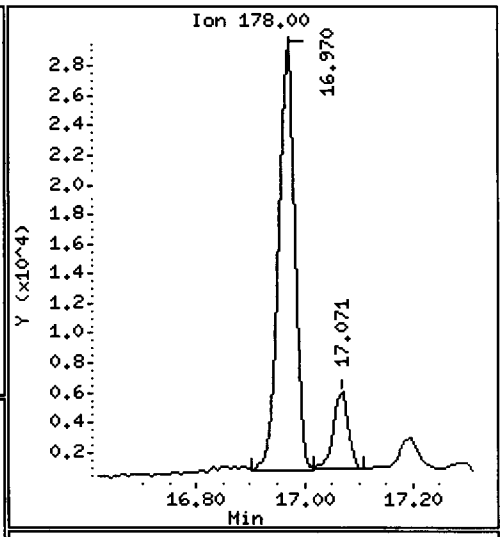
Concentration: 939.9 ug/kg

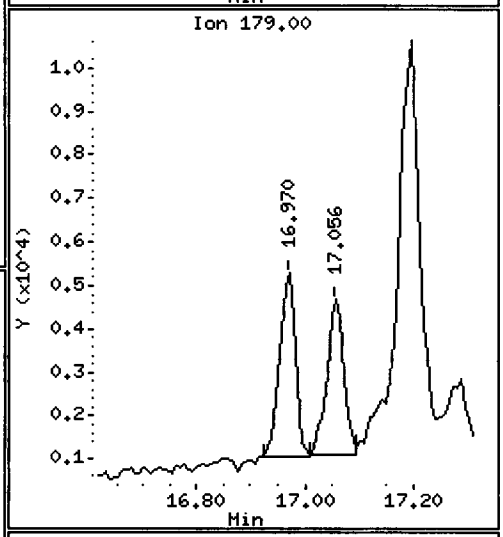


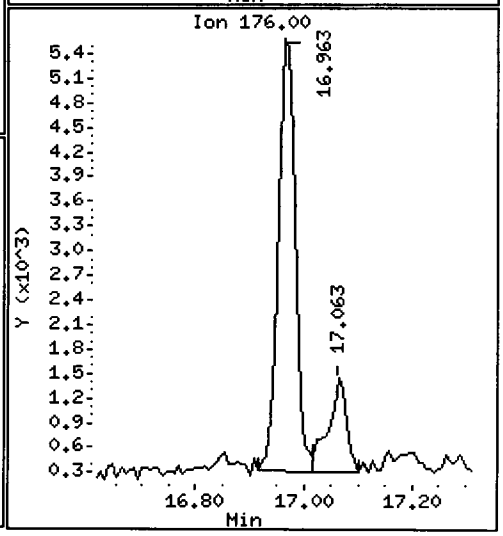












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

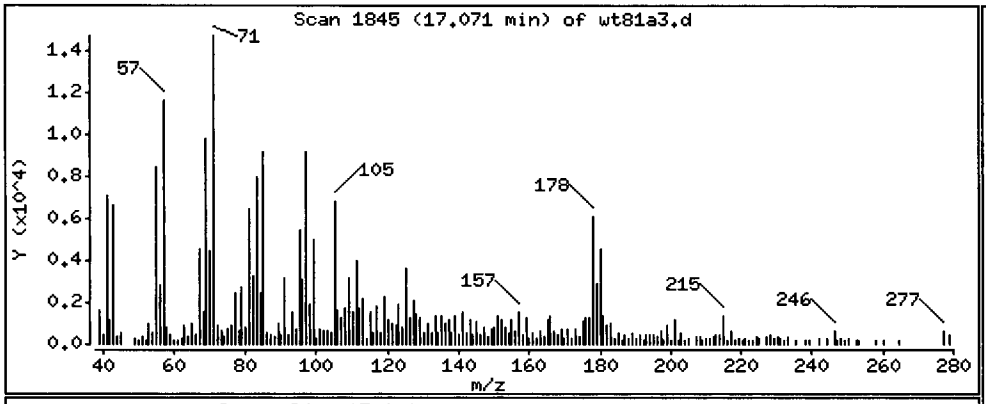
Operator: VTS/YZ

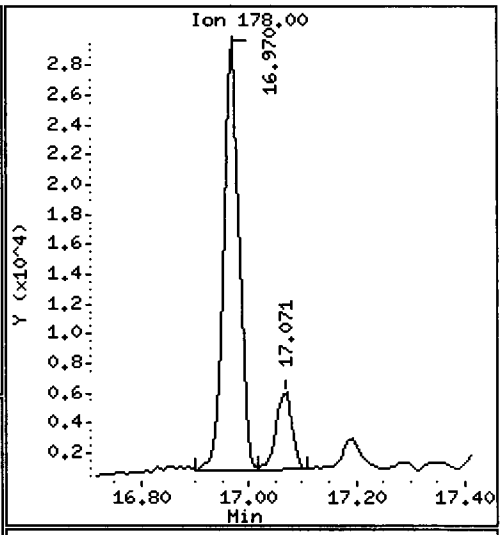
Column phase: ZB-5msi

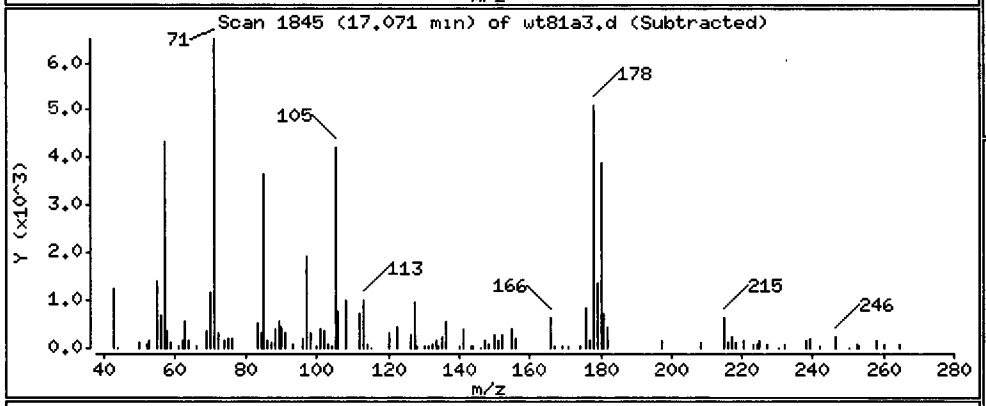
Column diameter: 0.25

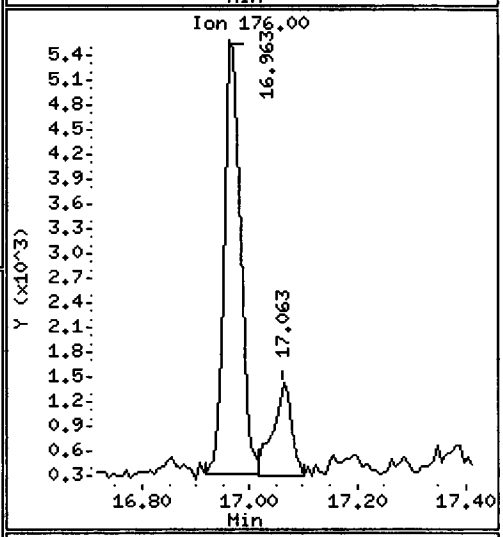
61 Anthracene

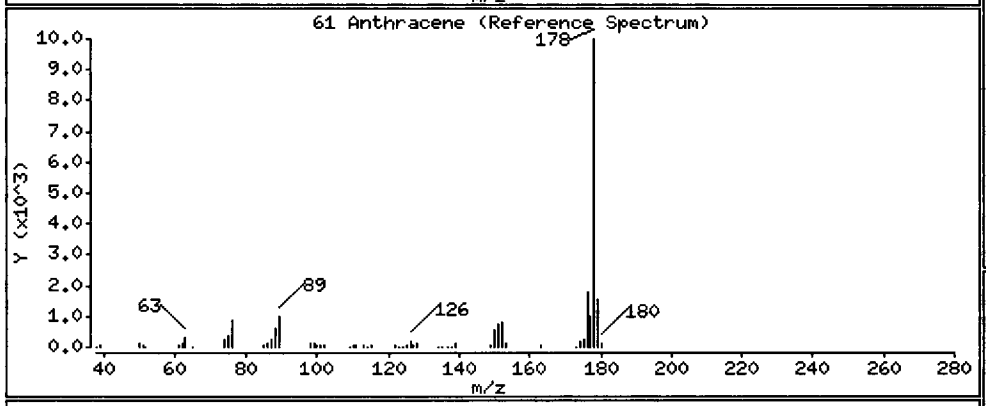
Concentration: 168.5 ug/kg

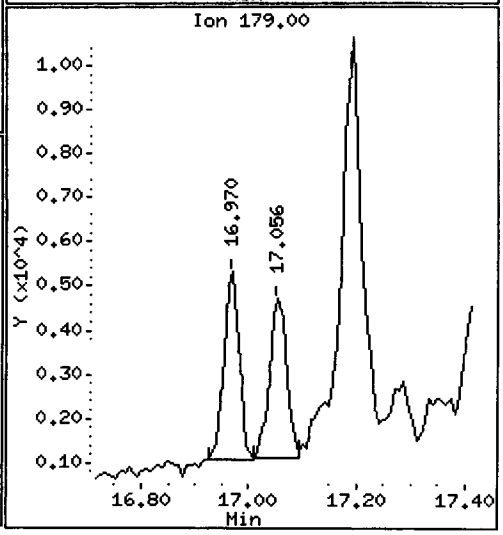


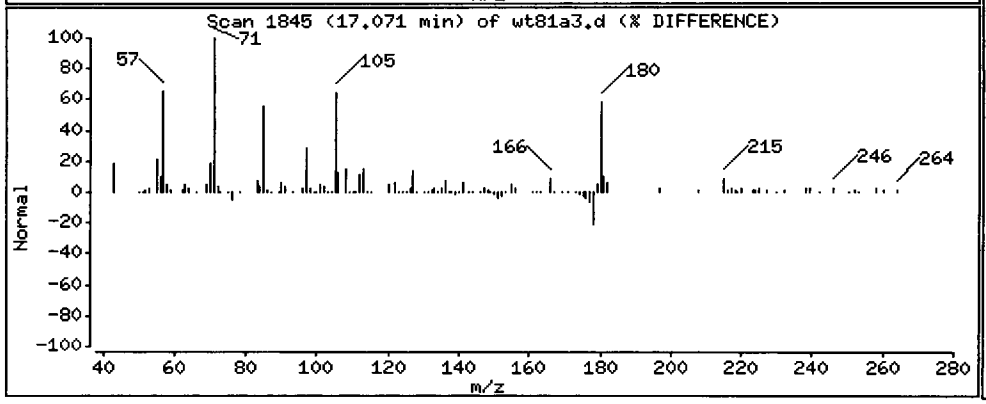












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

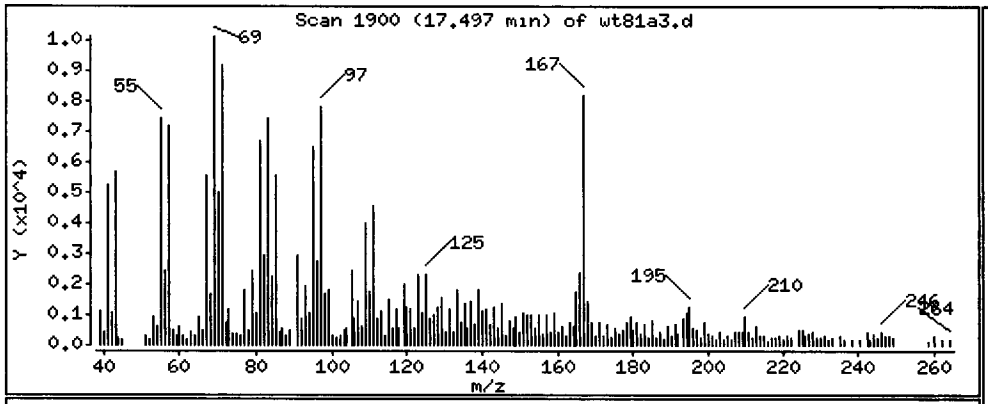
Operator: VTS/YZ

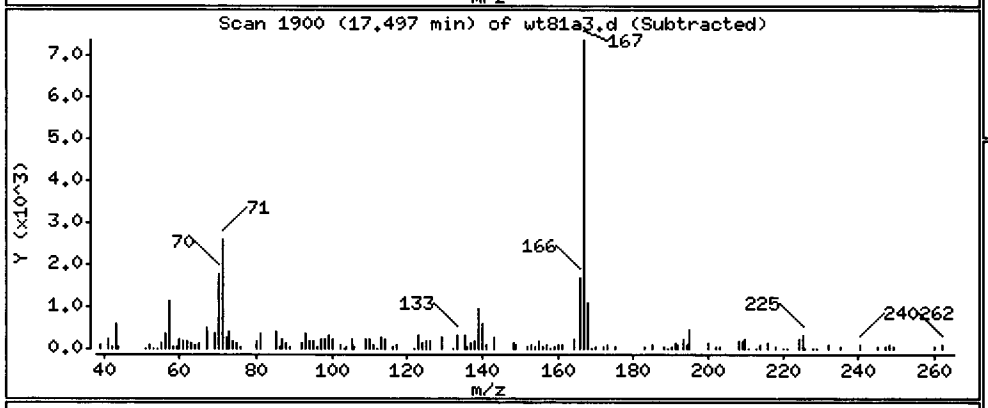
Column phase: ZB-5msi

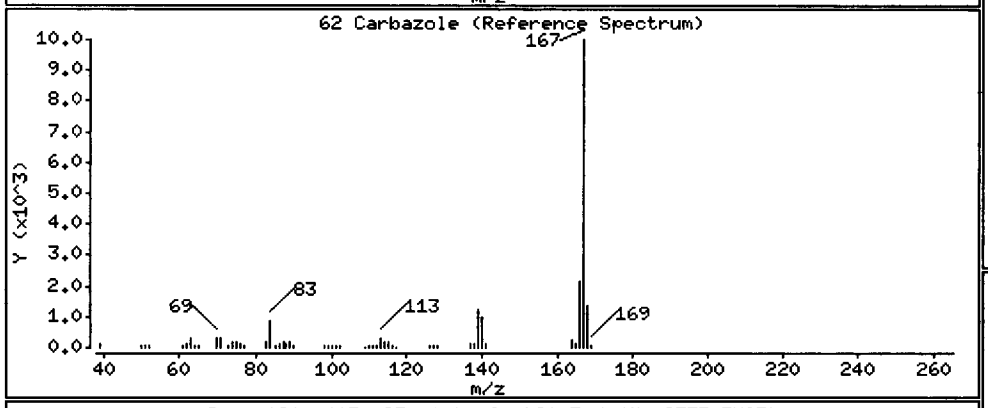
Column diameter: 0.25

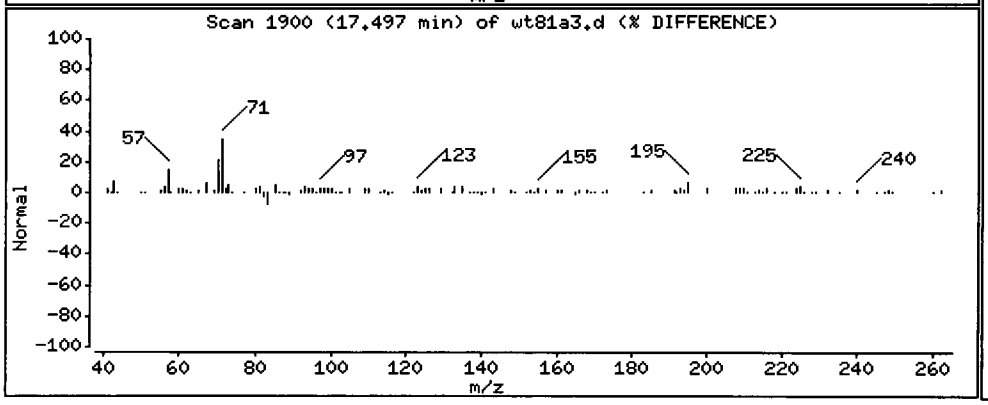
62 Carbazole

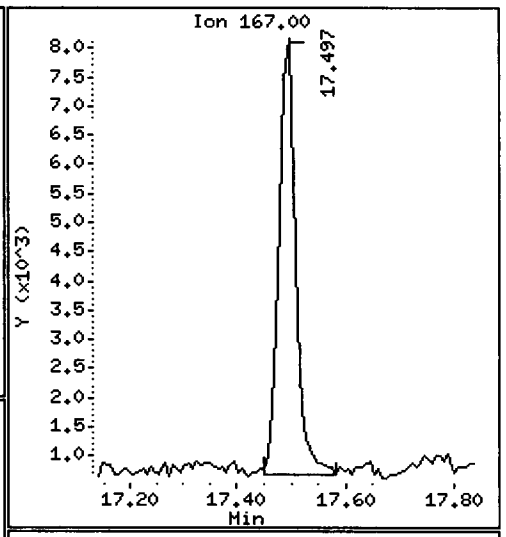
Concentration: 413.2 ug/kg

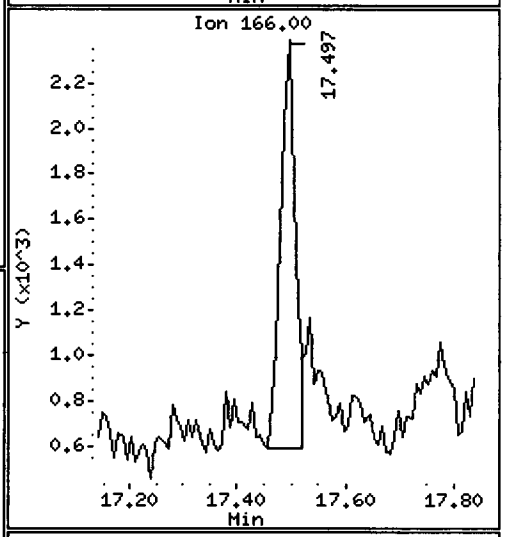


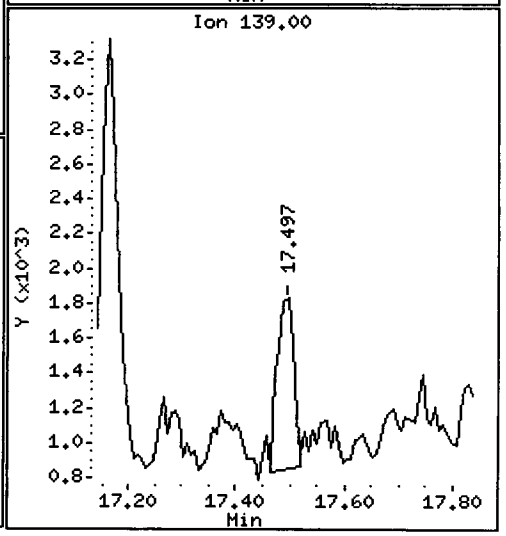












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

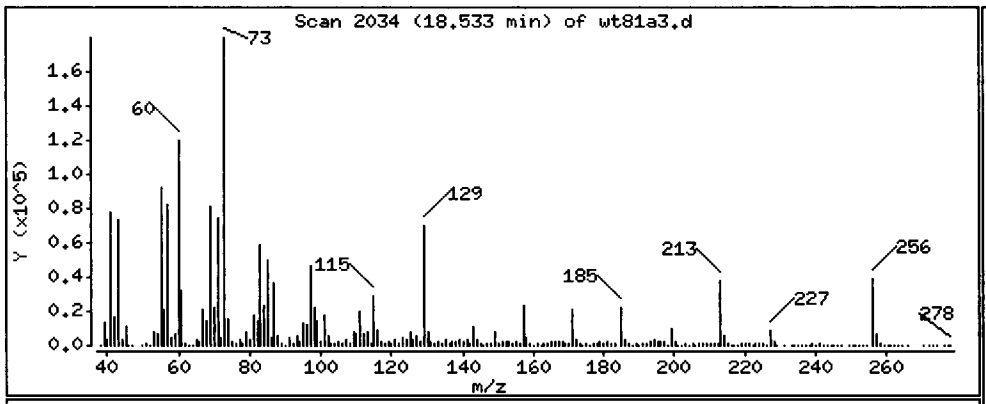
Operator: VTS/YZ

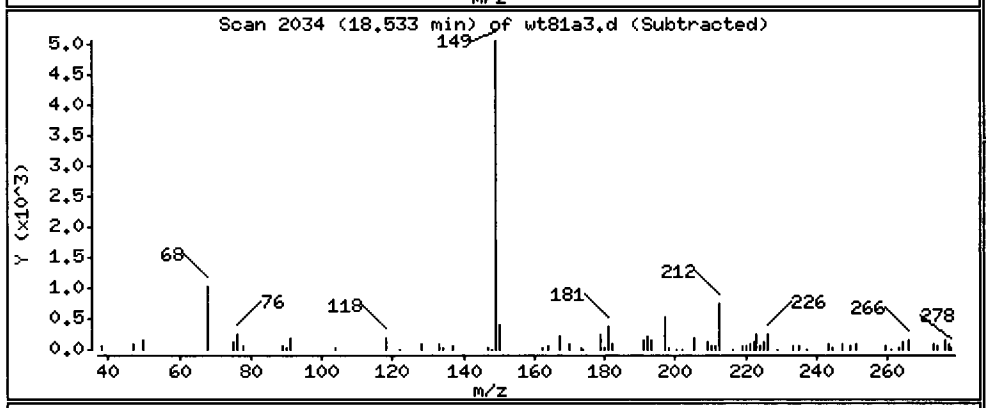
Column phase: ZB-5msi

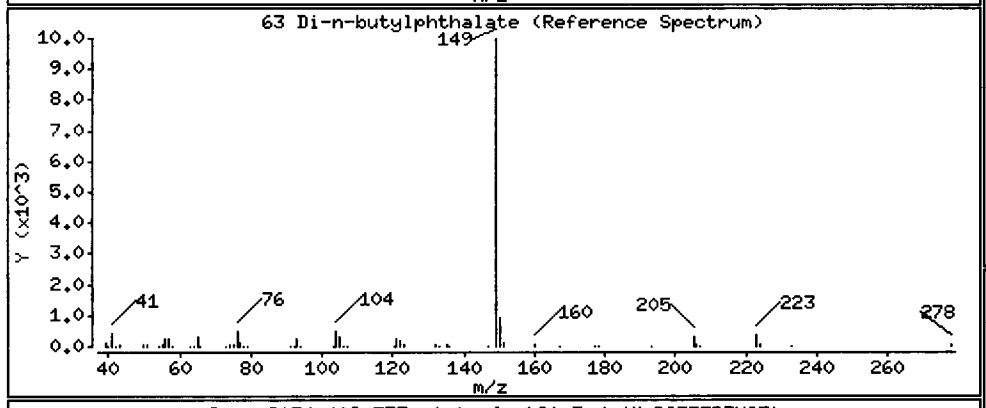
Column diameter: 0.25

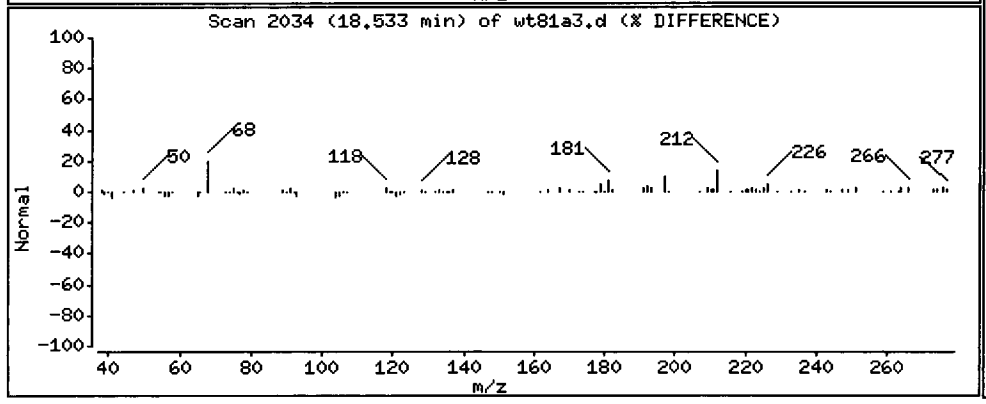
63 Di-n-butylphthalate

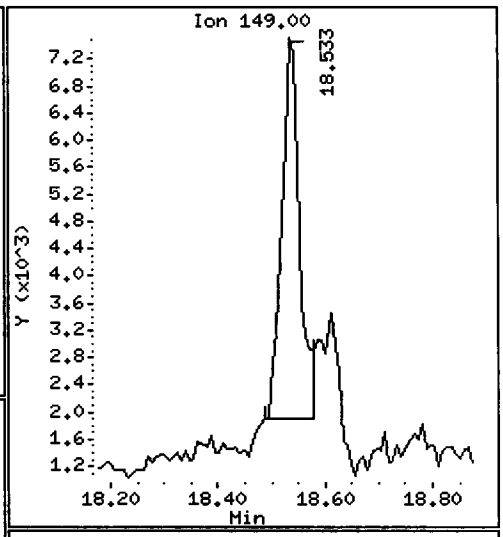
Concentration: 202.7 ug/kg

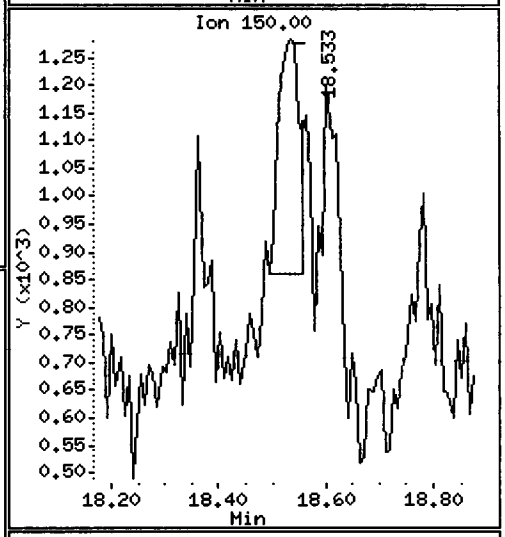


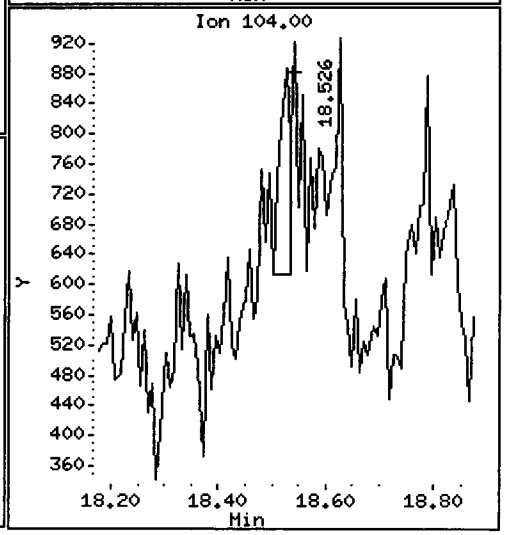












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

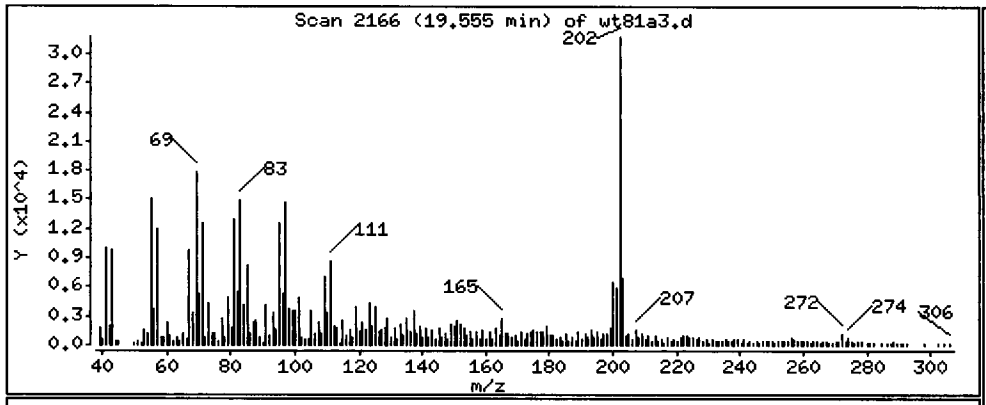
Operator: VTS/YZ

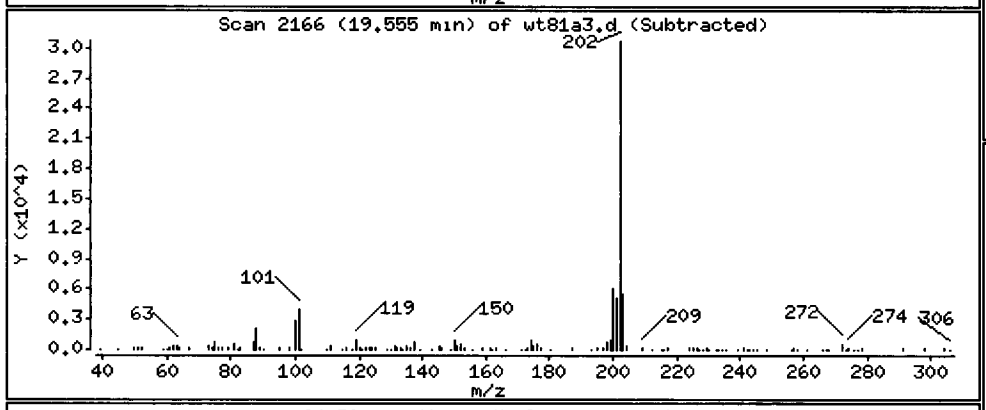
Column phase: ZB-5msi

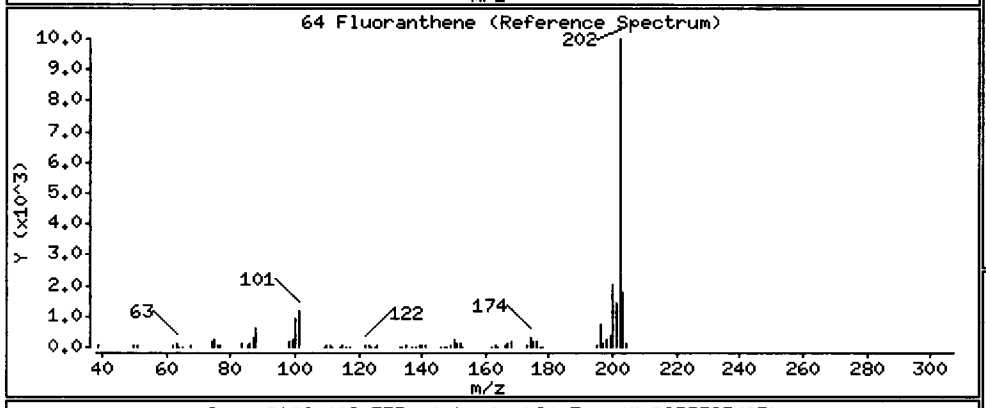
Column diameter: 0.25

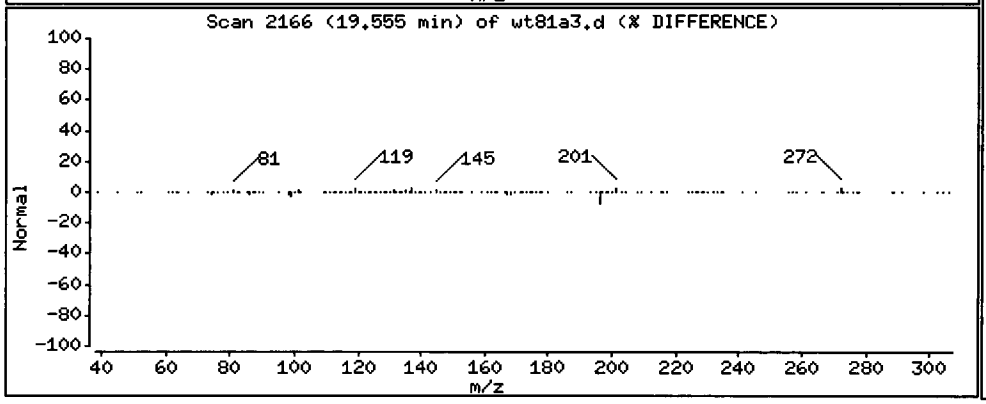
64 Fluoranthene

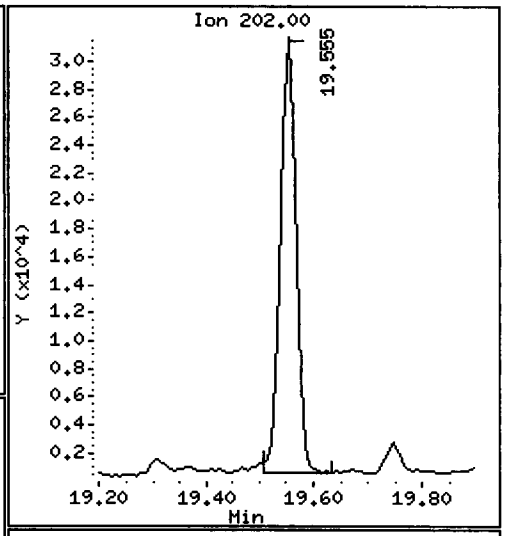
Concentration: 835.7 ug/kg

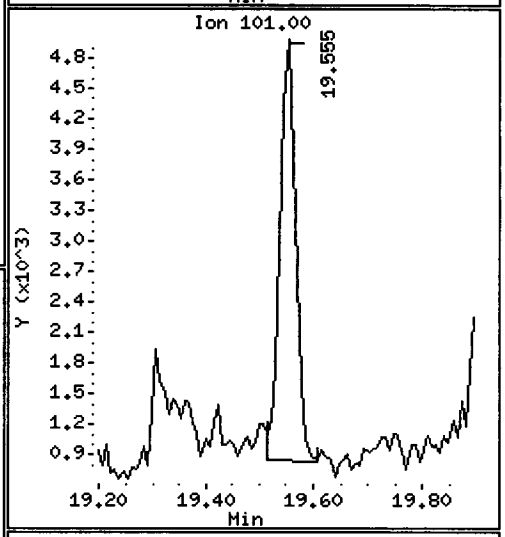


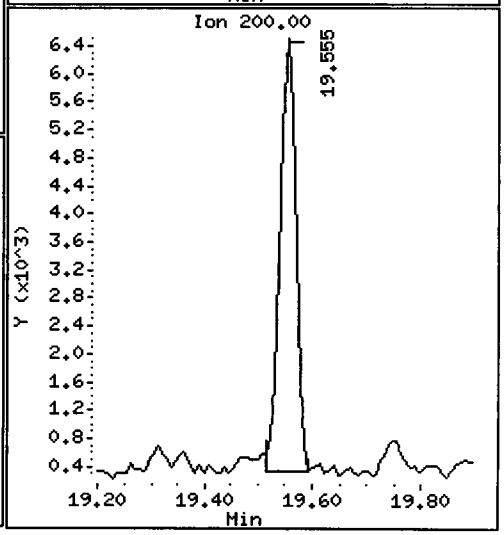












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

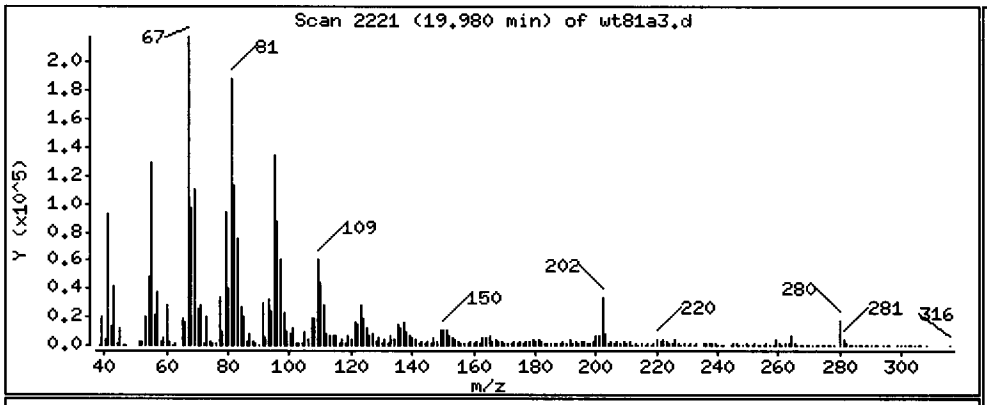
Operator: VTS/YZ

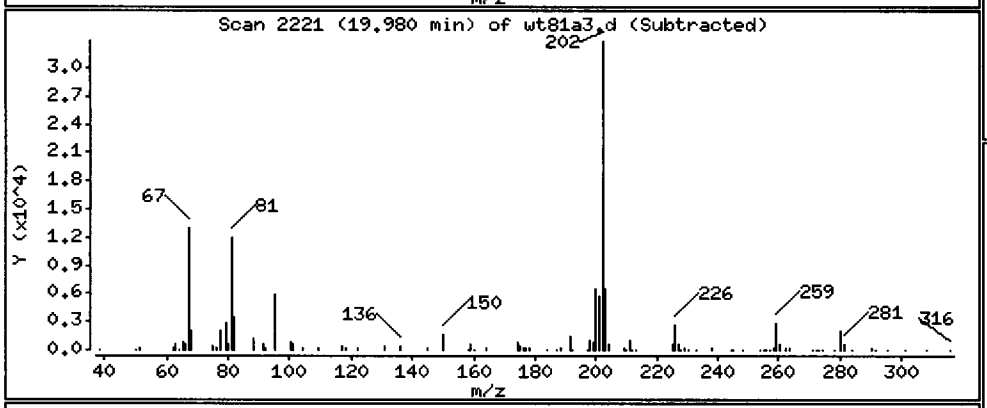
Column phase: ZB-5ms1

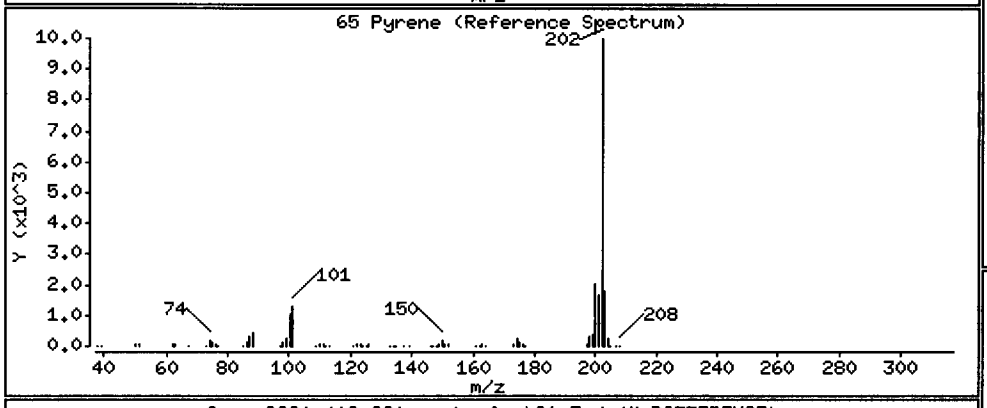
Column diameter: 0.25

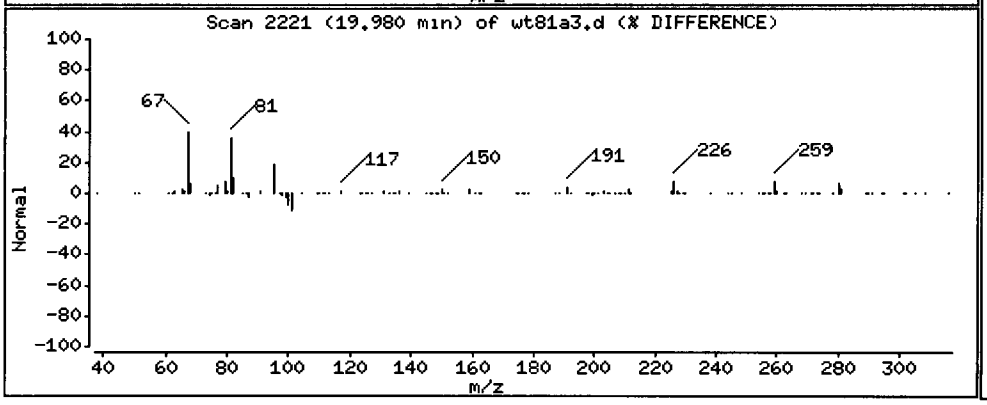
65 Pyrene

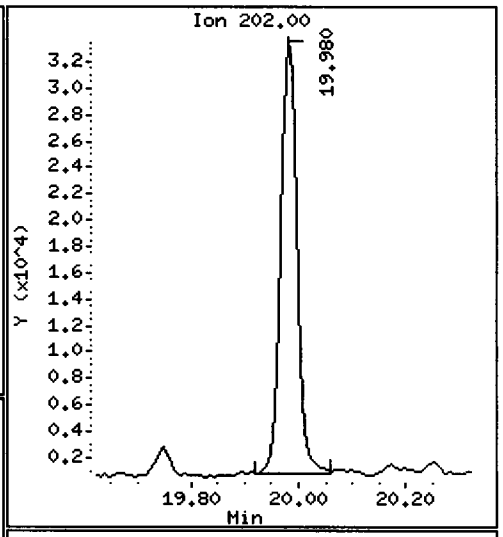
Concentration: 916.2 ug/kg

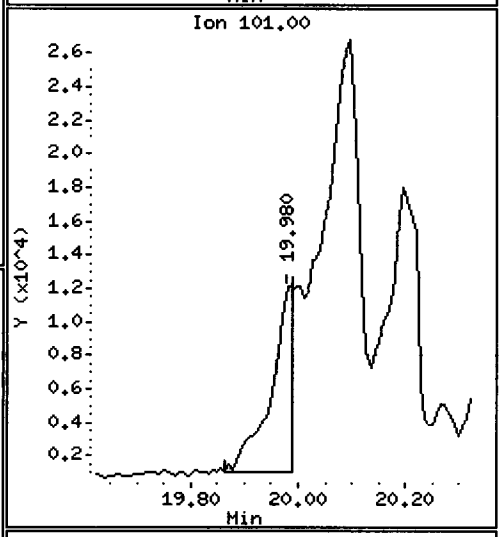


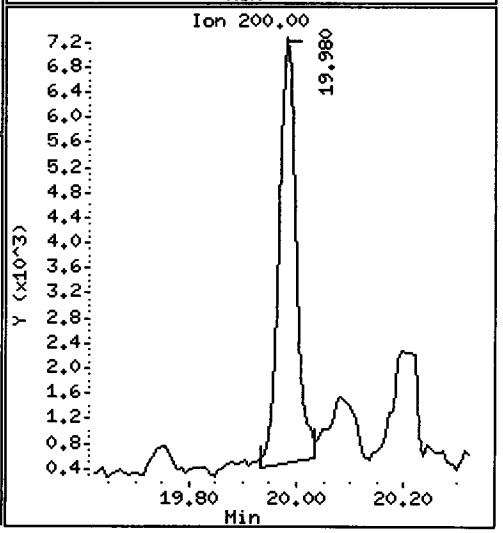












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

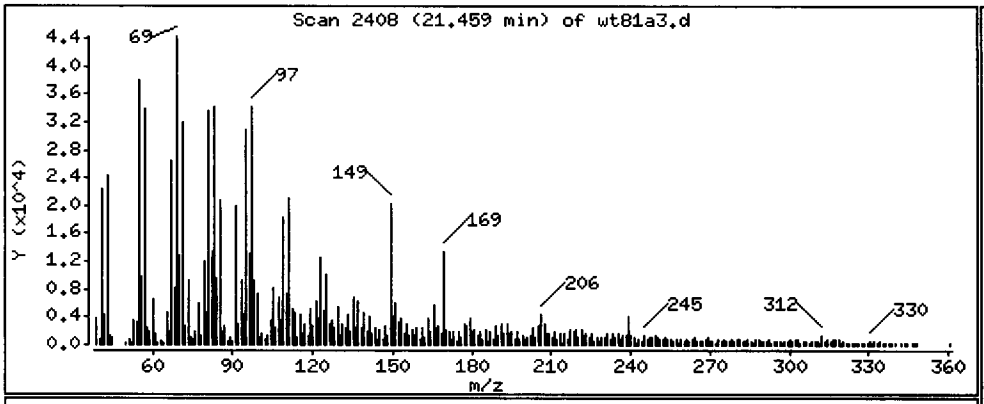
Operator: VTS/YZ

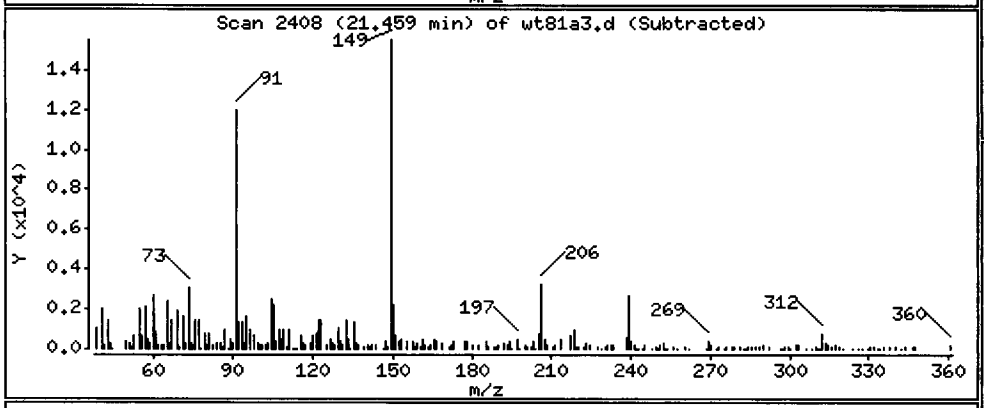
Column phase: ZB-5ms1

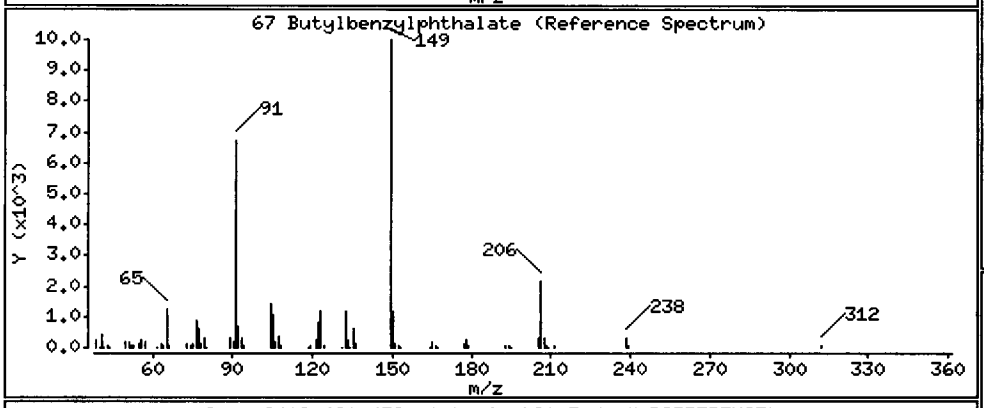
Column diameter: 0.25

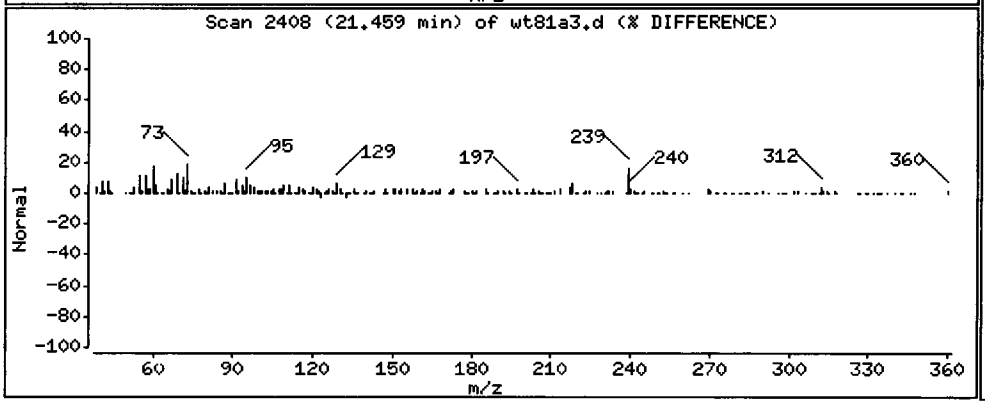
67 Butylbenzylphthalate

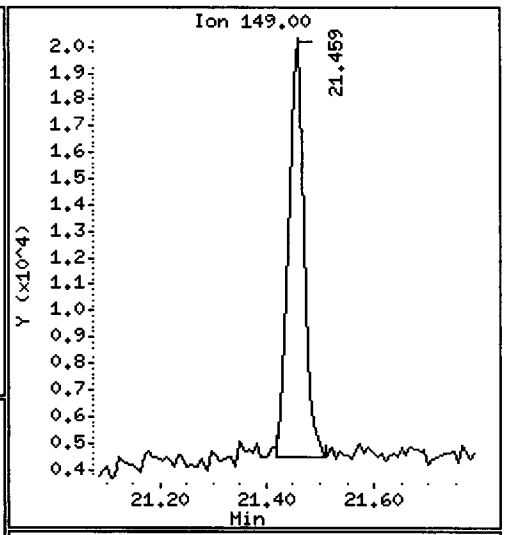
Concentration: 1286 ug/kg

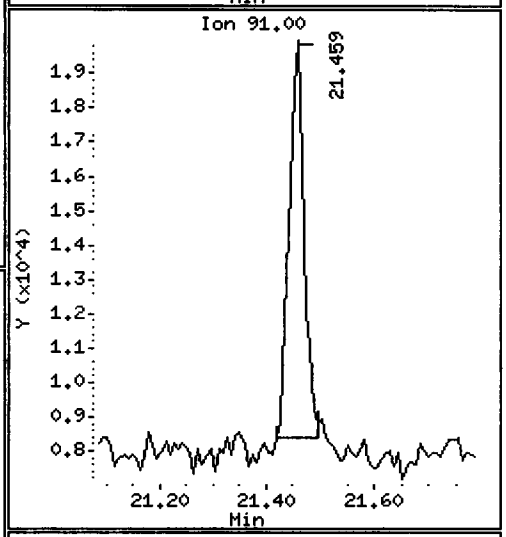


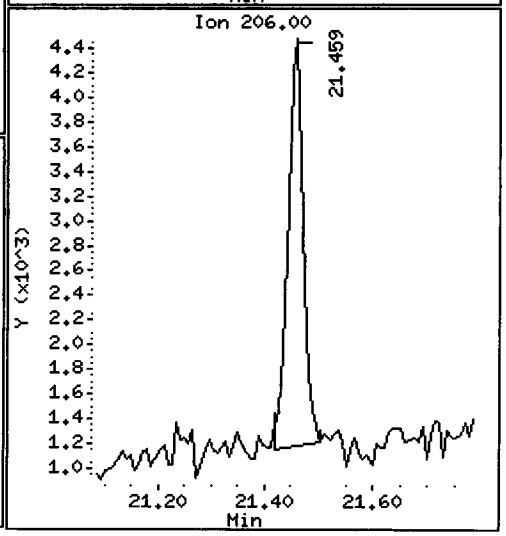












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

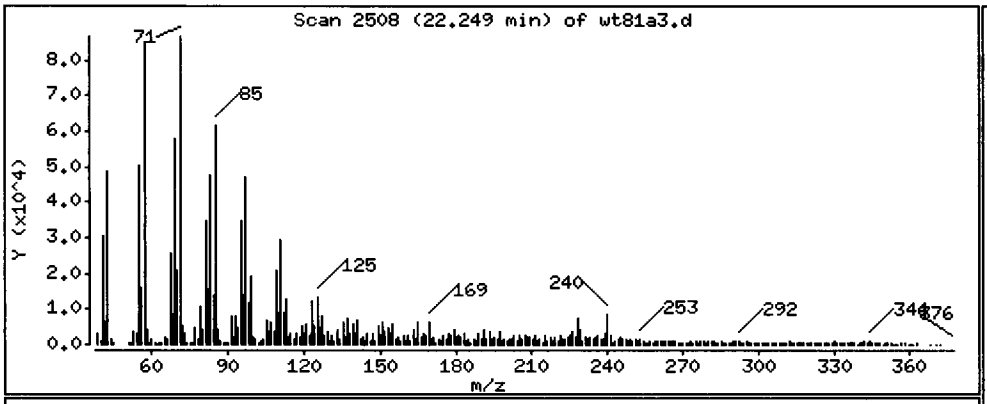
Operator: VTS/YZ

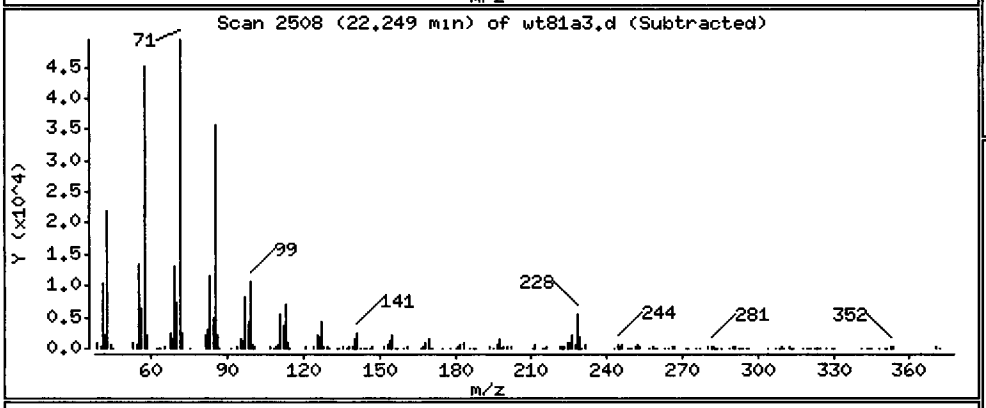
Column phase: ZB-5msi

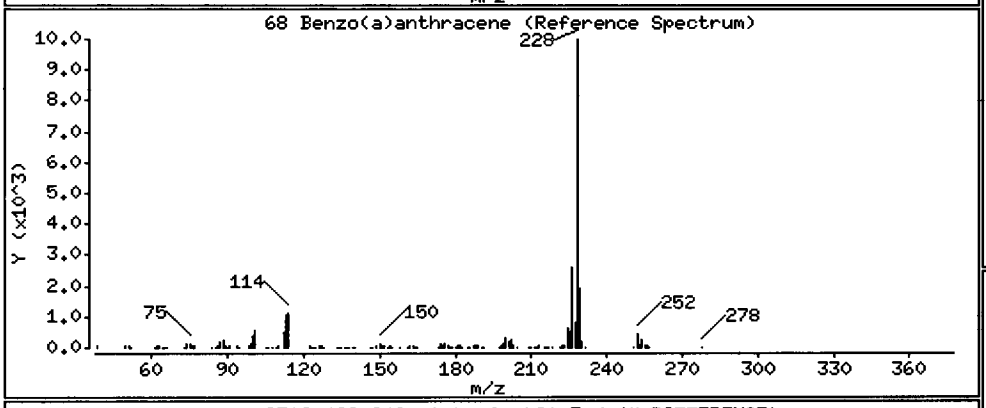
Column diameter: 0.25

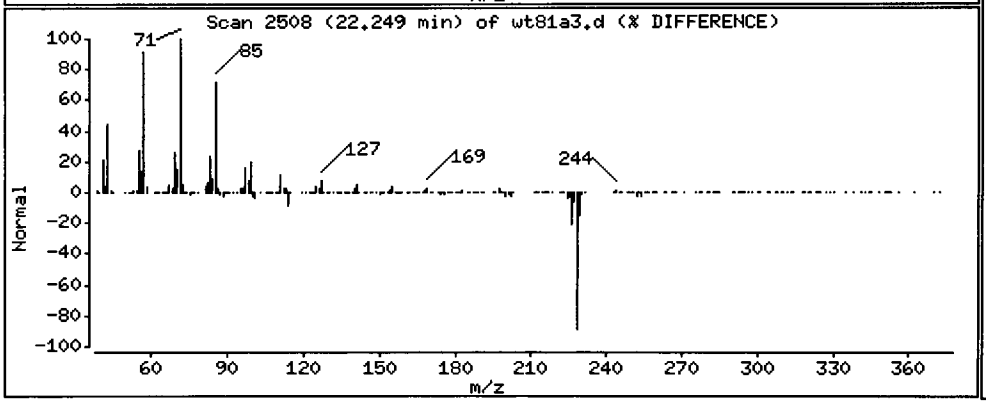
68 Benzo(a)anthracene

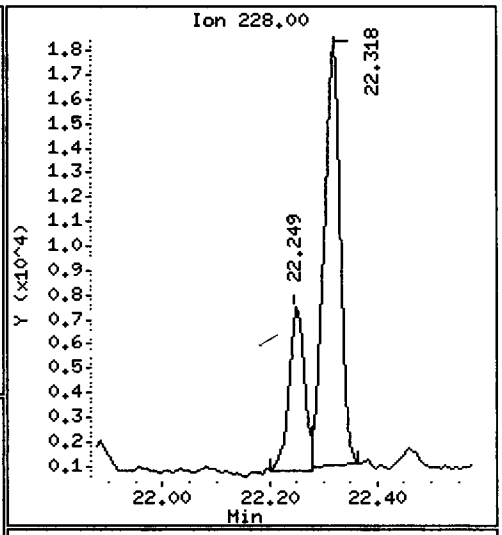
Concentration: 213.7 ug/kg

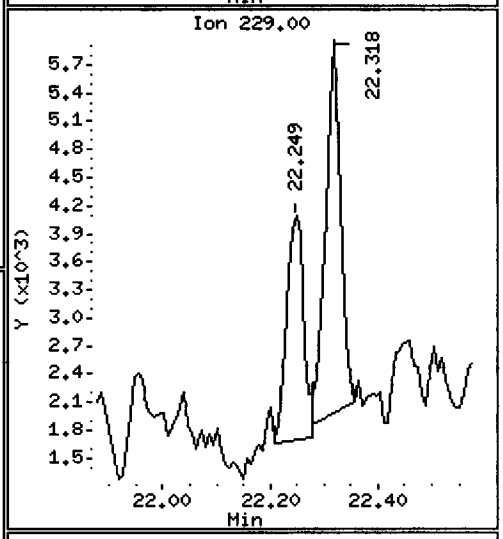


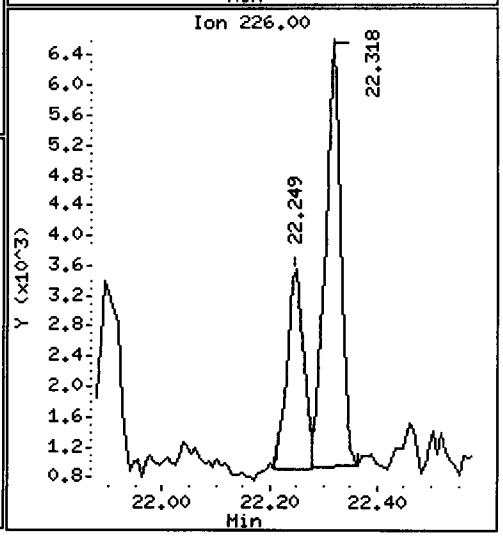












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

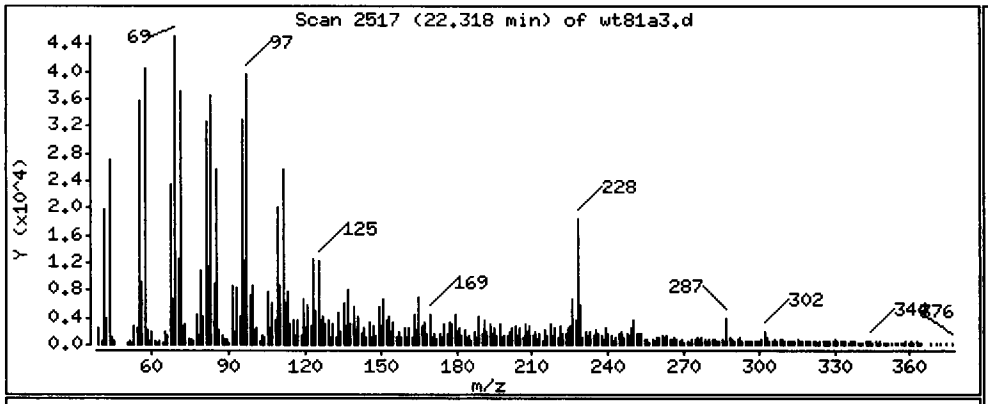
Operator: VTS/YZ

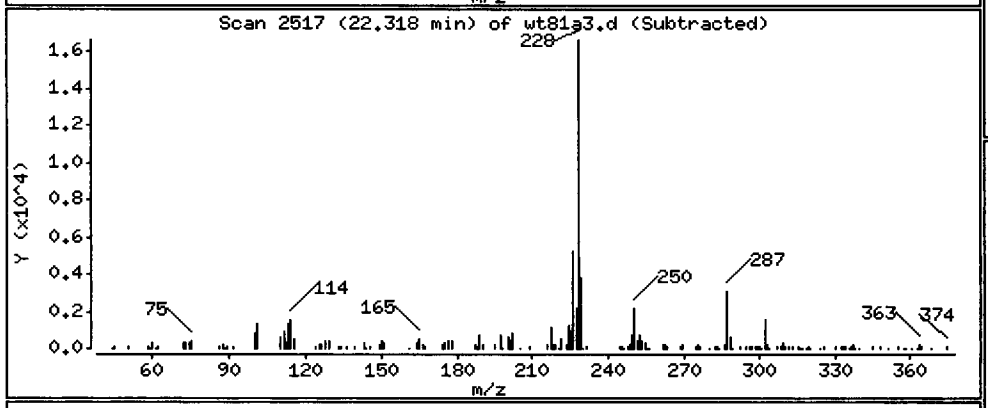
Column phase: ZB-5msi

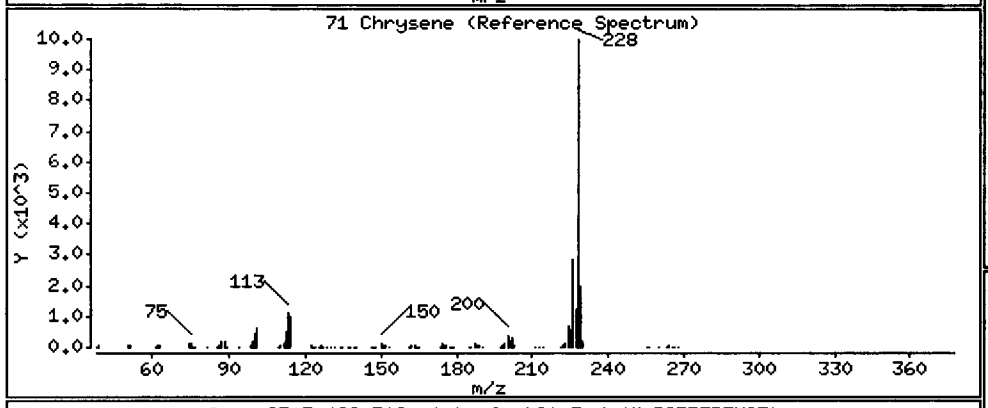
Column diameter: 0.25

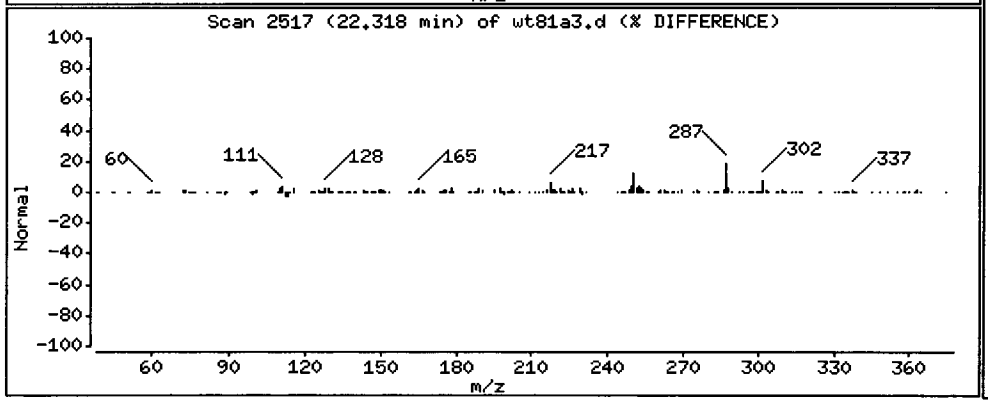
71 Chrysene

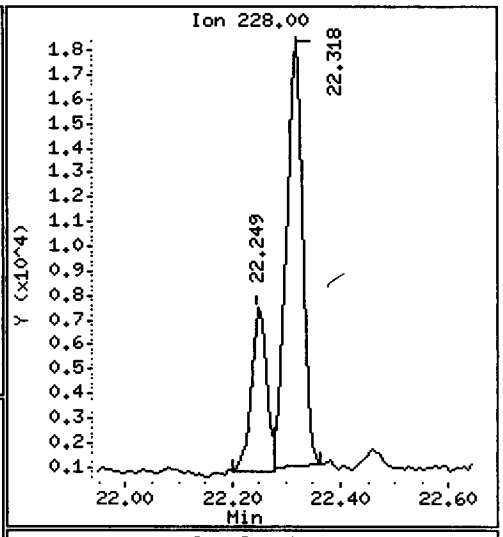
Concentration: 619.8 ug/kg

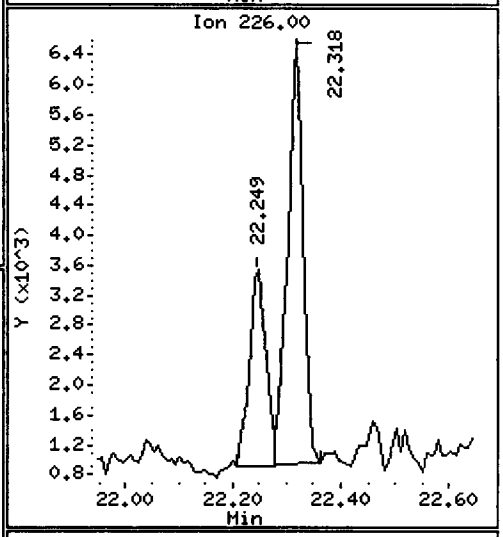


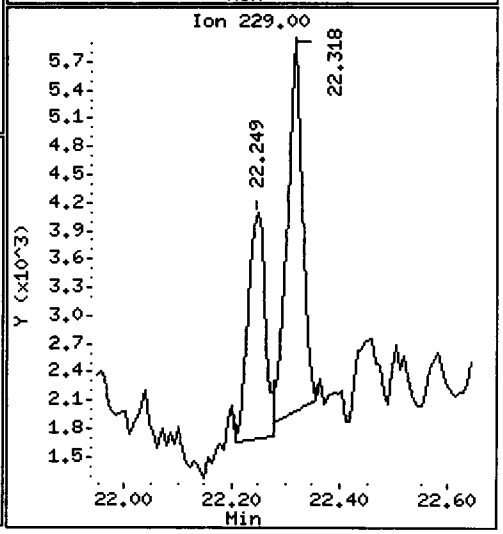












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

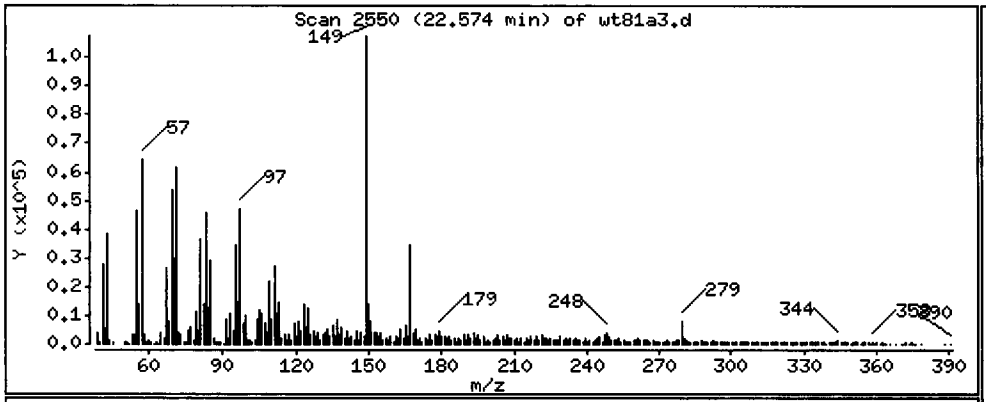
Operator: VTS/YZ

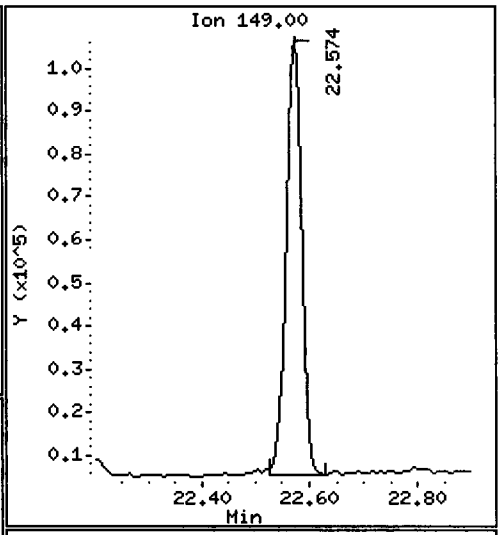
Column phase: ZB-5msi

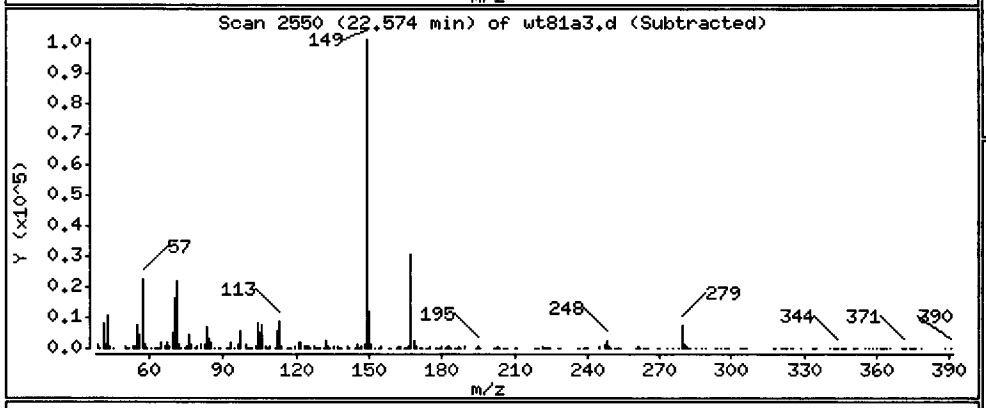
Column diameter: 0.25

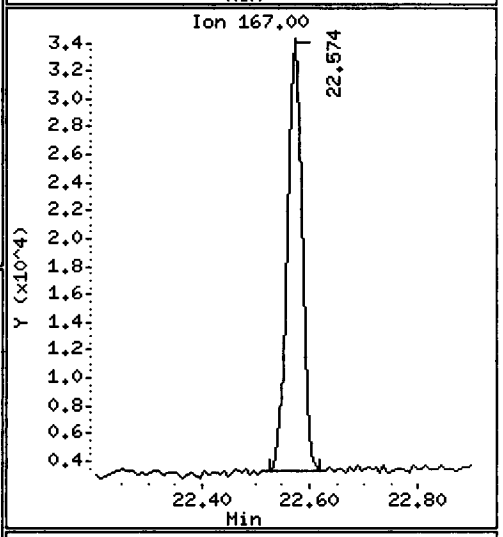
72 bis(2-Ethylhexyl)phthalate

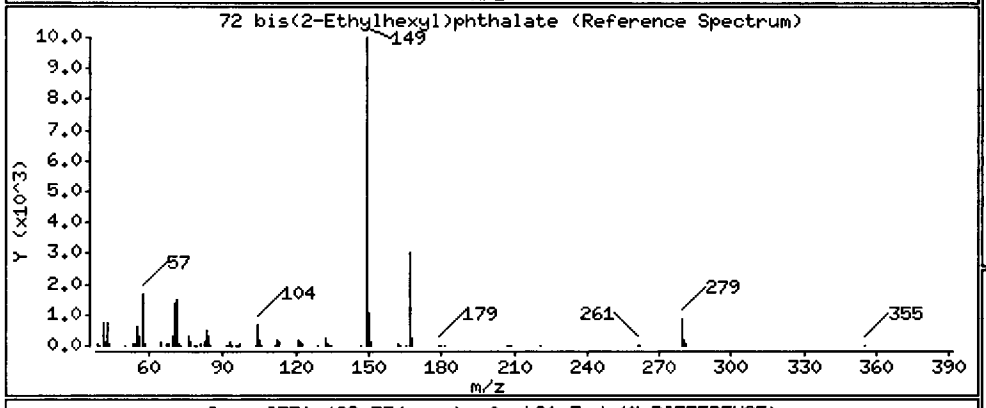
Concentration: 5081 ug/kg

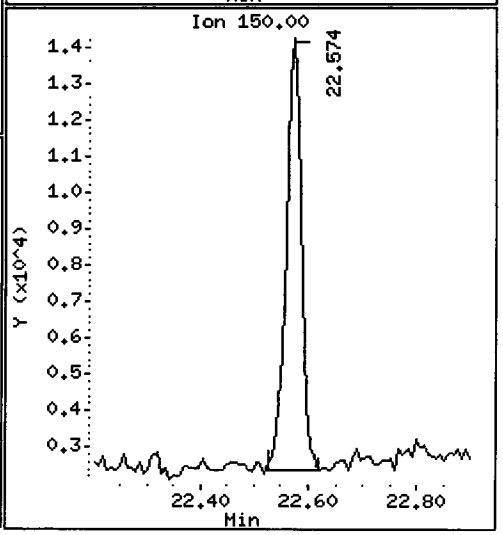


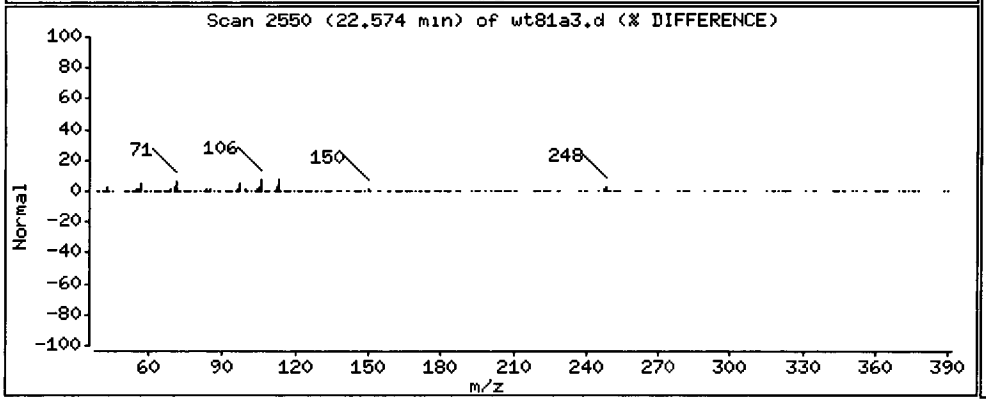












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

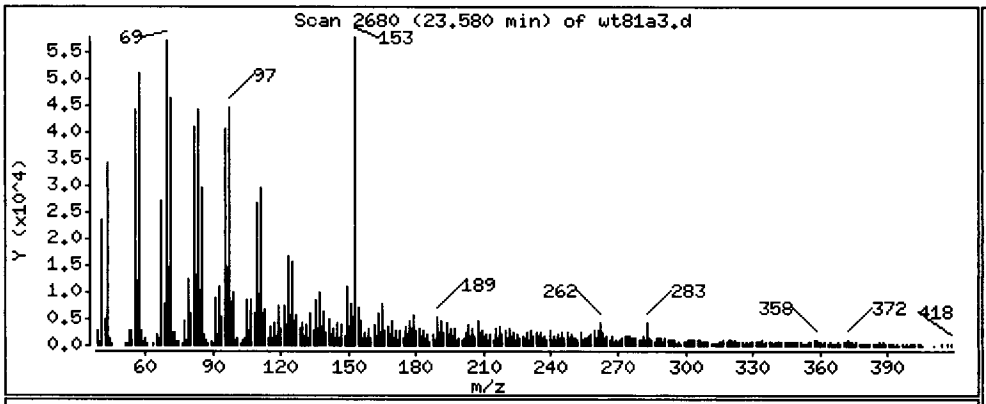
Operator: VTS/YZ

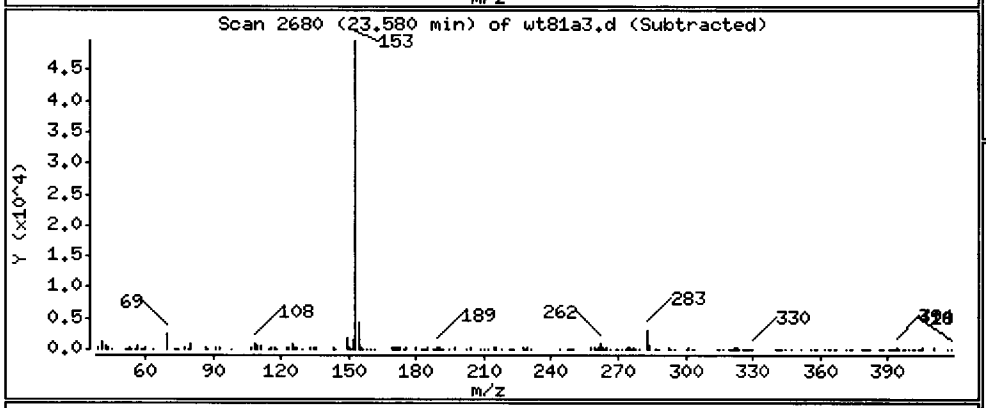
Column phase: ZB-5msi

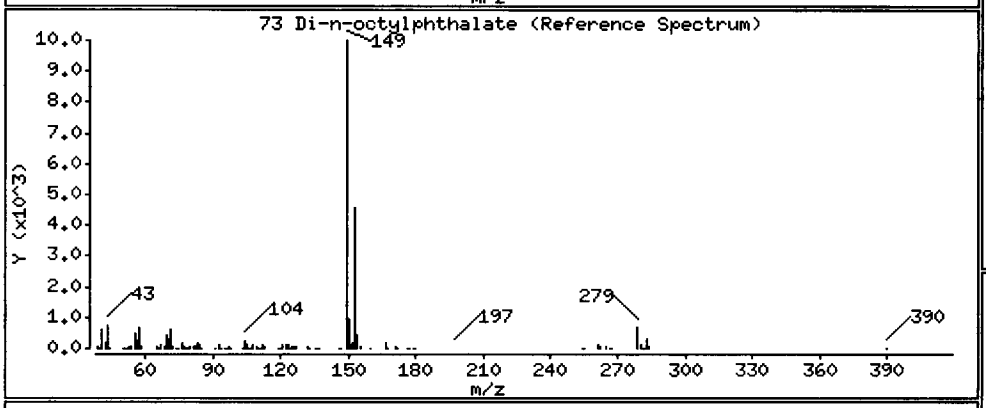
Column diameter: 0.25

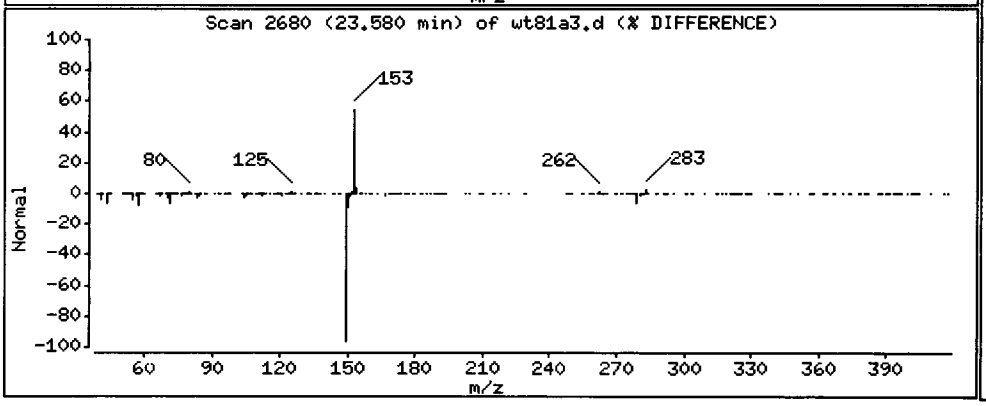
73 Di-n-octylphthalate

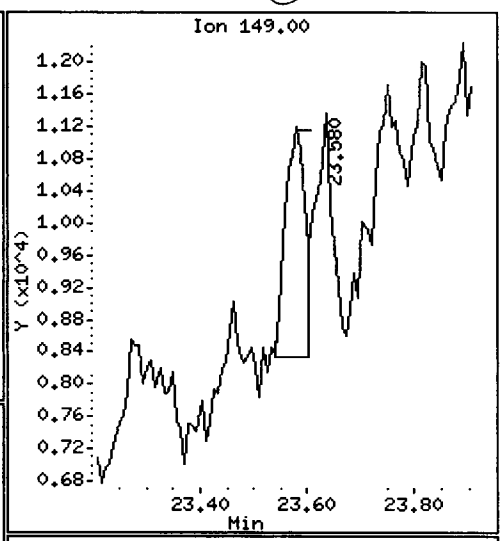
Concentration: 103.2 ug/kg

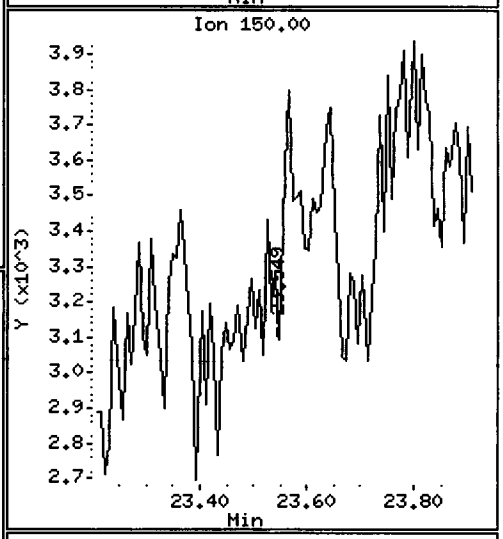


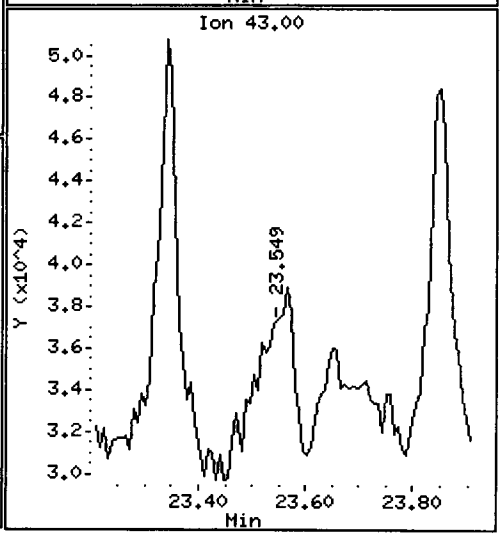












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

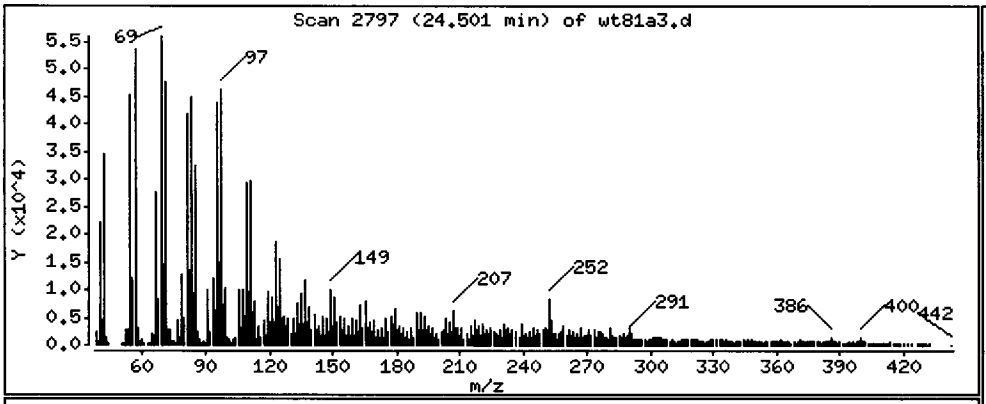
Operator: VTS/YZ

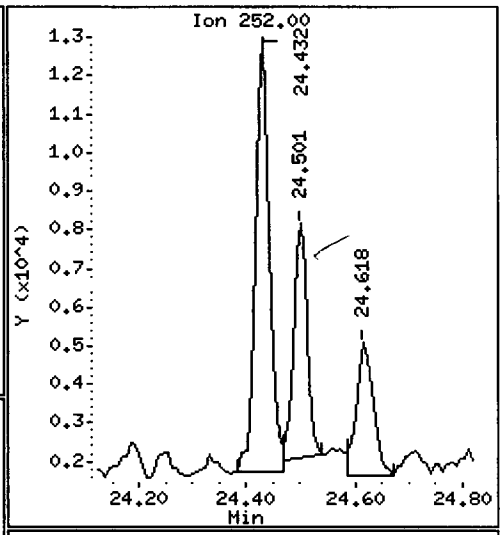
Column phase: ZB-5msi

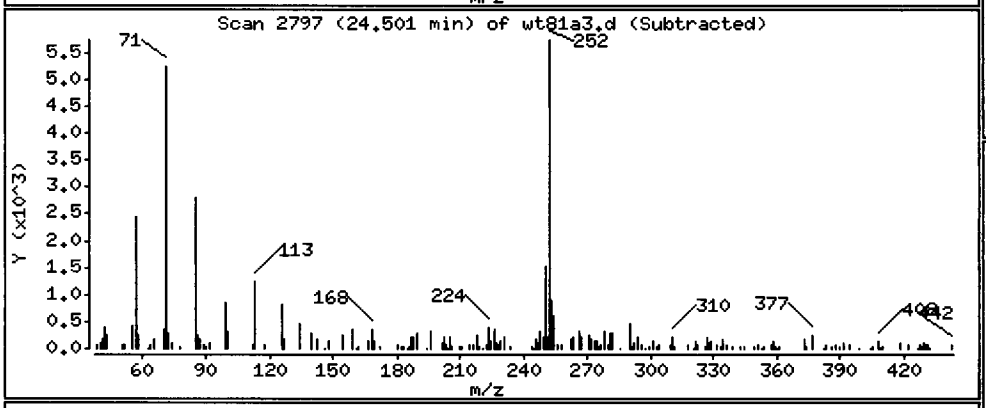
Column diameter: 0.25

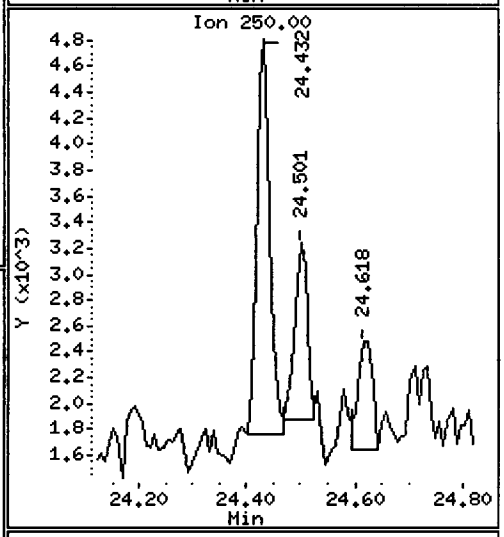
76 Benzo(a)pyrene

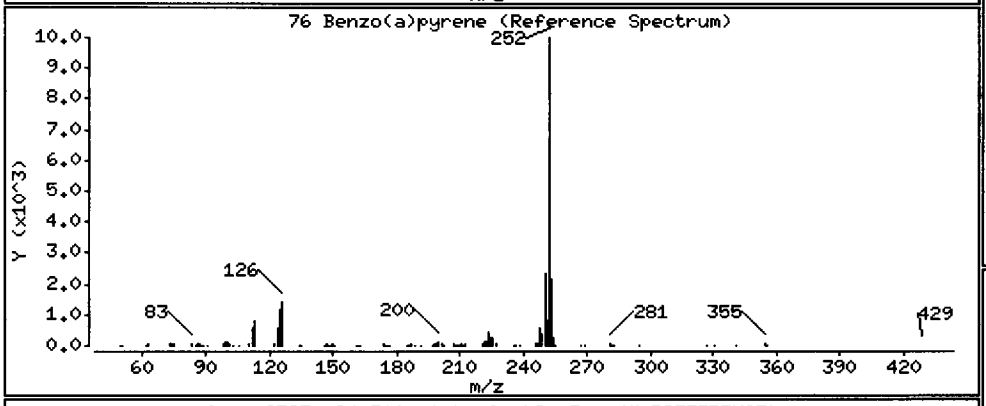
Concentration: 180.5 ug/kg

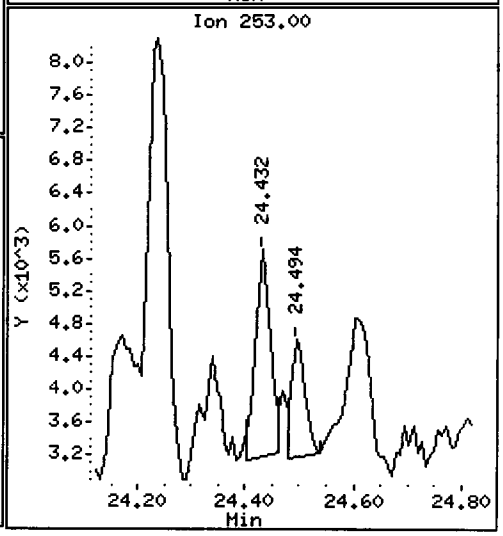


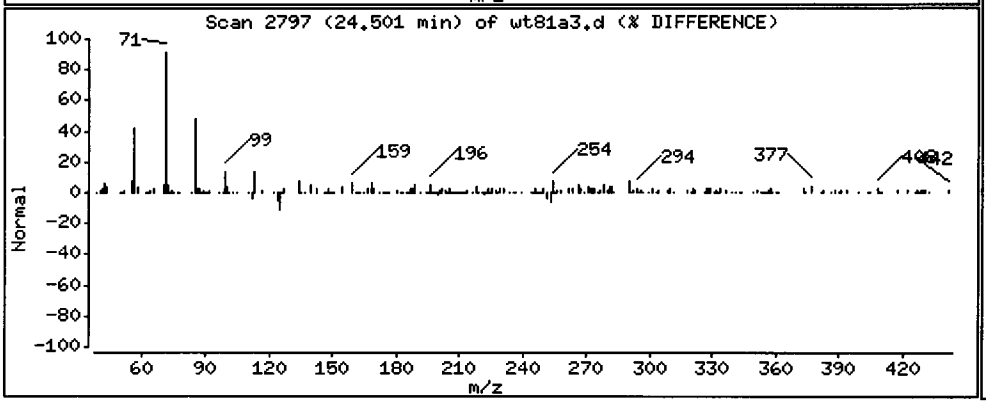












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

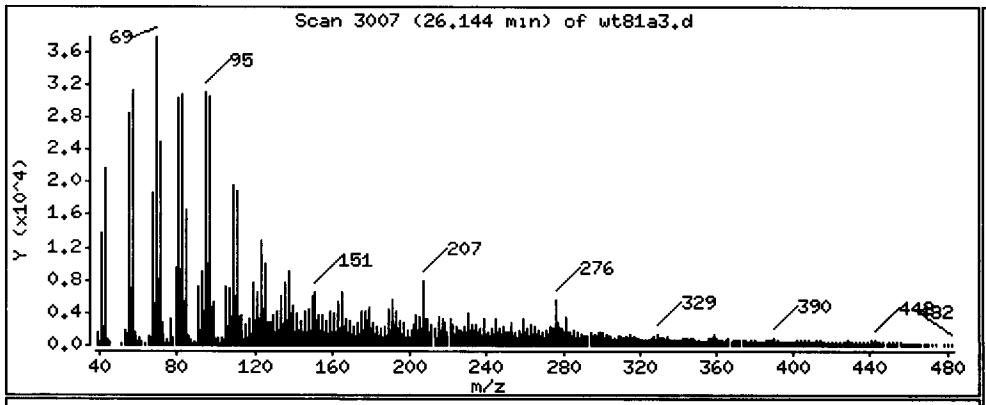
Operator: VTS/YZ

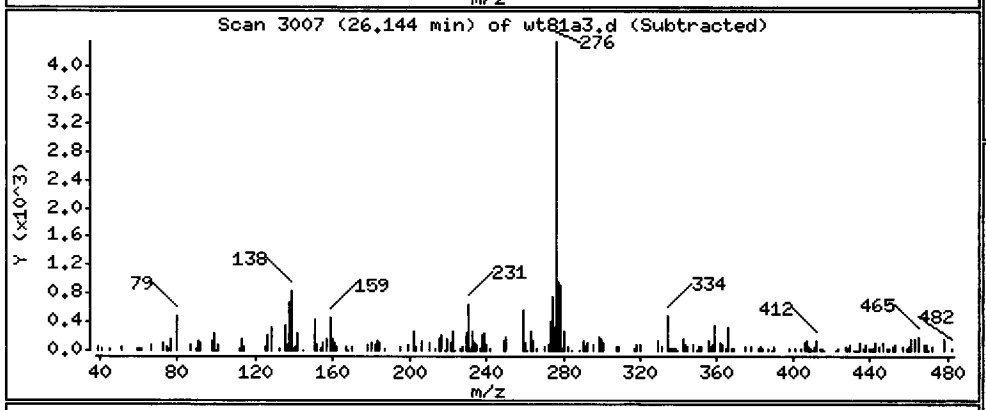
Column phase: ZB-5msi

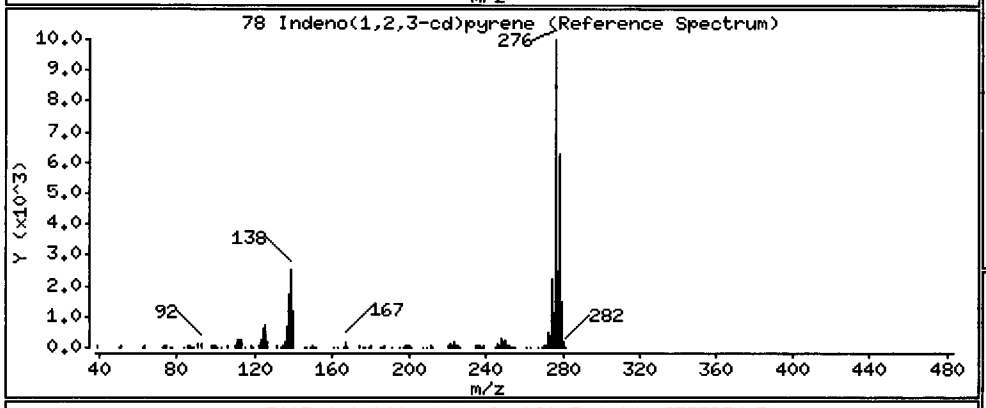
Column diameter: 0.25

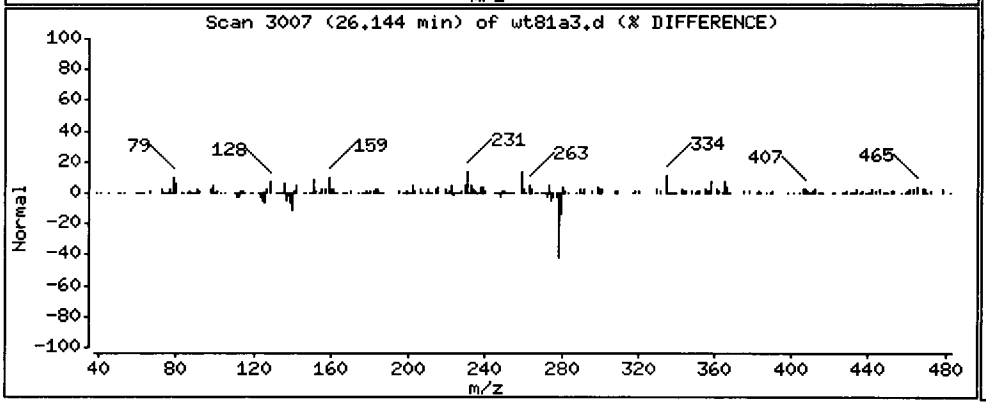
78 Indeno(1,2,3-cd)pyrene

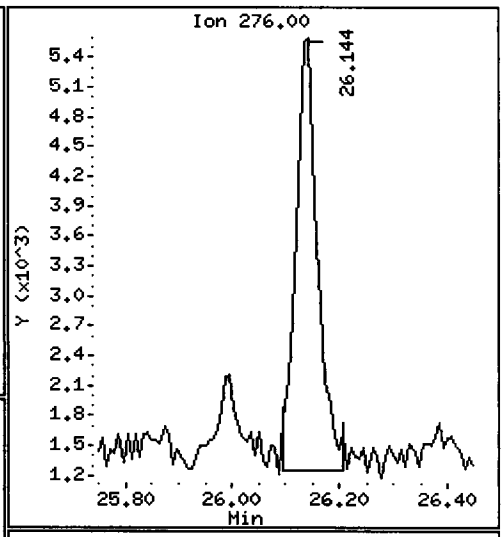
Concentration: 185.6 ug/kg

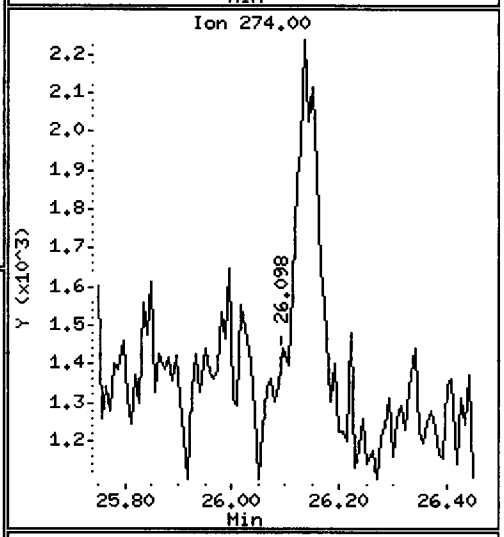


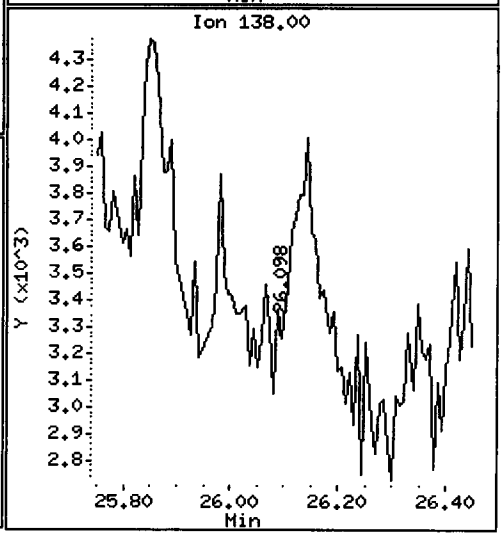












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

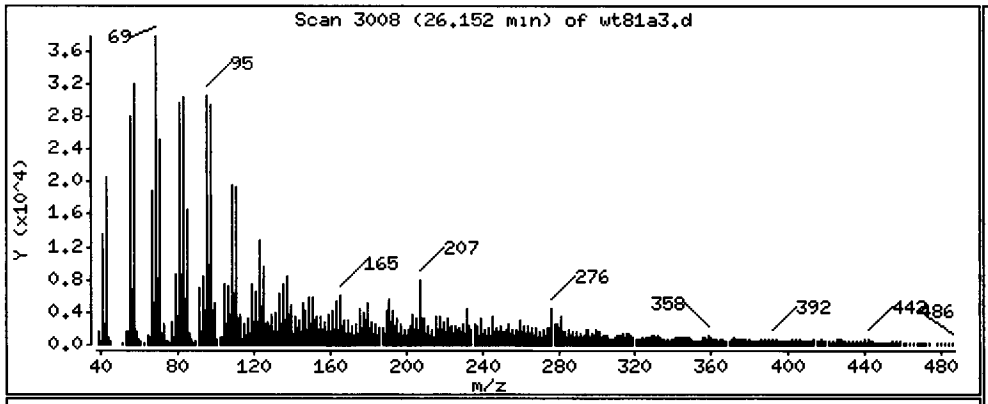
Operator: VTS/YZ

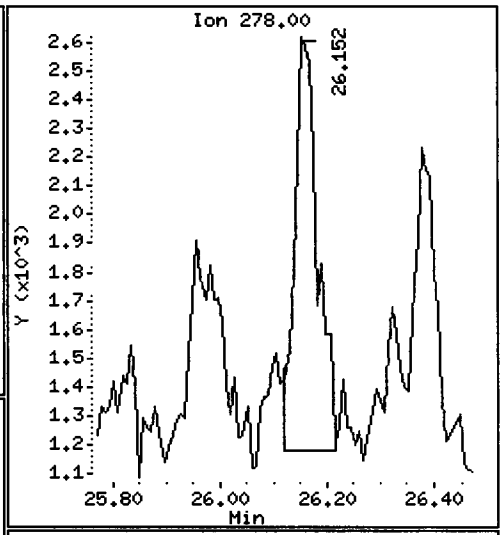
Column phase: ZB-5msi

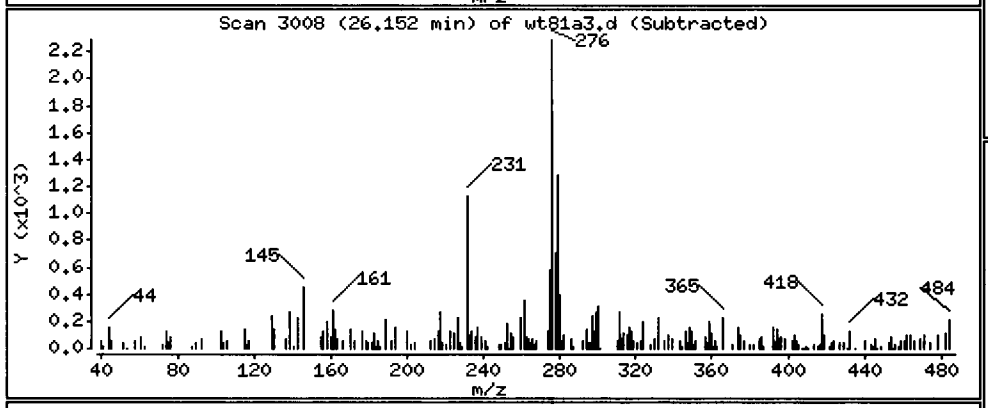
Column diameter: 0.25

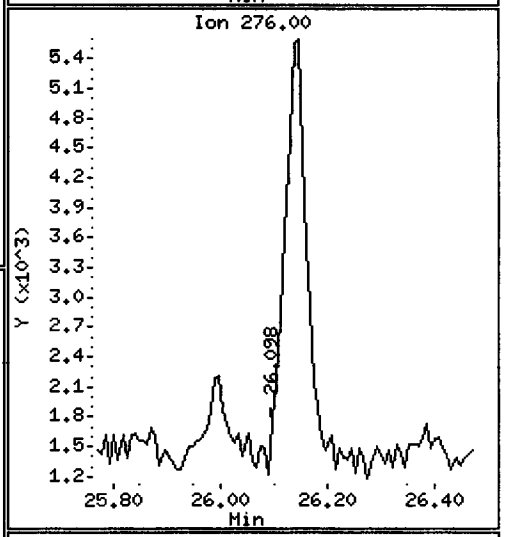
79 Dibenzo(a,h)anthracene

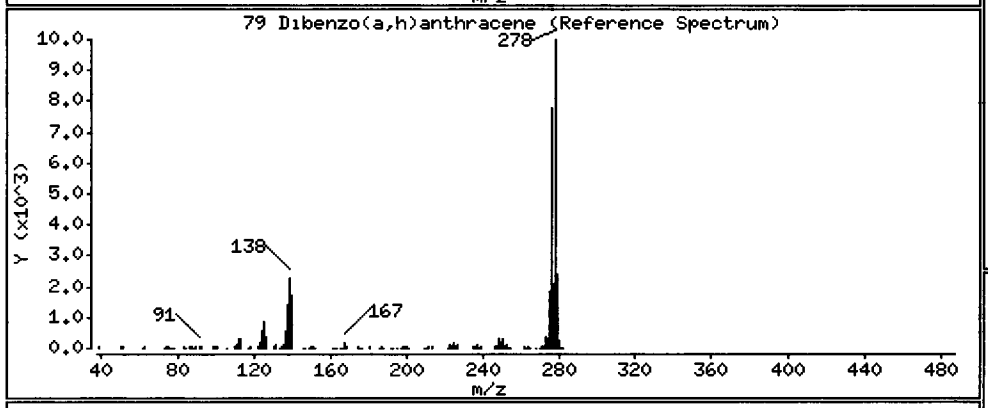
Concentration: 84.87 ug/kg

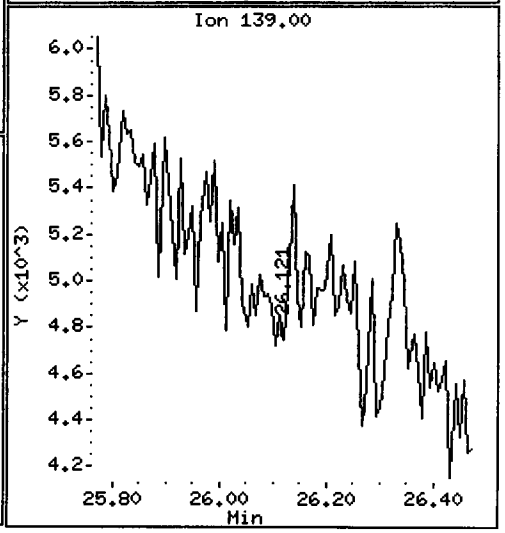


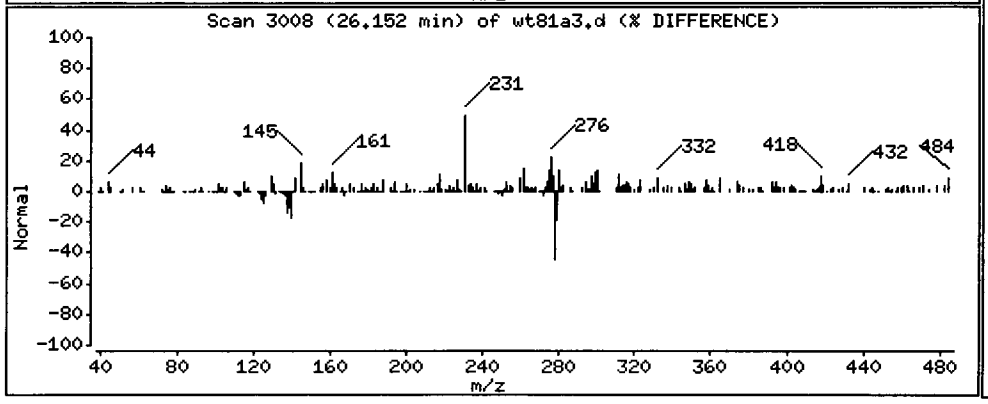












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

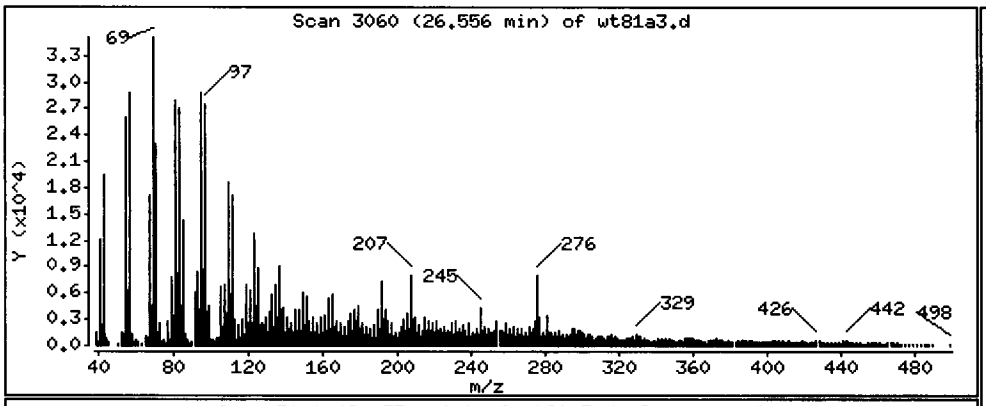
Operator: VTS/YZ

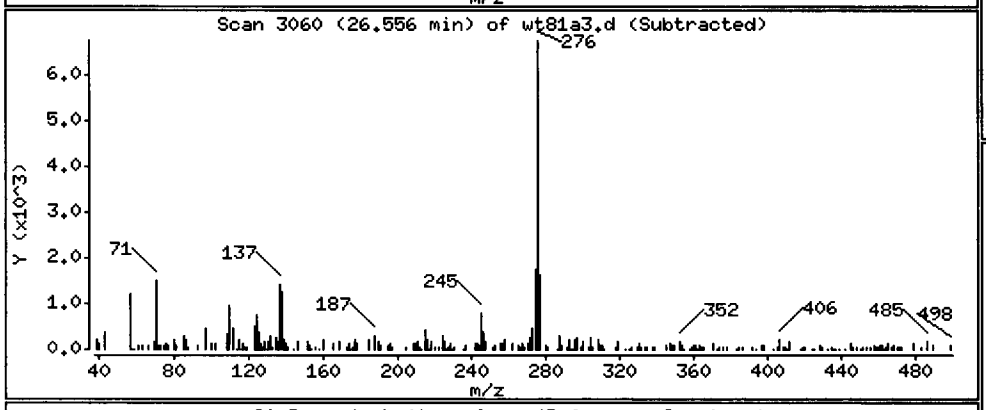
Column phase: ZB-5msi

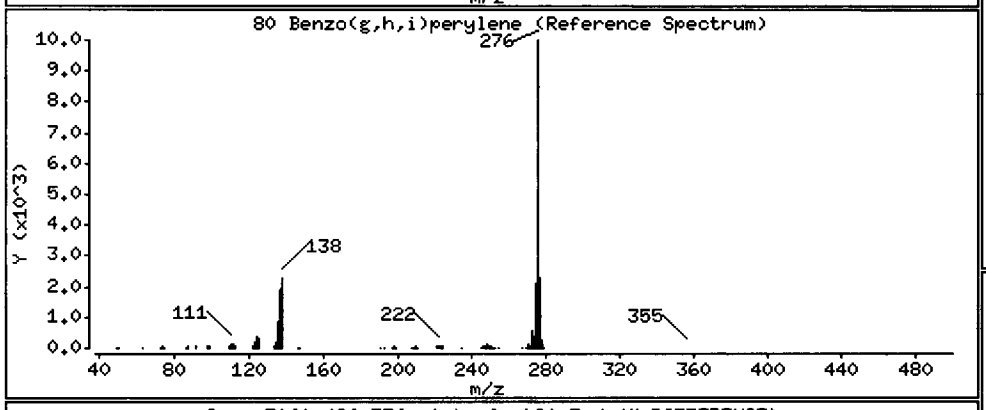
Column diameter: 0.25

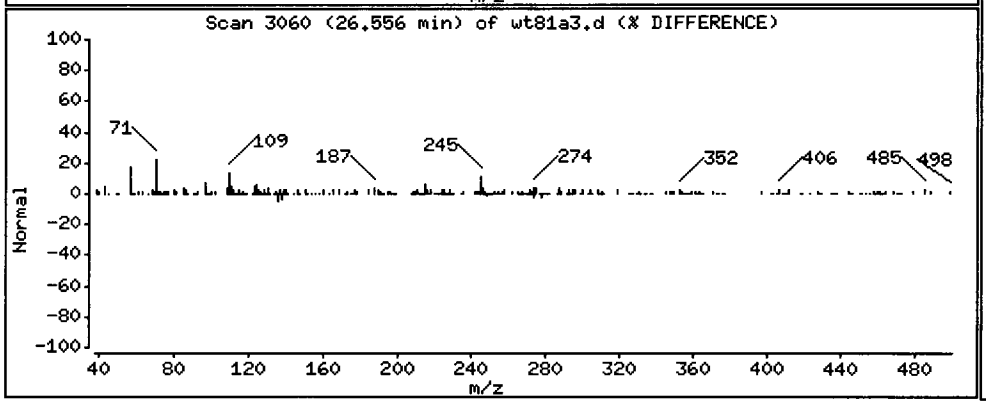
80 Benzo(g,h,i)perylene

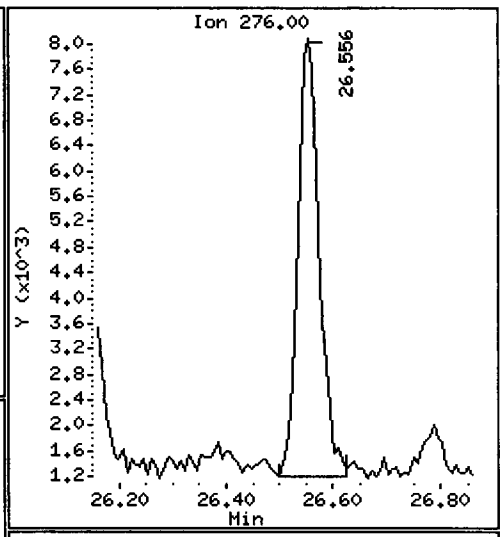
Concentration: 327.2 ug/kg

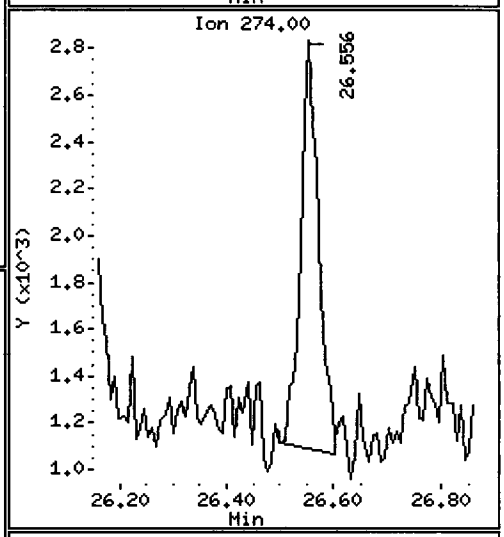


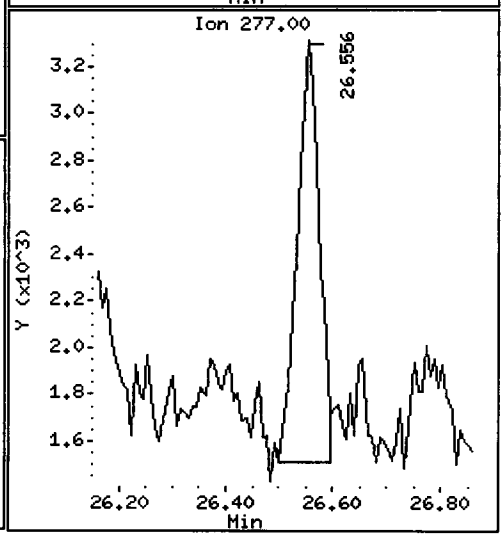












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

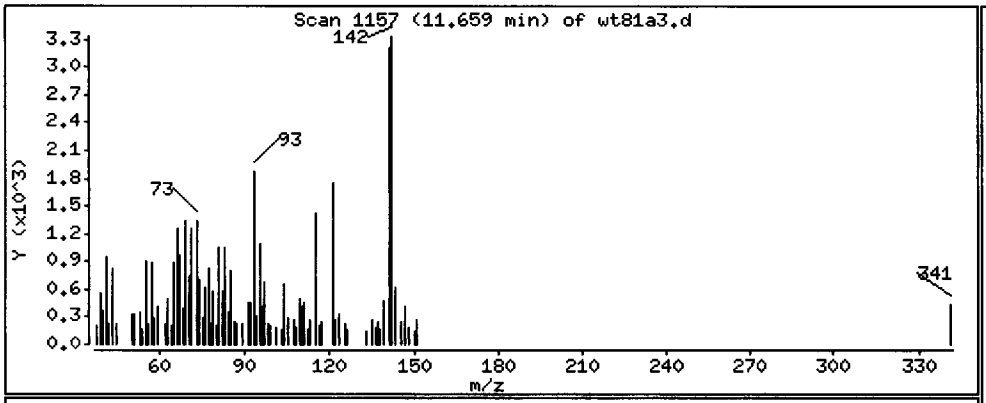
Operator: VTS/YZ

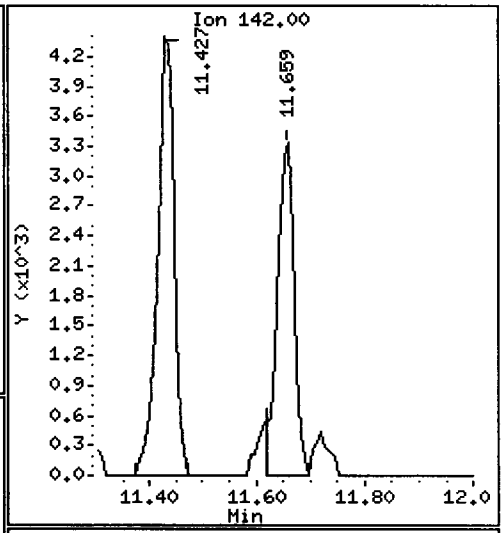
Column phase: ZB-5msi

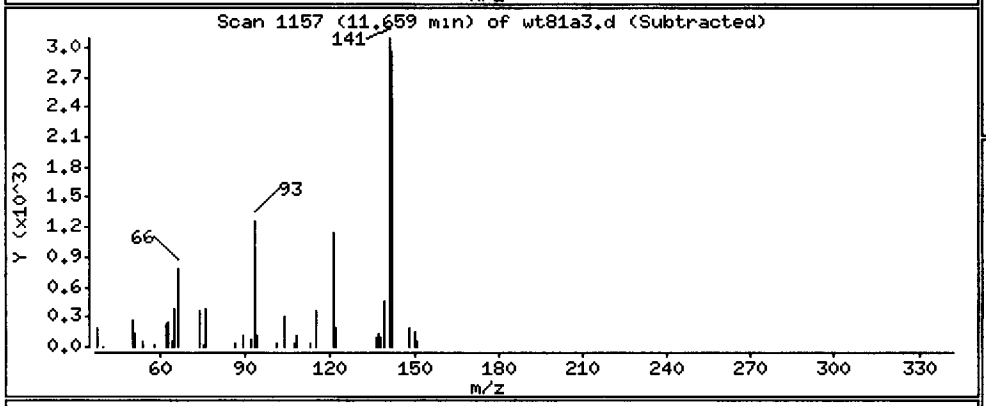
Column diameter: 0.25

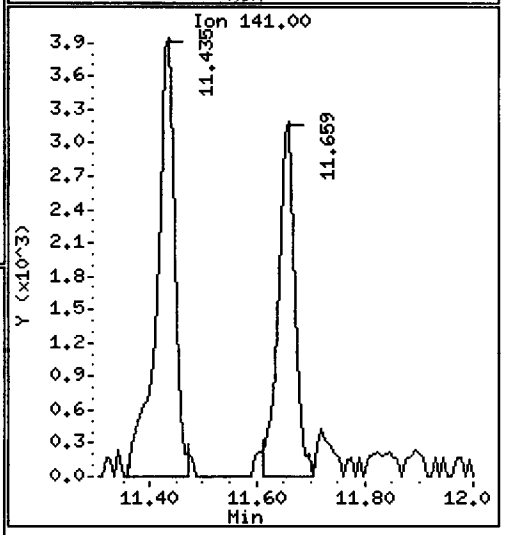
105 1-methylnaphthalene

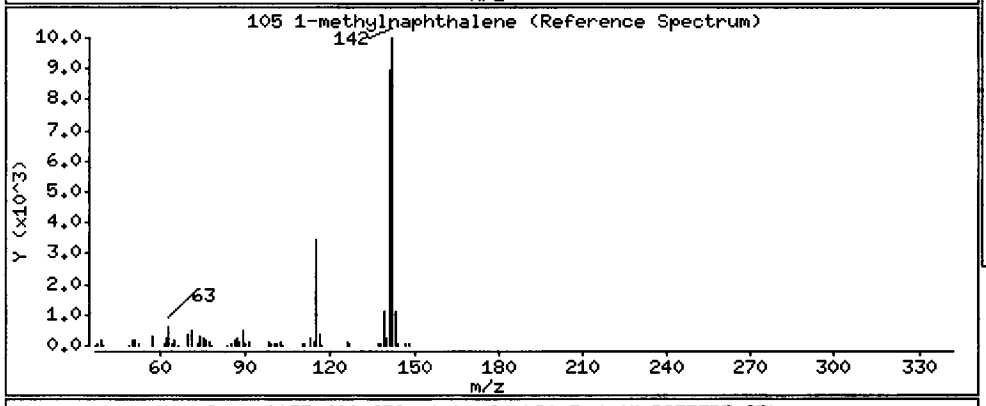
Concentration: 157.8 ug/kg

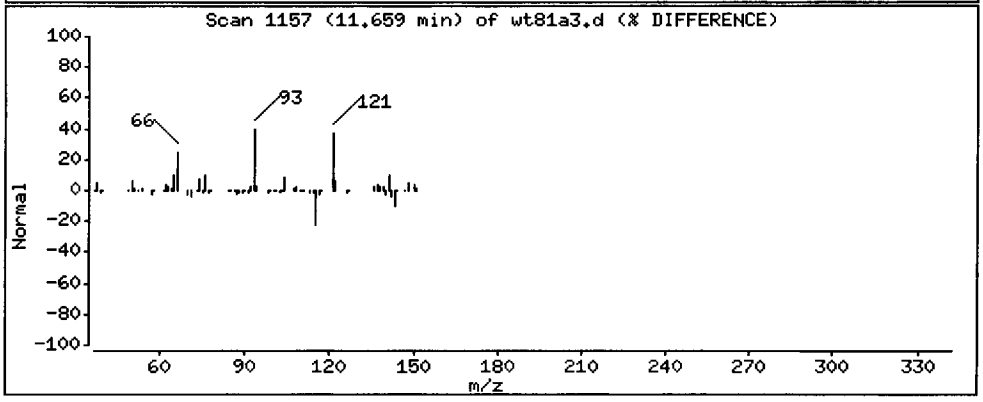












Data File: /chem1/nt10.i/20130626.b/wt81a3.d

Date : 26-JUN-2013 13:05

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A,3

Volume Injected (uL): 1.0

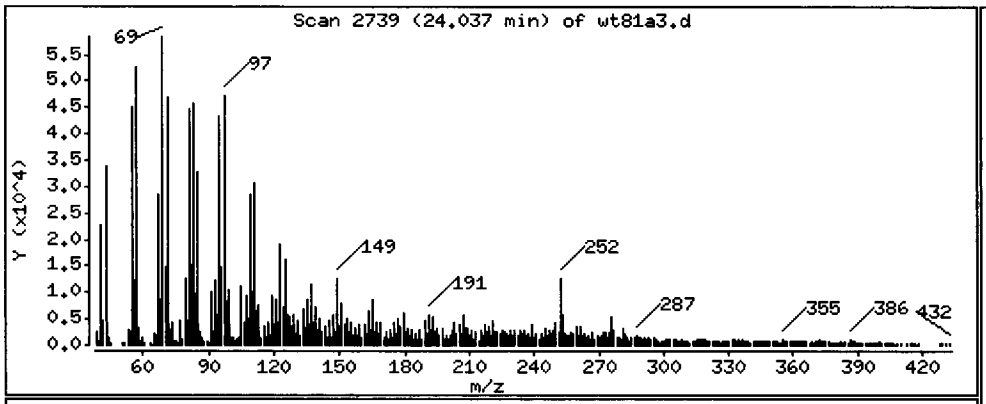
Operator: VTS/YZ

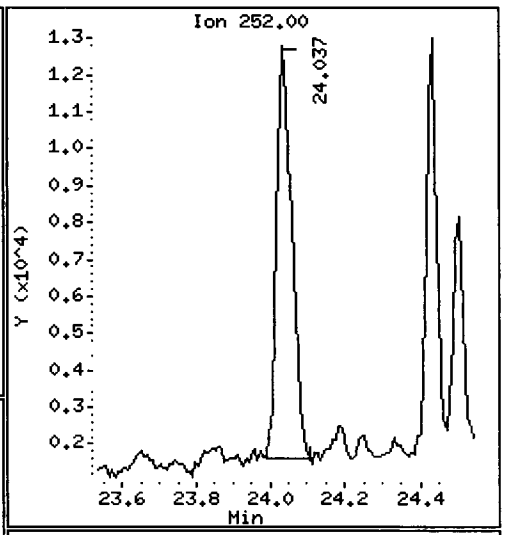
Column phase: ZB-5msi

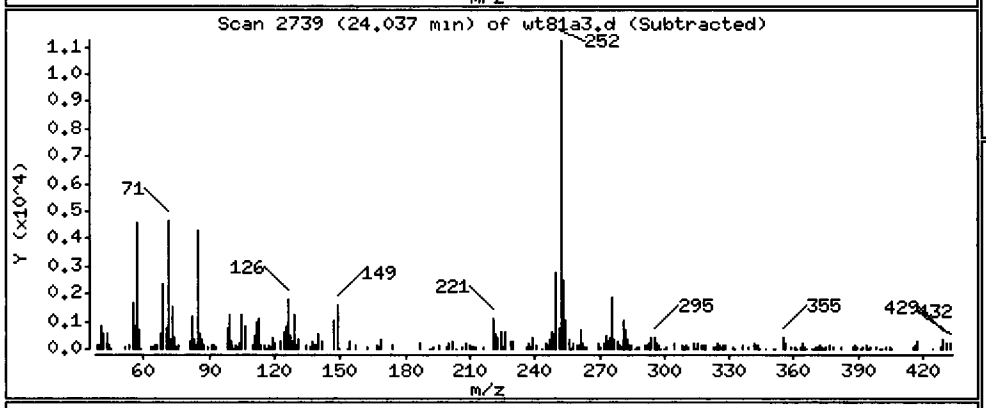
Column diameter: 0.25

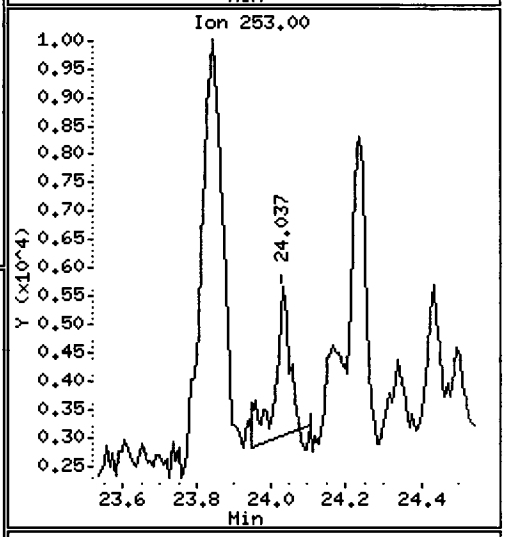
187 Total Benzofluoranthenes

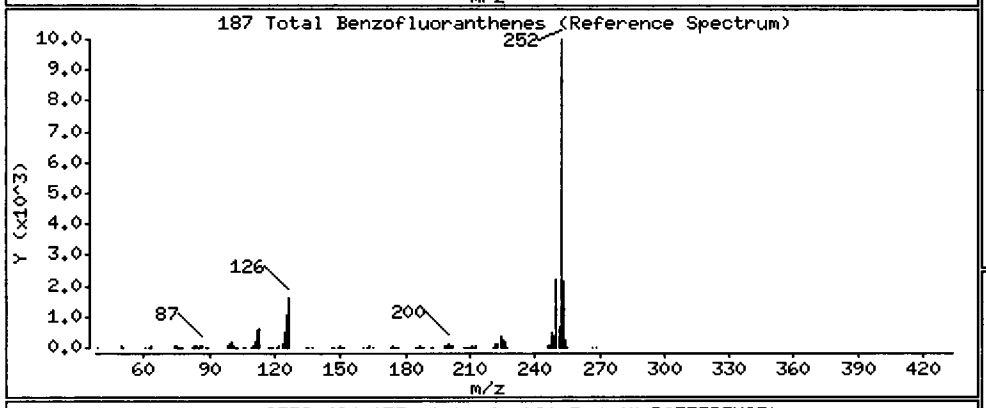
Concentration: 475.1 ug/kg

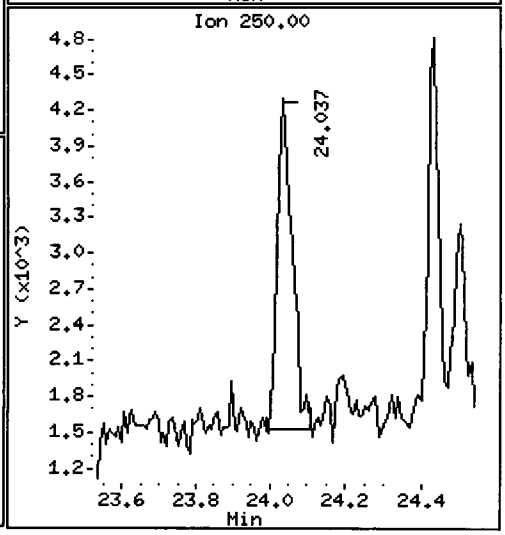


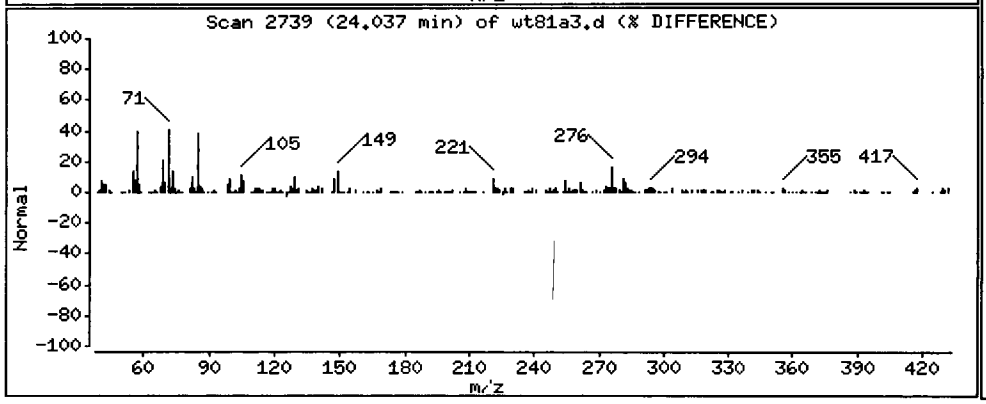






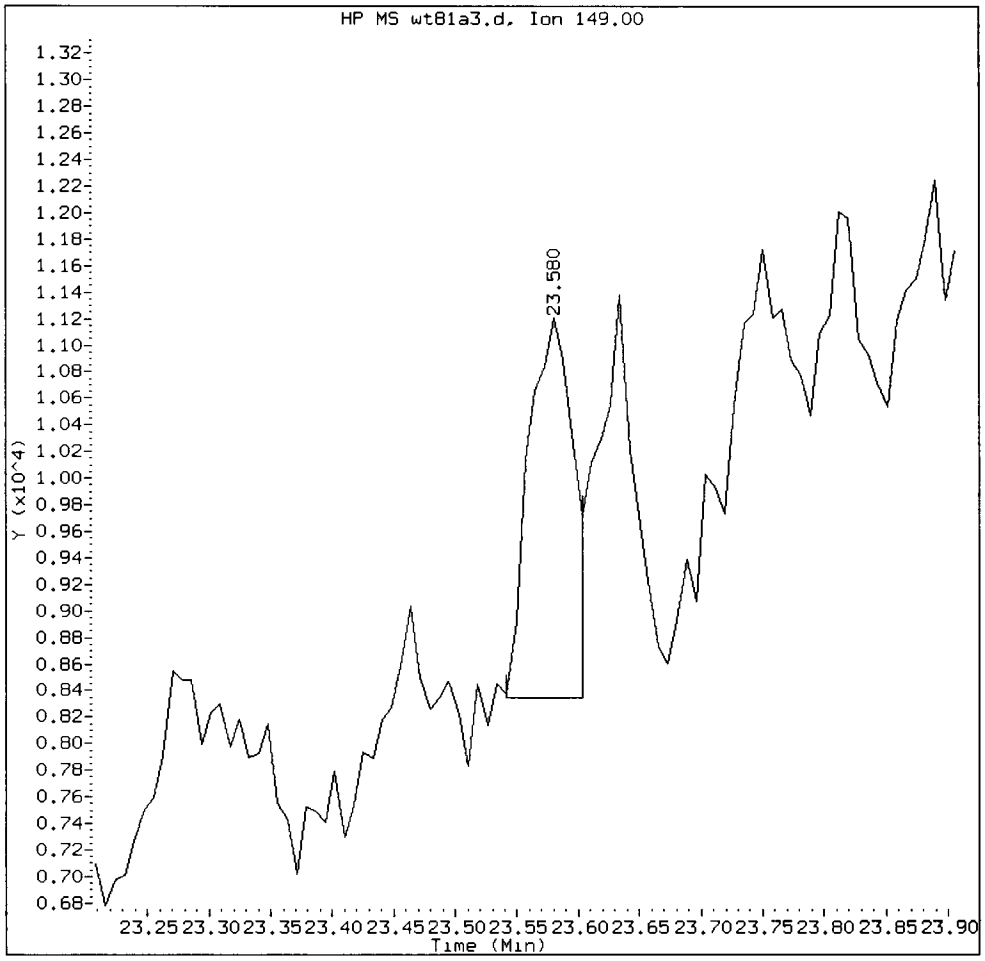






WT81A, /chem1/nt10.i/20130626.b/wt81a3.d

Di-n-octylphthalate Amount: 0.15 Area: 7389



MANUAL INTEGRATION for Di-n-octylphthalate

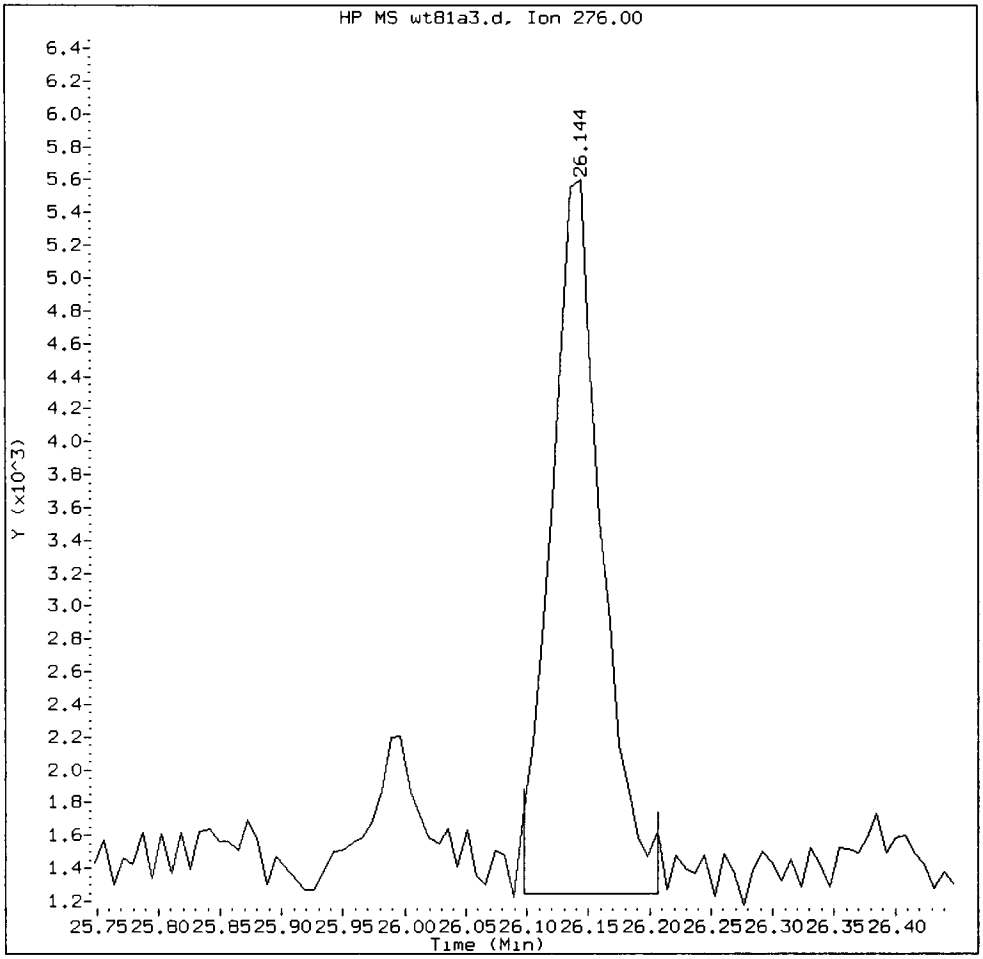
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

WT81A, /chem1/nt10.i/20130626.b/wt81a3.d

Indeno(1,2,3-cd)pyrene Amount: 0.27 Area: 12812



MANUAL INTEGRATION for Indeno(1,2,3-cd)pyrene

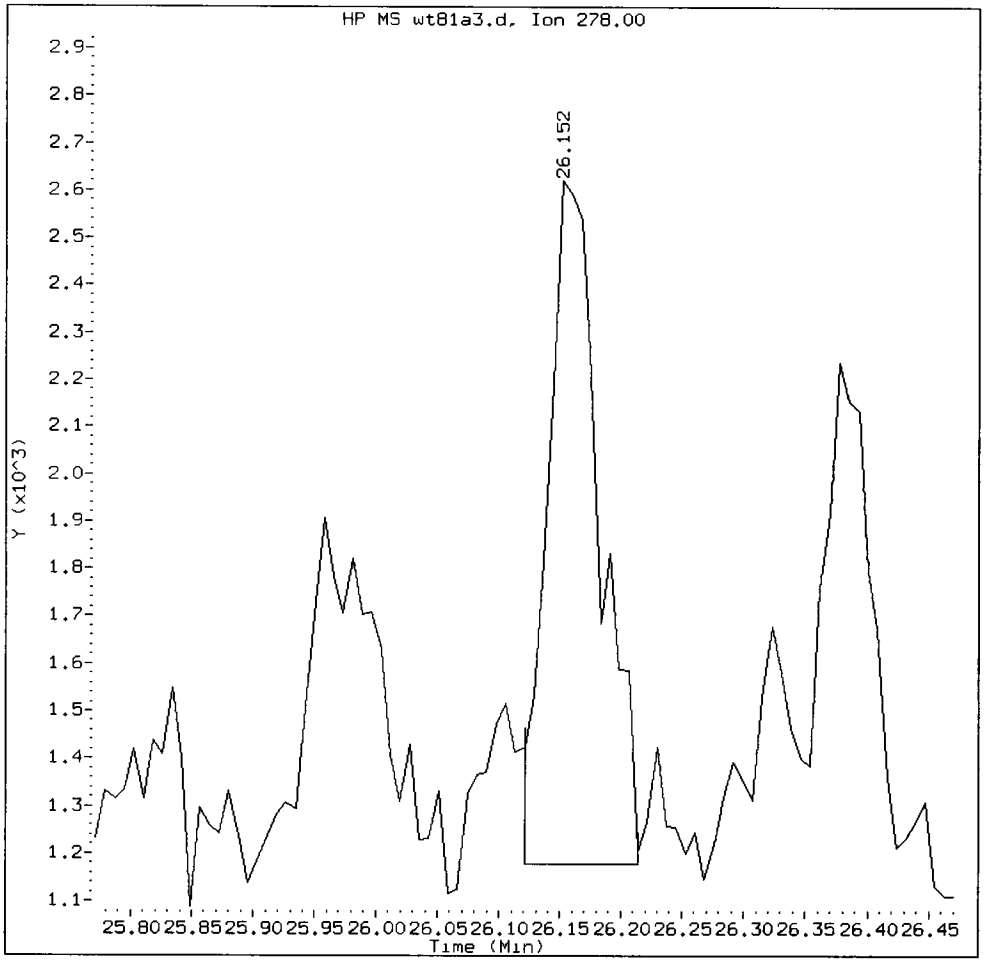
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

WT81A, /chem1/nt10.i/20130626.b/wt81a3.d

Dibenzo(a,h)anthracene Amount: 0.12 Area: 4495



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81a3.d

Lab ID: WT81A, Method: ABN.m, Instrument: nt10.i, Date: 26-JUN-2013

RT	CO-ELUTION COMPOUNDS
24.037	Benzo(k)fluoranthene and Benzo(b)fluoranthene
7.704	1,2-Dichlorobenzene-d4 and Benzyl alcohol

Analytical Resources, Inc.

YZ 6/27/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130626.b/wt81b3.d
Lab Smp Id: WT81B Client Smp ID: AM-SF4-EFF-20130612
Inj Date : 26-JUN-2013 13:42
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT81B,3
Misc Info : 13-12637
Comment : 1ul Injection
Method : /chem1/nt10.i/20130626.b/ABN.m
Meth Date : 27-Jun-2013 11:35 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 2
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	7.02000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.151	5.136	(0.703)	22901	1.21929	1306(R)
$	2 Phenol-d5	99	6.859	6.844	(0.936)	31376	1.29095	1383(R)
	3 Phenol	94	6.882	6.867	(0.939)	2840	0.10439	111.8(M)
$	5 2-Chlorophenol-d4	132	6.983	6.975	(0.952)	24108	1.30672	1400(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	7.331	7.323	(1.000)	52622	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	7.688	7.688	(1.049)	10893	0.82081	879.1(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	8.301	8.301	(1.132)	9475	0.47468	508.4
$	18 Nitrobenzene-d5	82	8.480	8.480	(0.856)	18283	0.88486	947.7(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	9.903	9.903	(1.000)	195802	4.00000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.302	12.309	(0.897)	38722	0.92444	990.1(R)
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.710	13.710	(1.000)	120013	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	13.772	13.780	(1.004)	12852	0.37707	403.9
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.127	14.135	(1.030)	15504	0.33267	356.3
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	14.885	14.885	(1.086)	21248	0.53430	572.3
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.232	15.232	(0.900)	2001	0.10020	107.3(M)
$	55 2,4,6-Tribromophenol	330	15.464	15.464	(1.128)	9580	1.50944	1617
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	16.916	16.916	(1.000)	172514	4.00000	
	60 Phenanthrene	178	16.963	16.963	(1.003)	165113	3.50889	3758
	61 Anthracene	178	17.056	17.063	(1.008)	18212	0.37779	404.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
62	Carbazole	167	17.481	17.489	(1.033)	8692	0.29683	317.9
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.547	19.547	(1.155)	301735	5.44820	5835
65	Pyrene	202	19.972	19.972	(0.897)	264233	4.83742	5181
$ 66	Terphenyl-d14	244	20.406	20.398	(0.916)	35535	1.03399	1107(R)
67	Butylbenzylphthalate	149	21.451	21.436	(0.963)	6033	0.32343	346.4(MH)
68	Benzo(a)anthracene	228	22.249	22.225	(0.999)	48873	0.98877	1059
* 69	Chrysene-d12	240	22.272	22.256	(1.000)	176547	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.311	22.295	(1.002)	84757	1.89484	2029
72	bis(2-Ethylhexyl)phthalate	149	22.566	22.551	(0.958)	358160	11.9547	12800
* 134	Di-n-octylphthalate-d4	153	23.565	23.549	(1.000)	225345	4.00000	
73	Di-n-octylphthalate	149	23.572	23.557	(1.000)	21099	0.40665	435.5(M)
74	Benzo(b)fluoranthene	252	24.037	23.998	(0.978)	103732	2.00754	2150
75	Benzo(k)fluoranthene	252	24.037	24.037	(0.978)	103732	1.90597	2041
76	Benzo(a)pyrene	252	24.502	24.471	(0.997)	25627	0.58053	621.8
* 77	Perylene-d12	264	24.587	24.556	(1.000)	174000	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.136	26.098	(1.063)	27685	0.54436	583.0(M)
79	Dibenzo(a,h)anthracene	278	26.160	26.121	(1.064)	11246	0.28826	308.7(M)
80	Benzo(g,h,i)perylene	276	26.564	26.509	(1.080)	39560	0.89903	962.9
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.037	24.037	(0.978)	101620	2.02534	2169
99	Perylene	252	24.618	24.587	(1.001)	12345	0.24464	262.0
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81b3.d
Lab Smp Id: WT81B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12637

Calibration Date: 26-JUN-2013
Calibration Time: 11:46
Client Smp ID: AM-SF4-EFF-20130
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	52622	16.29
27 Naphthalene-d8	166754	83377	333508	195802	17.42
42 Acenaphthene-d10	106910	53455	213820	120013	12.26
59 Phenanthrene-d10	179783	89892	359566	172514	-4.04
69 Chrysene-d12	192841	96420	385682	176547	-8.45
134 Di-n-octylphthala	229567	114784	459134	225345	-1.84
77 Perylene-d12	184310	92155	368620	174000	-5.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.32	6.82	7.82	7.33	0.11
27 Naphthalene-d8	9.90	9.40	10.40	9.90	0.00
42 Acenaphthene-d10	13.71	13.21	14.21	13.71	0.00
59 Phenanthrene-d10	16.92	16.42	17.42	16.92	0.00
69 Chrysene-d12	22.26	21.76	22.76	22.27	0.07
134 Di-n-octylphthala	23.55	23.05	24.05	23.56	0.07
77 Perylene-d12	24.56	24.06	25.06	24.59	0.13

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

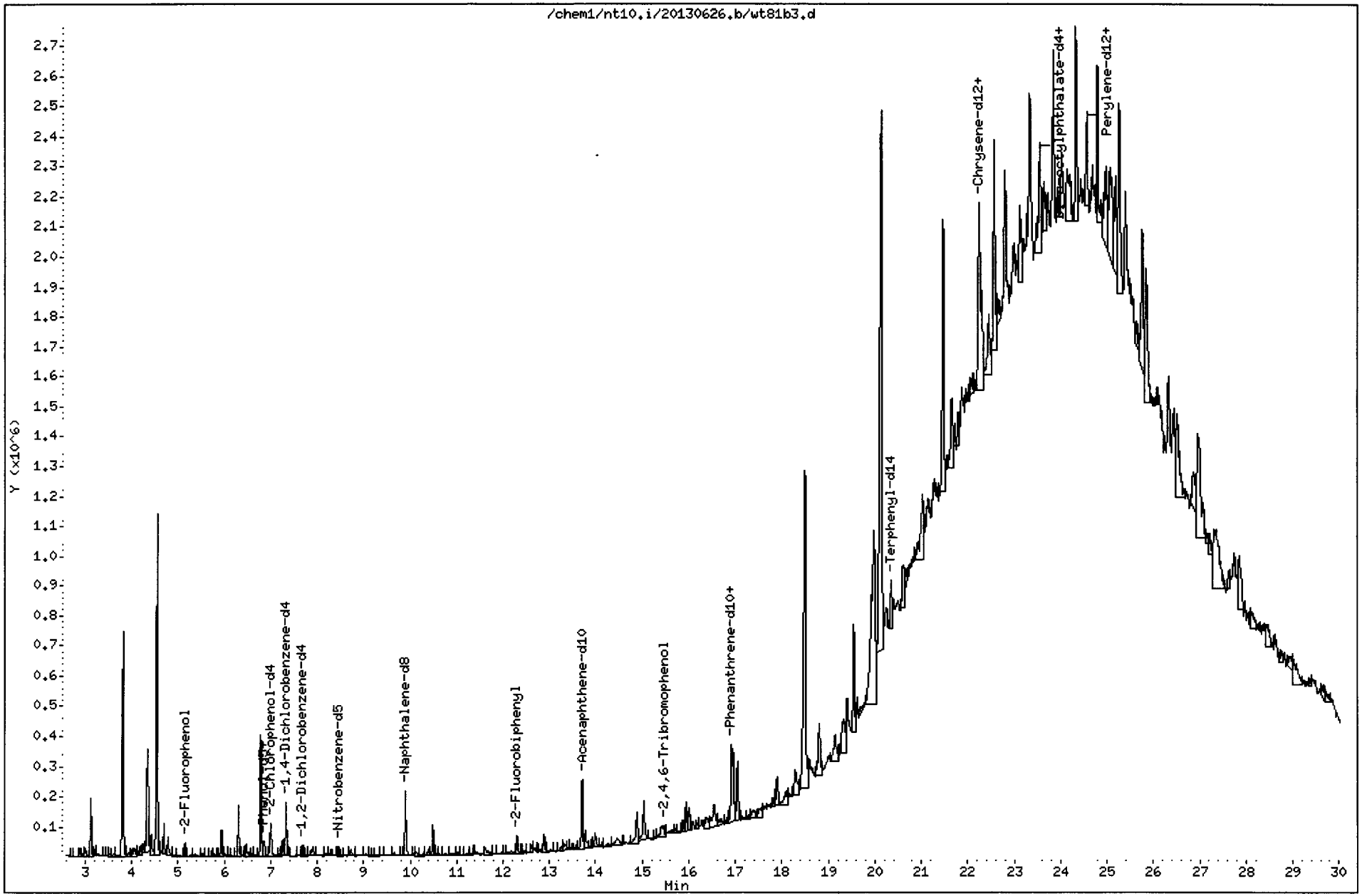
Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81B
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDALCS.spk
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12637

Client SDG: WT81
Fraction: SV
Client Smp ID: AM-SF4-EFF-20130612
Operator: VTS/YZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2678	1306	48.77	27-120
$ 2 Phenol-d5	2678	1383	51.64	29-120
$ 5 2-Chlorophenol-d4	2678	1400	52.27	31-120
$ 10 1,2-Dichlorobenzen	1785	879.1	49.25	32-120
$ 18 Nitrobenzene-d5	1785	947.7	53.09	30-120
$ 36 2-Fluorobiphenyl	1785	990.1	55.47	35-120
$ 55 2,4,6-Tribromophen	2678	1617	60.38	24-134
$ 66 Terphenyl-d14	1785	1107	62.04	37-120

Data File: /chem1/nt10.i/20130626.b/wt81b3.d
Date : 26-JUN-2013 13:42
Client ID: AM-SF4-EFF-20130612
Sample Info: WT81B,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

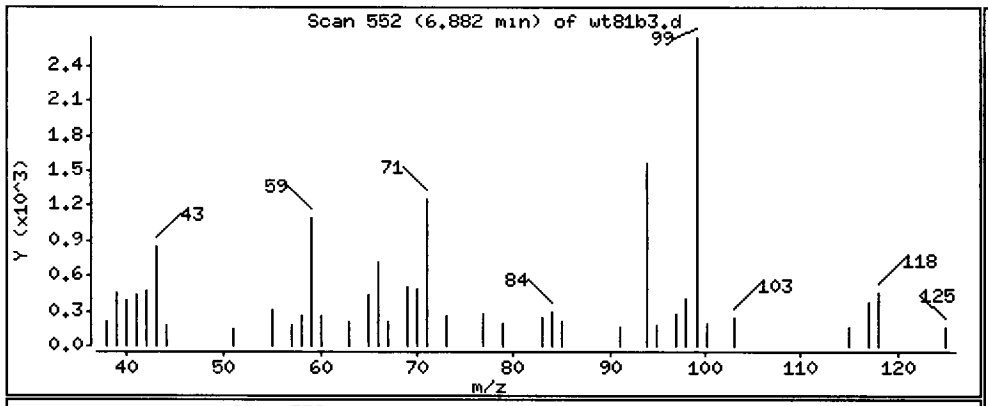
Operator: VTS/YZ

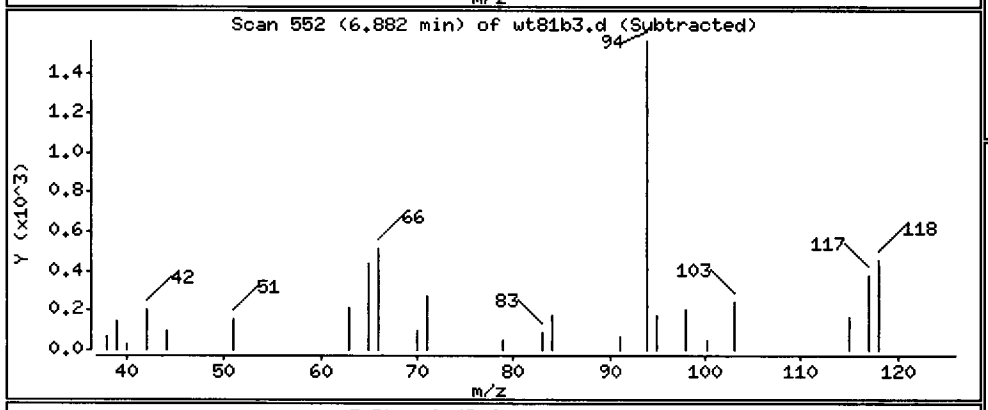
Column phase: ZB-5msi

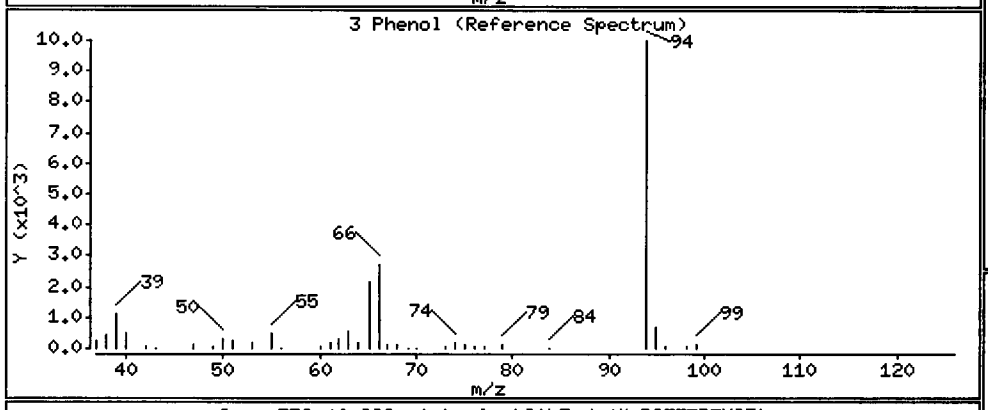
Column diameter: 0.25

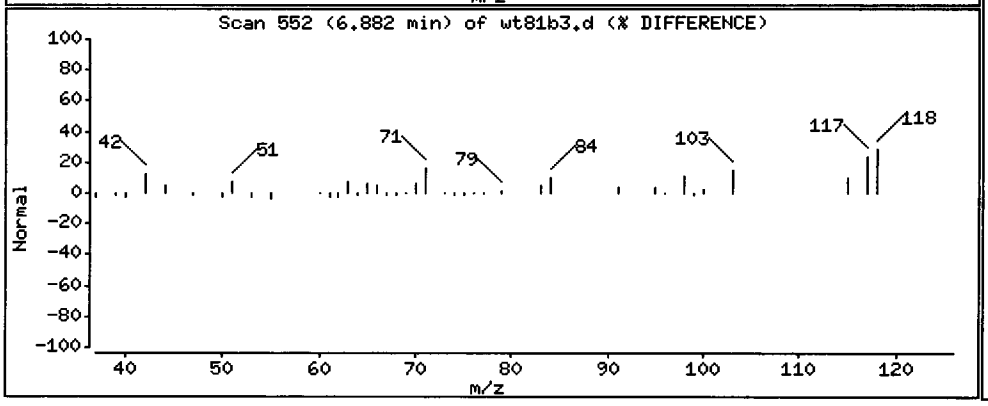
3 Phenol

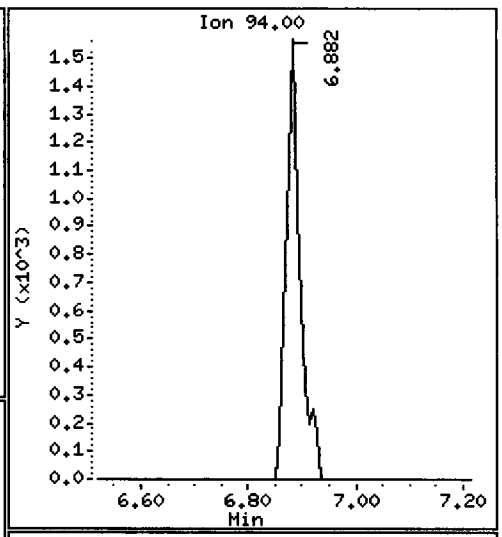
Concentration: 111.8 ug/kg

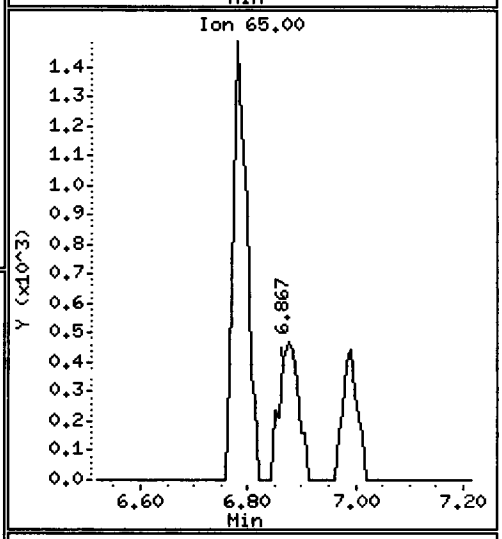


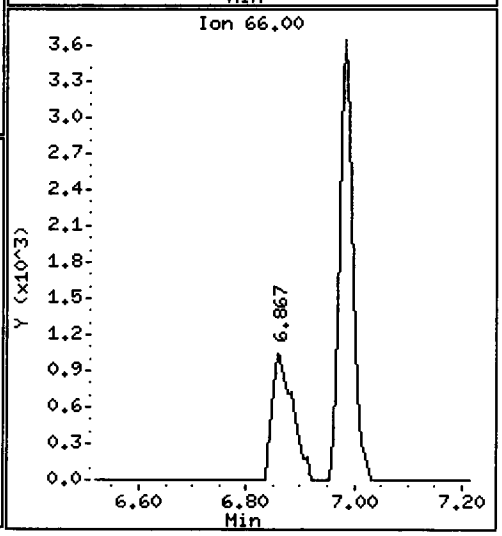












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

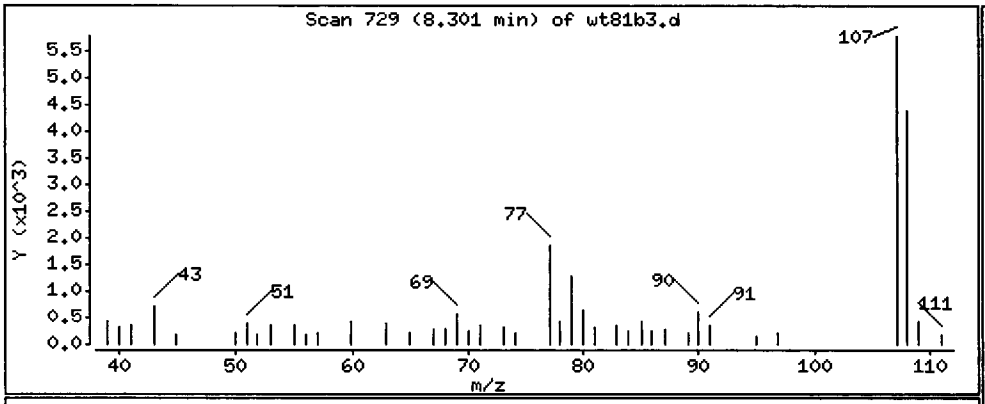
Operator: VTS/YZ

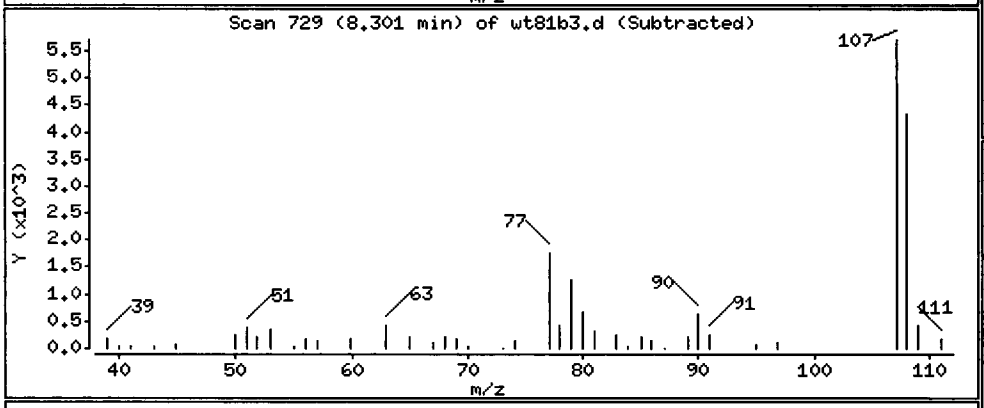
Column phase: ZB-5ms1

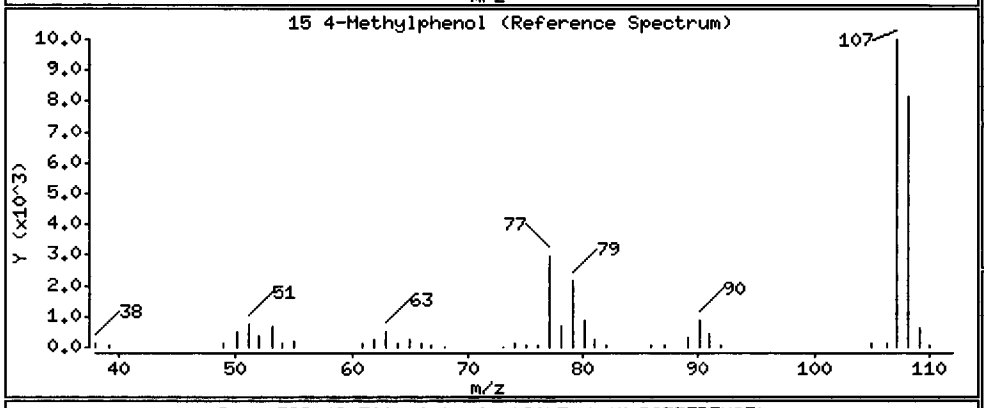
Column diameter: 0.25

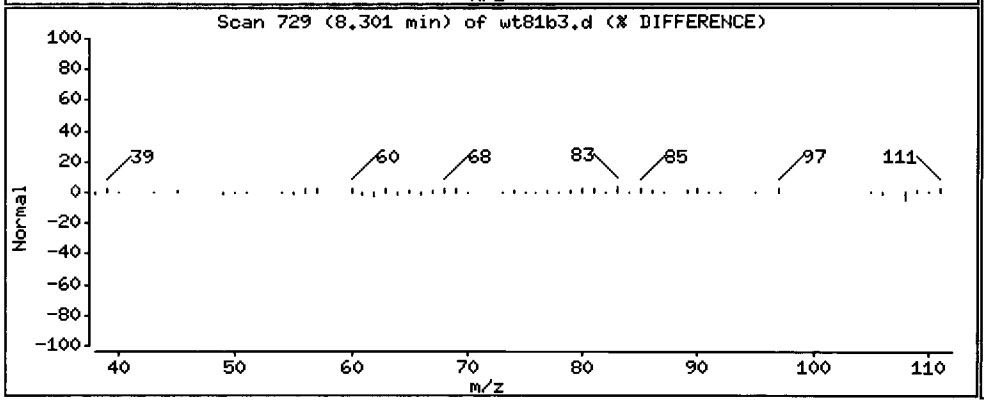
15 4-Methylphenol

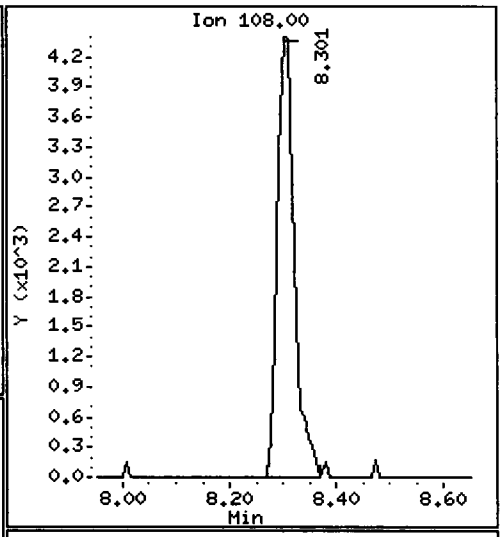
Concentration: 508.4 ug/kg

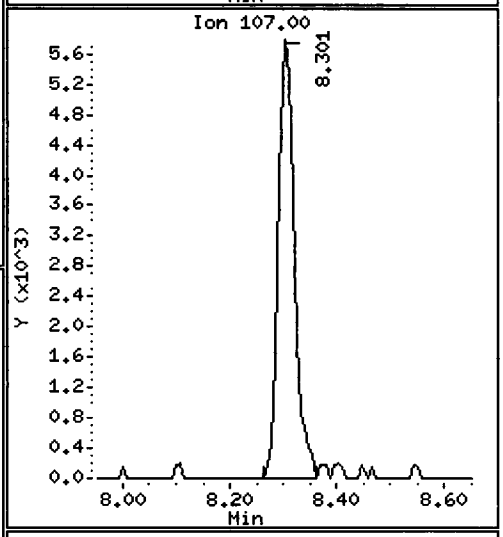


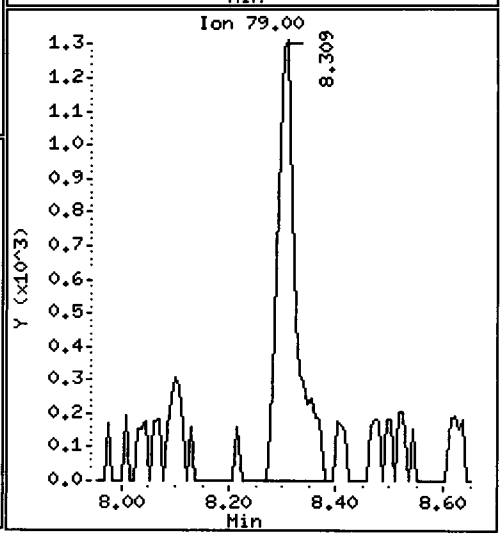












Data File: /chem1/nt10.1/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.1

Sample Info: WT81B,3

Volume Injected (uL): 1.0

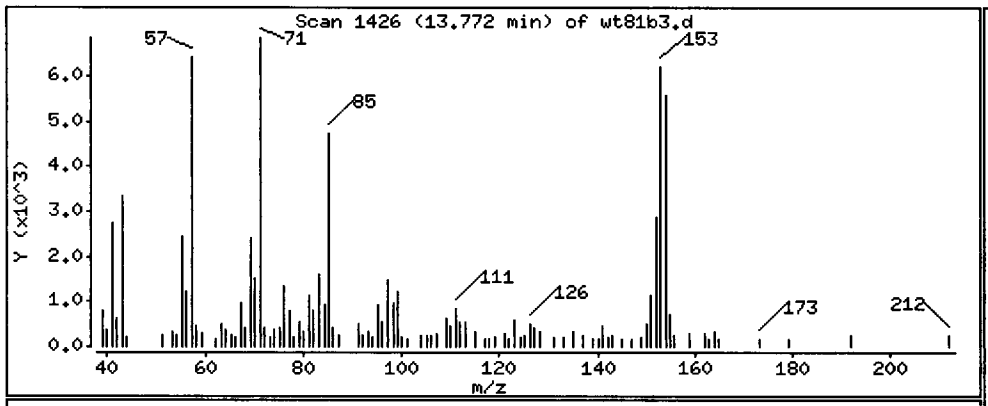
Operator: VTS/YZ

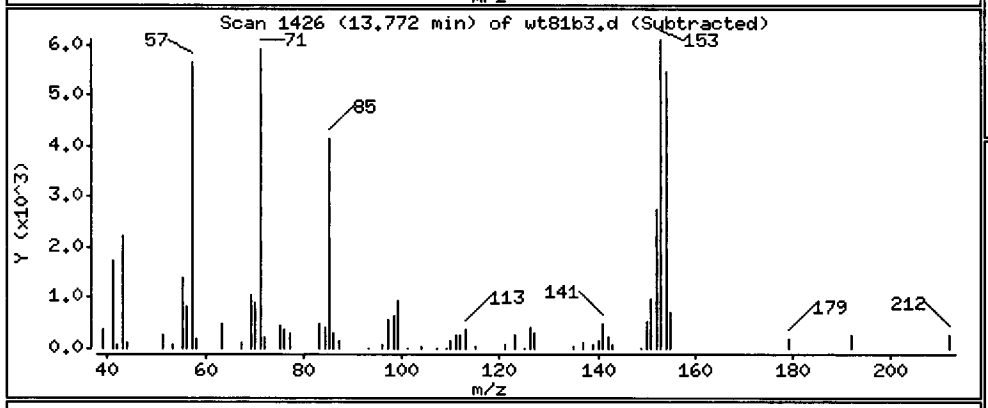
Column phase: ZB-5msi

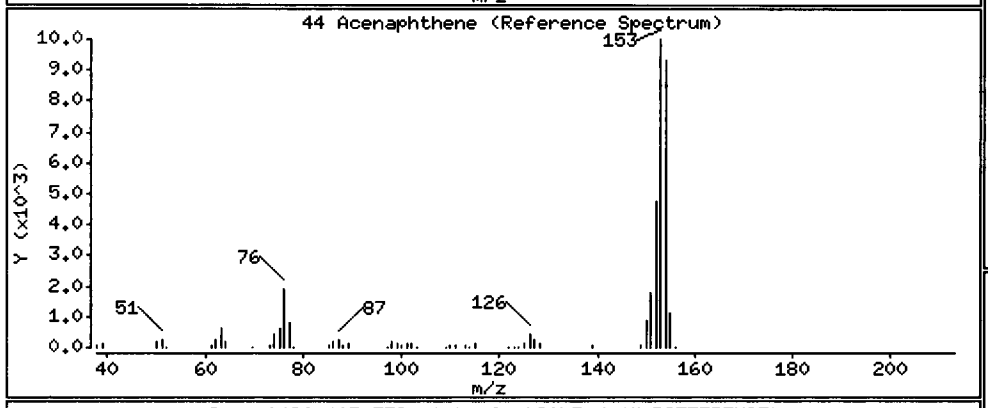
Column diameter: 0.25

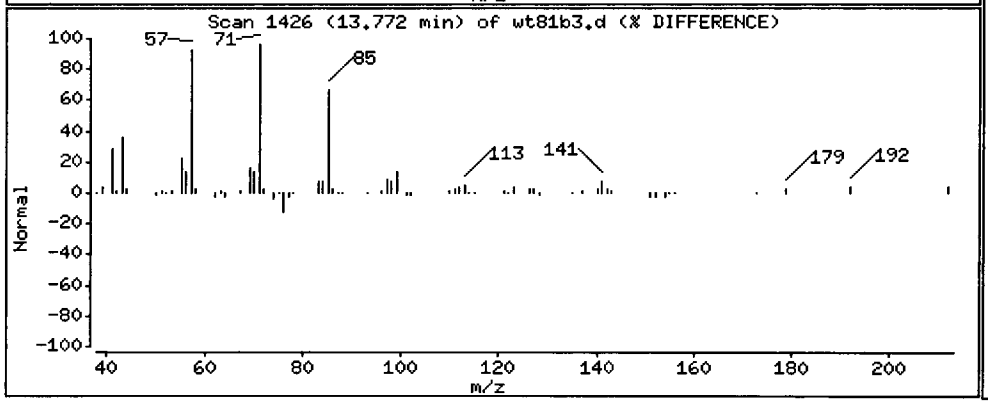
44 Acenaphthene

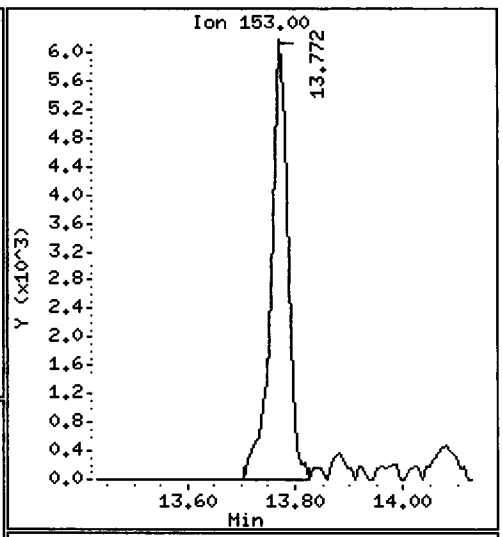
Concentration: 403.9 ug/kg

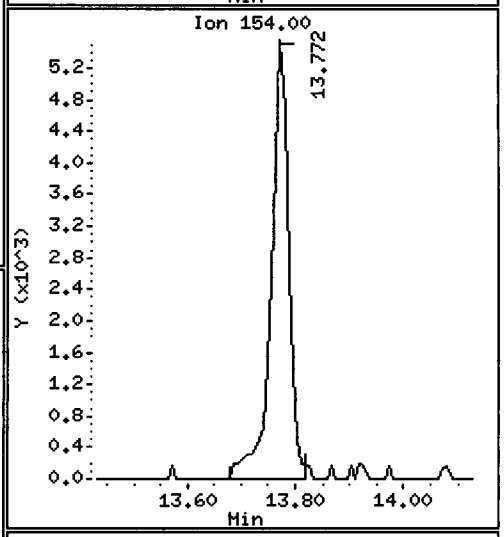


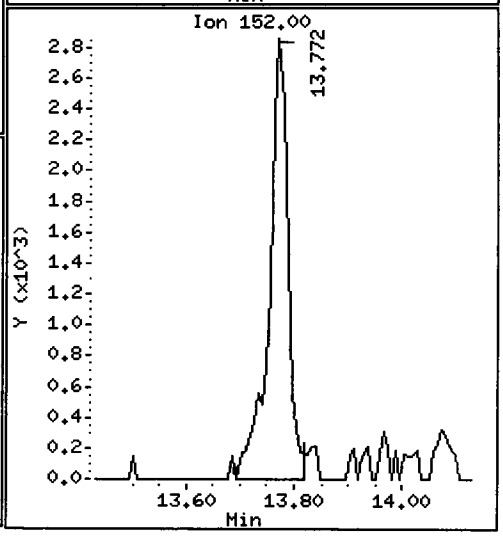












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

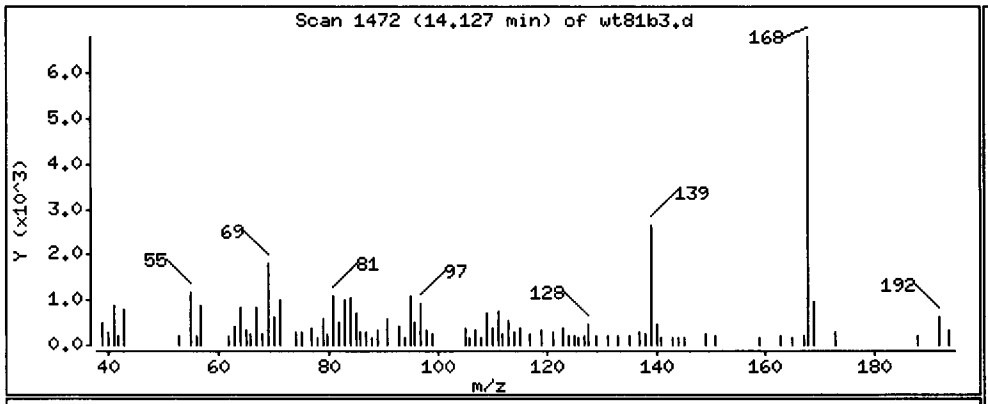
Operator: VTS/YZ

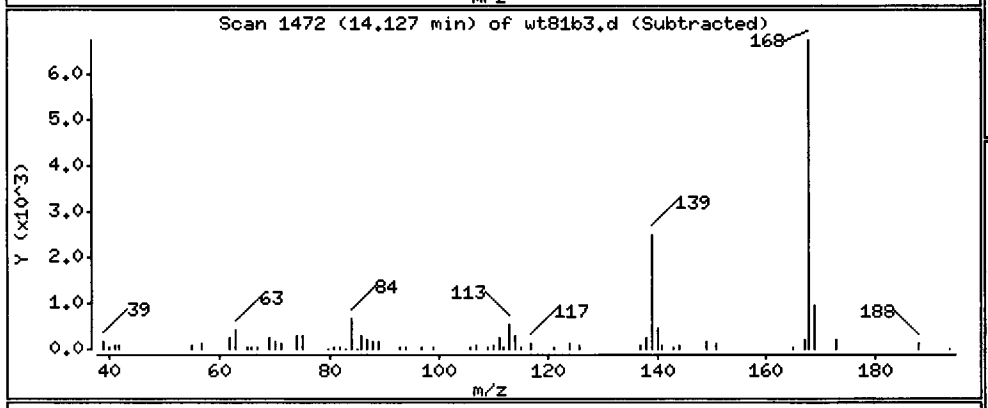
Column phase: ZB-5msi

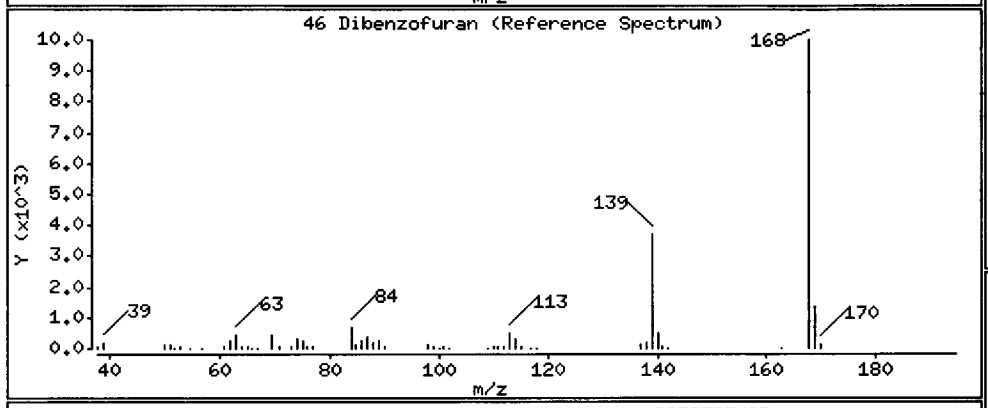
Column diameter: 0.25

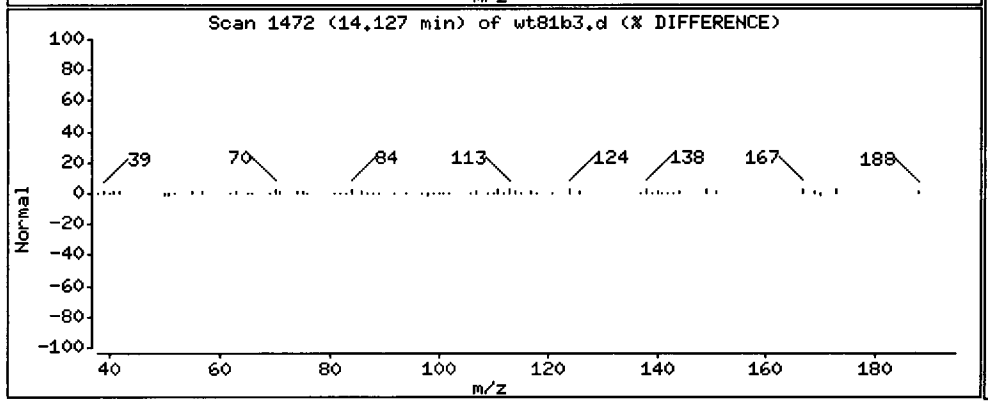
46 Dibenzofuran

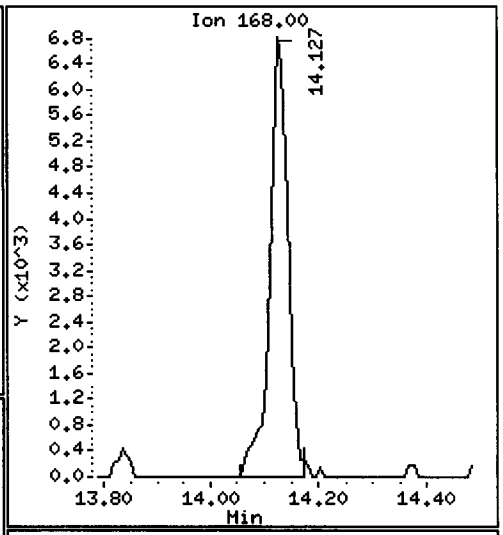
Concentration: 356.3 ug/kg

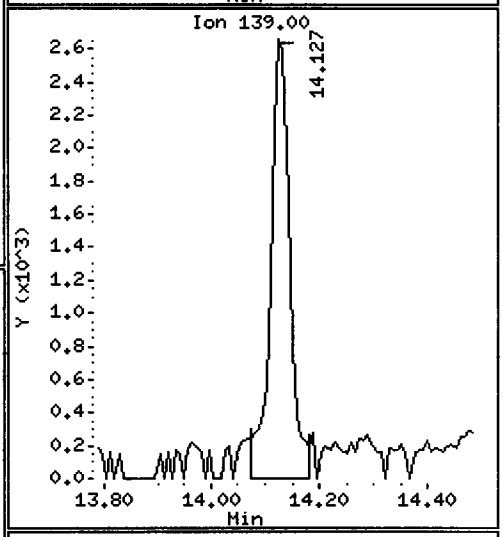


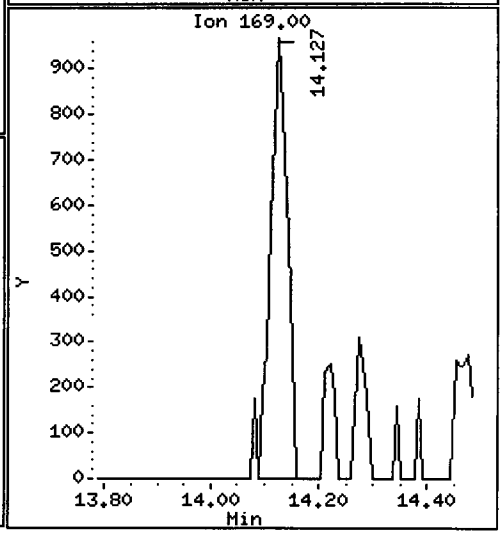












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

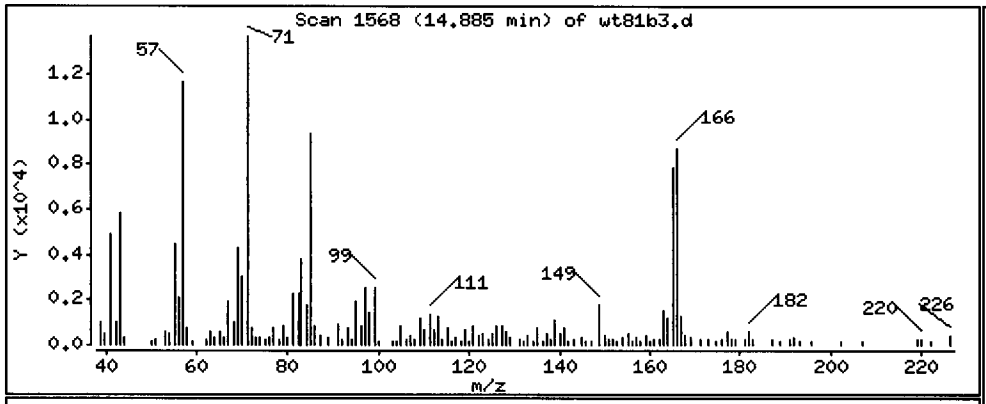
Operator: VTS/YZ

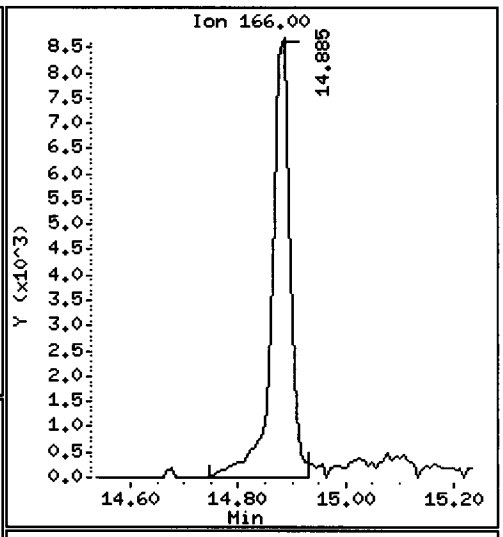
Column phase: ZB-5msi

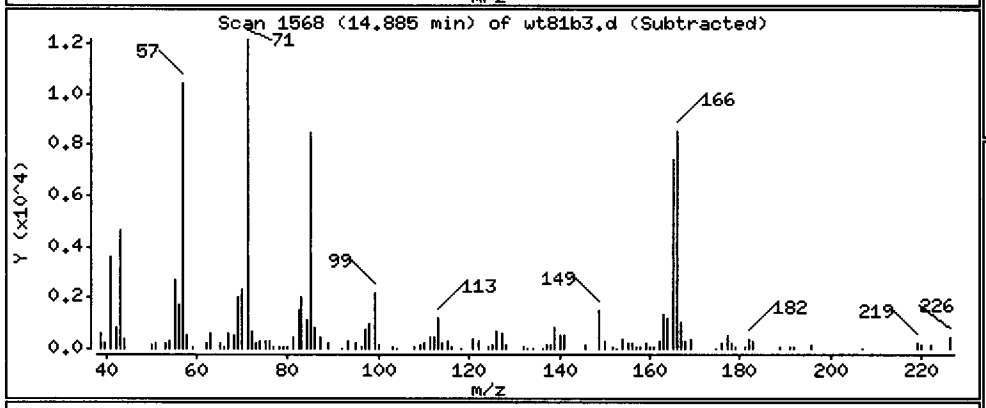
Column diameter: 0.25

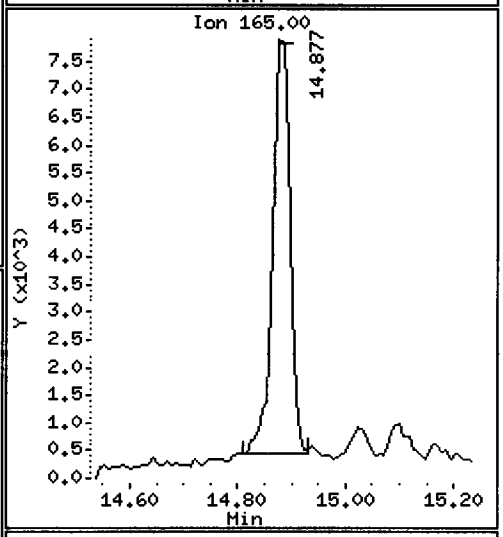
49 Fluorene

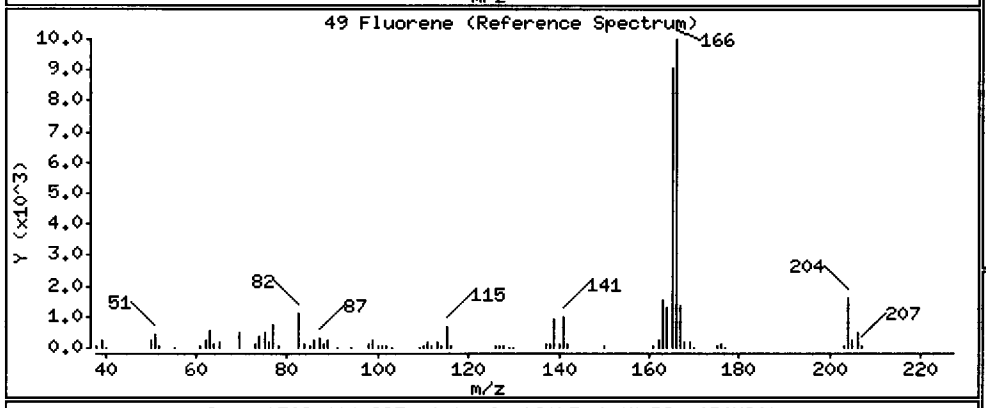
Concentration: 572.3 ug/kg

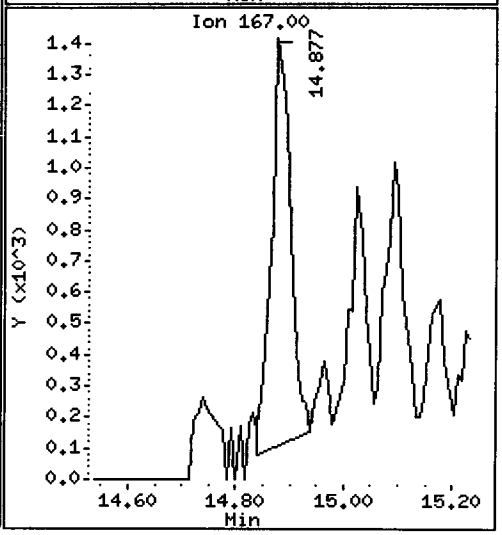


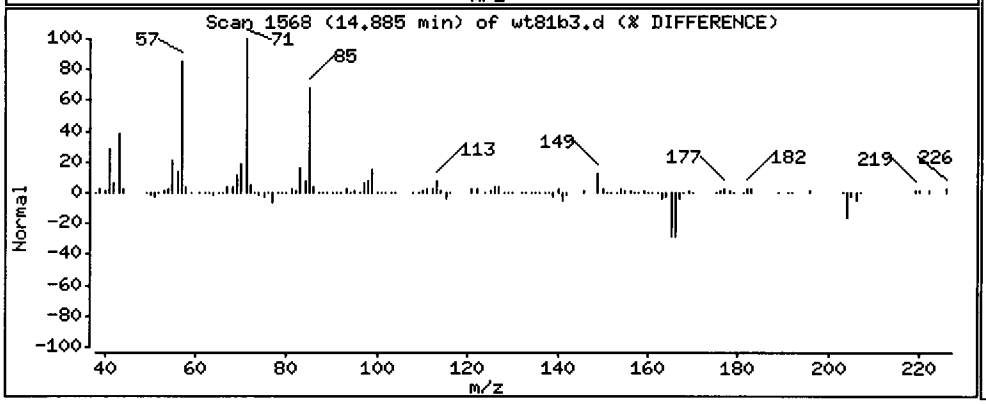












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

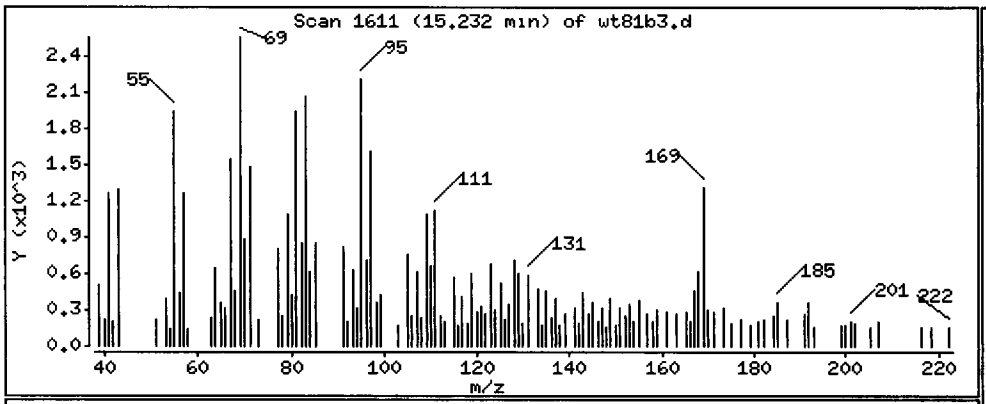
Operator: VTS/YZ

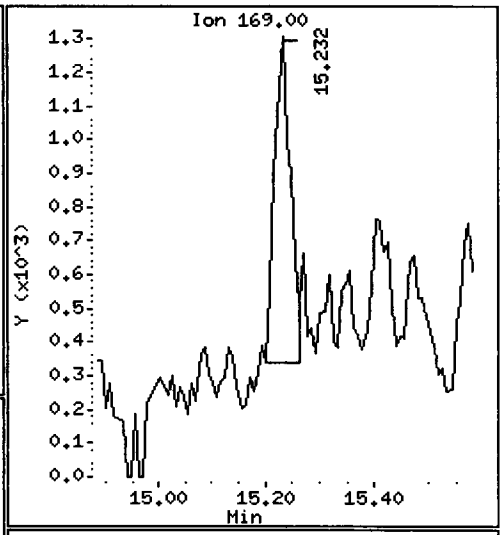
Column phase: ZB-5msi

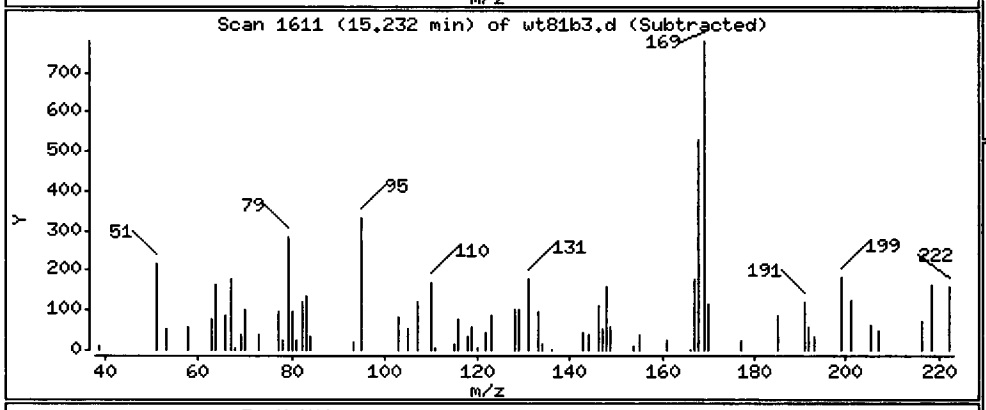
Column diameter: 0.25

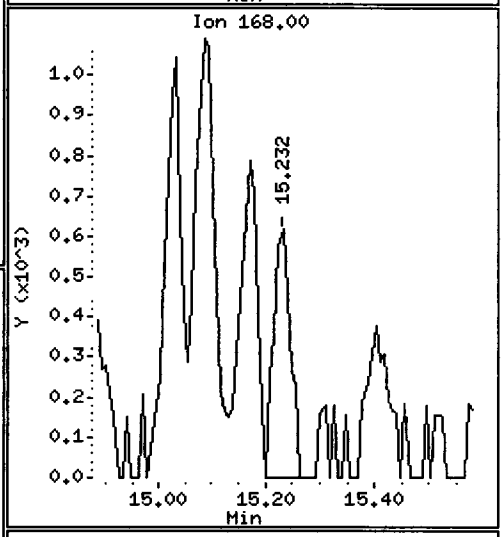
54 N-Nitrosodiphenylamine

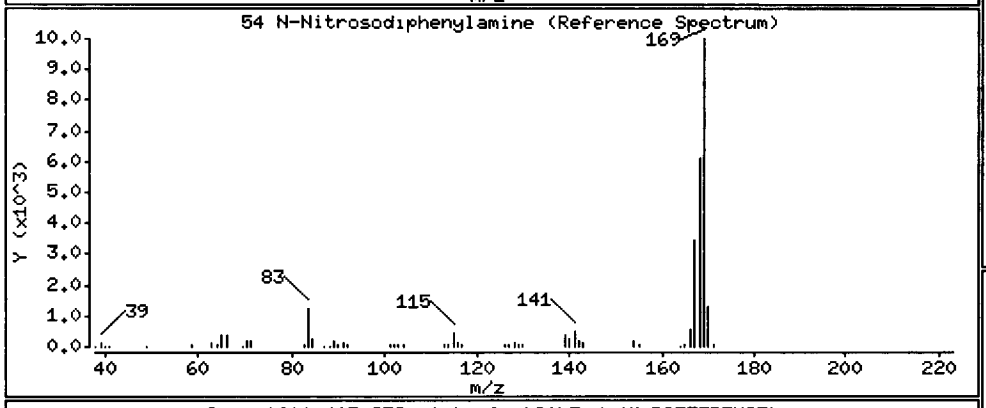
Concentration: 107.3 ug/kg

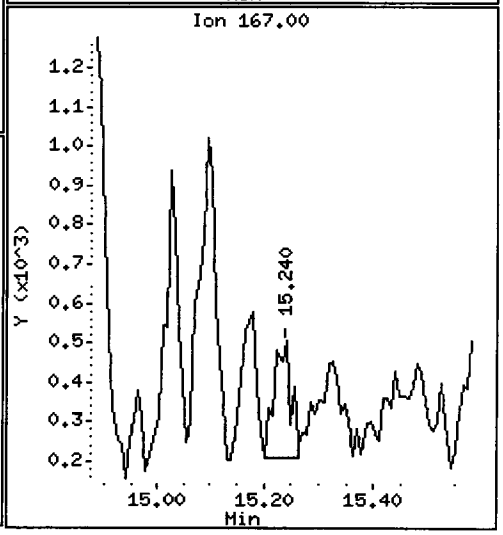


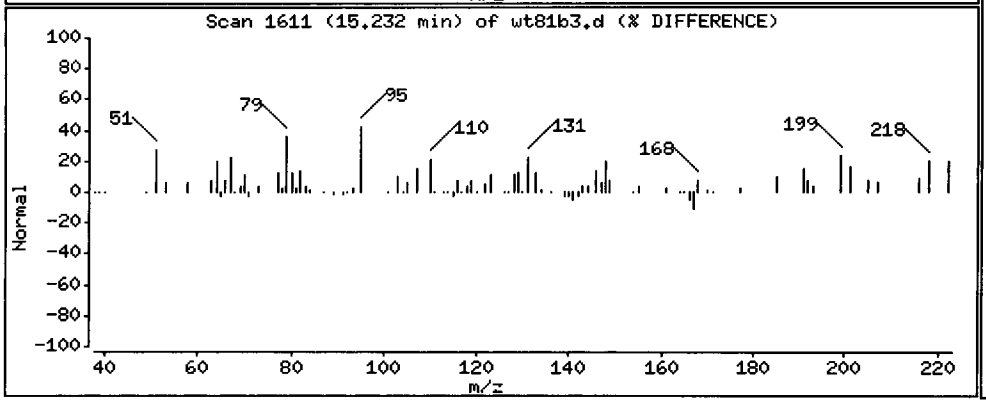












WT81:B3S7S

Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

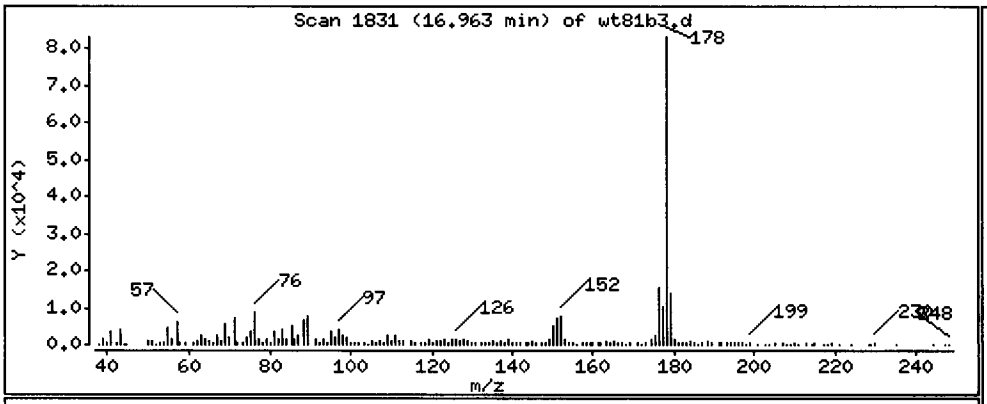
Operator: VTS/YZ

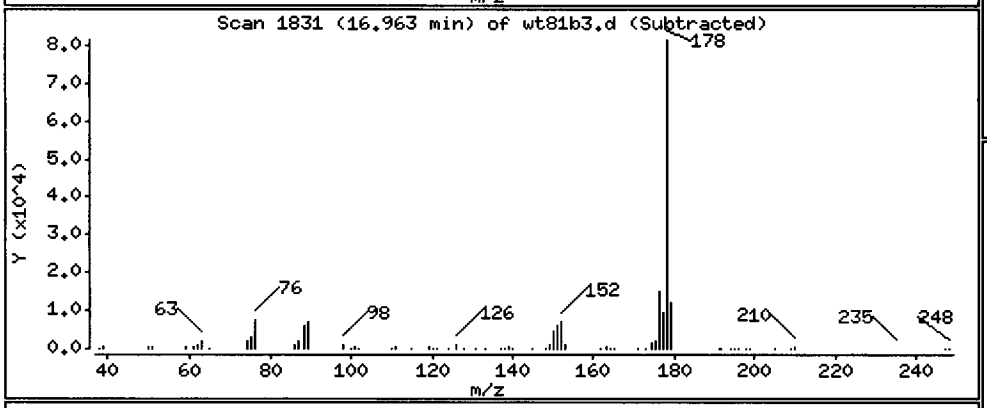
Column phase: ZB-5ms1

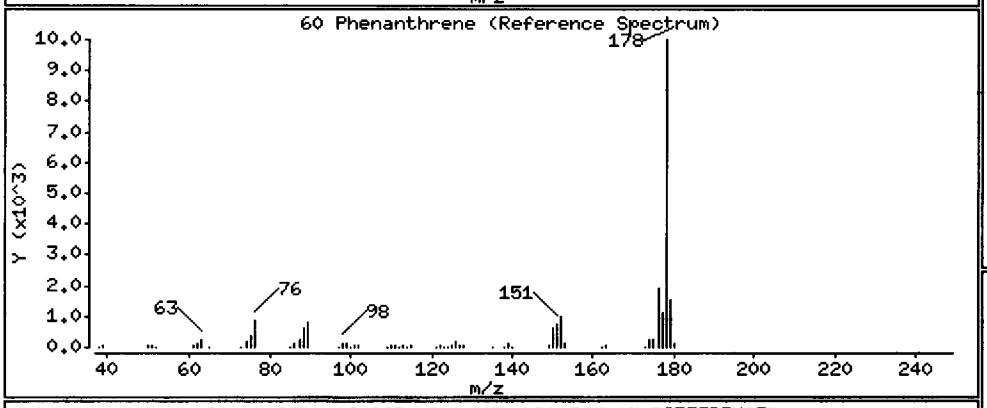
Column diameter: 0.25

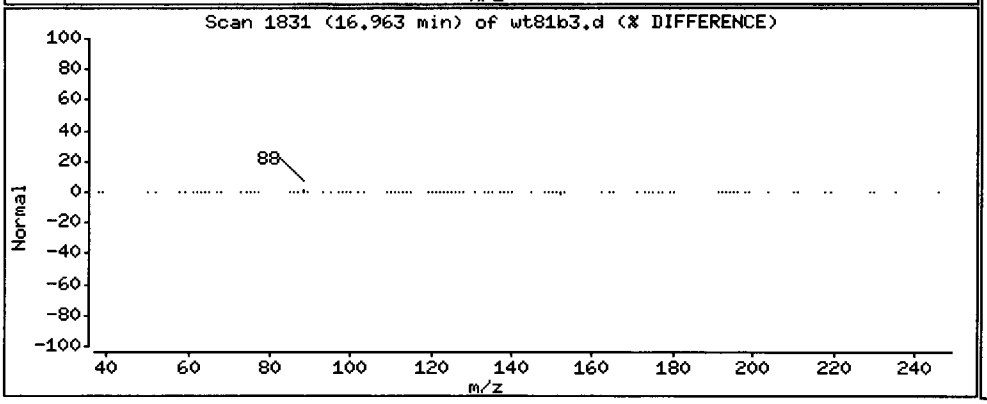
60 Phenanthrene

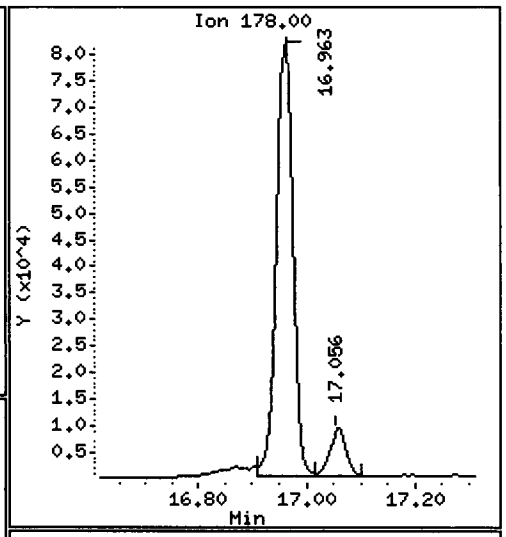
Concentration: 3758 ug/kg

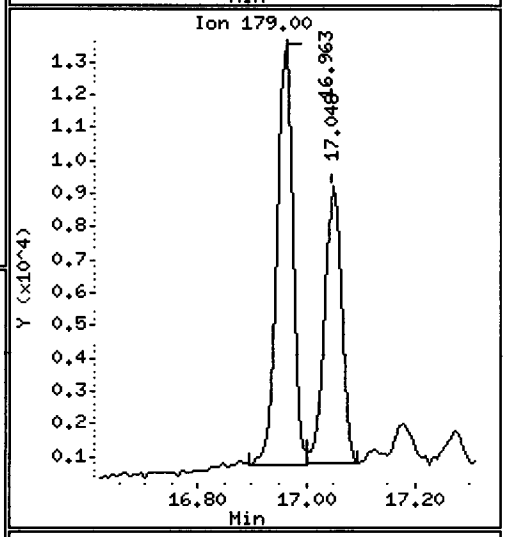


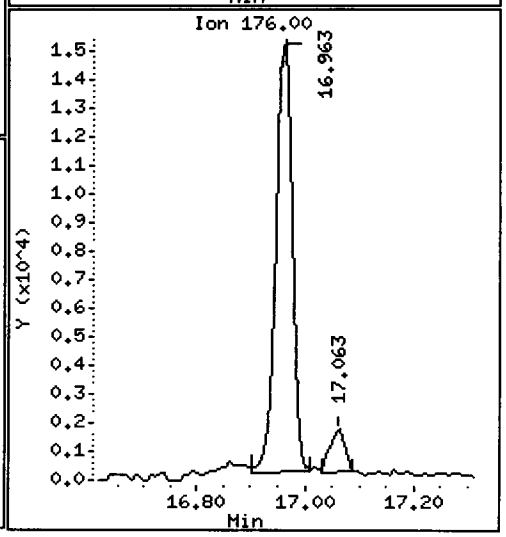












WT81 : 00000

Data File: /chem1/nt10.1/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.1

Sample Info: WT81B,3

Volume Injected (uL): 1.0

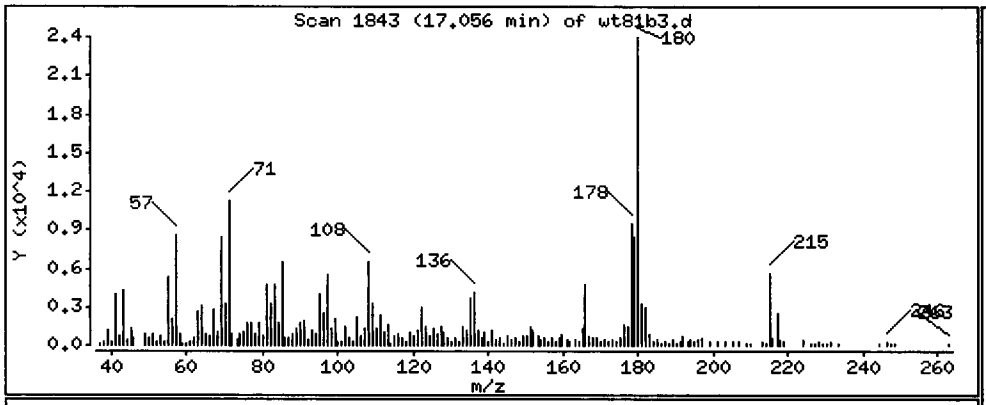
Operator: VTS/YZ

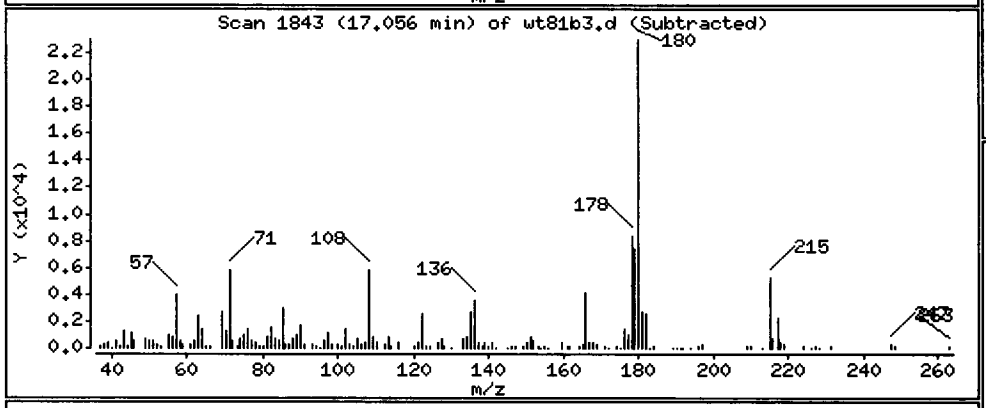
Column phase: ZB-5ms1

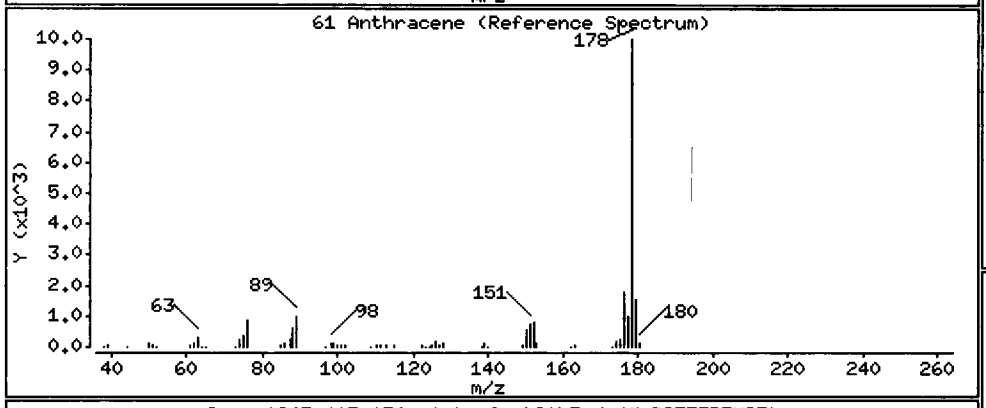
Column diameter: 0.25

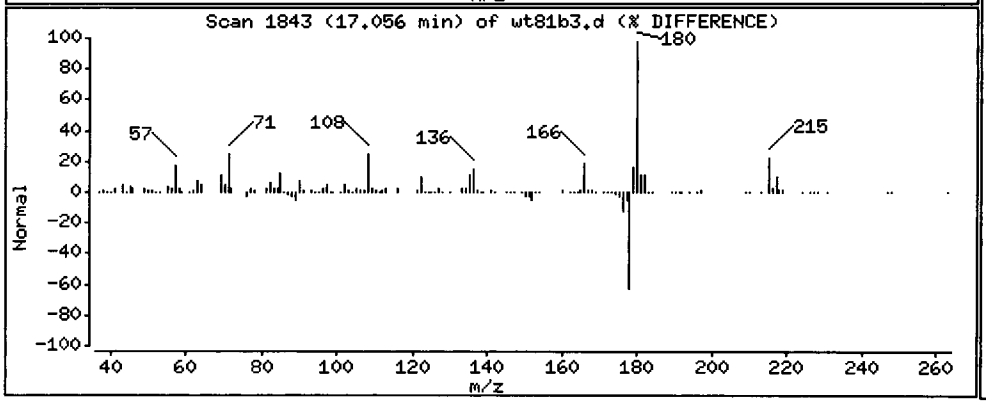
61 Anthracene

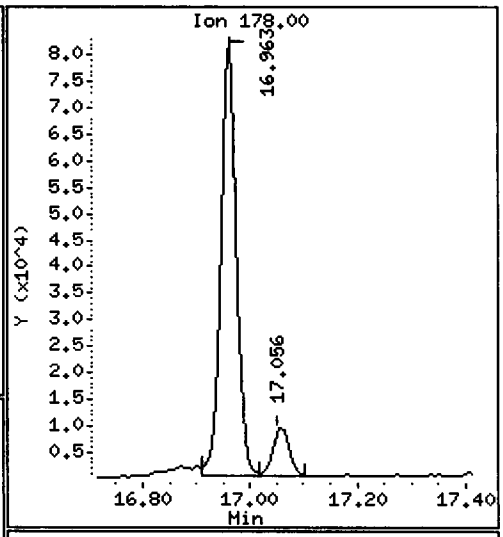
Concentration: 404.6 ug/kg

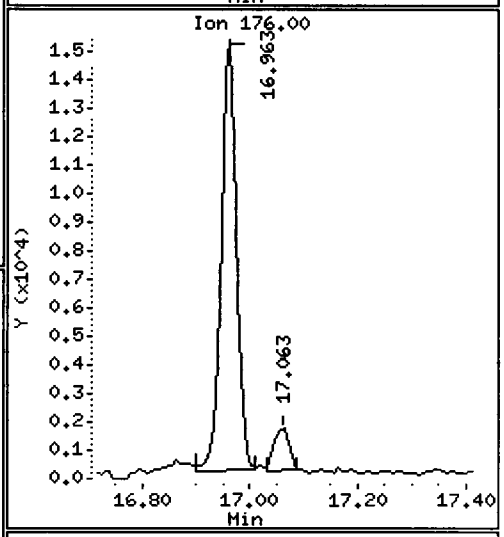


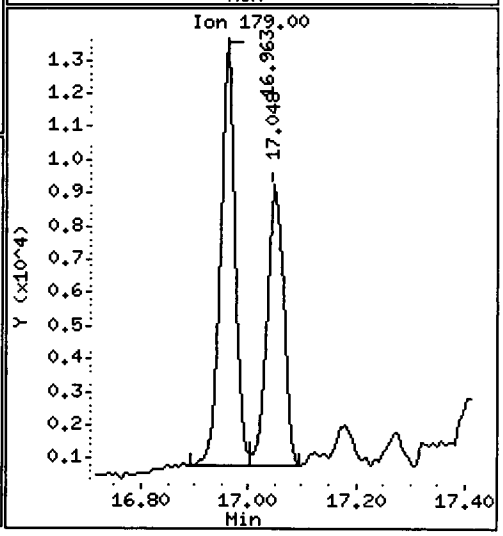












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

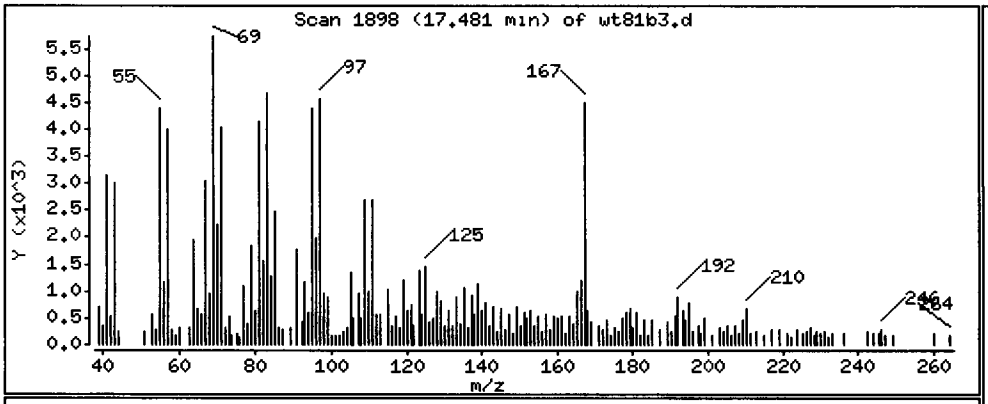
Operator: VTS/YZ

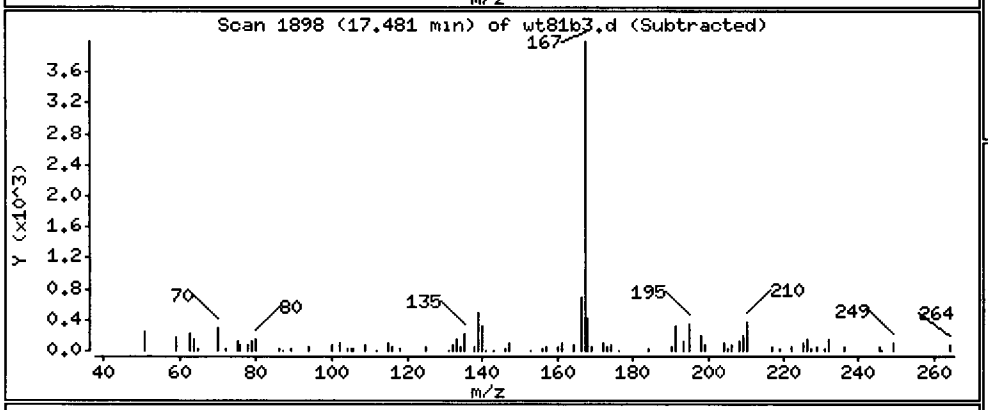
Column phase: ZB-5msi

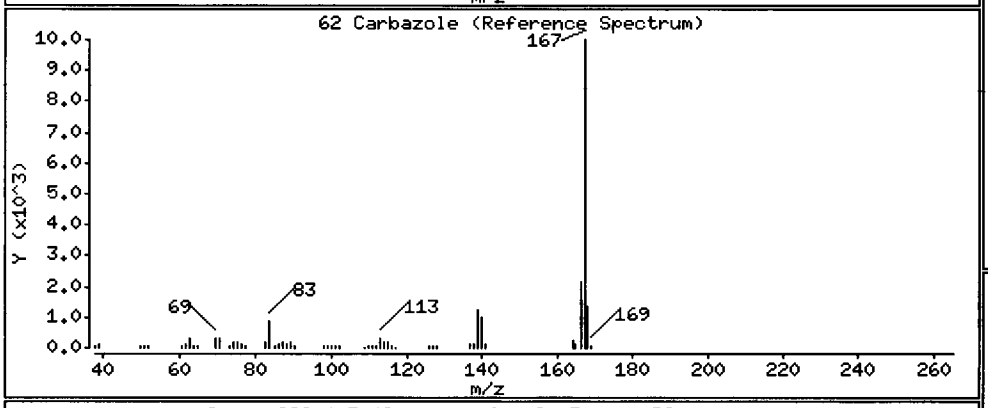
Column diameter: 0.25

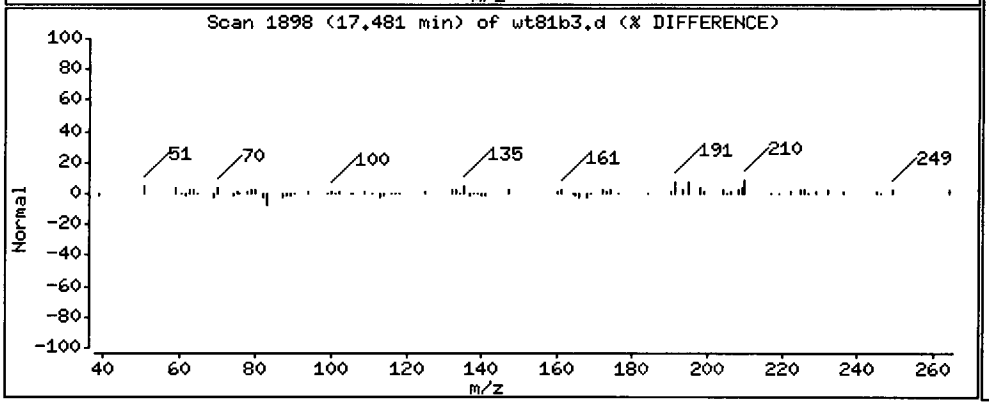
62 Carbazole

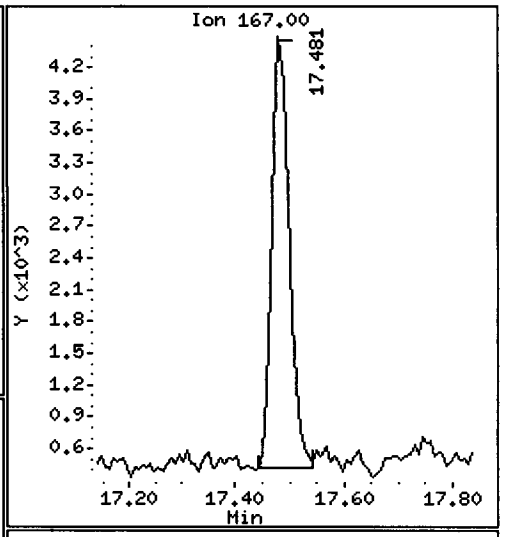
Concentration: 317.9 ug/kg

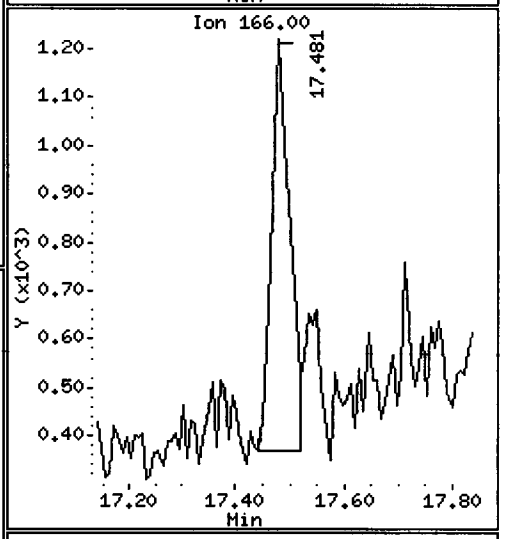


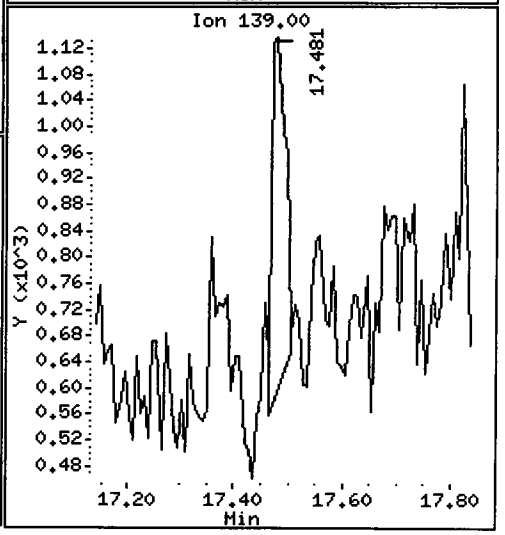












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

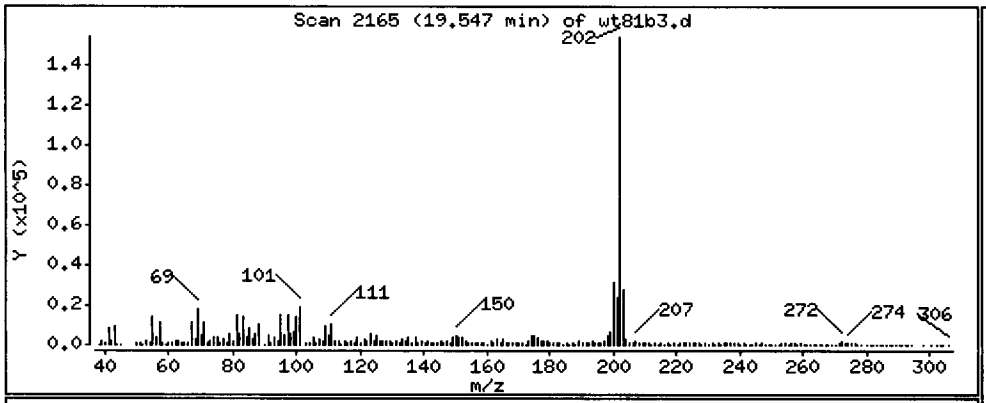
Operator: VTS/YZ

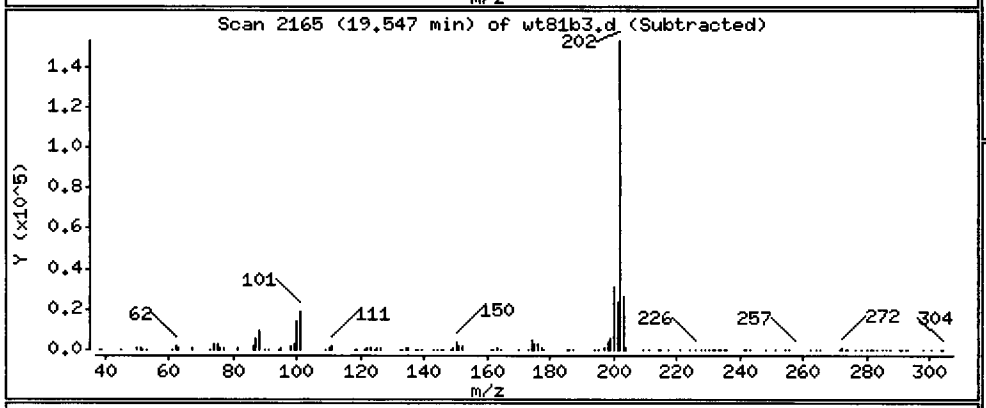
Column phase: ZB-5msi

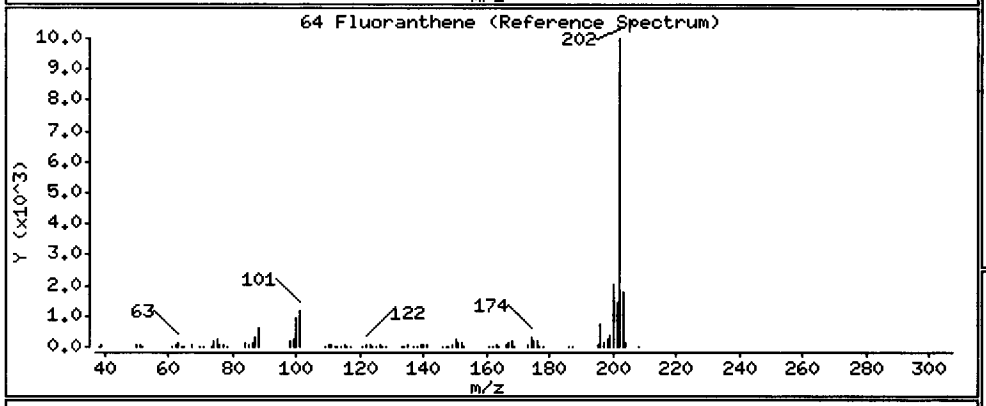
Column diameter: 0.25

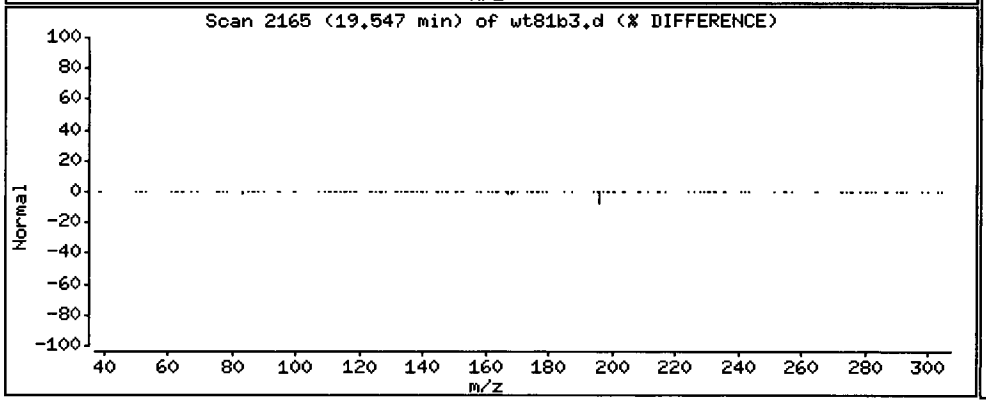
64 Fluoranthene

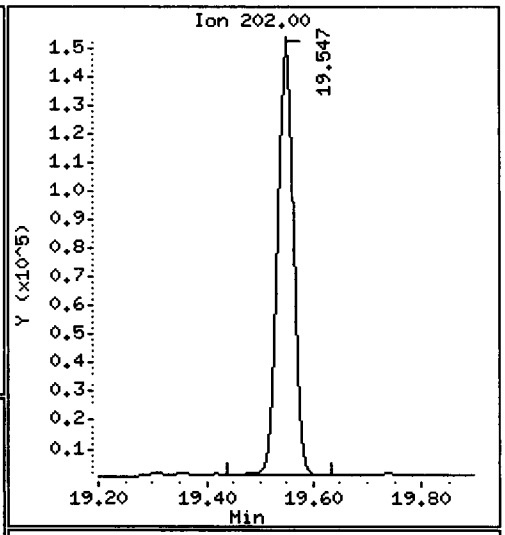
Concentration: 5835 ug/kg

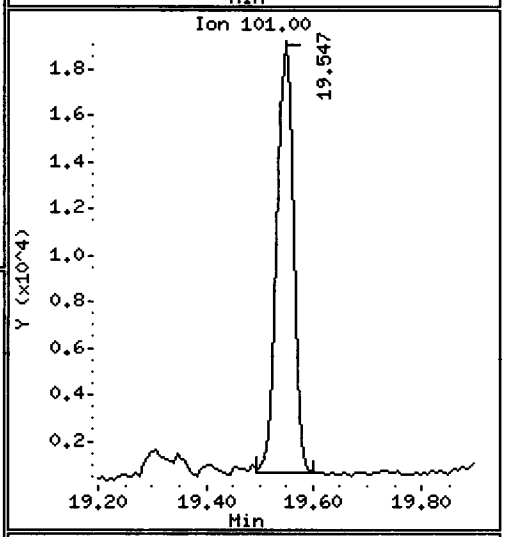


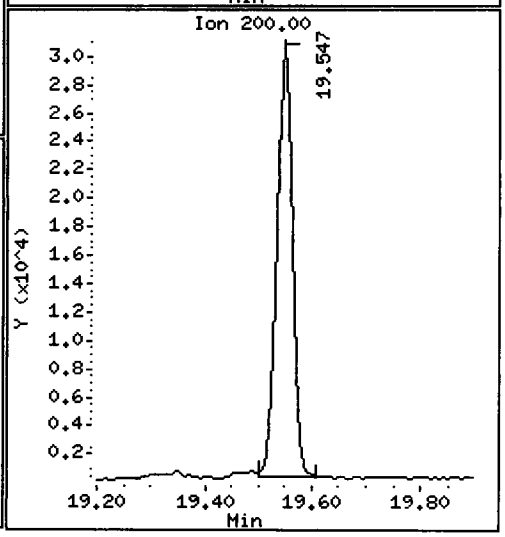












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

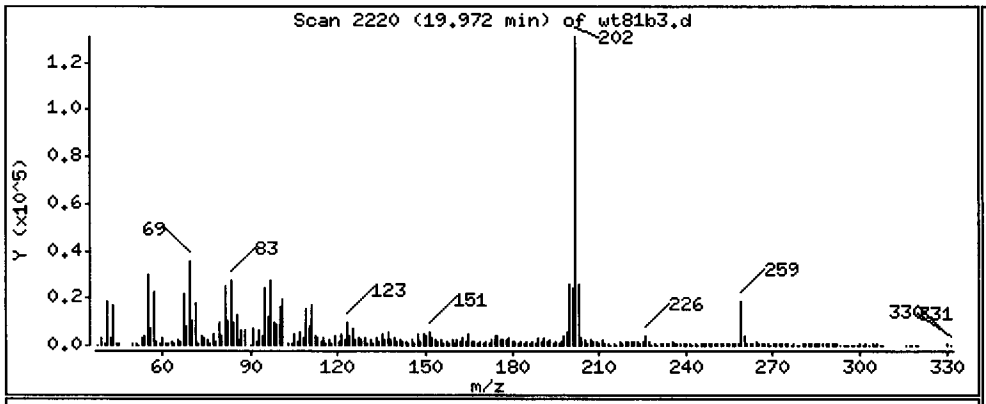
Operator: VTS/YZ

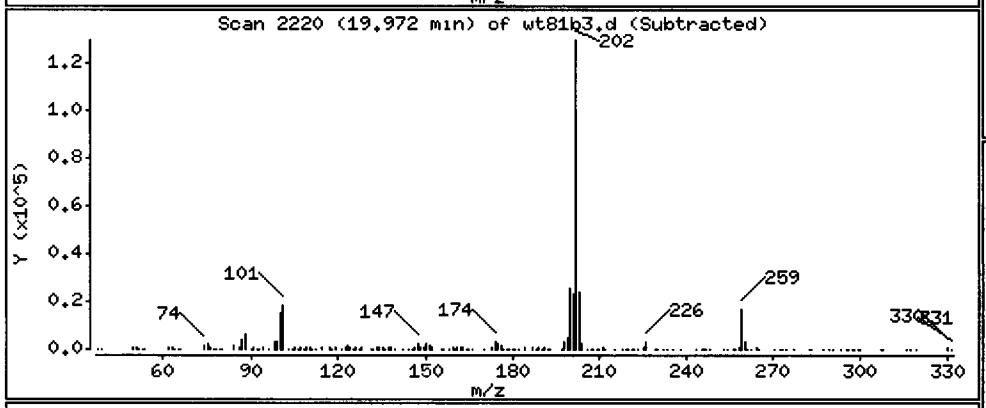
Column phase: ZB-5msi

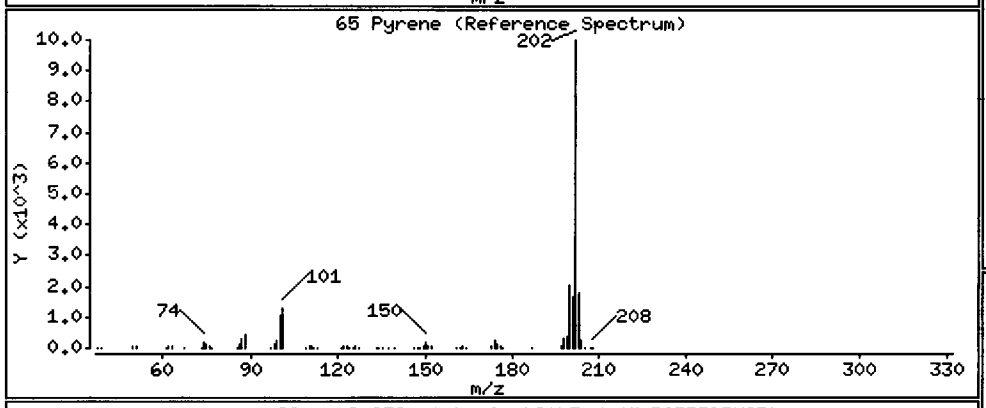
Column diameter: 0.25

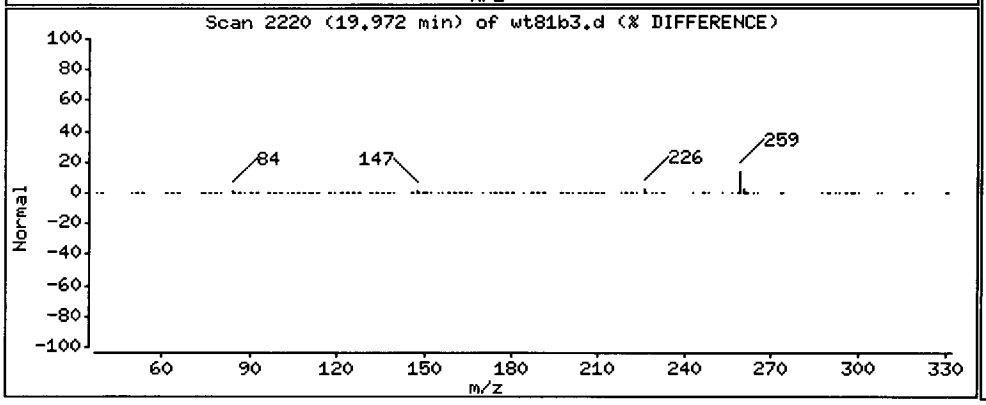
65 Pyrene

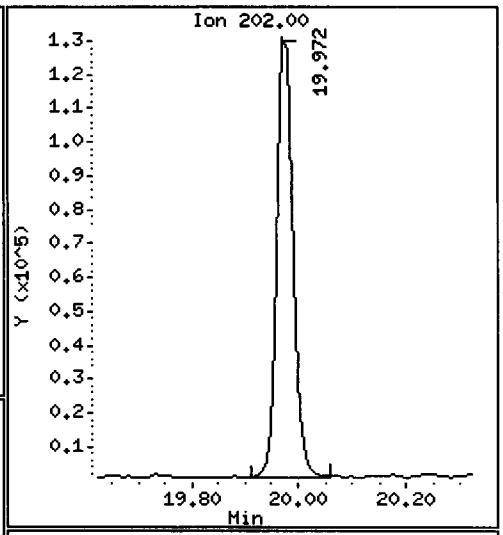
Concentration: 5181 ug/kg

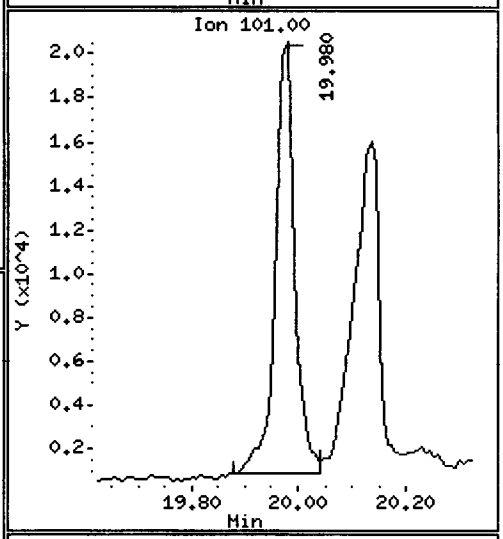


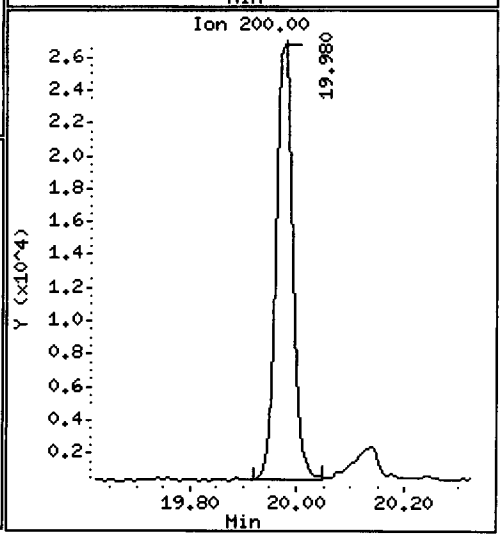












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

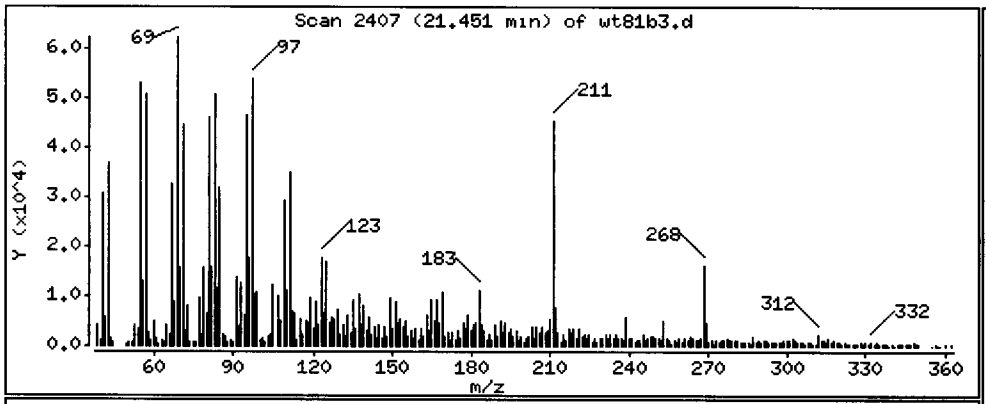
Operator: VTS/YZ

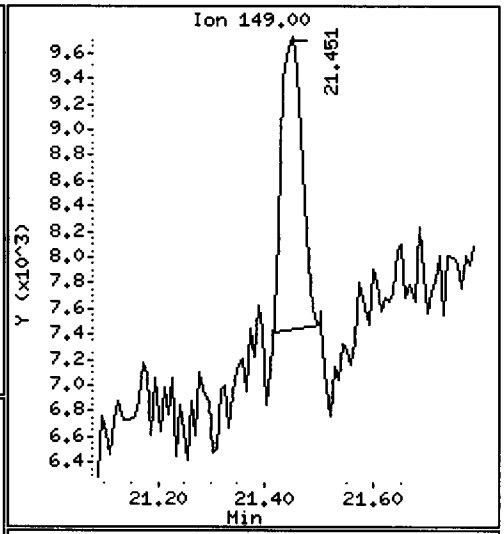
Column phase: ZB-5msi

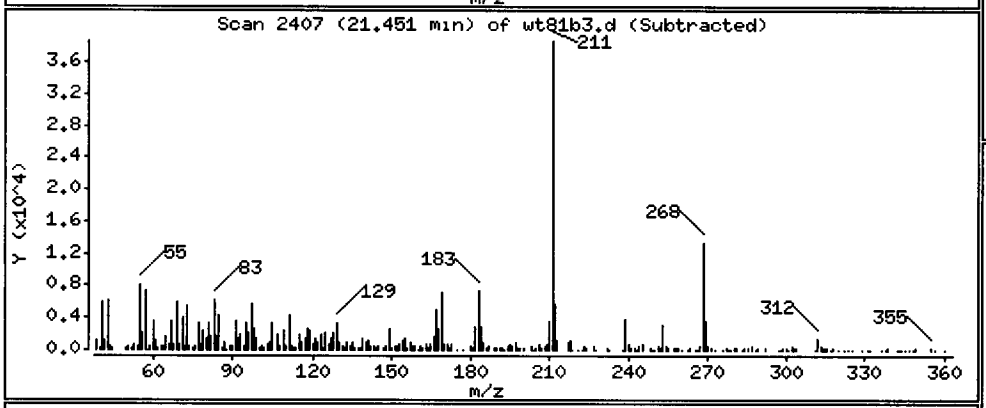
Column diameter: 0.25

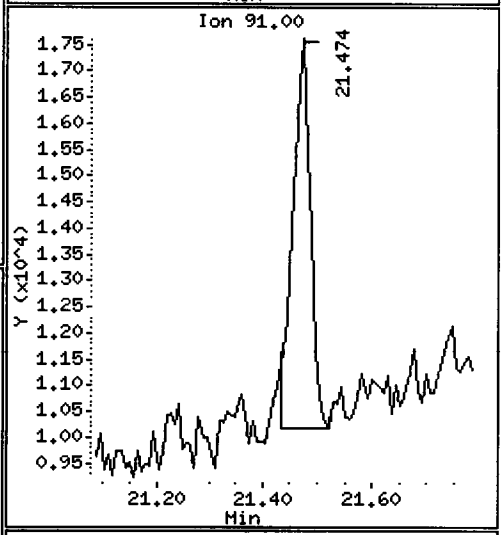
67 Butylbenzylphthalate

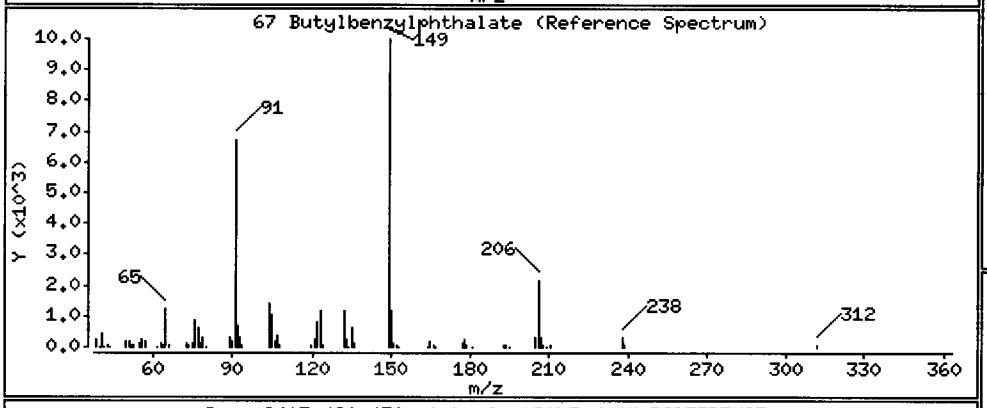
Concentration: 346.4 ug/kg

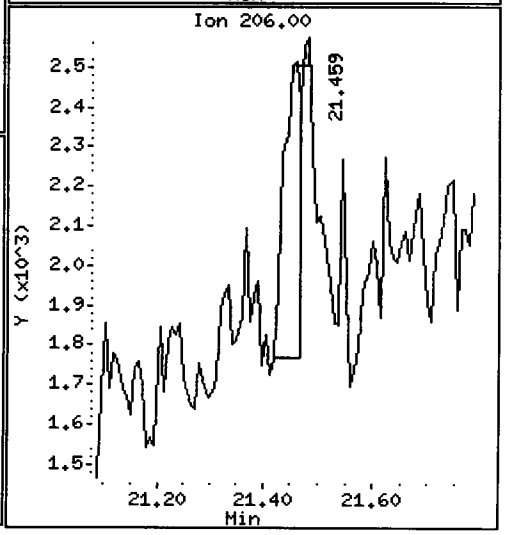


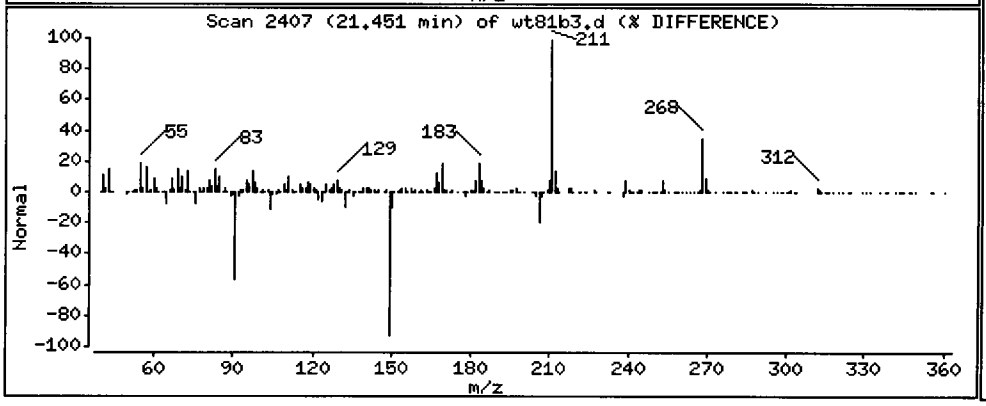












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

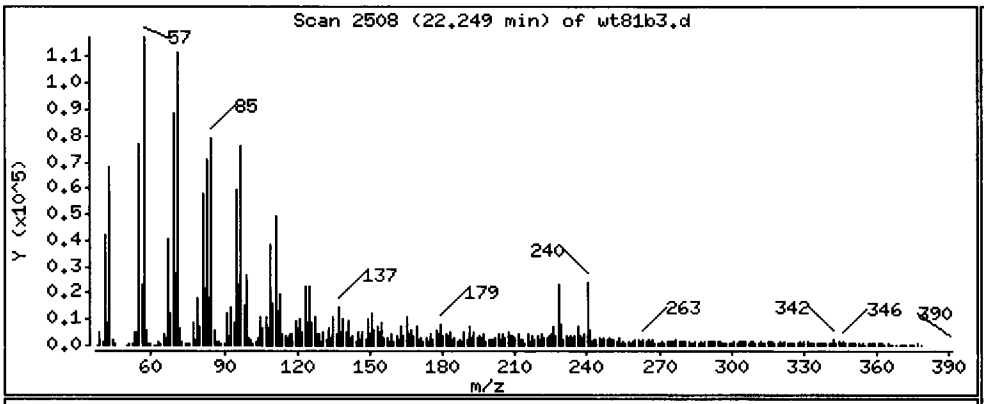
Operator: VTS/YZ

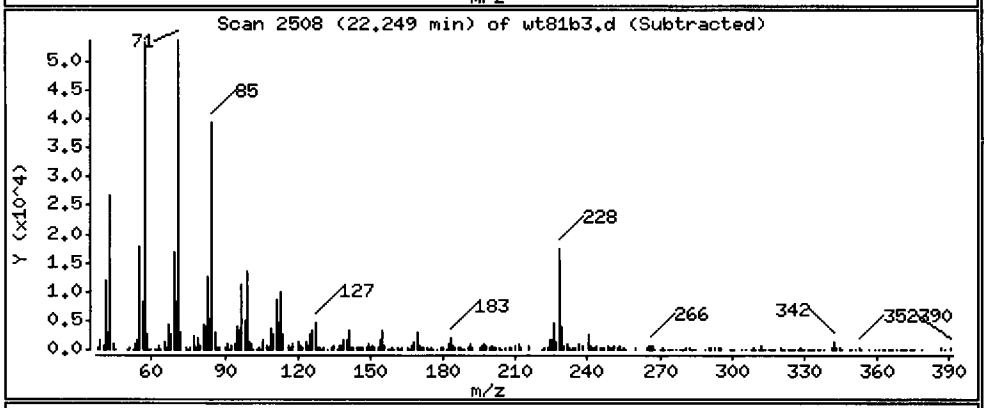
Column phase: ZB-5ms1

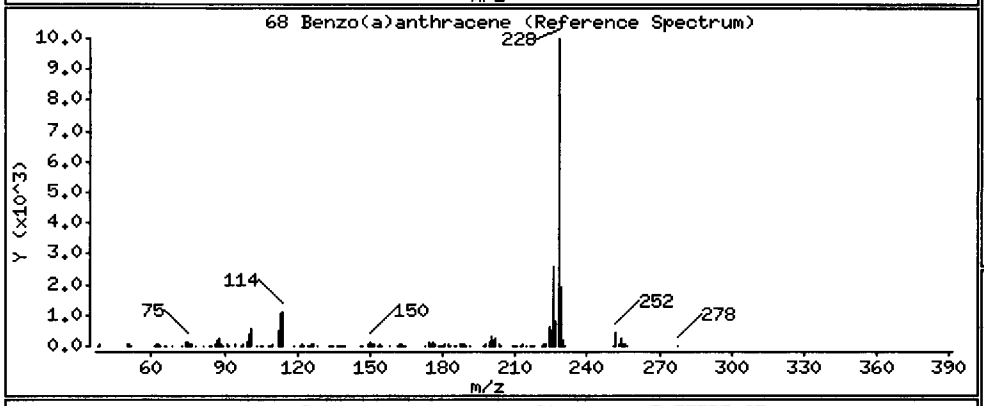
Column diameter: 0.25

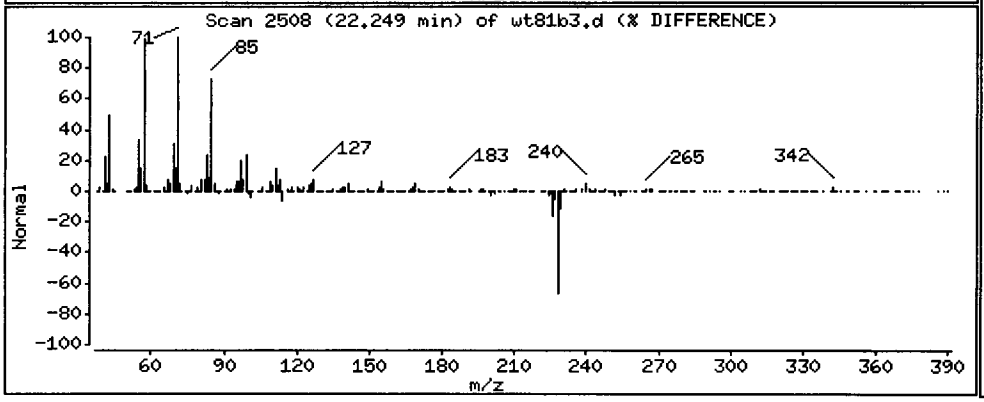
68 Benzo(a)anthracene

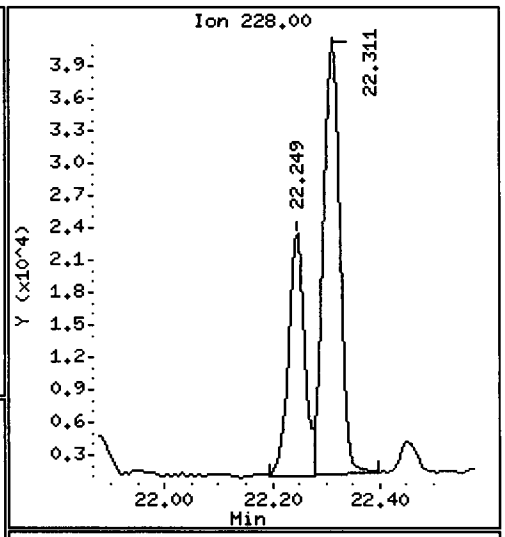
Concentration: 1059 ug/kg

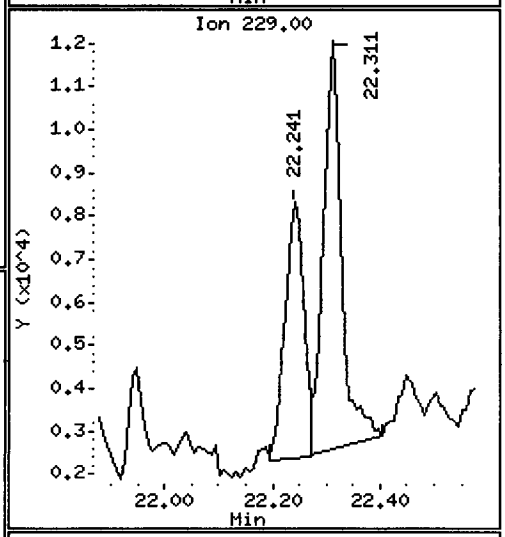


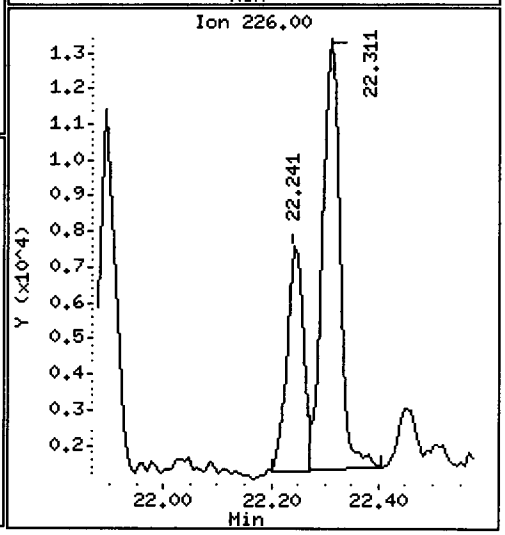












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

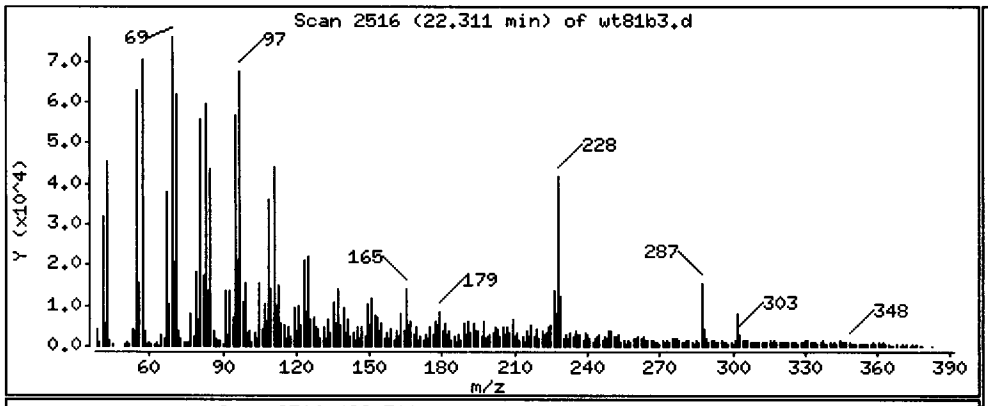
Operator: VTS/YZ

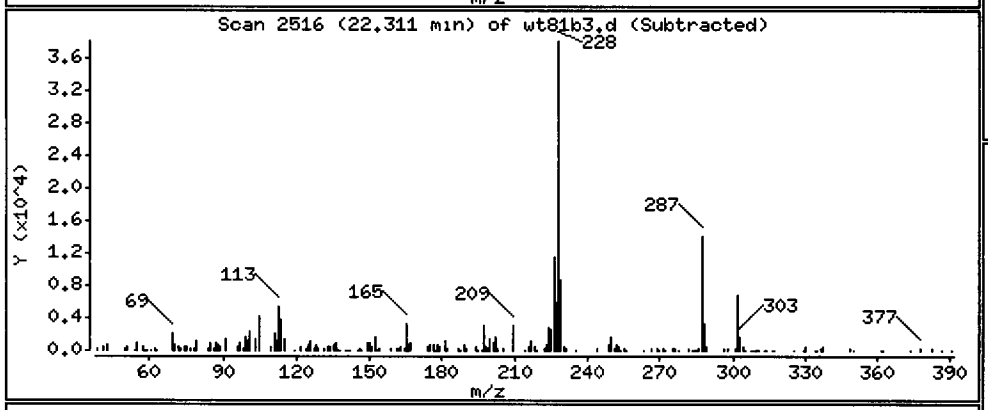
Column phase: ZB-5msi

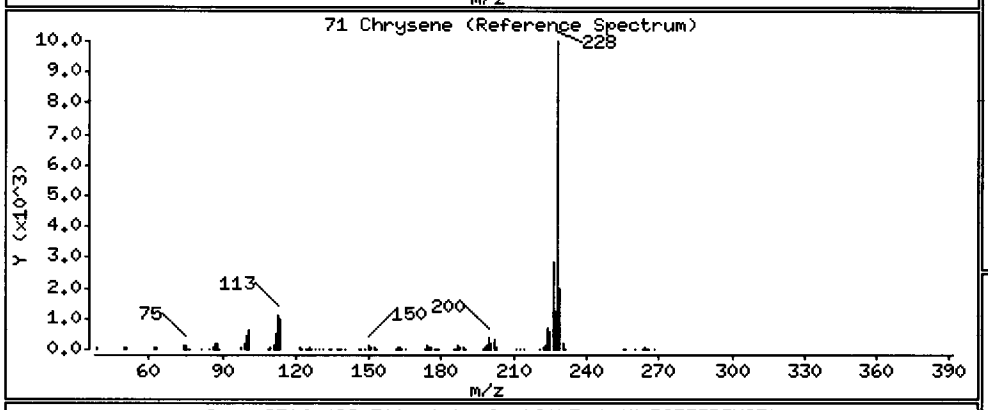
Column diameter: 0.25

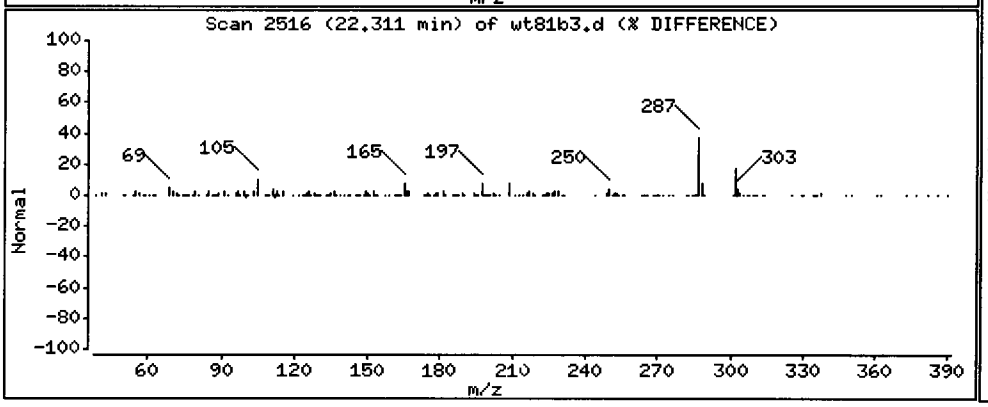
71 Chrysene

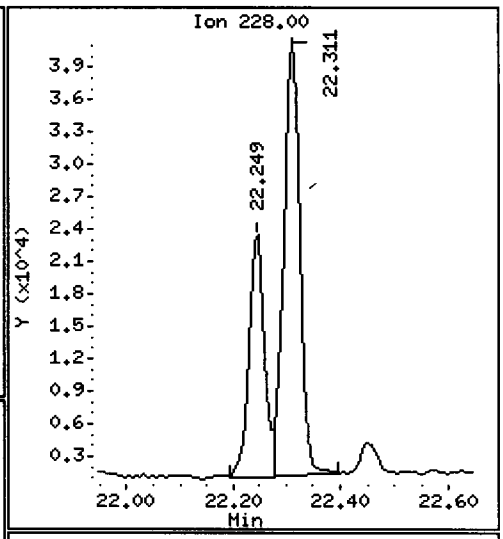
Concentration: 2029 ug/kg

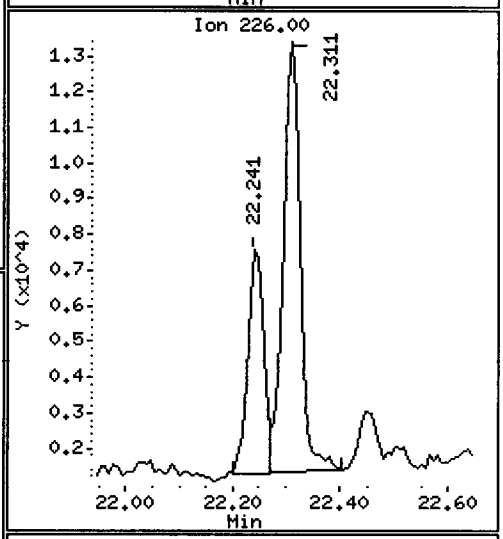


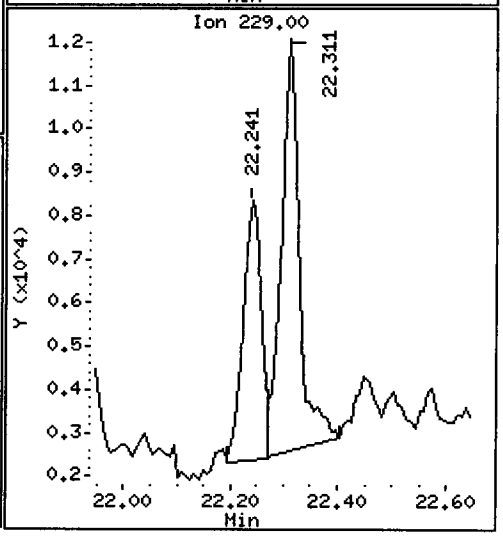












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

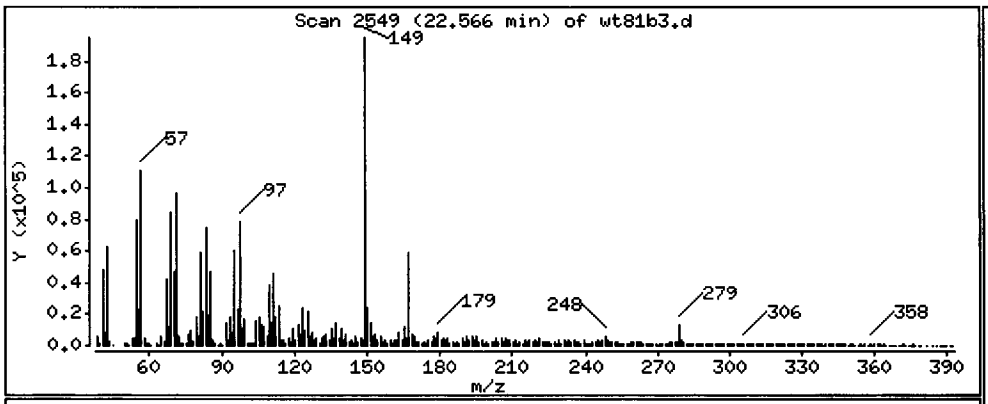
Operator: VTS/YZ

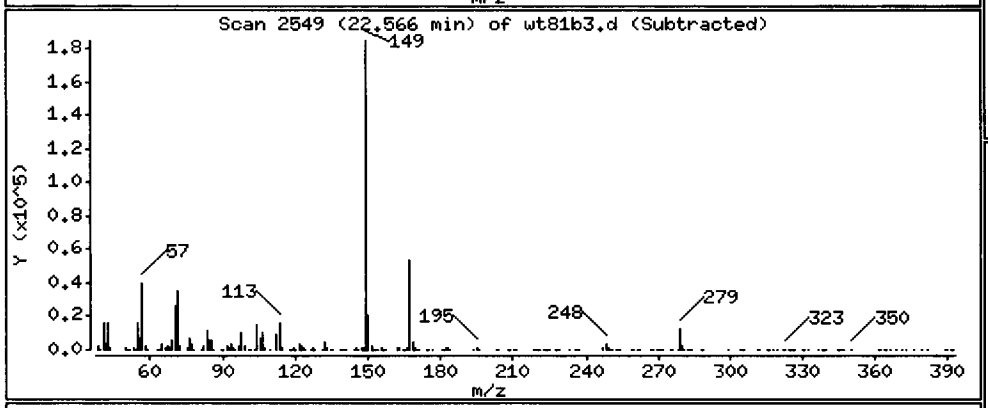
Column phase: ZB-5msi

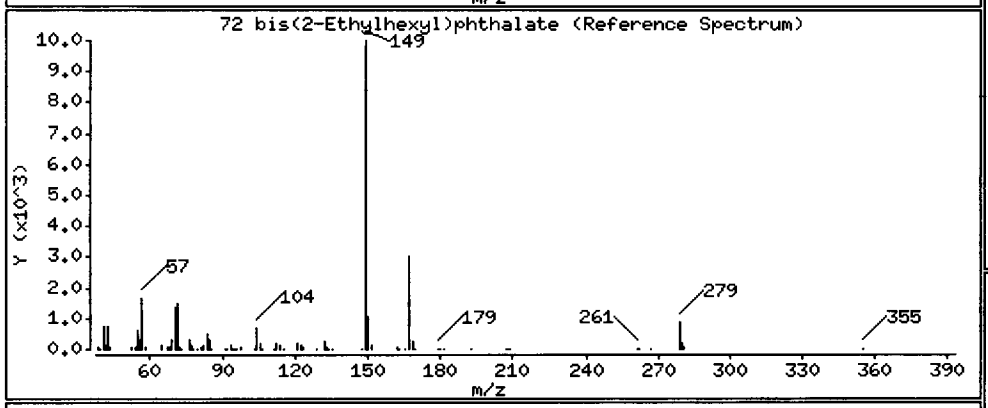
Column diameter: 0.25

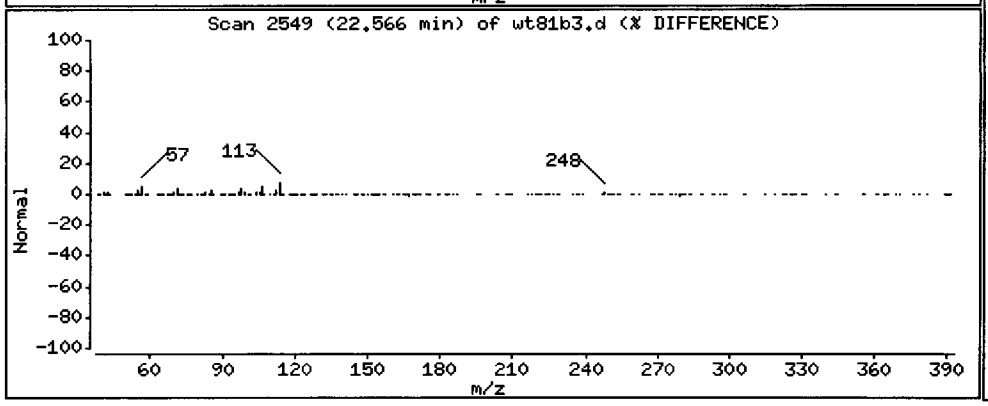
72 bis(2-Ethylhexyl)phthalate

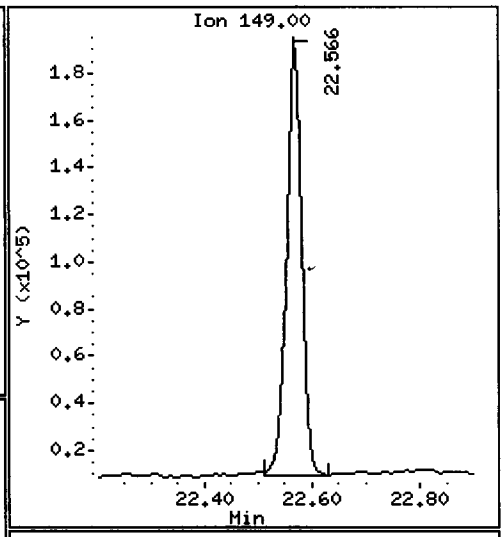
Concentration: 12800 ug/kg

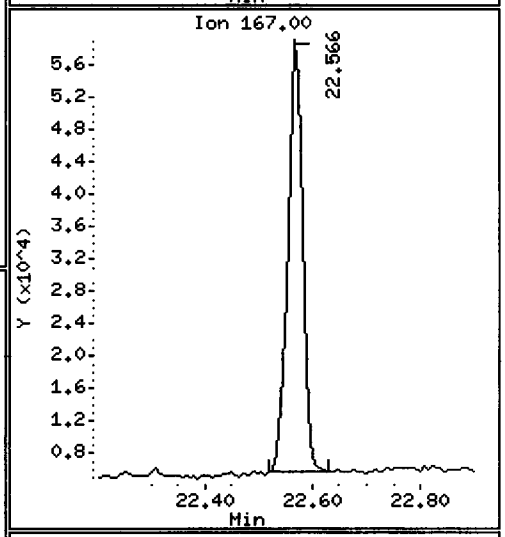


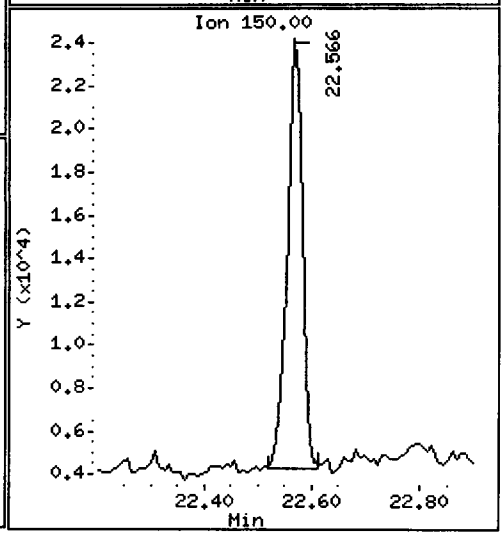












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

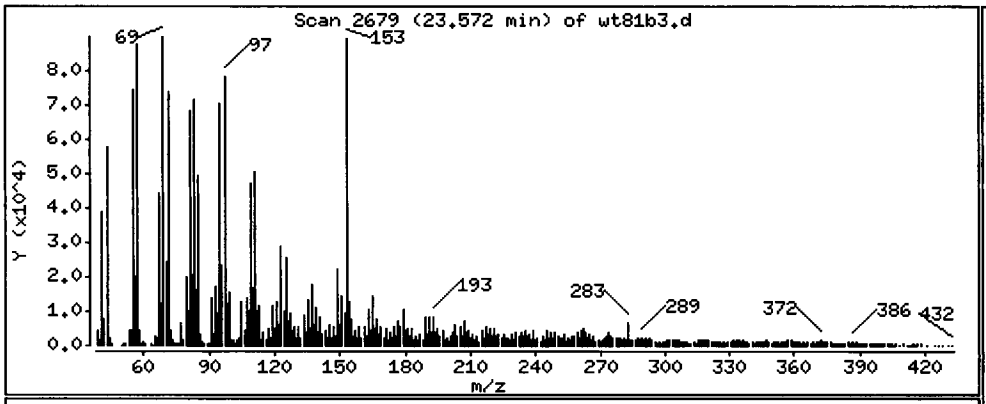
Operator: VTS/YZ

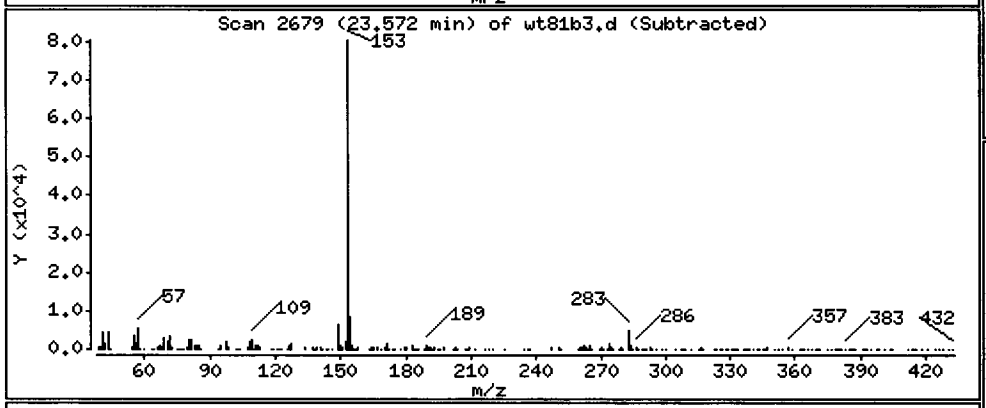
Column phase: ZB-5msi

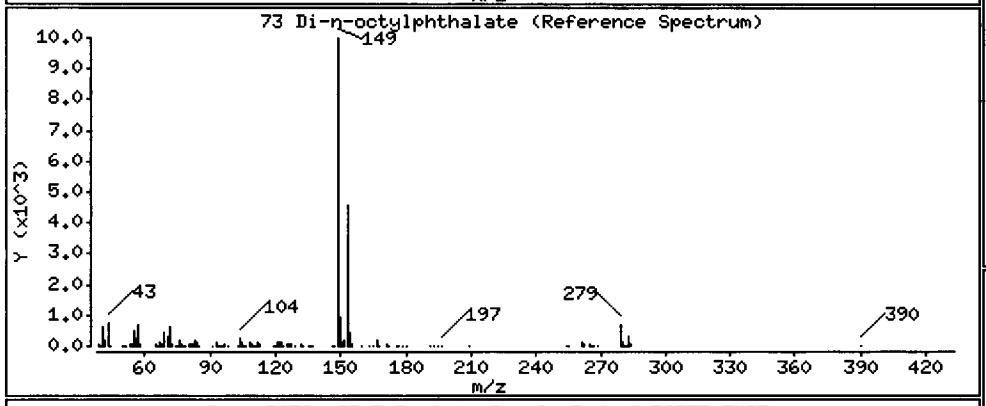
Column diameter: 0.25

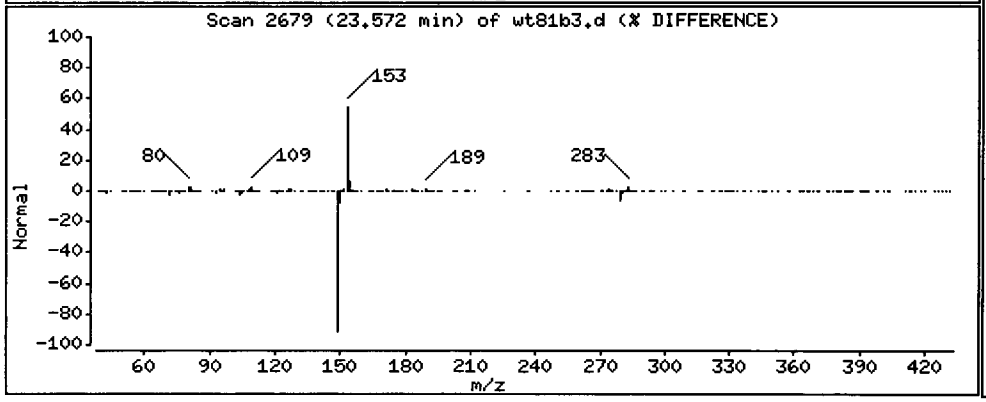
73 Di-n-octylphthalate

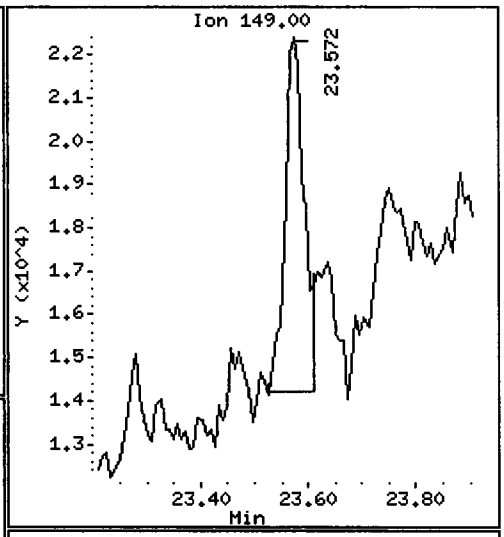
Concentration: 435.5 ug/kg

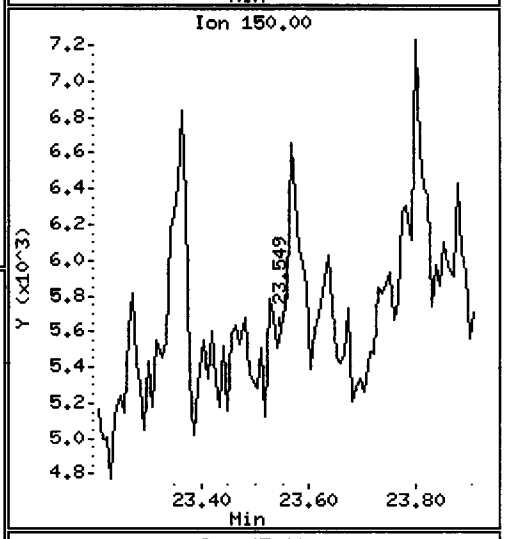


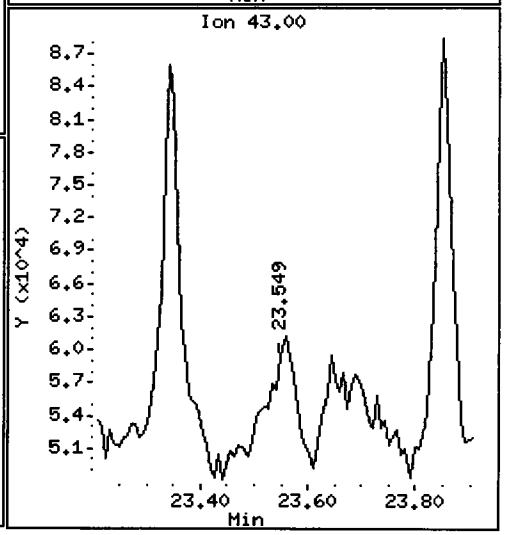












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

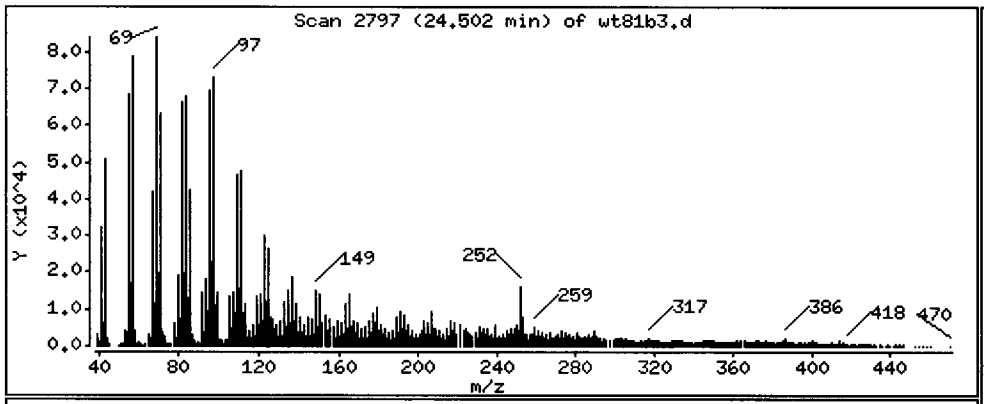
Operator: VTS/YZ

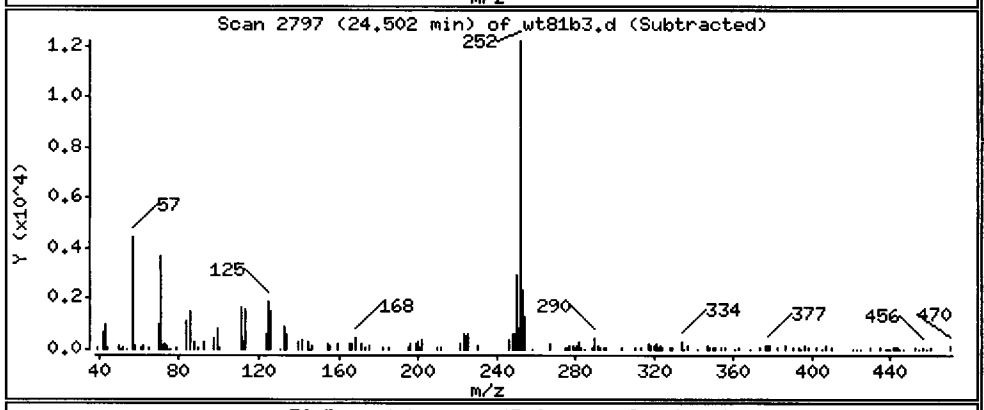
Column phase: ZB-5msi

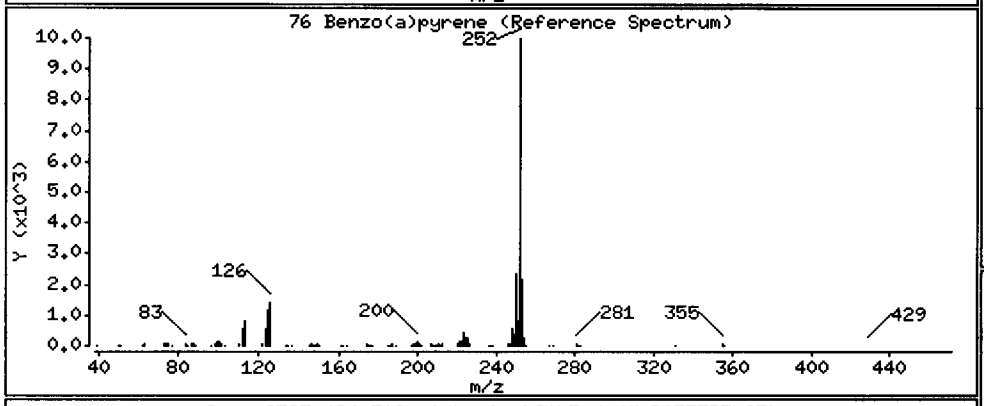
Column diameter: 0.25

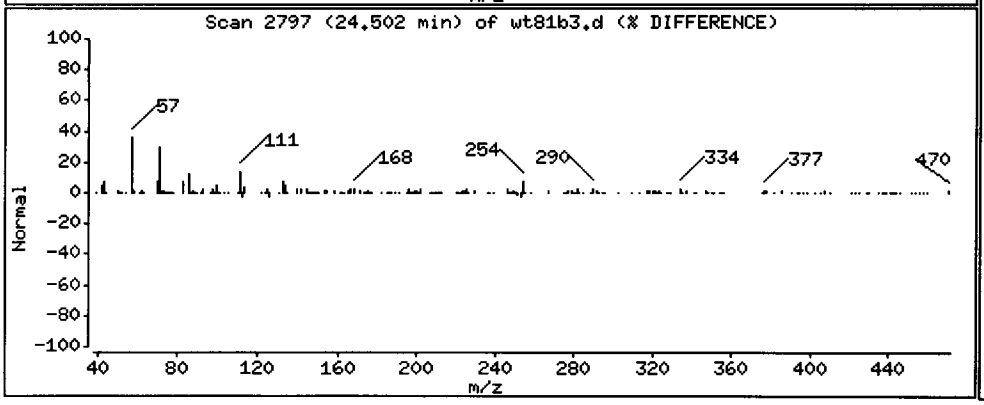
76 Benzo(a)pyrene

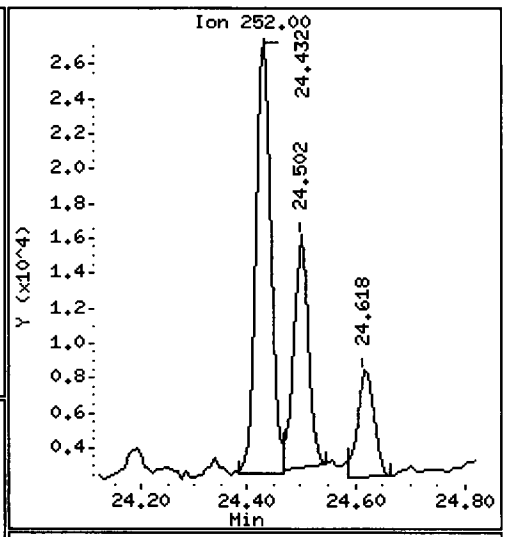
Concentration: 621.8 ug/kg

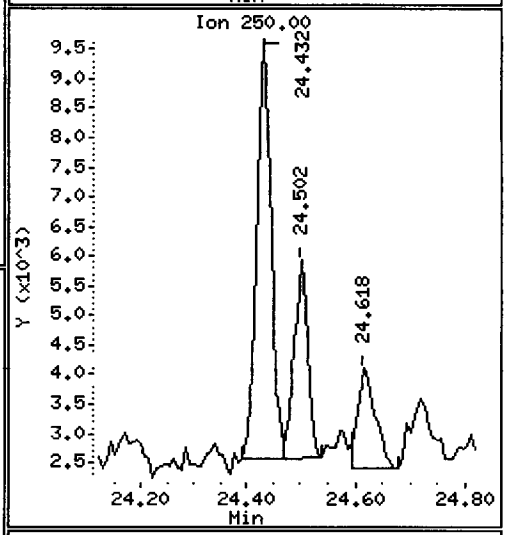


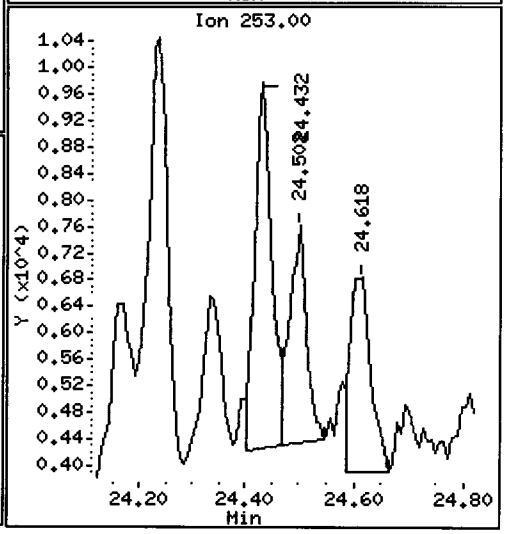












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

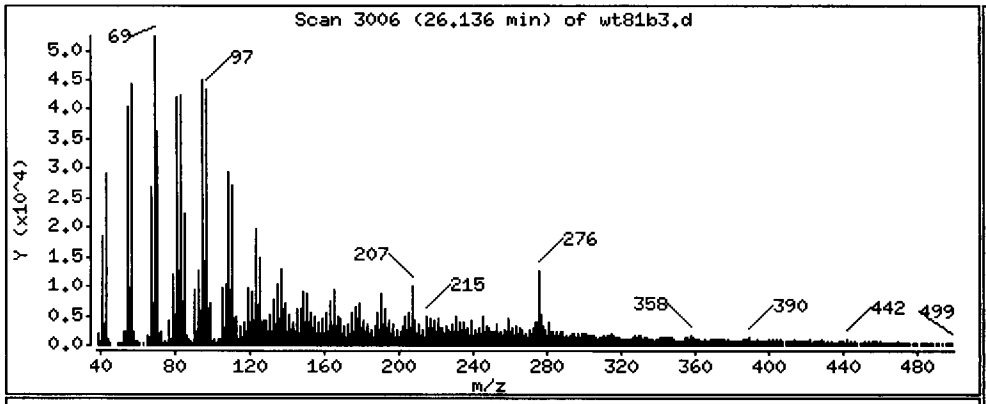
Operator: VTS/YZ

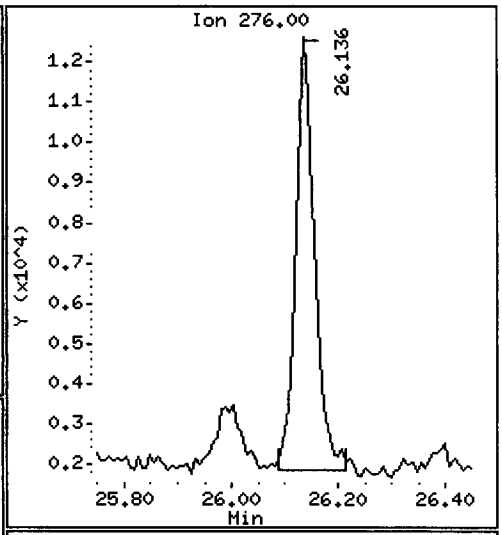
Column phase: ZB-5msi

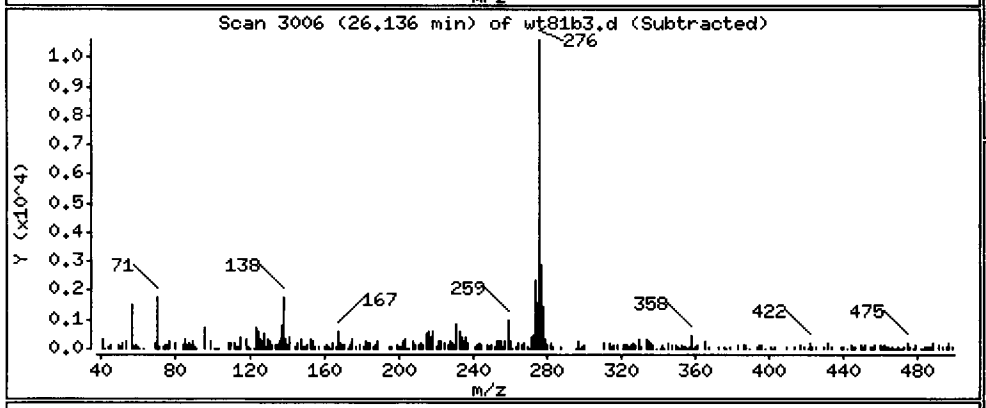
Column diameter: 0.25

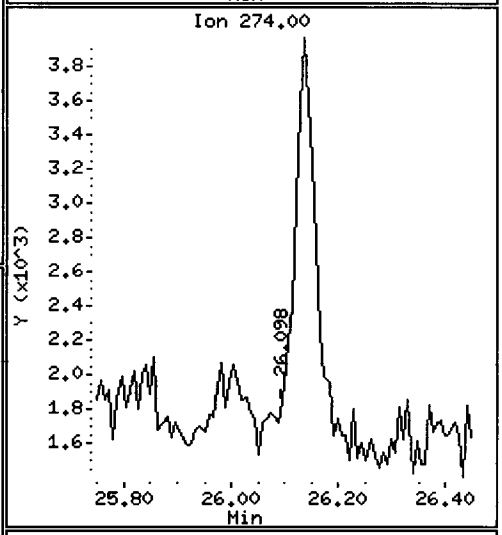
78 Indeno(1,2,3-cd)pyrene

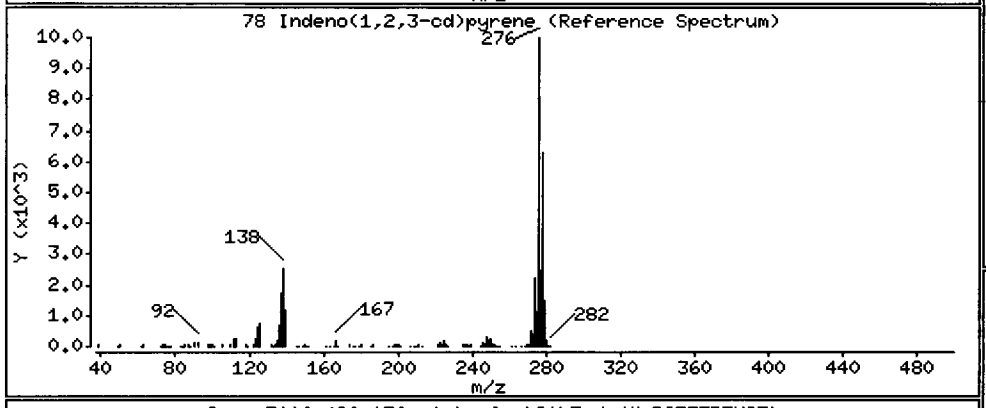
Concentration: 583.0 ug/kg

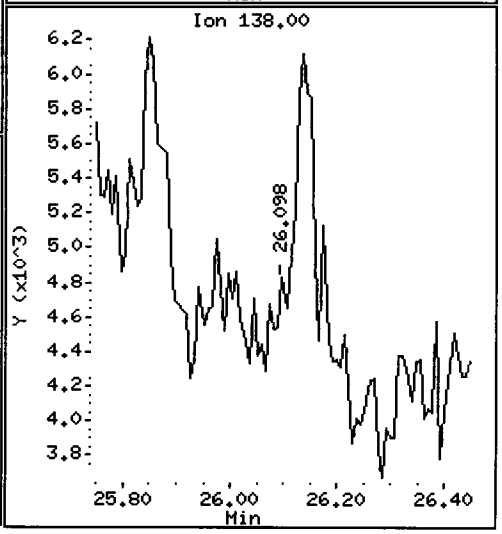


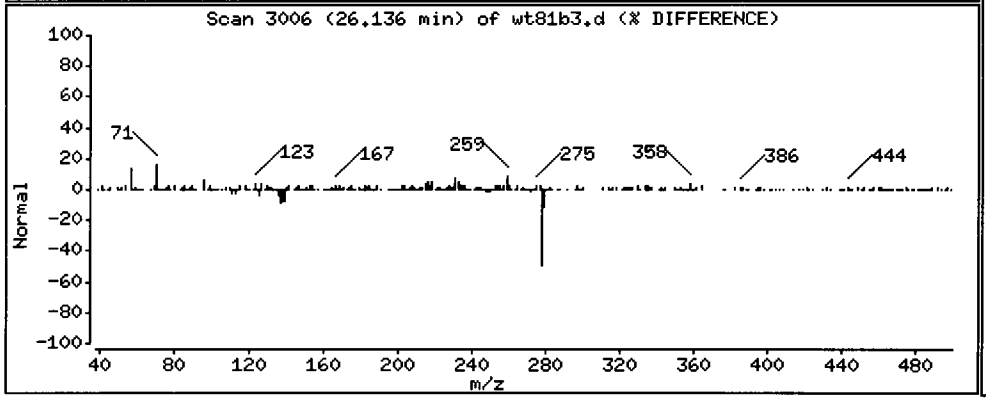












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

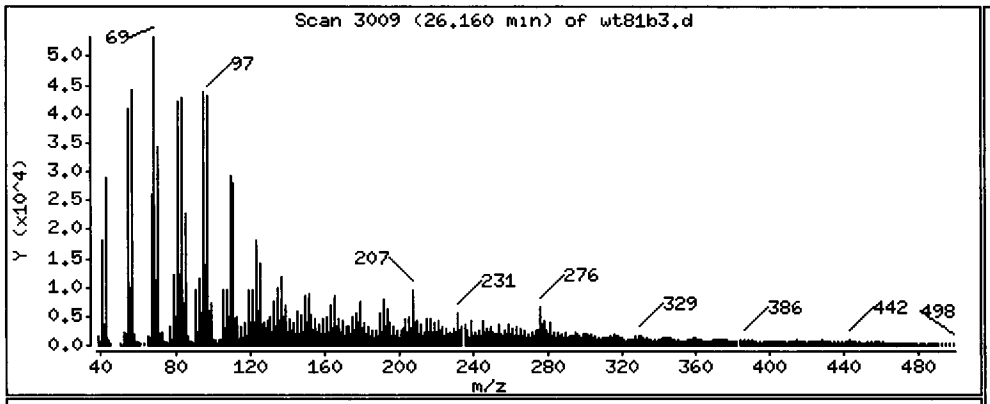
Operator: VTS/YZ

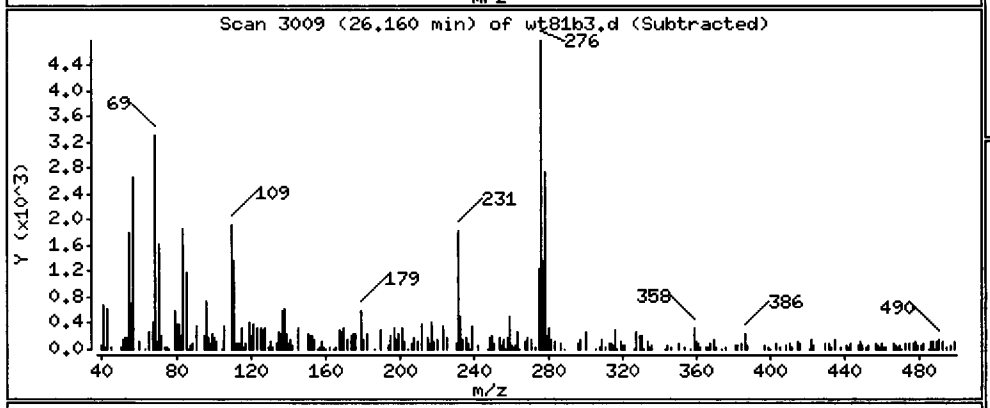
Column phase: ZB-5ms1

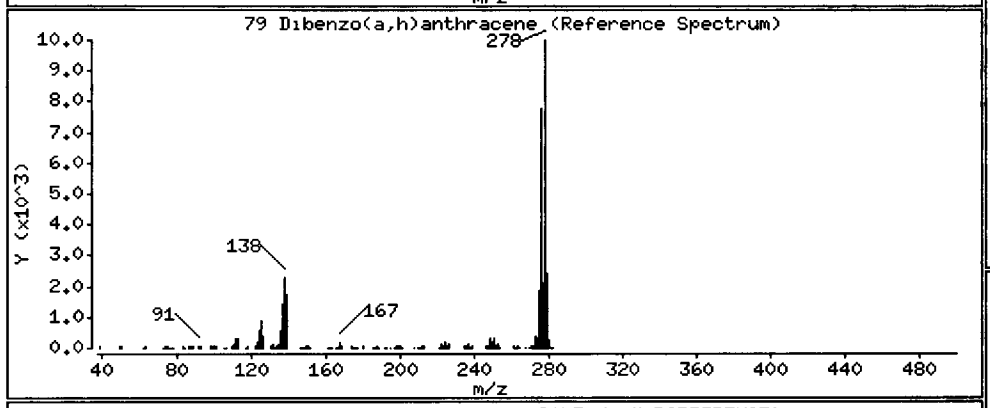
Column diameter: 0.25

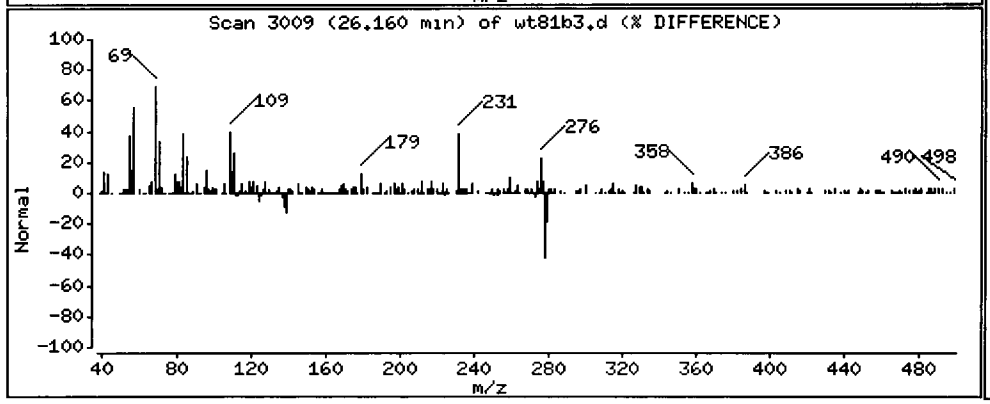
79 Dibenzo(a,h)anthracene

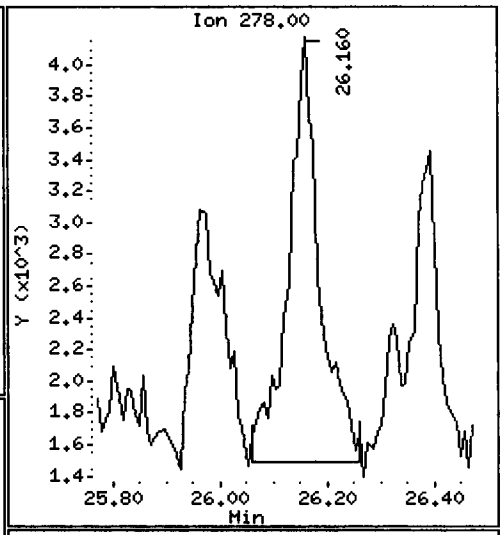
Concentration: 308.7 ug/kg

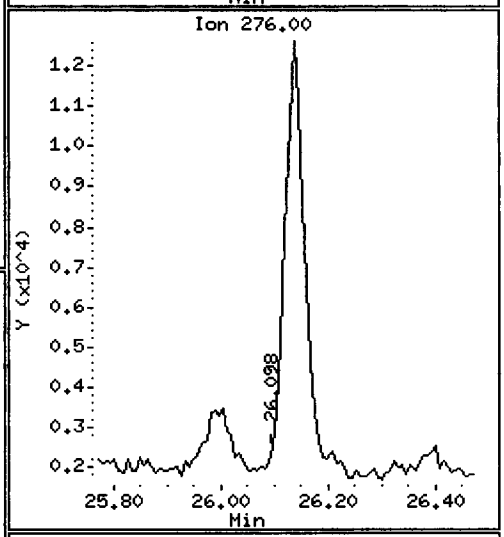


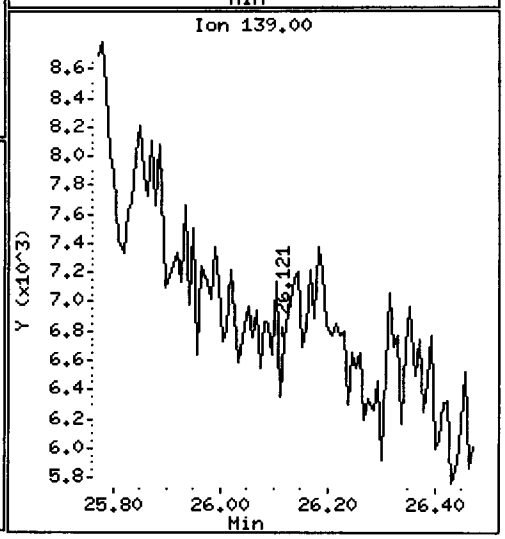












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

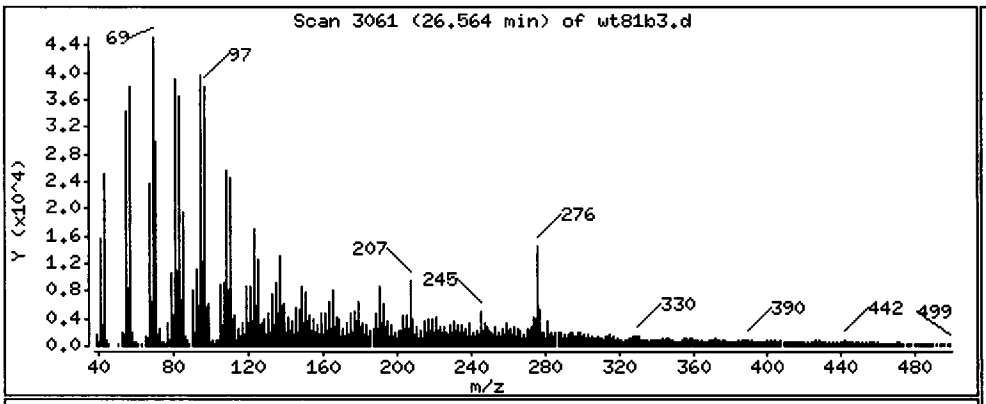
Operator: VTS/YZ

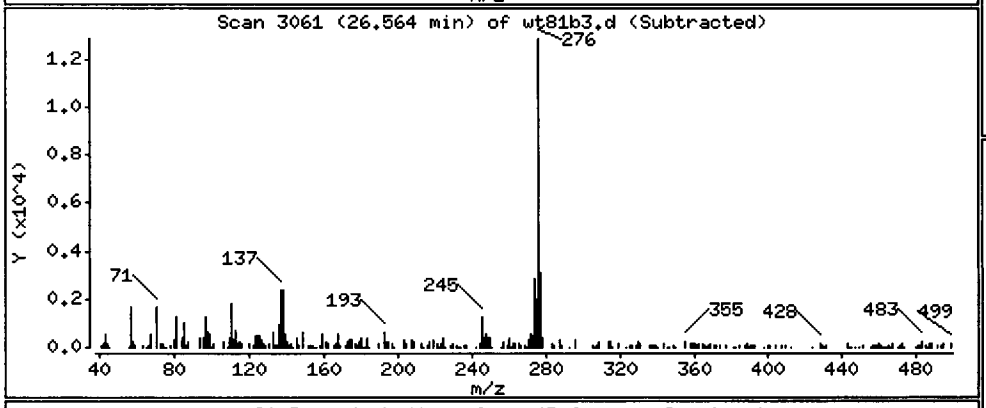
Column phase: ZB-5msi

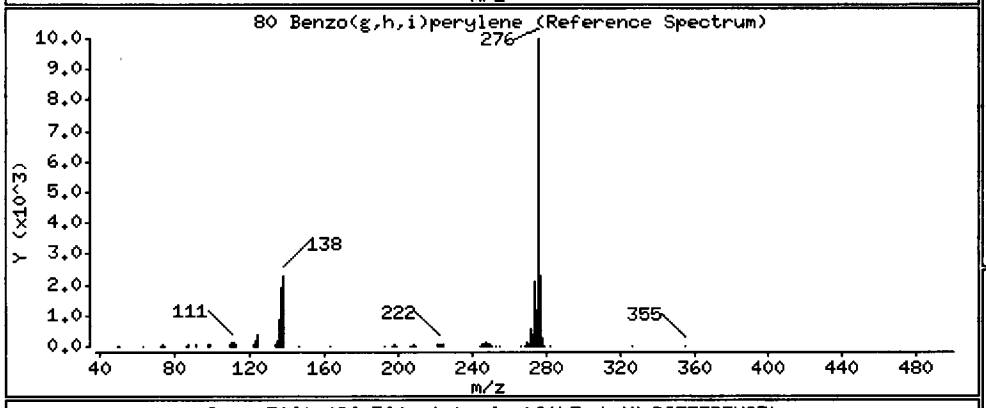
Column diameter: 0.25

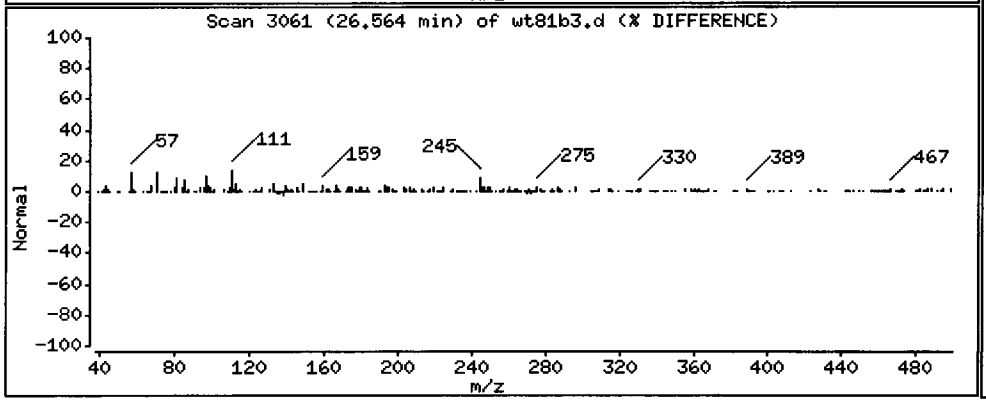
80 Benzo(g,h,i)perylene

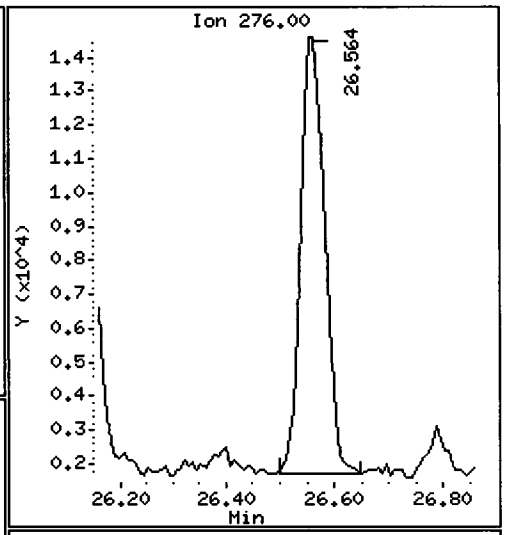
Concentration: 962.9 ug/kg

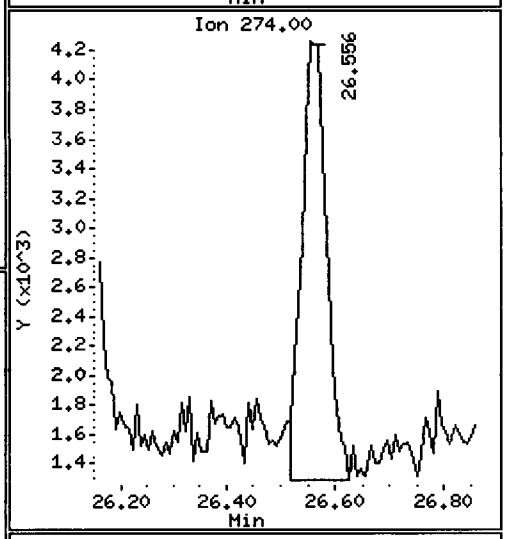


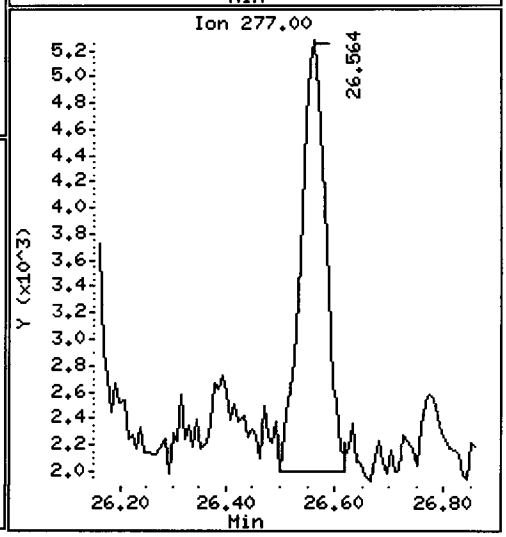












Data File: /chem1/nt10.i/20130626.b/wt81b3.d

Date : 26-JUN-2013 13:42

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B,3

Volume Injected (uL): 1.0

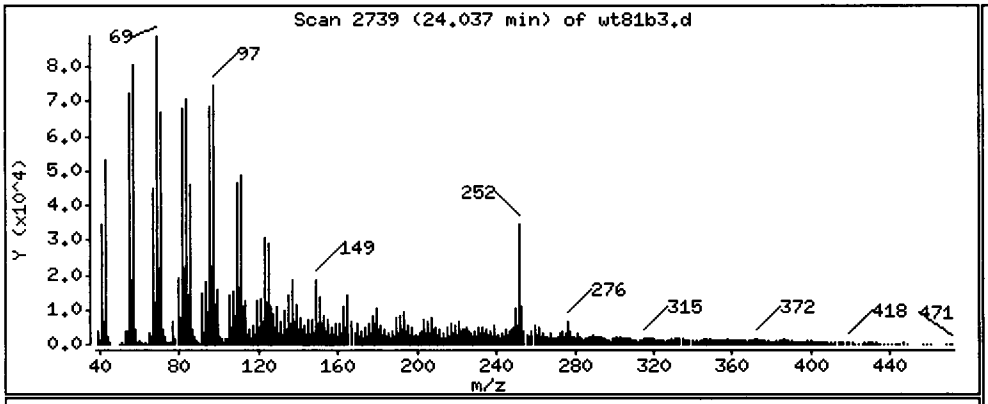
Operator: VTS/YZ

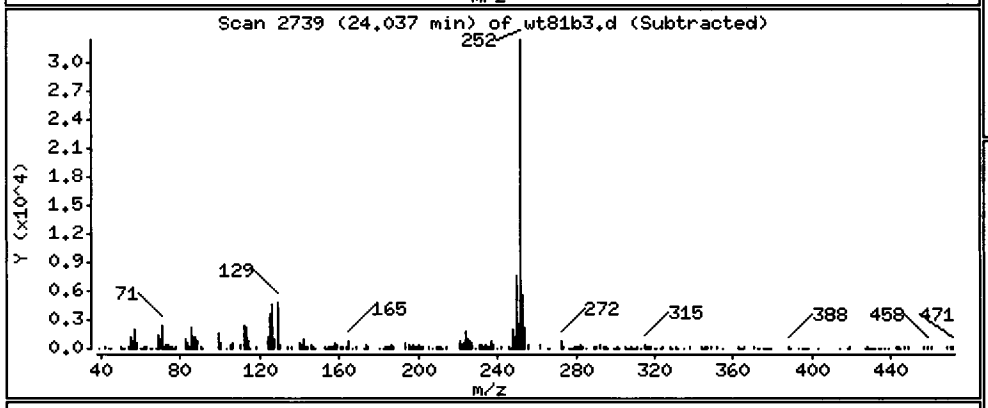
Column phase: ZB-5msi

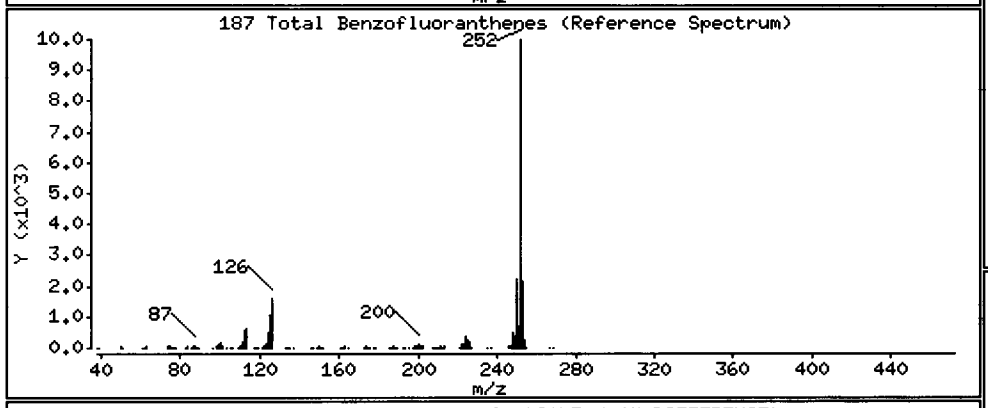
Column diameter: 0.25

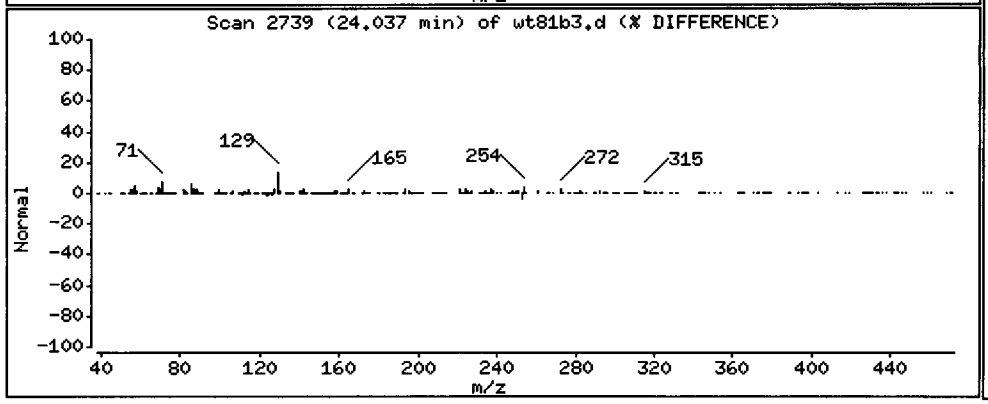
187 Total Benzofluoranthenes

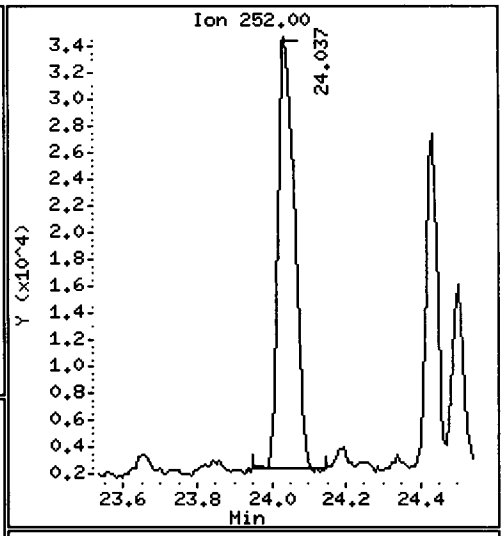
Concentration: 2169 ug/kg

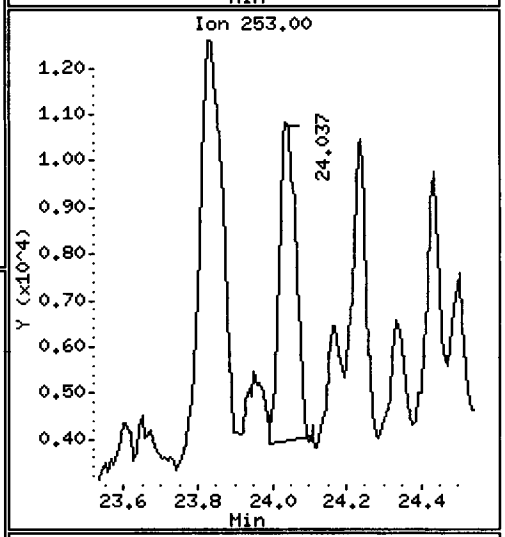


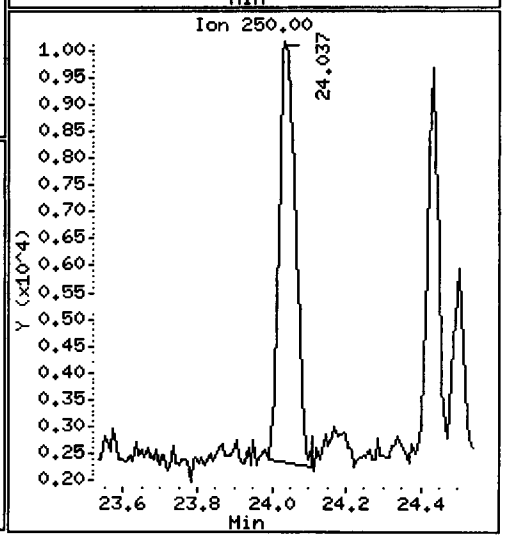






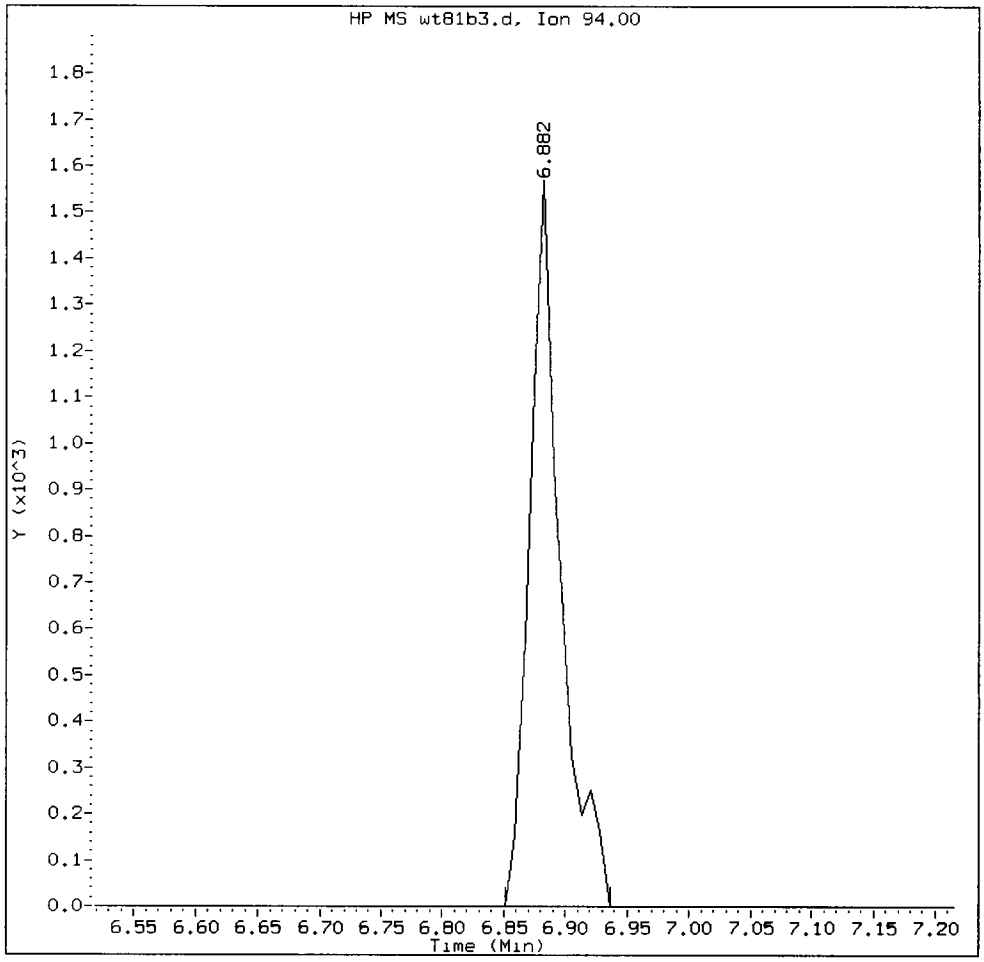






WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

Phenol Amount: 0.10 Area: 2840



MANUAL INTEGRATION for Phenol

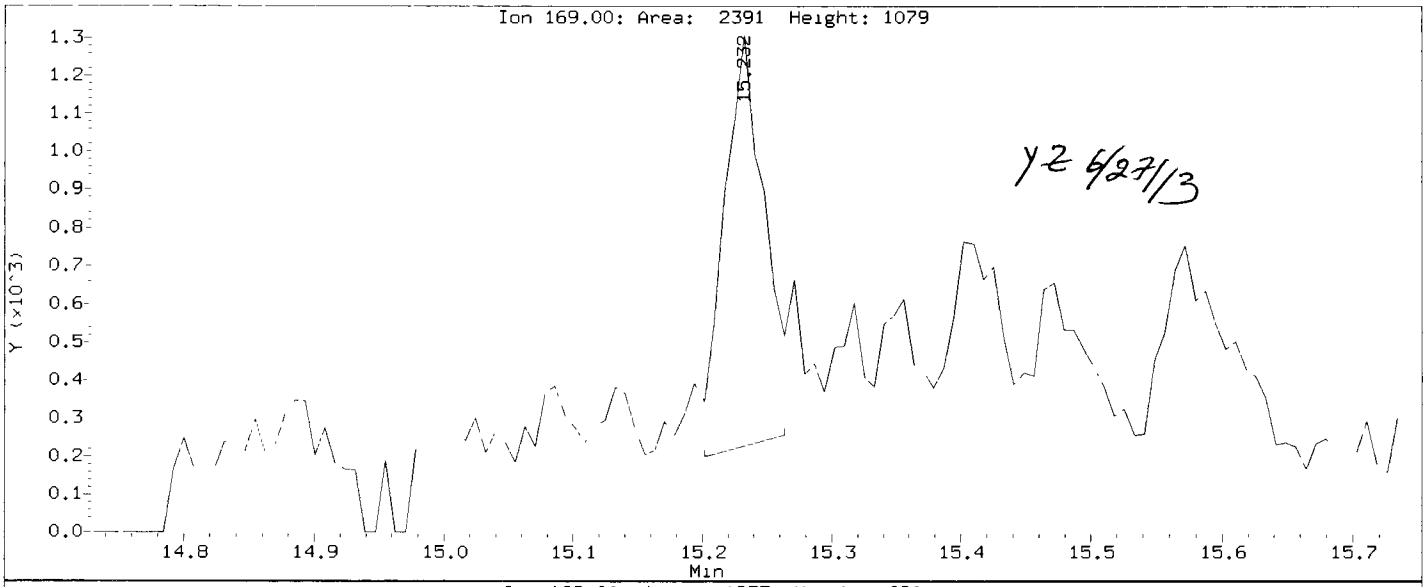
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

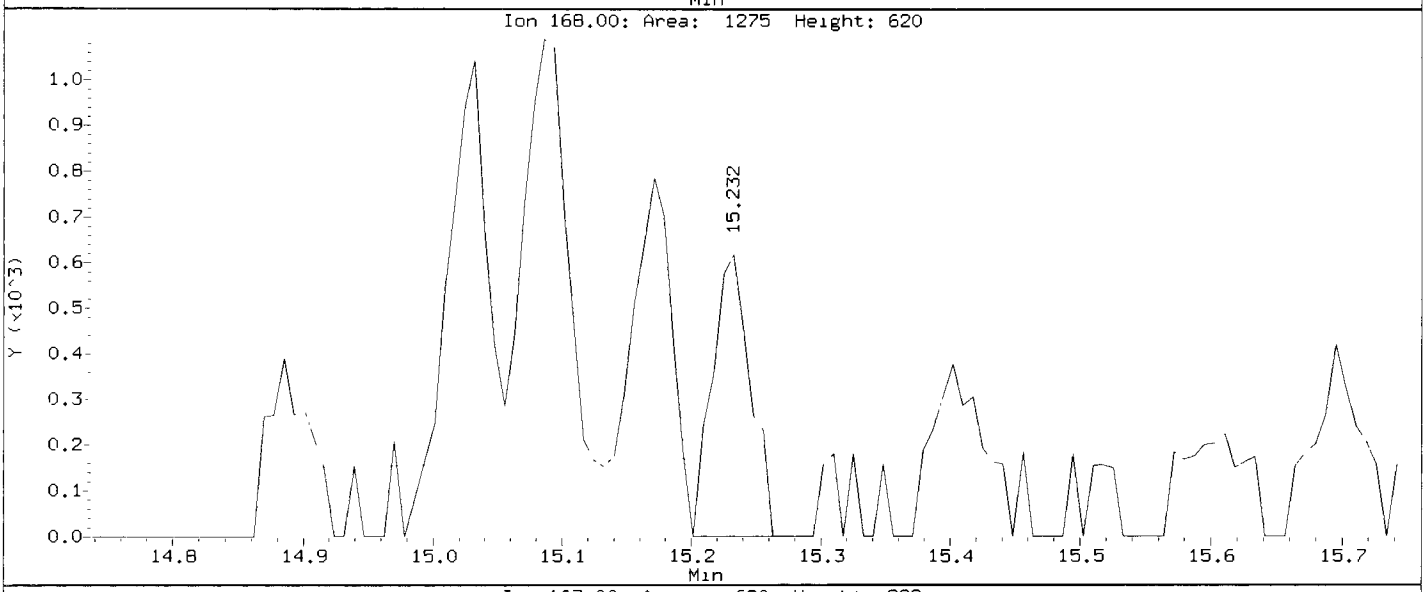
Analyst: YZ Date: 6/27/13

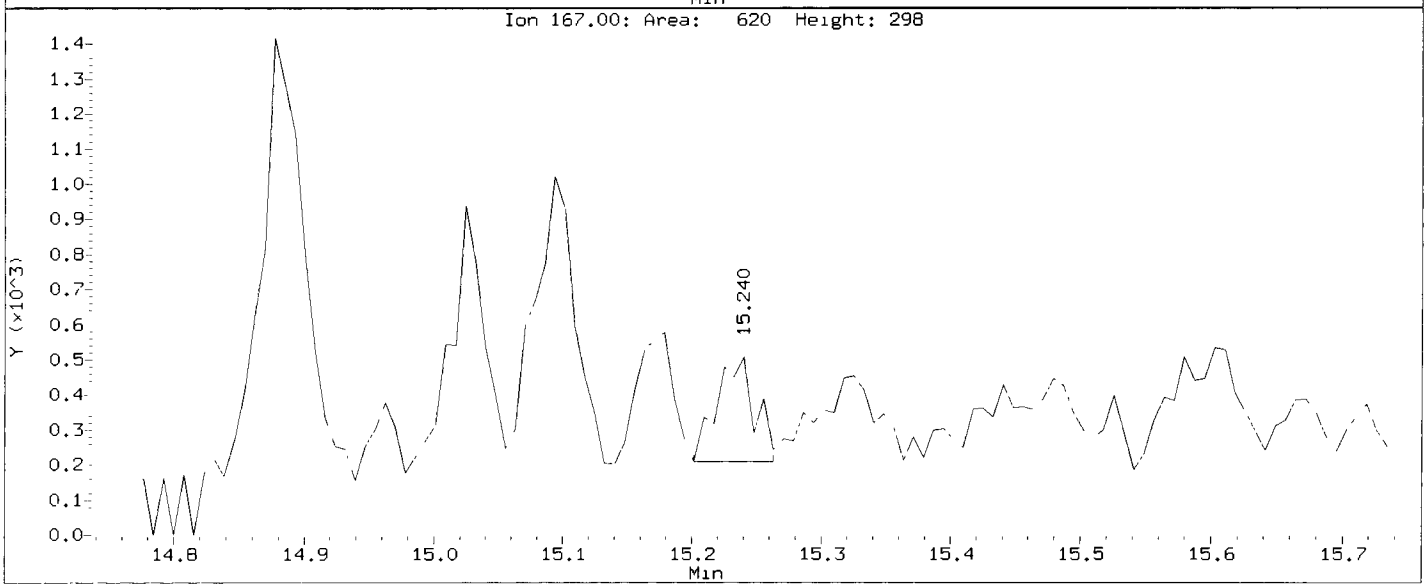
Data File: /chem1/nt10.1/20130626.b/wt81b3.d
Injection Date: 26-JUN-2013 13:42
Instrument: nt10.1
Client Sample ID: AM-SF4-EFF-20130612

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6



YZ 6/27/13

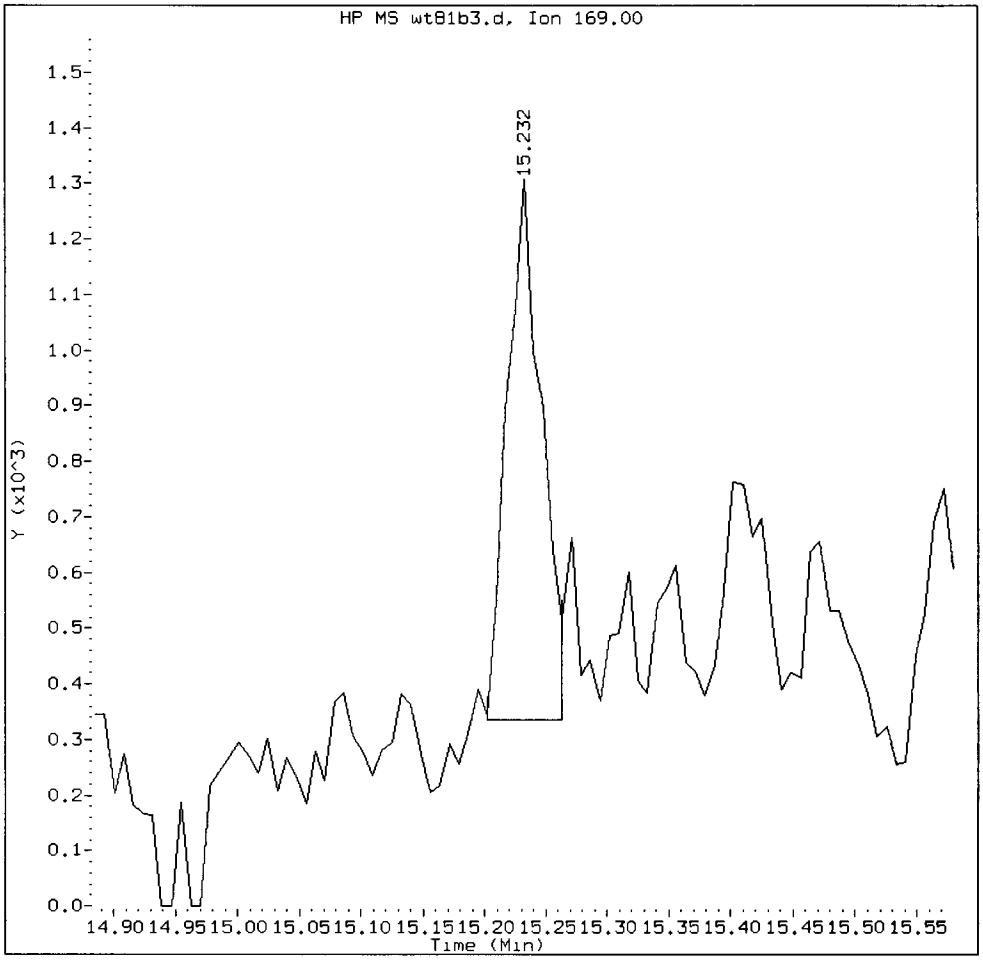




WT81 : 86506

WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

N-Nitrosodiphenylamine Amount: 0.10 Area: 2001



MANUAL INTEGRATION for N-Nitrosodiphenylamine

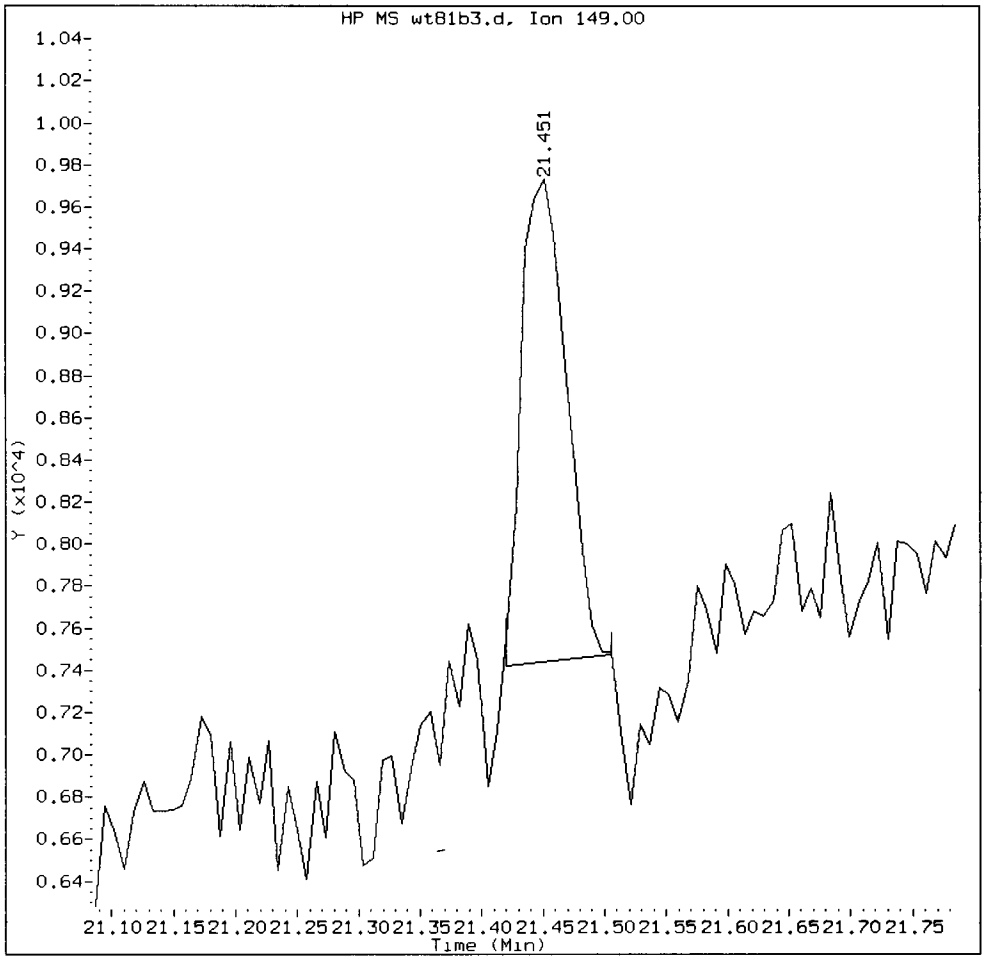
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JT Date: 6/28/13

WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

Butylbenzylphthalate Amount: 0.32 Area: 6033



MANUAL INTEGRATION for Butylbenzylphthalate

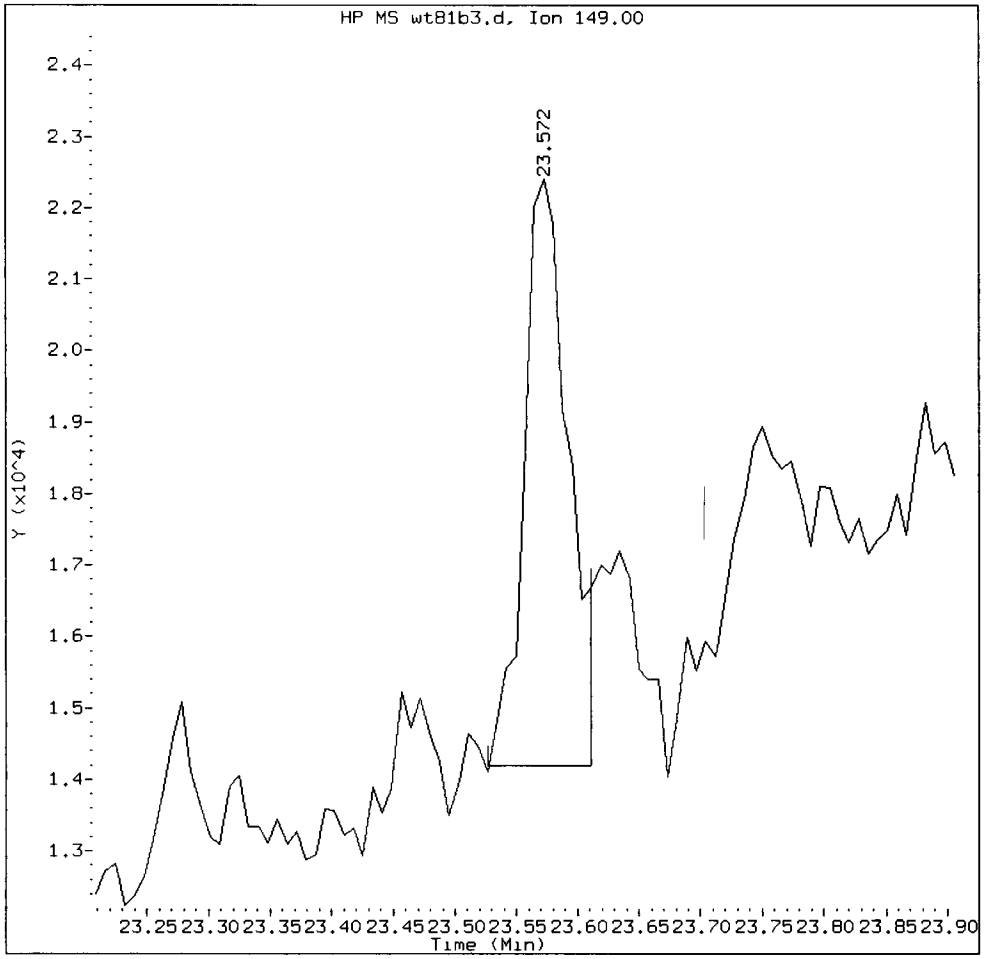
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

Di-n-octylphthalate Amount: 0.41 Area: 21099



MANUAL INTEGRATION for Di-n-octylphthalate

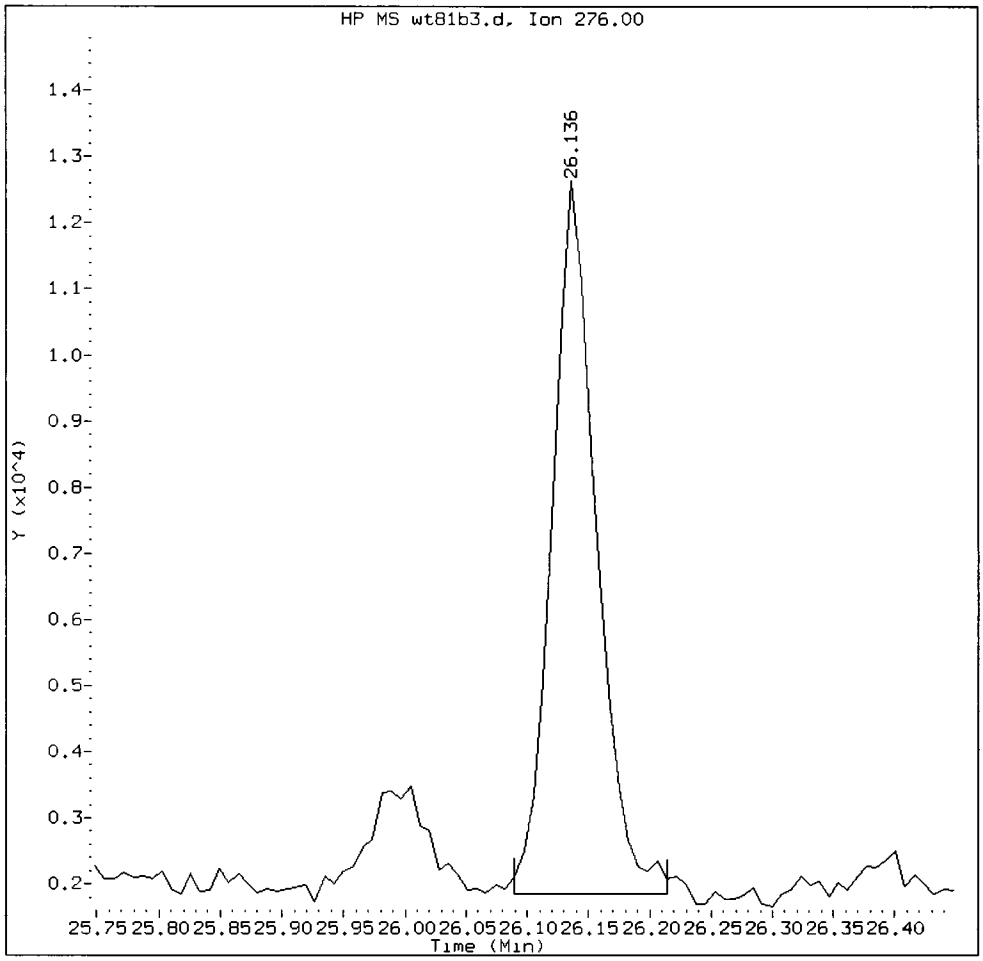
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

Indeno(1,2,3-cd)pyrene Amount: 0.54 Area: 27685



MANUAL INTEGRATION for Indeno(1,2,3-cd)pyrene

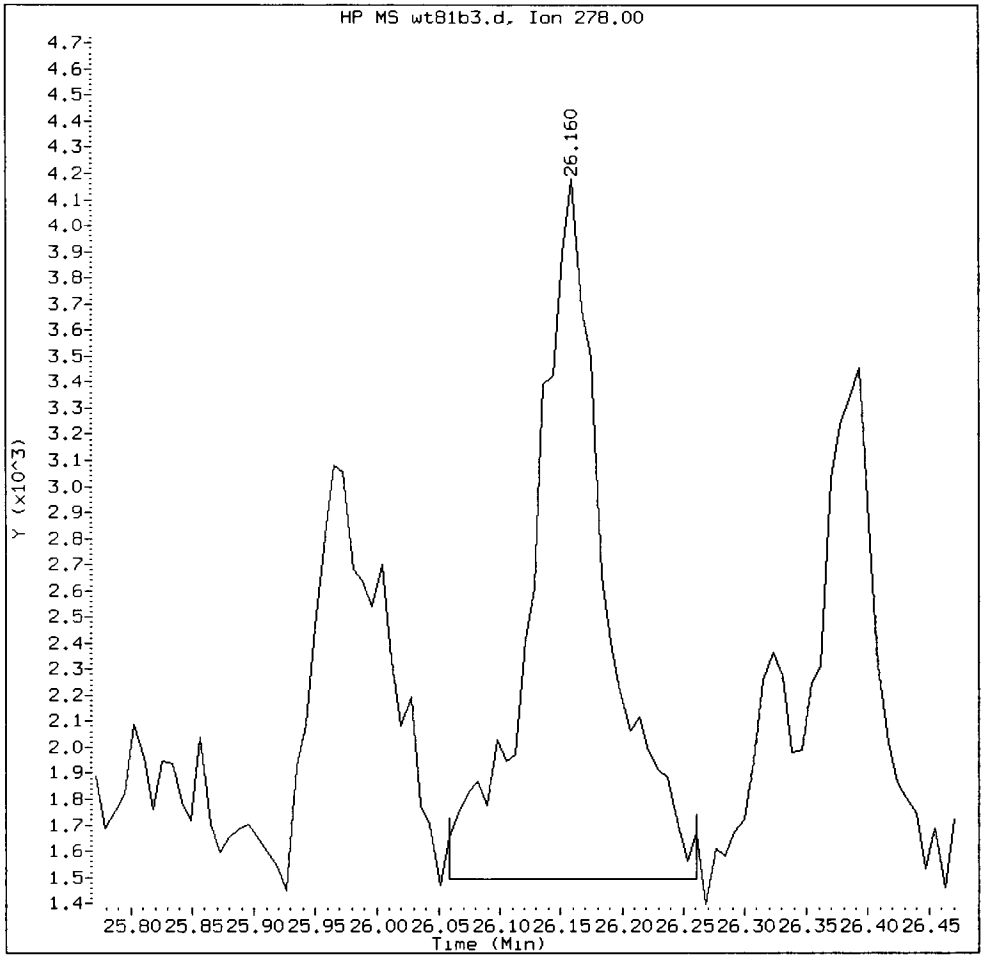
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

WT81B, /chem1/nt10.i/20130626.b/wt81b3.d

Dibenzo(a,h)anthracene Amount: 0.29 Area: 11246



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: JJ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81b3.d

Lab ID: WT81B, Method: ABN.m, Instrument: nt10.i, Date: 26-JUN-2013

RT	CO-ELUTION COMPOUNDS
24.037	Benzo(k)fluoranthene and Benzo(b)fluoranthene

Analytical Resources, Inc.

Y2 6/27/13

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20130626.b/wt81c3.d
Lab Smp Id: WT81C Client Smp ID: AM-FD-01-20130612-S
Inj Date : 26-JUN-2013 14:19
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : WT81C,3
Misc Info : 13-12638
Comment : 1ul Injection
Method : /chem1/nt10.i/20130626.b/ABN.m
Meth Date : 27-Jun-2013 11:35 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	3.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	7.01000	Weight of sample extracted (g)
M	60.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.151	5.136	(0.703)	21703	1.29610	1394(R)
$	2 Phenol-d5	99	6.859	6.844	(0.936)	28876	1.33265	1433(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	6.982	6.975	(0.952)	24835	1.50990	1624(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	7.331	7.323	(1.000)	46914	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	7.688	7.688	(1.049)	11103	0.93842	1009(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	121	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	8.309	8.301	(1.133)	8868	0.49833	535.8
$	18 Nitrobenzene-d5	82	8.480	8.480	(0.856)	18465	0.97834	1052(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	9.903	9.903	(1.000)	178855	4.00000	
	28 Naphthalene	128	9.942	9.942	(1.004)	5112	0.10736	115.4
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	142	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					
	34 2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35 2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36 2-Fluorobiphenyl	172	12.309	12.309	(0.898)	40964	1.10249	1185(R)
	37 2-Chloronaphthalene	162	Compound Not Detected.					
	38 2-Nitroaniline	65	Compound Not Detected.					
	39 Dimethylphthalate	163	Compound Not Detected.					
	40 Acenaphthylene	152	Compound Not Detected.					
	41 2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42 Acenaphthene-d10	164	13.710	13.710	(1.000)	106457	4.00000	
	43 3-Nitroaniline	138	Compound Not Detected.					
	44 Acenaphthene	153	13.779	13.780	(1.005)	13159	0.43523	468.0
	45 2,4-Dinitrophenol	184	Compound Not Detected.					
	46 Dibenzofuran	168	14.135	14.135	(1.031)	15632	0.37812	406.6
	47 4-Nitrophenol	109	Compound Not Detected.					
	48 2,4-Dinitrotoluene	165	Compound Not Detected.					
	50 Diethylphthalate	149	Compound Not Detected.					
	49 Fluorene	166	14.885	14.885	(1.086)	17509	0.49634	533.7
	51 4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52 4-Nitroaniline	138	Compound Not Detected.					
	53 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54 N-Nitrosodiphenylamine	169	15.232	15.232	(0.900)	2042	0.11215	120.6
$	55 2,4,6-Tribromophenol	330	15.471	15.464	(1.128)	10279	1.82580	1963
	56 4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	16.924	16.916	(1.000)	157292	4.00000	
	60 Phenanthrene	178	16.970	16.963	(1.003)	163768	3.81712	4104
	61 Anthracene	178	17.071	17.063	(1.009)	19042	0.43323	465.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
62	Carbazole	167	17.496	17.489	(1.034)	8968	0.33590	361.2
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	19.562	19.547	(1.156)	295082	5.84370	6284
65	Pyrene	202	19.988	19.972	(0.897)	261532	5.37799	5783
$ 66	Terphenyl-d14	244	20.413	20.398	(0.916)	35809	1.17037	1258(R)
67	Butylbenzylphthalate	149	21.451	21.436	(0.963)	4006	0.24123	259.4(M)
68	Benzo(a)anthracene	228	22.256	22.225	(0.999)	43792	0.99515	1070
* 69	Chrysene-d12	240	22.279	22.256	(1.000)	157178	4.00000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	22.318	22.295	(1.002)	86922	2.18271	2347
72	bis(2-Ethylhexyl)phthalate	149	22.574	22.551	(0.958)	309732	11.5999	12470
* 134	Di-n-octylphthalate-d4	153	23.572	23.549	(1.000)	200837	4.00000	
73	Di-n-octylphthalate	149	23.580	23.557	(1.000)	18737	0.40520	435.7(M)
74	Benzo(b)fluoranthene	252	24.037	23.998	(0.977)	98559	2.11819	2278
75	Benzo(k)fluoranthene	252	24.037	24.037	(0.977)	98559	2.01102	2162
76	Benzo(a)pyrene	252	24.509	24.471	(0.997)	26697	0.67159	722.1
* 77	Perylene-d12	264	24.594	24.556	(1.000)	156687	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	26.144	26.098	(1.063)	25417	0.55498	596.8
79	Dibenzo(a,h)anthracene	278	26.167	26.121	(1.064)	10467	0.29794	320.4(M)
80	Benzo(g,h,i)perylene	276	26.571	26.509	(1.080)	38599	0.97412	1047
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	142	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					
187	Total Benzofluoranthenes	252	24.037	24.037	(0.977)	95651	2.11701	2276
99	Perylene	252	24.633	24.587	(1.002)	11963	0.26326	283.1
98	Retene	219	Compound Not Detected.					
120	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81c3.d
Lab Smp Id: WT81C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12638

Calibration Date: 26-JUN-2013
Calibration Time: 11:46
Client Smp ID: AM-FD-01-2013061
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	45250	22625	90500	46914	3.68
27 Naphthalene-d8	166754	83377	333508	178855	7.26
42 Acenaphthene-d10	106910	53455	213820	106457	-0.42
59 Phenanthrene-d10	179783	89892	359566	157292	-12.51
69 Chrysene-d12	192841	96420	385682	157178	-18.49
134 Di-n-octylphthala	229567	114784	459134	200837	-12.51
77 Perylene-d12	184310	92155	368620	156687	-14.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.32	6.82	7.82	7.33	0.10
27 Naphthalene-d8	9.90	9.40	10.40	9.90	0.00
42 Acenaphthene-d10	13.71	13.21	14.21	13.71	0.00
59 Phenanthrene-d10	16.92	16.42	17.42	16.92	0.05
69 Chrysene-d12	22.26	21.76	22.76	22.28	0.10
134 Di-n-octylphthala	23.55	23.05	24.05	23.57	0.10
77 Perylene-d12	24.56	24.06	25.06	24.59	0.16

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

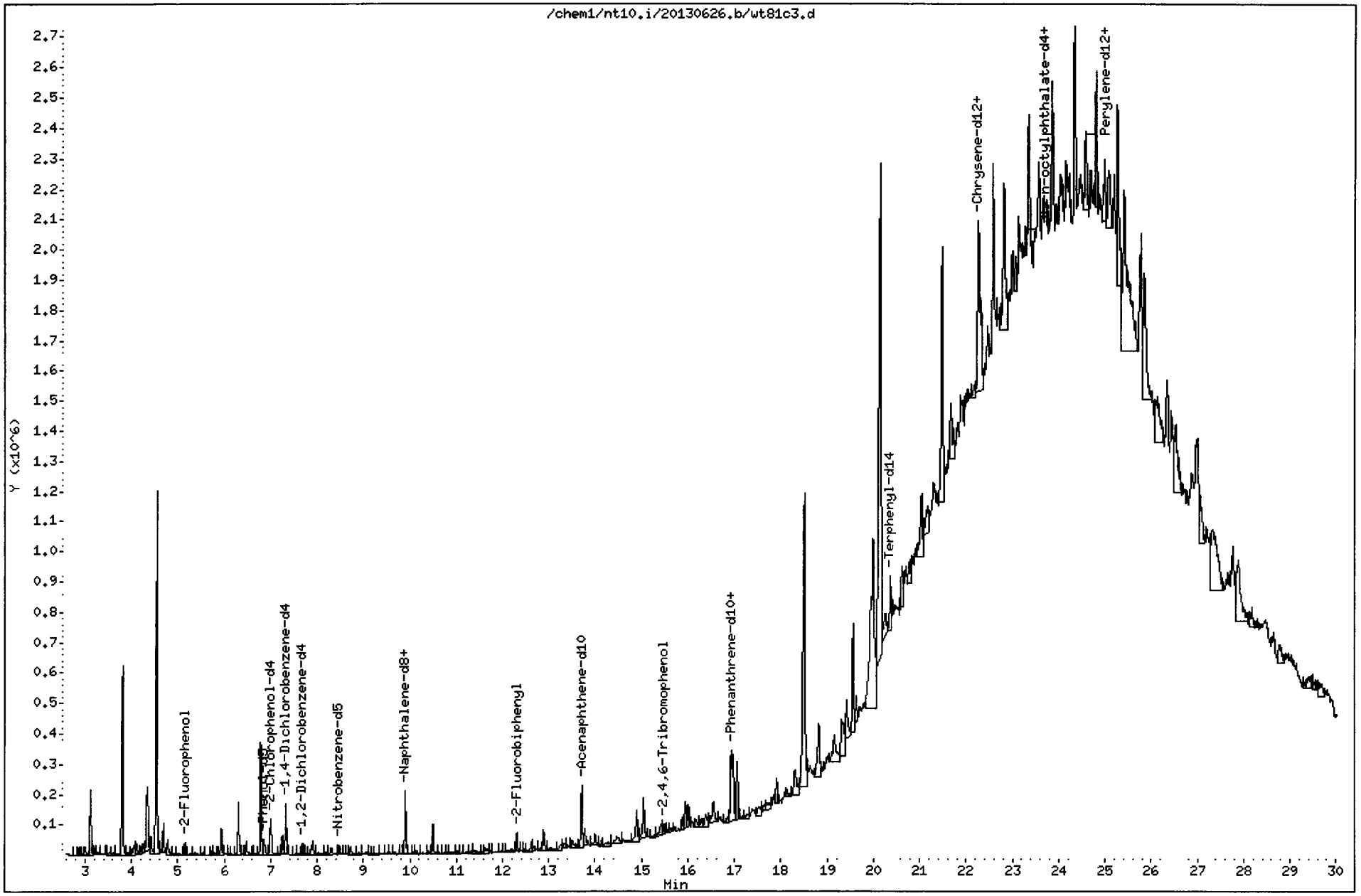
RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81C
Client Smp ID: AM-FD-01-20130612-S
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDALCS.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20130626.b/ABN.m
Misc Info: 13-12638

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2688	1394	51.84	27-120
$ 2 Phenol-d5	2688	1433	53.31	29-120
$ 5 2-Chlorophenol-d4	2688	1624	60.40	31-120
$ 10 1,2-Dichlorobenzen	1792	1009	56.31	32-120
$ 18 Nitrobenzene-d5	1792	1052	58.70	30-120
$ 36 2-Fluorobiphenyl	1792	1185	66.15	35-120
$ 55 2,4,6-Tribromophen	2688	1963	73.03	24-134
$ 66 Terphenyl-d14	1792	1258	70.22	37-120

Data File: /chem1/nt10.i/20130626.b/wt81c3.d
Date : 26-JUN-2013 14:19
Client ID: AM-FD-01-20130612-S
Sample Info: WT81C,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

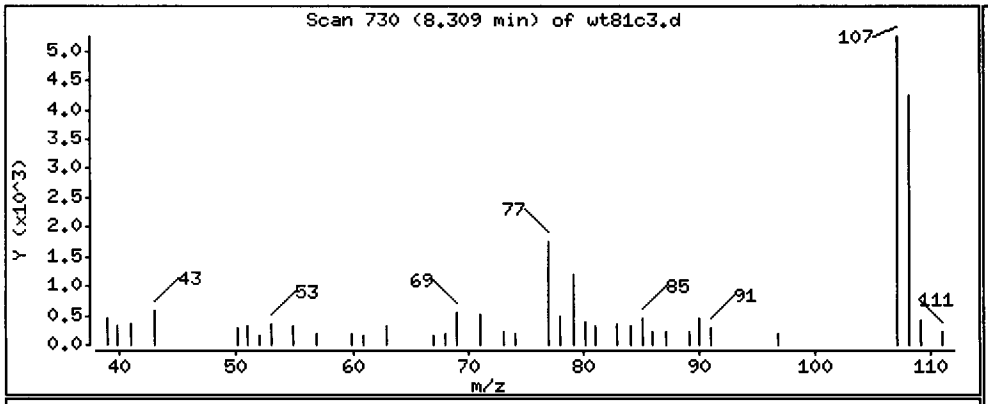
Operator: WTS/YZ

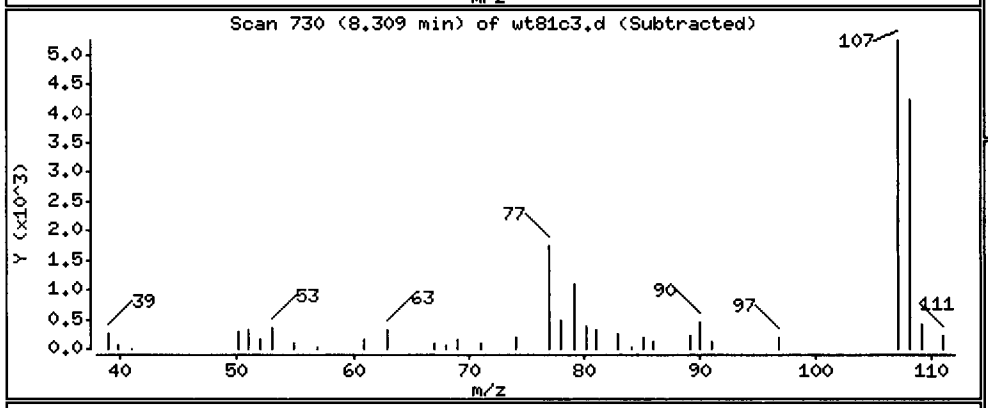
Column phase: ZB-5msi

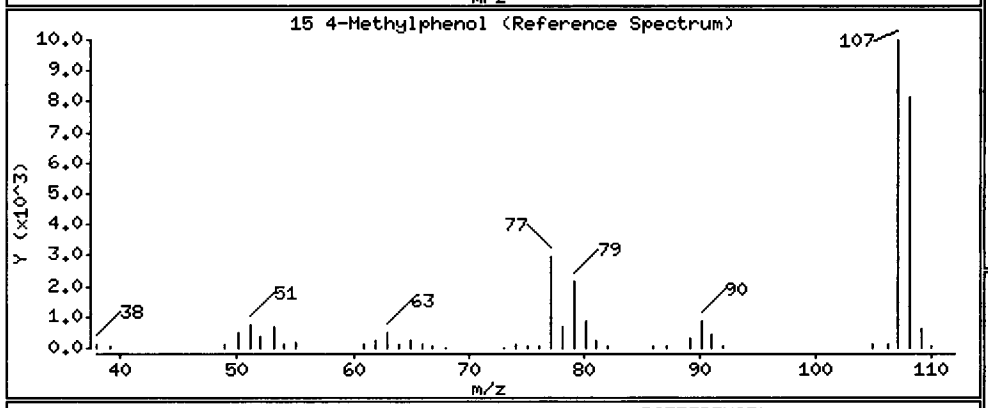
Column diameter: 0.25

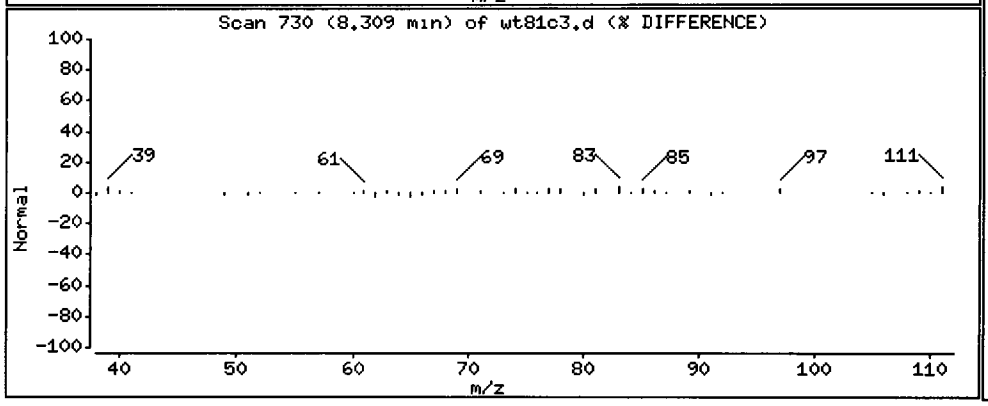
15 4-Methylphenol

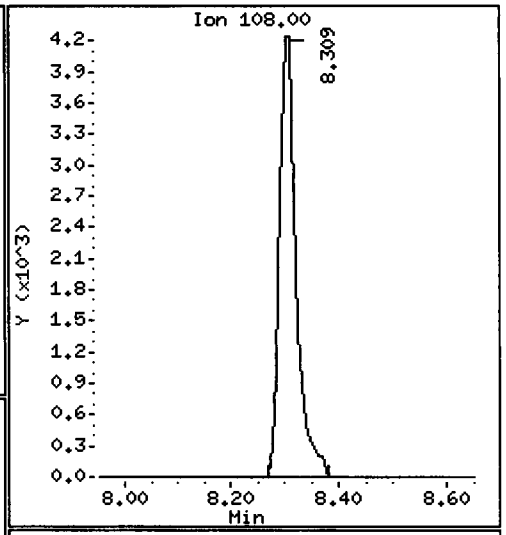
Concentration: 535.8 ug/kg

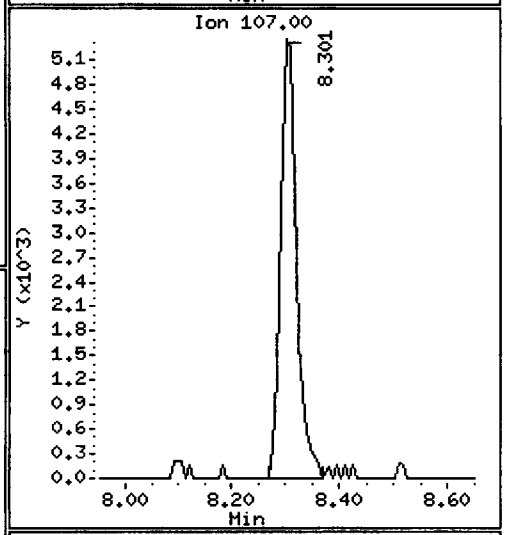


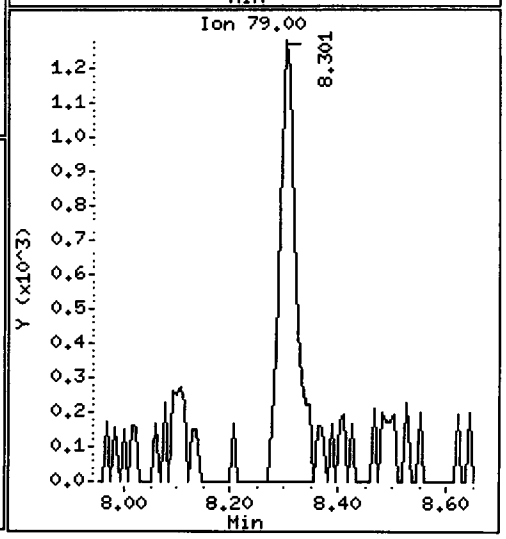












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

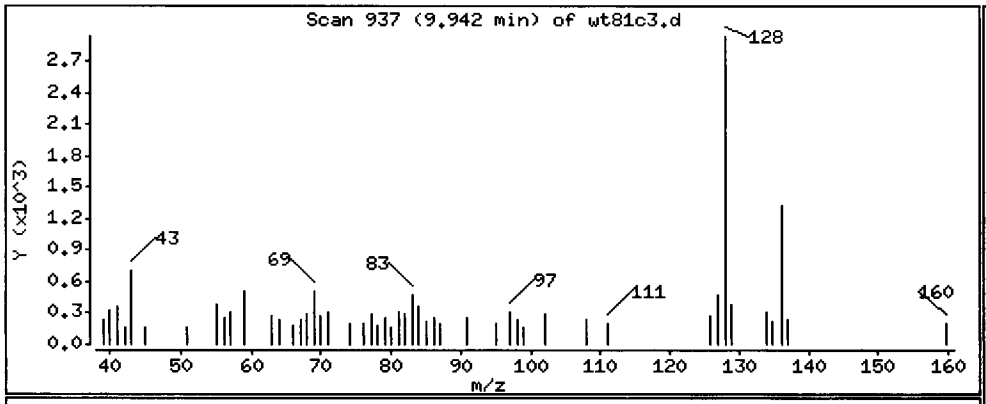
Operator: VTS/YZ

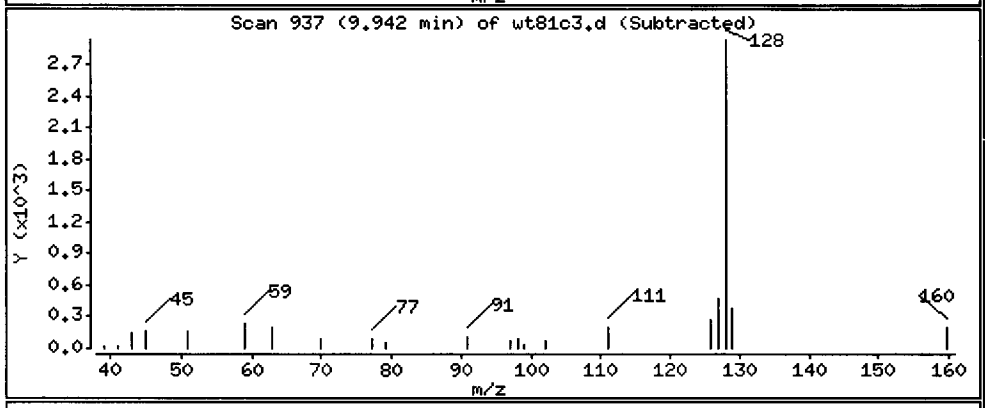
Column phase: ZB-5ms1

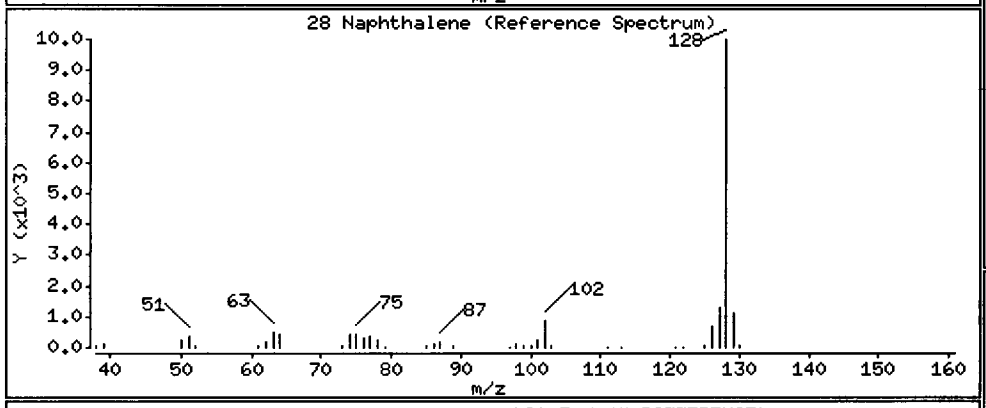
Column diameter: 0.25

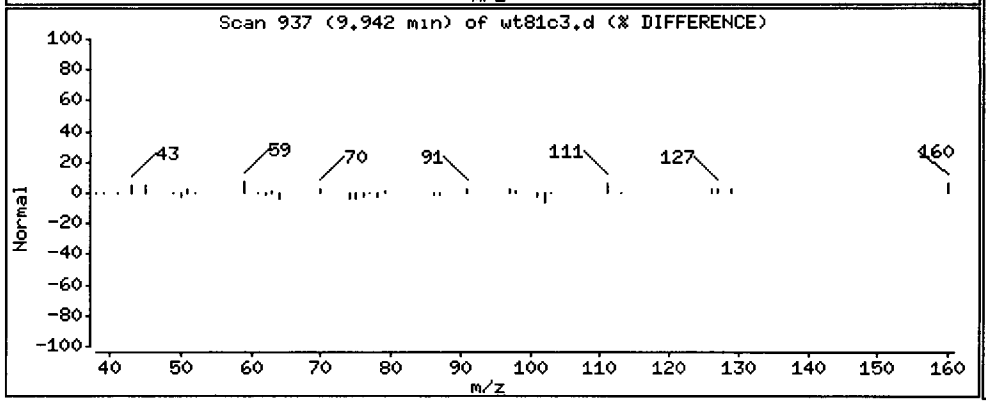
28 Naphthalene

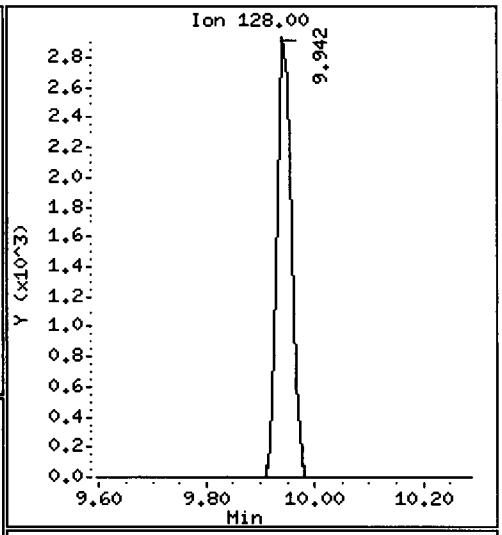
Concentration: 115.4 ug/kg

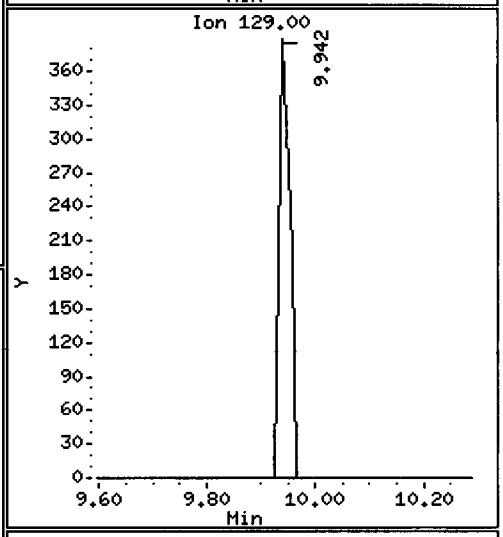


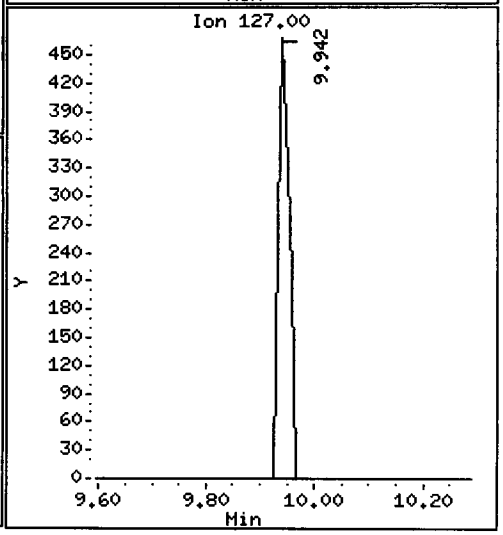












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

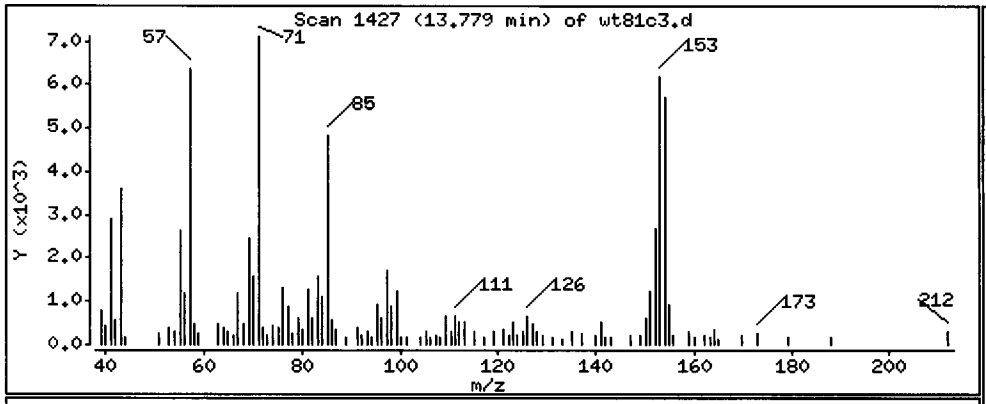
Operator: VTS/YZ

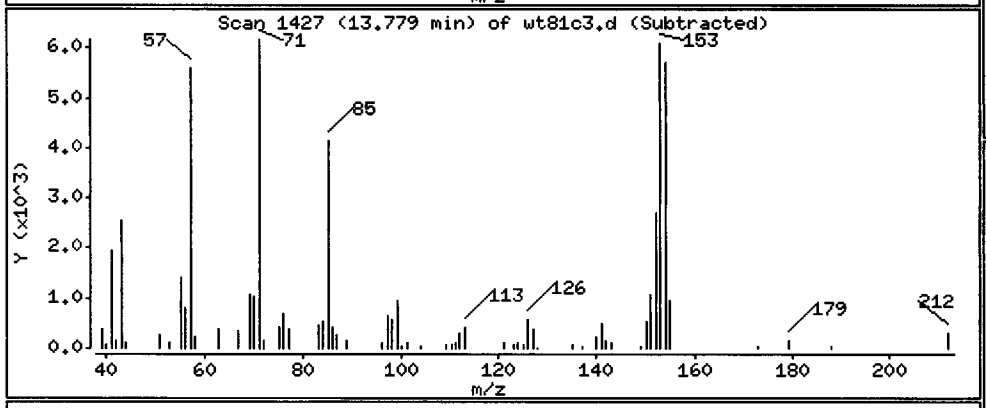
Column phase: ZB-5msi

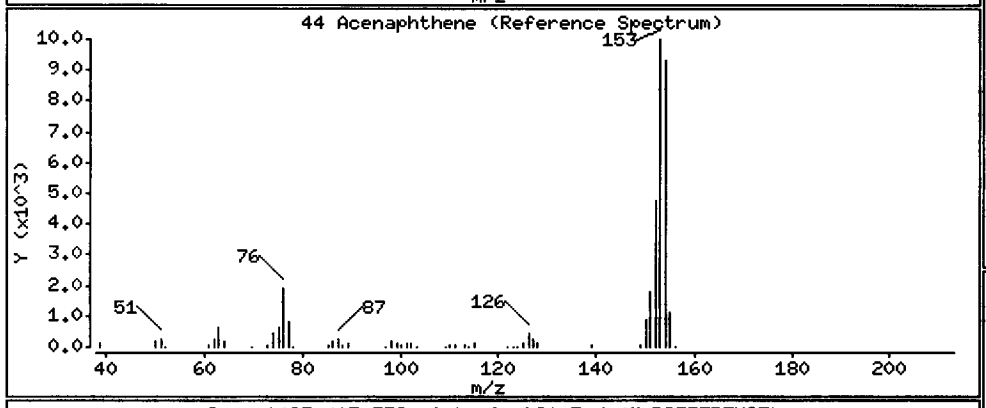
Column diameter: 0.25

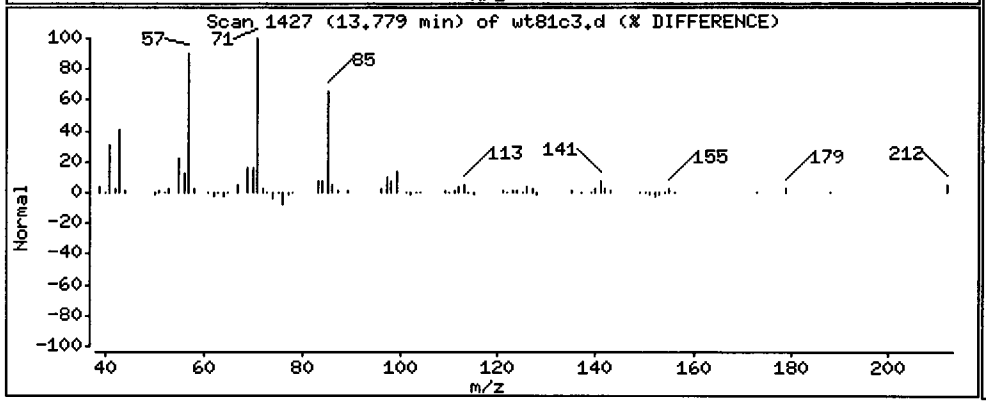
44 Acenaphthene

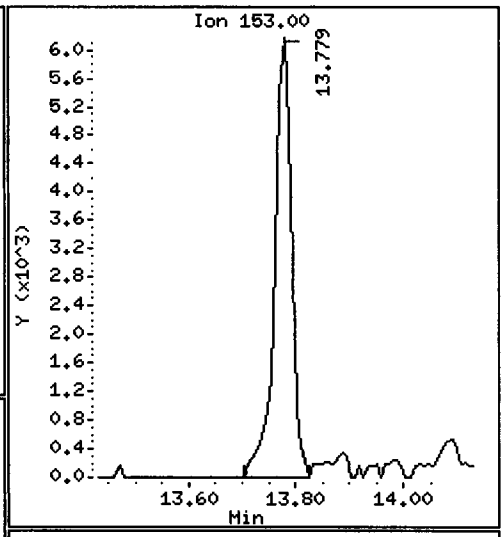
Concentration: 468.0 ug/kg

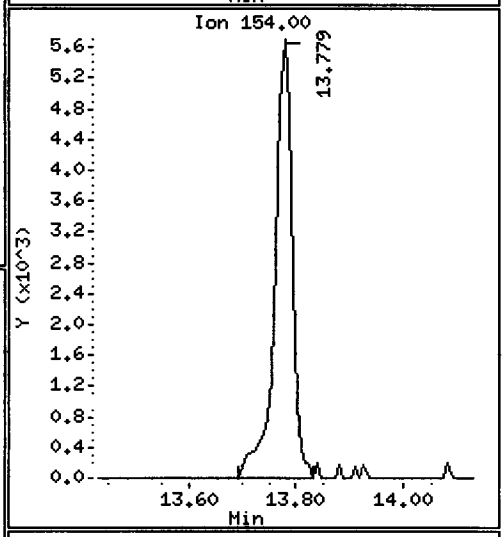


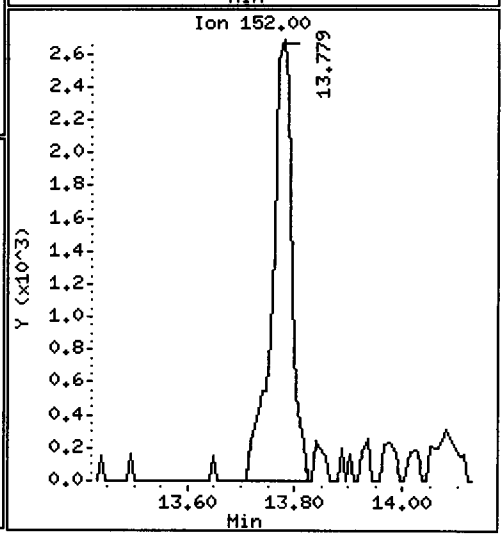












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

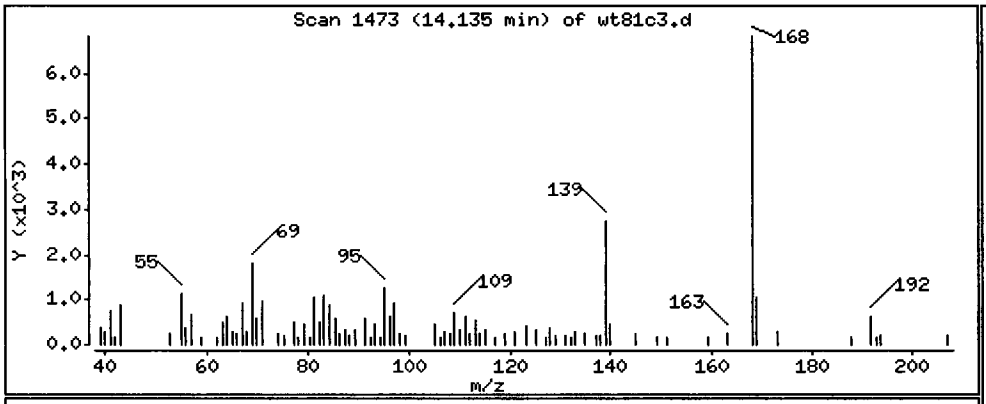
Operator: VTS/YZ

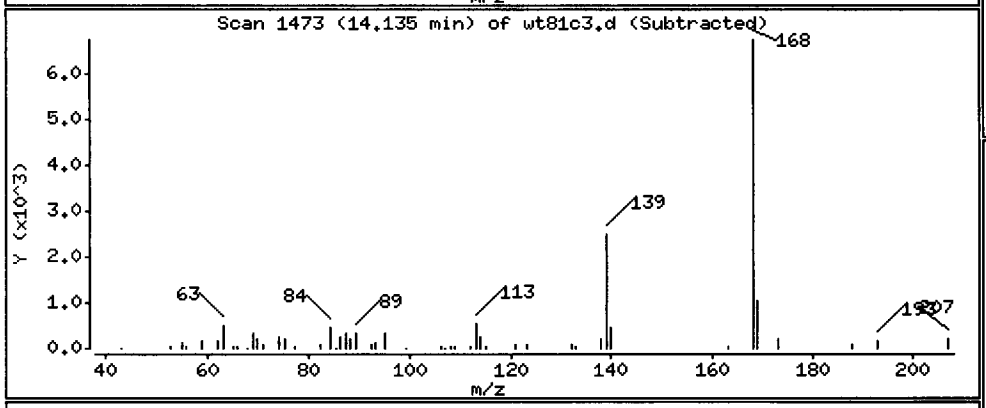
Column phase: ZB-5msi

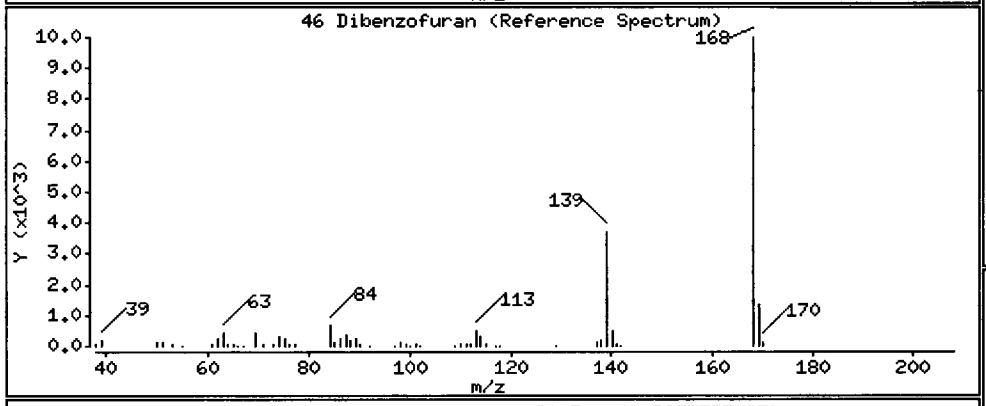
Column diameter: 0.25

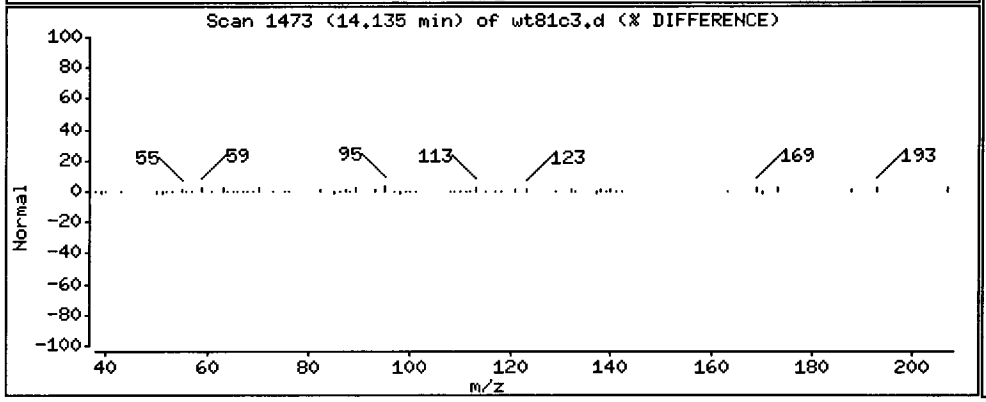
46 Dibenzofuran

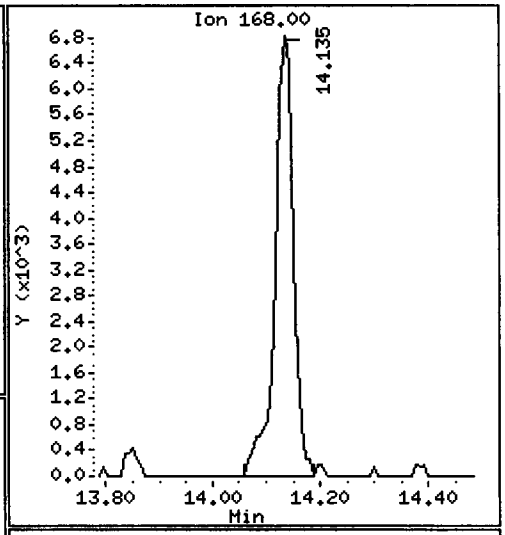
Concentration: 406.6 ug/kg

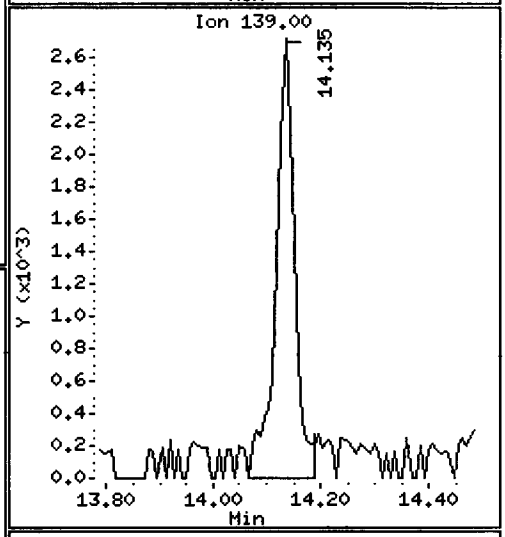


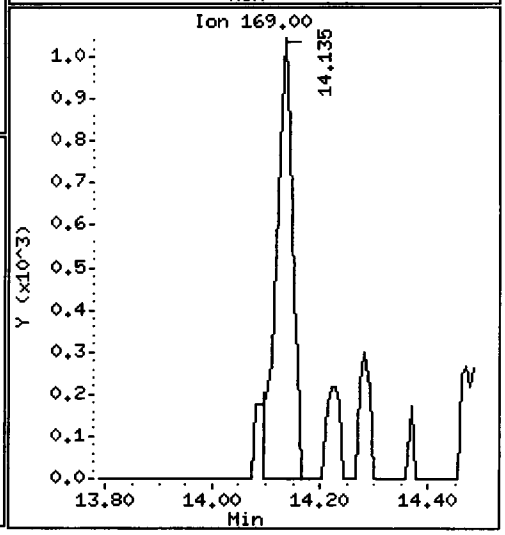












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

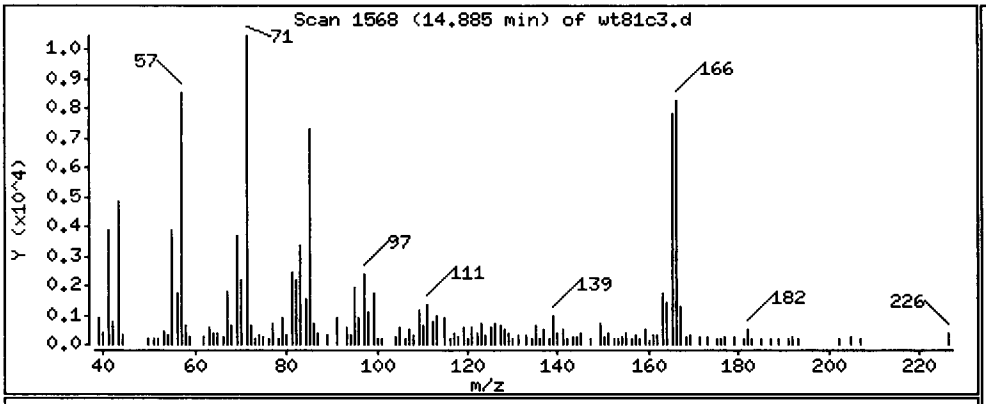
Operator: VTS/YZ

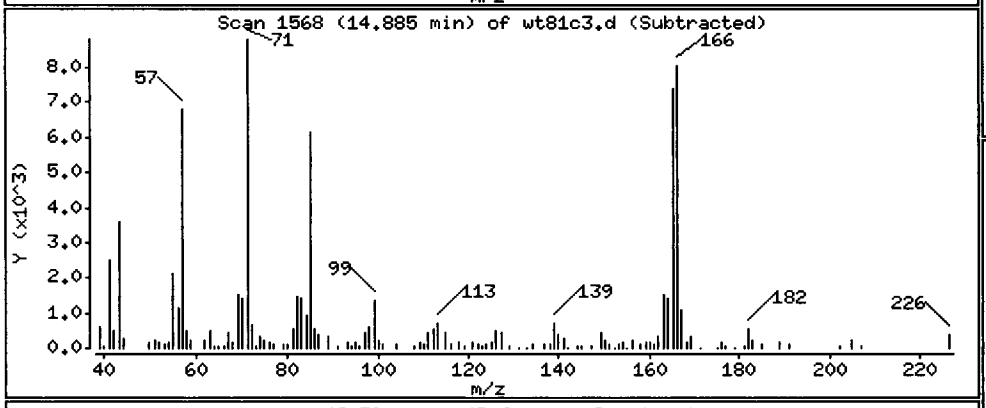
Column phase: ZB-5msi

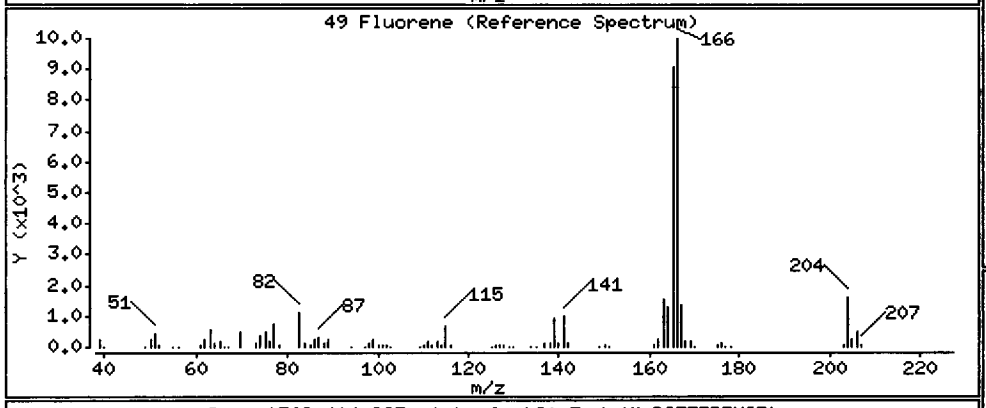
Column diameter: 0.25

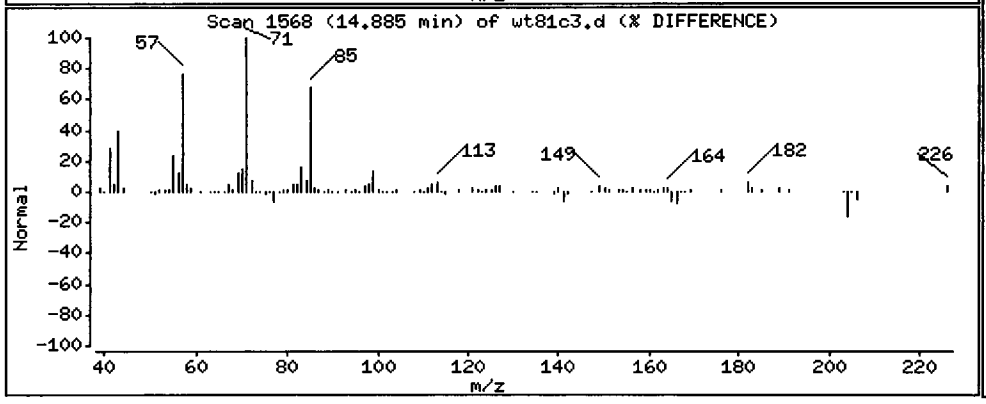
49 Fluorene

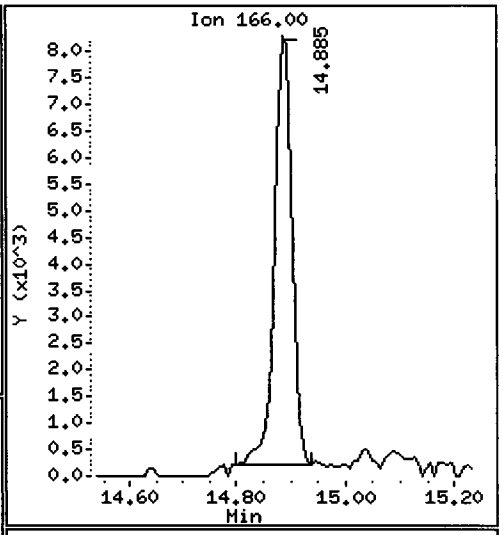
Concentration: 533.7 ug/kg

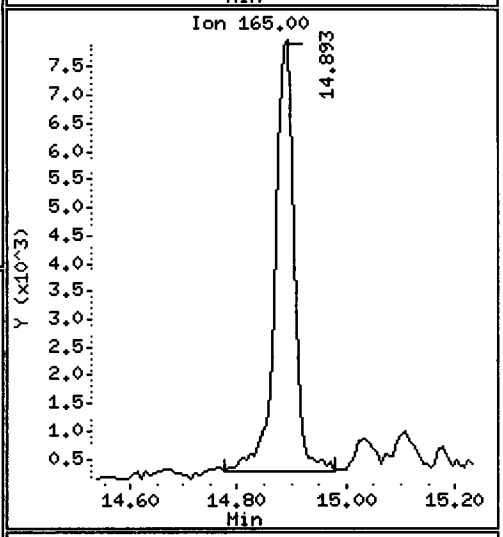


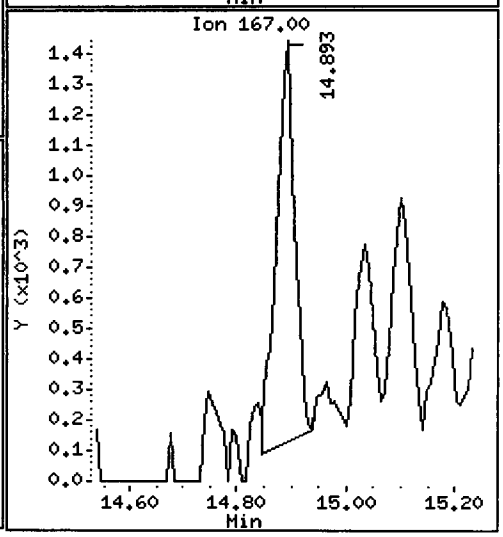












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

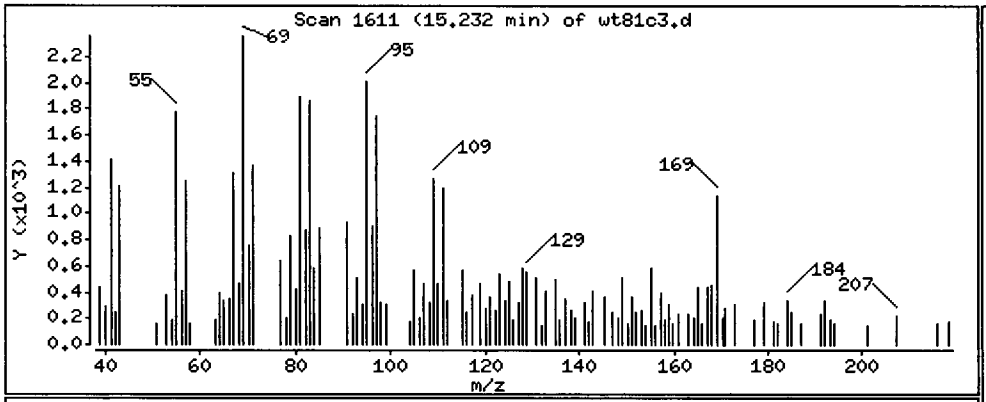
Operator: VTS/YZ

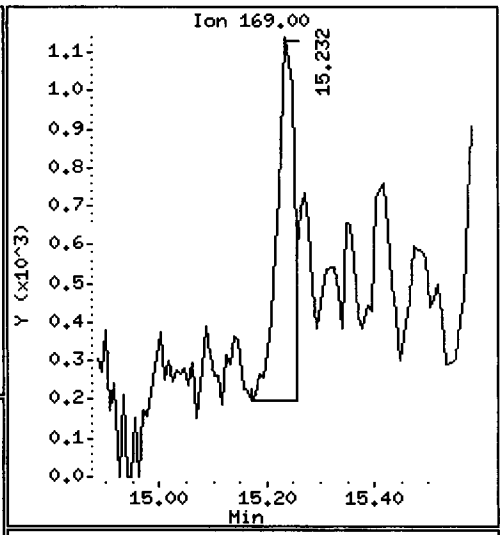
Column phase: ZB-5msi

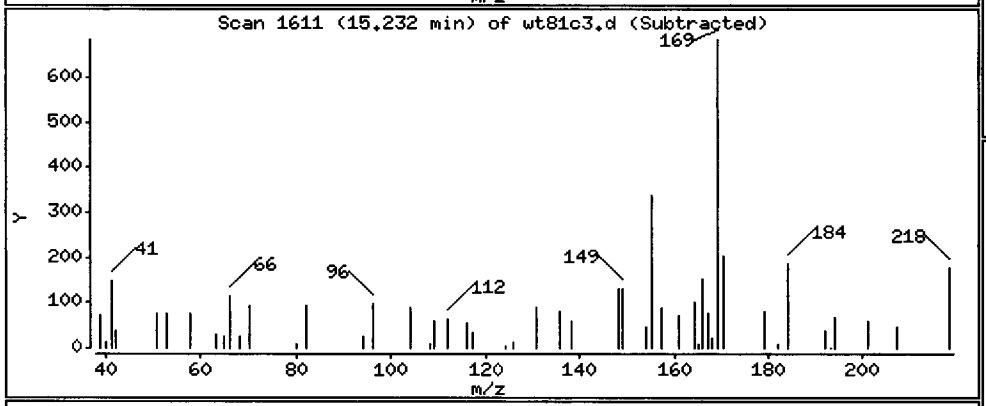
Column diameter: 0.25

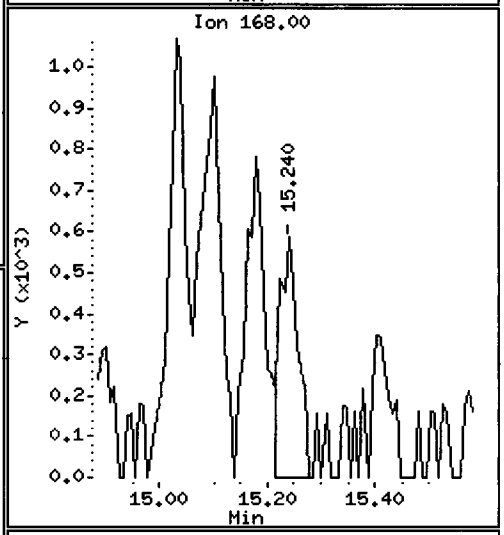
54 N-Nitrosodiphenylamine

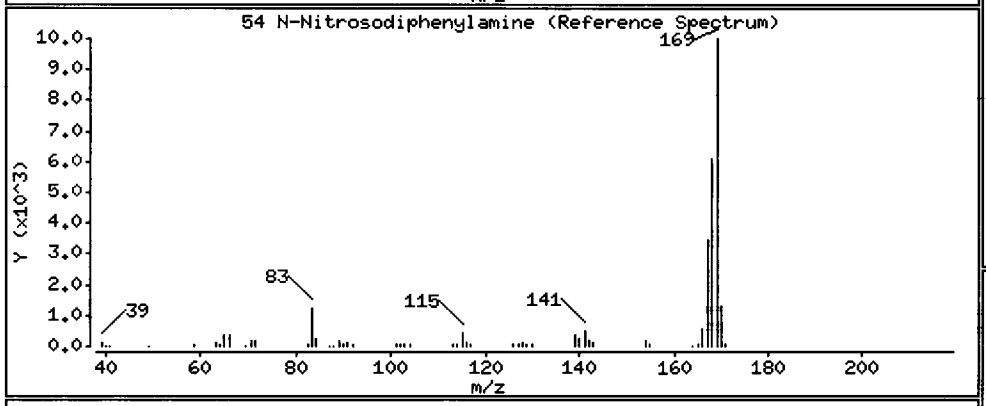
Concentration: 120.6 ug/kg

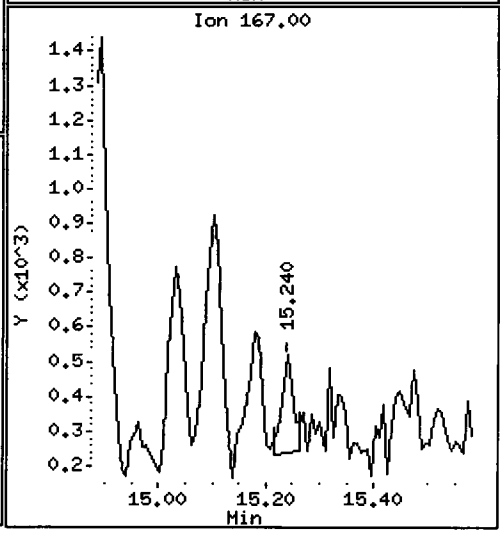


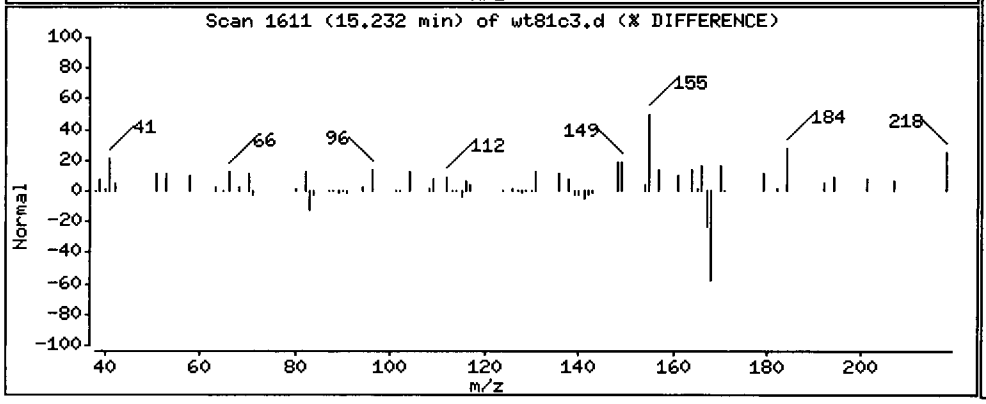












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

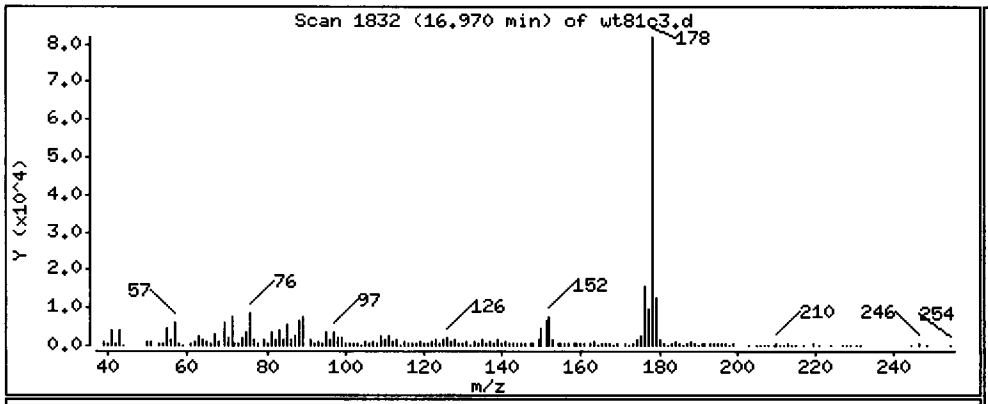
Operator: VTS/YZ

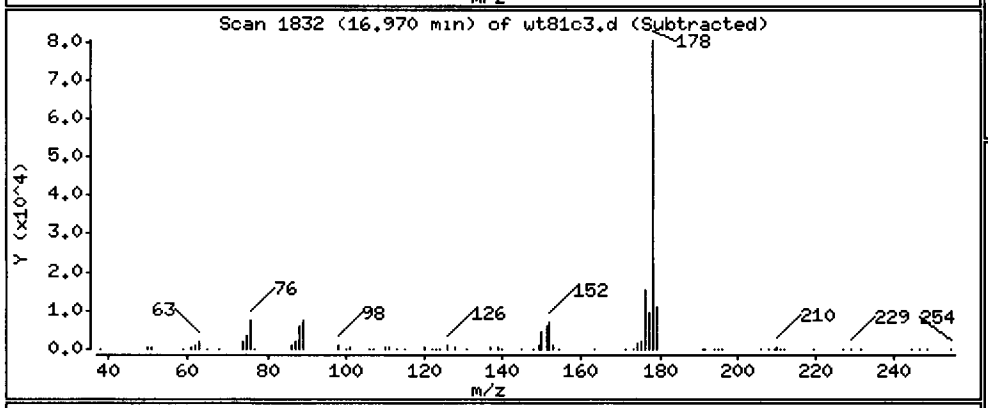
Column phase: ZB-5ms

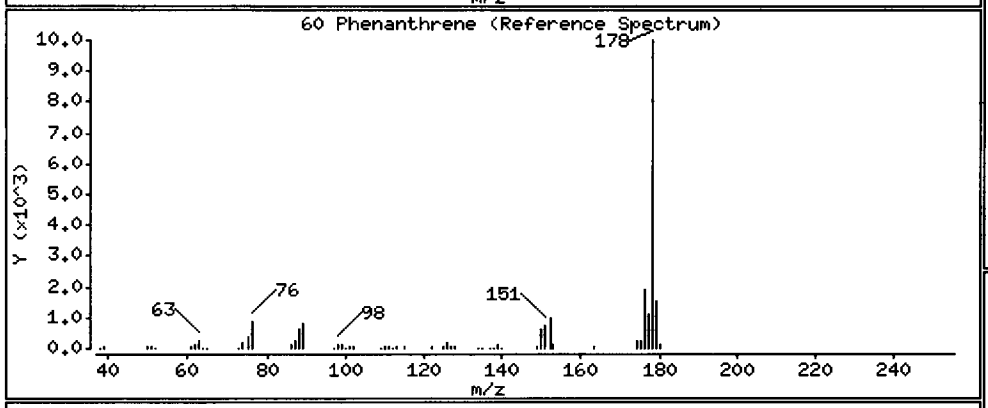
Column diameter: 0.25

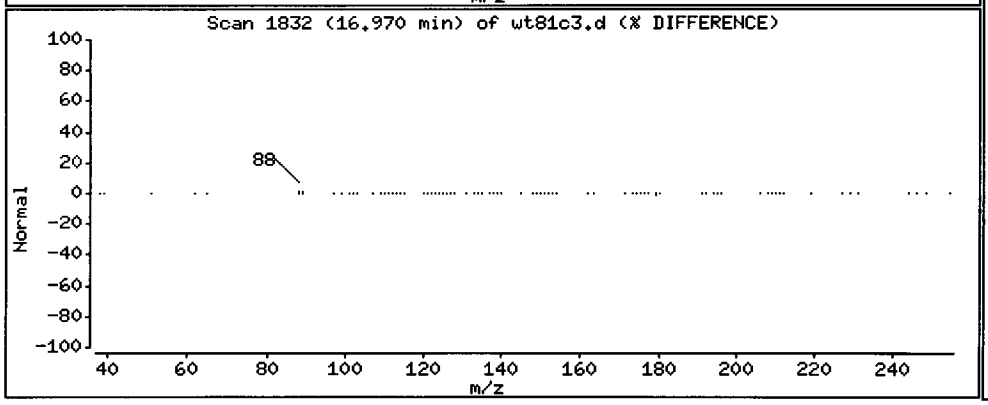
60 Phenanthrene

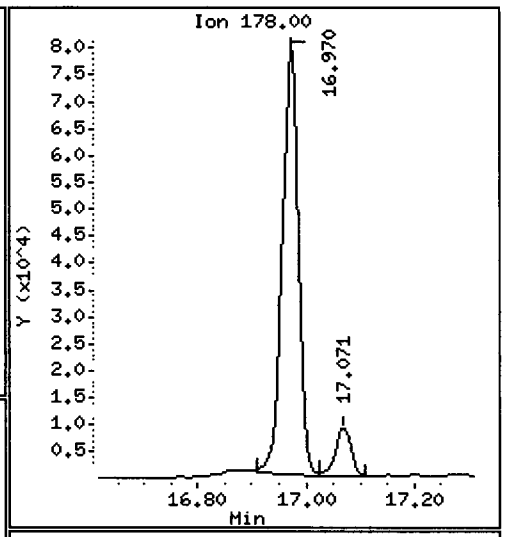
Concentration: 4104 ug/kg

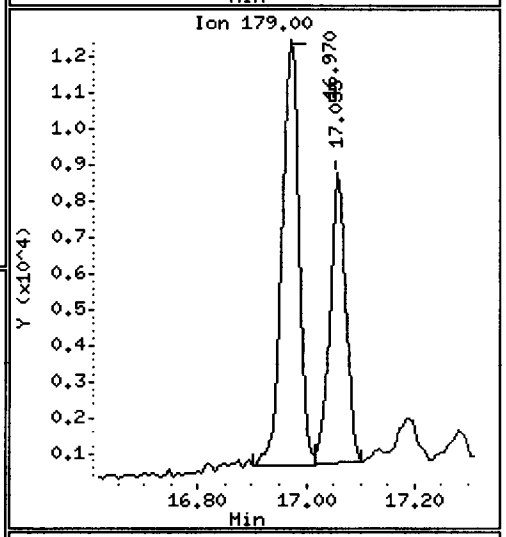


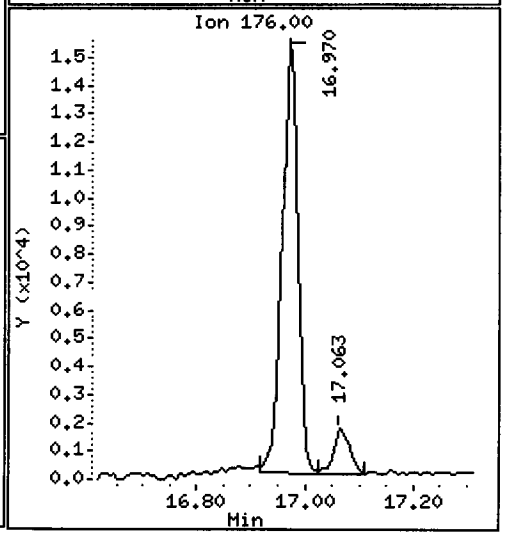












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

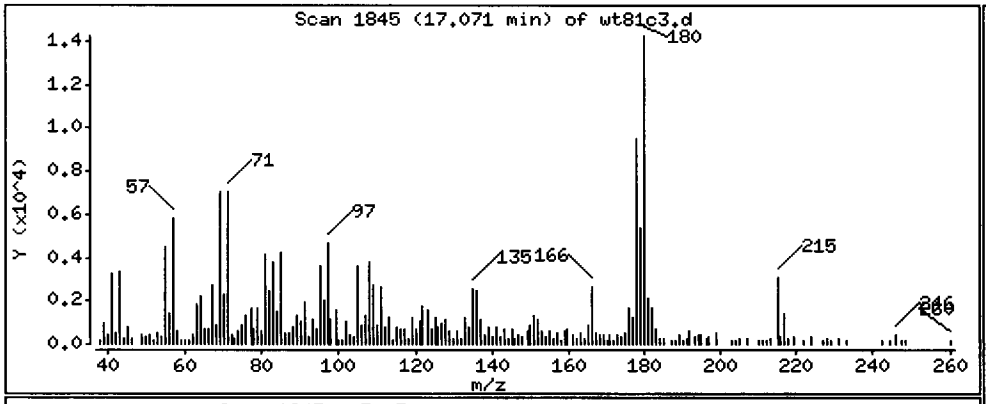
Operator: VTS/YZ

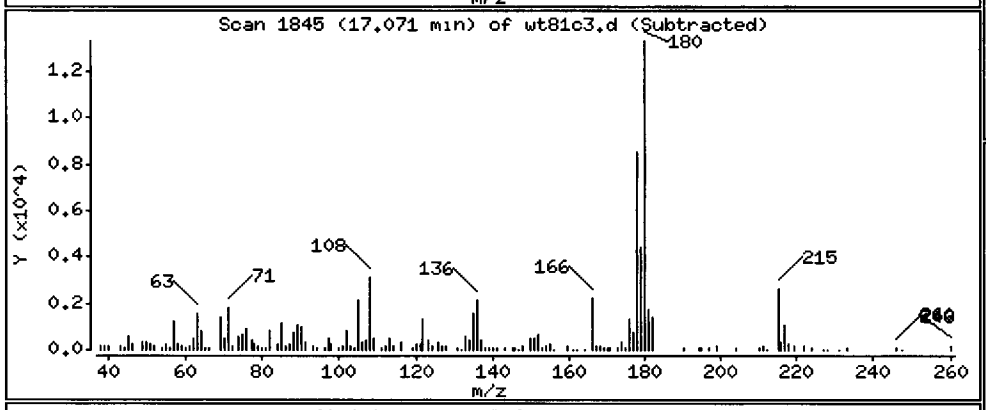
Column phase: ZB-5msi

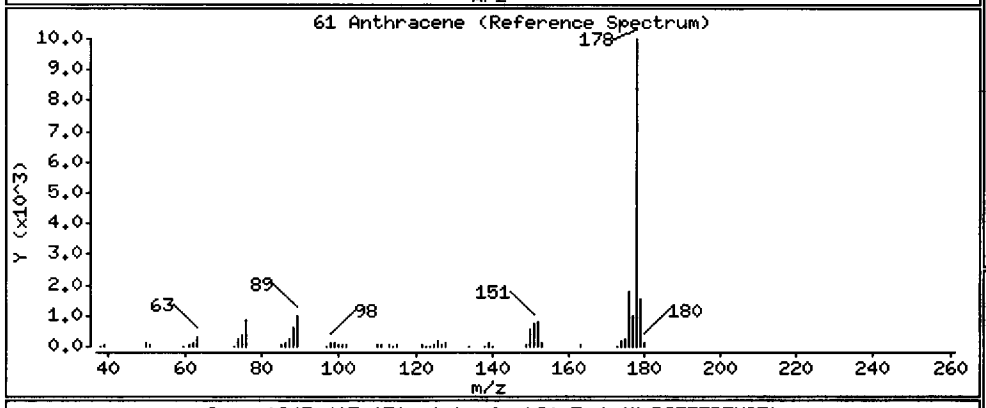
Column diameter: 0.25

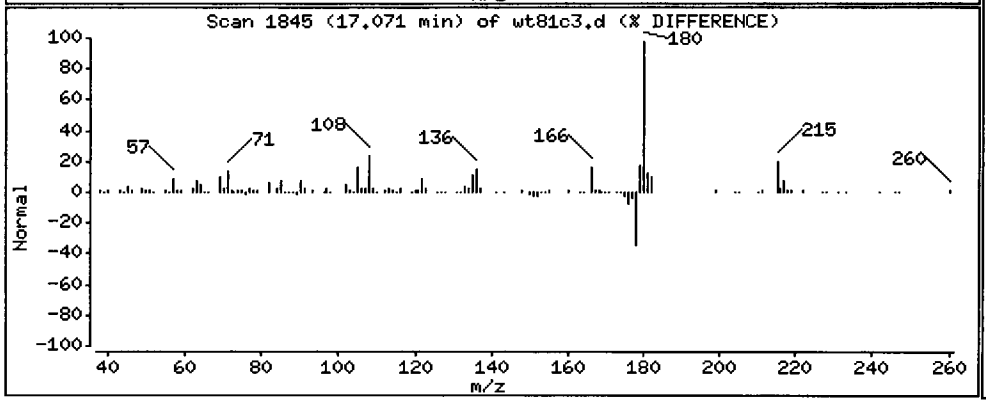
61 Anthracene

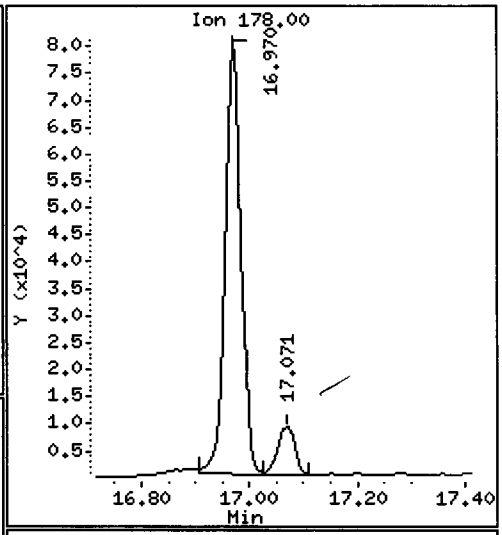
Concentration: 465.8 ug/kg

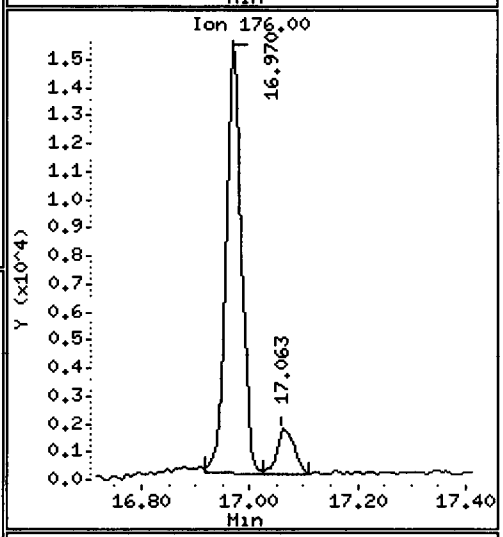


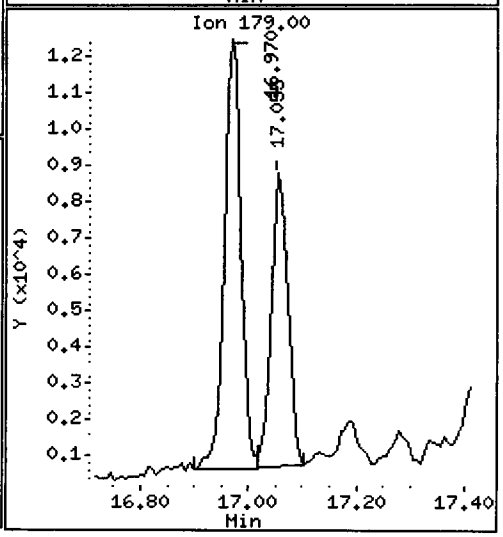












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

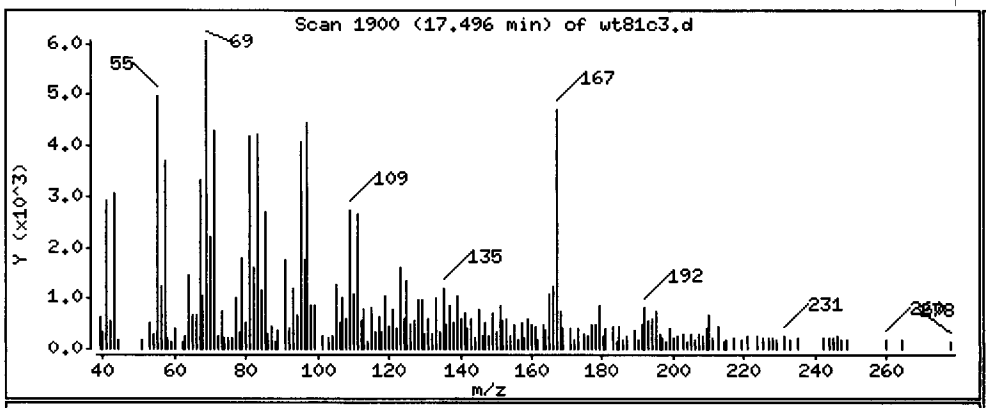
Operator: VTS/YZ

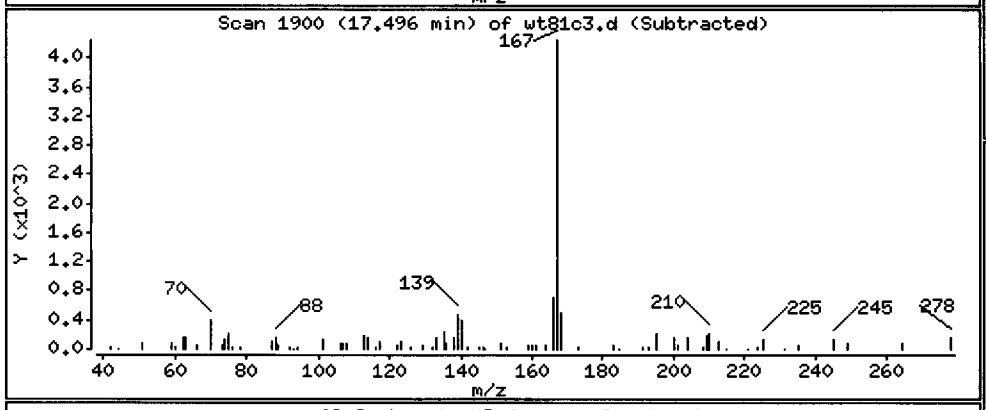
Column phase: ZB-5msi

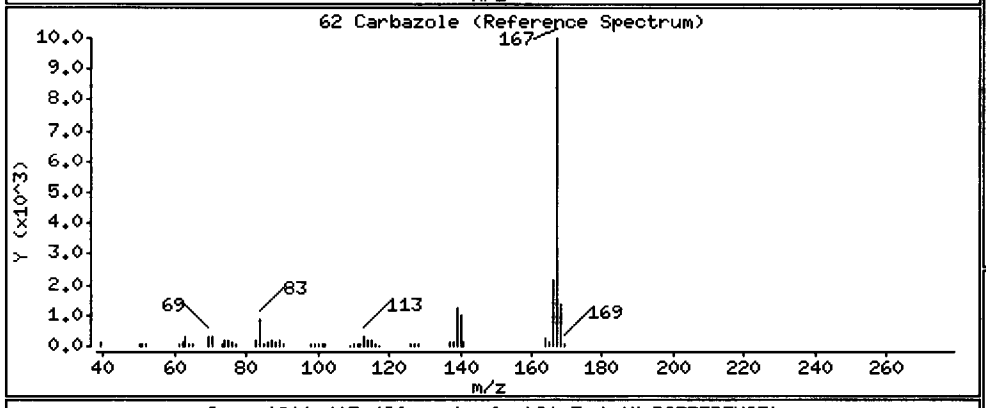
Column diameter: 0.25

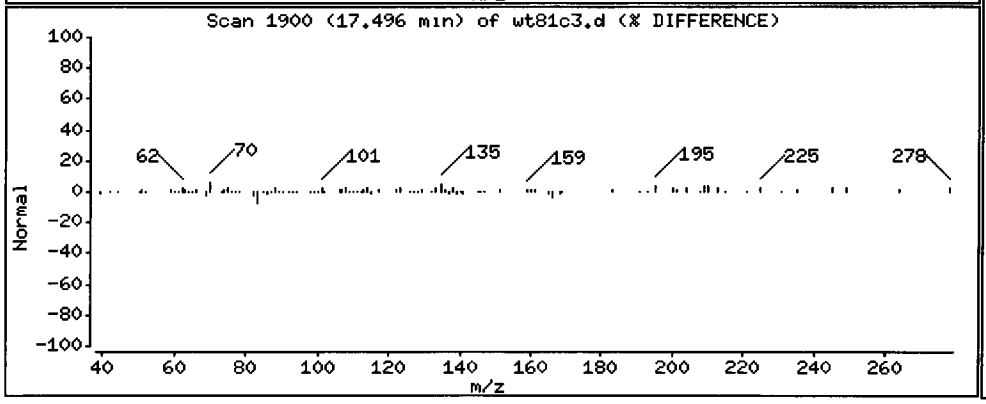
62 Carbazole

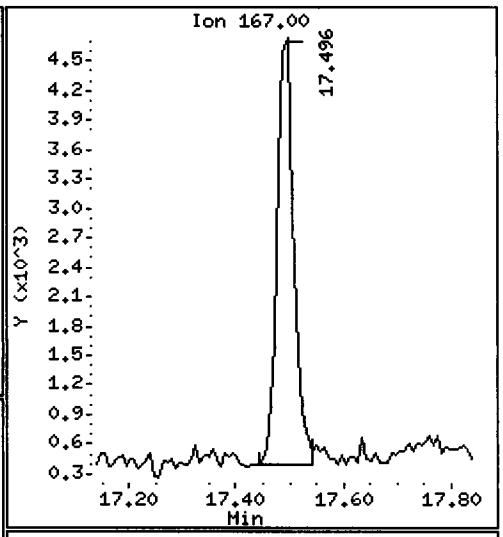
Concentration: 361.2 ug/kg

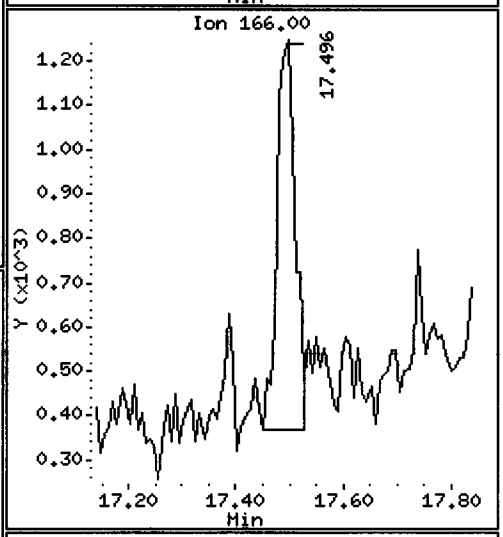


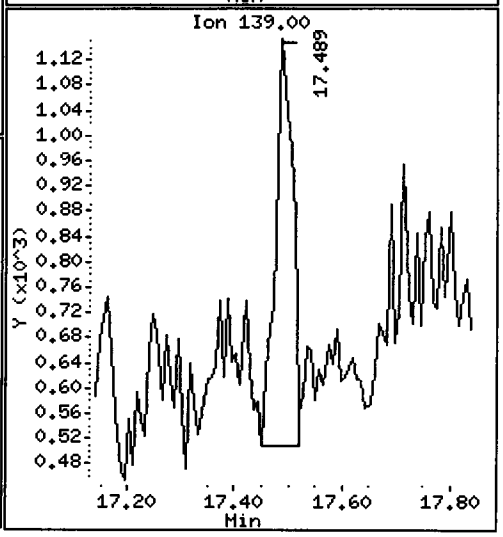












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

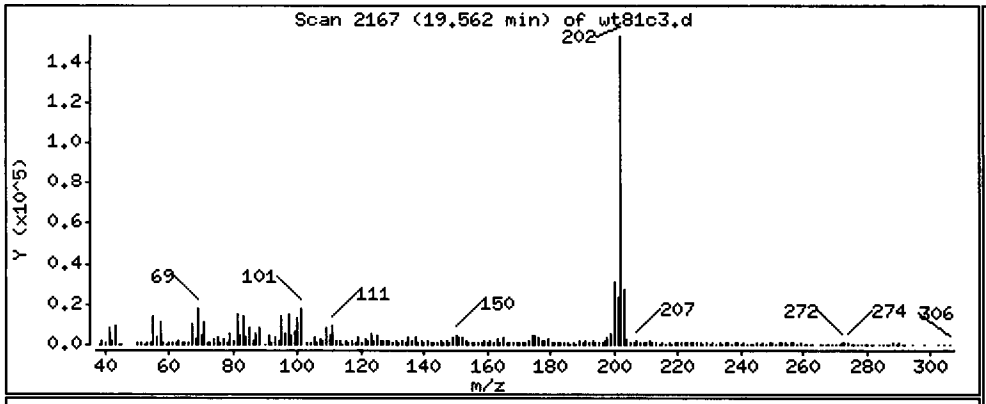
Operator: VTS/YZ

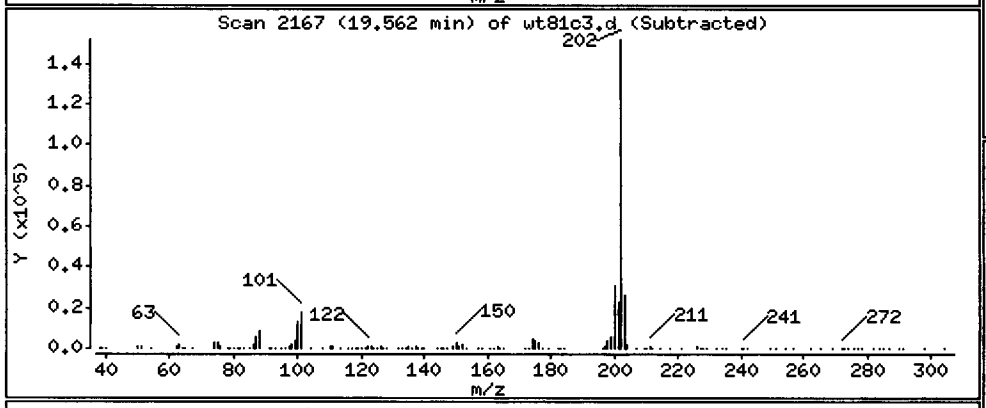
Column phase: ZB-5msi

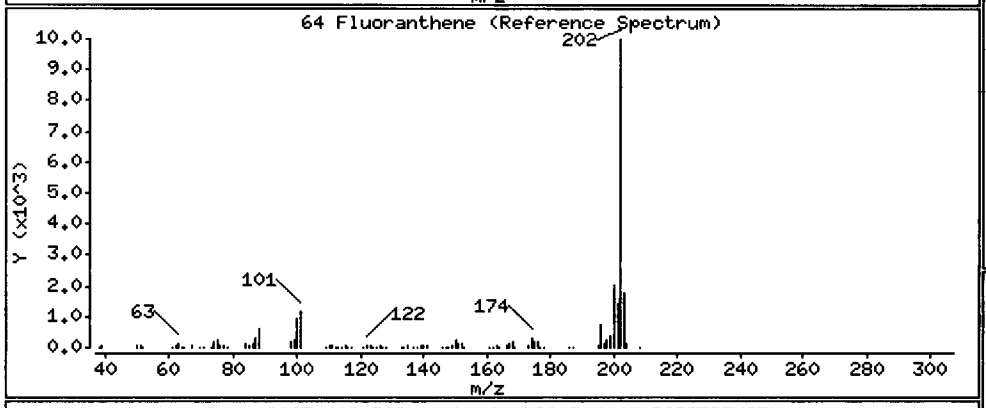
Column diameter: 0.25

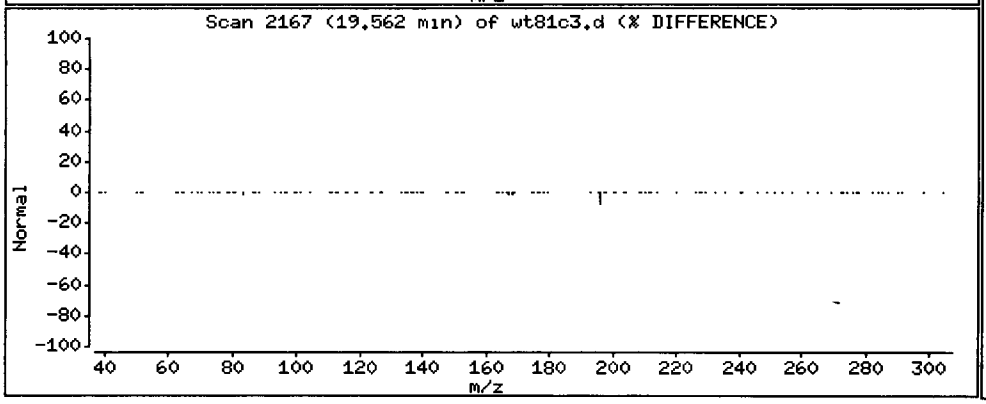
64 Fluoranthene

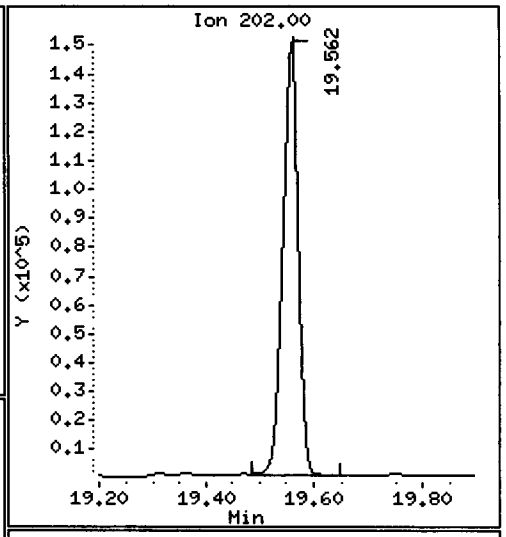
Concentration: 6284 ug/kg

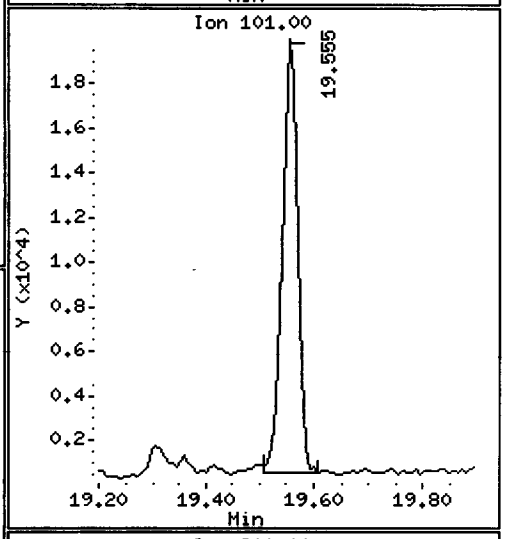


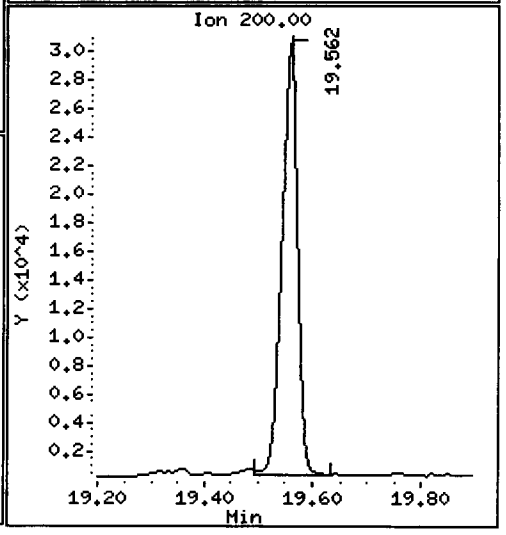












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

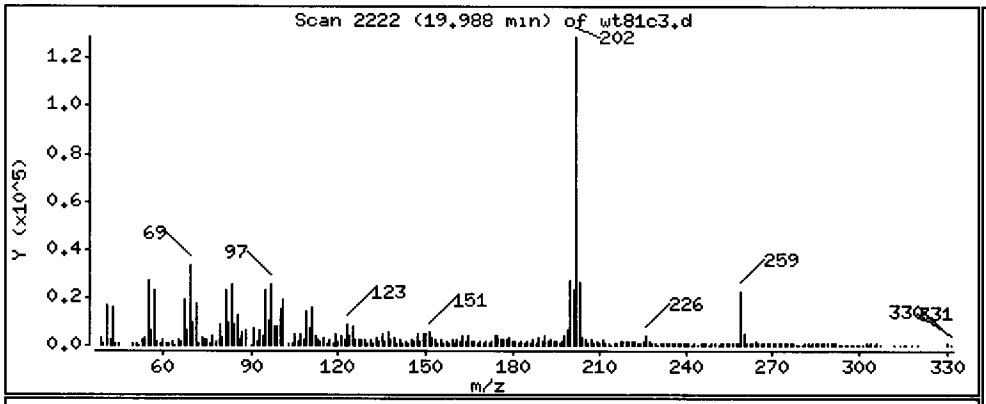
Operator: VTS/YZ

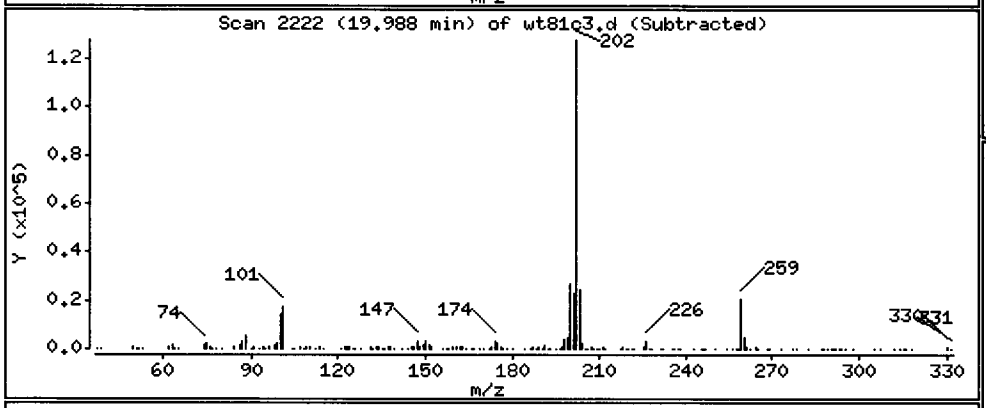
Column phase: ZB-5msi

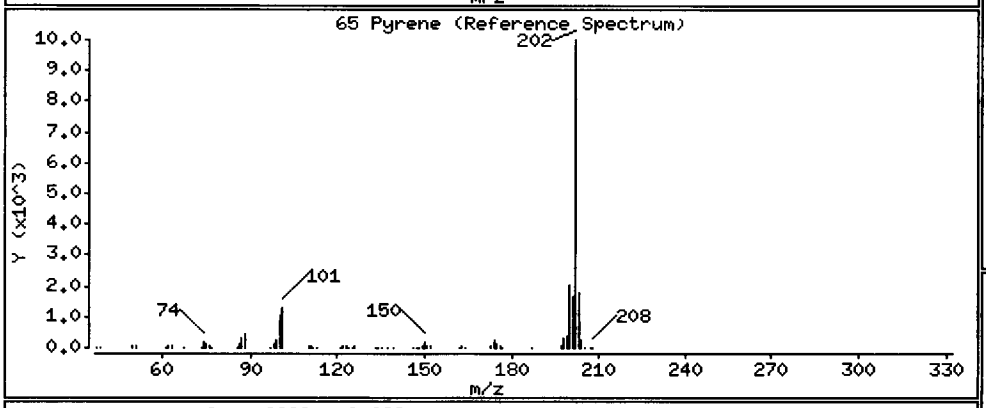
Column diameter: 0.25

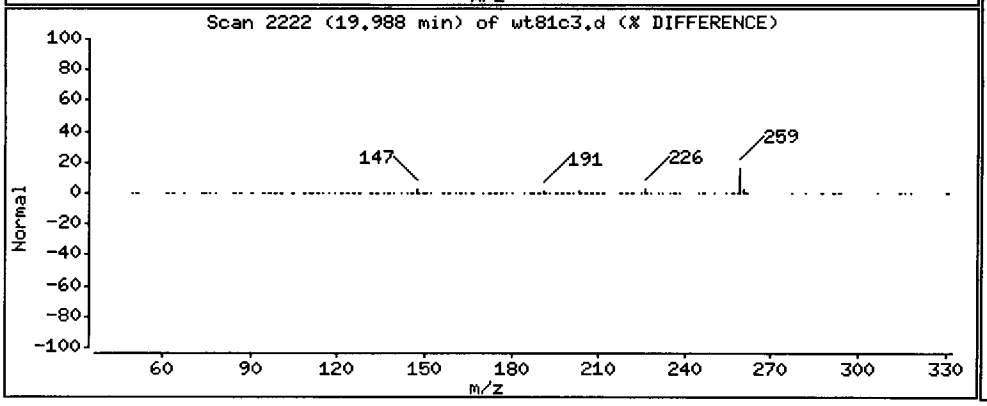
65 Pyrene

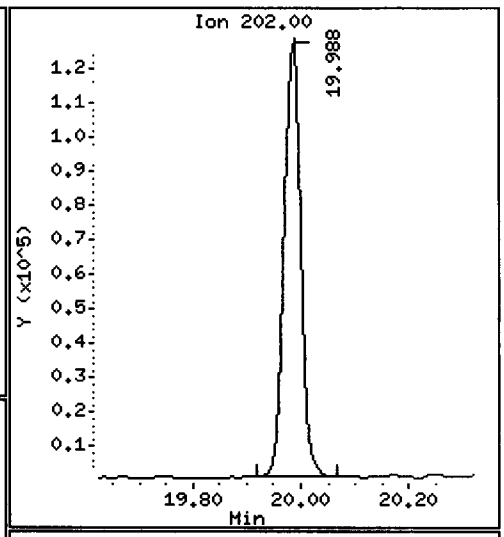
Concentration: 5783 ug/kg

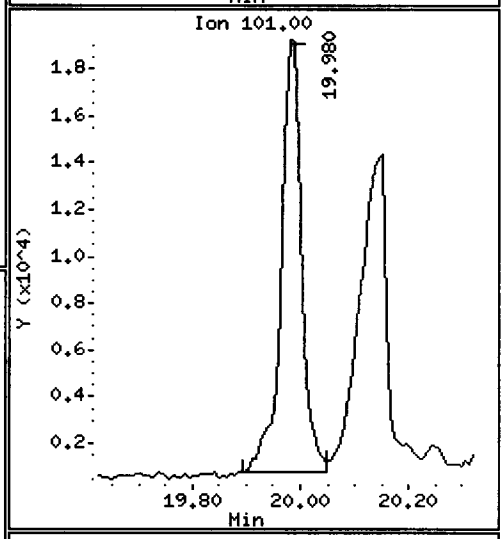


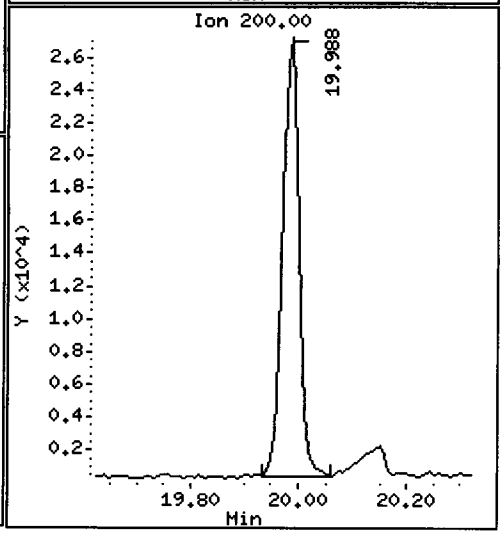












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

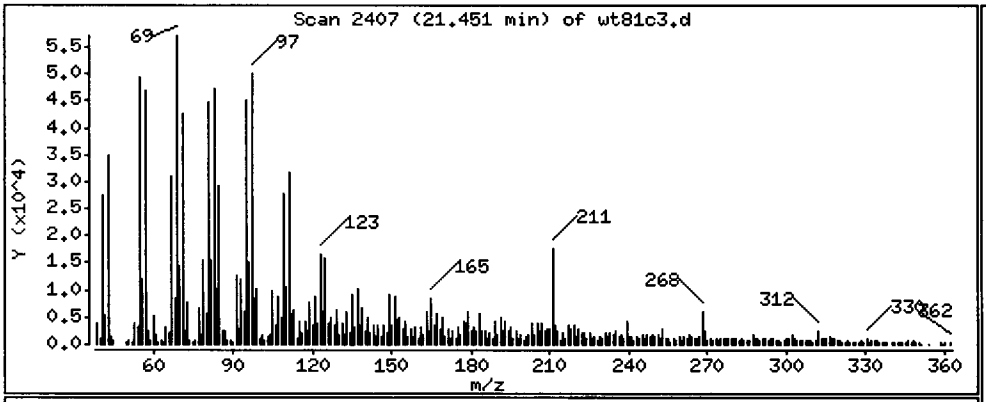
Operator: VTS/YZ

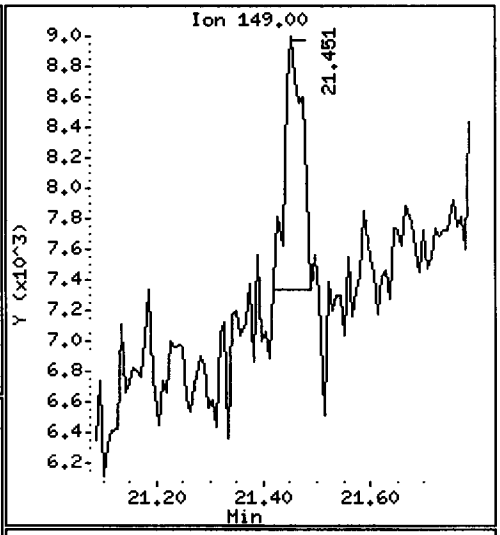
Column phase: ZB-5ms

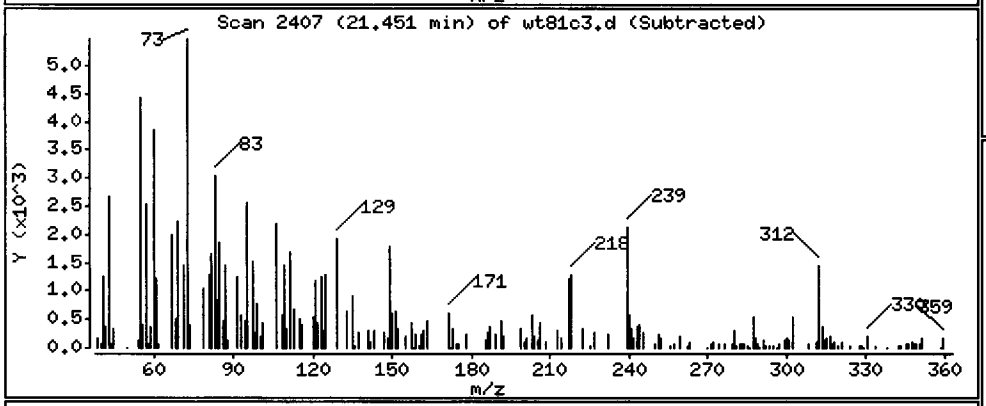
Column diameter: 0.25

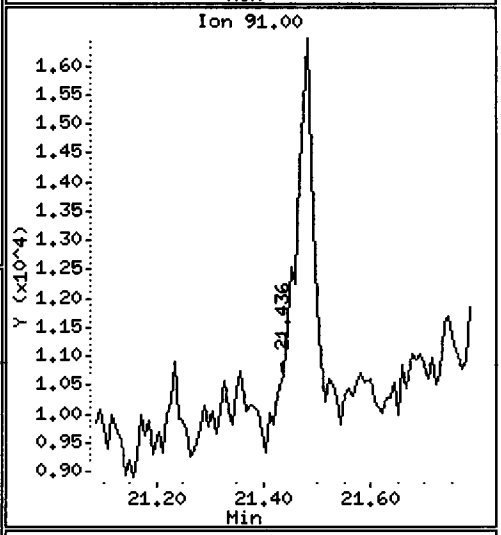
67 Butylbenzylphthalate

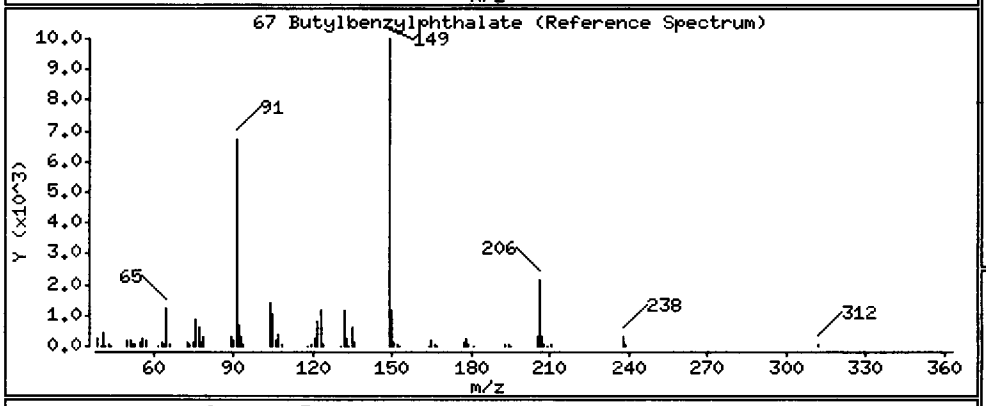
Concentration: 259.4 ug/kg

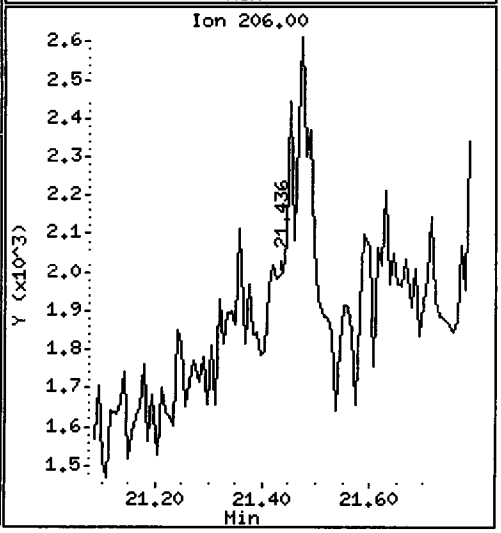


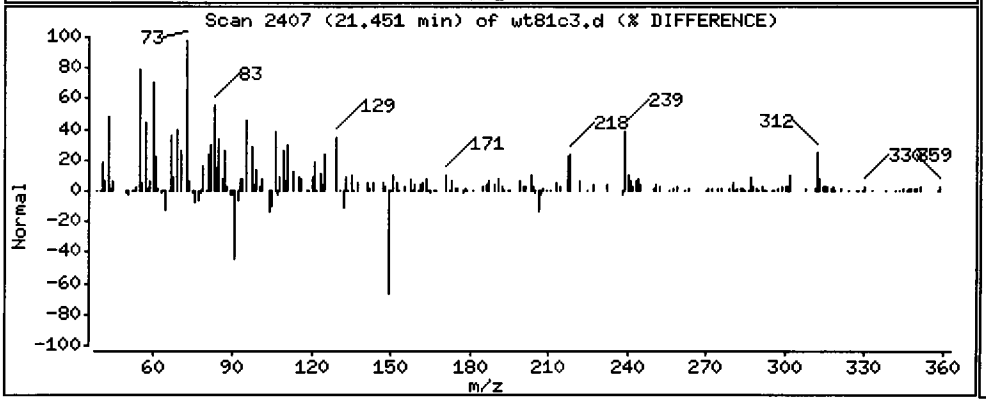












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

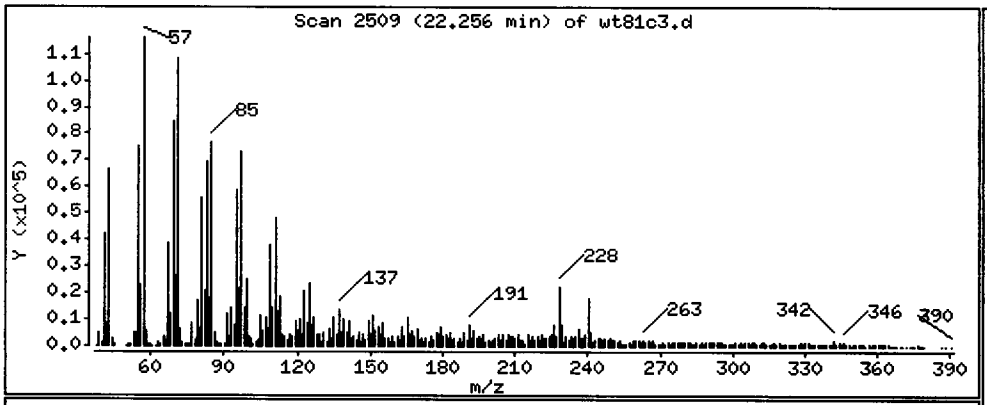
Operator: VTS/YZ

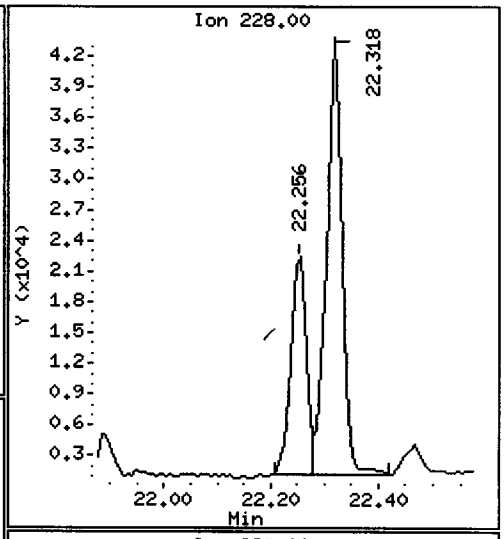
Column phase: ZB-5msi

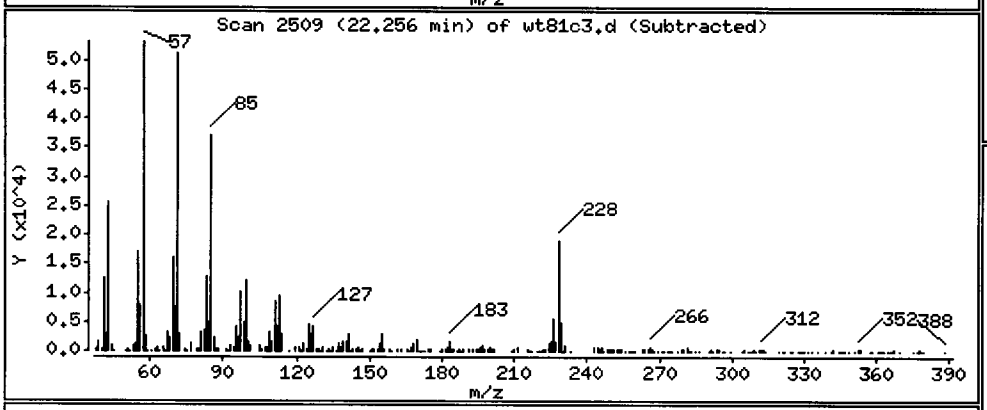
Column diameter: 0.25

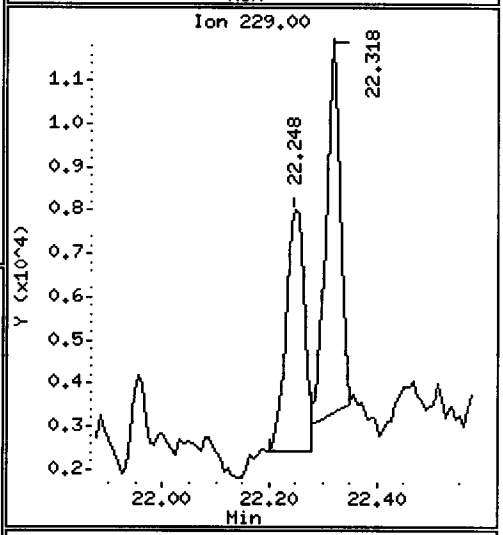
68 Benzo(a)anthracene

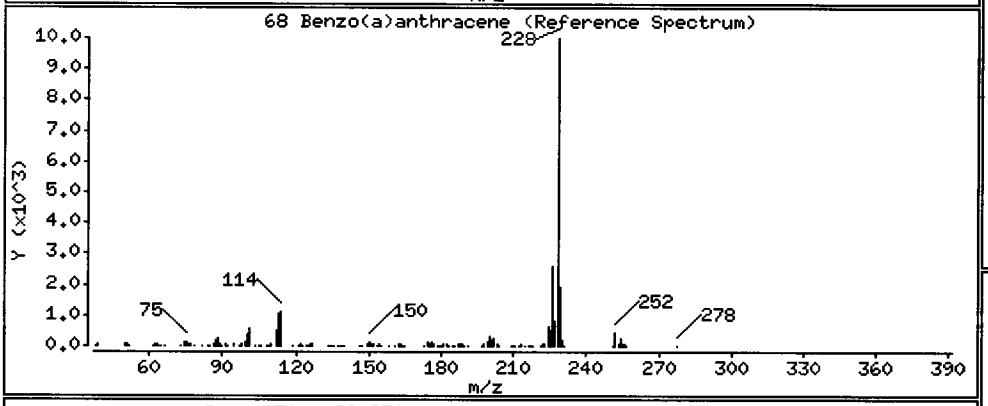
Concentration: 1070 ug/kg

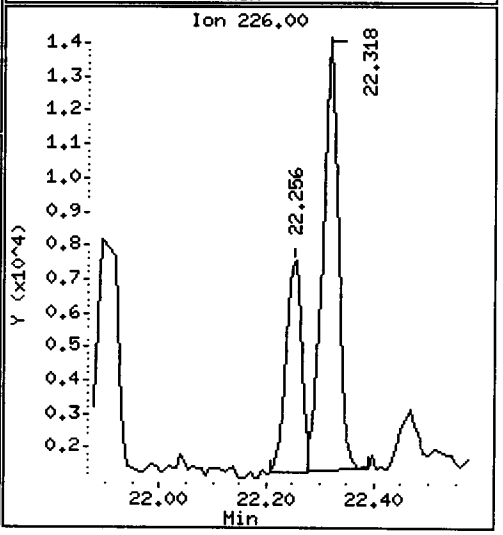


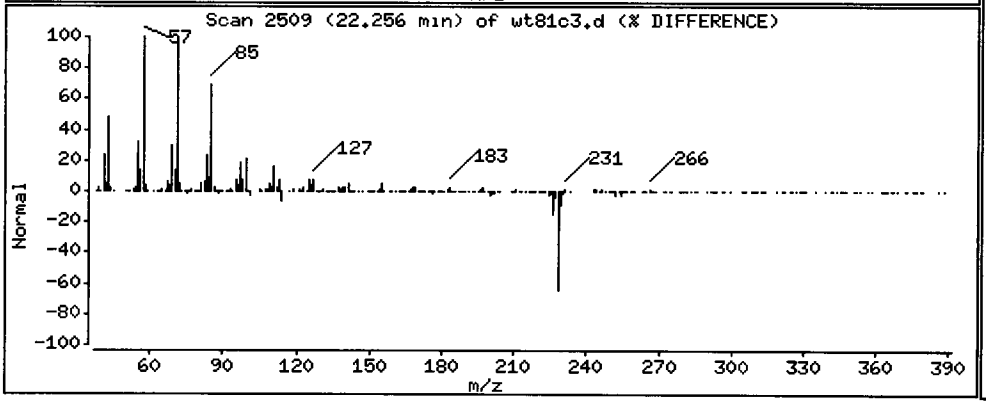












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

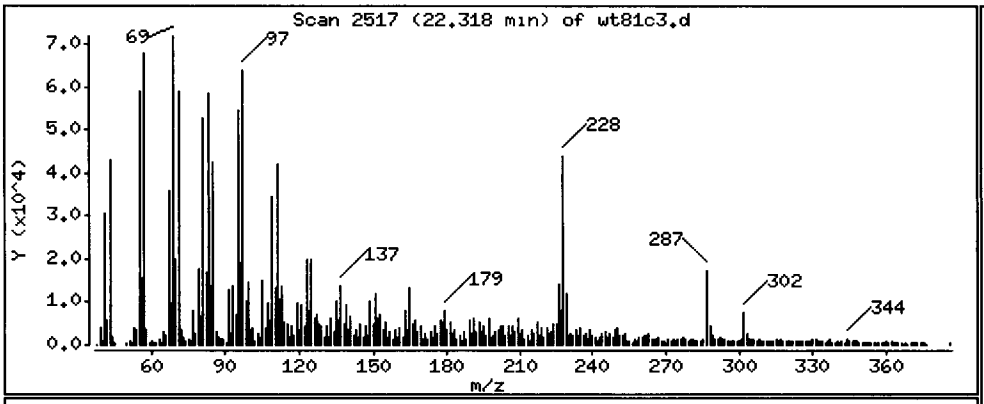
Operator: VTS/YZ

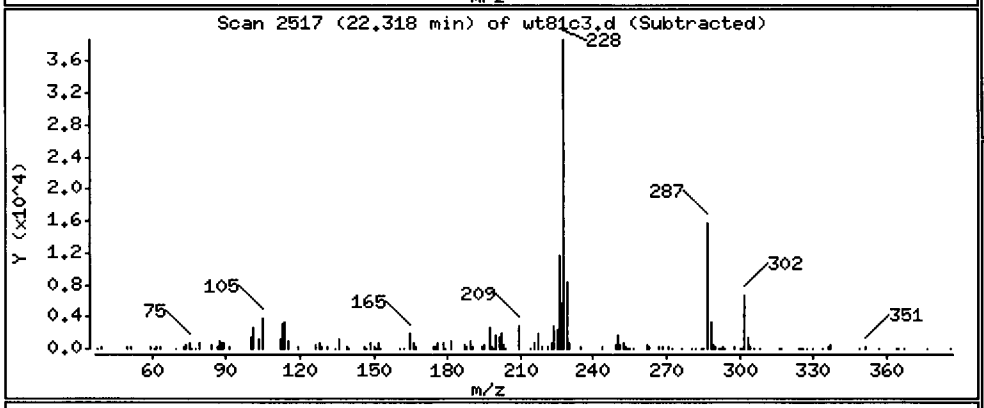
Column phase: ZB-5ms1

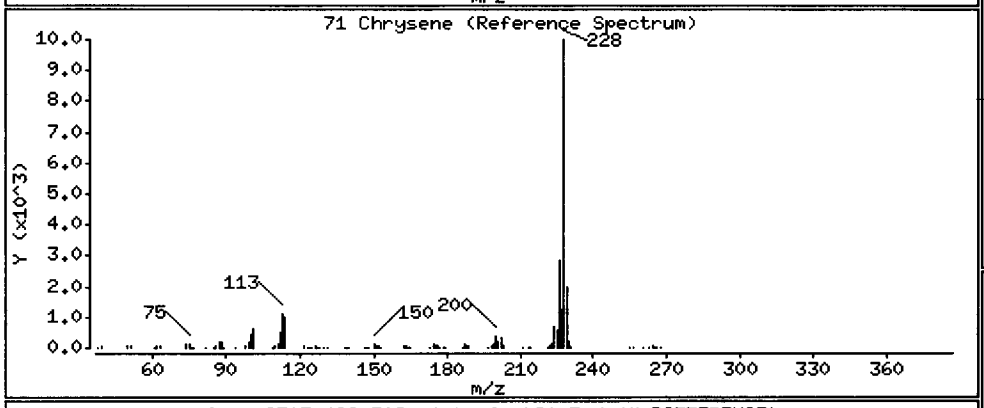
Column diameter: 0.25

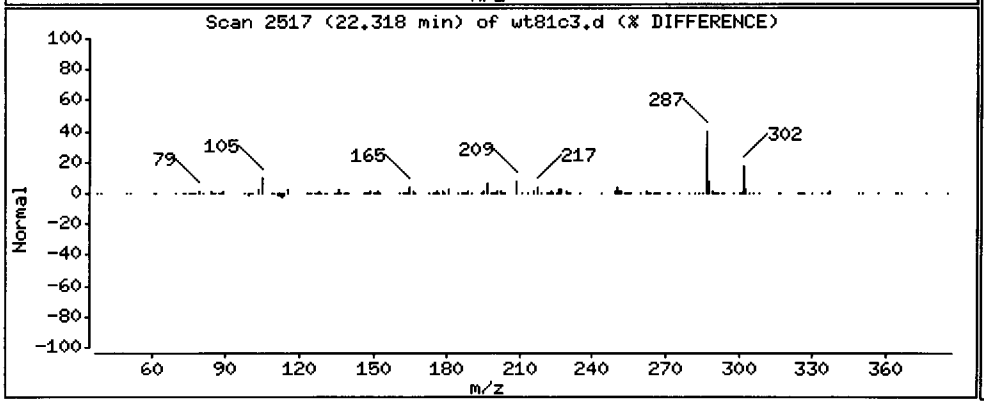
71 Chrysene

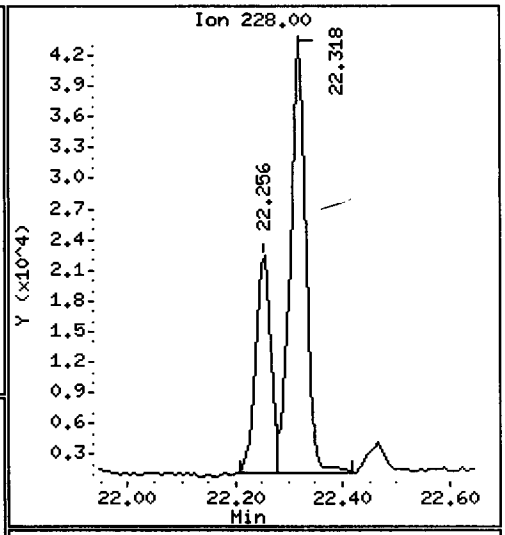
Concentration: 2347 ug/kg

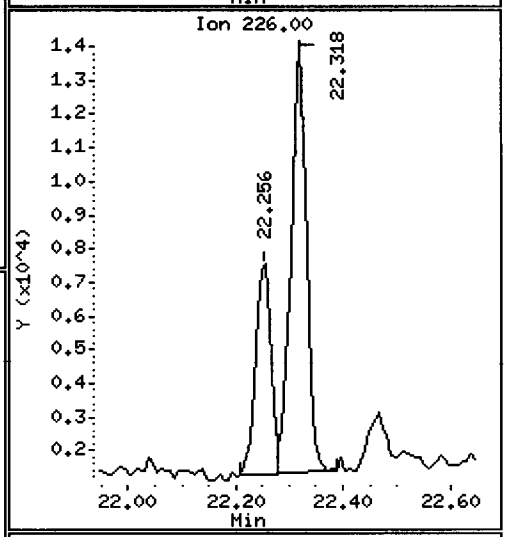


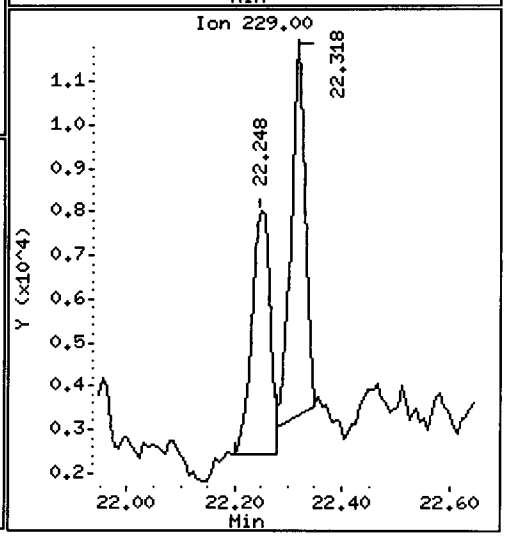












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

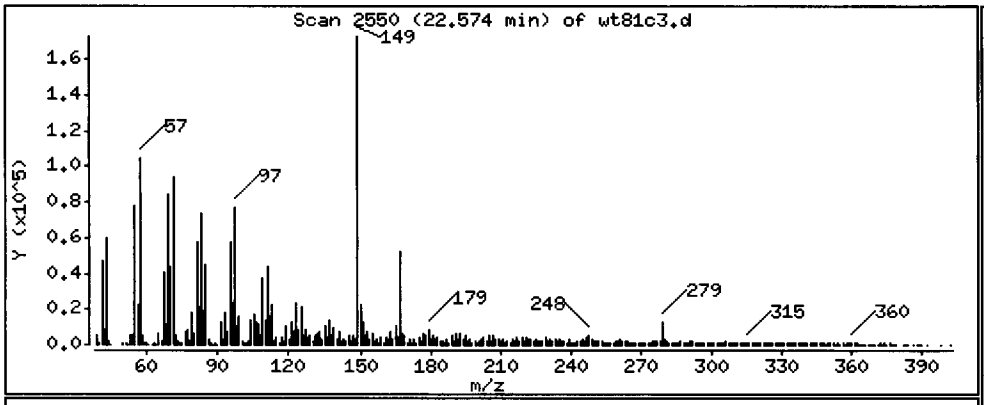
Operator: VTS/YZ

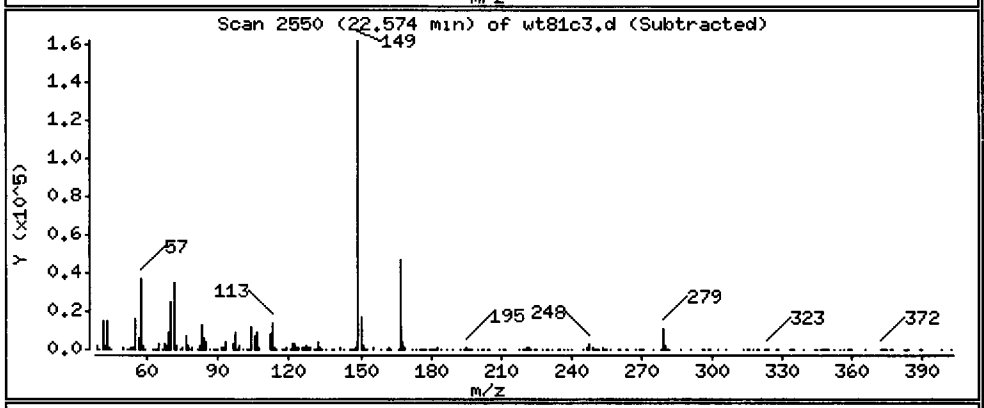
Column phase: ZB-5msi

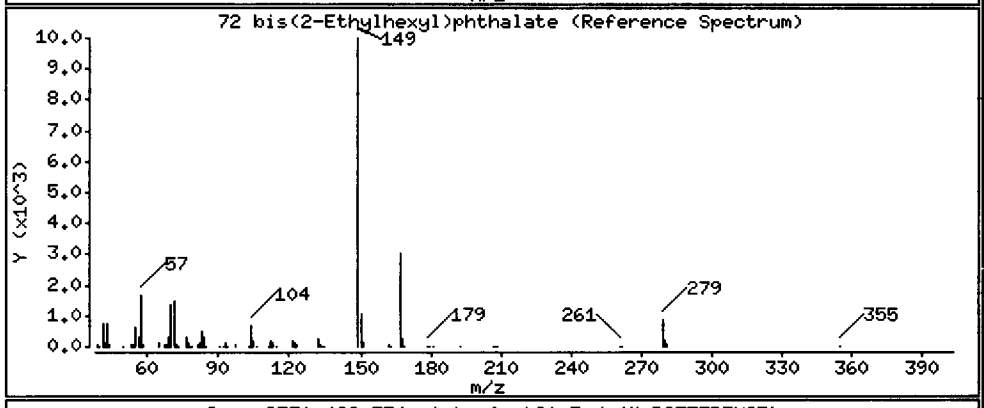
Column diameter: 0.25

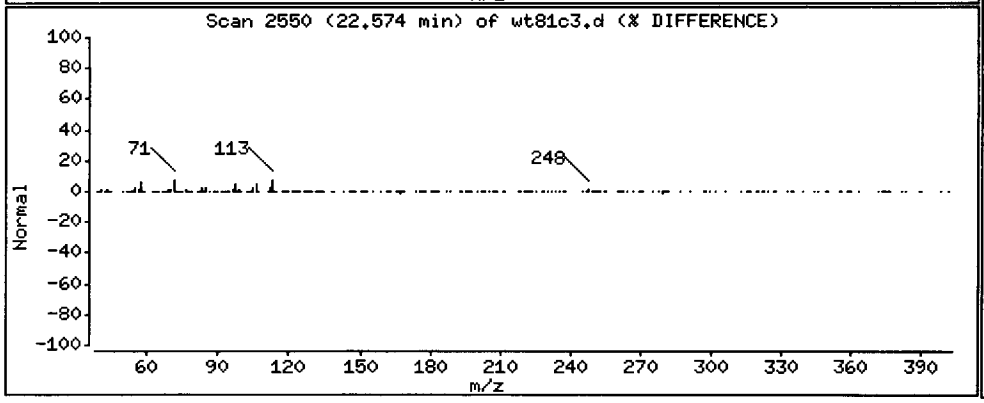
72 bis(2-Ethylhexyl)phthalate

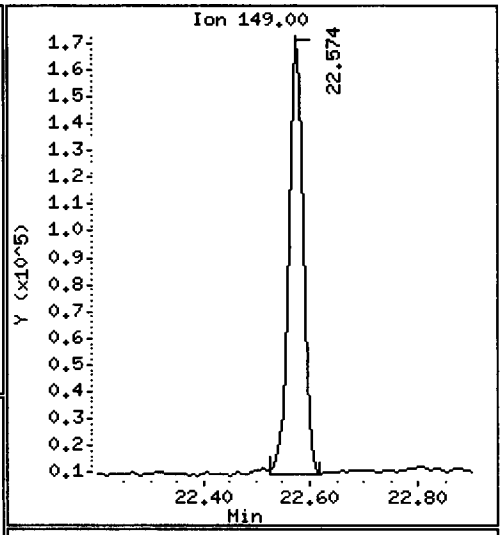
Concentration: 12470 ug/kg

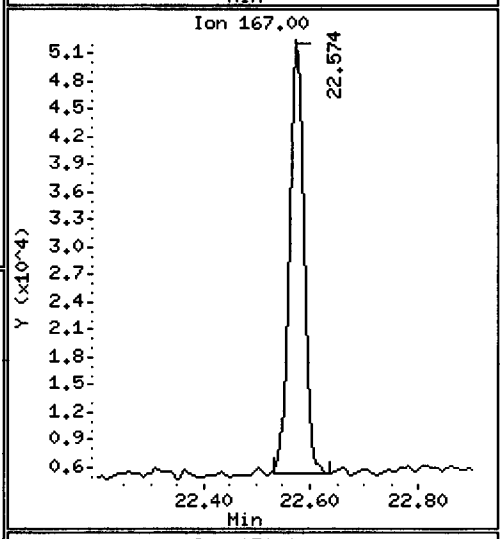


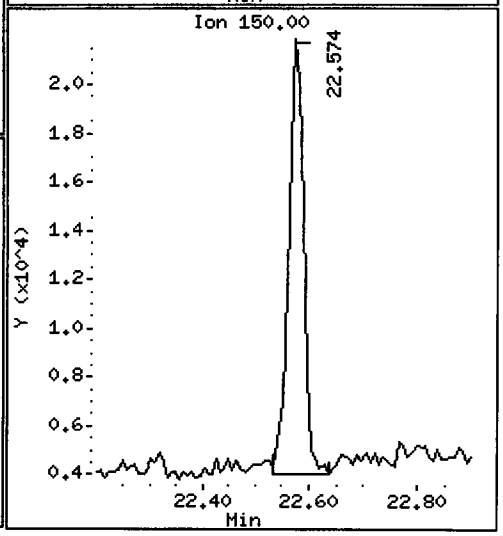












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

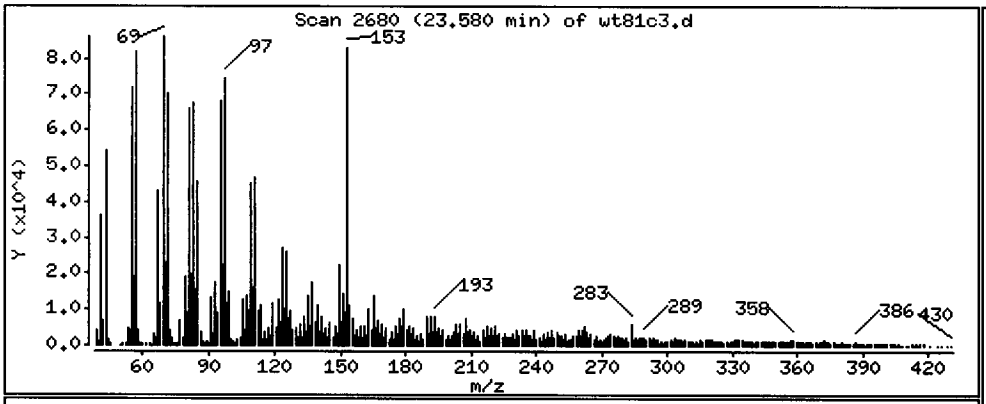
Operator: VTS/YZ

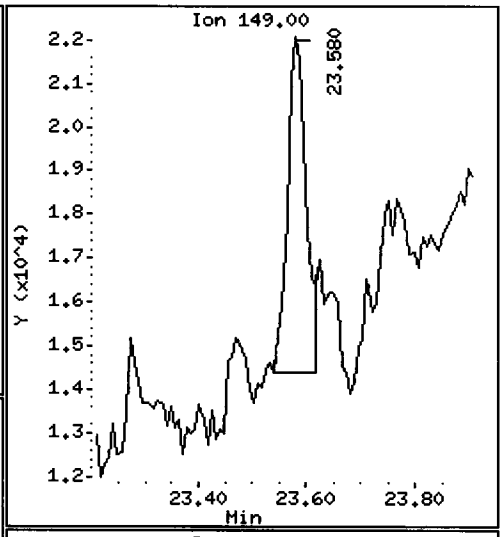
Column phase: ZB-5msi

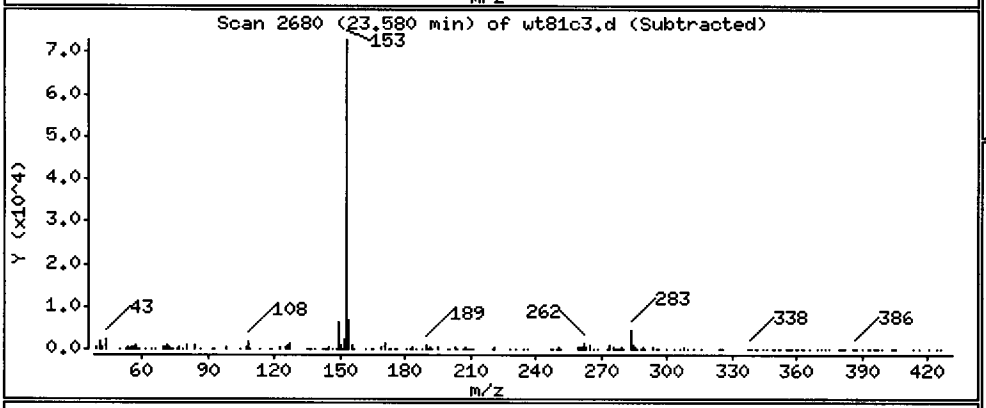
Column diameter: 0.25

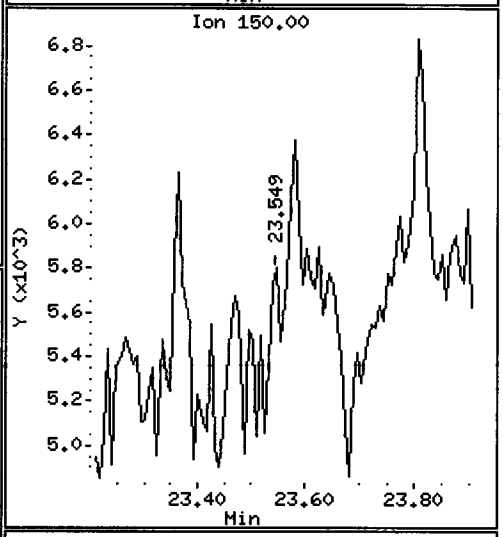
73 Di-n-octylphthalate

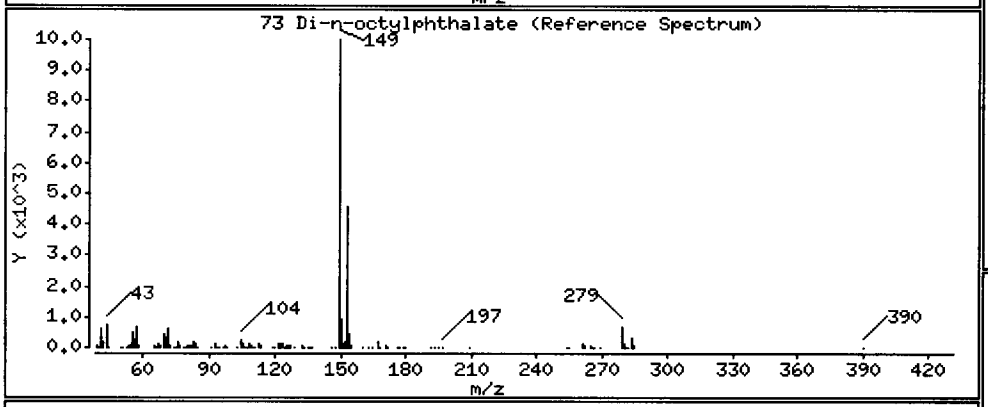
Concentration: 435.7 ug/kg

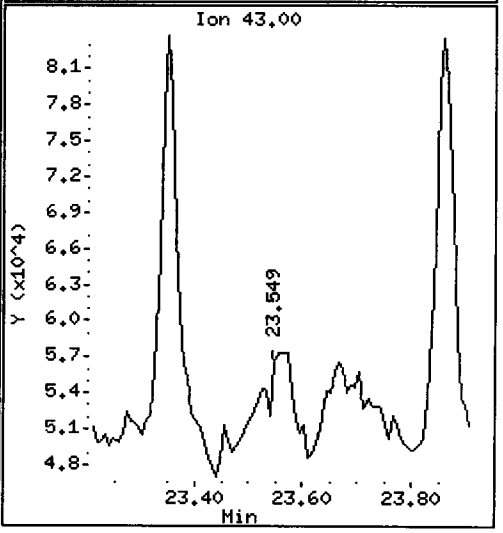


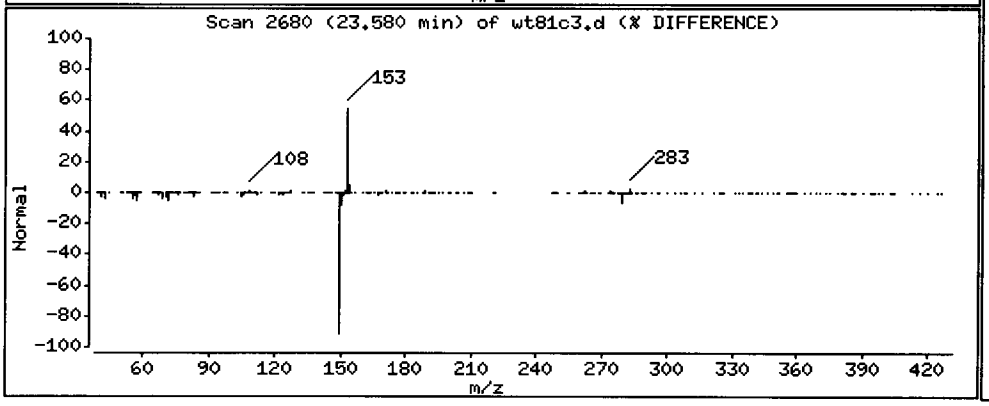












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

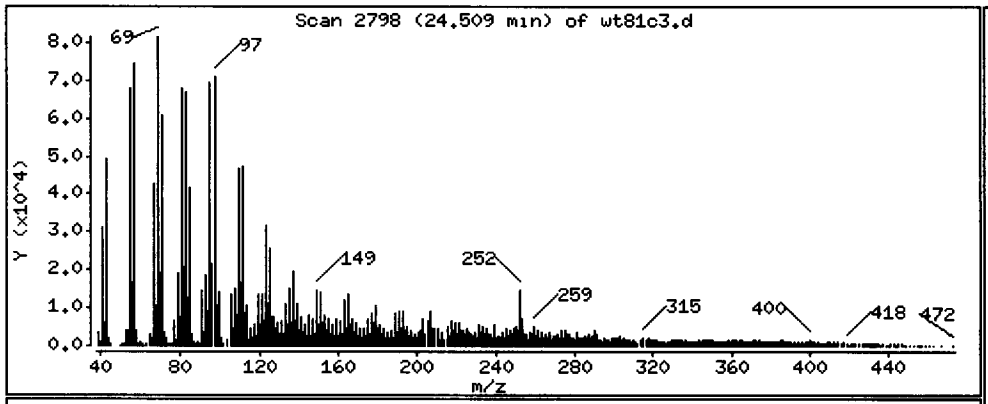
Operator: VTS/YZ

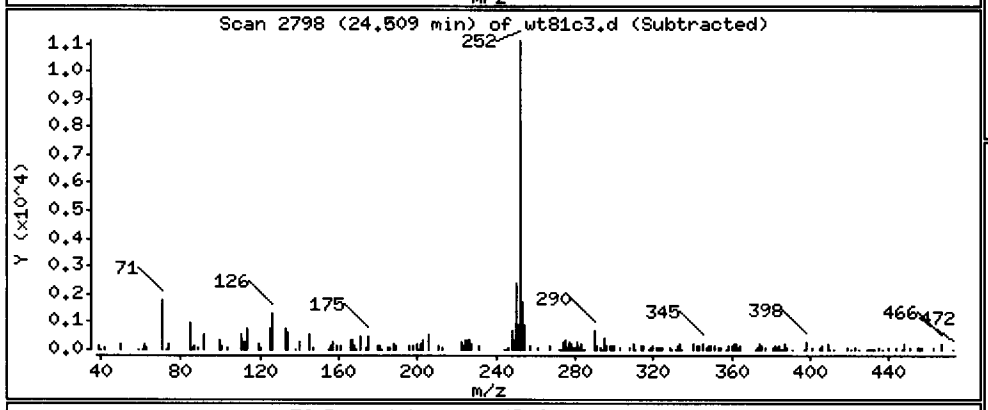
Column phase: ZB-5msi

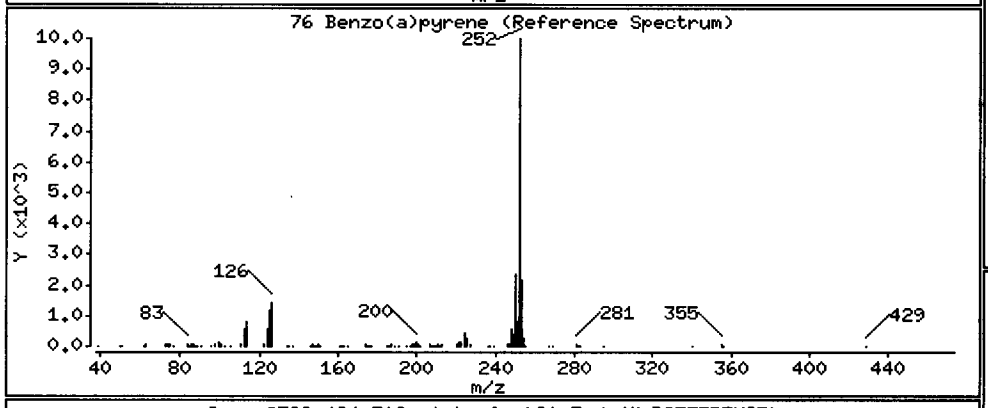
Column diameter: 0.25

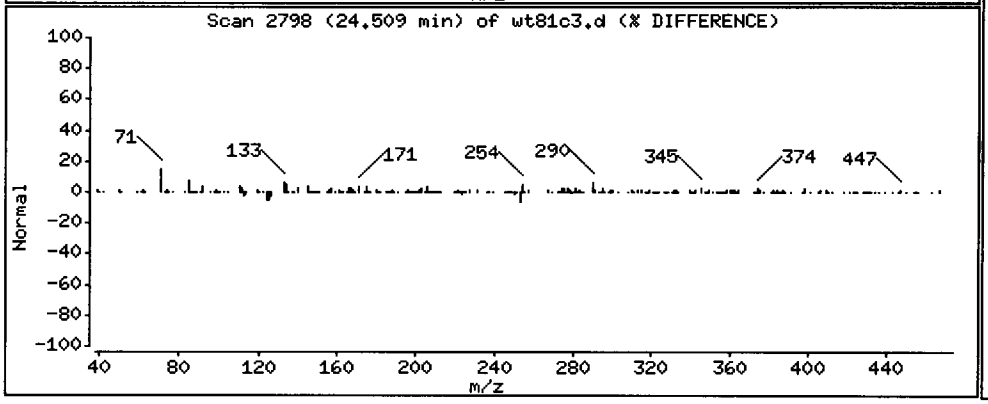
76 Benzo(a)pyrene

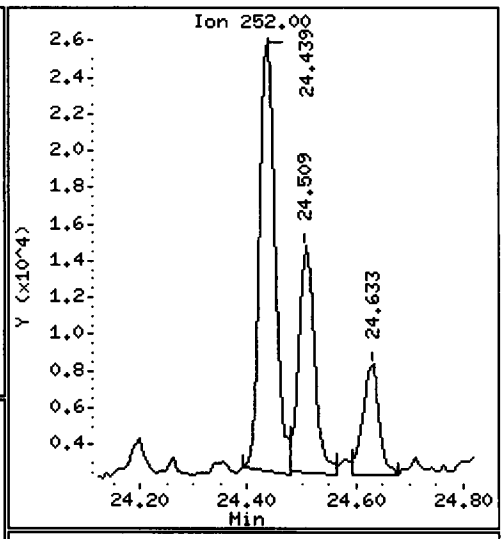
Concentration: 722.1 ug/kg

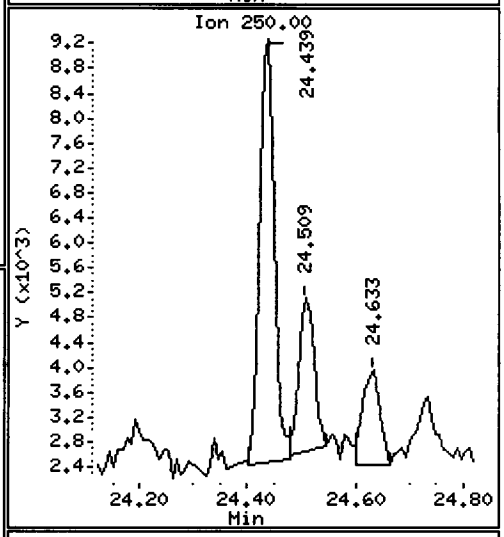


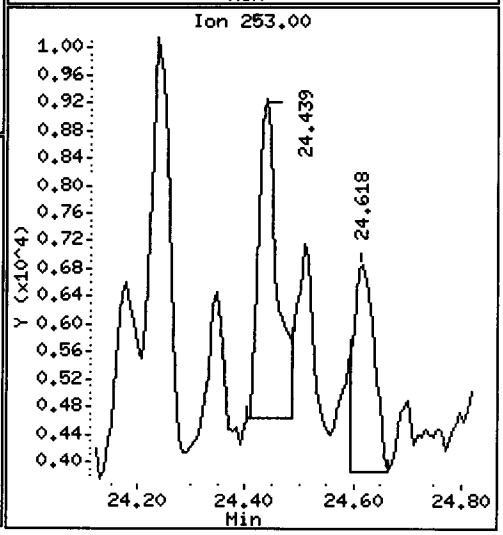












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

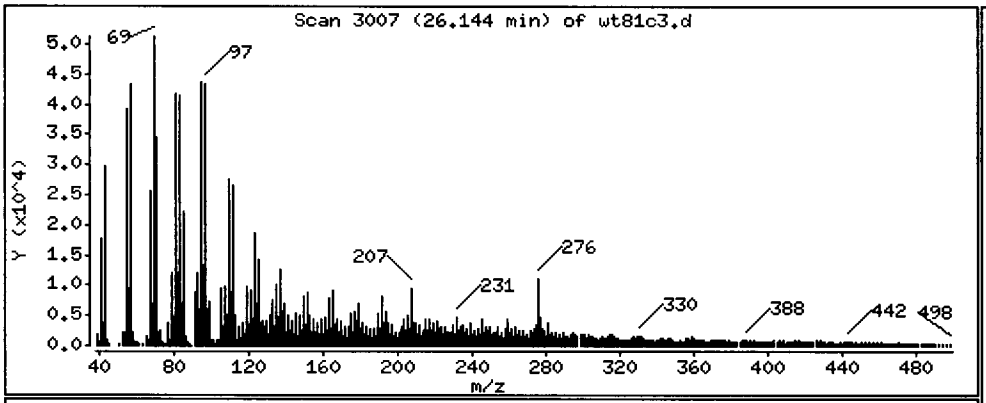
Operator: VTS/YZ

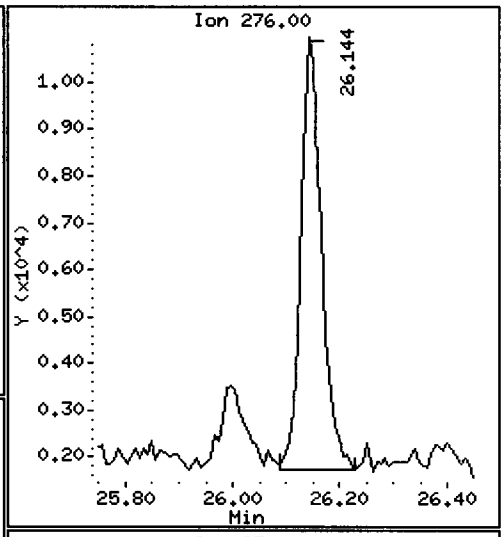
Column phase: ZB-5msi

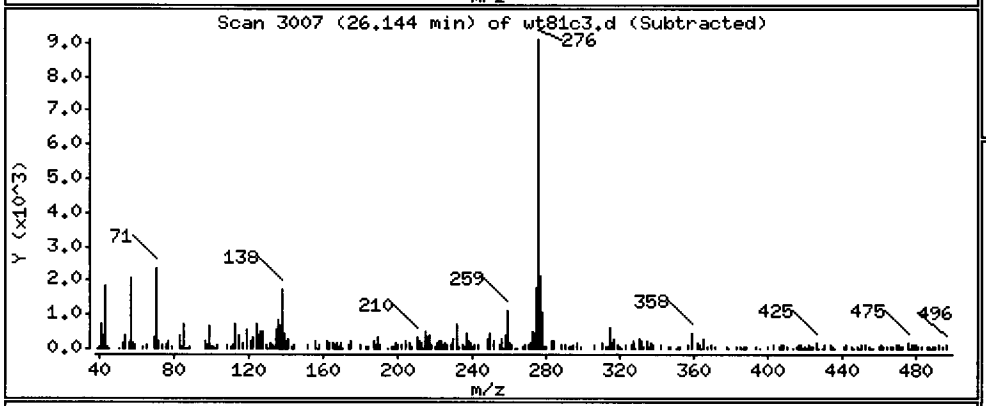
Column diameter: 0.25

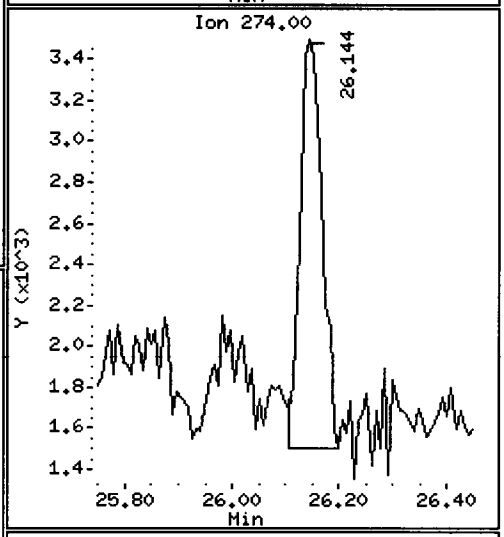
78 Indeno(1,2,3-cd)pyrene

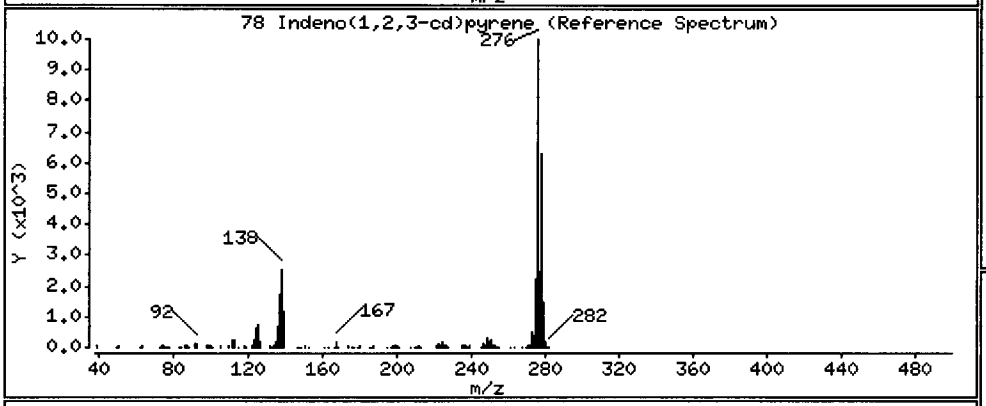
Concentration: 596.8 ug/kg

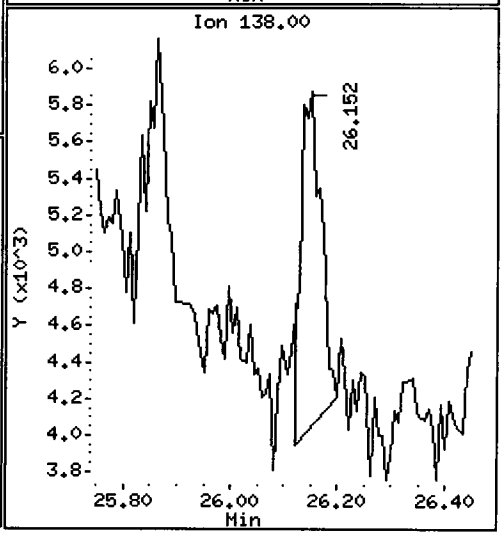


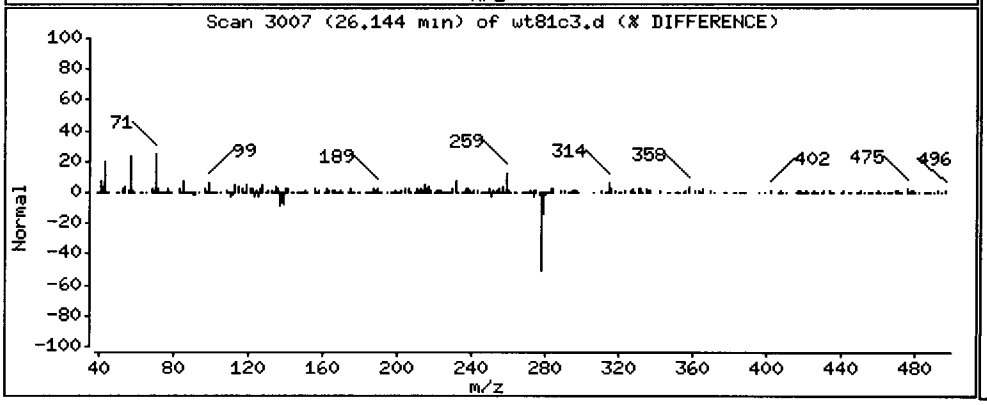












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

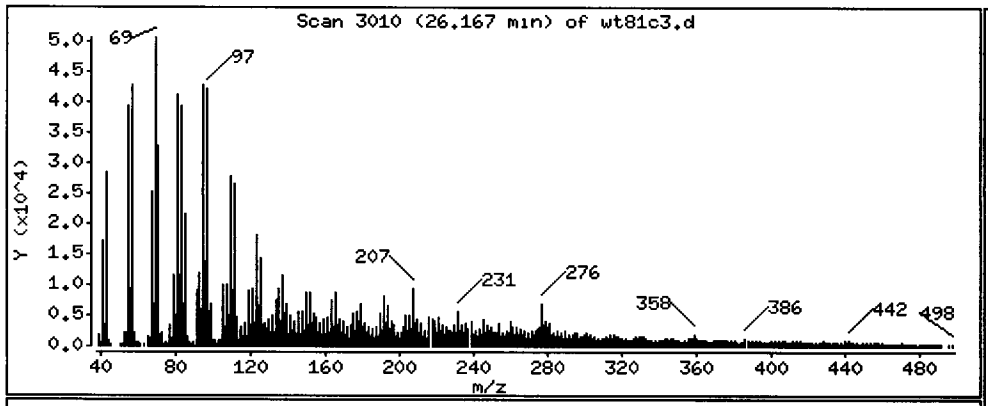
Operator: VTS/YZ

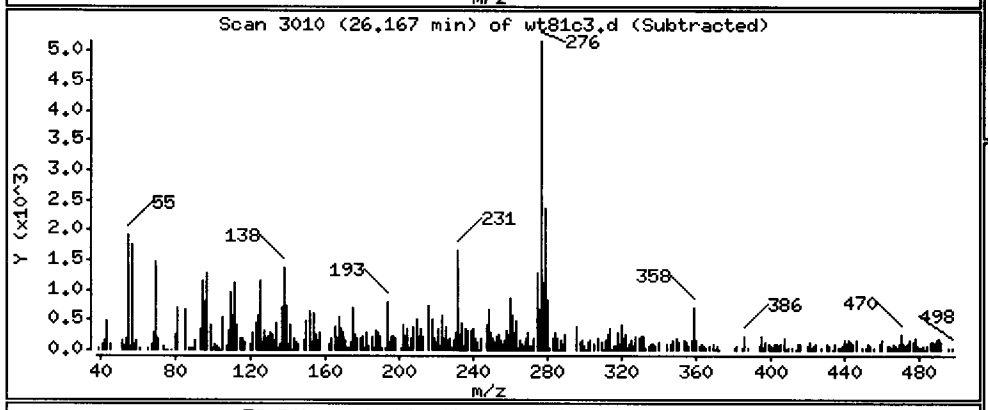
Column phase: ZB-5msi

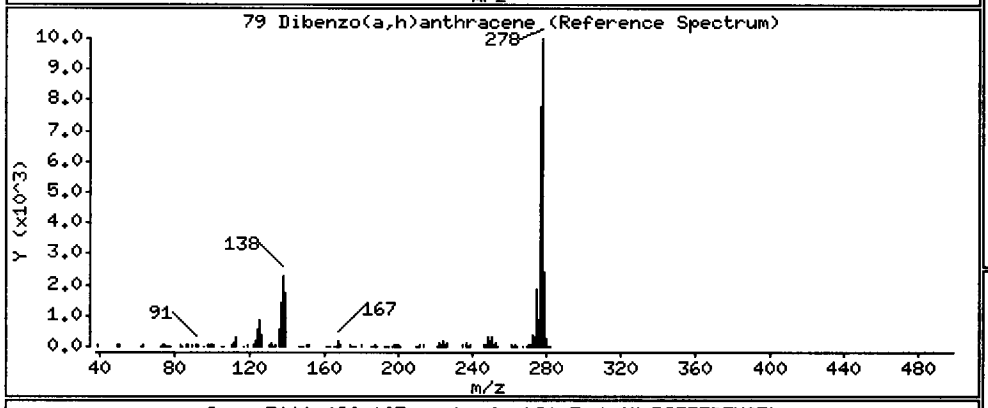
Column diameter: 0.25

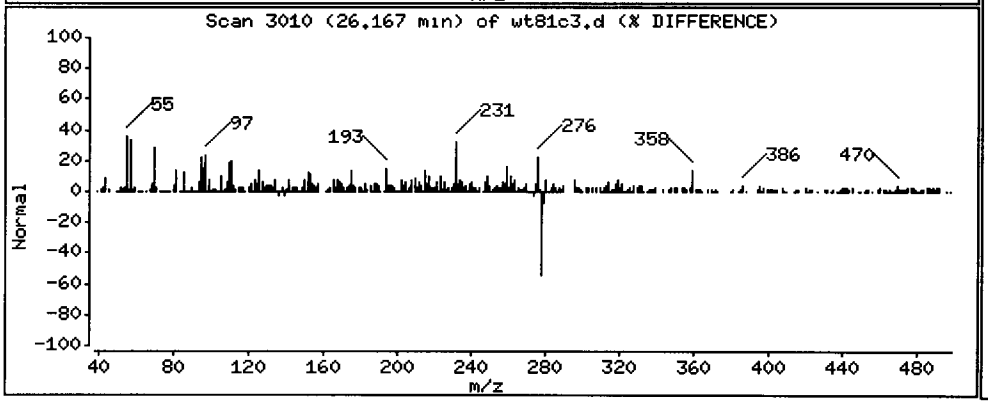
79 Dibenzo(a,h)anthracene

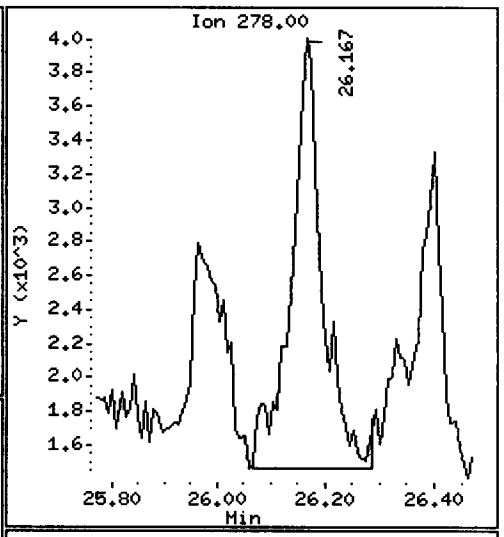
Concentration: 320.4 ug/kg

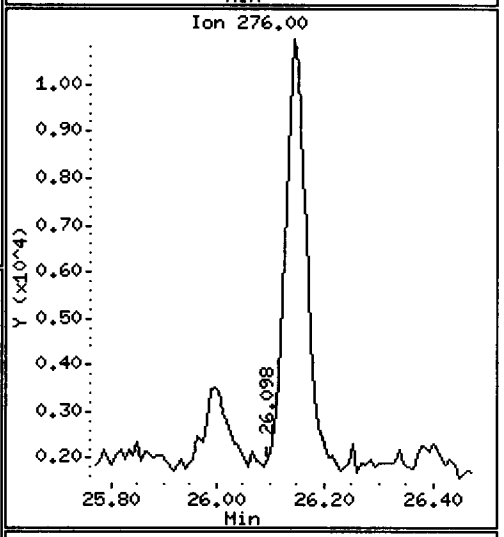


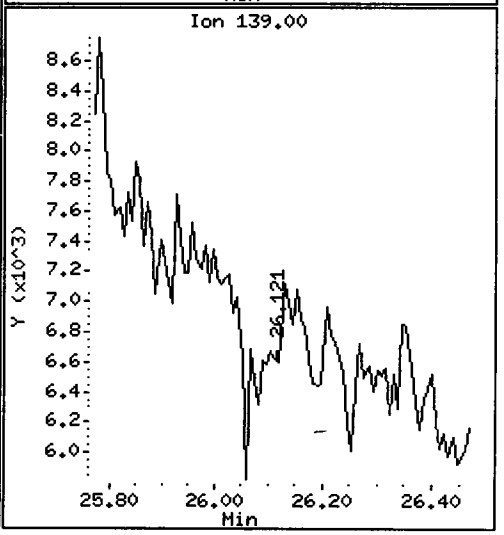












Data File: /chem1/nt10.i/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C,3

Volume Injected (uL): 1.0

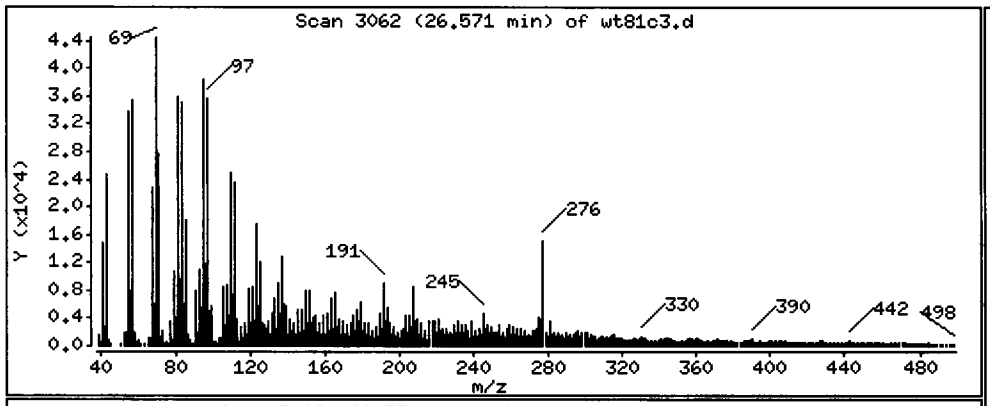
Operator: VTS/YZ

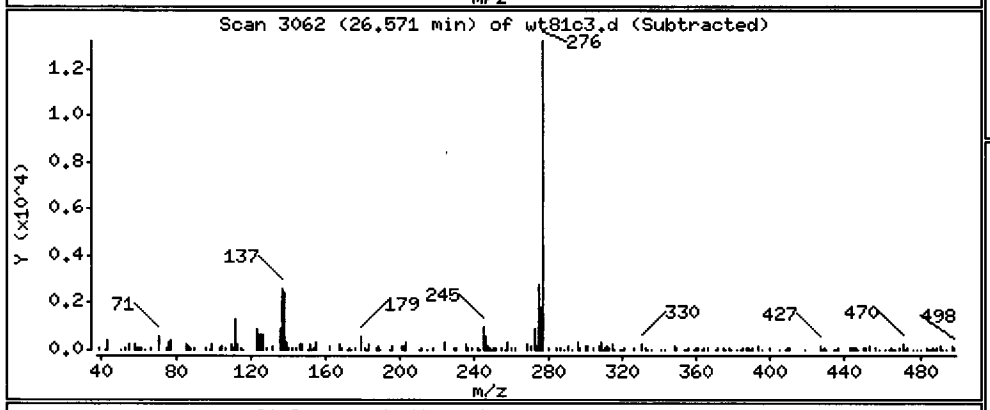
Column phase: ZB-5msi

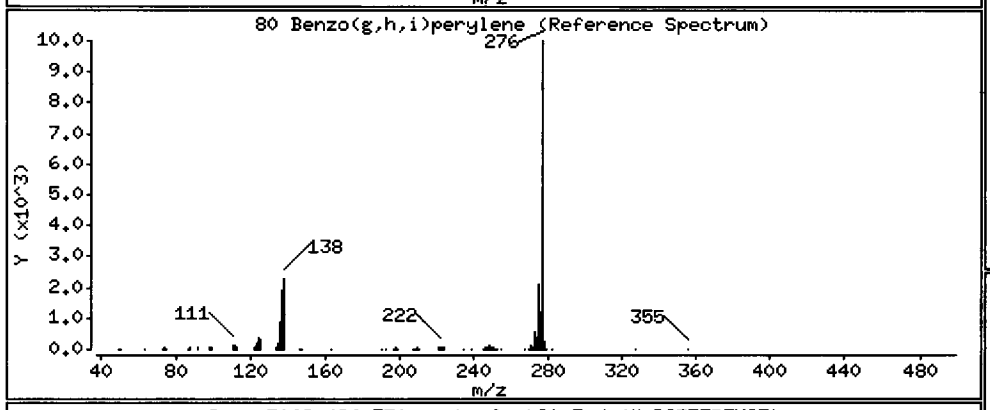
Column diameter: 0.25

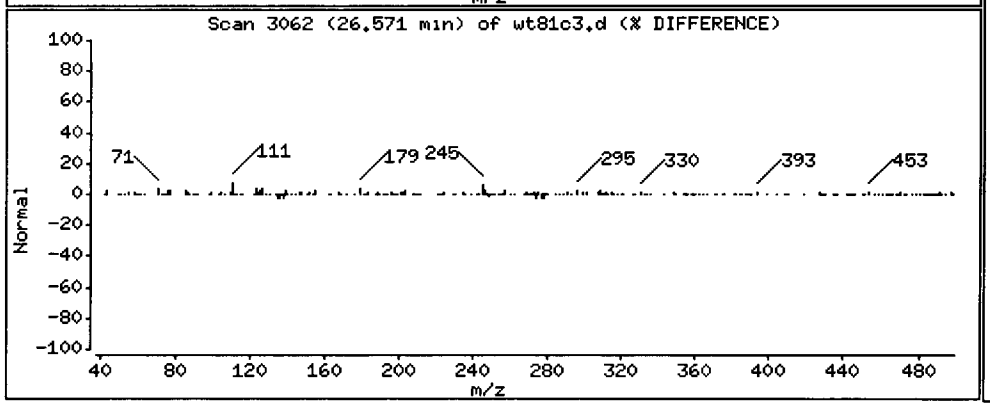
80 Benzo(g,h,i)perylene

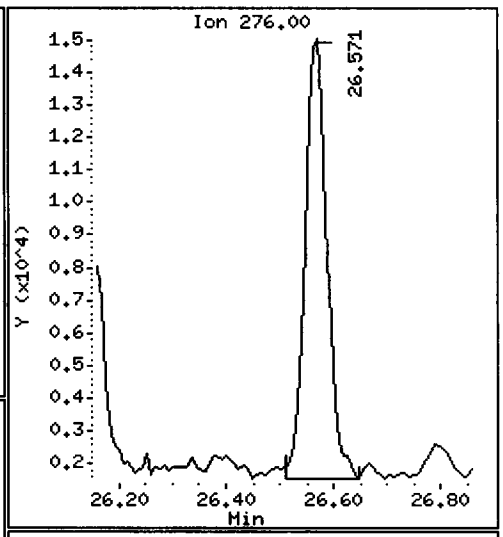
Concentration: 1047 ug/kg

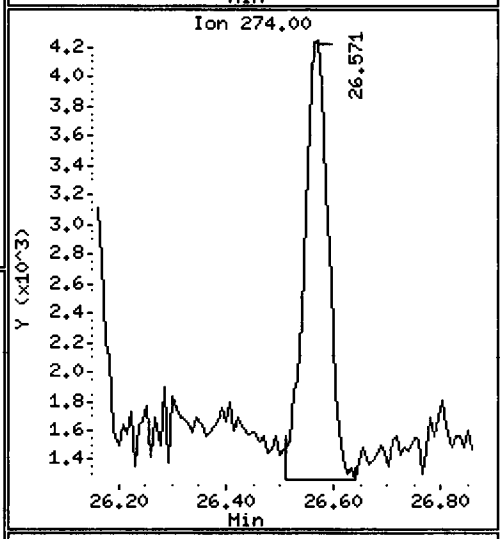


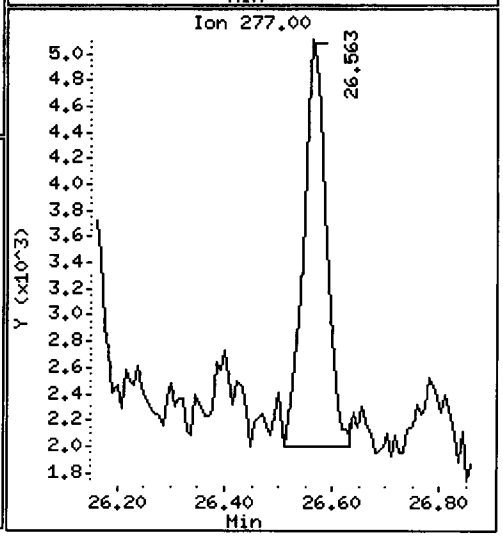












Data File: /chem1/nt10.1/20130626.b/wt81c3.d

Date : 26-JUN-2013 14:19

Client ID: AM-FD-01-20130612-S

Instrument: nt10.1

Sample Info: WT81C,3

Volume Injected (uL): 1.0

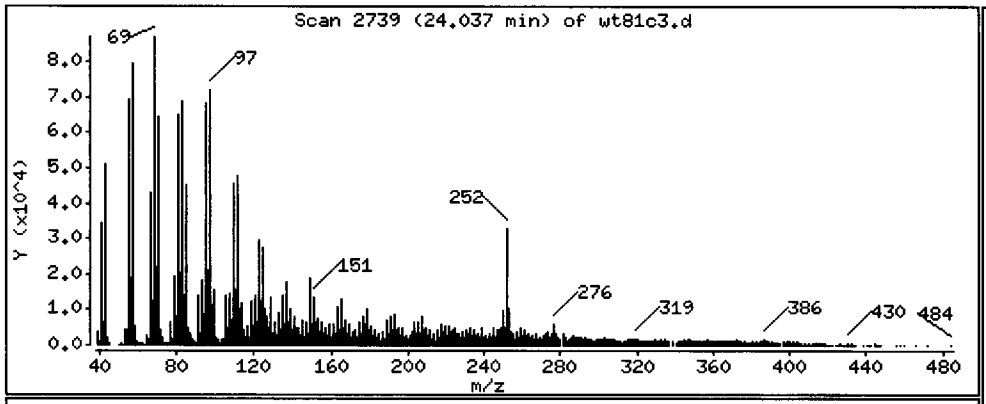
Operator: VTS/YZ

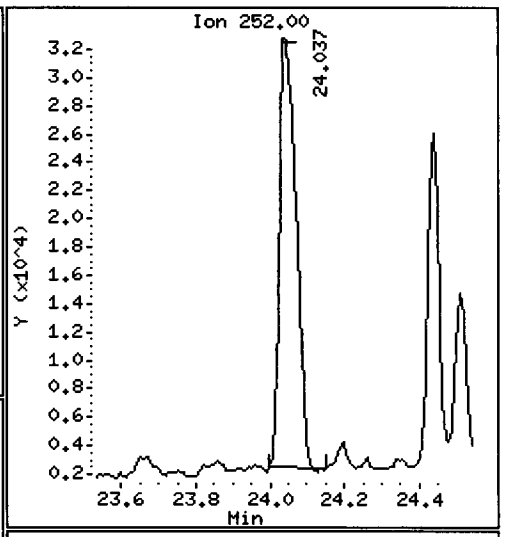
Column phase: ZB-5ms1

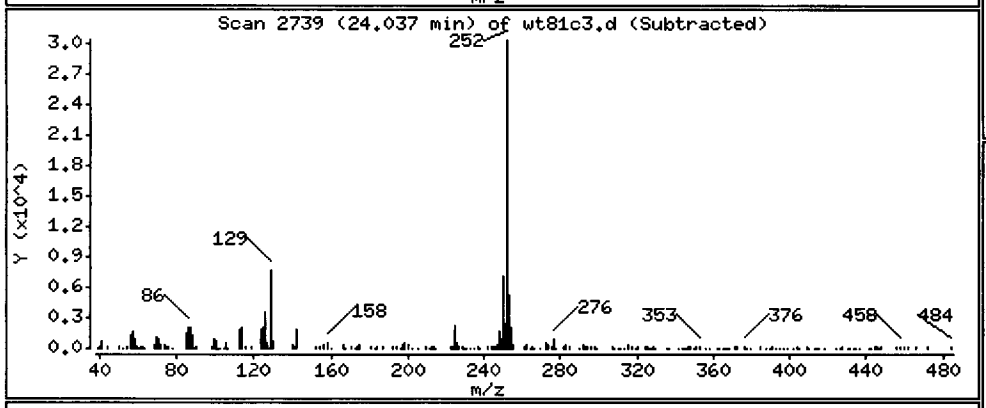
Column diameter: 0.25

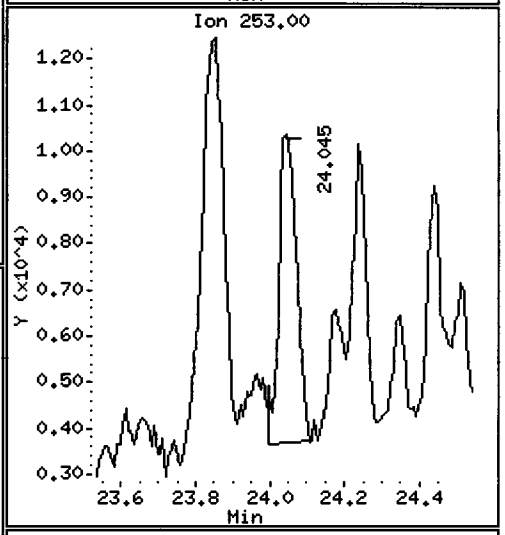
187 Total Benzofluoranthenes

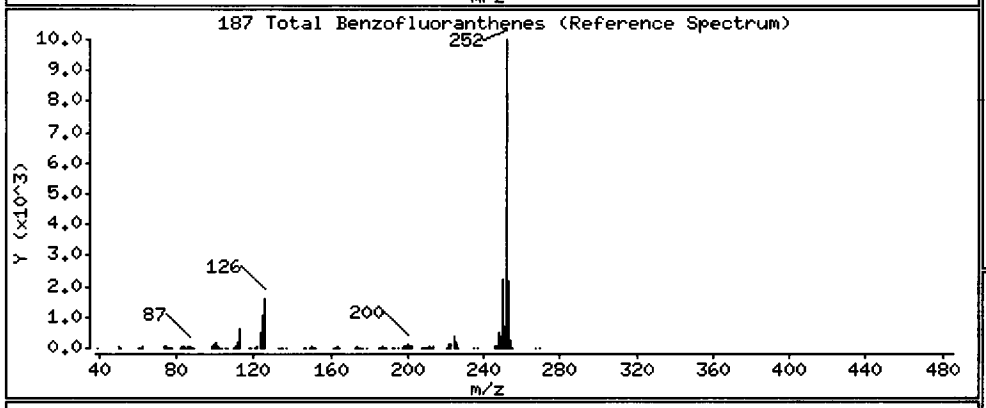
Concentration: 2276 ug/kg

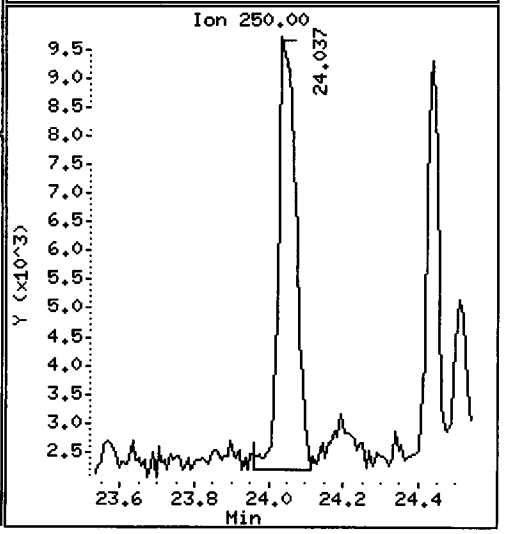


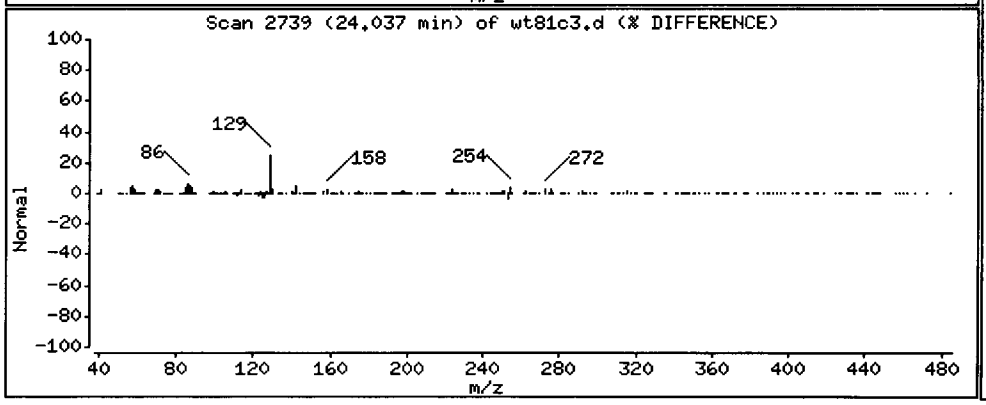






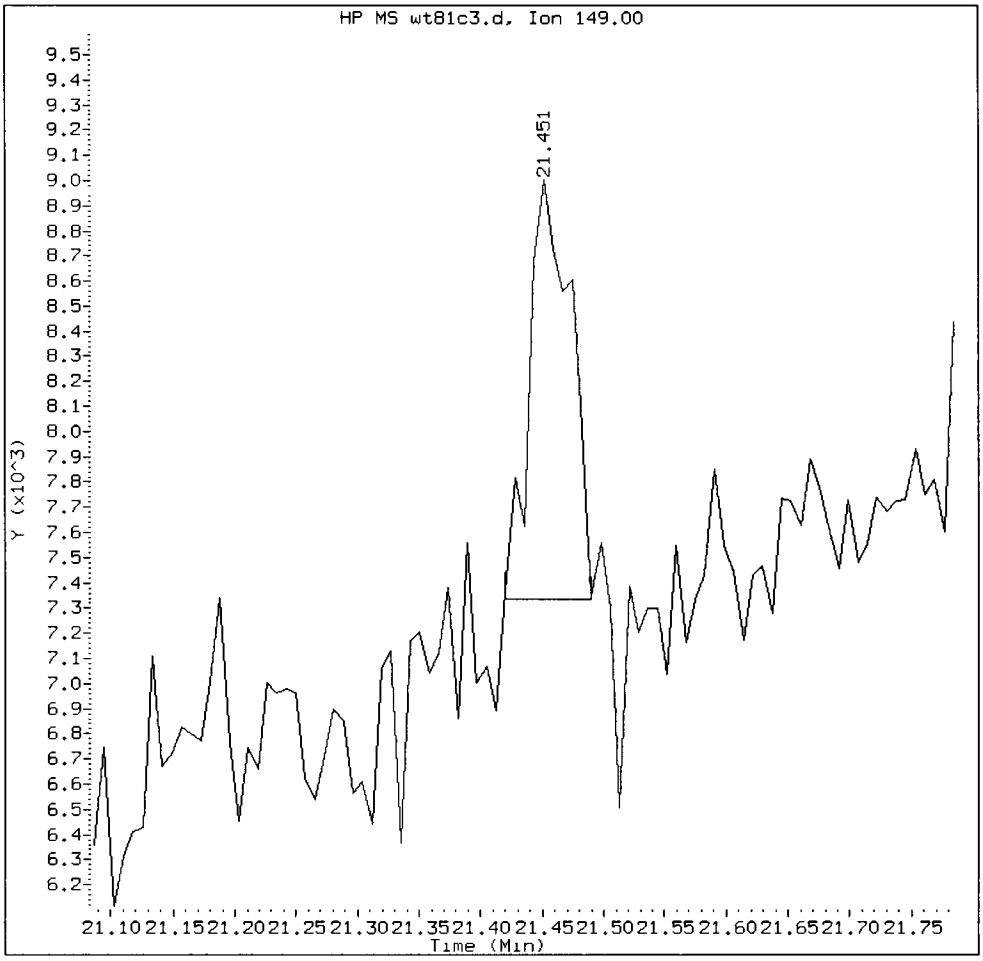






WT81C, /chem1/nt10.i/20130626.b/wt81c3.d

Butylbenzylphthalate Amount: 0.24 Area: 4006



MANUAL INTEGRATION for Butylbenzylphthalate

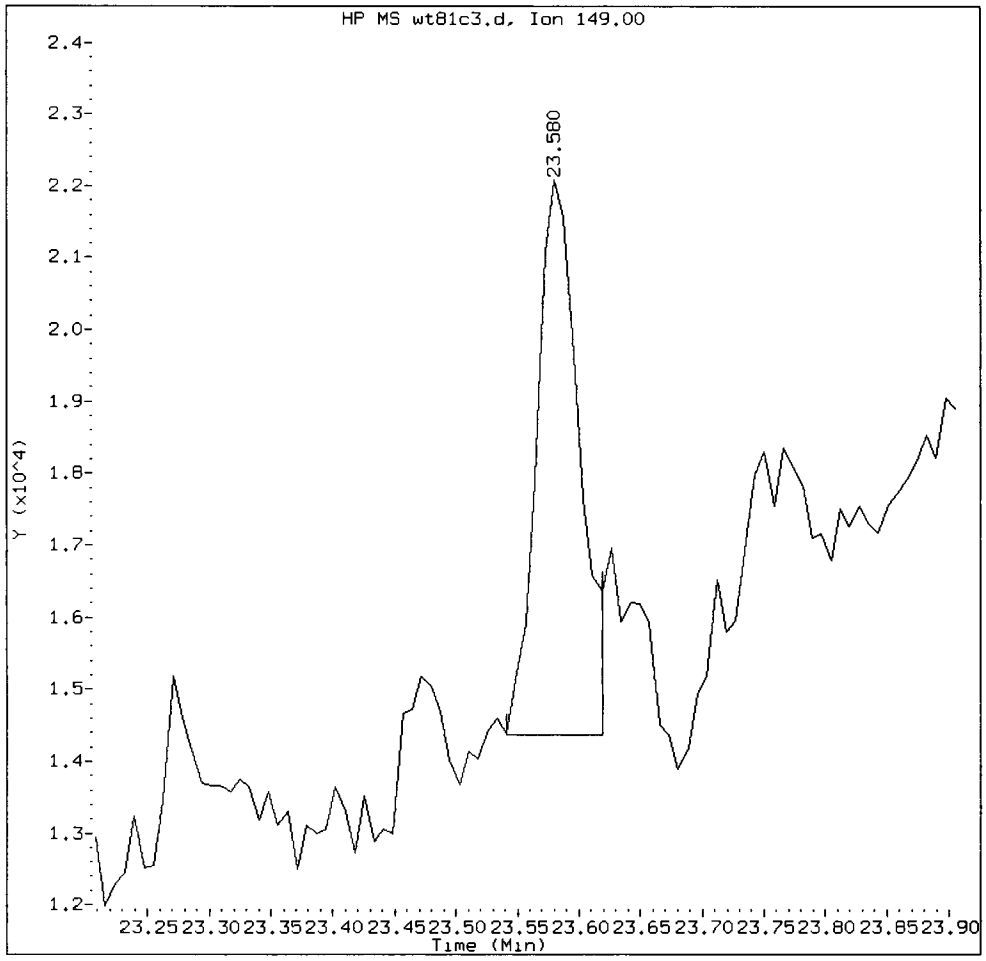
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

WT81C, /chem1/nt10.i/20130626.b/wt81c3.d

Di-n-octylphthalate Amount: 0.41 Area: 18737



MANUAL INTEGRATION for Di-n-octylphthalate

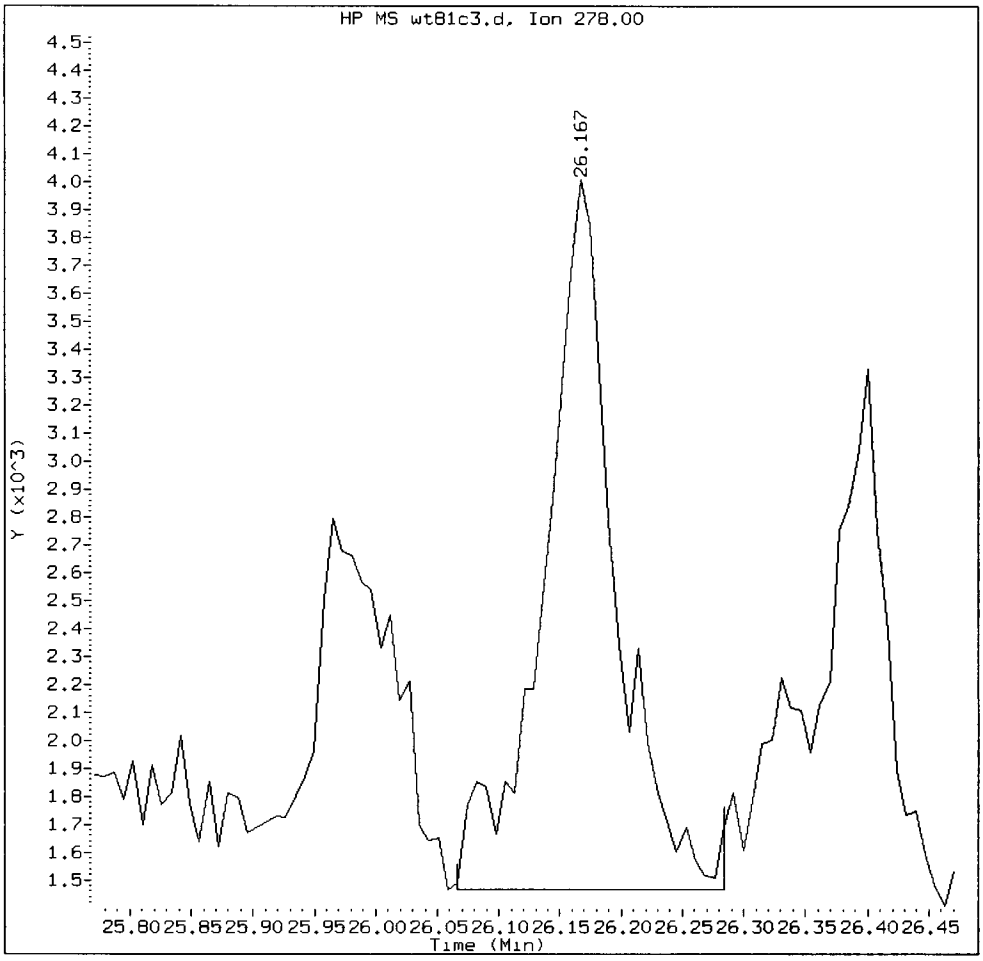
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

WT81C, /chem1/nt10.i/20130626.b/wt81c3.d

Dibenzo(a,h)anthracene Amount: 0.30 Area: 10467



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81c3.d

Lab ID: WT81C, Method: ABN.m, Instrument: nt10.i, Date: 26-JUN-2013

RT	CO-ELUTION COMPOUNDS
24.037	Benzo(k)fluoranthene and Benzo(b)fluoranthene

SIM Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Incorporated
Analytical Chemists and Consultants

(8270D) BAN/SIM SVOA PSDDA-Soil/Sediment Microwave (3546) (SOP # 3304S)

Preparation Test BAN/SIM SVOA PSDDA # 9 (BANSBANSDMP)

PSDDA (5-20ppb)

ARI Job No(s) WT86, WT81 Page 1 of 1 Batch set up by: JH

Bottle #	Extraction Requirements	Weight Extracted (eq. to 10g dry wt)	(REQ) GPC (1:1) 1 or 2	Final Effective Volume	Volume to Lab	Comments	Verify Client ID
	WT86 MBS	10.00g	(1:1) Y / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	YL 06/18/13 Analyst/Date
	SBS	10.00g	(1:1) Y / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	Microwave 1 2 3 CT 06/18/13 Analyst/Date
	SBS Dup.	10.00g	(1:1) Y / N	1mL	1mL	(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)	KD 80-85°C 1 2 3 4 5 6 Analyst/Date 06/19/13
	~~QLS~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	
	~~QLS (SIM)~~	~~10.00g~~	~~(1:1) Y / N~~	~~1mL~~	~~1mL~~	~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~	TurboVap 1 2 3 CJZ 6/20/13 Analyst/Date
1	WT86 A	16.00	(1:1) Y / N	1mL	1mL	See Analyst Notes	
3	WT81 A	10.00	(1:1) Y / N	1mL	1mL		GPC Prep Filter (1:1) CJZ 6/20/13 Analyst/Date
8	B	7.03	(1:1) Y / N	1mL	1mL		
8	Bms	7.00	(1:1) Y / N	1mL	1mL		
8	Bmsd	7.00	(1:1) Y / N	1mL	1mL		Post GPC KD 80-85°C 1 2 3 4 5 6 06/21/13 Analyst/Date
8	C	7.00	(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	1mL	1mL		
			(1:1) Y / N	~~1mL~~	~~1mL~~	Reviewed by	TurboVap 1 2 3 Analyst/Date SR 6/21/13
Analyst/Date	YL 06/18/13		CJZ 6/20/13	SR 6/21/13	SR 6/21/13	SR 6/21/13	

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	A (2093-4)	100/150µg/mL	50µL	7/02/13	CT	AC
Full List Spike (Freezer)	7 (2065-5)	100µg/mL	50µL	1/29/14	CT	AC
Base Spike	56(2065-2)	200µg/mL	50µL	7/31/13	CT	AC
Acid Spike	38(2091-4)	100/150µg/mL	50µL	2/28/14	CT	AC
~~QLS Spike (14 in Freezer)~~	~~14(~~ ~~)~~	~~100/200µg/mL~~	~~20µL~~			
~~SIM QLS Spike (Freezer)~~	~~25(~~ ~~)~~	~~1µg/mL~~	~~50µL~~			
Extraction Time: 11:50			Balance ID: B14642614			

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-rehomogenize while hot then let cool 15 min in cold water. Re-homogenize while cool. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD (small ~~on~~large drying column with pre-deactivated glasswool-Blanks=5g sulfate)) to 5mL at 80- 85°C. 12. GPC Req. 13. (After GPC): KD at 80-85°. 14. TurboVap. 15. Vial in DCM.

A. Need Total Solids Y / N **B. ~~Archive~~/Freeze Y / N** WT86 only

12654
12637

Revision 6
02/22/13

WT81 : 24995

SIM Semivolatile Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS,SVOA Initial Calibration Notes

ARI SOP: 801S(SIM-PNA) 802S(Butyl Tins) 804S(SVOA-8270D) SIM 805S(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 04/29/13 Internal Standard ID 1998-2 Expiration 07/03/13

DFTPP Tune Meets Criteria?	YES / NO	Minimum Response Factors Met?	YES / NO
DDT Breakdown <20%?	YES / NO	ICV Exceeding ±20%? see Full scan	YES / NO
Peak Tailing Factor ≤2?	YES / NO	ICV Exceeding ±30%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	Linear Fits Used?	YES / NO
Q flag applied?	YES / NO	Quadratic Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Calibration Points Dropped?	YES / NO
Spectral Library Updated?	YES / NO		

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Supelco	2073-1	6/31/13	4CIPA	2055-1	12/05/13
	2073-1	6/31/13	Full	2054-1	8/31/13
	2054-1	01/25/14	scan.	2053-2	08/13/13
	B000112	10/15/13			
	1998-4	7/02/13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: YB Date: 5/3/13

Reviewer: VD Date: 5.4.13

Analytical Resources Inc.: Organics Instrument Log

NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 4/29/13 Analysis: ABN/SIMABN Analyst: YZ

GC Program: ABN_2 Column No: 252945 Column Type: ZB5-MSI

Instrument Tune (.U or .CT.): 130284 EM Voltage: 1650

Calibration File: DF 0429 Curve Date: 04/29/13 Injection Vol.: 1uL

IS/SS	Ical/Ccal	LCS/ICV
1998-2	2072-1 B00012	
	2073-1 1998-4	
	2064-2	

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130429.b

	Time	Filename	LabID	ClientId	DF											
1	1637	df0429.d	DFTPP	DFTPP	1	NO ISTDS FOUND										
2	1653	ic0429a.d	IC0429A		1	8.99	53090	11.65	194944	15.55	113450	18.82	212689	23.90	235045	26.35	227736
3	1807	ic0429c.d	IC0429C		1	8.98	58845	11.65	217141	15.54	131711	18.82	222131	23.89	244600	26.35	221779
4	1844	ic0429d.d	IC0429D		1	8.98	52658	11.65	192325	15.54	109274	18.82	203933	23.90	223647	26.35	211919
5	1957	ic0429f.d	IC0429F		1	8.98	52849	11.65	195311	15.54	106586	18.82	192165	23.90	215273	26.35	195976
6	2034	ic0429g.d	IC0429G		1	8.98	63709	11.65	160165	15.54	95179	18.82	178699	23.90	199199	26.36	191024
7	2111	ic0429h.d	IC0429H		1	8.98	51614	11.65	192559	15.54	107939	18.82	196268	23.89	211275	26.35	196007
8	2147	ic0429i.d	IC0429I		1	8.98	49468	11.64	182566	15.54	105486	18.82	191121	23.90	208500	26.35	197777

YZ 5/03/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130429.b/SIM.b
Inst ID: nt10.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	ic0429a	ic0429c	ic0429d	ic0429f	ic0429g	ic0429h	ic0429i
INJ.DATE:	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013	29-APR-2013
INJ.TIME:	16:53	18:07	18:44	19:57	20:34	21:11	21:47

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$	1 2-Fluorophenol	+++++	6.641	6.634	6.634	6.633	6.633	6.634	6.634	6.134-7.134	6.635	0.003
	138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.580	33.080-34.080	+++++	+++++
	139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.873	30.373-31.373	+++++	+++++
	140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
	141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.300	30.800-31.800	+++++	+++++
	142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.496	14.996-15.996	+++++	+++++
	135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.428	19.928-20.928	+++++	+++++
	136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.471	19.971-20.971	+++++	+++++
	137 NewCpnd_131	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.828	7.328-8.328	+++++	+++++
*	134 Di-n-octylphthalate-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.900	16.400-17.400	+++++	+++++
	133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.190	13.690-14.690	+++++	+++++
	132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.262	30.762-31.762	+++++	+++++
	131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.954	29.454-30.454	+++++	+++++
	146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.752	23.252-24.252	+++++	+++++
	130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.717	27.217-28.217	+++++	+++++
	129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.566	20.066-21.066	+++++	+++++
	128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.796	19.296-20.296	+++++	+++++

Reviewer 1 YB Date: 5/3/13
Reviewer 2 VD Date: 5.4.13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130429.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
	107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
	106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
	105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.826	10.326-11.326	+++++	+++++
$	2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.886	6.386-7.386	+++++	+++++
	3 Phenol	8.365	8.365	8.357	8.365	8.364	8.365	8.365	8.365	7.865-8.865	8.364	0.003
	4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.268	7.768-8.768	+++++	+++++
$	5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.087	6.587-7.587	+++++	+++++
	6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.592	8.092-9.092	+++++	+++++
	7 1,3-Dichlorobenzene	8.914	8.914	8.914	8.914	8.914	8.914	8.914	8.914	8.414-9.414	8.914	0.000
*	8 1,4-Dichlorobenzene-d4	8.991	8.984	8.984	8.984	8.983	8.984	8.984	8.991	8.491-9.491	8.985	0.003
	9 1,4-Dichlorobenzene	9.015	9.015	9.015	9.015	9.015	9.015	9.015	9.015	8.515-9.515	9.015	0.000
$	10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.656	7.156-8.156	+++++	+++++
	11 Benzyl alcohol	9.294	9.294	9.286	9.294	9.294	9.294	9.294	9.294	8.794-9.794	9.293	0.003
	12 1,2-Dichlorobenzene	9.395	9.395	9.395	9.395	9.395	9.395	9.395	9.395	8.895-9.895	9.395	0.000
	13 2-Methylphenol	9.558	9.550	9.550	9.550	9.550	9.550	9.551	9.558	9.058-10.058	9.551	0.003
	14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.998	8.498-9.498	+++++	+++++
	15 4-Methylphenol	9.853	9.845	9.845	9.845	9.845	9.845	9.846	9.853	9.353-10.353	9.846	0.003
	16 N-Nitroso-di-n-propyla	9.900	9.900	9.900	9.900	9.899	9.899	9.900	9.900	9.400-10.400	9.900	0.000
	17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.363	8.863-9.863	+++++	+++++
$	18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.237	7.737-8.737	+++++	+++++
	19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.696	8.196-9.196	+++++	+++++
	20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.987	8.487-9.487	+++++	+++++
	21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.356	8.856-9.856	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130429.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	22 2,4-Dimethylphenol	10.969	10.969	10.961	10.962	10.969	10.961	10.962	10.969	10.469-11.469	10.965	0.004
	23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.557	9.057-10.057	+++++	+++++
	24 Benzoic acid	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.387	9.887-10.887	+++++	+++++
	25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.500	9.000-10.000	+++++	+++++
	26 1,2,4-Trichlorobenzene	11.563	11.563	11.563	11.563	11.563	11.563	11.563	11.563	11.063-12.063	11.563	0.000
*	27 Naphthalene-d8	11.648	11.648	11.648	11.648	11.647	11.647	11.640	11.648	11.148-12.148	11.647	0.003
	28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.518	9.018-10.018	+++++	+++++
	29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.911	9.411-10.411	+++++	+++++
	30 Hexachlorobutadiene	12.103	12.103	12.103	12.104	12.103	12.103	12.104	12.103	11.603-12.603	12.103	0.000
	31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.387	9.887-10.887	+++++	+++++
	32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.826	10.326-11.326	+++++	+++++
	33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.194	10.694-11.694	+++++	+++++
	34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.019	10.519-11.519	+++++	+++++
	35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.386	10.886-11.886	+++++	+++++
$	36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.091	10.591-11.591	+++++	+++++
	37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.600	11.100-12.100	+++++	+++++
	38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.805	11.305-12.305	+++++	+++++
	39 Dimethylphthalate	15.060	15.052	15.052	15.052	15.060	15.052	15.052	15.060	14.560-15.560	15.054	0.004
	40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.232	11.732-12.732	+++++	+++++
	41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.177	11.677-12.677	+++++	+++++
*	42 Acenaphthene-d10	15.547	15.539	15.539	15.540	15.539	15.539	15.540	15.547	15.047-16.047	15.540	0.003
	43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.508	12.008-13.008	+++++	+++++
	44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.578	12.078-13.078	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130429.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.660	12.160-13.160	+++++	+++++
	46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.756	12.256-13.256	+++++	+++++
	47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.867	12.367-13.367	+++++	+++++
	48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.031	12.531-13.531	+++++	+++++
	49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.248	12.748-13.748	+++++	+++++
	50 Diethylphthalate	16.645	16.637	16.637	16.637	16.645	16.637	16.637	16.645	16.145-17.145	16.639	0.004
	51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.368	13.868-14.868	+++++	+++++
	52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.510	13.010-14.010	+++++	+++++
	53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.340	12.840-13.840	+++++	+++++
	54 N-Nitrosodiphenylamine	17.031	17.023	17.031	17.031	17.031	17.023	17.023	17.031	16.531-17.531	17.028	0.004
$	55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.476	12.976-13.976	+++++	+++++
	56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.191	13.691-14.691	+++++	+++++
	57 Hexachlorobenzene	18.158	18.150	18.158	18.150	18.157	18.157	18.158	18.158	17.658-18.658	18.155	0.004
	58 Pentachlorophenol	18.552	18.545	18.552	18.553	18.552	18.552	18.553	18.552	18.052-19.052	18.551	0.003
*	59 Phenanthrene-d10	18.816	18.816	18.815	18.816	18.815	18.815	18.816	18.816	18.316-19.316	18.816	0.000
	60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
	61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
	62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.290	14.790-15.790	+++++	+++++
	63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.986	15.486-16.486	+++++	+++++
	64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.867	16.367-17.367	+++++	+++++
	65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.445	16.945-17.945	+++++	+++++
$	66 Terphenyl-d14	22.026	22.026	22.026	22.027	22.026	22.026	22.027	22.026	21.526-22.526	22.026	0.000
	67 Butylbenzylphthalate	22.979	22.971	22.979	22.979	22.979	22.971	22.971	22.979	22.479-23.479	22.975	0.004
	68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.250	18.750-19.750	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Batch File: /chem1/nt10.i/20130429.b/SIM.b
Inst ID: nt10.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	69 Chrysene-d12	23.900	23.892	23.900	23.900	23.900	23.892	23.900	23.900	23.400-24.400	23.898	0.004
	70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.276	19.776-20.776	+++++	+++++
	71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.339	19.839-20.839	+++++	+++++
	72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.411	18.911-19.911	+++++	+++++
	73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.324	19.824-20.824	+++++	+++++
	74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.144	20.644-21.644	+++++	+++++
	75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.144	20.644-21.644	+++++	+++++
	76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.373	21.873-22.873	+++++	+++++
*	77 Perylene-d12	26.355	26.347	26.354	26.355	26.362	26.347	26.347	26.355	25.855-26.855	26.352	0.006
	78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.378	23.878-24.878	+++++	+++++
	79 Dibenzo(a,h)anthracene	28.718	28.703	28.710	28.726	28.718	28.710	28.703	28.718	28.218-29.218	28.713	0.009
	80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.408	24.908-25.908	+++++	+++++
$	85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
$	86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
$	87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
$	88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
$	89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.597	16.097-17.097	+++++	+++++
	90 N-Nitrosodimethylamine	4.371	4.387	4.371	4.387	4.356	4.386	4.371	4.371	3.871-4.871	4.376	0.012
	91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.413-8.413	+++++	+++++
	92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
	93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.089	14.589-15.589	+++++	+++++
$	95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
	96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
	97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d
Level 2: /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d
Level 3: /chem1/nt10.i/20130429.b/SIM.b/ic0429c.d
Level 4: /chem1/nt10.i/20130429.b/SIM.b/ic0429i.d
Level 5: /chem1/nt10.i/20130429.b/SIM.b/ic0429d.d
Level 6: /chem1/nt10.i/20130429.b/SIM.b/ic0429g.d
Level 7: /chem1/nt10.i/20130429.b/SIM.b/ic0429a.d

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	RRF	% RSD
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Phenol	2.19342	1.93668	2.06101	1.92949	1.94728	2.08759	1.98249	2.01971	4.874
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1 / 5.000 Level 7	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
6 2-Chlorophenol	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,3-Dichlorobenzene	1.87553 / 1.53900	1.75224	1.72793	1.58761	1.57264	1.59509	1.66429	7.407
9 1,4-Dichlorobenzene	1.91943 / 1.52865	1.70341	1.73949	1.57791	1.55213	1.57844	1.65707	8.453
11 Benzyl alcohol	1.01421 / 0.99327	0.92378	0.95981	0.91615	0.94937	1.02397	0.96865	4.413
12 1,2-Dichlorobenzene	1.80136 / 1.44728	1.61817	1.67423	1.49430	1.47632	1.51145	1.57473	8.180
13 2-Methylphenol	1.59549 / 1.40118	1.39187	1.48696	1.36428	1.39709	1.47085	1.44396	5.556
14 2,2'-oxybis(1-Chloropropane)	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 4-Methylphenol	1.58792 / 1.46089	1.37715	1.51721	1.38530	1.44358	1.52071	1.47039	5.215
16 N-Nitroso-di-n-propylamine	0.91430 / 0.78320	0.80598	0.85037	0.79906	0.80117	0.85017	0.82918	5.500

Analytical Resources, Inc.

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Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 2,4-Dimethylphenol	0.40571	0.35657	0.40416	0.37154	0.38512	0.40380	0.38544	0.38748	4.824
23 Bis(2-Chloroethoxy)methane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Benzoic acid	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 1,2,4-Trichlorobenzene	0.44278	0.39385	0.40914	0.36326	0.36118	0.36604	0.34742	0.38338	8.776

Analytical Resources, Inc.

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Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Hexachlorobutadiene	0.27157	0.23723	0.24399	0.22079	0.21930	0.22590	0.21485	0.23337	8.466
31 4-Chloro-3-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Hexachlorocyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Dimethylphthalate	1.29548	1.18474	1.22635	1.06304	1.10760	1.11120	1.09034	1.15411	7.293
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

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Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Diethylphthalate	1.48913	1.22551	1.39412	1.18097	1.28213	1.30160	1.27512	1.30694	7.961
51 4-Chlorophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 4,6-Dinitro-2-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 N-Nitrosodiphenylamine	0.39424	0.38298	0.48476	0.43332	0.46296	0.45890	0.45294	0.43858	8.547
56 4-Bromophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Hexachlorobenzene	0.37593	0.30103	0.32963	0.26764	0.27658	0.27272	0.27374	0.29961	13.400

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
58 Pentachlorophenol	0.14488	0.13785	0.18228	0.16591	0.19052	0.20510	0.22038	0.17813	17.090
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Butylbenzylphthalate	0.36122	0.29118	0.41472	0.31985	0.38893	0.40240	0.41936	0.37109	13.311
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Dibenzo(a,h)anthracene	0.97359	0.78303	0.98900	0.78861	0.87907	0.89559	0.93233	0.89160	9.207

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
	5.000 Level 7							
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
90 N-Nitrosodimethylamine	0.90219	0.86023	0.85122	0.86270	0.83980	0.90195		
	0.81542						0.86193	3.667
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 2-Fluorophenol	1.51980	1.35157	1.44617	1.31204	1.36686	1.43403	1.39600	1.40378	4.930
$ 145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	5.000 Level 7	___ RRF	% RSD
$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 66 Terphenyl-d14	0.56524	0.46461	0.53843	0.44428	0.47993	0.47146	0.47799	0.49170	8.830
$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-APR-2013 16:53
End Cal Date : 29-APR-2013 21:47
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Cal Date : 03-May-2013 17:18 yev
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.20000 Level 3	0.50000 Level 4	1.000 Level 5	2.500 Level 6	RRF	% RSD
	5.000 Level 7							
$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429a.d
Lab Smp Id: IC0429A
Inj Date : 29-APR-2013 16:53
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429A
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:18 yev Quant Type: ISTD
Cal Date : 29-APR-2013 16:53 Cal File: ic0429a.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.634	6.634	(0.738)	92642	5.00000	4.972(M)
	3 Phenol	94	8.365	8.365	(0.930)	131563	5.00000	4.908
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.991)	102132	5.00000	4.624
*	8 1,4-Dichlorobenzene-d4	152	8.991	8.984	(1.000)	53090	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	101445	5.00000	4.613
	11 Benzyl alcohol	79	9.294	9.294	(1.034)	65916	5.00000	5.127
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.045)	96045	5.00000	4.595
	13 2-Methylphenol	108	9.558	9.551	(1.063)	92986	5.00000	4.852
	15 4-Methylphenol	108	9.853	9.846	(1.096)	96948	5.00000	4.968
	16 N-Nitroso-di-n-propylamine	70	9.900	9.900	(1.101)	51975	5.00000	4.723
	22 2,4-Dimethylphenol	107	10.969	10.962	(0.942)	187850	10.0000	9.948
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	84659	5.00000	4.531
*	27 Naphthalene-d8	136	11.648	11.640	(1.000)	194944	4.00000	
	30 Hexachlorobutadiene	225	12.103	12.104	(1.039)	52354	5.00000	4.603
	39 Dimethylphthalate	163	15.060	15.052	(0.969)	154624	5.00000	4.724
*	42 Acenaphthene-d10	162	15.547	15.540	(1.000)	113450	4.00000	
	50 Diethylphthalate	149	16.645	16.637	(1.071)	180828	5.00000	4.878
	54 N-Nitrosodiphenylamine	169	17.031	17.023	(0.905)	120418	5.00000	5.164
	57 Hexachlorobenzene	284	18.158	18.158	(0.965)	72778	5.00000	4.568
	58 Pentachlorophenol	266	18.552	18.553	(0.986)	117179	10.0000	12.37
*	59 Phenanthrene-d10	188	18.816	18.816	(1.000)	212689	4.00000	
$	66 Terphenyl-d14	244	22.026	22.027	(0.922)	140436	5.00000	4.861
	67 Butylbenzylphthalate	149	22.979	22.971	(0.961)	123210	5.00000	5.650
*	69 Chrysene-d12	240	23.900	23.900	(1.000)	235045	4.00000	
*	77 Perylene-d12	264	26.355	26.347	(1.000)	227736	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.718	28.703	(1.090)	265405	5.00000	5.228
	90 N-Nitrosodimethylamine	74	4.371	4.371	(0.486)	108227	10.0000	9.460

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429a.d
Lab Smp Id: IC0429A
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	53090	0.82
27 Naphthalene-d8	192325	96162	384650	194944	1.36
42 Acenaphthene-d10	109274	54637	218548	113450	3.82
59 Phenanthrene-d10	203933	101966	407866	212689	4.29
69 Chrysene-d12	223647	111824	447294	235045	5.10
77 Perylene-d12	211919	105960	423838	227736	7.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.99	0.09
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.55	0.05
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

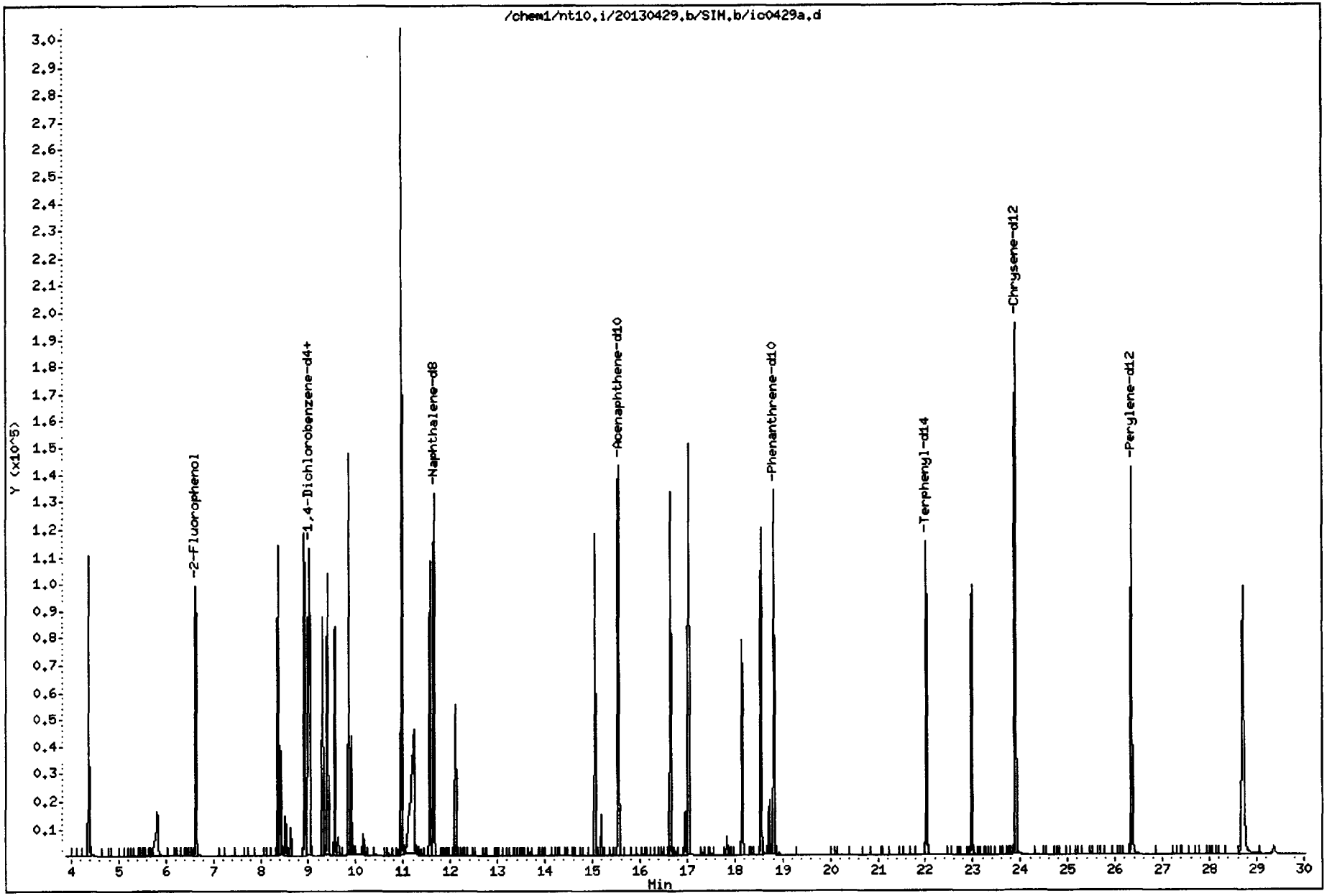
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429a.d
Date : 29-APR-2013 16:53
Client ID:
Sample Info: IC0429A

Instrument: nt10.i

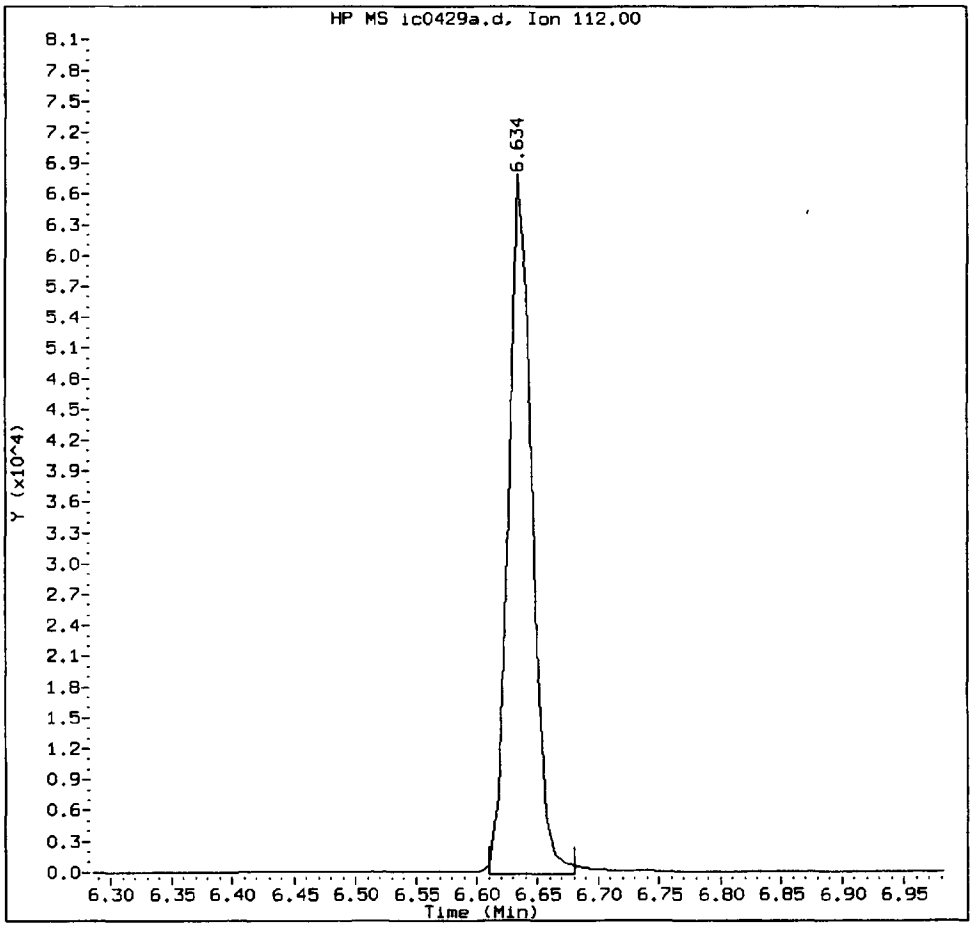
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429A, /chem1/nt10.i/20130429.b/SIM.b/ic0429a.d

2-Fluorophenol Amount: 4.97 Area: 92642



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: 1/2 Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429a.d

Lab ID: IC0429A, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-2(

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 5/3/13

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429c.d
Lab Smp Id: IC0429C
Inj Date : 29-APR-2013 18:07
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429C
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 18:07 Cal File: ic0429c.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.641	6.634	(0.739)	4255	0.20000	0.2058(M)
	3	Phenol	94	8.365	8.365	(0.931)	6064	0.20000	0.2041
	7	1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	5084	0.20000	0.2076
*	8	1,4-Dichlorobenzene-d4	152	8.984	8.984	(1.000)	58845	4.00000	
	9	1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	5118	0.20000	0.2099
	11	Benzyl alcohol	79	9.294	9.294	(1.035)	2824	0.20000	0.1982
	12	1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	4926	0.20000	0.2126
	13	2-Methylphenol	108	9.550	9.551	(1.063)	4375	0.20000	0.2060
	15	4-Methylphenol	108	9.845	9.846	(1.096)	4464	0.20000	0.2064
	16	N-Nitroso-di-n-propylamine	70	9.900	9.900	(1.102)	2502	0.20000	0.2051
	22	2,4-Dimethylphenol	107	10.969	10.962	(0.942)	8776	0.40000	0.4172
	26	1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	4442	0.20000	0.2134
*	27	Naphthalene-d8	136	11.648	11.640	(1.000)	217141	4.00000	
	30	Hexachlorobutadiene	225	12.103	12.104	(1.039)	2649	0.20000	0.2091
	39	Dimethylphthalate	163	15.052	15.052	(0.969)	7463	0.20000	0.2125
*	42	Acenaphthene-d10	162	15.539	15.540	(1.000)	121711	4.00000	
	50	Diethylphthalate	149	16.637	16.637	(1.071)	8484	0.20000	0.2133
	54	N-Nitrosodiphenylamine	169	17.023	17.023	(0.905)	5384	0.20000	0.2211
	57	Hexachlorobenzene	284	18.150	18.158	(0.965)	3661	0.20000	0.2200
	58	Pentachlorophenol	266	18.545	18.553	(0.986)	4049	0.40000	0.3970
*	59	Phenanthrene-d10	188	18.816	18.816	(1.000)	222131	4.00000	
$	66	Terphenyl-d14	244	22.026	22.027	(0.922)	6585	0.20000	0.2190
	67	Butylbenzylphthalate	149	22.971	22.971	(0.961)	5072	0.20000	0.2235
*	69	Chrysene-d12	240	23.892	23.900	(1.000)	244600	4.00000	
*	77	Perylene-d12	264	26.347	26.347	(1.000)	221779	4.00000	
	79	Dibenzo(a,h)anthracene	278	28.703	28.703	(1.089)	10967	0.20000	0.2218
	90	N-Nitrosodimethylamine	74	4.387	4.371	(0.488)	5009	0.40000	0.3950

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429c.d
Lab Smp Id: IC0429C
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	58845	11.75
27 Naphthalene-d8	192325	96162	384650	217141	12.90
42 Acenaphthene-d10	109274	54637	218548	121711	11.38
59 Phenanthrene-d10	203933	101966	407866	222131	8.92
69 Chrysene-d12	223647	111824	447294	244600	9.37
77 Perylene-d12	211919	105960	423838	221779	4.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.89	-0.03
77 Perylene-d12	26.35	25.85	26.85	26.35	-0.03

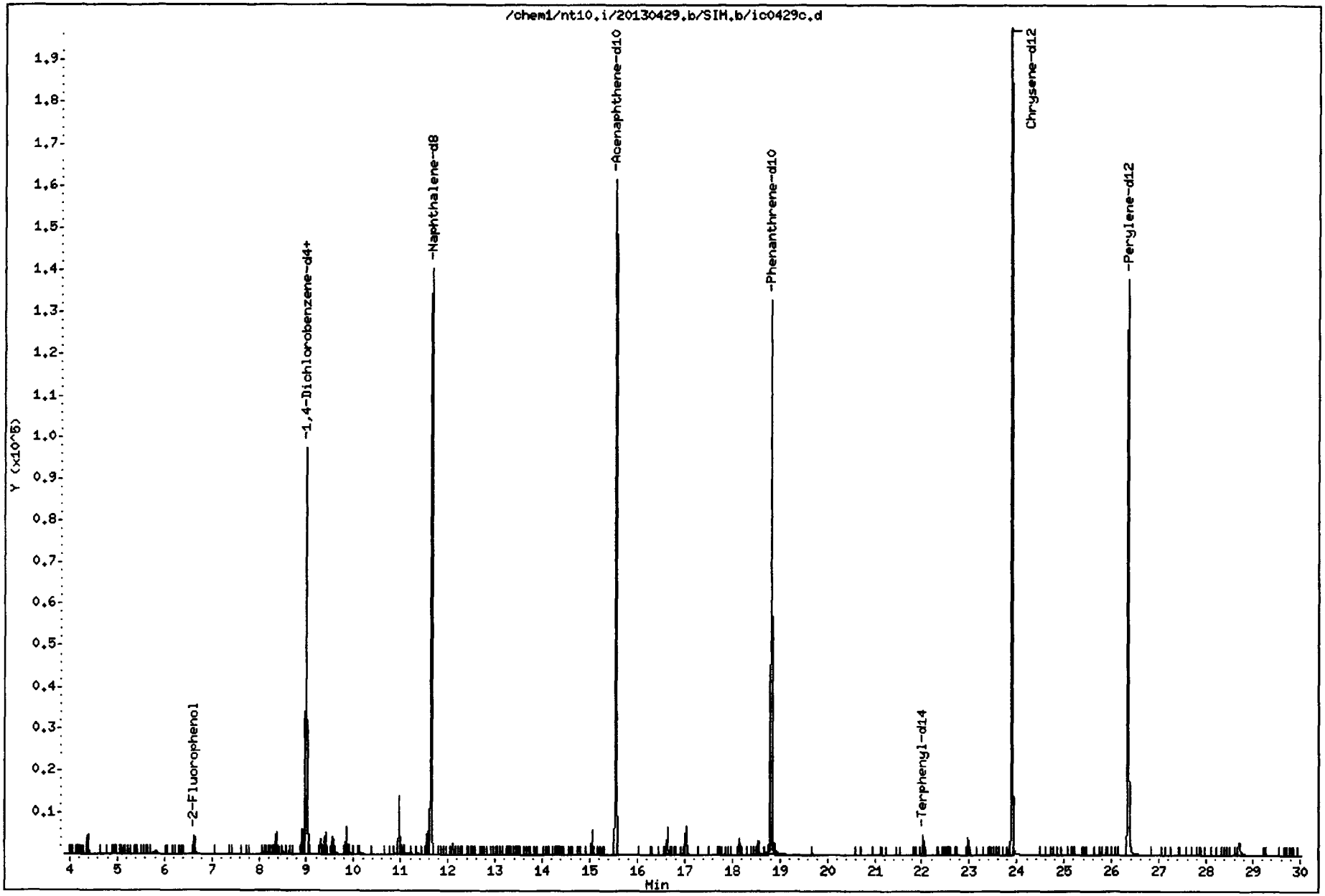
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429c.d
Date : 29-APR-2013 18:07
Client ID:
Sample Info: IC0429C

Instrument: nt10.i

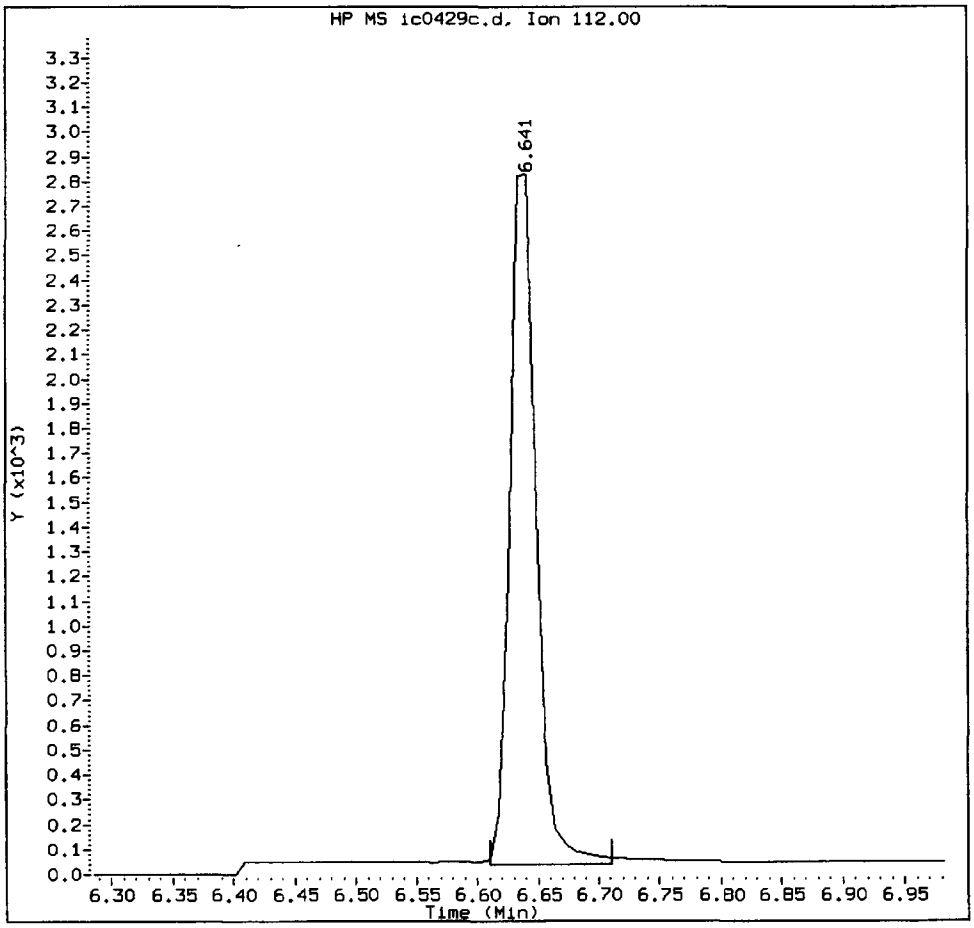
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429C, /chem1/nt10.i/20130429.b/SIM.b/ic0429c.d

2-Fluorophenol Amount: 0.21 Area: 4255



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: 1/2 Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429c.d

Lab ID: IC0429C, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-2(

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 5/3/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429d.d
Lab Smp Id: IC0429D
Inj Date : 29-APR-2013 18:44
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429D
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 18:44 Cal File: ic0429d.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.634	6.634	(0.738)	17994	1.00000	0.9728(M)
	3 Phenol	94	8.357	8.365	(0.930)	25635	1.00000	0.9641
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	20703	1.00000	0.9449
*	8 1,4-Dichlorobenzene-d4	152	8.984	8.984	(1.000)	52658	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	20433	1.00000	0.9367
	11 Benzyl alcohol	79	9.286	9.294	(1.034)	12498	1.00000	0.9801
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	19435	1.00000	0.9375
	13 2-Methylphenol	108	9.550	9.551	(1.063)	18392	1.00000	0.9675
	15 4-Methylphenol	108	9.845	9.846	(1.096)	19004	1.00000	0.9818
	16 N-Nitroso-di-n-propylamine	70	9.900	9.900	(1.102)	10547	1.00000	0.9662
	22 2,4-Dimethylphenol	107	10.961	10.962	(0.941)	37034	2.00000	1.988
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	17366	1.00000	0.9421
*	27 Naphthalene-d8	136	11.648	11.640	(1.000)	192325	4.00000	
	30 Hexachlorobutadiene	225	12.103	12.104	(1.039)	10544	1.00000	0.9397
	39 Dimethylphthalate	163	15.052	15.052	(0.969)	30258	1.00000	0.9597
*	42 Acenaphthene-d10	162	15.539	15.540	(1.000)	109274	4.00000	
	50 Diethylphthalate	149	16.637	16.637	(1.071)	35026	1.00000	0.9810
	54 N-Nitrosodiphenylamine	169	17.031	17.023	(0.905)	23603	1.00000	1.056
	57 Hexachlorobenzene	284	18.158	18.158	(0.965)	14101	1.00000	0.9231
	58 Pentachlorophenol	266	18.552	18.553	(0.986)	19427	2.00000	2.075
*	59 Phenanthrene-d10	188	18.815	18.816	(1.000)	203933	4.00000	
$	66 Terphenyl-d14	244	22.026	22.027	(0.922)	26834	1.00000	0.9761
	67 Butylbenzylphthalate	149	22.979	22.971	(0.961)	21746	1.00000	1.048
*	69 Chrysene-d12	240	23.900	23.900	(1.000)	223647	4.00000	
*	77 Perylene-d12	264	26.354	26.347	(1.000)	211919	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.710	28.703	(1.089)	46573	1.00000	0.9859
	90 N-Nitrosodimethylamine	74	4.371	4.371	(0.487)	22111	2.00000	1.949

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429d.d
Lab Smp Id: IC0429D
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	52658	0.00
27 Naphthalene-d8	192325	96162	384650	192325	0.00
42 Acenaphthene-d10	109274	54637	218548	109274	0.00
59 Phenanthrene-d10	203933	101966	407866	203933	0.00
69 Chrysene-d12	223647	111824	447294	223647	0.00
77 Perylene-d12	211919	105960	423838	211919	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429d.d

Date : 29-APR-2013 18:44

Client ID:

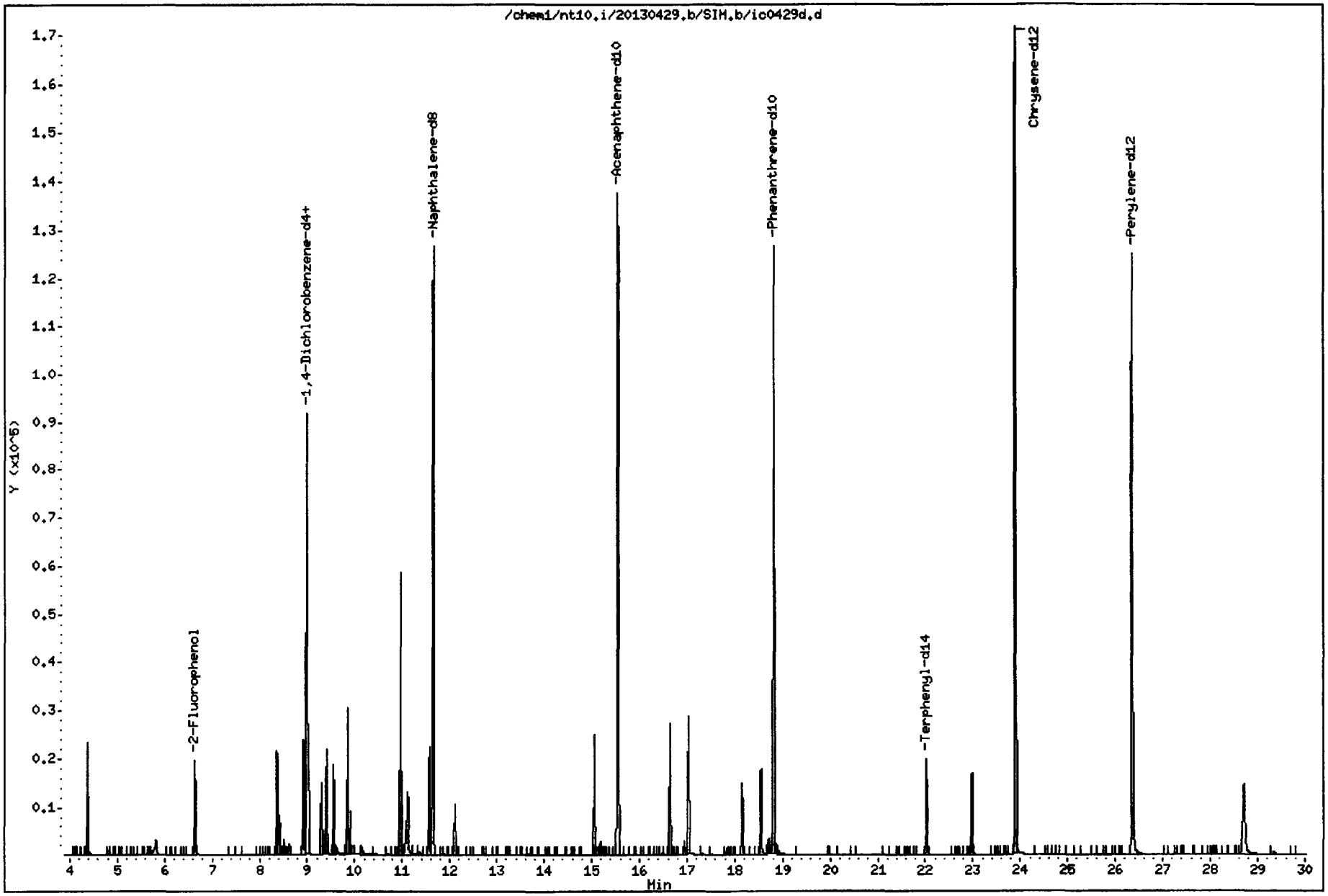
Instrument: nt10.i

Sample Info: IC0429D

Operator: YZ

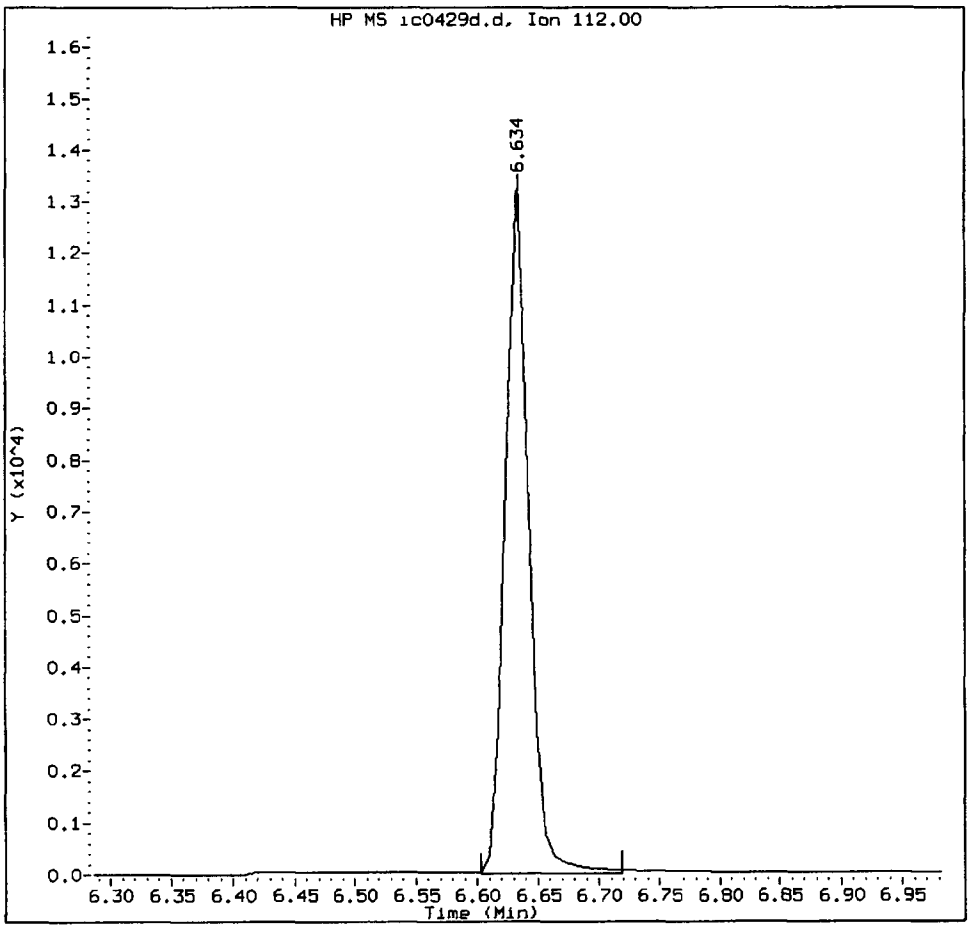
Column phase: ZB-5msi

Column diameter: 0.25



IC0429D, /chem1/nt10.i/20130429.b/SIM.b/ic0429d.d

2-Fluorophenol Amount: 0.97 Area: 17994



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: KZ Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429d.d

Lab ID: IC0429D, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d
Lab Smp Id: IC0429F
Inj Date : 29-APR-2013 19:57
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429F
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 19:57 Cal File: ic0429f.d
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.634	6.634	(0.738)	1004	0.05000	0.05408(M)
	3 Phenol	94	8.365	8.365	(0.931)	1449	0.05000	0.05430
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	1239	0.05000	0.05635(M)
*	8 1,4-Dichlorobenzene-d4	152	8.984	8.984	(1.000)	52849	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	1268	0.05000	0.05792(M)
	11 Benzyl alcohol	79	9.294	9.294	(1.035)	670	0.05000	0.05235(M)
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	1190	0.05000	0.05720
	13 2-Methylphenol	108	9.550	9.551	(1.063)	1054	0.05000	0.05525
	15 4-Methylphenol	108	9.845	9.846	(1.096)	1049	0.05000	0.05400
	16 N-Nitroso-di-n-propylamine	70	9.900	9.900	(1.102)	604	0.05000	0.05513(M)
	22 2,4-Dimethylphenol	107	10.962	10.962	(0.941)	1981	0.10000	0.1047
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	1081	0.05000	0.05775
*	27 Naphthalene-d8	136	11.648	11.640	(1.000)	195311	4.00000	
	30 Hexachlorobutadiene	225	12.104	12.104	(1.039)	663	0.05000	0.05818(M)
	39 Dimethylphthalate	163	15.052	15.052	(0.969)	1726	0.05000	0.05612
*	42 Acenaphthene-d10	162	15.540	15.540	(1.000)	106586	4.00000	
	50 Diethylphthalate	149	16.637	16.637	(1.071)	1984	0.05000	0.05697
	54 N-Nitrosodiphenylamine	169	17.031	17.023	(0.905)	947	0.05000	0.04495(M)
	57 Hexachlorobenzene	284	18.150	18.158	(0.965)	903	0.05000	0.06274(M)
	58 Pentachlorophenol	266	18.553	18.553	(0.986)	696	0.10000	0.07888
*	59 Phenanthrene-d10	188	18.816	18.816	(1.000)	192165	4.00000	
$	66 Terphenyl-d14	244	22.027	22.027	(0.922)	1521	0.05000	0.05748
	67 Butylbenzylphthalate	149	22.979	22.971	(0.961)	972	0.05000	0.04867
*	69 Chrysene-d12	240	23.900	23.900	(1.000)	215273	4.00000	
*	77 Perylene-d12	264	26.355	26.347	(1.000)	195976	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.726	28.703	(1.090)	2385	0.05000	0.05460
	90 N-Nitrosodimethylamine	74	4.387	4.371	(0.488)	1192	0.10000	0.1047

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429f.d
Lab Smp Id: IC0429F
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	52849	0.36
27 Naphthalene-d8	192325	96162	384650	195311	1.55
42 Acenaphthene-d10	109274	54637	218548	106586	-2.46
59 Phenanthrene-d10	203933	101966	407866	192165	-5.77
69 Chrysene-d12	223647	111824	447294	215273	-3.74
77 Perylene-d12	211919	105960	423838	195976	-7.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

Date : 29-APR-2013 19:57

Client ID:

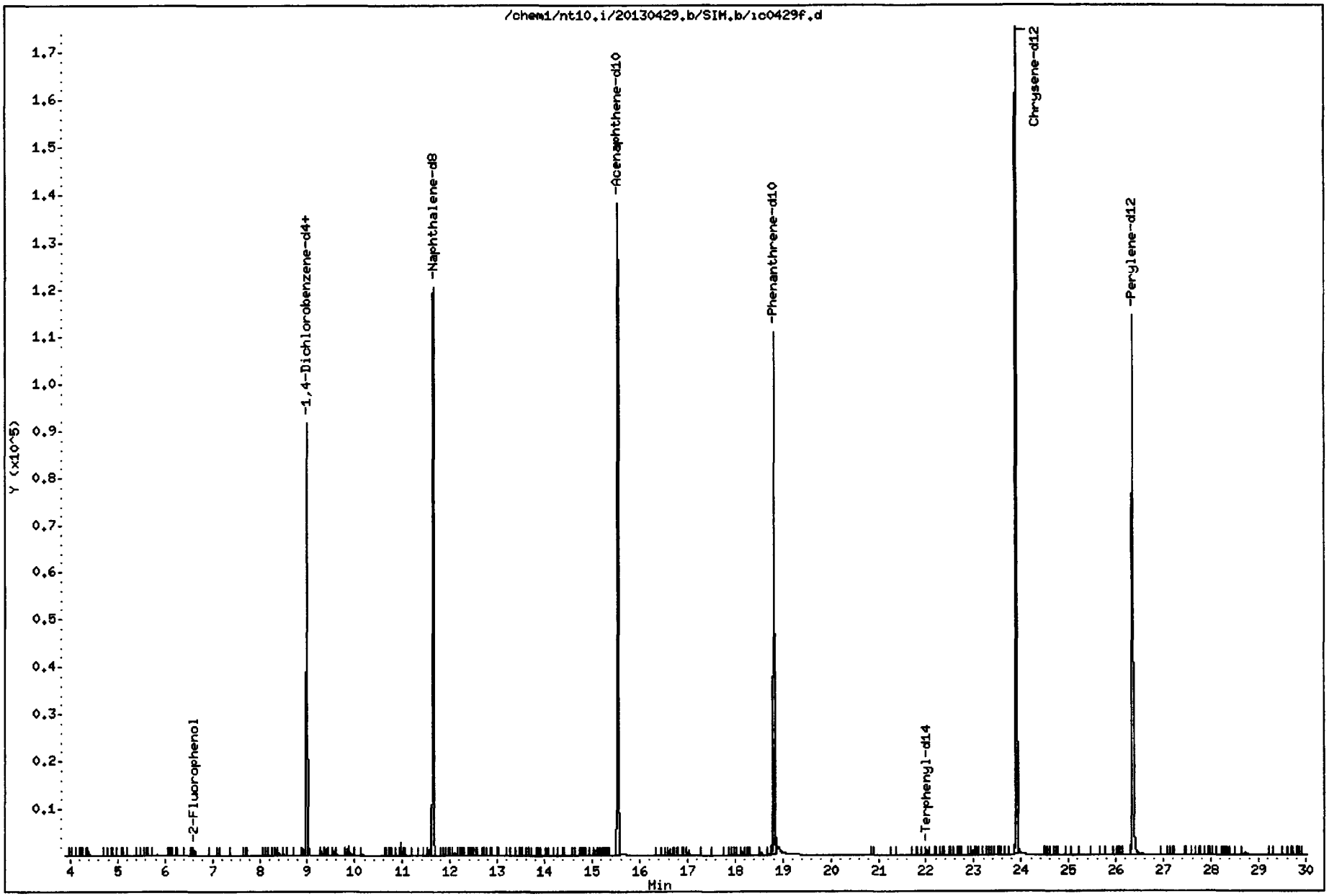
Sample Info: IC0429F

Instrument: nt10.i

Operator: YZ

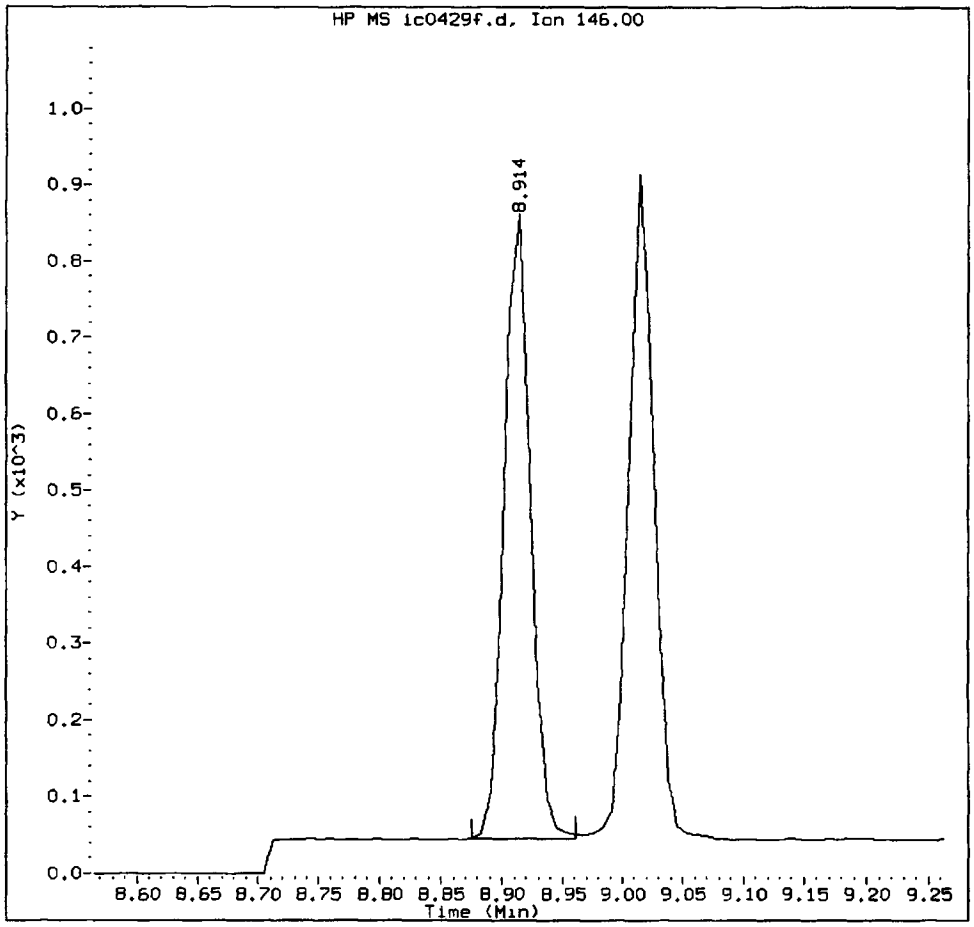
Column phase: ZB-5msi

Column diameter: 0.25



IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

1,3-Dichlorobenzene Amount: 0.06 Area: 1239



MANUAL INTEGRATION for 1,3-Dichlorobenzene

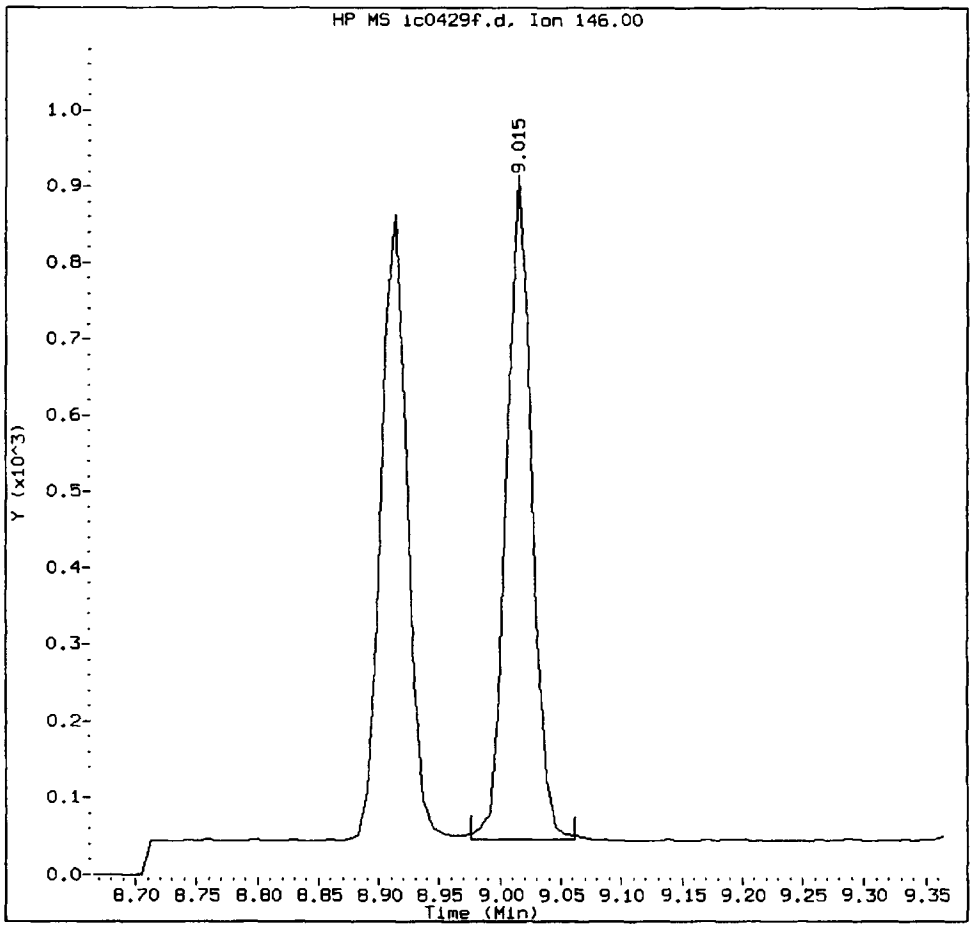
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VJ Date: 5/3/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

1,4-Dichlorobenzene Amount: 0.06 Area: 1268



MANUAL INTEGRATION for 1,4-Dichlorobenzene

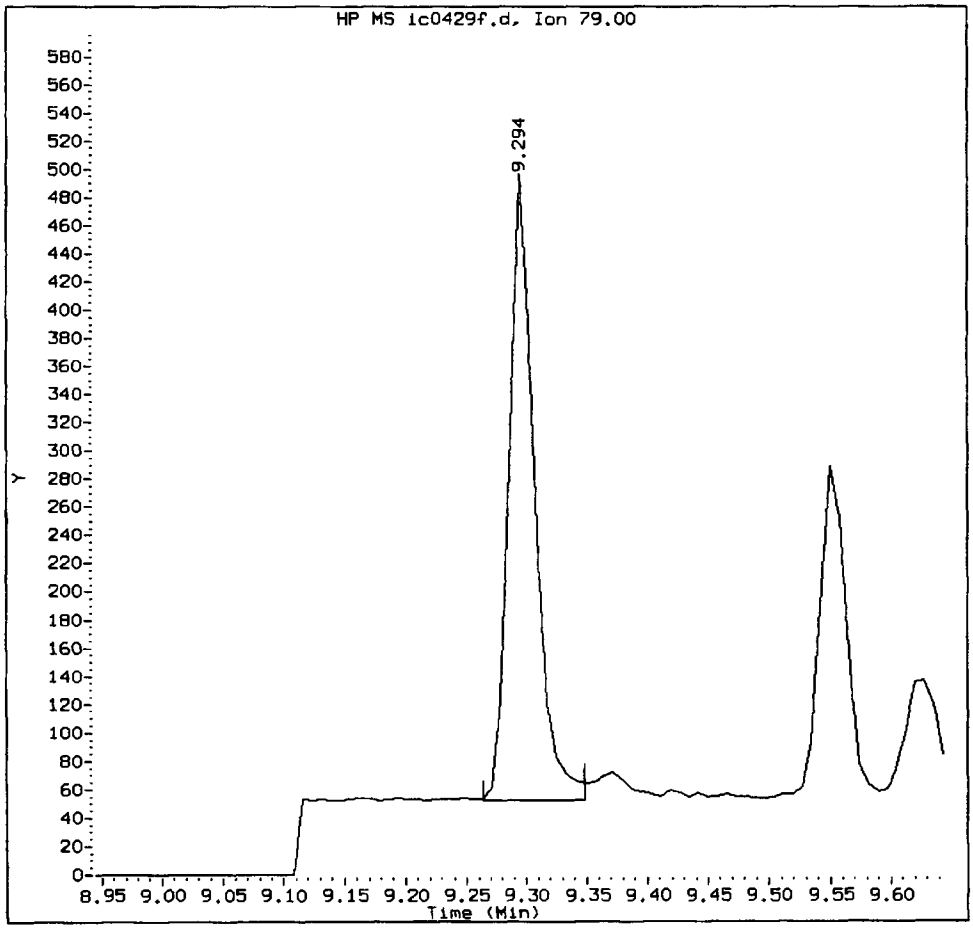
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: 42 Date: 5/9/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

Benzyl alcohol Amount: 0.05 Area: 670



MANUAL INTEGRATION for Benzyl alcohol

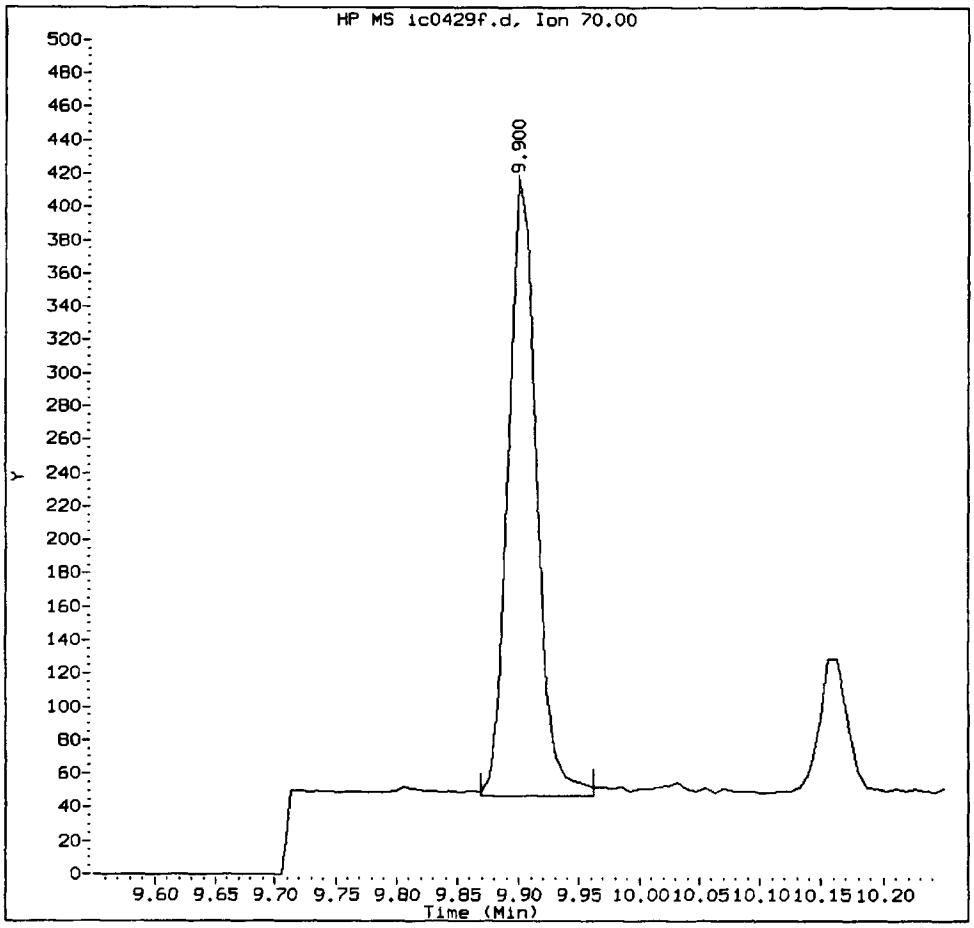
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ 1/2 Date: 5/3/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

N-Nitroso-di-n-propylamine Amount: 0.06 Area: 604



MANUAL INTEGRATION for N-Nitroso-di-n-propylamine

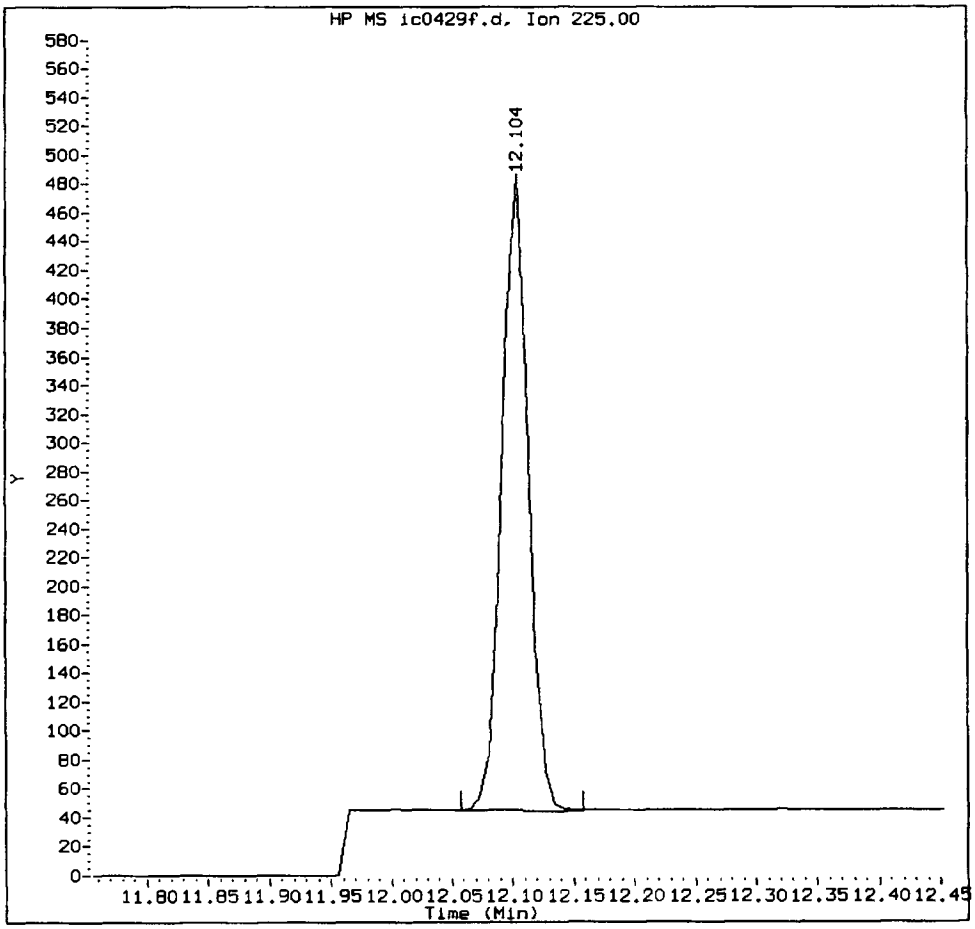
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VL Date: 5/3/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

Hexachlorobutadiene Amount: 0.06 Area: 663



MANUAL INTEGRATION for Hexachlorobutadiene

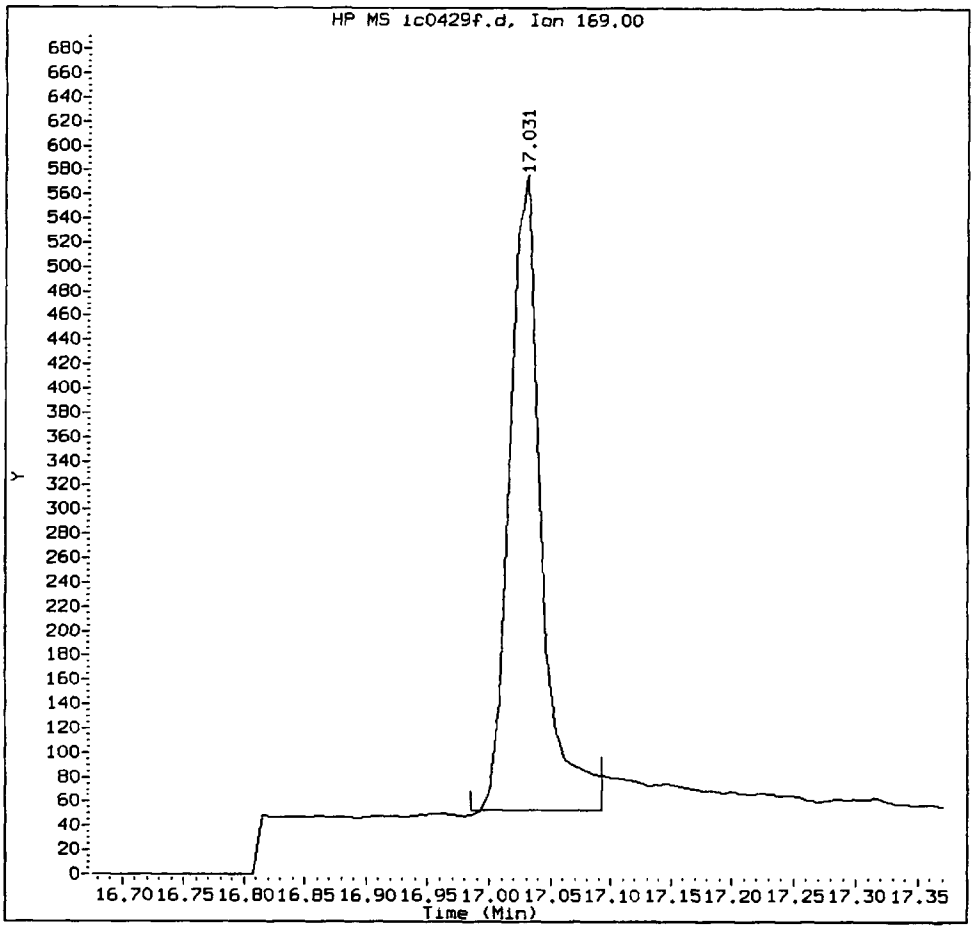
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/8/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

N-Nitrosodiphenylamine Amount: 0.04 Area: 947



MANUAL INTEGRATION for N-Nitrosodiphenylamine

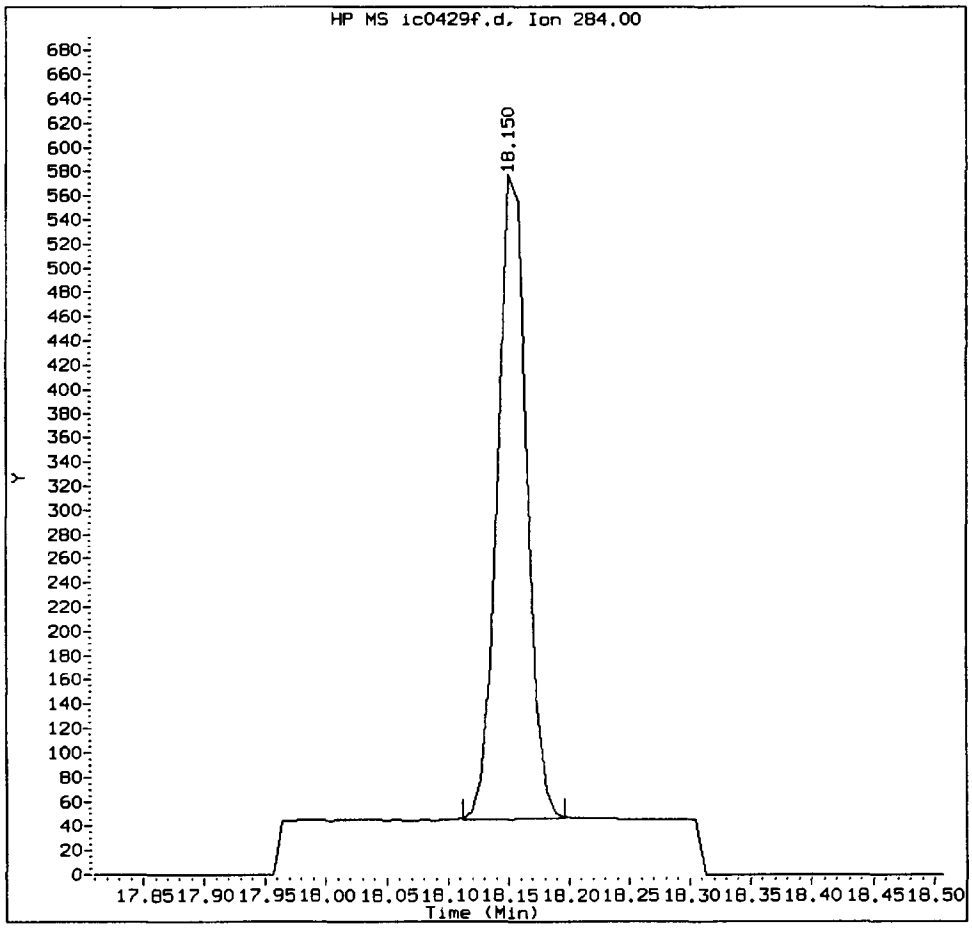
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ Date: 5/3/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

Hexachlorobenzene Amount: 0.06 Area: 903



MANUAL INTEGRATION for Hexachlorobenzene

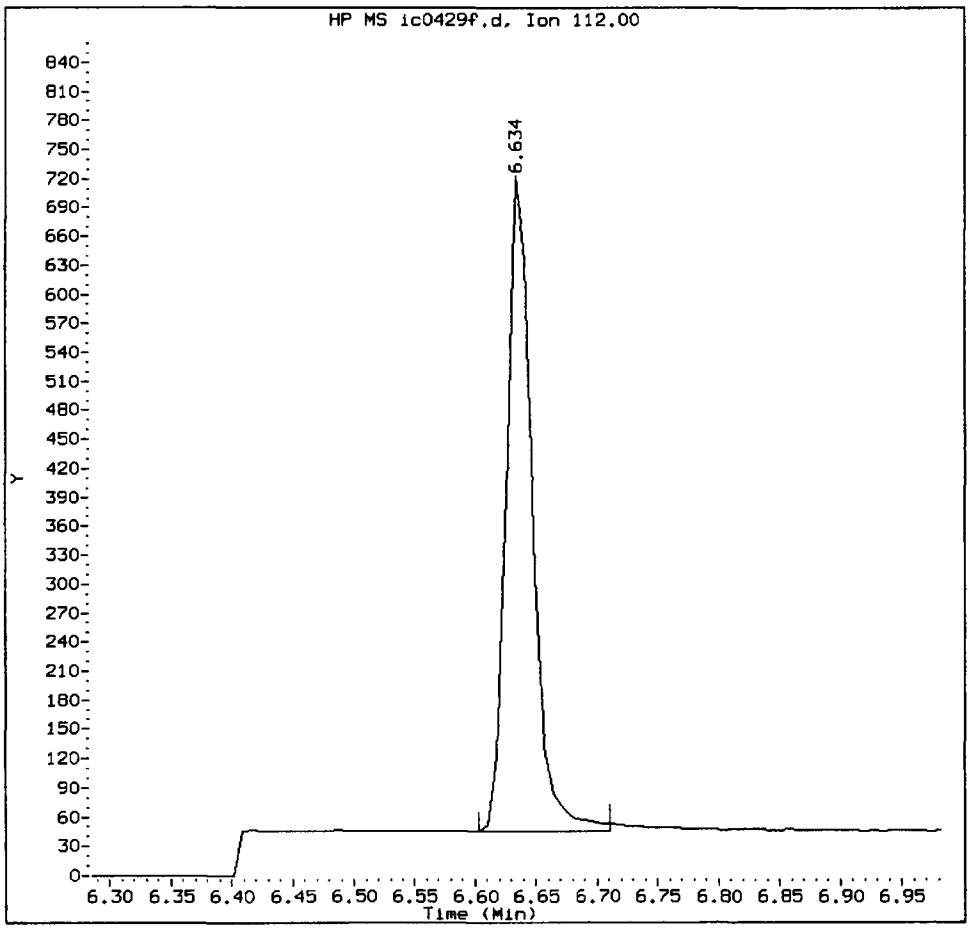
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/8/13

IC0429F, /chem1/nt10.i/20130429.b/SIM.b/ic0429f.d

2-Fluorophenol Amount: 0.05 Area: 1004



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VR Date: 5/9/13

CO-ELUTION SUMMARY FOR FILE - ic0429f.d

Lab ID: IC0429F, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-2C

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429g.d YZ 5/3/13
Lab Smp Id: IC0429G
Inj Date : 29-APR-2013 20:34
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429G
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 20:34 Cal File: ic0429g.d
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.633	6.634	(0.738)	39175	2.50000	2.552(M)
	3 Phenol	94	8.364	8.365	(0.931)	57029	2.50000	2.584
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	43575	2.50000	2.396
*	8 1,4-Dichlorobenzene-d4	152	8.983	8.984	(1.000)	43709	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	43120	2.50000	2.381
	11 Benzyl alcohol	79	9.294	9.294	(1.035)	27973	2.50000	2.643
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	41290	2.50000	2.400
	13 2-Methylphenol	108	9.550	9.551	(1.063)	40181	2.50000	2.547
	15 4-Methylphenol	108	9.845	9.846	(1.096)	41543	2.50000	2.586
	16 N-Nitroso-di-n-propylamine	70	9.899	9.900	(1.102)	23225	2.50000	2.563
	22 2,4-Dimethylphenol	107	10.969	10.962	(0.942)	80843	5.00000	5.211
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	36642	2.50000	2.387
*	27 Naphthalene-d8	136	11.647	11.640	(1.000)	160165	4.00000	
	30 Hexachlorobutadiene	225	12.103	12.104	(1.039)	22613	2.50000	2.420
	39 Dimethylphthalate	163	15.060	15.052	(0.969)	66102	2.50000	2.407
*	42 Acenaphthene-d10	162	15.539	15.540	(1.000)	95179	4.00000	
	50 Diethylphthalate	149	16.645	16.637	(1.071)	77428	2.50000	2.490
	54 N-Nitrosodiphenylamine	169	17.031	17.023	(0.905)	51253	2.50000	2.616
	57 Hexachlorobenzene	284	18.157	18.158	(0.965)	30459	2.50000	2.276
	58 Pentachlorophenol	266	18.552	18.553	(0.986)	45814	5.00000	5.583
*	59 Phenanthrene-d10	188	18.815	18.816	(1.000)	178699	4.00000	
$	66 Terphenyl-d14	244	22.026	22.027	(0.922)	58696	2.50000	2.397
	67 Butylbenzylphthalate	149	22.979	22.971	(0.961)	50099	2.50000	2.711
*	69 Chrysene-d12	240	23.900	23.900	(1.000)	199199	4.00000	
*	77 Perylene-d12	264	26.362	26.347	(1.000)	191024	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.718	28.703	(1.089)	106924	2.50000	2.511
	90 N-Nitrosodimethylamine	74	4.356	4.371	(0.485)	49279	5.00000	5.232

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429g.d
Lab Smp Id: IC0429G
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	43709	-16.99
27 Naphthalene-d8	192325	96162	384650	160165	-16.72
42 Acenaphthene-d10	109274	54637	218548	95179	-12.90
59 Phenanthrene-d10	203933	101966	407866	178699	-12.37
69 Chrysene-d12	223647	111824	447294	199199	-10.93
77 Perylene-d12	211919	105960	423838	191024	-9.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
77 Perylene-d12	26.35	25.85	26.85	26.36	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429g.d

Page 4

Date : 29-APR-2013 20:34

Client ID:

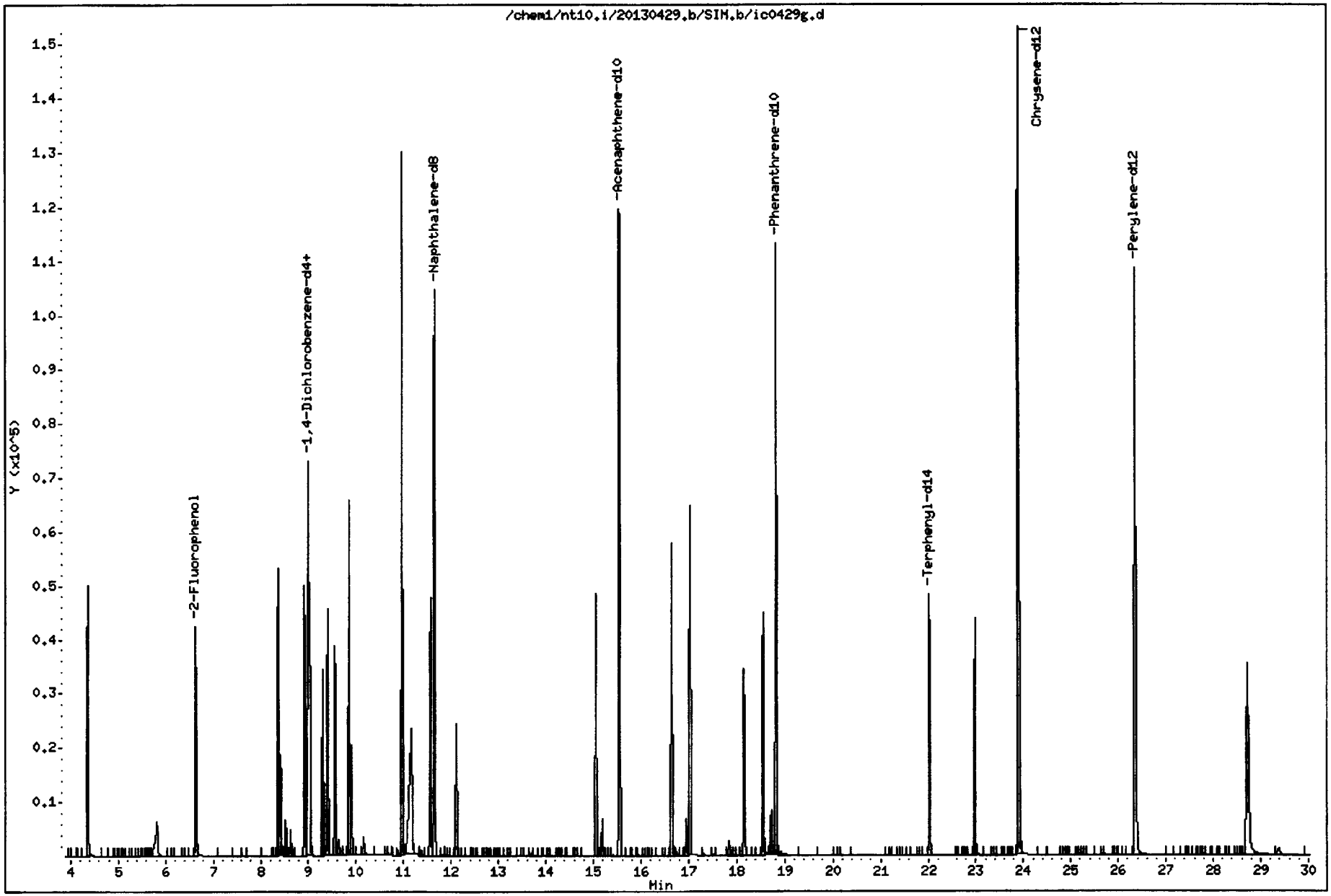
Instrument: nt10.i

Sample Info: IC0429G

Operator: YZ

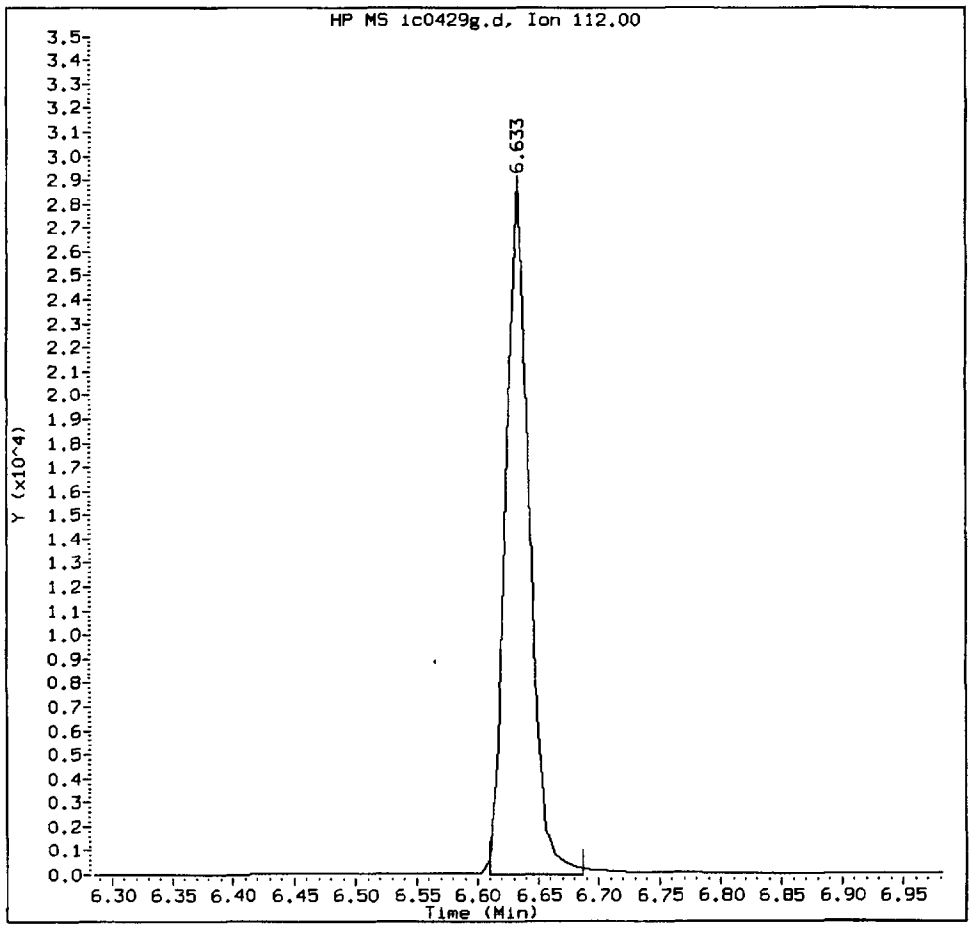
Column phase: ZB-5msi

Column diameter: 0.25



IC0429G, /chem1/nt10.i/20130429.b/SIM.b/ic0429g.d

2-Fluorophenol Amount: 2.55 Area: 39175



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/9/17

CO-ELUTION SUMMARY FOR FILE - ic0429g.d

Lab ID: IC0429G, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d
Lab Smp Id: IC0429H
Inj Date : 29-APR-2013 21:11
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429H
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:11 Cal File: ic0429h.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

YZ 5/3/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.633	6.634	(0.738)	1744	0.10000	0.09619(M)
	3 Phenol	94	8.365	8.365	(0.931)	2499	0.10000	0.09589
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	2261	0.10000	0.1053
*	8 1,4-Dichlorobenzene-d4	152	8.984	8.984	(1.000)	51614	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	2198	0.10000	0.1028(M)
	11 Benzyl alcohol	79	9.294	9.294	(1.035)	1192	0.10000	0.09537
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	2088	0.10000	0.1028
	13 2-Methylphenol	108	9.550	9.551	(1.063)	1796	0.10000	0.09639
	15 4-Methylphenol	108	9.845	9.846	(1.096)	1777	0.10000	0.09366
	16 N-Nitroso-di-n-propylamine	70	9.899	9.900	(1.102)	1040	0.10000	0.09720
	22 2,4-Dimethylphenol	107	10.961	10.962	(0.941)	3433	0.20000	0.1840
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	1896	0.10000	0.1027(M)
*	27 Naphthalene-d8	136	11.647	11.640	(1.000)	192559	4.00000	
	30 Hexachlorobutadiene	225	12.103	12.104	(1.039)	1142	0.10000	0.1017(M)
	39 Dimethylphthalate	163	15.052	15.052	(0.969)	3197	0.10000	0.1027
*	42 Acenaphthene-d10	162	15.539	15.540	(1.000)	107939	4.00000	
	50 Diethylphthalate	149	16.637	16.637	(1.071)	3307	0.10000	0.09377
	54 N-Nitrosodiphenylamine	169	17.023	17.023	(0.905)	1860	0.10000	0.08732
	57 Hexachlorobenzene	284	18.157	18.158	(0.965)	1462	0.10000	0.1005
	58 Pentachlorophenol	266	18.552	18.553	(0.986)	1339	0.20000	0.1501(M)
*	59 Phenanthrene-d10	188	18.815	18.816	(1.000)	194268	4.00000	
$	66 Terphenyl-d14	244	22.026	22.027	(0.922)	2454	0.10000	0.09449(M)
	67 Butylbenzylphthalate	149	22.971	22.971	(0.961)	1538	0.10000	0.07847
*	69 Chrysene-d12	240	23.892	23.900	(1.000)	211275	4.00000	
*	77 Perylene-d12	264	26.347	26.347	(1.000)	196007	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.710	28.703	(1.090)	3837	0.10000	0.08782
	90 N-Nitrosodimethylamine	74	4.386	4.371	(0.488)	2220	0.20000	0.1996

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429h.d
Lab Smp Id: IC0429H
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	51614	-1.98
27 Naphthalene-d8	192325	96162	384650	192559	0.12
42 Acenaphthene-d10	109274	54637	218548	107939	-1.22
59 Phenanthrene-d10	203933	101966	407866	194268	-4.74
69 Chrysene-d12	223647	111824	447294	211275	-5.53
77 Perylene-d12	211919	105960	423838	196007	-7.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.65	0.00
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.89	-0.03
77 Perylene-d12	26.35	25.85	26.85	26.35	-0.03

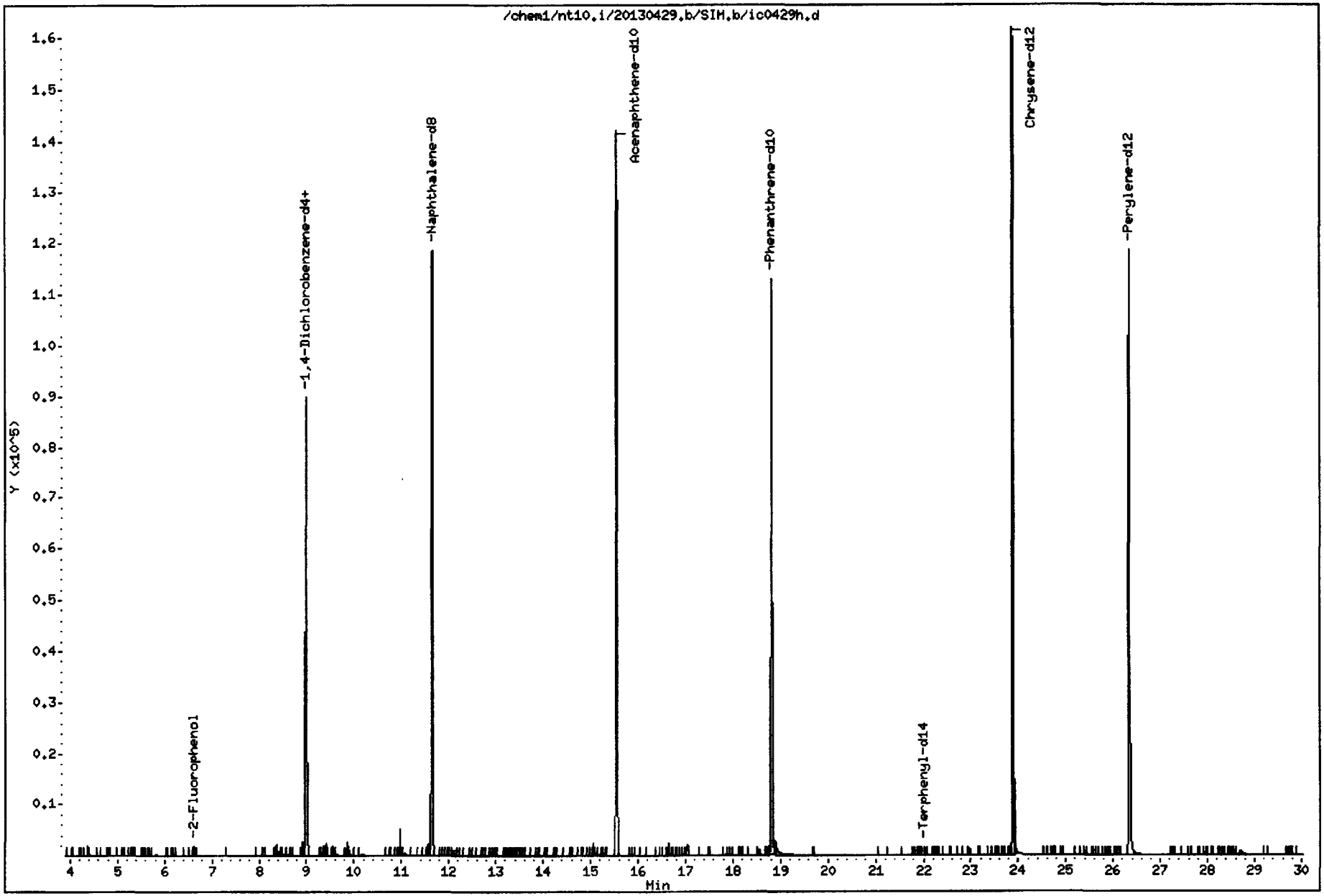
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d
Date : 29-APR-2013 21:11
Client ID:
Sample Info: IC0429H

Instrument: nt10.i

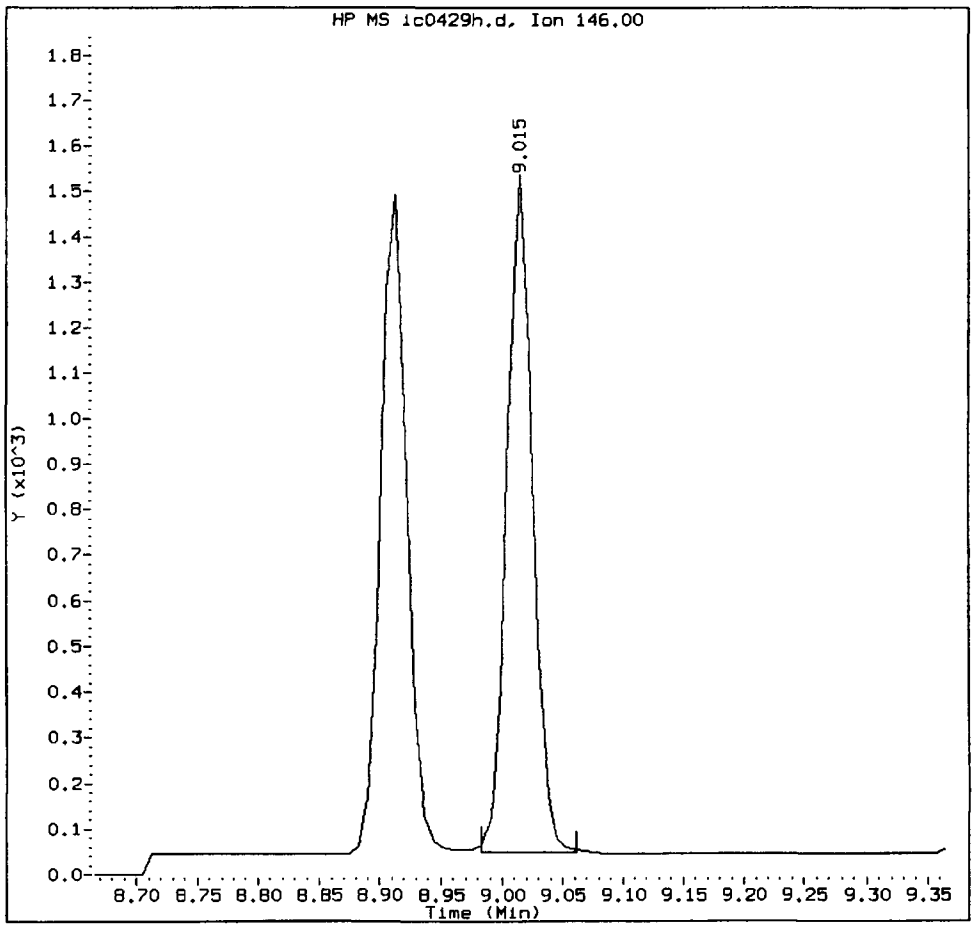
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

1,4-Dichlorobenzene Amount: 0.10 Area: 2198



MANUAL INTEGRATION for 1,4-Dichlorobenzene

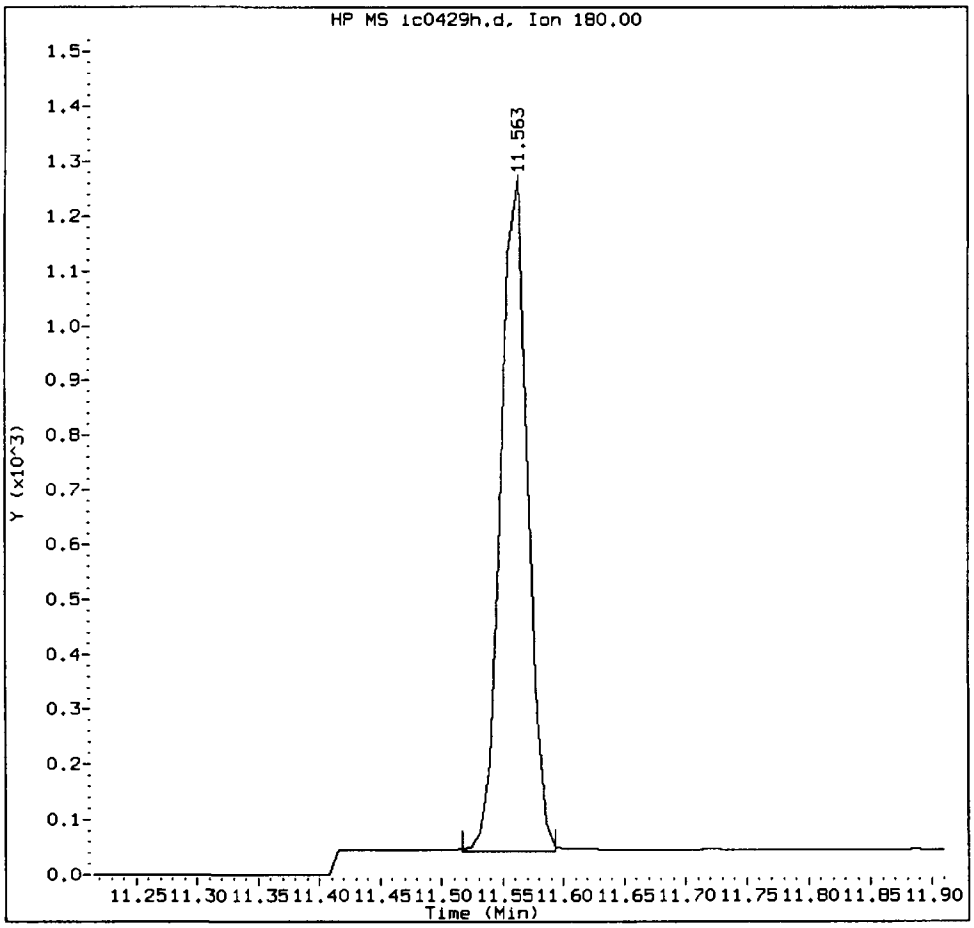
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ **Date:** 5/3/13

IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

1,2,4-Trichlorobenzene Amount: 0.10 Area: 1896



MANUAL INTEGRATION for 1,2,4-Trichlorobenzene

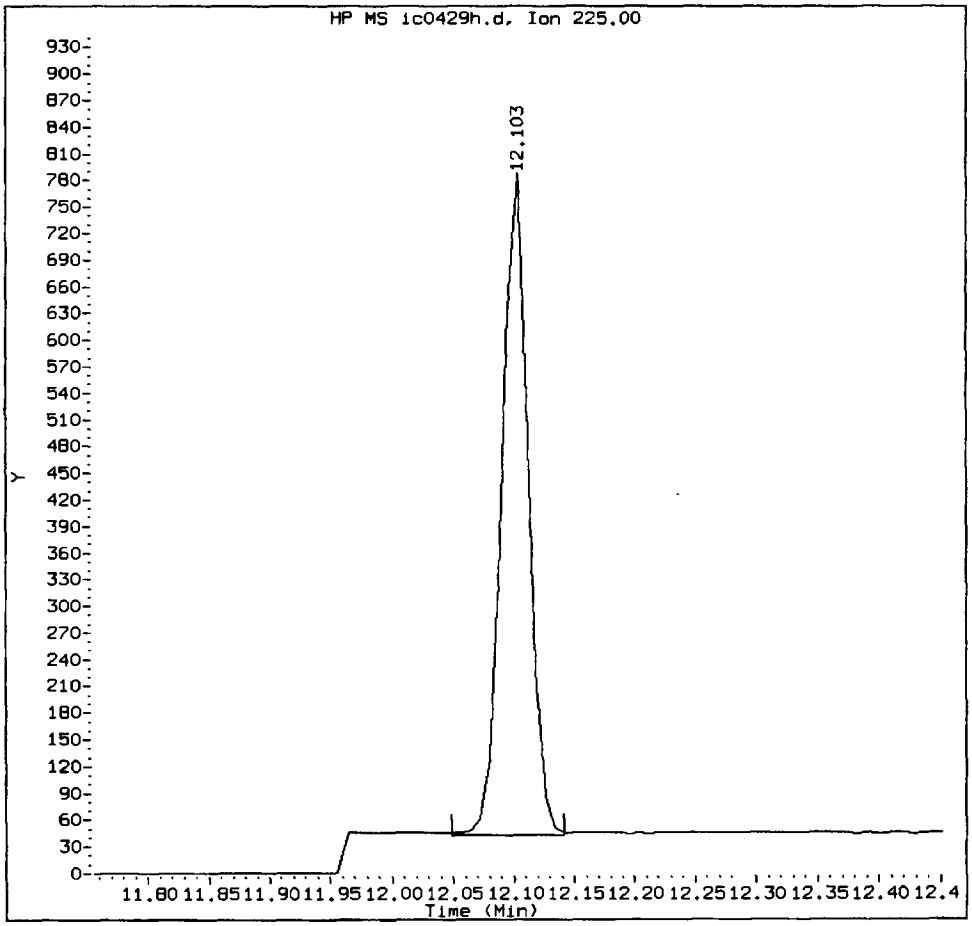
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/9/13

IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

Hexachlorobutadiene Amount: 0.10 Area: 1142



MANUAL INTEGRATION for Hexachlorobutadiene

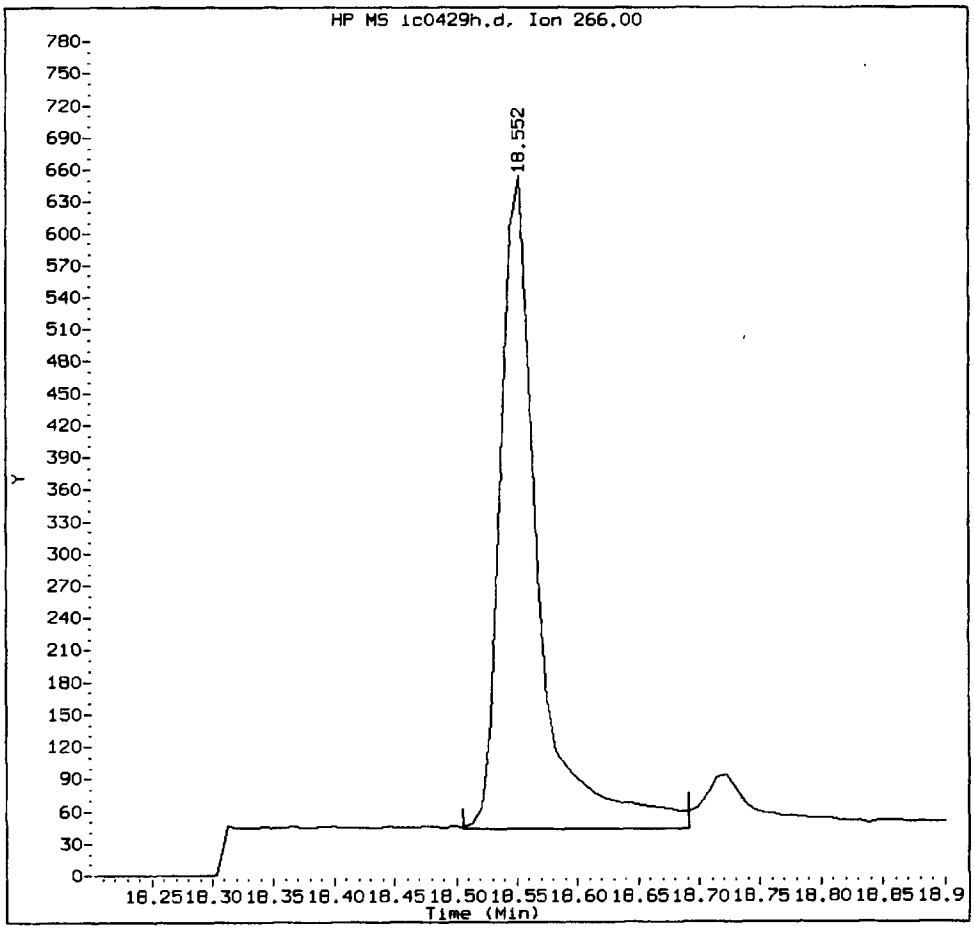
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 5/9/13

IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

Pentachlorophenol Amount: 0.15 Area: 1339



MANUAL INTEGRATION for Pentachlorophenol

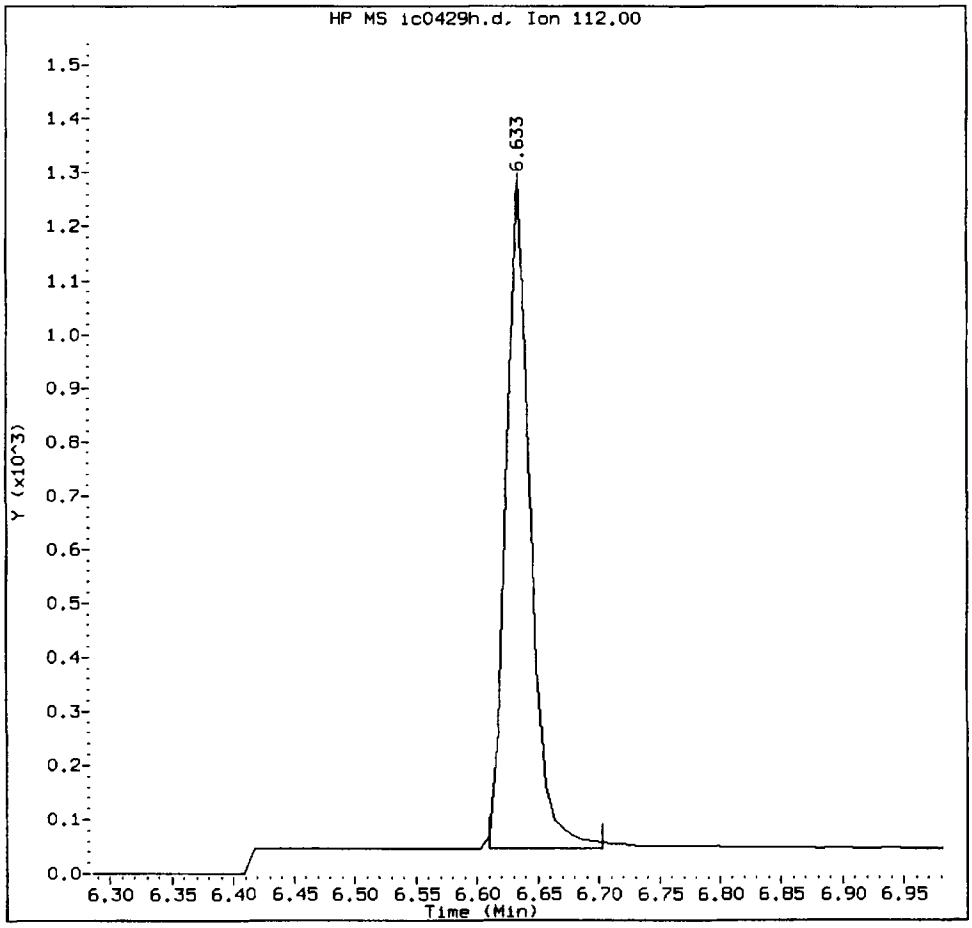
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/3/13

IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

2-Fluorophenol Amount: 0.10 Area: 1744



MANUAL INTEGRATION for 2-Fluorophenol

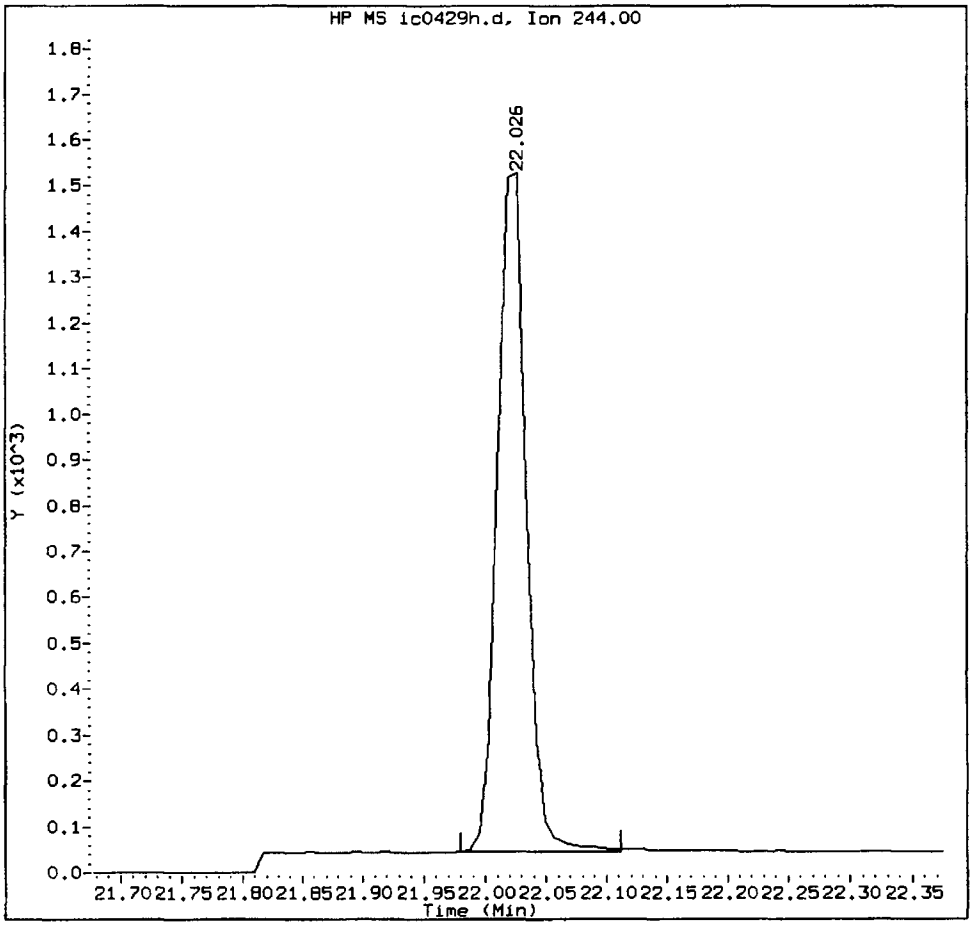
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: _____ Date: 5/3/13

IC0429H, /chem1/nt10.i/20130429.b/SIM.b/ic0429h.d

Terphenyl-d14 Amount: 0.09 Area: 2454



MANUAL INTEGRATION for Terphenyl-d14

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/3/13

CO-ELUTION SUMMARY FOR FILE - ic0429h.d

Lab ID: IC0429H, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130429.b/SIM.b/ic0429i.d
Lab Smp Id: IC0429I
Inj Date : 29-APR-2013 21:47
Operator : YZ Inst ID: nt10.i
Smp Info : IC0429I
Misc Info :
Comment :
Method : /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Meth Date : 03-May-2013 17:11 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 10 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50

YZ 5/3/13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.634	6.634	(0.738)	8113	0.50000	0.4669(M)
	3 Phenol	94	8.365	8.365	(0.931)	11931	0.50000	0.4777
	7 1,3-Dichlorobenzene	146	8.914	8.914	(0.992)	9817	0.50000	0.4770
*	8 1,4-Dichlorobenzene-d4	152	8.984	8.984	(1.000)	49468	4.00000	
	9 1,4-Dichlorobenzene	146	9.015	9.015	(1.003)	9757	0.50000	0.4761
	11 Benzyl alcohol	79	9.294	9.294	(1.035)	5665	0.50000	0.4729
	12 1,2-Dichlorobenzene	146	9.395	9.395	(1.046)	9240	0.50000	0.4745
	13 2-Methylphenol	108	9.551	9.551	(1.063)	8436	0.50000	0.4724
	15 4-Methylphenol	108	9.846	9.846	(1.096)	8566	0.50000	0.4711
	16 N-Nitroso-di-n-propylamine	70	9.900	9.900	(1.102)	4941	0.50000	0.4818
	22 2,4-Dimethylphenol	107	10.962	10.962	(0.942)	16956	1.00000	0.9589
	26 1,2,4-Trichlorobenzene	180	11.563	11.563	(0.993)	8289	0.50000	0.4738
*	27 Naphthalene-d8	136	11.640	11.640	(1.000)	182546	4.00000	
	30 Hexachlorobutadiene	225	12.104	12.104	(1.040)	5038	0.50000	0.4730
	39 Dimethylphthalate	163	15.052	15.052	(0.969)	14017	0.50000	0.4605
*	42 Acenaphthene-d10	162	15.540	15.540	(1.000)	105486	4.00000	
	50 Diethylphthalate	149	16.637	16.637	(1.071)	15572	0.50000	0.4518
	54 N-Nitrosodiphenylamine	169	17.023	17.023	(0.905)	10352	0.50000	0.4940
	57 Hexachlorobenzene	284	18.158	18.158	(0.965)	6394	0.50000	0.4467
	58 Pentachlorophenol	266	18.553	18.553	(0.986)	7927	1.00000	0.9033
*	59 Phenanthrene-d10	188	18.816	18.816	(1.000)	191121	4.00000	
$	66 Terphenyl-d14	244	22.027	22.027	(0.922)	11579	0.50000	0.4518
	67 Butylbenzylphthalate	149	22.971	22.971	(0.961)	8336	0.50000	0.4310
*	69 Chrysene-d12	240	23.900	23.900	(1.000)	208500	4.00000	
*	77 Perylene-d12	264	26.347	26.347	(1.000)	197777	4.00000	
	79 Dibenzo(a,h)anthracene	278	28.703	28.703	(1.089)	19496	0.50000	0.4422
	90 N-Nitrosodimethylamine	74	4.371	4.371	(0.487)	10669	1.00000	1.001

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0429i.d
Lab Smp Id: IC0429I
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130429.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 29-APR-2013
Calibration Time: 18:44
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	49468	-6.06
27 Naphthalene-d8	192325	96162	384650	182546	-5.08
42 Acenaphthene-d10	109274	54637	218548	105486	-3.47
59 Phenanthrene-d10	203933	101966	407866	191121	-6.28
69 Chrysene-d12	223647	111824	447294	208500	-6.77
77 Perylene-d12	211919	105960	423838	197777	-6.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.98	8.48	9.48	8.98	0.00
27 Naphthalene-d8	11.65	11.15	12.15	11.64	-0.06
42 Acenaphthene-d10	15.54	15.04	16.04	15.54	0.00
59 Phenanthrene-d10	18.82	18.32	19.32	18.82	0.00
69 Chrysene-d12	23.90	23.40	24.40	23.90	0.00
77 Perylene-d12	26.35	25.85	26.85	26.35	-0.03

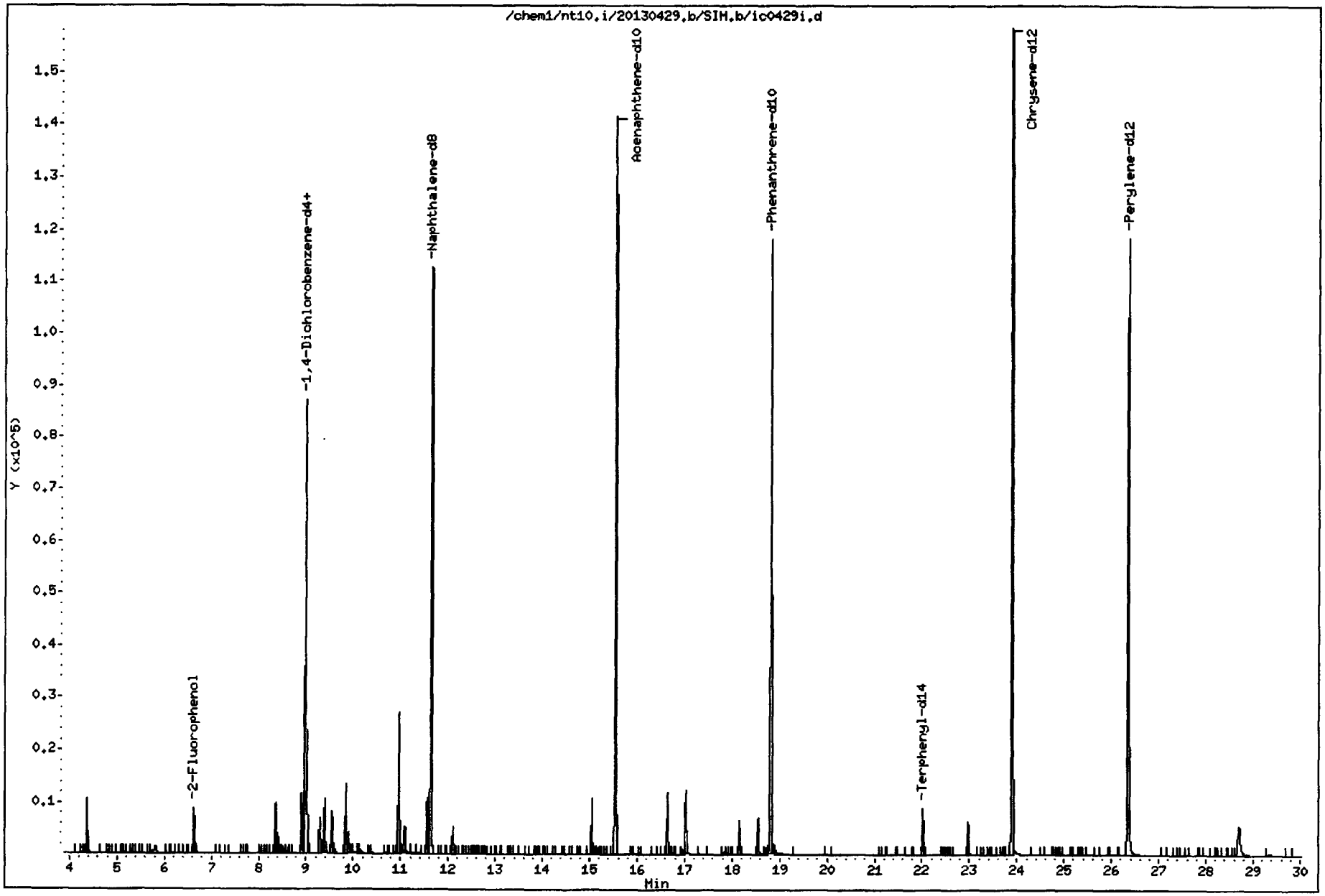
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20130429.b/SIM.b/ic0429i.d
Date : 29-APR-2013 21:47
Client ID:
Sample Info: IC0429I

Instrument: nt10.i

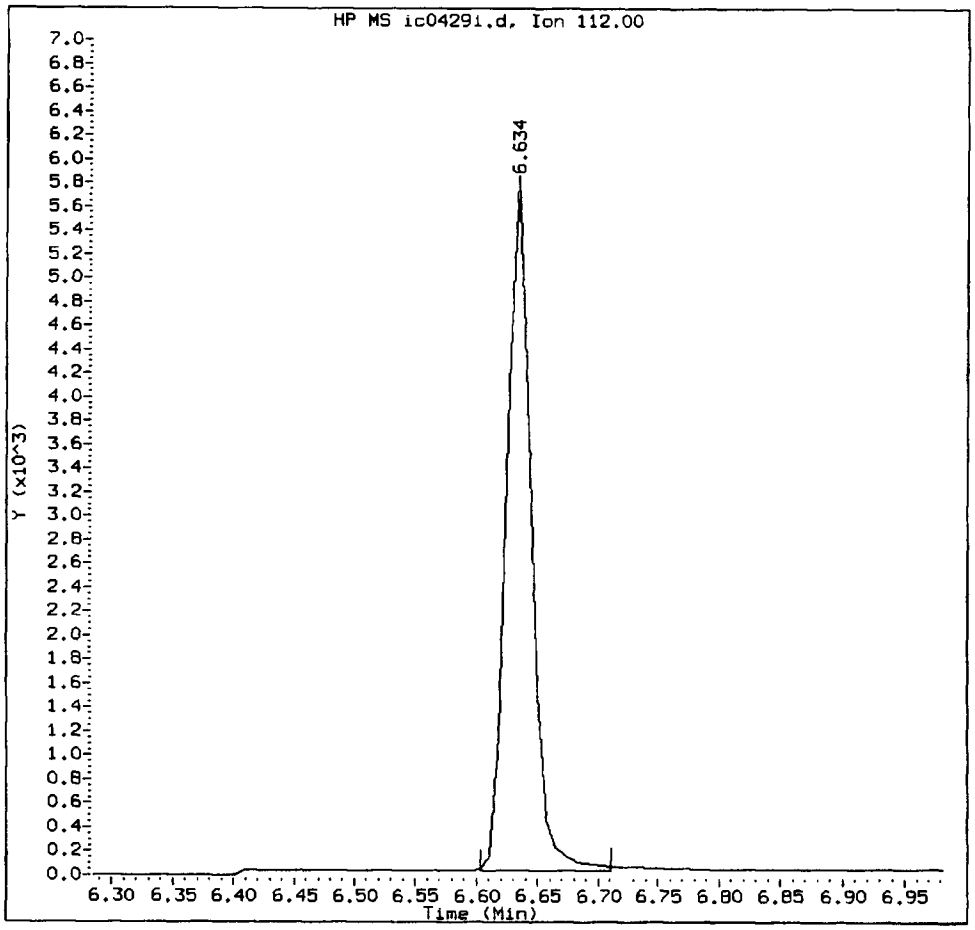
Operator: YZ
Column diameter: 0.25

Column phase: ZB-5msi



IC0429I, /chem1/nt10.i/20130429.b/SIM.b/ic0429i.d

2-Fluorophenol Amount: 0.47 Area: 8113



MANUAL INTEGRATION for 2-Fluorophenol

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/31/13

CO-ELUTION SUMMARY FOR FILE - ic0429i.d

Lab ID: IC0429I, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 29-APR-2(

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

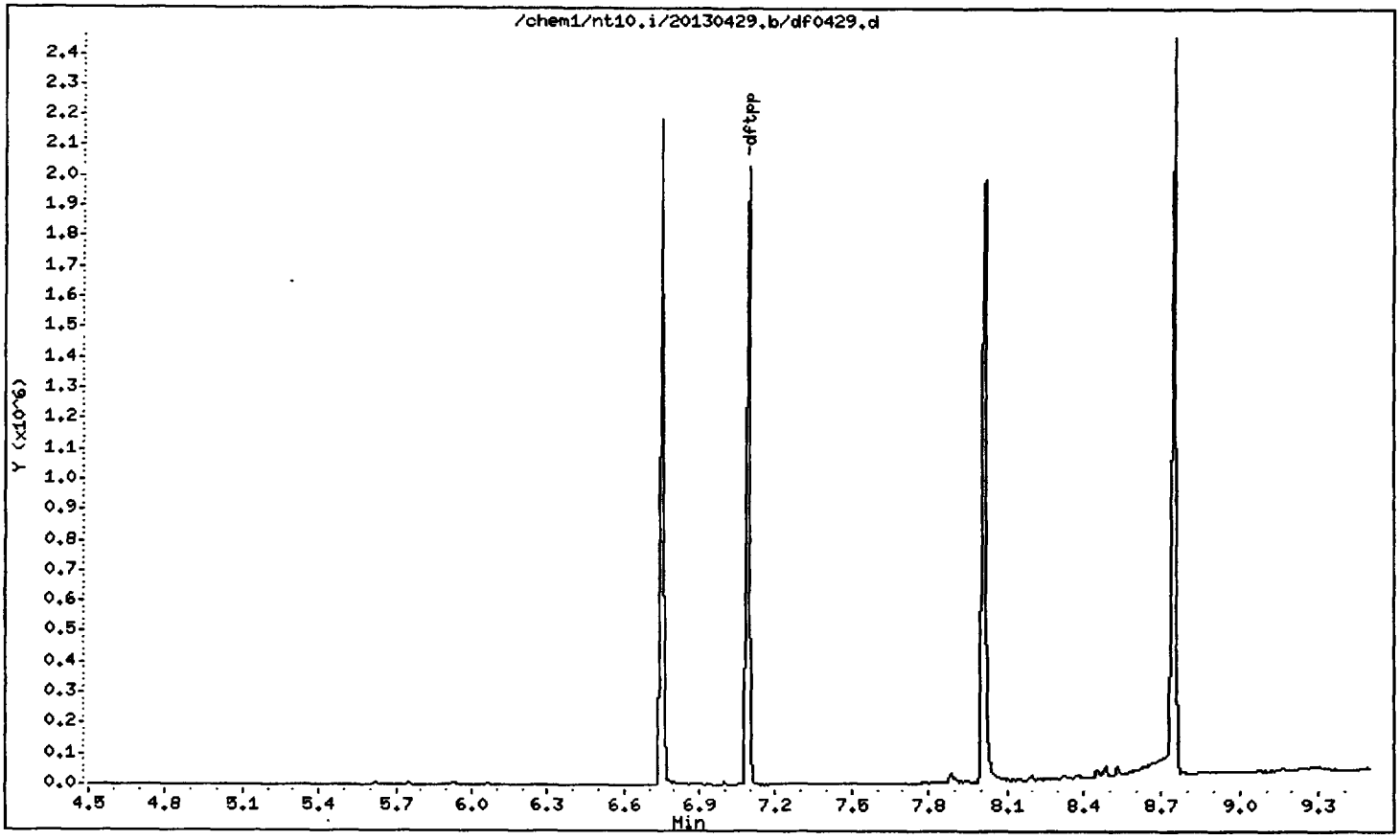
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

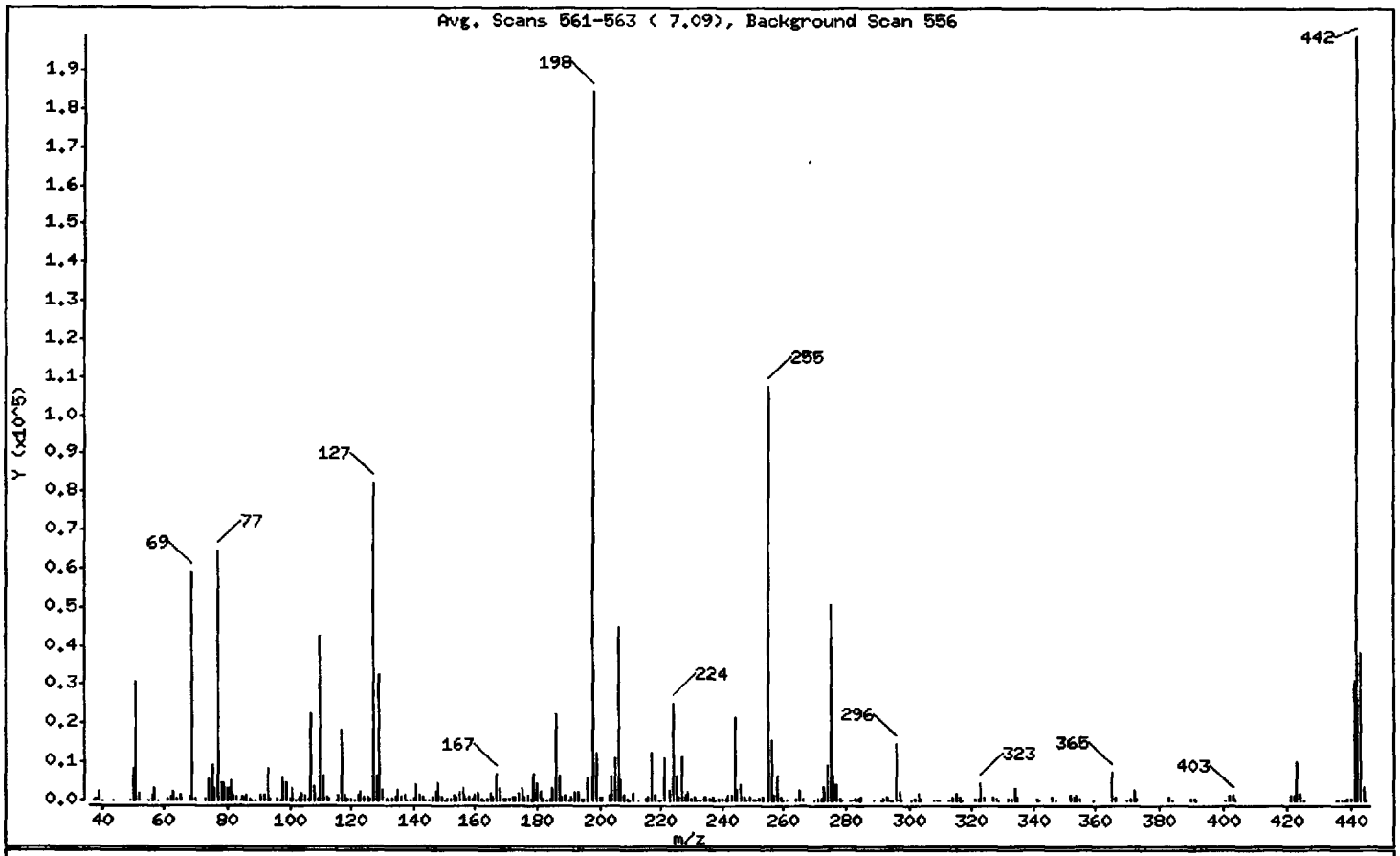
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	16.70
68	Less than 2.00% of mass 69	0.51 (1.60)
69	Mass 69 relative abundance	31.97
70	Less than 2.00% of mass 69	0.15 (0.46)
127	10.00 - 80.00% of mass 198	44.78
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 60.00% of mass 198	27.44
365	Greater than 1.00% of mass 198	4.00
441	0.01 - 24.00% of mass 442	16.80 (15.56)
442	50.00 - 200.00% of mass 198	107.98
443	15.00 - 24.00% of mass 442	20.84 (19.30)

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556

Location of Maximum: 442.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	128.00	6232	203.00	1259	289.00	149
38.00	415	129.00	32664	204.00	6492	291.00	55
39.00	2393	130.00	2738	205.00	11023	292.00	248
40.00	132	131.00	547	206.00	44808	293.00	944
44.00	78	132.00	207	207.00	5716	294.00	225
49.00	203	133.00	272	208.00	1602	295.00	86
50.00	8343	134.00	858	209.00	559	296.00	14604
51.00	30808	135.00	2801	210.00	130	297.00	2070
52.00	1637	136.00	916	211.00	1868	298.00	119
55.00	158	137.00	1248	213.00	64	301.00	172
56.00	1274	138.00	214	215.00	464	302.00	318
57.00	3130	139.00	128	216.00	999	303.00	1693
58.00	121	140.00	298	217.00	12350	304.00	431
61.00	576	141.00	4004	218.00	1562	308.00	140
62.00	758	142.00	1332	219.00	107	309.00	66
63.00	2110	143.00	918	220.00	86	310.00	122
64.00	365	144.00	184	221.00	10806	313.00	127
65.00	1151	145.00	229	223.00	2947	314.00	769
68.00	946	146.00	756	224.00	26312	315.00	1728
69.00	58984	147.00	2094	225.00	6385	316.00	922
70.00	271	148.00	4544	226.00	766	317.00	88
73.00	494	149.00	885	227.00	11288	321.00	436
74.00	5693	150.00	191	228.00	1533	322.00	230
75.00	9303	151.00	532	229.00	2272	323.00	4678
76.00	3182	152.00	251	230.00	340	324.00	920
77.00	64696	153.00	1367	231.00	1037	327.00	968
78.00	4399	154.00	1025	232.00	136	328.00	465
79.00	4595	155.00	2332	233.00	163	329.00	50
80.00	3355	156.00	3268	234.00	787	332.00	367
81.00	4879	157.00	652	235.00	849	333.00	490
82.00	1244	158.00	760	236.00	522	334.00	3152
83.00	1132	159.00	624	237.00	861	335.00	763
84.00	59	160.00	1324	238.00	117	341.00	568
85.00	783	161.00	1910	239.00	422	342.00	139
86.00	1346	162.00	596	240.00	404	346.00	1068

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556

Location of Maximum: 442.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	634	163.00	120	241.00	673	347.00	165
88.00	209	164.00	312	242.00	1491	352.00	1522
89.00	58	165.00	1684	243.00	1585	353.00	1048
91.00	1173	166.00	900	244.00	21560	354.00	1434
92.00	1265	167.00	7028	245.00	2828	355.00	307
93.00	8038	168.00	3167	246.00	4226	359.00	51
94.00	544	169.00	640	247.00	836	365.00	7383
96.00	486	170.00	289	248.00	173	366.00	950
97.00	173	171.00	367	249.00	766	370.00	83
98.00	5992	172.00	736	250.00	145	371.00	406
99.00	4376	173.00	984	251.00	198	372.00	2676
100.00	452	174.00	1650	252.00	278	373.00	680
101.00	3021	175.00	3419	253.00	722	383.00	692
102.00	131	176.00	1090	255.00	107624	384.00	117
103.00	907	177.00	1541	256.00	15761	390.00	337
104.00	1840	178.00	570	257.00	1160	391.00	291
105.00	1589	179.00	6738	258.00	6194	392.00	71
106.00	548	180.00	4416	259.00	1028	401.00	221
107.00	22656	181.00	2092	260.00	162	402.00	1163
108.00	3534	182.00	309	261.00	213	403.00	1545
109.00	609	183.00	166	264.00	253	404.00	599
110.00	42496	184.00	593	265.00	2647	421.00	1426
111.00	6272	185.00	3035	266.00	526	422.00	1250
112.00	744	186.00	22616	270.00	181	423.00	9992
113.00	246	187.00	6353	271.00	299	424.00	1966
115.00	56	188.00	695	272.00	416	425.00	183
116.00	1316	189.00	1391	273.00	3826	435.00	62
117.00	18496	190.00	224	274.00	8949	436.00	62
118.00	1424	191.00	864	275.00	50632	437.00	225
119.00	236	192.00	2063	276.00	6580	438.00	213
120.00	238	193.00	2223	277.00	4111	439.00	328
121.00	63	194.00	423	278.00	606	440.00	329
122.00	1437	195.00	416	279.00	122	441.00	31000
123.00	2280	196.00	5832	281.00	202	442.00	199232
124.00	999	198.00	184512	282.00	126	443.00	38448

Data File: /chem1/nt10.i/20130429.b/df0429.d

Date : 29-APR-2013 16:37

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0429.d

Spectrum: Avg. Scans 561-563 (7.09), Background Scan 556

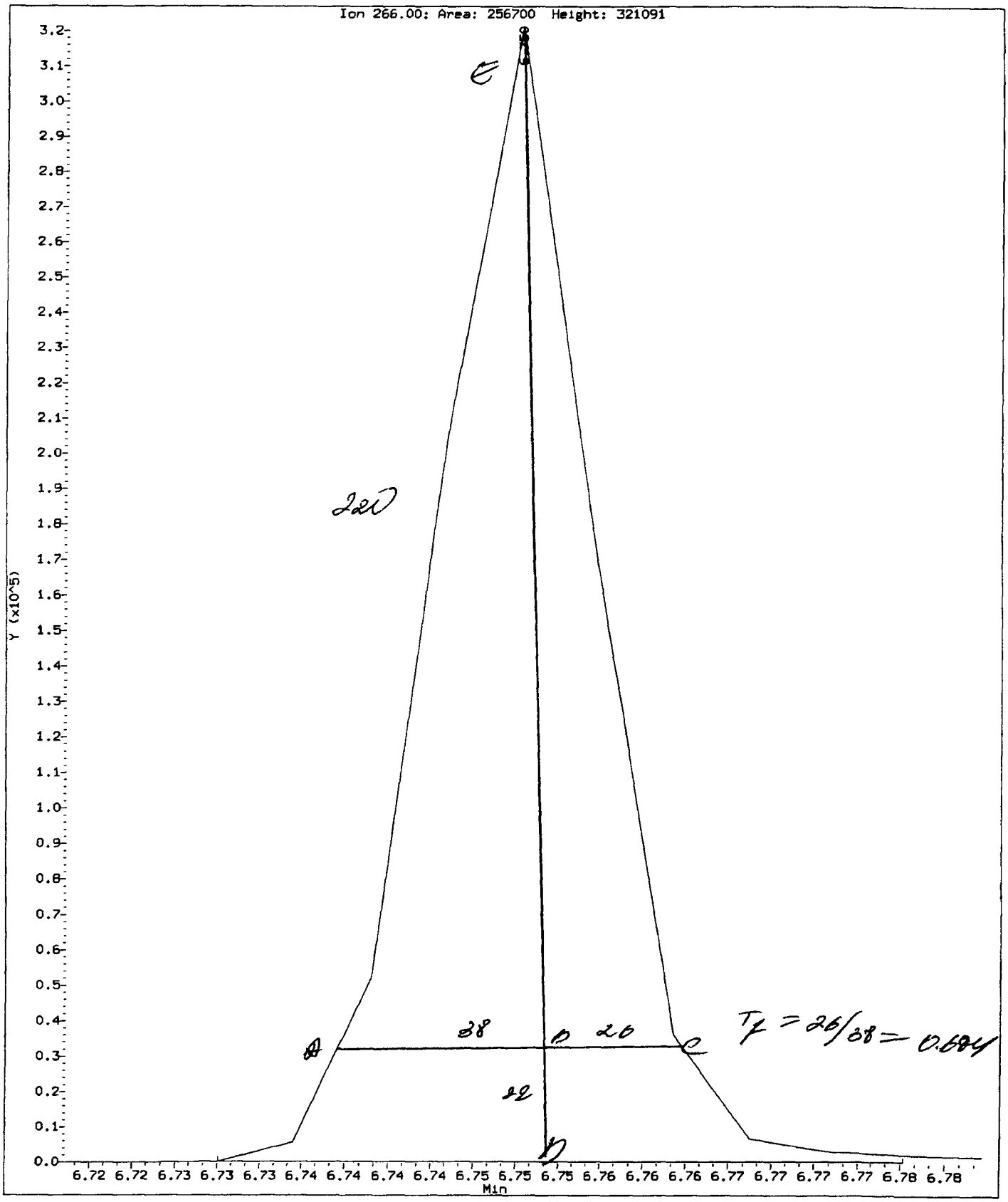
Location of Maximum: 442.00

Number of points: 291

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	975	199.00	12407	283.00	532	444.00	3455
126.00	347	200.00	963	284.00	335	445.00	131
127.00	82624	201.00	1058	285.00	774		

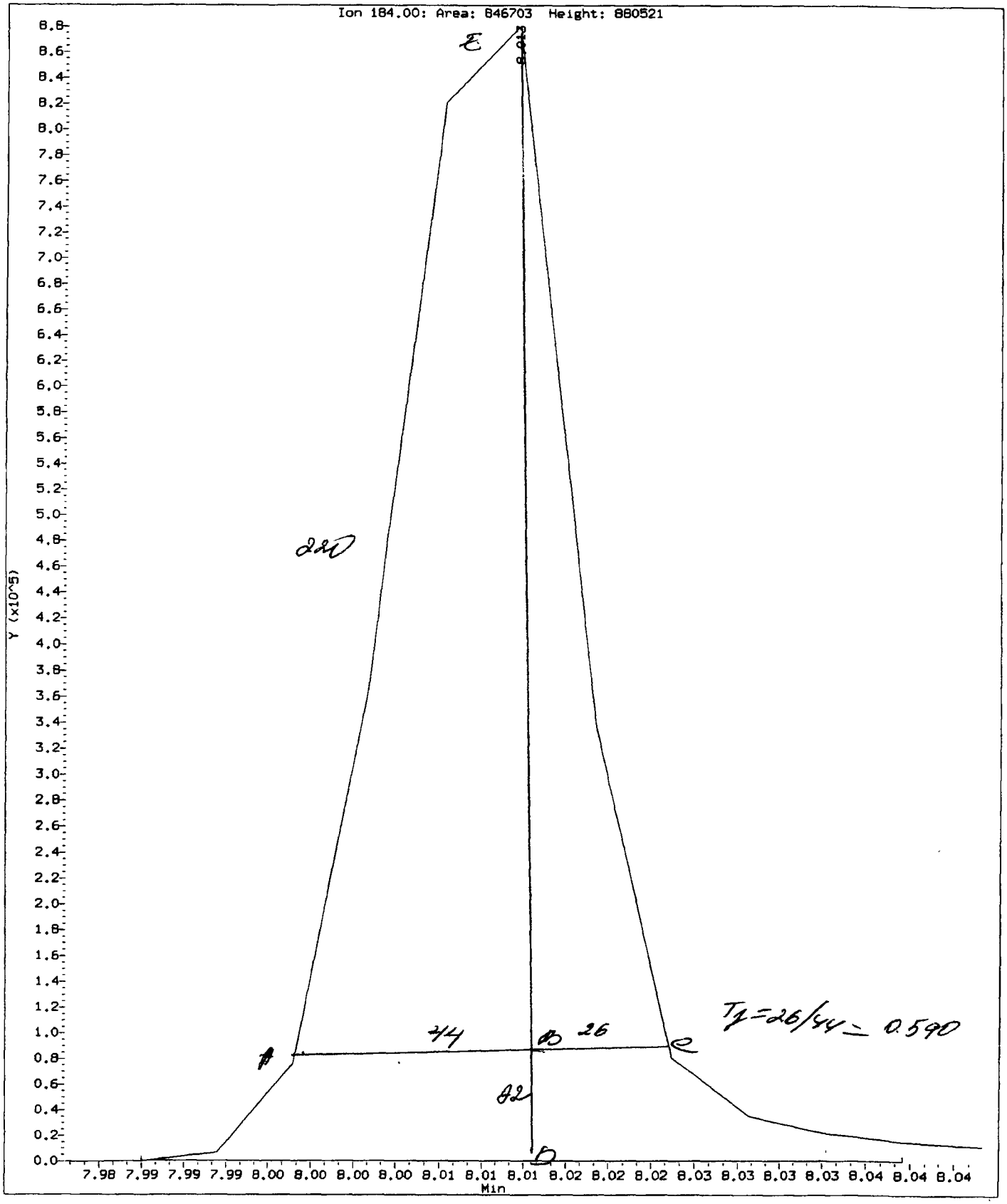
Data File: /chem1/nt10.i/20130429.b/ddt.b/df0429.d
Injection Date: 29-APR-2013 16:37
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20130429.b/ddt.b/df0429.d
Injection Date: 29-APR-2013 16:37
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130429.b/ddt.b/df0429.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130429.b/ddt.b/sw846ddt.m Misc: 11-
Analysis Date: 29-APR-2013 16:37 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	6.750	256700
Benzidine	8.013	846703
4,4'-DDE	8.195	1804
4,4'-DDD	8.483	6740
4,4'-DDT	8.745	445165

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(1804 + 6740) * 100}{(1804 + 6740 + 445165)}$$

DDT Percent Breakdown = 1.9 %

SIM Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC/MS SVOA Analyst Notes / Data Review Checklist

ARI WORK Order: WT91 10783 Client ID: SAIC

METHOD: **8270D**(SIM-SVOA) **KRONE**(Butyl Tins) **8270D**(SVOA) **8270D**(OP-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 04/29/13 Analysis Start Date: 06/22/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
DFTPP Tune met Criteria?	Y / N / ✓	Internal Standard within 50-200%?	Y / N / ✓
DDT Breakdown <20%?	Y / N / ✓	Retention Times within Windows?	Y / N / ✓
Peak Tailing Factor ≤2?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCAL Meets %D?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
ICAL Q Flag applied?	Y / N / ✓	LCS / LCSD RPD ≤ 30%?	NA / X <10%
CCAL Q flag applied?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Surrogate Recovery met?	Y / N / ✓	MS / MSD RPD ≤ 30%?	NA / X <30%
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ✓

Detail problems, corrective actions and/or other pertinent information below.

(Review 1) Analyst: YZ **Date:** 6/27/13

(Review 2) Reviewer: [signature] **Date:** 6/27/13

Analytical Resources Inc.: Organics Instrument Log
NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 06/22/13 Analysis: ABN/SIM ABN Analyst: YZ

GC Program: ABN2 Column No: 2 947 Column Type: ZB5 ms

Instrument Tune (.U or .CT.): B022804 EM Voltage: 1753

Calibration File: DF0622 Curve Date: 4/29/13 Injection Vol.: 1 uL

IS/SS	Ical/Ccal	LCS/ICV
1998-2	B670	
	B582	
	B112	
	2064-2	
	1998-2	

Document All Maintenance Tasks In Element

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b

	Time	Filename	LabID	ClientId	DF									
1	0936	df0622.d	DFTPP	DFTPP	1	NO ISTDS FOUND								
2	1028	cc0622a.d	ABN 1		1	7.44	63619	10.01	228376	13.81	125562	17.01	231861	22 31	244012	24.59	227962
3	1146	wt86mb.d	WT86MBS1	WT86MBS1	1	7.44	53971	10 01	206146	13.81	110128	17 00	205895	22.30	219362	24 58	192041
4	1223	wt86sb d	WT86LCSS1	WT86LCSS1	1	7.44	50093	10 01	177434	13 81	96973	17.01	178031	22.30	198854	24.59	175517
5	1259	wt86sbd d	WT86LCSDS1	WT86LCSDS1	1	7 44	48730	10.01	176155	13.81	95436	17.01	174099	22 30	193256	24 59	173994
6	1336	wt86a.d	WT86A	CL-MH-SPS-20	1	7.44	37107	10.02	144187	13.82	75244	17.04	113034	22.36	159178	24.67	158654
7	1413	wt81a.d	WT81A	AM-VT-INF-20	1	7.44	42650	10.02	159870	13.82	82371	17.03	141427	22.38	162695	24.68	149144
8	1450	wt81b.d	WT81B	AM-SF4-EFF-2	1	7.44	45255	10.02	173065	13.81	93983	17.04	158076	22.39	178236	24.71	151359
9	1527	wt81bms.d	WT81BMS	AM-SF4-EFF-2	1	7.44	41787	10.02	154986	13.82	87105	17 04	146284	22.39	167819	24 72	135182
10	1604	wt81bmsd.d	WT81BMSD	AM-SF4-EFF-2	1	7.44	41646	10 02	155037	13.82	87980	17.04	150675	22.39	168822	24.72	124389
11	1640	wt81c d	WT81C	AM-FD-01-201	1	7.44	42575	10.02	164493	13.82	91060	17.04	158354	22.39	168541	24 71	124651

YZ 6/24/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In Element

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b/SIM.b

ARI Job No.: WT86 Method: SIM.b/SIMABN2.m Instrument: nt10.i Date: 22-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1146	wt86mb.d	WT86MBS1	WT86MBS1	1	Diethylphthalate,
1223	wt86sb.d	WT86LCSS1	WT86LCSS1	1	NO MANUAL INTEGRATION
1259	wt86sbd.d	WT86LCSDS1	WT86LCSDS1	1	NO MANUAL INTEGRATION
1413	wt81a.d	WT81A	AM-VT-INF-	1	Diethylphthalate, N-Nitrosodiphenylamine, Pentachlorophenol,
1450	wt81b.d	WT81B	AM-SF4-EFF	1	Benzyl alcohol, Dimethylphthalate, Diethylphthalate, N-Nitrosodiphenylamine,
1527	wt81bms.d	WT81BMS	AM-SF4-EFF	1	NO MANUAL INTEGRATION
1604	wt81bmsd.d	WT81BMSD	AM-SF4-EFF	1	NO MANUAL INTEGRATION
1640	wt81c.d	WT81C	AM-FD-01-2	1	Benzyl alcohol, Dimethylphthalate, Diethylphthalate, Dibenzo(a,h)anthracene,

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20130622.b/SIM.b

Instrument: nt10.i Date: 22-JUN-2013 Method: SIM.b/SIMABN2.m

INITIAL CAL: 29-APR-2013

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 22-JUN-2013

Compound	%D
Pentachlorophenol	-21.0
Butylbenzylphthalate	27.0

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

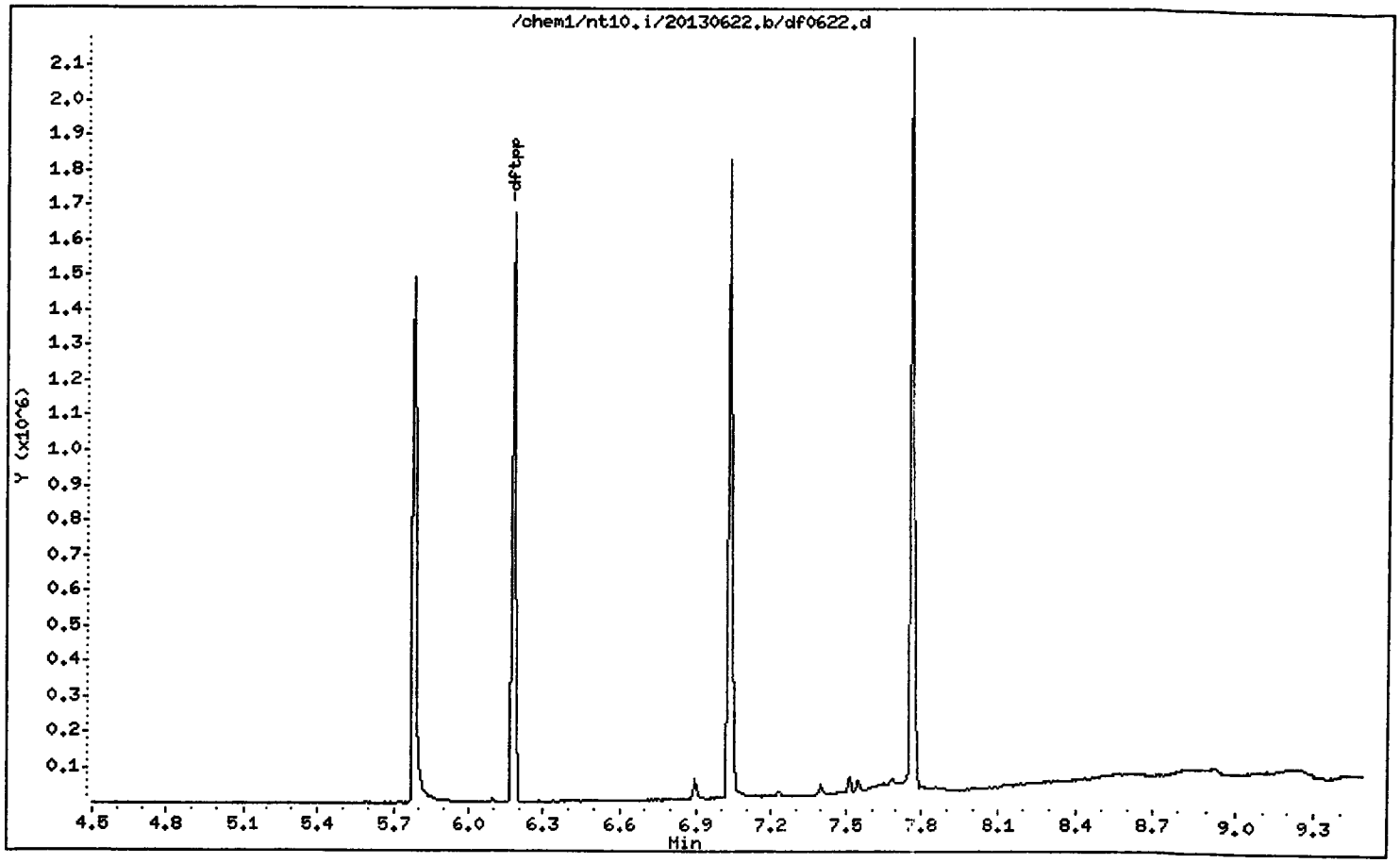
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

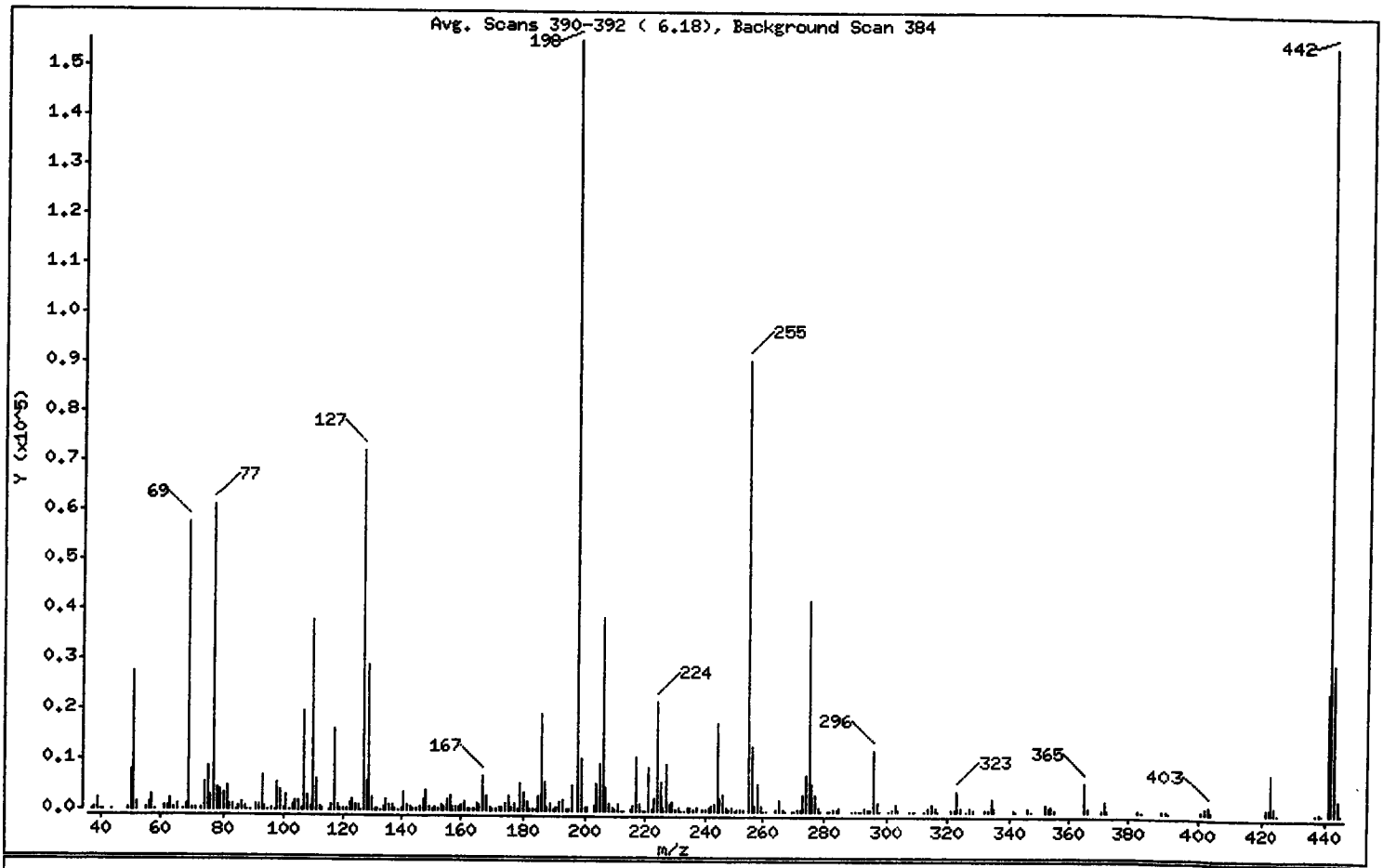
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	17.78
68	Less than 2.00% of mass 69	0.61 (1.64)
69	Mass 69 relative abundance	37.06
70	Less than 2.00% of mass 69	0.23 (0.63)
127	10.00 - 80.00% of mass 198	46.37
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 60.00% of mass 198	27.02
365	Greater than 1.00% of mass 198	3.72
441	0.01 - 24.00% of mass 442	15.52 (15.54)
442	50.00 - 200.00% of mass 198	99.87
443	15.00 - 24.00% of mass 442	19.28 (19.30)

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0622.d

Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384

Location of Maximum: 198.00

Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	133	125.00	968	200.00	788	282.00	62
38.00	358	126.00	144	201.00	829	283.00	448
39.00	2193	127.00	72112	203.00	1158	284.00	261
40.00	134	128.00	5661	204.00	5534	285.00	620
41.00	65	129.00	29008	205.00	9198	289.00	60
44.00	50	130.00	2366	206.00	38584	290.00	62
49.00	209	131.00	497	207.00	4803	291.00	52
50.00	7697	132.00	277	208.00	1502	292.00	73
51.00	27640	133.00	90	209.00	558	293.00	753
52.00	1532	134.00	791	210.00	192	294.00	246
55.00	184	135.00	2126	211.00	1521	295.00	368
56.00	1387	136.00	920	212.00	117	296.00	12175
57.00	2895	137.00	1086	213.00	55	297.00	1736
58.00	129	138.00	236	215.00	402	298.00	51
61.00	641	139.00	150	216.00	933	301.00	156
62.00	701	140.00	365	217.00	10739	302.00	265
63.00	2075	141.00	3631	218.00	1297	303.00	1410
64.00	194	142.00	1118	219.00	50	304.00	357
65.00	998	143.00	839	220.00	111	308.00	121
67.00	84	144.00	207	221.00	8599	309.00	56
68.00	946	145.00	224	222.00	423	310.00	132
69.00	57624	146.00	543	223.00	2387	313.00	127
70.00	365	147.00	1967	224.00	21672	314.00	593
71.00	224	148.00	3953	225.00	5582	315.00	1477
73.00	391	149.00	824	226.00	606	316.00	720
74.00	5312	150.00	196	227.00	9128	317.00	174
75.00	8744	151.00	545	228.00	1319	321.00	429
76.00	2834	152.00	329	229.00	1915	322.00	252
77.00	61120	153.00	1124	230.00	285	323.00	3876
78.00	4208	154.00	833	231.00	795	324.00	624
79.00	3895	155.00	2029	232.00	77	326.00	63
80.00	3213	156.00	2943	233.00	145	327.00	782
81.00	4513	157.00	663	234.00	563	328.00	365
82.00	1237	158.00	675	235.00	665	332.00	296
83.00	920	159.00	539	236.00	493	333.00	385

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0622.d

Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384

Location of Maximum: 198.00

Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	63	160.00	1202	237.00	727	334.00	2656
85.00	822	161.00	1643	239.00	342	335.00	654
86.00	1280	162.00	486	240.00	258	341.00	527
87.00	590	163.00	248	241.00	576	342.00	68
88.00	159	164.00	232	242.00	1204	346.00	820
89.00	107	165.00	1427	243.00	1479	347.00	135
91.00	1032	166.00	932	244.00	17624	352.00	1277
92.00	1249	167.00	6712	245.00	2422	353.00	823
93.00	6941	168.00	2689	246.00	3353	354.00	1121
94.00	548	169.00	610	247.00	717	355.00	273
95.00	106	170.00	252	248.00	180	365.00	5787
96.00	289	171.00	310	249.00	674	366.00	847
97.00	102	172.00	745	250.00	68	371.00	344
98.00	5528	173.00	869	251.00	264	372.00	2157
99.00	4066	174.00	1596	252.00	283	373.00	521
100.00	353	175.00	2862	253.00	416	383.00	490
101.00	2681	176.00	869	255.00	90744	384.00	79
102.00	145	177.00	1371	256.00	12919	390.00	292
103.00	1016	178.00	497	257.00	1013	391.00	219
104.00	1849	179.00	5452	258.00	5350	392.00	69
105.00	1707	180.00	3617	259.00	922	401.00	191
106.00	505	181.00	1765	260.00	126	402.00	927
107.00	19640	182.00	233	261.00	124	403.00	1298
108.00	2953	183.00	192	264.00	295	404.00	387
109.00	741	184.00	517	265.00	2012	421.00	1049
110.00	37872	185.00	2748	266.00	337	422.00	1029
111.00	5993	186.00	19232	267.00	30	423.00	7725
112.00	706	187.00	5735	269.00	57	424.00	1547
113.00	184	188.00	571	270.00	129	425.00	68
115.00	115	189.00	1304	271.00	276	437.00	62
116.00	1159	190.00	260	272.00	216	438.00	245
117.00	15966	191.00	563	273.00	3074	439.00	125
118.00	1172	192.00	1820	274.00	7237	441.00	24128
119.00	257	193.00	2158	275.00	42008	442.00	155264
120.00	287	194.00	429	276.00	5522	443.00	29976

Data File: /chem1/nt10.i/20130622.b/df0622.d

Date : 22-JUN-2013 09:36

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

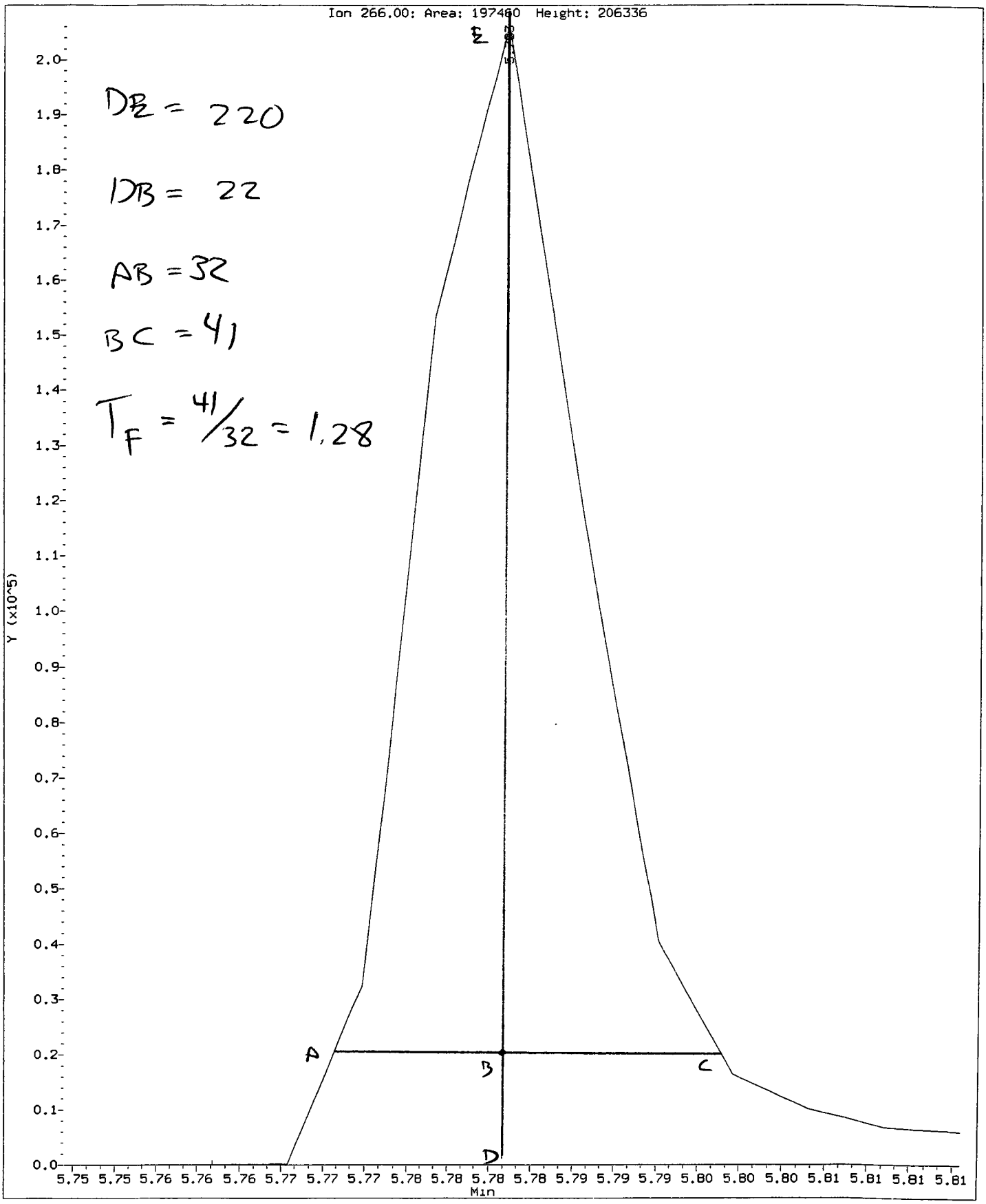
Column diameter: 0.25

Data File: df0622.d
Spectrum: Avg. Scans 390-392 (6.18), Background Scan 384
Location of Maximum: 198.00
Number of points: 294

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	198	195.00	480	277.00	3295	444.00	2703
122.00	1341	196.00	4854	278.00	591	445.00	155
123.00	2060	198.00	155456	279.00	61		
124.00	932	199.00	10422	281.00	44		

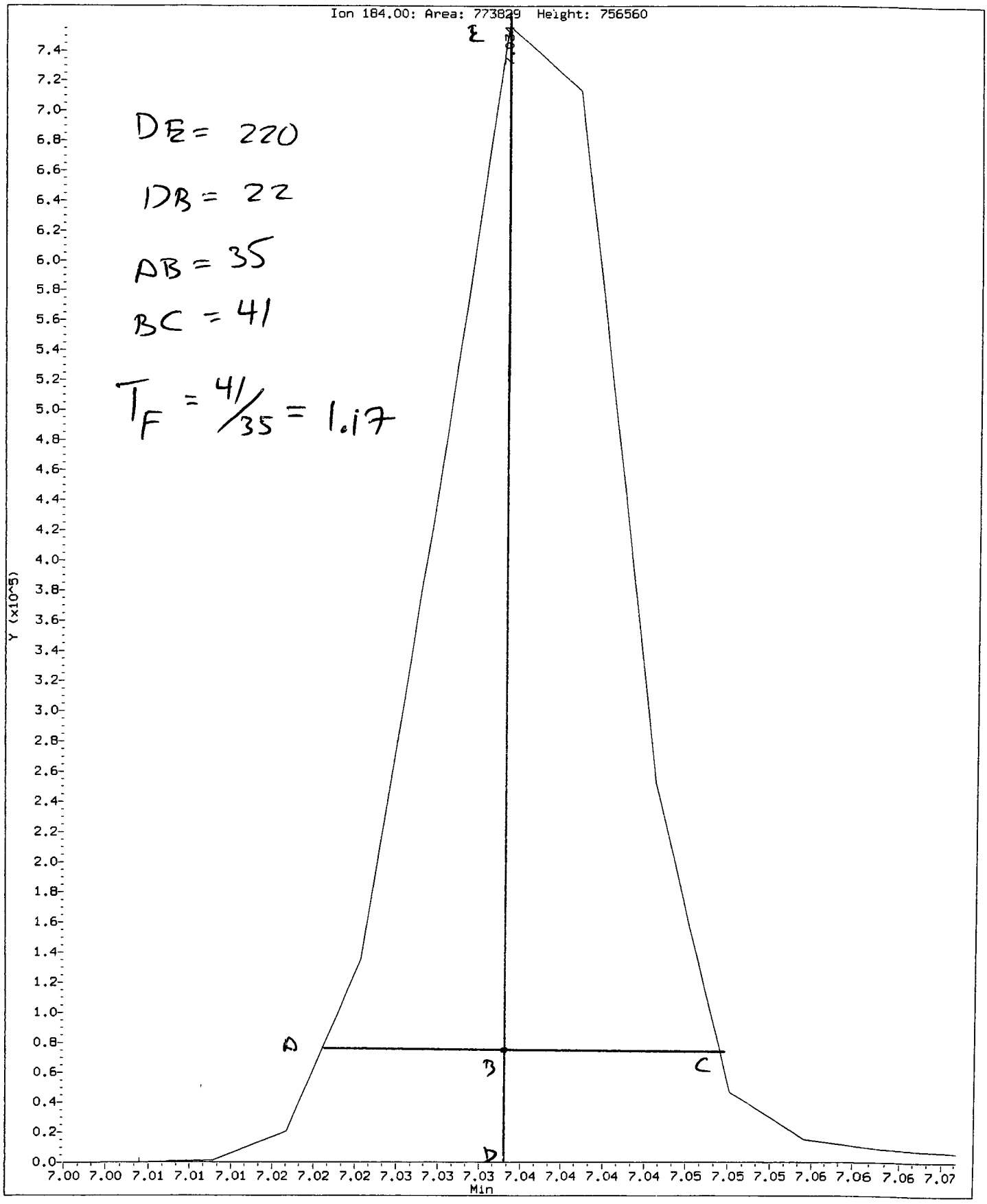
Data File: /chem1/nt10.i/20130622.b/DDT.b/df0622.d
Injection Date: 22-JUN-2013 09:36
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.1/20130622.b/DDT.b/df0622.d
Injection Date: 22-JUN-2013 09:36
Instrument: nt10.1
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20130622.b/DDT.b/df0622.d ARI ID: DFTPP
Method: /chem1/nt10.i/20130622.b/DDT.b/sw846ddt.m Misc: 11-
Analysis Date: 22-JUN-2013 09:36 Instrument: nt10.i

COMPOUND	RT	AREA
Pentachlorophenol	5.783	197459
Benzidine	7.034	773828
4,4'-DDE	7.227	1776
4,4'-DDD	7.515	8138
4,4'-DDT	7.767	410468

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(1776 + 8138) * 100}{(1776 + 8138 + 410468)}$$

DDT Percent Breakdown = 2.4 %

Analytical Resources, Inc.

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130622.b/SIM.b/cc0622a.d
Lab Smp Id: ABN 1
Inj Date : 22-JUN-2013 10:28
Operator : YZ Inst ID: nt10.i
Smp Info : ABN 1
Misc Info :
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 22-Jun-2013 11:18 van Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	5.225	5.225	(0.703)	22404	1.00000	1.003
	3	Phenol	94	6.956	6.956	(0.936)	32057	1.00000	0.9979
	7	1,3-Dichlorobenzene	146	7.358	7.358	(0.990)	24575	1.00000	0.9284
*	8	1,4-Dichlorobenzene-d4	152	7.436	7.436	(1.000)	63619	4.00000	
	9	1,4-Dichlorobenzene	146	7.467	7.467	(1.004)	24959	1.00000	0.9470
	11	Benzyl alcohol	79	7.785	7.785	(1.047)	15146	1.00000	0.9831
	12	1,2-Dichlorobenzene	146	7.824	7.824	(1.052)	23513	1.00000	0.9388
	13	2-Methylphenol	108	8.088	8.088	(1.088)	23469	1.00000	1.022
	15	4-Methylphenol	108	8.391	8.391	(1.128)	24109	1.00000	1.031
	16	N-Nitroso-di-n-propylamine	70	8.375	8.375	(1.126)	13730	1.00000	1.041
	22	2,4-Dimethylphenol	107	9.461	9.461	(0.945)	43046	2.00000	1.946
	26	1,2,4-Trichlorobenzene	180	9.947	9.947	(0.994)	21297	1.00000	0.9730
*	27	Naphthalene-d8	136	10.008	10.008	(1.000)	228376	4.00000	
	30	Hexachlorobutadiene	225	10.487	10.487	(1.048)	12676	1.00000	0.9514
	39	Dimethylphthalate	163	13.420	13.420	(0.972)	37326	1.00000	1.030
*	42	Acenaphthene-d10	162	13.807	13.807	(1.000)	125562	4.00000	
	50	Diethylphthalate	149	14.982	14.982	(1.085)	41462	1.00000	1.011
	54	N-Nitrosodiphenylamine	169	15.322	15.322	(0.901)	27864	1.00000	1.096
	57	Hexachlorobenzene	284	16.363	16.363	(0.962)	17064	1.00000	0.9826
	58	Pentachlorophenol	266	16.813	16.813	(0.989)	16316	2.00000	1.580
*	59	Phenanthrene-d10	188	17.006	17.006	(1.000)	231861	4.00000	
$	66	Terphenyl-d14	244	20.457	20.457	(0.917)	30029	1.00000	1.001
	67	Butylbenzylphthalate	149	21.486	21.486	(0.963)	28746	1.00000	1.270
*	69	Chrysene-d12	240	22.307	22.307	(1.000)	244012	4.00000	
*	77	Perylene-d12	264	24.591	24.591	(1.000)	227962	4.00000	
	79	Dibenzo(a,h)anthracene	278	26.157	26.157	(1.064)	55483	1.00000	1.092

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
90 N-Nitrosodimethylamine	74	3.017	3.017	(0.406)	25706	2.00000	1.875

6.22.13

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0622a.d
Lab Smp Id: ABN 1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info:

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	63619	20.82
27 Naphthalene-d8	192325	96162	384650	228376	18.74
42 Acenaphthene-d10	109274	54637	218548	125562	14.91
59 Phenanthrene-d10	203933	101966	407866	231861	13.69
69 Chrysene-d12	223647	111824	447294	244012	9.11
77 Perylene-d12	211919	105960	423838	227962	7.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.81	13.31	14.31	13.81	0.00
59 Phenanthrene-d10	17.01	16.51	17.51	17.01	0.00
69 Chrysene-d12	22.31	21.81	22.81	22.31	0.00
77 Perylene-d12	24.59	24.09	25.09	24.59	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 22-JUN-2013 10:28
Lab File ID: cc0622a.d Init. Cal. Date(s): 29-APR-2013 29-APR-2013
Analysis Type: Init. Cal. Times: 16:53 21:47
Lab Sample ID: ABN 1 Quant Type: ISTD
Method: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m

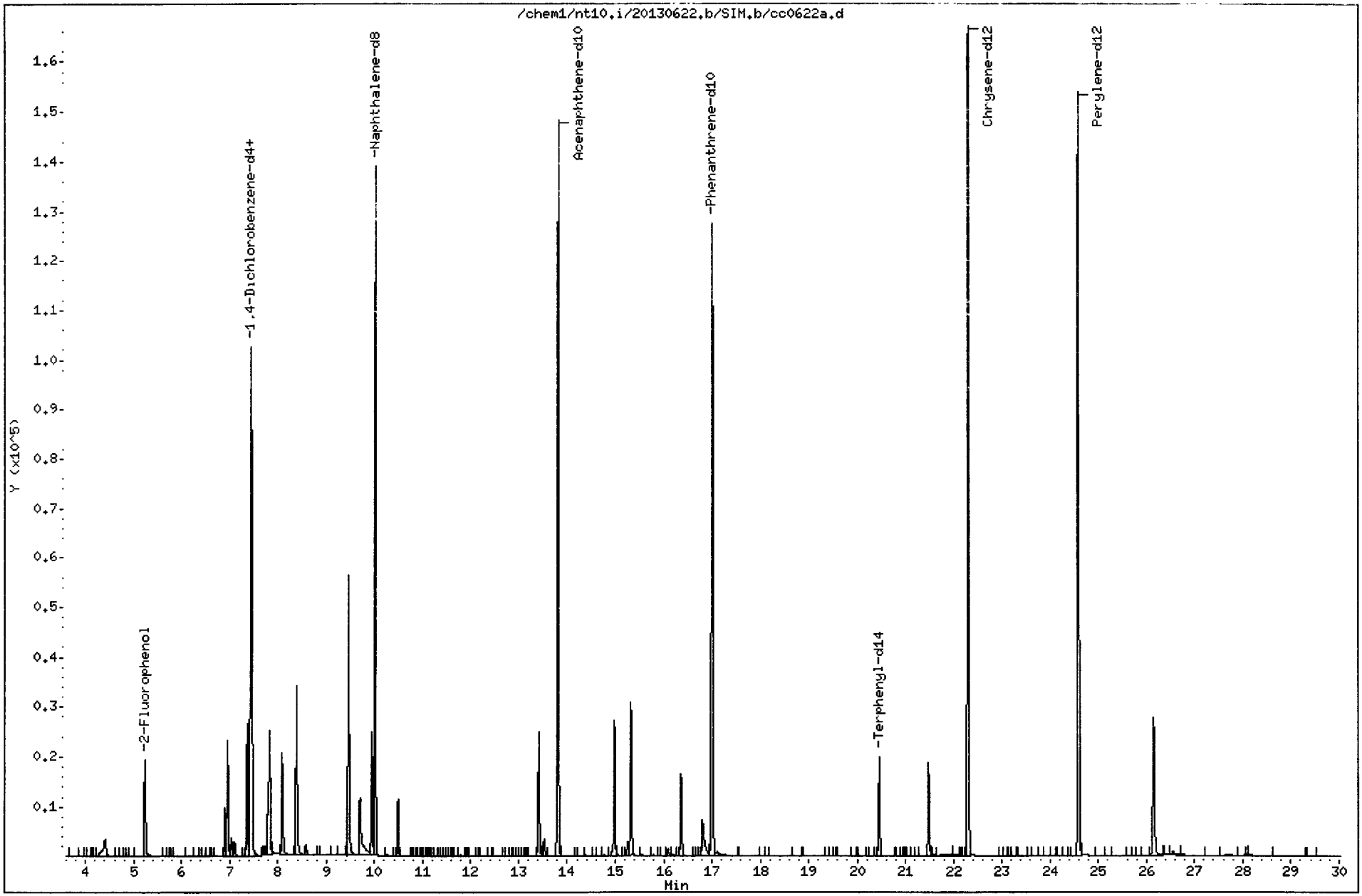
COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 1 2-Fluorophenol	1.40508	1.40866	0.010	0.25470	20.00000	Averaged	
3 Phenol	2.01971	2.01561	0.010	-0.20294	20.00000	Averaged	
7 1,3-Dichlorobenzene	1.66429	1.54520	0.010	-7.15591	20.00000	Averaged	
9 1,4-Dichlorobenzene	1.65707	1.56933	0.010	-5.29432	20.00000	Averaged	
11 Benzyl alcohol	0.96865	0.95234	0.010	-1.68366	20.00000	Averaged	
12 1,2-Dichlorobenzene	1.57473	1.47837	0.010	-6.11922	20.00000	Averaged	
13 2-Methylphenol	1.44396	1.47562	0.010	2.19240	20.00000	Averaged	
15 4-Methylphenol	1.47039	1.51585	0.010	3.09152	20.00000	Averaged	
16 N-Nitroso-di-n-propylamine	0.82918	0.86328	0.050	4.11315	20.00000	Averaged	
22 2,4-Dimethylphenol	0.38748	0.37698	0.010	-2.70868	20.00000	Averaged	
26 1,2,4-Trichlorobenzene	0.38338	0.37302	0.010	-2.70152	20.00000	Averaged	
30 Hexachlorobutadiene	0.23337	0.22202	0.010	-4.86474	20.00000	Averaged	
39 Dimethylphthalate	1.15411	1.18909	0.010	3.03075	20.00000	Averaged	
50 Diethylphthalate	1.30694	1.32084	0.010	1.06366	20.00000	Averaged	
54 N-Nitrosodiphenylamine	0.43858	0.48070	0.010	9.60352	20.00000	Averaged	
57 Hexachlorobenzene	0.29961	0.29440	0.010	-1.73909	20.00000	Averaged	
58 Pentachlorophenol	0.17813	0.14074	0.005	-20.98917	20.00000	Averaged	<-
$ 66 Terphenyl-d14	0.49170	0.49226	0.010	0.11336	20.00000	Averaged	
67 Butylbenzylphthalate	0.37109	0.47123	0.010	26.98454	20.00000	Averaged	<-
79 Dibenzo(a,h)anthracene	0.89160	0.97356	0.010	9.19173	20.00000	Averaged	
90 N-Nitrosodimethylamine	0.86193	0.80813	0.010	-6.24137	20.00000	Averaged	

Data File: /chem1/nt10.i/20130622.b/SIM.b/cc0622a.d
Date : 22-JUN-2013 10:28
Client ID:
Sample Info: ABN 1

Instrument: nt10.i

Operator: YZ
Column diameter: 0.25

Column phase: ZB-5ms1



CO-ELUTION SUMMARY FOR FILE - cc0622a.d

Lab ID: ABN 1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt86mb.d
Lab Smp Id: WT86MBS1 Client Smp ID: WT86MBS1
Inj Date : 22-JUN-2013 11:46
Operator : YZ Inst ID: nt10.i
Smp Info : WT86MBS1
Misc Info : 13-12654
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 27-Jun-2013 11:09 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.256	5.225	(0.706)	94606	4.99020	499.0
3	Phenol	94	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.444	7.436	(1.000)	53971	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	79	Compound Not Detected.					
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.009	10.008	(1.000)	206146	4.00000	
30	Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	39 Dimethylphthalate	163	Compound Not Detected.					
*	42 Acenaphthene-d10	162	13.807	13.807	(1.000)	110128	4.00000	
	50 Diethylphthalate	149	14.982	14.982	(1.085)	1777	0.04938	4.938(RM)
	54 N-Nitrosodiphenylamine	169	Compound Not Detected.					
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	16.998	17.006	(1.000)	205895	4.00000	
$	66 Terphenyl-d14	244	20.449	20.457	(0.917)	113029	4.19164	419.2
	67 Butylbenzylphthalate	149	Compound Not Detected.					
*	69 Chrysene-d12	240	22.300	22.307	(1.000)	219362	4.00000	
*	77 Perylene-d12	264	24.583	24.591	(1.000)	192041	4.00000	
	79 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86mb.d
Lab Smp Id: WT86MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: WT86MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	53971	2.49
27 Naphthalene-d8	192325	96162	384650	206146	7.19
42 Acenaphthene-d10	109274	54637	218548	110128	0.78
59 Phenanthrene-d10	203933	101966	407866	205895	0.96
69 Chrysene-d12	223647	111824	447294	219362	-1.92
77 Perylene-d12	211919	105960	423838	192041	-9.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.11
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.81	13.31	14.31	13.81	0.00
59 Phenanthrene-d10	17.01	16.51	17.51	17.00	-0.04
69 Chrysene-d12	22.31	21.81	22.81	22.30	-0.03
77 Perylene-d12	24.59	24.09	25.09	24.58	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: F&B
Sample Matrix: SOLID
Lab Smp Id: WT86MBS1
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDASIMLCS.spk
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

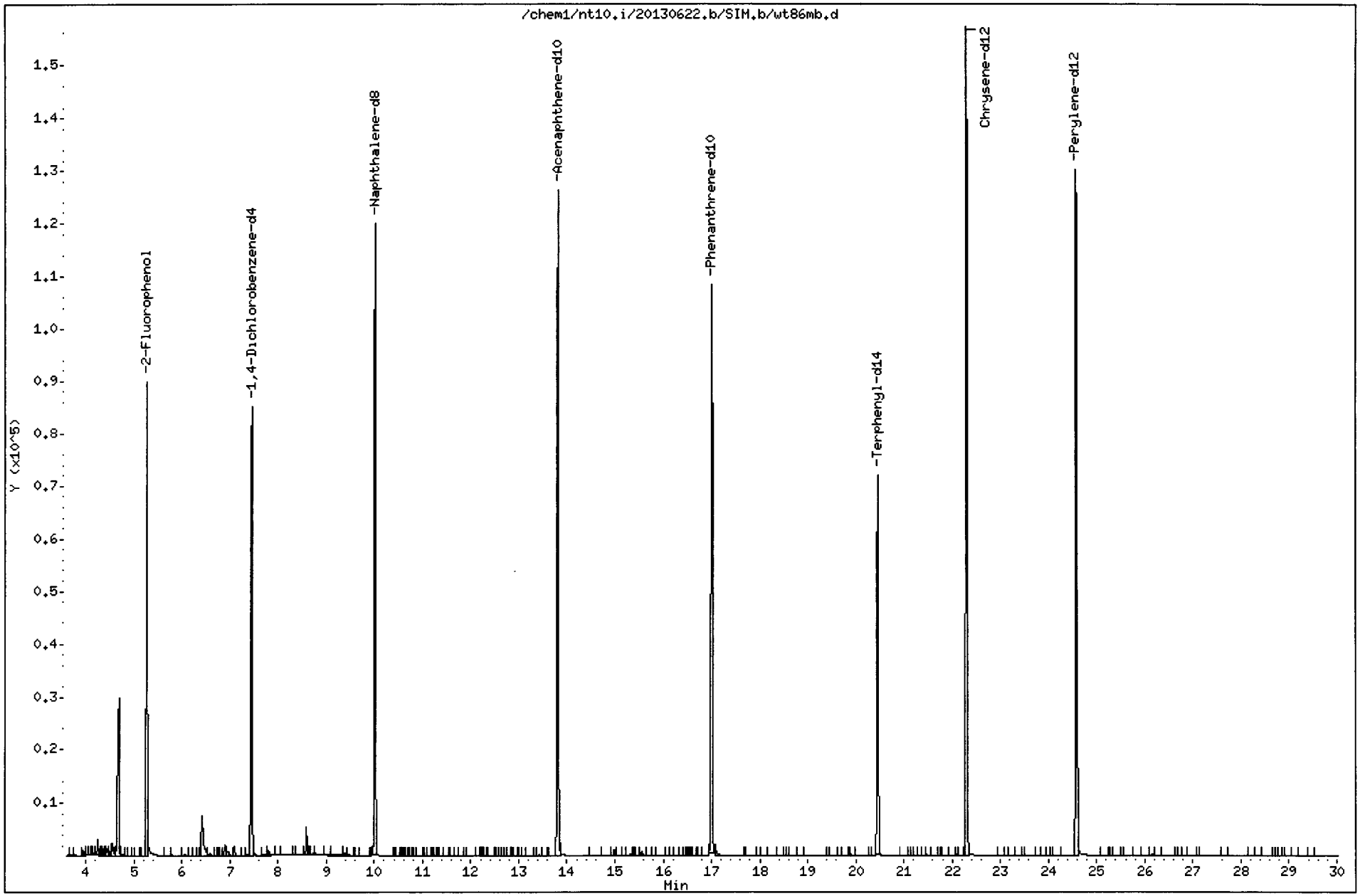
Client SDG: WT86
Fraction: SV
Client Smp ID: WT86MBS1
Operator: YZ
SampleType: BLANK
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	500.0	0.000	*	30-160
7 1,3-Dichlorobenze	500.0	0.000	*	30-160
9 1,4-Dichlorobenze	500.0	0.000	*	30-160
11 Benzyl alcohol	500.0	0.000	*	30-160
12 1,2-Dichlorobenze	500.0	0.000	*	30-160
13 2-Methylphenol	500.0	0.000	*	30-160
15 4-Methylphenol	1000	0.000	*	30-160
16 N-Nitroso-di-n-pr	500.0	0.000	*	30-160
22 2,4-Dimethylphenol	1000	0.000	*	30-160
26 1,2,4-Trichlorobe	500.0	0.000	*	30-160
30 Hexachlorobutadie	500.0	0.000	*	30-160
39 Dimethylphthalate	500.0	0.000	*	30-160
50 Diethylphthalate	500.0	4.938	0.99*	30-160
54 N-Nitrosodiphenyl	500.0	0.000	*	30-160
57 Hexachlorobenzene	500.0	0.000	*	30-160
58 Pentachlorophenol	1000	0.000	*	30-160
67 Butylbenzylphthal	500.0	0.000	*	30-160
79 Dibenzo(a,h)anthr	500.0	0.000	*	30-160
90 N-Nitrosodimethyl	1000	0.000	*	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	750.0	499.0	66.54	30-160
$ 66 Terphenyl-d14	500.0	419.2	83.83	30-160

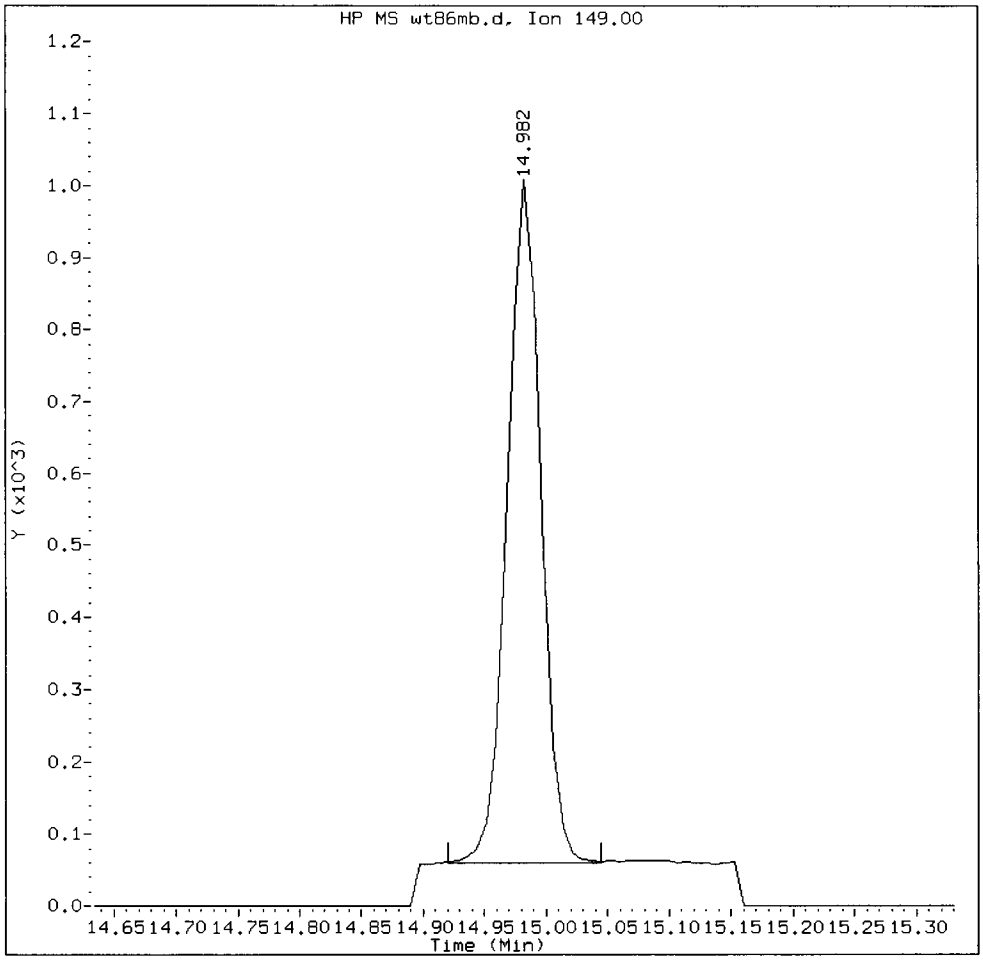
Data File: /chem1/nt10.i/20130622.b/SIM.b/wt86mb.d
Date : 22-JUN-2013 11:46
Client ID: WT86MBS1
Sample Info: WT86MBS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



WT86MBS1, /chem1/nt10.i/20130622.b/SIM.b/wt86mb.d

Diethylphthalate Amount: 0.05 Area: 1777



MANUAL INTEGRATION for Diethylphthalate

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: KZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt86mb.d

Lab ID: WT86MBS1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

JZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt86sb.d
Lab Smp Id: WT86LCSS1 Client Smp ID: WT86LCSS1
Inj Date : 22-JUN-2013 12:23
Operator : YZ Inst ID: nt10.i
Smp Info : WT86LCSS1
Misc Info : 13-12654
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 26-Jun-2013 14:05 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.241	5.225	(0.705)	87490	4.97211	497.2
	3 Phenol	94	6.956	6.956	(0.936)	76859	3.03871	303.9
	7 1,3-Dichlorobenzene	146	7.358	7.358	(0.990)	59605	2.85980	286.0
*	8 1,4-Dichlorobenzene-d4	152	7.436	7.436	(1.000)	50093	4.00000	
	9 1,4-Dichlorobenzene	146	7.467	7.467	(1.004)	61399	2.95873	295.9
	11 Benzyl alcohol	79	7.785	7.785	(1.047)	45873	3.78157	378.2
	12 1,2-Dichlorobenzene	146	7.824	7.824	(1.052)	58563	2.96962	297.0
	13 2-Methylphenol	108	8.088	8.088	(1.088)	49830	2.75562	275.6
	15 4-Methylphenol	108	8.398	8.391	(1.129)	109277	5.93442	593.4
	16 N-Nitroso-di-n-propylamine	70	8.375	8.375	(1.126)	35479	3.41669	341.7
	22 2,4-Dimethylphenol	107	9.461	9.461	(0.945)	111100	6.46383	646.4
	26 1,2,4-Trichlorobenzene	180	9.947	9.947	(0.994)	54321	3.19418	319.4
*	27 Naphthalene-d8	136	10.008	10.008	(1.000)	177434	4.00000	
	30 Hexachlorobutadiene	225	10.487	10.487	(1.048)	32430	3.13271	313.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	13.428	13.420	(0.973)	120562	4.30897	430.9
*	42 Acenaphthene-d10	162	13.807	13.807	(1.000)	96973	4.00000	
	50 Diethylphthalate	149	14.990	14.982	(1.086)	139018	4.38757	438.8
	54 N-Nitrosodiphenylamine	169	15.330	15.322	(0.901)	80425	4.12005	412.0
	57 Hexachlorobenzene	284	16.363	16.363	(0.962)	47251	3.54340	354.3
	58 Pentachlorophenol	266	16.789	16.813	(0.987)	94302	11.8945	1189
*	59 Phenanthrene-d10	188	17.006	17.006	(1.000)	178031	4.00000	
$	66 Terphenyl-d14	244	20.449	20.457	(0.917)	101682	4.15973	416.0
	67 Butylbenzylphthalate	149	21.486	21.486	(0.964)	102335	5.54709	554.7
*	69 Chrysene-d12	240	22.299	22.307	(1.000)	198854	4.00000	
*	77 Perylene-d12	264	24.591	24.591	(1.000)	175517	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.157	26.157	(1.064)	153336	3.91935	391.9
	90 N-Nitrosodimethylamine	74	3.040	3.017	(0.409)	93489	8.66107	866.1

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86sb.d
Lab Smp Id: WT86LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: WT86LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	50093	-4.87
27 Naphthalene-d8	192325	96162	384650	177434	-7.74
42 Acenaphthene-d10	109274	54637	218548	96973	-11.26
59 Phenanthrene-d10	203933	101966	407866	178031	-12.70
69 Chrysene-d12	223647	111824	447294	198854	-11.09
77 Perylene-d12	211919	105960	423838	175517	-17.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.81	13.31	14.31	13.81	0.00
59 Phenanthrene-d10	17.01	16.51	17.51	17.01	0.00
69 Chrysene-d12	22.31	21.81	22.81	22.30	-0.03
77 Perylene-d12	24.59	24.09	25.09	24.59	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: F&B
Sample Matrix: SOLID
Lab Smp Id: WT86LCSS1
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDASIMLCS.spk
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

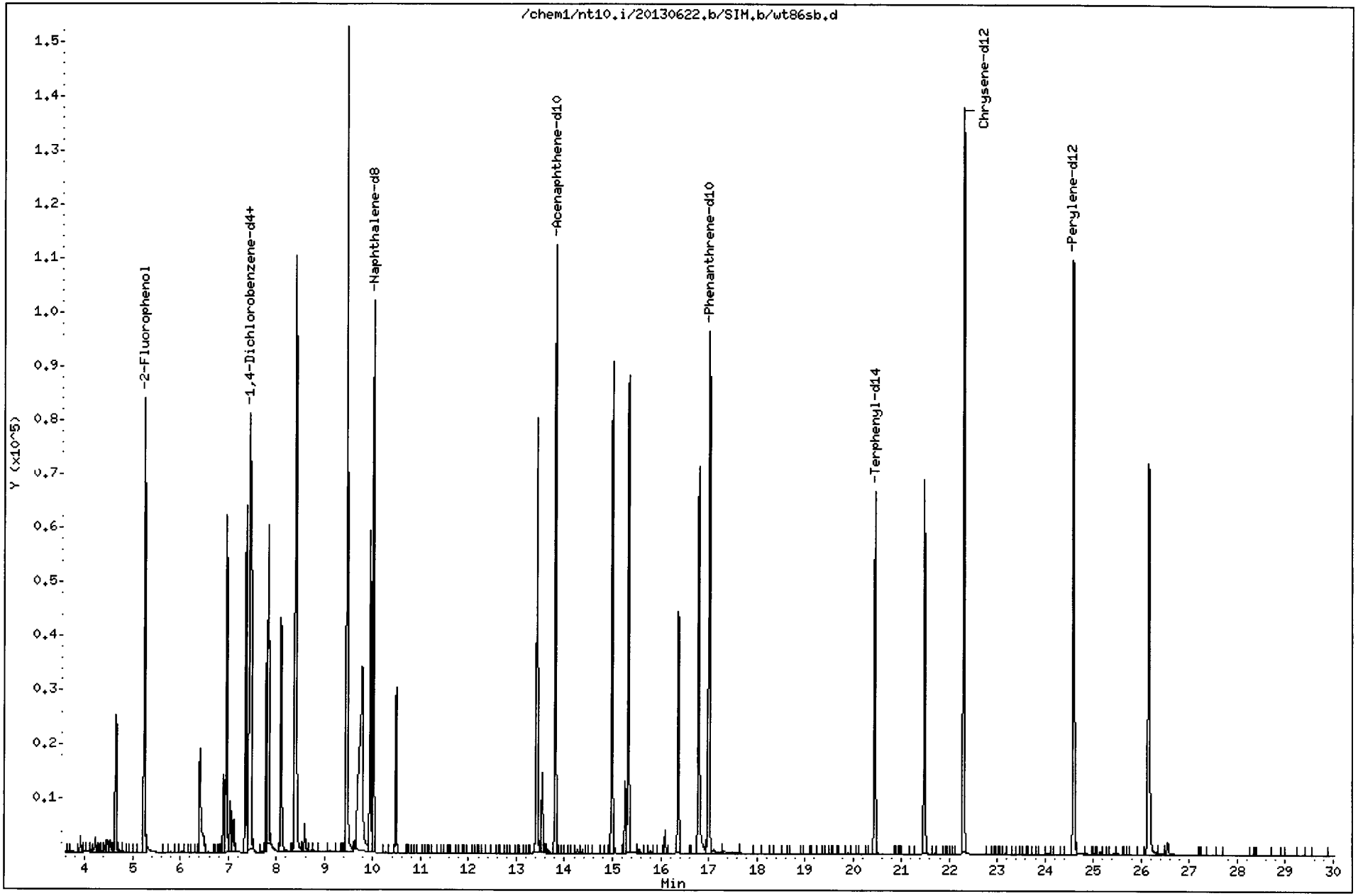
Client SDG: WT86
Fraction: SV
Client Smp ID: WT86LCSS1
Operator: YZ
SampleType: LCS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	303.9	60.77	30-160
7	1,3-Dichlorobenzen	500.0	286.0	57.20	30-160
9	1,4-Dichlorobenzen	500.0	295.9	59.17	30-160
11	Benzyl alcohol	500.0	378.2	75.63	30-160
12	1,2-Dichlorobenzen	500.0	297.0	59.39	30-160
13	2-Methylphenol	500.0	275.6	55.11	30-160
15	4-Methylphenol	1000	593.4	59.34	30-160
16	N-Nitroso-di-n-pro	500.0	341.7	68.33	30-160
22	2,4-Dimethylphenol	1000	646.4	64.64	30-160
26	1,2,4-Trichloroben	500.0	319.4	63.88	30-160
30	Hexachlorobutadien	500.0	313.3	62.65	30-160
39	Dimethylphthalate	500.0	430.9	86.18	30-160
50	Diethylphthalate	500.0	438.8	87.75	30-160
54	N-Nitrosodiphenyla	500.0	412.0	82.40	30-160
57	Hexachlorobenzene	500.0	354.3	70.87	30-160
58	Pentachlorophenol	1000	1189	118.95	30-160
67	Butylbenzylphthala	500.0	554.7	110.94	30-160
79	Dibenzo(a,h)anthra	500.0	391.9	78.39	30-160
90	N-Nitrosodimethyla	1000	866.1	86.61	30-160

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	497.2	66.29	30-160
$ 66	Terphenyl-d14	500.0	416.0	83.19	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt86sb.d
Date : 22-JUN-2013 12:23
Client ID: WT86LCSS1
Sample Info: WT86LCSS1
Volume Injected (uL): 1.0
Column phase: ZB-5ms1

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt86sb.d

Lab ID: WT86LCSS1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt86sbd.d
Lab Smp Id: WT86LCSDS1 Client Smp ID: WT86LCSDS1
Inj Date : 22-JUN-2013 12:59
Operator : YZ Inst ID: nt10.i
Smp Info : WT86LCSDS1
Misc Info : 13-12654
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 26-Jun-2013 14:05 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.241	5.225	(0.705)	85536	4.99703	499.7
	3 Phenol	94	6.956	6.956	(0.936)	76615	3.11379	311.4
	7 1,3-Dichlorobenzene	146	7.358	7.358	(0.990)	61201	3.01851	301.9
*	8 1,4-Dichlorobenzene-d4	152	7.436	7.436	(1.000)	48730	4.00000	
	9 1,4-Dichlorobenzene	146	7.459	7.467	(1.003)	62451	3.09359	309.4
	11 Benzyl alcohol	79	7.785	7.785	(1.047)	45520	3.85743	385.7
	12 1,2-Dichlorobenzene	146	7.824	7.824	(1.052)	59631	3.10835	310.8
	13 2-Methylphenol	108	8.088	8.088	(1.088)	49263	2.80046	280.0
	15 4-Methylphenol	108	8.398	8.391	(1.129)	108956	6.08249	608.2
	16 N-Nitroso-di-n-propylamine	70	8.375	8.375	(1.126)	35450	3.50939	350.9
	22 2,4-Dimethylphenol	107	9.461	9.461	(0.945)	107055	6.27372	627.4
	26 1,2,4-Trichlorobenzene	180	9.947	9.947	(0.994)	54920	3.25285	325.3
*	27 Naphthalene-d8	136	10.008	10.008	(1.000)	176155	4.00000	
	30 Hexachlorobutadiene	225	10.480	10.487	(1.047)	32481	3.16041	316.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	13.420	13.420	(0.972)	118450	4.30166	430.2
*	42 Acenaphthene-d10	162	13.807	13.807	(1.000)	95436	4.00000	
	50 Diethylphthalate	149	14.990	14.982	(1.086)	139683	4.47956	448.0
	54 N-Nitrosodiphenylamine	169	15.322	15.322	(0.901)	82668	4.33060	433.1
	57 Hexachlorobenzene	284	16.363	16.363	(0.962)	46666	3.57857	357.9
	58 Pentachlorophenol	266	16.789	16.813	(0.987)	93466	12.0554	1206
*	59 Phenanthrene-d10	188	17.006	17.006	(1.000)	174099	4.00000	
$	66 Terphenyl-d14	244	20.457	20.457	(0.917)	96990	4.08272	408.3
	67 Butylbenzylphthalate	149	21.486	21.486	(0.964)	100225	5.59009	559.0
*	69 Chrysene-d12	240	22.299	22.307	(1.000)	193256	4.00000	
*	77 Perylene-d12	264	24.591	24.591	(1.000)	173994	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.164	26.157	(1.064)	153667	3.96219	396.2
	90 N-Nitrosodimethylamine	74	3.048	3.017	(0.410)	93699	8.92332	892.3

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt86sbd.d
Lab Smp Id: WT86LCSDS1
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: WT86LCSDS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	48730	-7.46
27 Naphthalene-d8	192325	96162	384650	176155	-8.41
42 Acenaphthene-d10	109274	54637	218548	95436	-12.66
59 Phenanthrene-d10	203933	101966	407866	174099	-14.63
69 Chrysene-d12	223647	111824	447294	193256	-13.59
77 Perylene-d12	211919	105960	423838	173994	-17.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.01	0.00
42 Acenaphthene-d10	13.81	13.31	14.31	13.81	0.00
59 Phenanthrene-d10	17.01	16.51	17.51	17.01	0.00
69 Chrysene-d12	22.31	21.81	22.81	22.30	-0.03
77 Perylene-d12	24.59	24.09	25.09	24.59	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: F&B
Sample Matrix: SOLID
Lab Smp Id: WT86LCSDS1
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDASIMLCS.spk
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12654

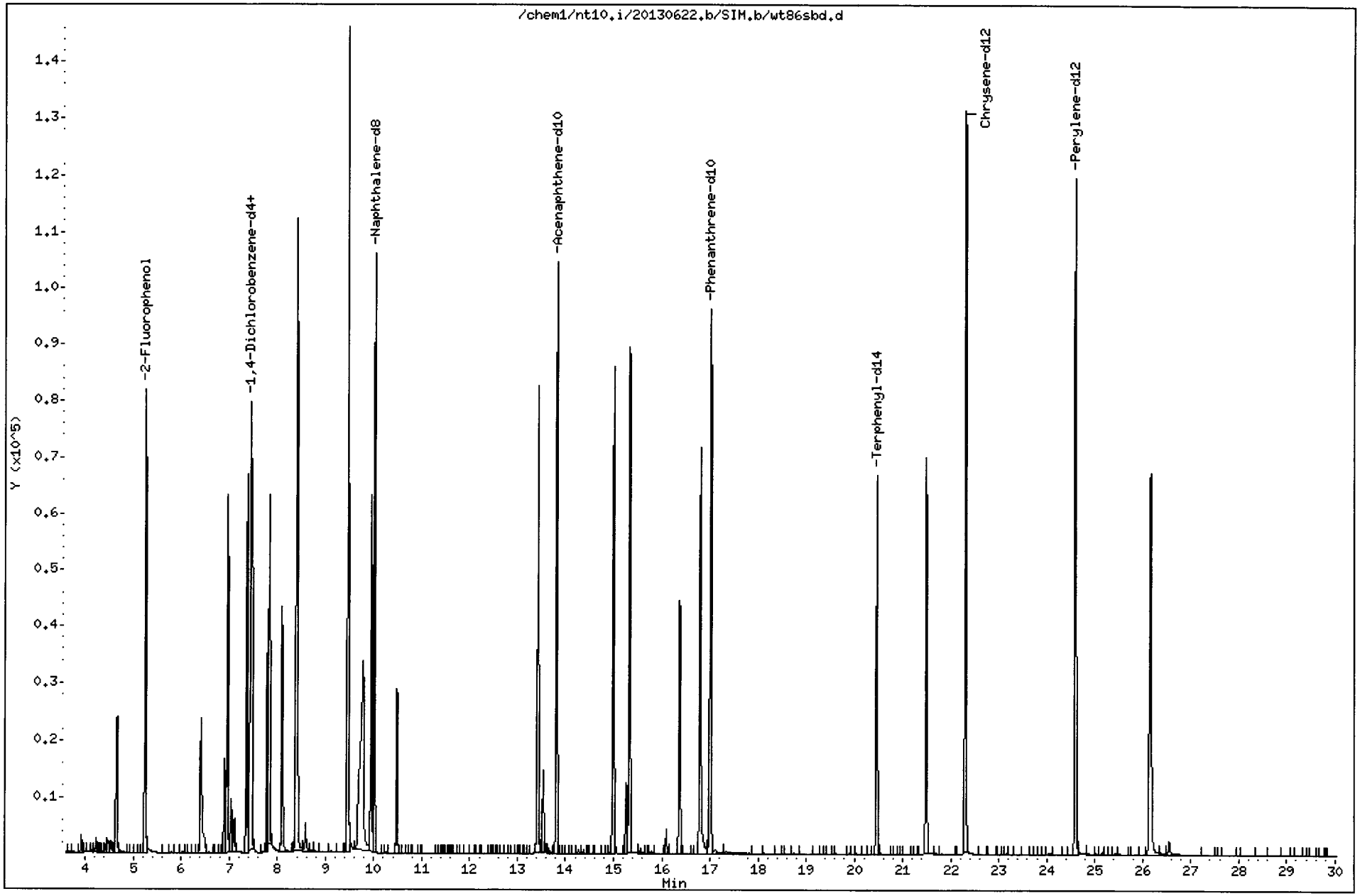
Client SDG: WT86
Fraction: SV
Client Smp ID: WT86LCSDS1
Operator: YZ
SampleType: LCSD
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	500.0	311.4	62.28	30-160
7	1,3-Dichlorobenzen	500.0	301.9	60.37	30-160
9	1,4-Dichlorobenzen	500.0	309.4	61.87	30-160
11	Benzyl alcohol	500.0	385.7	77.15	30-160
12	1,2-Dichlorobenzen	500.0	310.8	62.17	30-160
13	2-Methylphenol	500.0	280.0	56.01	30-160
15	4-Methylphenol	1000	608.2	60.82	30-160
16	N-Nitroso-di-n-pro	500.0	350.9	70.19	30-160
22	2,4-Dimethylphenol	1000	627.4	62.74	30-160
26	1,2,4-Trichloroben	500.0	325.3	65.06	30-160
30	Hexachlorobutadien	500.0	316.0	63.21	30-160
39	Dimethylphthalate	500.0	430.2	86.03	30-160
50	Diethylphthalate	500.0	448.0	89.59	30-160
54	N-Nitrosodiphenyla	500.0	433.1	86.61	30-160
57	Hexachlorobenzene	500.0	357.9	71.57	30-160
58	Pentachlorophenol	1000	1206	120.55	30-160
67	Butylbenzylphthala	500.0	559.0	111.80	30-160
79	Dibenzo(a,h)anthra	500.0	396.2	79.24	30-160
90	N-Nitrosodimethyla	1000	892.3	89.23	30-160

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	750.0	499.7	66.63	30-160
$ 66	Terphenyl-d14	500.0	408.3	81.65	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt86sbd.d
Date : 22-JUN-2013 12:59
Client ID: WT86LCSDS1
Sample Info: WT86LCSDS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt86sbd.d

Lab ID: WT86LCSDS1, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt81bms.d
Lab Smp Id: WT81BMS Client Smp ID: AM-SF4-EFF-2013 MS
Inj Date : 22-JUN-2013 15:27
Operator : YZ Inst ID: nt10.i
Smp Info : WT81BMS
Misc Info : 13-12637
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 26-Jun-2013 14:05 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	6.99000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.256	5.225	(0.706)	67768	4.61682	1655
	3 Phenol	94	6.995	6.956	(0.940)	66630	3.15791	1132
	7 1,3-Dichlorobenzene	146	7.366	7.358	(0.990)	45201	2.59978	932.2
*	8 1,4-Dichlorobenzene-d4	152	7.444	7.436	(1.000)	41787	4.00000	
	9 1,4-Dichlorobenzene	146	7.475	7.467	(1.004)	46438	2.68258	961.8
	11 Benzyl alcohol	79	7.800	7.785	(1.048)	37837	3.73911	1341
	12 1,2-Dichlorobenzene	146	7.831	7.824	(1.052)	45825	2.78558	998.8
	13 2-Methylphenol	108	8.111	8.088	(1.090)	45832	3.03831	1089
	15 4-Methylphenol	108	8.414	8.391	(1.130)	126481	8.23400	2952
	16 N-Nitroso-di-n-propylamine	70	8.383	8.375	(1.126)	34184	3.94633	1415
	22 2,4-Dimethylphenol	107	9.476	9.461	(0.946)	169568	11.2944	4050
	26 1,2,4-Trichlorobenzene	180	9.954	9.947	(0.994)	48065	3.23568	1160
*	27 Naphthalene-d8	136	10.016	10.008	(1.000)	154986	4.00000	
	30 Hexachlorobutadiene	225	10.487	10.487	(1.047)	28154	3.11356	1116

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	13.436	13.420	(0.972)	111052	4.41872	1584
*	42 Acenaphthene-d10	162	13.823	13.807	(1.000)	87105	4.00000	
	50 Diethylphthalate	149	15.005	14.982	(1.086)	123819	4.35059	1560
	54 N-Nitrosodiphenylamine	169	15.353	15.322	(0.901)	105400	6.57130	2356
	57 Hexachlorobenzene	284	16.394	16.363	(0.962)	40352	3.68276	1320
	58 Pentachlorophenol	266	16.836	16.813	(0.988)	46420	7.12575	2555
*	59 Phenanthrene-d10	188	17.037	17.006	(1.000)	146284	4.00000	
$	66 Terphenyl-d14	244	20.511	20.457	(0.916)	89119	4.32001	1549
	67 Butylbenzylphthalate	149	21.556	21.486	(0.963)	96134	6.17464	2214
*	69 Chrysene-d12	240	22.392	22.307	(1.000)	167819	4.00000	
*	77 Perylene-d12	264	24.723	24.591	(1.000)	135182	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.320	26.157	(1.065)	77295	2.56520	919.8(H)
	90 N-Nitrosodimethylamine	74	3.032	3.017	(0.407)	67108	7.45283	2672

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81bms.d
Lab Smp Id: WT81BMS
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: AM-SF4-EFF-2013
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	41787	-20.64
27 Naphthalene-d8	192325	96162	384650	154986	-19.41
42 Acenaphthene-d10	109274	54637	218548	87105	-20.29
59 Phenanthrene-d10	203933	101966	407866	146284	-28.27
69 Chrysene-d12	223647	111824	447294	167819	-24.96
77 Perylene-d12	211919	105960	423838	135182	-36.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.08
42 Acenaphthene-d10	13.81	13.31	14.31	13.82	0.11
59 Phenanthrene-d10	17.01	16.51	17.51	17.04	0.18
69 Chrysene-d12	22.31	21.81	22.81	22.39	0.38
77 Perylene-d12	24.59	24.09	25.09	24.72	0.53

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: SAIC
Sample Matrix: SOLID
Lab Smp Id: WT81BMS
Level: LOW
Data Type: MS DATA
SpikeList File: PSDDASIMLCS.spk
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

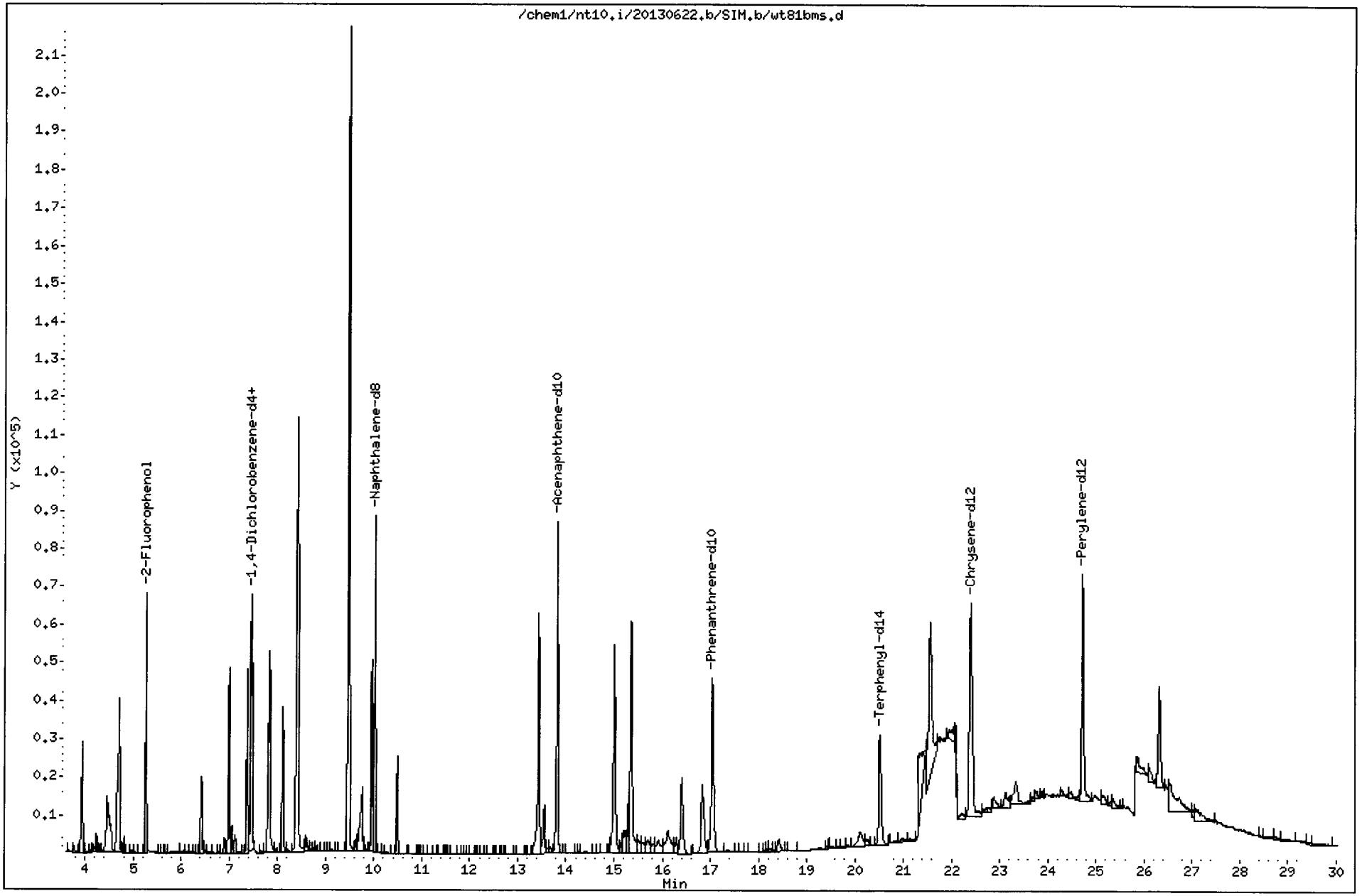
Client SDG: WT81
Fraction: SV
Client Smp ID: AM-SF4-EFF-2013 MS
Operator: YZ
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3	Phenol	1793	1132	63.16	30-160
7	1,3-Dichlorobenzen	1793	932.2	52.00	30-160
9	1,4-Dichlorobenzen	1793	961.8	53.65	30-160
11	Benzyl alcohol	1793	1341	74.78	30-160
12	1,2-Dichlorobenzen	1793	998.8	55.71	30-160
13	2-Methylphenol	1793	1089	60.77	30-160
15	4-Methylphenol	3586	2952	82.34	30-160
16	N-Nitroso-di-n-pro	1793	1415	78.93	30-160
22	2,4-Dimethylphenol	3586	4050	112.94	30-160
26	1,2,4-Trichloroben	1793	1160	64.71	30-160
30	Hexachlorobutadien	1793	1116	62.27	30-160
39	Dimethylphthalate	1793	1584	88.37	30-160
50	Diethylphthalate	1793	1560	87.01	30-160
54	N-Nitrosodiphenyla	1793	2356	131.43	30-160
57	Hexachlorobenzene	1793	1320	73.66	30-160
58	Pentachlorophenol	3586	2555	71.26	30-160
67	Butylbenzylphthala	1793	2214	123.49	30-160
79	Dibenzo(a,h)anthra	1793	919.8	51.30	30-160
90	N-Nitrosodimethyla	3586	2672	74.53	30-160

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1	2-Fluorophenol	2689	1655	61.56	30-160
$ 66	Terphenyl-d14	1793	1549	86.40	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81bms.d
Date : 22-JUN-2013 15:27
Client ID: AM-SF4-EFF-2013 MS
Sample Info: WT81BMS
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt81bms.d

Lab ID: WT81BMS, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Y.Z 6/27/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt81bmsd.d
Lab Smp Id: WT81BMSD Client Smp ID: AM-SF4-EFF-2013 MSD
Inj Date : 22-JUN-2013 16:04
Operator : YZ Inst ID: nt10.i
Smp Info : WT81BMSD
Misc Info : 13-12637
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 26-Jun-2013 14:05 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	6.99000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.264	5.225	(0.707)	69750	4.76793	1710
	3 Phenol	94	6.995	6.956	(0.940)	65467	3.11330	1116
	7 1,3-Dichlorobenzene	146	7.366	7.358	(0.990)	47817	2.75956	989.4
*	8 1,4-Dichlorobenzene-d4	152	7.443	7.436	(1.000)	41646	4.00000	
	9 1,4-Dichlorobenzene	146	7.474	7.467	(1.004)	48805	2.82886	1014
	11 Benzyl alcohol	79	7.800	7.785	(1.048)	38231	3.79083	1359
	12 1,2-Dichlorobenzene	146	7.831	7.824	(1.052)	47688	2.90864	1043
	13 2-Methylphenol	108	8.111	8.088	(1.090)	46254	3.07667	1103
	15 4-Methylphenol	108	8.414	8.391	(1.130)	125515	8.19878	2940
	16 N-Nitroso-di-n-propylamine	70	8.383	8.375	(1.126)	36447	4.22182	1514
	22 2,4-Dimethylphenol	107	9.476	9.461	(0.945)	164747	10.9697	3933
	26 1,2,4-Trichlorobenzene	180	9.954	9.947	(0.993)	48863	3.28831	1179
*	27 Naphthalene-d8	136	10.024	10.008	(1.000)	155037	4.00000	
	30 Hexachlorobutadiene	225	10.495	10.487	(1.047)	28906	3.19567	1146

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
	39 Dimethylphthalate	163	13.436	13.420	(0.972)	112024	4.41307	1582
*	42 Acenaphthene-d10	162	13.823	13.807	(1.000)	87980	4.00000	
	50 Diethylphthalate	149	15.005	14.982	(1.086)	124190	4.32023	1549
	54 N-Nitrosodiphenylamine	169	15.345	15.322	(0.900)	81740	4.94767	1774
	57 Hexachlorobenzene	284	16.394	16.363	(0.962)	40554	3.59333	1288
	58 Pentachlorophenol	266	16.835	16.813	(0.988)	45028	6.71064	2406
*	59 Phenanthrene-d10	188	17.044	17.006	(1.000)	150675	4.00000	
$	66 Terphenyl-d14	244	20.511	20.457	(0.916)	79376	3.82486	1371
	67 Butylbenzylphthalate	149	21.564	21.486	(0.963)	87561	5.59059	2005
*	69 Chrysene-d12	240	22.392	22.307	(1.000)	168822	4.00000	
*	77 Perylene-d12	264	24.722	24.591	(1.000)	124389	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.319	26.157	(1.065)	65784	2.37262	850.7(H)
	90 N-Nitrosodimethylamine	74	3.040	3.017	(0.408)	69281	7.72021	2768

QC Flag Legend

H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81bmsd.d
Lab Smp Id: WT81BMSD
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: AM-SF4-EFF-2013
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	41646	-20.91
27 Naphthalene-d8	192325	96162	384650	155037	-19.39
42 Acenaphthene-d10	109274	54637	218548	87980	-19.49
59 Phenanthrene-d10	203933	101966	407866	150675	-26.12
69 Chrysene-d12	223647	111824	447294	168822	-24.51
77 Perylene-d12	211919	105960	423838	124389	-41.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.15
42 Acenaphthene-d10	13.81	13.31	14.31	13.82	0.11
59 Phenanthrene-d10	17.01	16.51	17.51	17.04	0.23
69 Chrysene-d12	22.31	21.81	22.81	22.39	0.38
77 Perylene-d12	24.59	24.09	25.09	24.72	0.53

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

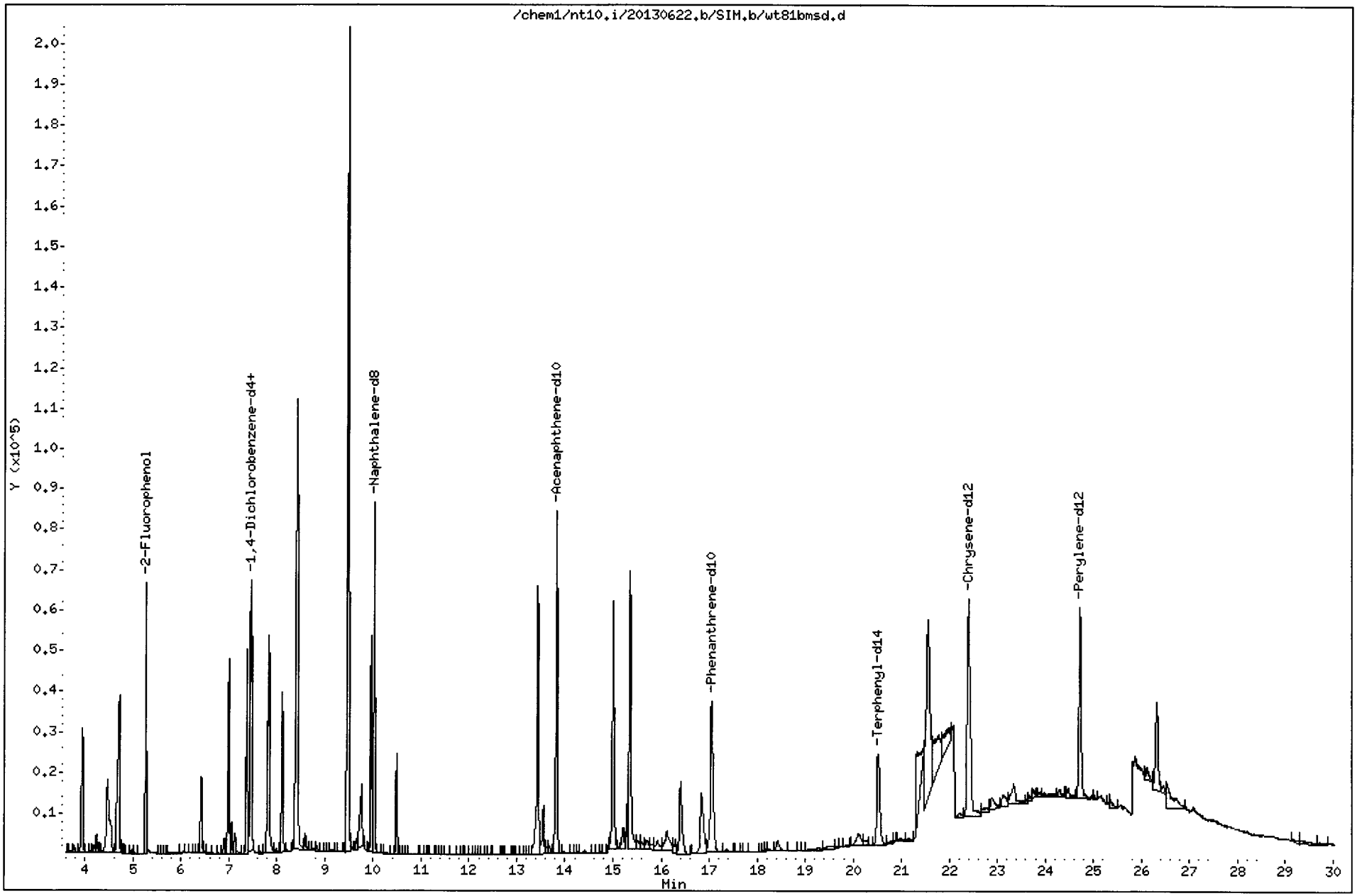
Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81BMSD
Client Smp ID: AM-SF4-EFF-2013 MSD
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: MSD
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
3 Phenol	1793	1116	62.27	30-160
7 1,3-Dichlorobenzen	1793	989.4	55.19	30-160
9 1,4-Dichlorobenzen	1793	1014	56.58	30-160
11 Benzyl alcohol	1793	1359	75.82	30-160
12 1,2-Dichlorobenzen	1793	1043	58.17	30-160
13 2-Methylphenol	1793	1103	61.53	30-160
15 4-Methylphenol	3586	2940	81.99	30-160
16 N-Nitroso-di-n-pro	1793	1514	84.44	30-160
22 2,4-Dimethylphenol	3586	3933	109.70	30-160
26 1,2,4-Trichloroben	1793	1179	65.77	30-160
30 Hexachlorobutadien	1793	1146	63.91	30-160
39 Dimethylphthalate	1793	1582	88.26	30-160
50 Diethylphthalate	1793	1549	86.40	30-160
54 N-Nitrosodiphenyla	1793	1774	98.95	30-160
57 Hexachlorobenzene	1793	1288	71.87	30-160
58 Pentachlorophenol	3586	2406	67.11	30-160
67 Butylbenzylphthala	1793	2005	111.81	30-160
79 Dibenzo(a,h)anthra	1793	850.7	47.45	30-160
90 N-Nitrosodimethyla	3586	2768	77.20	30-160

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2689	1710	63.57	30-160
$ 66 Terphenyl-d14	1793	1371	76.50	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81bmsd.d
Date : 22-JUN-2013 16:04
Client ID: AM-SF4-EFF-2013 MSD
Sample Info: WT81BMSD
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - wt81bmsd.d

Lab ID: WT81BMSD, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt81a.d
Lab Smp Id: WT81A Client Smp ID: AM-VT-INF-20130612-
Inj Date : 22-JUN-2013 14:13
Operator : YZ Inst ID: nt10.i
Smp Info : WT81A
Misc Info : 13-12636
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 27-Jun-2013 11:09 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	10.00000	Weight of sample extracted (g)
M	56.90000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.264	5.225	(0.708)	73894	4.93230	1144
3	Phenol	94	6.995	6.956	(0.941)	51304	2.38234	552.7
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.436	7.436	(1.000)	42650	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	79	7.801	7.785	(1.049)	5707	0.55256	128.2
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
13	2-Methylphenol	108	8.103	8.088	(1.090)	8734	0.56728	131.6
15	4-Methylphenol	108	8.406	8.391	(1.130)	27016	1.72317	399.8
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
22	2,4-Dimethylphenol	107	9.477	9.461	(0.946)	6975	0.45039	104.5
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.016	10.008	(1.000)	159870	4.00000	
30	Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	39 Dimethylphthalate	163	Compound Not Detected.					
*	42 Acenaphthene-d10	162	13.815	13.807	(1.000)	82371	4.00000	
	50 Diethylphthalate	149	14.998	14.982	(1.086)	6046	0.22465	52.12(M)
	54 N-Nitrosodiphenylamine	169	15.330	15.322	(0.900)	14275	0.92056	213.6(M)
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	16.828	16.813	(0.988)	1333	0.21165	49.11(M)
*	59 Phenanthrene-d10	188	17.029	17.006	(1.000)	141427	4.00000	
$	66 Terphenyl-d14	244	20.519	20.457	(0.917)	79726	3.98641	924.9(H)
	67 Butylbenzylphthalate	149	21.541	21.486	(0.963)	96341	6.38282	1481
*	69 Chrysene-d12	240	22.377	22.307	(1.000)	162695	4.00000	
*	77 Perylene-d12	264	24.676	24.591	(1.000)	149144	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.265	26.157	(1.064)	9848	0.29623	68.73(H)
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81a.d
Lab Smp Id: WT81A
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12636

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: AM-VT-INF-201306
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	42650	-19.01
27 Naphthalene-d8	192325	96162	384650	159870	-16.88
42 Acenaphthene-d10	109274	54637	218548	82371	-24.62
59 Phenanthrene-d10	203933	101966	407866	141427	-30.65
69 Chrysene-d12	223647	111824	447294	162695	-27.25
77 Perylene-d12	211919	105960	423838	149144	-29.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.00
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.08
42 Acenaphthene-d10	13.81	13.31	14.31	13.82	0.06
59 Phenanthrene-d10	17.01	16.51	17.51	17.03	0.14
69 Chrysene-d12	22.31	21.81	22.81	22.38	0.31
77 Perylene-d12	24.59	24.09	25.09	24.68	0.35

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

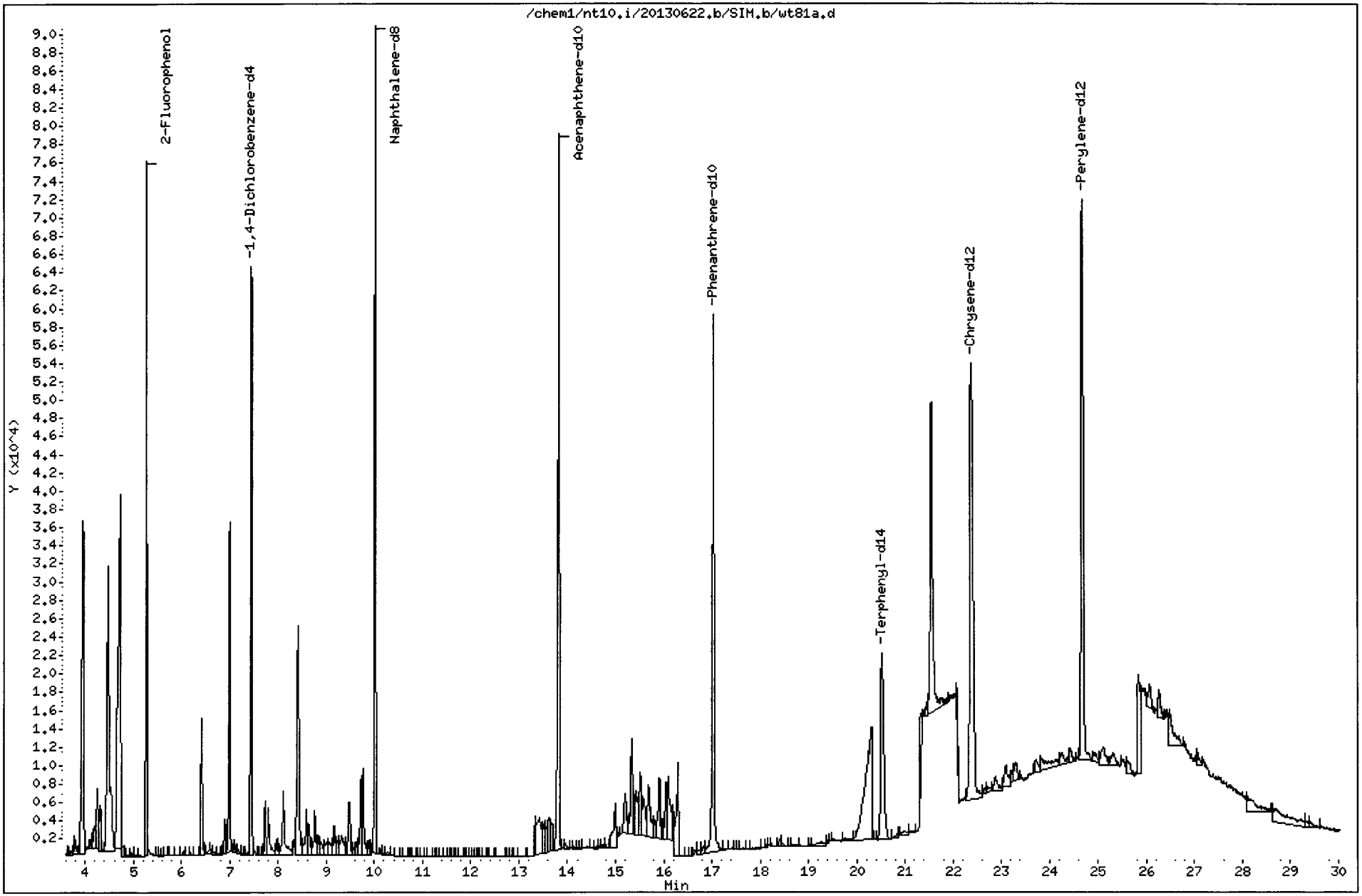
RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81A
Client Smp ID: AM-VT-INF-20130612-
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12636

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	1740	1144	65.76	30-160
$ 66 Terphenyl-d14	1160	924.9	79.73	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d
Date : 22-JUN-2013 14:13
Client ID: AM-VT-INF-20130612-
Sample Info: WT81A
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

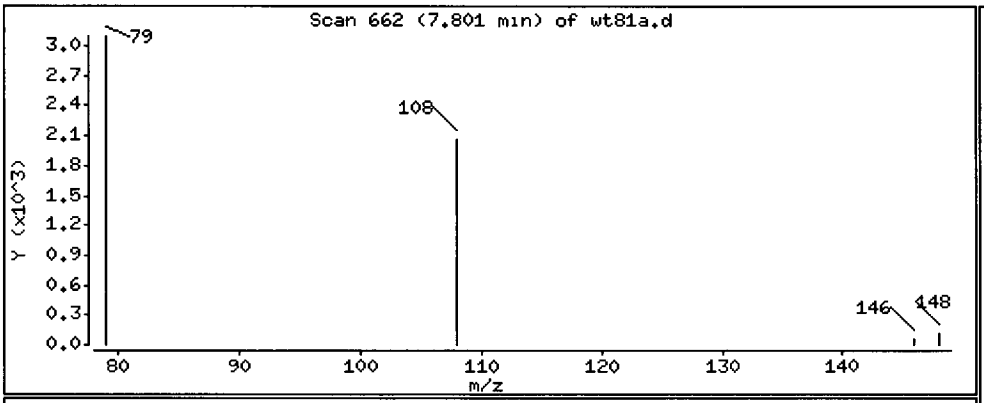
Operator: YZ

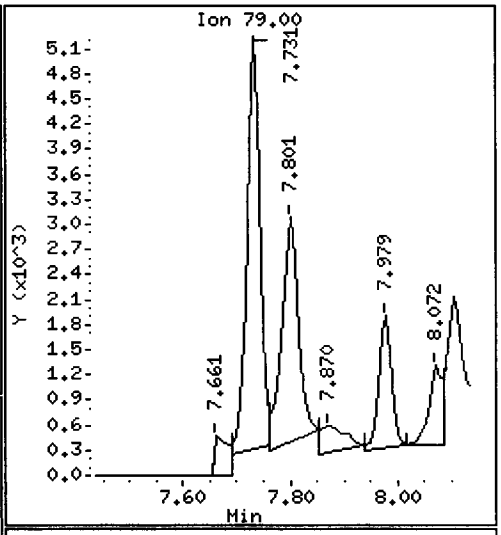
Column phase: ZB-5msi

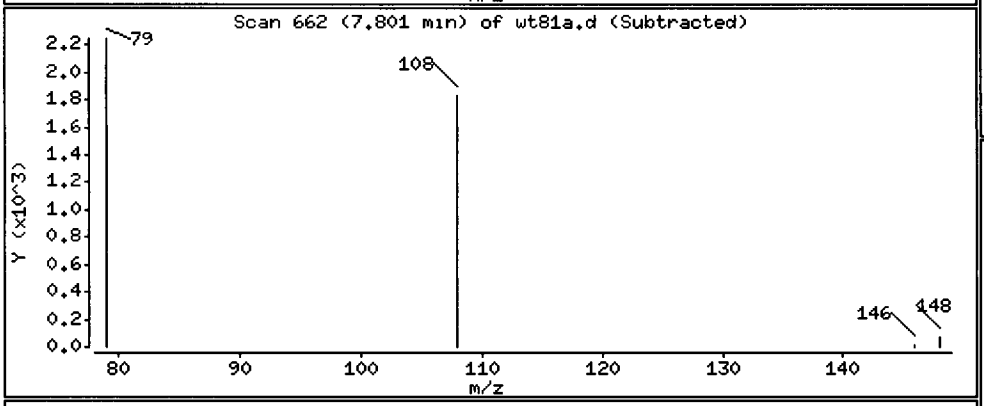
Column diameter: 0.25

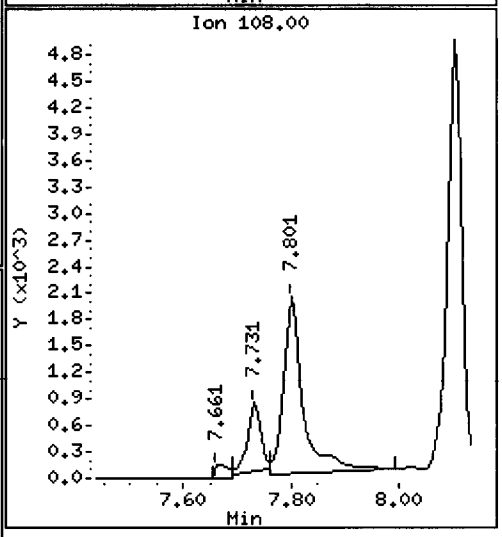
11 Benzyl alcohol

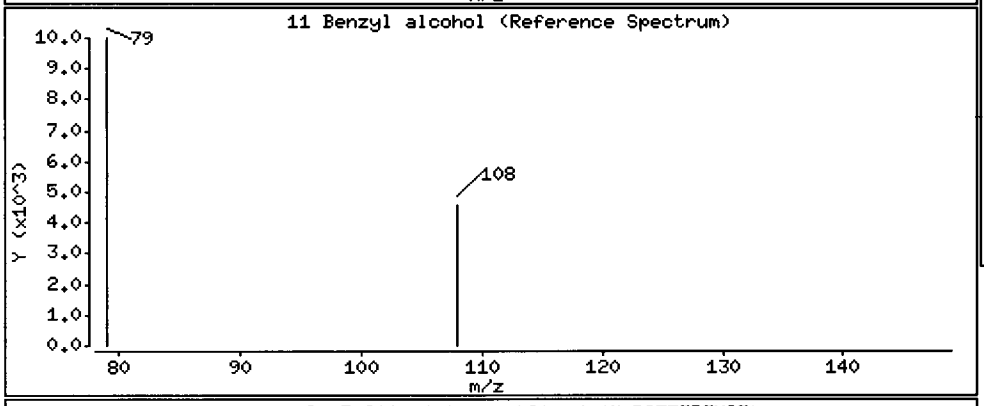
Concentration: 128.2 ug/kg

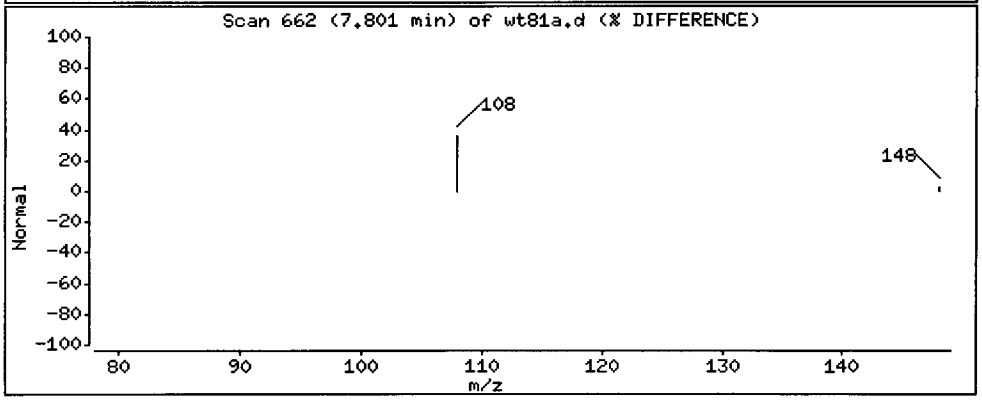












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

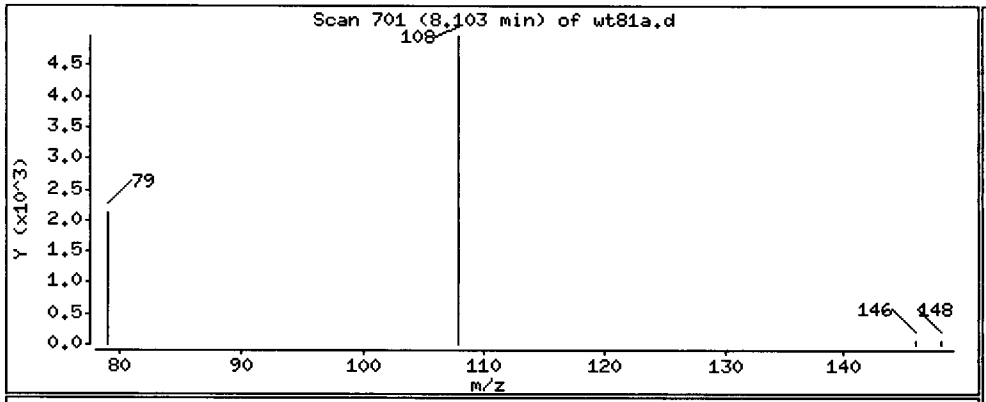
Operator: YZ

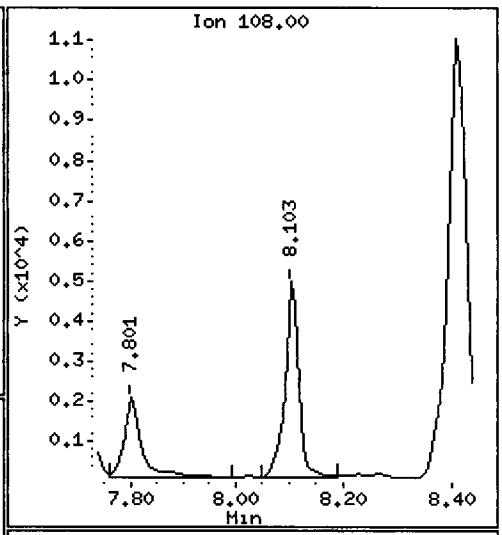
Column phase: ZB-5ms1

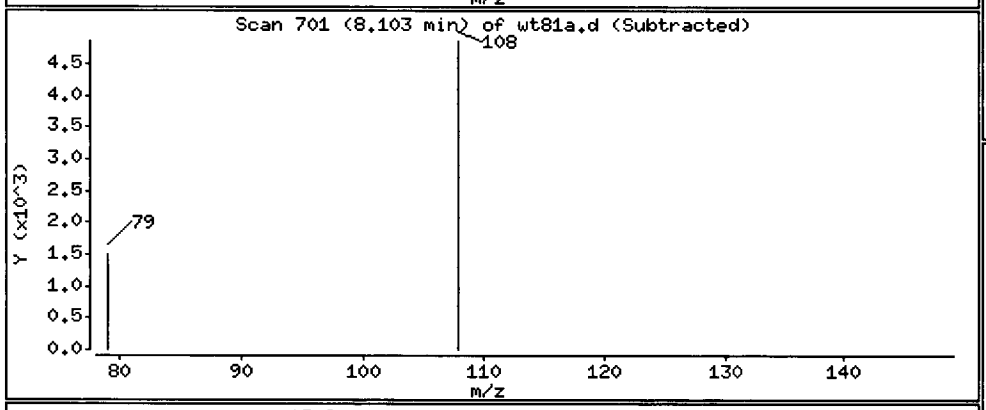
Column diameter: 0.25

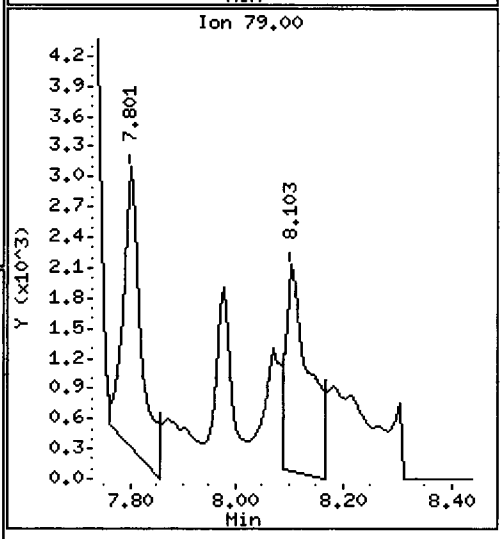
13 2-Methylphenol

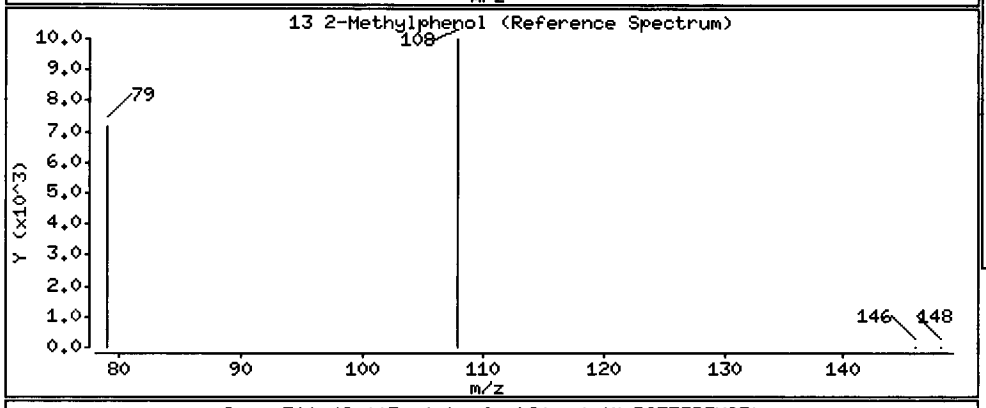
Concentration: 131.6 ug/kg

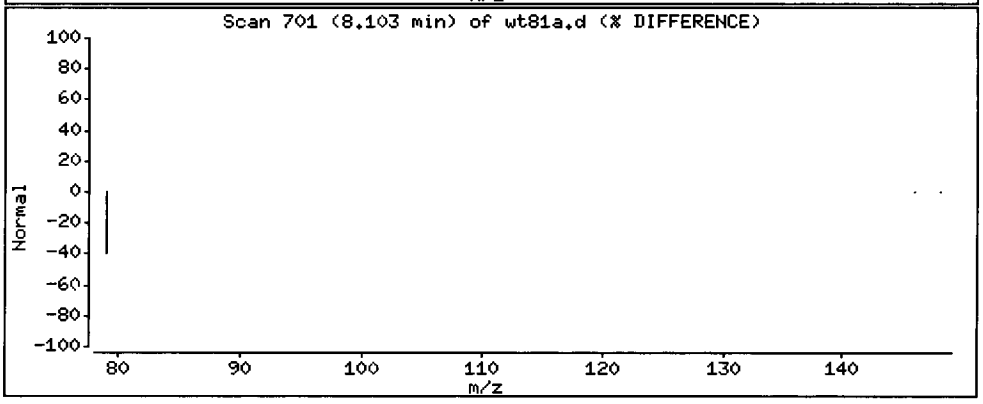












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

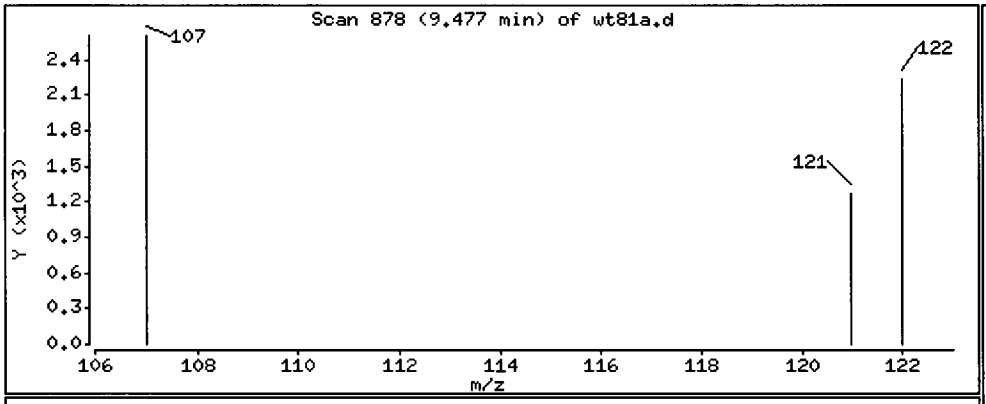
Operator: YZ

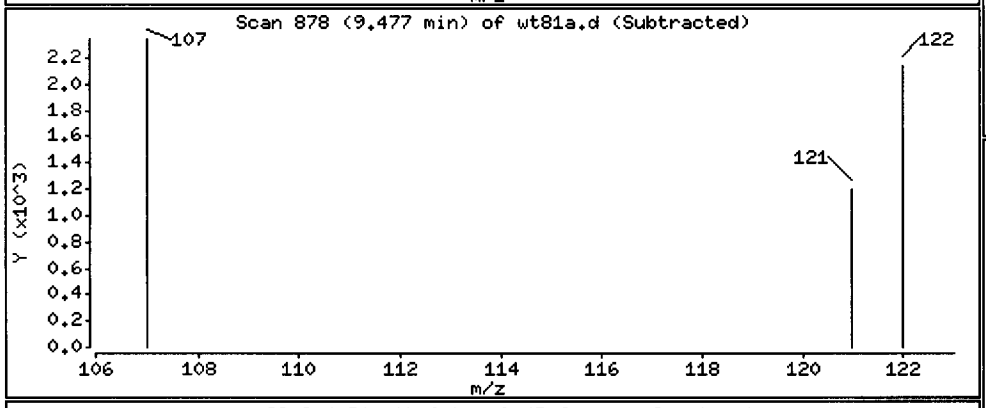
Column phase: ZB-5msi

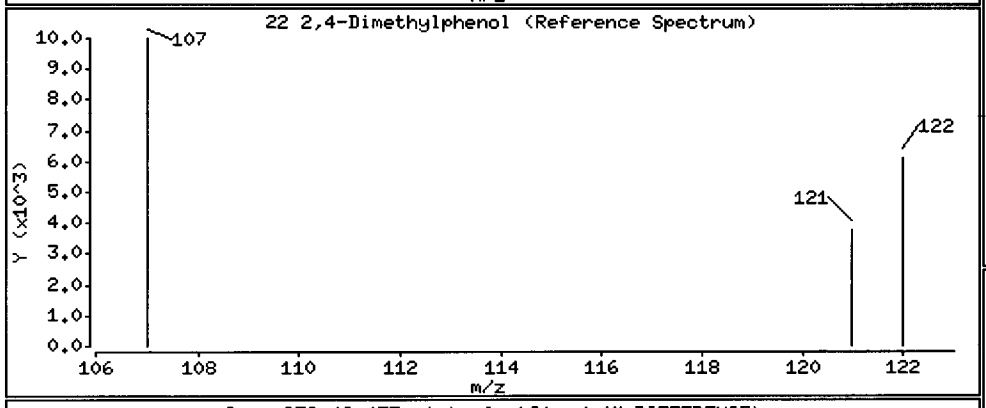
Column diameter: 0.25

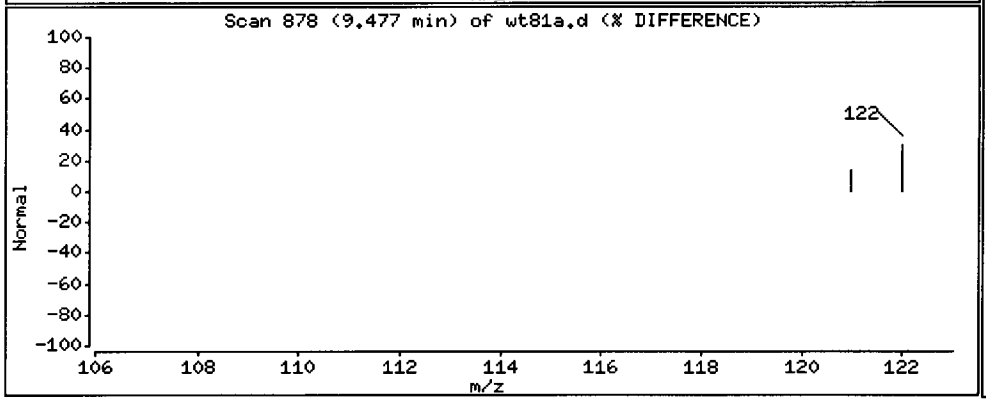
22 2,4-Dimethylphenol

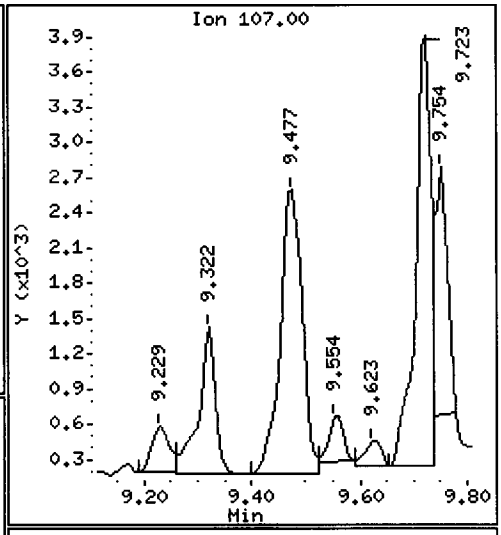
Concentration: 104.5 ug/kg

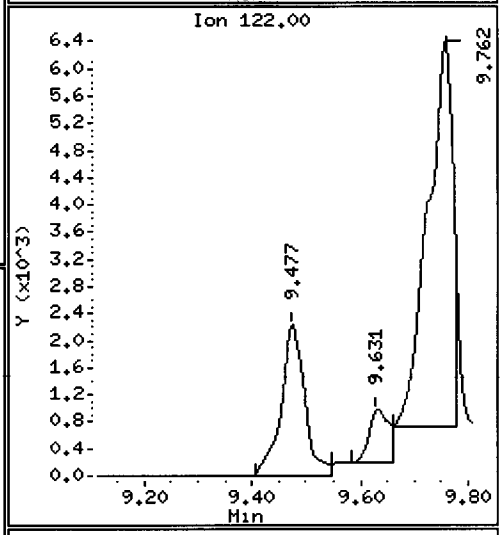


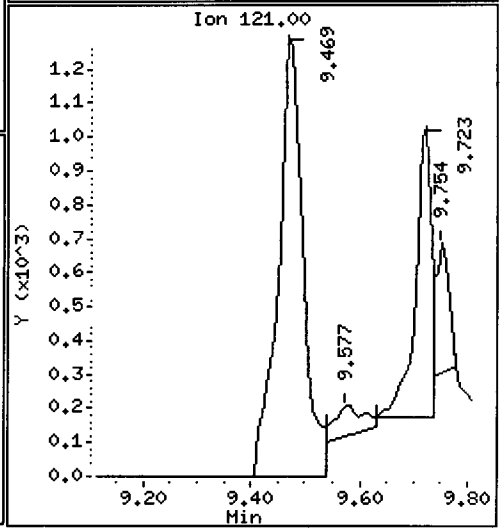












Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.1

Sample Info: WT81A

Volume Injected (uL): 1.0

Operator: YZ

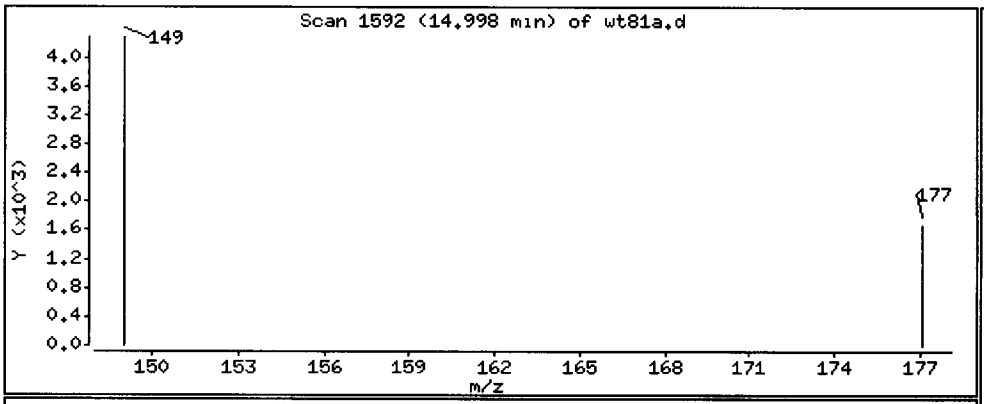
Column phase: ZB-5msi

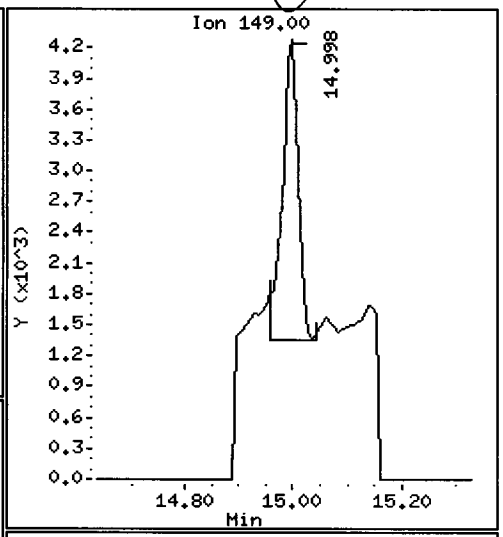
Column diameter: 0.25

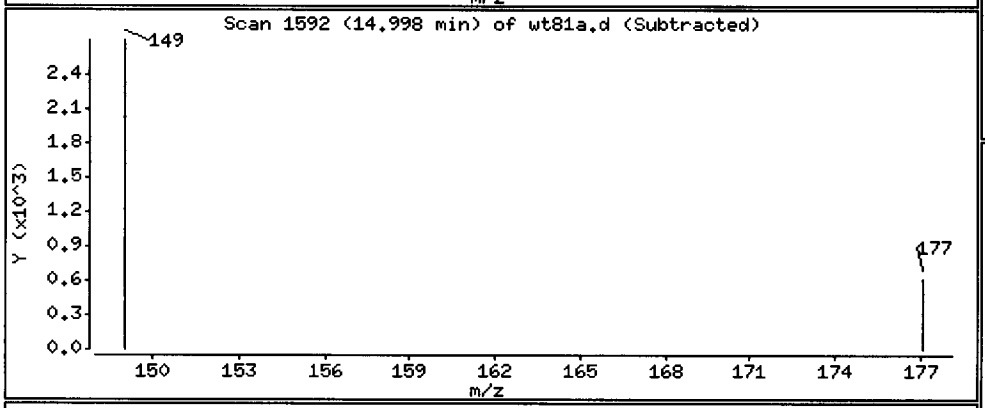
50 Diethylphthalate

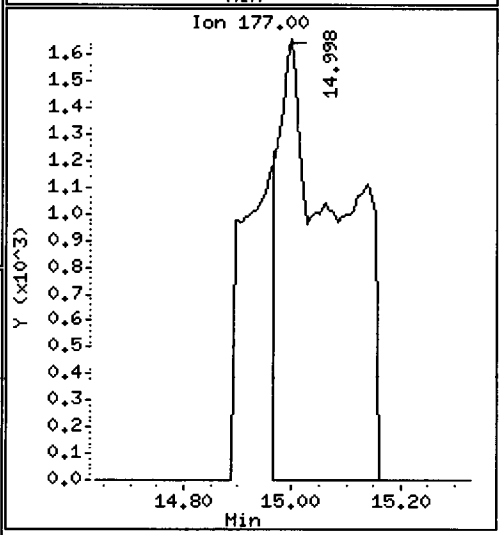
Concentration: 52.12 ug/kg

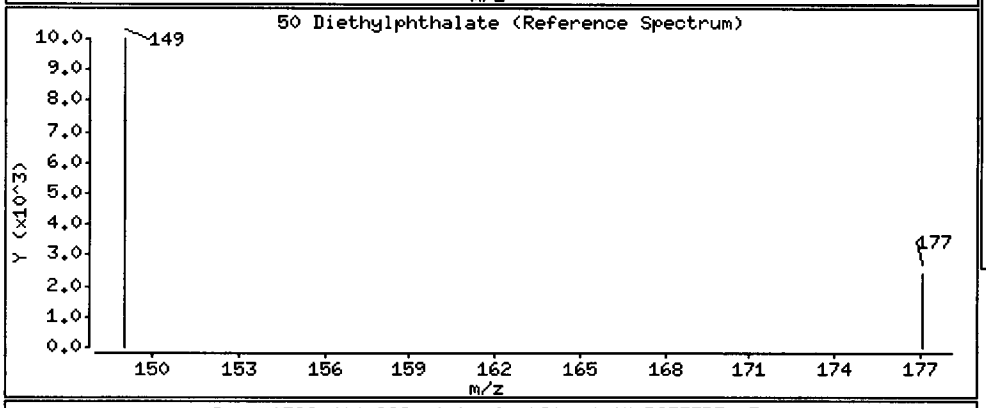
(B)

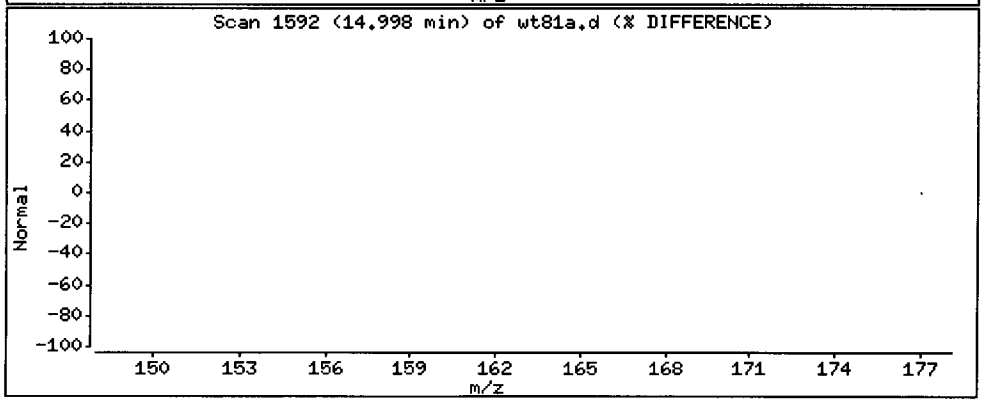












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

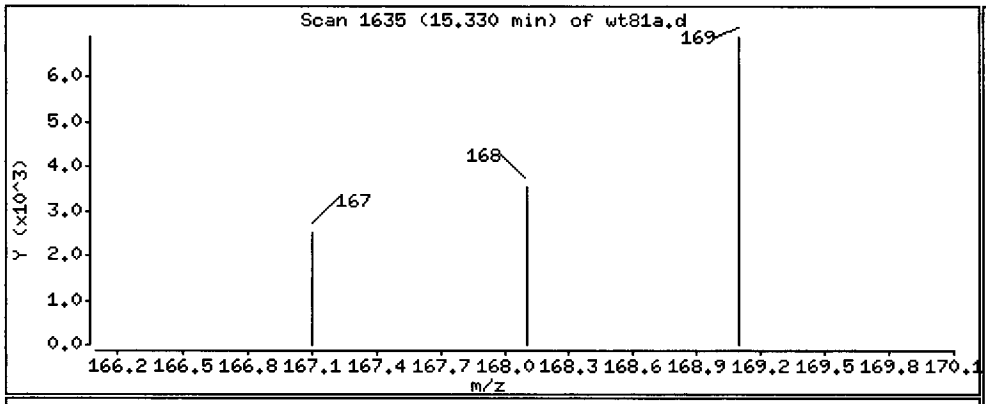
Operator: YZ

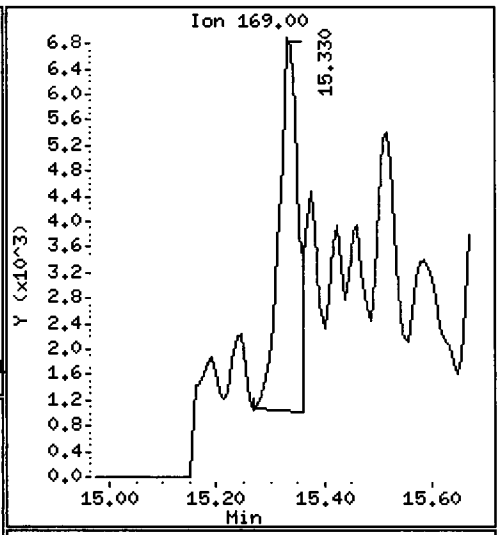
Column phase: ZB-5ms1

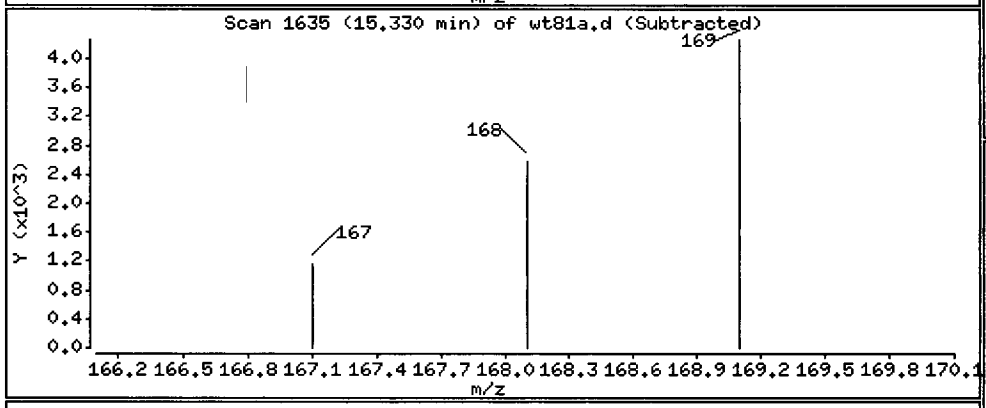
Column diameter: 0.25

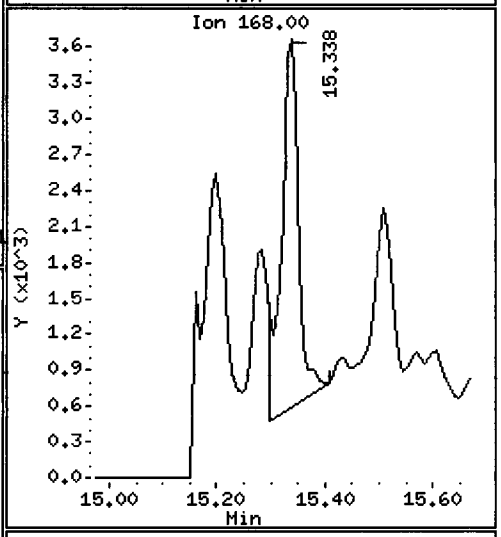
54 N-Nitrosodiphenylamine

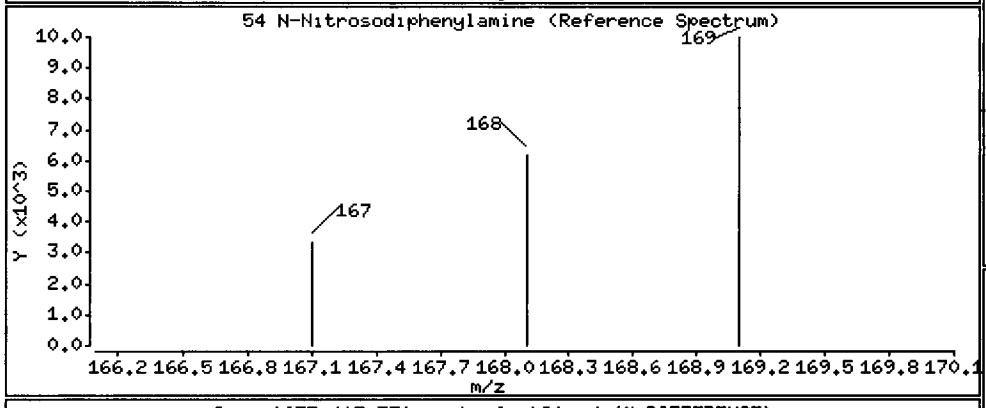
Concentration: 213.6 ug/kg

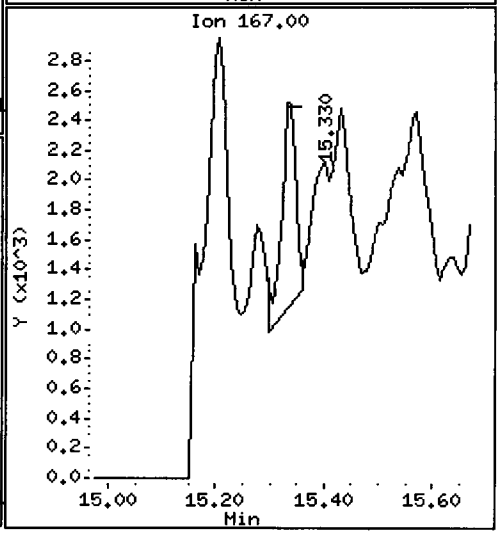


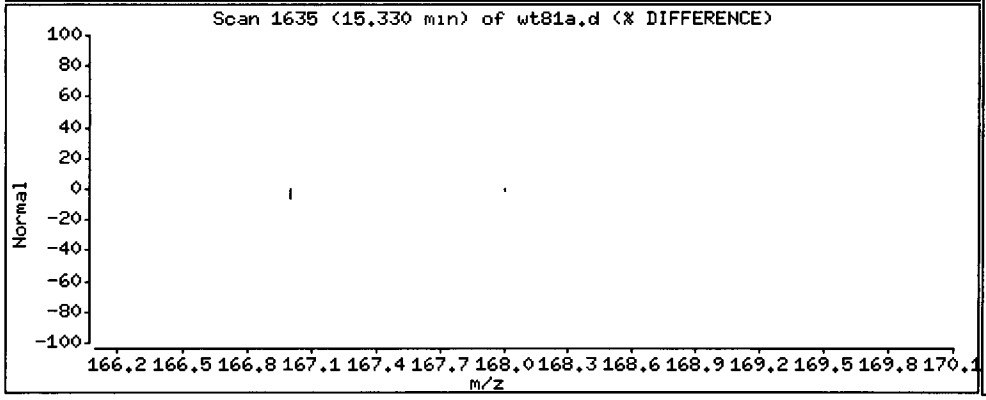












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

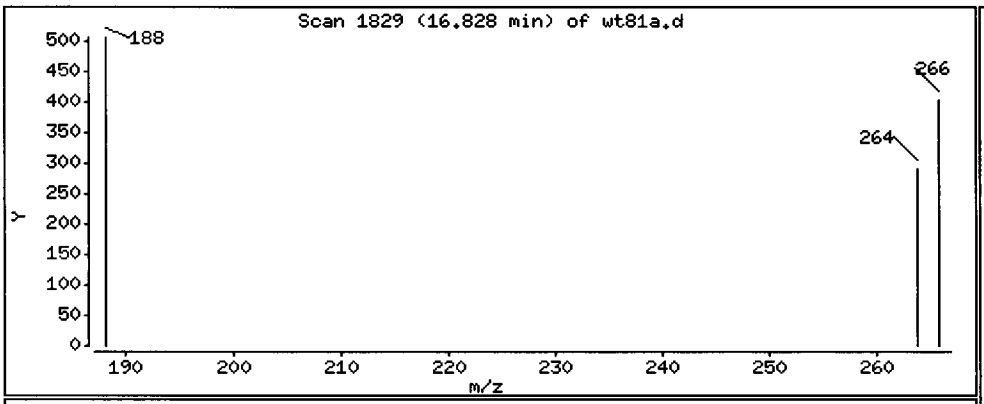
Operator: YZ

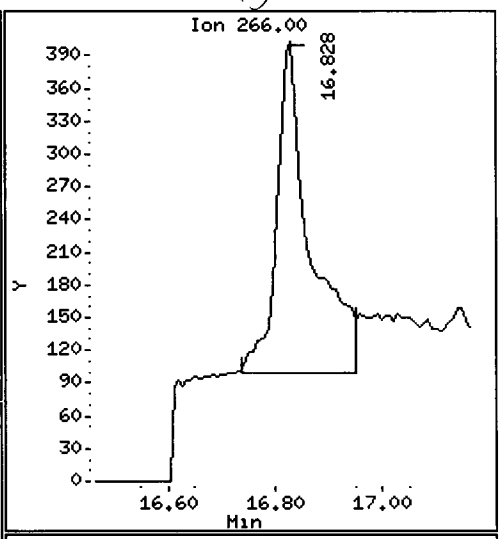
Column phase: ZB-5ms1

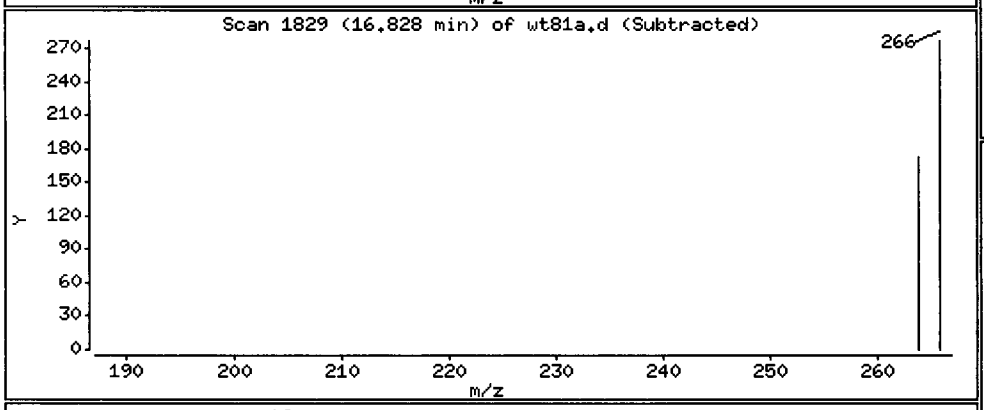
Column diameter: 0.25

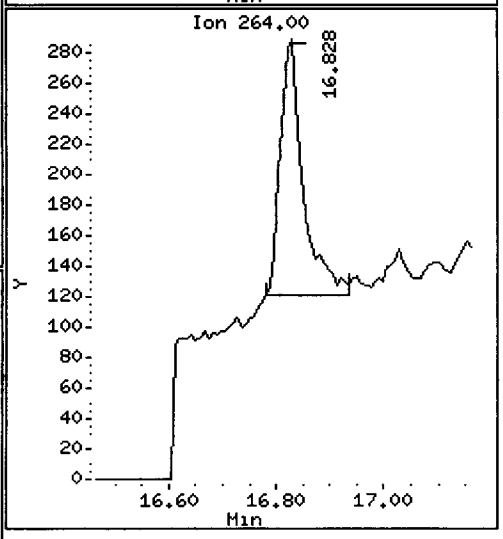
58 Pentachlorophenol

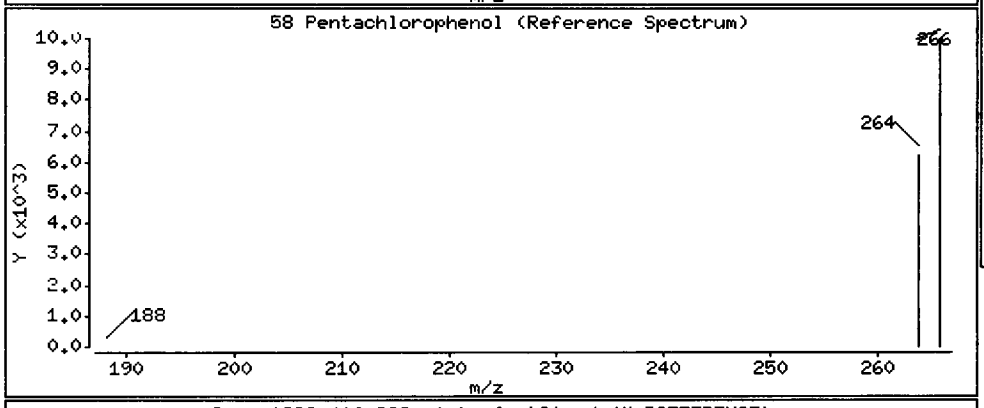
Concentration: 49.11 ug/kg

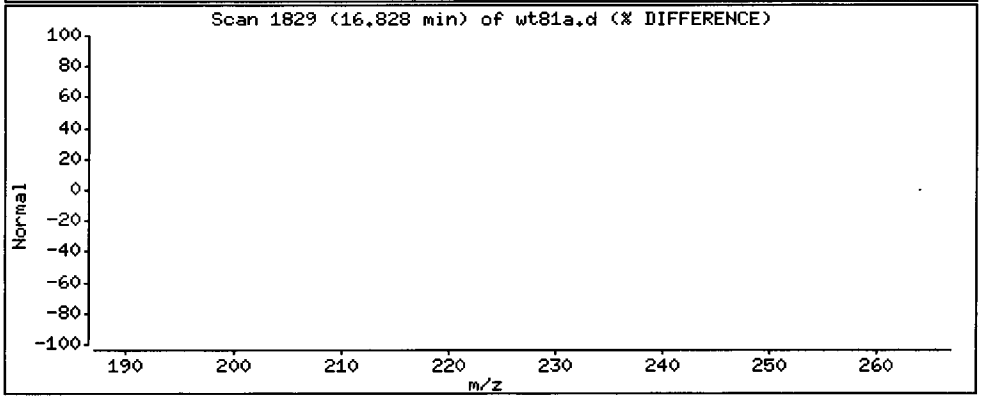












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

Operator: YZ

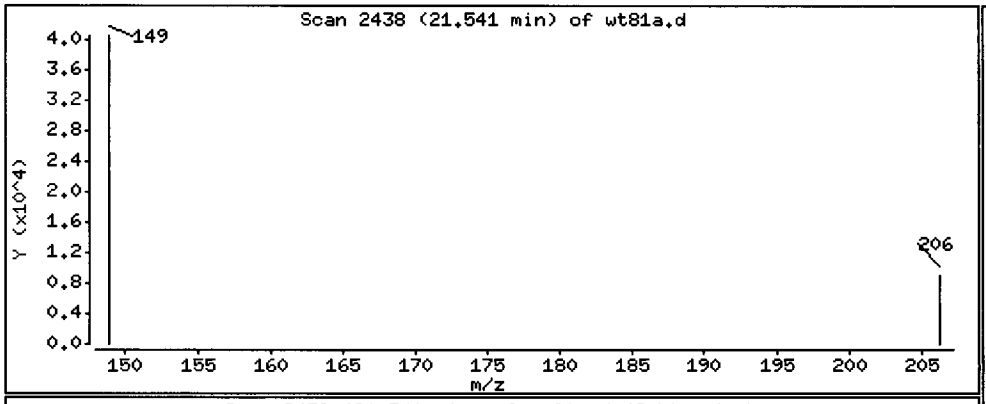
Column phase: ZB-5msi

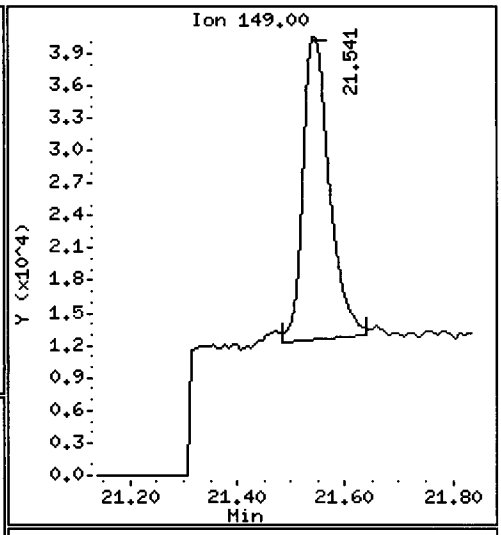
Column diameter: 0.25

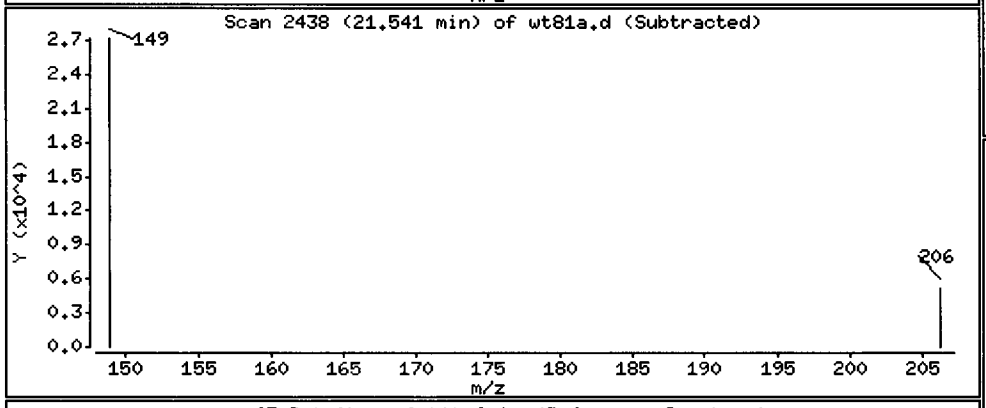
67 Butylbenzylphthalate

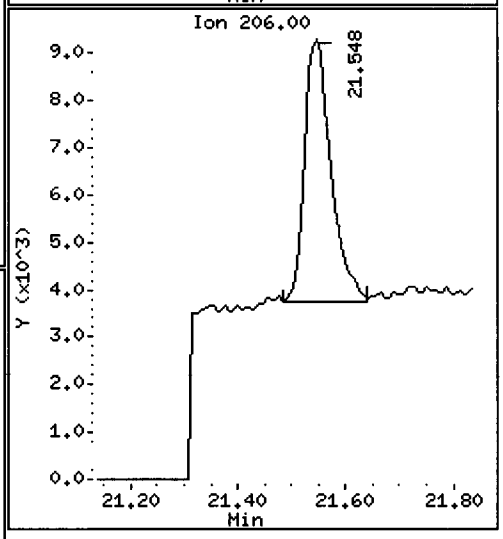
Concentration: 1481 ug/kg

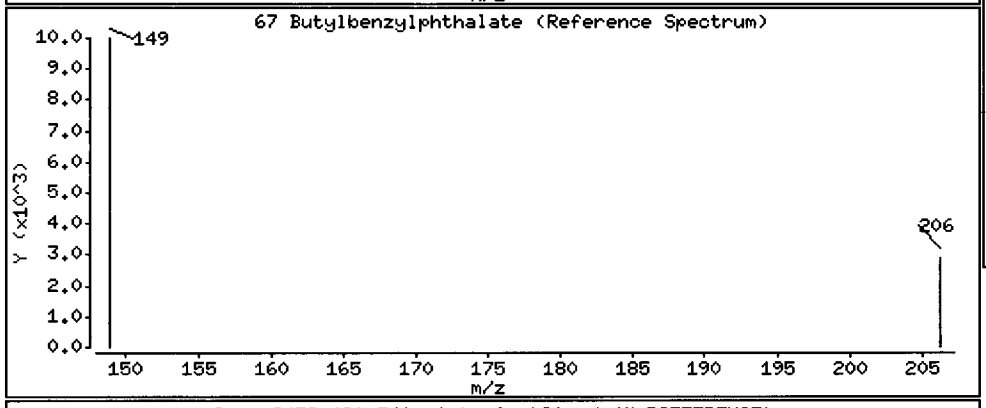
E9

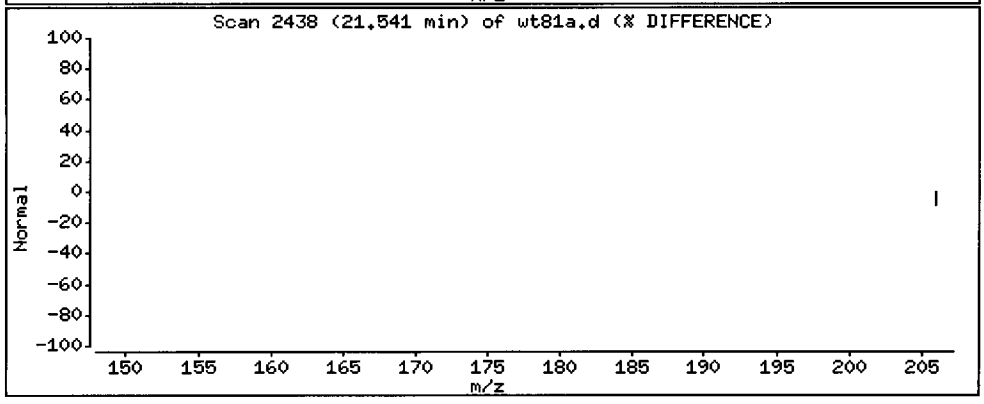












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Date : 22-JUN-2013 14:13

Client ID: AM-VT-INF-20130612-

Instrument: nt10.i

Sample Info: WT81A

Volume Injected (uL): 1.0

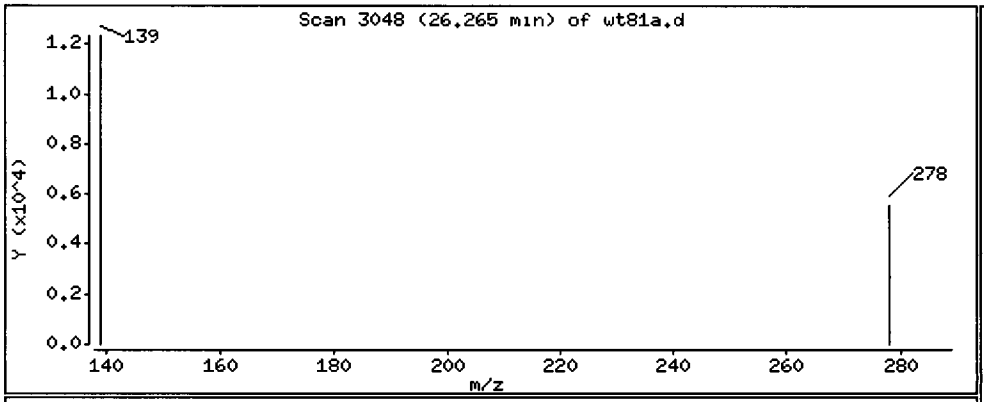
Operator: YZ

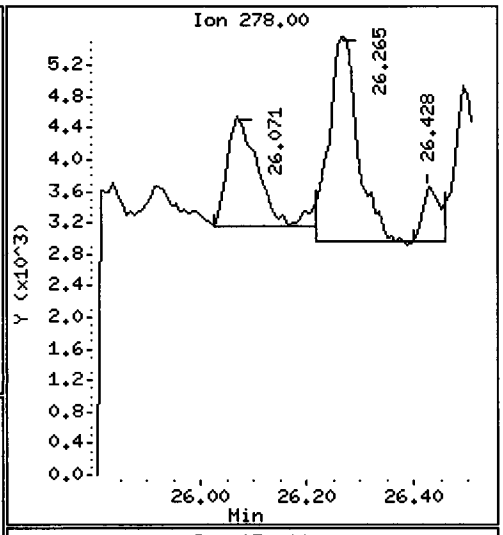
Column phase: ZB-5msi

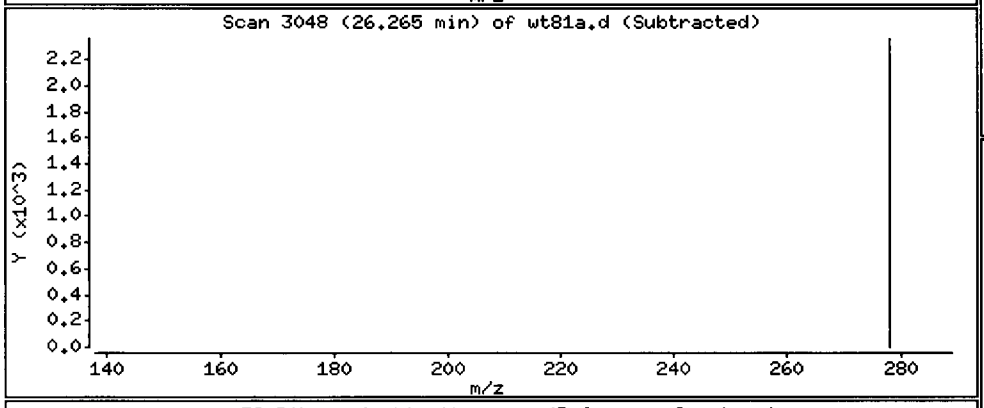
Column diameter: 0.25

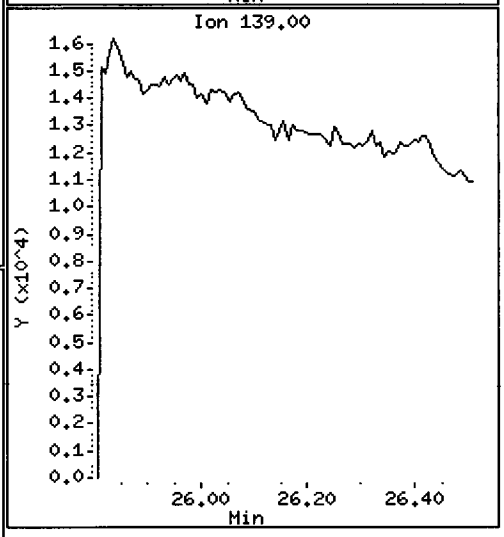
79 Dibenzo(a,h)anthracene

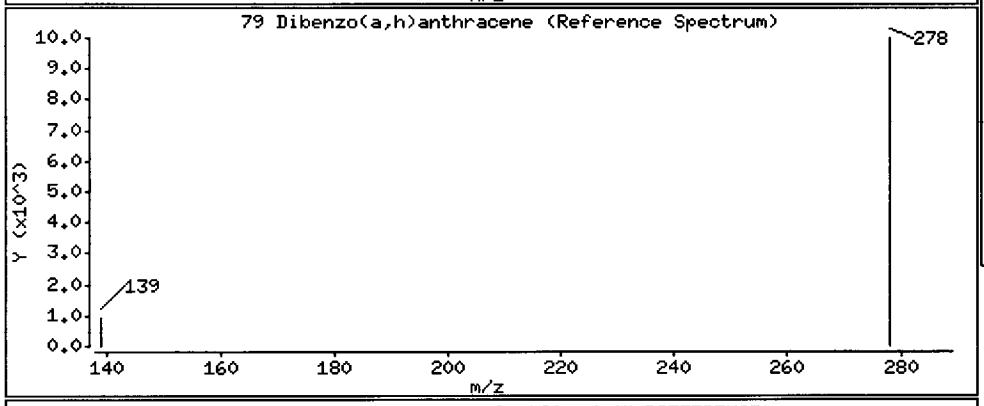
Concentration: 68.73 ug/kg

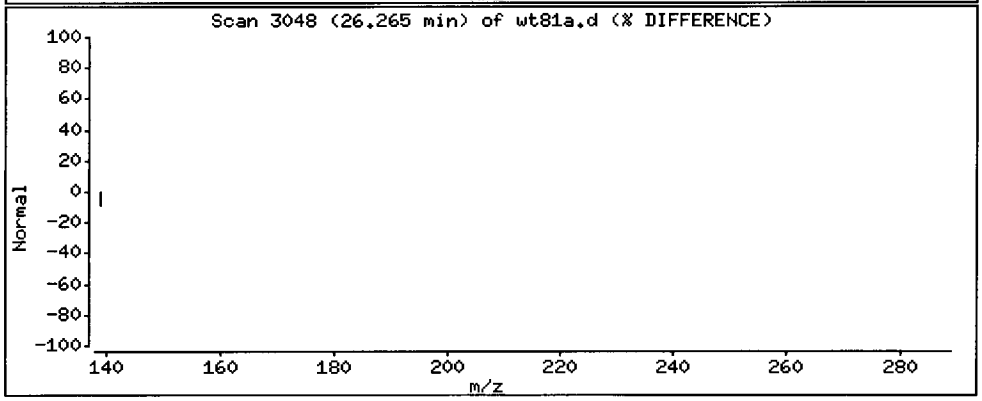






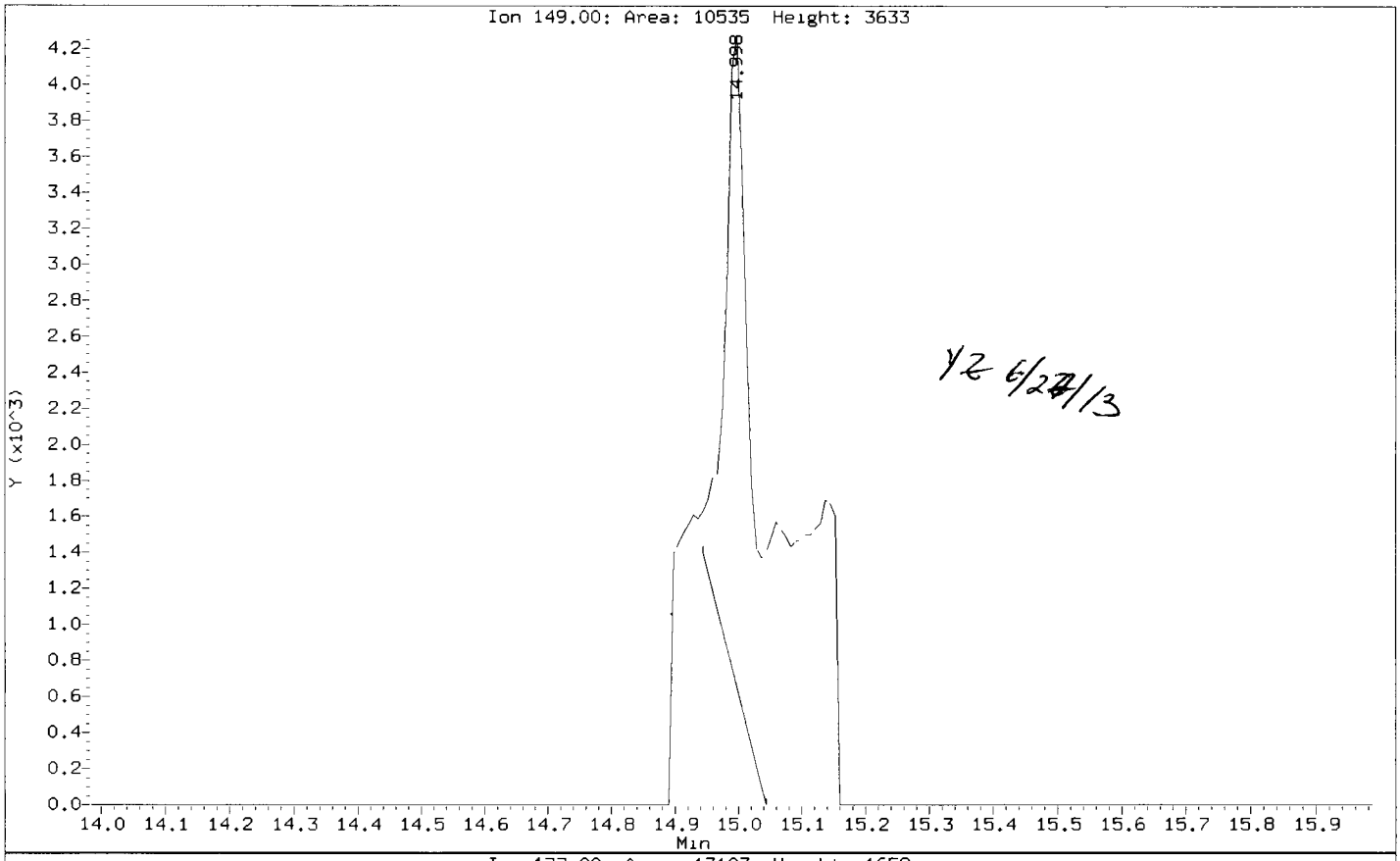


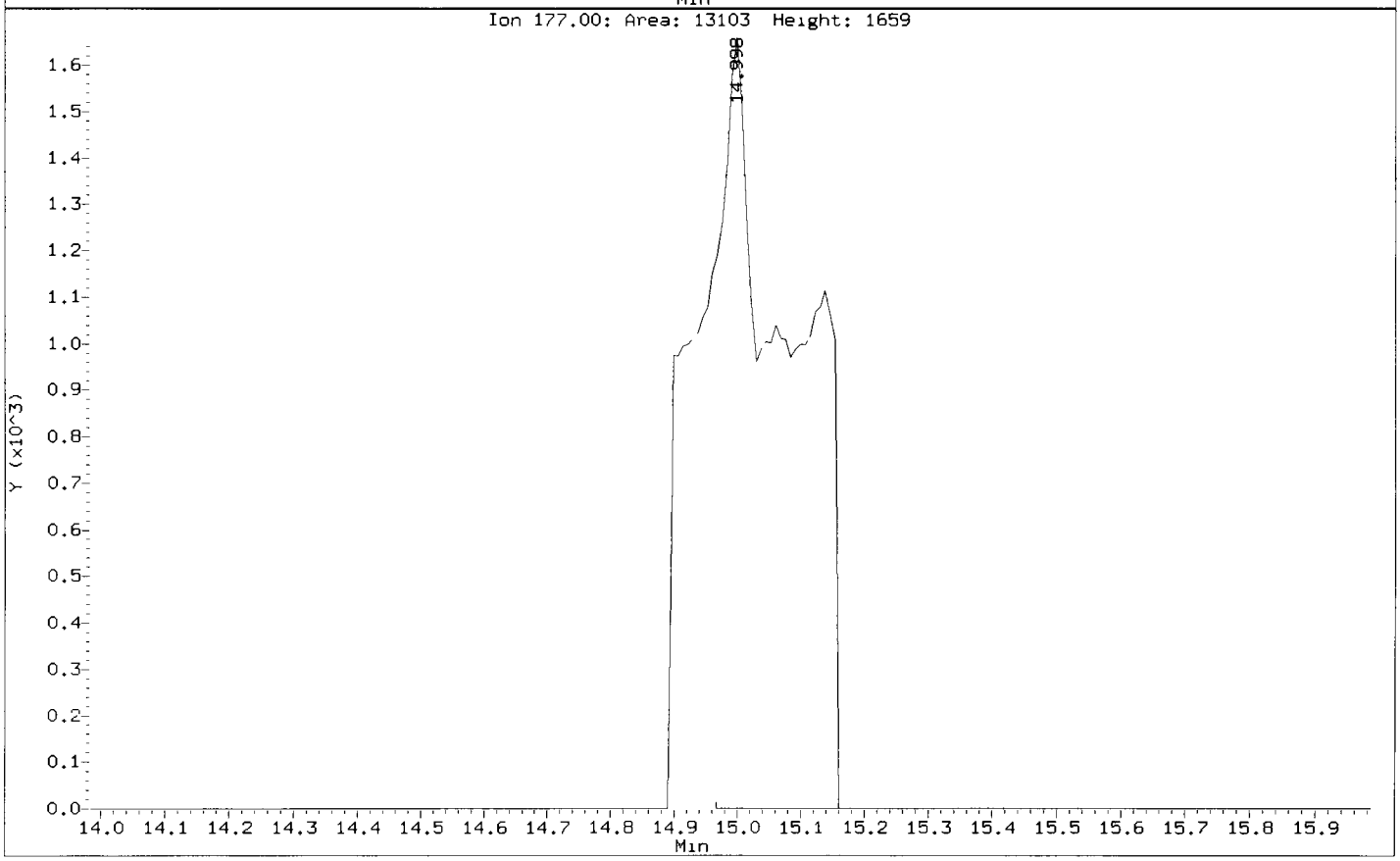




Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81a.d
Injection Date: 22-JUN-2013 14:13
Instrument: nt10.1
Client Sample ID: AM-VT-INF-20130612-

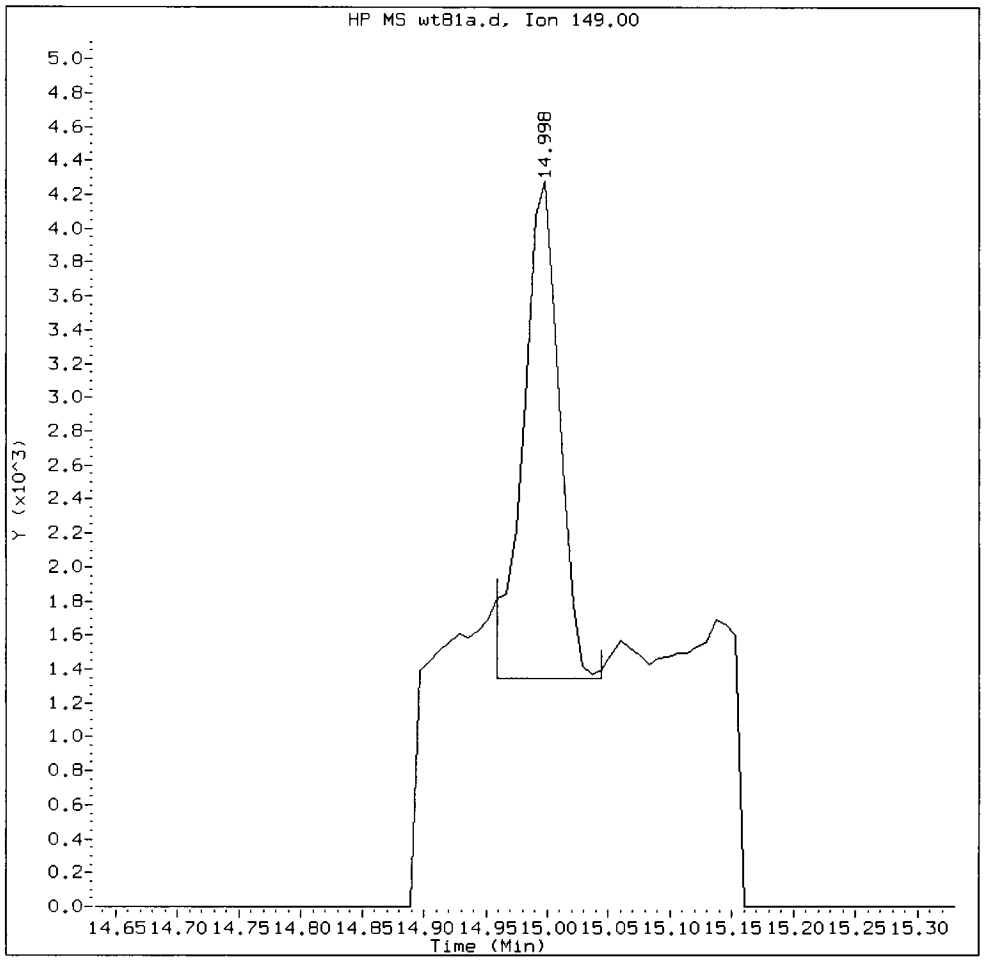
Compound: Diethylphthalate
CAS Number: 84-66-2





WT81A, /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Diethylphthalate Amount: 0.22 Area: 6046



MANUAL INTEGRATION for Diethylphthalate

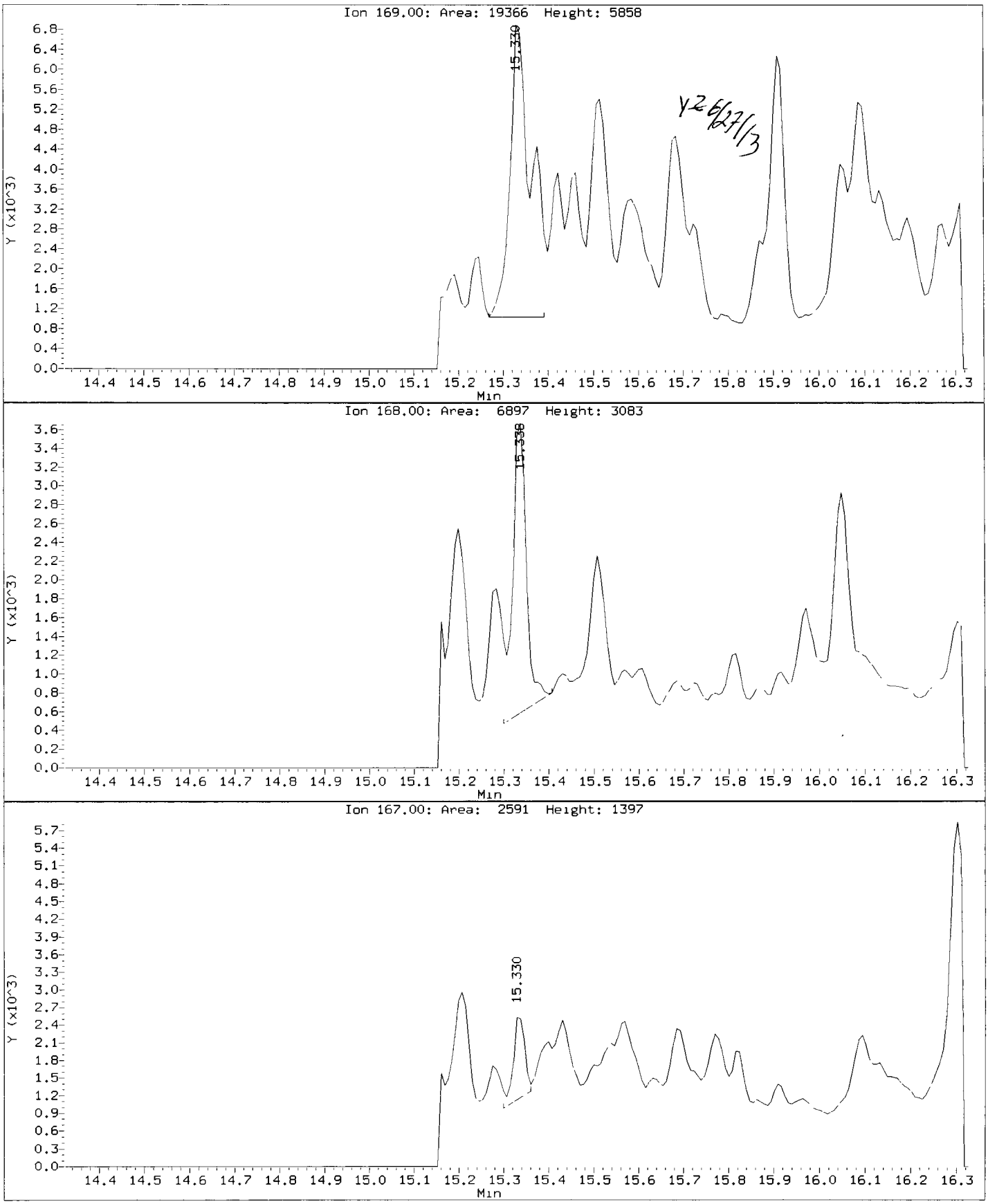
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

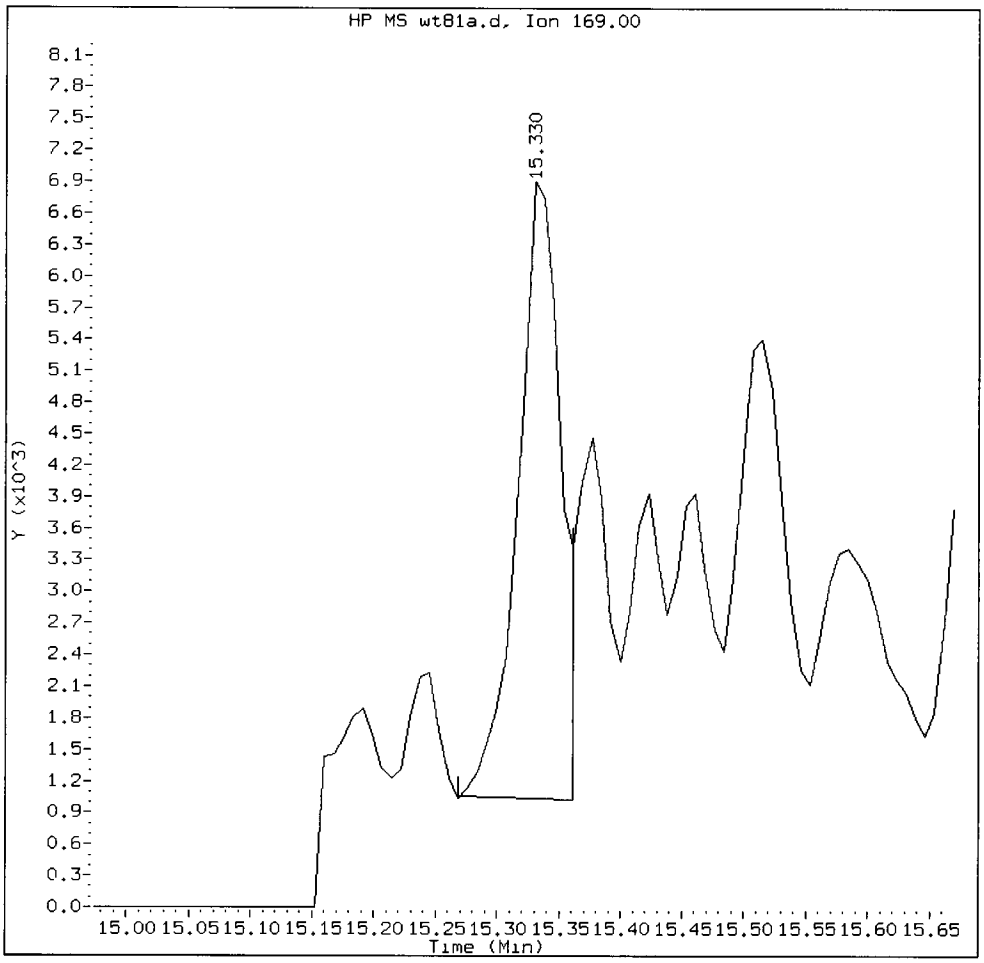
Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81a.d
Injection Date: 22-JUN-2013 14:13
Instrument: nt10.i
Client Sample ID: AM-VT-INF-20130612-

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6



WT81A, /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

N-Nitrosodiphenylamine Amount: 0.92 Area: 14275



MANUAL INTEGRATION for N-Nitrosodiphenylamine

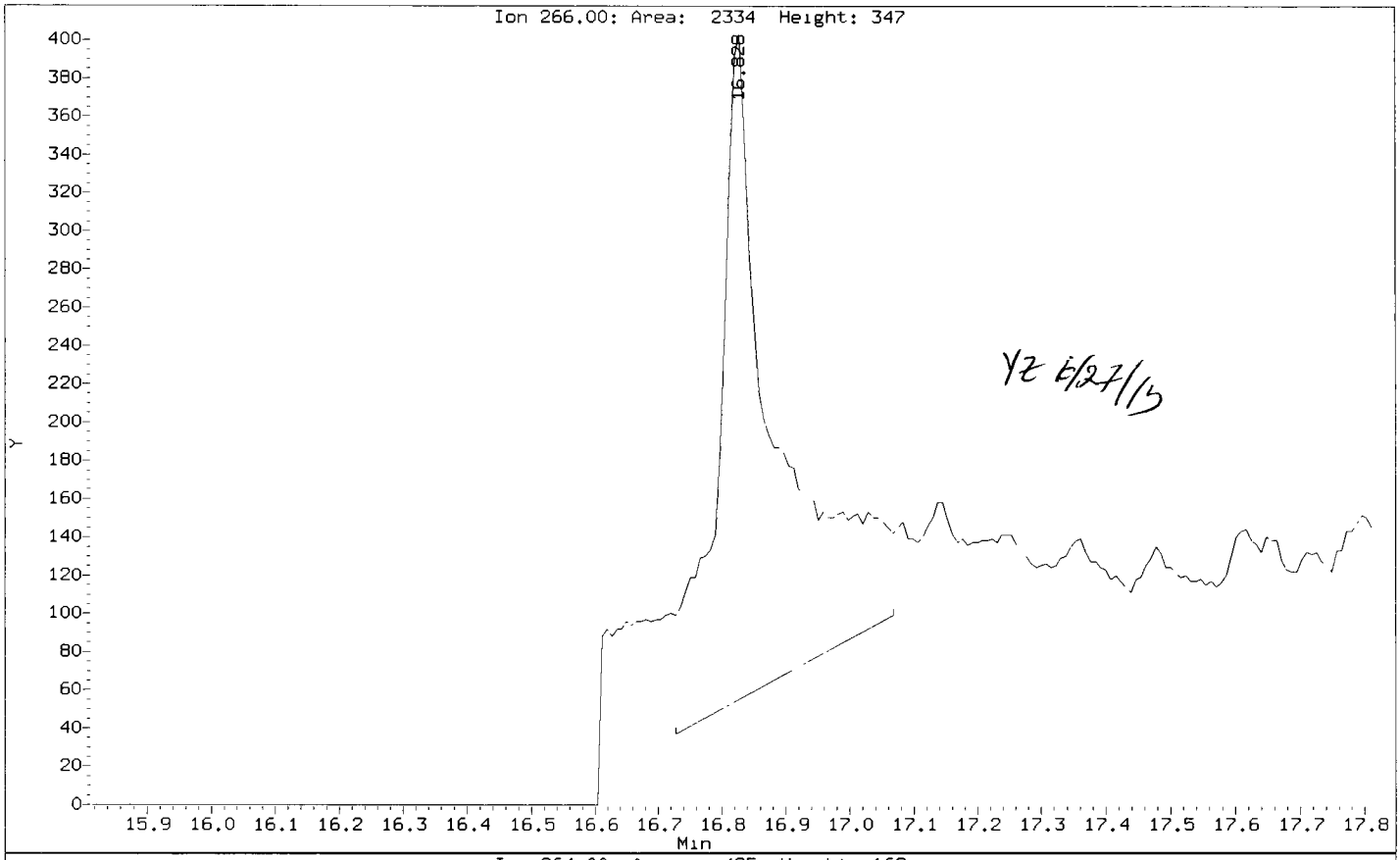
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

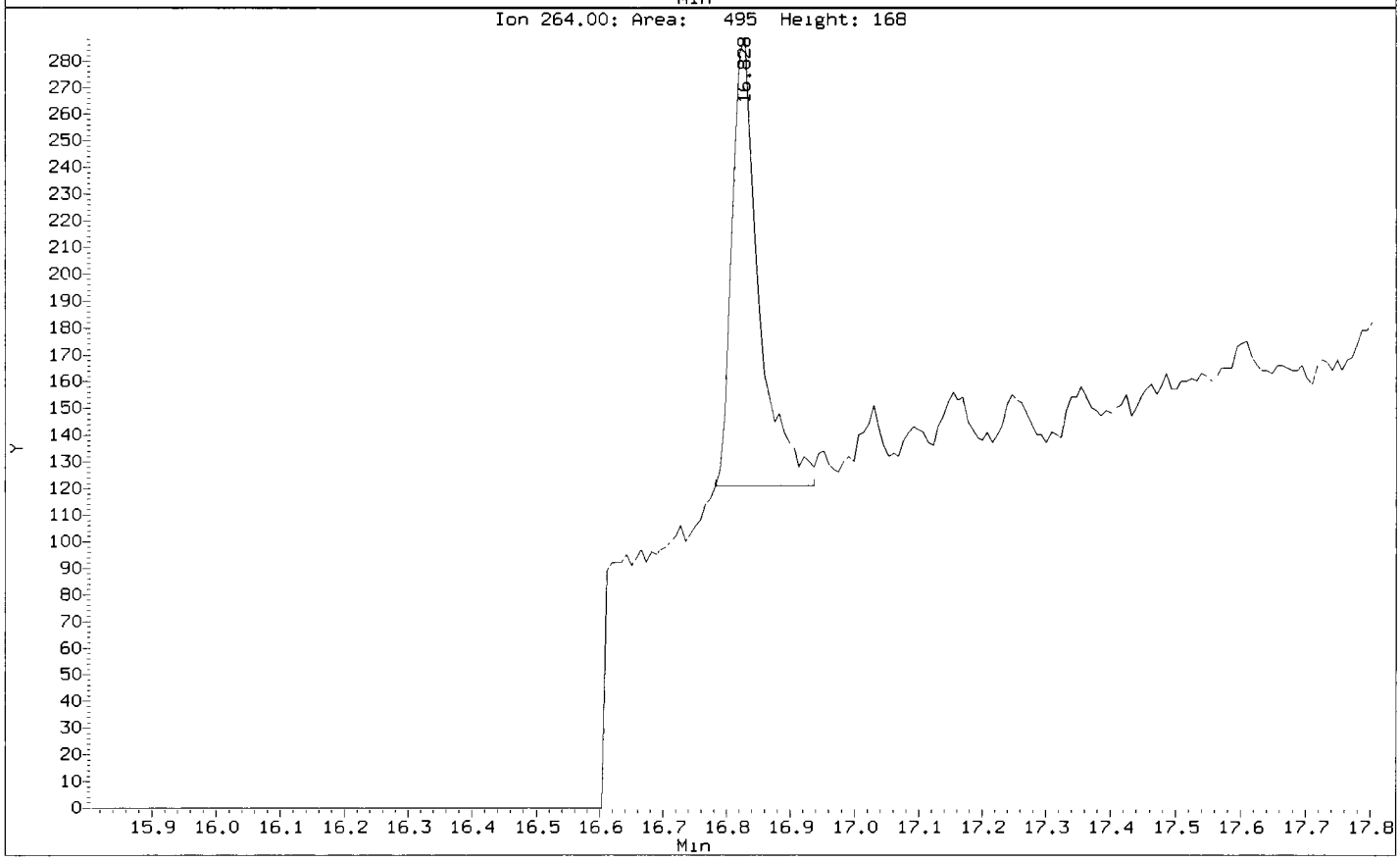
Analyst: YZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81a.d
Injection Date: 22-JUN-2013 14:13
Instrument: nt10.1
Client Sample ID: AM-VT-INF-20130612-

Compound: Pentachlorophenol
CAS Number: 87-86-5



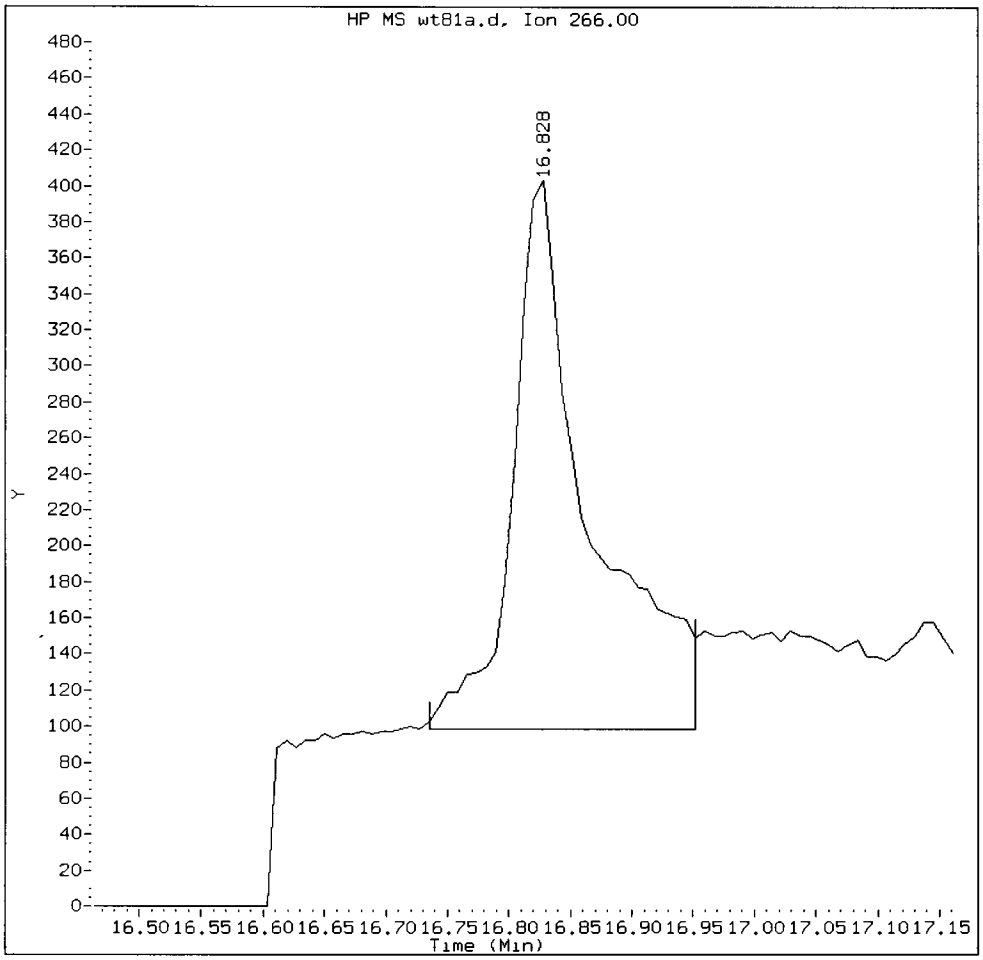
YZ 6/27/13



WT81 : 81,85C

WT81A, /chem1/nt10.i/20130622.b/SIM.b/wt81a.d

Pentachlorophenol Amount: 0.21 Area: 1333



MANUAL INTEGRATION for Pentachlorophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81a.d

Lab ID: WT81A, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc. YZ 6/27/13

METHOD 8270D-SIM

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt81b.d
Lab Smp Id: WT81B Client Smp ID: AM-SF4-EFF-20130612
Inj Date : 22-JUN-2013 14:50
Operator : YZ Inst ID: nt10.i
Smp Info : WT81B
Misc Info : 13-12637
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 27-Jun-2013 11:28 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	7.02000	Weight of sample extracted (g)
M	60.10000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
$ 1	2-Fluorophenol	112	5.264	5.225	(0.707)	72630	4.56887	1631
3	Phenol	94	6.995	6.956	(0.940)	7072	0.30949 J	110.5
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	7.443	7.436	(1.000)	45255	4.00000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	79	7.800	7.785	(1.048)	1709	0.15594 J	55.67(M)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
15	4-Methylphenol	108	8.406	8.391	(1.129)	31485	1.89262 J	675.7
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
22	2,4-Dimethylphenol	107	9.476	9.461	(0.946)	586	0.03495 J	12.48
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.016	10.008	(1.000)	173065	4.00000	
30	Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	39 Dimethylphthalate	163	13.428	13.420	(0.972)	1552	0.05723	20.43(M)
*	42 Acenaphthene-d10	162	13.815	13.807	(1.000)	93983	4.00000	
	50 Diethylphthalate	149	14.998	14.982	(1.086)	5520	0.17976	64.18(M)
	54 N-Nitrosodiphenylamine	169	15.337	15.322	(0.900)	6373	0.36769	131.3(M)
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.037	17.006	(1.000)	158076	4.00000	
$	66 Terphenyl-d14	244	20.518	20.457	(0.916)	88063	4.01933	1435(H)
	67 Butylbenzylphthalate	149	21.556	21.486	(0.963)	11371	0.68767	245.5
*	69 Chrysene-d12	240	22.392	22.307	(1.000)	178236	4.00000	
*	77 Perylene-d12	264	24.715	24.591	(1.000)	151359	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.304	26.157	(1.064)	19314	0.57247	204.4(H)
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81b.d
Lab Smp Id: WT81B
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: AM-SF4-EFF-20130
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	45255	-14.06
27 Naphthalene-d8	192325	96162	384650	173065	-10.01
42 Acenaphthene-d10	109274	54637	218548	93983	-13.99
59 Phenanthrene-d10	203933	101966	407866	158076	-22.49
69 Chrysene-d12	223647	111824	447294	178236	-20.30
77 Perylene-d12	211919	105960	423838	151359	-28.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.07
42 Acenaphthene-d10	13.81	13.31	14.31	13.81	0.05
59 Phenanthrene-d10	17.01	16.51	17.51	17.04	0.18
69 Chrysene-d12	22.31	21.81	22.81	22.39	0.38
77 Perylene-d12	24.59	24.09	25.09	24.71	0.50

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

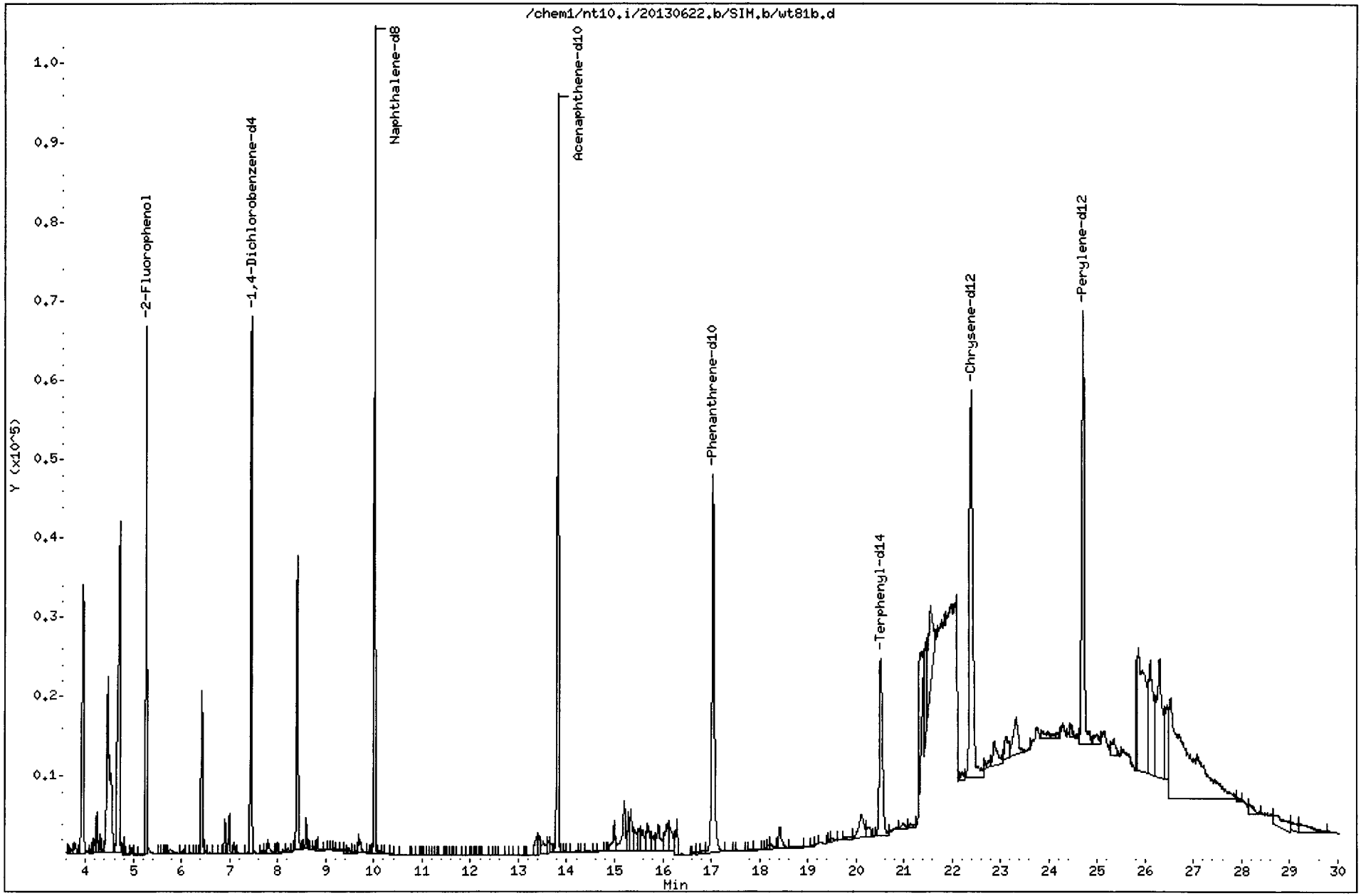
RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81B
Client Smp ID: AM-SF4-EFF-20130612
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12637

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2678	1631	60.92	30-160
$ 66 Terphenyl-d14	1785	1435	80.39	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d
Date : 22-JUN-2013 14:50
Client ID: AM-SF4-EFF-20130612
Sample Info: WT81B
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

Operator: YZ

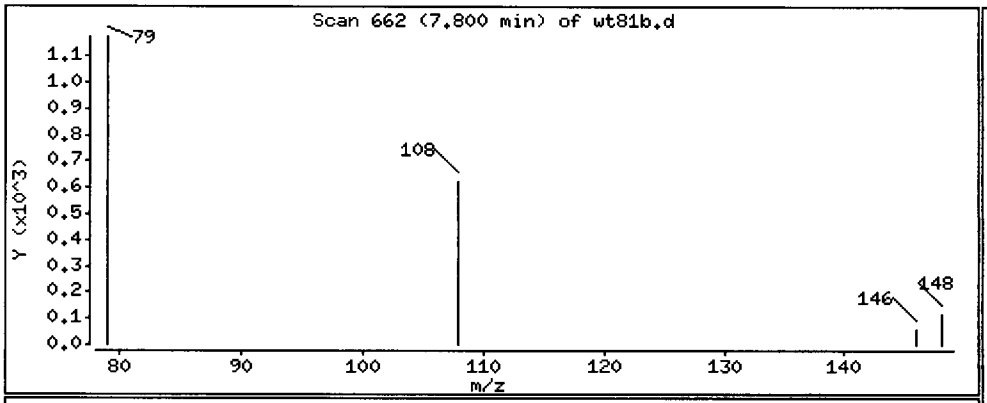
Column phase: ZB-5msi

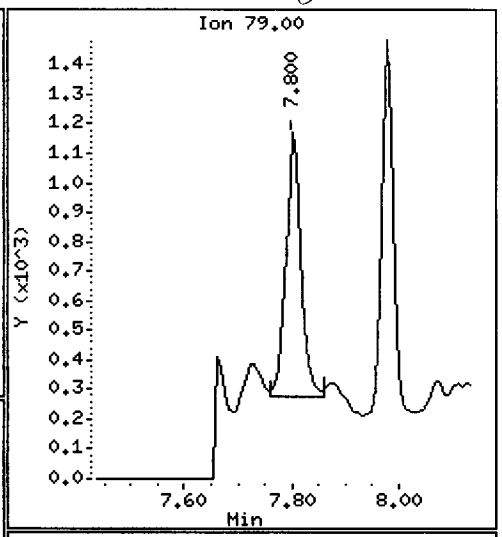
Column diameter: 0.25

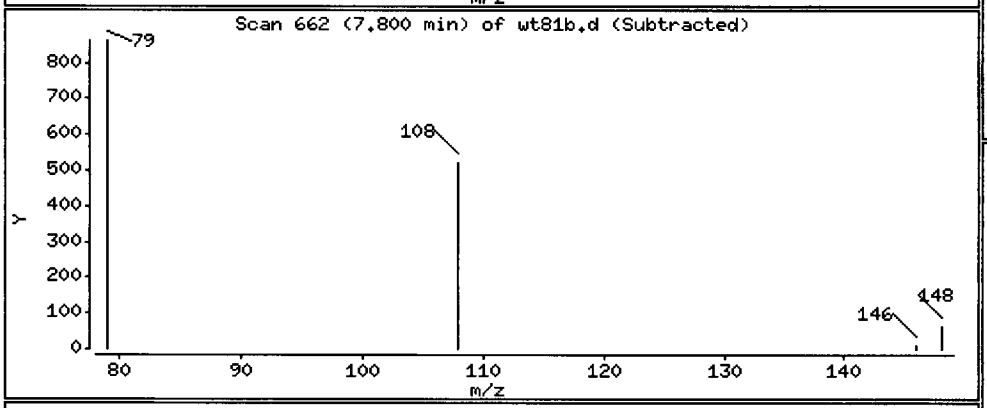
11 Benzyl alcohol

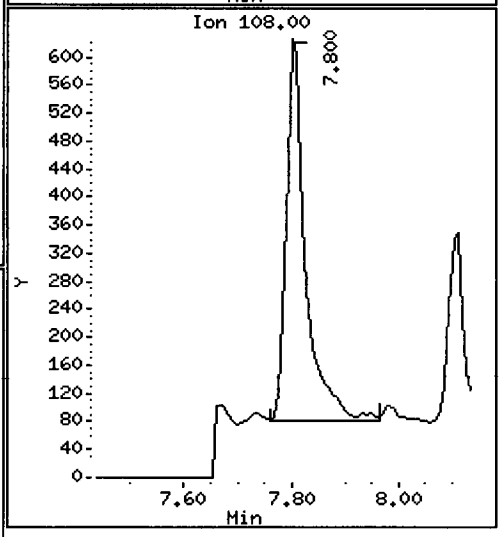
Concentration: 55.67 ug/kg

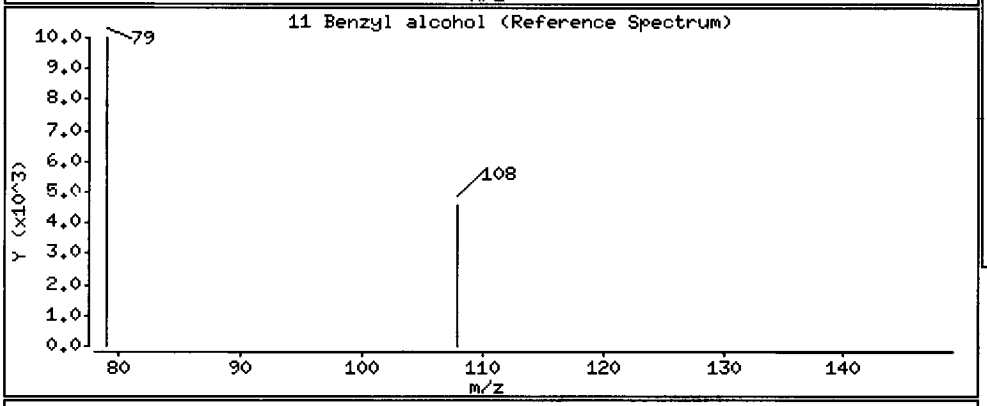
JGR

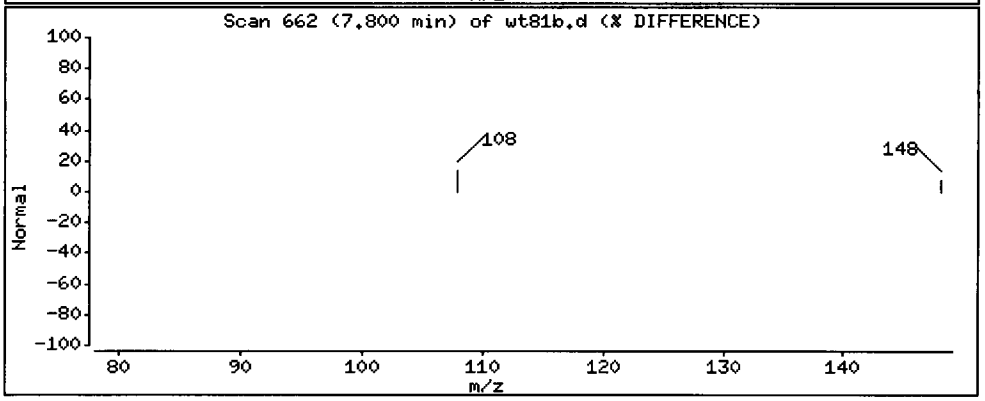












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

Operator: YZ

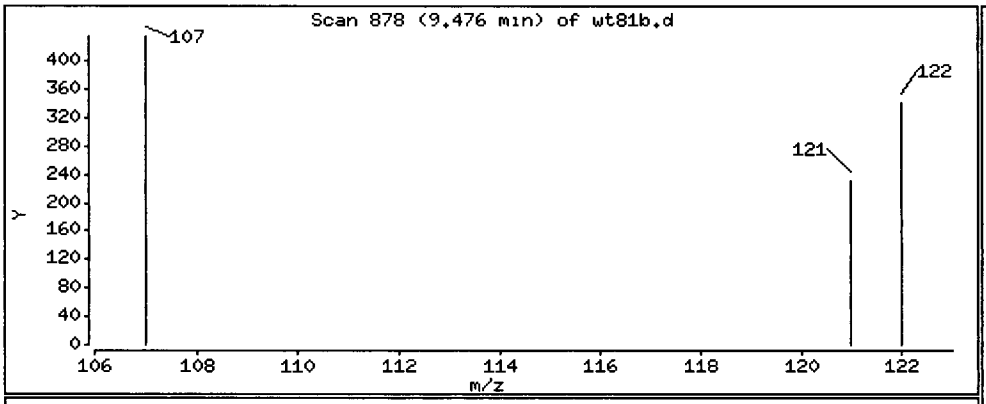
Column phase: ZB-5msi

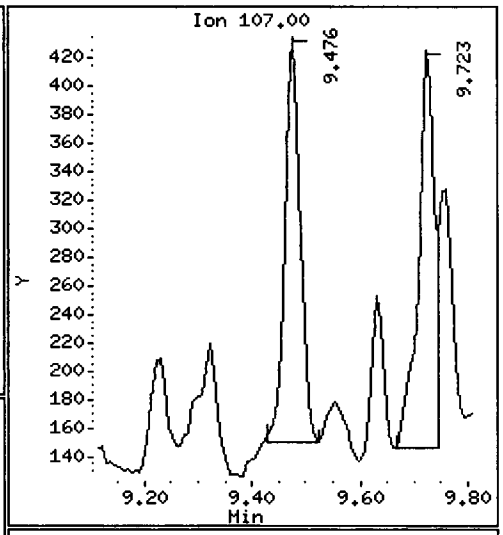
Column diameter: 0.25

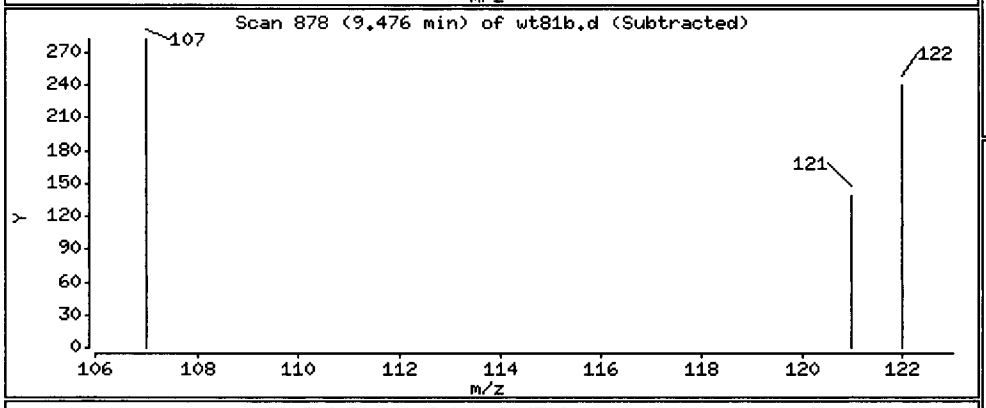
22 2,4-Dimethylphenol

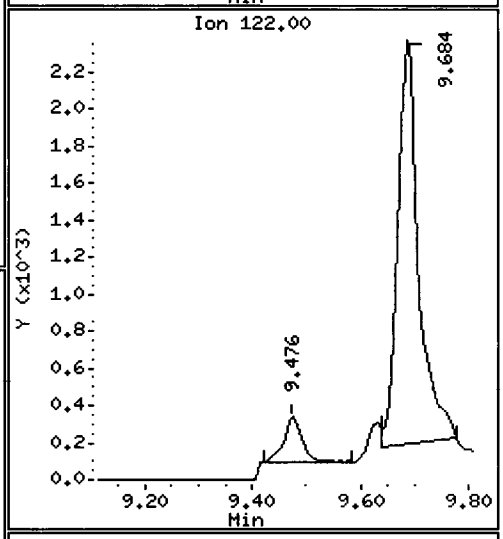
Concentration: 12.48 ug/kg

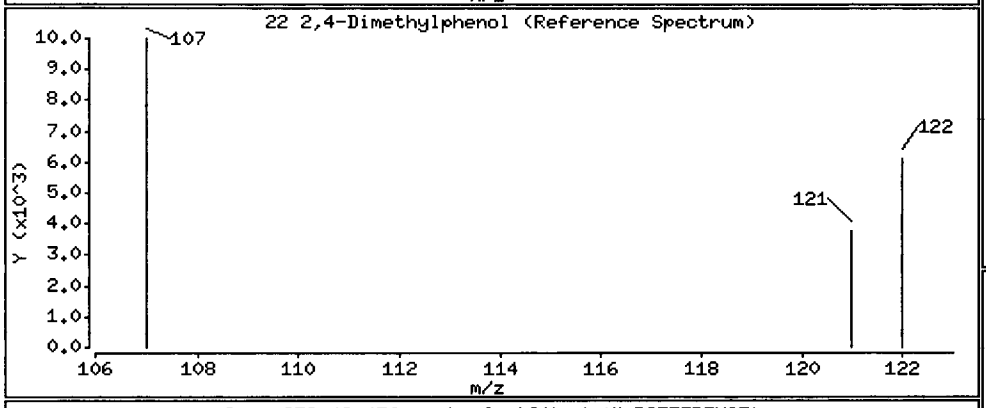
GK

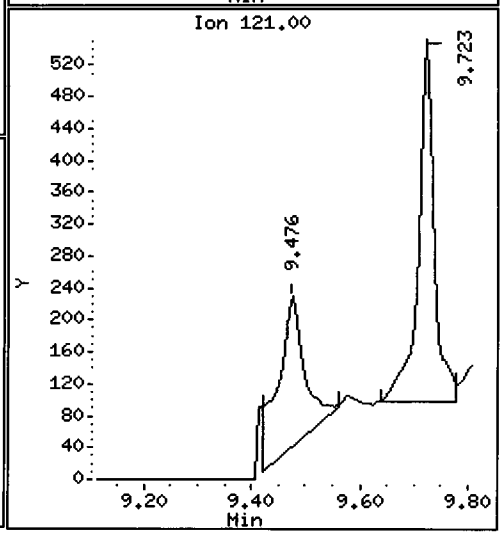


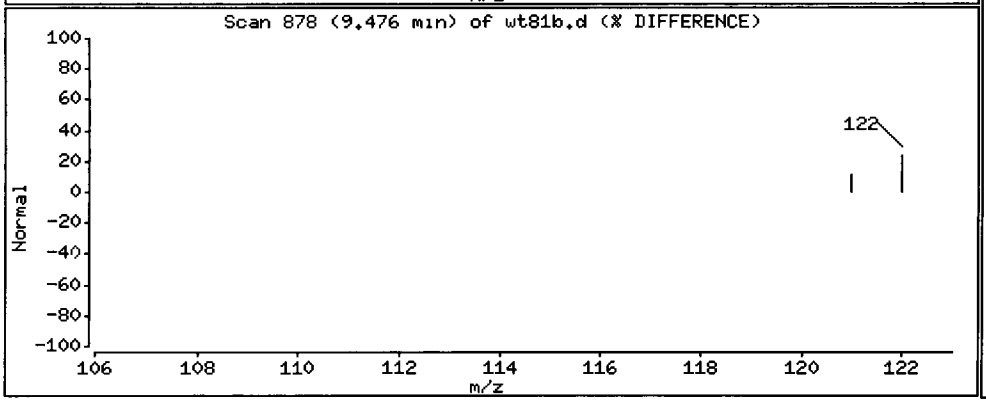












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

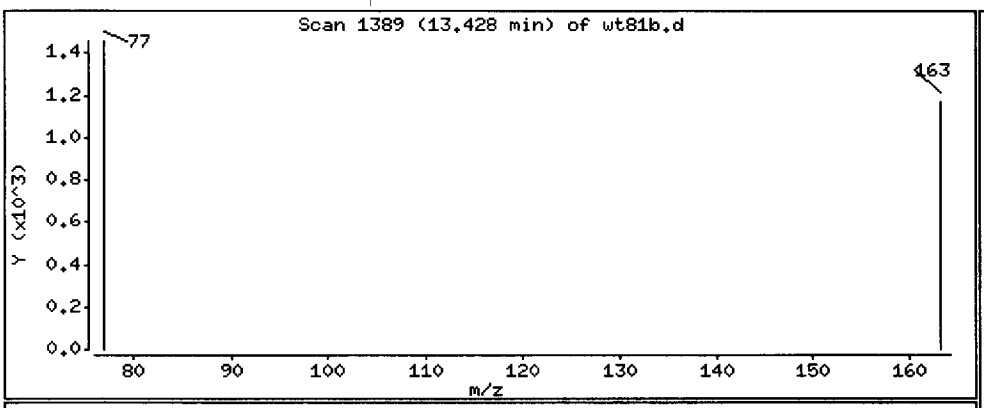
Operator: YZ

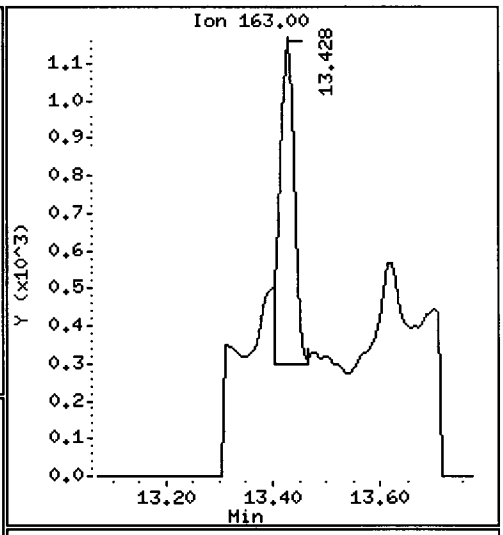
Column phase: ZB-5ms1

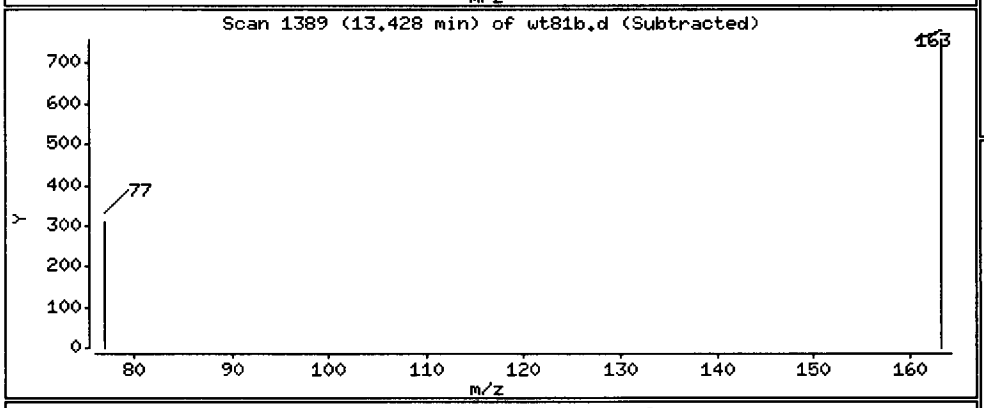
Column diameter: 0.25

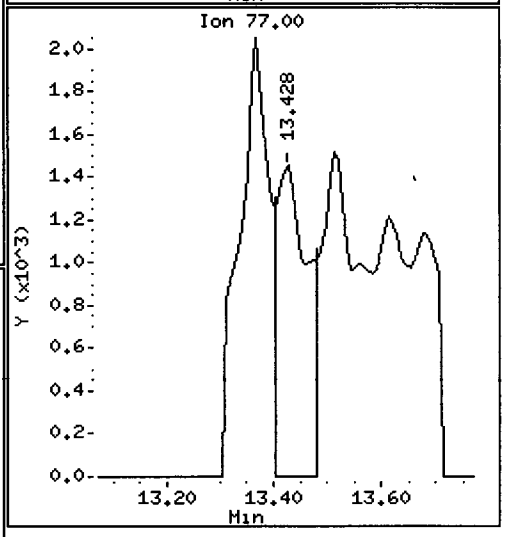
39 Dimethylphthalate

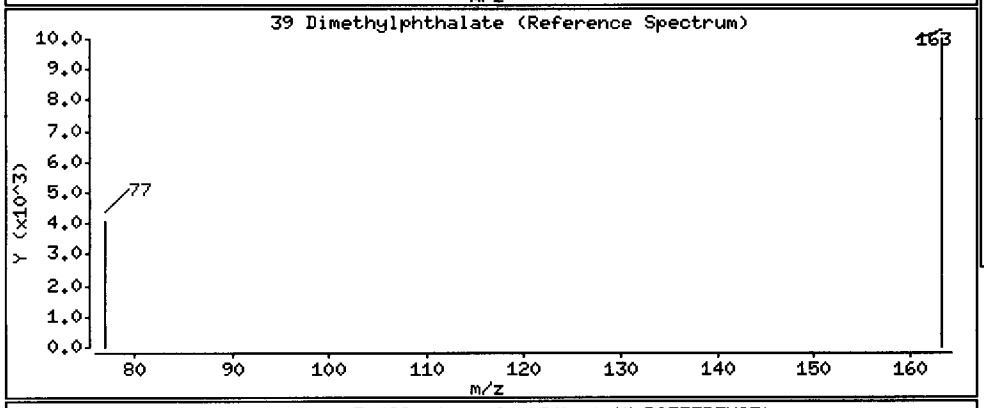
Concentration: 20.43 ug/kg

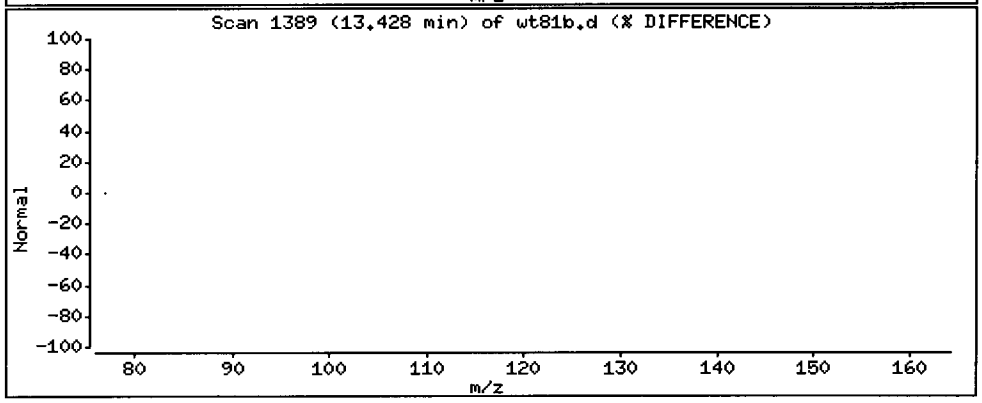












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

Operator: YZ

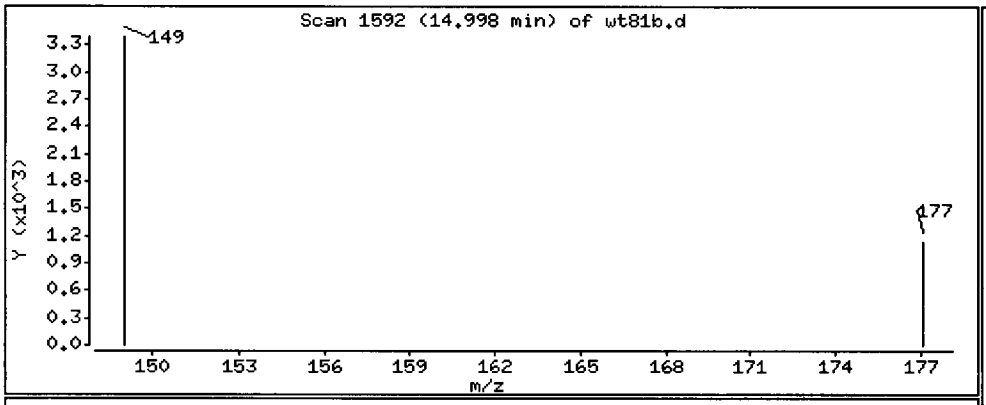
Column phase: ZB-5ms1

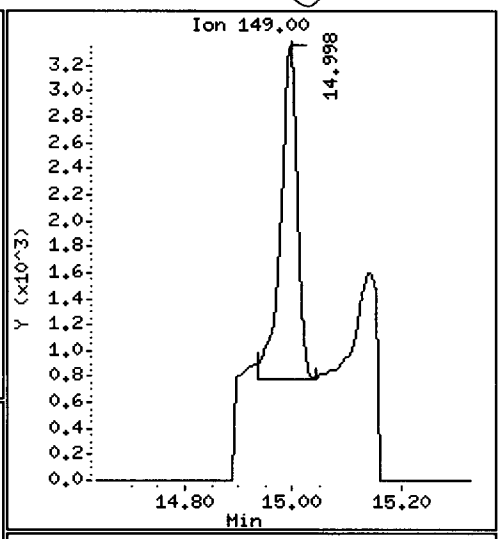
Column diameter: 0.25

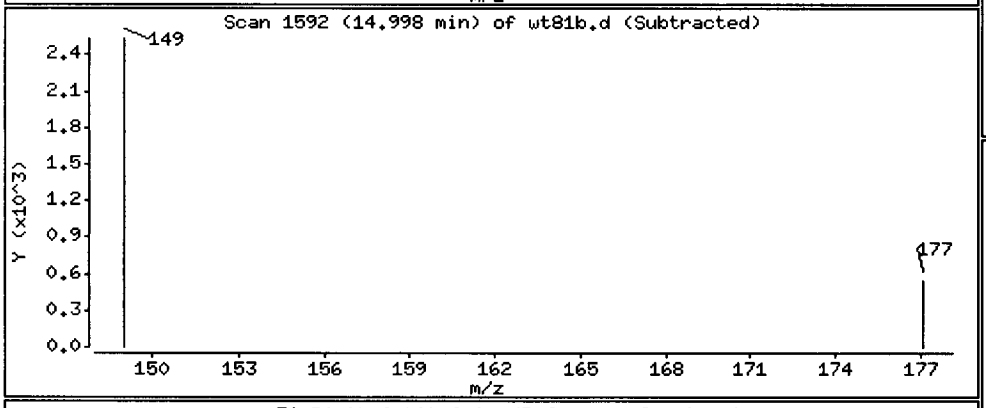
50 Diethylphthalate

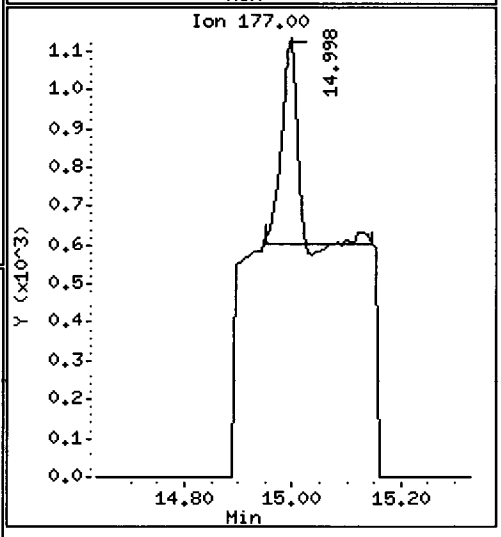
Concentration: 64.18 ug/kg

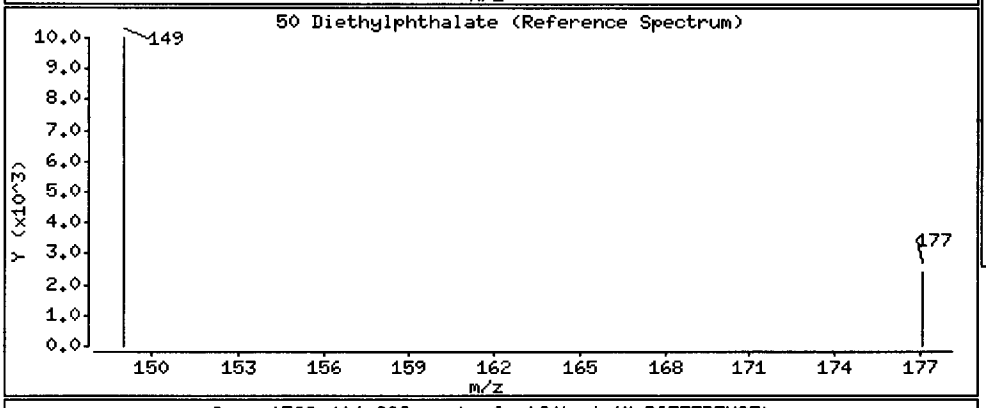
(B)

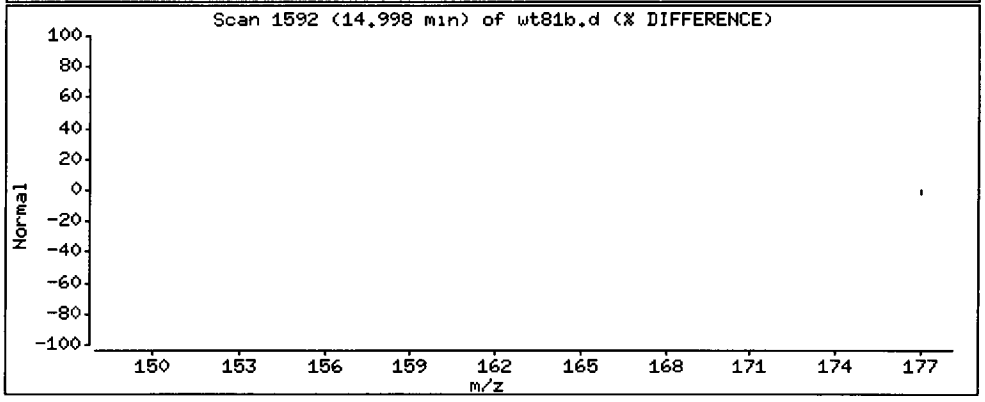












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

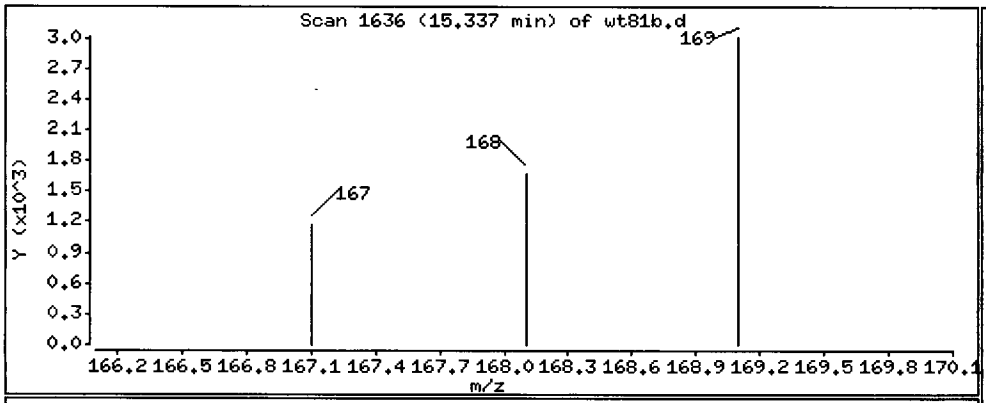
Operator: YZ

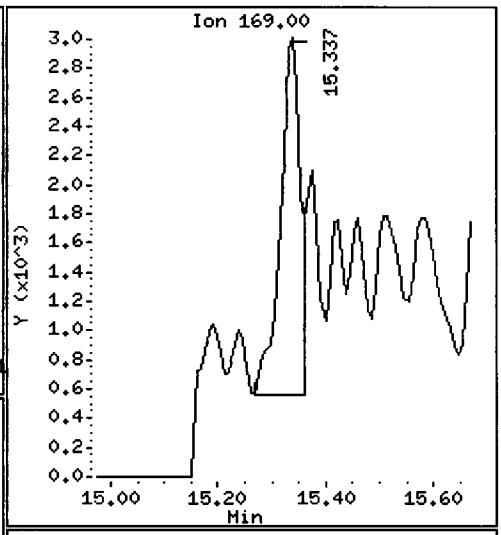
Column phase: ZB-5msi

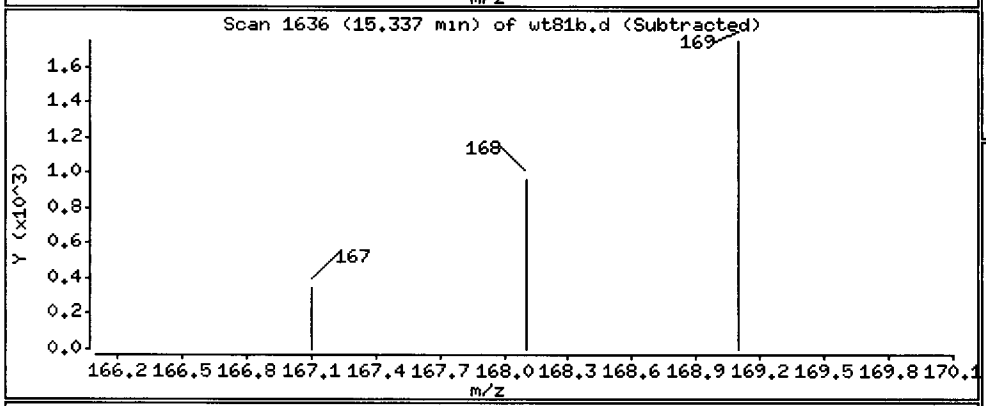
Column diameter: 0.25

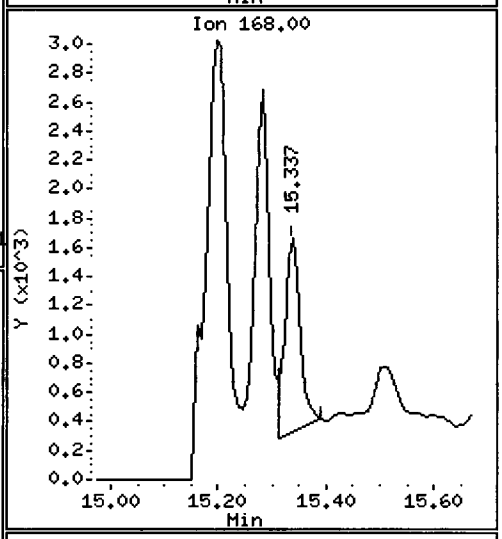
54 N-Nitrosodiphenylamine

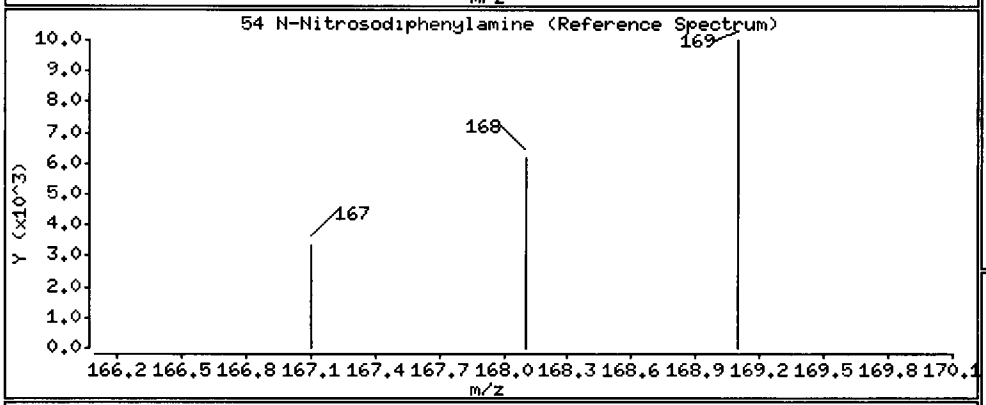
Concentration: 131.3 ug/kg

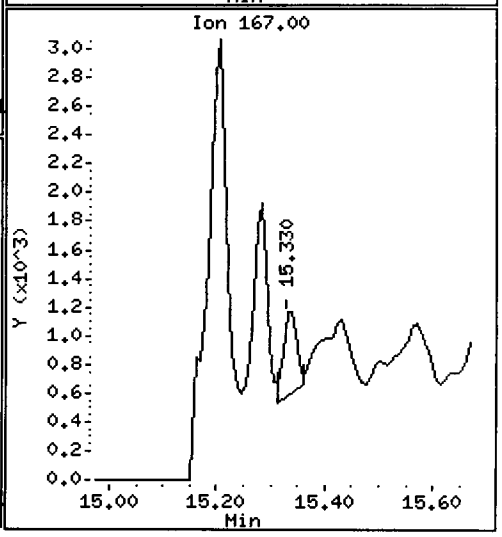


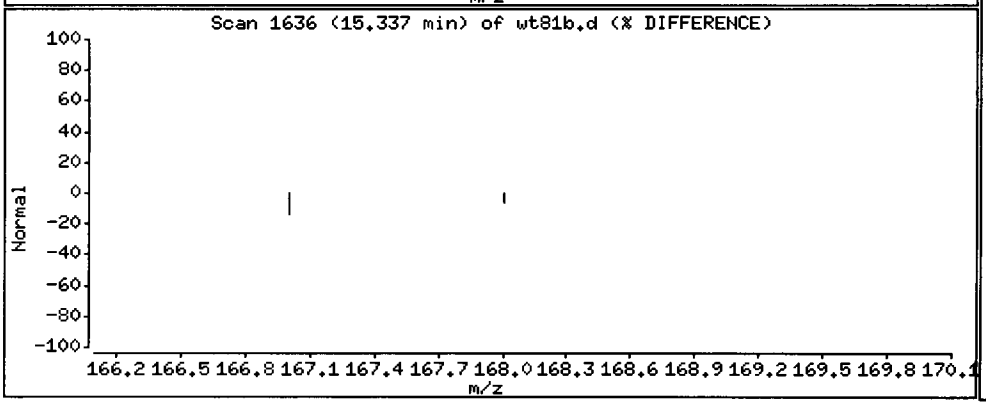












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

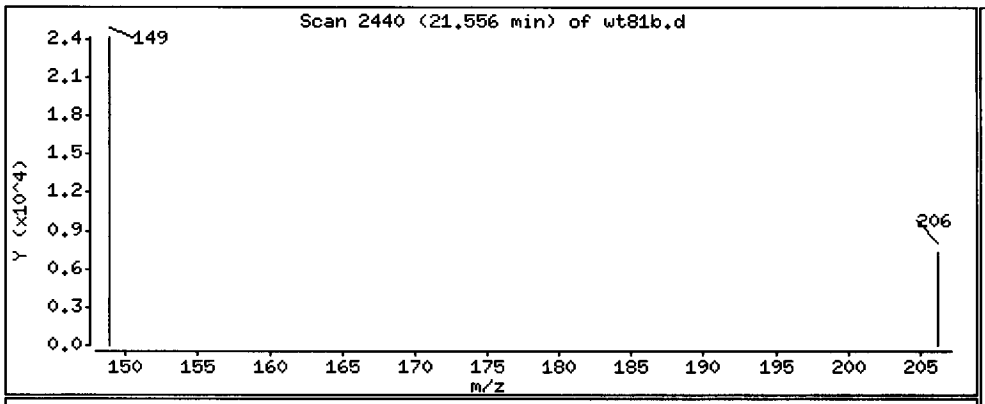
Operator: YZ

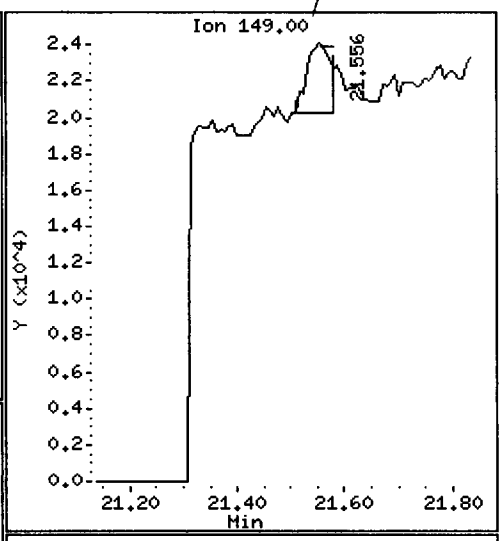
Column phase: ZB-5msi

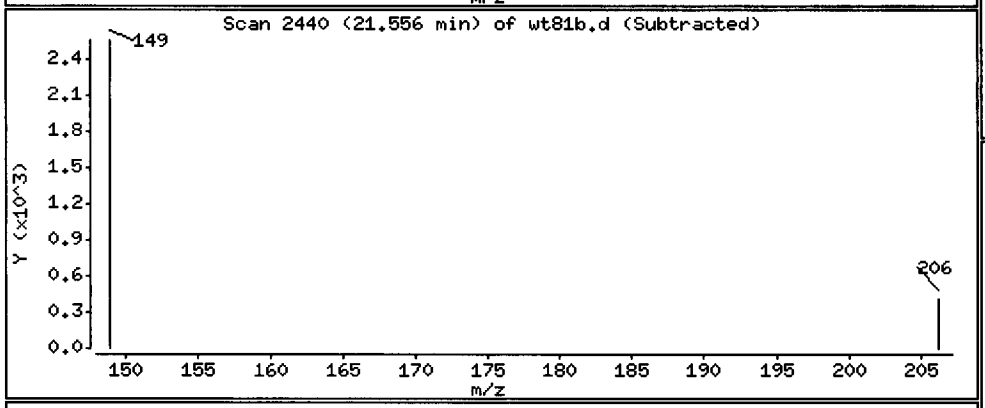
Column diameter: 0.25

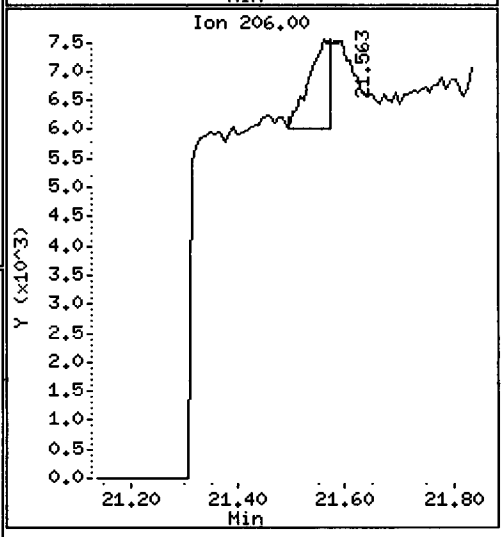
67 Butylbenzylphthalate

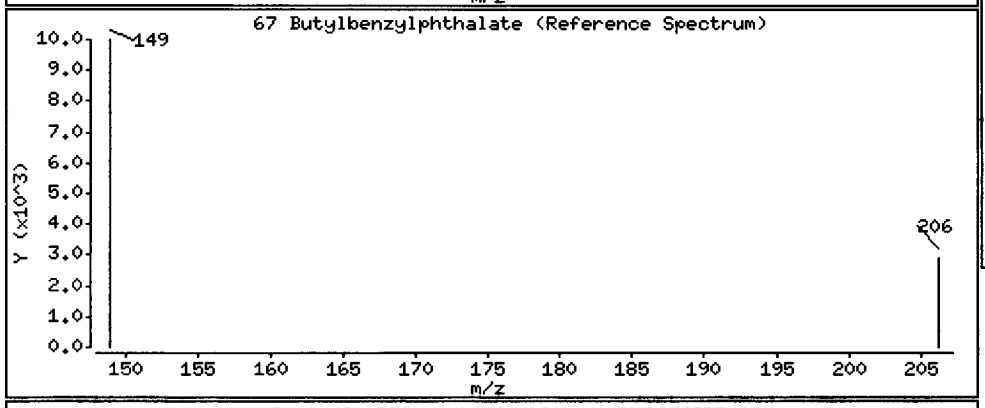
Concentration: 245.5 ug/kg

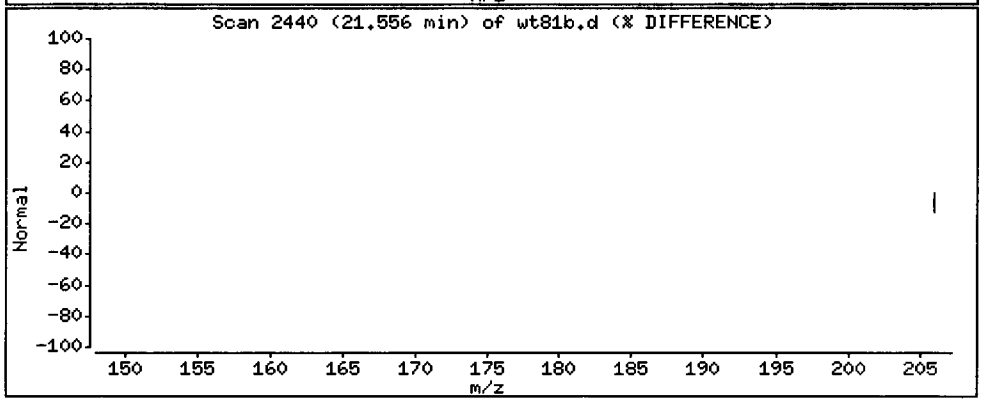












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Date : 22-JUN-2013 14:50

Client ID: AM-SF4-EFF-20130612

Instrument: nt10.i

Sample Info: WT81B

Volume Injected (uL): 1.0

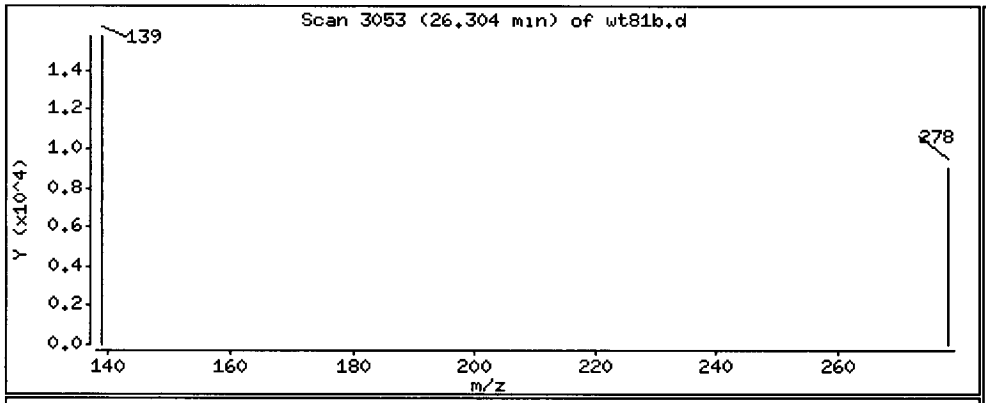
Operator: YZ

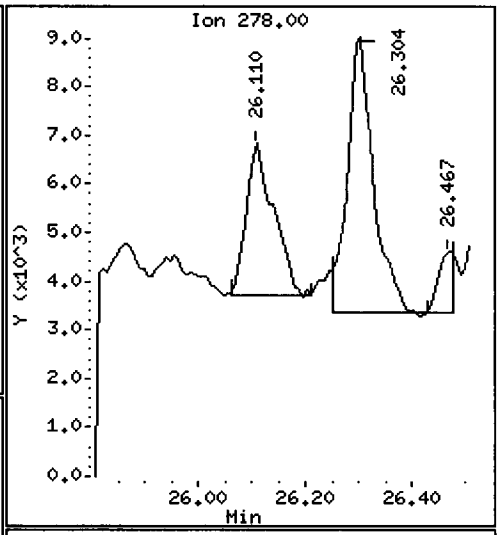
Column phase: ZB-5msi

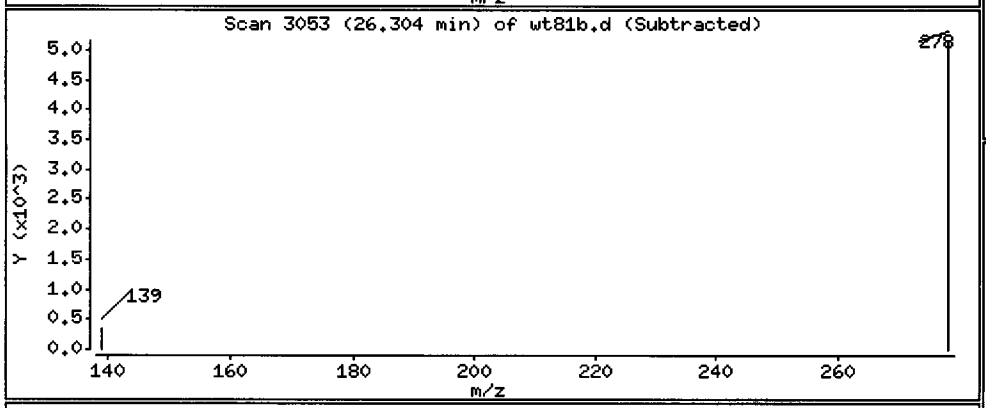
Column diameter: 0.25

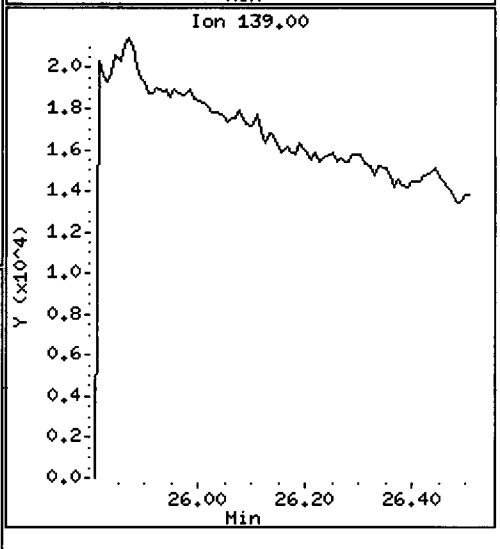
79 Dibenzo(a,h)anthracene

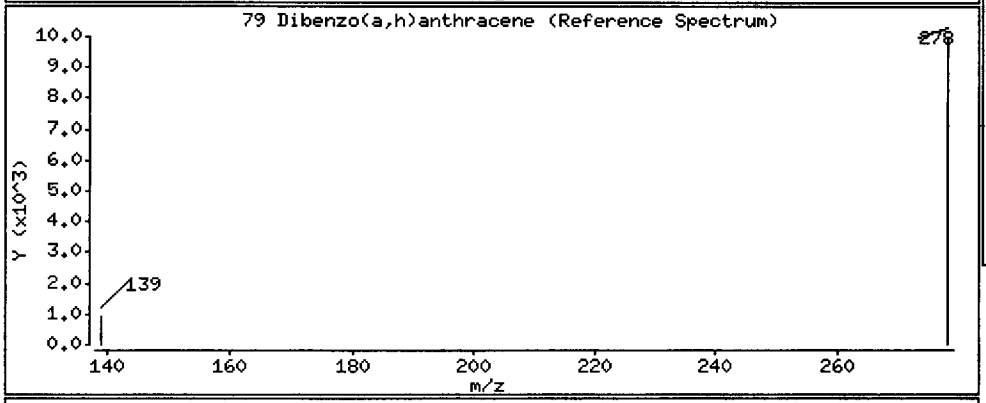
Concentration: 204.4 ug/kg

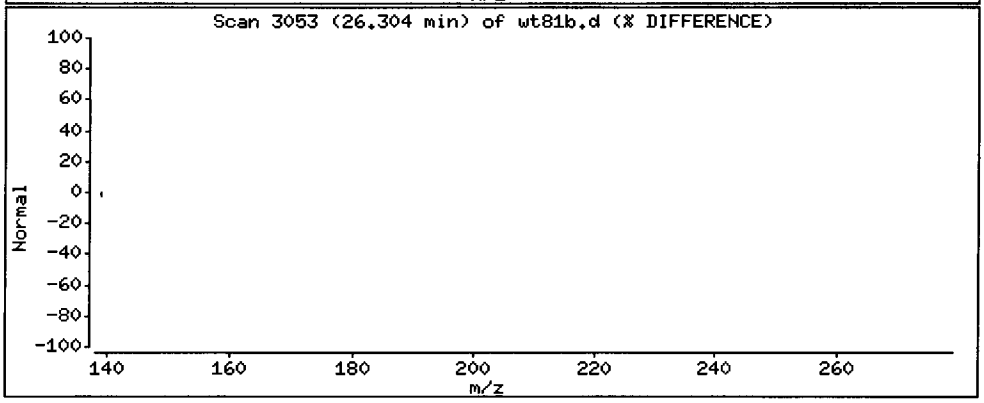






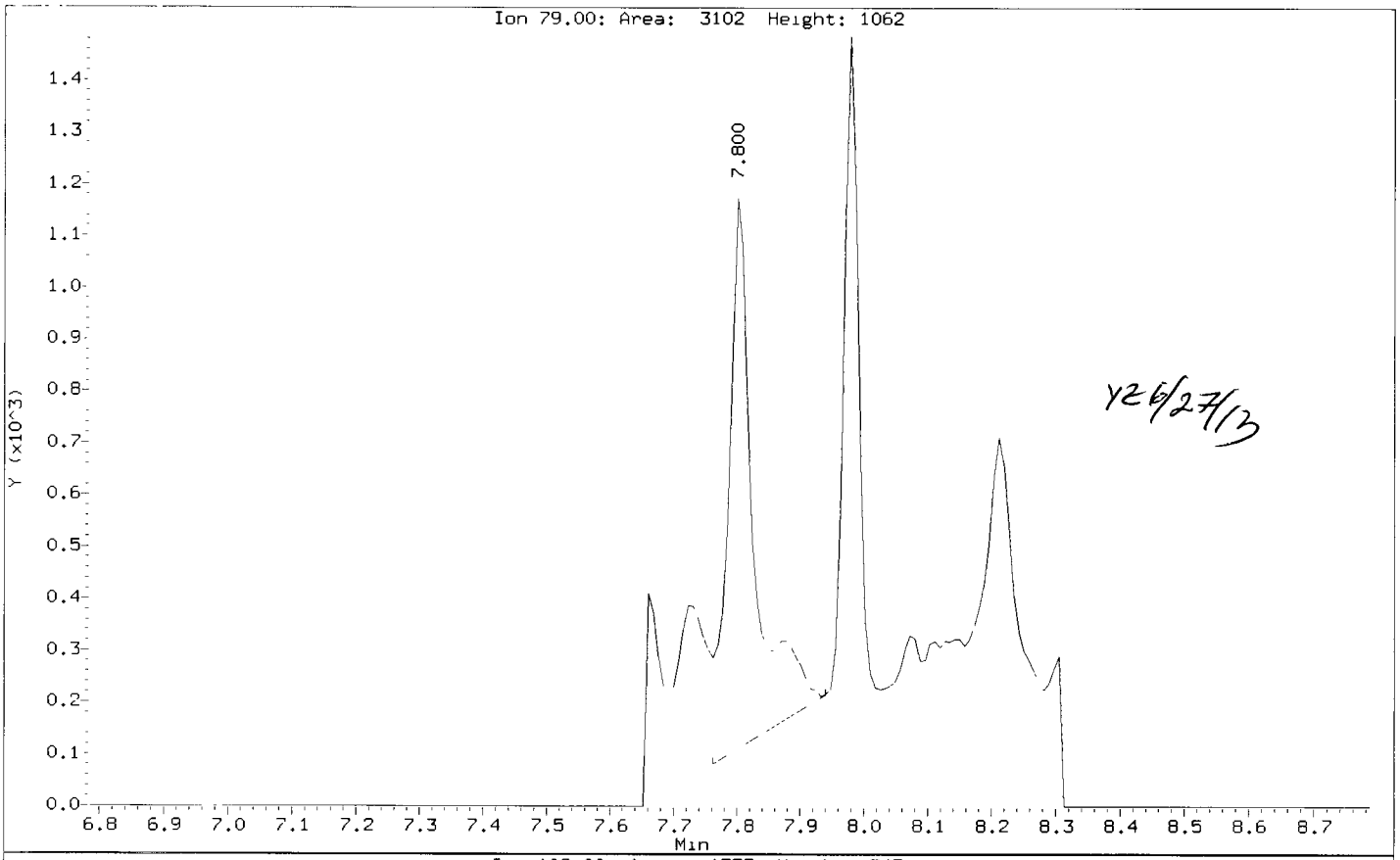




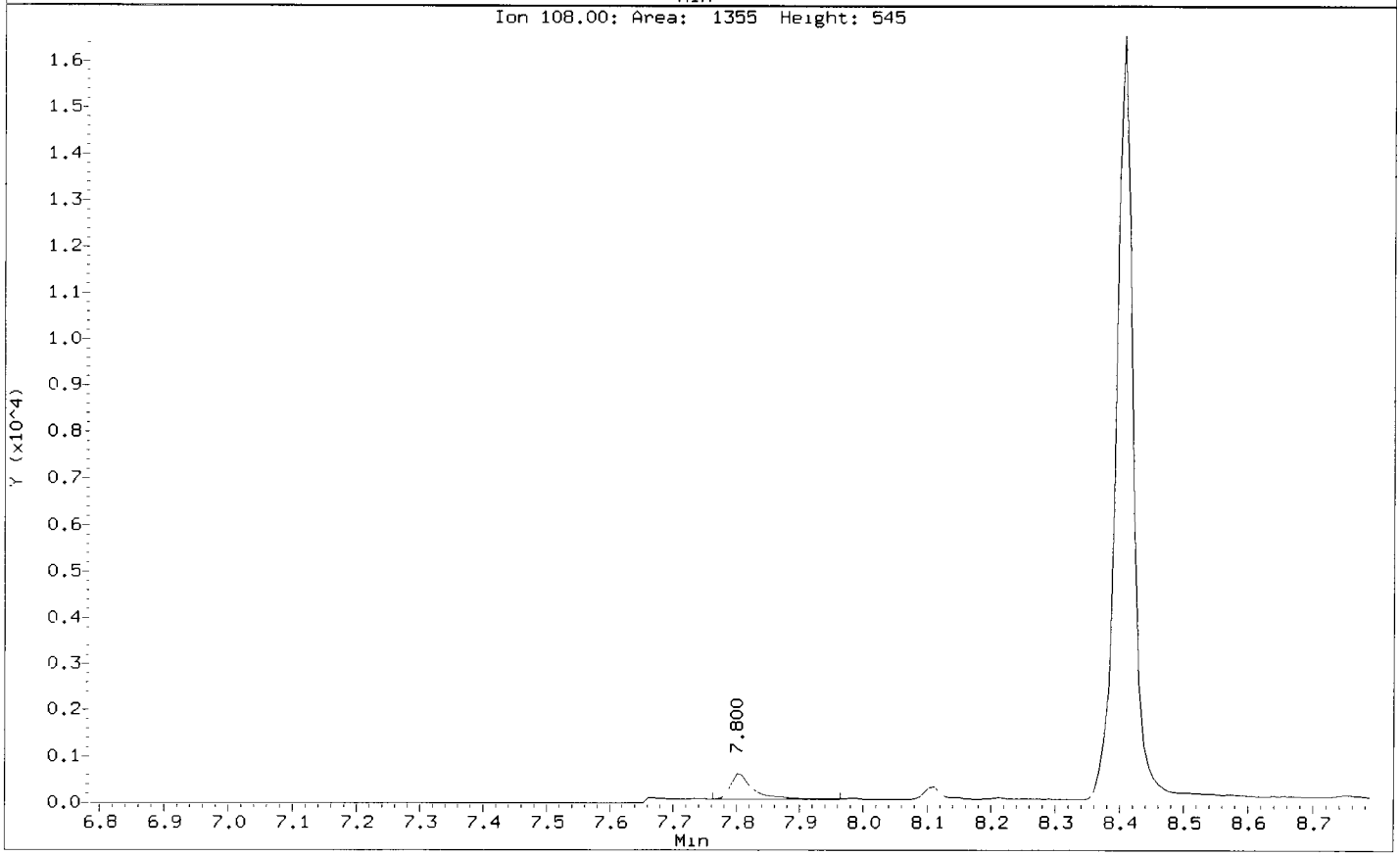


Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81b.d
Injection Date: 22-JUN-2013 14:50
Instrument: nt10.1
Client Sample ID: AM-SF4-EFF-20130612

Compound: Benzyl alcohol
CAS Number: 100-51-6



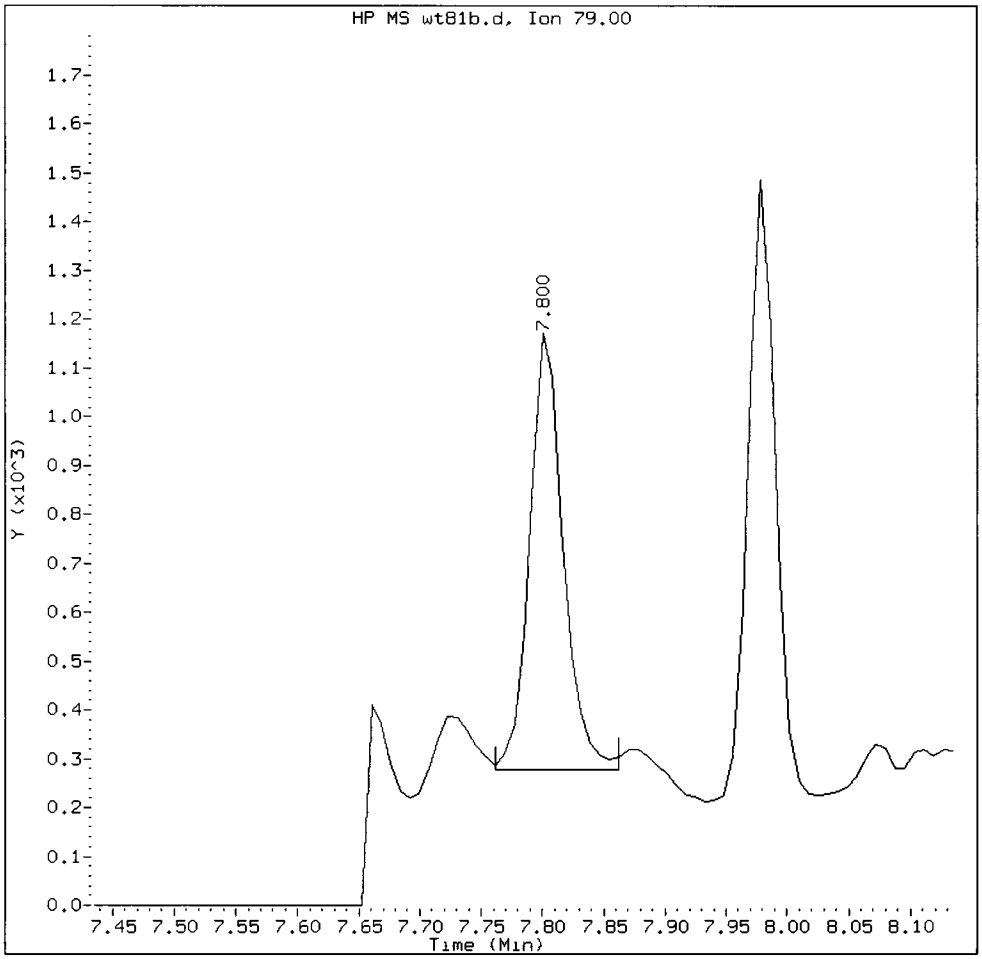
Y26/27/13



WT81 : 81101

WT81B, /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Benzyl alcohol Amount: 0.16 Area: 1709



MANUAL INTEGRATION for Benzyl alcohol

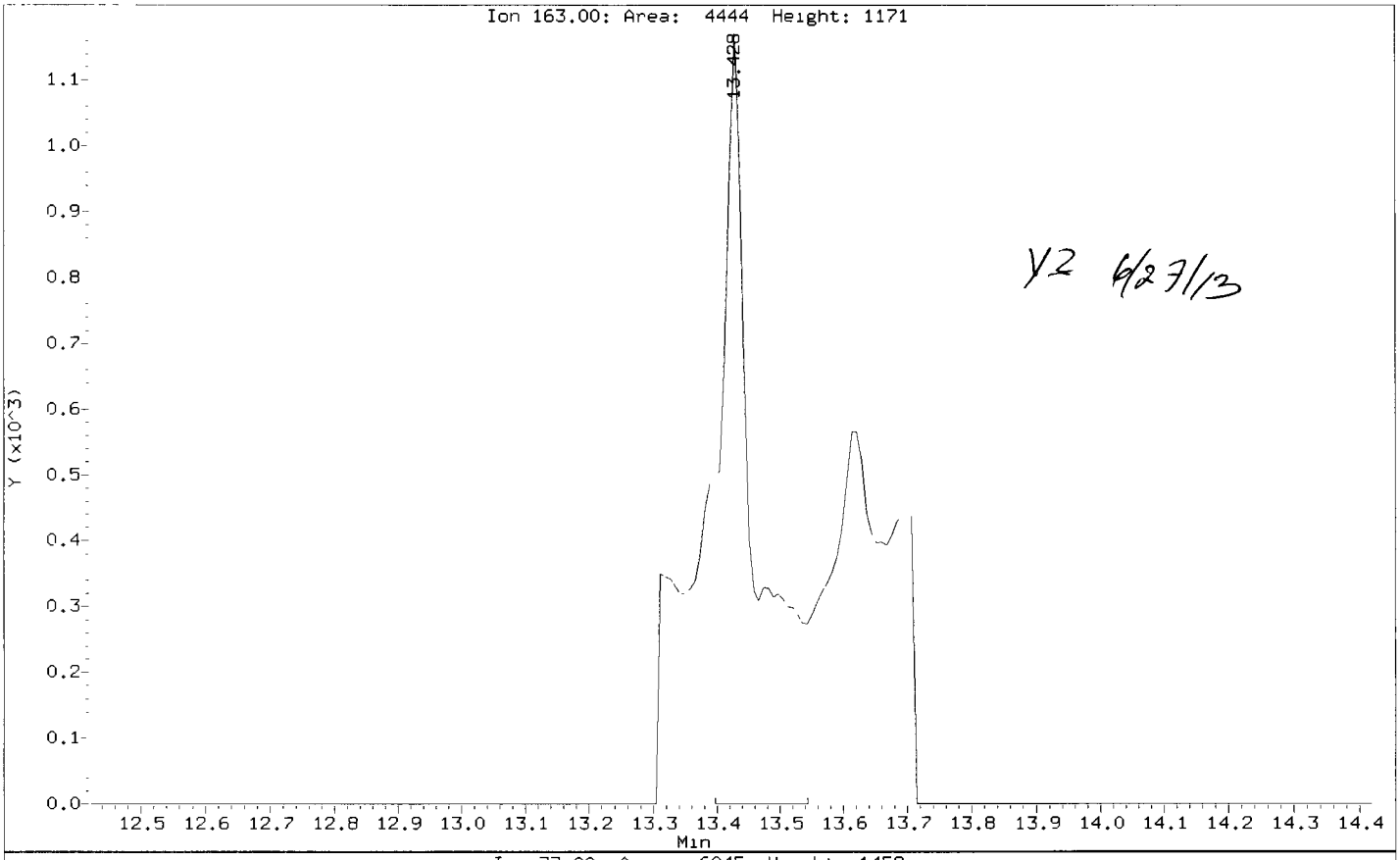
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

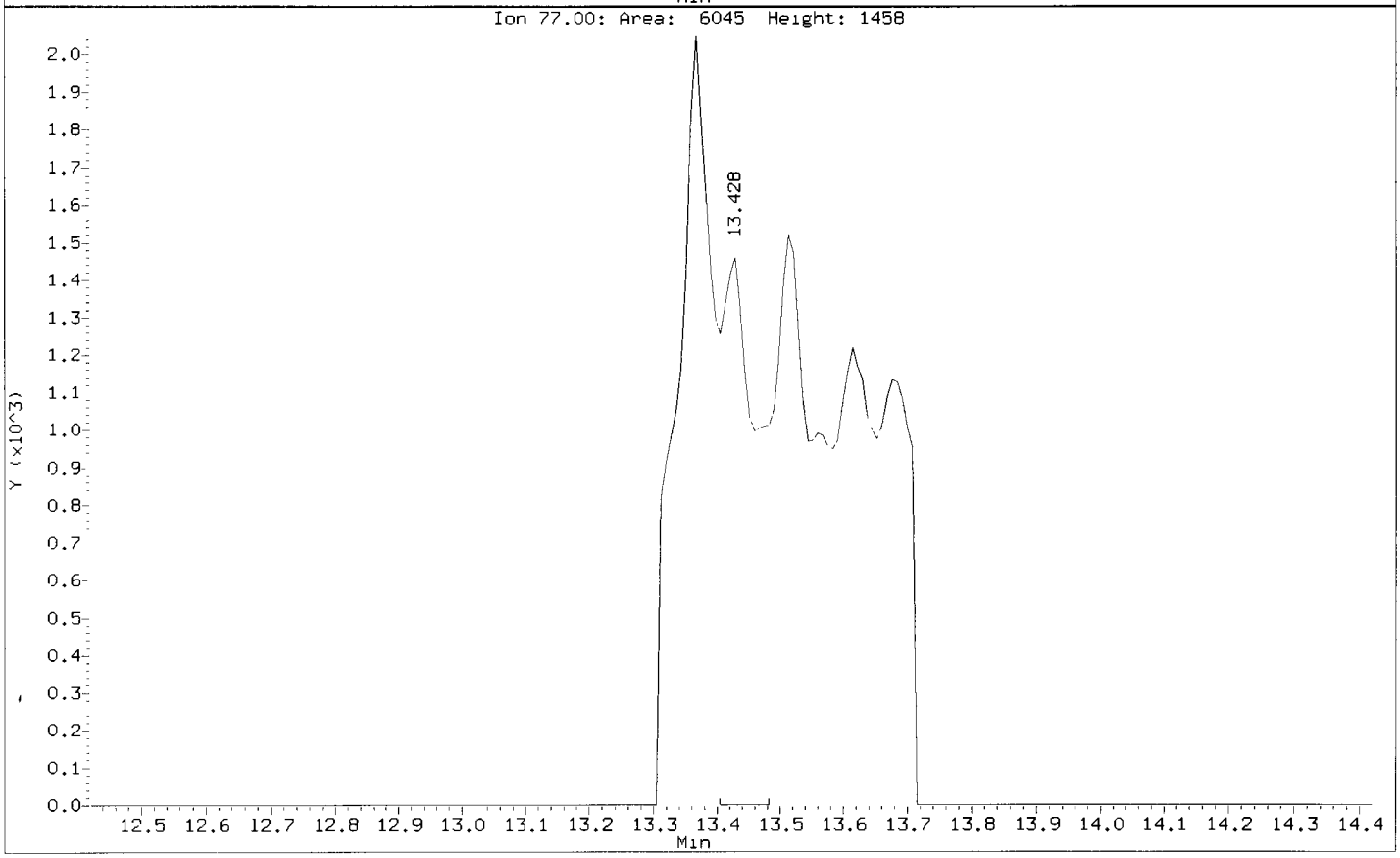
Analyst: YZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81b.d
Injection Date: 22-JUN-2013 14:50
Instrument: nt10.1
Client Sample ID: AM-SF4-EFF-20130612

Compound: Dimethylphthalate
CAS Number: 131-11-3

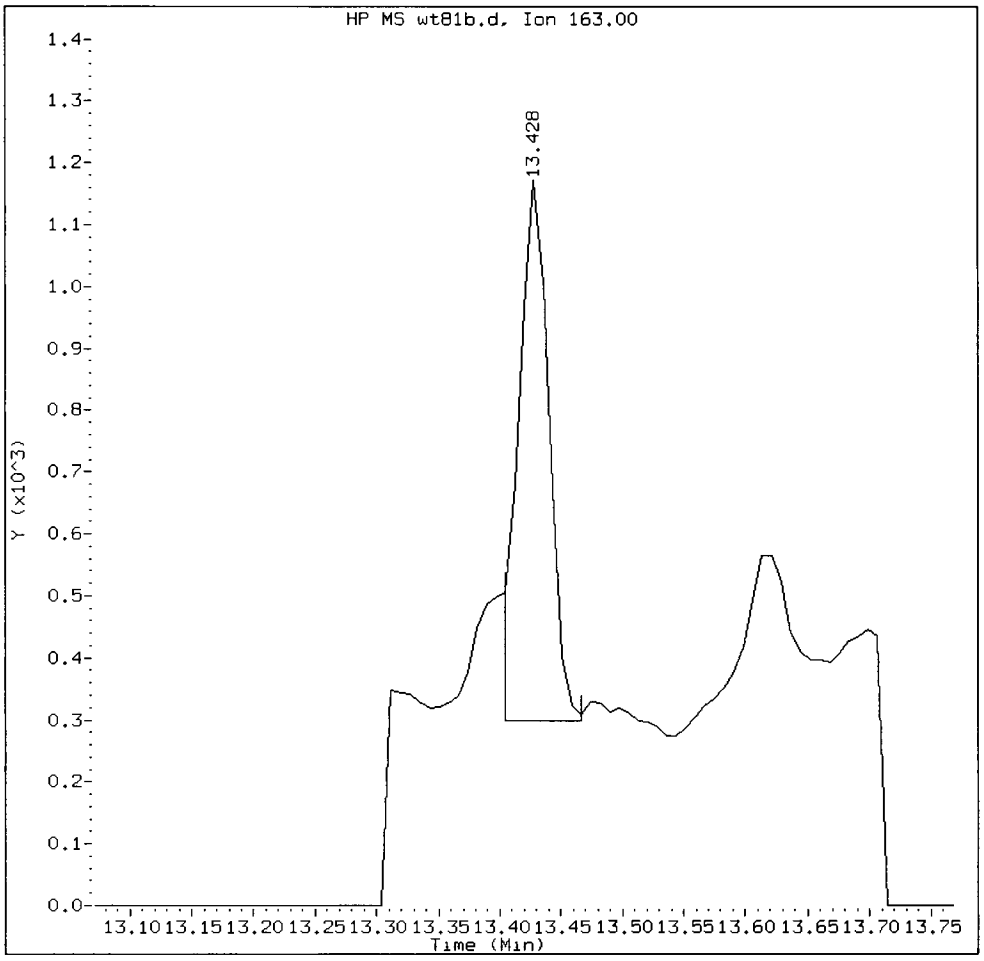


YZ 6/27/13



WT81B, /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Dimethylphthalate Amount: 0.06 Area: 1552



MANUAL INTEGRATION for Dimethylphthalate

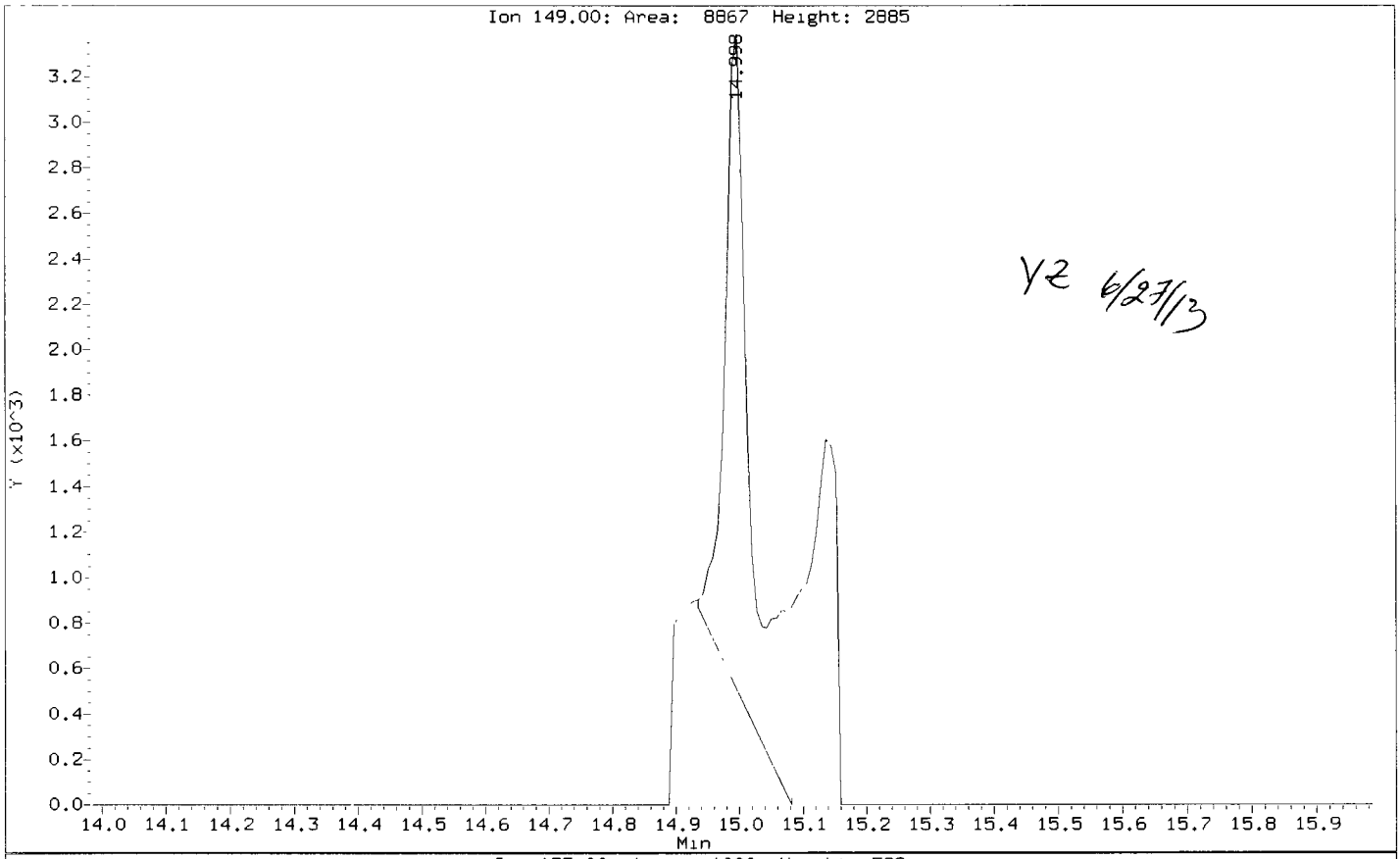
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

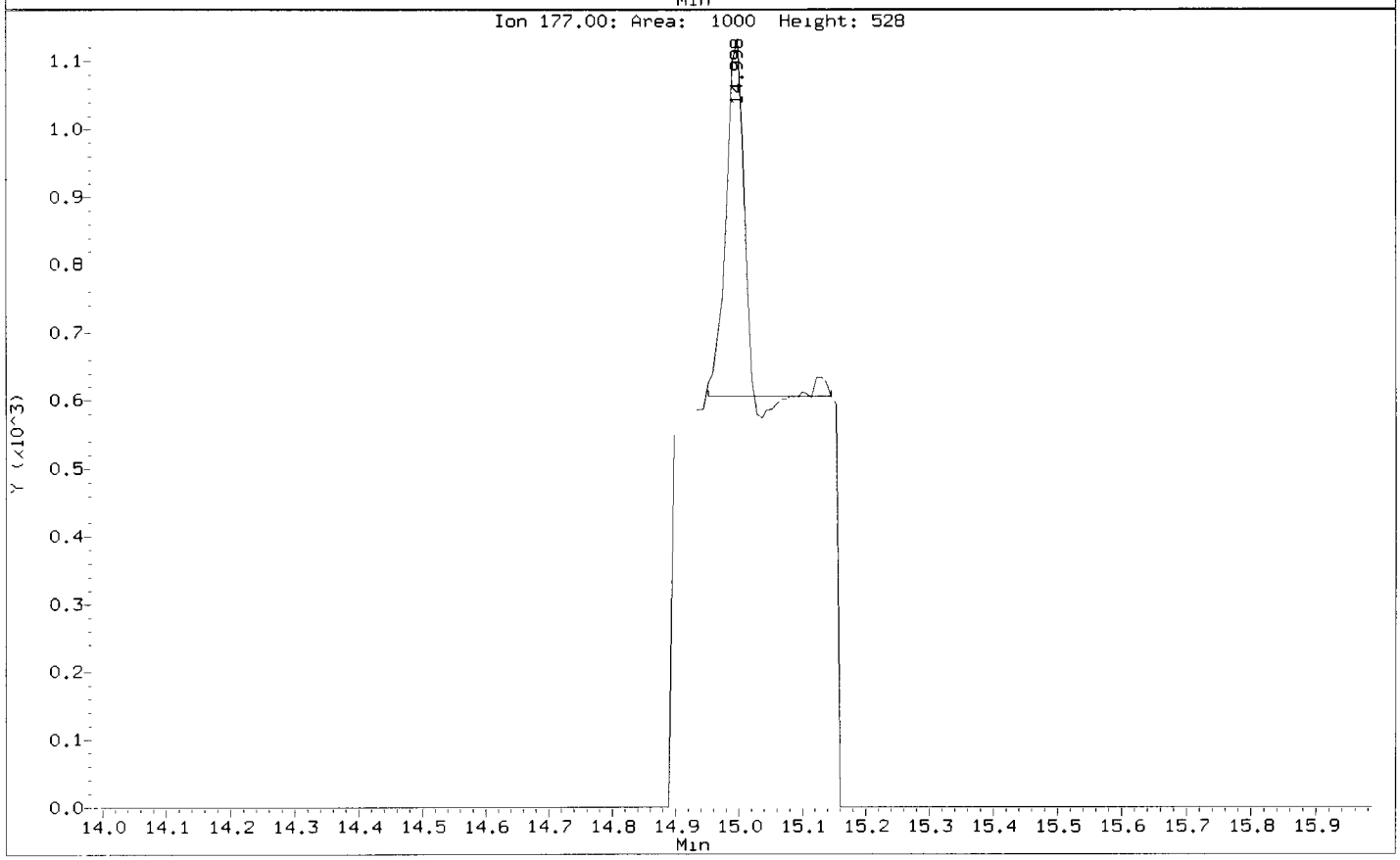
Analyst: YZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81b.d
Injection Date: 22-JUN-2013 14:50
Instrument: nt10.1
Client Sample ID: AM-SF4-EFF-20130612

Compound: Diethylphthalate
CAS Number: 84-66-2

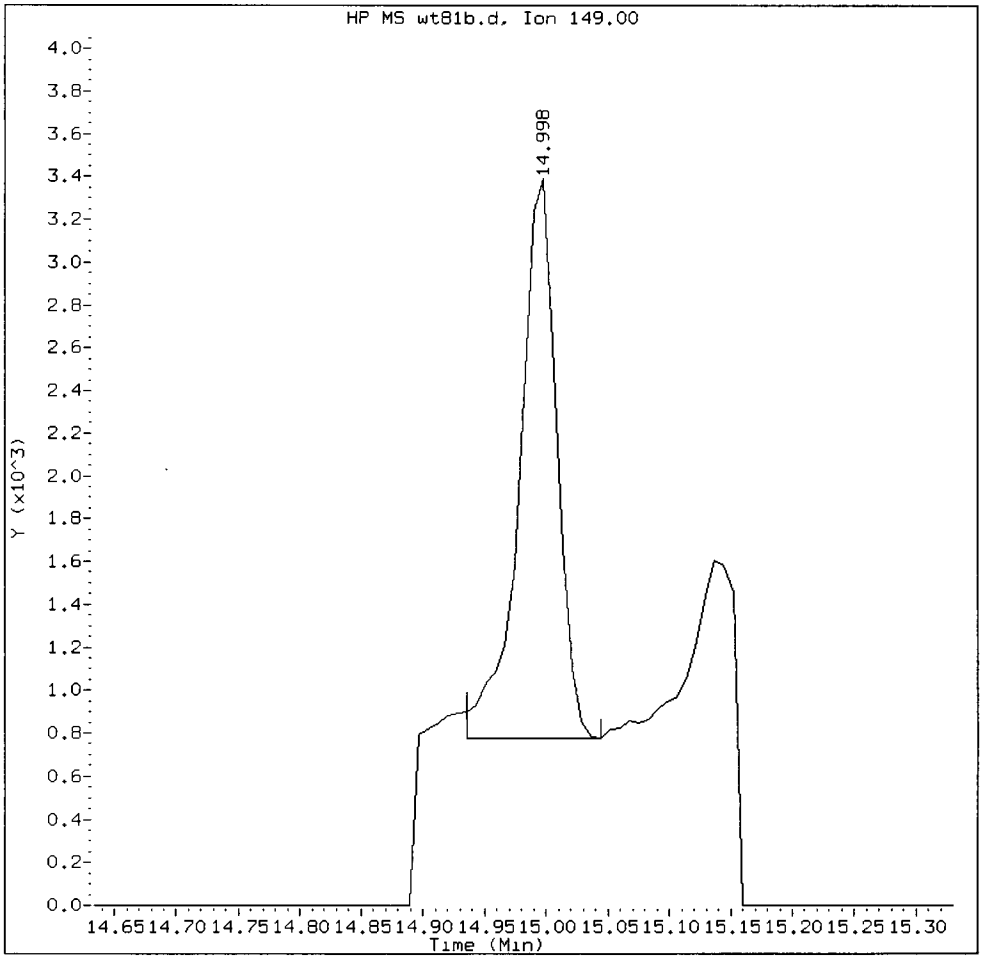


YZ 6/27/13



WT81B, /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

Diethylphthalate Amount: 0.18 Area: 5520



MANUAL INTEGRATION for Diethylphthalate

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

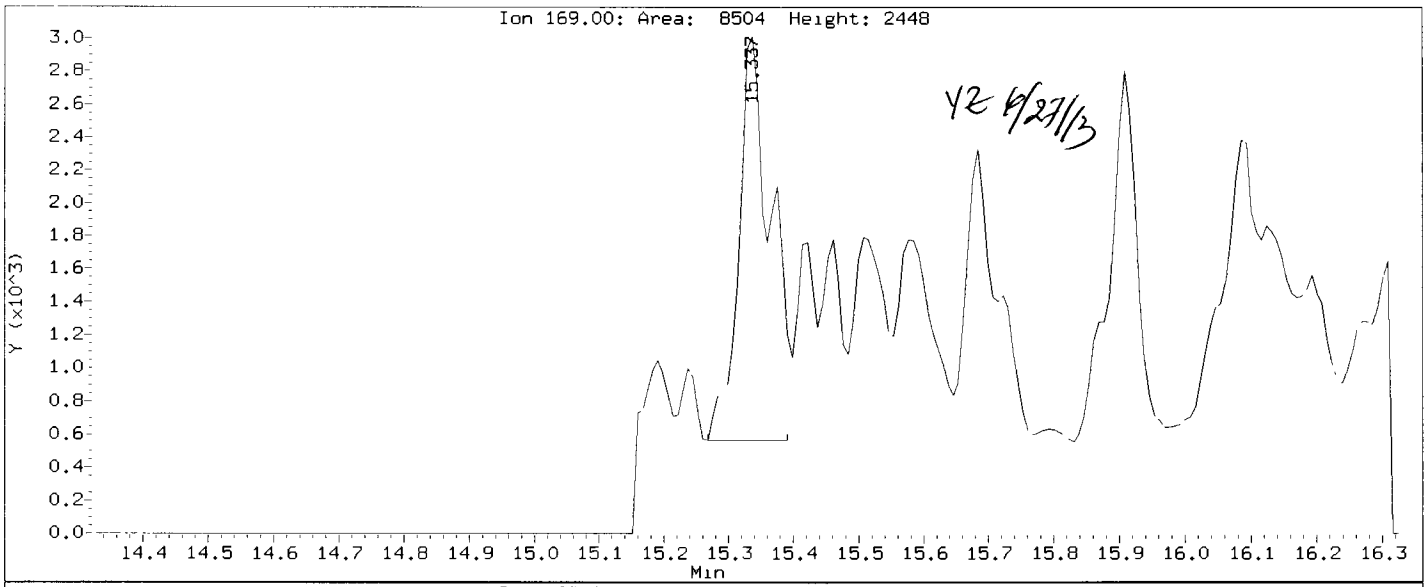
5. Other _____

Analyst: VZ Date: 6/27/13

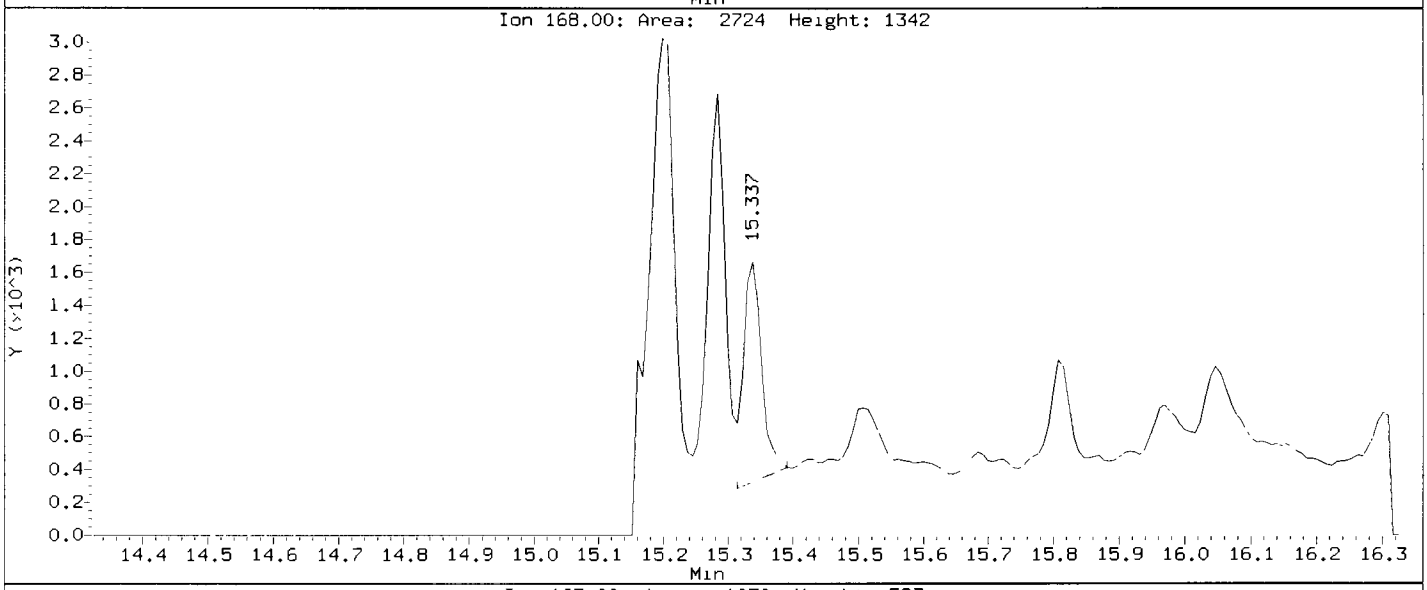
WT81 : 84150

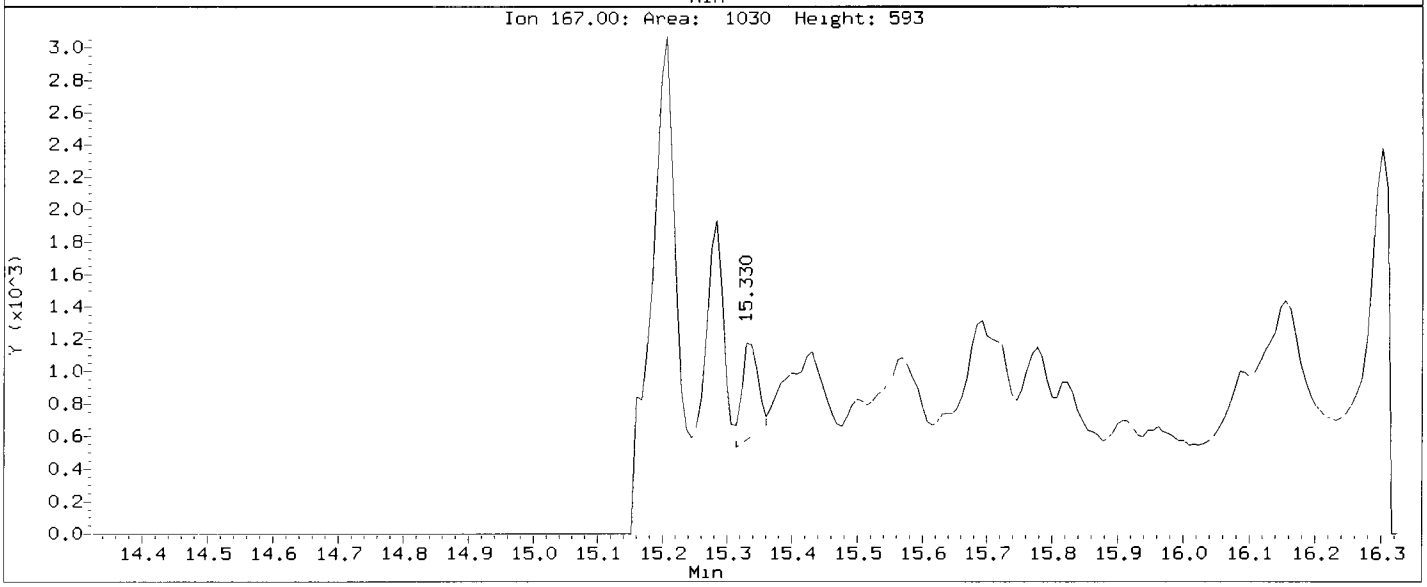
Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81b.d
Injection Date: 22-JUN-2013 14:50
Instrument: nt10.1
Client Sample ID: AM-SF4-EFF-20130612

Compound: N-Nitrosodiphenylamine
CAS Number: 86-30-6



YE 9/27/13

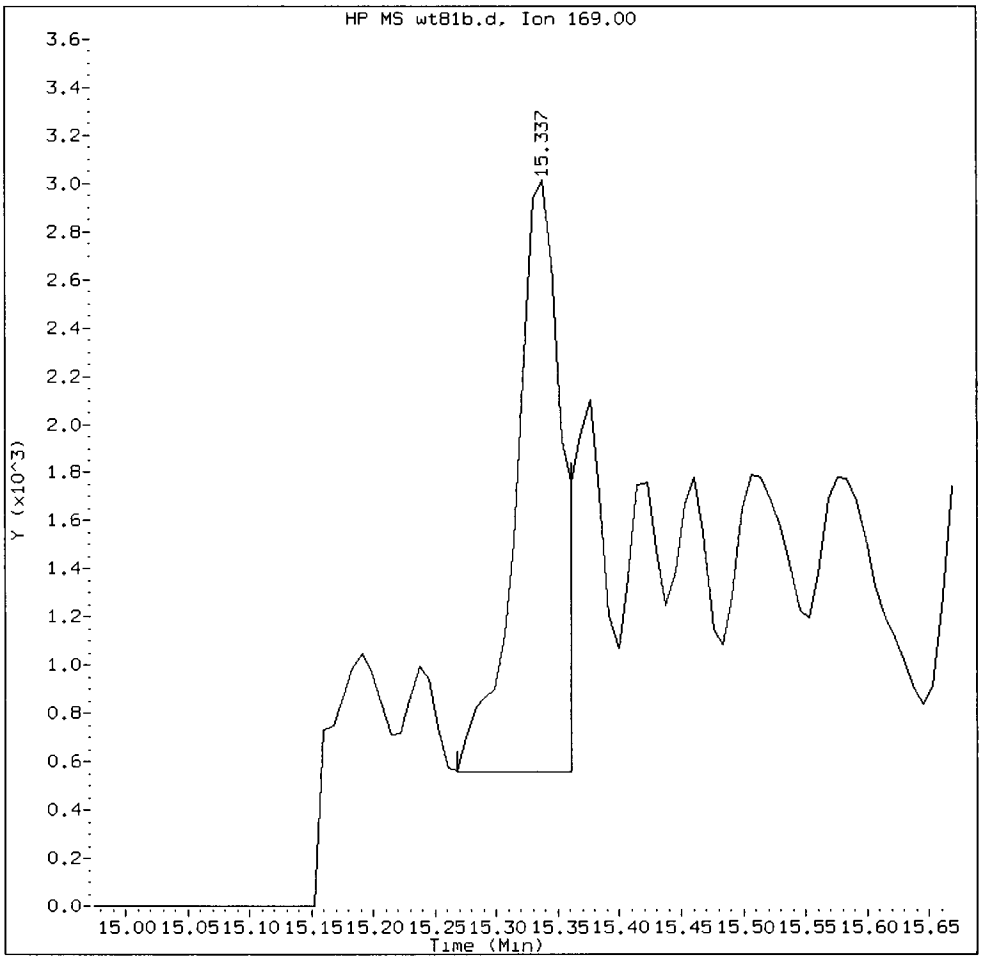




WT81 : 041407

WT81B, /chem1/nt10.i/20130622.b/SIM.b/wt81b.d

N-Nitrosodiphenylamine Amount: 0.37 Area: 6373



MANUAL INTEGRATION for N-Nitrosodiphenylamine

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81b.d

Lab ID: WT81B, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

METHOD 8270D-SIM

YZ 6/27/13

Data file : /chem1/nt10.i/20130622.b/SIM.b/wt81c.d
Lab Smp Id: WT81C Client Smp ID: AM-FD-01-20130612-S
Inj Date : 22-JUN-2013 16:40
Operator : YZ Inst ID: nt10.i
Smp Info : WT81C
Misc Info : 13-12638
Comment :
Method : /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Meth Date : 27-Jun-2013 11:09 yev Quant Type: ISTD
Cal Date : 29-APR-2013 21:47 Cal File: ic0429i.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDA.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Ws	7.01000	Weight of sample extracted (g)
M	60.20000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/kg)
$	1 2-Fluorophenol	112	5.264	5.225	(0.707)	60446	4.04178	1449(R)
	3 Phenol	94	6.995	6.956	(0.940)	6184	0.28766 J	103.1
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	7.443	7.436	(1.000)	42575	4.00000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	79	7.808	7.785	(1.049)	1708	0.16566 J	59.38(M)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	15 4-Methylphenol	108	8.414	8.391	(1.130)	28802	1.84033	659.6
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	9.484	9.461	(0.946)	402	0.02523 J	9.043
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.024	10.008	(1.000)	164493	4.00000	
	30 Hexachlorobutadiene	225	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/kg)
	39 Dimethylphthalate	163	13.436	13.420	(0.972)	1224	0.04659	16.70(M)
*	42 Acenaphthene-d10	162	13.823	13.807	(1.000)	91060	4.00000	
	50 Diethylphthalate	149	14.998	14.982	(1.085)	9857	0.33130	118.7(M)
	54 N-Nitrosodiphenylamine	169	15.345	15.322	(0.901)	8697	0.50090	179.5
	57 Hexachlorobenzene	284	Compound Not Detected.					
	58 Pentachlorophenol	266	Compound Not Detected.					
*	59 Phenanthrene-d10	188	17.037	17.006	(1.000)	158354	4.00000	
$	66 Terphenyl-d14	244	20.511	20.457	(0.916)	79062	3.81609	1368
	67 Butylbenzylphthalate	149	21.556	21.486	(0.963)	15756	1.00766	361.2
*	69 Chrysene-d12	240	22.392	22.307	(1.000)	168541	4.00000	
*	77 Perylene-d12	264	24.715	24.591	(1.000)	124651	4.00000	
	79 Dibenzo(a,h)anthracene	278	26.312	26.157	(1.065)	17499	0.62981	225.7(MH)
	90 N-Nitrosodimethylamine	74	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: wt81c.d
Lab Smp Id: WT81C
Analysis Type: SV
Quant Type: ISTD
Operator: YZ
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12638

Calibration Date: 22-JUN-2013
Calibration Time: 10:28
Client Smp ID: AM-FD-01-2013061
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	52658	26329	105316	42575	-19.15
27 Naphthalene-d8	192325	96162	384650	164493	-14.47
42 Acenaphthene-d10	109274	54637	218548	91060	-16.67
59 Phenanthrene-d10	203933	101966	407866	158354	-22.35
69 Chrysene-d12	223647	111824	447294	168541	-24.64
77 Perylene-d12	211919	105960	423838	124651	-41.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	7.44	6.94	7.94	7.44	0.10
27 Naphthalene-d8	10.01	9.51	10.51	10.02	0.15
42 Acenaphthene-d10	13.81	13.31	14.31	13.82	0.11
59 Phenanthrene-d10	17.01	16.51	17.51	17.04	0.18
69 Chrysene-d12	22.31	21.81	22.81	22.39	0.38
77 Perylene-d12	24.59	24.09	25.09	24.71	0.50

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

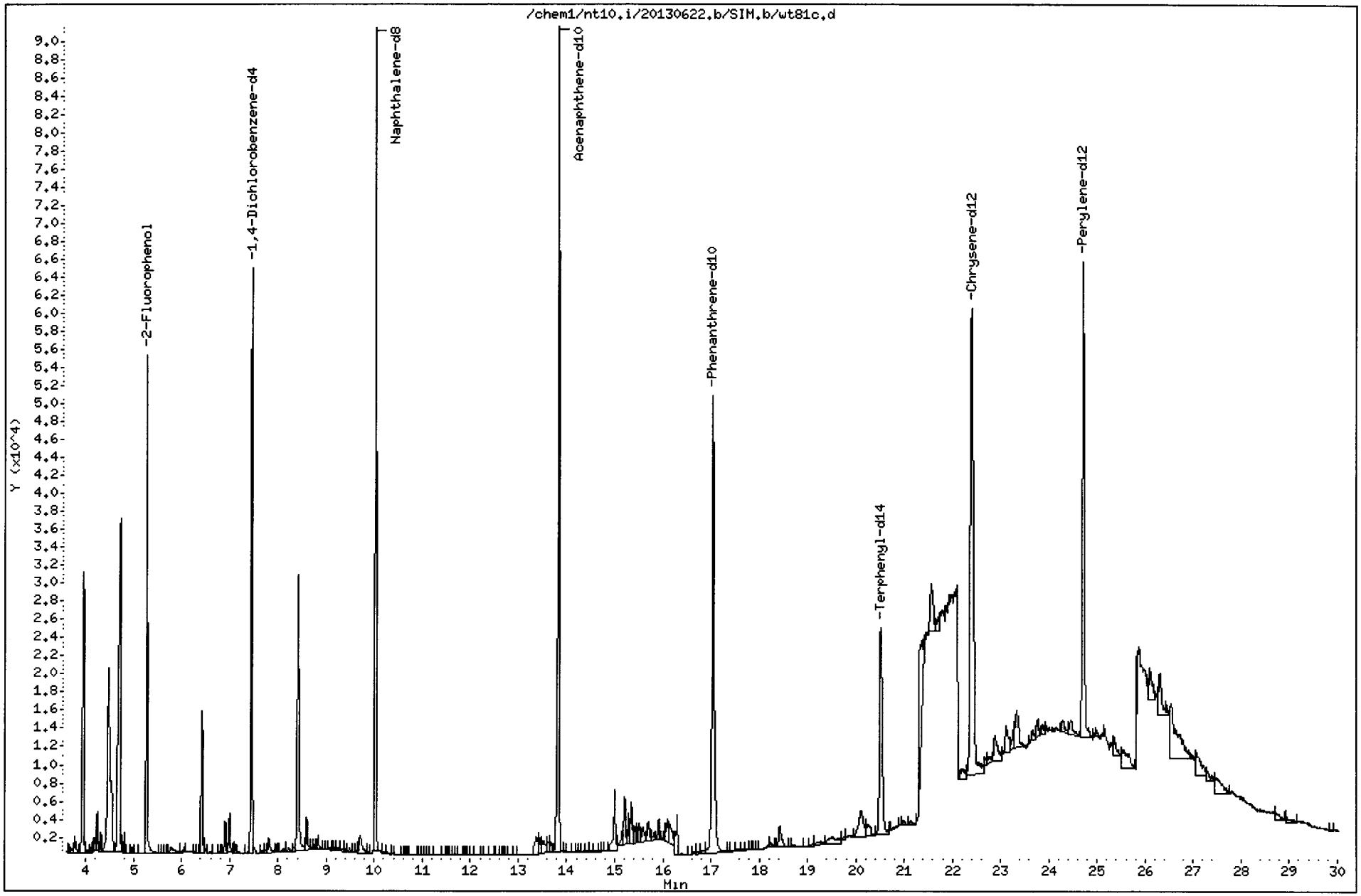
RECOVERY REPORT

Client Name: SAIC
Client SDG: WT81
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: WT81C
Client Smp ID: AM-FD-01-20130612-S
Level: LOW
Operator: YZ
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: PSDDASIMLCS.spk
Quant Type: ISTD
Sublist File: PSDDA.sub
Method File: /chem1/nt10.i/20130622.b/SIM.b/SIMABN2.m
Misc Info: 13-12638

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2688	1449	53.89	30-160
$ 66 Terphenyl-d14	1792	1368	76.32	30-160

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d
Date : 22-JUN-2013 16:40
Client ID: AM-FD-01-20130612-S
Sample Info: WT81C
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: YZ
Column diameter: 0.25



Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

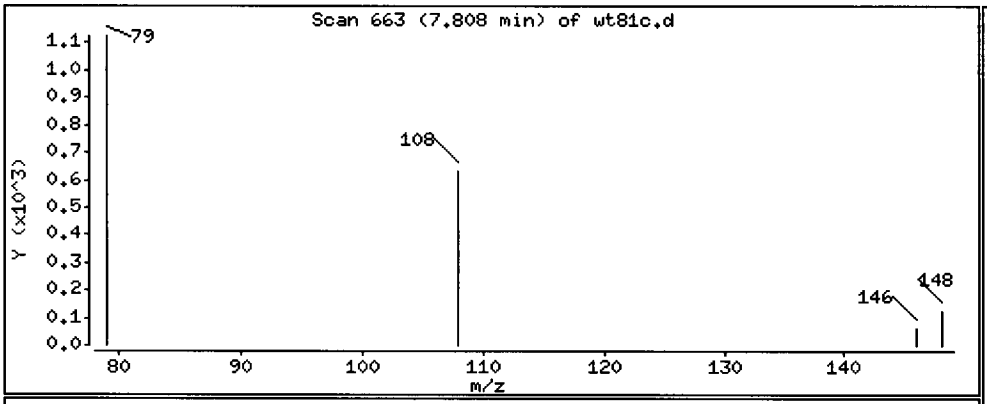
Operator: YZ

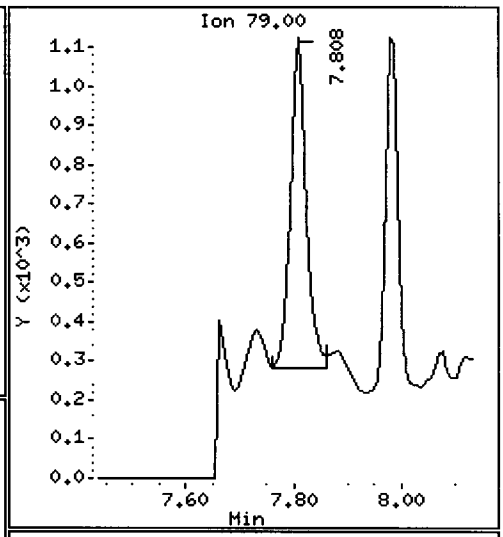
Column phase: ZB-5msi

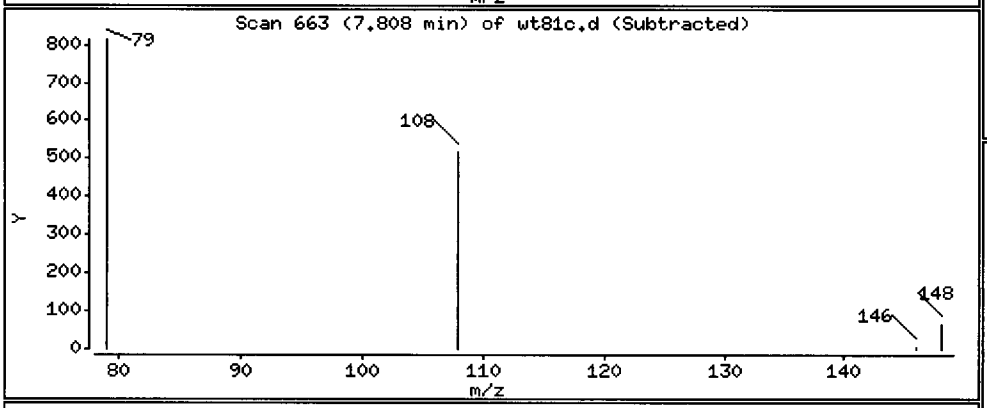
Column diameter: 0.25

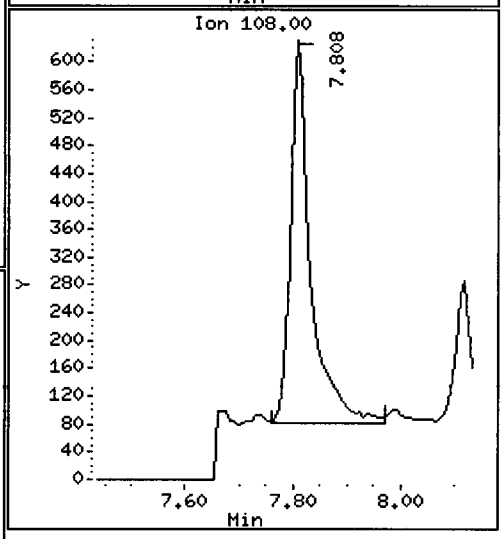
11 Benzyl alcohol

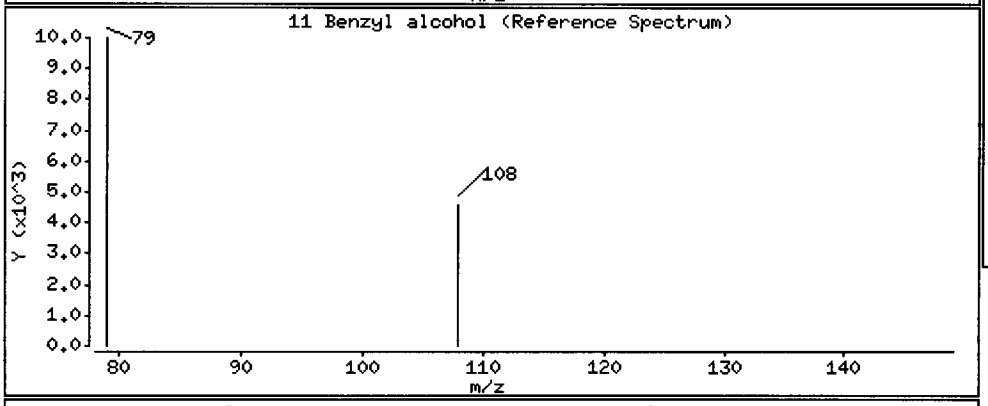
Concentration: 59.38 ug/kg

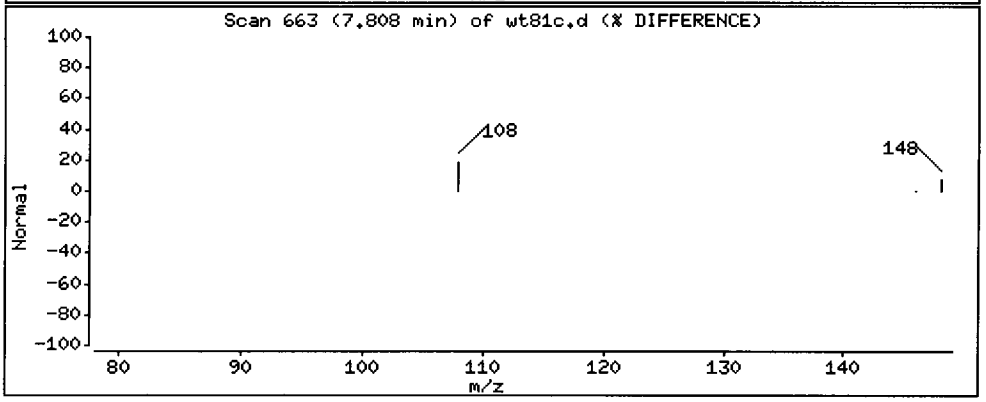












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

Operator: YZ

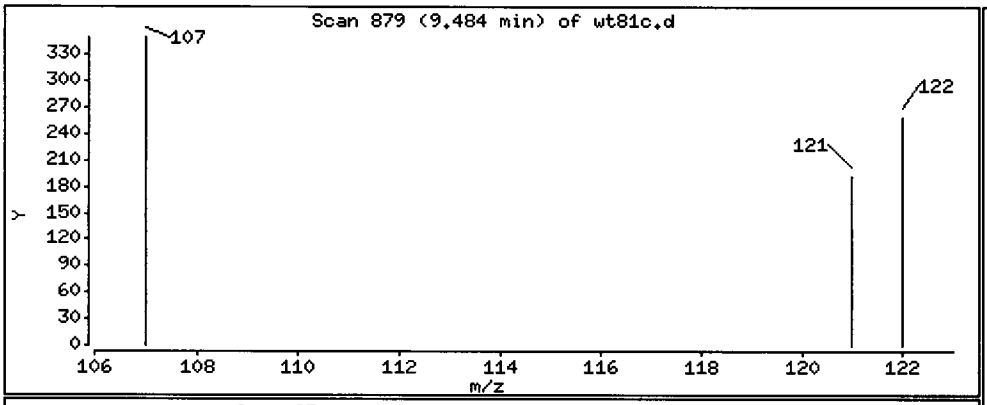
Column phase: ZB-5msi

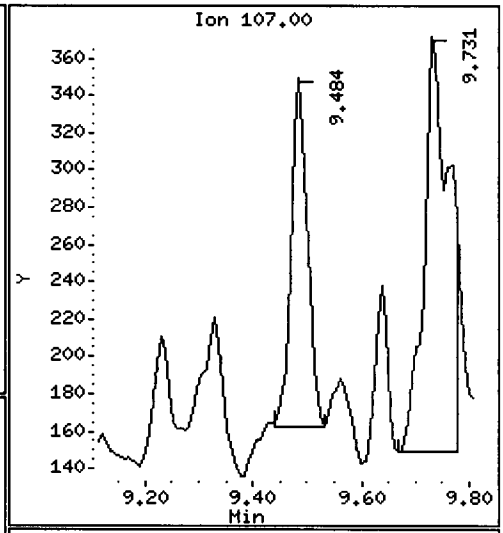
Column diameter: 0.25

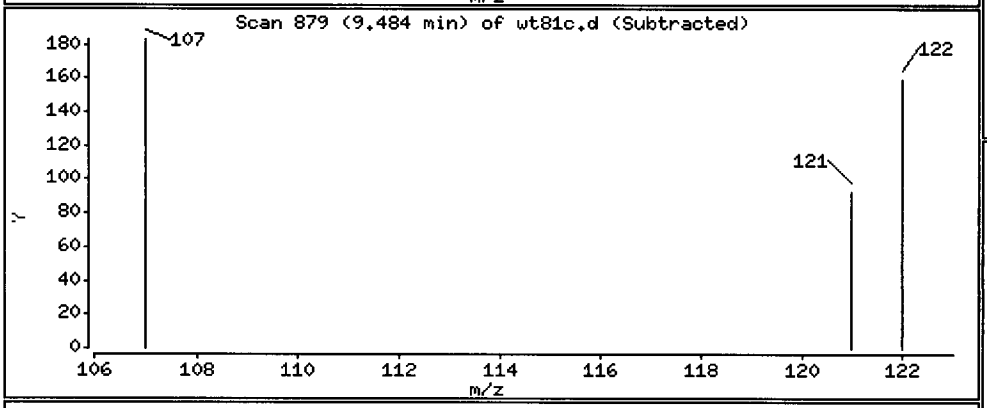
22 2,4-Dimethylphenol

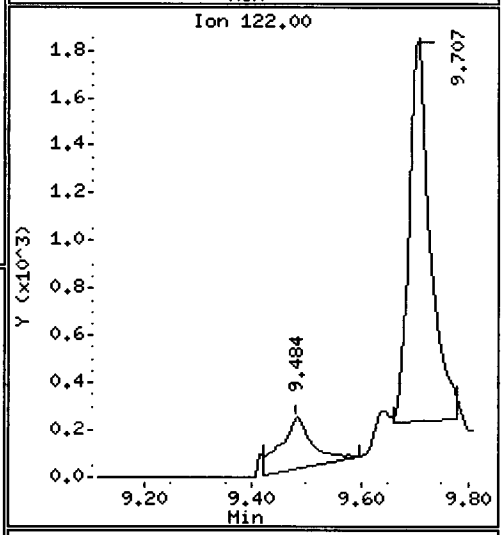
Concentration: 9.043 ug/kg

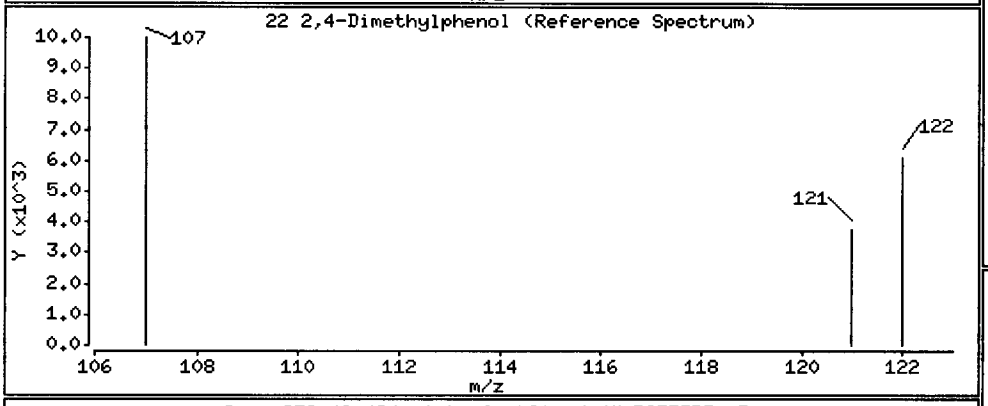
< MDL

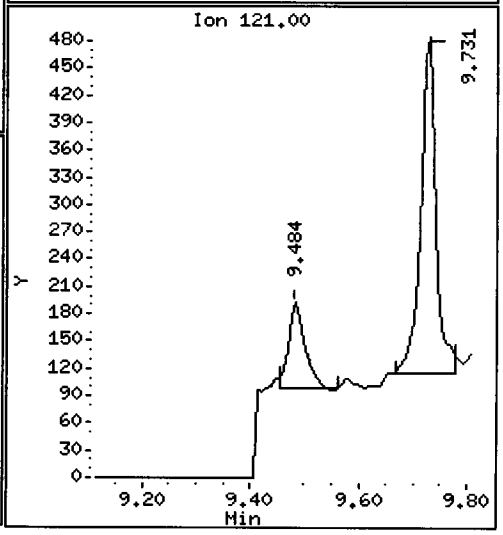


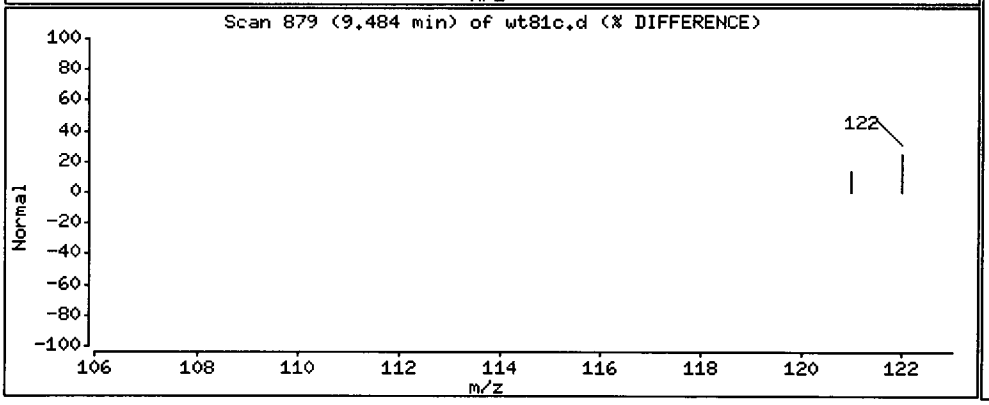












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

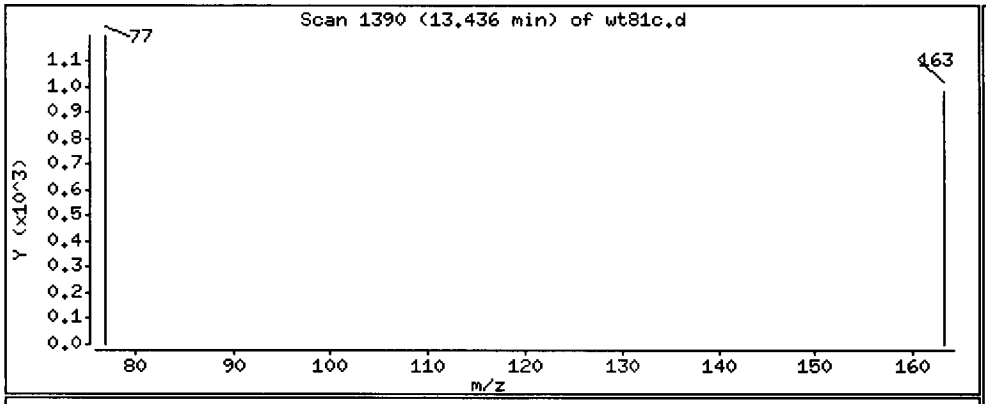
Operator: YZ

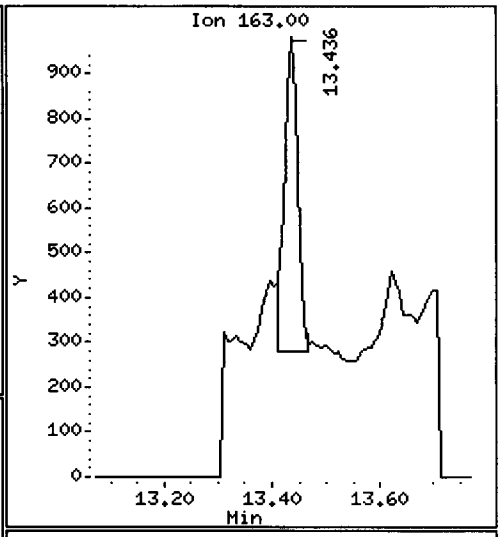
Column phase: ZB-5msi

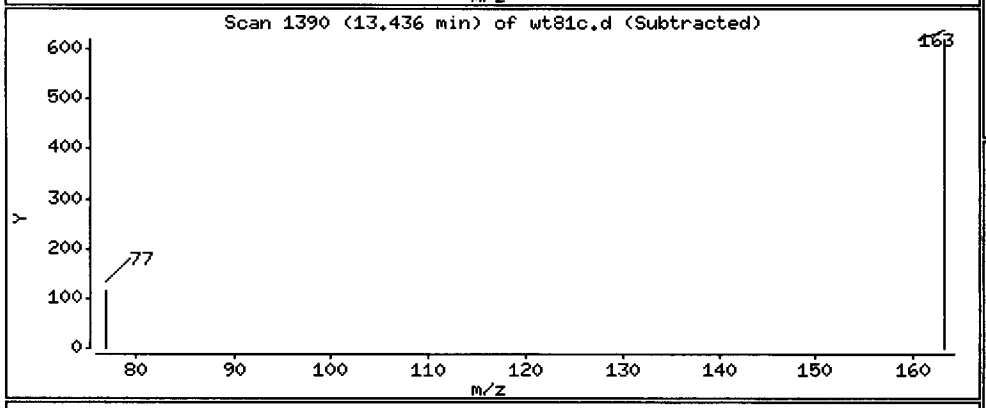
Column diameter: 0.25

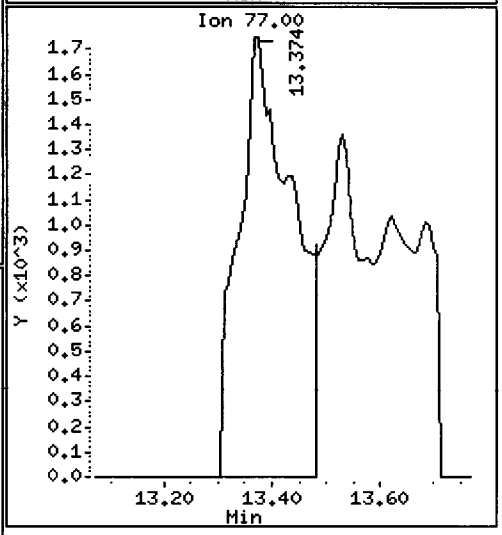
39 Dimethylphthalate

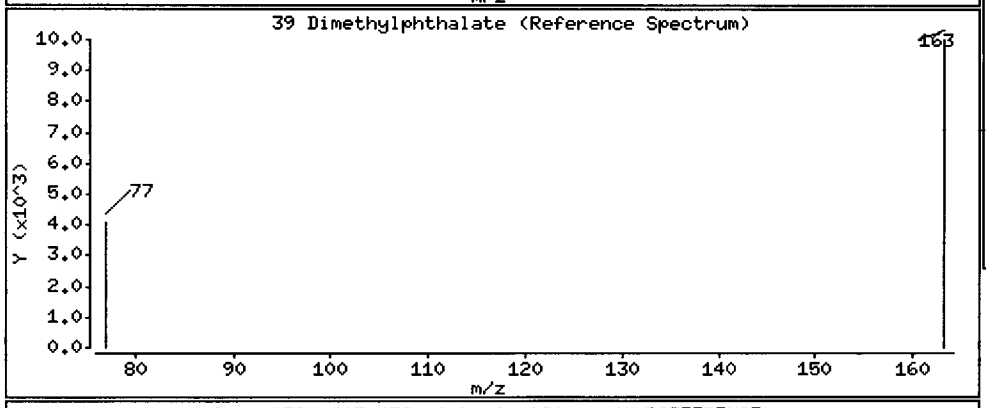
Concentration: 16.70 ug/kg

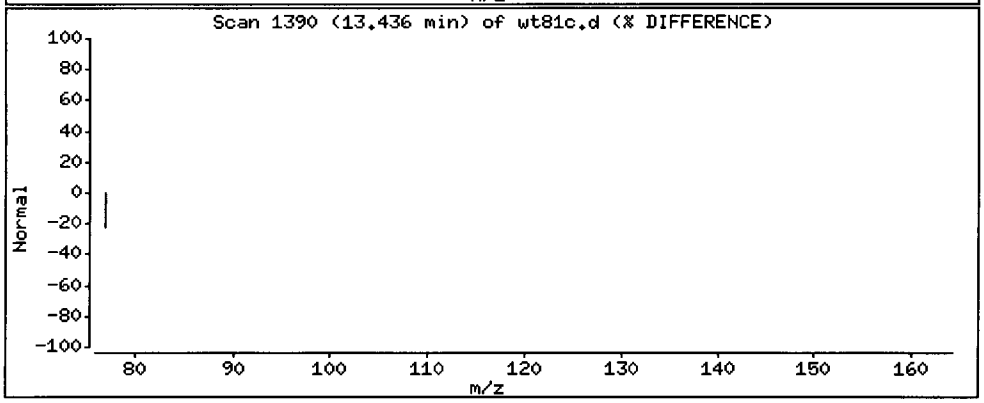












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

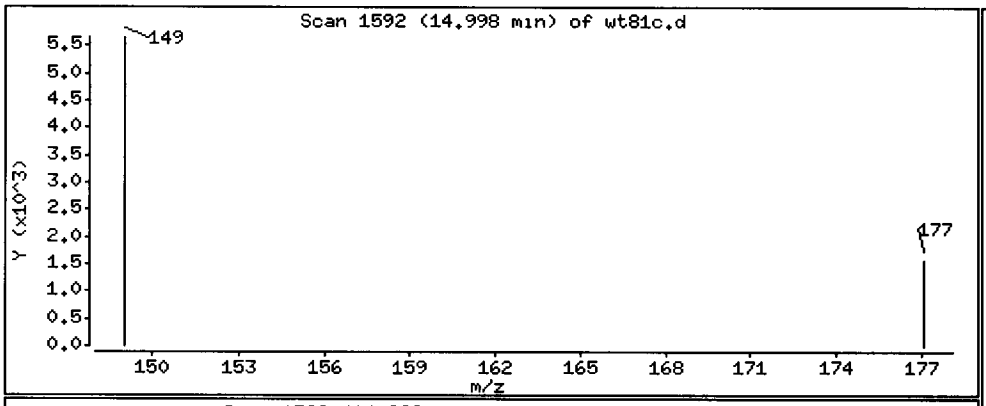
Operator: YZ

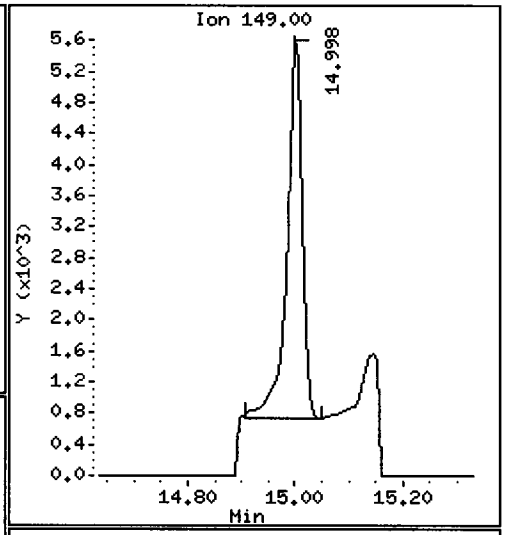
Column phase: ZB-5msi

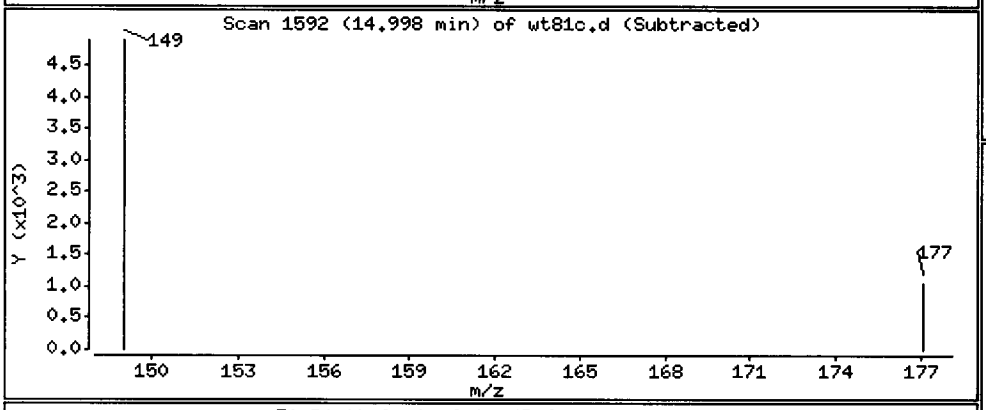
Column diameter: 0.25

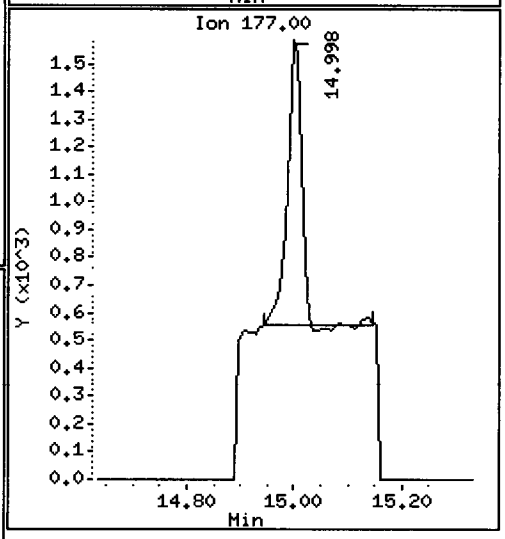
50 Diethylphthalate

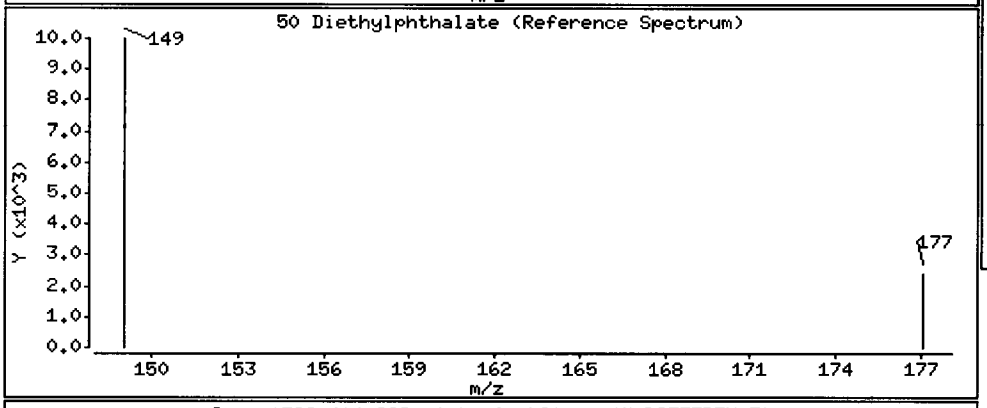
Concentration: 118.7 ug/kg

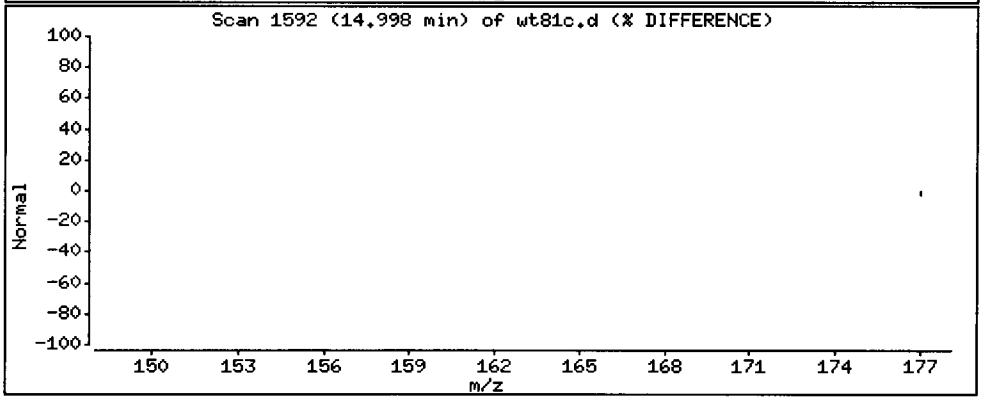












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

Operator: YZ

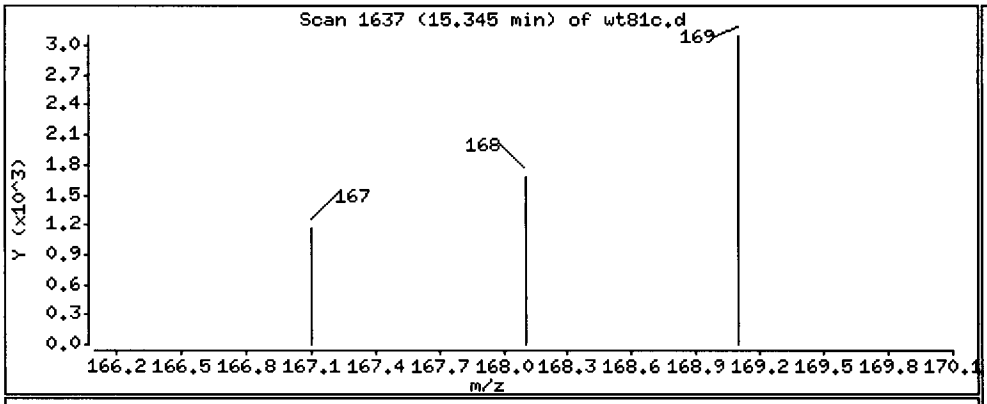
Column phase: ZB-5msi

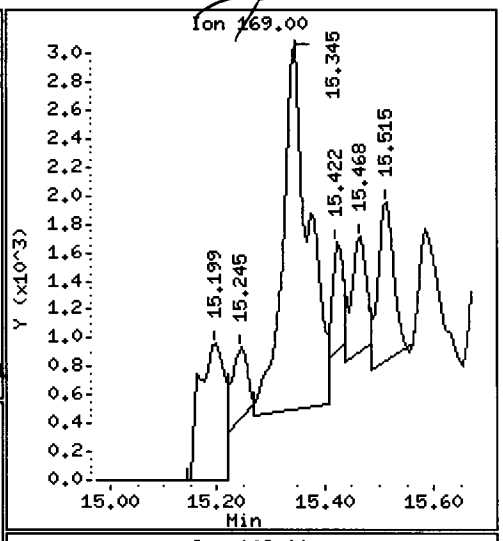
Column diameter: 0.25

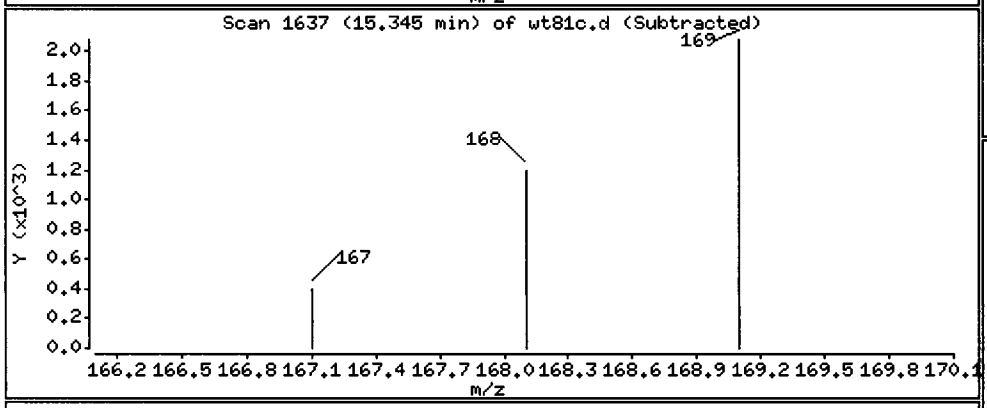
6/27/13

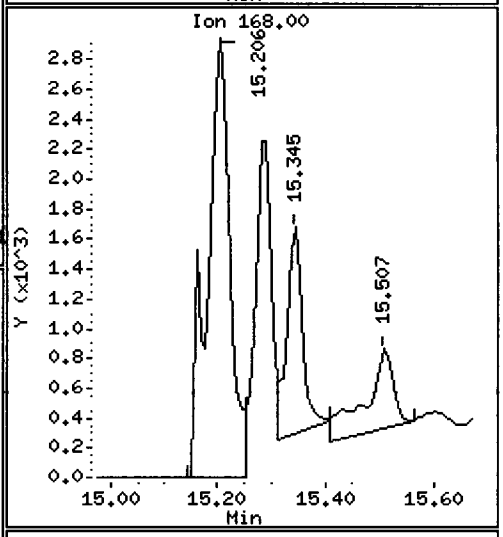
54 N-Nitrosodiphenylamine

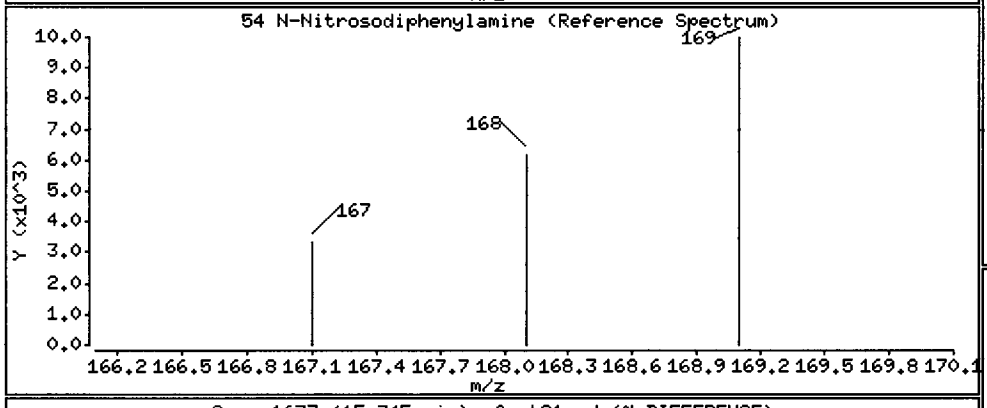
Concentration: 179.5 ug/kg

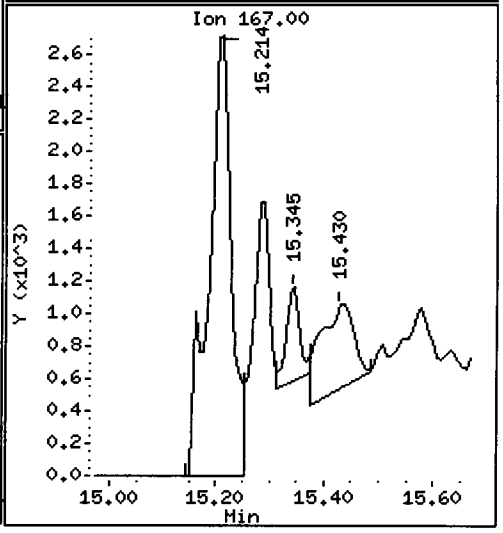


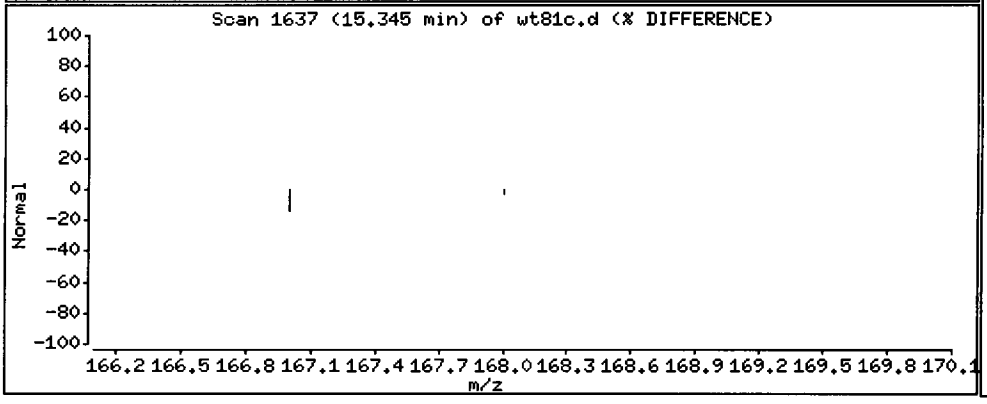












WT81:0110

Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

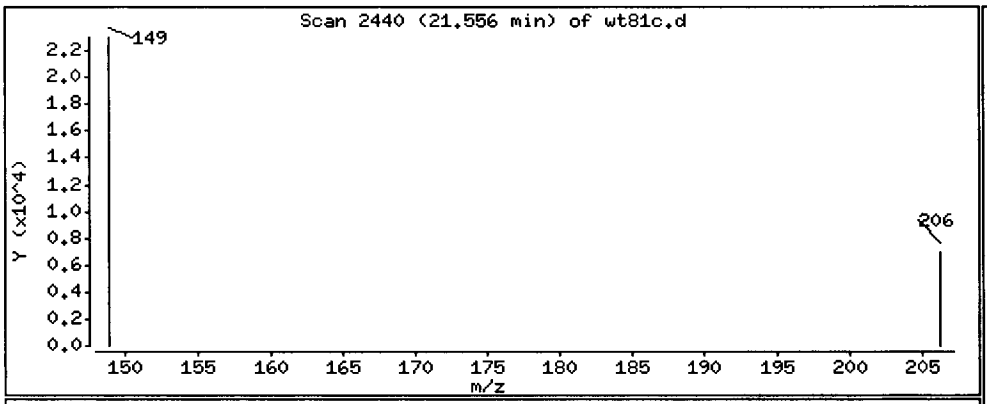
Operator: YZ

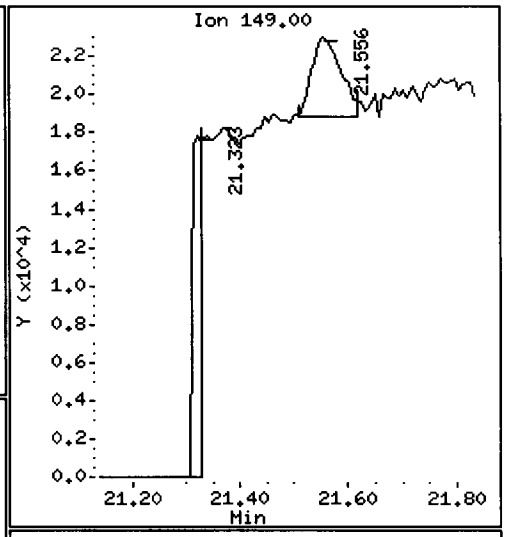
Column phase: ZB-5msi

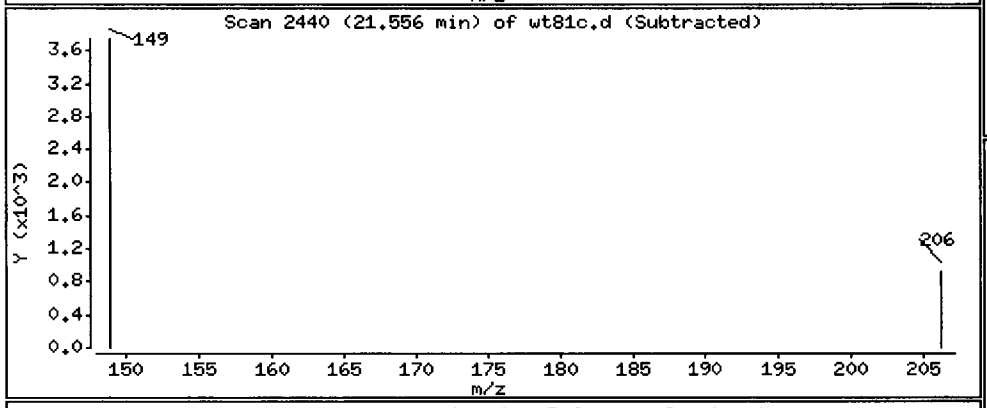
Column diameter: 0.25

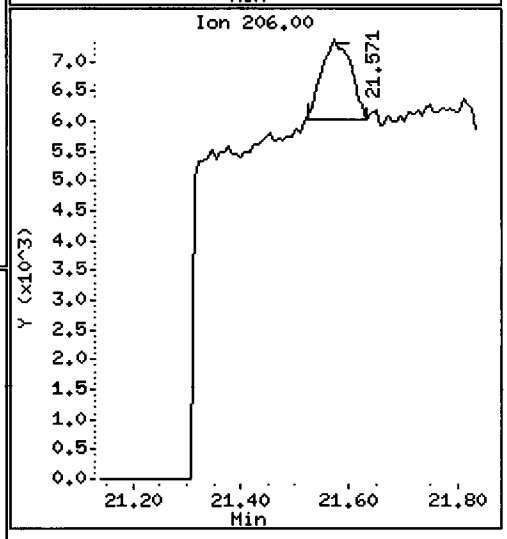
67 Butylbenzylphthalate

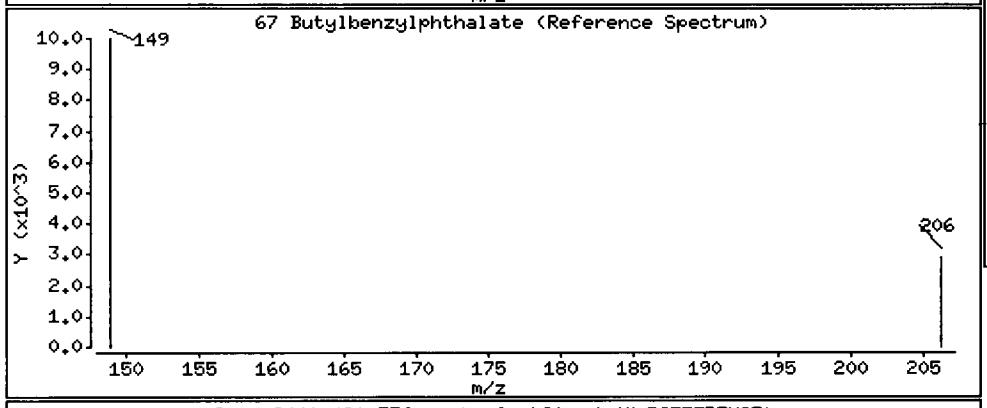
Concentration: 361.2 ug/kg

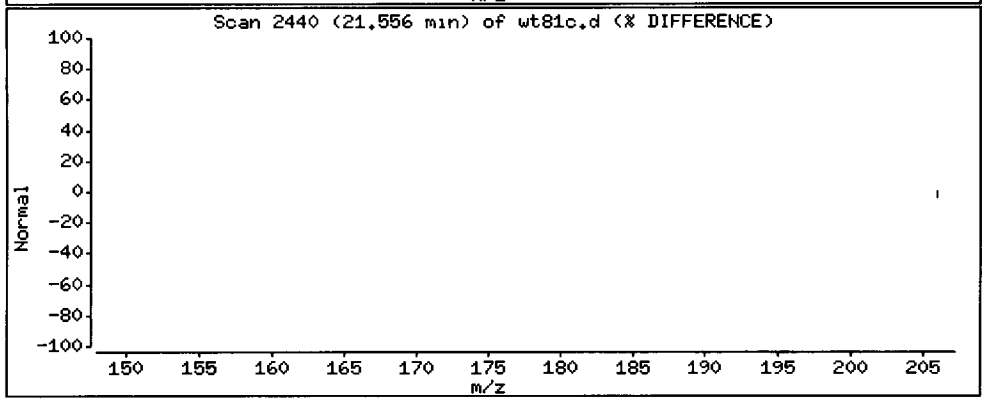












Data File: /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Date : 22-JUN-2013 16:40

Client ID: AM-FD-01-20130612-S

Instrument: nt10.i

Sample Info: WT81C

Volume Injected (uL): 1.0

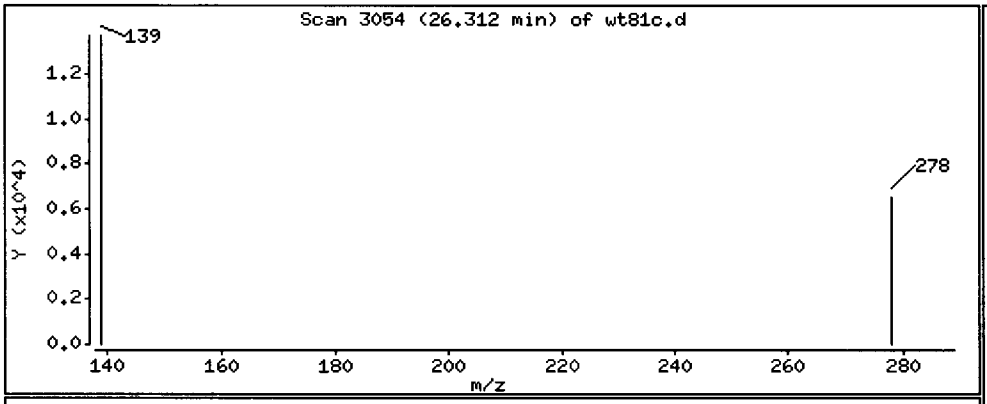
Operator: YZ

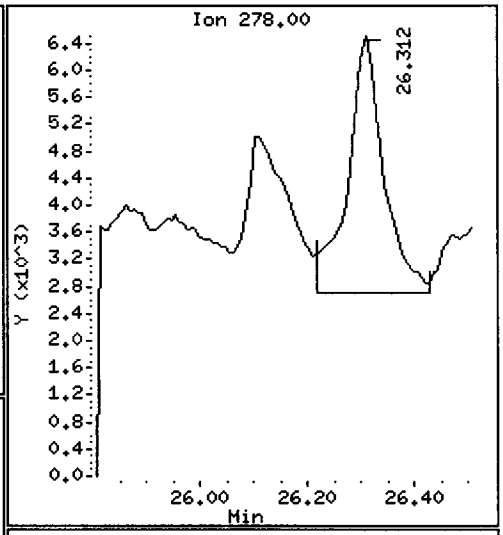
Column phase: ZB-5msi

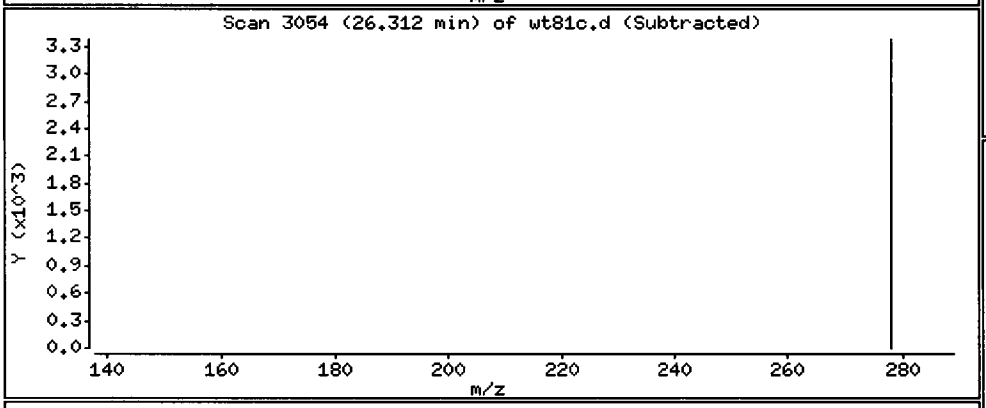
Column diameter: 0.25

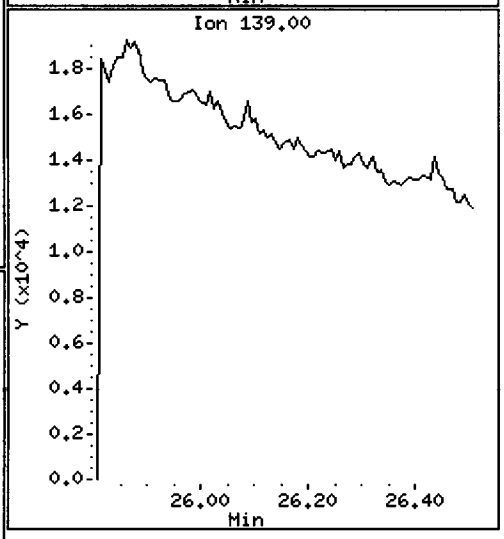
79 Dibenzo(a,h)anthracene

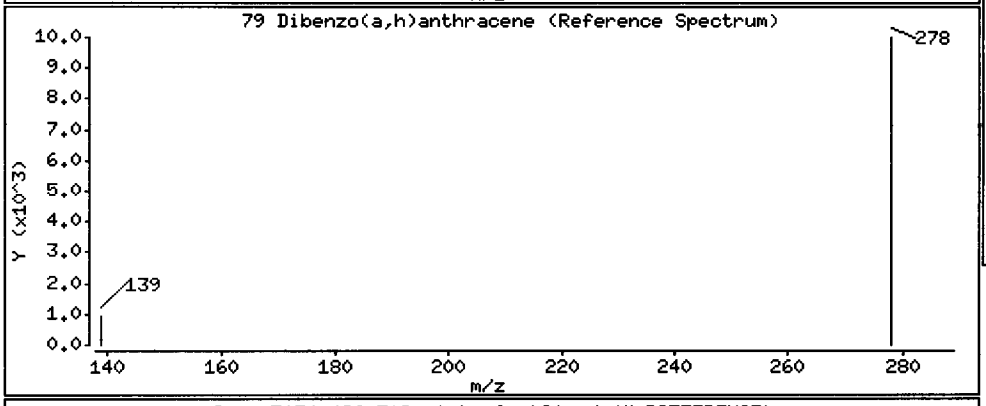
Concentration: 225.7 ug/kg

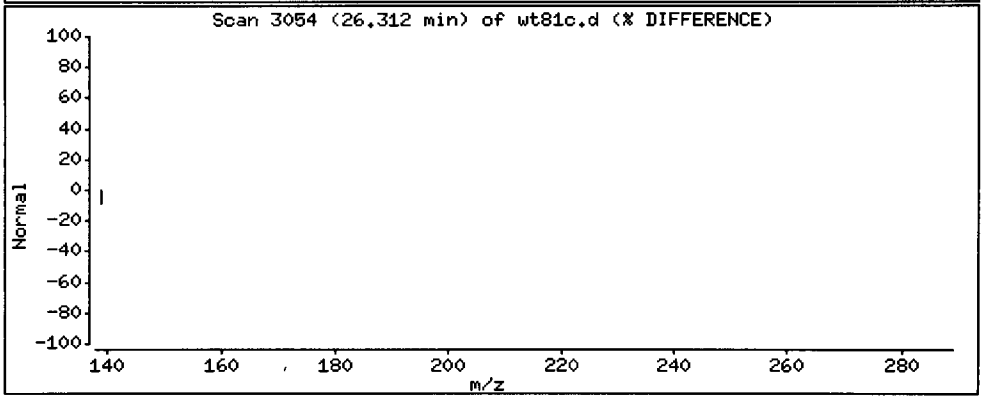






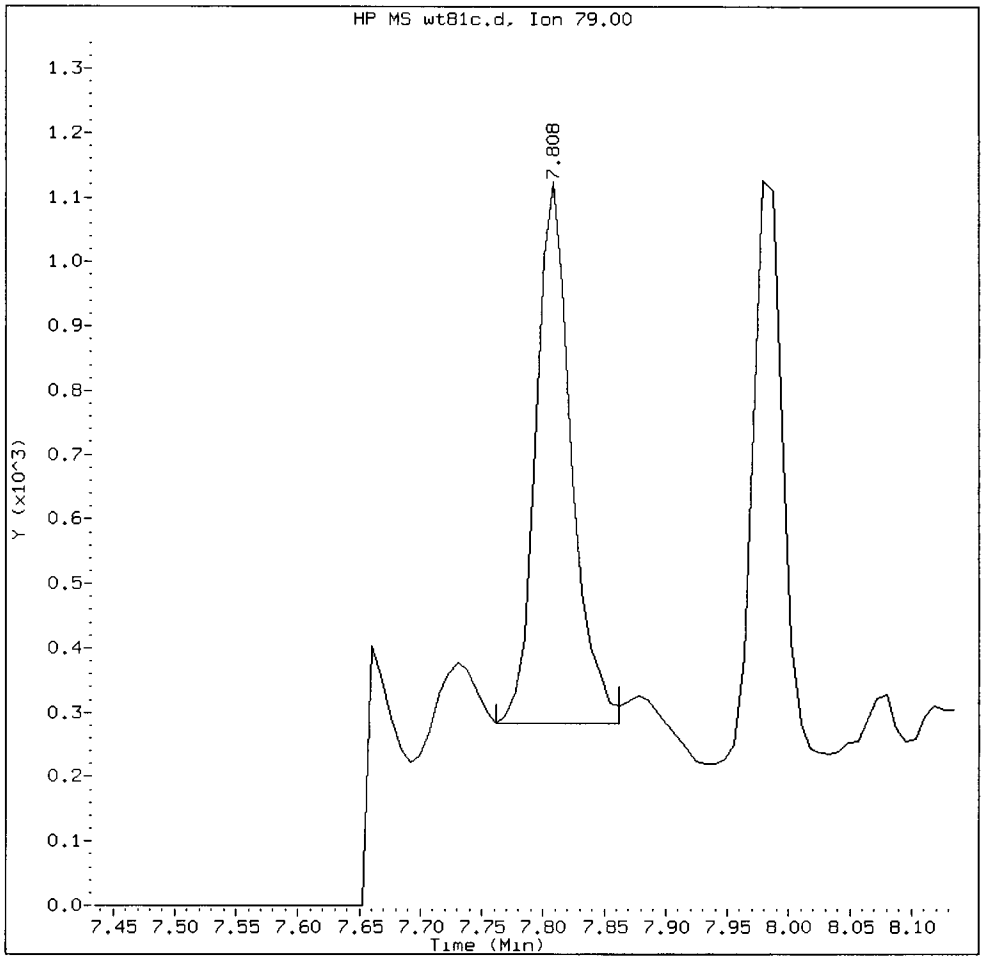






WT81C, /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Benzyl alcohol Amount: 0.17 Area: 1708



MANUAL INTEGRATION for Benzyl alcohol

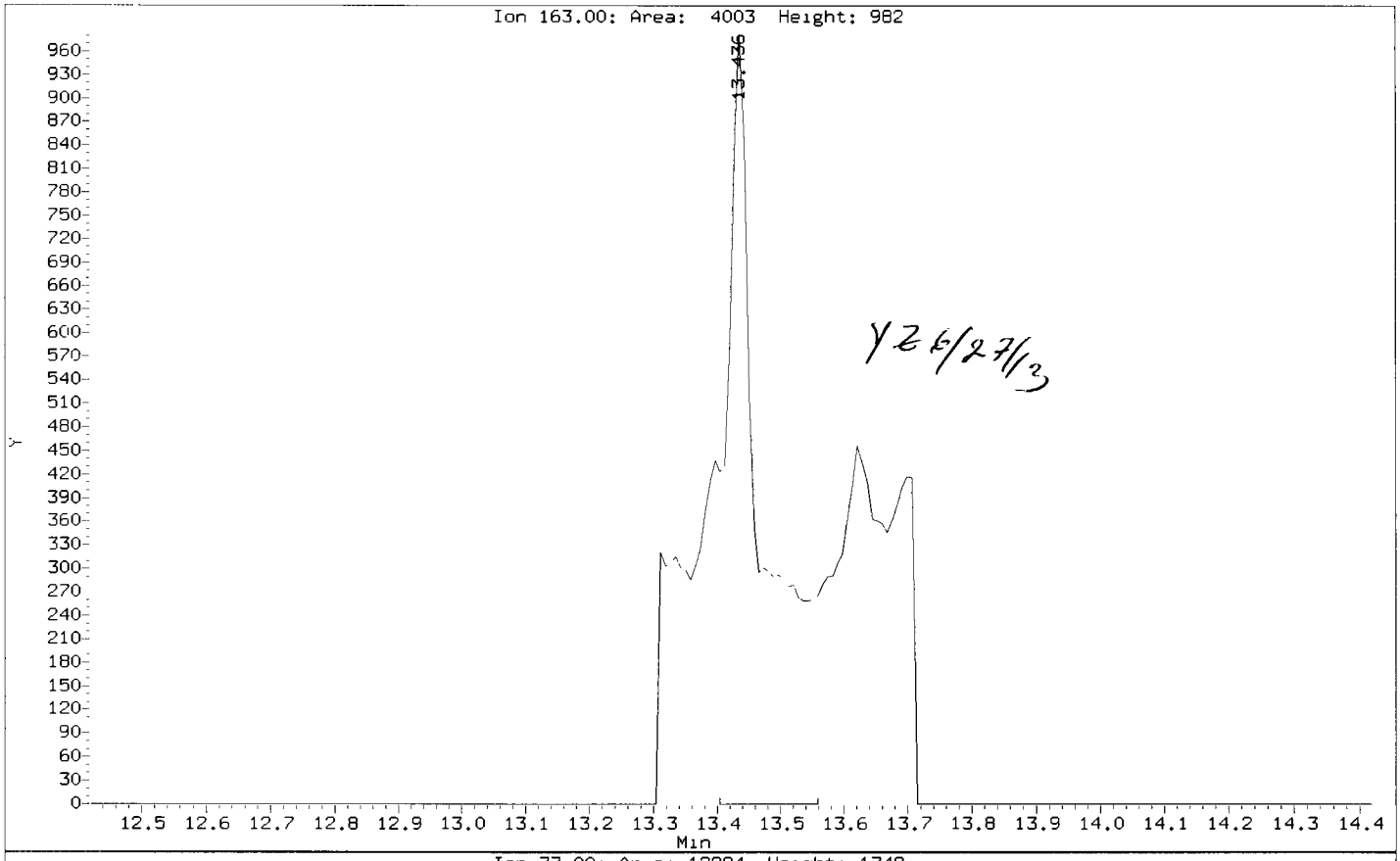
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

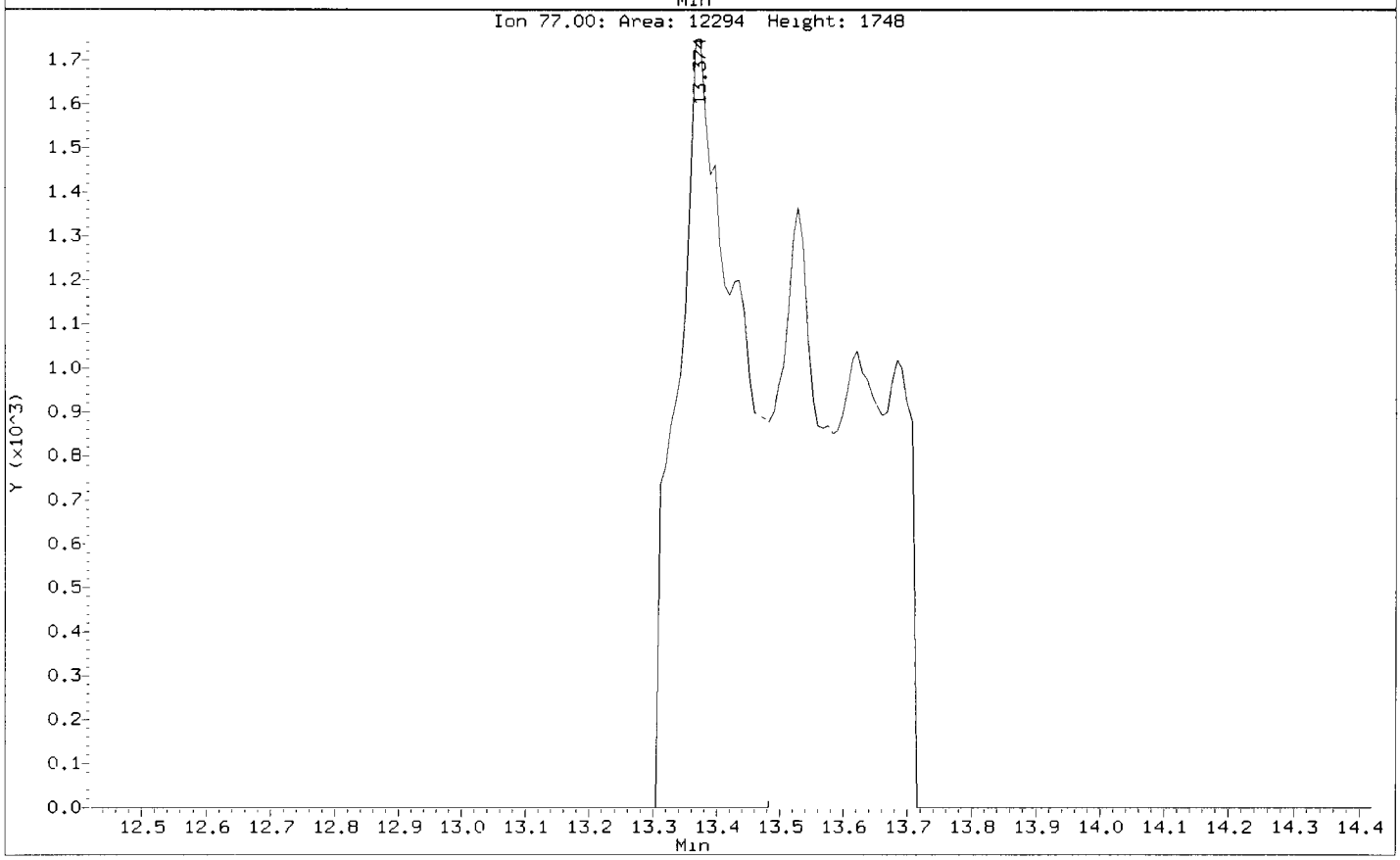
5. Other _____

Analyst: VZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81c.d
Injection Date: 22-JUN-2013 16:40
Instrument: nt10.1
Client Sample ID: AM-FD-01-20130612-S

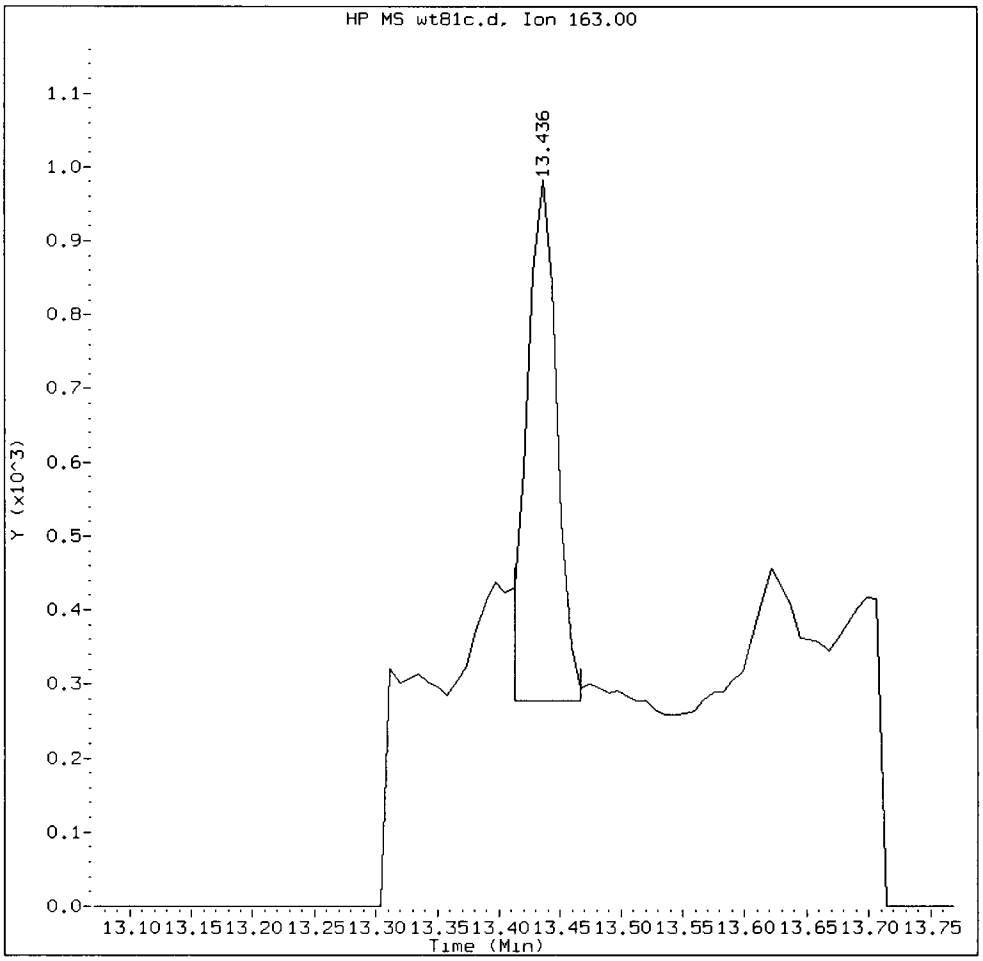
Compound: Dimethylphthalate
CAS Number: 131-11-3





WT81C, /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Dimethylphthalate Amount: 0.05 Area: 1224



MANUAL INTEGRATION for Dimethylphthalate

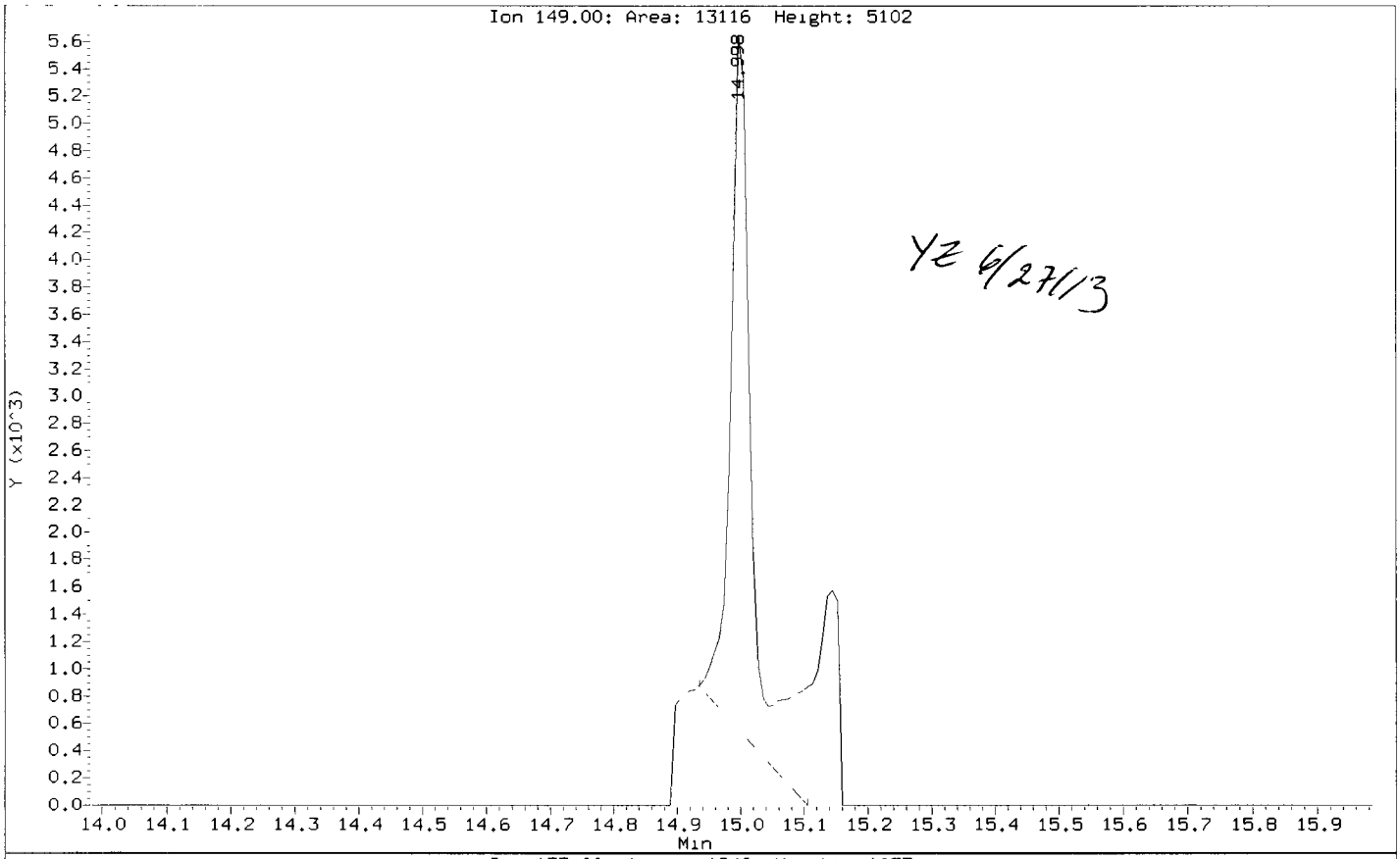
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

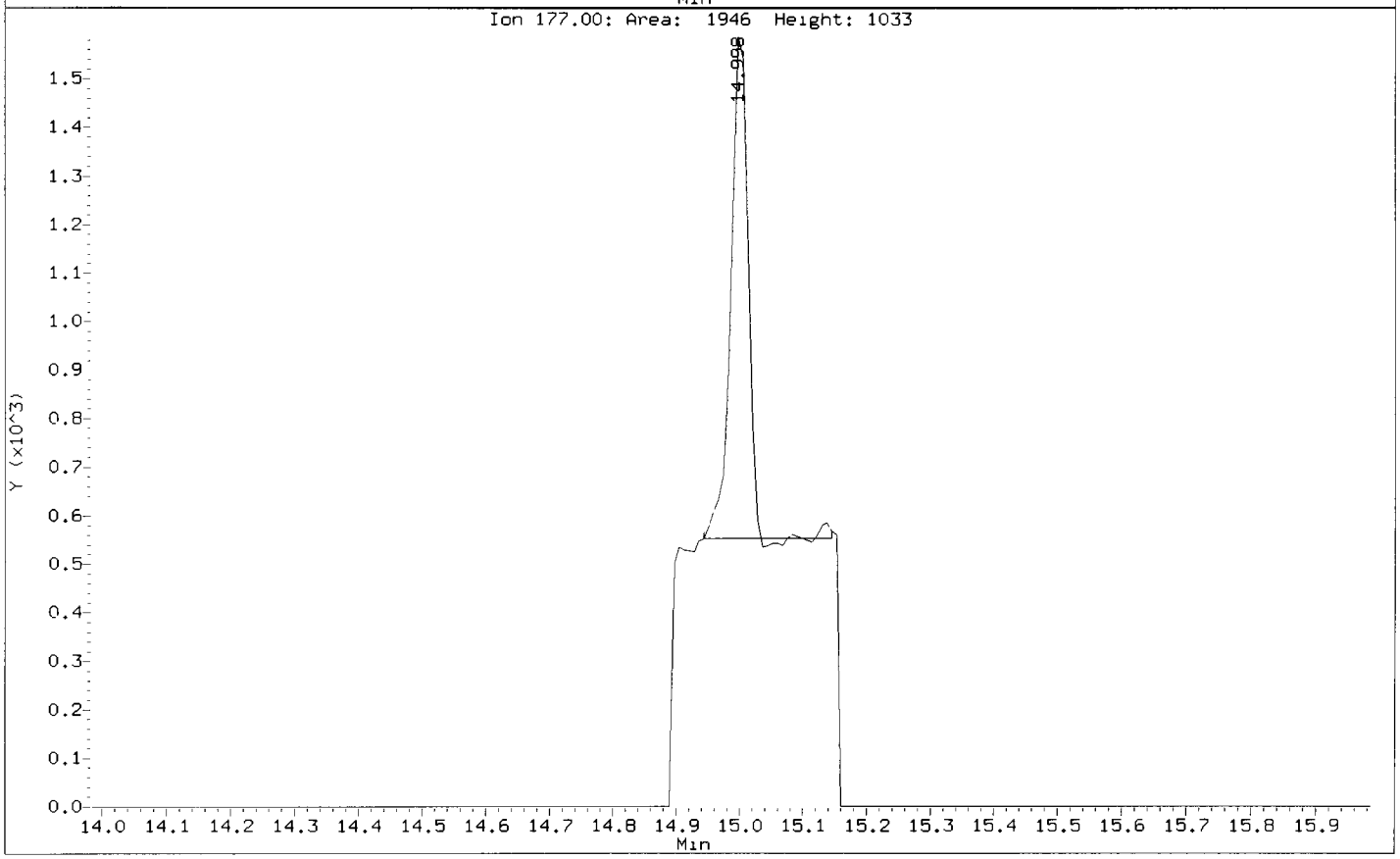
Analyst: YZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81c.d
Injection Date: 22-JUN-2013 16:40
Instrument: nt10.1
Client Sample ID: AM-FD-01-20130612-S

Compound: Diethylphthalate
CAS Number: 84-66-2

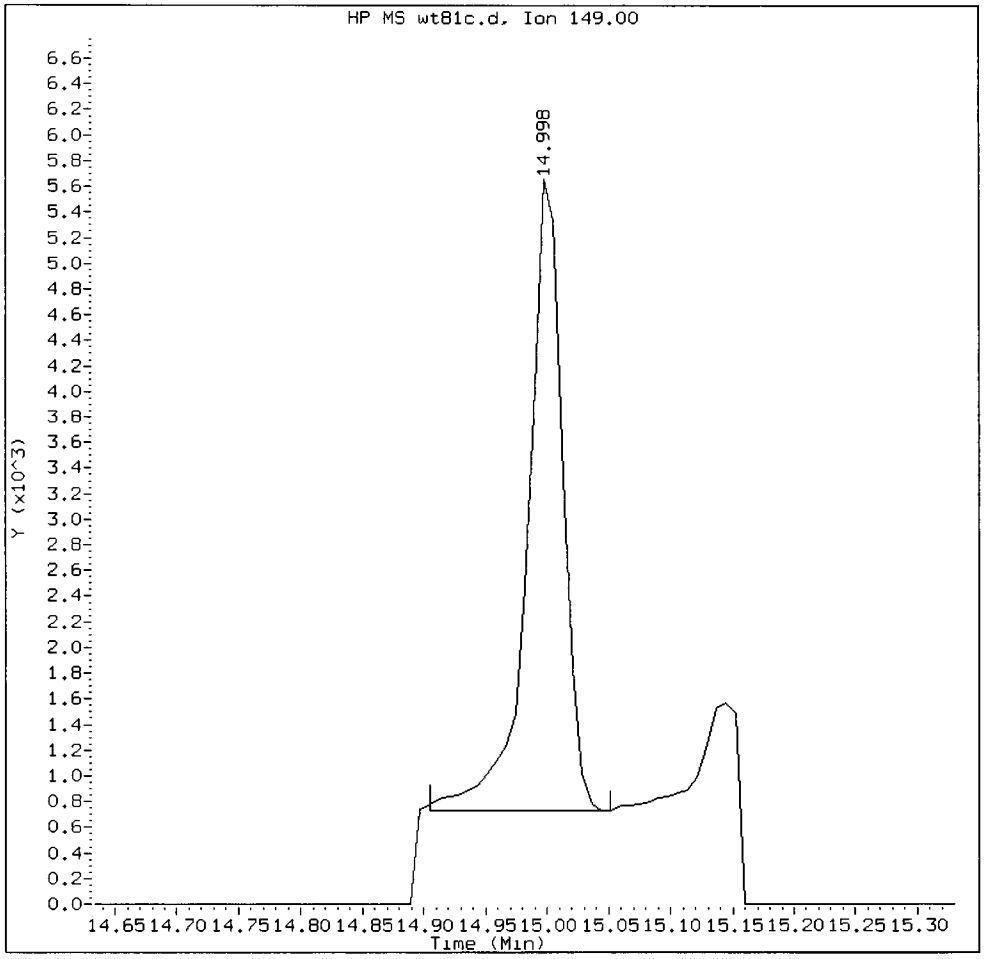


YZ 6/27/13



WT81C, /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Diethylphthalate Amount: 0.33 Area: 9857



MANUAL INTEGRATION for Diethylphthalate

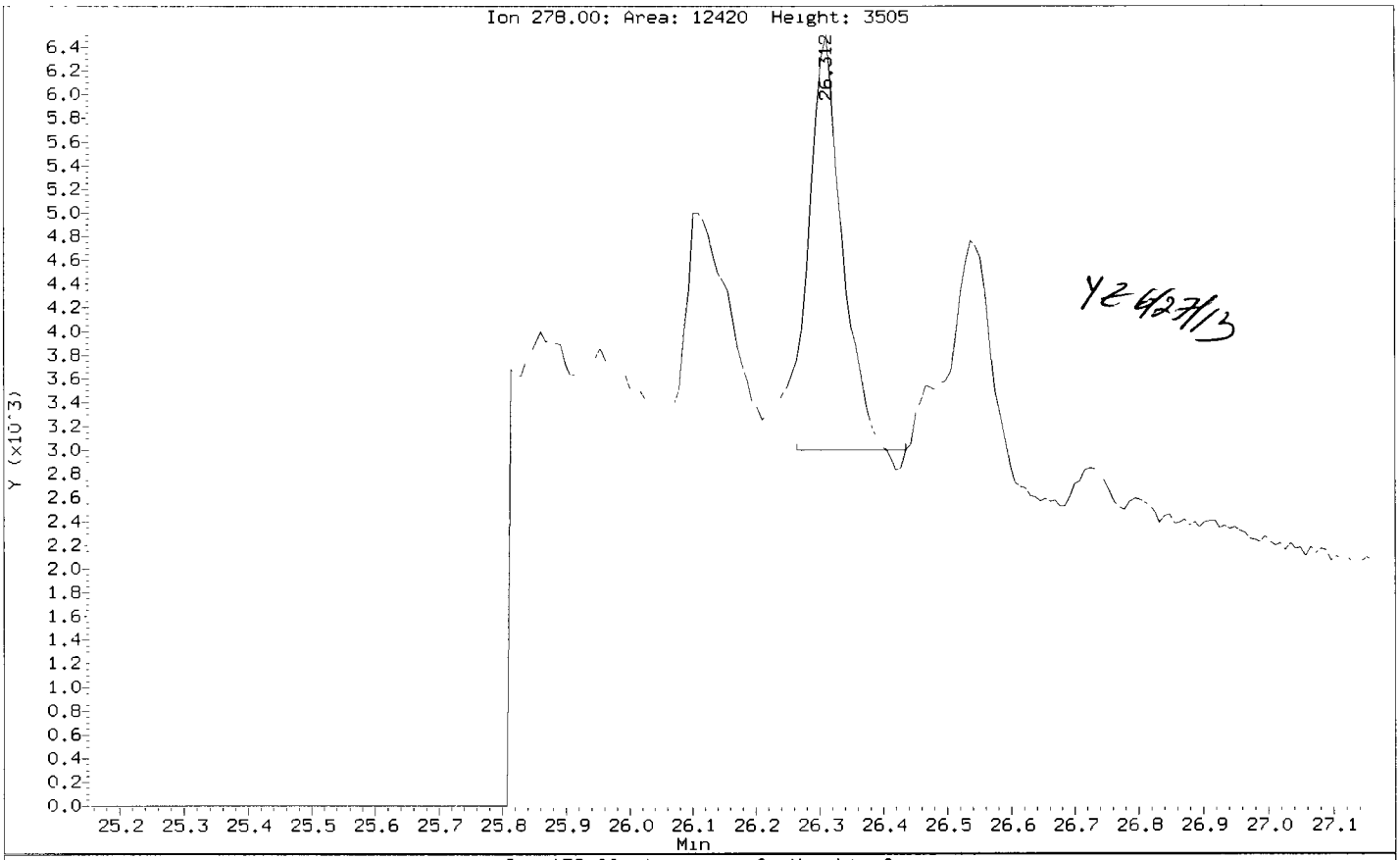
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

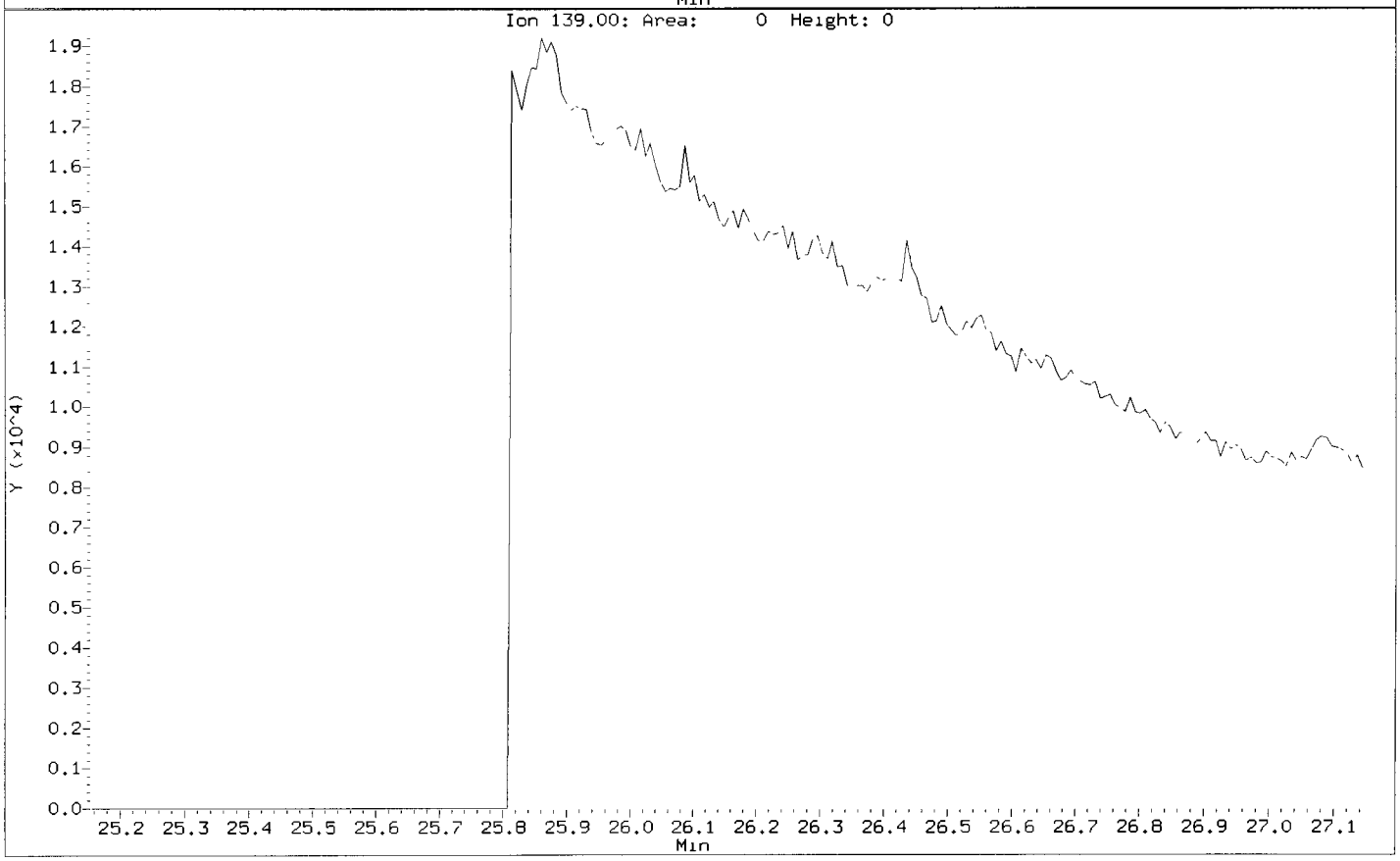
5. Other _____

Analyst: YZ Date: 6/27/13

Data File: /chem1/nt10.1/20130622.b/SIM.b/wt81c.d
Injection Date: 22-JUN-2013 16:40
Instrument: nt10.1
Client Sample ID: AM-FD-01-20130612-S

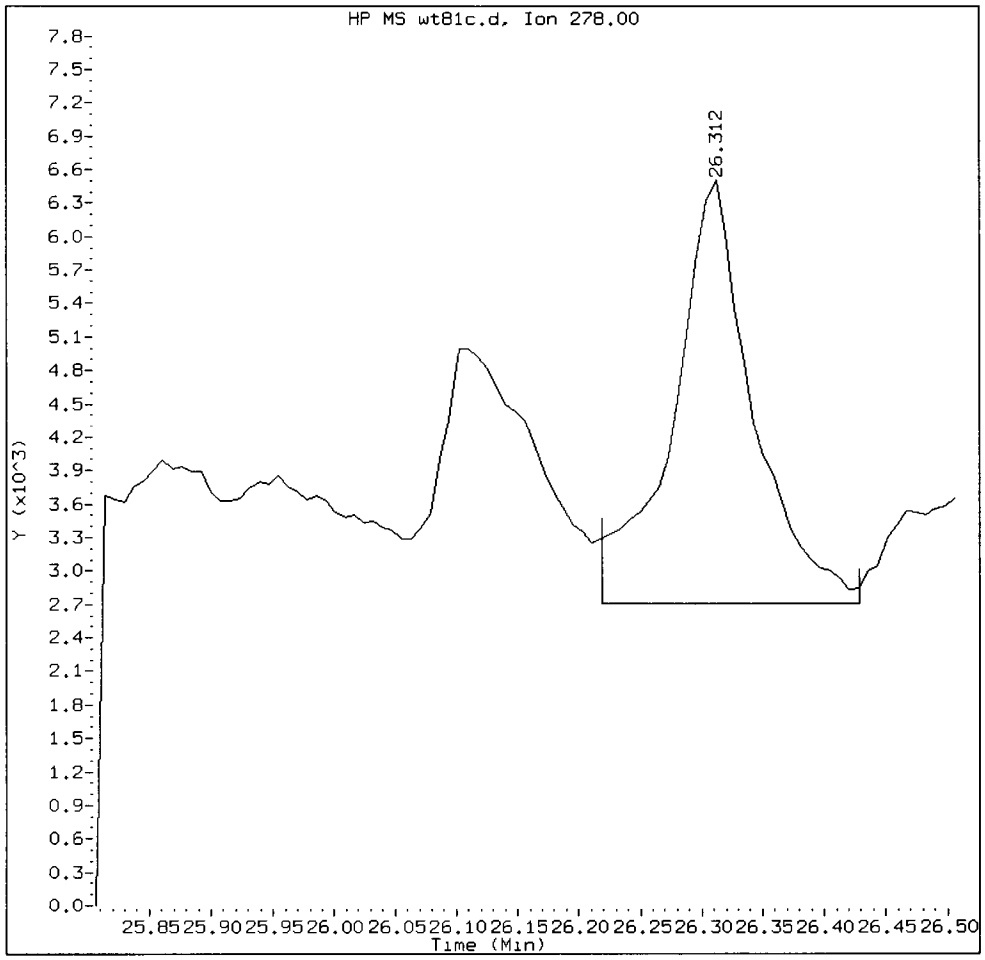
Compound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3





WT81C, /chem1/nt10.i/20130622.b/SIM.b/wt81c.d

Dibenzo(a,h)anthracene Amount: 0.63 Area: 17499



MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/27/13

CO-ELUTION SUMMARY FOR FILE - wt81c.d

Lab ID: WT81C, Method: SIM.b/SIMABN2.m, Instrument: nt10.i, Date: 22-JUN-2013

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Dioxin Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin / Furan Bench Sheet EPA Methods 8290A & 1613B
Solid Samples

ARI Job No(s) WS91, WT36, WT81

Matrix (circle one)	Soil	Sediment	Oil	Tissue
Extraction Method	Start Time/Date:		End Time/Date:	
Soxhlet	12:08	6/19/13	05:11	6/20/13

Reagent / Standard	NA	ID / Lot Number	Initials	Date
Analytical Balance		SN 24650344	PD	6/19/13
Purified Sand		I8025	PD	6/19/13
Toluene		I8264	PD	6/19/13
Hexane		I8269	PD	6/20/13
CH_2Cl_2		I8254	PD	6/21/13
H_2SO_4		I8263	PD	6/20/13
Na_2SO_4		I8130	PD	6/21/13
Glasswool		I7996	PD	6/21/13
10 % $AgNO_3$	✓	~~H147~~ PD		
Basic Silica		H147	PD	6/21/13
Acid Silica		H166	PD	6/21/13
0% Silica		I8035	PD	6/21/13
Activated Florisil		H127	PD	6/21/13
Dual Carbon Column	✓			
Other ( )	✓			
Nonane		I8006	PD	6/21/13

Bottle ID	ARI Sample ID	Sample Weight (eq to dry wt)	Roto Vap 45 °C	Final Vol.	H20 Trap Vol (mL)	Comments
6/19/13	WS91 MB	10.00g	1 (2)	10uL	0.8	0.8
↓	↓ OPR	10.00g	(1) 2	10uL	0.9	0.9
	~~QLS~~	~~10.00g~~	~~1 / 2~~	~~10uL~~		
10	WS91A	24.58	(1) 2	10uL	12.0	12.0
4	WT36A	23.11	1 (2)	10uL	12.6	12.6
5	WT81A	23.55	(1) 2	10uL	12.9	12.9
10	↓ B	25.35	1 (2)	10uL	16.0	16.0
10	↓ C	25.32	(1) 2	10uL	15.0	15.0
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
			1 / 2	10uL		
Prep Analyst/Date		PD 6/19/13	PD 6/20/13	PD 6/21/13	PD 6/20/13	

Reagent / Standard	Vol	ID / Lot Number	Solution Conc.	Expiration Date	Initials	Date	Witness
Recovery Standard	1.0 mL	B000395	2/4ng/mL	5/20/14	[illegible]	6/19/13	PD
Ongoing Precision /Recovery	20 µL	2069-3	10/50/100ng/mL	2/6/14	nL	6/19/13	PD
~~QLS Standard~~	~~10 µL~~	211	~~0.5/2.5/5ng/mL~~				
Clean-up Standard	1.0 mL	B000314	0.8ng/mL	5/2/14	PDx2	6/21/13	PD
Internal Standard	10 µL		200ng/mL				

Supervisor Review: [signature] 6/21/13

Bench Sheet No.: 00054

Verify Client ID	
Analyst/Date	PD 6/19/13
Acid Clean	
	(Y)N
Analyst/Date	PD 6/20/13
Silica-Florisil	
	(Y)N
Analyst/Date	PD 6/21/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WT81 Client ID: SAIC

Parameter: Dioxin Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other: C = wet	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)= A=sludge B=texture=pudding	AC 6-13-13
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☑ Other (Details)= when adding sulfuric Acid to extract the extract heated, I let cool	PV 5/20/13
centrifuged twice with no seperation between Acid and Hexane	↓
used Double Acid Silica on A,B,C, A=yellow extract, B & C=brown extract	PD 6/21/13
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
(Centrifuge#1 used for all Centrifugations)	
WT81C split into 3 vials and transfer rinsed orginal vial. Added more H_2SO_4 to	
samples, vortexed & centerifuged. Seperation was achived upon centrifuging.	JW 6/20/13
Upon adding water to A,B,C emulsion occurred, centrifuged & used Na_2SO_4 to	
seperate emulsion	JW 6/20/13

3056F Revision 009 08/14/12

Reviewer: [signature] 6/24/13

WT81:01132

Dioxin Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

HR-GC/MS Analyst Notes / Data Review Checklist

ARI Work Order:_____ Client ID: _____

METHOD: **1613B** (Dioxins) **8290A** (Dioxins)

Instrument: **AutoSpec01** 6/20/13 CURVE

Curve Date: 6/20/13 Analysis Start Date: _____

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Resolution Check > 10,000ppm	(Y) / N / _____	Signal / Noise ≥ 2.5?	Y / N / _____
TCDD / TCDF Resolution ≤ 25%	(Y) / N / _____	Extraction STD Limits Met?	Y / N / _____
PCDF Windows Verified	(Y) / N / _____	Cleanup STD Limits Met?	Y / N / _____
CCV Meets %D Limits?	Y / N / _____	Method Blank in Control?	Y / N / _____
CCV Ion Ratios within Limits?	Y / N / _____	OPR Recovery Limits Met?	Y / N / _____
CCV RRT within Limits?	Y / N / _____	Values Exceeding Curve Range?	Y / N / _____
Manual Integrations for Samples?	Y / N / _____	Samples Diluted?	Y / N / _____
Special Analysis Request?	Y / N / _____	Duplicate Sample RPD ≤ 25%?	NA / _____

Detail problems, corrective actions and/or other pertinent information below:

- TCDD/TCDF low point is CS1. All others CSL.
- All %RSD < 20%.
- Man. Int. in CSL for PF, OF, HD, HPD, and OD.

(Review 1)Analyst: _____ **Date:** 6/21/13

(Review 2)Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 6/20/13 Analysis: Dioxins Analyst: JM

GC Program: 8290C Column No: P7822 Column Type: RTX-Dioxin2

Inj Vol: 1ul Instrument Tune (IPR): JUN713_1-5 Detector Voltage: 350

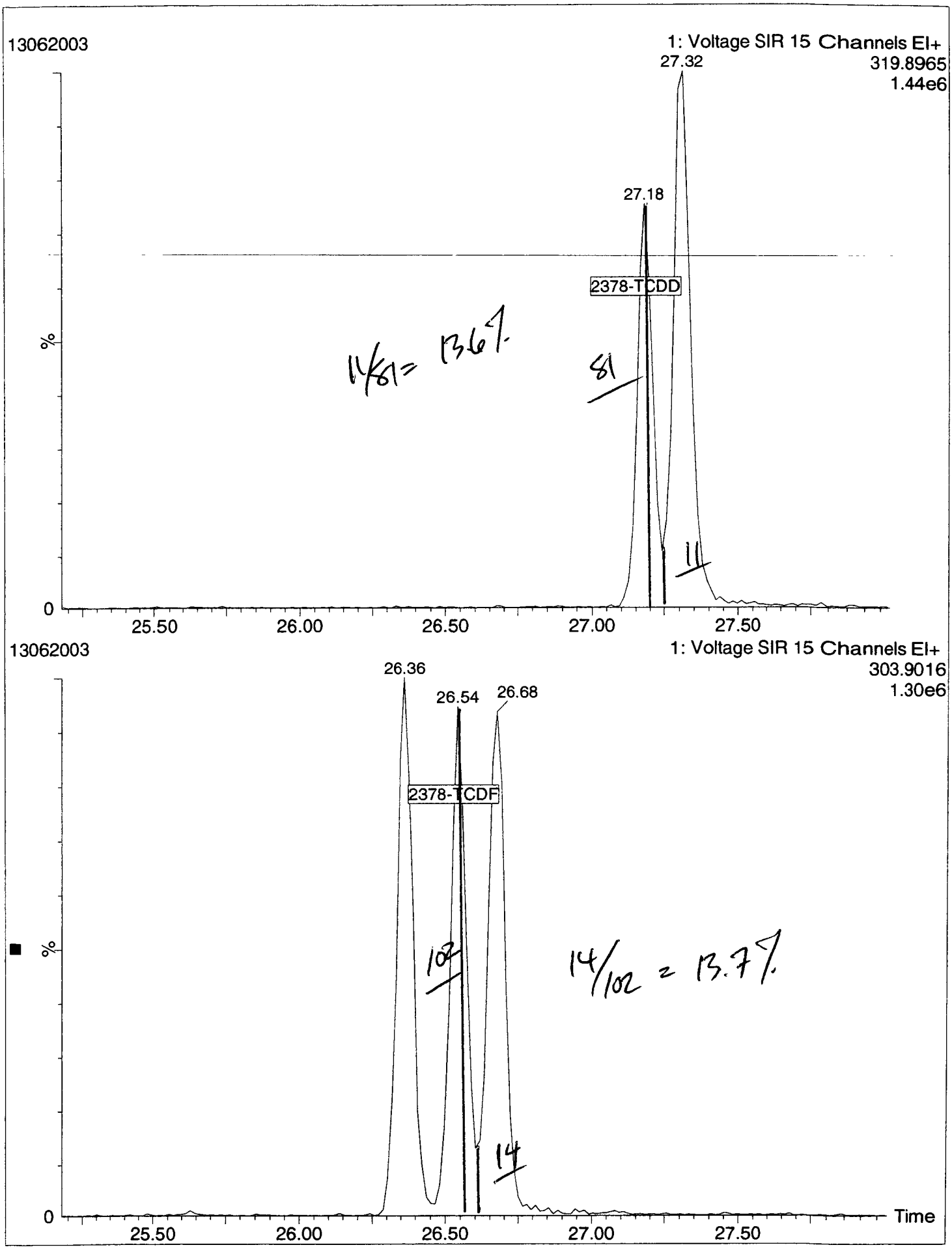
Resolution Check Files: 09:53, 19:03 Curve Date: 6/20/13

IS/SS	Ical/Ccal	LCS/ICV
I8144	I8145-8149 I8155 I7708 PG7-2	I7383

1	20-Jun-13	09:56:57	13062002	CS3WD
2	20-Jun-13	10:48:30	13062003	ISC01
3	20-Jun-13	12:34:03	13062004	CSL
4	20-Jun-13	13:43:04	13062005	CS1
5	20-Jun-13	14:33:31	13062006	CS2
6	20-Jun-13	15:25:46	13062007	CS3
7	20-Jun-13	16:18:06	13062006	CS4
8	20-Jun-13	17:10:20	13062009	CS5
9	20-Jun-13	18:02:47	13062010	ICV
10	20-Jun-13	19:03:14	13062011	ISC02

JM 6/21/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks in StarLIMS


13062003
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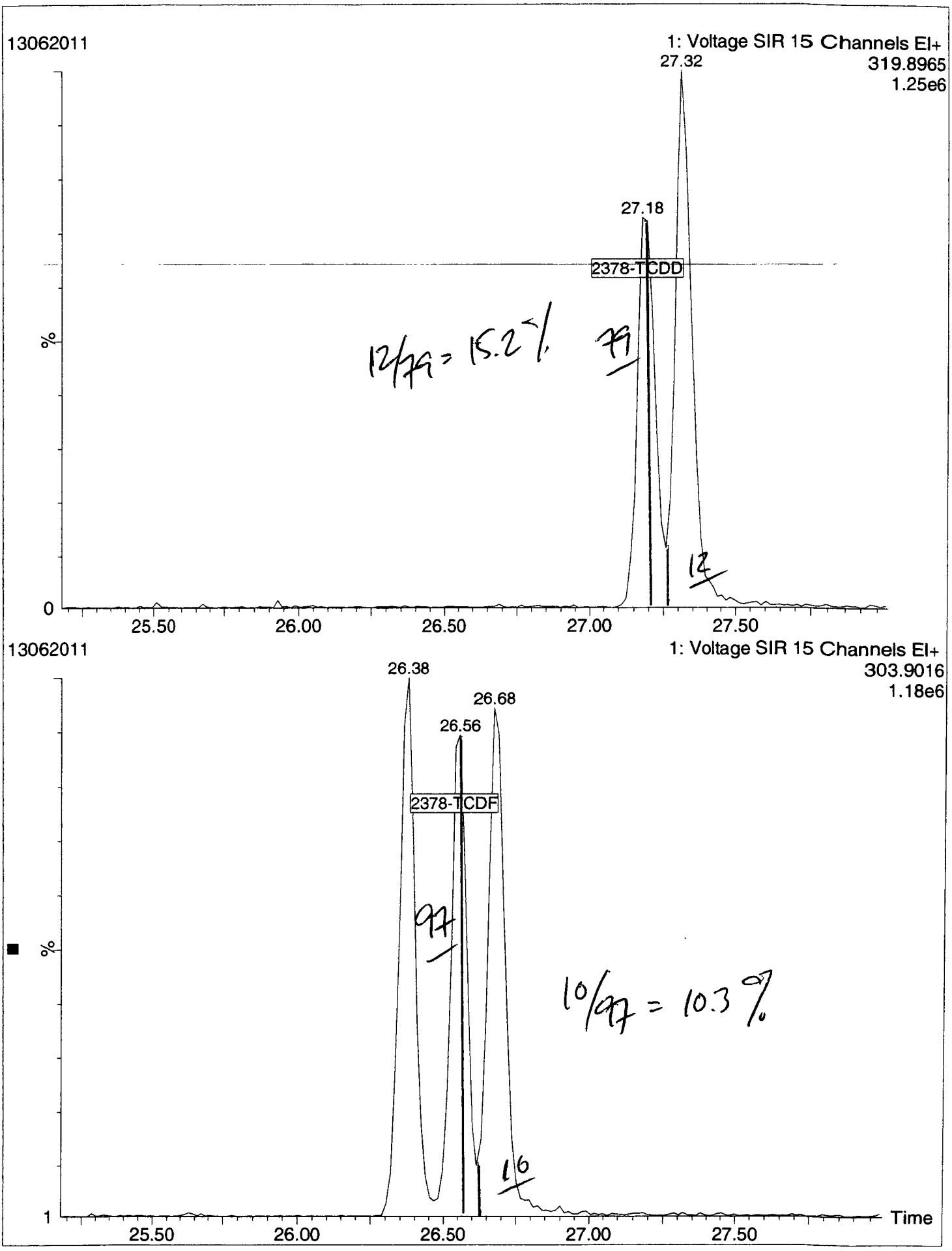
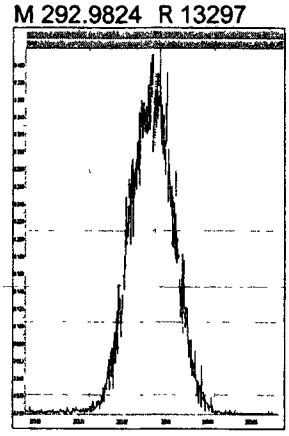
27.18
2378-TCDD
%
0
25.50
26.00
26.50
27.00
27.50
11/81= 13.6%
81
11
13062003
1: Voltage SIR 15 Channels EI+
303.9016
1.30e6
26.36
26.54
26.68
2378-TCDF
%
0
Time
25.50
26.00
26.50
27.00
27.50
102
14
14/102 = 13.7%

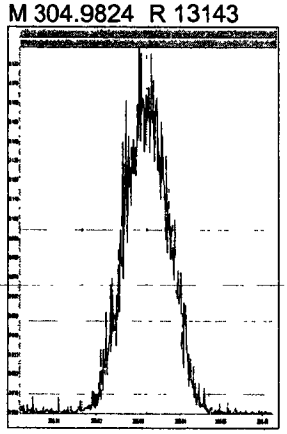

13062011
1: Voltage SIR 15 Channels EI+
319.8965
1.25e6
27.32
27.18
2378-TCDD
12/79 = 15.2%
79
12
%
0
25.50
26.00
26.50
27.00
27.50
13062011
1: Voltage SIR 15 Channels EI+
303.9016
1.18e6
26.38
26.68
26.56
2378-TCDF
97
10/97 = 10.3%
16
%
1
Time
25.50
26.00
26.50
27.00
27.50

Printed: Thursday, June 20, 2013 09:53:14 Pacific Daylight Time

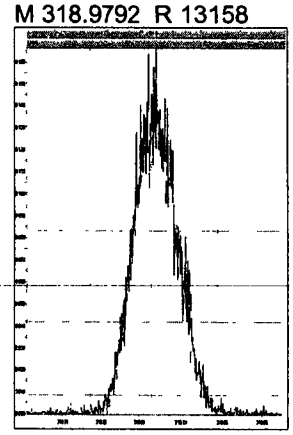
M 292.9824 R 13297



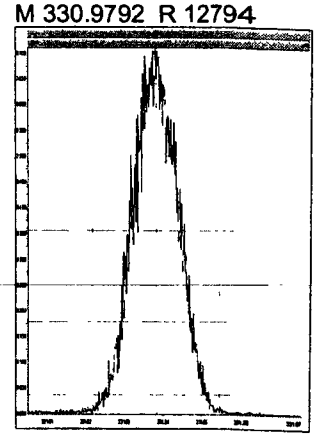
M 304.9824 R 13143



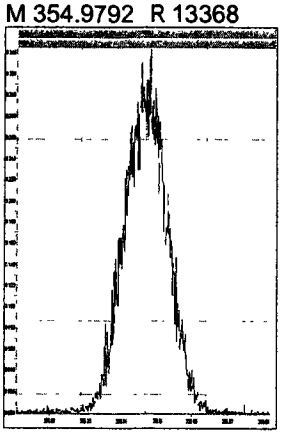
M 318.9792 R 13158



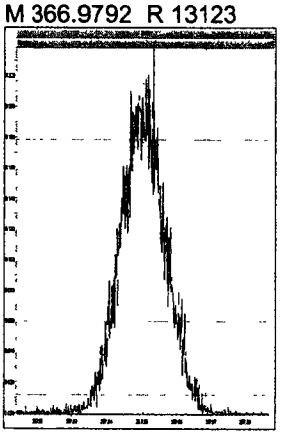
M 330.9792 R 12794



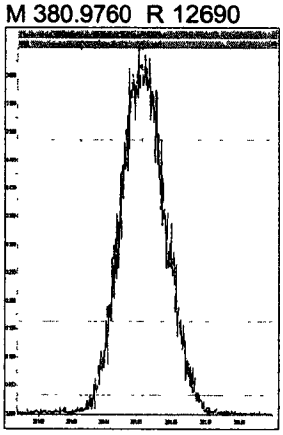
M 354.9792 R 13368



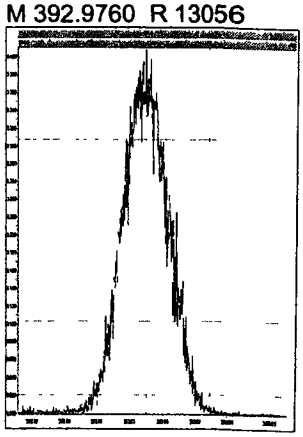
M 366.9792 R 13123



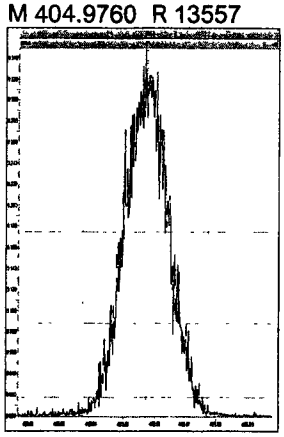
M 380.9760 R 12690



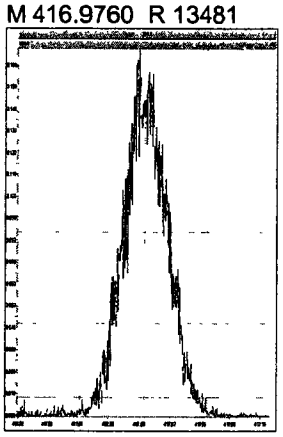
M 392.9760 R 13056



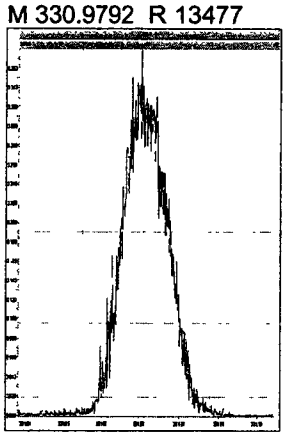
M 404.9760 R 13557



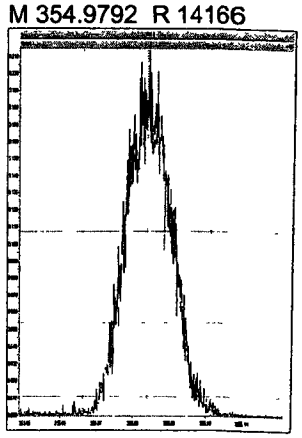
M 416.9760 R 13481



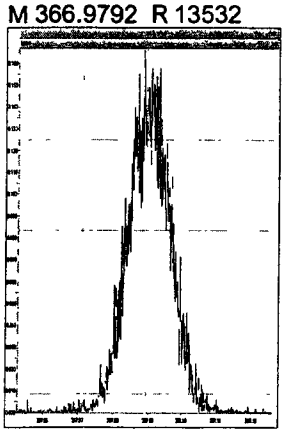
M 330.9792 R 13477



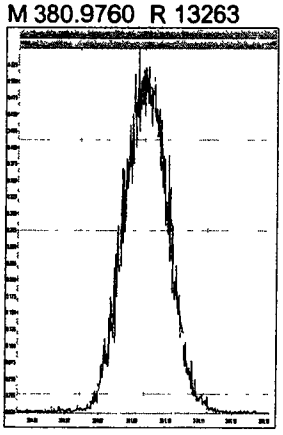
M 354.9792 R 14166



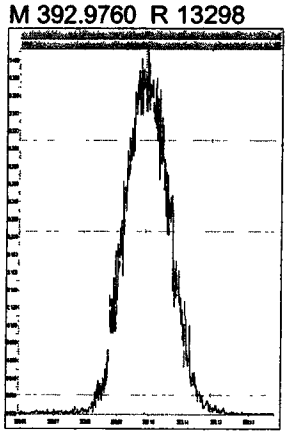
M 366.9792 R 13532



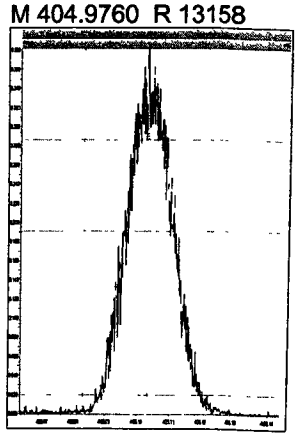
M 380.9760 R 13263



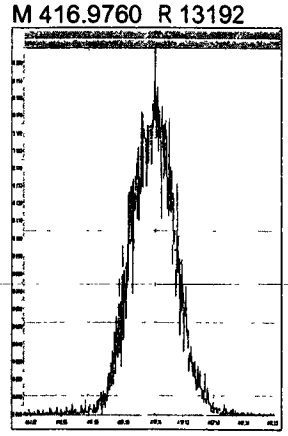
M 392.9760 R 13298



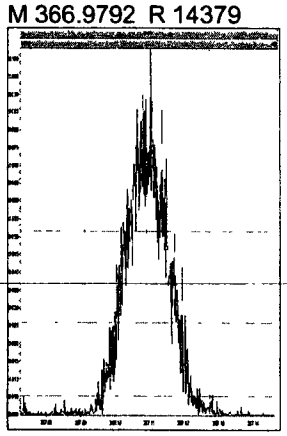
M 404.9760 R 13158



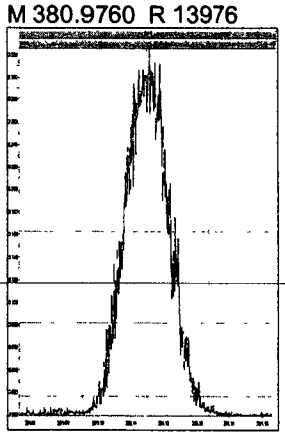
M 416.9760 R 13192



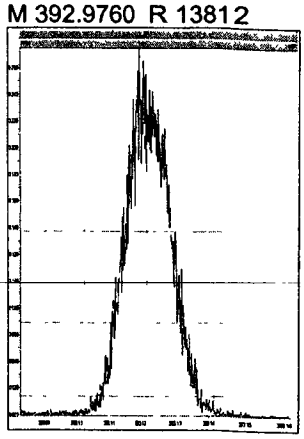
M 366.9792 R 14379



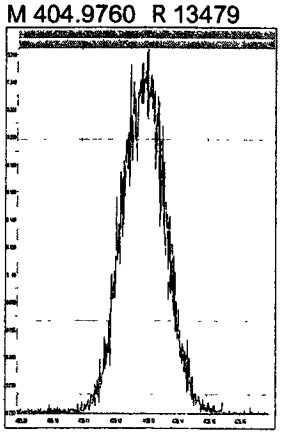
M 380.9760 R 13976



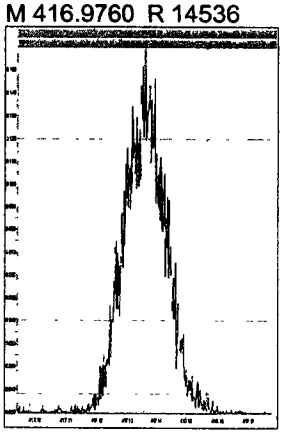
M 392.9760 R 13812



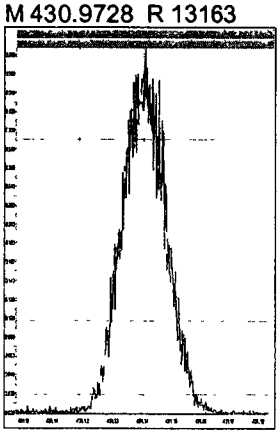
M 404.9760 R 13479



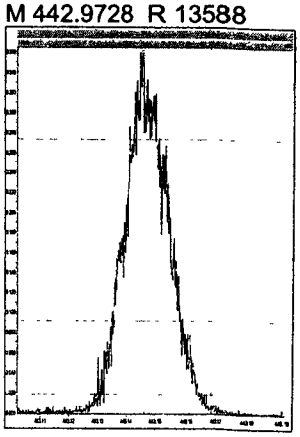
M 416.9760 R 14536



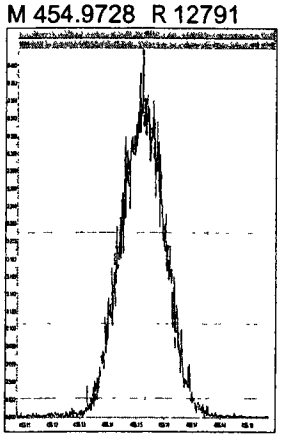
M 430.9728 R 13163



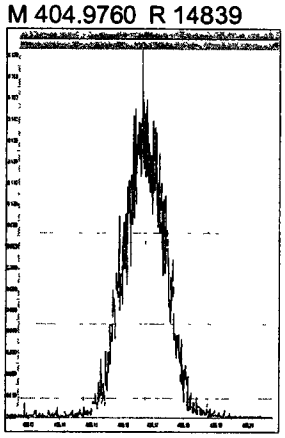
M 442.9728 R 13588



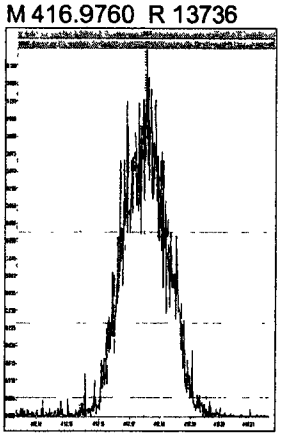
M 454.9728 R 12791



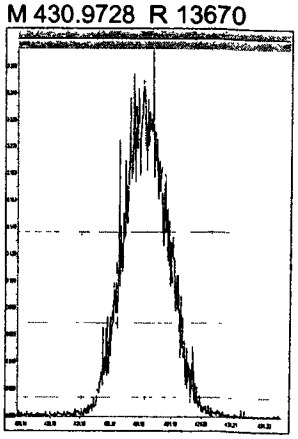
M 404.9760 R 14839



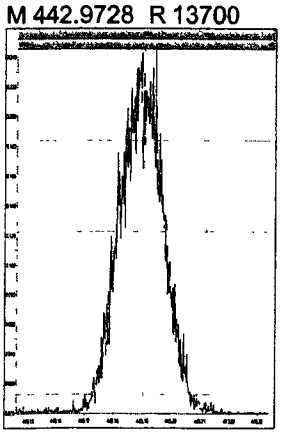
M 416.9760 R 13736



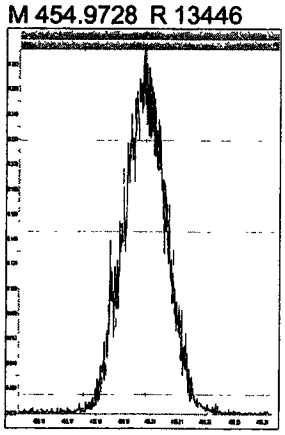
M 430.9728 R 13670



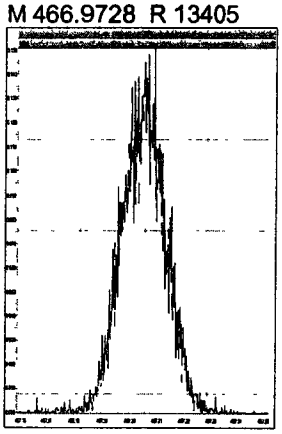
M 442.9728 R 13700



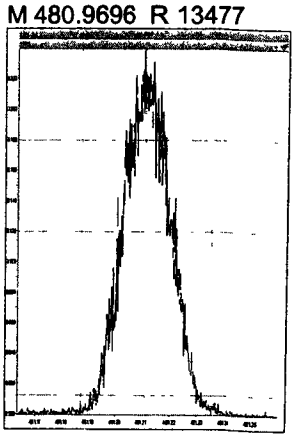
M 454.9728 R 13446



M 466.9728 R 13405



M 480.9696 R 13477



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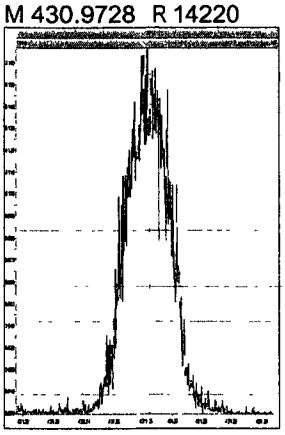
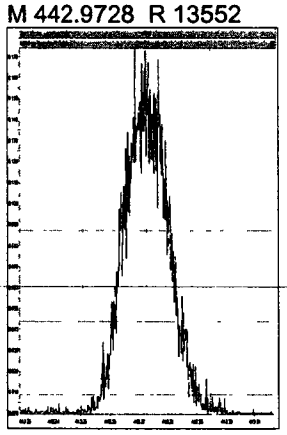
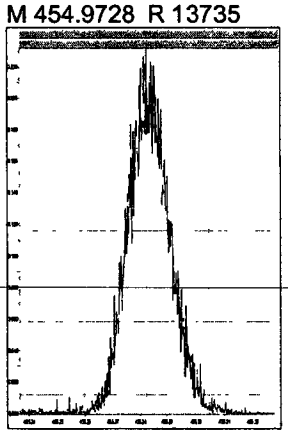
M 430.9728 R 14220



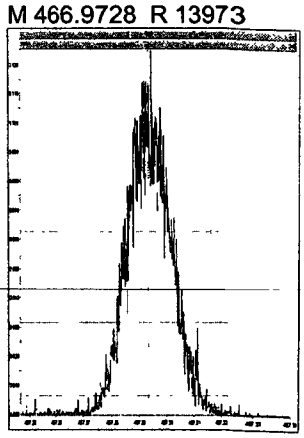
M 442.9728 R 13552



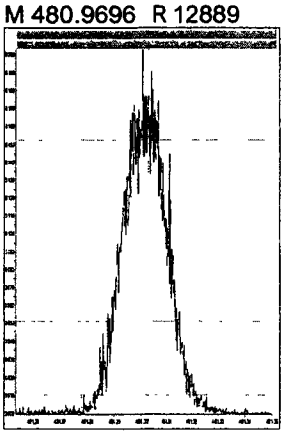
M 454.9728 R 13735



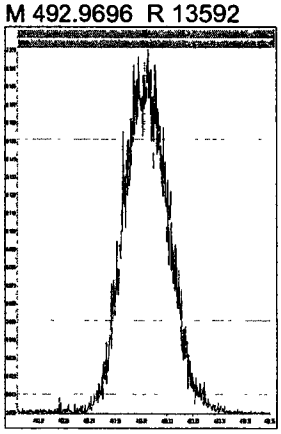
M 466.9728 R 13973



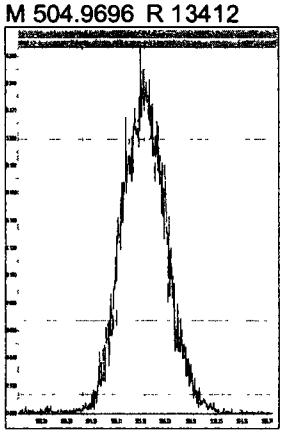
M 480.9696 R 12889



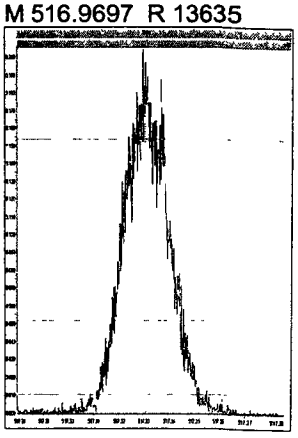
M 492.9696 R 13592



M 504.9696 R 13412



M 516.9697 R 13635



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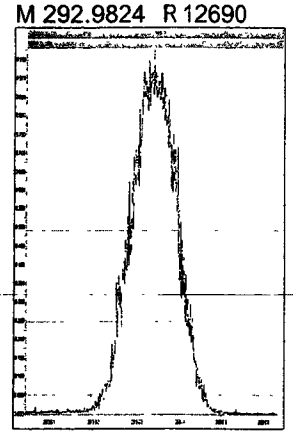
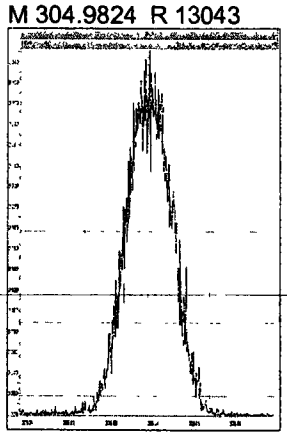
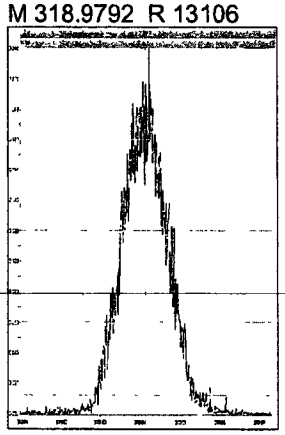
M 292.9824 R 12690



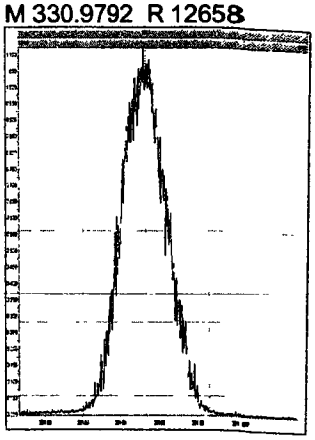
M 304.9824 R 13043



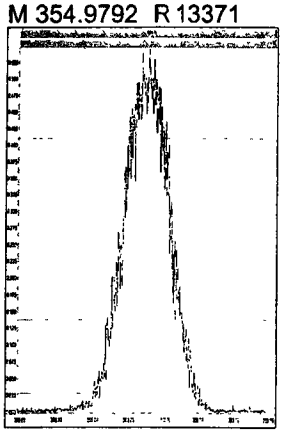
M 318.9792 R 13106



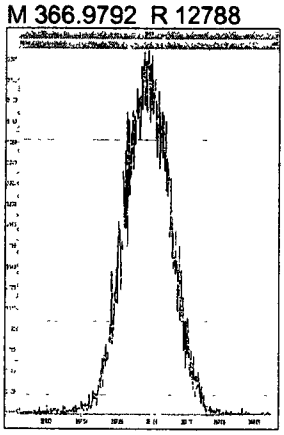
M 330.9792 R 12658



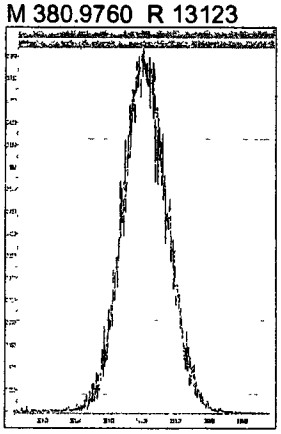
M 354.9792 R 13371



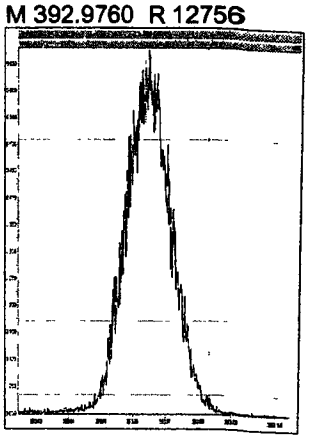
M 366.9792 R 12788



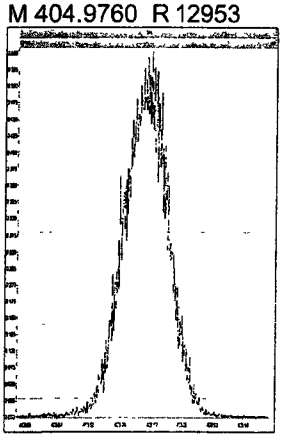
M 380.9760 R 13123



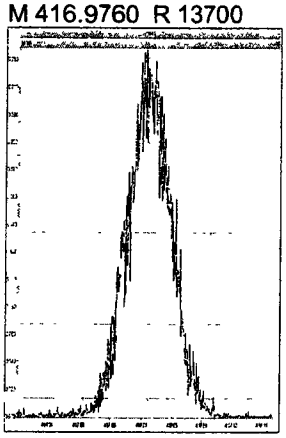
M 392.9760 R 12756



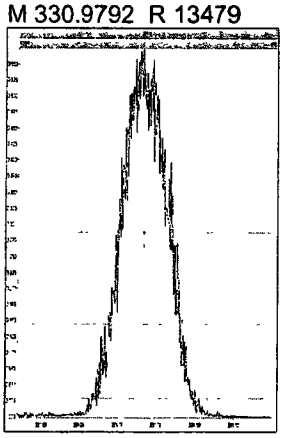
M 404.9760 R 12953



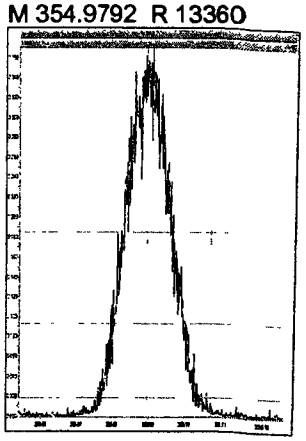
M 416.9760 R 13700



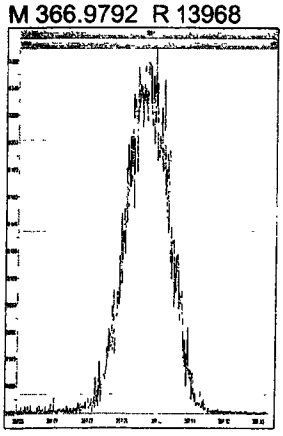
M 330.9792 R 13479



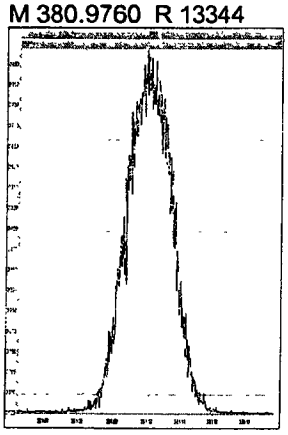
M 354.9792 R 13360



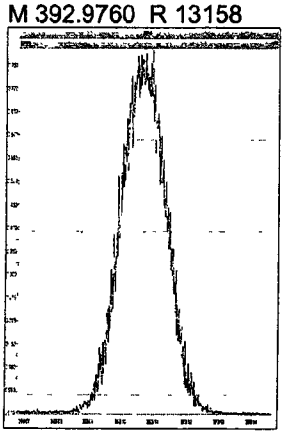
M 366.9792 R 13968



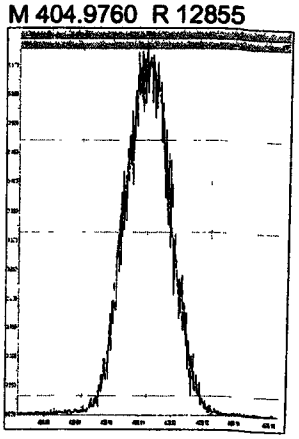
M 380.9760 R 13344



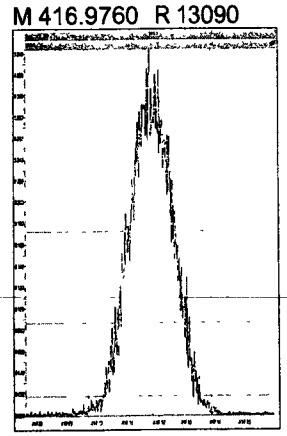
M 392.9760 R 13158



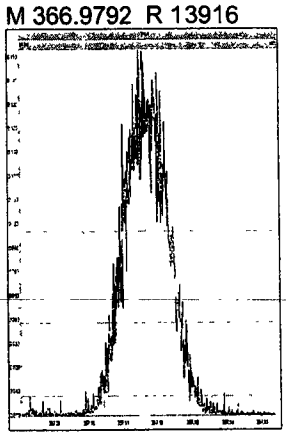
M 404.9760 R 12855



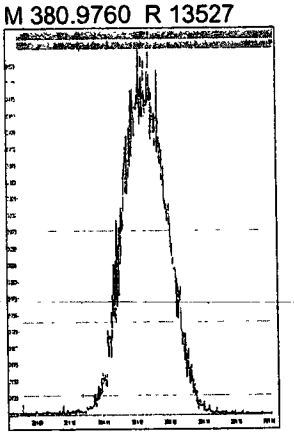
M 416.9760 R 13090



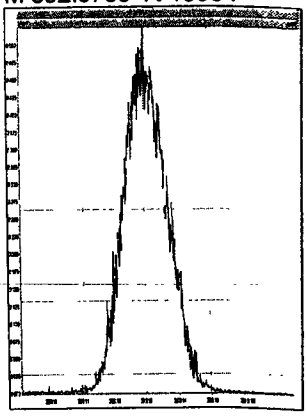
M 366.9792 R 13916



M 380.9760 R 13527



M 392.9760 R 13664



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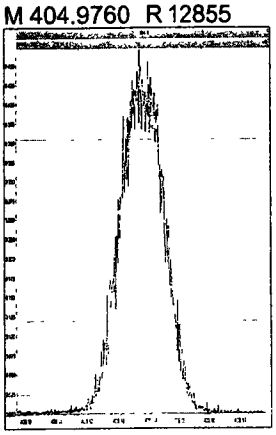
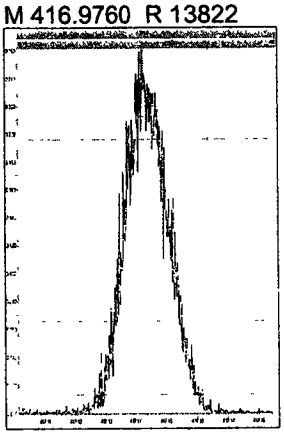
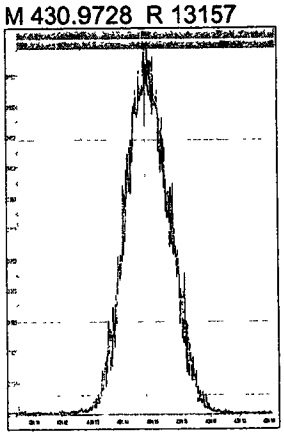


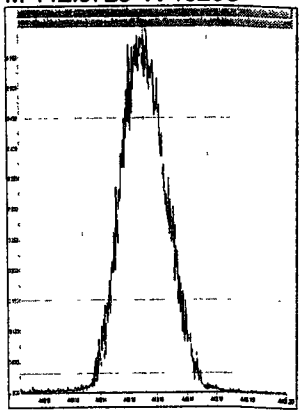
M 416.9760 R 13822



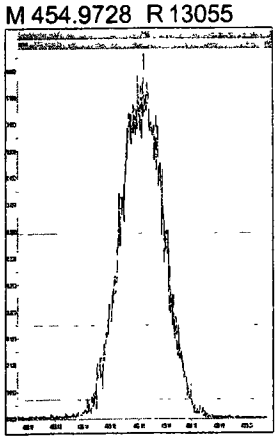
M 430.9728 R 13157



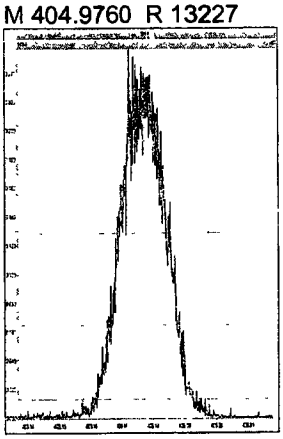
M 442.9728 R 13298



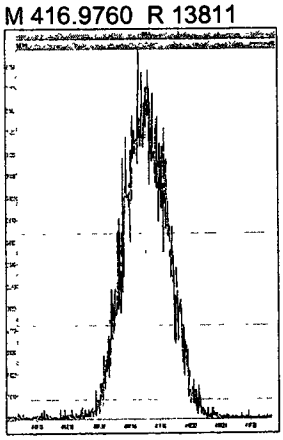
M 454.9728 R 13055



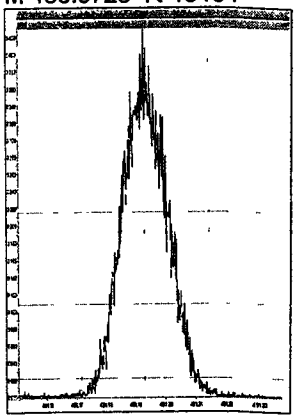
M 404.9760 R 13227



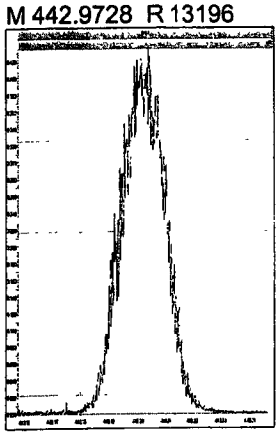
M 416.9760 R 13811



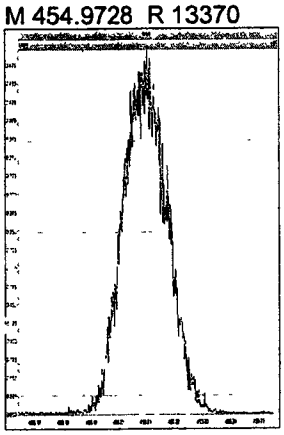
M 430.9728 R 13404



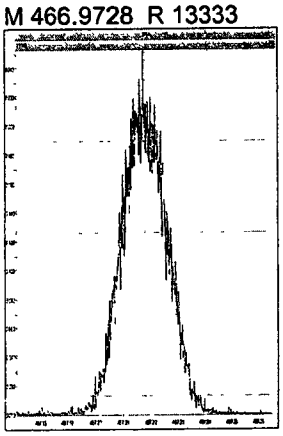
M 442.9728 R 13196



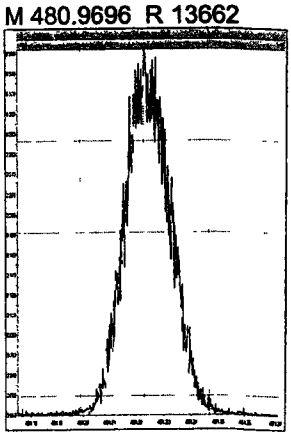
M 454.9728 R 13370



M 466.9728 R 13333



M 480.9696 R 13662



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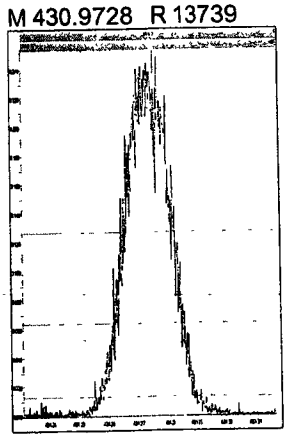
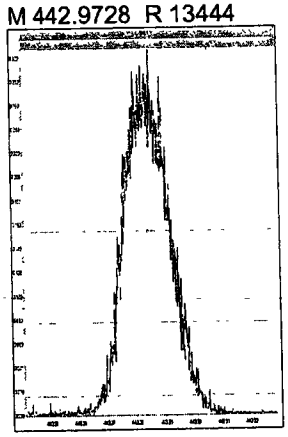
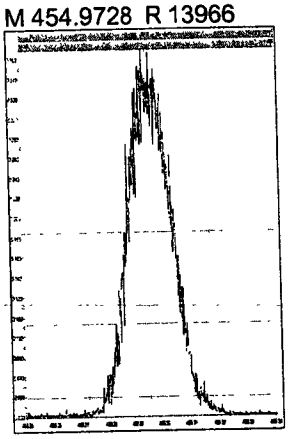
M 430.9728 R 13739



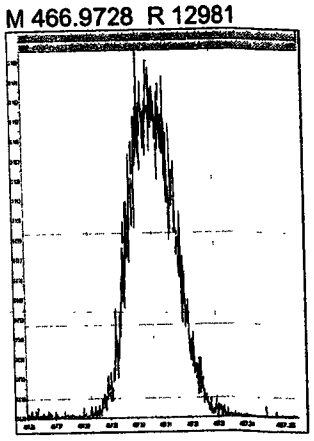
M 442.9728 R 13444



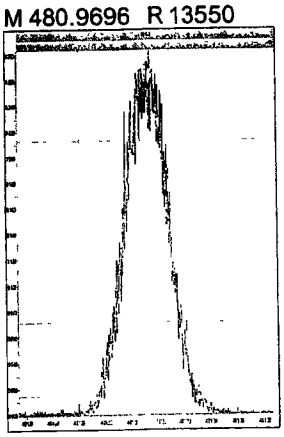
M 454.9728 R 13966



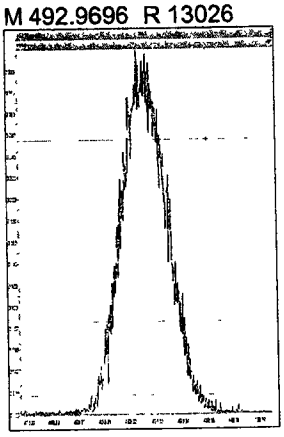
M 466.9728 R 12981



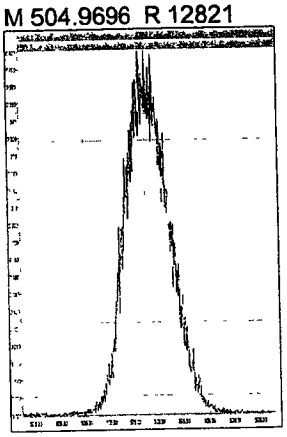
M 480.9696 R 13550



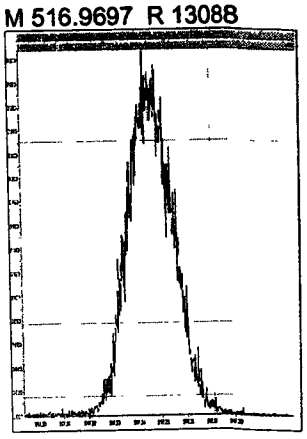
M 492.9696 R 13026

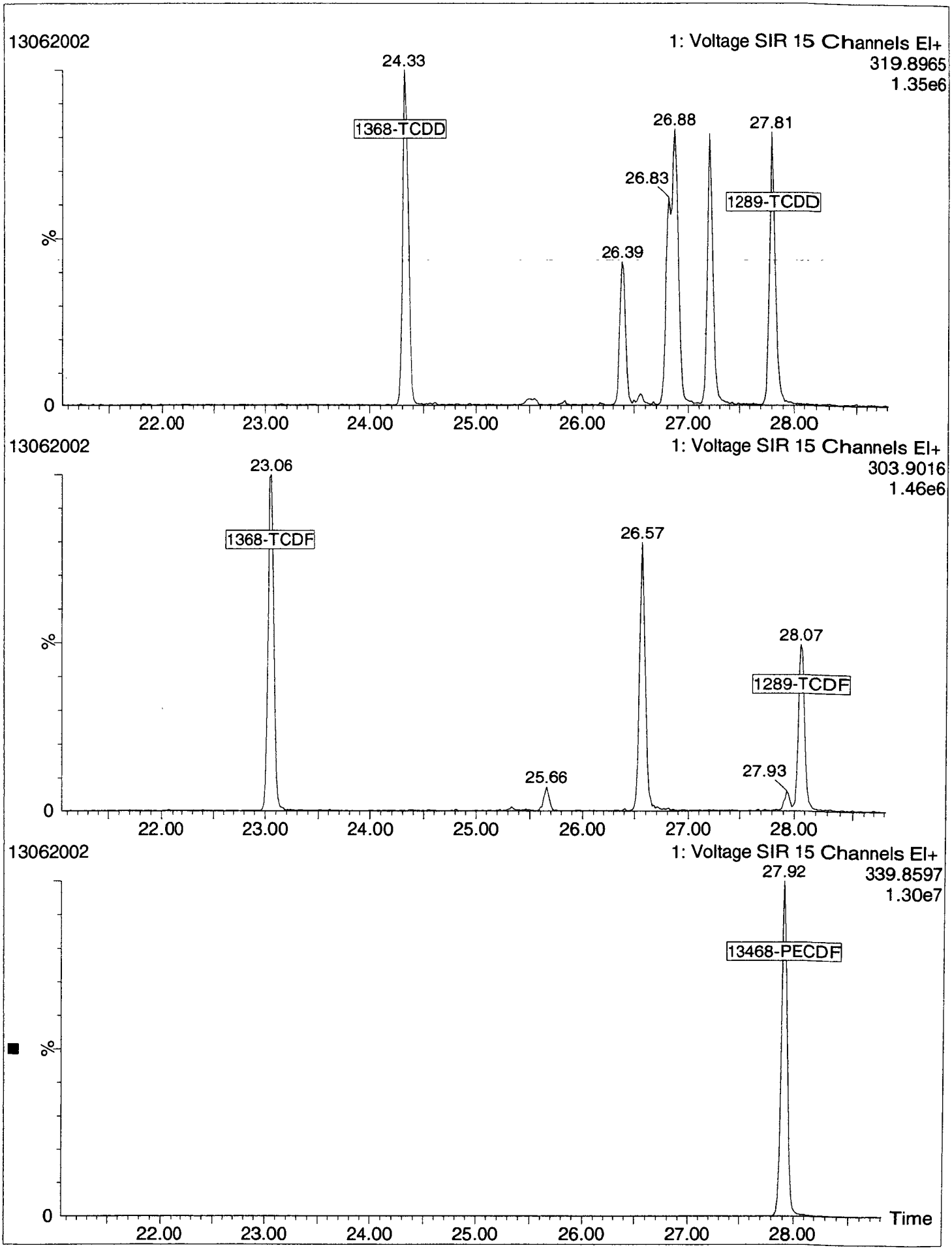


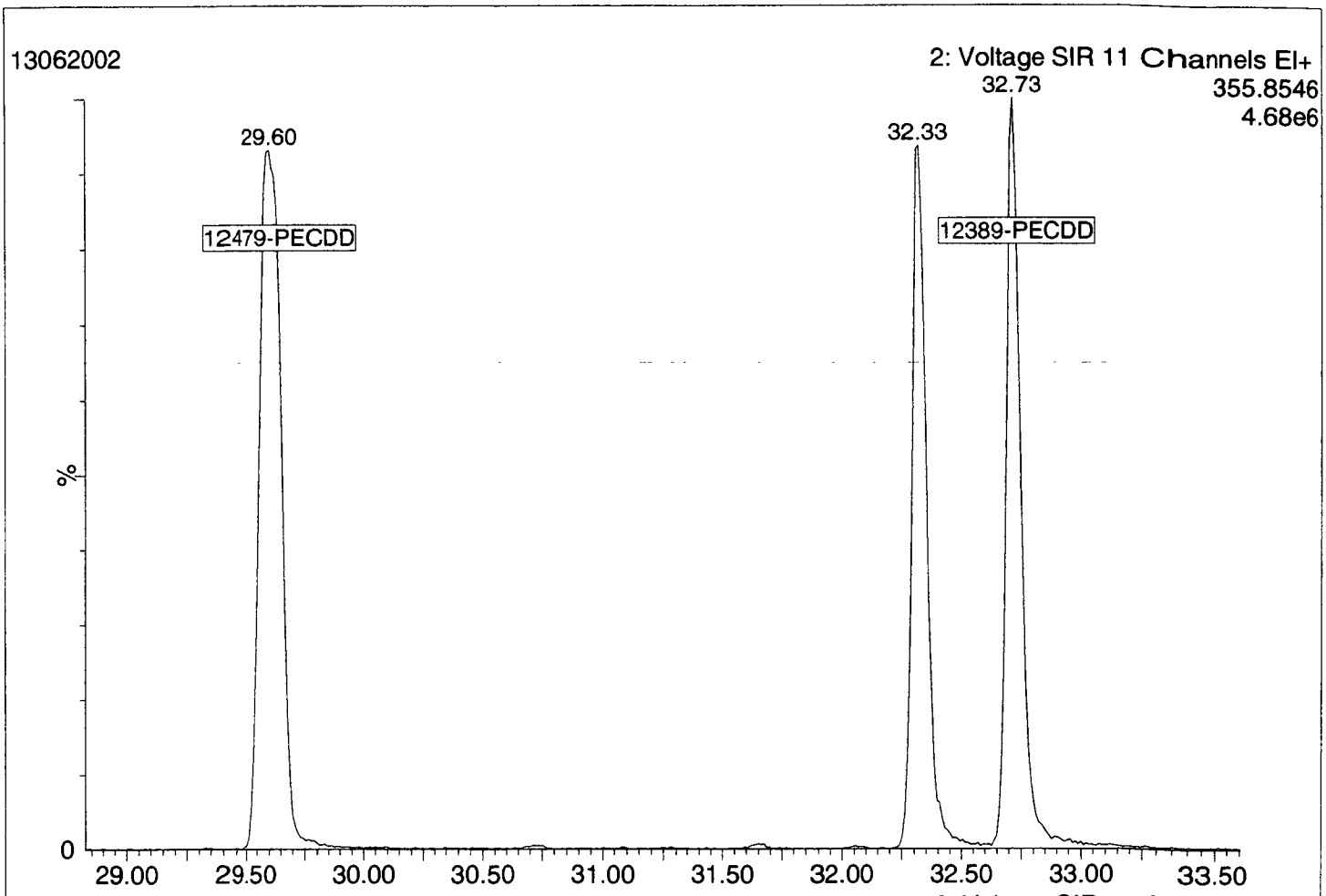
M 504.9696 R 12821

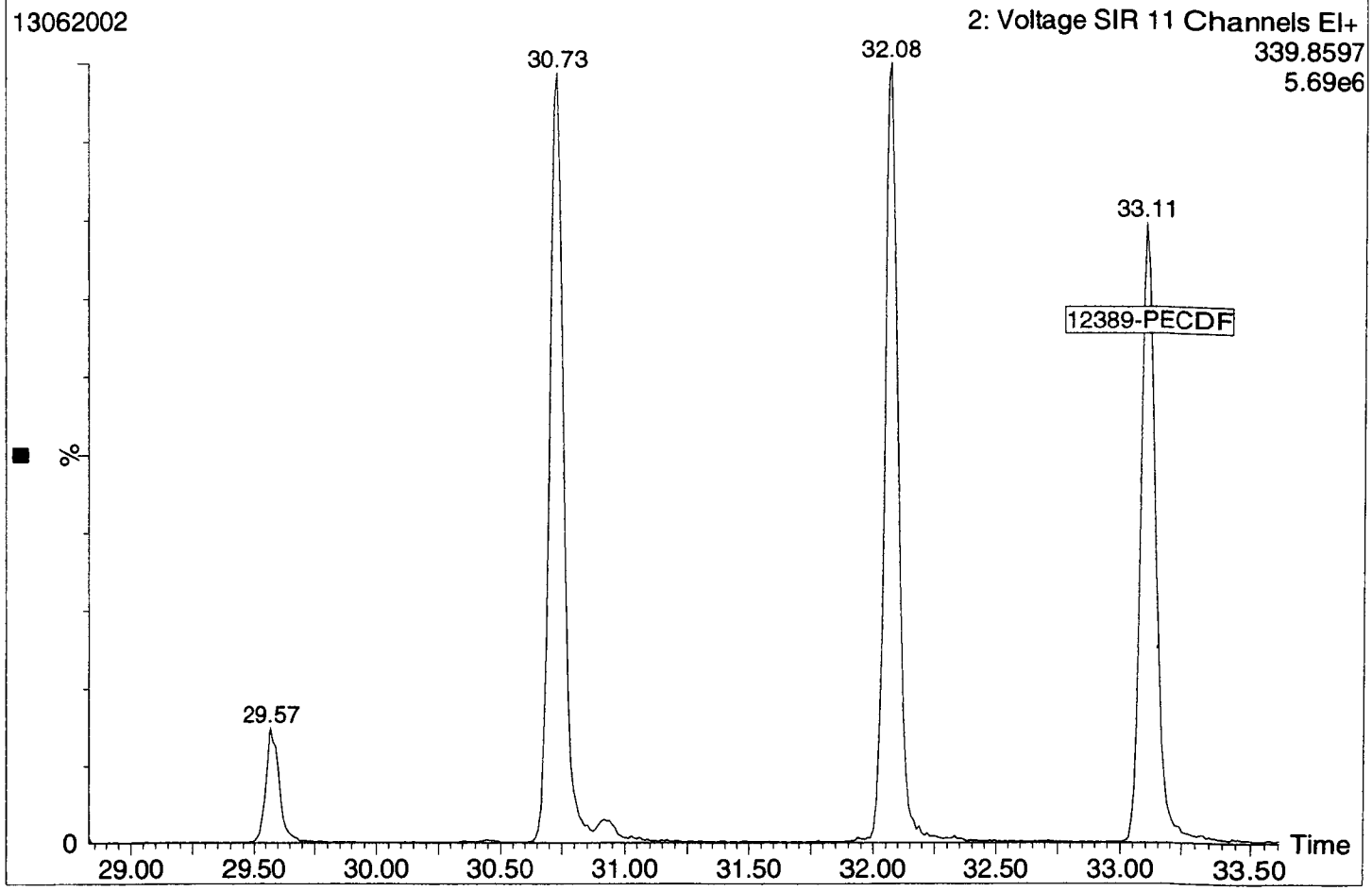


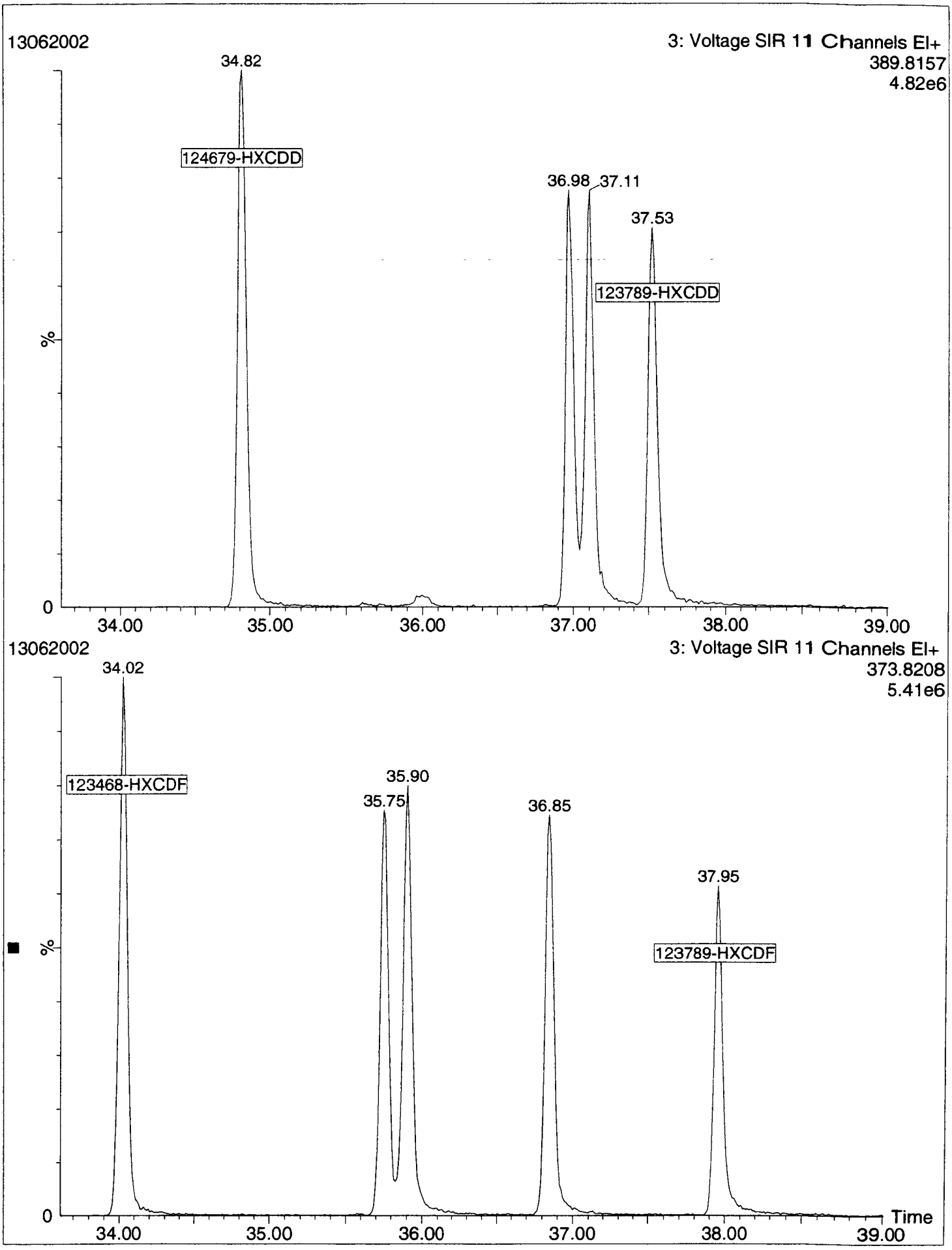
M 516.9697 R 13088

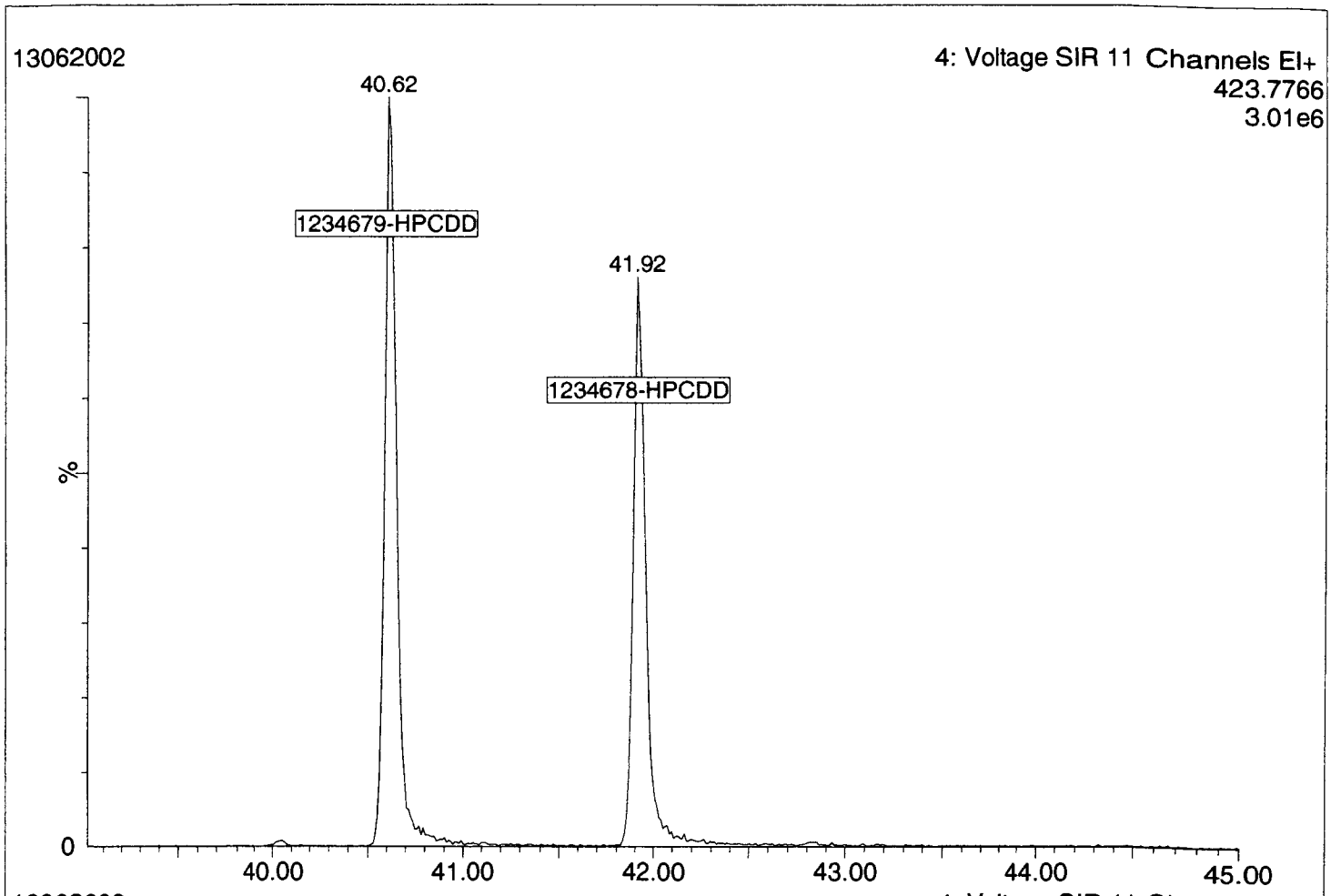


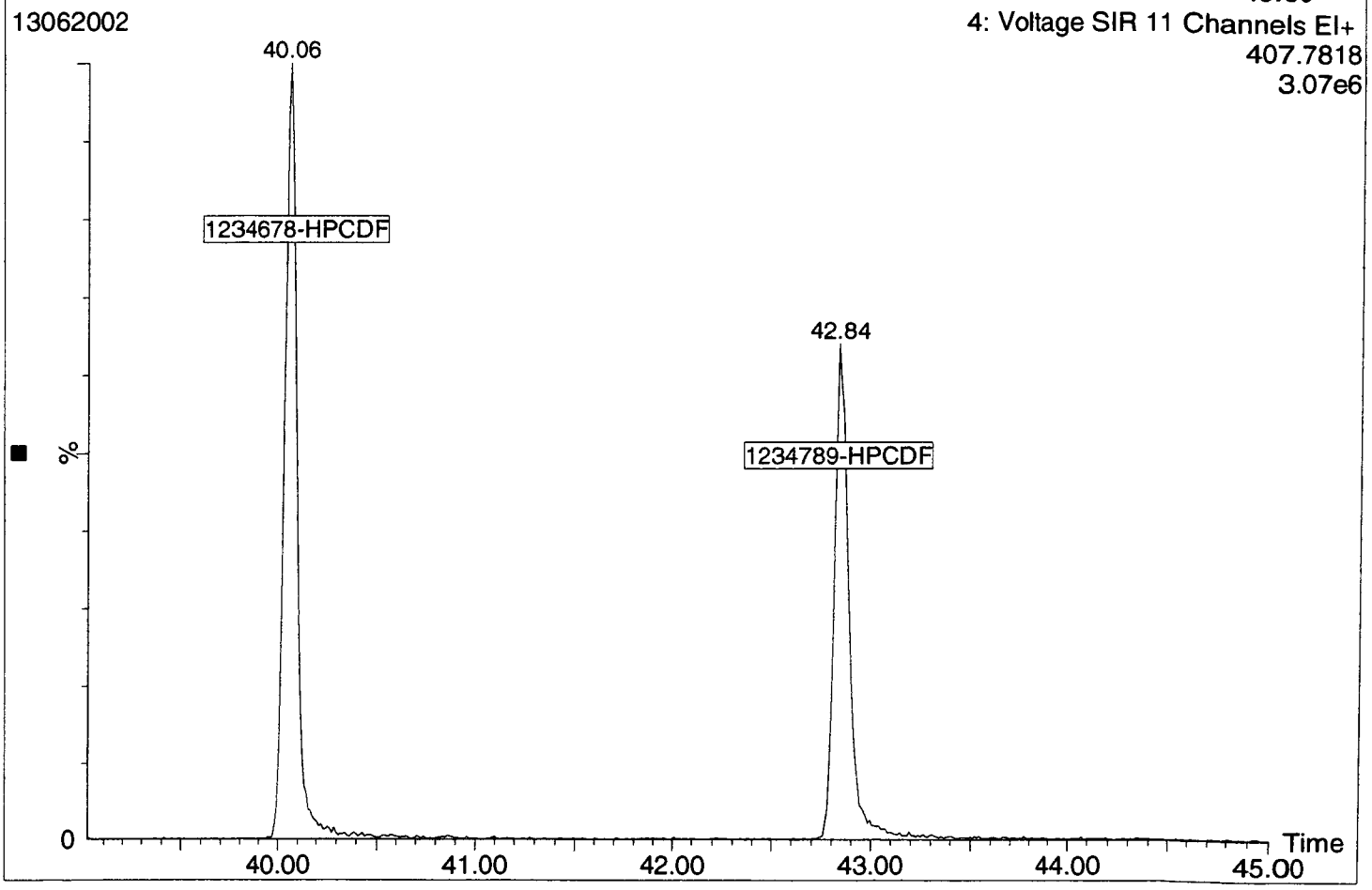

13062002
1: Voltage SIR 15 Channels EI+
319.8965
1.35e6
24.33
1368-TCDD
26.88
27.81
26.83
1289-TCDD
26.39
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13062002
1: Voltage SIR 15 Channels EI+
303.9016
1.46e6
23.06
1368-TCDF
26.57
28.07
1289-TCDF
25.66
27.93
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13062002
1: Voltage SIR 15 Channels EI+
339.8597
1.30e7
27.92
13468-PECDF
%
0
Time
22.00
23.00
24.00
25.00
26.00
27.00
28.00


13062002
2: Voltage SIR 11 Channels EI+
355.8546
4.68e6
29.60
32.33
32.73
12479-PECDD
12389-PECDD
%
0
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
33.50


13062002
2: Voltage SIR 11 Channels EI+
339.8597
5.69e6
30.73
32.08
33.11
12389-PECDF
29.57
%
0
Time
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
33.50


13062002
3: Voltage SIR 11 Channels EI+
389.8157
4.82e6
34.82
124679-HXCDD
36.98
37.11
37.53
123789-HXCDD
%
0
34.00
35.00
36.00
37.00
38.00
39.00
13062002
3: Voltage SIR 11 Channels EI+
373.8208
5.41e6
34.02
123468-HXCDF
35.90
35.75
36.85
37.95
123789-HXCDF
%
0
Time
34.00
35.00
36.00
37.00
38.00
39.00


13062002
4: Voltage SIR 11 Channels EI+
423.7766
3.01e6
40.62
1234679-HPCDD
41.92
1234678-HPCDD
%
0
40.00
41.00
42.00
43.00
44.00
45.00


13062002
4: Voltage SIR 11 Channels EI+
407.7818
3.07e6
40.06
1234678-HPCDF
42.84
1234789-HPCDF
%
0
Time
40.00
41.00
42.00
43.00
44.00
45.00

taset: P:\DIOXIN8290.PRO\130620IC.qld
st Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
nted: Friday, June 21, 2013 09:17:03 Pacific Daylight Time

Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:13062004, Compound:TF, RT:26.556	1
Peak deleted	Sample:13062004, Compound:TF, RT:26.556	1
Peak deleted	Sample:13062004, Compound:TD, RT:27.184	1
Peak deleted	Sample:13062004, Compound:TD, RT:27.184	1
Dataset Saved	Saved to 'P:\DIOXIN8290.PRO\130620IC.qld'	
Pre modification peak	Sample:13062004, Compound:PF, RT:30.720	1
Peak modified	Sample:13062004, Compound:PF, RT:30.720	1
Pre modification peak	Sample:13062004, Compound:OF, RT:48.295	1
Peak modified	Sample:13062004, Compound:OF, RT:48.295	1
Pre modification peak	Sample:13062004, Compound:OF, RT:48.295	1
Peak modified	Sample:13062004, Compound:OF, RT:48.295	1
Pre modification peak	Sample:13062004, Compound:HD, RT:37.089	1
Peak modified	Sample:13062004, Compound:HD, RT:37.089	1
Pre modification peak	Sample:13062004, Compound:HD, RT:37.516	1
Peak modified	Sample:13062004, Compound:HD, RT:37.516	1
Pre modification peak	Sample:13062004, Compound:HPD, RT:41.901	1
Peak modified	Sample:13062004, Compound:HPD, RT:41.901	1
Pre modification peak	Sample:13062004, Compound:OD, RT:48.044	1
Peak modified	Sample:13062004, Compound:OD, RT:48.044	1
Pre modification peak	Sample:13062004, Compound:OD, RT:48.044	1
Peak modified	Sample:13062004, Compound:OD, RT:48.044	1
Dataset Saved	Saved to 'P:\DIOXIN8290.PRO\130620IC.qld'	

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

2378-TCDF					0.771		0.770				
12378-PeCDF	30.709	1.001	3.91e3	2.92e3	0.814	1.339	1.550	53.1	NO	0.499	0.499
23478-PeCDF	32.046	1.000	4.42e3	2.65e3	0.837	1.664	1.550	59.8	NO	0.517	0.517
123478-HxCDF	35.740	1.001	3.20e3	2.45e3	0.967	1.304	1.240	55.3	NO	0.526	0.526
234678-HxCDF	36.836	1.001	2.88e3	2.20e3	1.000	1.307	1.240	47.1	NO	0.451	0.451
123678-HxCDF	35.883	1.000	3.29e3	2.61e3	0.951	1.259	1.240	54.1	NO	0.509	0.509
123789-HxCDF	37.954	1.001	2.09e3	1.57e3	0.874	1.333	1.240	35.9	NO	0.440	0.440
1234678-HpCDF	40.048	1.000	1.94e3	1.82e3	1.072	1.064	1.050	58.5	NO	0.416	0.416
1234789-HpCDF	42.821	1.000	1.49e3	1.61e3	1.085	0.928	1.050	44.1	NO	0.467	0.467
OCDF	48.295	1.006	2.66e3	2.95e3	0.878	0.905	0.890	26.0	NO	0.933	0.933
2378-TCDD					0.936		0.770				
12378-PeCDD	32.309	1.001	3.72e3	2.22e3	0.894	1.677	1.550	49.0	NO	0.529	0.529
123478-HxCDD	36.968	1.001	2.91e3	2.05e3	0.898	1.420	1.240	28.7	NO	0.522	0.522
123678-HxCDD	37.089	1.000	2.62e3	1.96e3	0.818	1.339	1.240	24.6	NO	0.468	0.468
123789-HxCDD	37.516	1.012	2.42e3	1.76e3	0.789	1.380	1.240	23.1	NO	0.469	0.469
1234678-HpCDD	41.911	1.000	1.59e3	1.63e3	0.879	0.978	1.050	24.9	NO	0.456	0.456
OCDD	48.044	1.001	2.64e3	3.19e3	0.875	0.827	0.890	69.2	NO	0.972	0.972
13C-2378-TCDF	26.527	1.007	9.91e5	1.30e6	1.190	0.762	0.770	5699.6	NO		100.147
13C-12378-PeCDF	30.687	1.165	1.01e6	6.72e5	0.904	1.500	1.550	3834.6	NO		96.592
13C-23478-PeCDF	32.035	1.216	9.93e5	6.40e5	0.877	1.551	1.550	3828.8	NO		96.785
13C-123478-HxCDF	35.718	0.953	3.68e5	7.42e5	1.096	0.496	0.510	1462.9	NO		96.060
13C-123678-HxCDF	35.872	0.957	4.04e5	8.14e5	1.187	0.496	0.510	1583.2	NO		97.300
13C-234678-HxCDF	36.814	0.982	3.76e5	7.50e5	1.040	0.501	0.510	1475.5	NO		102.739
13C-123789-HxCDF	37.933	1.012	3.14e5	6.40e5	0.941	0.491	0.510	1211.4	NO		96.125
13C-1234678-HpCDF	40.037	1.068	2.55e5	5.87e5	0.825	0.434	0.440	1226.5	NO		96.631
13C-1234789-HpCDF	42.821	1.142	1.82e5	4.30e5	0.609	0.423	0.440	735.1	NO		95.354
13C-1234-TCDD	26.347	0.000	8.39e5	1.09e6	1.000	0.773	0.770	1459.7	NO		100.000
13C-2378-TCDD	27.169	1.031	7.65e5	9.86e5	0.920	0.776	0.770	1328.9	NO		98.967
13C-12378-PeCDD	32.287	1.225	7.64e5	4.90e5	0.669	1.559	1.550	3950.8	NO		97.331
13C-123478-HxCDD	36.946	0.985	5.82e5	4.75e5	1.032	1.225	1.240	2623.5	NO		97.140
13C-123678-HxCDD	37.078	0.989	6.68e5	5.31e5	1.146	1.257	1.240	2814.0	NO		99.242
13C-1234678-HpCDD	41.901	1.118	4.09e5	3.94e5	0.789	1.036	1.050	2429.1	NO		96.467
13C-OCDD	47.999	1.280	6.38e5	7.32e5	0.696	0.872	0.890	2166.8	NO		186.526

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
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ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.494	0.000	5.84e5	4.71e5	1.000	1.241	1.240	2572.0	NO	100.000
Total-tetrafurans			1.78e2		0.771					0.031
Total-penta1			0.00e0							
Total-pentafurans			8.52e3		0.826					1.055
Total-hexafurans			1.15e4		0.948					1.926
Total-heptafurans			3.43e3		1.079					0.883
Total-Furans			2.63e4		0.925					4.840
Total-tetradioxins			2.42e3		0.936					0.184
Total-pentadioxins			5.44e3		0.894					0.715
Total-hexadioxins			9.94e3		0.835					1.717
Total-heptadioxins			1.59e3		0.879					0.456
Total-Dioxins			2.22e4		0.870					4.067
Total-TEQ			4.85e4							8.907
37CL-2378-TCDD	27.199	1.032	2.06e3		1.000			15.8		0.107
FUNCTION1 PFK			6.33e5							
FUNCTION2 PFK			2.63e5							0.000
FUNCTION3 PFK			9.12e4							0.000
FUNCTION4 PFK			7.46e5							
FUNCTION5 PFK			6.89e4							
FUNCTION1 HXCDPE			7.38e1							0.000
FUNCTION1 HPCDPE			1.31e3							0.000
FUNCTION2 HPCDPE			6.06e2							0.000
FUNCTION3 OCDPE			1.12e2							0.000
FUNCTION4 NCDPE			7.37e1							0.000
FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
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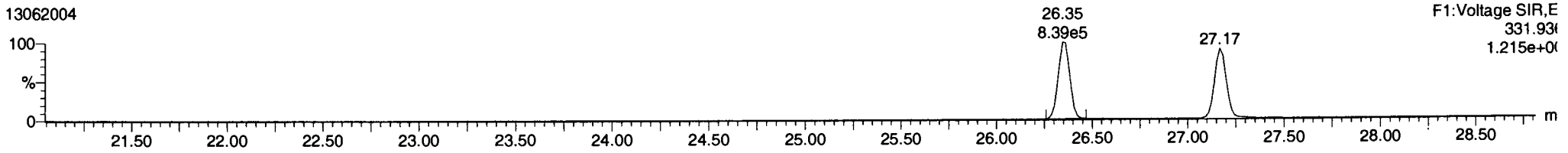
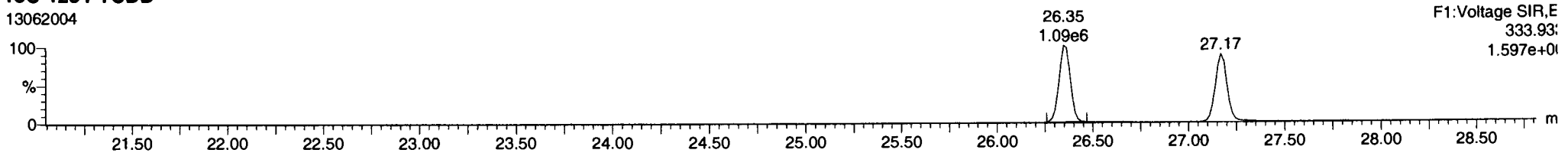
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

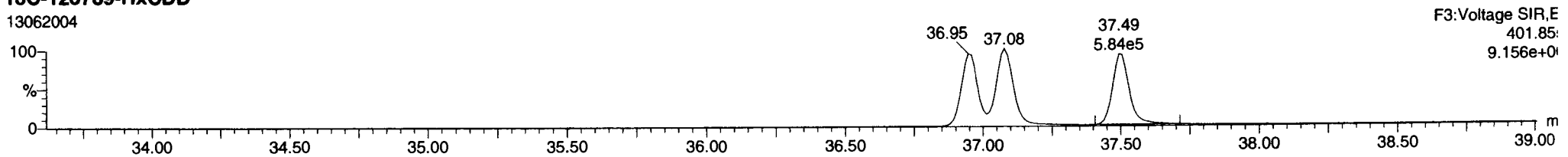
13C-1234-TCDD



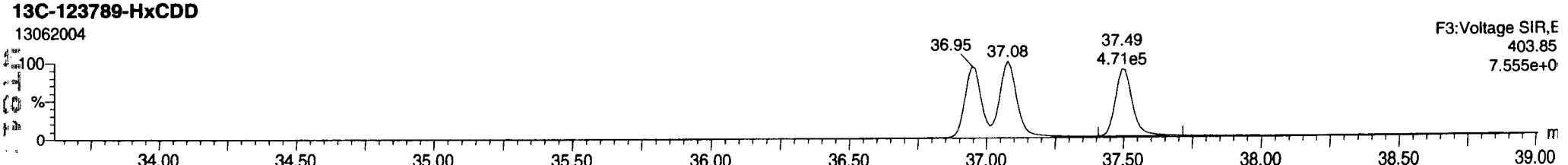
13C-1234-TCDD



13C-123789-HxCDD



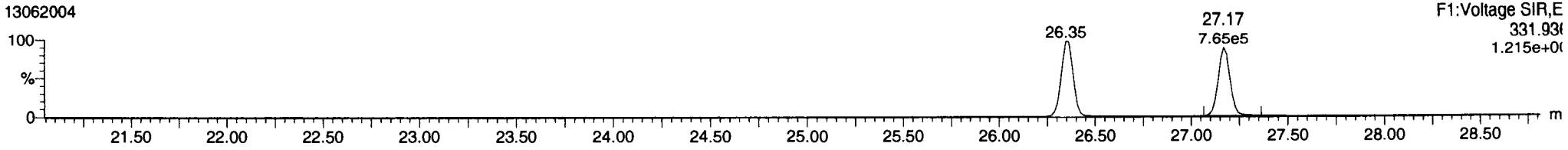
13C-123789-HxCDD



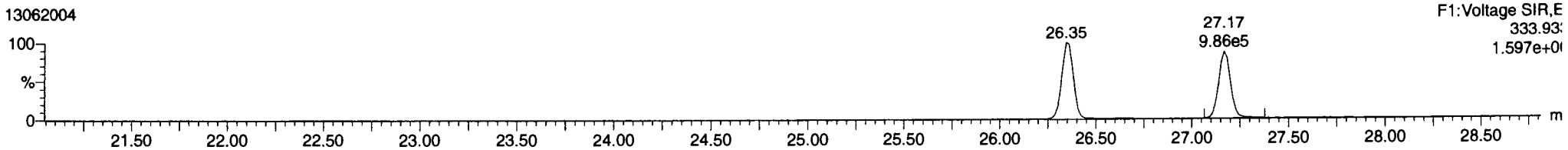
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

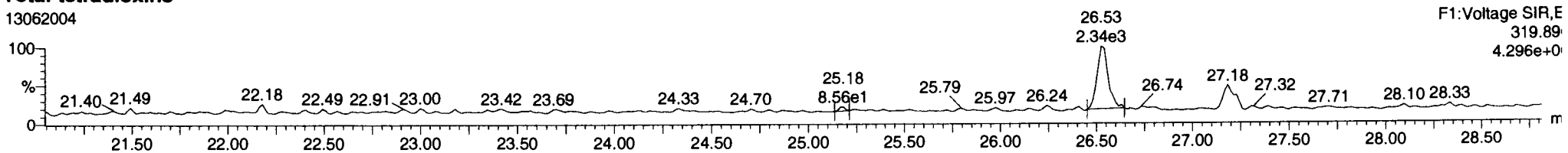
13C-2378-TCDD



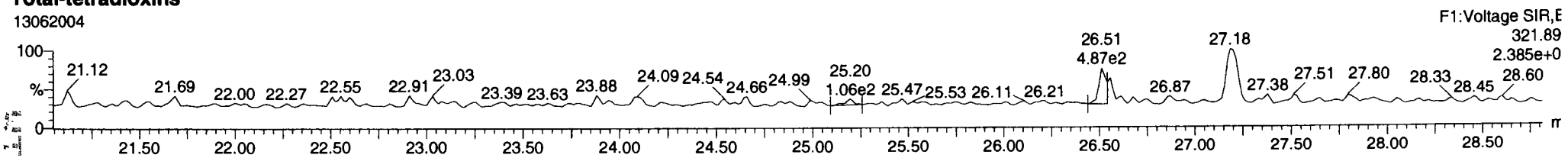
13C-2378-TCDD



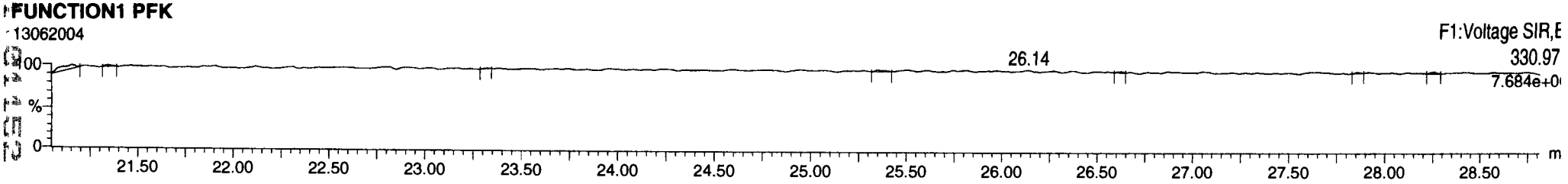
Total-tetradioxins



Total-tetradioxins



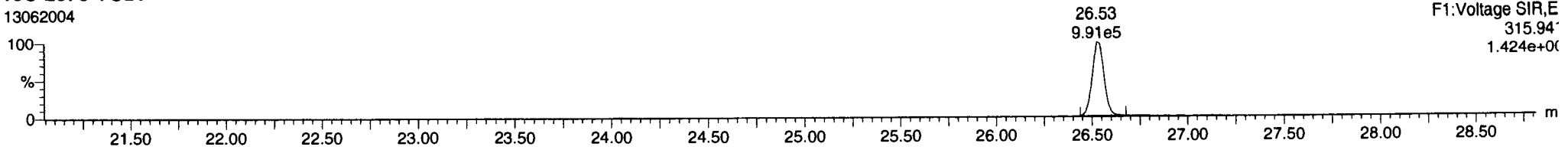
FUNCTION1 PFK



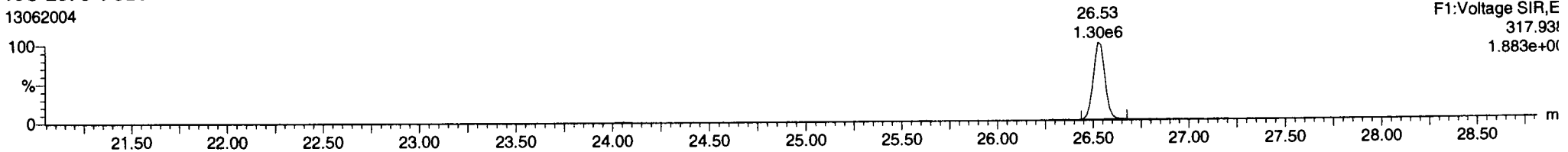
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

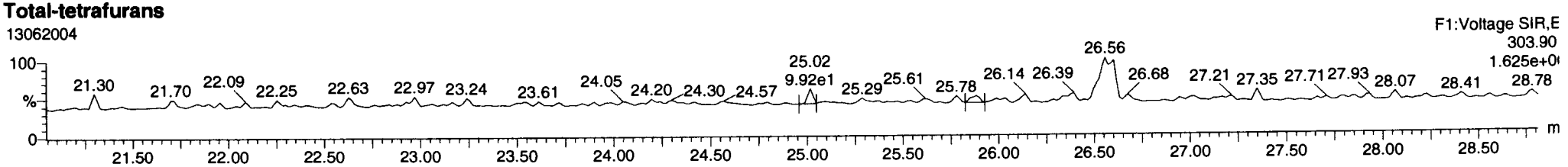
13C-2378-TCDF



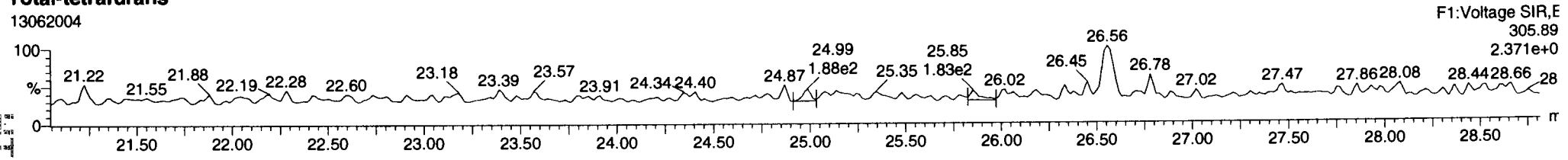
13C-2378-TCDF



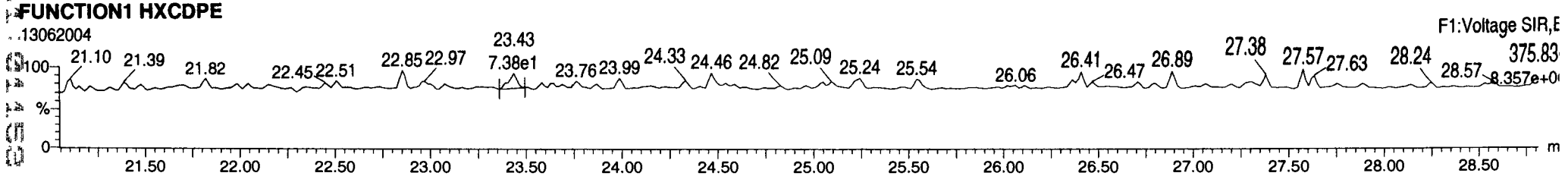
Total-tetrafurans



Total-tetrafurans



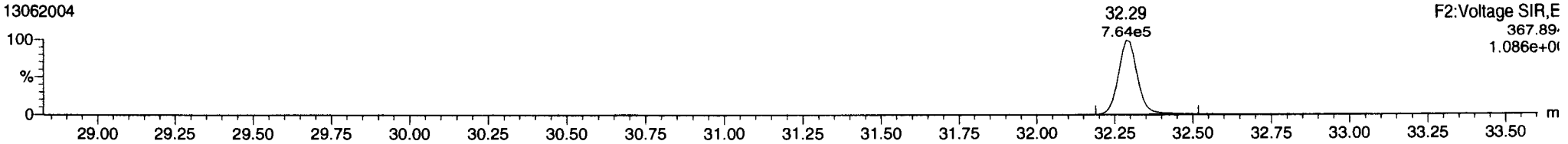
FUNCTION1 HXCDPE



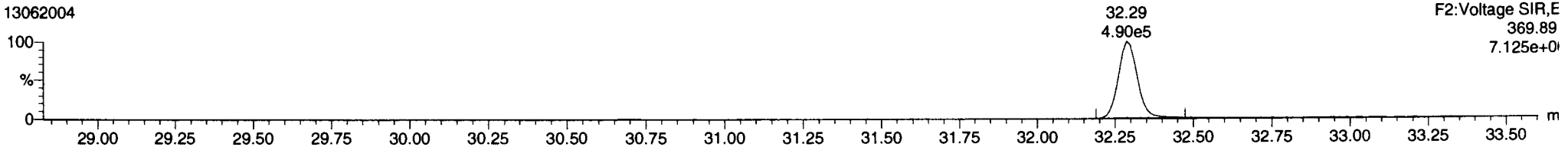
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

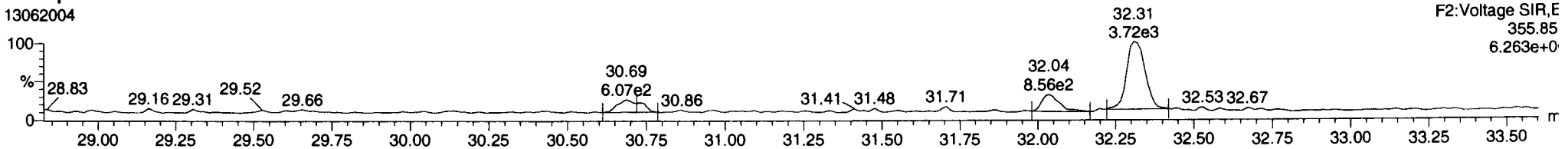
13C-12378-PeCDD



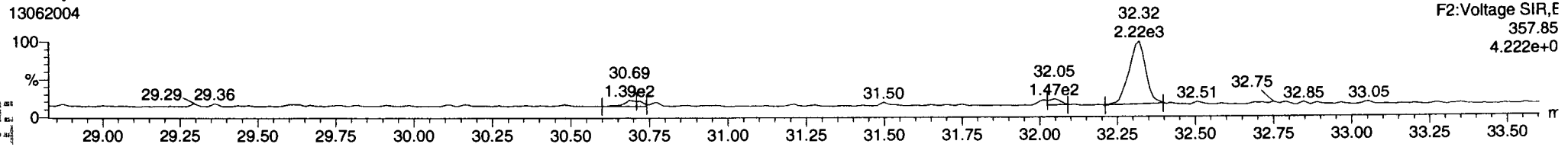
13C-12378-PeCDD



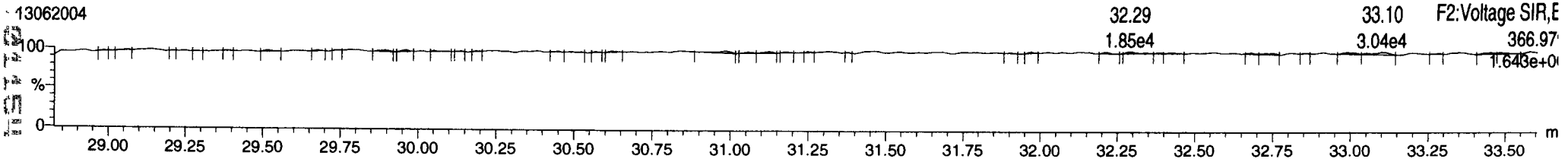
Total-pentadioxins



Total-pentadioxins



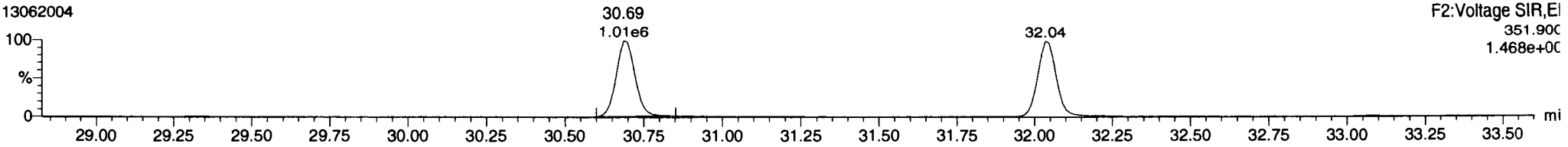
FUNCTION2 PFK



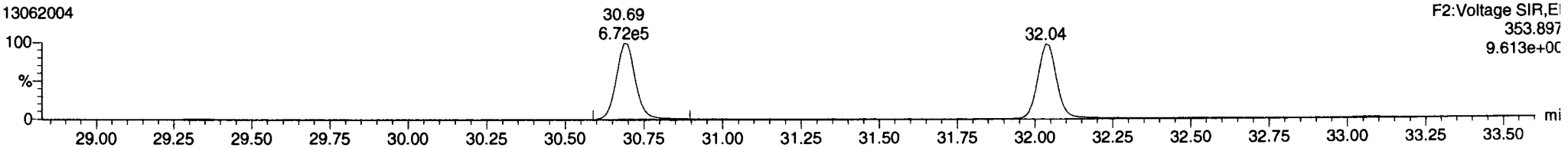
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

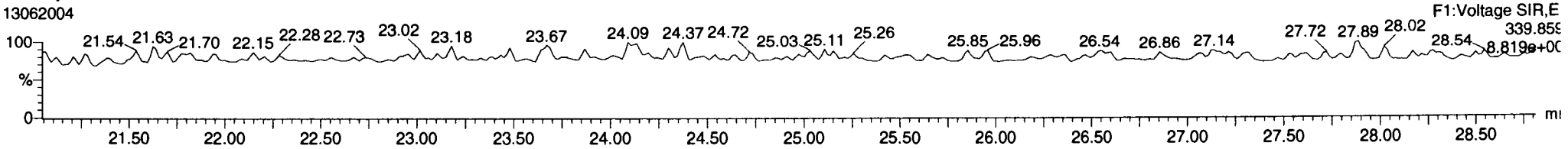
13C-12378-PeCDF



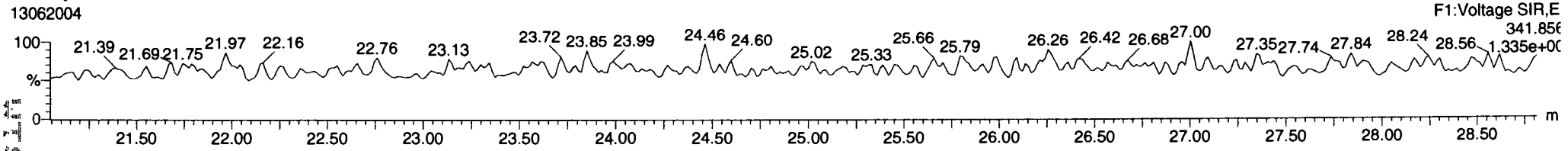
13C-12378-PeCDF



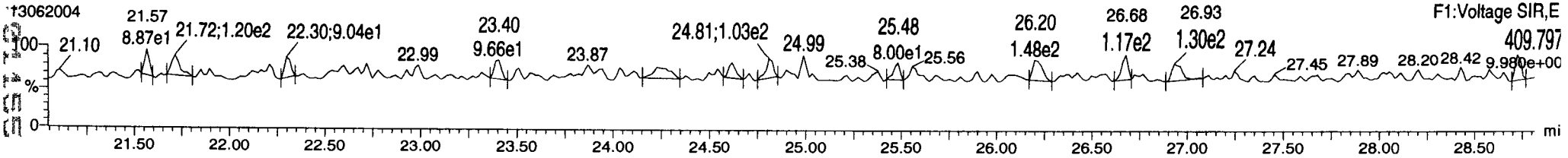
Total-penta1



Total-penta1



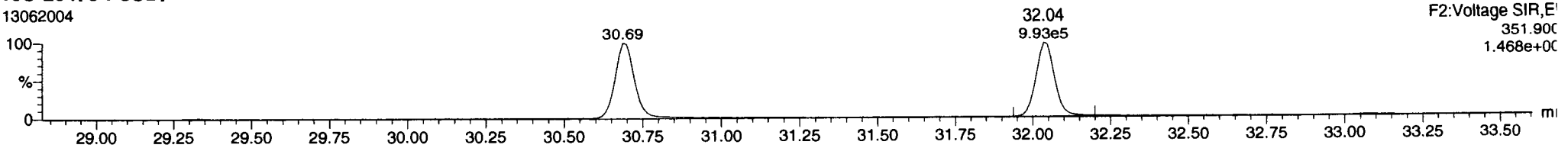
FUNCTION1 HPCDPE



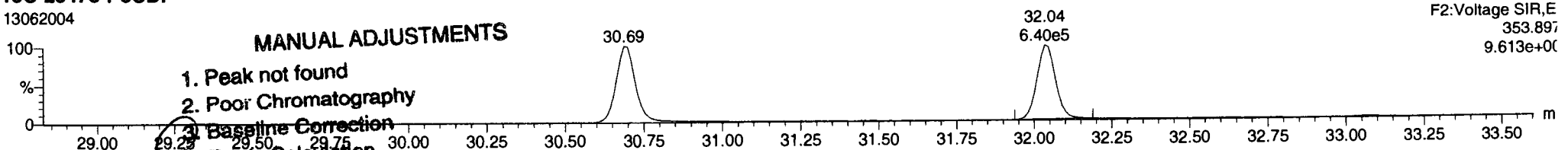
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF

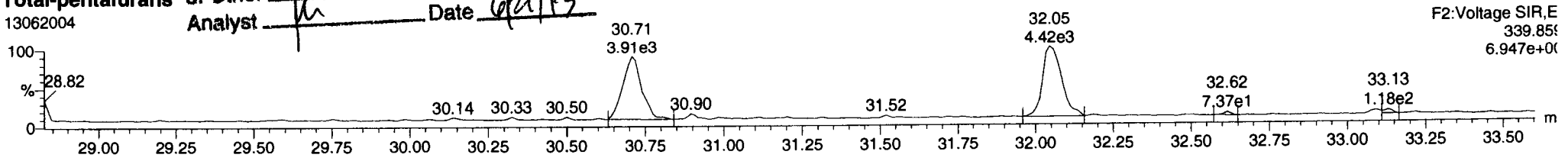


13C-23478-PeCDF

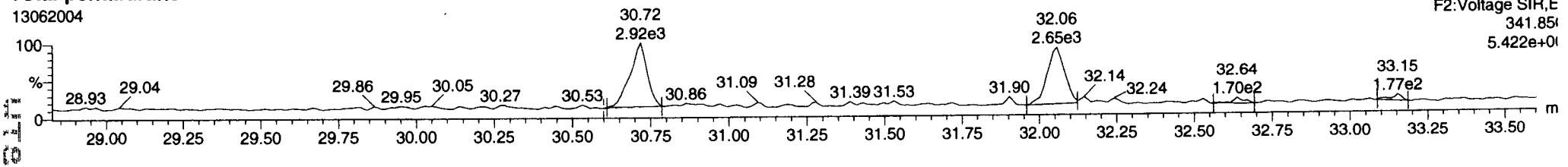


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/21/13

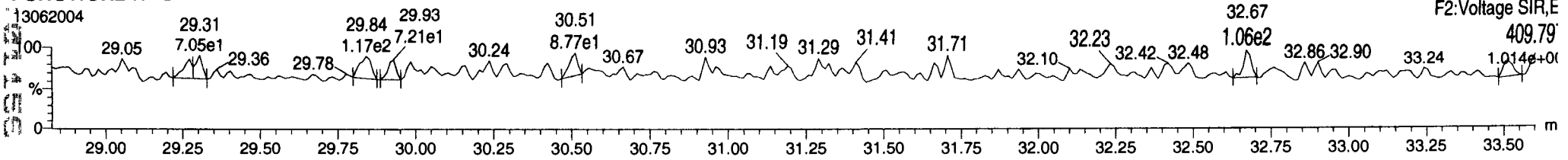
Total-pentafurans



Total-pentafurans



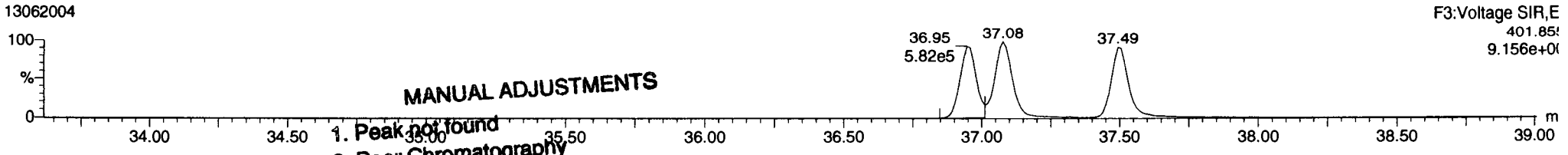
FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

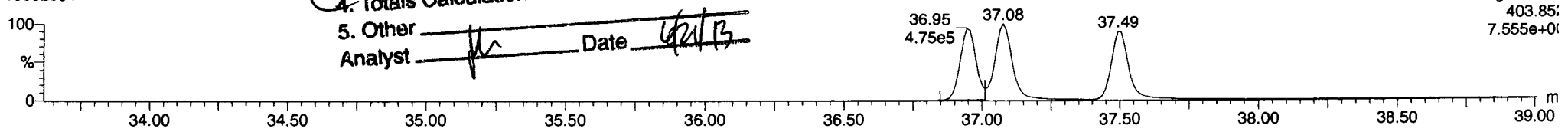
ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD

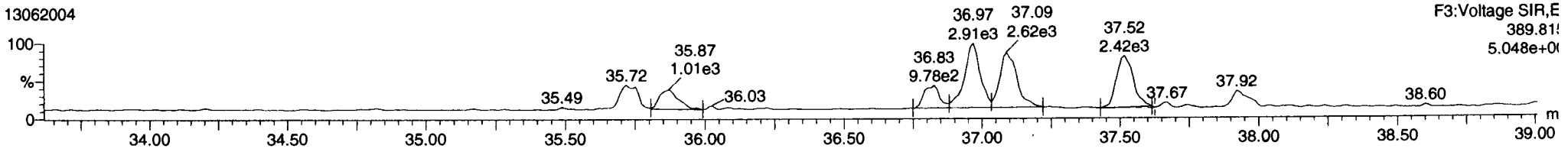


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/21/13

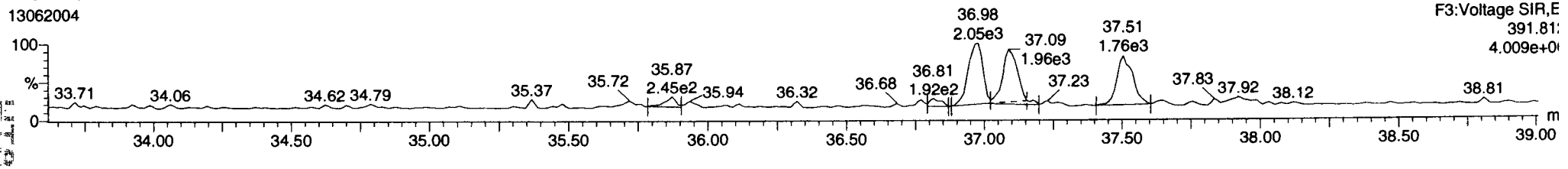
13C-123478-HxCDD



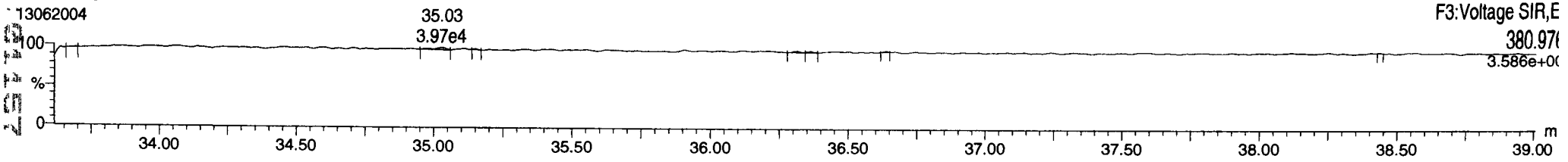
Total-hexadioxins



Total-hexadioxins



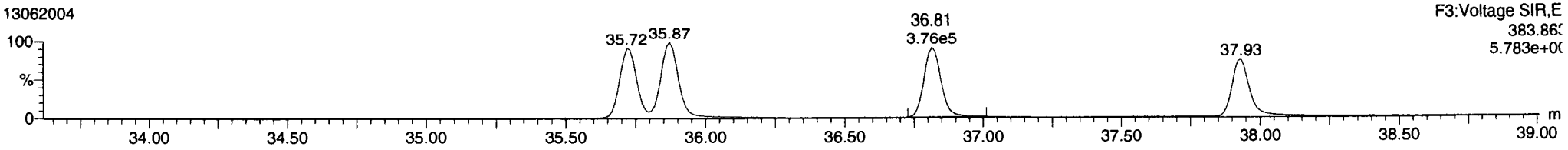
FUNCTION3 PFK



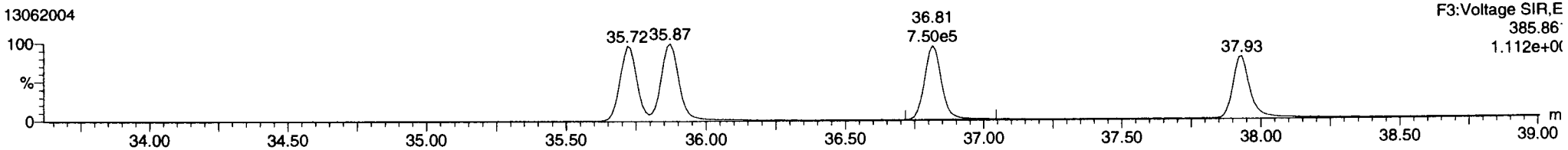
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

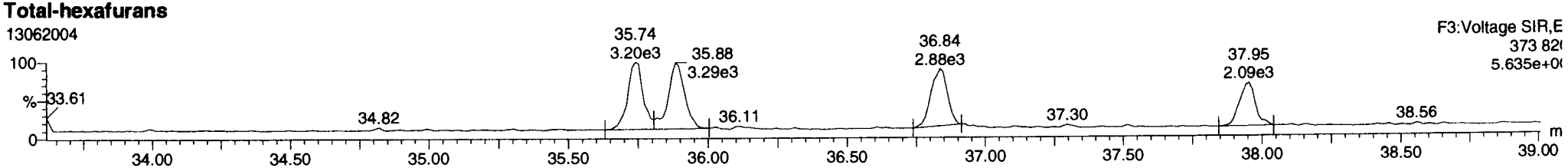
13C-234678-HxCDF



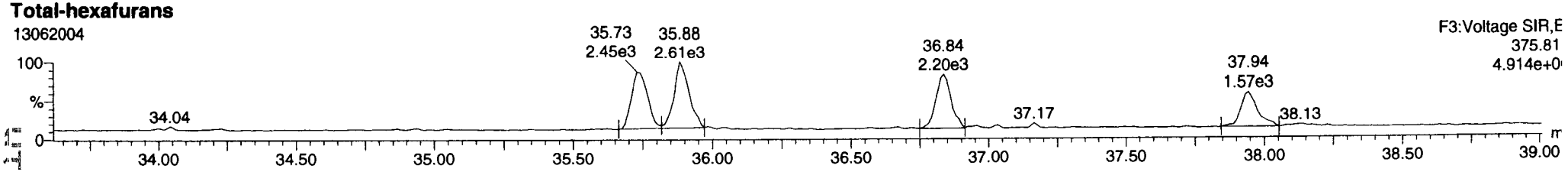
13C-234678-HxCDF



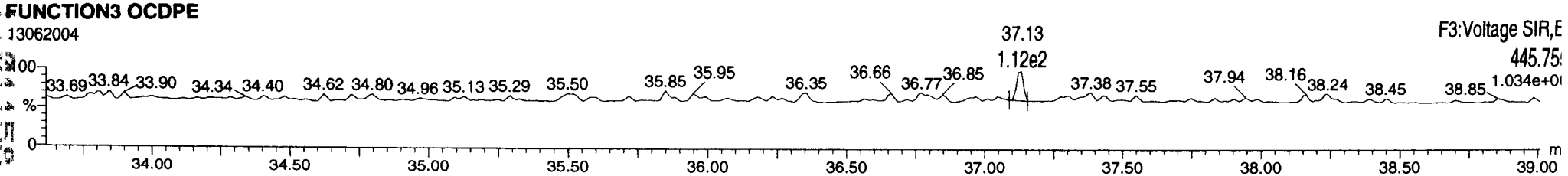
Total-hexafurans



Total-hexafurans



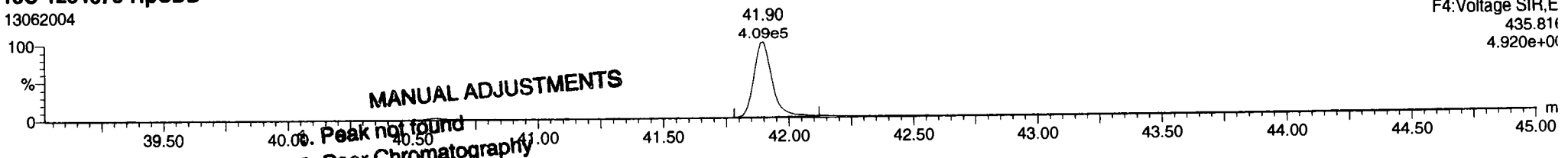
FUNCTION3 OCDPE



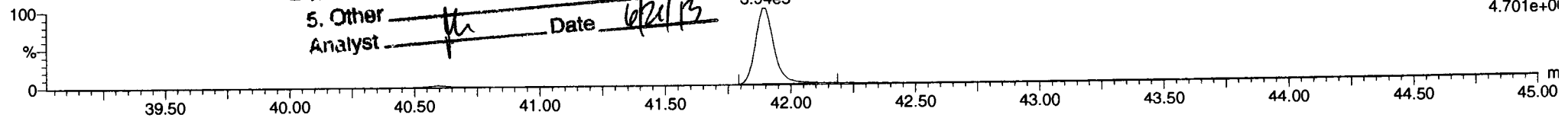
Quantify Sample Report — MassLynx 4.1 SCN714

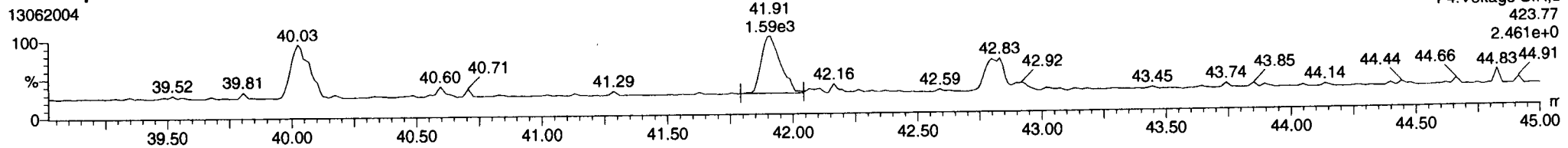
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

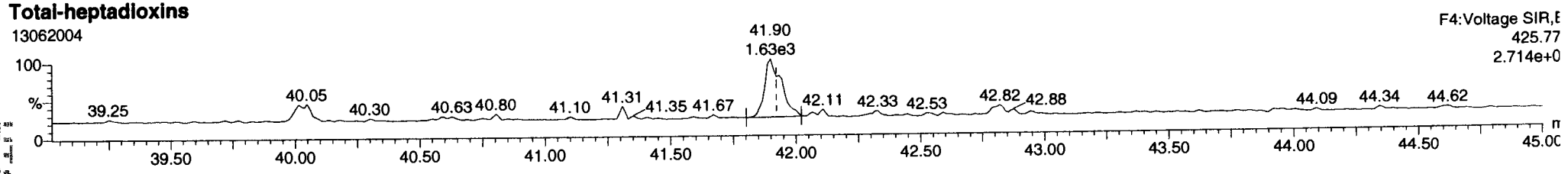
ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

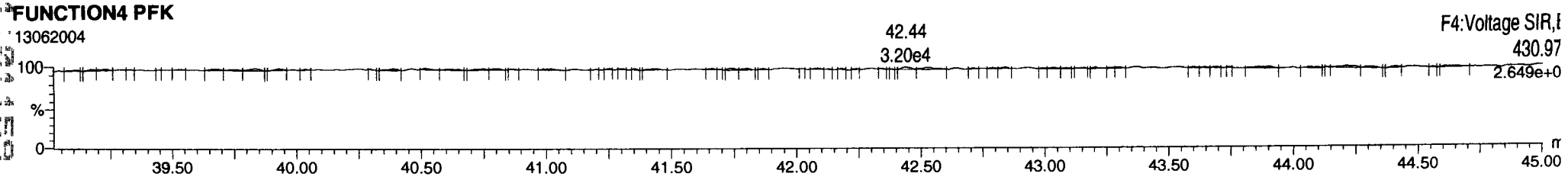
13C-1234678-HpCDD
13062004


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/21/13

13C-1234678-HpCDD
13062004


Total-heptadioxins
13062004


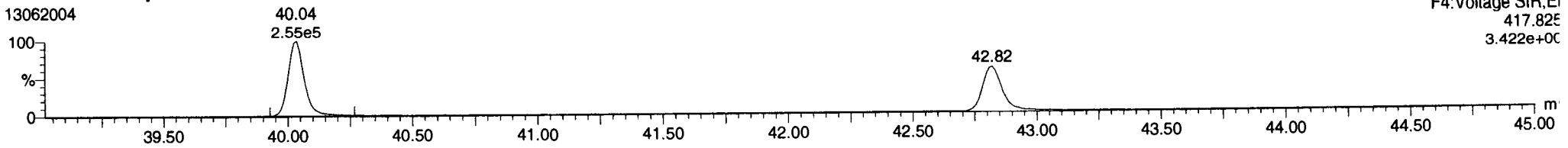
Total-heptadioxins
13062004


FUNCTION4 PFK
13062004


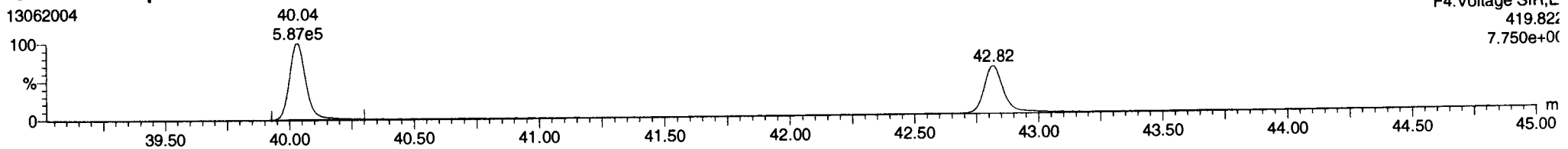
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

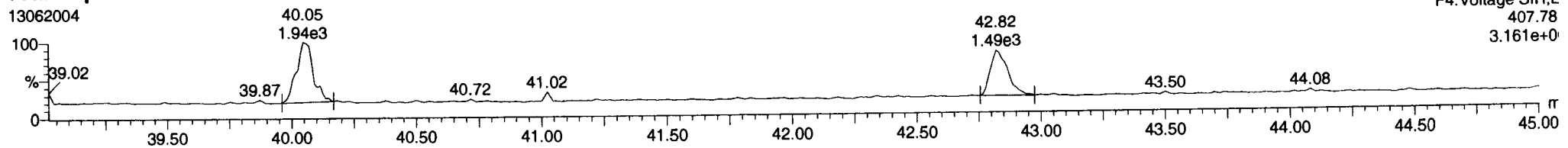
13C-1234678-HpCDF



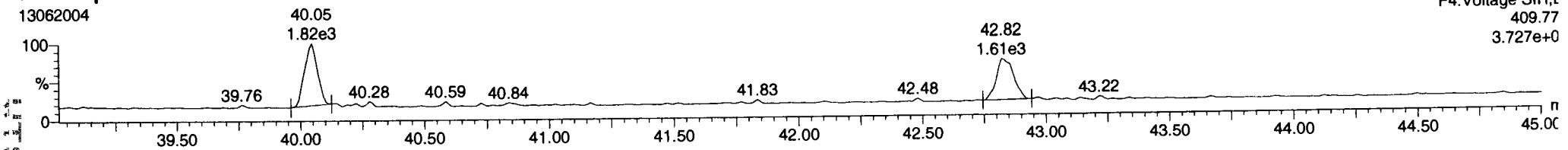
13C-1234678-HpCDF



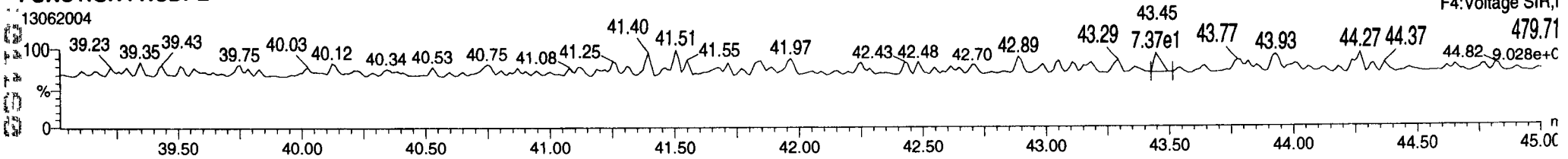
Total-heptafurans



Total-heptafurans



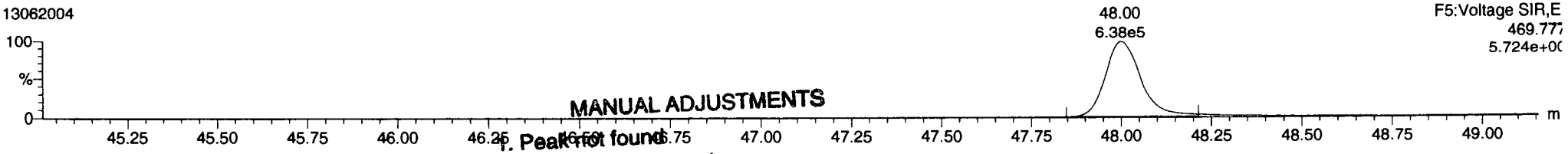
FUNCTION4 NCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

13C-OCDD

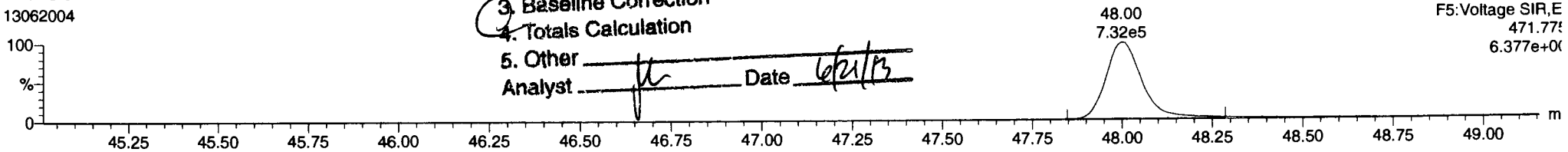


MANUAL ADJUSTMENTS

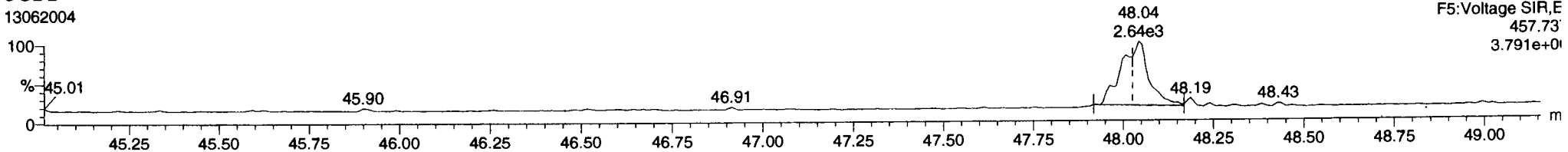
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 6/21/13

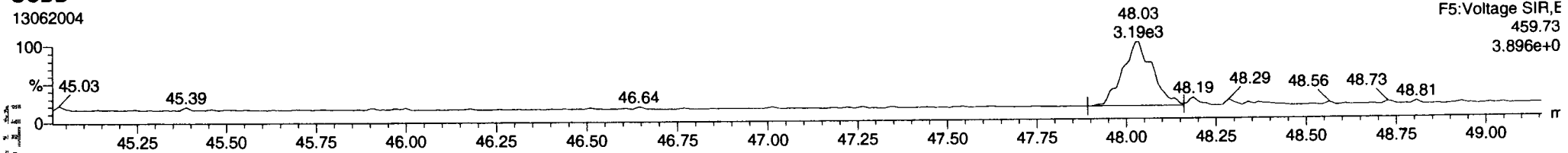
13C-OCDD



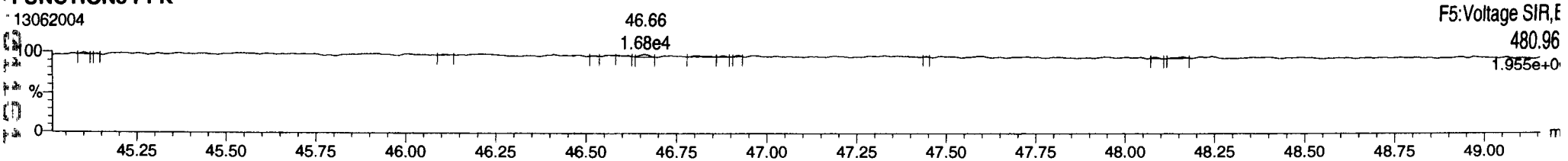
OCDD



OCDD



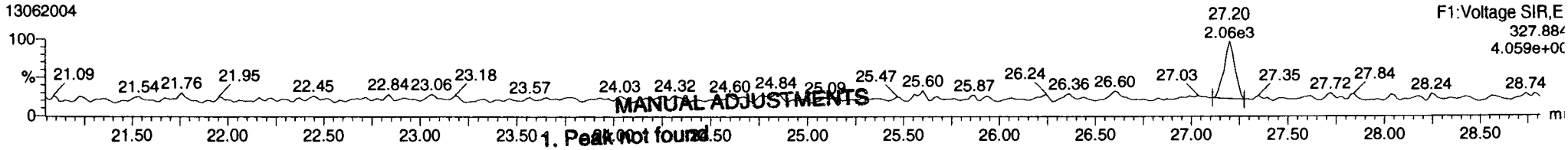
FUNCTION5 PFK



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:47 Pacific Daylight Time

ID: CSL, Name: 13062004, Date: 20-Jun-2013, Time: 12:34:03, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD

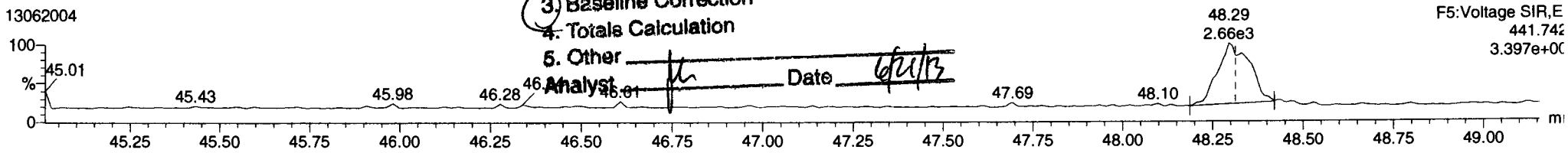


MANUAL ADJUSTMENTS

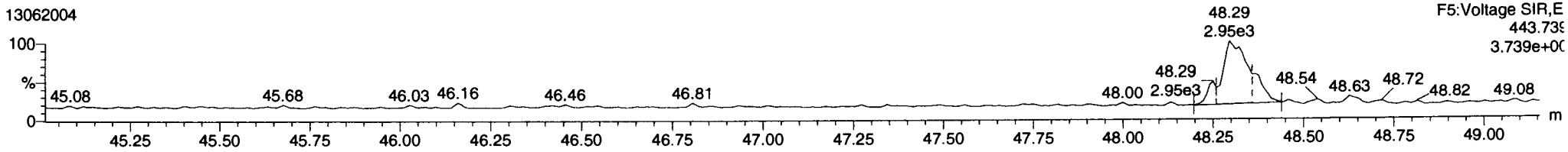
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 6/21/13

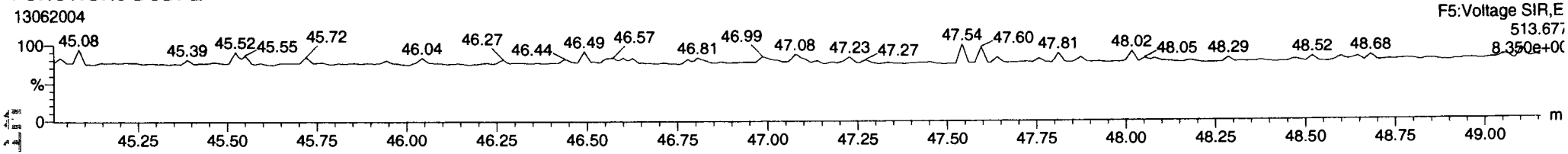
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.571	1.001	3.39e3	4.57e3	0.771	0.741	0.770	108.4	NO	0.506	0.506
12378-PeCDF	30.730	1.001	1.96e4	1.17e4	0.814	1.678	1.550	319.8	NO	2.498	2.498
23478-PeCDF	32.068	1.000	1.96e4	1.23e4	0.837	1.590	1.550	311.3	NO	2.549	2.549
123478-HxCDF	35.761	1.001	1.38e4	1.19e4	0.967	1.160	1.240	185.0	NO	2.488	2.488
234678-HxCDF	36.847	1.001	1.48e4	1.12e4	1.000	1.318	1.240	200.4	NO	2.578	2.578
123678-HxCDF	35.904	1.001	1.56e4	1.23e4	0.951	1.269	1.240	219.7	NO	2.571	2.571
123789-HxCDF	37.965	1.001	1.10e4	9.24e3	0.874	1.193	1.240	155.3	NO	2.540	2.540
1234678-HpCDF	40.069	1.001	1.14e4	1.09e4	1.072	1.043	1.050	230.0	NO	2.620	2.620
1234789-HpCDF	42.853	1.001	7.93e3	7.99e3	1.085	0.991	1.050	160.7	NO	2.524	2.524
OCDF	48.339	1.007	1.20e4	1.37e4	0.878	0.880	0.890	90.7	NO	4.703	4.703
2378-TCDD	27.214	1.001	3.45e3	4.38e3	0.936	0.787	0.770	68.4	NO	0.539	0.539
12378-PeCDD	32.320	1.000	1.49e4	1.02e4	0.894	1.464	1.550	242.1	NO	2.565	2.565
123478-HxCDD	36.978	1.000	1.30e4	9.92e3	0.898	1.309	1.240	167.2	NO	2.684	2.684
123678-HxCDD	37.110	1.001	1.30e4	1.03e4	0.818	1.259	1.240	158.0	NO	2.610	2.610
123789-HxCDD	37.526	1.012	1.11e4	9.39e3	0.789	1.185	1.240	123.0	NO	2.547	2.547
1234678-HpCDD	41.921	1.000	7.96e3	7.98e3	0.879	0.998	1.050	141.6	NO	2.478	2.478
OCDD	48.025	1.000	1.32e4	1.31e4	0.875	1.004	0.890	180.2	NO	4.811	4.811
13C-2378-TCDF	26.556	1.007	8.80e5	1.16e6	1.190	0.759	0.770	4801.4	NO		99.953
13C-12378-PeCDF	30.709	1.164	9.32e5	6.04e5	0.904	1.544	1.550	3581.4	NO		99.104
13C-23478-PeCDF	32.057	1.215	9.07e5	5.90e5	0.877	1.538	1.550	3564.2	NO		99.532
13C-123478-HxCDF	35.739	0.953	3.54e5	7.11e5	1.096	0.498	0.510	1871.9	NO		104.247
13C-123678-HxCDF	35.882	0.956	3.84e5	7.57e5	1.187	0.507	0.510	2008.2	NO		103.077
13C-234678-HxCDF	36.825	0.982	3.37e5	6.69e5	1.040	0.504	0.510	1756.6	NO		103.811
13C-123789-HxCDF	37.943	1.011	3.09e5	6.04e5	0.941	0.512	0.510	1601.9	NO		104.100
13C-1234678-HpCDF	40.047	1.067	2.38e5	5.57e5	0.825	0.428	0.440	1404.1	NO		103.392
13C-1234789-HpCDF	42.831	1.142	1.75e5	4.06e5	0.609	0.431	0.440	825.3	NO		102.334
13C-1234-TCDD	26.377	0.000	7.53e5	9.61e5	1.000	0.783	0.770	1601.0	NO		100.000
13C-2378-TCDD	27.184	1.031	6.76e5	8.75e5	0.920	0.773	0.770	1336.1	NO		98.419
13C-12378-PeCDD	32.309	1.225	6.67e5	4.27e5	0.669	1.561	1.550	3244.6	NO		95.342
13C-123478-HxCDD	36.967	0.985	5.19e5	4.31e5	1.032	1.204	1.240	3631.4	NO		98.821
13C-123678-HxCDD	37.088	0.989	5.95e5	4.94e5	1.146	1.204	1.240	3906.8	NO		101.963
13C-1234678-HpCDD	41.910	1.117	3.65e5	3.67e5	0.789	0.997	1.050	2460.7	NO		99.505
13C-OCDD	48.016	1.280	5.86e5	6.61e5	0.696	0.886	0.890	2252.2	NO		192.064

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

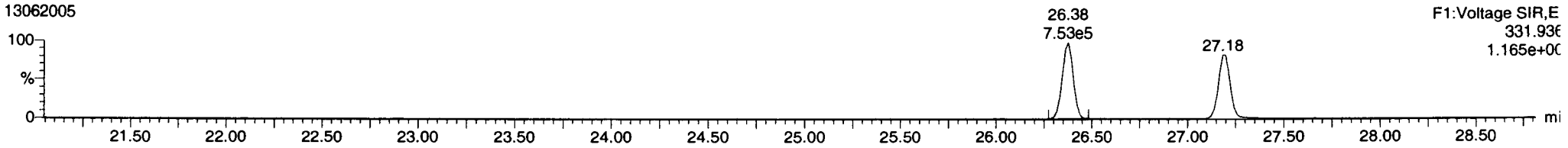
13C-123789-HxCDD	37.515	0.000	5.12e5	4.20e5	1.000	1.218	1.240	3509.6	NO	100.000
Total-tetrafurans			3.49e3		0.771					0.518
Total-penta1			1.78e2							0.029
Total-pentafurans			4.00e4		0.826					5.139
Total-hexafurans			5.52e4		0.948					10.196
Total-heptafurans			1.95e4		1.079					5.195
Total-Furans			1.31e5		0.925					25.802
Total-tetradioxins			5.86e3		0.936					0.736
Total-pentadioxins			1.65e4		0.894					2.759
Total-hexadioxins			3.91e4		0.835					8.151
Total-heptadioxins			7.96e3		0.879					2.478
Total-Dioxins			8.26e4		0.870					18.945
Total-TEQ			2.13e5							44.746
37CL-2378-TCDD	27.214	1.032	8.74e3		1.000			53.1		0.510
FUNCTION1 PFK			2.91e6							
FUNCTION2 PFK			3.10e5							0.000
FUNCTION3 PFK			6.91e6							0.000
FUNCTION4 PFK			2.20e5							
FUNCTION5 PFK			1.91e5							
FUNCTION1 HXCDPE			0.00e0							
FUNCTION1 HPCDPE			1.37e3							0.000
FUNCTION2 HPCDPE			6.10e2							0.000
FUNCTION3 OCDPE			0.00e0							
FUNCTION4 NCDPE			0.00e0							
FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

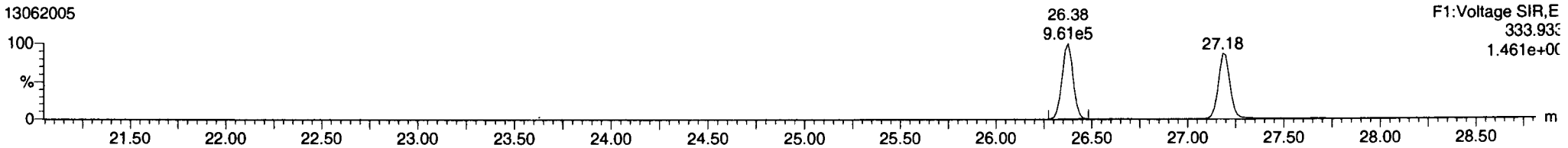
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

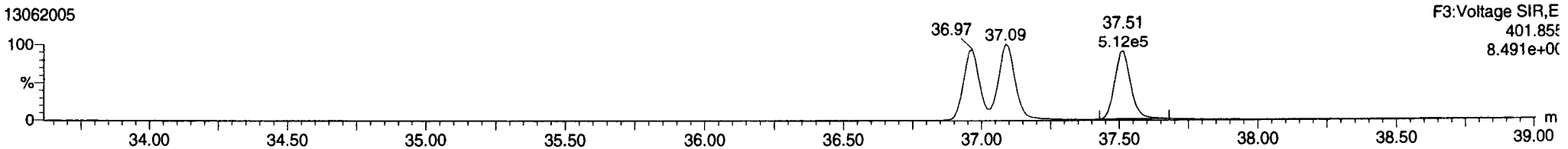
13C-1234-TCDD



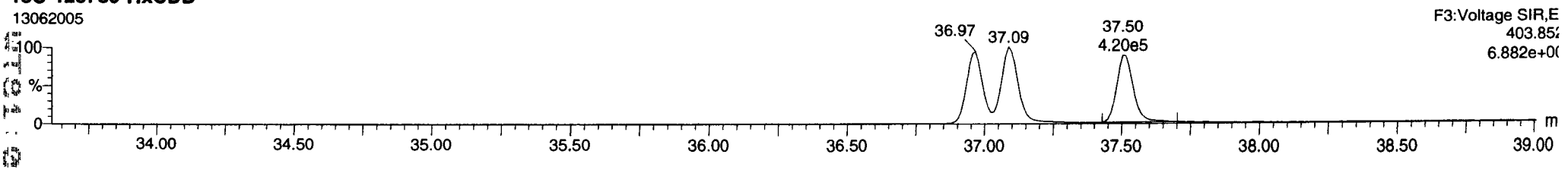
13C-1234-TCDD



13C-123789-HxCDD



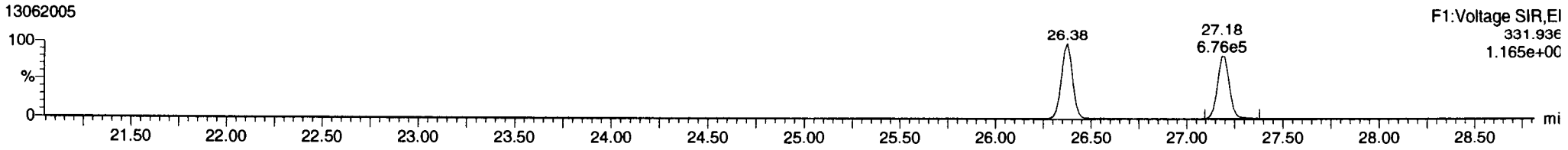
13C-123789-HxCDD



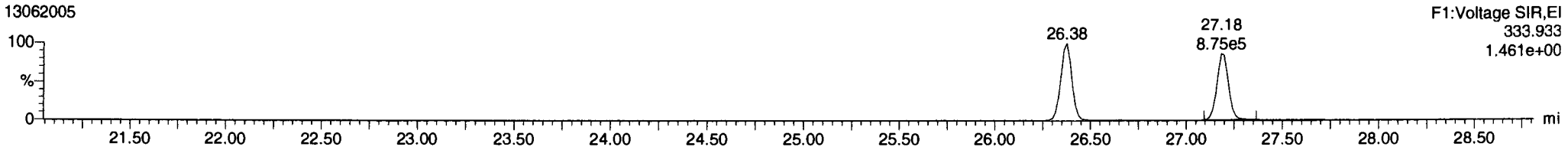
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

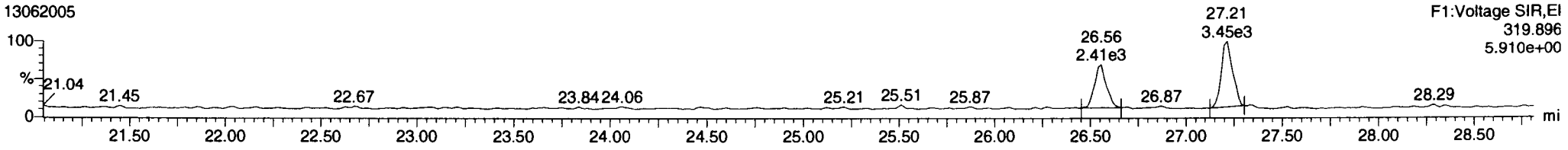
13C-2378-TCDD



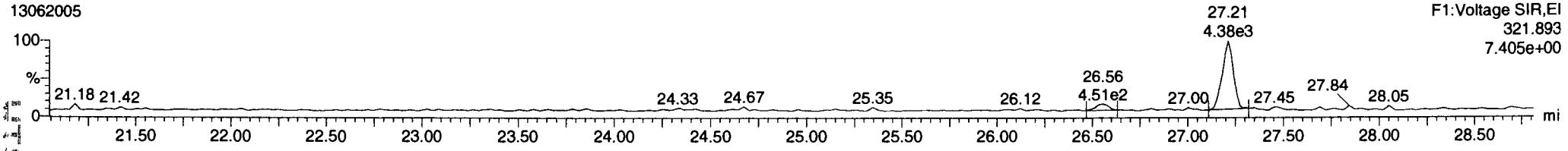
13C-2378-TCDD



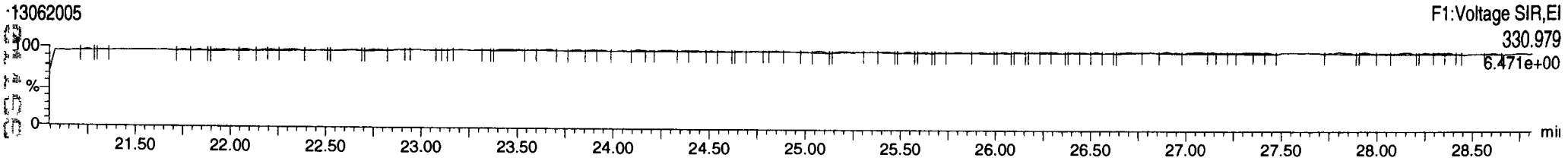
Total-tetradioxins



Total-tetradioxins



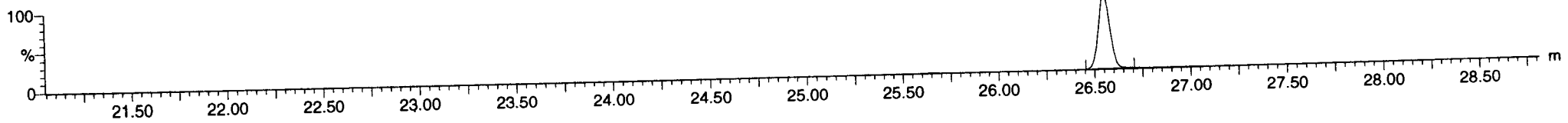
FUNCTION1 PFK



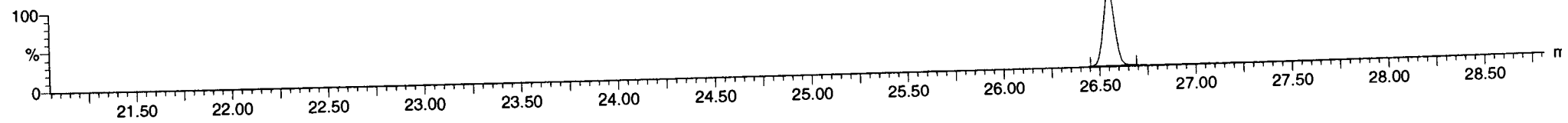
Quantify Sample Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

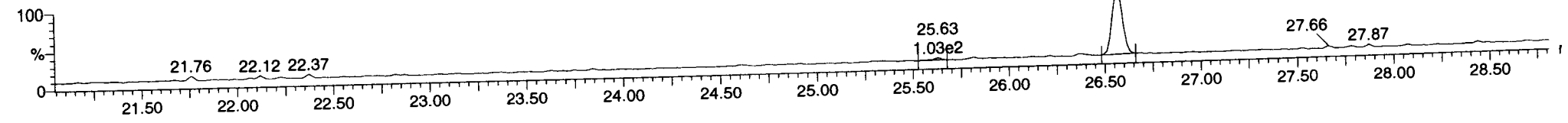
13C-2378-TCDF
13062005
F1:Voltage SIR,EI
315.941
1.303e+0(



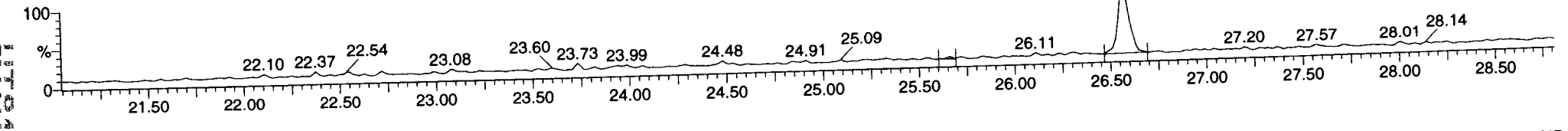
13C-2378-TCDF
13062005
F1:Voltage SIR,E
317.93
1.719e+0



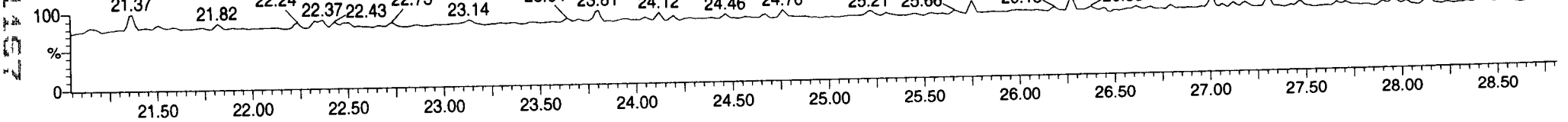
Total-tetrafurans
13062005
F1:Voltage SIR,I
303.9(
6.333e+(



Total-tetrafurans
13062005
F1:Voltage SIR
305.8
7.653e+



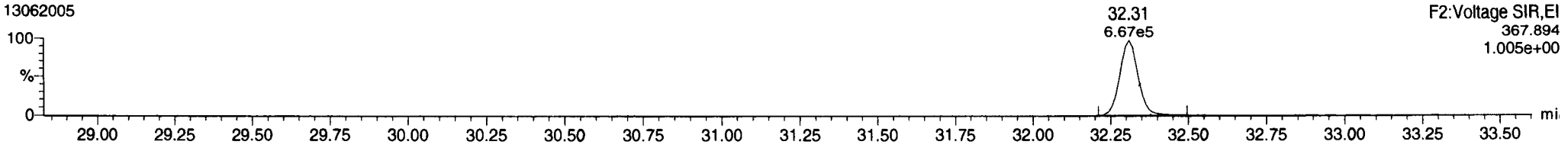
FUNCTION1 HXCDPE
13062005
F1:Voltage SIF
375.8
8.081e+



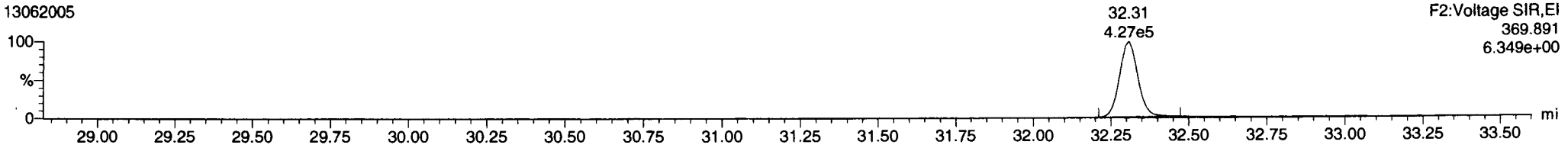
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

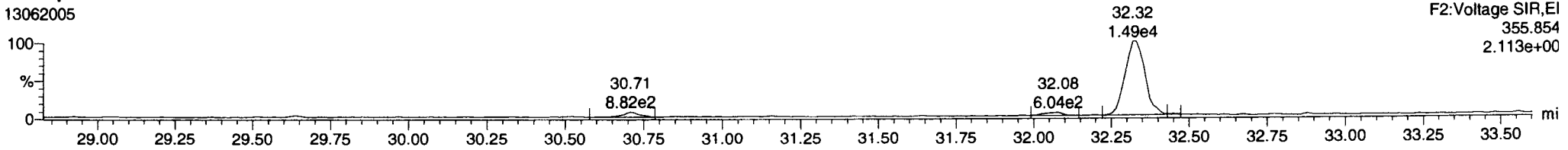
13C-12378-PeCDD



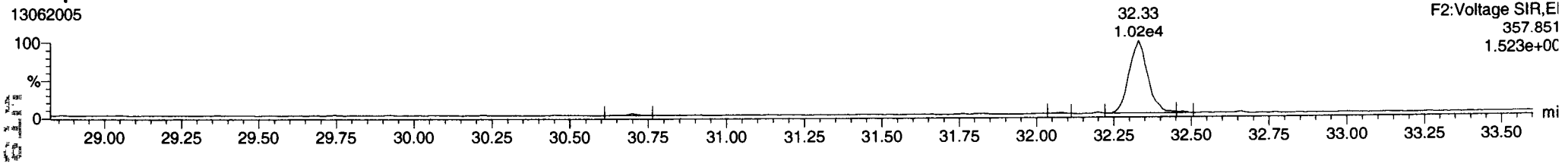
13C-12378-PeCDD



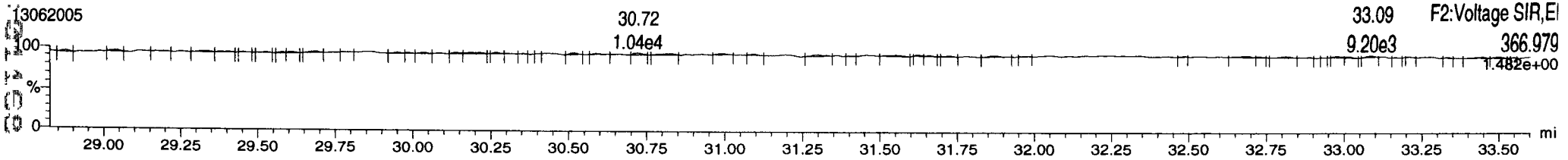
Total-pentadioxins



Total-pentadioxins



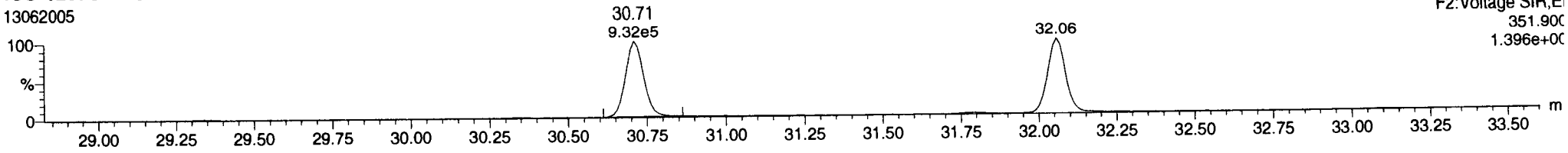
FUNCTION2 PFK



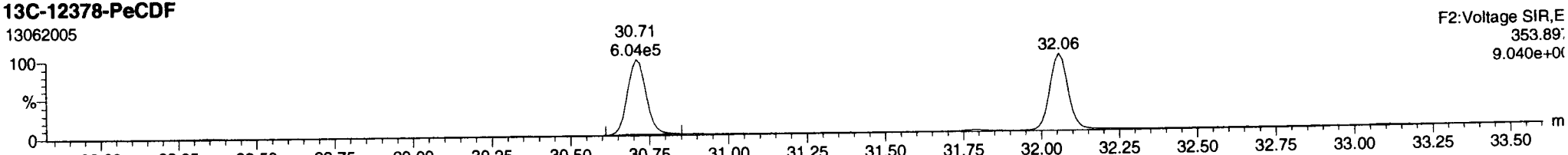
Quantify Sample Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

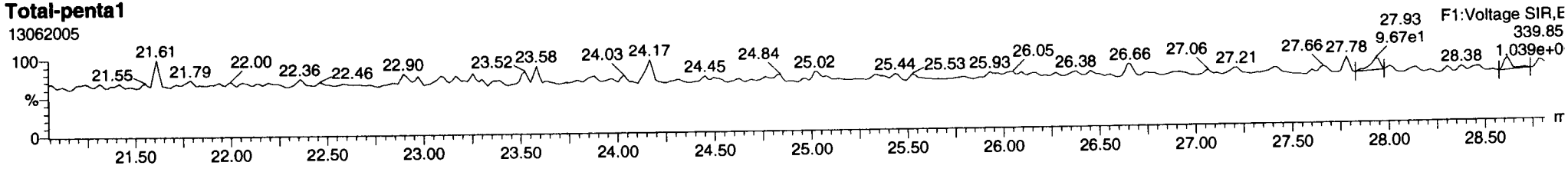
13C-12378-PeCDF



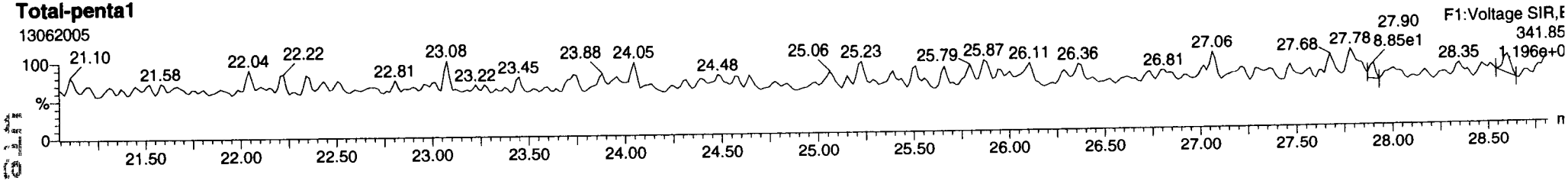
13C-12378-PeCDF



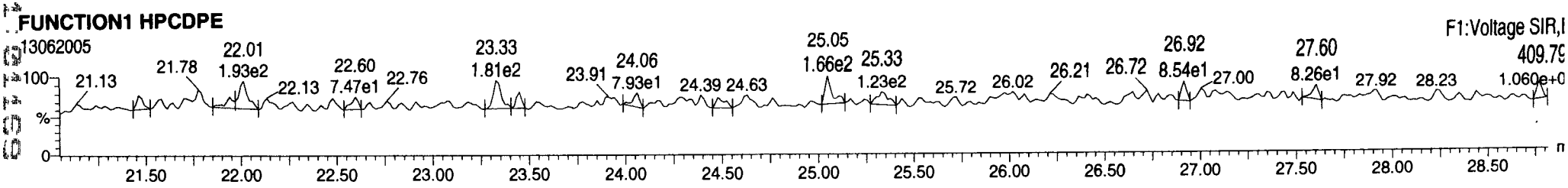
Total-penta1



Total-penta1



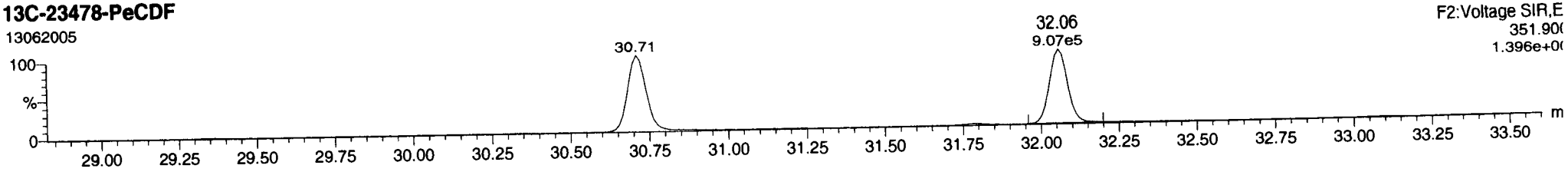
FUNCTION1 HPCDPE



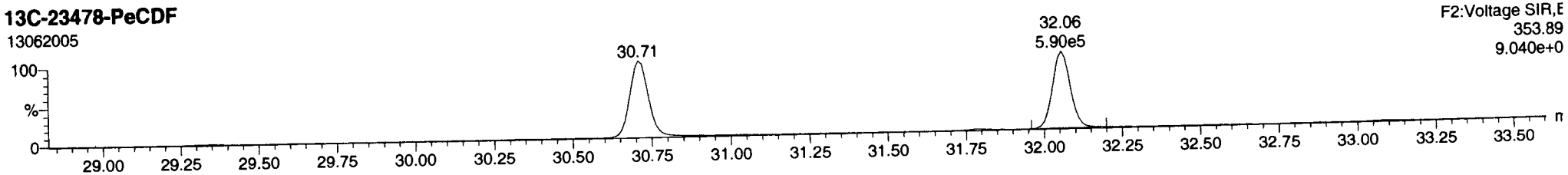
Quantify Sample Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

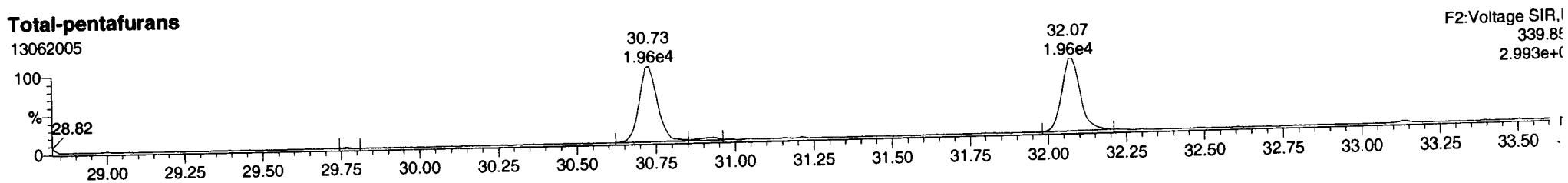
13C-23478-PeCDF
13062005
F2:Voltage SIR,E
351.90(
1.396e+0(



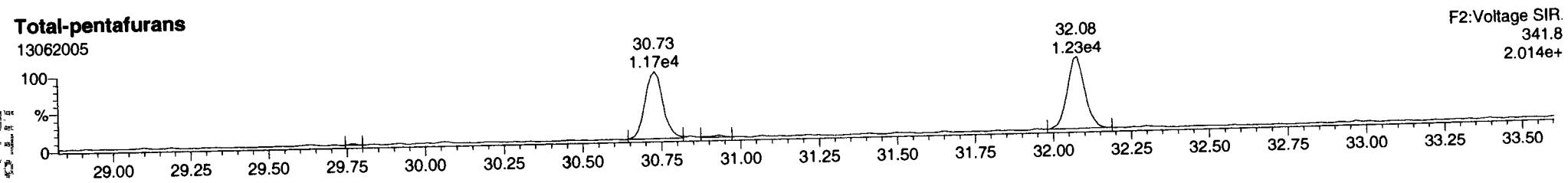
13C-23478-PeCDF
13062005
F2:Voltage SIR,E
353.89
9.040e+0



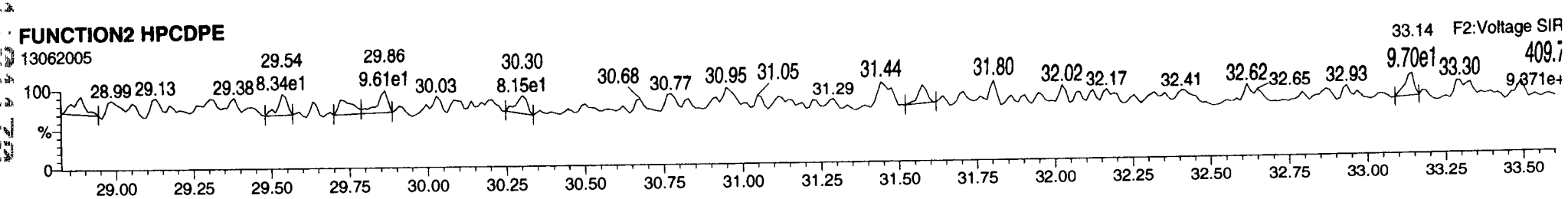
Total-pentafurans
13062005
F2:Voltage SIR,I
339.8
2.993e+(



Total-pentafurans
13062005
F2:Voltage SIR
341.8
2.014e+

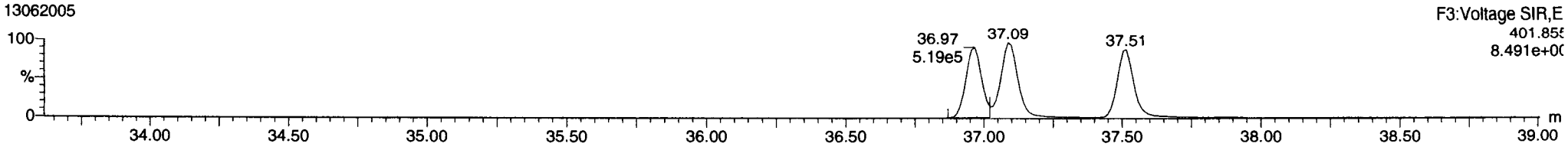


FUNCTION2 HPCDPE
13062005
33.14 F2:Voltage SIR
9.70e1
409.7
9.871e+

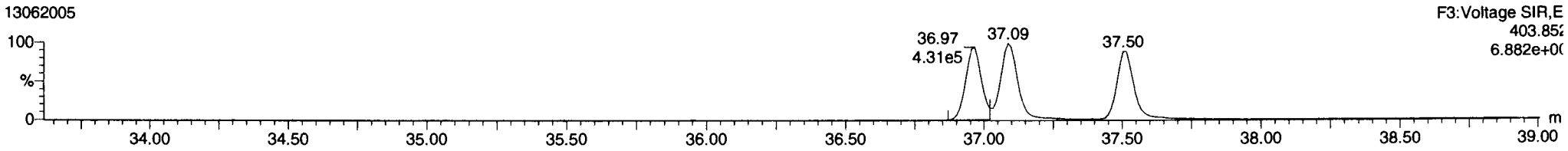


ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

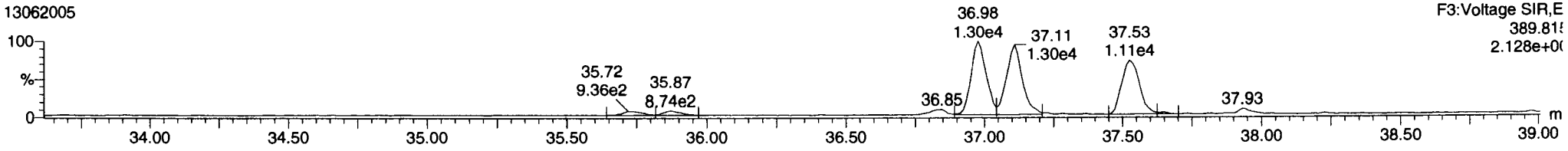
13C-123478-HxCDD



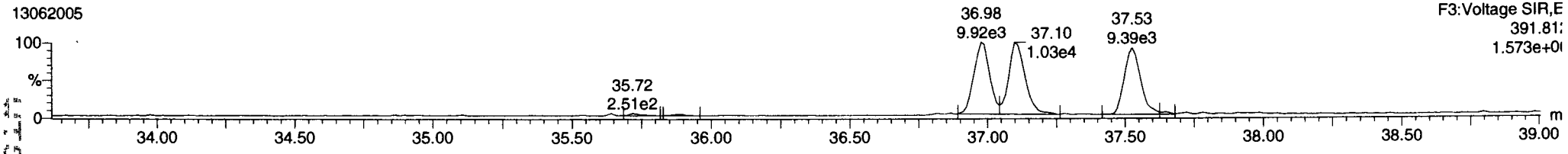
13C-123478-HxCDD



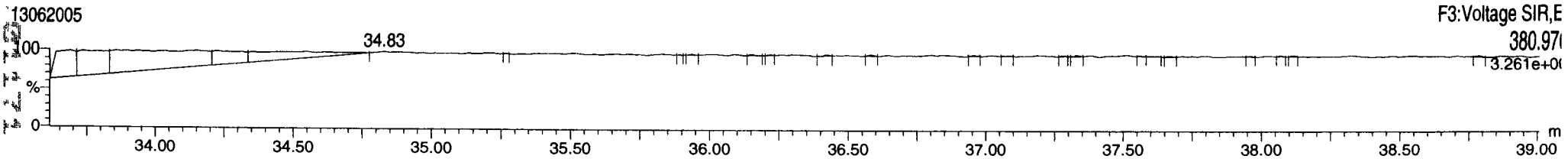
Total-hexadioxins



Total-hexadioxins



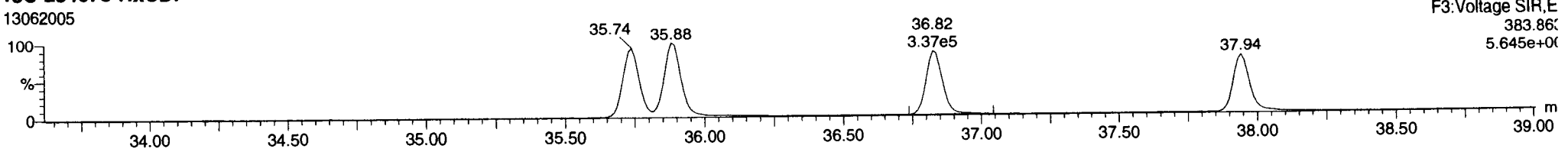
FUNCTION3 PFK



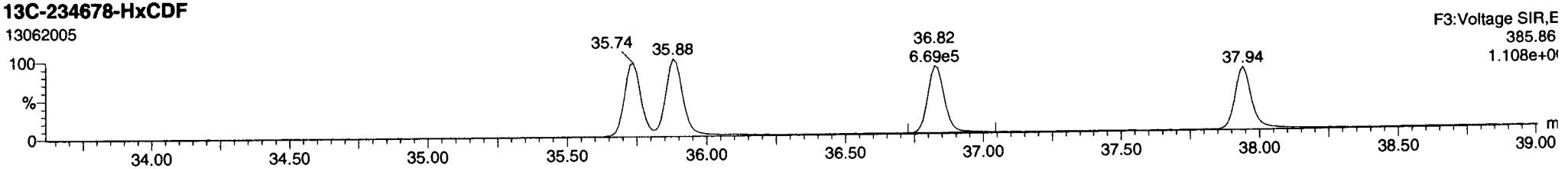
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

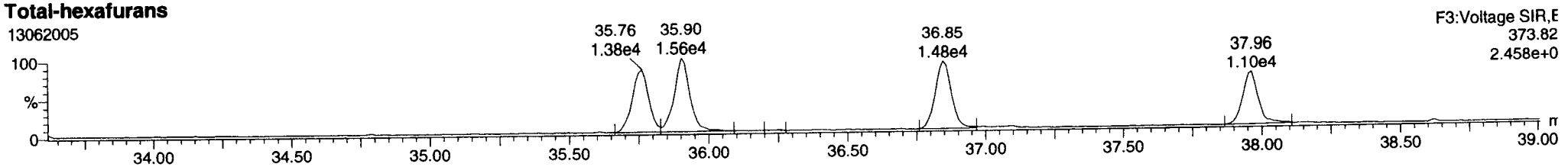
13C-234678-HxCDF



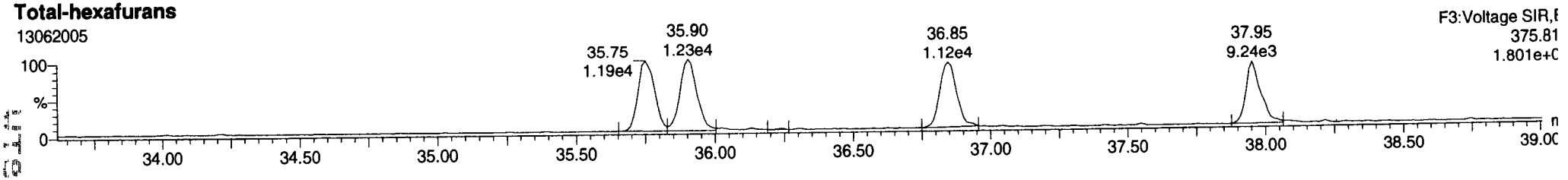
13C-234678-HxCDF



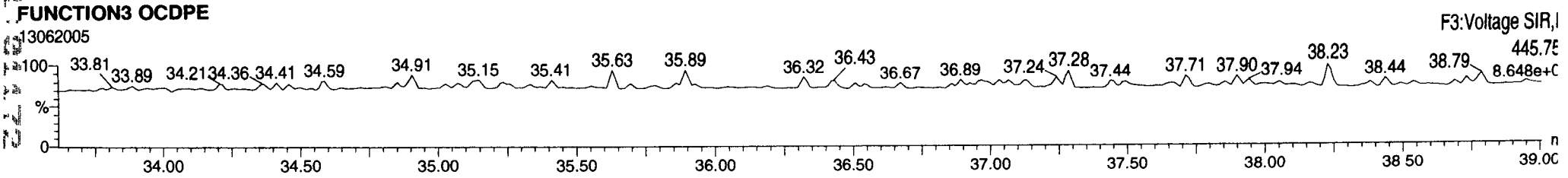
Total-hexafurans



Total-hexafurans

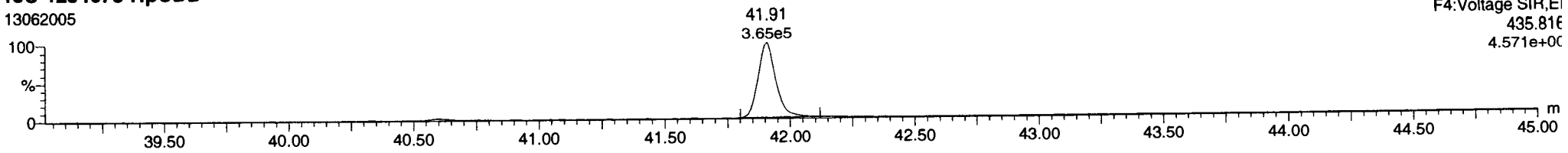


FUNCTION3 OCDPE



ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



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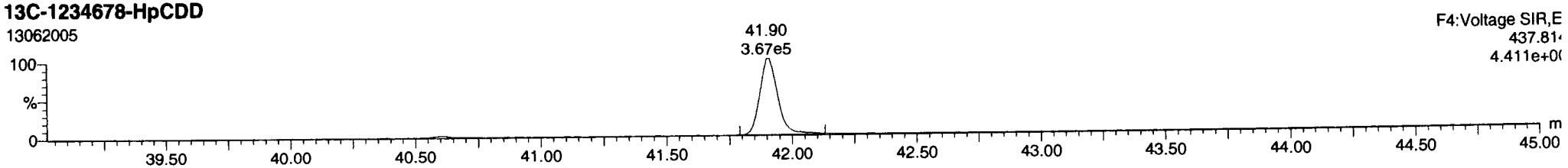

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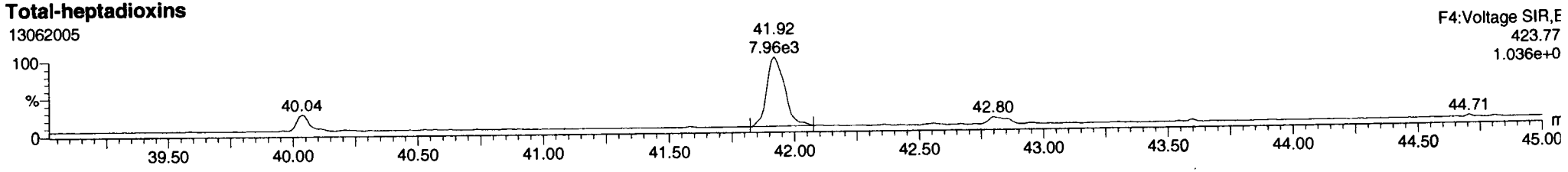
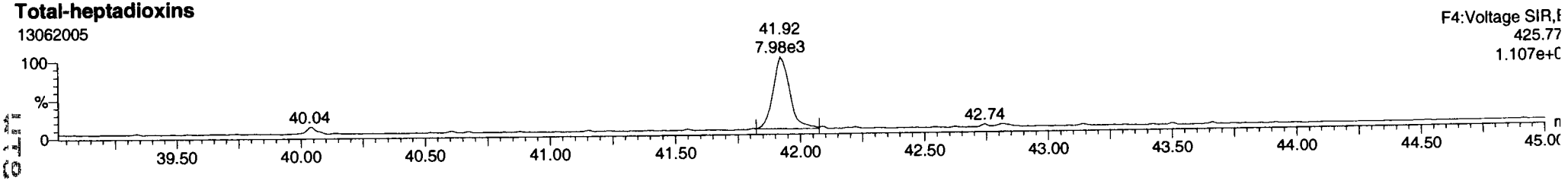
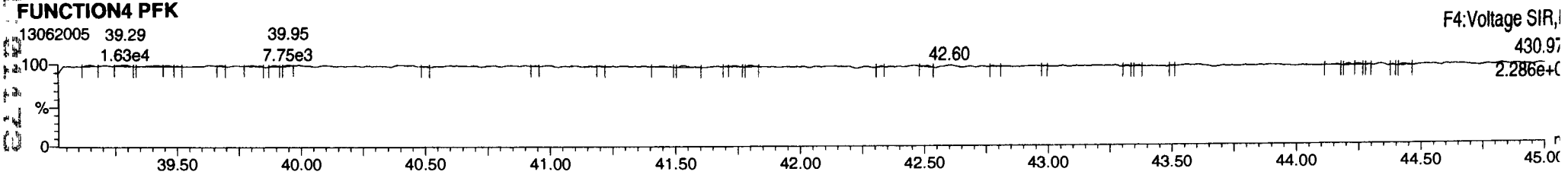


Total-heptadioxins



FUNCTION4 PFK



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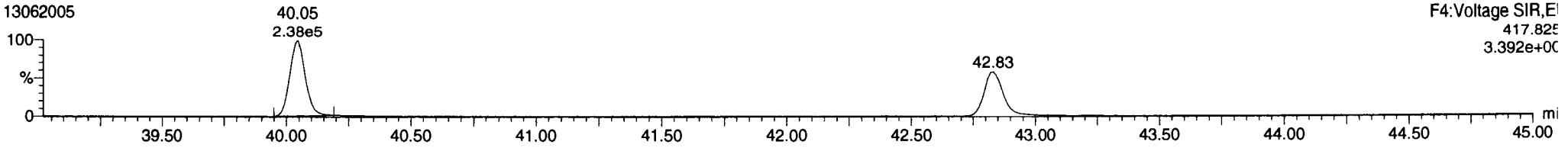
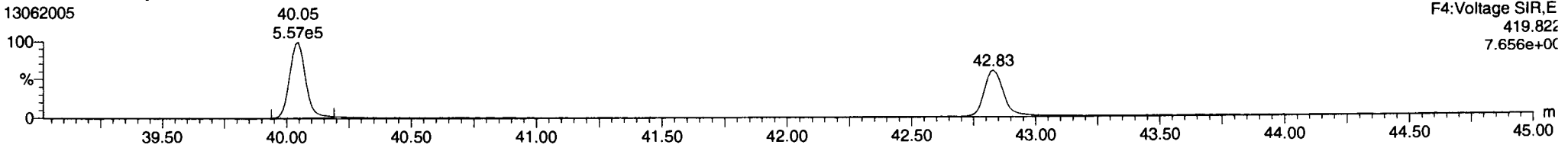
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

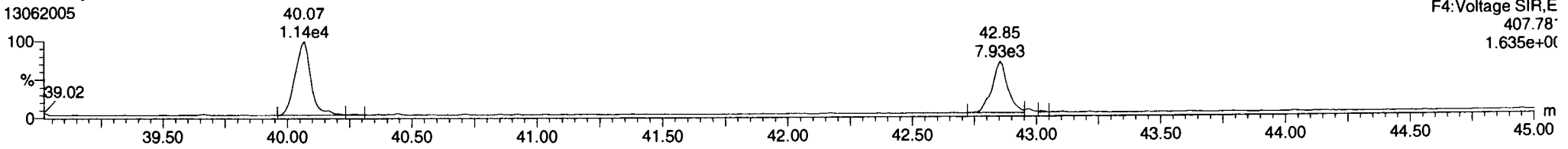
13C-1234678-HpCDF



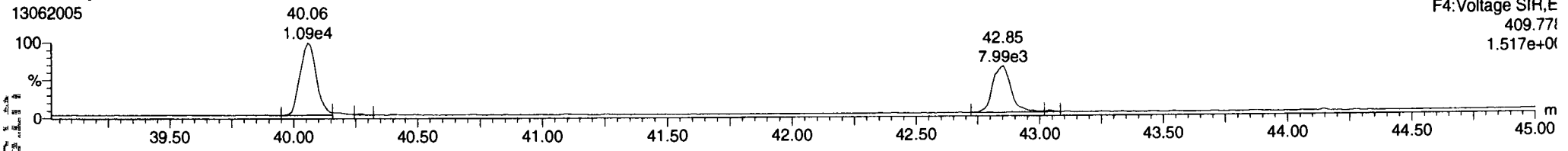
13C-1234678-HpCDF



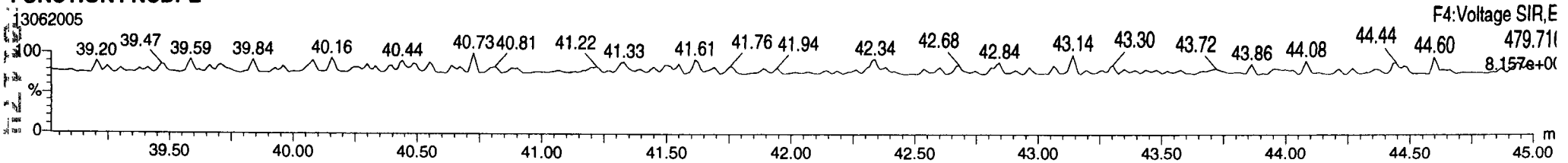
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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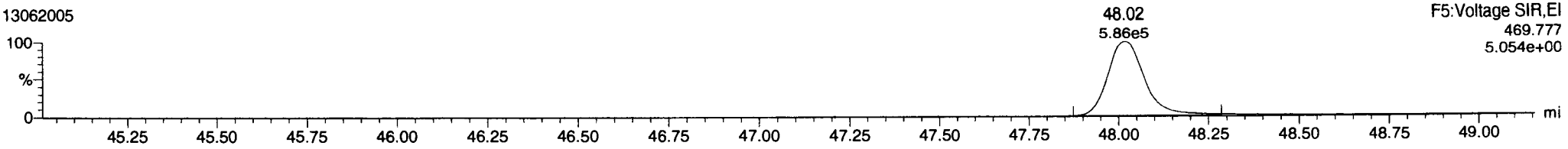
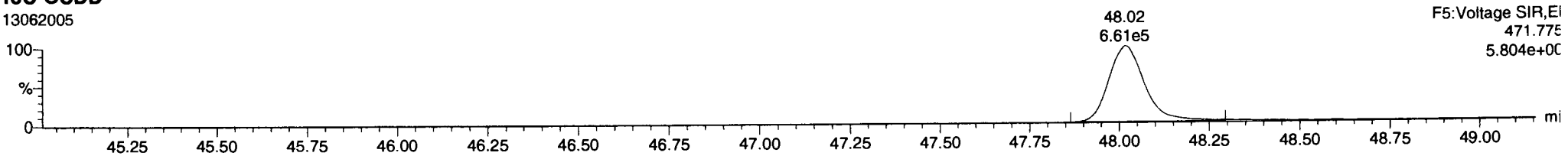
Printed: Friday, June 21, 2013 09:15:58 Pacific Daylight Time

ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

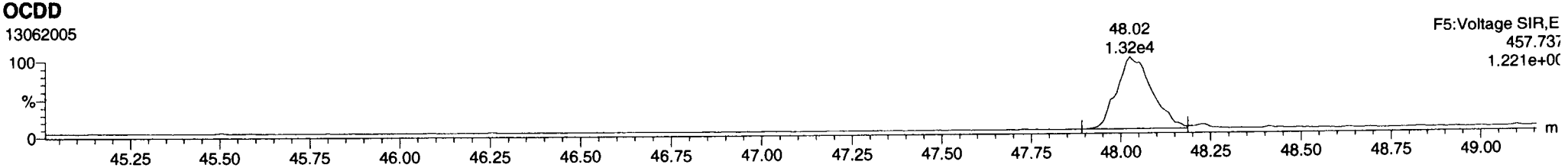
13C-OCDD



13C-OCDD



OCDD



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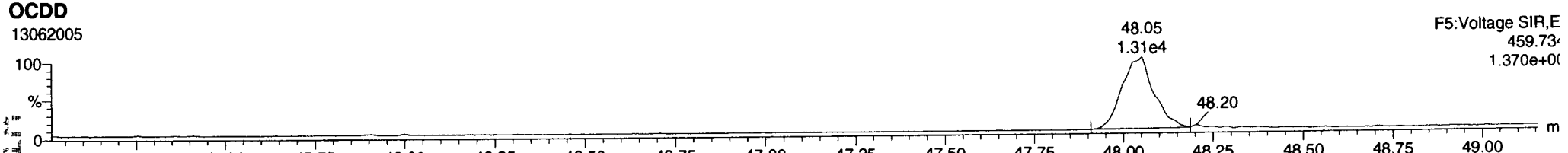

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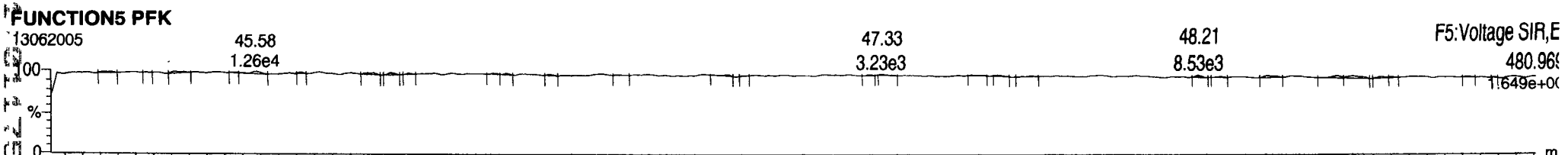

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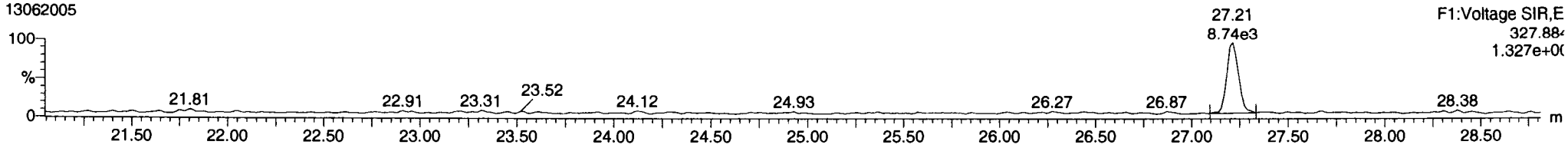
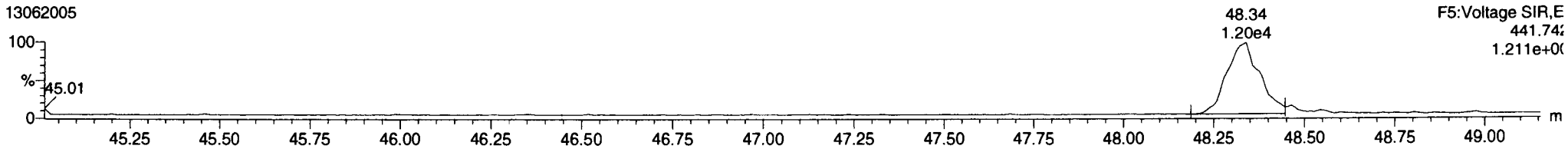
ID: CS1, Name: 13062005, Date: 20-Jun-2013, Time: 13:43:04, Conditions: AUTOSPEC01, User: pk

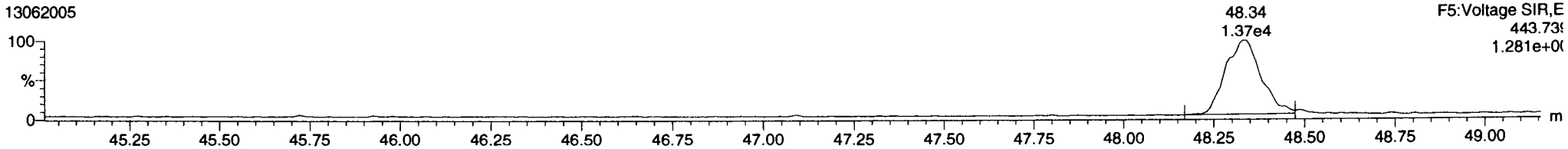
37CL-2378-TCDD



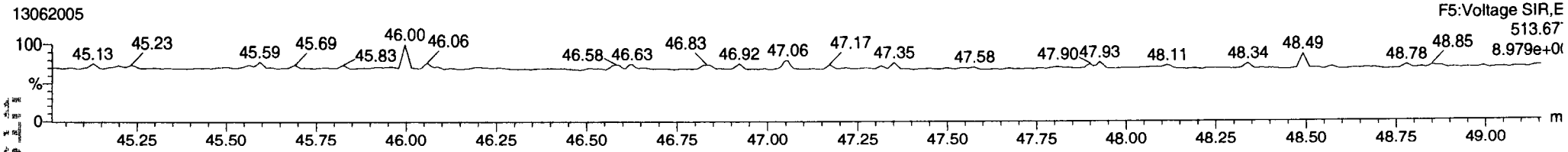
OCDF



OCDF



FUNCTION5 DCDPE



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Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:07 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.542	1.001	1.63e4	2.11e4	0.771	0.770	0.770	255.6	NO	1.941	1.941
12378-PeCDF	30.698	1.000	8.78e4	5.86e4	0.814	1.498	1.550	684.0	NO	9.754	9.754
23478-PeCDF	32.046	1.000	8.53e4	5.82e4	0.837	1.465	1.550	680.6	NO	9.597	9.597
123478-HxCDF	35.729	1.000	6.68e4	5.32e4	0.967	1.256	1.240	743.0	NO	9.783	9.783
234678-HxCDF	36.825	1.001	6.41e4	5.44e4	1.000	1.178	1.240	712.3	NO	9.898	9.898
123678-HxCDF	35.883	1.001	7.18e4	5.73e4	0.951	1.253	1.240	775.0	NO	9.695	9.695
123789-HxCDF	37.943	1.001	5.31e4	4.26e4	0.874	1.246	1.240	582.5	NO	9.793	9.793
1234678-HpCDF	40.037	1.000	5.23e4	5.15e4	1.072	1.017	1.050	661.4	NO	10.040	10.040
1234789-HpCDF	42.821	1.000	3.59e4	3.83e4	1.085	0.938	1.050	402.7	NO	9.563	9.563
OCDF	48.313	1.007	6.36e4	7.40e4	0.878	0.860	0.890	482.0	NO	19.414	19.414
2378-TCDD	27.184	1.001	1.54e4	1.90e4	0.936	0.808	0.770	203.9	NO	1.901	1.901
12378-PeCDD	32.298	1.000	6.88e4	4.74e4	0.894	1.452	1.550	744.9	NO	9.612	9.612
123478-HxCDD	36.957	1.000	5.83e4	4.61e4	0.898	1.265	1.240	587.9	NO	9.706	9.706
123678-HxCDD	37.088	1.000	5.86e4	4.87e4	0.818	1.203	1.240	573.1	NO	9.967	9.967
123789-HxCDD	37.505	1.012	5.43e4	4.55e4	0.789	1.194	1.240	531.6	NO	10.063	10.063
1234678-HpCDD	41.911	1.001	4.14e4	3.98e4	0.879	1.039	1.050	444.3	NO	9.931	9.931
OCDD	48.017	1.000	6.54e4	7.51e4	0.875	0.871	0.890	542.0	NO	19.887	19.887
13C-2378-TCDF	26.527	1.007	1.08e6	1.42e6	1.190	0.760	0.770	6130.1	NO		98.347
13C-12378-PeCDF	30.687	1.165	1.12e6	7.25e5	0.904	1.542	1.550	3121.2	NO		95.493
13C-23478-PeCDF	32.035	1.216	1.08e6	7.08e5	0.877	1.526	1.550	3003.9	NO		95.501
13C-123478-HxCDF	35.718	0.953	4.24e5	8.44e5	1.096	0.502	0.510	1169.6	NO		98.937
13C-123678-HxCDF	35.861	0.956	4.79e5	9.20e5	1.187	0.520	0.510	1235.1	NO		100.725
13C-234678-HxCDF	36.803	0.982	4.01e5	7.97e5	1.040	0.503	0.510	1072.3	NO		98.459
13C-123789-HxCDF	37.921	1.011	3.70e5	7.49e5	0.941	0.493	0.510	997.6	NO		101.636
13C-1234678-HpCDF	40.026	1.068	2.80e5	6.84e5	0.825	0.410	0.440	1624.4	NO		99.908
13C-1234789-HpCDF	42.810	1.142	2.18e5	4.96e5	0.609	0.440	0.440	1043.5	NO		100.255
13C-1234-TCDD	26.347	0.000	9.37e5	1.20e6	1.000	0.783	0.770	2204.5	NO		100.000
13C-2378-TCDD	27.169	1.031	8.38e5	1.10e6	0.920	0.764	0.770	1897.3	NO		98.595
13C-12378-PeCDD	32.287	1.225	8.27e5	5.25e5	0.669	1.577	1.550	4868.3	NO		94.642
13C-123478-HxCDD	36.946	0.985	6.72e5	5.26e5	1.032	1.276	1.240	3069.2	NO		99.263
13C-123678-HxCDD	37.077	0.989	7.22e5	5.94e5	1.146	1.215	1.240	3225.0	NO		98.210
13C-1234678-HpCDD	41.889	1.117	4.73e5	4.57e5	0.789	1.036	1.050	2083.2	NO		100.781
13C-OCDD	47.999	1.280	7.66e5	8.49e5	0.696	0.902	0.890	3110.7	NO		198.271

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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Printed: Friday, June 21, 2013 09:16:07 Pacific Daylight Time

ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

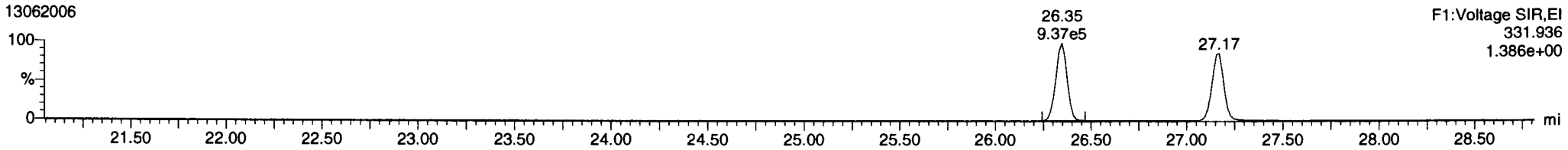
13C-123789-HxCDD	37.494	0.000	6.40e5	5.29e5	1.000	1.209	1.240	2895.7	NO	100.000
Total-tetrafurans			1.66e4		0.771					1.992
Total-penta1			7.39e1							0.011
Total-pentafurans			1.76e5		0.826					19.608
Total-hexafurans			2.58e5		0.948					39.507
Total-heptafurans			8.94e4		1.079					19.765
Total-Furans			6.04e5		0.925					100.314
Total-tetradioxins			1.84e4		0.936					2.156
Total-pentadioxins			7.05e4		0.894					9.819
Total-hexadioxins			1.74e5		0.835					30.107
Total-heptadioxins			4.17e4		0.879					9.992
Total-Dioxins			3.70e5		0.870					71.960
Total-TEQ			9.74e5							172.275
37CL-2378-TCDD	27.184	1.032	3.90e4		1.000			307.8		1.826
FUNCTION1 PFK			0.00e0							
FUNCTION2 PFK			1.90e5							0.000
FUNCTION3 PFK			1.95e5							0.000
FUNCTION4 PFK			4.18e5							
FUNCTION5 PFK			4.59e6							
FUNCTION1 HXCDPE			3.17e2							0.000
FUNCTION1 HPCDPE			7.54e2							0.000
FUNCTION2 HPCDPE			6.99e2							0.000
FUNCTION3 OCDPE			0.00e0							
FUNCTION4 NCDPE			1.56e2							0.000
FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:07 Pacific Daylight Time

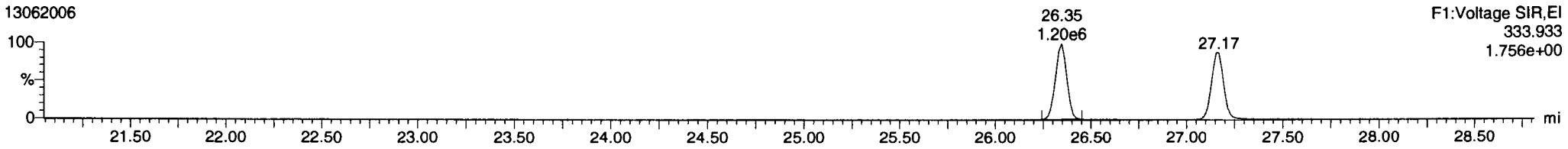
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



13C-1234-TCDD



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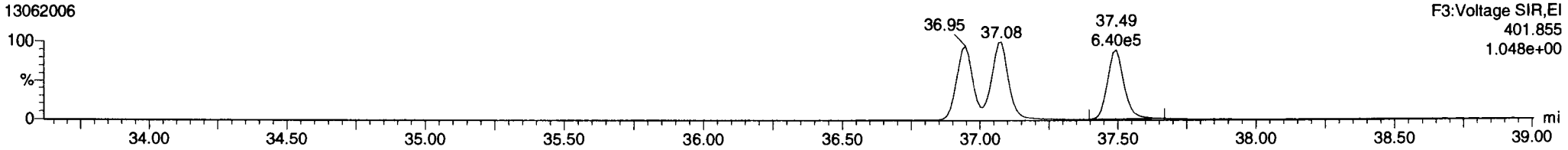

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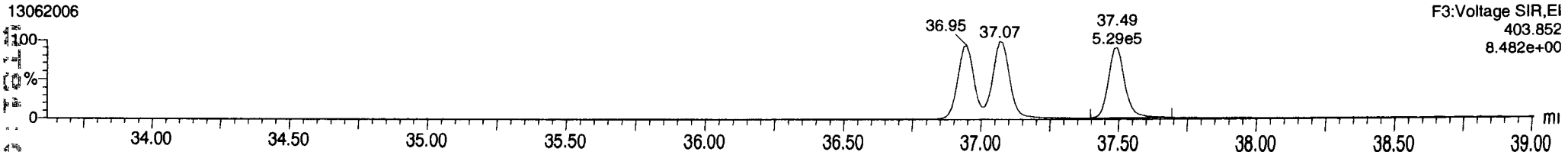

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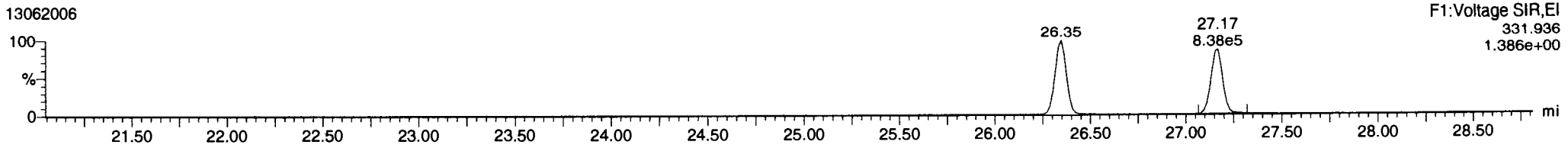
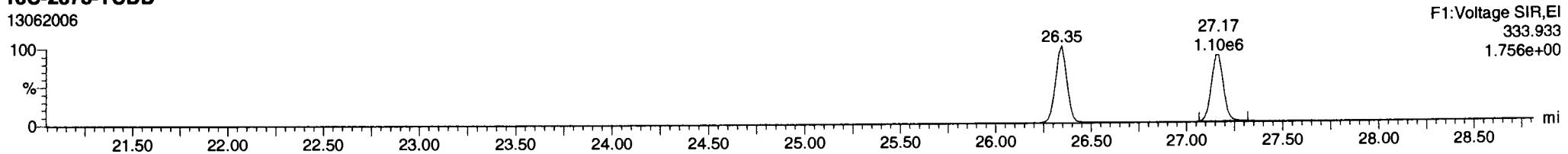
ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

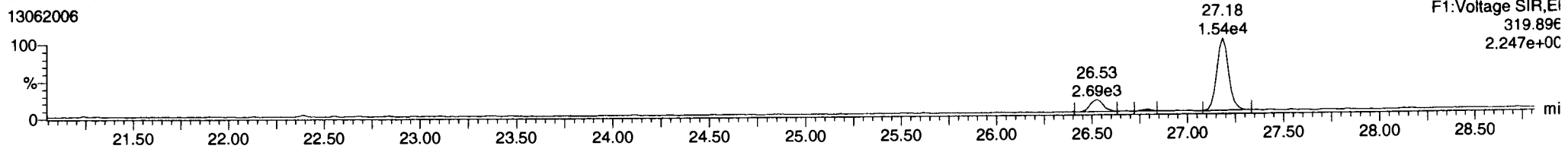
13C-2378-TCDD



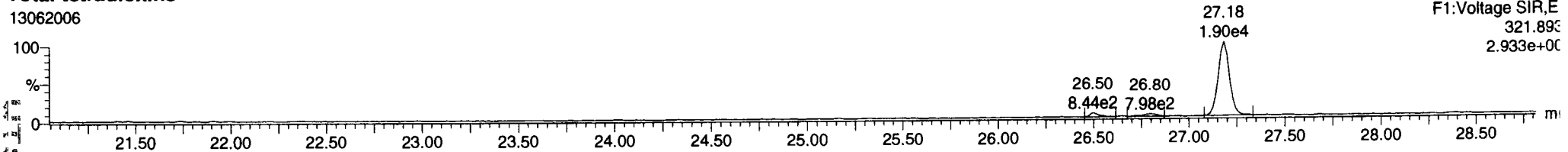
13C-2378-TCDD



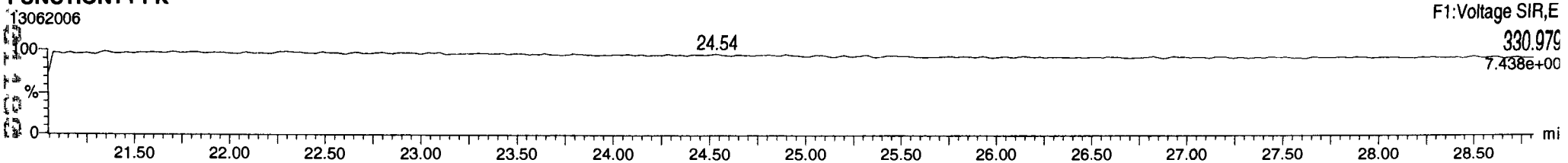
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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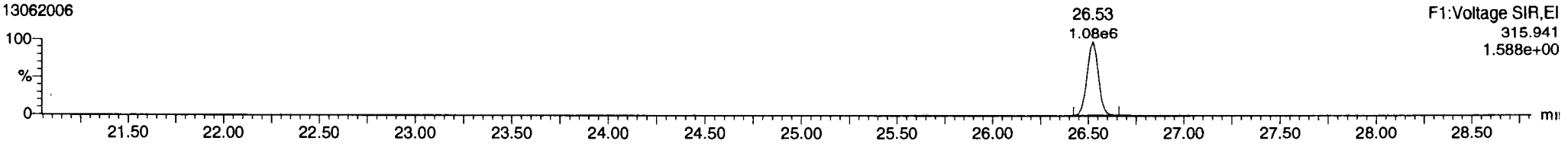
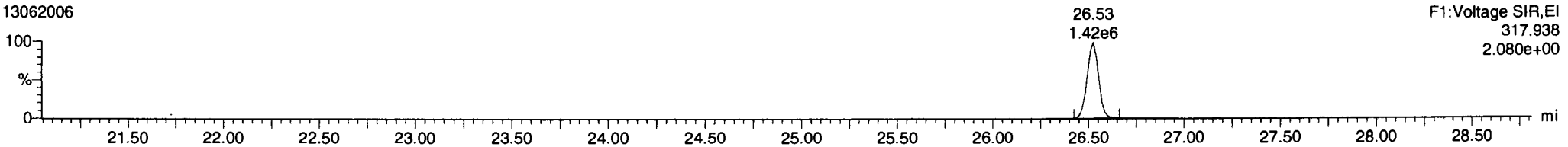
Printed: Friday, June 21, 2013 09:16:07 Pacific Daylight Time

ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

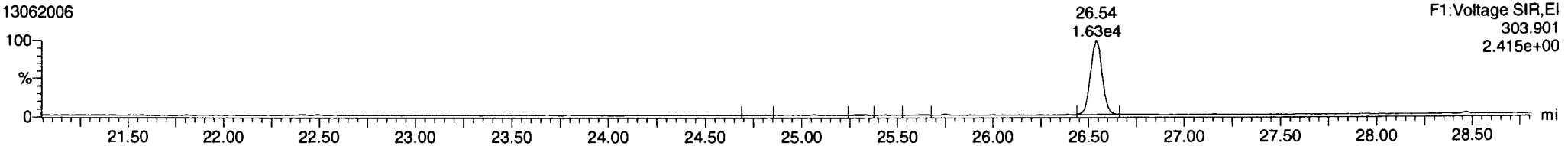
13C-2378-TCDF



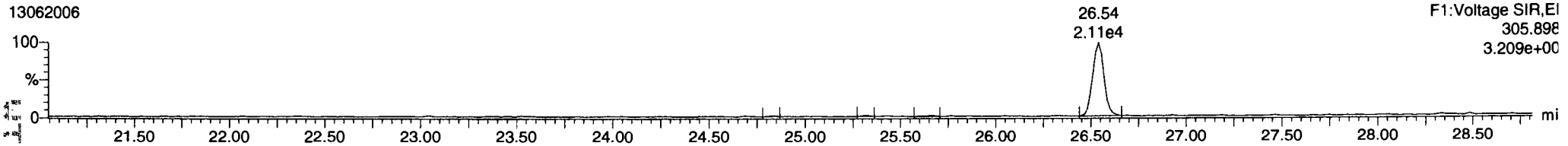
13C-2378-TCDF



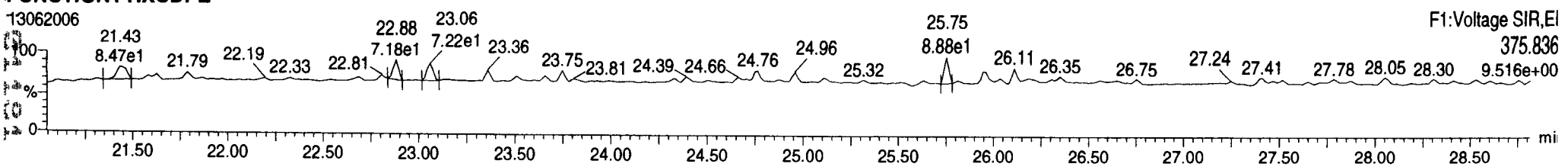
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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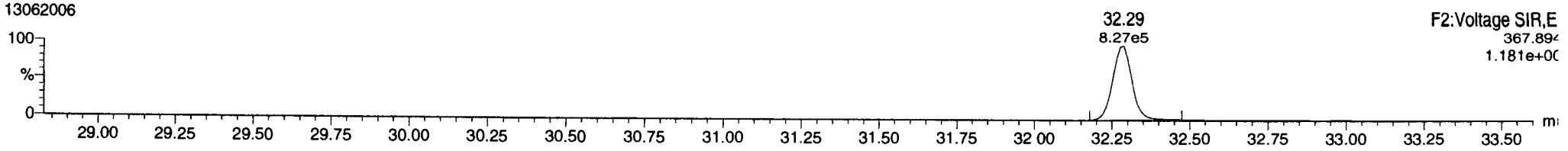
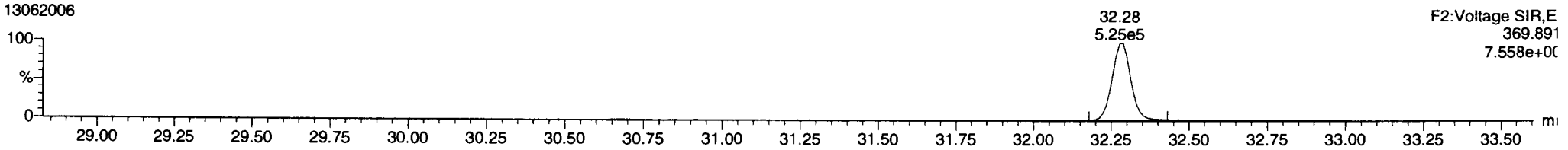
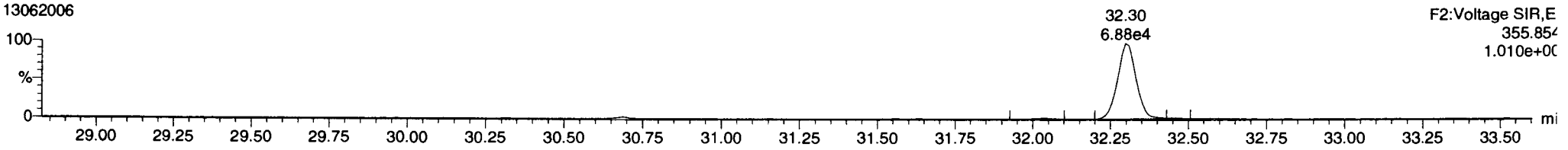
13C-12378-PeCDD



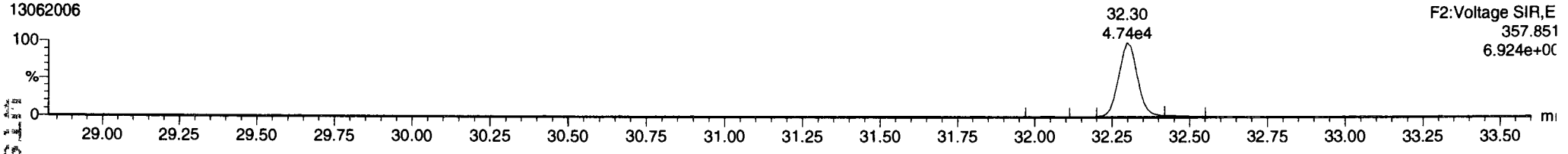
13C-12378-PeCDD



Total-pentadioxins



Total-pentadioxins



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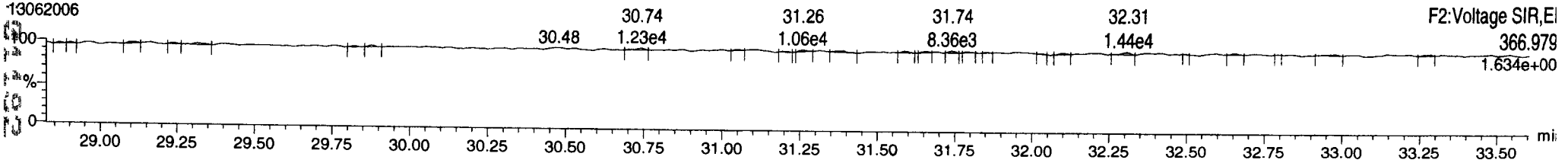

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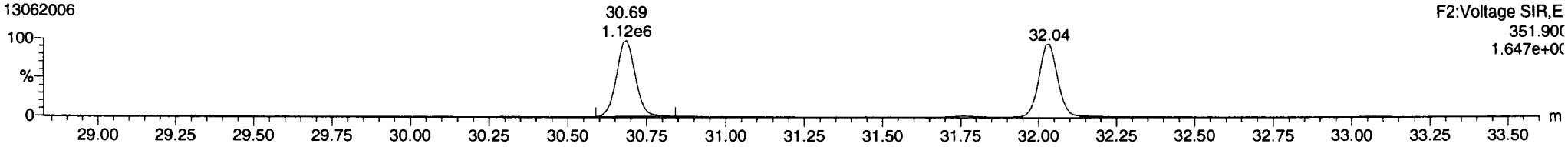
13C-12378-PeCDF



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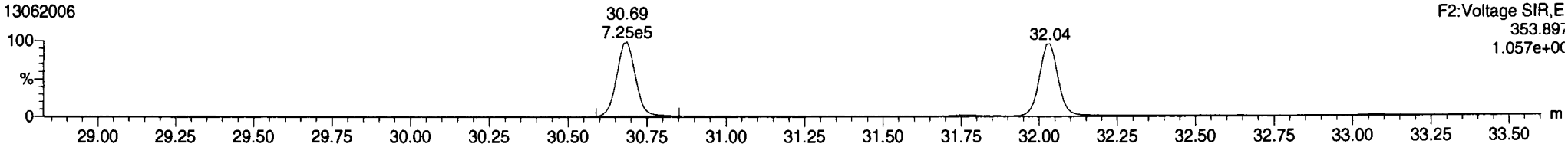
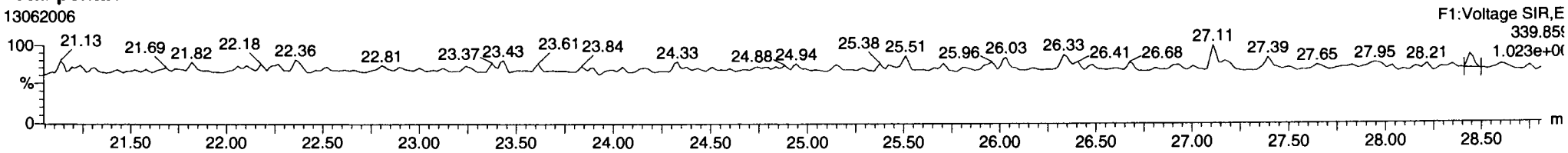
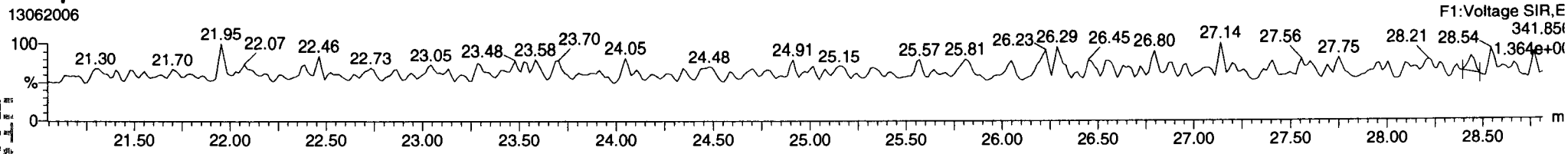


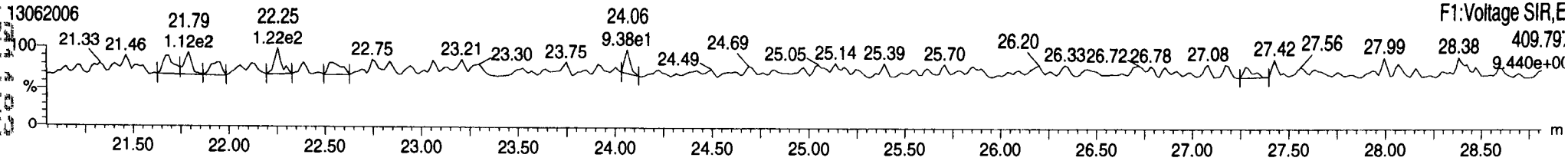
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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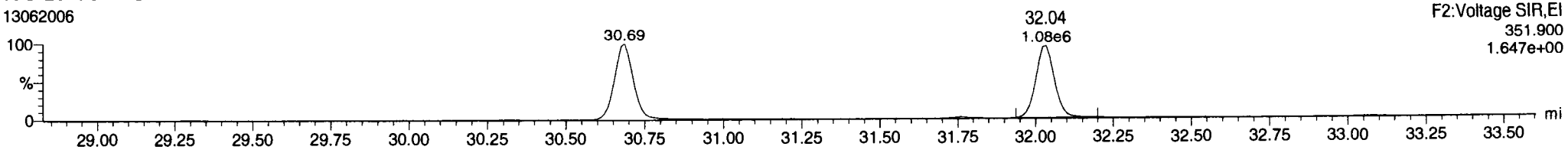
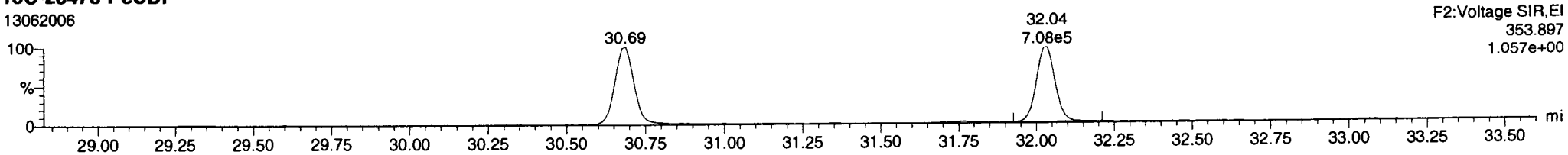
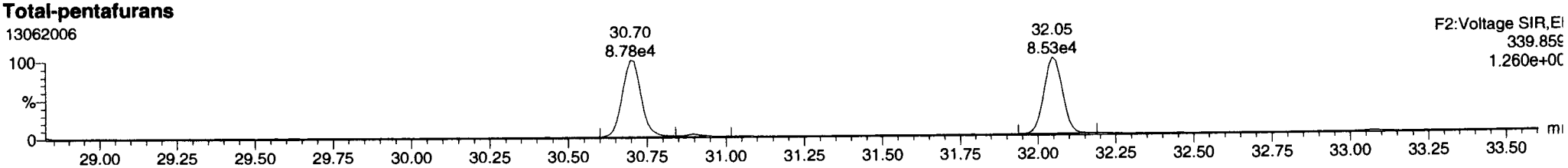
13C-23478-PeCDF



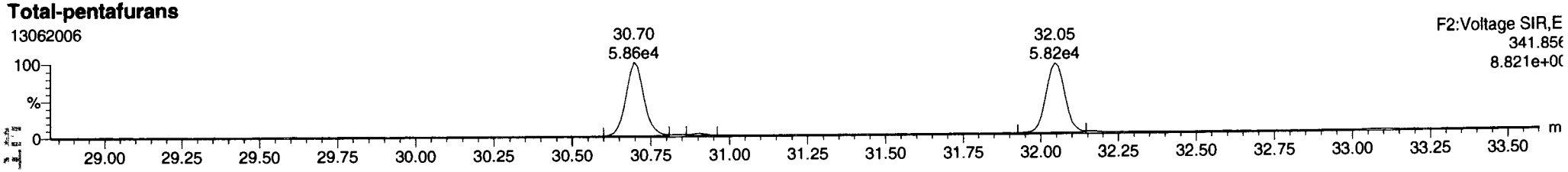
13C-23478-PeCDF



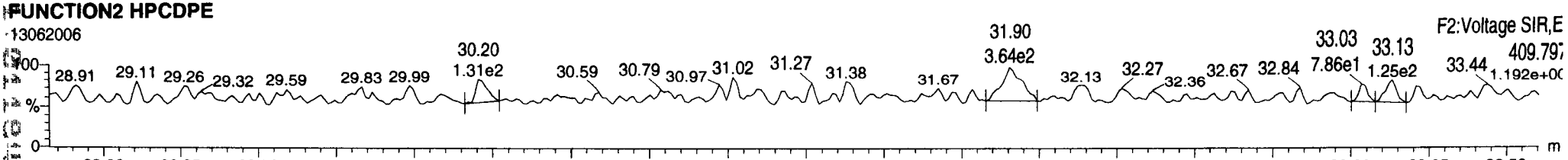
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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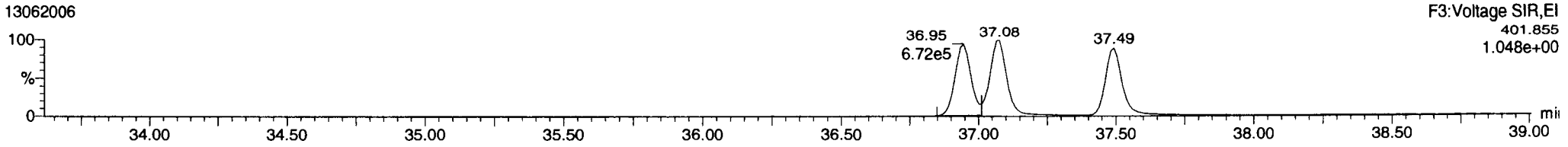
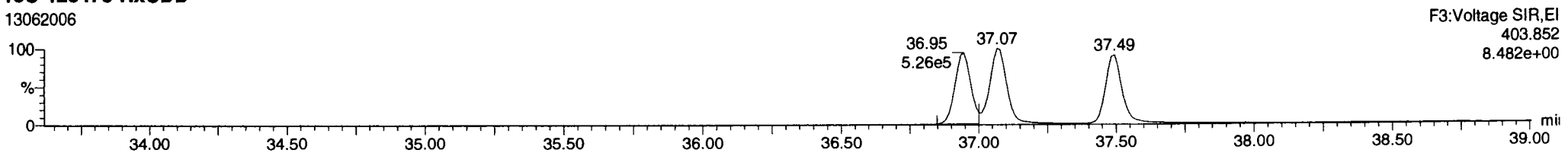
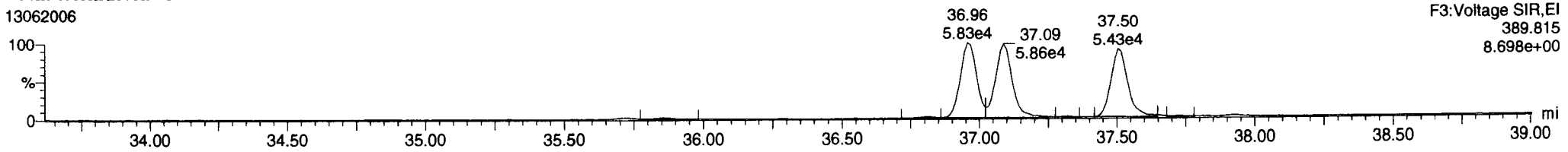
13C-123478-HxCDD



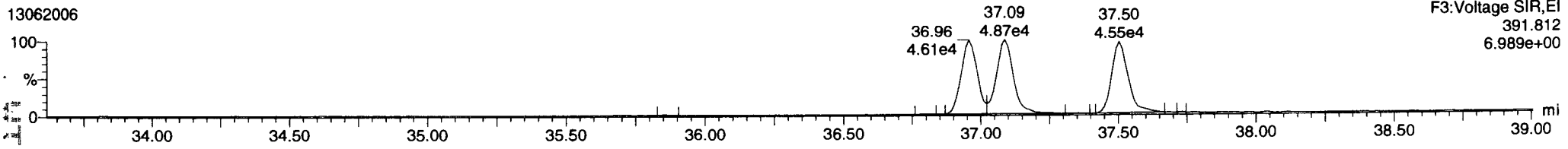
13C-123478-HxCDD



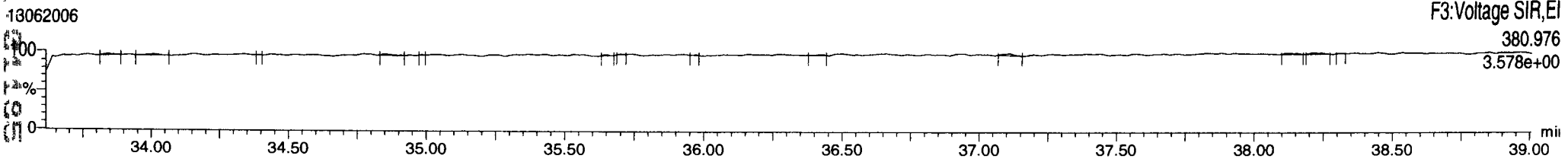
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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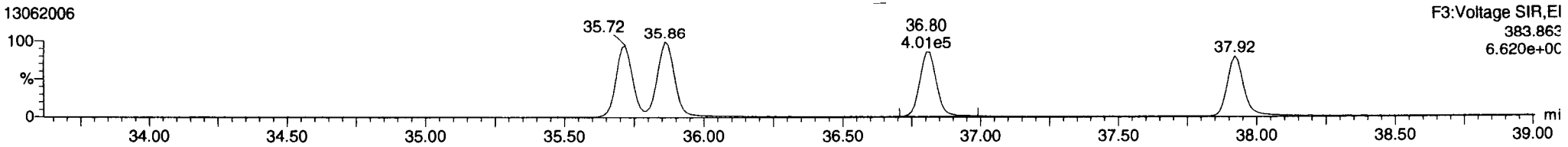
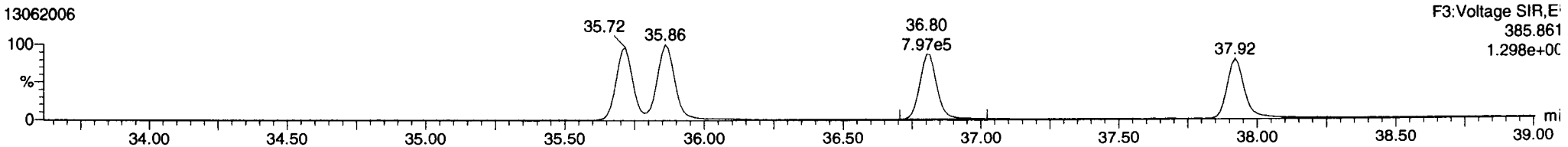
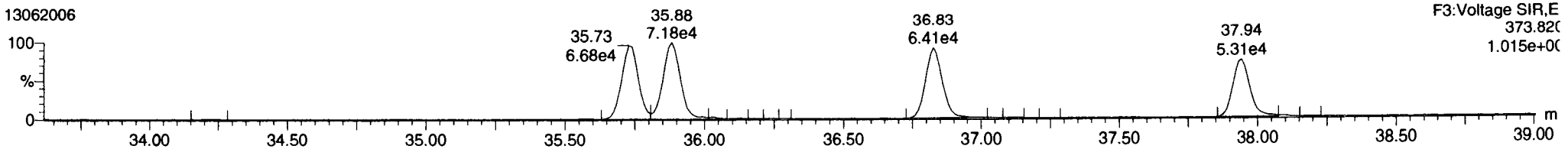
13C-234678-HxCDF



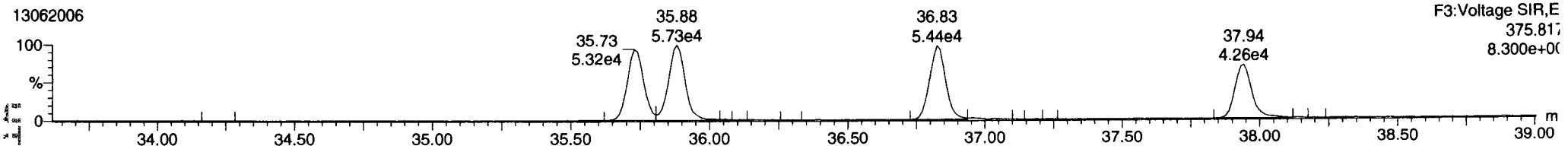
13C-234678-HxCDF



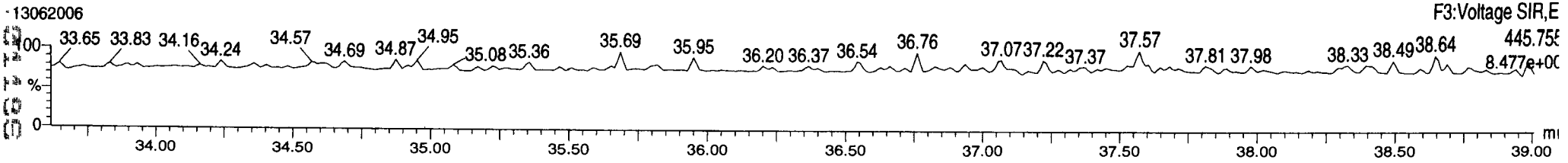
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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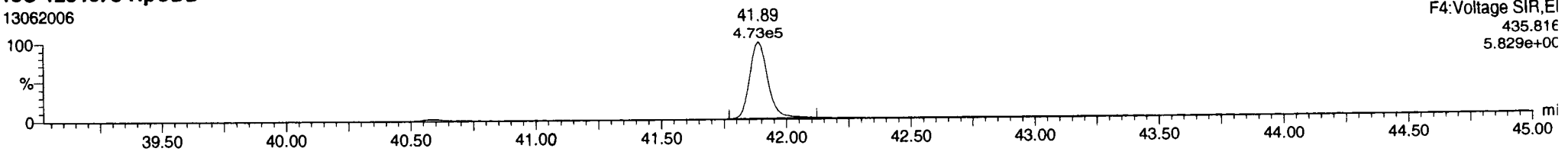
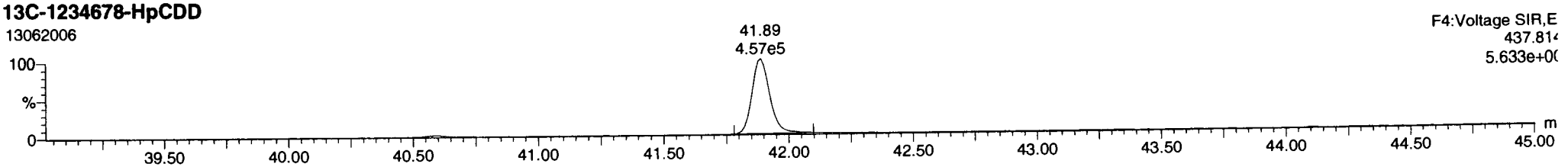
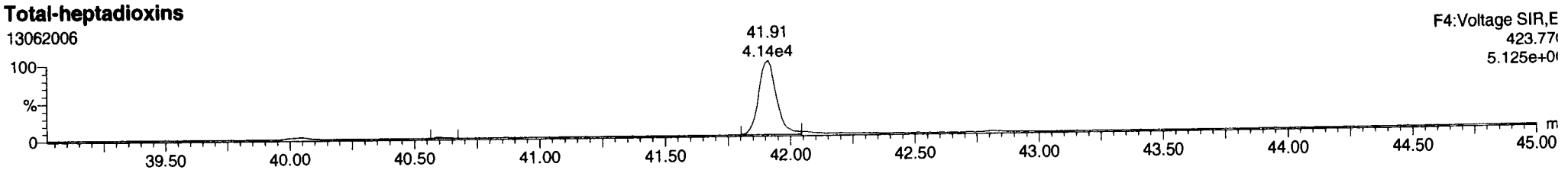
13C-1234678-HpCDD



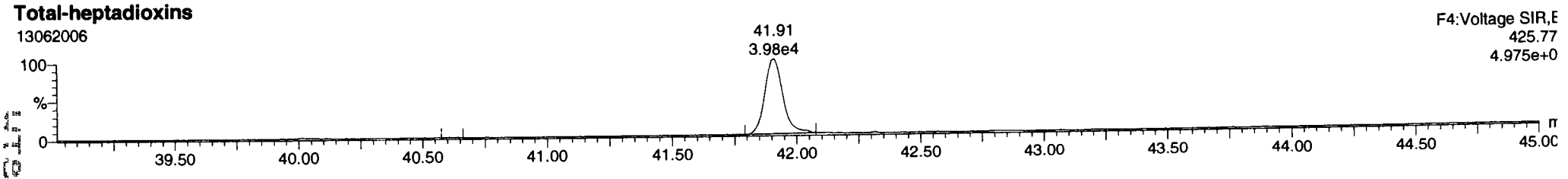
13C-1234678-HpCDD



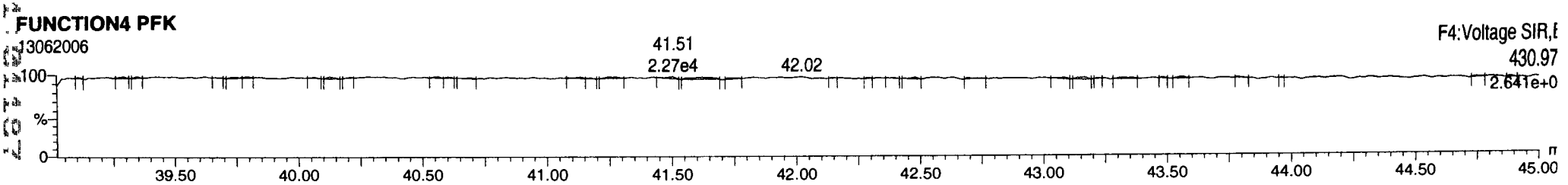
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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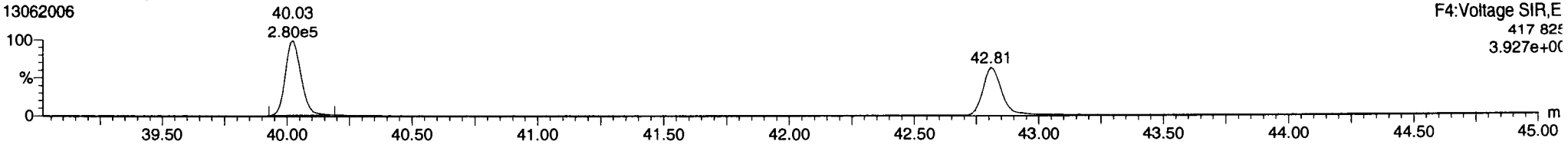
13C-1234678-HpCDF



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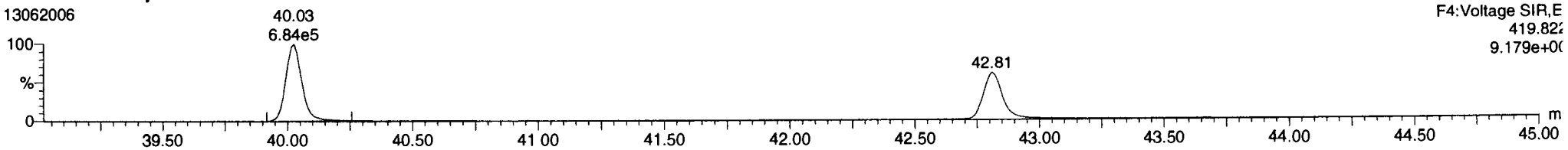
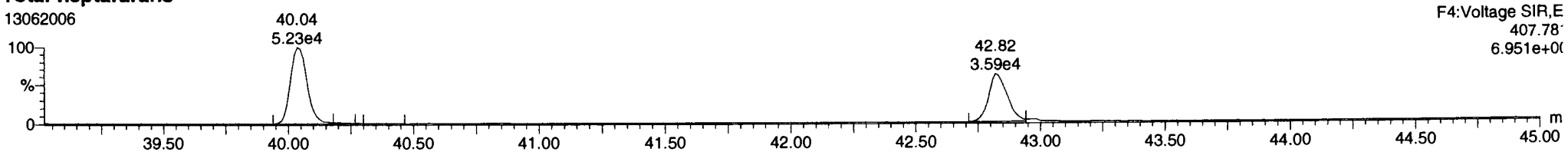
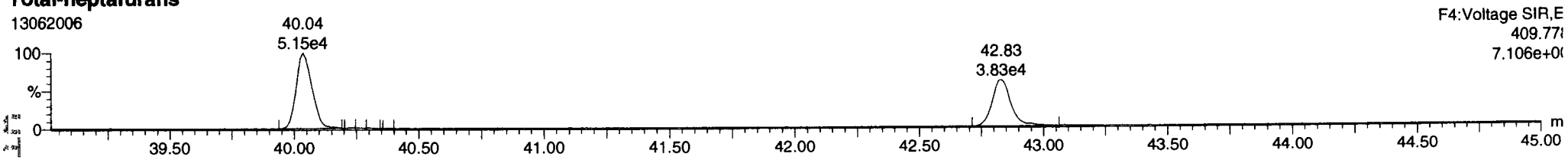


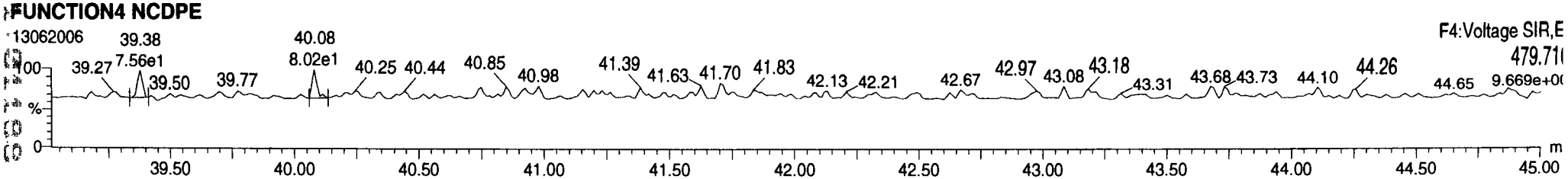
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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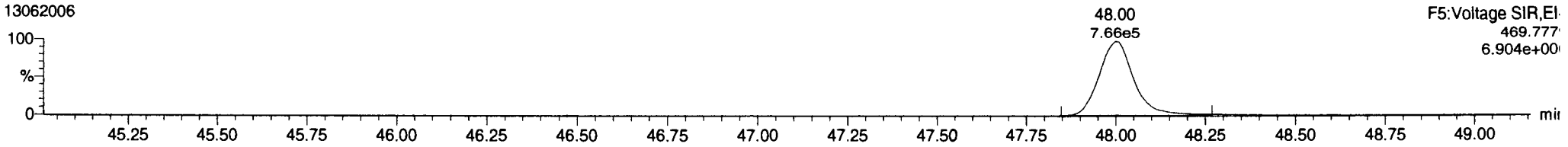
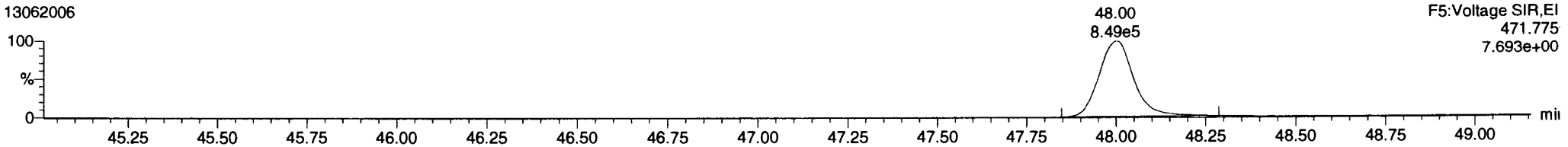
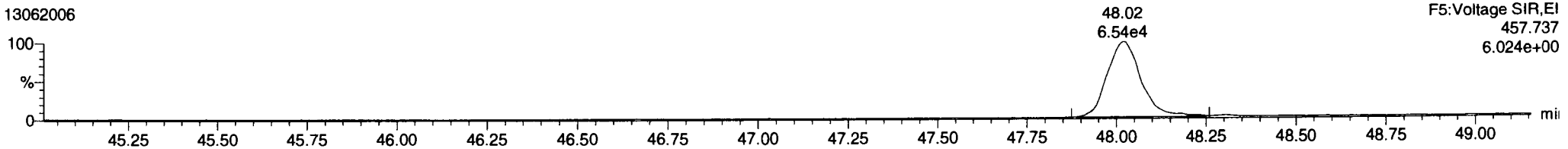
13C-OCDD



13C-OCDD



OCDD



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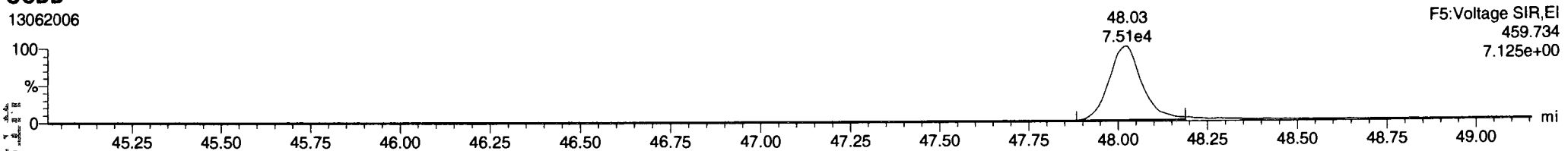
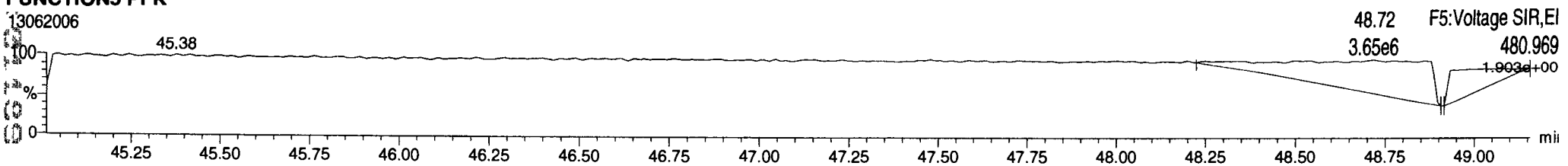


FUNCTION5 PFK



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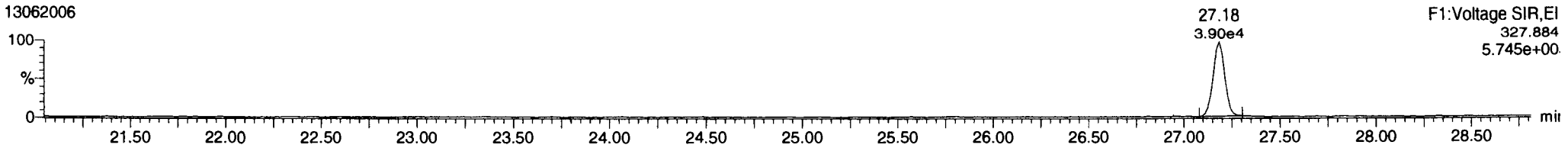
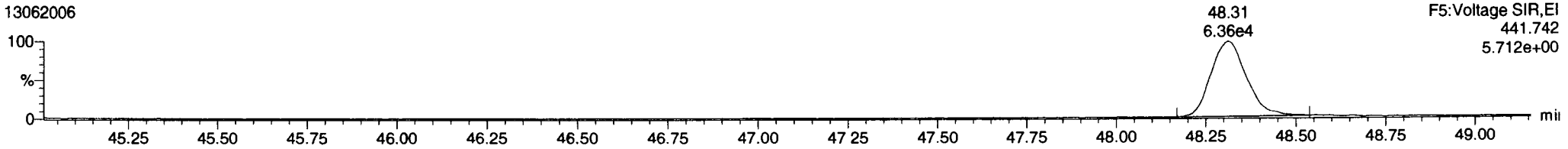
ID: CS2, Name: 13062006, Date: 20-Jun-2013, Time: 14:33:31, Conditions: AUTOSPEC01, User: pk

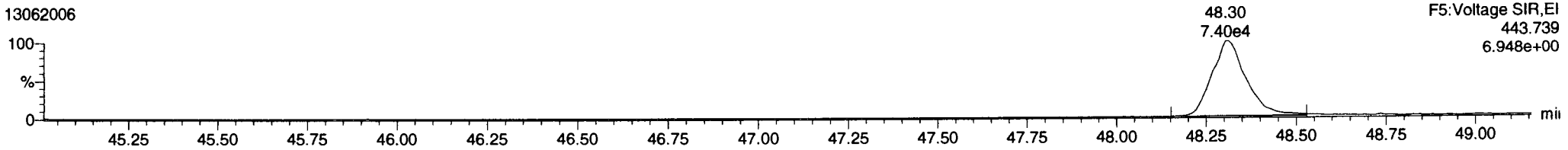
37CL-2378-TCDD



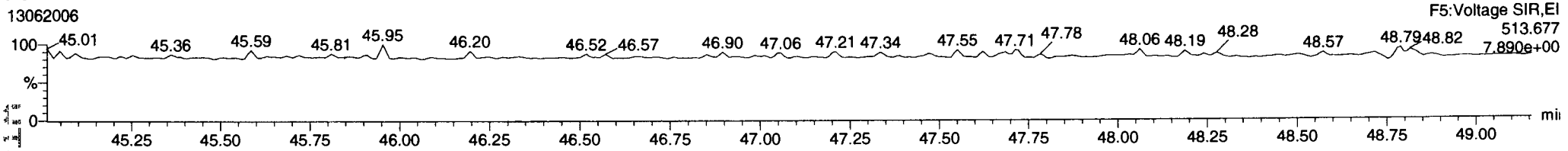
OCDF



OCDF



FUNCTION5 DCDPE



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Calibration: 21 Jun 2013 09:11:11

ID: CS3, Name: 13062007, Date: 20-Jun-2013, Time: 15:25:46, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.541	1.001	6.92e4	9.60e4	0.771	0.721	0.770	700.8	NO	10.223	10.223
12378-PeCDF	30.698	1.000	4.03e5	2.63e5	0.814	1.533	1.550	2517.6	NO	52.226	52.226
23478-PeCDF	32.046	1.000	3.81e5	2.54e5	0.837	1.497	1.550	2498.0	NO	50.326	50.326
123478-HxCDF	35.740	1.001	2.87e5	2.37e5	0.967	1.212	1.240	915.1	NO	49.374	49.374
234678-HxCDF	36.825	1.000	2.89e5	2.36e5	1.000	1.228	1.240	880.7	NO	52.879	52.879
123678-HxCDF	35.882	1.000	3.09e5	2.53e5	0.951	1.220	1.240	950.7	NO	50.482	50.482
123789-HxCDF	37.943	1.001	2.25e5	1.82e5	0.874	1.237	1.240	691.5	NO	52.895	52.895
1234678-HpCDF	40.037	1.000	2.24e5	2.23e5	1.072	1.002	1.050	1203.5	NO	53.242	53.242
1234789-HpCDF	42.832	1.001	1.62e5	1.60e5	1.085	1.017	1.050	727.3	NO	52.767	52.767
OCDF	48.313	1.007	2.67e5	3.00e5	0.878	0.887	0.890	1640.9	NO	105.609	105.609
2378-TCDD	27.184	1.001	6.41e4	8.31e4	0.936	0.772	0.770	534.0	NO	9.738	9.738
12378-PeCDD	32.309	1.001	3.02e5	1.98e5	0.894	1.526	1.550	1753.6	NO	48.762	48.762
123478-HxCDD	36.957	1.000	2.39e5	1.92e5	0.898	1.241	1.240	879.8	NO	48.200	48.200
123678-HxCDD	37.088	1.000	2.53e5	2.10e5	0.818	1.201	1.240	890.0	NO	51.555	51.555
123789-HxCDD	37.505	1.012	2.31e5	1.88e5	0.789	1.231	1.240	838.7	NO	50.697	50.697
1234678-HpCDD	41.911	1.001	1.68e5	1.65e5	0.879	1.019	1.050	971.0	NO	52.104	52.104
OCDD	48.017	1.000	2.51e5	2.86e5	0.875	0.875	0.890	1288.0	NO	100.292	100.292
13C-2378-TCDF	26.526	1.007	9.06e5	1.19e6	1.190	0.762	0.770	4575.5	NO		100.217
13C-12378-PeCDF	30.687	1.165	9.50e5	6.17e5	0.904	1.539	1.550	2244.1	NO		98.537
13C-23478-PeCDF	32.035	1.216	9.17e5	5.91e5	0.877	1.551	1.550	2236.0	NO		97.772
13C-123478-HxCDF	35.718	0.953	3.73e5	7.25e5	1.096	0.514	0.510	1475.1	NO		106.323
13C-123678-HxCDF	35.871	0.957	4.05e5	7.66e5	1.187	0.529	0.510	1478.3	NO		104.740
13C-234678-HxCDF	36.814	0.982	3.37e5	6.55e5	1.040	0.514	0.510	1319.5	NO		101.388
13C-123789-HxCDF	37.921	1.011	3.03e5	5.79e5	0.941	0.522	0.510	1167.2	NO		99.538
13C-1234678-HpCDF	40.026	1.068	2.41e5	5.43e5	0.825	0.443	0.440	1640.5	NO		100.840
13C-1234789-HpCDF	42.810	1.142	1.70e5	3.93e5	0.609	0.433	0.440	989.6	NO		98.126
13C-1234-TCDD	26.347	0.000	7.71e5	9.87e5	1.000	0.782	0.770	1154.4	NO		100.000
13C-2378-TCDD	27.169	1.031	7.07e5	9.08e5	0.920	0.779	0.770	1030.9	NO		99.844
13C-12378-PeCDD	32.287	1.225	6.93e5	4.54e5	0.669	1.527	1.550	2843.4	NO		97.520
13C-123478-HxCDD	36.945	0.985	5.51e5	4.45e5	1.032	1.238	1.240	3475.9	NO		102.599
13C-123678-HxCDD	37.077	0.989	5.96e5	5.03e5	1.146	1.185	1.240	3611.9	NO		101.814
13C-1234678-HpCDD	41.889	1.117	3.71e5	3.55e5	0.789	1.044	1.050	2125.8	NO		97.822
13C-OCDD	47.999	1.280	5.71e5	6.52e5	0.696	0.875	0.890	2143.5	NO		186.569

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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Printed: Friday, June 21, 2013 09:16:17 Pacific Daylight Time

ID: CS3, Name: 13062007, Date: 20-Jun-2013, Time: 15:25:46, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.493	0.000	5.21e5	4.21e5	1.000	1.239	1.240	3324.8	NO	100.000
Total-tetrafurans			2.31e5		0.771					33.314
Total-penta1			7.91e5							93.600
Total-pentafurans			1.18e6		0.826					154.517
Total-hexafurans			1.48e6		0.948					273.776
Total-heptafurans			3.90e5		1.079					106.697
Total-Furans			4.34e6		0.925					767.513
Total-tetradioxins			3.69e5		0.936					56.443
Total-pentadioxins			1.10e6		0.894					176.461
Total-hexadioxins			1.07e6		0.835					222.516
Total-heptadioxins			3.76e5		0.879					115.808
Total-Dioxins			3.16e6		0.870					671.520
Total-TEQ			7.50e6							1439.032
37CL-2378-TCDD	27.184	1.032	1.67e5		1.000			962.1		9.525
FUNCTION1 PFK			4.06e7							
FUNCTION2 PFK			1.01e5							0.000
FUNCTION3 PFK			3.91e5							0.000
FUNCTION4 PFK			5.85e5							
FUNCTION5 PFK			2.06e5							
FUNCTION1 HXCDPE			1.78e2							0.000
FUNCTION1 HPCDPE			1.09e3							0.000
FUNCTION2 HPCDPE			1.78e3							0.000
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FUNCTION5 DCDPE			0.00e0							

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Calibration: 21 Jun 2013 09:11:11

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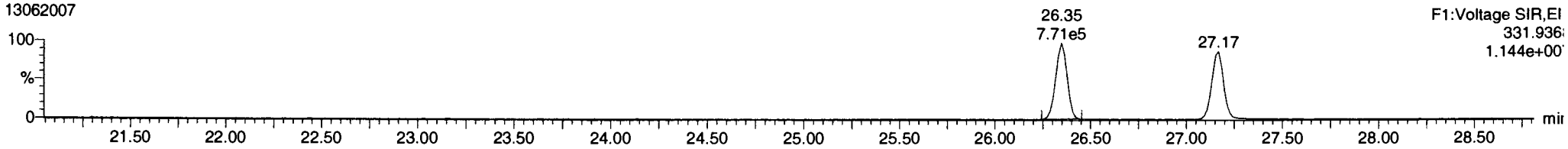
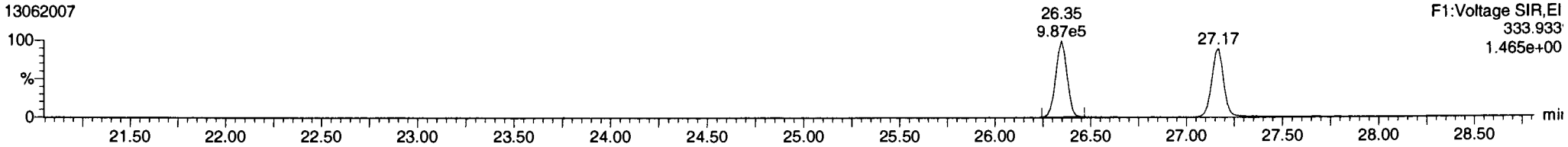
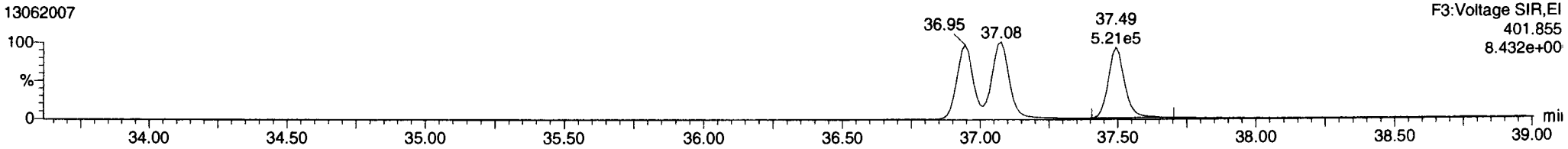
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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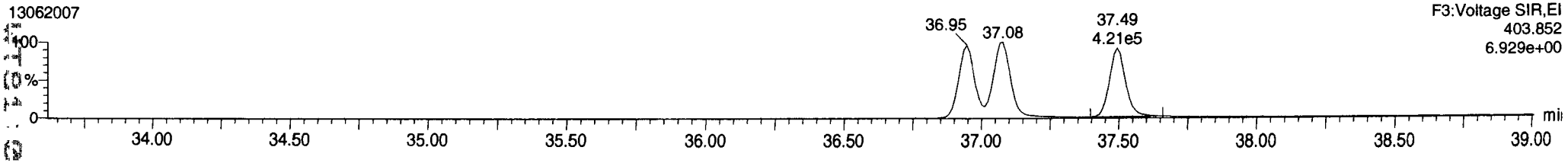

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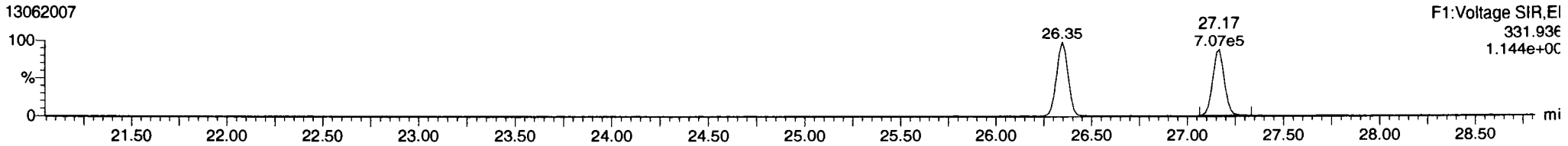
13C-2378-TCDD



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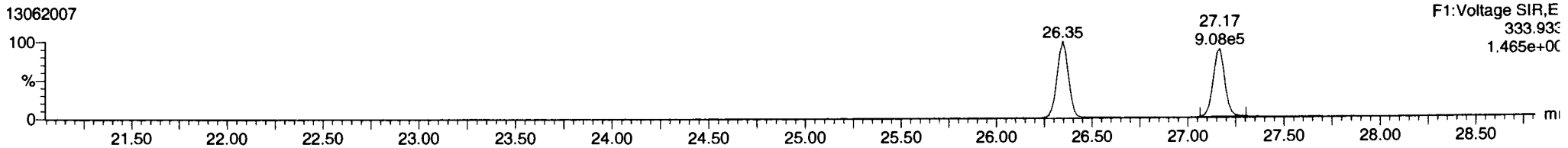
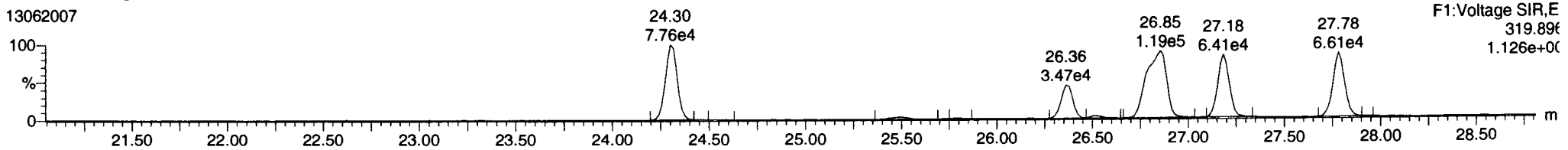
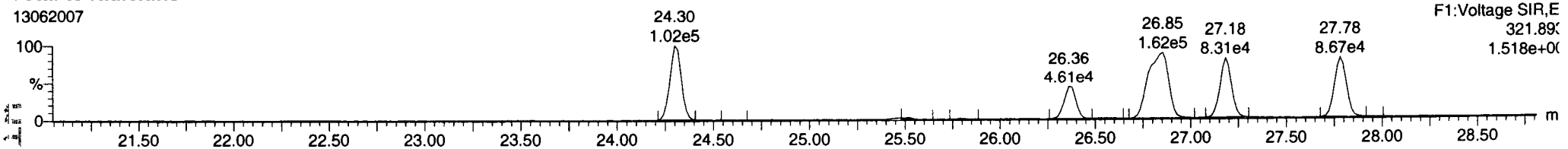


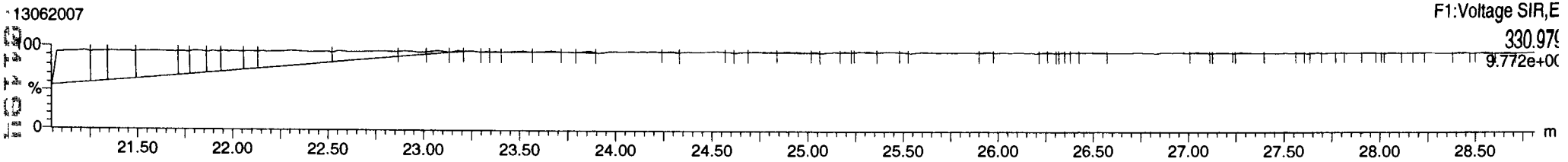
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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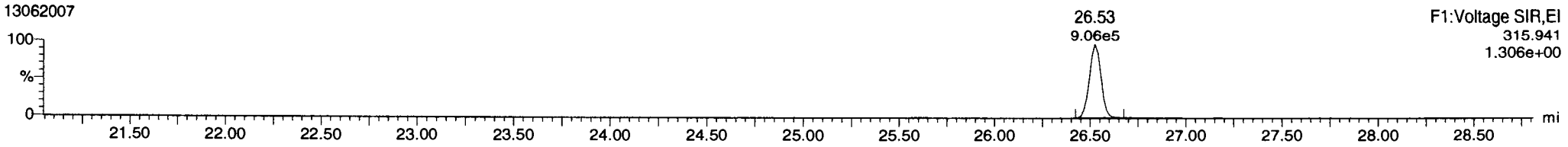
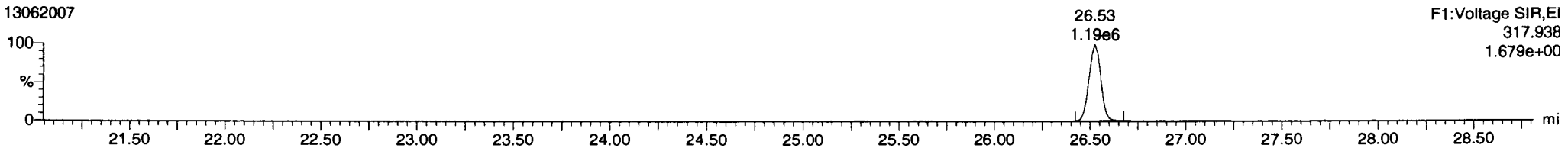
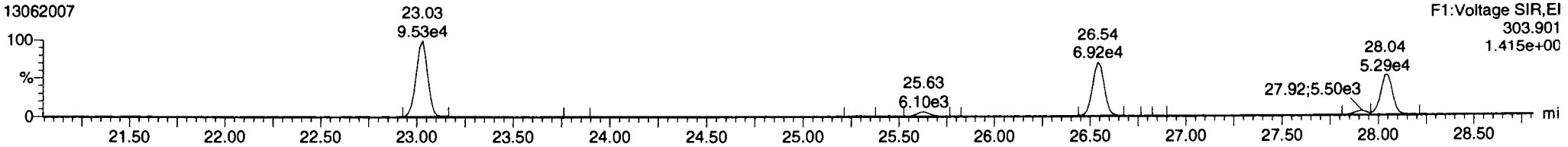
13C-2378-TCDF



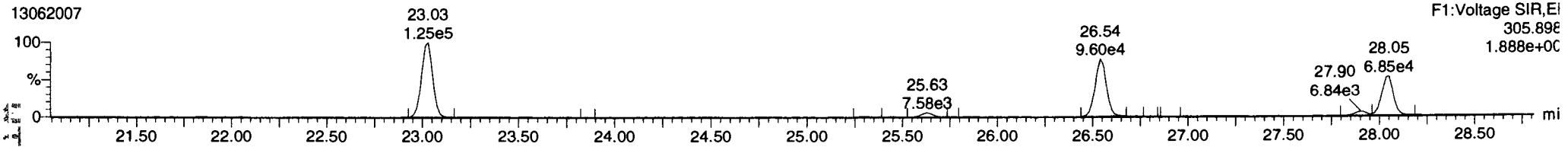
13C-2378-TCDF



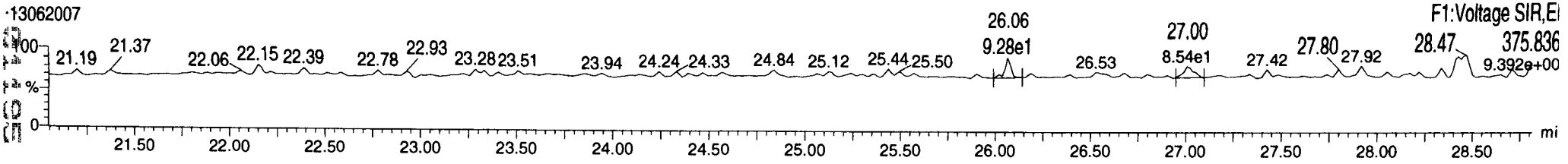
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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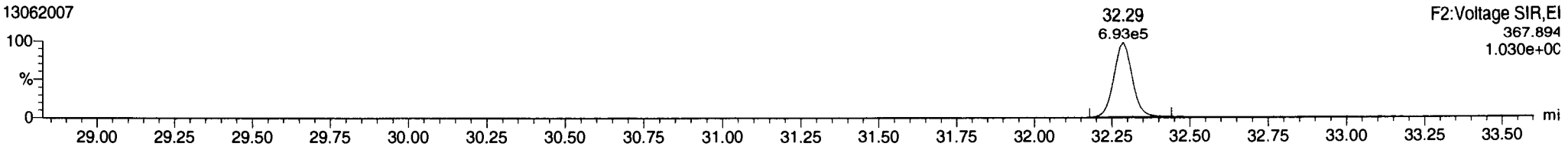
13C-12378-PeCDD



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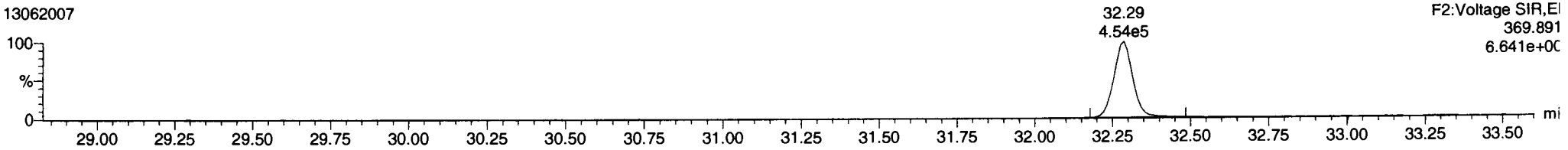
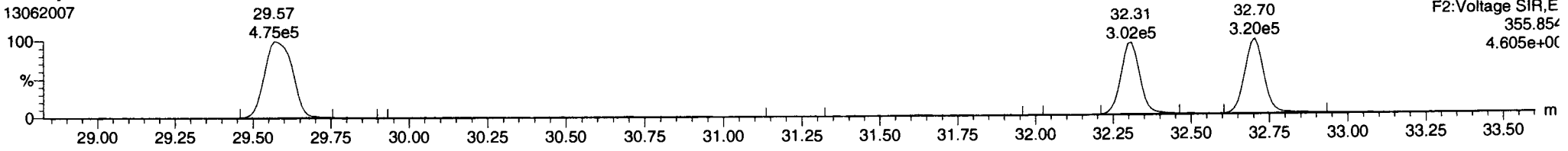
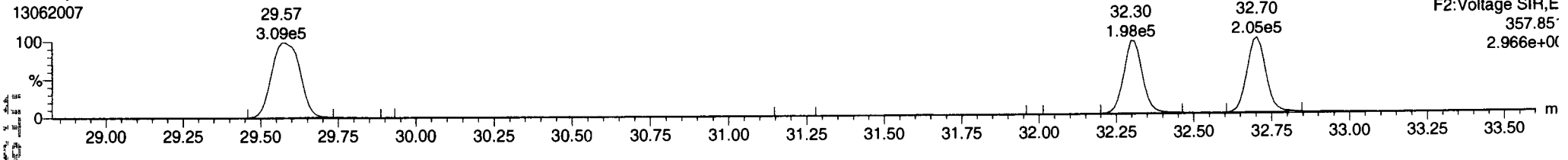


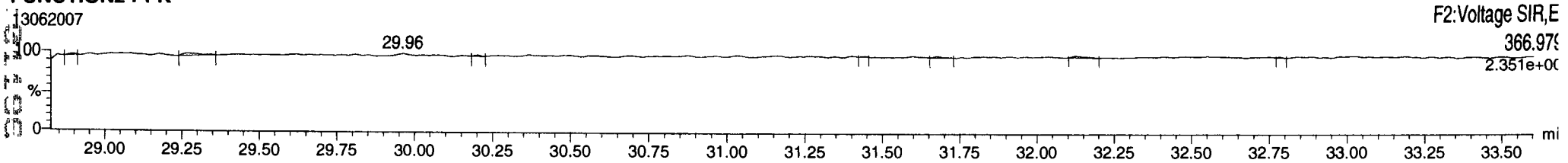
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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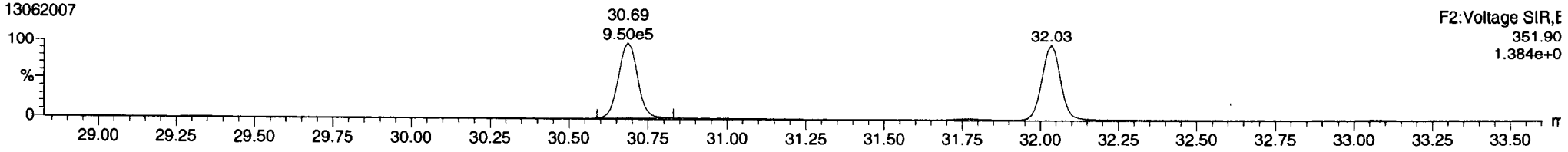
13C-12378-PeCDF



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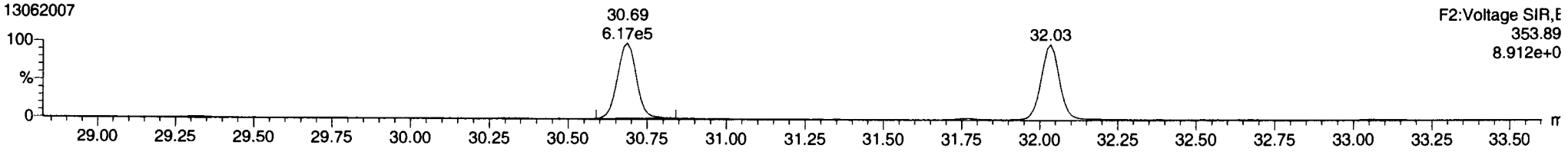
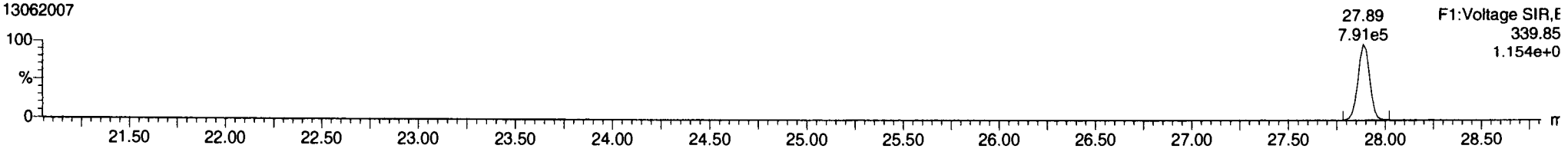


Total-penta1



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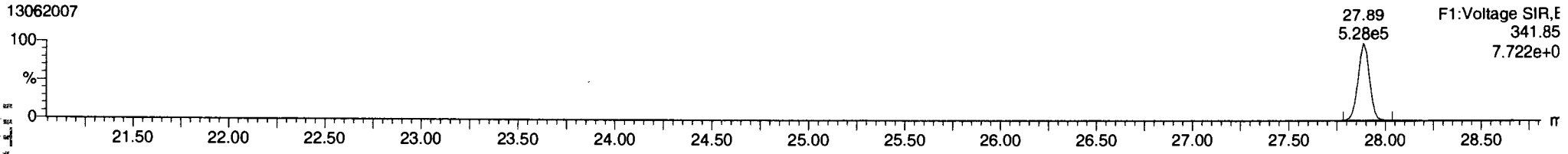
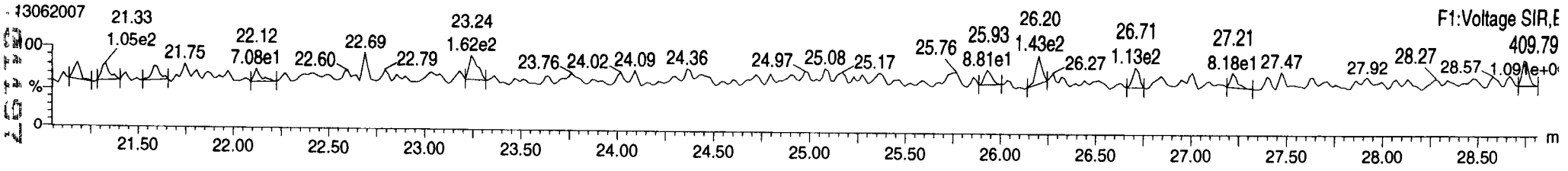
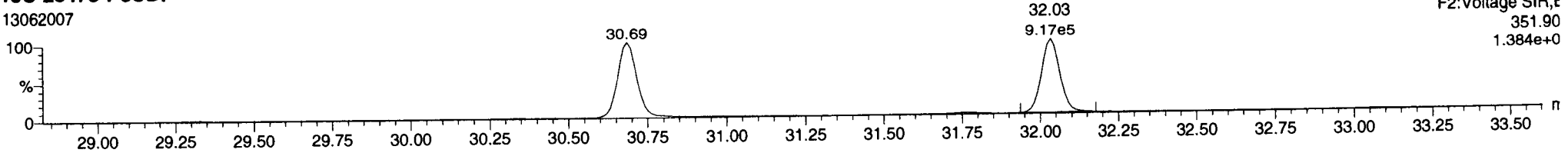


FUNCTION1 HPCDPE



ID: CS3, Name: 13062007, Date: 20-Jun-2013, Time: 15:25:46, Conditions: AUTOSPEC01, User: pk

13C-23478-PeCDF



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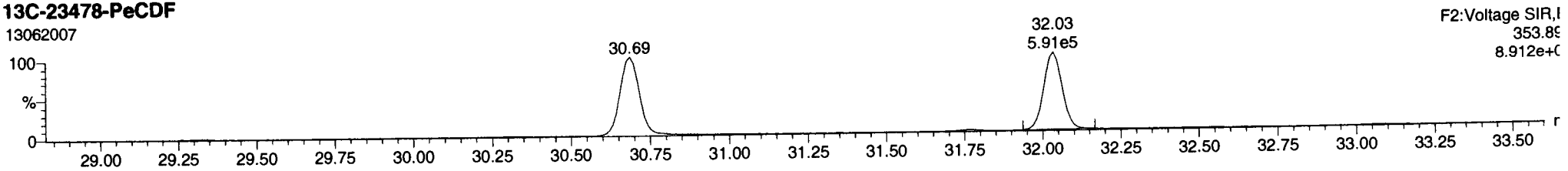
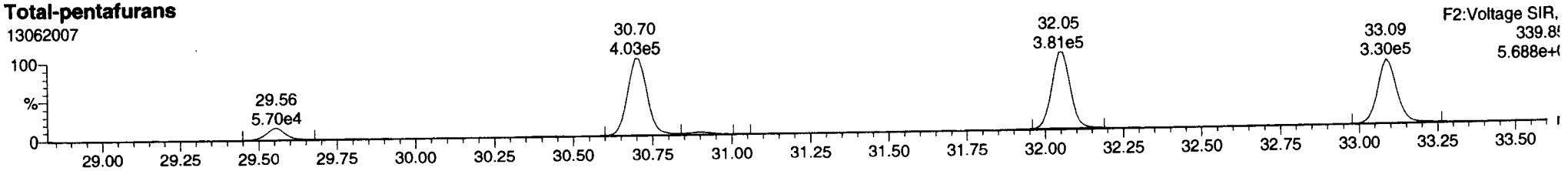
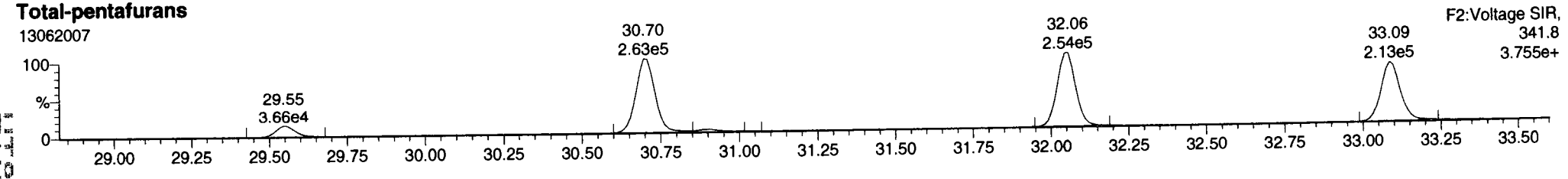


Total-pentafurans



Total-pentafurans



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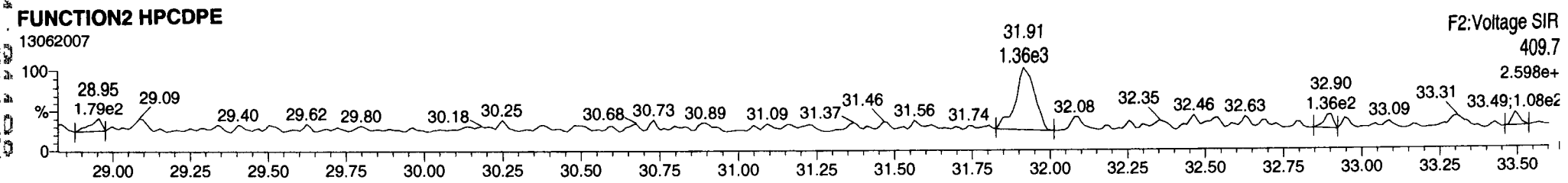

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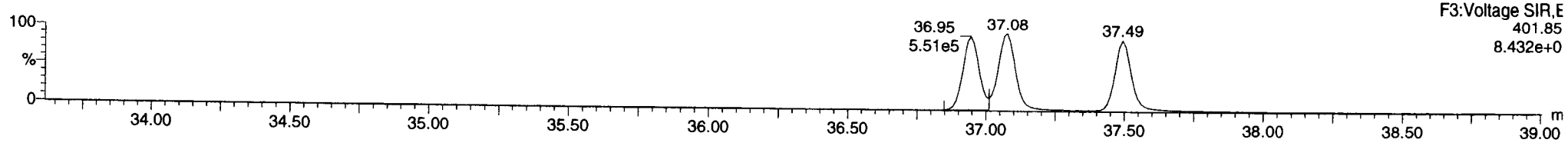
ID: CS3, Name: 13062007, Date: 20-Jun-2013, Time: 15:25:46, Conditions: AUTOSPEC01, User: pk

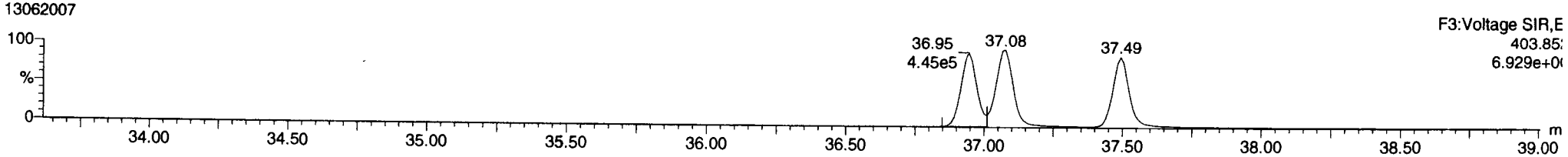
13C-123478-HxCDD

13062007



13C-123478-HxCDD

13062007



Total-hexadioxins

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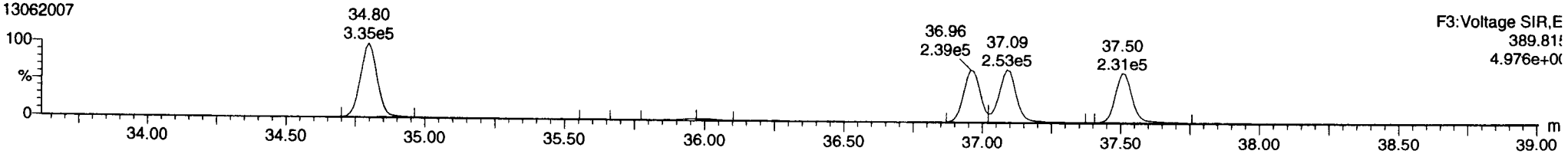

Total-hexadioxins

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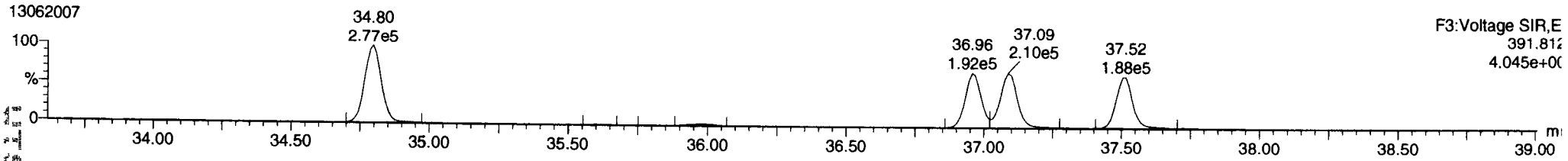
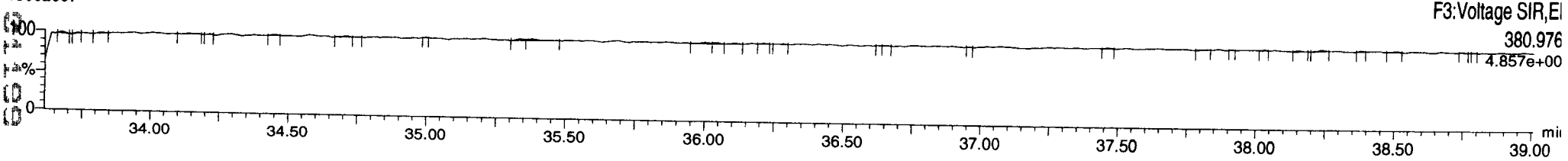


FUNCTION3 PFK

13062007



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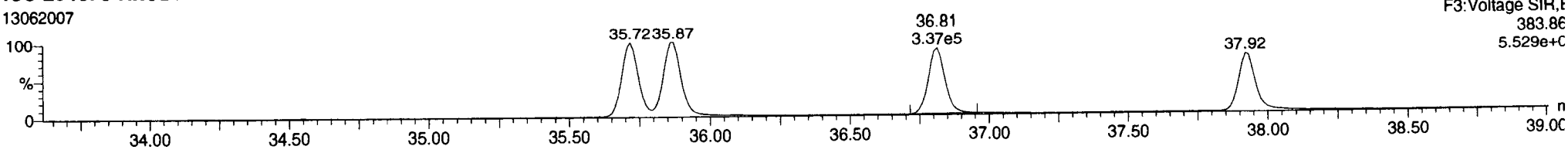
ID: CS3, Name: 13062007, Date: 20-Jun-2013, Time: 15:25:46, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



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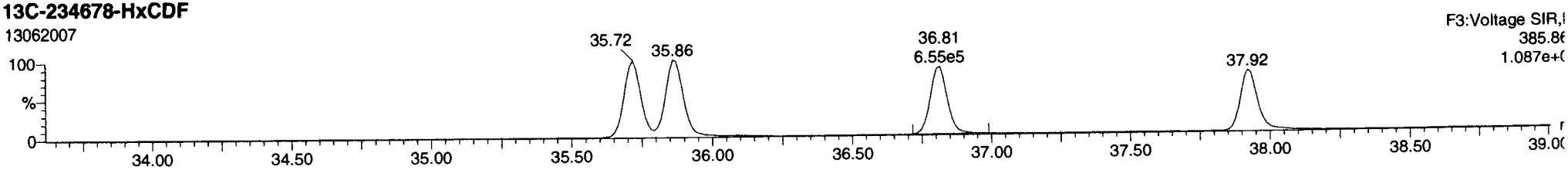
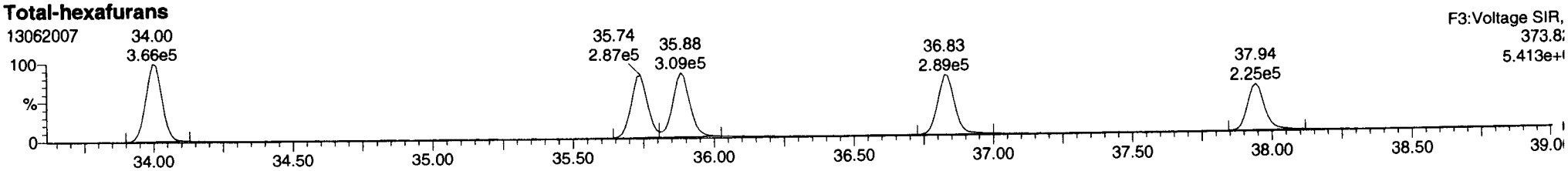
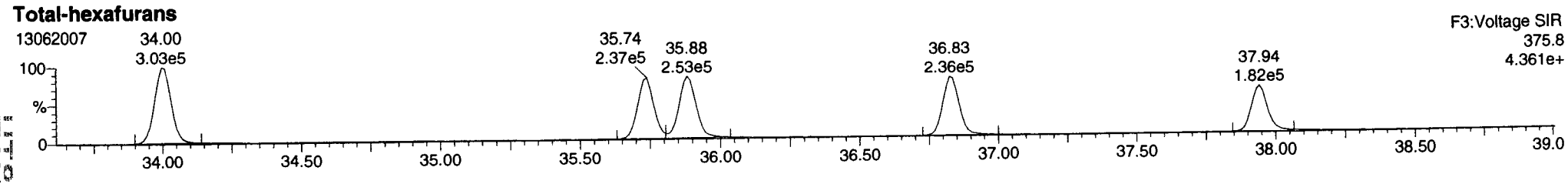


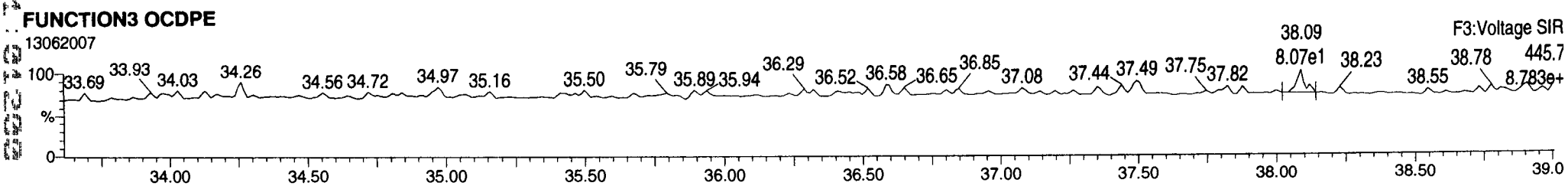
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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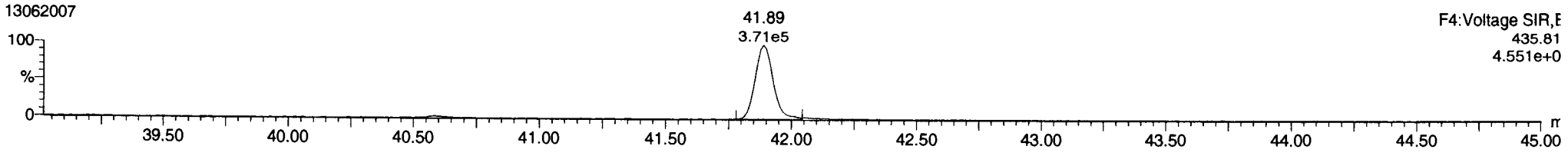
13C-1234678-HpCDD



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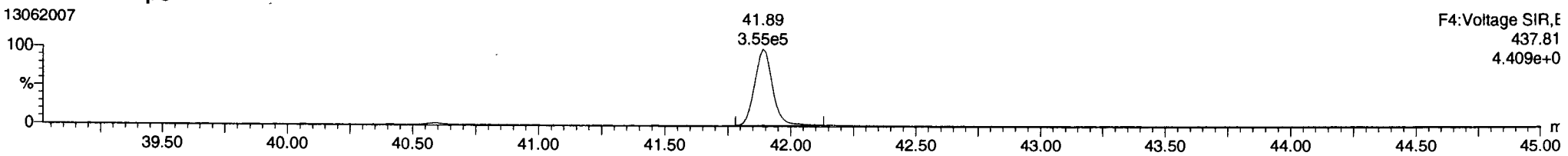
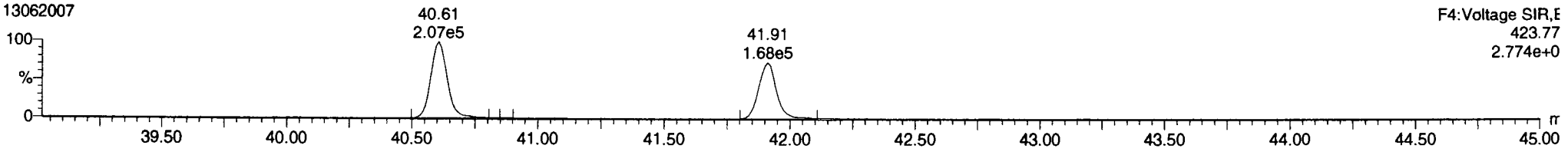


Total-heptadioxins



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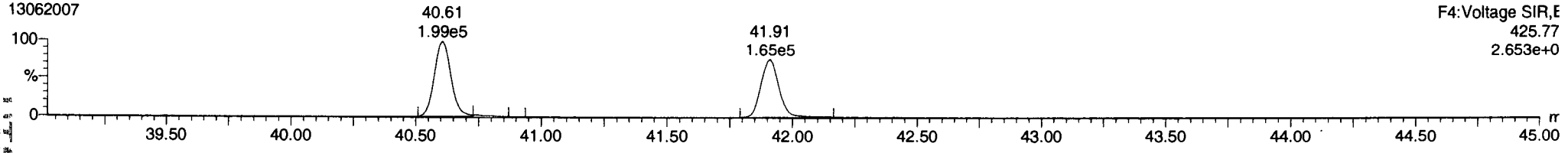
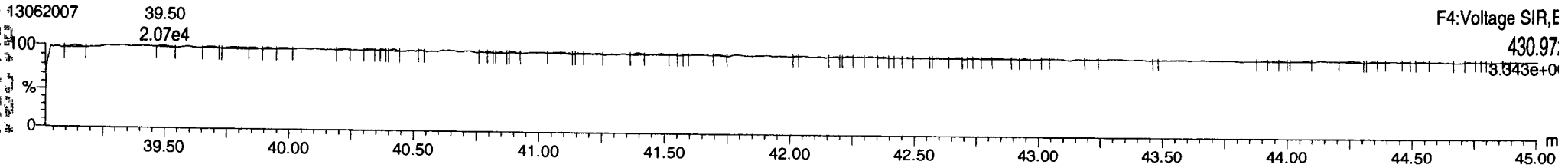


FUNCTION4 PFK



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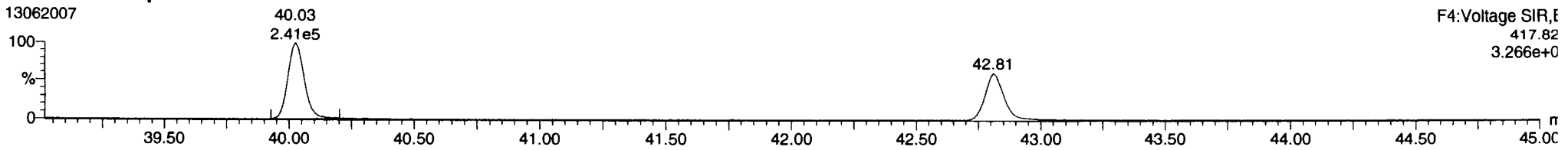
13C-1234678-HpCDF



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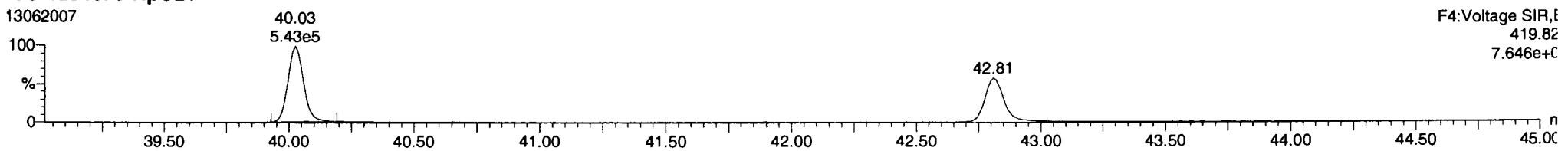
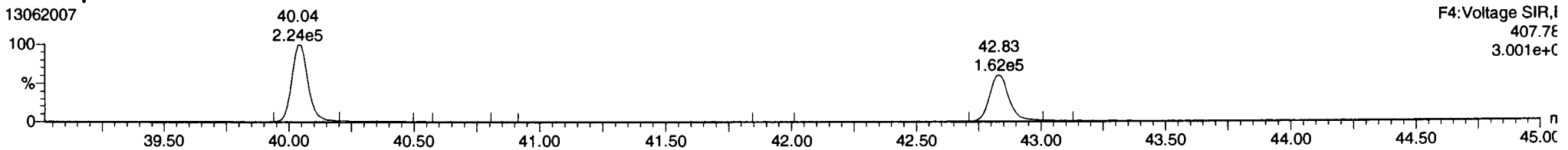


Total-heptafurans



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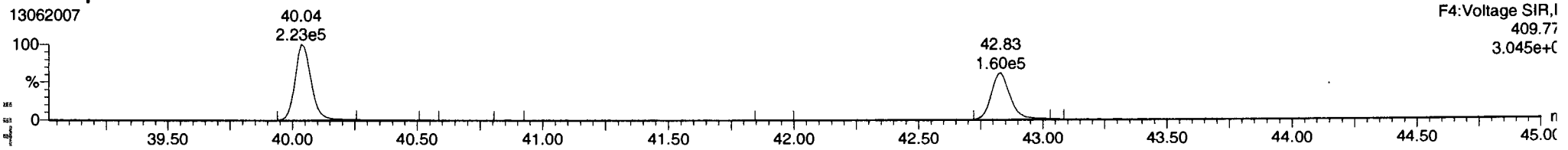
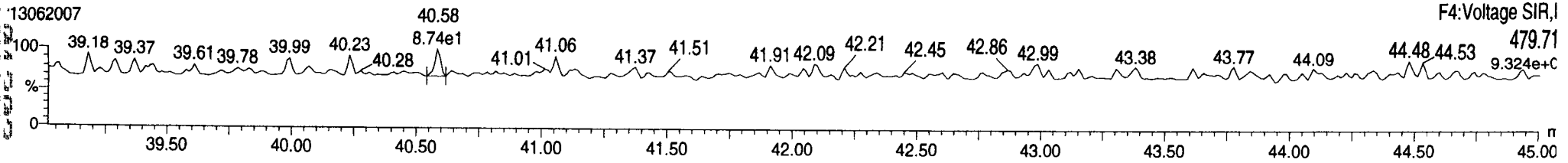


FUNCTION4 NCDPE



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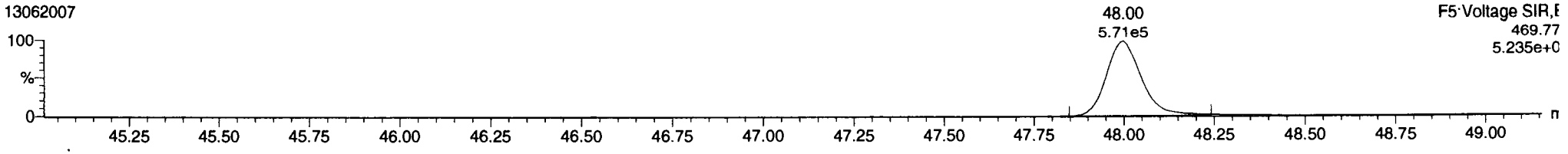
13C-OCDD



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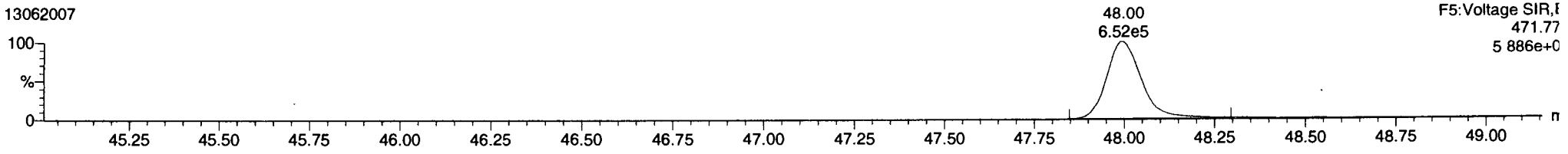
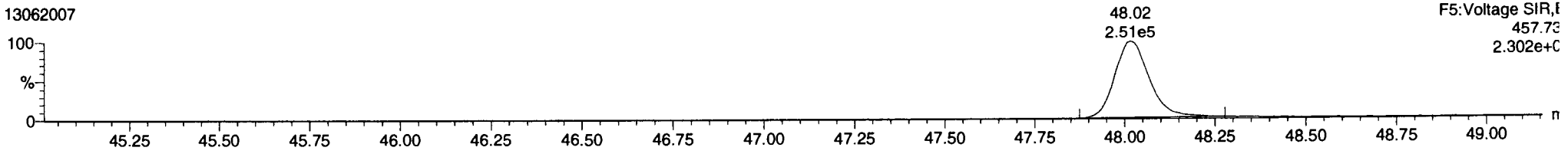


OCDD



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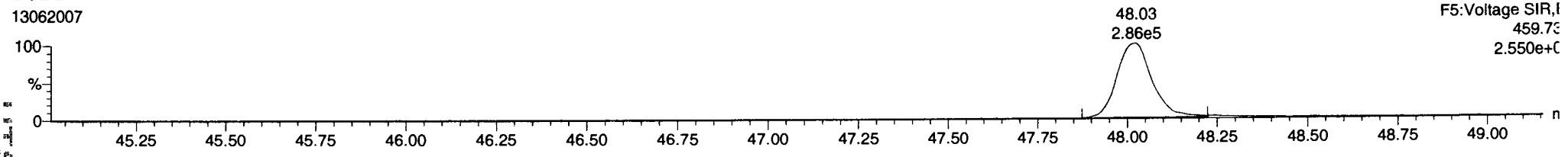
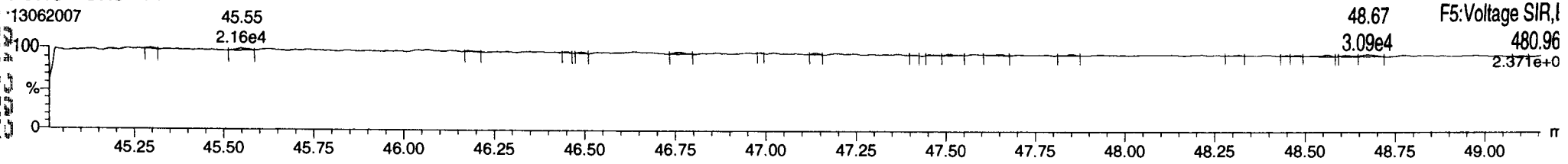


FUNCTION5 PFK



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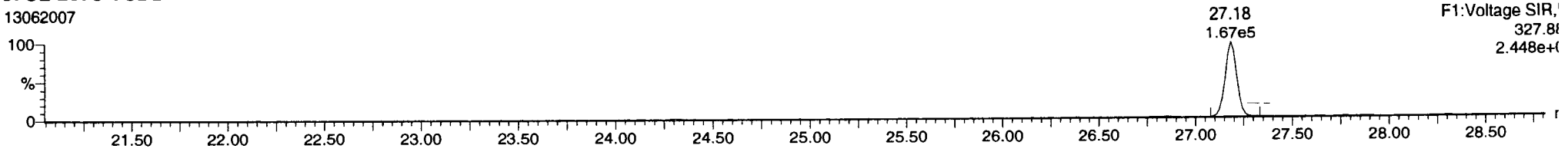
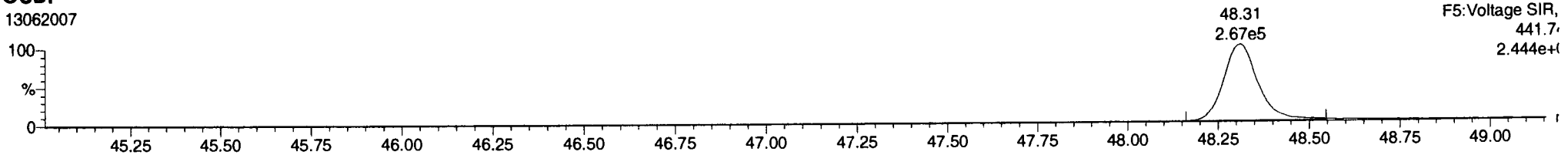
37CL-2378-TCDD



OCDF



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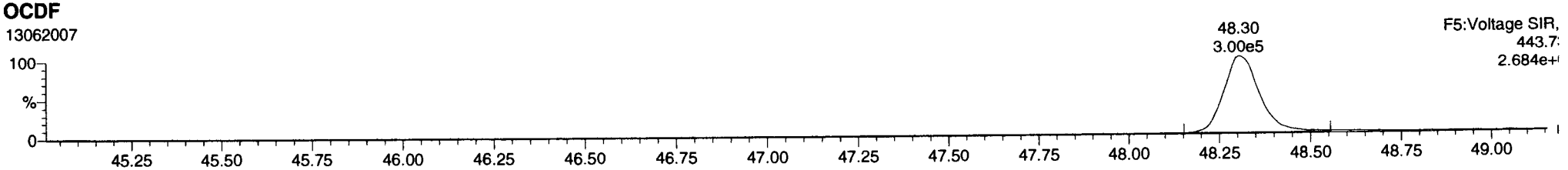
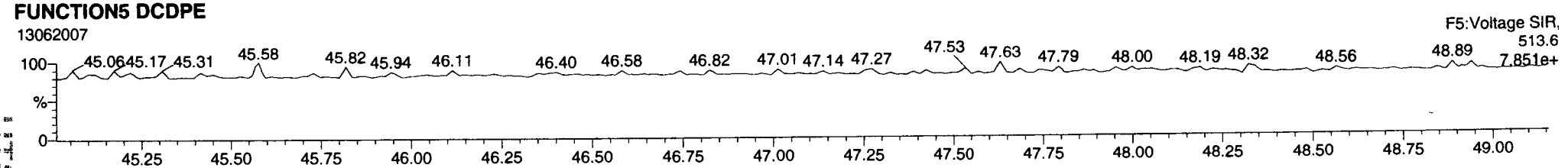


FUNCTION5 DCDPE



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Calibration: 21 Jun 2013 09:11:11

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.541	1.001	3.29e5	4.56e5	0.771	0.722	0.770	3551.3	NO	39.672	39.672
12378-PeCDF	30.708	1.001	1.92e6	1.28e6	0.814	1.500	1.550	5774.3	NO	198.470	198.470
23478-PeCDF	32.057	1.001	1.90e6	1.26e6	0.837	1.503	1.550	5819.6	NO	198.211	198.211
123478-HxCDF	35.739	1.001	1.49e6	1.23e6	0.967	1.211	1.240	5174.4	NO	198.885	198.885
234678-HxCDF	36.835	1.001	1.48e6	1.23e6	1.000	1.204	1.240	5034.0	NO	200.498	200.498
123678-HxCDF	35.882	1.000	1.56e6	1.30e6	0.951	1.196	1.240	5347.9	NO	193.507	193.507
123789-HxCDF	37.943	1.001	1.23e6	1.06e6	0.874	1.161	1.240	4273.6	NO	206.255	206.255
1234678-HpCDF	40.047	1.001	1.20e6	1.20e6	1.072	0.997	1.050	3926.8	NO	202.012	202.012
1234789-HpCDF	42.831	1.000	8.97e5	9.28e5	1.085	0.966	1.050	2551.2	NO	201.009	201.009
OCDF	48.312	1.007	1.72e6	1.92e6	0.878	0.899	0.890	6961.5	NO	416.342	416.342
2378-TCDD	27.184	1.001	3.18e5	4.20e5	0.936	0.756	0.770	2678.5	NO	39.771	39.771
12378-PeCDD	32.309	1.001	1.57e6	1.06e6	0.894	1.486	1.550	6613.4	NO	197.395	197.395
123478-HxCDD	36.956	1.000	1.31e6	1.07e6	0.898	1.217	1.240	7029.4	NO	193.003	193.003
123678-HxCDD	37.088	1.000	1.34e6	1.10e6	0.818	1.220	1.240	6938.9	NO	195.546	195.546
123789-HxCDD	37.515	1.012	1.28e6	1.03e6	0.789	1.241	1.240	6605.2	NO	202.145	202.145
1234678-HpCDD	41.910	1.001	9.98e5	9.79e5	0.879	1.019	1.050	3838.4	NO	208.413	208.413
OCDD	48.016	1.000	1.67e6	1.93e6	0.875	0.870	0.890	5187.3	NO	412.845	412.845
13C-2378-TCDF	26.526	1.007	1.10e6	1.47e6	1.190	0.747	0.770	5175.0	NO		100.615
13C-12378-PeCDF	30.687	1.165	1.18e6	7.90e5	0.904	1.498	1.550	4416.0	NO		101.849
13C-23478-PeCDF	32.035	1.216	1.16e6	7.52e5	0.877	1.537	1.550	4404.1	NO		101.437
13C-123478-HxCDF	35.718	0.953	4.76e5	9.39e5	1.096	0.507	0.510	1667.3	NO		97.197
13C-123678-HxCDF	35.871	0.957	5.24e5	1.03e6	1.187	0.507	0.510	1764.0	NO		98.662
13C-234678-HxCDF	36.814	0.982	4.62e5	8.88e5	1.040	0.520	0.510	1572.2	NO		97.722
13C-123789-HxCDF	37.921	1.011	4.26e5	8.39e5	0.941	0.508	0.510	1496.0	NO		101.271
13C-1234678-HpCDF	40.025	1.068	3.33e5	7.76e5	0.825	0.429	0.440	1647.7	NO		101.114
13C-1234789-HpCDF	42.820	1.142	2.52e5	5.85e5	0.609	0.432	0.440	1049.1	NO		103.428
13C-1234-TCDD	26.347	0.000	9.36e5	1.21e6	1.000	0.775	0.770	1447.2	NO		100.000
13C-2378-TCDD	27.169	1.031	8.68e5	1.11e6	0.920	0.780	0.770	1281.0	NO		100.427
13C-12378-PeCDD	32.287	1.225	8.98e5	5.90e5	0.669	1.521	1.550	3048.3	NO		103.692
13C-123478-HxCDD	36.945	0.985	7.57e5	6.17e5	1.032	1.226	1.240	4122.1	NO		100.215
13C-123678-HxCDD	37.077	0.989	8.41e5	6.88e5	1.146	1.222	1.240	4182.3	NO		100.523
13C-1234678-HpCDD	41.889	1.117	5.42e5	5.37e5	0.789	1.010	1.050	2690.6	NO		102.986
13C-OCDD	47.998	1.280	9.38e5	1.05e6	0.696	0.890	0.890	3097.0	NO		215.411

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

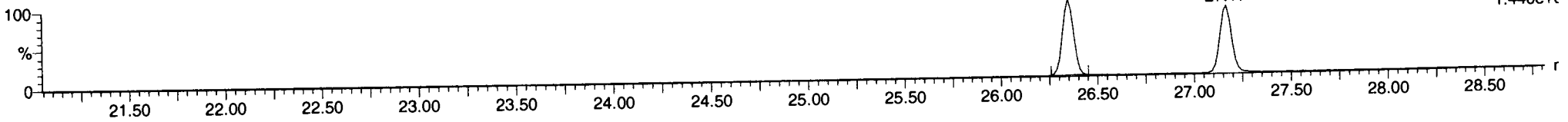
13C-123789-HxCDD	37.493	0.000	7.31e5	5.98e5	1.000	1.222	1.240	3829.6	NO	100.000
Total-tetrafurans			3.35e5		0.771					40.449
Total-penta1			5.11e2							0.061
Total-pentafurans			3.90e6		0.826					406.193
Total-hexafurans			5.76e6		0.948					800.027
Total-heptafurans			2.10e6		1.079					403.021
Total-Furans			1.38e7		0.925					2066.093
Total-tetradioxins			3.29e5		0.936					41.108
Total-pentadioxins			1.58e6		0.894					198.153
Total-hexadioxins			3.93e6		0.835					590.790
Total-heptadioxins			1.00e6		0.879					209.414
Total-Dioxins			8.52e6		0.870					1452.309
Total-TEQ			2.23e7							3518.402
37CL-2378-TCDD	27.184	1.032	8.59e5		1.000			4912.1		40.043
FUNCTION1 PFK			2.00e6							
FUNCTION2 PFK			2.97e5							0.000
FUNCTION3 PFK			9.03e5							0.000
FUNCTION4 PFK			6.42e5							
FUNCTION5 PFK			3.10e5							
FUNCTION1 HXCDPE			3.06e2							0.000
FUNCTION1 HPCDPE			1.35e3							0.000
FUNCTION2 HPCDPE			5.16e3							0.000
FUNCTION3 OCDPE			7.26e1							0.000
FUNCTION4 NCDPE			2.00e2							0.000
FUNCTION5 DCDPE			0.00e0							

Quantify Sample Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD
13062008



13C-1234-TCDD
13062008

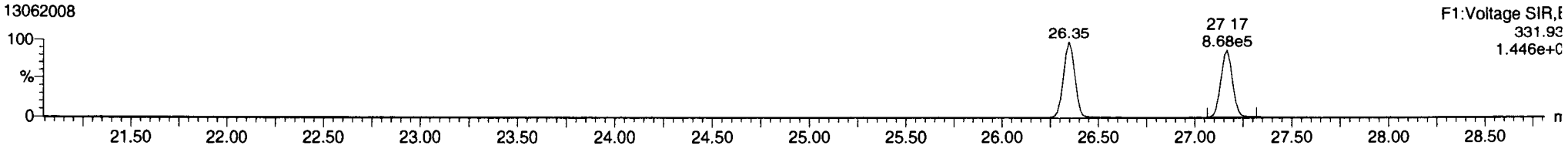
13C-123789-HxCDD
13062008

13C-123789-HxCDD
13062008

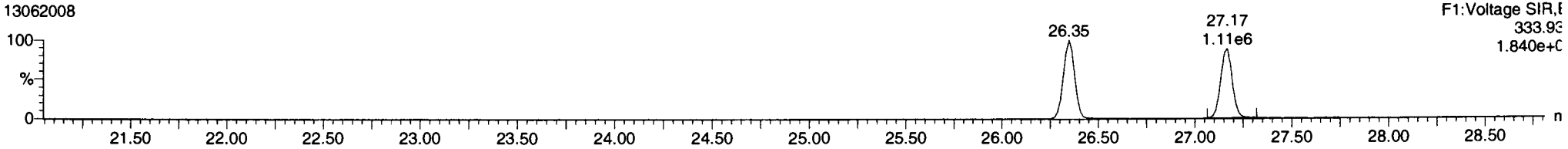
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

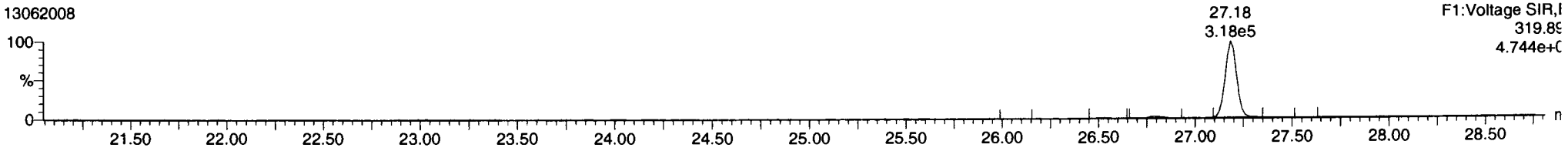
13C-2378-TCDD



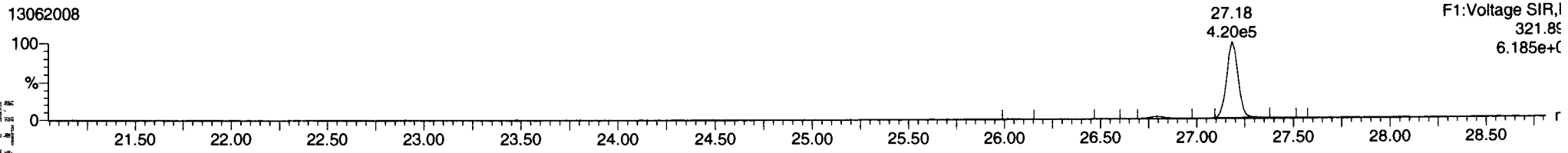
13C-2378-TCDD



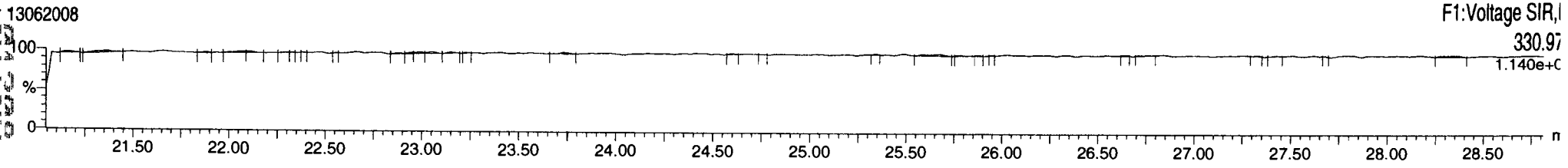
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



Quantify Sample Report **MassLynx 4.1 SCN 714**
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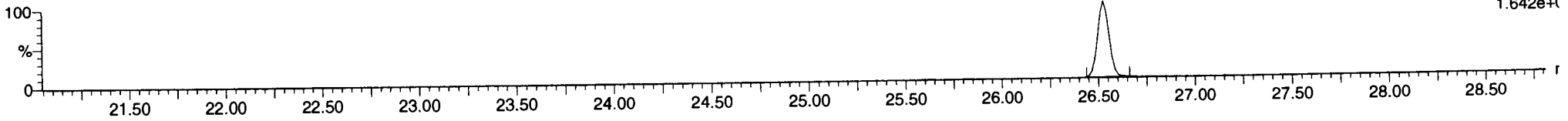
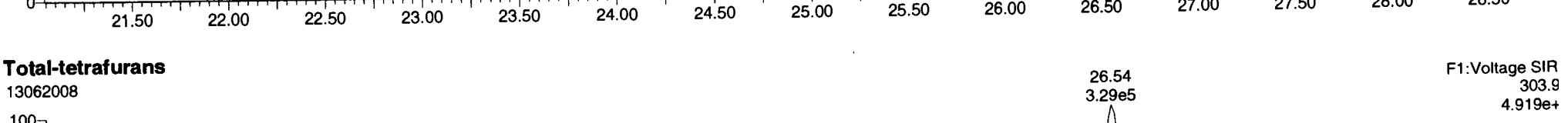
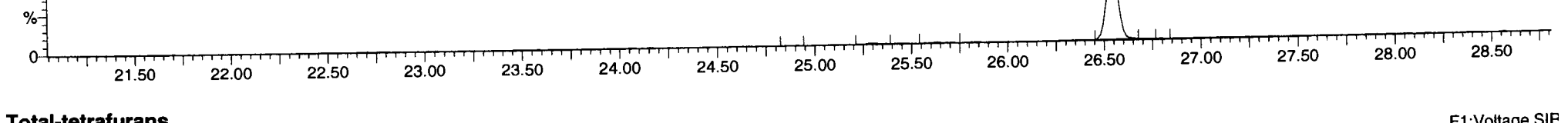
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

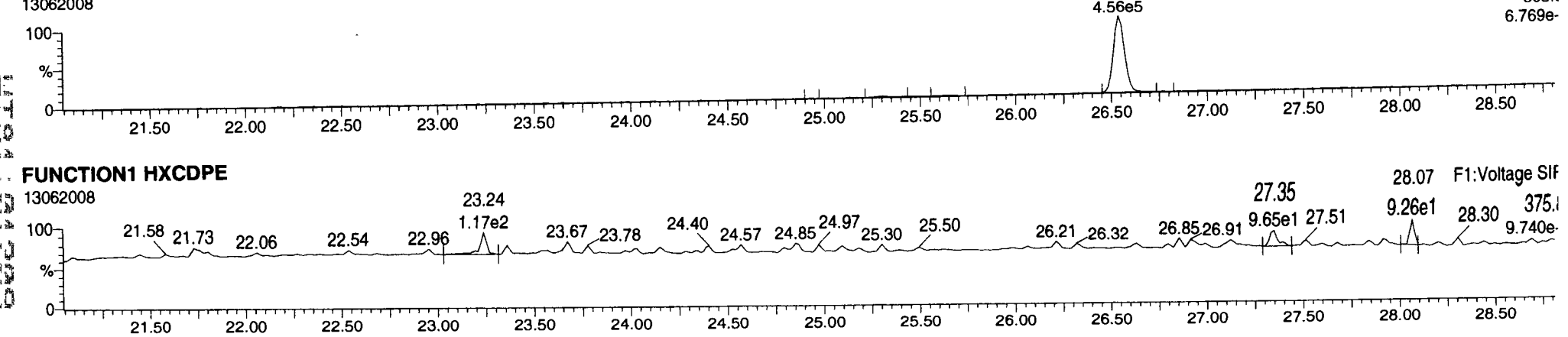
ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF
13062008


13C-2378-TCDF
13062008


Total-tetrafurans
13062008


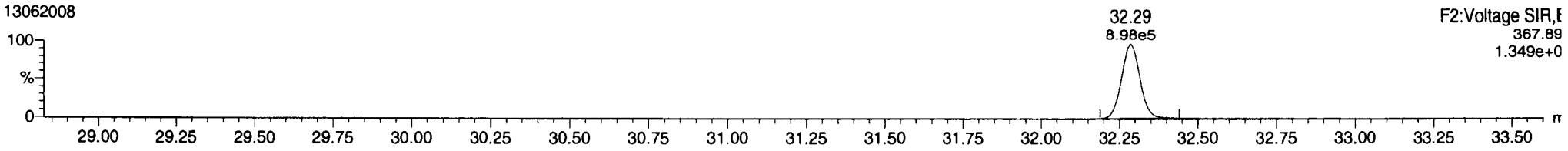
Total-tetrafurans
13062008


FUNCTION1 HXCDPE
13062008


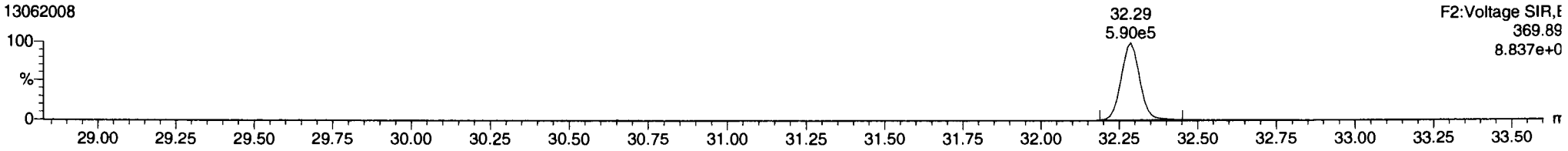
Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

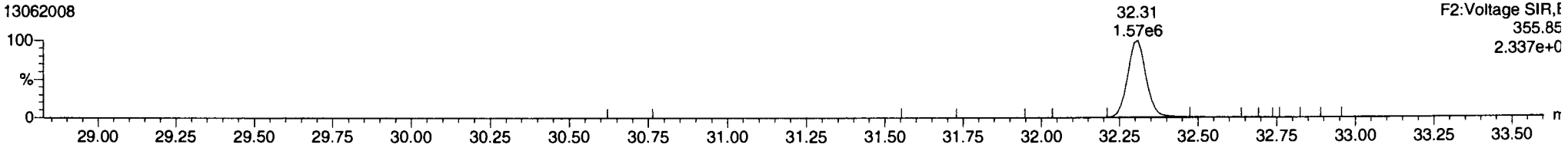
13C-12378-PeCDD



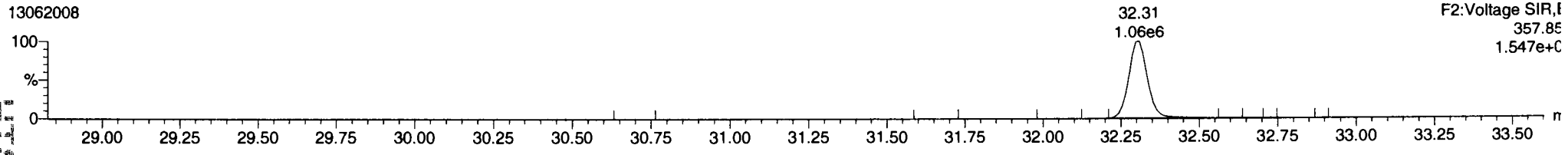
13C-12378-PeCDD



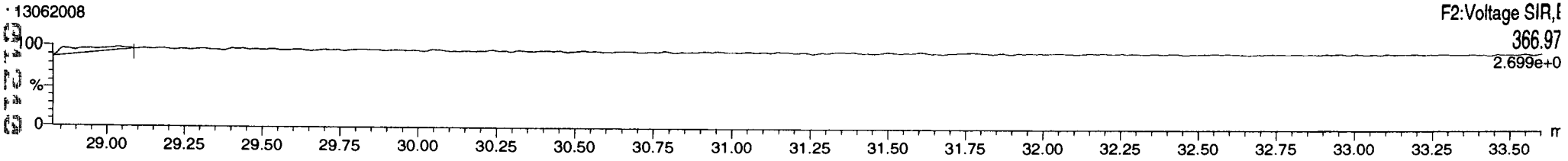
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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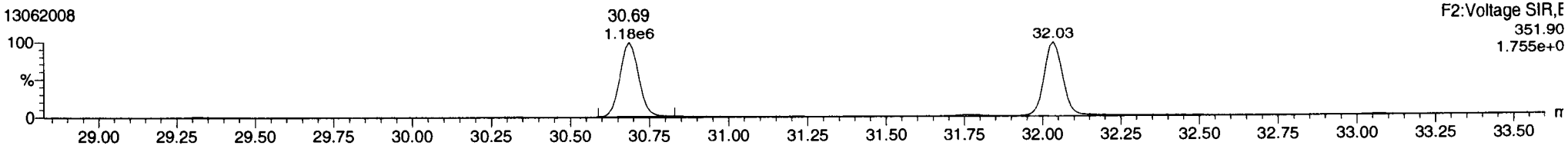
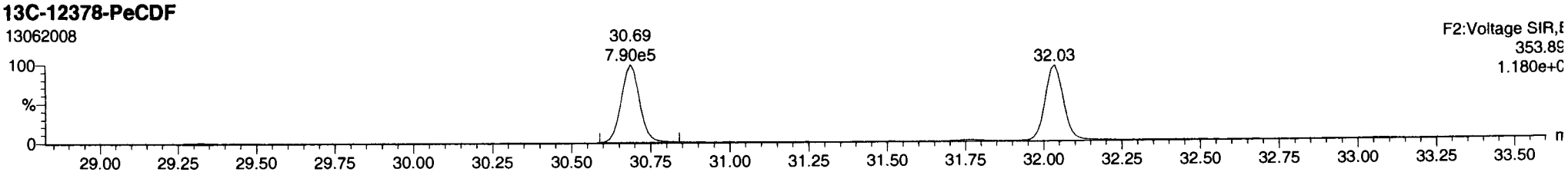
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

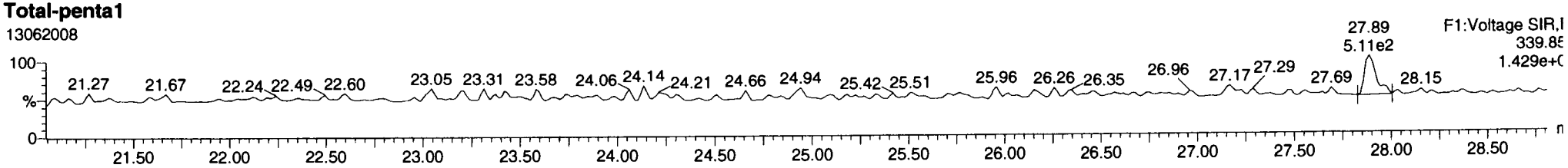
13C-12378-PeCDF



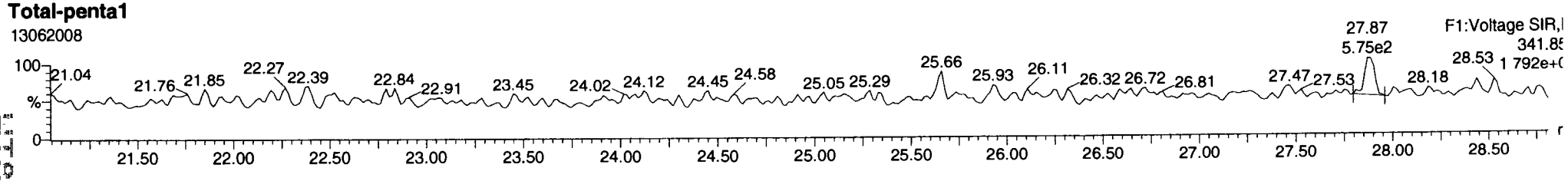
13C-12378-PeCDF



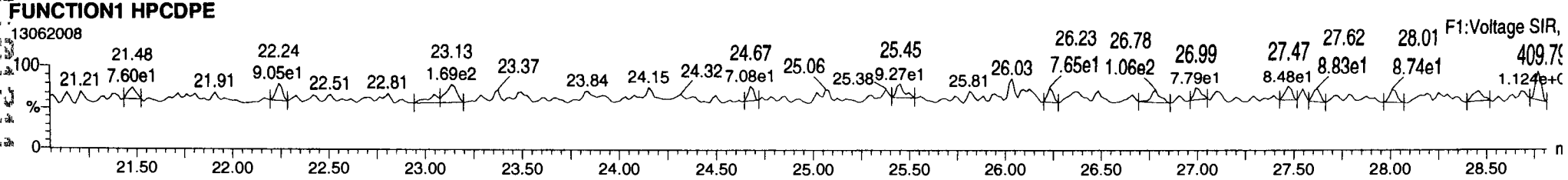
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
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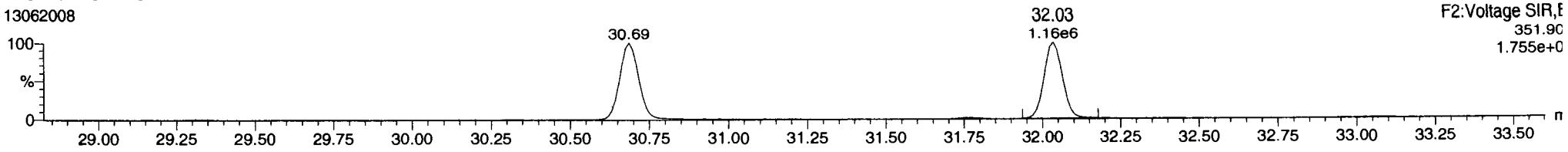
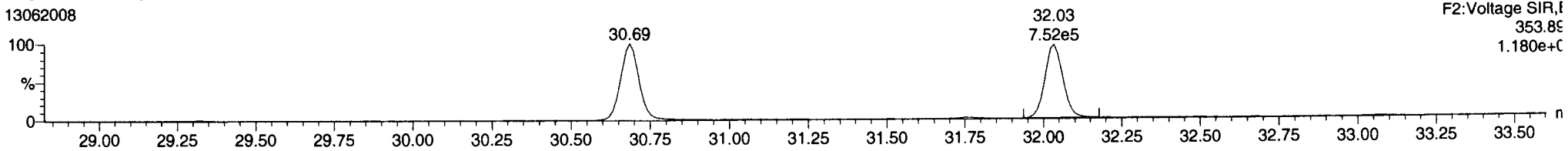
ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

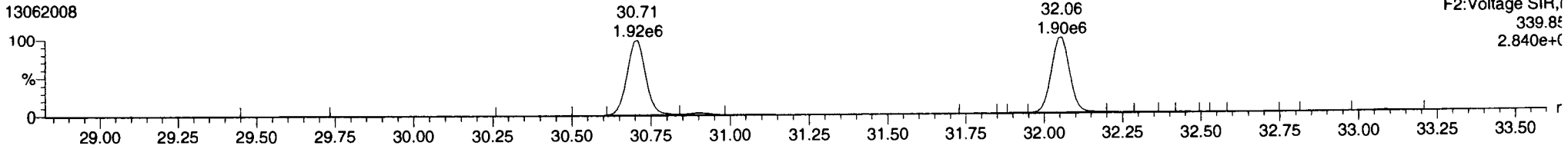
13C-23478-PeCDF



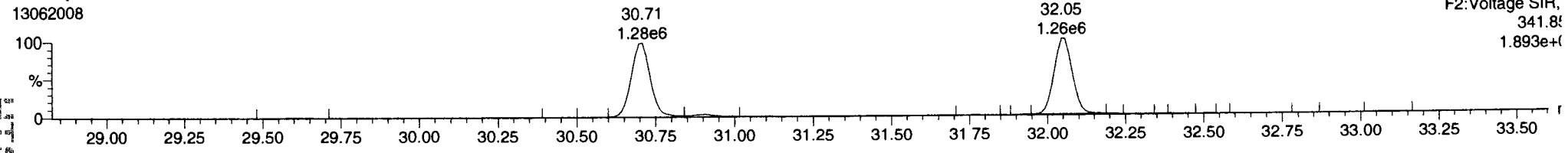
13C-23478-PeCDF



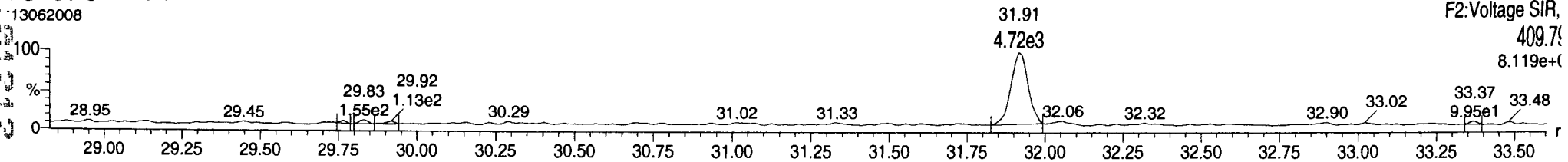
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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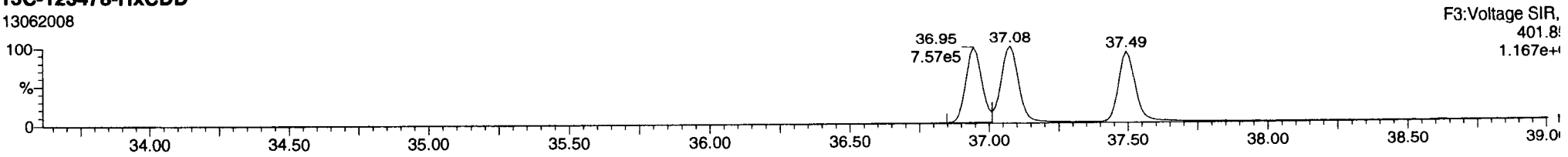
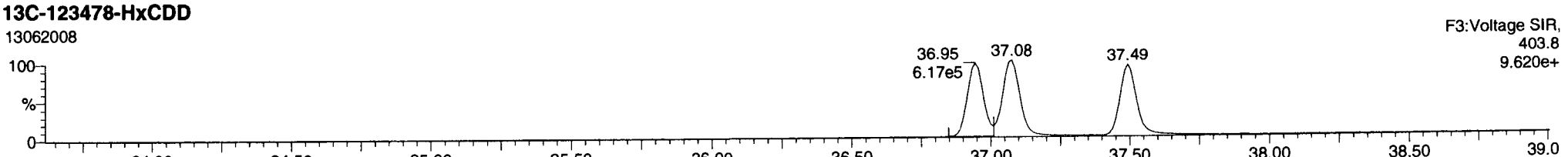
ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

13C-123478-HxCDD
13062008

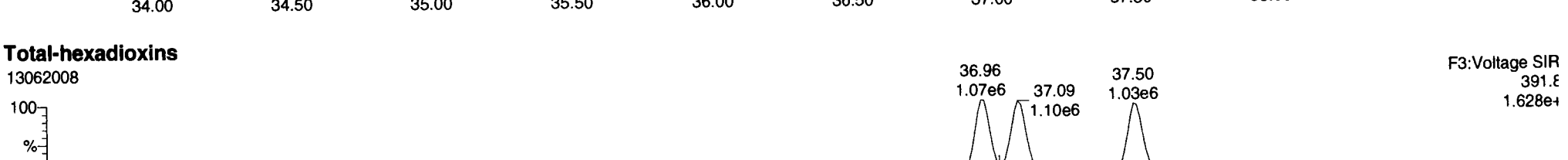


13C-123478-HxCDD
13062008

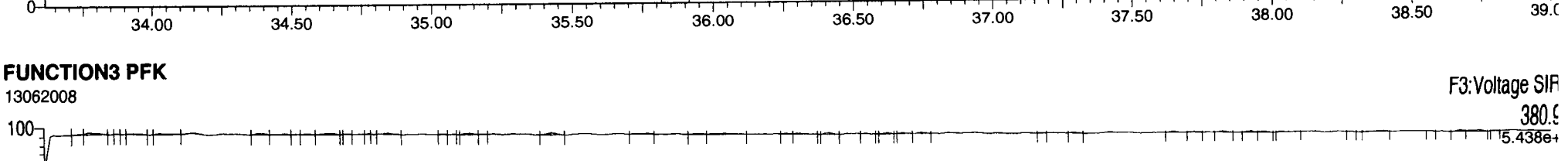


Total-hexadioxins
13062008

Total-hexadioxins
13062008



FUNCTION3 PFK
13062008



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
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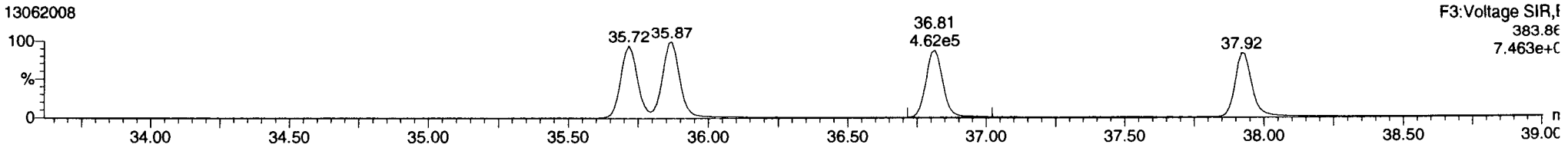
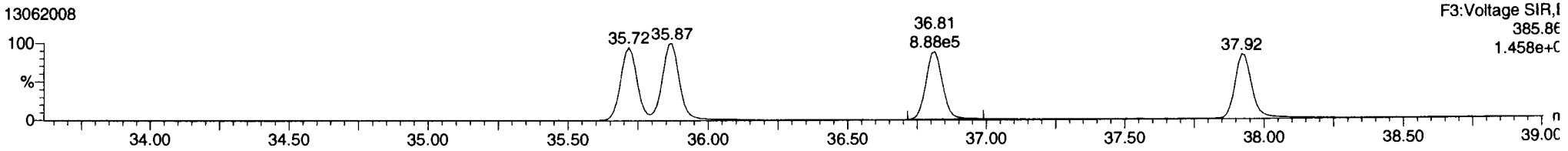
ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

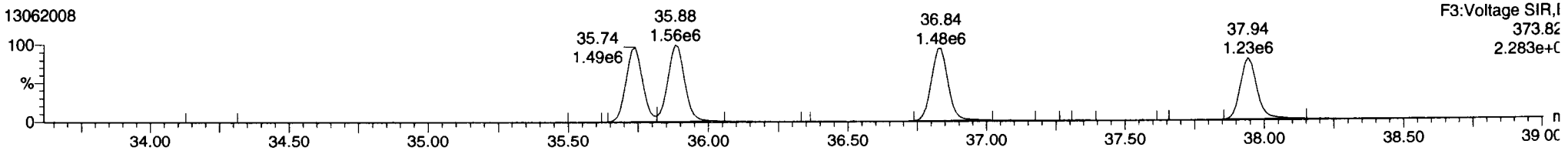
13C-234678-HxCDF



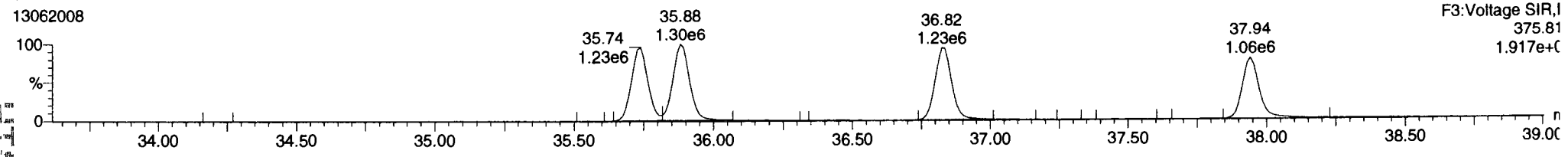
13C-234678-HxCDF



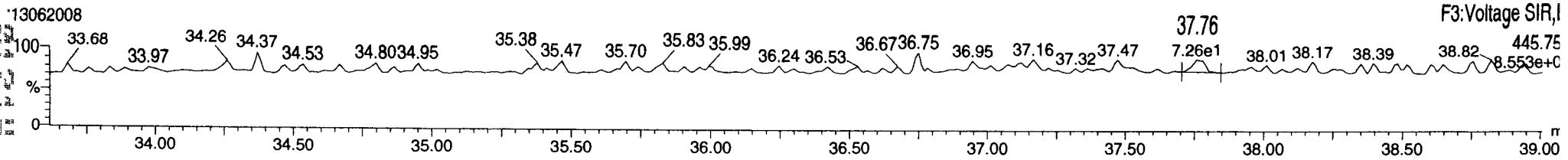
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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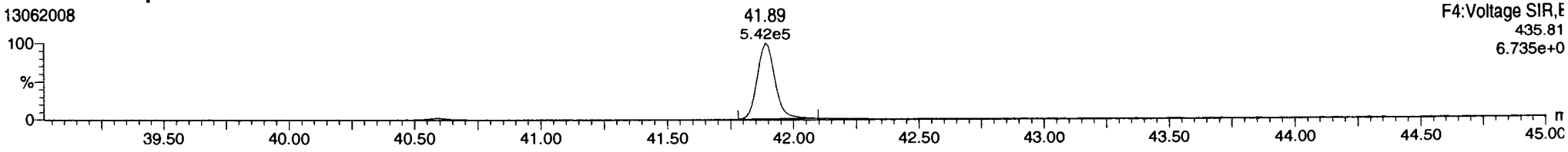
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



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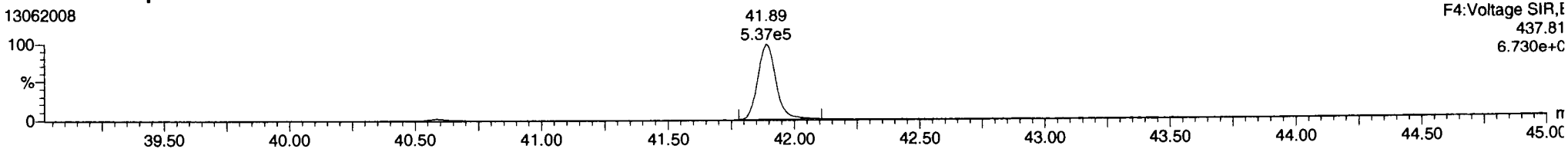

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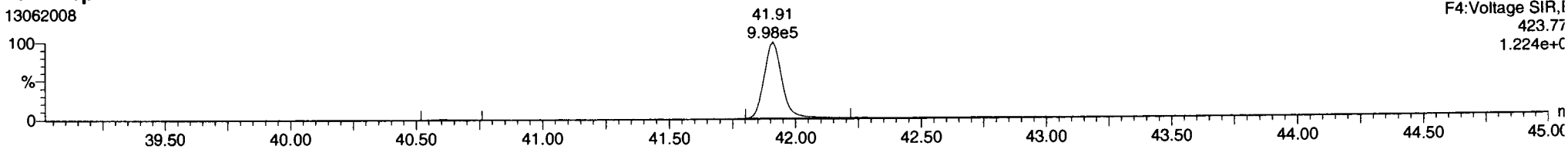
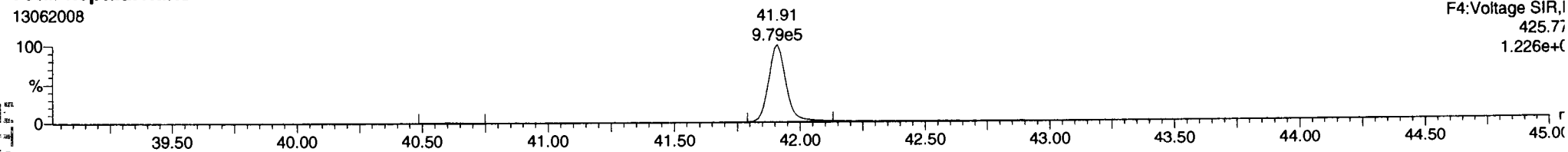
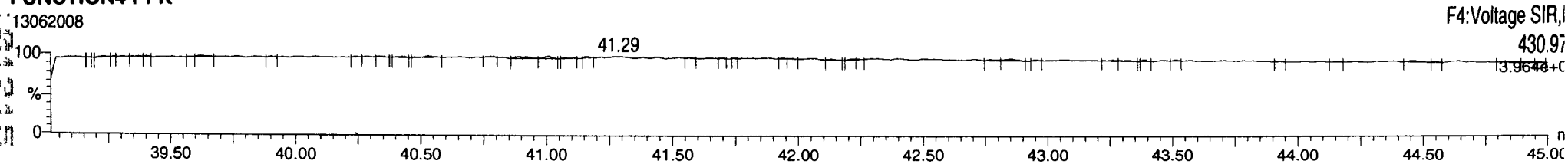


Total-heptadioxins



FUNCTION4 PFK



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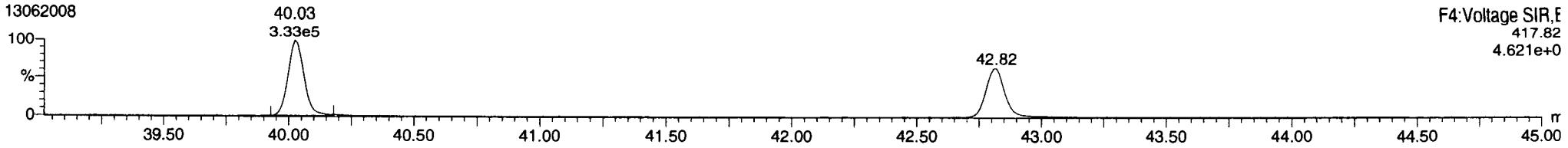
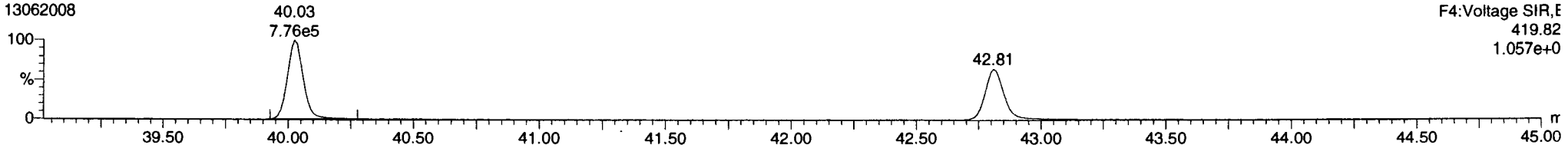
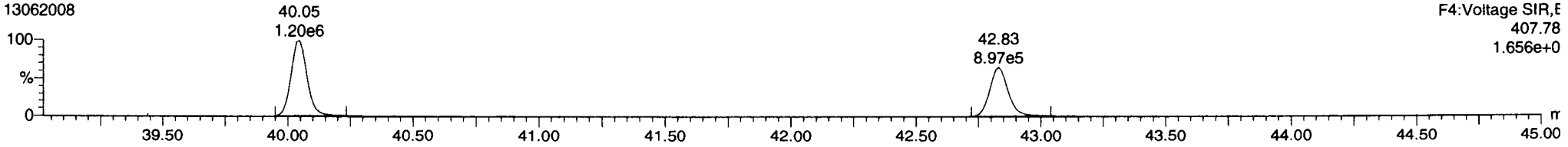
13C-1234678-HpCDF



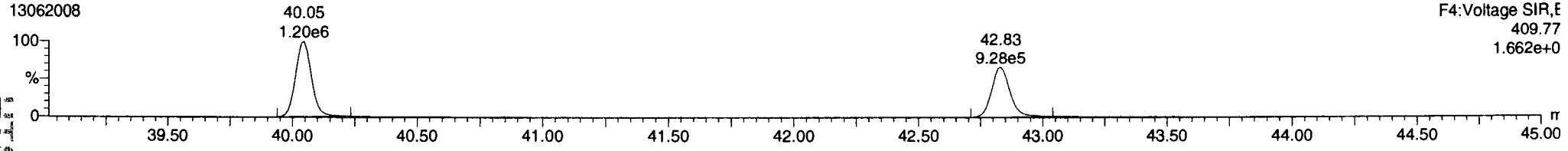
13C-1234678-HpCDF



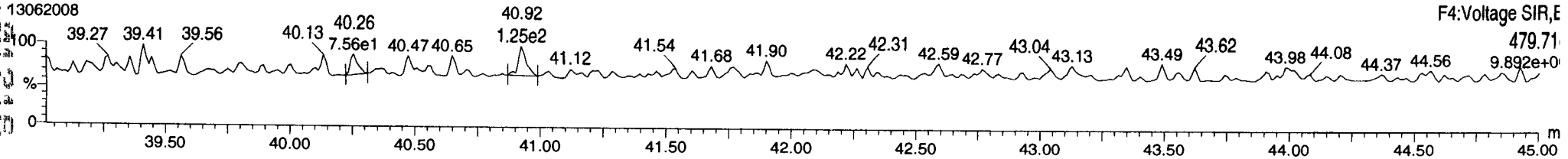
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



Quantify Sample Report **MassLynx 4.1 SCN 714**
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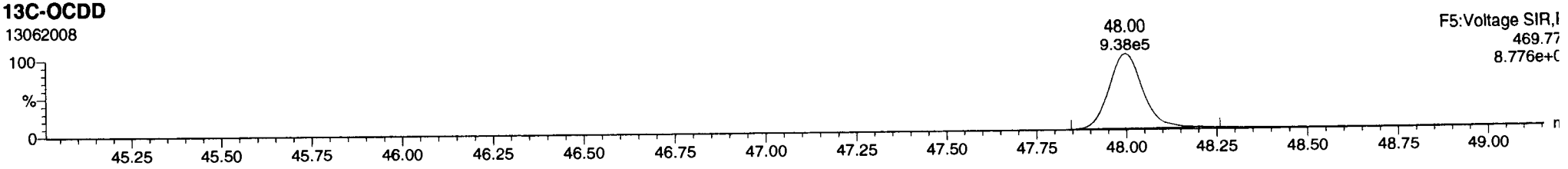
Printed: Friday, June 21, 2013 09:16:27 Pacific Daylight Time

ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

13C-OCDD
13062008


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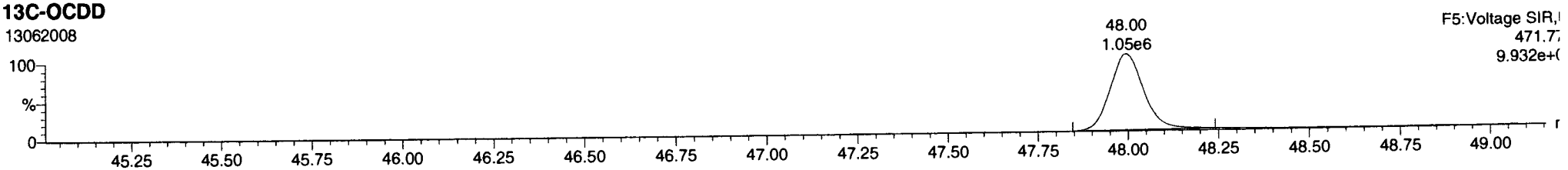

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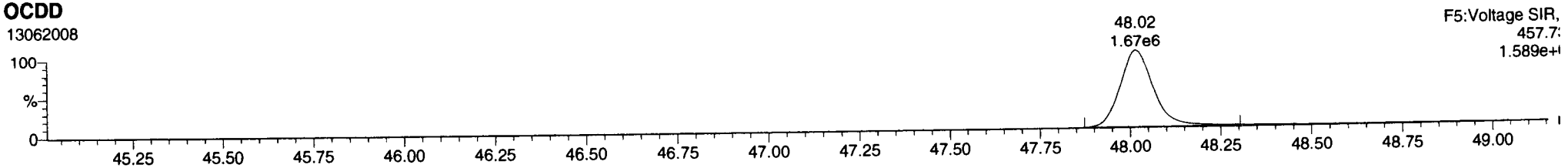

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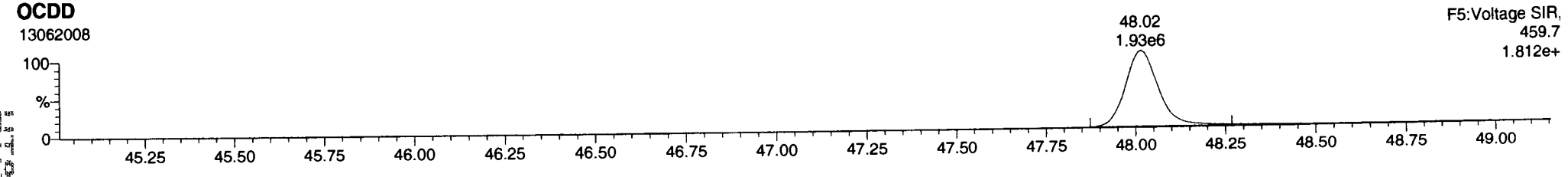
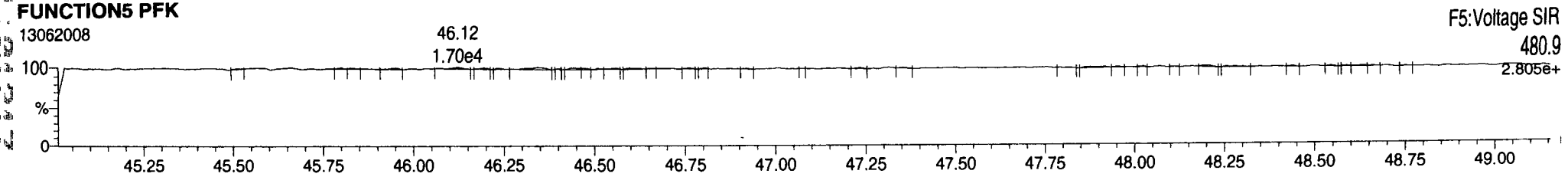


FUNCTION5 PFK
13062008


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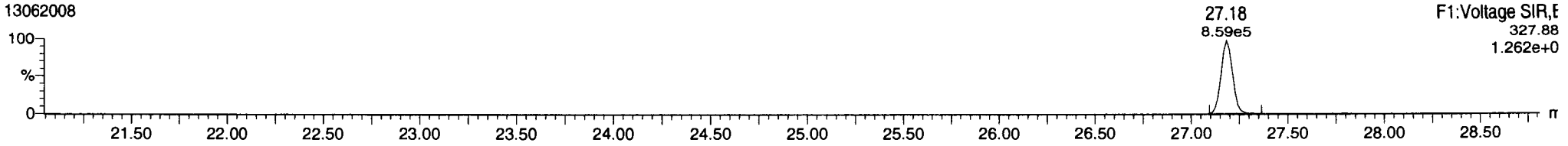
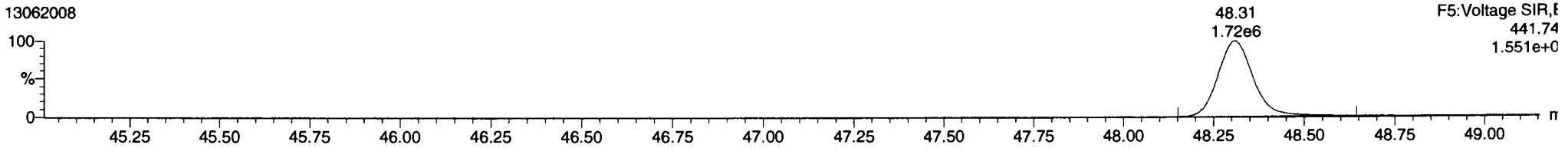
ID: CS4, Name: 13062008, Date: 20-Jun-2013, Time: 16:18:06, Conditions: AUTOSPEC01, User: pk

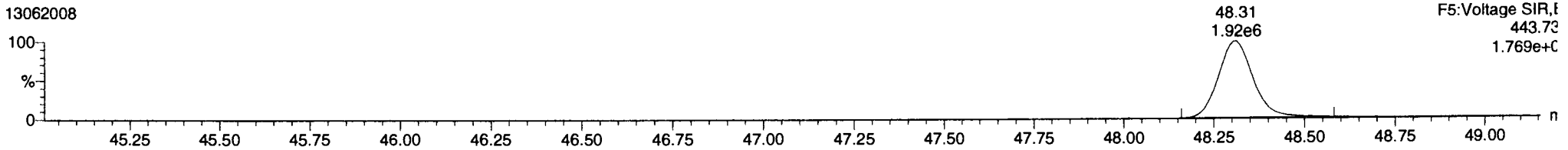
37CL-2378-TCDD



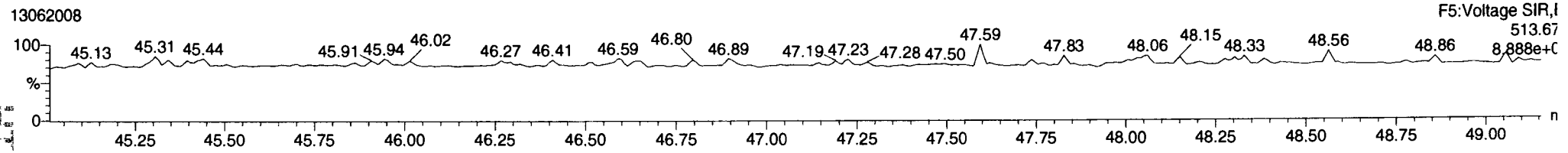
OCDF



OCDF



FUNCTION5 DCDPE



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Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.542	1.001	1.99e6	2.71e6	0.771	0.737	0.770	13651.5	NO	200.666	200.666
12378-PeCDF	30.698	1.000	1.20e7	8.04e6	0.814	1.495	1.550	25651.3	NO	991.273	991.273
23478-PeCDF	32.046	1.000	1.20e7	8.05e6	0.837	1.492	1.550	26286.6	NO	988.851	988.851
123478-HxCDF	35.740	1.001	9.38e6	7.78e6	0.967	1.205	1.240	19176.7	NO	991.965	991.965
234678-HxCDF	36.825	1.000	9.28e6	7.74e6	1.000	1.199	1.240	18694.7	NO	1017.255	1017.255
123678-HxCDF	35.883	1.000	9.96e6	8.28e6	0.951	1.203	1.240	20103.0	NO	1007.214	1007.214
123789-HxCDF	37.943	1.001	7.60e6	6.33e6	0.874	1.200	1.240	15719.9	NO	1036.352	1036.352
1234678-HpCDF	40.048	1.001	7.58e6	7.58e6	1.072	1.001	1.050	14395.1	NO	1040.368	1040.368
1234789-HpCDF	42.832	1.001	5.74e6	5.86e6	1.085	0.980	1.050	9218.9	NO	1040.155	1040.155
OCDF	48.313	1.007	1.12e7	1.28e7	0.878	0.880	0.890	34078.6	NO	2116.479	2116.479
2378-TCDD	27.184	1.001	1.95e6	2.59e6	0.936	0.751	0.770	11861.9	NO	200.565	200.565
12378-PeCDD	32.298	1.000	1.01e7	6.67e6	0.894	1.515	1.550	33744.3	NO	991.908	991.908
123478-HxCDD	36.957	1.000	8.57e6	7.01e6	0.898	1.223	1.240	24918.5	NO	982.326	982.326
123678-HxCDD	37.089	1.000	8.60e6	7.09e6	0.818	1.214	1.240	24693.1	NO	1015.101	1015.101
123789-HxCDD	37.505	1.012	8.03e6	6.56e6	0.789	1.223	1.240	23170.6	NO	1011.546	1011.546
1234678-HpCDD	41.911	1.001	6.12e6	6.04e6	0.879	1.014	1.050	12131.4	NO	1019.042	1019.042
OCDD	48.017	1.000	1.08e7	1.26e7	0.875	0.859	0.890	22567.2	NO	2072.682	2072.682
13C-2378-TCDF	26.527	1.007	1.31e6	1.73e6	1.190	0.758	0.770	7806.2	NO		100.721
13C-12378-PeCDF	30.687	1.165	1.51e6	9.75e5	0.904	1.550	1.550	5819.0	NO		108.425
13C-23478-PeCDF	32.035	1.216	1.48e6	9.48e5	0.877	1.556	1.550	5854.9	NO		108.972
13C-123478-HxCDF	35.718	0.953	6.02e5	1.19e6	1.096	0.507	0.510	2340.0	NO		97.235
13C-123678-HxCDF	35.872	0.957	6.41e5	1.26e6	1.187	0.508	0.510	2393.5	NO		95.496
13C-234678-HxCDF	36.814	0.982	5.64e5	1.11e6	1.040	0.508	0.510	2123.0	NO		95.882
13C-123789-HxCDF	37.922	1.011	5.21e5	1.02e6	0.941	0.513	0.510	2009.0	NO		97.330
13C-1234678-HpCDF	40.026	1.068	4.14e5	9.46e5	0.825	0.437	0.440	2076.5	NO		98.114
13C-1234789-HpCDF	42.810	1.142	3.13e5	7.15e5	0.609	0.437	0.440	1322.9	NO		100.503
13C-1234-TCDD	26.347	0.000	1.12e6	1.42e6	1.000	0.790	0.770	2139.4	NO		100.000
13C-2378-TCDD	27.169	1.031	1.05e6	1.37e6	0.920	0.766	0.770	1926.7	NO		103.748
13C-12378-PeCDD	32.287	1.225	1.14e6	7.48e5	0.669	1.529	1.550	4483.9	NO		111.472
13C-123478-HxCDD	36.946	0.985	9.79e5	7.87e5	1.032	1.245	1.240	7123.6	NO		101.963
13C-123678-HxCDD	37.077	0.989	1.04e6	8.45e5	1.146	1.235	1.240	7563.5	NO		98.248
13C-1234678-HpCDD	41.889	1.117	6.95e5	6.62e5	0.789	1.050	1.050	3879.3	NO		102.439
13C-OCDD	47.999	1.280	1.21e6	1.38e6	0.696	0.878	0.890	3848.7	NO		221.159

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:37 Pacific Daylight Time

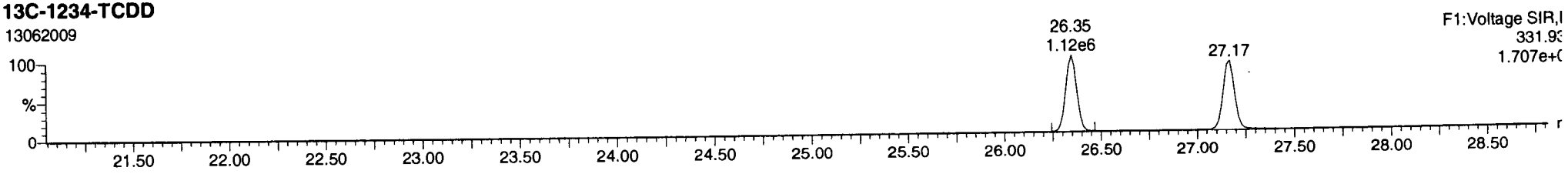
ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.494	0.000	9.20e5	7.58e5	1.000	1.214	1.240	6785.6	NO	100.000
Total-tetrafurans			2.03e6		0.771					204.331
Total-penta1			1.46e2							0.011
Total-pentafurans			2.44e7		0.826					2011.927
Total-hexafurans			3.63e7		0.948					4058.443
Total-heptafurans			1.33e7		1.079					2081.399
Total-Furans			8.73e7		0.925					10472.589
Total-tetradioxins			2.01e6		0.936					206.232
Total-pentadioxins			1.01e7		0.894					994.237
Total-hexadioxins			2.52e7		0.835					3009.311
Total-heptadioxins			6.14e6		0.879					1023.165
Total-Dioxins			5.43e7		0.870					7305.627
Total-TEQ			1.42e8							17778.216
37CL-2378-TCDD	27.184	1.032	5.29e6		1.000			29971.4		208.668
FUNCTION1 PFK			2.10e5							
FUNCTION2 PFK			1.56e6							0.000
FUNCTION3 PFK			1.23e6							0.000
FUNCTION4 PFK			8.47e5							
FUNCTION5 PFK			3.29e6							
FUNCTION1 HXCDPE			2.68e2							0.000
FUNCTION1 HPCDPE			1.49e3							0.000
FUNCTION2 HPCDPE			2.91e4							0.000
FUNCTION3 OCDPE			4.23e2							0.000
FUNCTION4 NCDPE			3.37e2							0.000
FUNCTION5 DCDPE			7.33e1							0.000

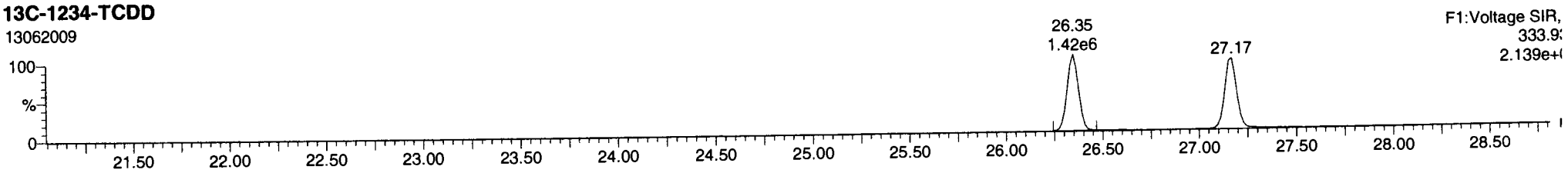
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: 21 Jun 2013 09:11:11

ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

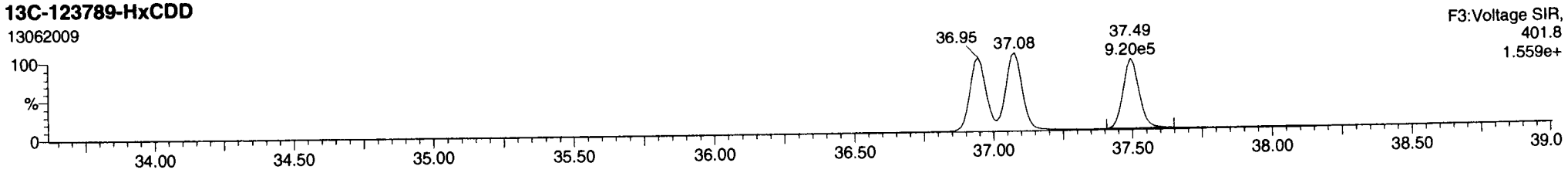
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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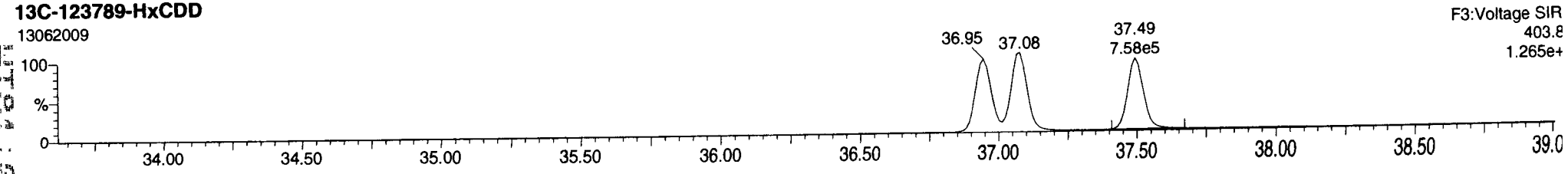

Dataset: P:\DIOXIN8290.PRO\130620IC.qld
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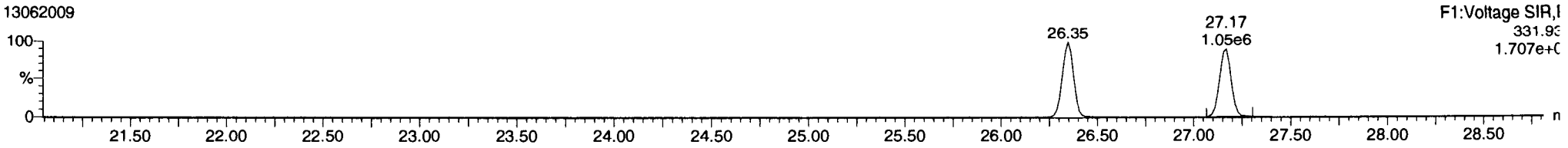
ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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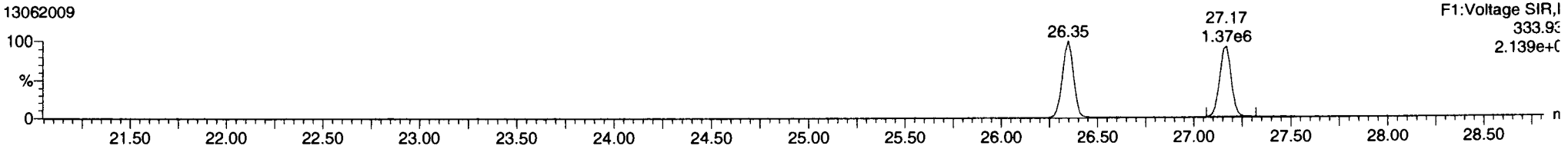
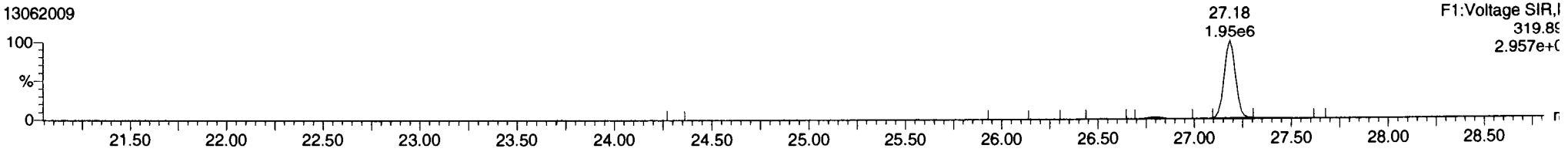
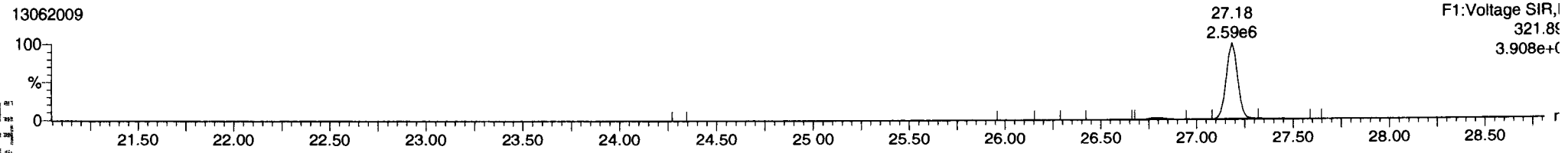


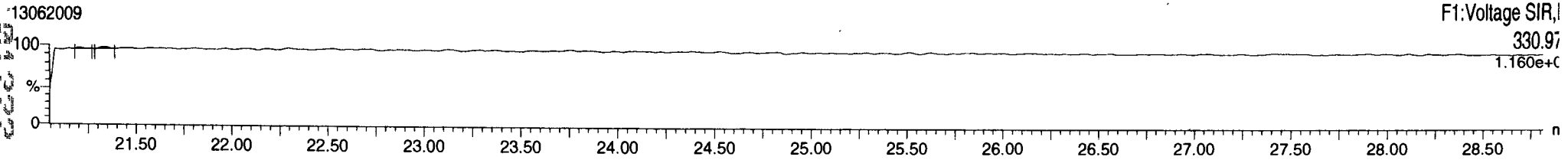
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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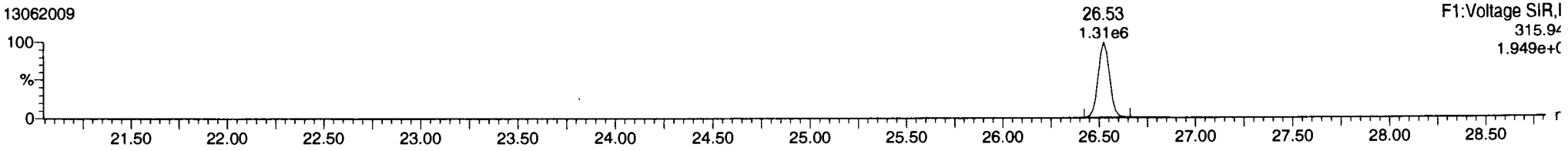
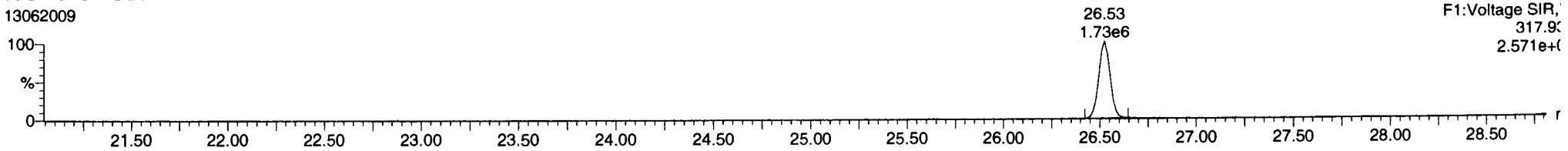
Printed: Friday, June 21, 2013 09:16:37 Pacific Daylight Time

ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

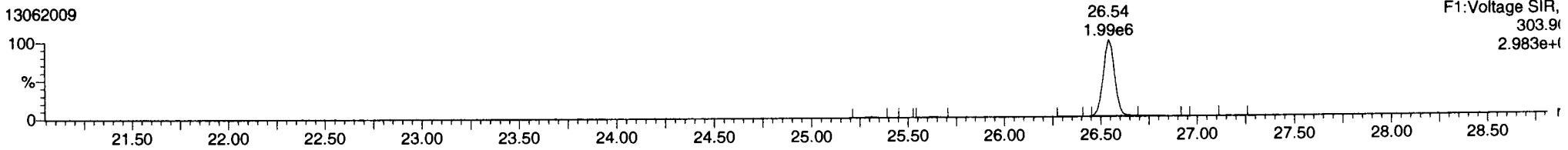
13C-2378-TCDF



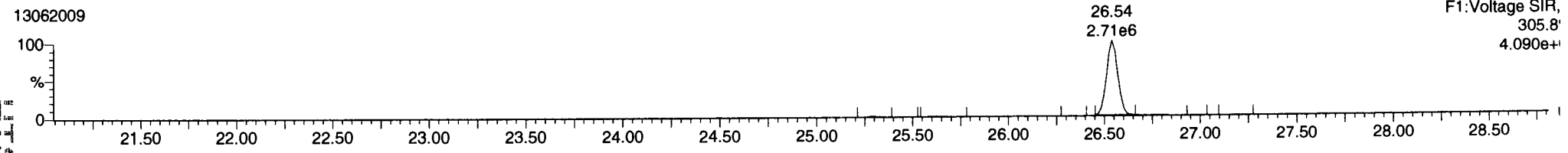
13C-2378-TCDF



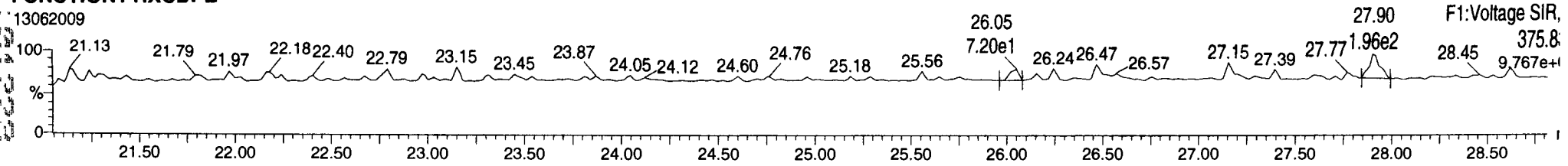
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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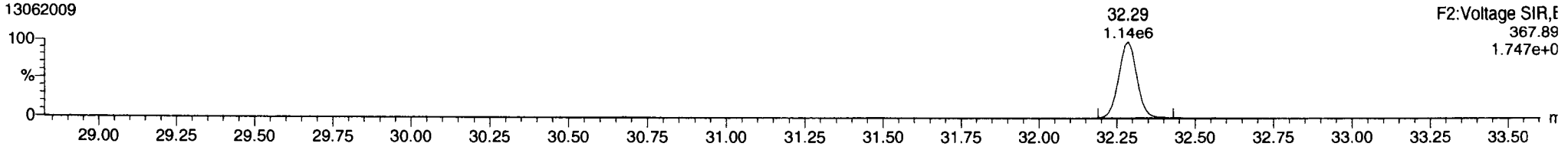
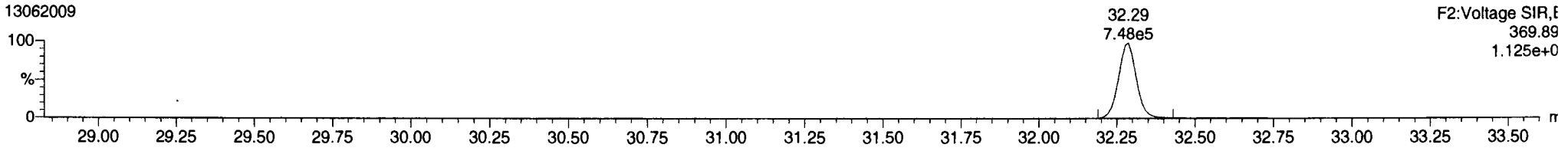
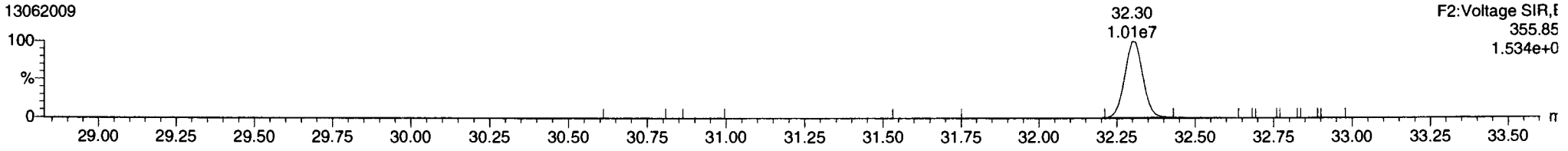
13C-12378-PeCDD



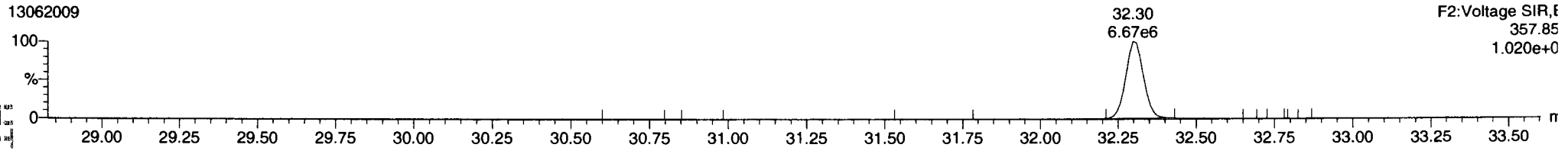
13C-12378-PeCDD



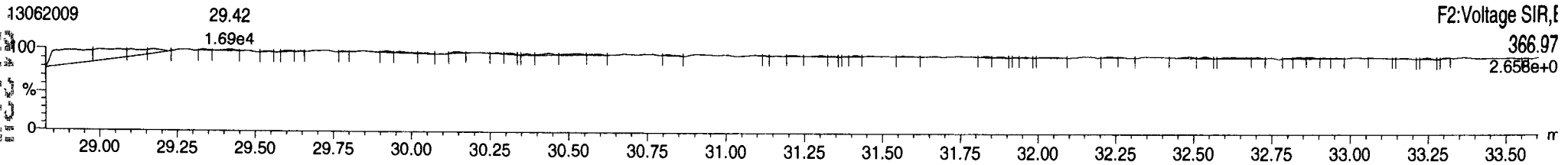
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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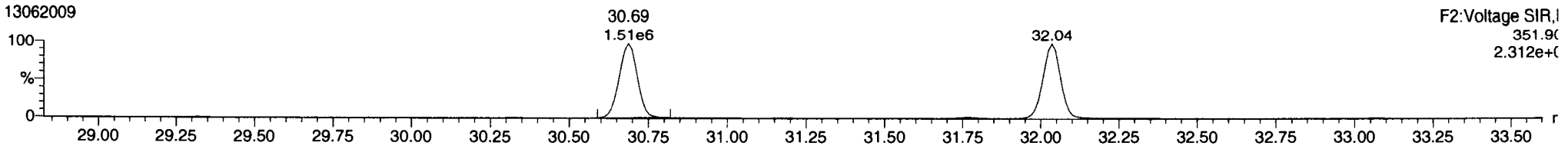
13C-12378-PeCDF



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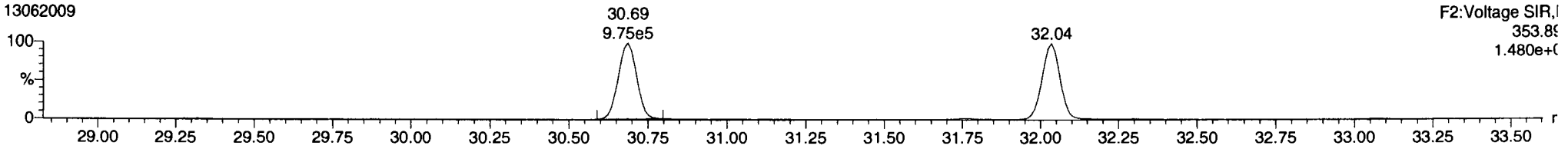

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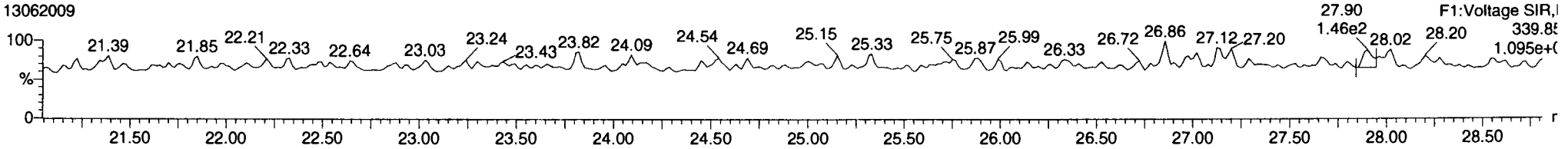
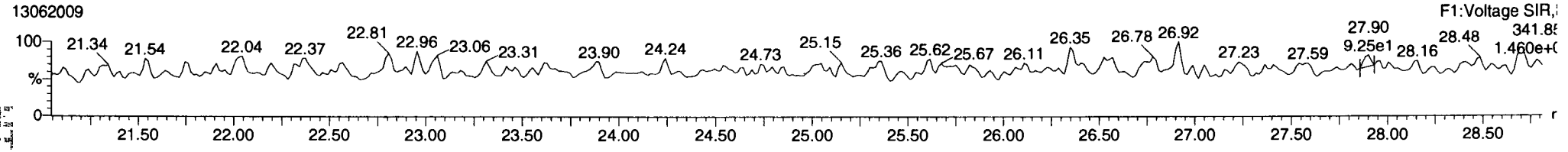
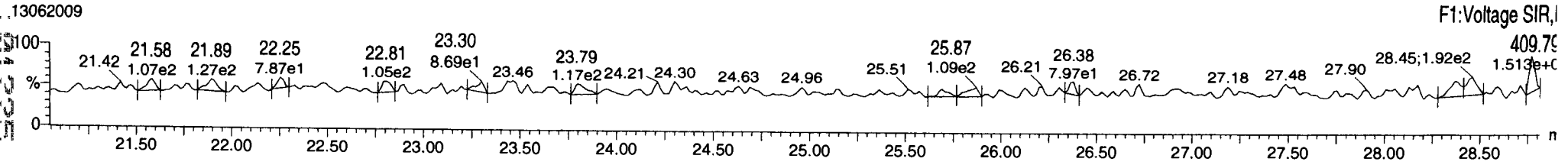


Total-penta1



FUNCTION1 HPCDPE



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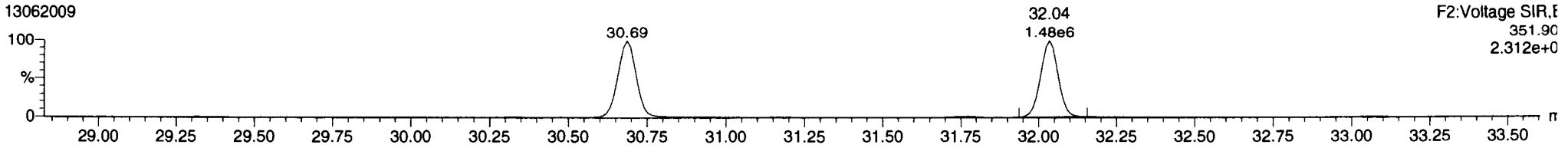
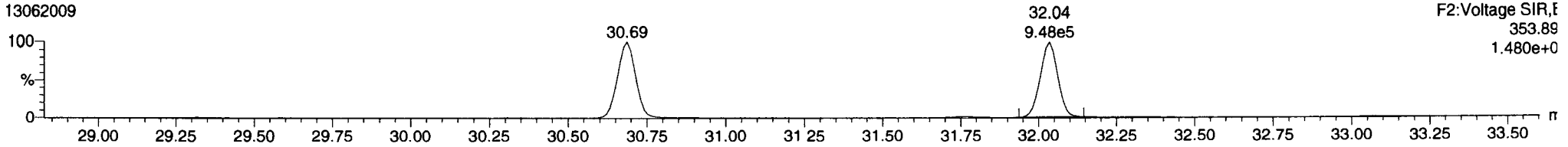
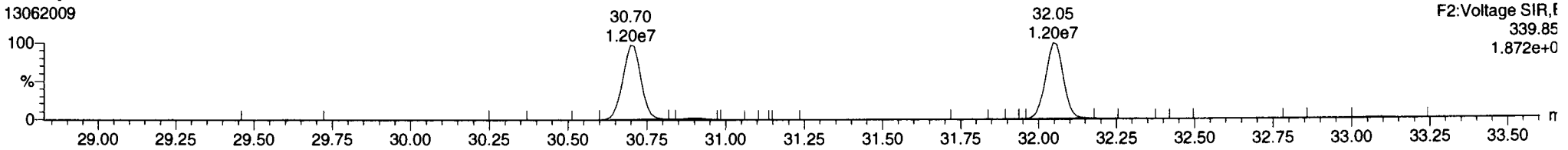
13C-23478-PeCDF



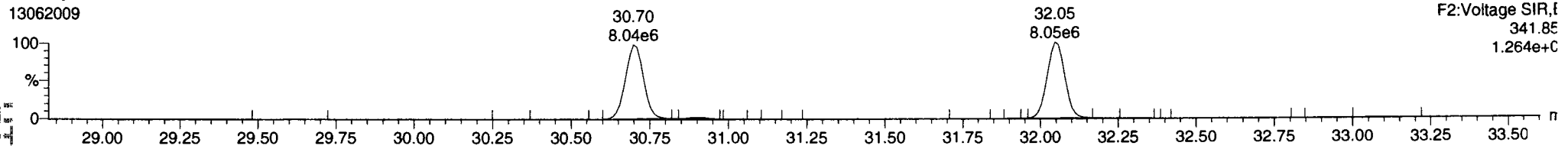
13C-23478-PeCDF



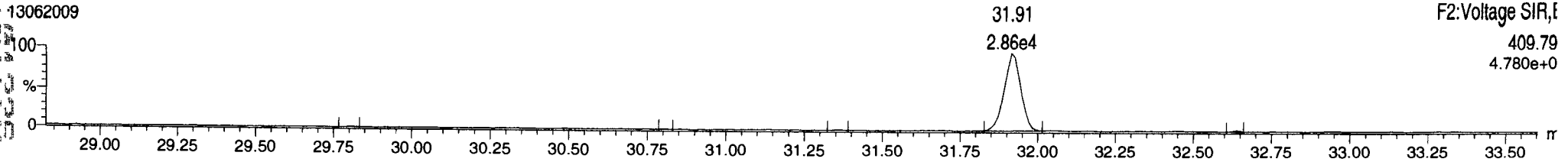
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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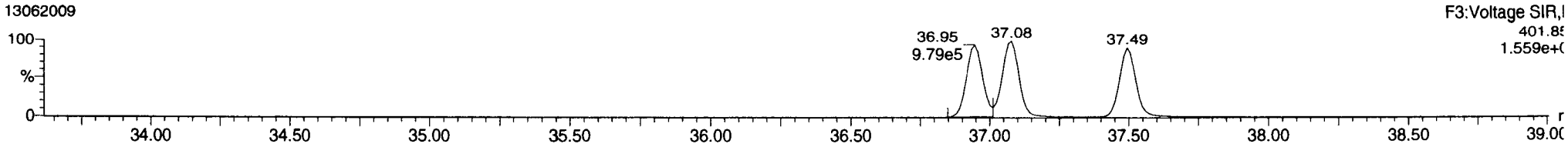
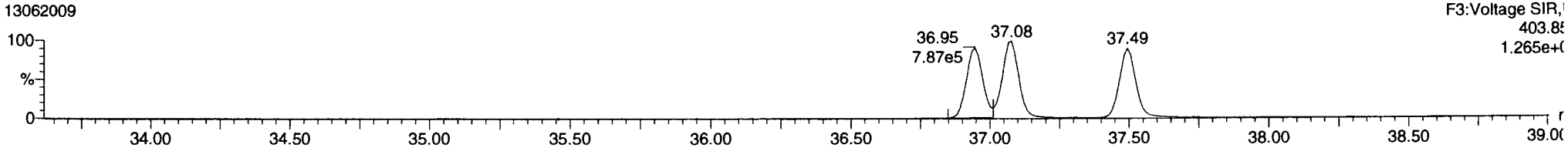
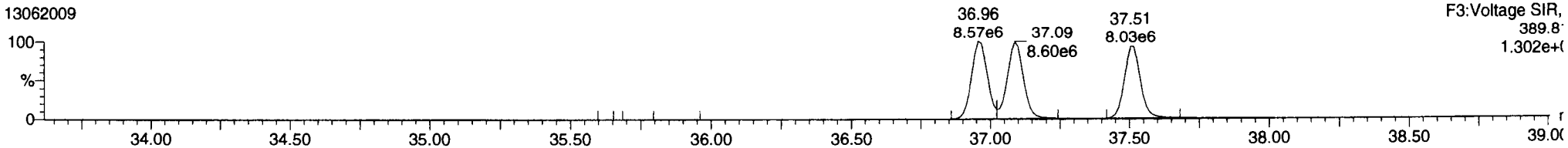
13C-123478-HxCDD



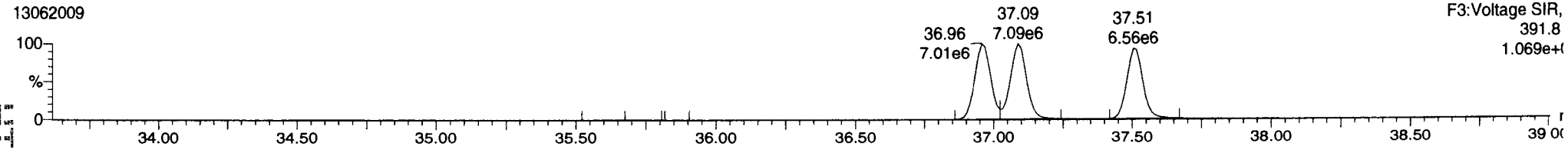
13C-123478-HxCDD



Total-hexadioxins



Total-hexadioxins



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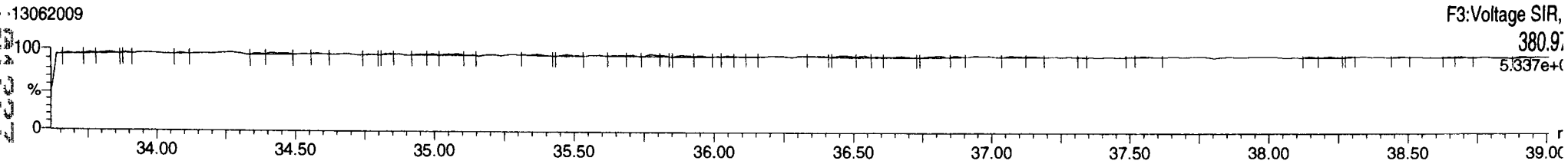

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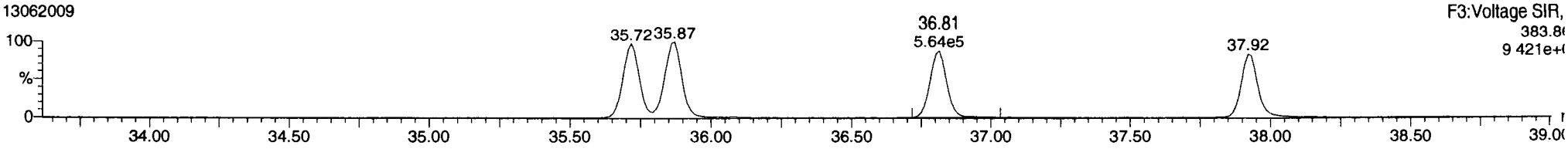
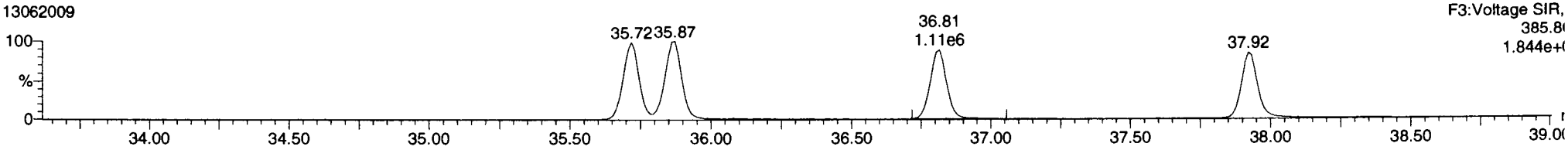
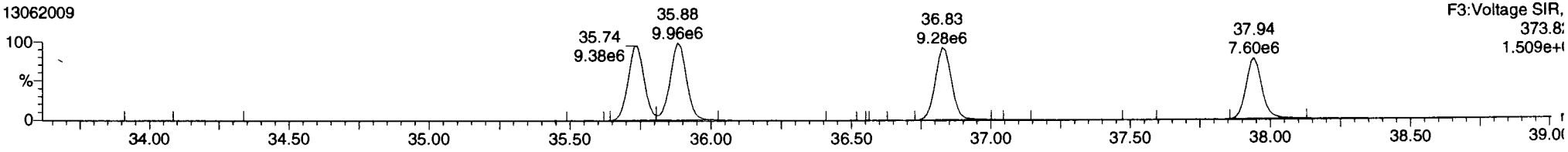
13C-234678-HxCDF



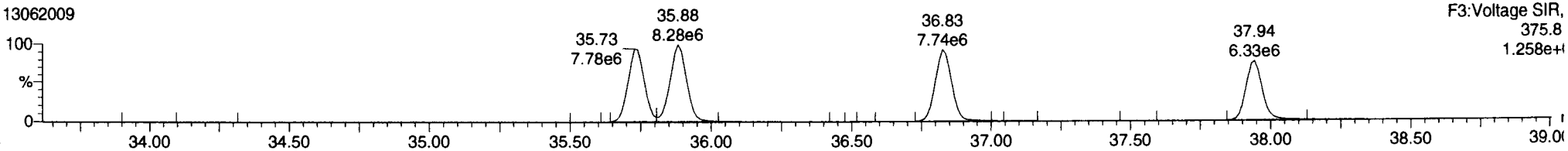
13C-234678-HxCDF



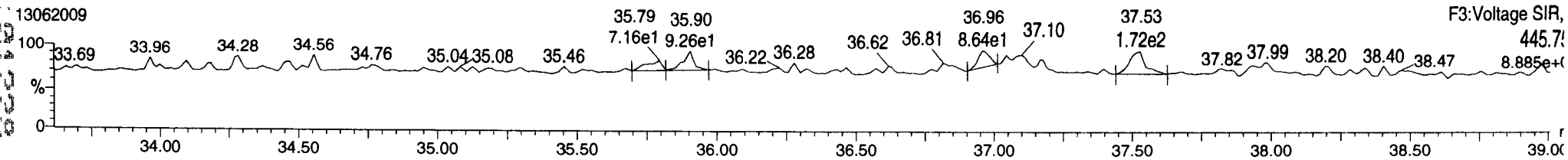
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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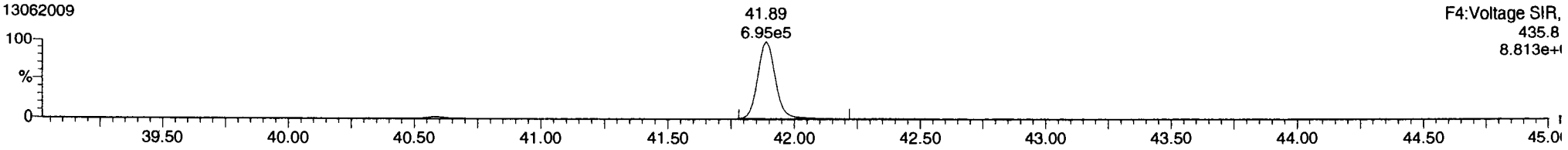
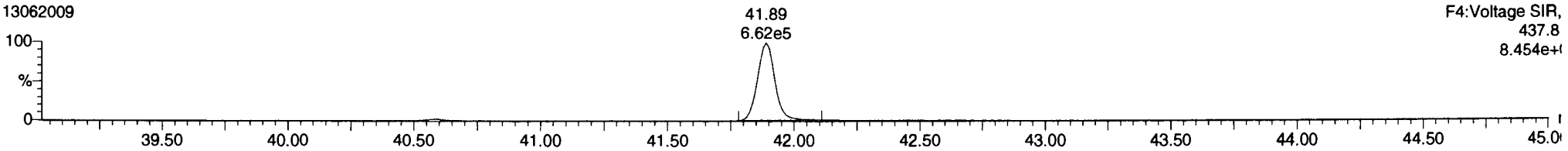
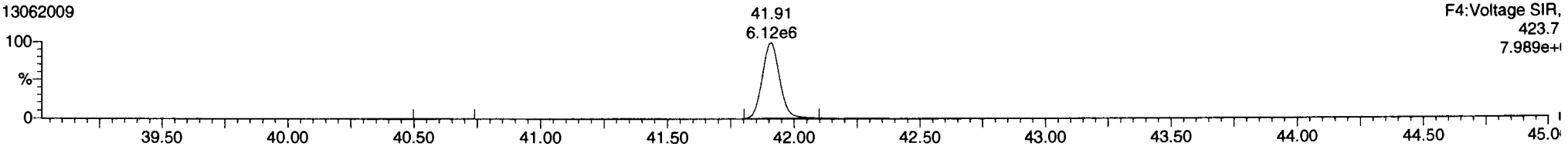
13C-1234678-HpCDD



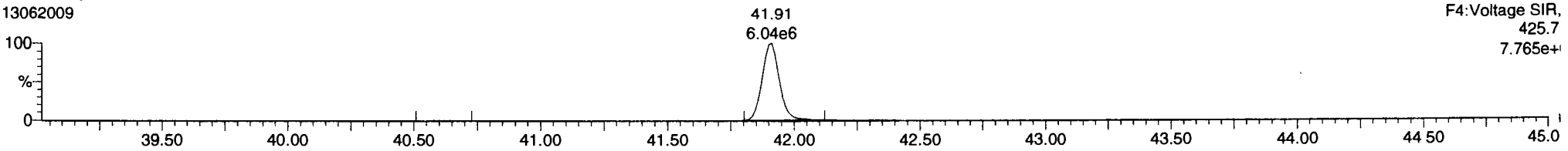
13C-1234678-HpCDD



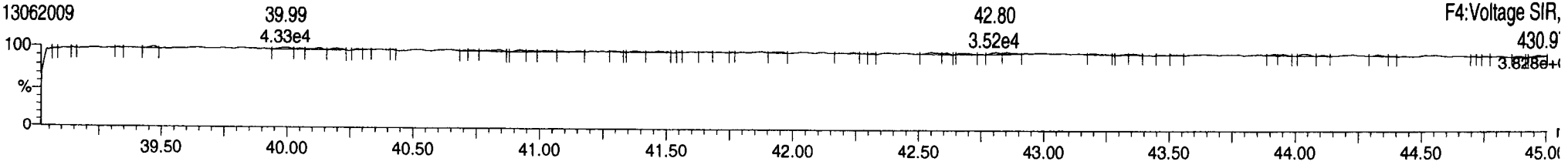
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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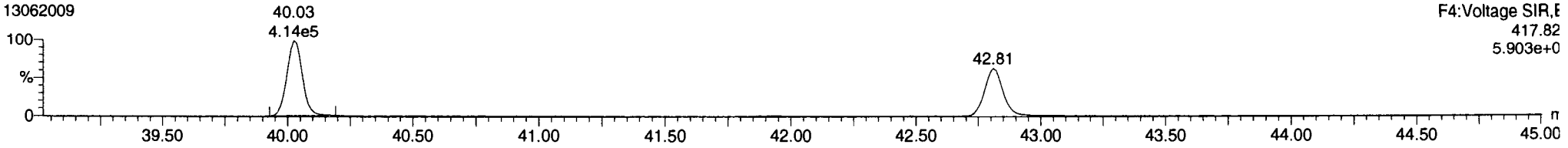
13C-1234678-HpCDF



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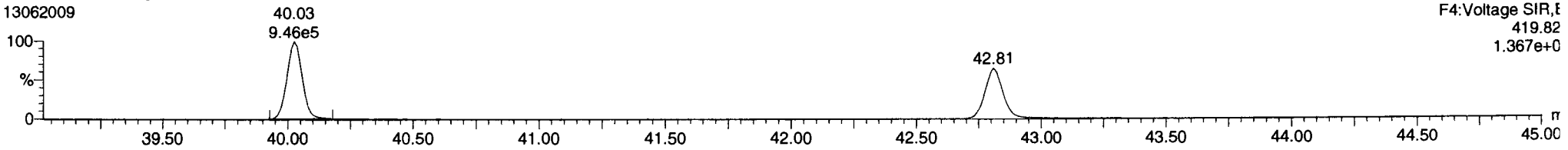
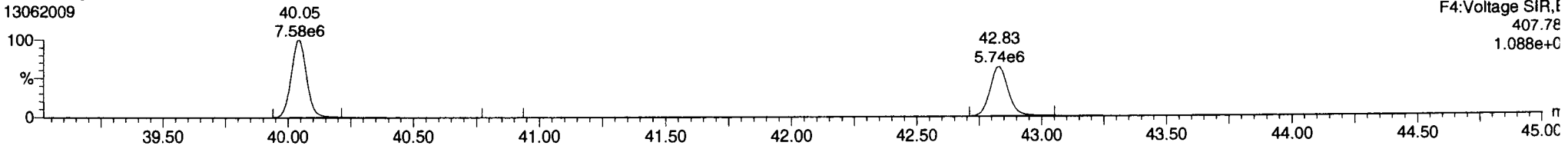


Total-heptafurans



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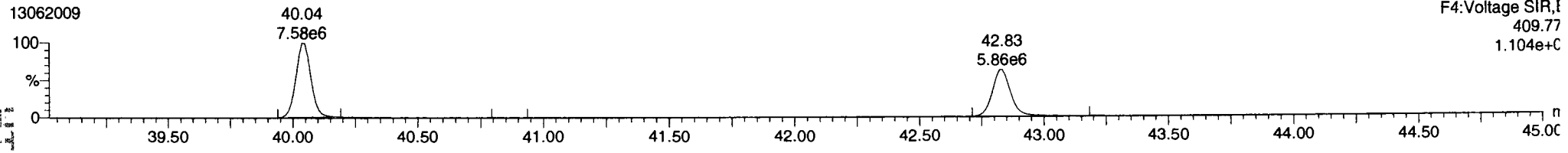
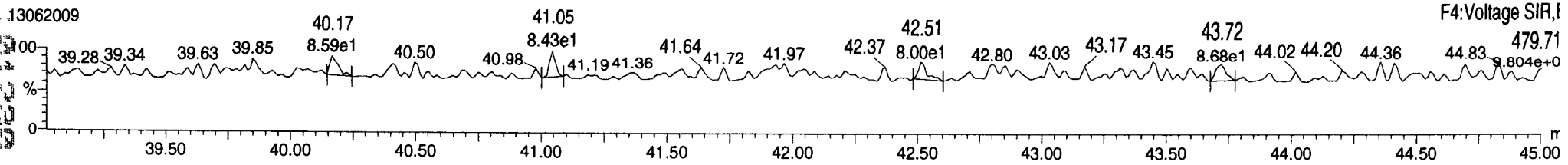


FUNCTION4 NCDPE



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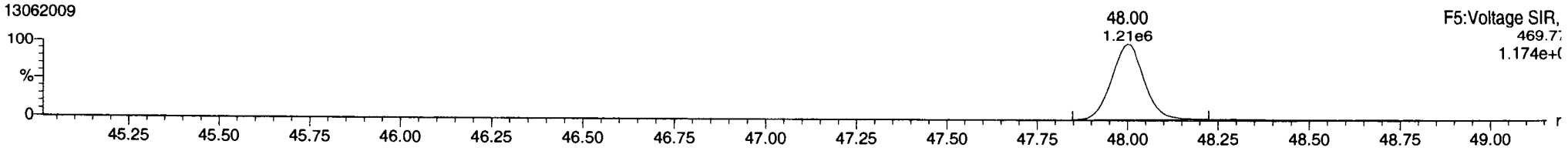
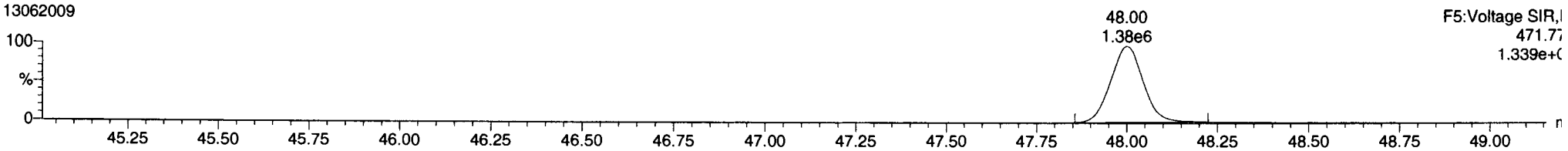
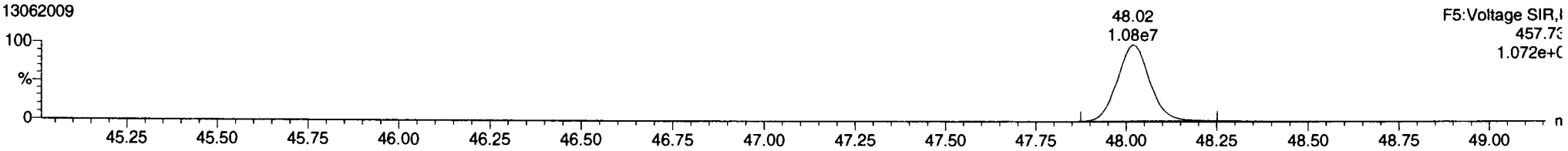
13C-OCDD



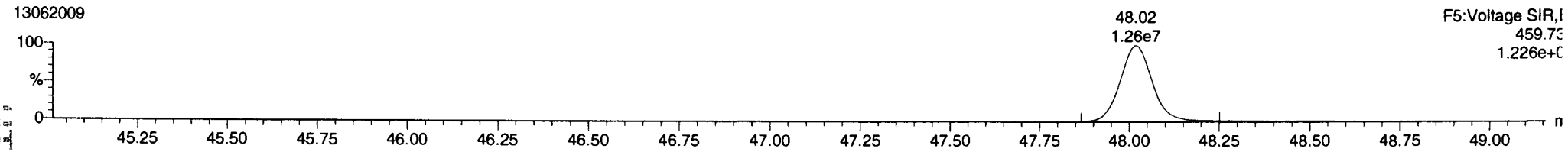
13C-OCDD



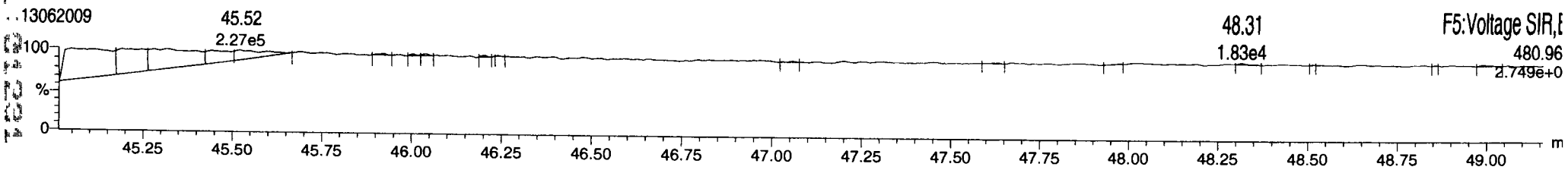
OCDD



OCDD



FUNCTION5 PFK



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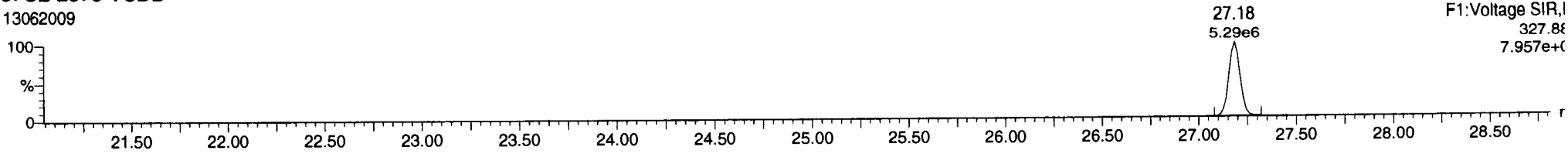
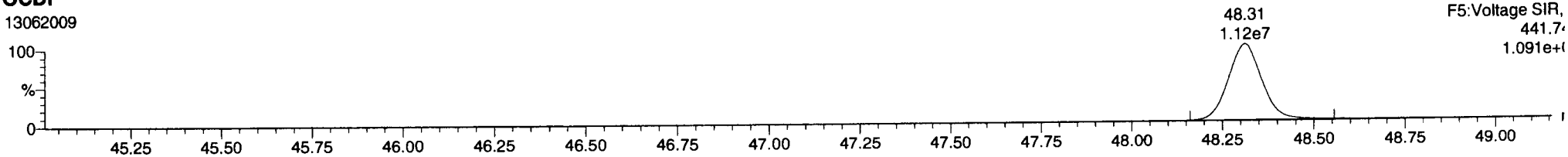
Last Altered: Friday, June 21, 2013 09:11:12 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:16:37 Pacific Daylight Time

ID: CS5, Name: 13062009, Date: 20-Jun-2013, Time: 17:10:20, Conditions: AUTOSPEC01, User: pk

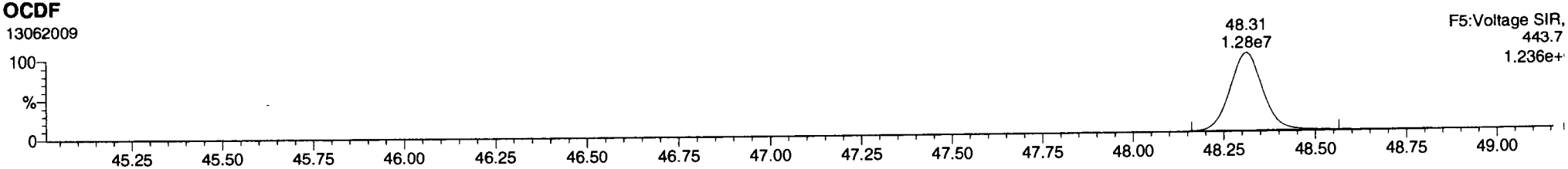
37CL-2378-TCDD



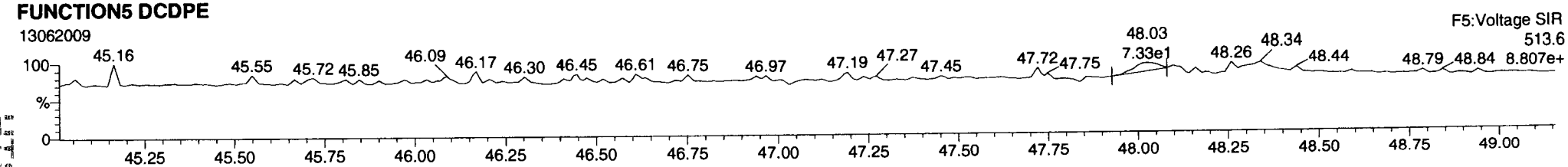
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130620ICV.qld
Last Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: P:\DIOXIN8290.PRO\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.527	1.001	7.27e4	9.92e4	0.771	0.733	0.770	964.7	1082	2458	1.04e6	1.47e6	NO	10.483	10.483
12378-PeCDF	30.687	1.001	4.09e5	2.70e5	0.814	1.513	1.550	1513.7	3954	3207	5.99e6	3.95e6	NO	52.749	52.749
23478-PeCDF	32.035	1.001	3.77e5	2.52e5	0.837	1.495	1.550	1414.0	3954	3207	5.59e6	3.76e6	NO	49.530	49.530
123478-HxCDF	35.719	1.001	3.04e5	2.53e5	0.967	1.198	1.240	1310.4	3406	3938	4.46e6	3.75e6	NO	54.677	54.677
234678-HxCDF	36.815	1.001	2.83e5	2.38e5	1.000	1.192	1.240	1199.5	3406	3938	4.09e6	3.44e6	NO	48.942	48.942
123678-HxCDF	35.872	1.001	3.20e5	2.69e5	0.951	1.187	1.240	1331.4	3406	3938	4.53e6	3.70e6	NO	50.900	50.900
123789-HxCDF	37.922	1.000	2.53e5	2.00e5	0.874	1.261	1.240	1058.0	3406	3938	3.60e6	2.89e6	NO	58.502	58.502
1234678-HpCDF	40.027	1.001	2.21e5	2.25e5	1.072	0.984	1.050	1379.6	2218	2150	3.06e6	3.09e6	NO	56.162	56.162
1234789-HpCDF	42.811	1.000	1.65e5	1.71e5	1.085	0.967	1.050	896.4	2218	2150	1.99e6	1.97e6	NO	51.305	51.305
OCDF	48.287	1.006	2.94e5	3.36e5	0.878	0.874	0.890	1481.4	1755	1580	2.60e6	3.00e6	NO	116.175	116.175
2378-TCDD	27.169	1.001	7.09e4	9.33e4	0.936	0.761	0.770	662.2	1540	1765	1.02e6	1.33e6	NO	9.703	9.703
12378-PeCDD	32.287	1.001	3.23e5	2.20e5	0.894	1.469	1.550	2156.6	2231	1469	4.81e6	3.19e6	NO	46.891	46.891
123478-HxCDD	36.946	1.001	2.55e5	2.12e5	0.898	1.206	1.240	2877.3	1300	2184	3.74e6	3.10e6	NO	51.561	51.561
123678-HxCDD	37.078	1.001	2.51e5	2.11e5	0.818	1.189	1.240	2686.9	1300	2184	3.49e6	2.92e6	NO	56.248	56.248
123789-HxCDD	37.494	1.012	2.58e5	2.07e5	0.789	1.244	1.240	2835.2	1300	2184	3.68e6	3.03e6	NO	58.440	58.440
1234678-HpCDD	41.890	1.001	1.82e5	1.84e5	0.879	0.987	1.050	1148.6	1936	1775	2.22e6	2.24e6	NO	51.874	51.874
OCDD	48.000	1.000	2.90e5	3.31e5	0.875	0.875	0.890	1382.2	1876	1416	2.59e6	3.01e6	NO	114.929	114.929
13C-2378-TCDF	26.512	1.007	9.24e5	1.20e6	1.190	0.769	0.770	4630.0	2872	5745	1.33e7	1.75e7	NO		88.728
13C-12378-PeCDF	30.665	1.165	9.61e5	6.20e5	0.904	1.549	1.550	3637.5	3697	3419	1.34e7	8.78e6	NO		86.772
13C-23478-PeCDF	32.014	1.216	9.22e5	5.98e5	0.877	1.543	1.550	3603.4	3697	3419	1.33e7	8.70e6	NO		85.979
13C-123478-HxCDF	35.697	0.953	3.56e5	6.98e5	1.096	0.510	0.510	1954.5	2624	3948	5.13e6	1.02e7	NO		91.749
13C-123678-HxCDF	35.850	0.957	4.09e5	8.07e5	1.187	0.507	0.510	2229.3	2624	3948	5.85e6	1.13e7	NO		97.757
13C-234678-HxCDF	36.793	0.982	3.56e5	7.08e5	1.040	0.504	0.510	1922.0	2624	3948	5.04e6	1.02e7	NO		97.721
13C-123789-HxCDF	37.911	1.012	3.06e5	5.80e5	0.941	0.527	0.510	1692.7	2624	3948	4.44e6	8.52e6	NO		89.850
13C-1234678-HpCDF	40.005	1.068	2.25e5	5.16e5	0.825	0.435	0.440	1426.4	2202	3934	3.14e6	7.11e6	NO		85.698
13C-1234789-HpCDF	42.800	1.142	1.83e5	4.21e5	0.609	0.434	0.440	968.2	2202	3934	2.13e6	4.75e6	NO		94.675
13C-1234-TCDD	26.332	0.000	8.83e5	1.13e6	1.000	0.780	0.770	1525.2	8518	3597	1.30e7	1.66e7	NO		100.000
13C-2378-TCDD	27.154	1.031	7.95e5	1.01e6	0.920	0.786	0.770	1288.1	8518	3597	1.10e7	1.38e7	NO		97.536
13C-12378-PeCDD	32.266	1.225	7.83e5	5.12e5	0.669	1.531	1.550	3485.1	3280	3004	1.14e7	7.53e6	NO		96.037
13C-123478-HxCDD	36.924	0.985	5.64e5	4.45e5	1.032	1.267	1.240	2837.2	2862	2203	8.12e6	6.52e6	NO		93.349
13C-123678-HxCDD	37.056	0.989	5.56e5	4.49e5	1.146	1.237	1.240	2751.8	2862	2203	7.88e6	6.33e6	NO		83.771
13C-1234678-HpCDD	41.868	1.117	4.14e5	3.90e5	0.789	1.061	1.050	2369.1	2107	2074	4.99e6	4.81e6	NO		97.245
13C-OCDD	47.982	1.280	5.70e5	6.65e5	0.696	0.857	0.890	1516.8	3418	2770	5.18e6	5.80e6	NO		169.334

Dataset: P:\DIOXIN8290.PRO\130620ICV.qld
Last Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
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ID: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.473	0.000	5.73e5	4.74e5	1.000	1.209	1.240	2869.6	2862	2203	8.21e6	6.79e6	NO	100.000
Total-tetrafurans			7.40e4		0.771				1082		1.07e6			10.628
Total-penta1			9.20e1						1267		2.67e3			0.014
Total-pentafurans			7.92e5		0.826				3954		1.17e7			102.988
Total-hexafurans			1.16e6		0.948				3406		1.67e7			213.316
Total-heptafurans			3.87e5		1.079				2218		5.05e6			107.467
Total-Furans			2.71e6		0.925				1082		3.71e7			550.588
Total-tetradioxins			7.36e4		0.936				1540		1.05e6			9.883
Total-pentadioxins			3.24e5		0.894				2231		4.83e6			47.037
Total-hexadioxins			7.66e5		0.835				1300		1.10e7			166.569
Total-heptadioxins			1.84e5		0.879				1936		2.26e6			52.466
Total-Dioxins			1.64e6		0.870				1540		2.17e7			390.884
Total-TEQ			4.34e6						1540		5.88e7			941.472
37CL-2378-TCDD	27.169	1.032	1.88e5		1.000			1152.1	2351		2.71e6			9.355
FUNCTION1 PFK			9.69e5						929300		1.43e7			
FUNCTION2 PFK			0.00e0						280568		0.00e0			
FUNCTION3 PFK			1.38e6						474927		3.61e7			0.000
FUNCTION4 PFK			6.37e5						349700		2.03e7			
FUNCTION5 PFK			2.58e4						260854		1.20e6			
FUNCTION1 HXCDPE			0.00e0						447		0.00e0			
FUNCTION1 HPCDPE			1.38e3						1158		3.12e4			0.000
FUNCTION2 HPCDPE			1.05e3						1629		3.12e4			0.000
FUNCTION3 OCDPE			1.71e2						483		4.86e3			0.000
FUNCTION4 NCDPE			1.21e2						901		3.04e3			0.000
FUNCTION5 DCDPE			1.28e2						887		4.50e3			0.000

taset: P:\DIOXIN8290.PRO\130620ICV.qld
st Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
nted: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

thod: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
libration: P:\DIOXIN8290.PRO\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

35 Total-tetrafurans	303.9016	26.77	490.234	0.771	0.030		1.35	0.77	YES	7.6
1 2378-TCDF	303.9016	26.53	171897.196	0.771	10.483	10.483	0.73	0.77	NO	964.7
35 Total-tetrafurans	303.9016	25.63	1511.026	0.771	0.092		1.54	0.77	YES	12.3
35 Total-tetrafurans	303.9016	24.05	368.851	0.771	0.022		0.69	0.77	NO	2.7

36 Total-penta1	339.8597	27.96	201.103		0.014		0.84	1.55	YES	2.1

2 12378-PeCDF	339.8597	30.69	679150.626	0.814	52.749	52.749	1.51	1.55	NO	1513.7
3 23478-PeCDF	339.8597	32.04	629740.063	0.837	49.530	49.530	1.49	1.55	NO	1414.0
37 Total-pentafurans	339.8597	31.77	3146.333	0.826	0.246		1.67	1.55	NO	7.4
37 Total-pentafurans	339.8597	31.17	1913.626	0.826	0.150		1.15	1.55	YES	4.3
37 Total-pentafurans	339.8597	30.99	2441.165	0.826	0.191		2.27	1.55	YES	6.6
37 Total-pentafurans	339.8597	30.87	1577.613	0.826	0.123		2.07	1.55	YES	5.3

7 123789-HxCDF	373.8208	37.92	452788.891	0.874	58.502	58.502	1.26	1.24	NO	1058.0
5 234678-HxCDF	373.8208	36.81	520942.032	1.000	48.942	48.942	1.19	1.24	NO	1199.5
38 Total-hexafurans	373.8208	36.10	2942.745	0.948	0.294		0.10	1.24	YES	2.5
6 123678-HxCDF	373.8208	35.87	588824.907	0.951	50.900	50.900	1.19	1.24	NO	1331.4
4 123478-HxCDF	373.8208	35.72	556921.016	0.967	54.677	54.677	1.20	1.24	NO	1310.4

F

9 1234789-HpCDF	407.7818	42.81	336346.297	1.085	51.305	51.305	0.97	1.05	NO	896.4
8 1234678-HpCDF	407.7818	40.03	446120.485	1.072	56.162	56.162	0.98	1.05	NO	1379.6

laset: P:\DIOXIN8290.PRO\130620ICV.qld
st Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
ated: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

rans,TF,PP,PF,HF,HPF,OF

35 Total-tetrafurans	303.9016	26.77	490.234	0.771	0.030		1.35	0.77	YES	7.6
1 2378-TCDF	303.9016	26.53	171897.196	0.771	10.483	10.483	0.73	0.77	NO	964.7
35 Total-tetrafurans	303.9016	25.63	1511.026	0.771	0.092		1.54	0.77	YES	12.3
35 Total-tetrafurans	303.9016	24.05	368.851	0.771	0.022		0.69	0.77	NO	2.7
2 12378-PeCDF	339.8597	30.69	679150.626	0.814	52.749	52.749	1.51	1.55	NO	1513.7
3 23478-PeCDF	339.8597	32.04	629740.063	0.837	49.530	49.530	1.49	1.55	NO	1414.0
37 Total-pentafurans	339.8597	31.77	3146.333	0.826	0.246		1.67	1.55	NO	7.4
37 Total-pentafurans	339.8597	31.17	1913.626	0.826	0.150		1.15	1.55	YES	4.3
37 Total-pentafurans	339.8597	30.99	2441.165	0.826	0.191		2.27	1.55	YES	6.6
37 Total-pentafurans	339.8597	30.87	1577.613	0.826	0.123		2.07	1.55	YES	5.3
7 123789-HxCDF	373.8208	37.92	452788.891	0.874	58.502	58.502	1.26	1.24	NO	1058.0
5 234678-HxCDF	373.8208	36.81	520942.032	1.000	48.942	48.942	1.19	1.24	NO	1199.5
38 Total-hexafurans	373.8208	36.10	2942.745	0.948	0.294		0.10	1.24	YES	2.5
6 123678-HxCDF	373.8208	35.87	588824.907	0.951	50.900	50.900	1.19	1.24	NO	1331.4
4 123478-HxCDF	373.8208	35.72	556921.016	0.967	54.677	54.677	1.20	1.24	NO	1310.4
9 1234789-HpCDF	407.7818	42.81	336346.297	1.085	51.305	51.305	0.97	1.05	NO	896.4
8 1234678-HpCDF	407.7818	40.03	446120.485	1.072	56.162	56.162	0.98	1.05	NO	1379.6
10 OCDF	441.7428	48.29	629633.844	0.878	116.175	116...	0.87	0.89	NO	1481.4
36 Total-penta1	339.8597	27.96	201.103		0.014		0.84	1.55	YES	2.1

11 2378-TCDD	319.8965	27.17	164188.547	0.936	9.703	9.703	0.76	0.77	NO	662.2
41 Total-tetradioxins	319.8965	26.51	3041.078	0.936	0.180		7.38	0.77	YES	21.9

42 Total-pentadioxins	355.8546	30.68	1132.363	0.894	0.098		2.03	1.55	YES	5.8
42 Total-pentadioxins	355.8546	32.67	557.934	0.894	0.048		0.63	1.55	YES	2.6
12 12378-PeCDD	355.8546	32.29	543091.515	0.894	46.891	46.891	1.47	1.55	NO	2156.6

43 Total-hexadioxins	389.8157	37.69	1274.852	0.835	0.152		14.33	1.24	YES	20.6
15 123789-HxCDD	389.8157	37.49	464626.126	0.789	58.440	58.440	1.24	1.24	NO	2835.2
43 Total-hexadioxins	389.8157	37.36	416.272	0.835	0.050		0.39	1.24	YES	3.8
14 123678-HxCDD	389.8157	37.08	462369.922	0.818	56.248	56.248	1.19	1.24	NO	2686.9
13 123478-HxCDD	389.8157	36.95	466934.297	0.898	51.561	51.561	1.21	1.24	NO	2877.3
43 Total-hexadioxins	389.8157	35.86	990.018	0.835	0.118		2.93	1.24	YES	11.7

D

44 Total-heptadioxins	423.7766	42.12	2193.248	0.879	0.310		1.38	1.05	YES	13.8
16 1234678-HpCDD	423.7766	41.89	366483.797	0.879	51.874	51.874	0.99	1.05	NO	1148.6
44 Total-heptadioxins	423.7766	40.60	1989.886	0.879	0.282		0.74	1.05	YES	7.3

taset: P:\DIOXIN8290.PRO\130620ICV.qld
st Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
nted: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

oxins,TD,PD,HD,HPD,OD

11 2378-TCDD	319.8965	27.17	164188.547	0.936	9.703	9.703	0.76	0.77	NO	662.2
41 Total-tetradioxins	319.8965	26.51	3041.078	0.936	0.180		7.38	0.77	YES	21.9
42 Total-pentadioxins	355.8546	30.68	1132.363	0.894	0.098		2.03	1.55	YES	5.8
42 Total-pentadioxins	355.8546	32.67	557.934	0.894	0.048		0.63	1.55	YES	2.6
12 12378-PeCDD	355.8546	32.29	543091.515	0.894	46.891	46.891	1.47	1.55	NO	2156.6
43 Total-hexadioxins	389.8157	37.69	1274.852	0.835	0.152		14.33	1.24	YES	20.6
15 123789-HxCDD	389.8157	37.49	464626.126	0.789	58.440	58.440	1.24	1.24	NO	2835.2
43 Total-hexadioxins	389.8157	37.36	416.272	0.835	0.050		0.39	1.24	YES	3.8
14 123678-HxCDD	389.8157	37.08	462369.922	0.818	56.248	56.248	1.19	1.24	NO	2686.9
13 123478-HxCDD	389.8157	36.95	466934.297	0.898	51.561	51.561	1.21	1.24	NO	2877.3
43 Total-hexadioxins	389.8157	35.86	990.018	0.835	0.118		2.93	1.24	YES	11.7
44 Total-heptadioxins	423.7766	42.12	2193.248	0.879	0.310		1.38	1.05	YES	13.8
16 1234678-HpCDD	423.7766	41.89	366483.797	0.879	51.874	51.874	0.99	1.05	NO	1148.6
44 Total-heptadioxins	423.7766	40.60	1989.886	0.879	0.282		0.74	1.05	YES	7.3
17 OCDD	457.7377	48.00	621102.376	0.875	114.929	114....	0.88	0.89	NO	1382.2

ataset: P:\DIOXIN8290.PRO\130620ICV.qld
ast Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
rinted: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

otalTEQ,Furans,Dioxins

	35 Total-tetrafurans	303.9016	26.77	490.234	0.771	0.030		1.35	0.77	YES	7.6
	1 2378-TCDF	303.9016	26.53	171897.196	0.771	10.483	10.483	0.73	0.77	NO	964.7
	35 Total-tetrafurans	303.9016	25.63	1511.026	0.771	0.092		1.54	0.77	YES	12.3
	35 Total-tetrafurans	303.9016	24.05	368.851	0.771	0.022		0.69	0.77	NO	2.7
	2 12378-PeCDF	339.8597	30.69	679150.626	0.814	52.749	52.749	1.51	1.55	NO	1513.7
	3 23478-PeCDF	339.8597	32.04	629740.063	0.837	49.530	49.530	1.49	1.55	NO	1414.0
	37 Total-pentafurans	339.8597	31.77	3146.333	0.826	0.246		1.67	1.55	NO	7.4
	37 Total-pentafurans	339.8597	31.17	1913.626	0.826	0.150		1.15	1.55	YES	4.3
	37 Total-pentafurans	339.8597	30.99	2441.165	0.826	0.191		2.27	1.55	YES	6.6
	37 Total-pentafurans	339.8597	30.87	1577.613	0.826	0.123		2.07	1.55	YES	5.3
	7 123789-HxCDF	373.8208	37.92	452788.891	0.874	58.502	58.502	1.26	1.24	NO	1058.0
	5 234678-HxCDF	373.8208	36.81	520942.032	1.000	48.942	48.942	1 19	1.24	NO	1199.5
	38 Total-hexafurans	373.8208	36.10	2942.745	0.948	0.294		0.10	1.24	YES	2.5
	6 123678-HxCDF	373.8208	35.87	588824.907	0.951	50.900	50.900	1.19	1.24	NO	1331.4
	4 123478-HxCDF	373.8208	35.72	556921.016	0.967	54.677	54.677	1.20	1.24	NO	1310.4
	9 1234789-HpCDF	407.7818	42.81	336346.297	1.085	51.305	51.305	0.97	1.05	NO	896.4
	8 1234678-HpCDF	407.7818	40.03	446120.485	1.072	56.162	56.162	0.98	1.05	NO	1379.6
	10 OCDF	441.7428	48.29	629633.844	0.878	116.175	116....	0.87	0.89	NO	1481.4
	36 Total-penta1	339.8597	27.96	201 103		0.014		0.84	1.55	YES	2.1
	11 2378-TCDD	319.8965	27.17	164188.547	0.936	9.703	9.703	0.76	0.77	NO	662.2
	41 Total-tetradioxins	319.8965	26.51	3041.078	0.936	0.180		7.38	0.77	YES	21.9
	42 Total-pentadioxins	355.8546	30.68	1132.363	0.894	0.098		2.03	1.55	YES	5.8
	42 Total-pentadioxins	355.8546	32.67	557.934	0.894	0.048		0.63	1.55	YES	2.6
	12 12378-PeCDD	355.8546	32.29	543091.515	0.894	46.891	46.891	1.47	1.55	NO	2156.6
	43 Total-hexadioxins	389.8157	37.69	1274.852	0.835	0.152		14.33	1.24	YES	20.6
	15 123789-HxCDD	389.8157	37.49	464626.126	0.789	58.440	58.440	1.24	1.24	NO	2835.2
	43 Total-hexadioxins	389.8157	37.36	416.272	0.835	0.050		0.39	1.24	YES	3.8
	14 123678-HxCDD	389.8157	37.08	462369.922	0.818	56.248	56.248	1.19	1.24	NO	2686.9
	13 123478-HxCDD	389.8157	36.95	466934.297	0.898	51.561	51.561	1.21	1.24	NO	2877.3
	43 Total-hexadioxins	389.8157	35.86	990.018	0.835	0.118		2.93	1.24	YES	11.7
	44 Total-heptadioxins	423.7766	42.12	2193.248	0.879	0.310		1.38	1.05	YES	13.8
	16 1234678-HpCDD	423.7766	41.89	366483.797	0.879	51.874	51.874	0.99	1.05	NO	1148.6
	44 Total-heptadioxins	423.7766	40.60	1989.886	0.879	0.282		0.74	1.05	YES	7.3
	17 OCDD	457.7377	48.00	621102.376	0.875	114.929	114....	0.88	0.89	NO	1382.2

FK1

	48 FUNCTION1 PFK	330.9792	28.50	0.000							1.5
	48 FUNCTION1 PFK	330.9792	28.08	0.000							2.0
	48 FUNCTION1 PFK	330.9792	27.90	0.000							2.0
	48 FUNCTION1 PFK	330.9792	27.75	0.000							1.9
	48 FUNCTION1 PFK	330.9792	26.83	0.000							1.9
	48 FUNCTION1 PFK	330.9792	24.99	0.000							1.6
	48 FUNCTION1 PFK	330.9792	23.00	0.000							1.6
	48 FUNCTION1 PFK	330.9792	21.92	0.000							2.0
	48 FUNCTION1 PFK	330.9792	21.31	0.000							1.1

laset: P:\DIOXIN8290.PRO\130620ICV.qld
st Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
nted: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

K2

taset: P:\DIOXIN8290.PRO\130620ICV.qld
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: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

K3

	50 FUNCTION3 PFK	380.9760	34.18	0.000	0.000	0.5
	50 FUNCTION3 PFK	380.9760	34.05	0.000	0.000	1.7
	50 FUNCTION3 PFK	380.9760	33.90	0.000	0.000	2.4
	50 FUNCTION3 PFK	380.9760	33.82	0.000	0.000	2.6
	50 FUNCTION3 PFK	380.9760	33.73	0.000	0.000	2.5
	50 FUNCTION3 PFK	380.9760	35.33	0.000	0.000	1.5
	50 FUNCTION3 PFK	380.9760	35.28	0.000	0.000	0.4
	50 FUNCTION3 PFK	380.9760	35.21	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	35.18	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	35.12	0.000	0.000	0.9
	50 FUNCTION3 PFK	380.9760	35.07	0.000	0.000	0.5
	50 FUNCTION3 PFK	380.9760	35.02	0.000	0.000	2.4
	50 FUNCTION3 PFK	380.9760	34.97	0.000	0.000	1.3
	50 FUNCTION3 PFK	380.9760	34.76	0.000	0.000	0.9
	50 FUNCTION3 PFK	380.9760	34.69	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	34.61	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	34.58	0.000	0.000	1.2
	50 FUNCTION3 PFK	380.9760	34.43	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	34.37	0.000	0.000	0.4
	50 FUNCTION3 PFK	380.9760	34.27	0.000	0.000	0.6
	50 FUNCTION3 PFK	380.9760	34.24	0.000	0.000	0.8
	50 FUNCTION3 PFK	380.9760	36.77	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	36.67	0.000	0.000	1.0
	50 FUNCTION3 PFK	380.9760	36.62	0.000	0.000	0.8
	50 FUNCTION3 PFK	380.9760	36.57	0.000	0.000	1.3
	50 FUNCTION3 PFK	380.9760	36.52	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	36.28	0.000	0.000	1.1
	50 FUNCTION3 PFK	380.9760	36.23	0.000	0.000	1.1
	50 FUNCTION3 PFK	380.9760	36.07	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	35.90	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	35.87	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	35.83	0.000	0.000	0.5
	50 FUNCTION3 PFK	380.9760	35.70	0.000	0.000	1.2
	50 FUNCTION3 PFK	380.9760	35.59	0.000	0.000	2.2
	50 FUNCTION3 PFK	380.9760	35.55	0.000	0.000	2.7
	50 FUNCTION3 PFK	380.9760	35.49	0.000	0.000	1.2
	50 FUNCTION3 PFK	380.9760	35.44	0.000	0.000	0.9
	50 FUNCTION3 PFK	380.9760	38.45	0.000	0.000	1.9
	50 FUNCTION3 PFK	380.9760	38.29	0.000	0.000	0.6
	50 FUNCTION3 PFK	380.9760	38.16	0.000	0.000	0.7
	50 FUNCTION3 PFK	380.9760	38.12	0.000	0.000	1.2
	50 FUNCTION3 PFK	380.9760	38.08	0.000	0.000	1.6
	50 FUNCTION3 PFK	380.9760	37.89	0.000	0.000	1.1
	50 FUNCTION3 PFK	380.9760	37.86	0.000	0.000	1.3
	50 FUNCTION3 PFK	380.9760	37.81	0.000	0.000	2.5
	50 FUNCTION3 PFK	380.9760	37.71	0.000	0.000	2.2
	50 FUNCTION3 PFK	380.9760	37.64	0.000	0.000	1.7
	50 FUNCTION3 PFK	380.9760	37.56	0.000	0.000	1.1
	50 FUNCTION3 PFK	380.9760	37.52	0.000	0.000	1.2

taset: P:\DIOXIN8290.PRO\130620ICV.qld
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: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

K3

	50 FUNCTION3 PFK	380.9760	37.28	0.000	0.000	1.0
	50 FUNCTION3 PFK	380.9760	37.03	0.000	0.000	1.5
	50 FUNCTION3 PFK	380.9760	36.96	0.000	0.000	1.5
	50 FUNCTION3 PFK	380.9760	36.85	0.000	0.000	0.6
	50 FUNCTION3 PFK	380.9760	38.95	0.000	0.000	1.2
	50 FUNCTION3 PFK	380.9760	38.79	0.000	0.000	1.4
	50 FUNCTION3 PFK	380.9760	38.71	0.000	0.000	1.5
	50 FUNCTION3 PFK	380.9760	38.67	0.000	0.000	2.3
	50 FUNCTION3 PFK	380.9760	38.58	0.000	0.000	2.0
	50 FUNCTION3 PFK	380.9760	38.49	0.000	0.000	0.9

taset: P:\DIOXIN8290.PRO\130620ICV.qld
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ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

K4

	51 FUNCTION4 PFK	430.9728	39.94	0.000						1.9
	51 FUNCTION4 PFK	430.9728	39.71	0.000						1.2
	51 FUNCTION4 PFK	430.9728	39.68	0.000						1.2
	51 FUNCTION4 PFK	430.9728	39.59	0.000						1.0
	51 FUNCTION4 PFK	430.9728	39.38	0.000						0.9
	51 FUNCTION4 PFK	430.9728	39.34	0.000						1.8
	51 FUNCTION4 PFK	430.9728	39.23	0.000						1.8
	51 FUNCTION4 PFK	430.9728	39.14	0.000						0.6
	51 FUNCTION4 PFK	430.9728	39.10	0.000						0.8
	51 FUNCTION4 PFK	430.9728	42.02	0.000						1.5
	51 FUNCTION4 PFK	430.9728	41.93	0.000						1.2
	51 FUNCTION4 PFK	430.9728	41.70	0.000						0.7
	51 FUNCTION4 PFK	430.9728	41.44	0.000						0.5
	51 FUNCTION4 PFK	430.9728	41.36	0.000						0.9
	51 FUNCTION4 PFK	430.9728	41.20	0.000						1.9
	51 FUNCTION4 PFK	430.9728	40.91	0.000						1.7
	51 FUNCTION4 PFK	430.9728	40.87	0.000						1.3
	51 FUNCTION4 PFK	430.9728	40.73	0.000						0.9
	51 FUNCTION4 PFK	430.9728	40.68	0.000						1.5
	51 FUNCTION4 PFK	430.9728	40.60	0.000						1.7
	51 FUNCTION4 PFK	430.9728	40.49	0.000						1.7
	51 FUNCTION4 PFK	430.9728	40.29	0.000						1.0
	51 FUNCTION4 PFK	430.9728	40.21	0.000						0.9
	51 FUNCTION4 PFK	430.9728	40.03	0.000						0.5
	51 FUNCTION4 PFK	430.9728	39.98	0.000						1.9
	51 FUNCTION4 PFK	430.9728	43.64	0.000						1.1
	51 FUNCTION4 PFK	430.9728	43.36	0.000						0.4
	51 FUNCTION4 PFK	430.9728	43.25	0.000						0.6
	51 FUNCTION4 PFK	430.9728	43.16	0.000						1.1
	51 FUNCTION4 PFK	430.9728	43.13	0.000						0.8
	51 FUNCTION4 PFK	430.9728	43.01	0.000						1.5
	51 FUNCTION4 PFK	430.9728	42.95	0.000						0.8
	51 FUNCTION4 PFK	430.9728	42.82	0.000						2.5
	51 FUNCTION4 PFK	430.9728	42.73	0.000						2.2
	51 FUNCTION4 PFK	430.9728	42.64	0.000						2.3
	51 FUNCTION4 PFK	430.9728	42.59	0.000						1.4
	51 FUNCTION4 PFK	430.9728	42.55	0.000						0.5
	51 FUNCTION4 PFK	430.9728	42.34	0.000						1.3
	51 FUNCTION4 PFK	430.9728	42.28	0.000						0.3
	51 FUNCTION4 PFK	430.9728	42.16	0.000						1.1
	51 FUNCTION4 PFK	430.9728	42.12	0.000						1.8
	51 FUNCTION4 PFK	430.9728	44.88	0.000						0.8
	51 FUNCTION4 PFK	430.9728	44.81	0.000						1.5
	51 FUNCTION4 PFK	430.9728	44.62	0.000						1.3
	51 FUNCTION4 PFK	430.9728	44.53	0.000						1.5
	51 FUNCTION4 PFK	430.9728	43.73	0.000						2.0

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ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

K5

52	FUNCTION5 PFK	480.9696	48.29	0.000	1.3
52	FUNCTION5 PFK	480.9696	46.82	0.000	1.4
52	FUNCTION5 PFK	480.9696	45.08	0.000	1.9

HERS1

HERS2

54	FUNCTION1 HPCD...	409.7974	23.75	0.000	0.000	1.8
54	FUNCTION1 HPCD...	409.7974	23.22	0.000	0.000	2.3
54	FUNCTION1 HPCD...	409.7974	22.97	0.000	0.000	1.7
54	FUNCTION1 HPCD...	409.7974	22.76	0.000	0.000	2.3
54	FUNCTION1 HPCD...	409.7974	21.31	0.000	0.000	1.9
54	FUNCTION1 HPCD...	409.7974	28.69	0.000	0.000	2.1
54	FUNCTION1 HPCD...	409.7974	28.41	0.000	0.000	3.3
54	FUNCTION1 HPCD...	409.7974	27.33	0.000	0.000	1.4
54	FUNCTION1 HPCD...	409.7974	26.80	0.000	0.000	2.4
54	FUNCTION1 HPCD...	409.7974	26.72	0.000	0.000	2.4
54	FUNCTION1 HPCD...	409.7974	25.45	0.000	0.000	1.6
54	FUNCTION1 HPCD...	409.7974	25.17	0.000	0.000	1.1
54	FUNCTION1 HPCD...	409.7974	24.15	0.000	0.000	2.7

THERS3

55	FUNCTION2 HPCD...	409.7974	32.67	0.000	0.000	1.8
55	FUNCTION2 HPCD...	409.7974	32.29	0.000	0.000	3.2
55	FUNCTION2 HPCD...	409.7974	31.89	0.000	0.000	1.5
55	FUNCTION2 HPCD...	409.7974	29.67	0.000	0.000	2.0
55	FUNCTION2 HPCD...	409.7974	29.50	0.000	0.000	1.6
55	FUNCTION2 HPCD...	409.7974	29.44	0.000	0.000	2.1
55	FUNCTION2 HPCD...	409.7974	29.10	0.000	0.000	4.2
55	FUNCTION2 HPCD...	409.7974	33.29	0.000	0.000	2.7

THERS4

56	FUNCTION3 OCDPE	445.7555	38.45	0.000	0.000	4.0
56	FUNCTION3 OCDPE	445.7555	36.85	0.000	0.000	6.0

THERS5

57	FUNCTION4 NCDPE	479.7165	43.97	0.000	0.000	3.4

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'HERS6

58	FUNCTION5 DCDPE	513.6775	47.00	0.000	0.000	5.1

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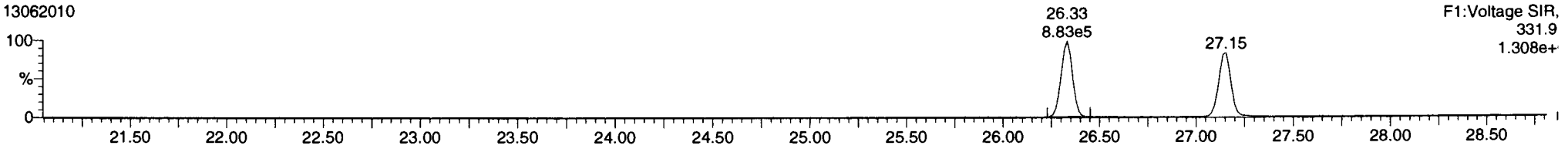
Method: P:\DIOXIN8290.PRO\MethDB\Dioxin130617.mdb 19 Jun 2013 11:39:43
Calibration: P:\DIOXIN8290.PRO\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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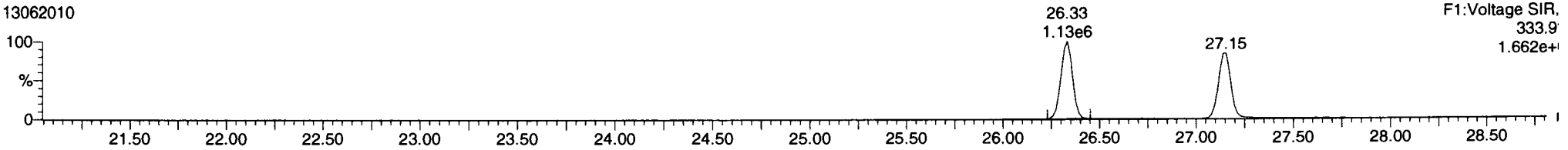

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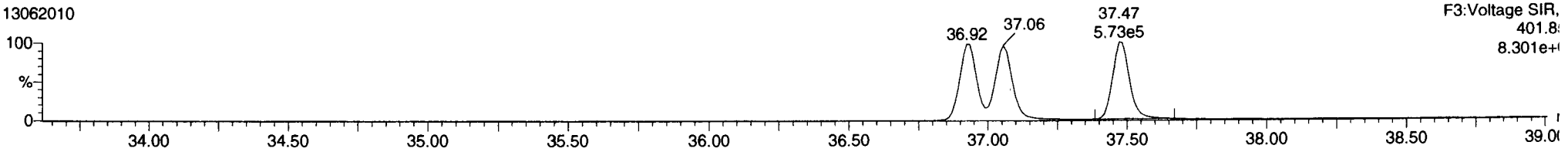

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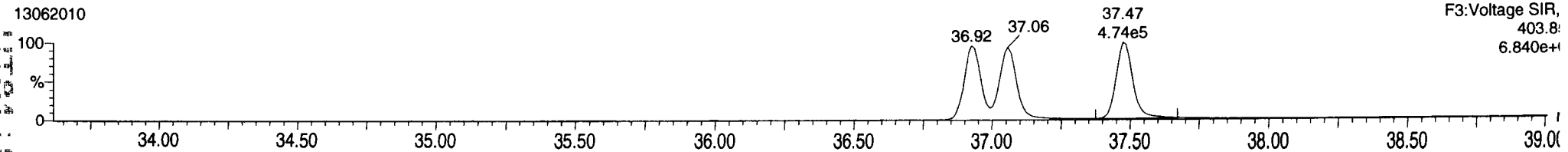

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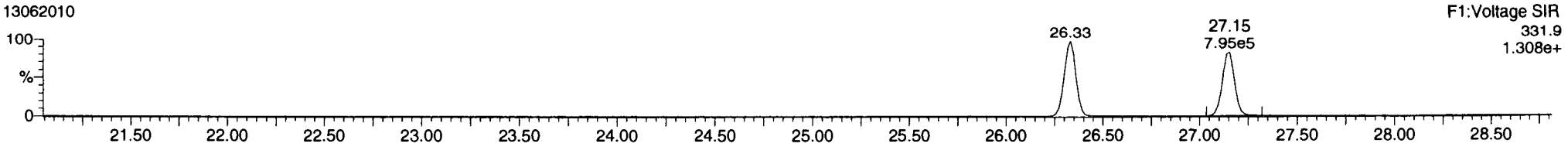
13C-2378-TCDD



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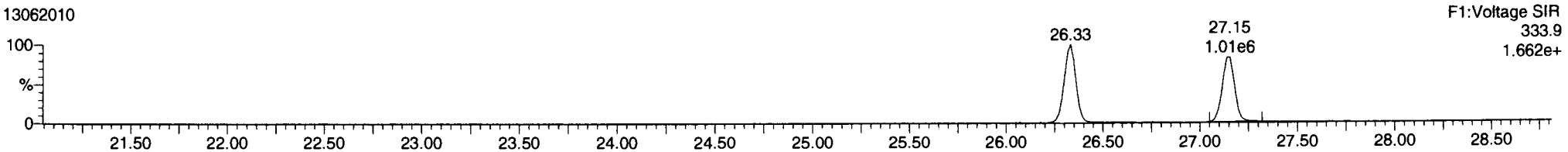
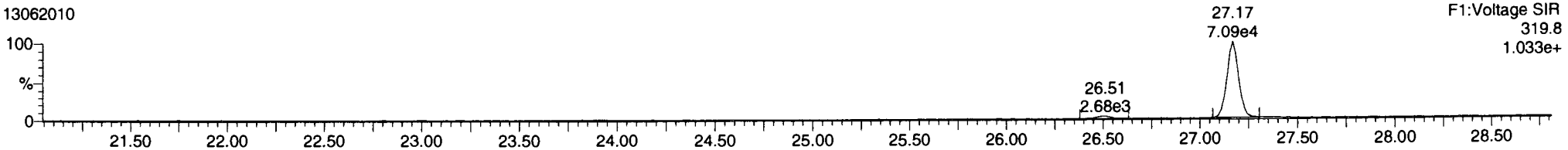
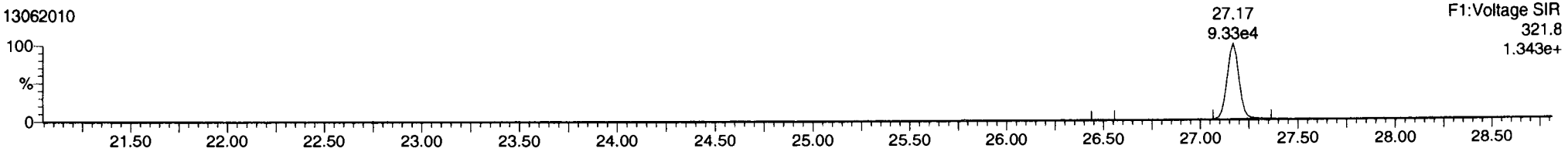


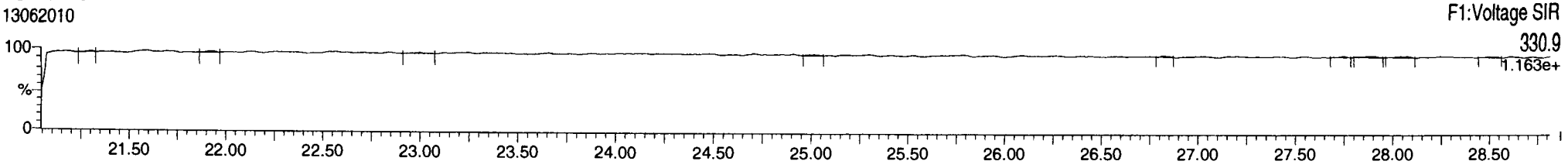
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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Printed: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

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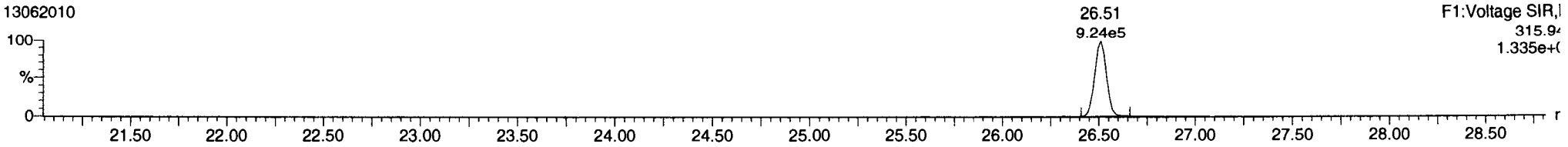
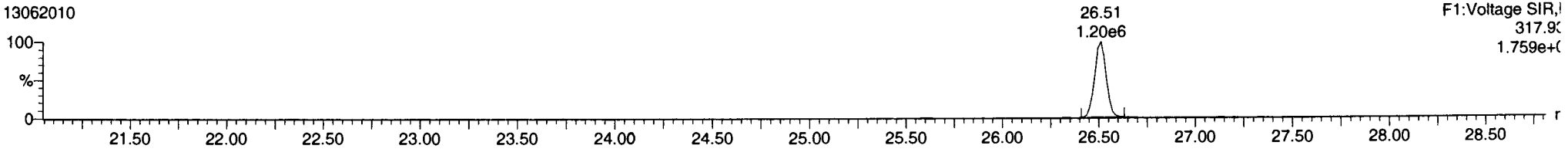
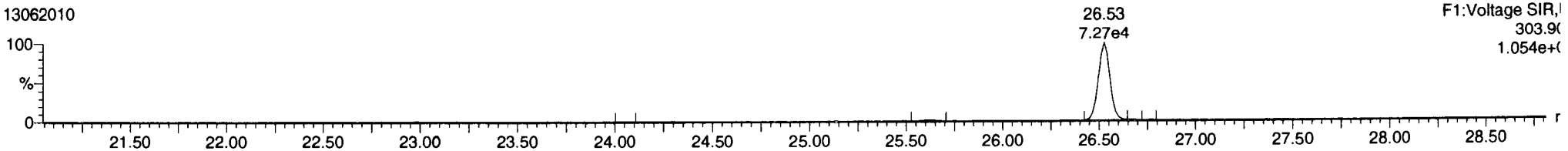
13C-2378-TCDF



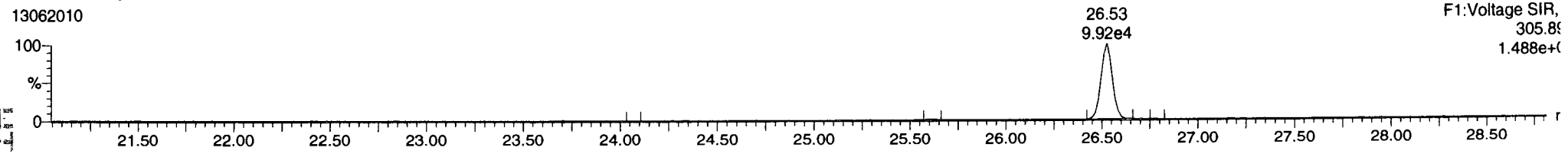
13C-2378-TCDF



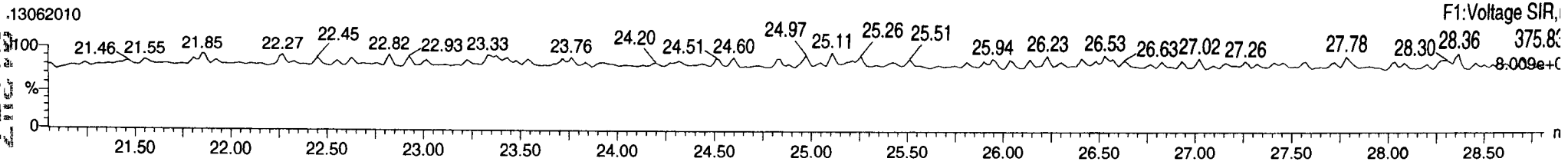
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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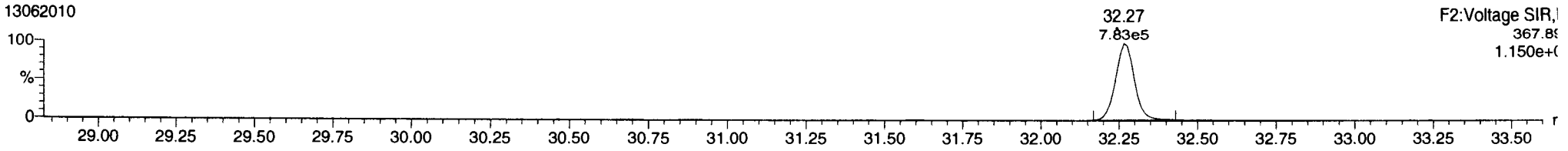
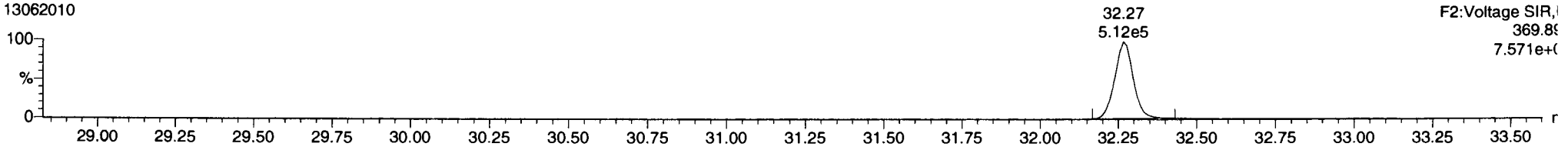
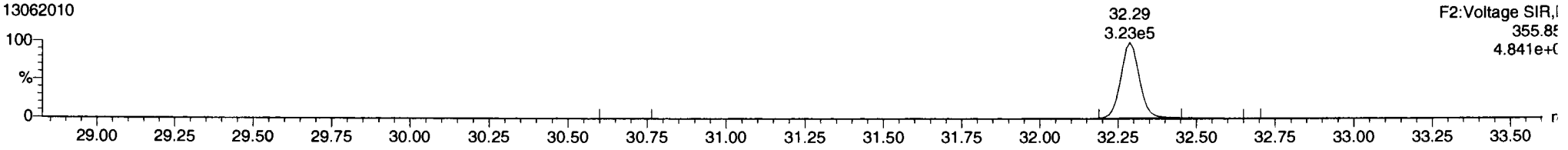
13C-12378-PeCDD



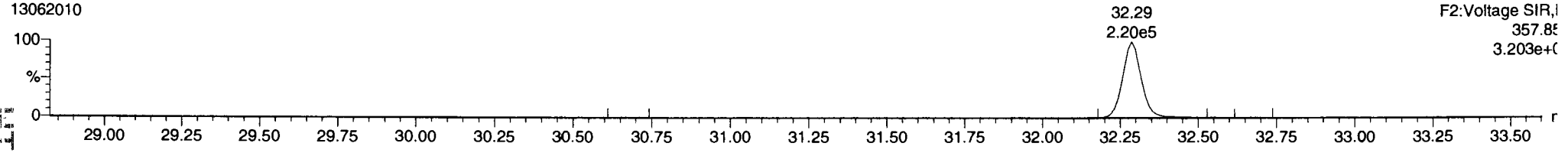
13C-12378-PeCDD



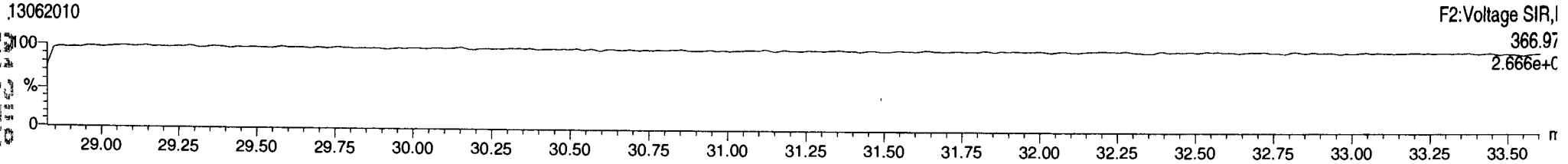
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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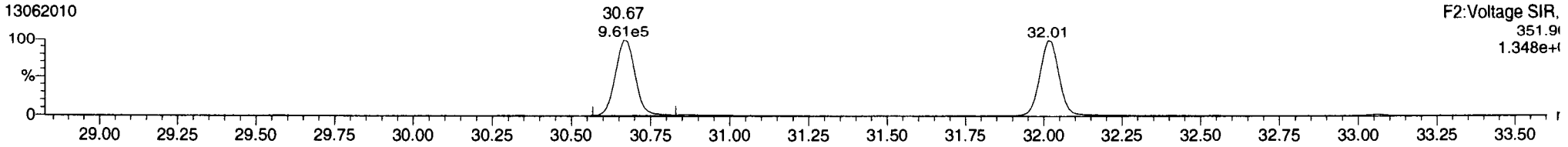
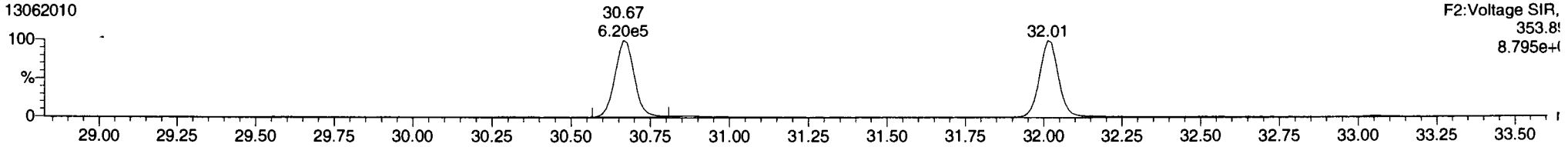
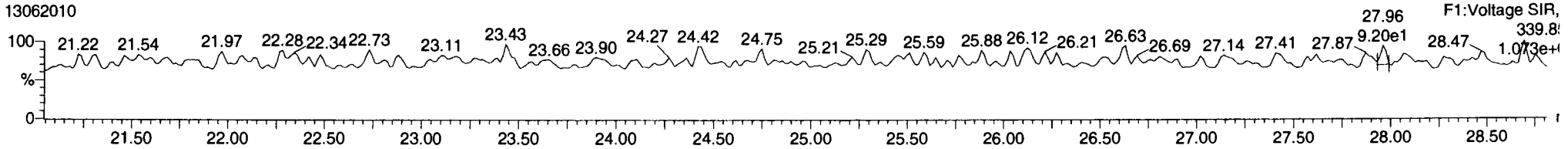
13C-12378-PeCDF



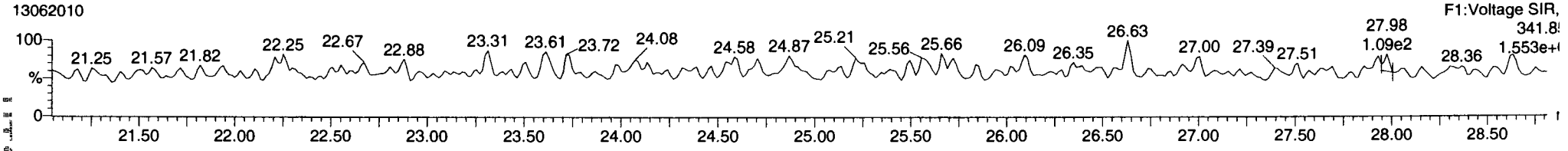
13C-12378-PeCDF



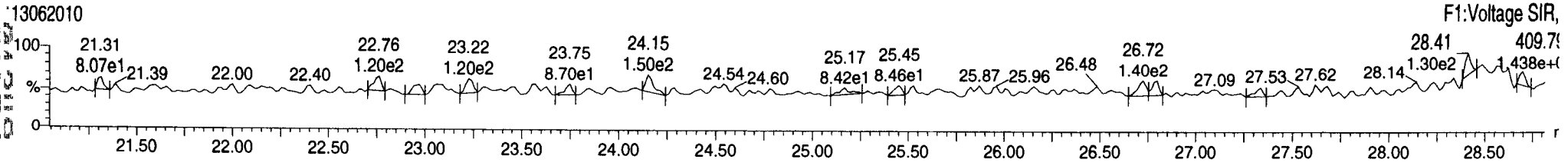
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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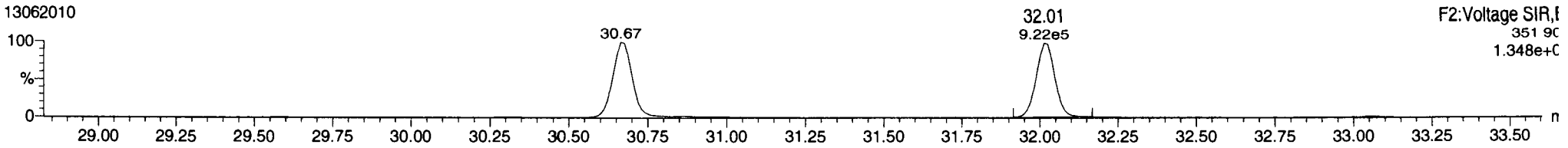
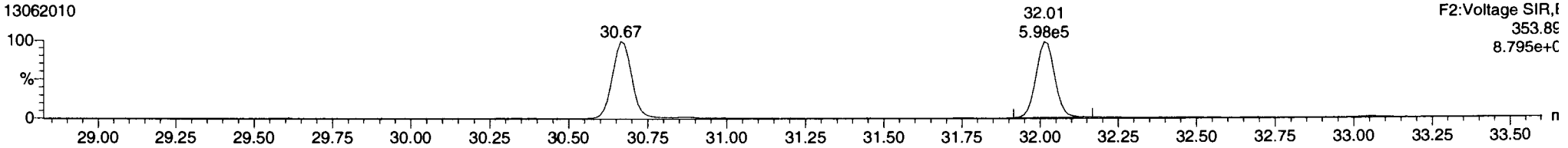
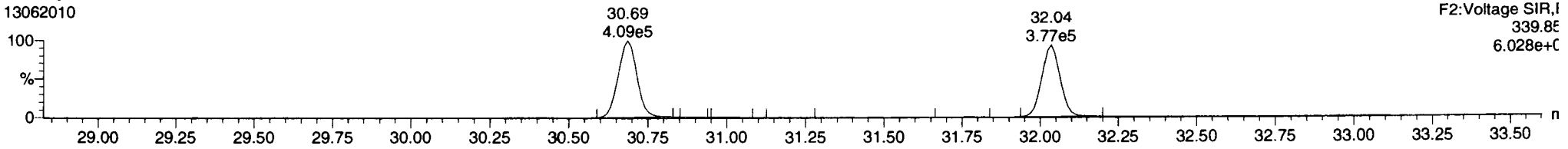
13C-23478-PeCDF



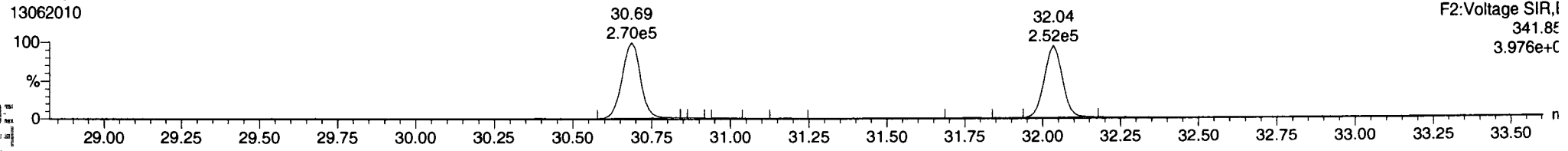
13C-23478-PeCDF



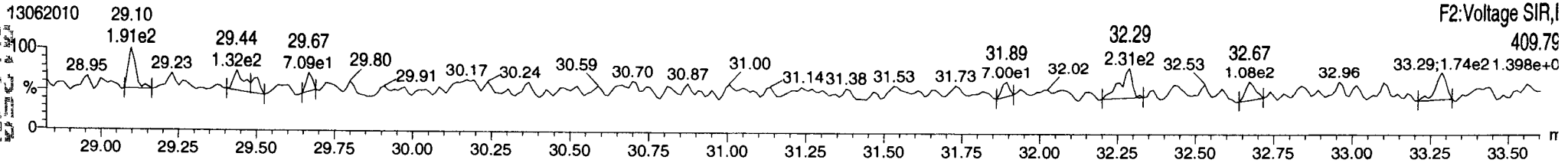
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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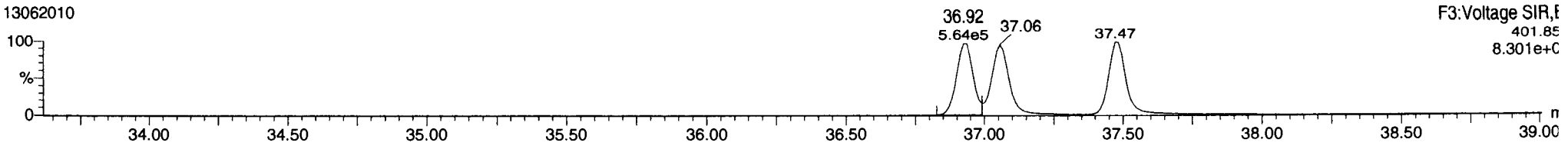
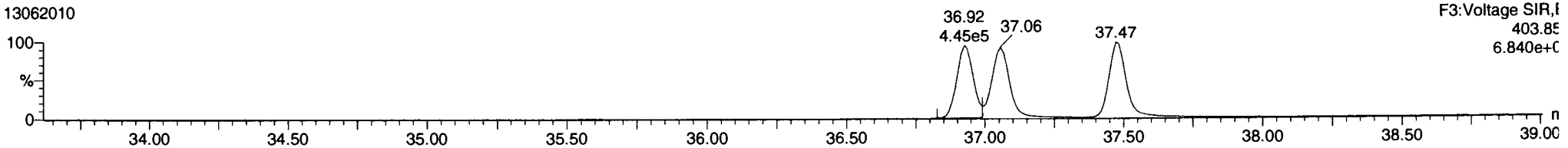
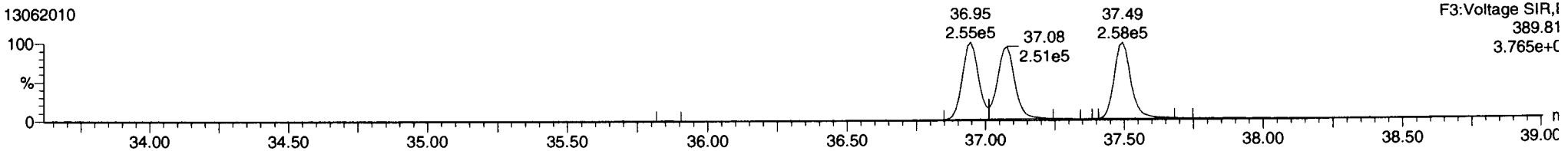
13C-123478-HxCDD



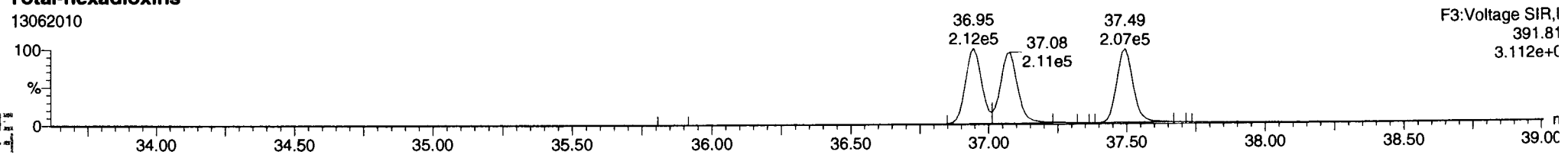
13C-123478-HxCDD



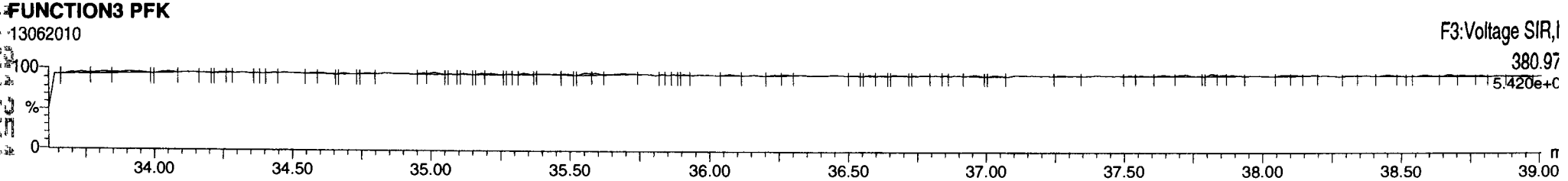
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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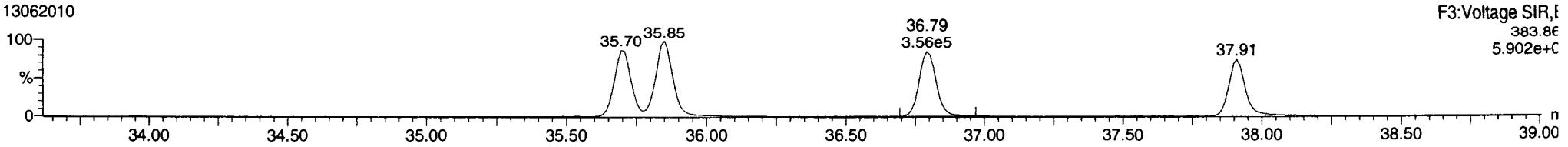
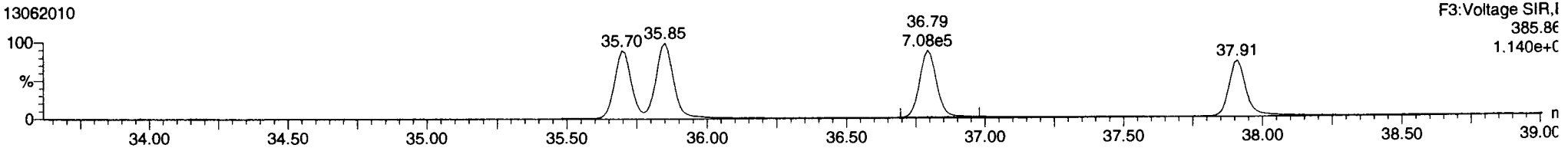
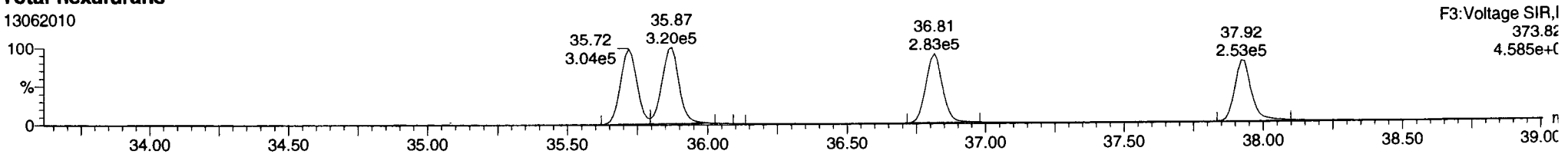
13C-234678-HxCDF



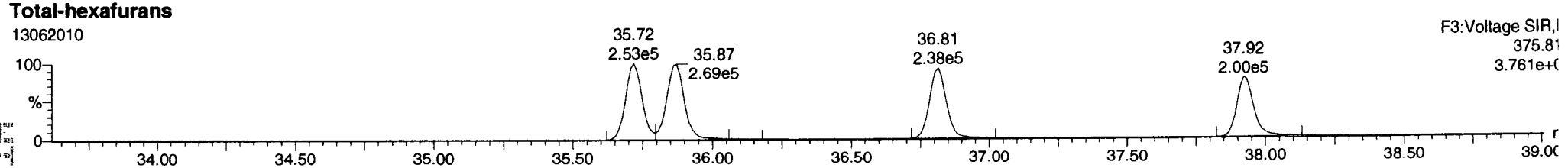
13C-234678-HxCDF



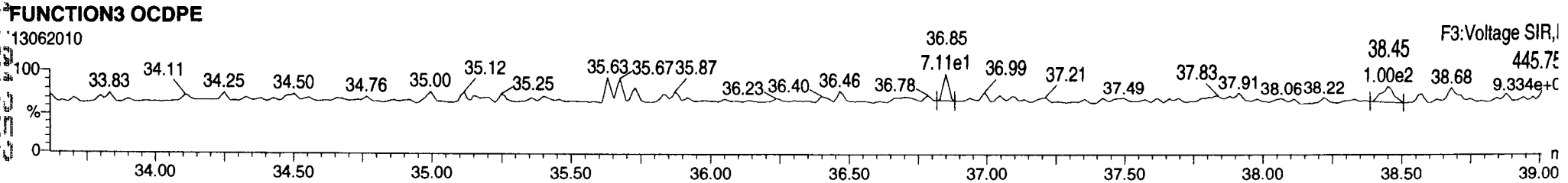
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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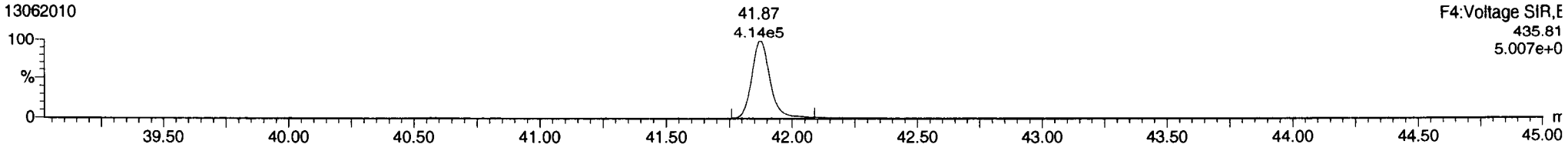
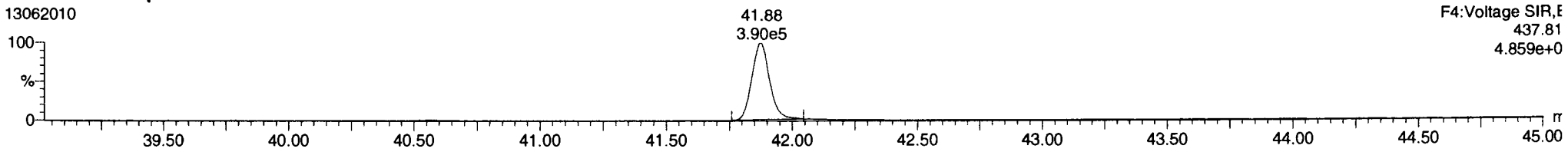
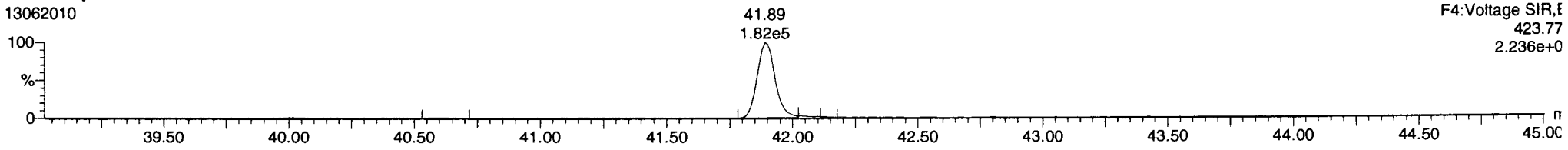
13C-1234678-HpCDD



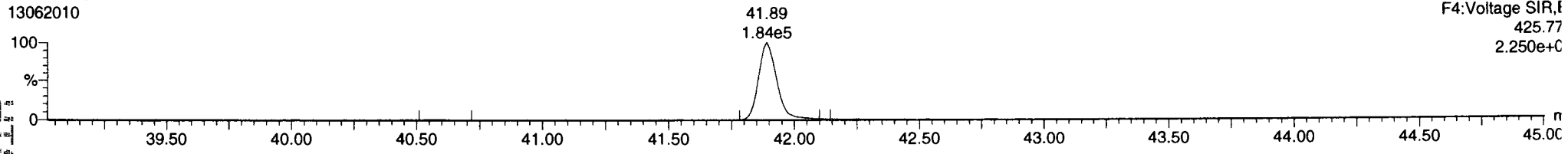
13C-1234678-HpCDD



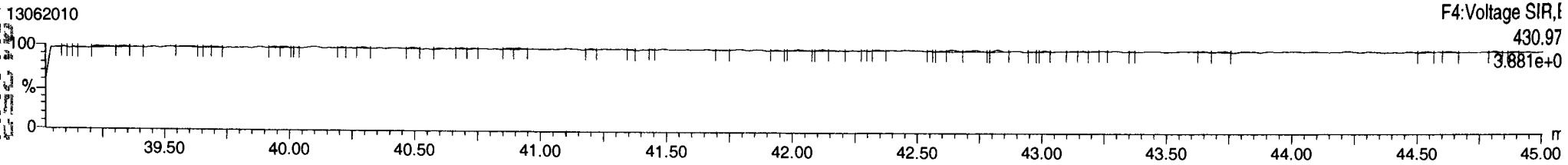
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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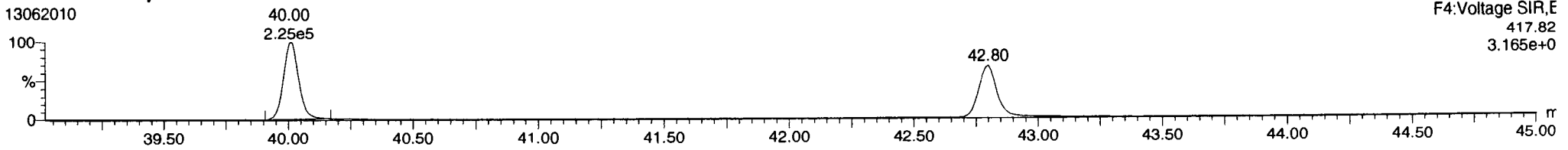
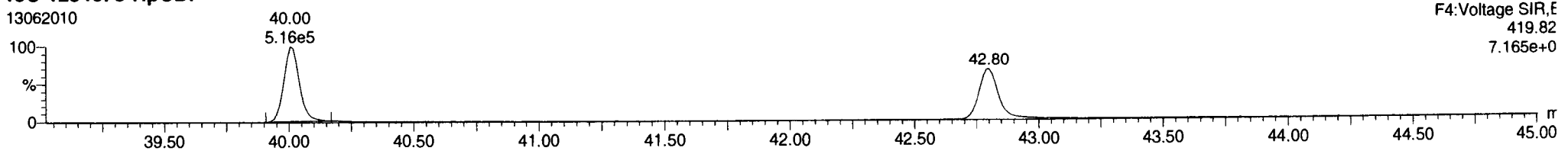
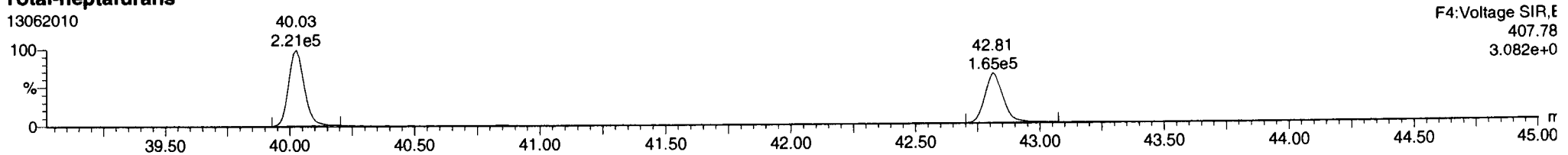
13C-1234678-HpCDF



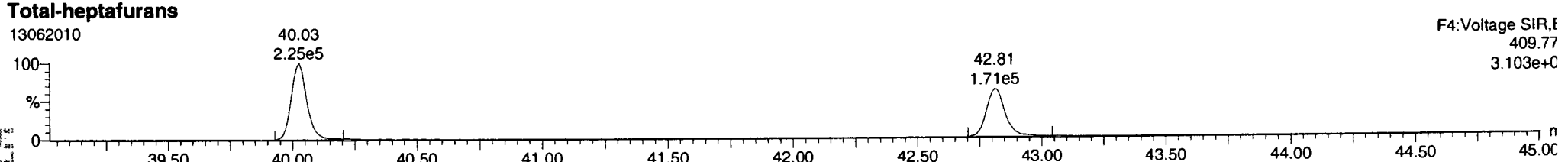
13C-1234678-HpCDF



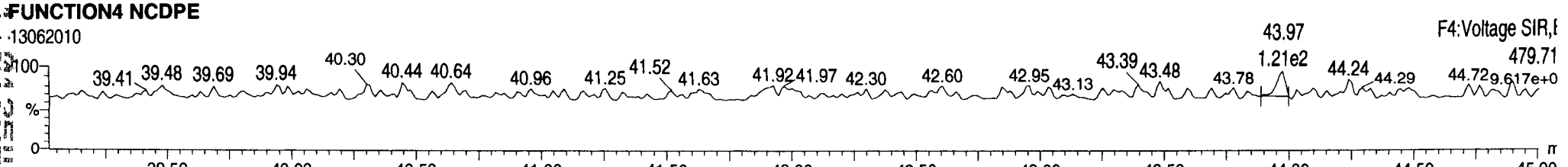
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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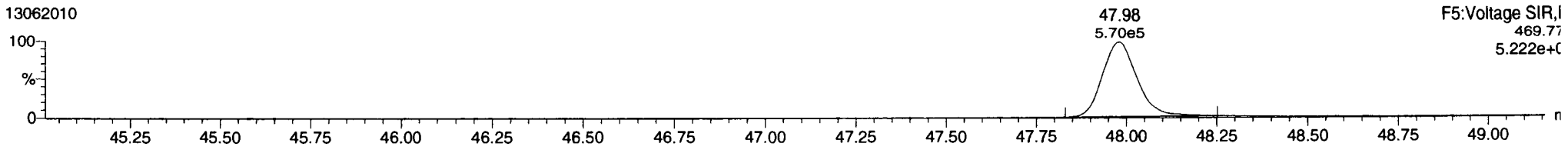
13C-OCDD



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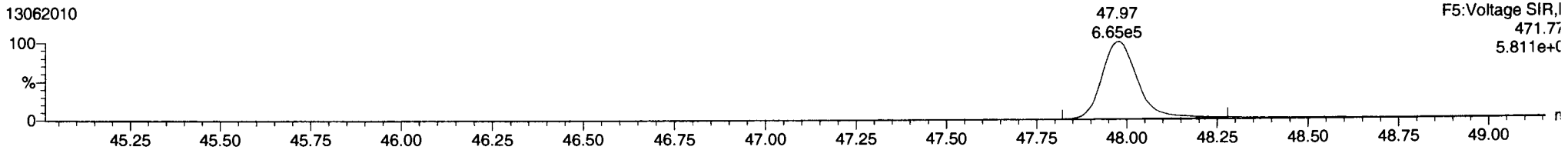

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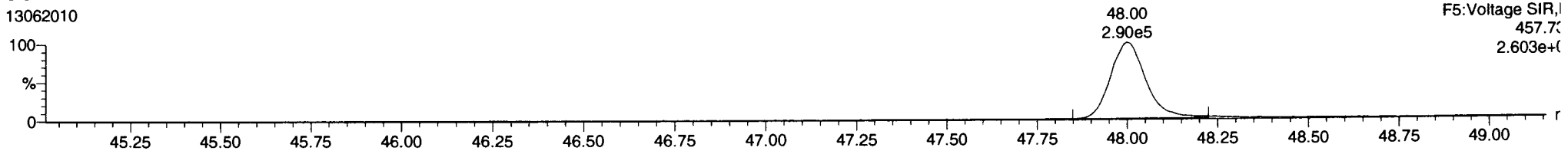

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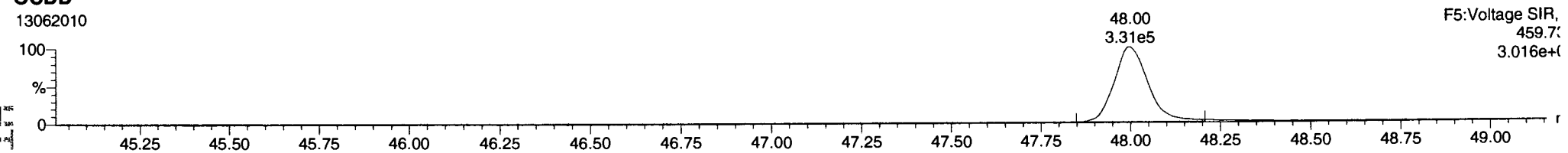

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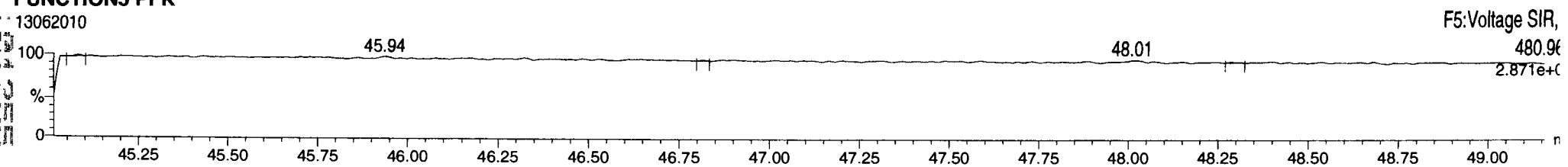

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Last Altered: Friday, June 21, 2013 09:18:09 Pacific Daylight Time
Printed: Friday, June 21, 2013 09:19:04 Pacific Daylight Time

ID: ICV, Name: 13062010, Date: 20-Jun-2013, Time: 18:02:47, Conditions: AUTOSPEC01, User: pk

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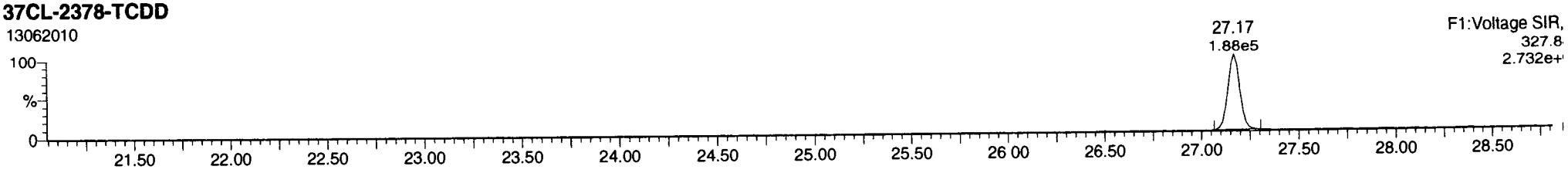

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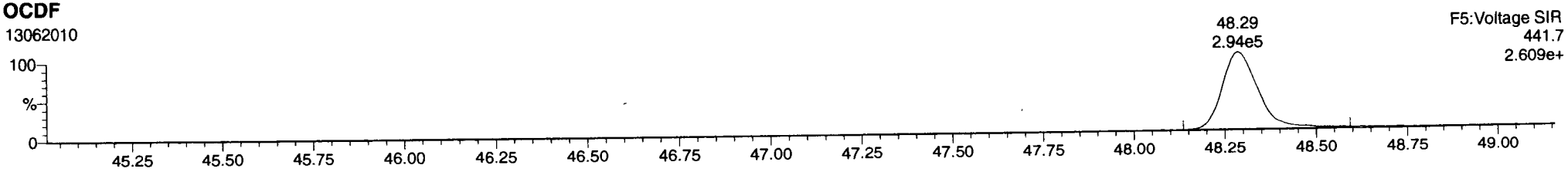

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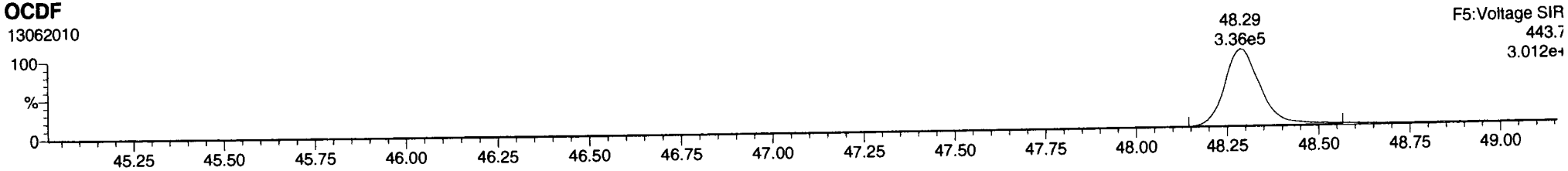
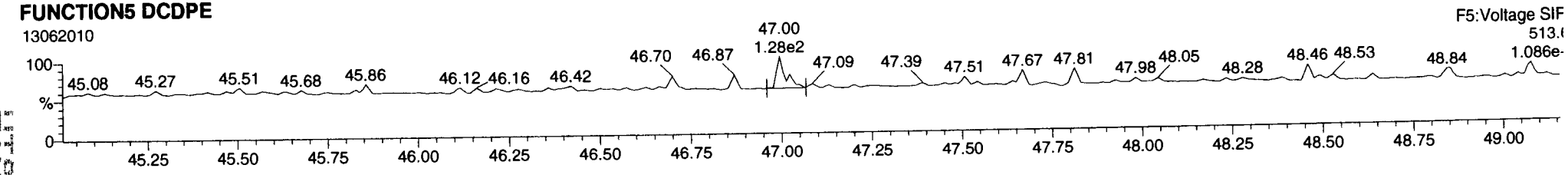


FUNCTION5 DCDPE



Dioxin Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HR-GC/MS Analyst Notes / Data Review Checklist

ARI Work Order: LX591, WT81 Client ID: SAIC

METHOD: **1613B** (Dioxins) **8290A** (Dioxins)

Instrument: **AutoSpec01**

Curve Date: 6/20/13 Analysis Start Date: 6/24/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Resolution Check > 10,000ppm	Y / N / ✓	Signal / Noise ≥ 2.5?	Y / N / ✓
TCDD / TCDF Resolution ≤ 25%	Y / N / ✓	Extraction STD Limits Met?	Y / N / ✓
PCDF Windows Verified	Y / N / ✓	Cleanup STD Limits Met?	Y / N / ✓
CCV Meets %D Limits?	Y / N / ✓	Method Blank in Control?	Y / N / ✓
CCV Ion Ratios within Limits?	Y / N / ✓	OPR Recovery Limits Met?	Y / N / ✓
CCV RRT within Limits?	Y / N / ✓	Values Exceeding Curve Range?	Y / N / ✓
Manual Integrations for Samples?	Y / N / ✓	Samples Diluted?	Y / N / dup
Special Analysis Request?	Y / N / ✓	Duplicate Sample RPD ≤ 25%?	NA / ✓

Detail problems, corrective actions and/or other pertinent information below:

- HpF high in OPR
- Cleanup std relatively low in WT81 samples, but w/in Limits.

WT81 difficulties during extract work-up with extra manipulative efforts to effect acid clean-up leads to lower than expected labeled recoveries.

(Review 1)Analyst: [signature] **Date:** 6/26/13

(Review 2)Reviewer: [signature] **Date:** 6/26

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 6/24/13 Analysis: Dioxins Analyst: MC

GC Program: 8290C Column No: F7822 Column Type: ~~RTX Dioxin2~~

Inj Vol: 1ul Instrument Tune (IPR): Jun1713_1-5 Detector Voltage: 350

Resolution Check Files: 09:53, 21:38, 08:17 Curve Date: 6/20/13

IS/SS	Ical/Ccal	LCS/ICV
F81464	F7708 1997-2	

1	24-Jun-13	09:56:39	13062402	CS3
2	24-Jun-13	10:47:02	13062403	ISC01
3	24-Jun-13	11:50:52	13062404	DFBLK17
4	24-Jun-13	12:48:15	13062405	WS91MBS
5	24-Jun-13	13:38:37	13062406	WS91OPR
6	24-Jun-13	14:33:58	13062407	WS91A
7	24-Jun-13	15:24:28	13062408	WT36A
8	24-Jun-13	16:16:48	13062409	WT81A
9	24-Jun-13	17:09:02	13062410	WT81B
10	24-Jun-13	18:01:22	13062411	WT81C
11	24-Jun-13	18:53:37	13062412	DFBLK19
12	24-Jun-13	19:46:03	13062413	DLCS19
13	24-Jun-13	20:38:11	13062414	CS3
14	24-Jun-13	21:38:44	13062415	ISC02
15	24-Jun-13	22:34:36	13062416	E41J6
16	24-Jun-13	23:26:43	13062417	E41J7
17	25-Jun-13	00:19:03	13062418	E41J8
18	25-Jun-13	01:11:17	13062419	E41J9
19	25-Jun-13	02:03:36	13062420	E41K0
20	25-Jun-13	02:55:50	13062421	E41K1
21	25-Jun-13	03:48:12	13062422	E41K2
22	25-Jun-13	04:40:26	13062423	E41K3
23	25-Jun-13	05:32:45	13062424	E41K5
24	25-Jun-13	06:24:52	13062425	E41K6
25	25-Jun-13	07:17:19	13062426	CS3
26	25-Jun-13	08:17:47	13062427	ISC03

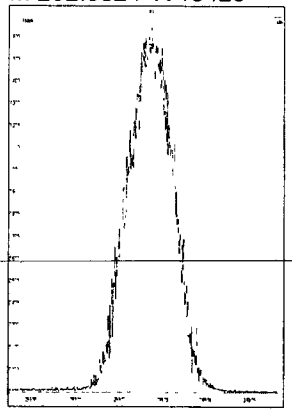
WT72

MC 6/25/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Printed: Monday, June 24, 2013 09:53:51 Pacific Daylight Time

M 292.9824 R 13420



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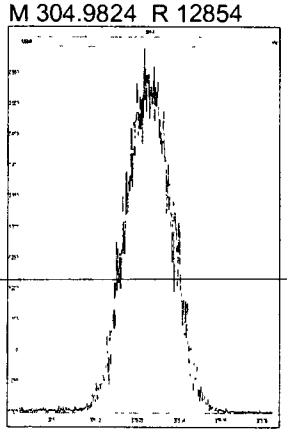

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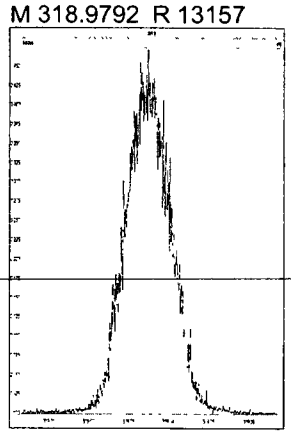

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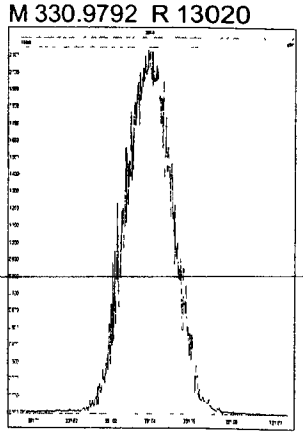

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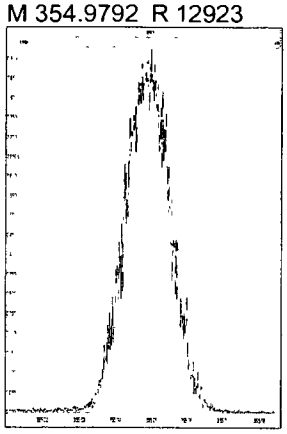

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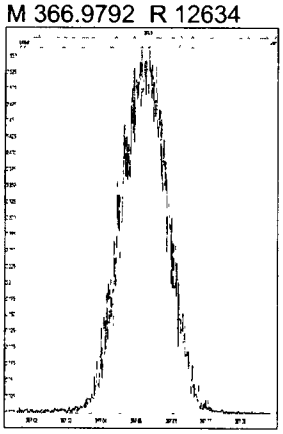

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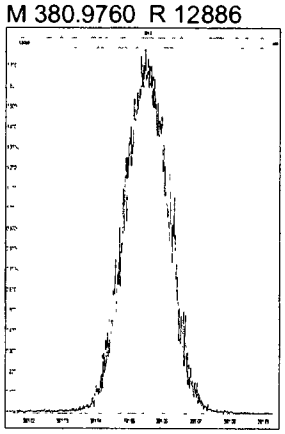

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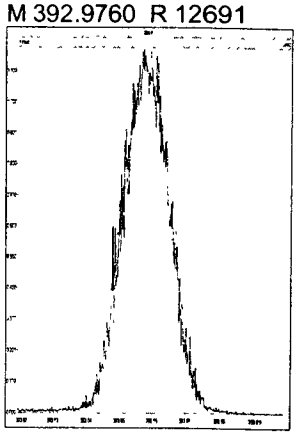

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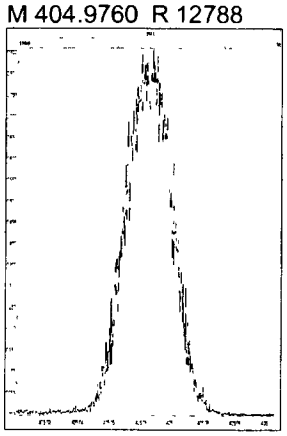

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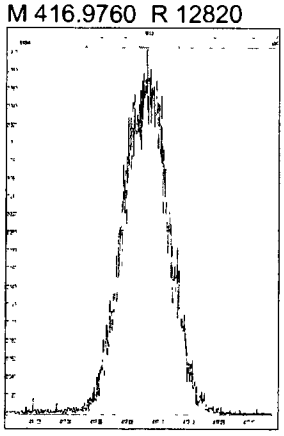

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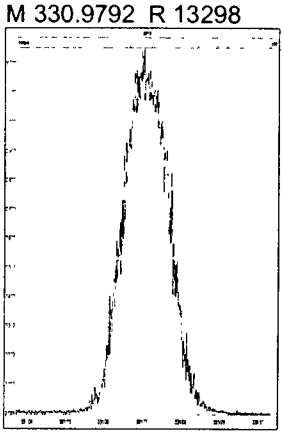

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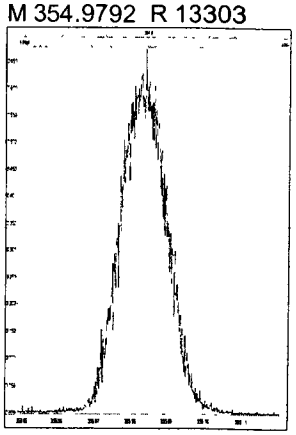

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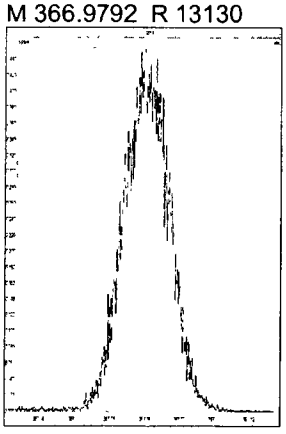

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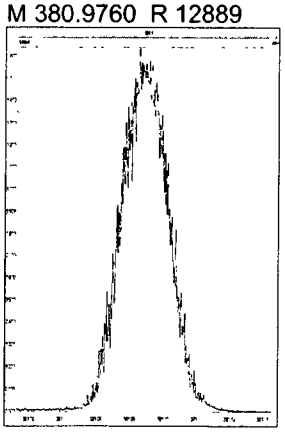

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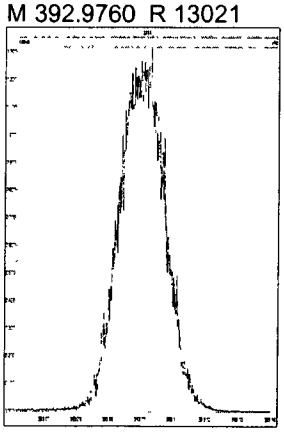

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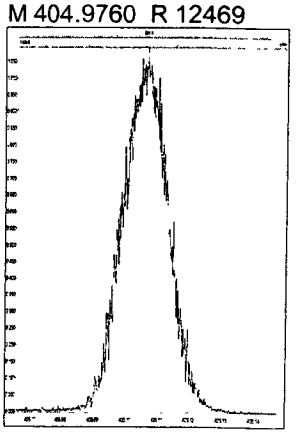

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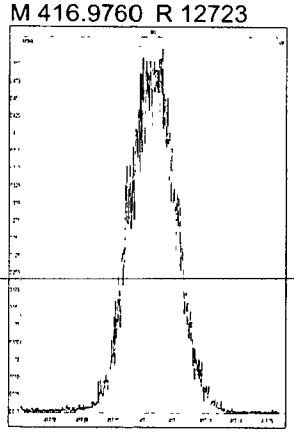

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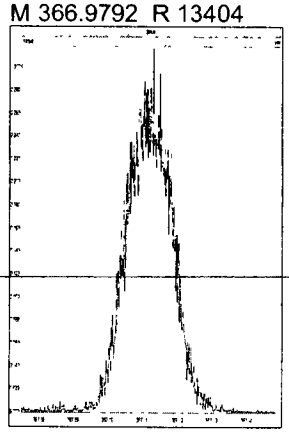

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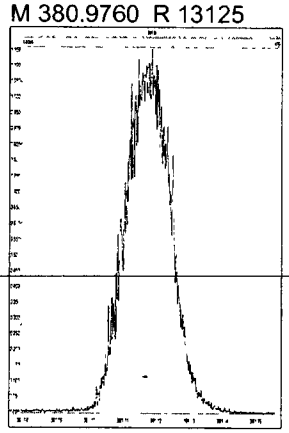

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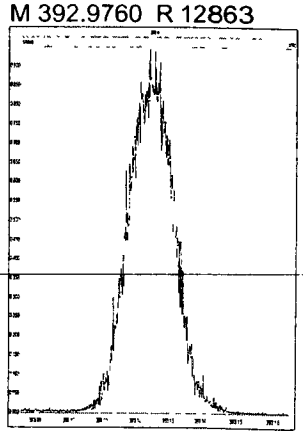

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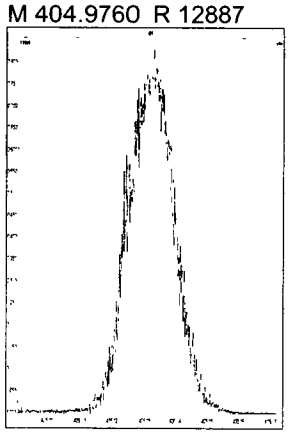

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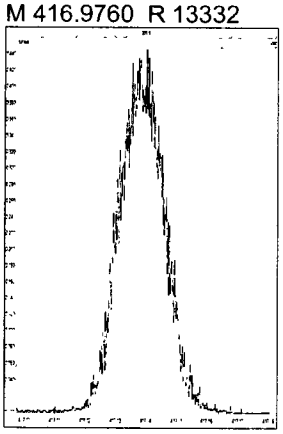

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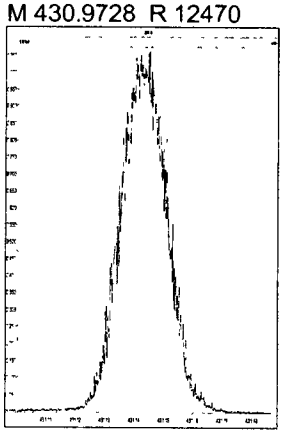

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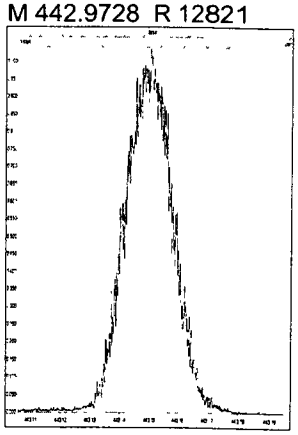

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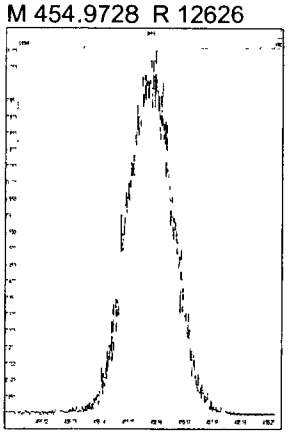

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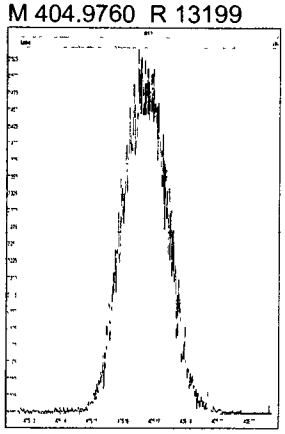

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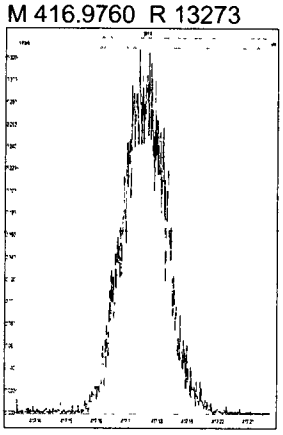

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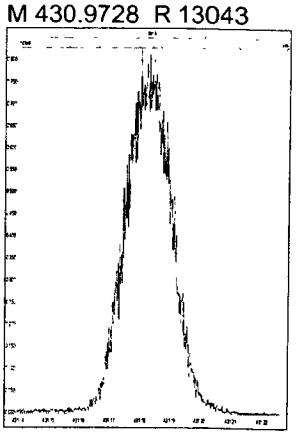

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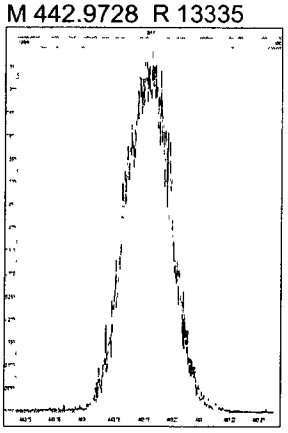

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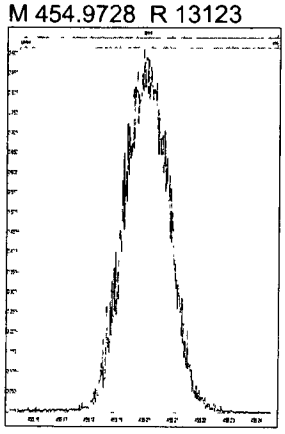

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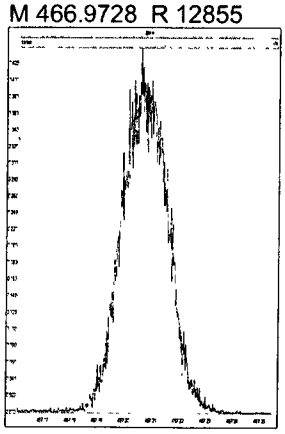
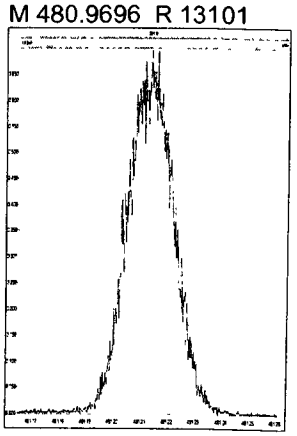
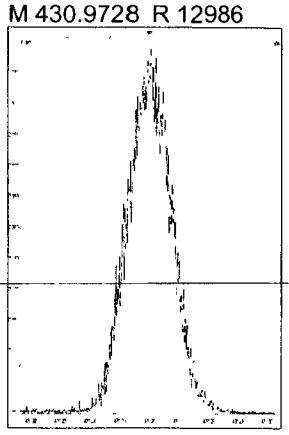


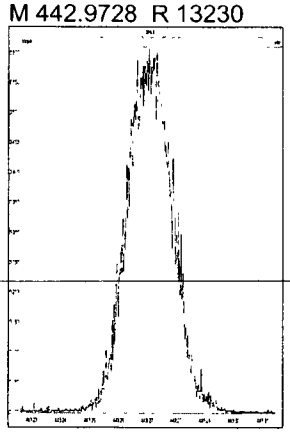
M 480.9696 R 13101



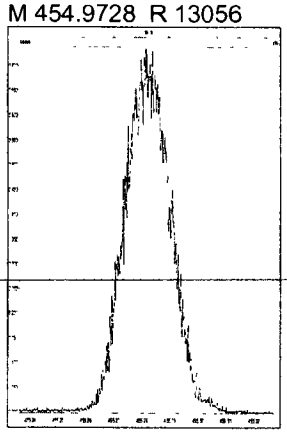
M 430.9728 R 12986



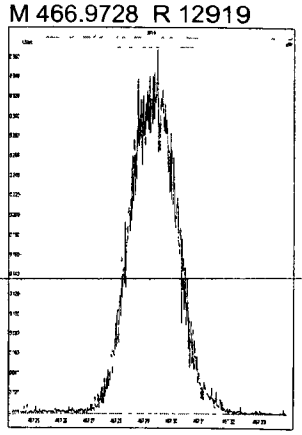
M 442.9728 R 13230



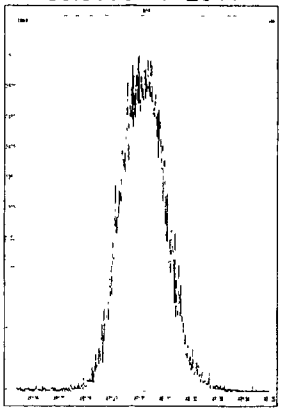
M 454.9728 R 13056



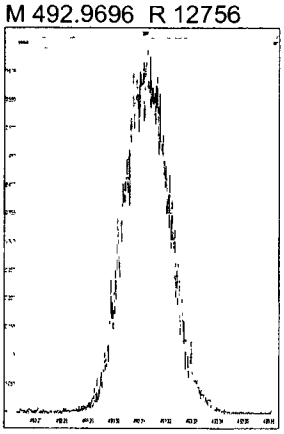
M 466.9728 R 12919



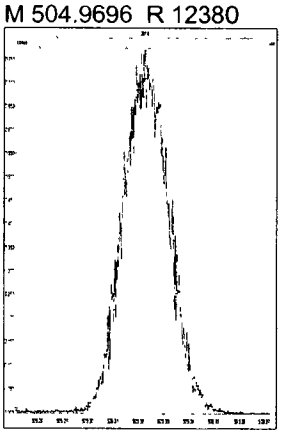
M 480.9696 R 12544



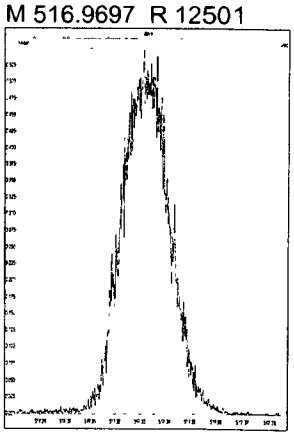
M 492.9696 R 12756

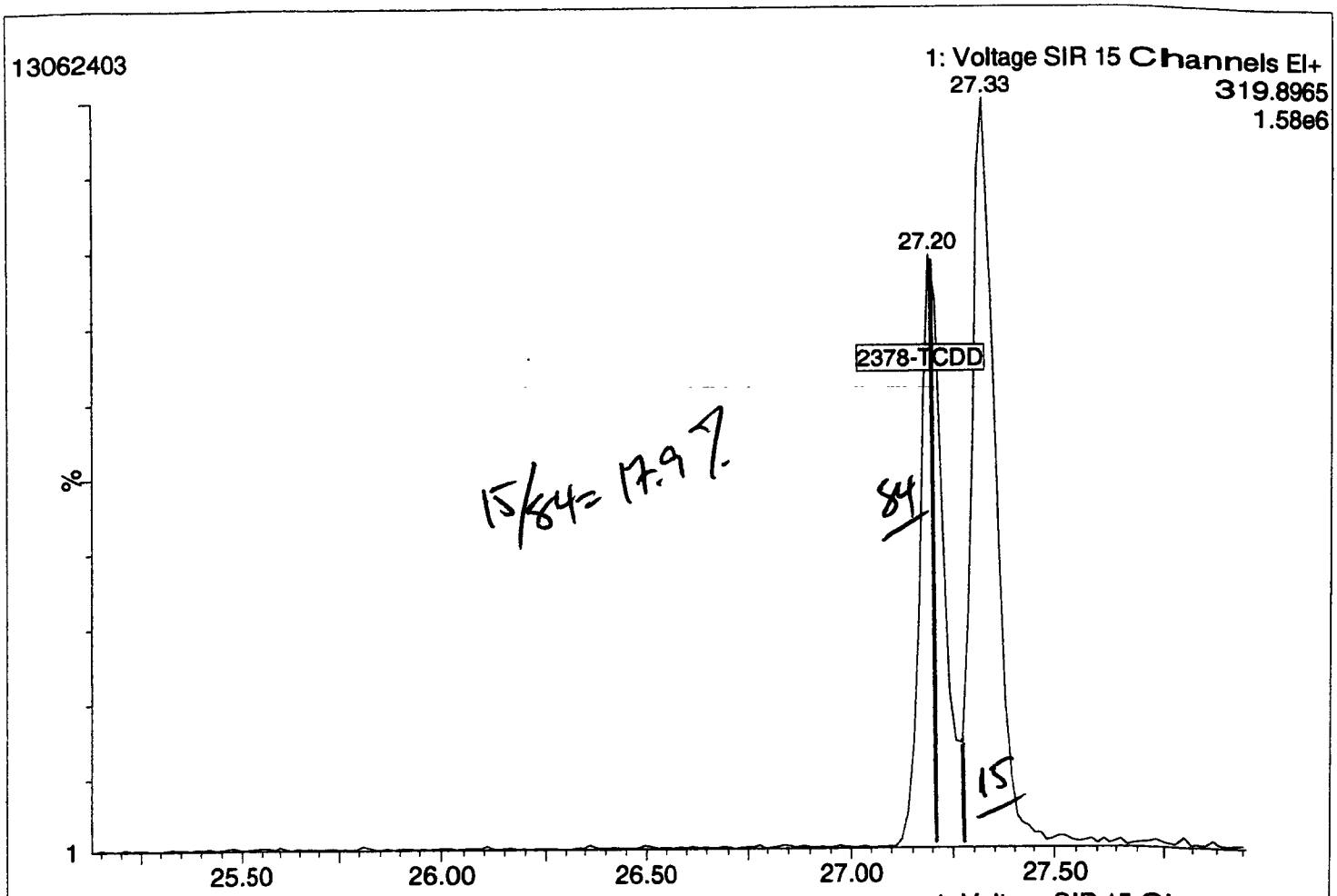


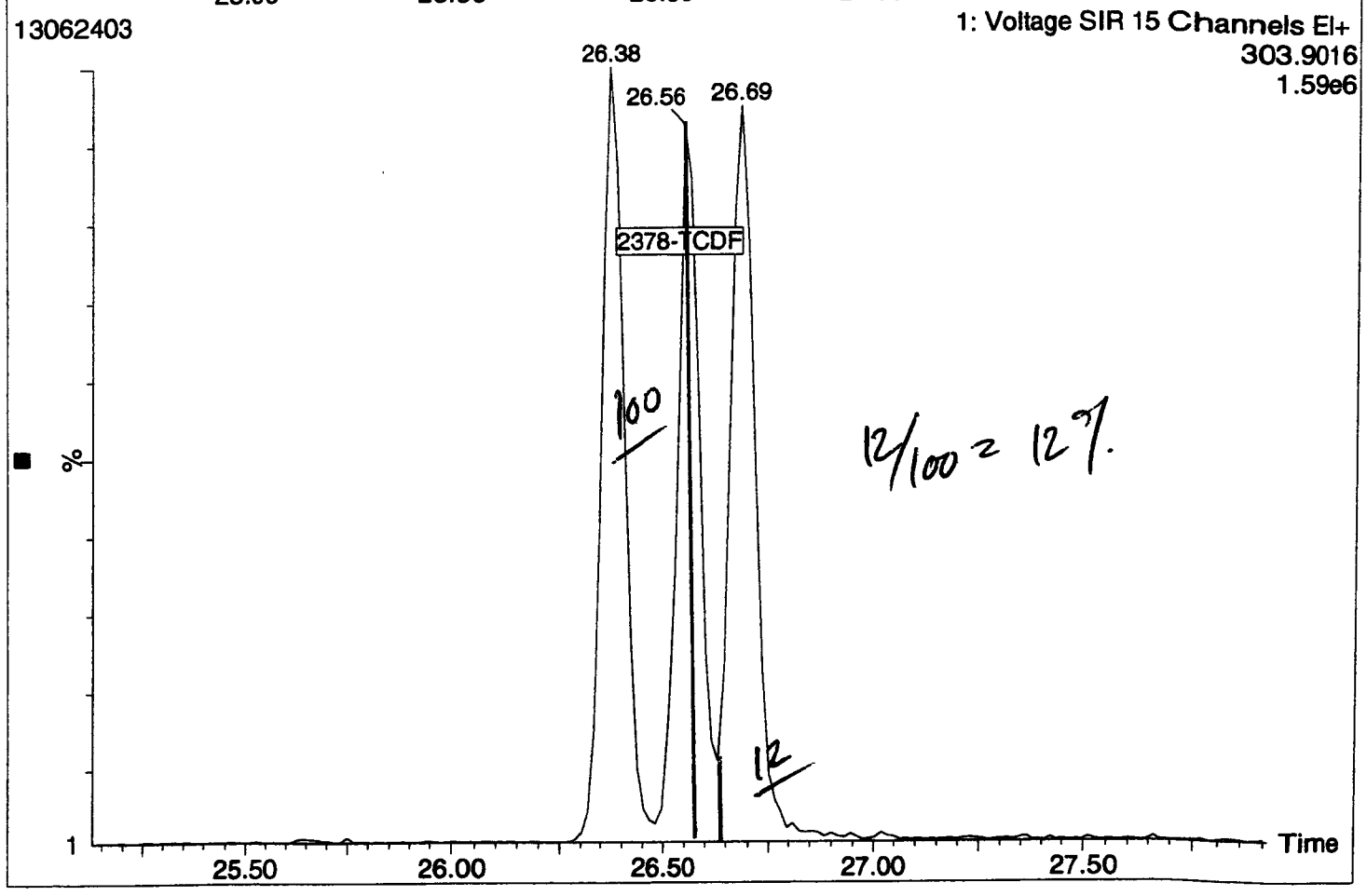
M 504.9696 R 12380

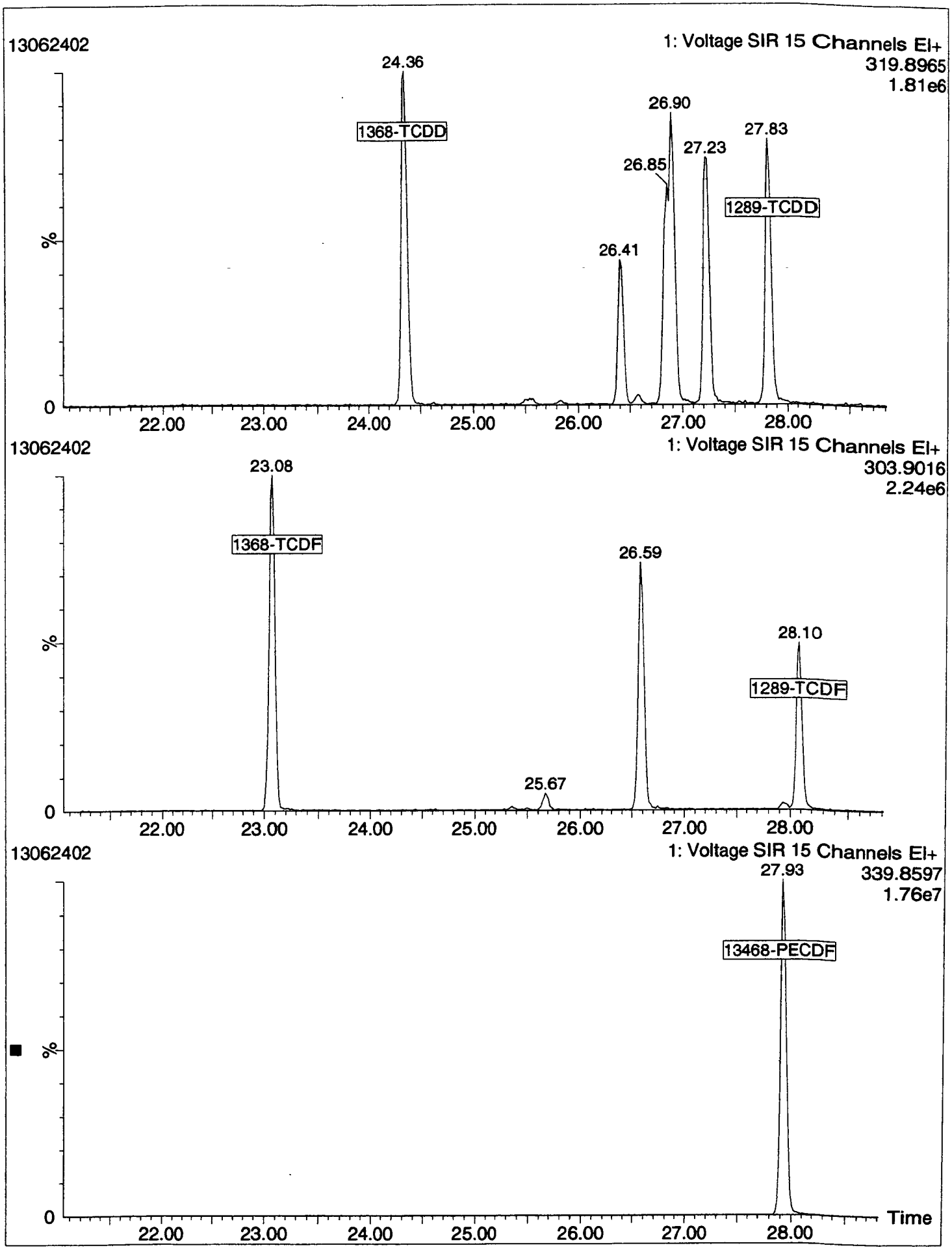


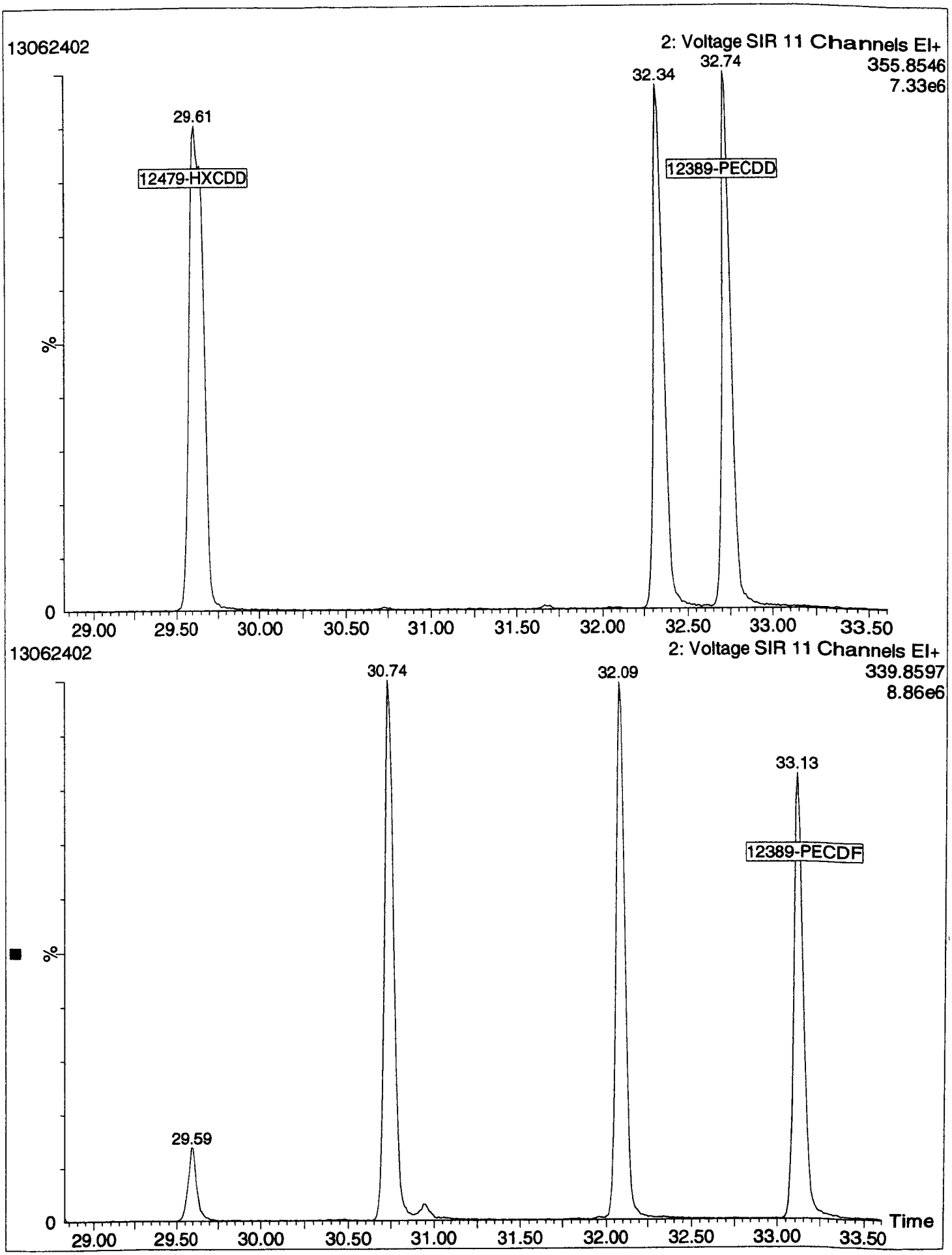
M 516.9697 R 12501

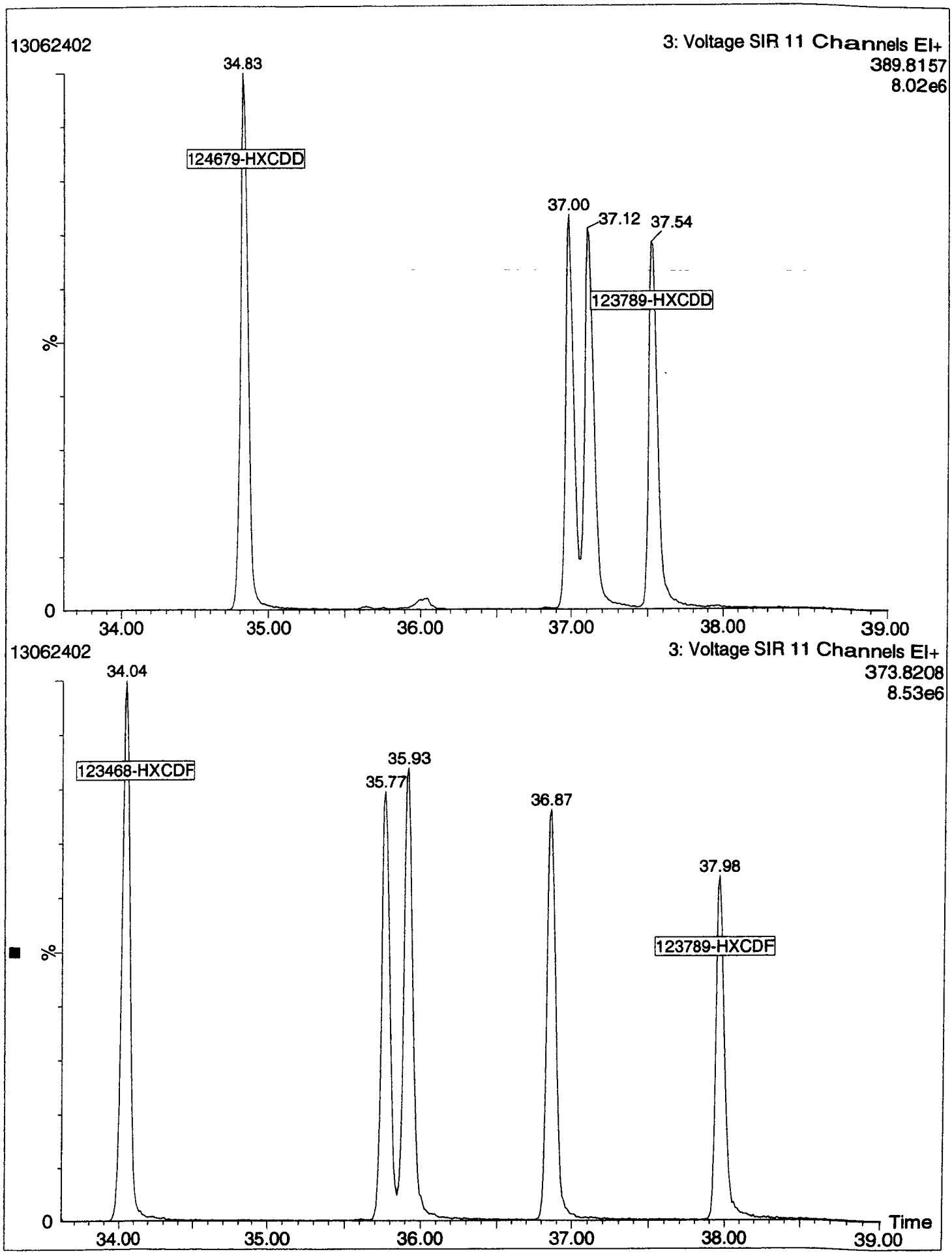


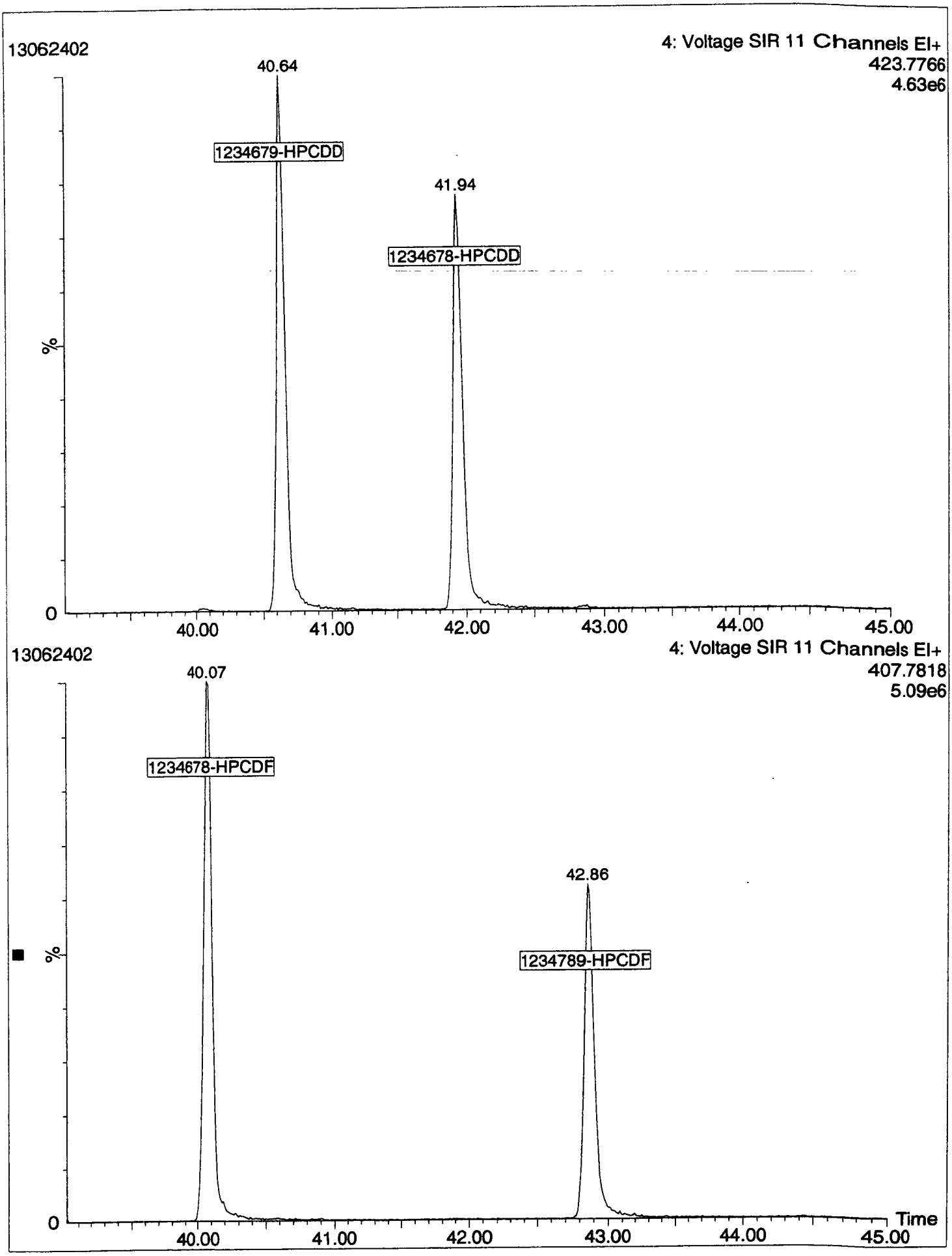

13062403
1: Voltage SIR 15 Channels EI+
319.8965
1.58e6
27.33
27.20
2378-TCDD
15/84= 17.9%
84
15
%
1
25.50
26.00
26.50
27.00
27.50


13062403
1: Voltage SIR 15 Channels EI+
303.9016
1.59e6
26.38
26.56
26.69
2378-TCDF
100
12/100 = 12%
12
%
1
Time
25.50
26.00
26.50
27.00
27.50


13062402
1: Voltage SIR 15 Channels EI+
319.8965
1.81e6
24.36
1368-TCDD
26.90
26.85
27.23
27.83
1289-TCDD
26.41
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13062402
1: Voltage SIR 15 Channels EI+
303.9016
2.24e6
23.08
1368-TCDF
26.59
28.10
1289-TCDF
25.67
%
0
22.00
23.00
24.00
25.00
26.00
27.00
28.00
13062402
1: Voltage SIR 15 Channels EI+
339.8597
1.76e7
27.93
13468-PECDF
%
0
Time
22.00
23.00
24.00
25.00
26.00
27.00
28.00


13062402
2: Voltage SIR 11 Channels EI+
355.8546
7.33e6
29.61
12479-HXCDD
32.34
32.74
12389-PECDD
%
0
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
33.50
13062402
2: Voltage SIR 11 Channels EI+
339.8597
8.86e6
30.74
32.09
33.13
12389-PECDF
29.59
%
0
Time
29.00
29.50
30.00
30.50
31.00
31.50
32.00
32.50
33.00
33.50


13062402
3: Voltage SIR 11 Channels EI+
389.8157
8.02e6
34.83
124679-HXCDD
37.00
37.12
37.54
123789-HXCDD
%
0
34.00
35.00
36.00
37.00
38.00
39.00
13062402
3: Voltage SIR 11 Channels EI+
373.8208
8.53e6
34.04
123468-HXCDF
35.93
35.77
36.87
37.98
123789-HXCDF
%
0
Time
34.00
35.00
36.00
37.00
38.00
39.00


13062402
4: Voltage SIR 11 Channels EI+
423.7766
4.63e6
40.64
1234679-HPCDD
41.94
1234678-HPCDD
%
0
40.00
41.00
42.00
43.00
44.00
45.00
13062402
4: Voltage SIR 11 Channels EI+
407.7818
5.09e6
40.07
1234678-HPCDF
42.86
1234789-HPCDF
%
0
Time
40.00
41.00
42.00
43.00
44.00
45.00

Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130624OPEN.qld
Last Altered: Tuesday, June 25, 2013 10:31:33 Pacific Daylight Time
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.586	1.001	9.90e4	1.35e5	0.771	0.735	0.770	911.1	NO	10.324	10.324
12378-PeCDF	30.741	1.000	5.62e5	3.75e5	0.814	1.498	1.550	2372.7	NO	49.799	49.799
23478-PeCDF	32.090	1.000	5.53e5	3.66e5	0.837	1.509	1.550	2386.0	NO	49.442	49.442
123478-HxCDF	35.773	1.001	4.49e5	3.69e5	0.967	1.216	1.240	1574.9	NO	50.603	50.603
234678-HxCDF	36.869	1.001	4.33e5	3.57e5	1.000	1.214	1.240	1480.9	NO	51.388	51.388
123678-HxCDF	35.926	1.001	4.80e5	3.90e5	0.951	1.233	1.240	1632.7	NO	49.364	49.364
123789-HxCDF	37.976	1.001	3.57e5	2.90e5	0.874	1.229	1.240	1246.9	NO	52.558	52.558
1234678-HpCDF	40.080	1.000	3.61e5	3.52e5	1.072	1.026	1.050	1574.8	NO	52.819	52.819
1234789-HpCDF	42.864	1.000	2.64e5	2.64e5	1.085	1.000	1.050	978.5	NO	52.931	52.931
OCDF	48.357	1.007	4.64e5	5.21e5	0.878	0.892	0.890	2479.3	NO	109.730	109.730
2378-TCDD	27.229	1.001	9.09e4	1.18e5	0.936	0.773	0.770	551.2	NO	10.029	10.029
12378-PeCDD	32.342	1.001	4.47e5	2.92e5	0.894	1.528	1.550	1824.4	NO	49.894	49.894
123478-HxCDD	37.000	1.001	3.76e5	3.06e5	0.898	1.228	1.240	1411.3	NO	49.821	49.821
123678-HxCDD	37.121	1.000	3.75e5	3.08e5	0.818	1.218	1.240	1383.0	NO	49.428	49.428
123789-HxCDD	37.537	1.012	3.56e5	2.94e5	0.789	1.211	1.240	1332.2	NO	51.242	51.242
1234678-HpCDD	41.944	1.000	2.75e5	2.68e5	0.879	1.026	1.050	1056.7	NO	51.930	51.930
OCDD	48.070	1.001	4 28e5	4.94e5	0.875	0.867	0.890	1037.7	NO	102.998	102.998
13C-2378-TCDF	26.571	1.007	1.27e6	1.66e6	1.190	0.765	0.770	6128.6	NO		104.665
13C-12378-PeCDF	30.730	1.164	1.40e6	9.14e5	0.904	1.526	1.550	5871.9	NO		108.341
13C-23478-PeCDF	32.079	1.215	1.35e6	8.68e5	0.877	1.557	1.550	5755.9	NO		107.404
13C-123478-HxCDF	35.751	0.953	5.61e5	1.11e6	1.096	0.505	0.510	2043.0	NO		104.536
13C-123678-HxCDF	35.904	0.957	6.26e5	1.23e6	1.187	0.511	0.510	2150.6	NO		106.939
13C-234678-HxCDF	36.847	0.982	5.19e5	1.02e6	1.040	0.510	0.510	1887.5	NO		101.297
13C-123789-HxCDF	37.954	1.011	4.75e5	9.35e5	0.941	0.508	0.510	1706.8	NO		102.729
13C-1234678-HpCDF	40.058	1.067	3.87e5	8.72e5	0.825	0.444	0.440	2061.5	NO		104.550
13C-1234789-HpCDF	42.853	1.142	2.81e5	6.40e5	0.609	0.438	0.440	1246.2	NO		103.577
13C-1234-TCDD	26.392	0.000	1.03e6	1.33e6	1.000	0.778	0.770	1169.4	NO		100.000
13C-2378-TCDD	27.214	1.031	9.69e5	1.25e6	0.920	0.774	0.770	1042.0	NO		102.367
13C-12378-PeCDD	32.320	1.225	1.00e6	6.52e5	0.669	1.540	1.550	3007.3	NO		104.990
13C-123478-HxCDD	36.978	0.985	8.44e5	6.79e5	1.032	1.243	1.240	3199.0	NO		101.259
13C-123678-HxCDD	37.110	0.989	9.43e5	7.47e5	1.146	1.262	1.240	3406.0	NO		101.110
13C-1234678-HpCDD	41.922	1.117	6.07e5	5.84e5	0.789	1.038	1.050	2383.2	NO		103.501
13C-OCDD	48.043	1.280	9.43e5	1.10e6	0.696	0.856	0.890	2638.2	NO		201.418

Dataset: P:\DIOXIN8290.PRO\130624OPEN.qld
Last Altered: Tuesday, June 25, 2013 10:31:33 Pacific Daylight Time
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

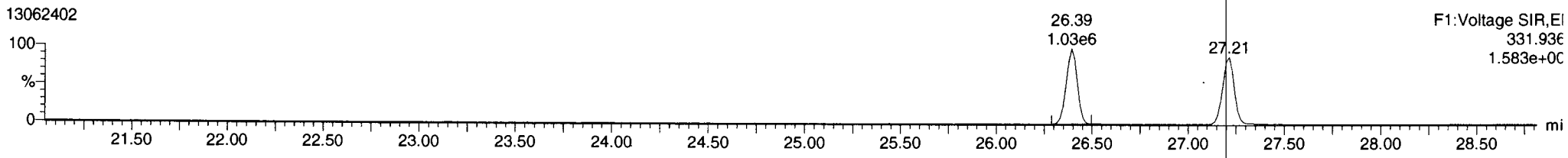
13C-123789-HxCDD	37.526	0.000	8.03e5	6.55e5	1.000	1.227	1.240	3059 4	NO	100.000
Total-tetrafurans			3.16e5		0.771					32.703
Total-penta1			1.05e6							83.912
Total-pentafurans			1.69e6		0.826					150.073
Total-hexafurans			2.27e6		0.948					268.689
Total-heptafurans			6.26e5		1.079					105.850
Total-Furans			6.41e6		0.925					750.970
Total-tetradioxins			5.16e5		0.936					56.894
Total-pentadioxins			1.58e6		0.894					176.800
Total-hexadioxins			1.63e6		0.835					220.760
Total-heptadioxins			6.09e5		0.879					114.760
Total-Dioxins			4.77e6		0.870					672.212
Total-TEQ			1.12e7							1423.183
37CL-2378-TCDD	27.229	1.032	2.34e5		1.000			1049.3		9.943
FUNCTION1 PFK			2.78e6							
FUNCTION2 PFK			6.49e5							0.000
FUNCTION3 PFK			2.79e6							0.000
FUNCTION4 PFK			1.35e6							
FUNCTION5 PFK			1.92e5							
FUNCTION1 HXCDPE			5.10e2							0.000
FUNCTION1 HPCDPE			2.43e3							0.000
FUNCTION2 HPCDPE			2.21e3							0.000
FUNCTION3 OCDPE			1.54e2							0.000
FUNCTION4 NCDPE			9.79e2							0.000
FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130624OPEN.qld
Last Altered: Tuesday, June 25, 2013 10:31:33 Pacific Daylight Time
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

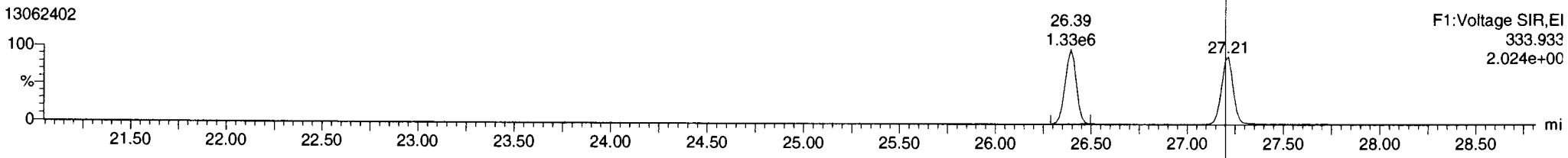
Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

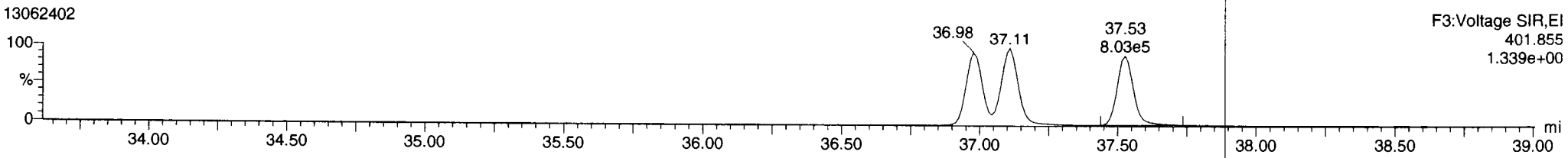
13C-1234-TCDD



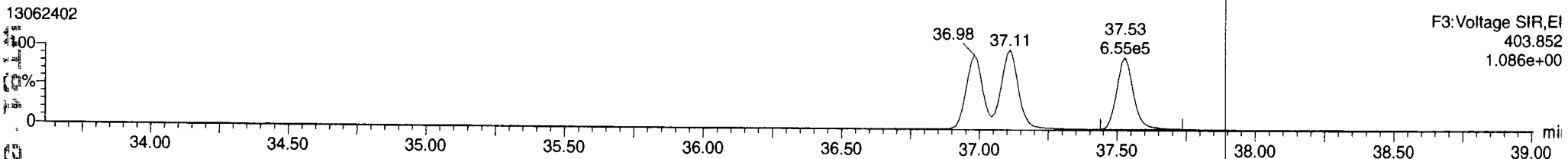
13C-1234-TCDD



13C-123789-HxCDD



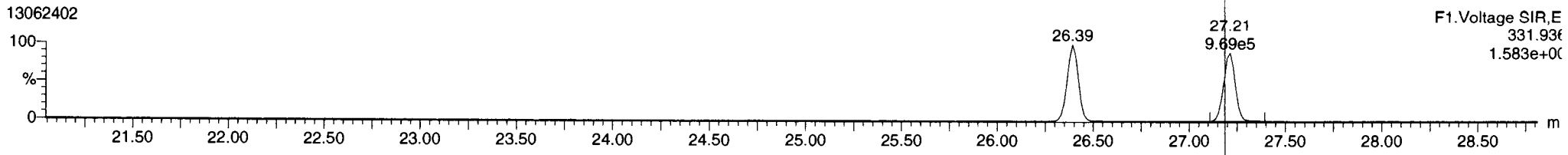
13C-123789-HxCDD



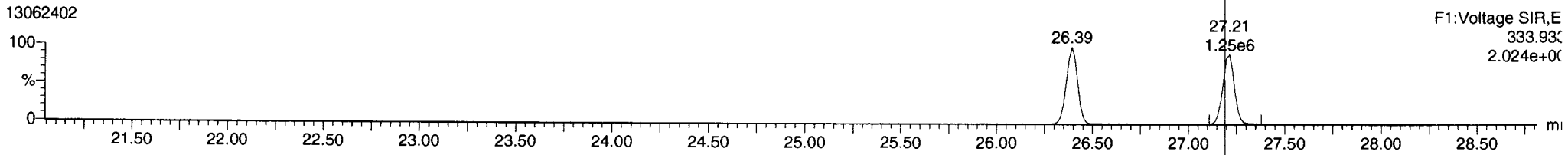
Dataset: P:\DIOXIN8290.PRO\130624OPEN.qld
Last Altered: Tuesday, June 25, 2013 10:31:33 Pacific Daylight Time
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

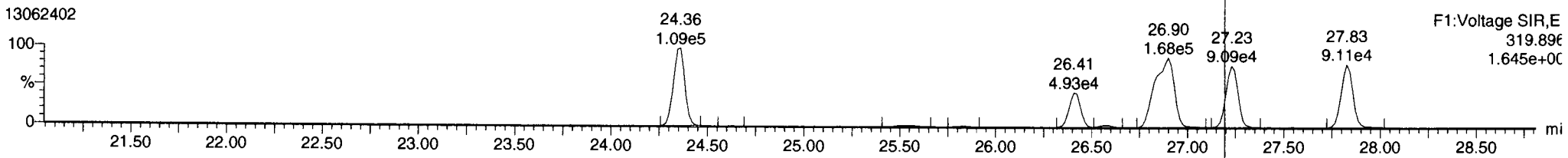
13C-2378-TCDD



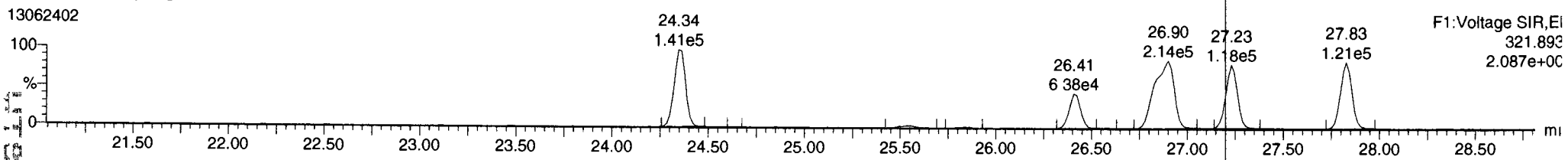
13C-2378-TCDD



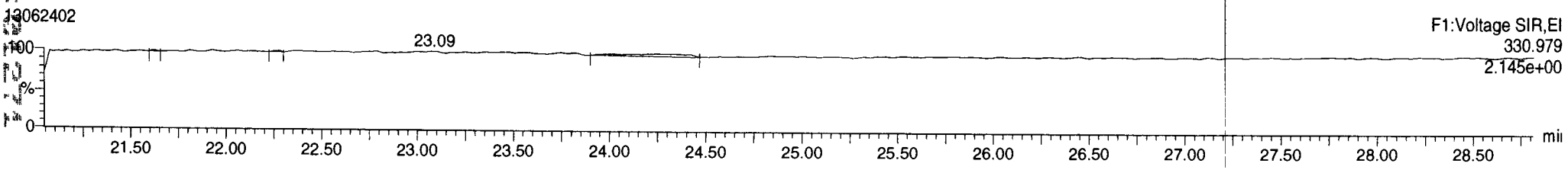
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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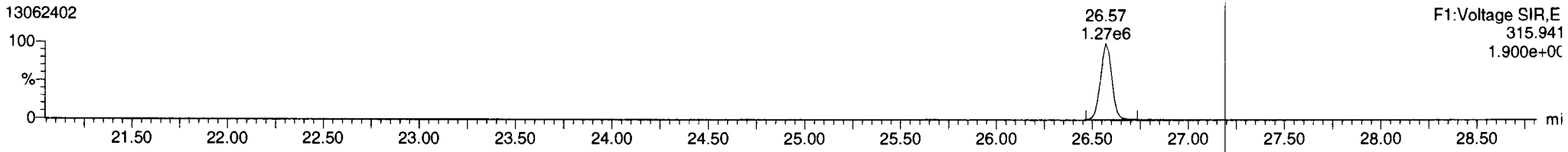
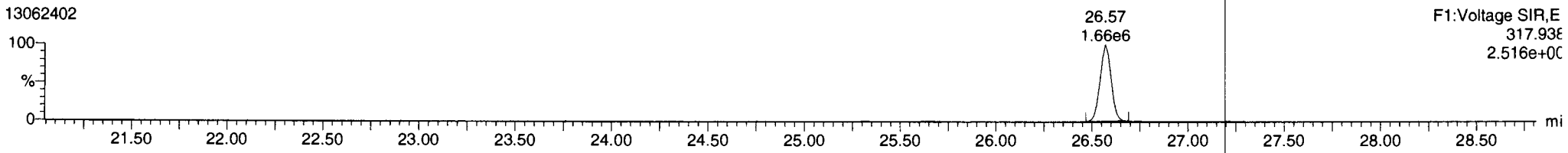
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

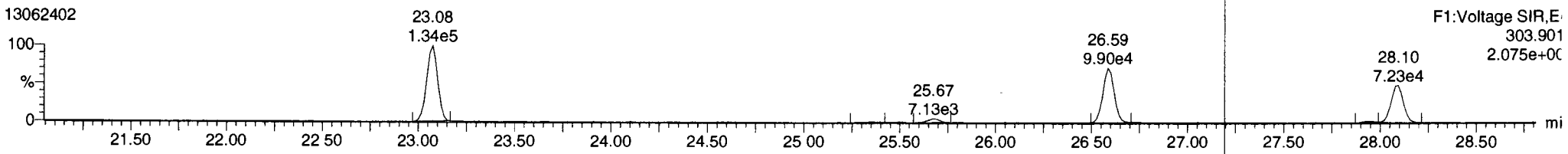
13C-2378-TCDF



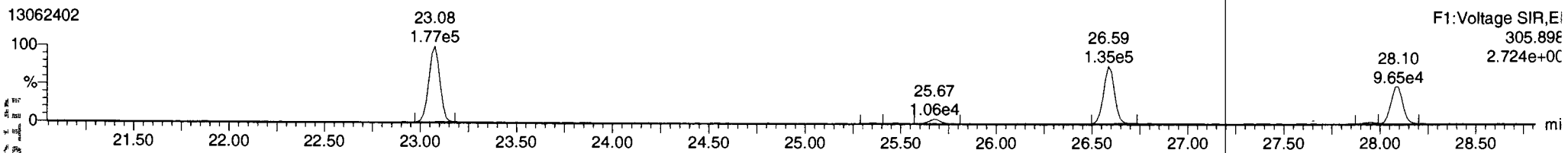
13C-2378-TCDF



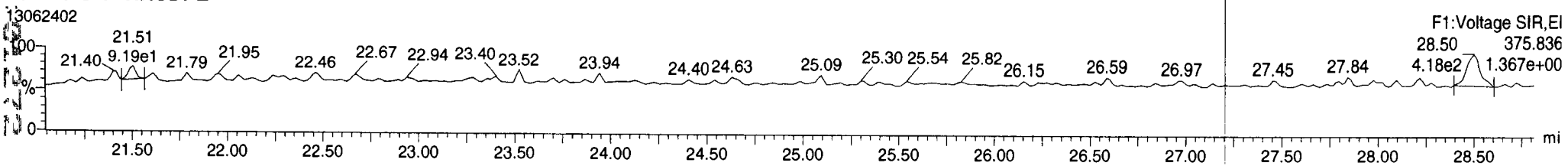
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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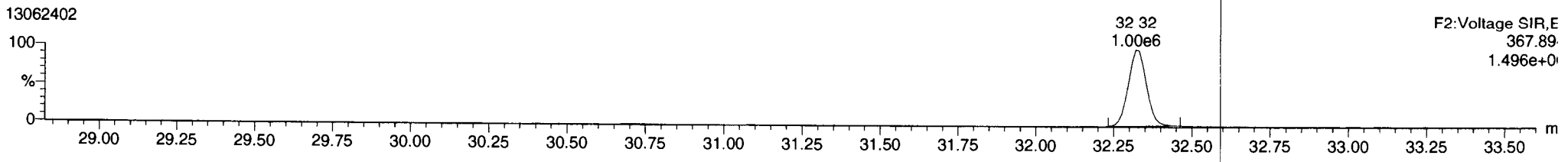
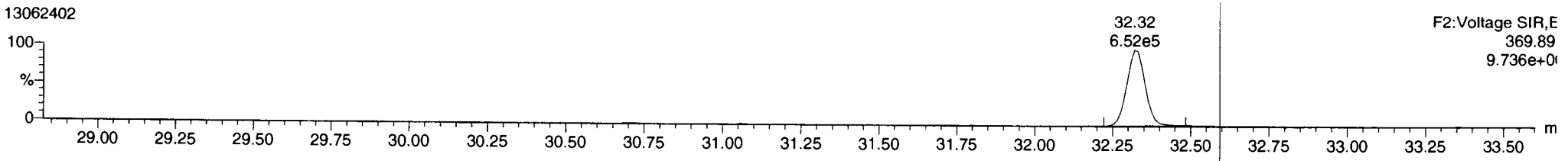
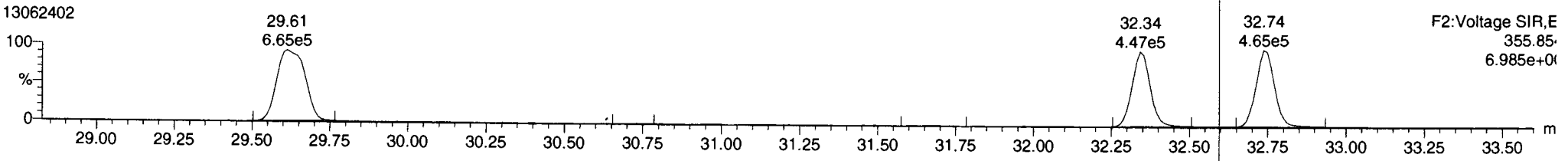
13C-12378-PeCDD



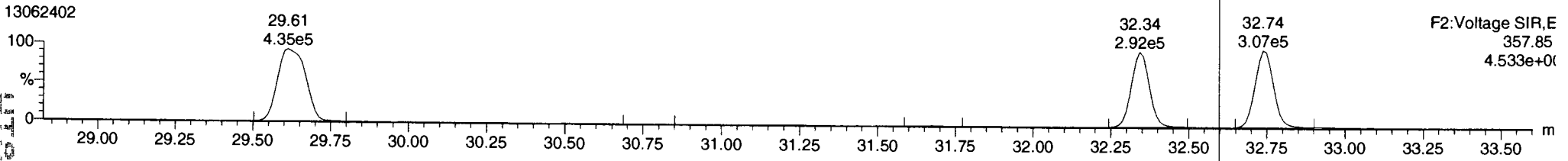
13C-12378-PeCDD



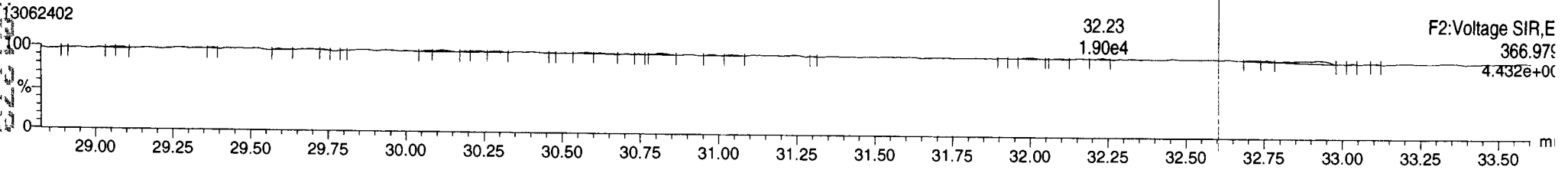
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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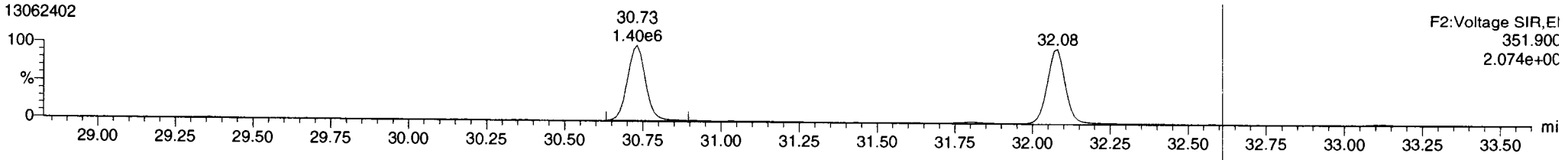
13C-12378-PeCDF



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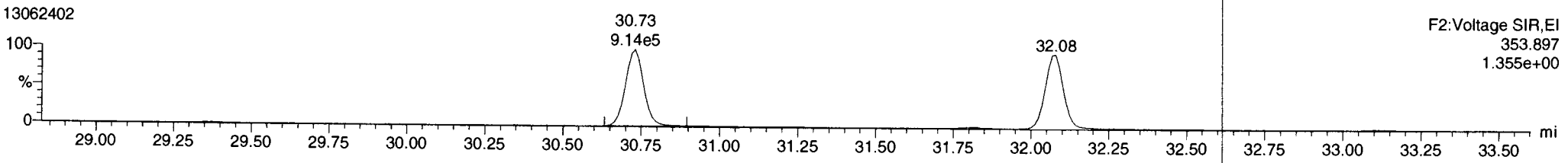
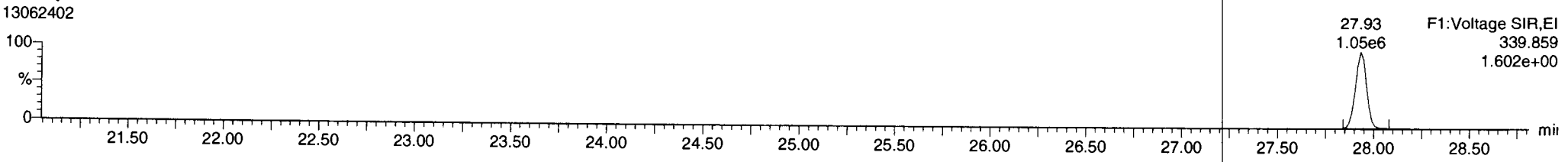
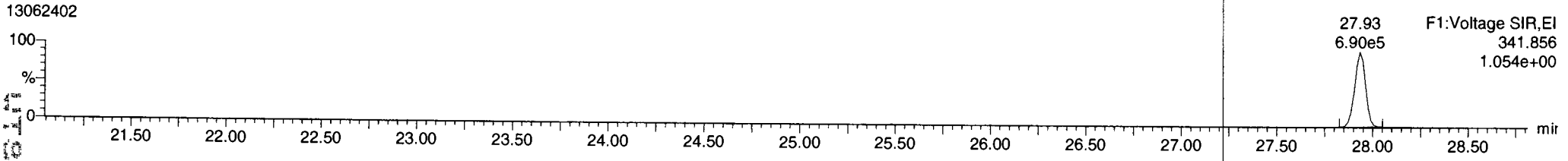


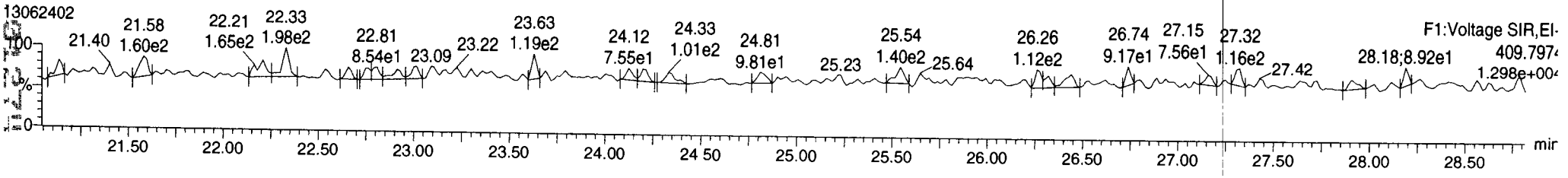
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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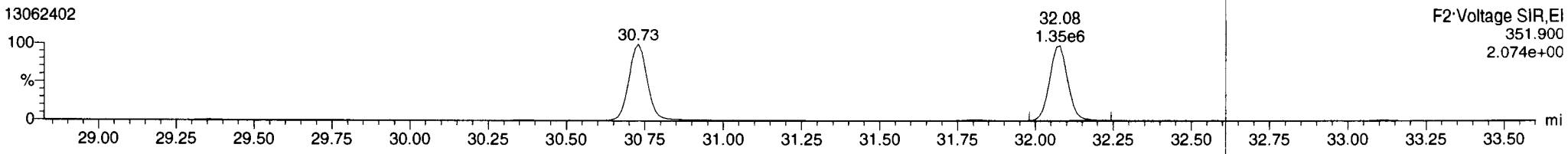
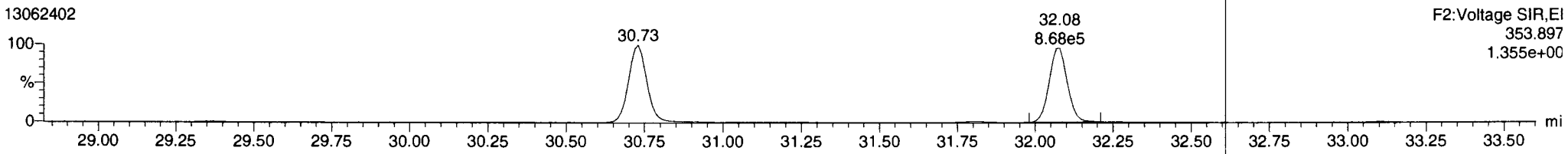
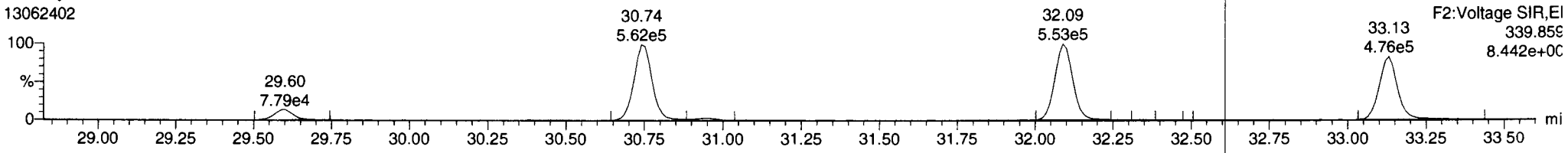
13C-23478-PeCDF



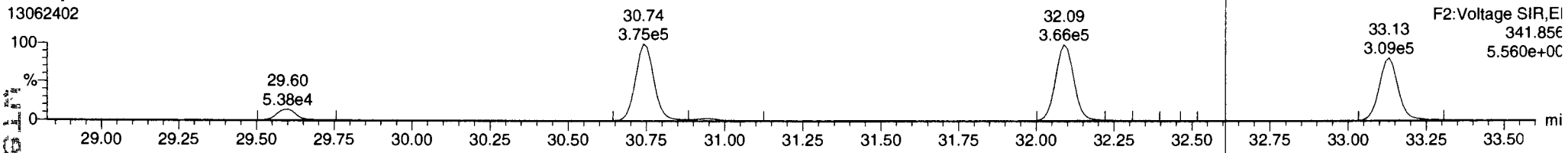
13C-23478-PeCDF



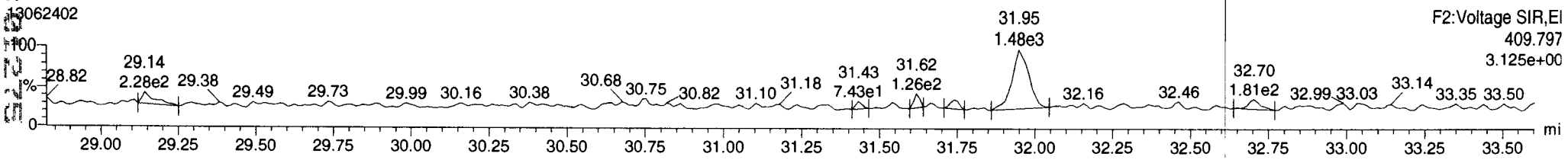
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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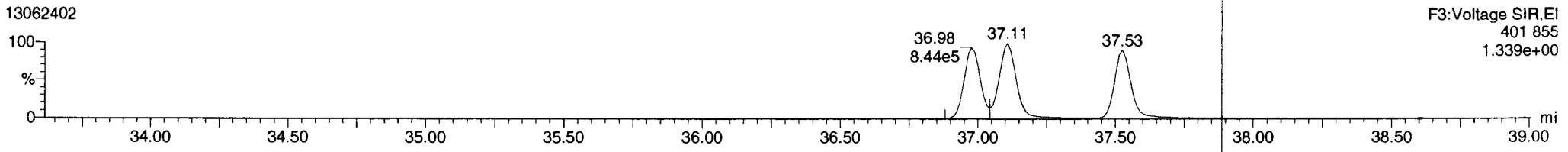
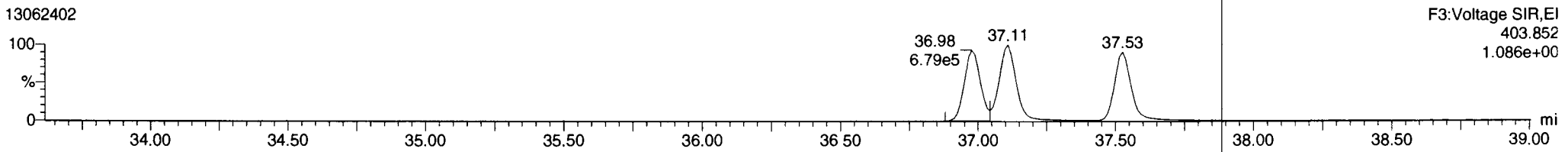
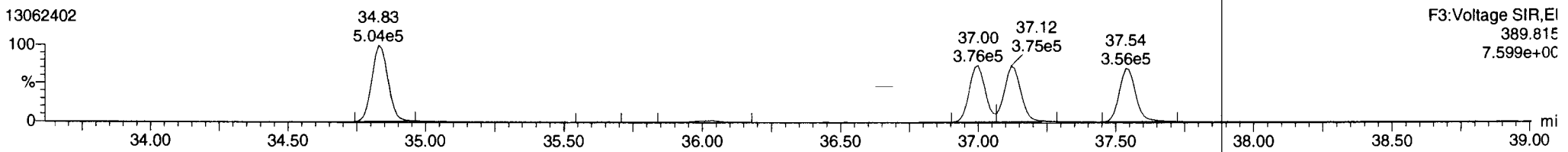
13C-123478-HxCDD



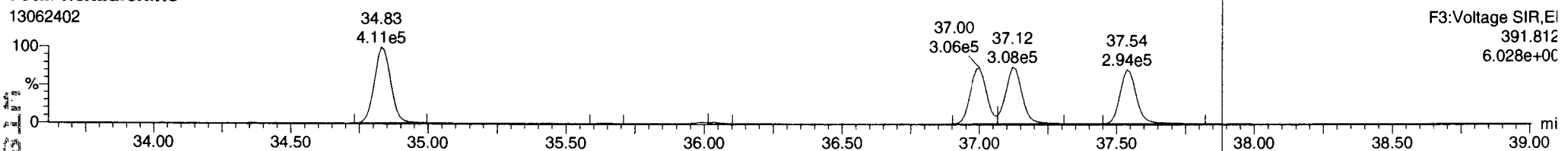
13C-123478-HxCDD



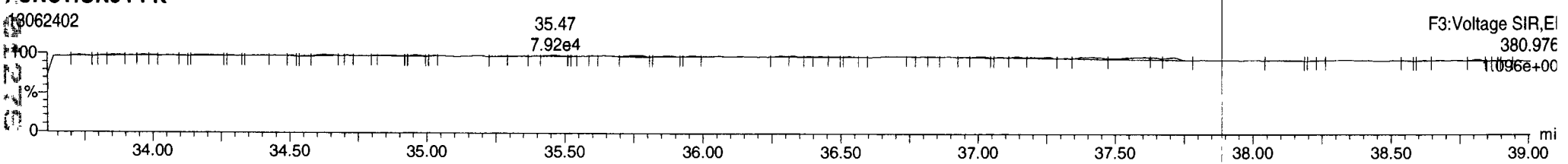
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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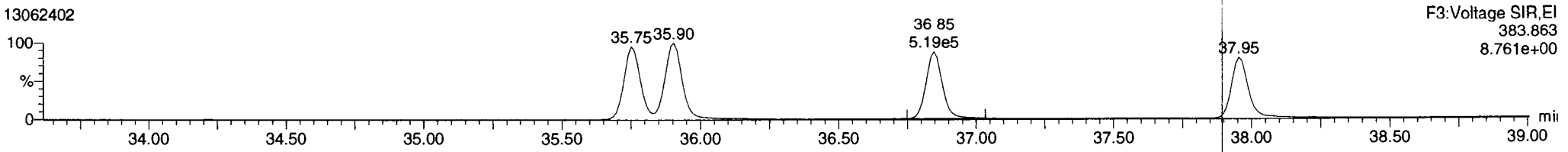
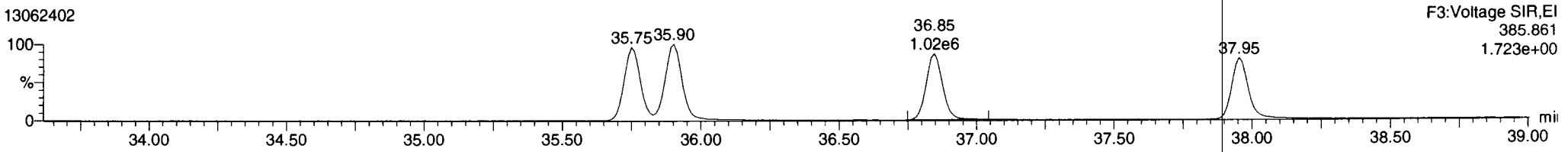
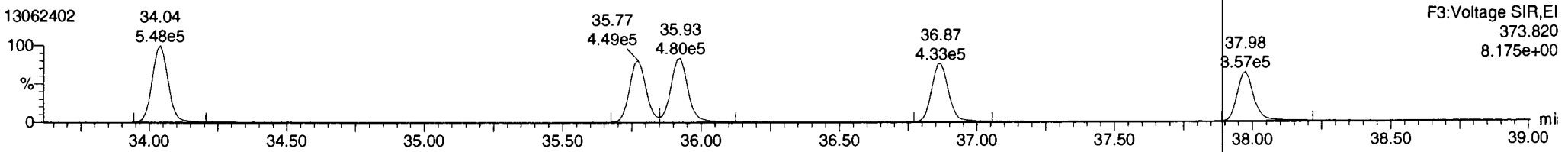
13C-234678-HxCDF



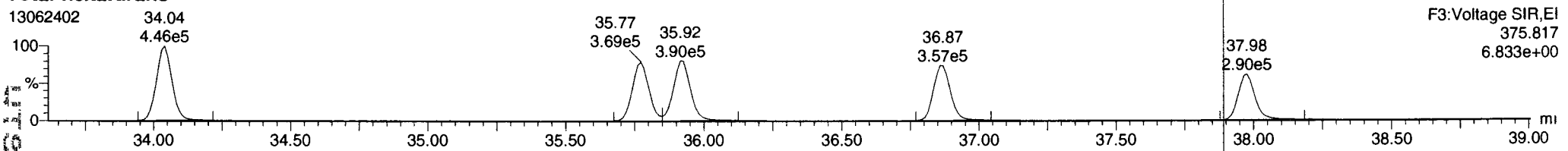
13C-234678-HxCDF



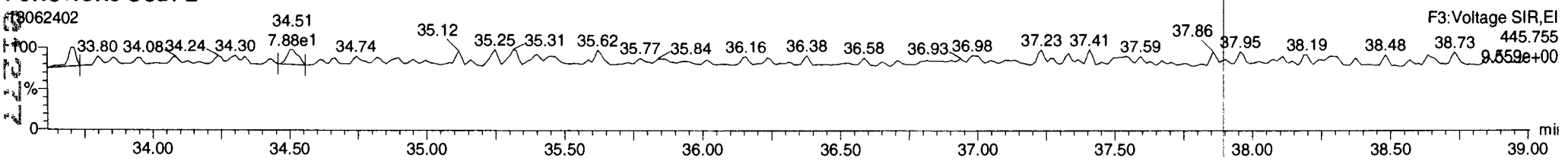
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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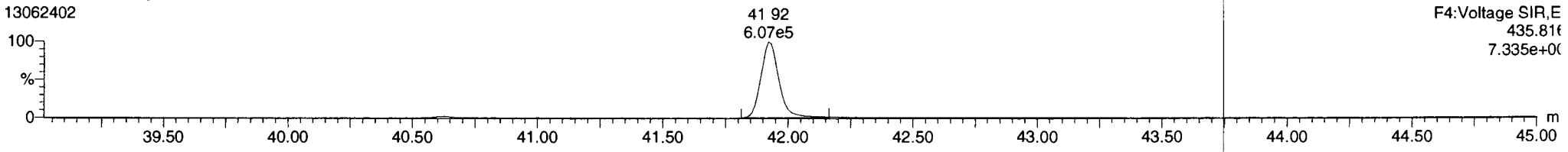
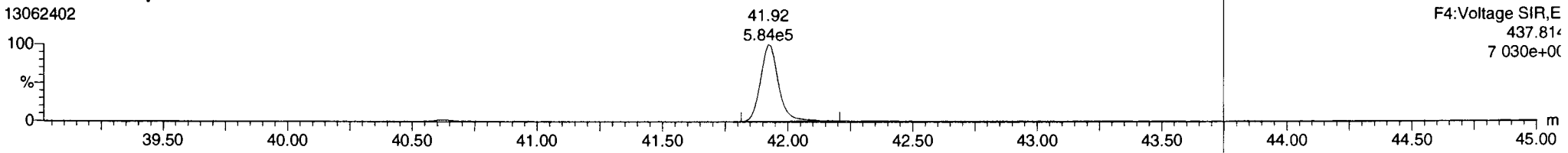
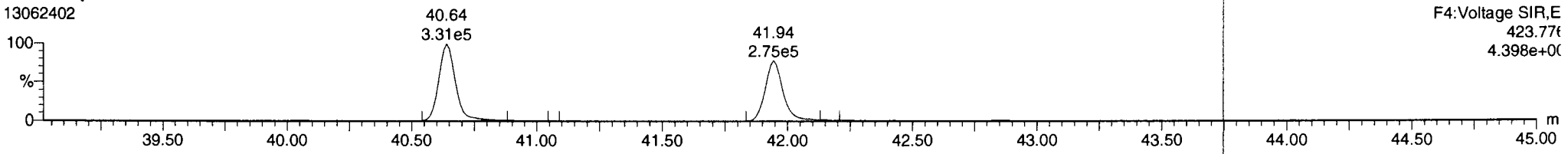
13C-1234678-HpCDD



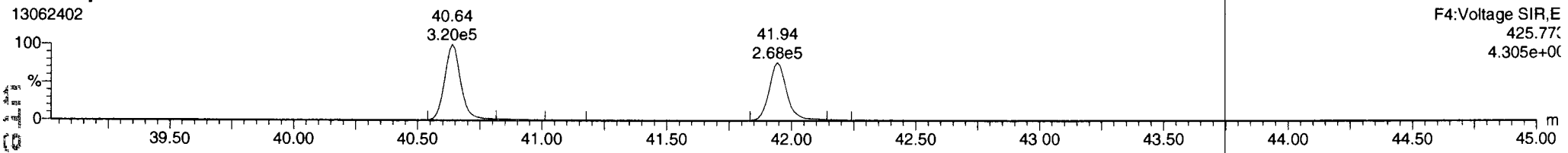
13C-1234678-HpCDD



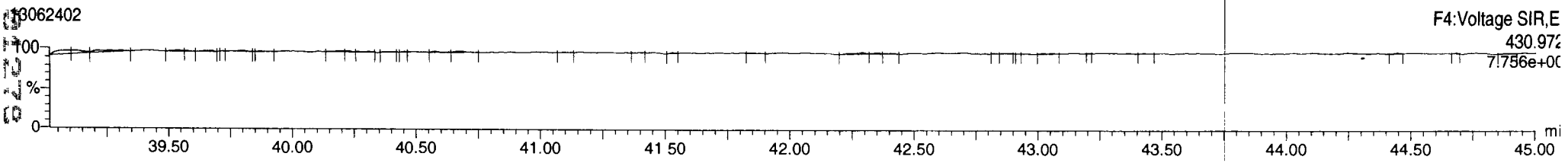
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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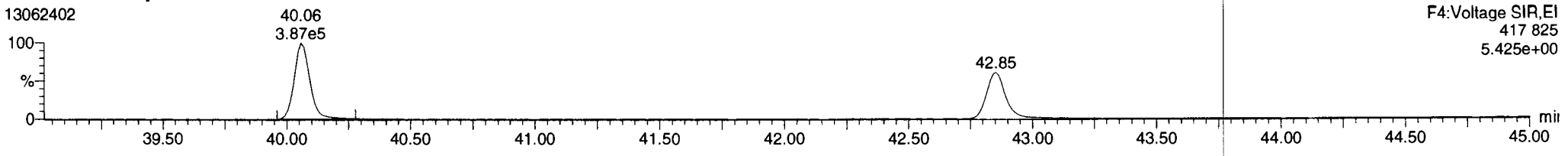

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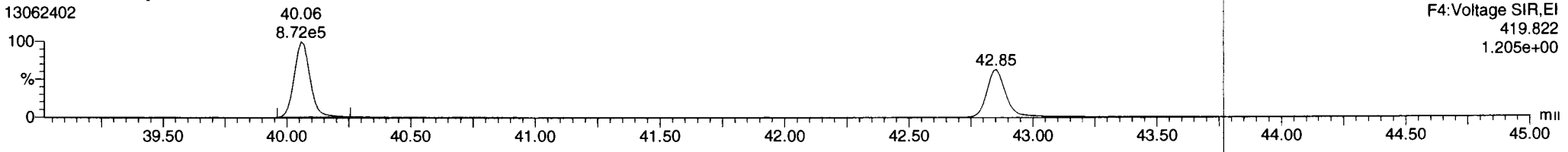
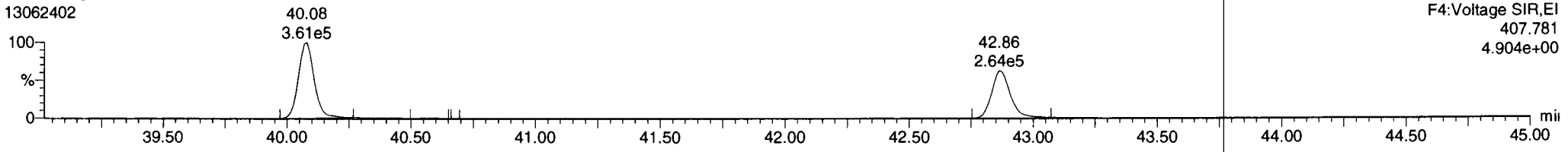
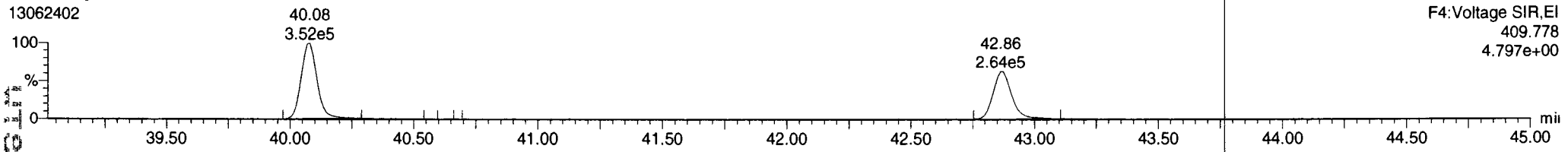


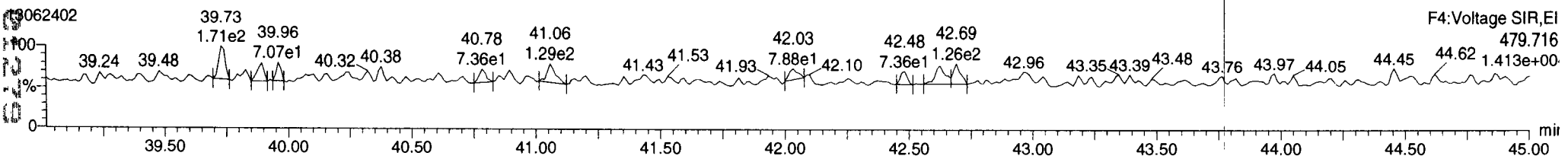
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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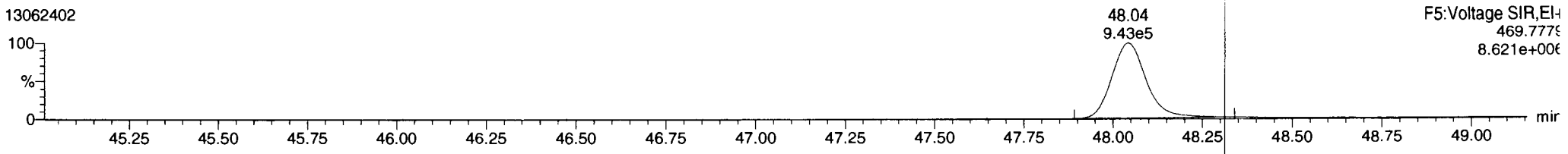
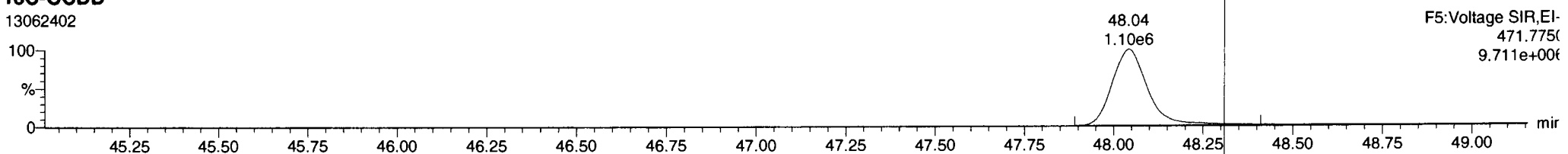
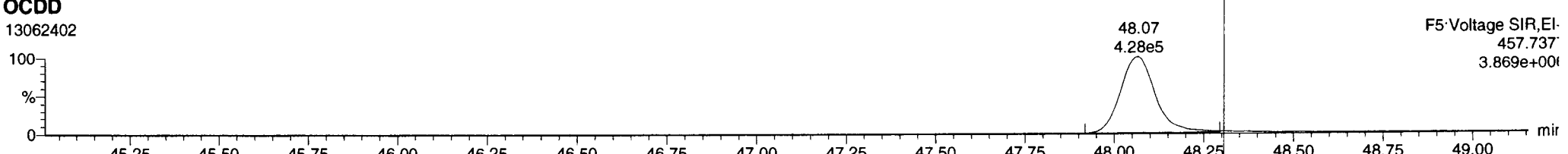
13C-OCDD



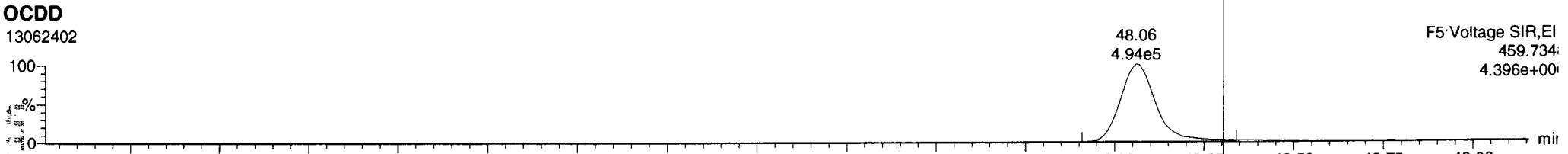
13C-OCDD



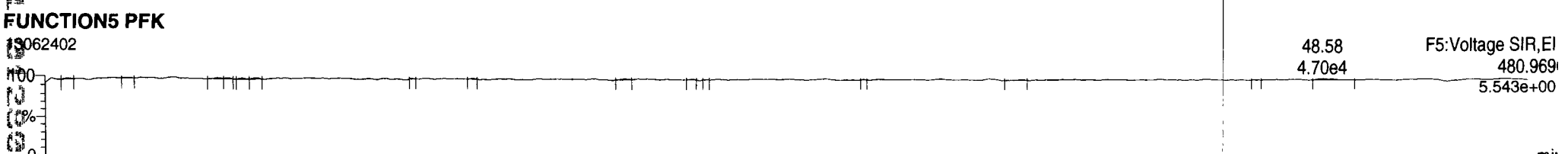
OCDD



OCDD



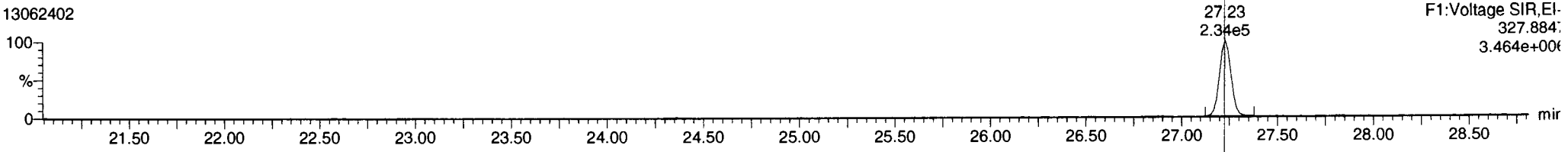
FUNCTION5 PFK



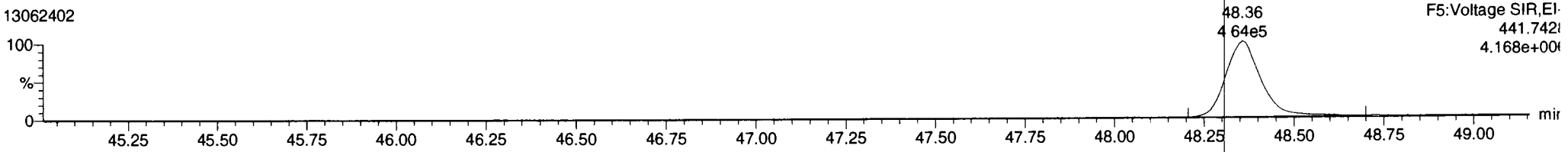
Dataset: P:\DIOXIN8290.PRO\130624OPEN.qld
Last Altered: Tuesday, June 25, 2013 10:31:33 Pacific Daylight Time
Printed: Wednesday, June 26, 2013 09:19:11 Pacific Daylight Time

ID: CS3, Name: 13062402, Date: 24-Jun-2013, Time: 09:56:39, Conditions: AUTOSPEC01, User: pk

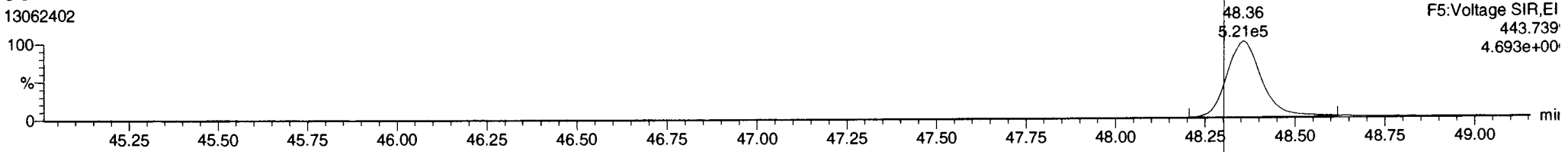
37CL-2378-TCDD



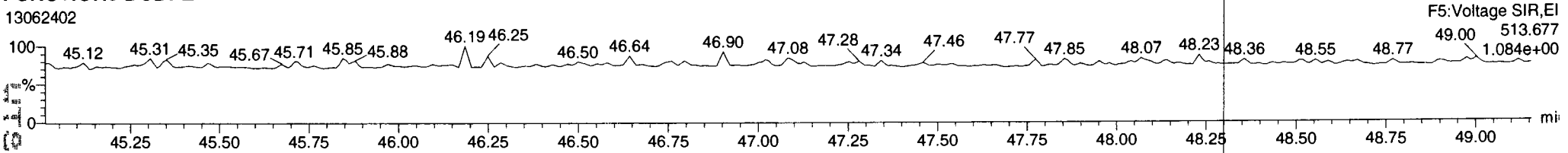
OCDF



OCDF



FUNCTION5 DCDPE



ARI
CDD/CDF EDL DATA
HIGH RESOLUTION

Lab.Sample ID: WS91MBS
Lab.File ID: 13062405
Date Analysed: 24-Jun-13

Target Analytes	Selected Ions	Peak RT	Conc	EMPC	EDL
2378-TCDD	320/322	0.00			0.037
12378-PeCDD	356/358	0.00			0.031
123478-HxCDD	390/392	0.00			0.038
123678-HxCDD	390/392	0.00			0.041
123789-HxCDD	390/392	0.00			0.043
1234678-HpCDD	424/426	41.92	0.0727	0.0610	
OCDD	458/460	48.02	0.173	0.129	
2378-TCDF	304/306	0.00			0.030
12378-PeCDF	340/342	0.00			0.033
23478-PeCDF	340/342	0.00			0.039
123478-HxCDF	374/376	0.00			0.023
234678-HxCDF	374/376	36.83	0.0223	0.0190	
123678-HxCDF	374/376	0.00			0.021
123789-HxCDF	374/376	37.95	0.0427	0.0240	
1234678-HpCDF	408/410	0.00			0.025
1234789-HpCDF	408/410	0.00			0.038
OCDF	442/444	0.00			0.091

Note: EDLs are on column values. Final EDL values are corrected for final volume of the extract (normally 20ul) and amount of sample extracted.

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

6/25/13

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

2378-TCDF					0.771		0.770		806	2300					
12378-PeCDF					0.814		1.550		1027	2068					
23478-PeCDF					0.837		1.550		1027	2068					
123478-HxCDF					0.967		1.240		1041	425					
234678-HxCDF	36.825	1.000	1.06e2	1.19e2	1.000	0.892	1.240	2.9	1041	425	3.05e3	1.80e3	YES	0.019	0.022
123678-HxCDF					0.951		1.240		1041	425					
123789-HxCDF	37.954	1.000	2.44e2	8.02e1	0.874	3.038	1.240	4.5	1041	425	4.66e3	2.59e3	YES	0.024	0 043
1234678-HpCDF					1.072		1.050		406	707					
1234789-HpCDF					1.085		1.050		406	707					
OCDF					0.878		0.890		559	1217					
2378-TCDD					0.936		0.770		1730	1706					
12378-PeCDD					0.894		1.550		1450	687					
123478-HxCDD					0.898		1.240		1295	1047					
123678-HxCDD					0.818		1.240		1295	1047					
123789-HxCDD					0.789		1.240		1295	1047					
1234678-HpCDD	41.923	1.000	3.19e2	2.24e2	0.879	1.425	1.050	6.7	807	604	5.38e3	3.90e3	YES	0.061	0.073
OCDD	48.017	1.000	3.27e2	6.04e2	0.875	0.542	0.890	7.2	443	692	3.21e3	6.12e3	YES	0.129	0.173
13C-2378-TCDF	26.556	1.007	9.55e5	1.26e6	1.190	0.756	0.770	4123.4	3461	6369	1.43e7	1.87e7	NO		89.156
13C-12378-PeCDF	30.709	1.164	1.15e6	7.36e5	0.904	1.569	1.550	4164.9	4195	3320	1.75e7	1.12e7	NO		99.938
13C-23478-PeCDF	32.057	1.215	9.44e5	6.07e5	0.877	1.556	1.550	3443.6	4195	3320	1.44e7	9.27e6	NO		84.552
13C-123478-HxCDF	35.740	0.953	3.65e5	7.06e5	1.096	0.517	0.510	1538.1	3590	3841	5.52e6	1.07e7	NO		83.071
13C-123678-HxCDF	35.883	0.956	4.18e5	8.15e5	1.187	0.513	0.510	1709.2	3590	3841	6.14e6	1.19e7	NO		88.288
13C-234678-HxCDF	36.836	0.982	3.44e5	6.70e5	1.040	0.513	0.510	1392.1	3590	3841	5.00e6	9.82e6	NO		82.965
13C-123789-HxCDF	37.943	1.011	2.95e5	5.73e5	0.941	0.516	0.510	1219.5	3590	3841	4.38e6	8.55e6	NO		78.453
13C-1234678-HpCDF	40.048	1.067	2.27e5	5.39e5	0.825	0.421	0.440	1598.2	1961	2653	3.13e6	7.19e6	NO		78.904
13C-1234789-HpCDF	42.843	1.142	1.81e5	4.11e5	0.609	0.440	0.440	1058.2	1961	2653	2.08e6	4.73e6	NO		82.573
13C-1234-TCDD	26.377	0.000	9.19e5	1.17e6	1.000	0.784	0.770	1304.4	10693	4589	1.39e7	1.78e7	NO		100.000
13C-2378-TCDD	27.184	1.031	7.47e5	9.66e5	0.920	0.773	0.770	1021.0	10693	4589	1.09e7	1.41e7	NO		89.039
13C-12378-PeCDD	32.309	1.225	7.79e5	5.05e5	0.669	1.544	1.550	3280.5	3616	2059	1.19e7	7.69e6	NO		91.729
13C-123478-HxCDD	36.968	0.985	6.24e5	5.05e5	1.032	1.236	1.240	2758.7	3396	3381	9.37e6	7.55e6	NO		93.006
13C-123678-HxCDD	37.088	0.989	6.63e5	5.40e5	1.146	1.227	1.240	2811.1	3396	3381	9.55e6	7.83e6	NO		89.296
13C-1234678-HpCDD	41.911	1.117	4.33e5	4.17e5	0 789	1.040	1.050	1807.8	2924	3691	5.29e6	5.20e6	NO		91.614
13C-OCDD	48.026	1.280	5.77e5	6.51e5	0.696	0.885	0.890	1845.8	2820	2763	5.20e6	5.87e6	NO		149.923

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.516	0.000	6.52e5	5.24e5	1.000	1.246	1.240	2884.8	3396	3381	9.80e6	7.83e6	NO	100.000
Total-tetrafurans			0.00e0		0.771				806		0.00e0			
Total-penta1			0.00e0						1251		0.00e0			
Total-pentafurans			0.00e0		0.826				1027		0.00e0			
Total-hexafurans			3.50e2		0.948				1041		7.71e3			0.065
Total-heptafurans			0.00e0		1.079				406		0.00e0			
Total-Furans			4.55e2		0.925				806		1.04e4			0.082
Total-tetradioxins			1.39e3		0.936				1730		1.95e4			0.116
Total-pentadioxins			1.09e3		0.894				1450		1.51e4			0.109
Total-hexadioxins			1.96e3		0.835				1295		3.58e4			0.246
Total-heptadioxins			5.56e2		0.879				807		9.75e3			0.139
Total-Dioxins			5.32e3		0.870				1730		8.33e4			0.785
Total-TEQ			5.78e3						1730		9.37e4			0.866
37CL-2378-TCDD	27.214	1.032	7.64e5		1.000			3402.2	3393		1.15e7			36.508
FUNCTION1 PFK			8.50e6						1338052		1.36e7			
FUNCTION2 PFK			8.57e5						411623		2.31e7			0 000
FUNCTION3 PFK			1.62e6						708975		4.16e7			0.000
FUNCTION4 PFK			1.26e6						518266		2.95e7			
FUNCTION5 PFK			7.37e5						314121		2.52e7			
FUNCTION1 HXCDPE			0.00e0						589		0.00e0			
FUNCTION1 HPCDPE			2.52e3						1166		5.41e4			0 000
FUNCTION2 HPCDPE			1.06e3						1371		2.87e4			0.000
FUNCTION3 OCDPE			0.00e0						614		0.00e0			
FUNCTION4 NCDPE			4.89e2						1008		1.51e4			0.000
FUNCTION5 DCDPE			0.00e0						442		0.00e0			

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

TF

PP

HF

HPF

PF

Furans,TF,PP,PF,HF,HPF,OF

	40 Total-Furans	303.9016	28.68	342.084	0.925	0.017		0.44	0.77	YES	3.4
	7 123789-HxCDF	373.8208	37.95	323.903	0.874	0.043	0.024	3.04	1.24	YES	4.5
	5 234678-HxCDF	373.8208	36.83	225.798	1.000	0.022	0.019	0.89	1.24	YES	2.9

OD

	41 Total-tetradioxins	319.8965	26.54	1867.040	0.936	0.116		2.88	0.77	YES	11.3

OD

	42 Total-pentadioxins	355.8546	30.70	1253.120	0.894	0.109		6.73	1.55	YES	10.4

OD

	43 Total-hexadioxins	389.8157	35.74	1195.669	0.835	0.123		3.79	1.24	YES	11.4
	43 Total-hexadioxins	389.8157	36.84	994.643	0.835	0.102		8.04	1.24	YES	12.0
	43 Total-hexadioxins	389.8157	36.78	208.812	0.835	0.021		1.76	1.24	YES	4.2

D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

HPD

	16 1234678-HpCDD	423.7766	41.92	543.625	0.879	0.073	0.061	1.42	1.05	YES	6.7
	44 Total-heptadioxins	423.7766	40 62	496.482	0.879	0.066		0.91	1.05	NO	5.4

Dioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	26.54	1867.040	0.936	0.116		2.88	0.77	YES	11.3
	42 Total-pentadioxins	355.8546	30.70	1253.120	0.894	0.109		6.73	1.55	YES	10.4
	43 Total-hexadioxins	389.8157	35.74	1195.669	0.835	0.123		3.79	1.24	YES	11.4
	43 Total-hexadioxins	389.8157	36.84	994.643	0.835	0.102		8.04	1.24	YES	12.0
	43 Total-hexadioxins	389.8157	36.78	208.812	0.835	0.021		1.76	1.24	YES	4.2
	16 1234678-HpCDD	423.7766	41.92	543.625	0.879	0.073	0.061	1.42	1.05	YES	6.7
	44 Total-heptadioxins	423.7766	40.62	496.482	0.879	0.066		0.91	1.05	NO	5.4
	17 OCDD	457.7377	48.02	931.400	0.875	0.173	0.129	0.54	0.89	YES	7.2

TotalTEQ,Furans,Dioxins

	40 Total-Furans	303.9016	28.68	342.084	0.925	0.017		0.44	0.77	YES	3.4
	7 123789-HxCDF	373.8208	37.95	323.903	0.874	0.043	0.024	3.04	1.24	YES	4.5
	5 234678-HxCDF	373.8208	36.83	225.798	1.000	0.022	0.019	0.89	1.24	YES	2.9
	41 Total-tetradioxins	319.8965	26.54	1867.040	0.936	0.116		2.88	0.77	YES	11.3
	42 Total-pentadioxins	355.8546	30.70	1253.120	0.894	0.109		6.73	1.55	YES	10.4
	43 Total-hexadioxins	389.8157	35.74	1195.669	0.835	0.123		3.79	1.24	YES	11.4
	43 Total-hexadioxins	389.8157	36.84	994.643	0.835	0.102		8.04	1.24	YES	12.0
	43 Total-hexadioxins	389.8157	36.78	208.812	0.835	0.021		1.76	1.24	YES	4.2
	16 1234678-HpCDD	423.7766	41.92	543.625	0.879	0.073	0.061	1.42	1.05	YES	6.7
	44 Total-heptadioxins	423.7766	40.62	496.482	0.879	0.066		0.91	1.05	NO	5.4
	17 OCDD	457.7377	48.02	931.400	0.875	0.173	0.129	0.54	0.89	YES	7.2

PFK1

	48 FUNCTION1 PFK	330.9792	21.42	0.000							10.2

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

PFK2

[redacted]	49	FUNCTION2 PFK	366 9792	29.26	0.000	0 000				2.1
[redacted]	49	FUNCTION2 PFK	366.9792	29.22	0.000	0.000				1.2
[redacted]	49	FUNCTION2 PFK	366.9792	29.16	0.000	0.000				3.2
[redacted]	49	FUNCTION2 PFK	366.9792	29.06	0.000	0.000				3.0
[redacted]	49	FUNCTION2 PFK	366.9792	29.02	0.000	0.000				2.9
[redacted]	49	FUNCTION2 PFK	366.9792	28.93	0.000	0.000				1.2
[redacted]	49	FUNCTION2 PFK	366.9792	28.89	0.000	0.000				1.8
[redacted]	49	FUNCTION2 PFK	366.9792	30.72	0.000	0.000				0.7
[redacted]	49	FUNCTION2 PFK	366.9792	30.63	0.000	0.000				1.2
[redacted]	49	FUNCTION2 PFK	366.9792	30.36	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	30 20	0.000	0.000				0.6
[redacted]	49	FUNCTION2 PFK	366.9792	30 03	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	29.97	0.000	0.000				0.4
[redacted]	49	FUNCTION2 PFK	366.9792	29.92	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	29.85	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	29.80	0.000	0.000				1.1
[redacted]	49	FUNCTION2 PFK	366.9792	29.74	0.000	0.000				1 3
[redacted]	49	FUNCTION2 PFK	366.9792	29.71	0 000	0.000				0.7
[redacted]	49	FUNCTION2 PFK	366.9792	29.66	0.000	0.000				1.0
[redacted]	49	FUNCTION2 PFK	366.9792	29.58	0.000	0 000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	29 49	0.000	0.000				0 4
[redacted]	49	FUNCTION2 PFK	366.9792	29.45	0.000	0 000				0.2
[redacted]	49	FUNCTION2 PFK	366.9792	29.36	0.000	0.000				1.3
[redacted]	49	FUNCTION2 PFK	366.9792	32.53	0.000	0 000				0.6
[redacted]	49	FUNCTION2 PFK	366.9792	32.43	0.000	0.000				1.5
[redacted]	49	FUNCTION2 PFK	366.9792	32.40	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	32.32	0.000	0.000				2.3
[redacted]	49	FUNCTION2 PFK	366.9792	32.12	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	32.06	0.000	0.000				0.8
[redacted]	49	FUNCTION2 PFK	366.9792	31.99	0.000	0 000				0.3
[redacted]	49	FUNCTION2 PFK	366.9792	31.65	0.000	0.000				0.3
[redacted]	49	FUNCTION2 PFK	366.9792	31.54	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	31.34	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	31.30	0.000	0.000				0.7
[redacted]	49	FUNCTION2 PFK	366.9792	31.26	0.000	0.000				0.5
[redacted]	49	FUNCTION2 PFK	366.9792	31.04	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	30.93	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	30.87	0.000	0.000				0.3
[redacted]	49	FUNCTION2 PFK	366.9792	30.76	0.000	0.000				1.0
[redacted]	49	FUNCTION2 PFK	366.9792	33.38	0.000	0.000				0.7
[redacted]	49	FUNCTION2 PFK	366.9792	33.24	0.000	0.000				0.6
[redacted]	49	FUNCTION2 PFK	366.9792	33.16	0.000	0.000				0.8
[redacted]	49	FUNCTION2 PFK	366.9792	33.04	0.000	0.000				0.6
[redacted]	49	FUNCTION2 PFK	366.9792	33.00	0.000	0.000				1.4
[redacted]	49	FUNCTION2 PFK	366.9792	32.97	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	32.82	0.000	0.000				1.1
[redacted]	49	FUNCTION2 PFK	366.9792	32.78	0.000	0.000				0.9
[redacted]	49	FUNCTION2 PFK	366.9792	32.73	0.000	0.000				1.5
[redacted]	49	FUNCTION2 PFK	366.9792	32.65	0.000	0.000				1.3

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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PFK2

	49	FUNCTION2 PFK	366 9792	32 58	0.000	0.000					0.9

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

PFK3

	50 FUNCTION3 PFK	380.9760	34.14	0 000	0.000					1.0
	50 FUNCTION3 PFK	380.9760	34.04	0 000	0.000					0.9
	50 FUNCTION3 PFK	380.9760	33.87	0.000	0.000					1.1
	50 FUNCTION3 PFK	380.9760	33.75	0.000	0.000					0.6
	50 FUNCTION3 PFK	380.9760	36.16	0.000	0.000					1.1
	50 FUNCTION3 PFK	380.9760	36.09	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	36.07	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	36.04	0.000	0.000					0.5
	50 FUNCTION3 PFK	380.9760	35.78	0.000	0.000					1.0
	50 FUNCTION3 PFK	380.9760	35.73	0.000	0.000					0.9
	50 FUNCTION3 PFK	380.9760	35.69	0.000	0.000					0 6
	50 FUNCTION3 PFK	380.9760	35.28	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	34.86	0.000	0.000					0.6
	50 FUNCTION3 PFK	380.9760	34.82	0.000	0.000					1.8
	50 FUNCTION3 PFK	380.9760	34.65	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	34.52	0.000	0.000					1.2
	50 FUNCTION3 PFK	380.9760	34.46	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	34.42	0.000	0.000					1.5
	50 FUNCTION3 PFK	380.9760	34.38	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	34.27	0.000	0.000					1.5
	50 FUNCTION3 PFK	380.9760	38.04	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	38.01	0.000	0.000					0.6
	50 FUNCTION3 PFK	380.9760	37.97	0.000	0.000					0.9
	50 FUNCTION3 PFK	380.9760	37.89	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	37.82	0.000	0.000					2.3
	50 FUNCTION3 PFK	380.9760	37.67	0.000	0.000					1.5
	50 FUNCTION3 PFK	380.9760	37.45	0.000	0.000					1 0
	50 FUNCTION3 PFK	380.9760	37.30	0.000	0.000					1.2
	50 FUNCTION3 PFK	380.9760	37.23	0.000	0.000					1.1
	50 FUNCTION3 PFK	380.9760	37.15	0.000	0.000					1 7
	50 FUNCTION3 PFK	380.9760	36.97	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	36.87	0.000	0.000					2.4
	50 FUNCTION3 PFK	380.9760	36.76	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	36.66	0.000	0.000					0.5
	50 FUNCTION3 PFK	380.9760	36.54	0.000	0.000					1.3
	50 FUNCTION3 PFK	380.9760	36.22	0.000	0.000					2.1
	50 FUNCTION3 PFK	380.9760	38.96	0.000	0.000					1.1
	50 FUNCTION3 PFK	380.9760	38.85	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	38.71	0.000	0.000					1.7
	50 FUNCTION3 PFK	380.9760	38.56	0.000	0.000					2.5
	50 FUNCTION3 PFK	380.9760	38.50	0.000	0.000					2.5
	50 FUNCTION3 PFK	380.9760	38.41	0.000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	38.21	0.000	0.000					2.2
	50 FUNCTION3 PFK	380.9760	38.15	0.000	0.000					1.2
	50 FUNCTION3 PFK	380.9760	38.09	0.000	0.000					0.9

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

PFK4

[redacted]	51	FUNCTION4 PFK	430.9728	39.57	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	39 32	0.000						2.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.25	0.000						4.0
[redacted]	51	FUNCTION4 PFK	430.9728	39.18	0.000						4.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.14	0.000						4.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.08	0.000						5.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.16	0.000						0.3
[redacted]	51	FUNCTION4 PFK	430.9728	42.05	0.000						1.2
[redacted]	51	FUNCTION4 PFK	430.9728	41.82	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.69	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.55	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	41.40	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.32	0.000						0.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.28	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	41.01	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.38	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	40.28	0.000						1.2
[redacted]	51	FUNCTION4 PFK	430.9728	40.22	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	40.07	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	40.00	0.000						2.9
[redacted]	51	FUNCTION4 PFK	430.9728	39.92	0.000						1.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.83	0.000						1.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.61	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.54	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.30	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.88	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.75	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.71	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.59	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.53	0.000						1.2
[redacted]	51	FUNCTION4 PFK	430.9728	43.45	0.000						1.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.24	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	43.19	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.15	0 000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.55	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	42.50	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.40	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.27	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.94	0.000						1.2

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PFK5

[redacted]	52 FUNCTION5 PFK	480.9696	45.93	0.000						2.2
[redacted]	52 FUNCTION5 PFK	480.9696	45.88	0.000						0.8
[redacted]	52 FUNCTION5 PFK	480.9696	45.80	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	45 75	0.000						1 4
[redacted]	52 FUNCTION5 PFK	480.9696	45.66	0.000						1.4
[redacted]	52 FUNCTION5 PFK	480.9696	45.57	0.000						0.6
[redacted]	52 FUNCTION5 PFK	480.9696	45.40	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	45.36	0.000						2.0
[redacted]	52 FUNCTION5 PFK	480.9696	45.31	0.000						2.1
[redacted]	52 FUNCTION5 PFK	480.9696	45.27	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	45.19	0.000						2.6
[redacted]	52 FUNCTION5 PFK	480.9696	45.14	0.000						3.0
[redacted]	52 FUNCTION5 PFK	480.9696	45.09	0.000						1.6
[redacted]	52 FUNCTION5 PFK	480.9696	45.06	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	46.76	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	46.73	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	46.62	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	46.58	0.000						0.8
[redacted]	52 FUNCTION5 PFK	480.9696	46.49	0.000						1.7
[redacted]	52 FUNCTION5 PFK	480.9696	46.46	0.000						0.9
[redacted]	52 FUNCTION5 PFK	480.9696	46.43	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	46.38	0.000						1.8
[redacted]	52 FUNCTION5 PFK	480.9696	46.32	0.000						1.9
[redacted]	52 FUNCTION5 PFK	480.9696	46.29	0.000						1.6
[redacted]	52 FUNCTION5 PFK	480.9696	46.21	0.000						1.8
[redacted]	52 FUNCTION5 PFK	480.9696	46.16	0.000						2.0
[redacted]	52 FUNCTION5 PFK	480.9696	46.12	0.000						2.1
[redacted]	52 FUNCTION5 PFK	480.9696	46.10	0.000						1.4
[redacted]	52 FUNCTION5 PFK	480.9696	46.03	0 000						2.6
[redacted]	52 FUNCTION5 PFK	480.9696	45.96	0.000						1 9
[redacted]	52 FUNCTION5 PFK	480.9696	47.93	0.000						1.2
[redacted]	52 FUNCTION5 PFK	480.9696	47.84	0.000						1.4
[redacted]	52 FUNCTION5 PFK	480.9696	47.78	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	47.72	0.000						1.0
[redacted]	52 FUNCTION5 PFK	480.9696	47.65	0.000						1.9
[redacted]	52 FUNCTION5 PFK	480.9696	47.50	0.000						0.6
[redacted]	52 FUNCTION5 PFK	480.9696	47.45	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	47.41	0.000						0.8
[redacted]	52 FUNCTION5 PFK	480.9696	47.34	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	47.30	0.000						1.3
[redacted]	52 FUNCTION5 PFK	480.9696	47.25	0 000						0.6
[redacted]	52 FUNCTION5 PFK	480.9696	47.19	0.000						2.1
[redacted]	52 FUNCTION5 PFK	480.9696	47.06	0.000						1.4
[redacted]	52 FUNCTION5 PFK	480.9696	47.00	0.000						1.1
[redacted]	52 FUNCTION5 PFK	480.9696	46.88	0.000						2.0
[redacted]	52 FUNCTION5 PFK	480.9696	46.80	0.000						0.5
[redacted]	52 FUNCTION5 PFK	480.9696	48.95	0.000						0.4
[redacted]	52 FUNCTION5 PFK	480.9696	48.86	0.000						0.7
[redacted]	52 FUNCTION5 PFK	480.9696	48.77	0.000						1.4

D: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

PFK5

	52	FUNCTION5 PFK	480.9696	48.72	0.000						0.5
	52	FUNCTION5 PFK	480.9696	48.69	0.000						0.9
	52	FUNCTION5 PFK	480.9696	48.65	0.000						1.9
	52	FUNCTION5 PFK	480.9696	48.60	0.000						0.7
	52	FUNCTION5 PFK	480.9696	48.52	0.000						0.9
	52	FUNCTION5 PFK	480.9696	48.48	0.000						0.4
	52	FUNCTION5 PFK	480.9696	48.43	0.000						0.7
	52	FUNCTION5 PFK	480.9696	48.39	0.000						1.2
	52	FUNCTION5 PFK	480.9696	48.29	0.000						0.4
	52	FUNCTION5 PFK	480.9696	48.19	0.000						1.7
	52	FUNCTION5 PFK	480.9696	48 11	0.000						1.1
	52	FUNCTION5 PFK	480.9696	48.04	0.000						1.6
	52	FUNCTION5 PFK	480.9696	47.96	0.000						0.8
	52	FUNCTION5 PFK	480.9696	49 04	0.000						0.6
	52	FUNCTION5 PFK	480.9696	49.00	0.000						0.5

THERS1

THERS2

	54	FUNCTION1 HPCD...	409.7974	25.59	0.000	0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	25.51	0.000	0.000					3.8
	54	FUNCTION1 HPCD...	409.7974	25.09	0.000	0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	25.00	0.000	0 000					1.2
	54	FUNCTION1 HPCD...	409.7974	23 81	0.000	0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	23.45	0.000	0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	23.10	0.000	0.000					4.9
	54	FUNCTION1 HPCD...	409.7974	23.00	0.000	0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	22.84	0.000	0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	22.37	0.000	0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	21.45	0.000	0.000					1.0
	54	FUNCTION1 HPCD...	409.7974	21.25	0.000	0.000					1.5
	54	FUNCTION1 HPCD...	409.7974	28.33	0.000	0.000					3.6
	54	FUNCTION1 HPCD. .	409.7974	28.21	0.000	0.000					2.4
	54	FUNCTION1 HPCD...	409.7974	27.51	0.000	0.000					3.8
	54	FUNCTION1 HPCD...	409.7974	27.39	0.000	0.000					2.4
	54	FUNCTION1 HPCD...	409.7974	27.17	0.000	0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	26.96	0.000	0.000					1.7
	54	FUNCTION1 HPCD...	409.7974	26.78	0.000	0.000					1.2
	54	FUNCTION1 HPCD...	409.7974	25.93	0.000	0.000					2.2
	54	FUNCTION1 HPCD...	409.7974	25.75	0.000	0.000					1.7

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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THERS3

	55	FUNCTION2 HPCD...	409.7974	30.70	0.000	0.000				1.6
	55	FUNCTION2 HPCD...	409.7974	30.61	0.000	0.000				2.1
	55	FUNCTION2 HPCD...	409.7974	30.23	0.000	0.000				3.0
	55	FUNCTION2 HPCD...	409.7974	29.92	0.000	0.000				1.6
	55	FUNCTION2 HPCD...	409.7974	29.77	0.000	0.000				1.9
	55	FUNCTION2 HPCD...	409.7974	28.97	0.000	0.000				1.6
	55	FUNCTION2 HPCD...	409.7974	32.67	0.000	0.000				2.4
	55	FUNCTION2 HPCD...	409.7974	32.51	0.000	0.000				1.4
	55	FUNCTION2 HPCD...	409.7974	32.11	0.000	0.000				2.4
	55	FUNCTION2 HPCD...	409.7974	32.07	0.000	0.000				1.2
	55	FUNCTION2 HPCD...	409.7974	30.75	0.000	0.000				1.6

THERS4

THERS5

	57	FUNCTION4 NCDPE	479.7165	43.62	0.000	0.000				2.6
	57	FUNCTION4 NCDPE	479.7165	41.89	0.000	0.000				2.4
	57	FUNCTION4 NCDPE	479.7165	41.58	0.000	0.000				5.9
	57	FUNCTION4 NCDPE	479.7165	41.39	0.000	0.000				2.7
	57	FUNCTION4 NCDPE	479.7165	39.76	0.000	0.000				1.3

THERS6

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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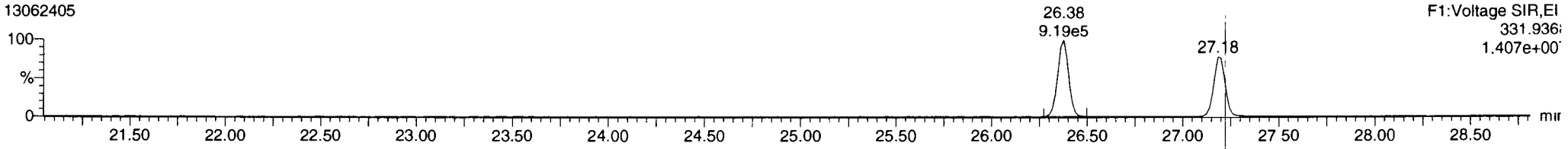
Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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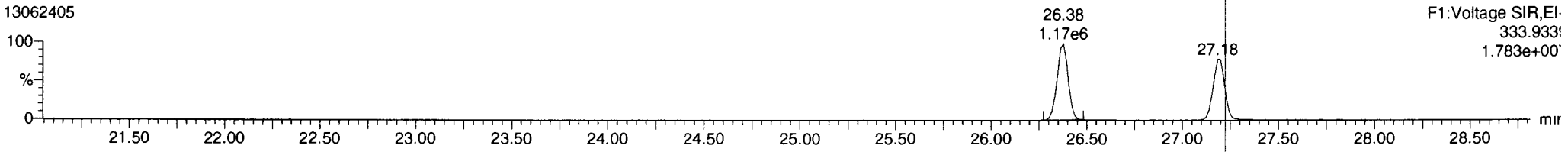

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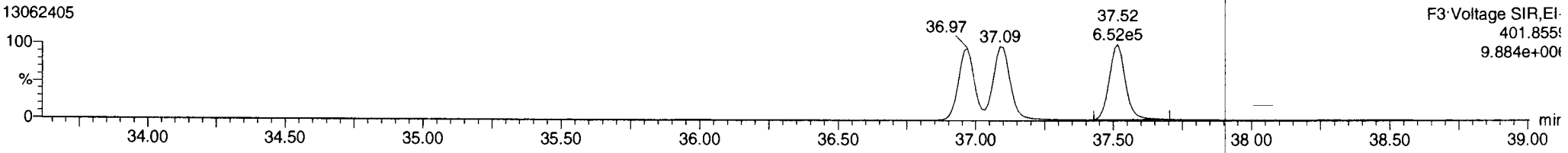

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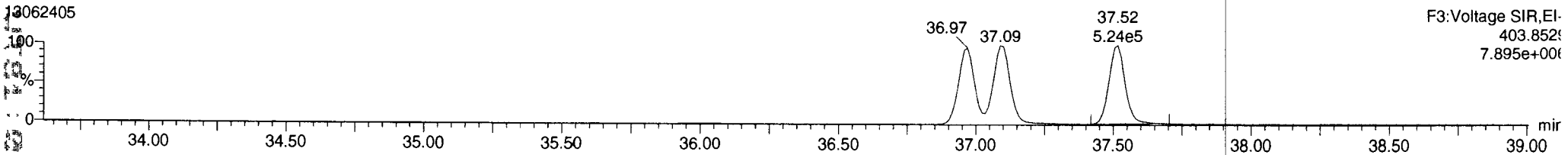
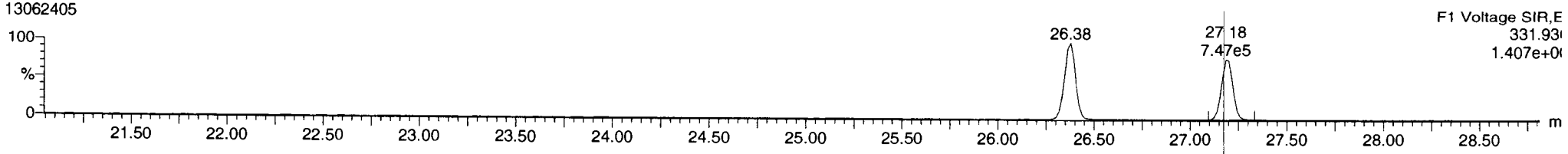


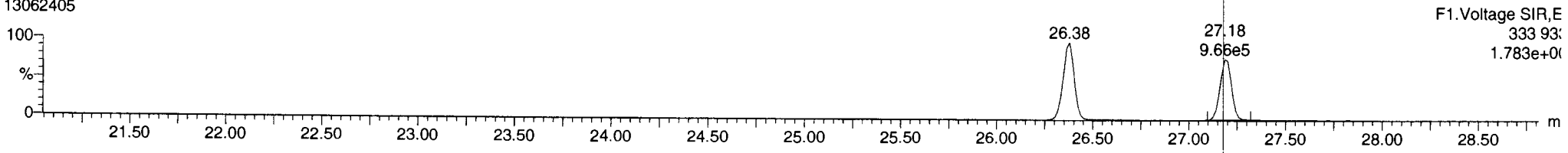
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

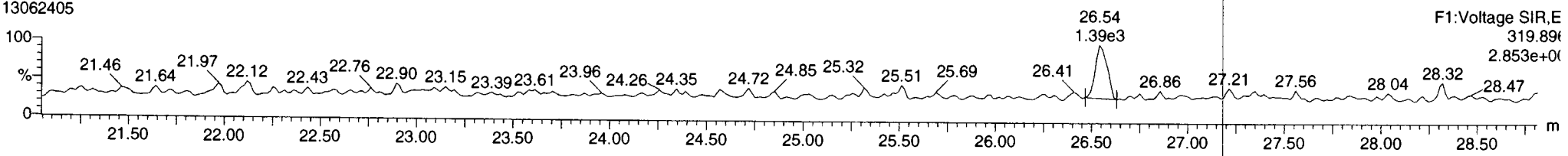
13C-2378-TCDD
13062405



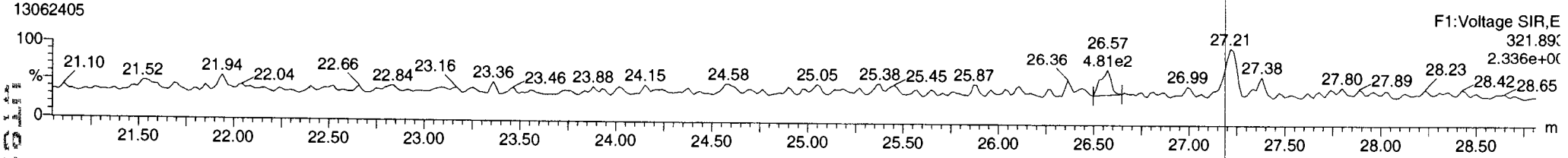
13C-2378-TCDD
13062405



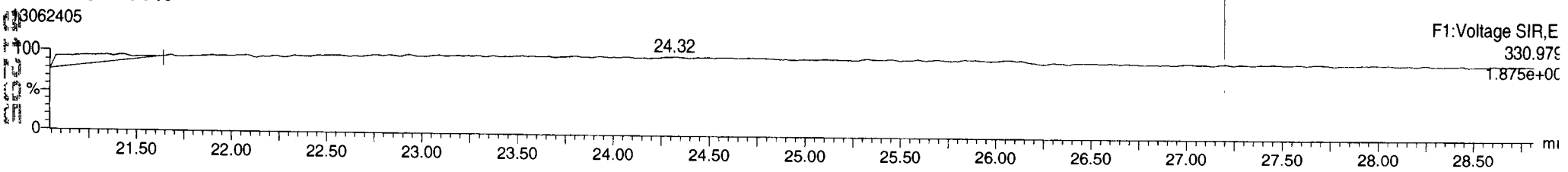
Total-tetradioxins
13062405



Total-tetradioxins
13062405



FUNCTION1 PFK
13062405



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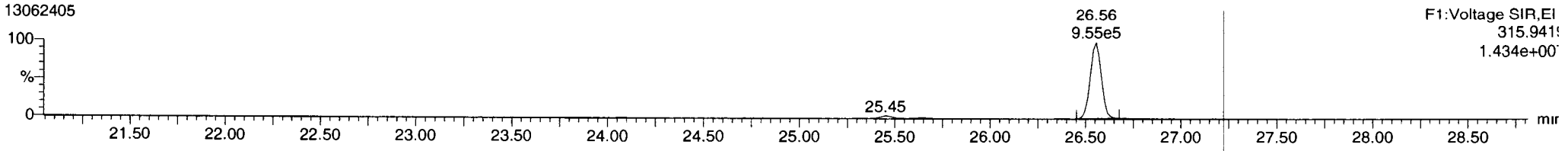
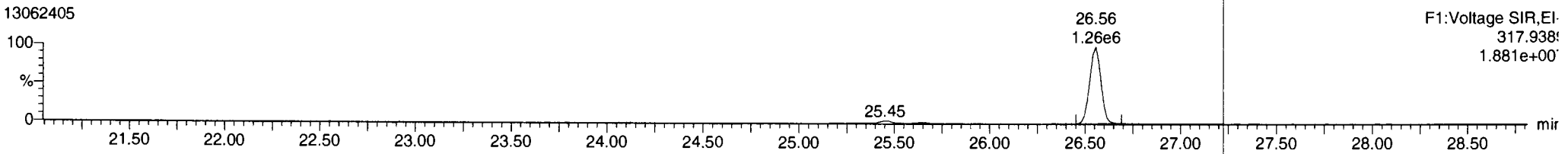
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

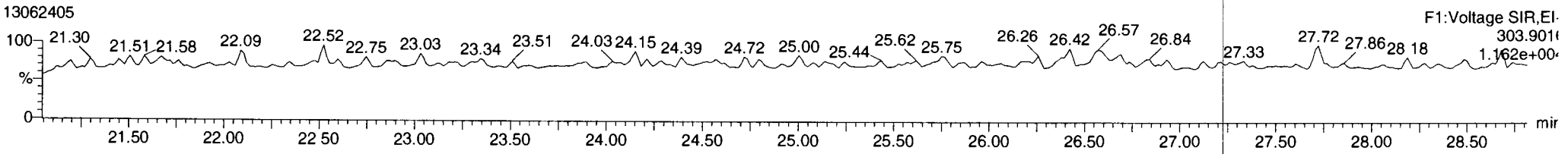
13C-2378-TCDF



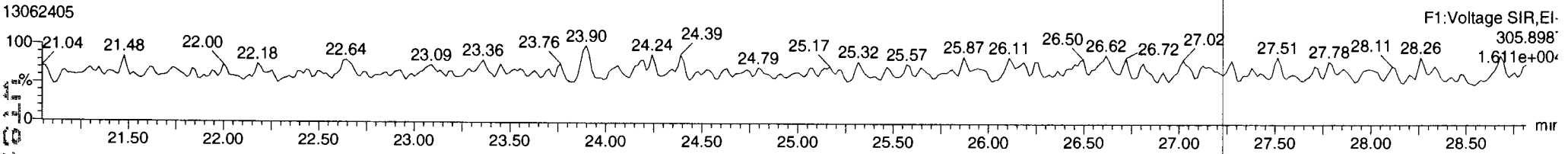
13C-2378-TCDF



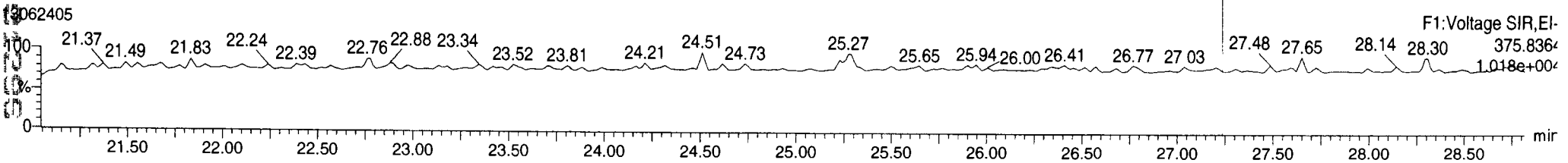
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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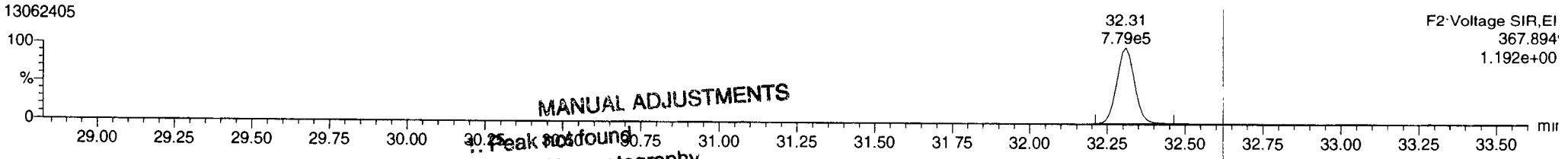
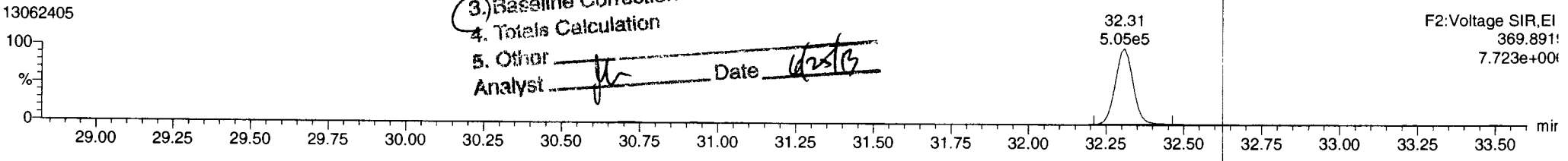
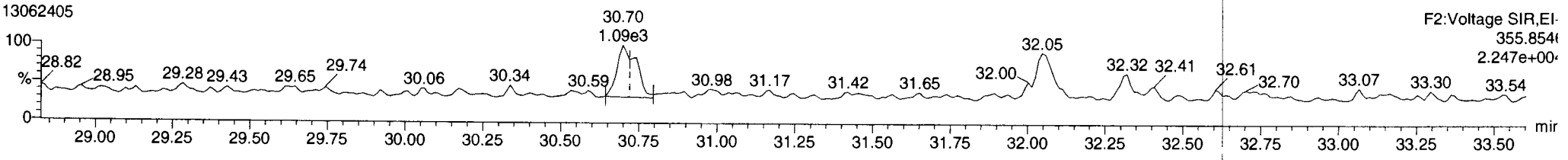
13C-12378-PeCDD



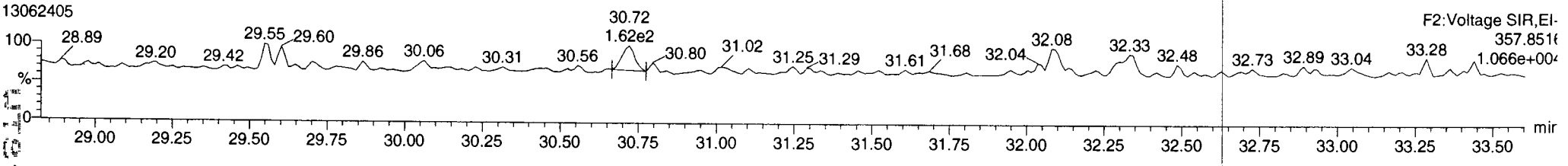
13C-12378-PeCDD



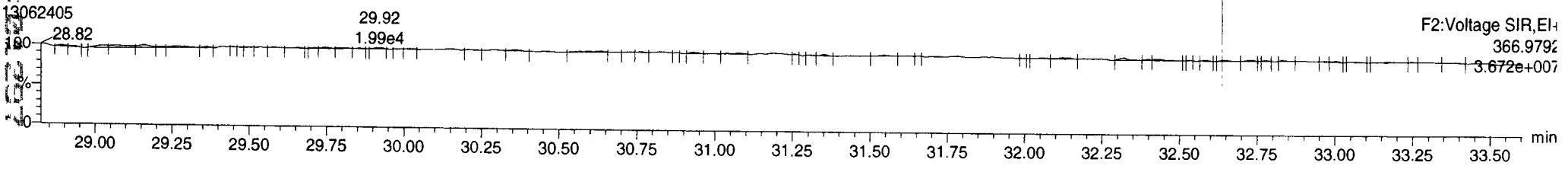
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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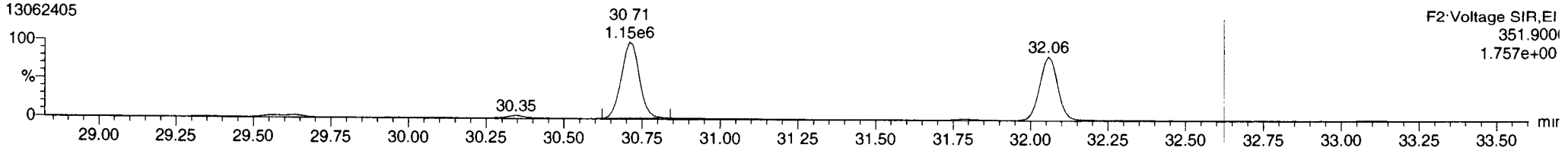
ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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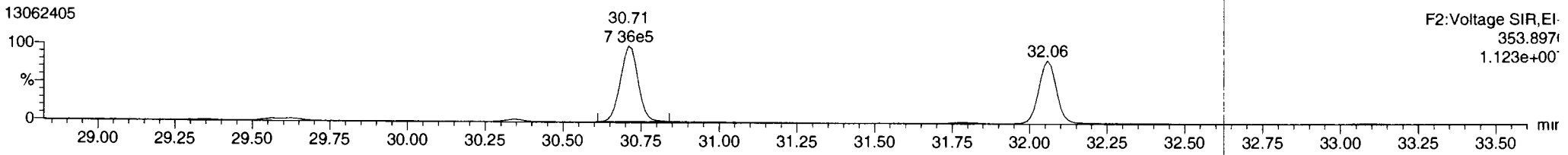
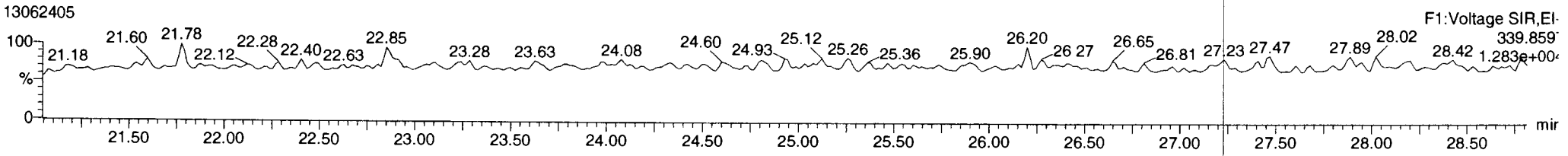
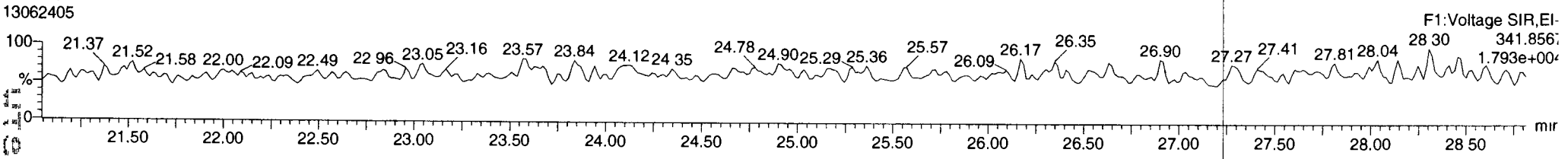


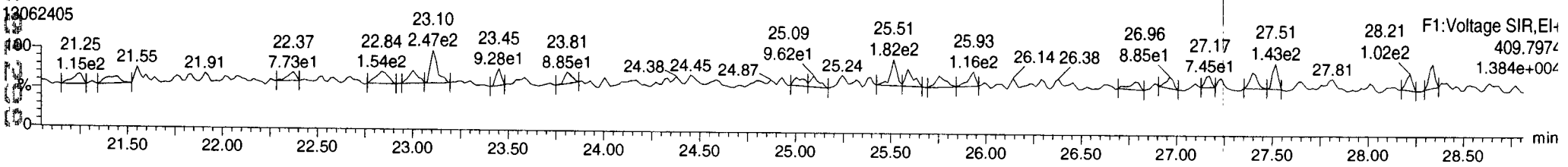
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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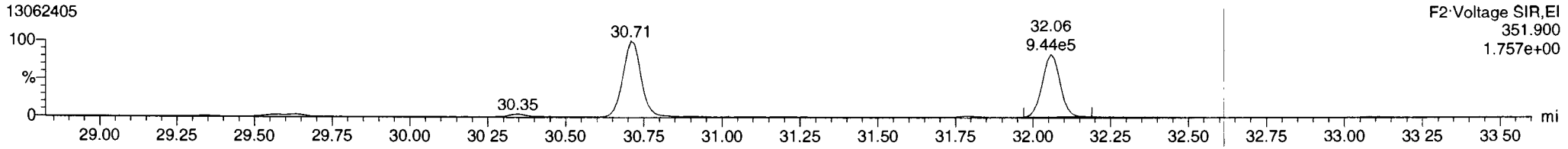
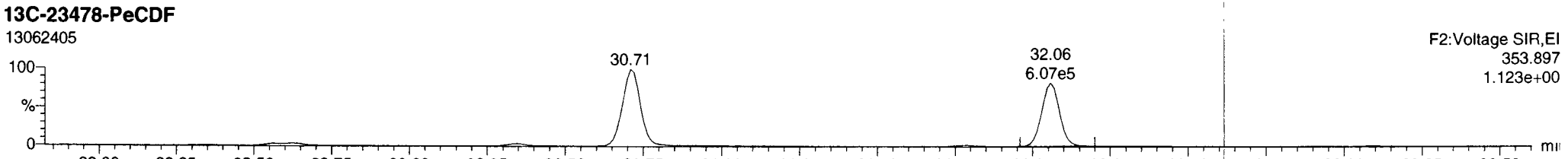
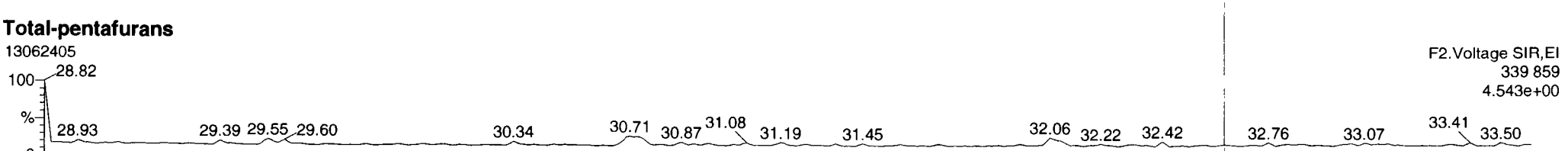
13C-23478-PeCDF



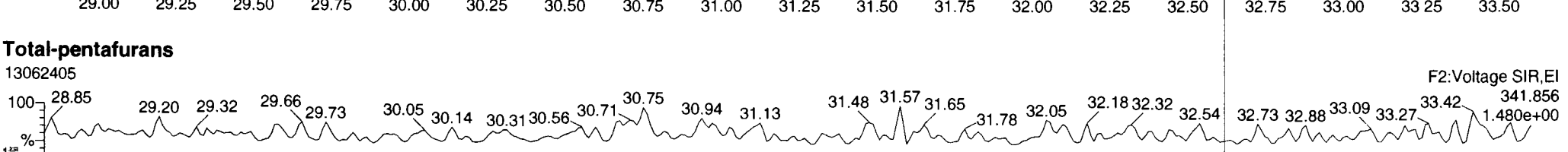
13C-23478-PeCDF



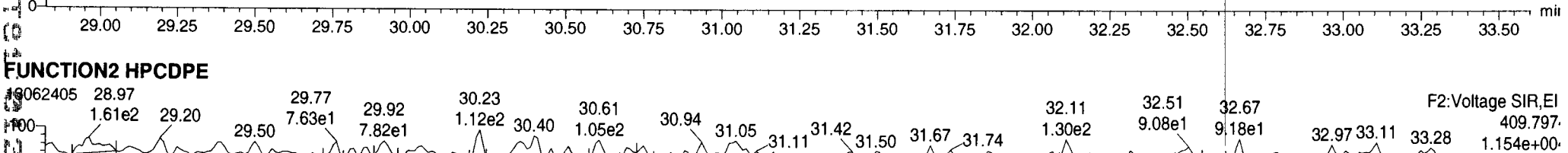
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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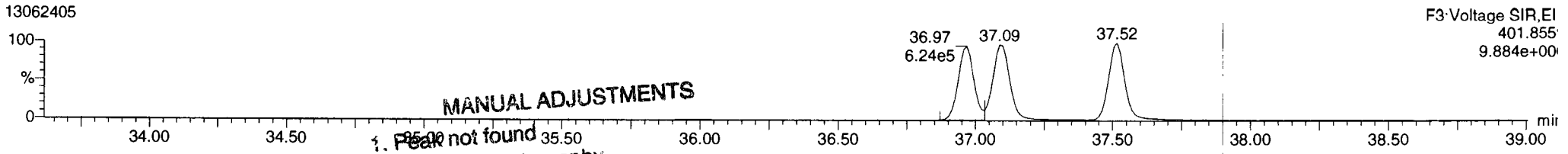
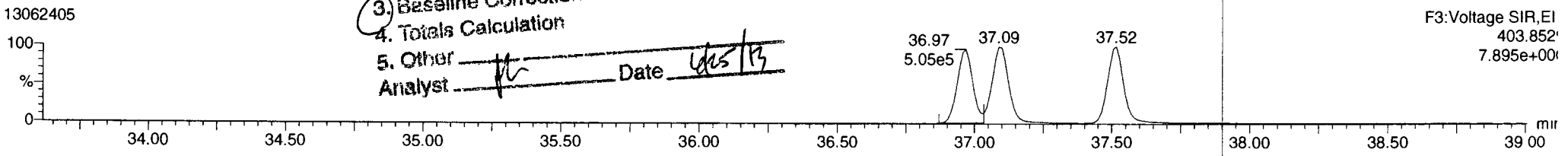
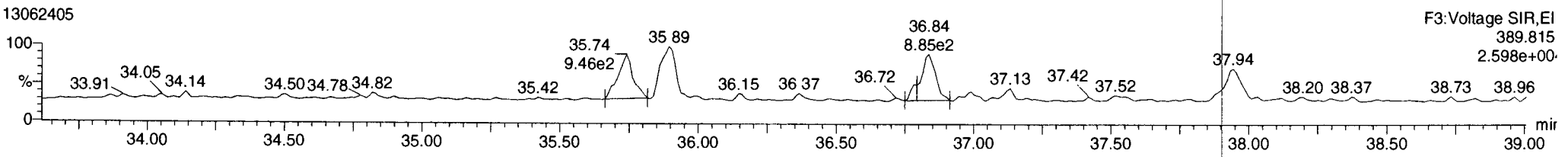
13C-123478-HxCDD



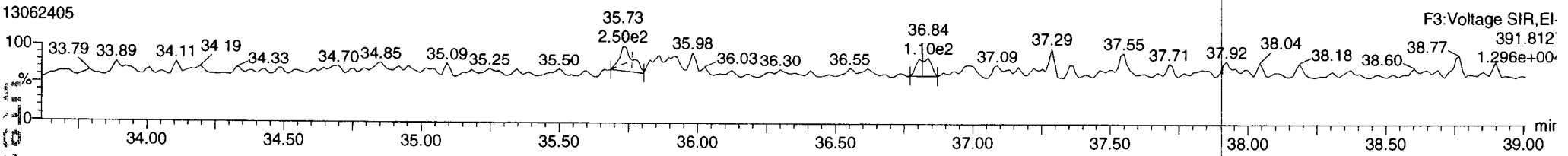
13C-123478-HxCDD



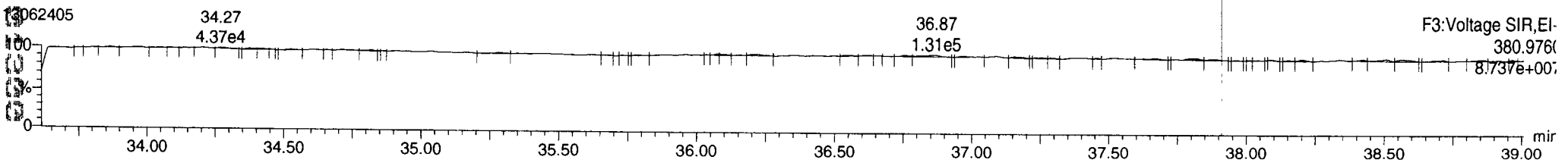
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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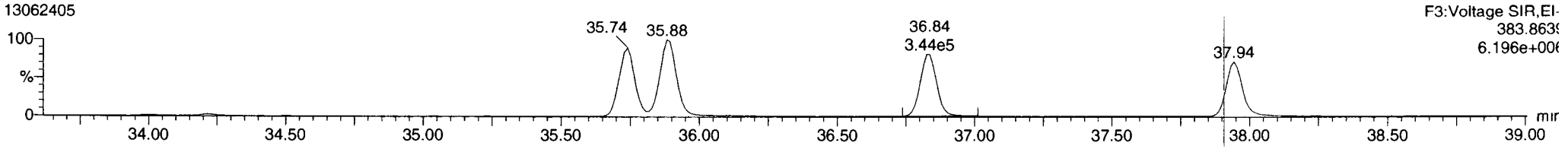
13C-234678-HxCDF



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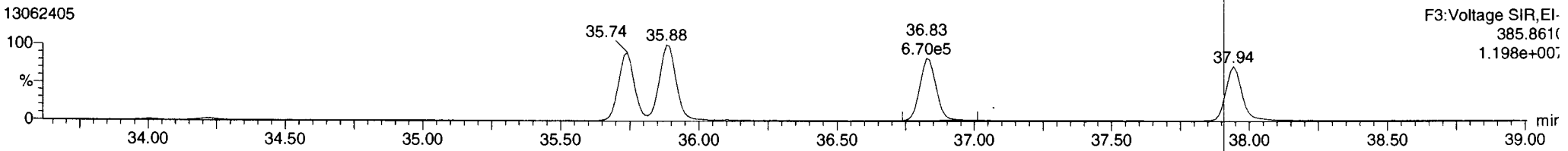
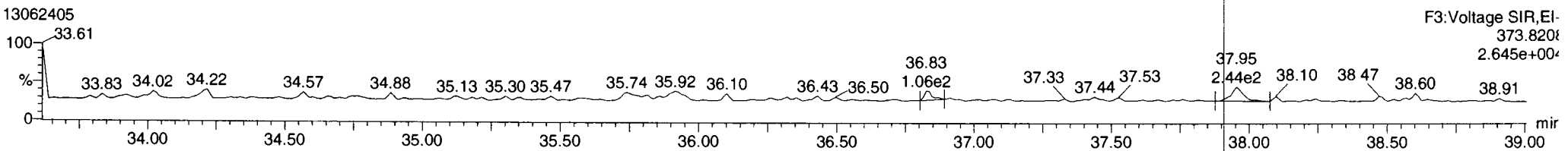
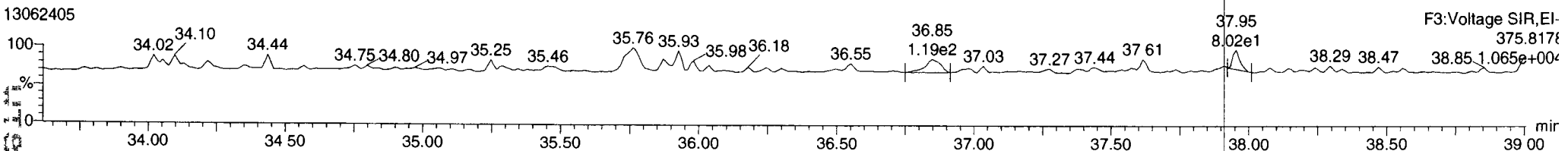


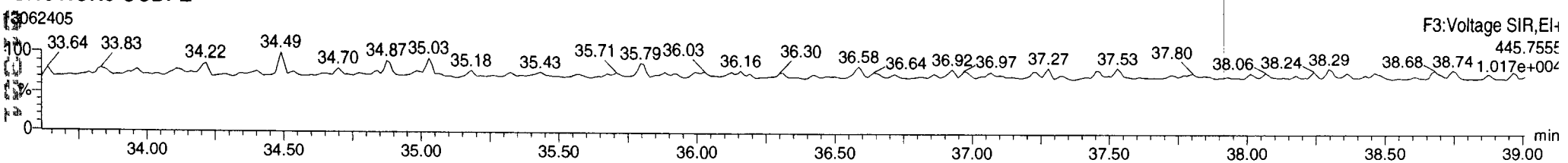
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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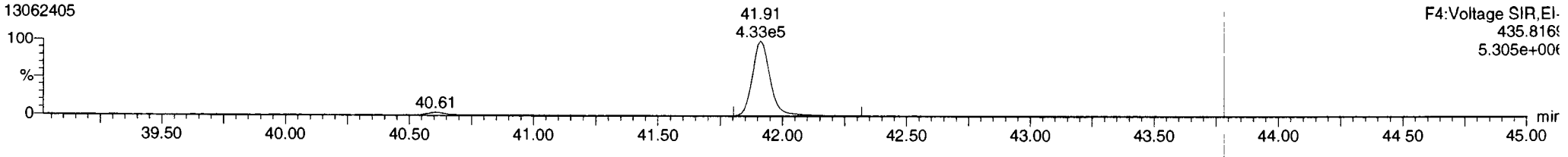
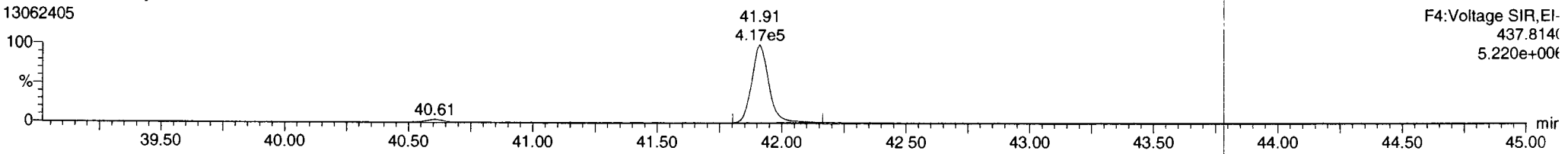
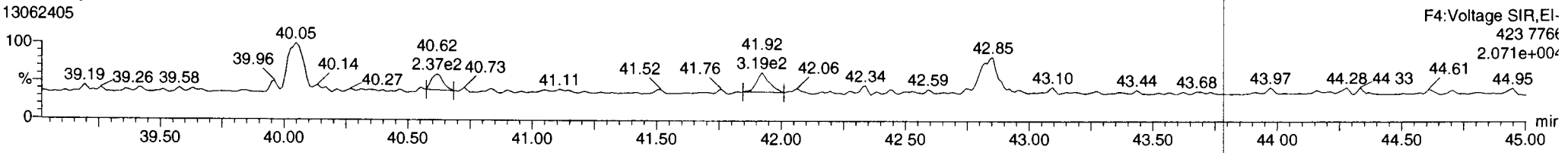
13C-1234678-HpCDD



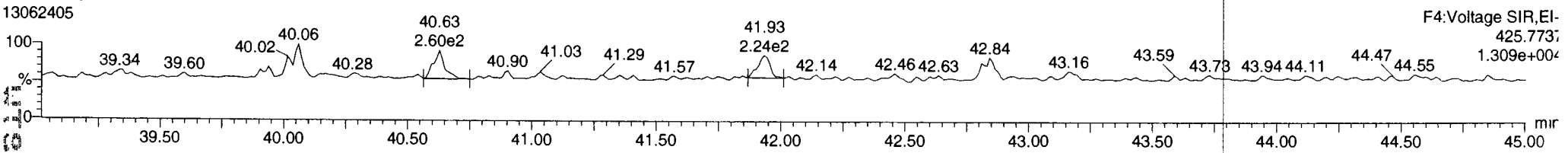
13C-1234678-HpCDD



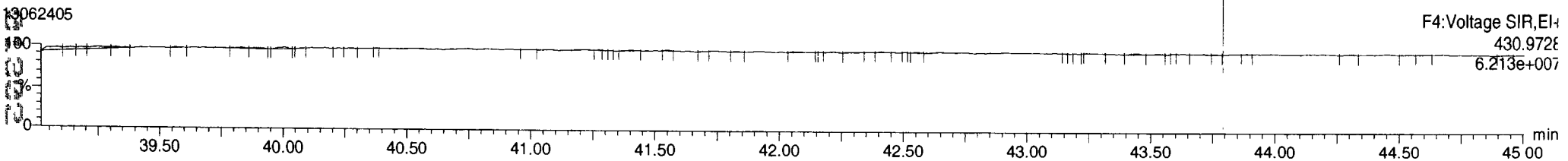
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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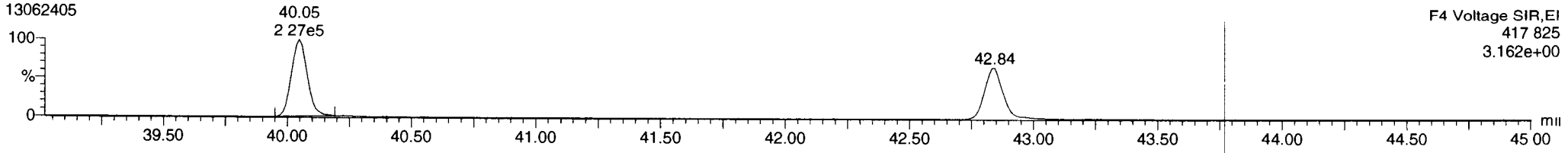
13C-1234678-HpCDF



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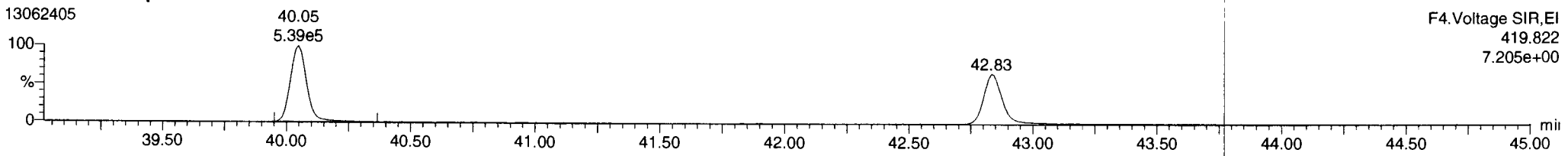
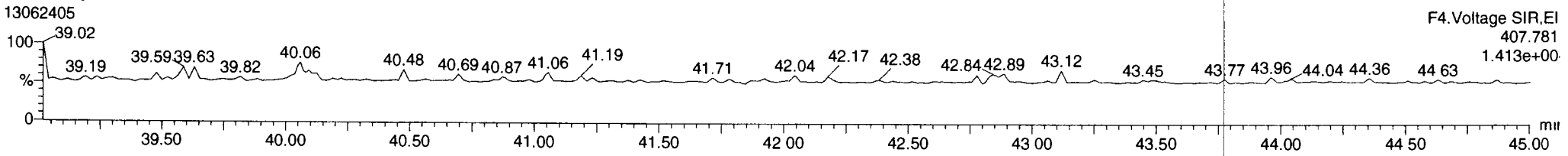
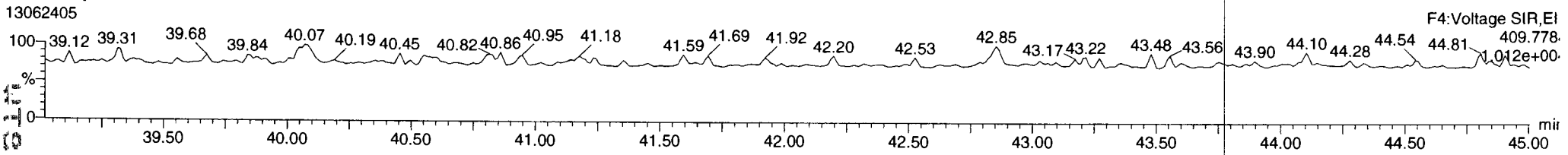


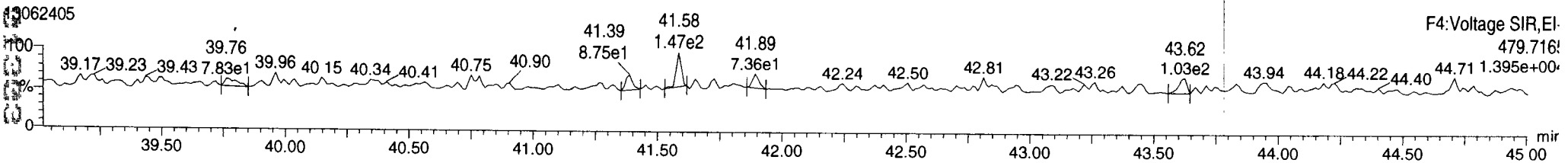
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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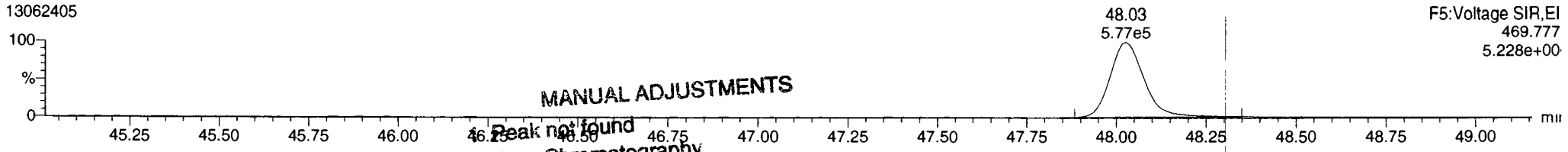
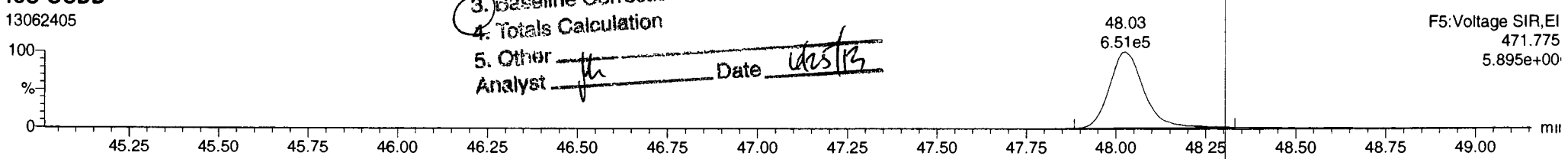
ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

13C-OCDD



MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/25/13

13C-OCDD



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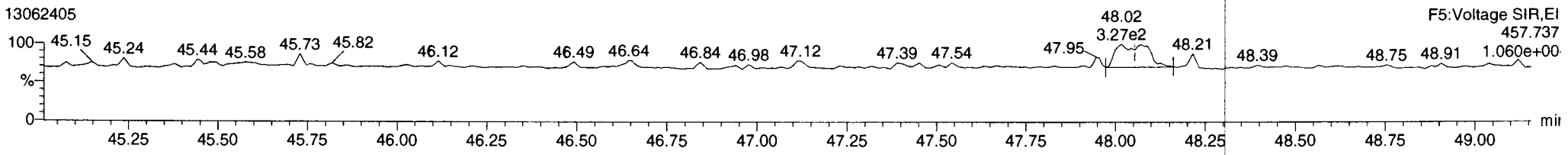

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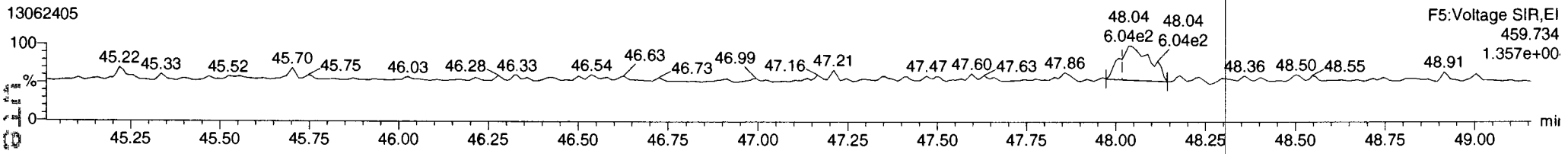
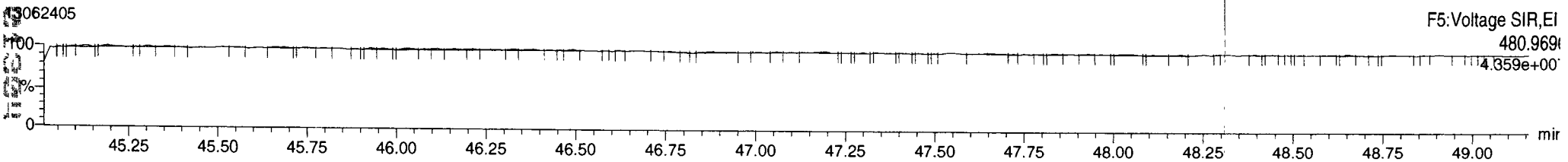


FUNCTION5 PFK



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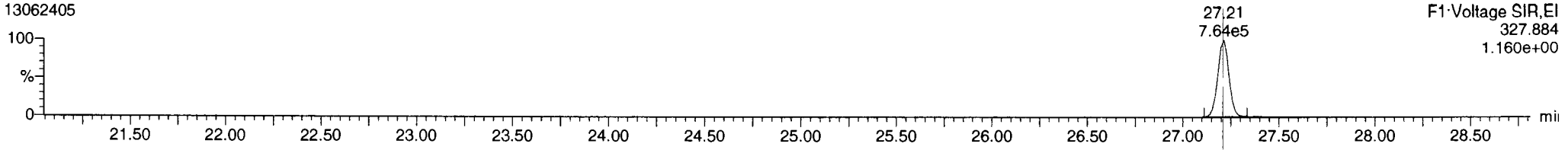
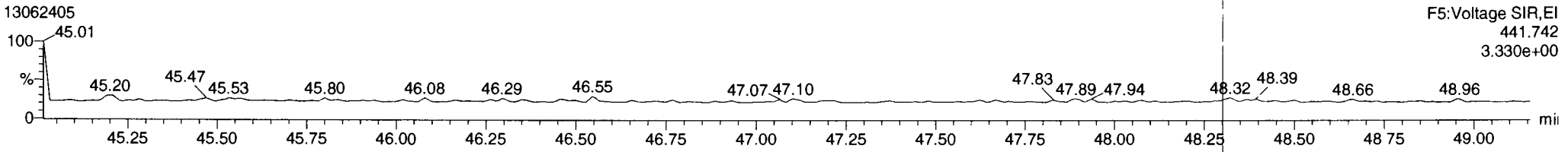
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:19 Pacific Daylight Time

ID: WS91MBS, Name: 13062405, Date: 24-Jun-2013, Time: 12:48:15, Conditions: AUTOSPEC01, User: pk

37CL-2378-TCDD



OCDF



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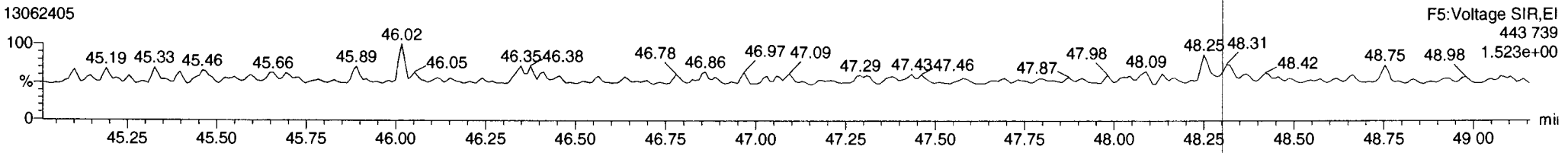
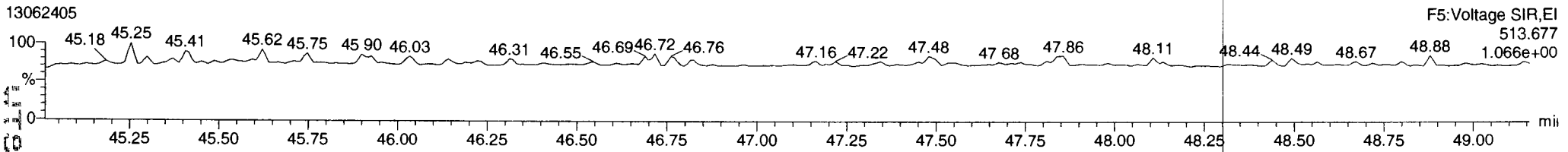


FUNCTION5 DCDPE



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Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

jlm 6/25/13

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

2378-TCDF	26.556	1.001	5.96e4	7.89e4	0.771	0.756	0.770	1040.8	858	2054	8.93e5	1.14e6	NO	11.516	11.516
12378-PeCDF	30.719	1.000	3.91e5	2.55e5	0.814	1.535	1.550	2615.2	2272	2258	5.94e6	3.94e6	NO	53.356	53.356
23478-PeCDF	32.068	1.001	3.00e5	2.03e5	0.837	1.482	1.550	2083.7	2272	2258	4.73e6	3.10e6	NO	52.453	52.453
123478-HxCDF	35.751	1.001	2.25e5	1.82e5	0.967	1.237	1.240	1324.0	2584	2042	3.42e6	2.71e6	NO	52 984	52.984
234678-HxCDF	36.847	1.001	2.18e5	1.83e5	1.000	1.194	1.240	1272.5	2584	2042	3.29e6	2.69e6	NO	54.007	54.007
123678-HxCDF	35.894	1.000	2.63e5	2.11e5	0.951	1.250	1.240	1456.1	2584	2042	3.76e6	3.13e6	NO	52.796	52.796
123789-HxCDF	37.954	1.001	1.58e5	1.33e5	0.874	1.193	1.240	932.7	2584	2042	2.41e6	1.99e6	NO	53.902	53 902
1234678-HpCDF	40.058	1.001	2.19e5	2.12e5	1.072	1.033	1.050	1409.3	2133	2847	3.01e6	2.96e6	NO	71.528	71.528
1234789-HpCDF	42.854	1.001	1.23e5	1.23e5	1.085	0.998	1.050	697.4	2133	2847	1.49e6	1.46e6	NO	54.325	54.325
OCDF	48.331	1.007	1.92e5	2.16e5	0.878	0.890	0.890	1154.3	1494	1455	1.72e6	1.97e6	NO	99.469	99.469
2378-TCDD	27.199	1.001	5.26e4	7.20e4	0.936	0.730	0.770	525 7	1549	1227	8.14e5	1.07e6	NO	10.832	10.832
12378-PeCDD	32.320	1.001	2.69e5	1.76e5	0.894	1.530	1.550	1180.6	3554	1838	4.20e6	2.73e6	NO	52.016	52.016
123478-HxCDD	36.979	1.001	2.17e5	1.74e5	0.898	1.247	1.240	1923.7	1661	3068	3.20e6	2.56e6	NO	51.755	51.755
123678-HxCDD	37.099	1.000	2.20e5	1.72e5	0.818	1.280	1.240	1932.1	1661	3068	3.21e6	2.57e6	NO	52.894	52.894
123789-HxCDD	37.516	1.012	2.01e5	1.64e5	0.789	1.224	1.240	1799.2	1661	3068	2.99e6	2.52e6	NO	52.970	52.970
1234678-HpCDD	41.922	1.001	1.54e5	1.54e5	0.879	1.000	1.050	928.9	2098	1565	1.95e6	1.90e6	NO	54.592	54.592
OCDD	48.044	1.001	2.09e5	2.39e5	0.875	0.872	0.890	2069.7	936	933	1.94e6	2.23e6	NO	109.426	109.426
13C-2378-TCDF	26.541	1.007	6.76e5	8.84e5	1.190	0.765	0.770	3193.8	3184	5089	1.02e7	1.33e7	NO		71.971
13C-12378-PeCDF	30.709	1.165	8.97e5	5.90e5	0.904	1.521	1.550	3458.5	3958	3761	1.37e7	8.90e6	NO		90.239
13C-23478-PeCDF	32.046	1.216	6.94e5	4.52e5	0.877	1.537	1.550	2707.2	3958	3761	1.07e7	6.90e6	NO		71.696
13C-123478-HxCDF	35.729	0.953	2.67e5	5.27e5	1.096	0.507	0.510	1045.0	3834	4587	4.01e6	7.94e6	NO		77.003
13C-123678-HxCDF	35.882	0.957	3.20e5	6.23e5	1.187	0.514	0.510	1211.6	3834	4587	4.64e6	9.09e6	NO		84.434
13C-234678-HxCDF	36.825	0.982	2.47e5	4.97e5	1.040	0.497	0.510	970.4	3834	4587	3.72e6	7.39e6	NO		75.957
13C-123789-HxCDF	37.932	1.011	2.05e5	4.12e5	0.941	0.497	0.510	805.9	3834	4587	3.09e6	6.20e6	NO		69.683
13C-1234678-HpCDF	40.037	1.068	1.75e5	3.87e5	0.825	0.452	0.440	1598.8	1537	2250	2.46e6	5.35e6	NO		72.389
13C-1234789-HpCDF	42.832	1.142	1.27e5	2.91e5	0.609	0.436	0.440	1006.9	1537	2250	1.55e6	3.47e6	NO		72.902
13C-1234-TCDD	26.362	0.000	7.96e5	1.03e6	1.000	0.777	0.770	1270.3	9620	2987	1.22e7	1.58e7	NO		100.000
13C-2378-TCDD	27.184	1.031	5.37e5	6.91e5	0.920	0.778	0.770	847.1	9620	2987	8.15e6	1.04e7	NO		73.269
13C-12378-PeCDD	32.298	1.225	5.81e5	3.75e5	0.669	1.549	1.550	2614.9	3412	1955	8.92e6	5.86e6	NO		78.465
13C-123478-HxCDD	36.957	0.985	4.67e5	3.74e5	1.032	1.246	1.240	2979.4	2362	2417	7.04e6	5.70e6	NO		86.612
13C-123678-HxCDD	37.088	0.989	4.94e5	4.13e5	1.146	1.197	1.240	3064.5	2362	2417	7.24e6	5.94e6	NO		84.143
13C-1234678-HpCDD	41.900	1.117	3.26e5	3.14e5	0.789	1.036	1.050	1729.4	2381	2607	4.12e6	3.92e6	NO		86.225
13C-OCDD	48.017	1.280	4.32e5	5.03e5	0.696	0.859	0.890	1883.6	2172	1665	4.09e6	4.67e6	NO		142.643

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.505	0.000	5.14e5	4.27e5	1.000	1.204	1.240	3330.9	2362	2417	7.87e6	6.53e6	NO	100.000
Total-tetrafurans			7.46e4		0.771				858		1.13e6			14.444
Total-penta1			0.00e0						1327		0.00e0			
Total-pentafurans			7.43e5		0.826				2272		1.15e7			113 385
Total-hexafurans			8.77e5		0.948				2584		1.31e7			216.673
Total-heptafurans			3.45e5		1.079				2133		4 56e6			127 211
Total-Furans			2.23e6		0.925				858		3.19e7			571.181
Total-tetradioxins			5.65e4		0.936				1549		8.74e5			11.470
Total-pentadioxins			2.73e5		0.894				3554		4.26e6			52.671
Total-hexadioxins			6.40e5		0.835				1661		9.41e6			157.986
Total-heptadioxins			1.57e5		0.879				2098		2.00e6			55.747
Total-Dioxins			1.33e6		0.870				1549		1.85e7			387.300
Total-TEQ			3.57e6						1549		5.04e7			958.481
37CL-2378-TCDD	27.199	1.032	5.51e5		1.000			3196.5	2661		8.51e6			30 247
FUNCTION1 PFK			1.34e7						1466581		1 46e8			
FUNCTION2 PFK			7.98e5						354331		1.94e6			0.000
FUNCTION3 PFK			9.57e5						561751		2.69e7			0.000
FUNCTION4 PFK			2.24e6						482665		4.43e7			
FUNCTION5 PFK			2.22e5						352524		7 82e6			
FUNCTION1 HXCDPE			0.00e0						440		0.00e0			
FUNCTION1 HPCDPE			1.66e3						1162		3.35e4			0 000
FUNCTION2 HPCDPE			8.02e2						1325		1.84e4			0.000
FUNCTION3 OCDPE			7.14e1						521		2.46e3			0.000
FUNCTION4 NCDPE			7.86e2						1087		2.12e4			0.000
FUNCTION5 DCDPE			7.77e1						881		2.53e3			0.000

luantify Totals Report MassLynx 4.1 SCN 714
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:alibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

): WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

'F

	1 2378-TCDF	303.9016	26.56	138518.398	0.771	11.516	11.516	0.76	0.77	NO	1040.8
	35 Total-tetrafurans	303.9016	26.38	1150.181	0.771	0.096		0.96	0.77	YES	10.3
	35 Total-tetrafurans	303.9016	25.64	4963.695	0.771	0.413		0.62	0.77	YES	31.9
	35 Total-tetrafurans	303.9016	25.47	26141.784	0.771	2.173		0.78	0.77	NO	208.7
	35 Total-tetrafurans	303.9016	25.32	2288.740	0.771	0.190		0.51	0.77	YES	15.9
	35 Total-tetrafurans	303.9016	24 08	666.464	0.771	0.055		0.83	0.77	NO	5.7

'P

'F

	37 Total-pentafurans	339.8597	30.92	15752.079	0.826	1.450		2.65	1.55	YES	70.1
	2 12378-PeCDF	339.8597	30.72	646057.047	0.814	53.356	53.356	1.53	1.55	NO	2615.2
	37 Total-pentafurans	339.8597	30.36	24008.195	0.826	2.209		1.44	1 55	NO	91.4
	37 Total-pentafurans	339.8597	29.63	22192.277	0.826	2.042		1.95	1.55	YES	90.5
	37 Total-pentafurans	339.8597	29 57	15783.866	0.826	1 452		1.07	1.55	YES	72.1
	37 Total-pentafurans	339.8597	33.11	4215.134	0.826	0.388		1.47	1.55	NO	16.6
	37 Total-pentafurans	339.8597	32.23	376.197	0.826	0.035		1.63	1.55	NO	3.5
	3 23478-PeCDF	339.8597	32.07	502894.016	0.837	52.453	52.453	1.48	1.55	NO	2083.7

'F

	7 123789-HxCDF	373.8208	37.95	290716.751	0.874	53.902	53.902	1.19	1.24	NO	932.7
	5 234678-HxCDF	373.8208	36.85	401487.610	1.000	54.007	54.007	1.19	1.24	NO	1272.5
	38 Total-hexafurans	373.8208	36.06	2158.288	0.948	0.294		7.59	1.24	YES	13.7
	6 123678-HxCDF	373.8208	35.89	473992.406	0.951	52.796	52.796	1.25	1.24	NO	1456.1
	4 123478-HxCDF	373.8208	35.75	406976.110	0.967	52.984	52.984	1.24	1.24	NO	1324.0
	38 Total-hexafurans	373.8208	34.23	13520.747	0.948	1.841		1.13	1.24	NO	41.3
	38 Total-hexafurans	373.8208	34.01	6239.866	0.948	0.850		1.14	1.24	NO	18.4

PF

	39 Total-heptafurans	407.7818	40.23	3892.539	1.079	0.736		0.76	1.05	YES	16.8
	8 1234678-HpCDF	407.7818	40.06	431235.234	1.072	71.528	71.528	1.03	1.05	NO	1409.3
	9 1234789-HpCDF	407.7818	42.85	246415.711	1.085	54.325	54.325	1.00	1.05	NO	697.4
	39 Total-heptafurans	407.7818	40.87	2320.907	1.079	0.439		0.81	1.05	YES	8.3
	39 Total-heptafurans	407.7818	40.54	964.556	1.079	0.182		1.23	1.05	YES	4.5

): WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

urans,TF,PP,PF,HF,HPF,OF

	1	2378-TCDF	303.9016	26.56	138518.398	0.771	11.516	11.516	0.76	0.77	NO	1040.8
	35	Total-tetrafurans	303.9016	26.38	1150.181	0.771	0.096		0.96	0.77	YES	10.3
	35	Total-tetrafurans	303.9016	25.64	4963.695	0.771	0.413		0.62	0.77	YES	31.9
	35	Total-tetrafurans	303.9016	25.47	26141.784	0.771	2.173		0.78	0.77	NO	208.7
	35	Total-tetrafurans	303.9016	25.32	2288.740	0.771	0.190		0.51	0.77	YES	15.9
	35	Total-tetrafurans	303.9016	24.08	666.464	0.771	0.055		0.83	0.77	NO	5.7
	37	Total-pentafurans	339.8597	30.92	15752.079	0.826	1.450		2.65	1.55	YES	70.1
	2	12378-PeCDF	339.8597	30.72	646057.047	0.814	53.356	53.356	1.53	1.55	NO	2615.2
	37	Total-pentafurans	339.8597	30.36	24008.195	0.826	2.209		1.44	1.55	NO	91.4
	37	Total-pentafurans	339.8597	29.63	22192.277	0.826	2.042		1.95	1.55	YES	90.5
	37	Total-pentafurans	339.8597	29.57	15783.866	0.826	1.452		1 07	1.55	YES	72.1
	37	Total-pentafurans	339.8597	33.11	4215.134	0.826	0.388		1.47	1.55	NO	16.6
	37	Total-pentafurans	339.8597	32.23	376.197	0.826	0.035		1.63	1.55	NO	3.5
	3	23478-PeCDF	339.8597	32.07	502894.016	0.837	52.453	52.453	1.48	1.55	NO	2083.7
	7	123789-HxCDF	373.8208	37.95	290716.751	0.874	53.902	53.902	1.19	1.24	NO	932.7
	5	234678-HxCDF	373.8208	36.85	401487.610	1.000	54.007	54.007	1.19	1.24	NO	1272.5
	38	Total-hexafurans	373.8208	36.06	2158.288	0.948	0.294		7.59	1.24	YES	13.7
	6	123678-HxCDF	373.8208	35.89	473992.406	0 951	52.796	52 796	1.25	1.24	NO	1456.1
	4	123478-HxCDF	373.8208	35.75	406976.110	0.967	52.984	52.984	1.24	1.24	NO	1324.0
	38	Total-hexafurans	373.8208	34.23	13520.747	0.948	1.841		1.13	1.24	NO	41.3
	38	Total-hexafurans	373.8208	34.01	6239.866	0.948	0.850		1.14	1 24	NO	18.4
	39	Total-heptafurans	407.7818	40.23	3892.539	1.079	0.736		0.76	1.05	YES	16.8
	8	1234678-HpCDF	407.7818	40.06	431235.234	1.072	71.528	71.528	1.03	1.05	NO	1409.3
	9	1234789-HpCDF	407.7818	42.85	246415.711	1 085	54.325	54.325	1.00	1.05	NO	697.4
	39	Total-heptafurans	407.7818	40.87	2320.907	1.079	0.439		0.81	1.05	YES	8.3
	39	Total-heptafurans	407.7818	40.54	964.556	1.079	0.182		1.23	1.05	YES	4.5
	10	OCDF	441.7428	48.33	408038.156	0.878	99.469	99.469	0.89	0.89	NO	1154.3

D

	41	Total-tetradioxins	319.8965	26.81	4430.723	0.936	0.385		0.81	0.77	NO	17.8
	41	Total-tetradioxins	319.8965	26.54	1695.804	0.936	0.148		4 77	0.77	YES	15.3
	41	Total-tetradioxins	319.8965	25.81	1200.863	0.936	0.104		0.84	0.77	NO	5.6
	11	2378-TCDD	319.8965	27.20	124515.828	0.936	10.832	10.832	0.73	0.77	NO	525.7

D

	12	12378-PeCDD	355.8546	32.32	445122.688	0.894	52.016	52.016	1.53	1.55	NO	1180.6
	42	Total-pentadioxins	355.8546	31.08	1515.121	0.894	0.177		3.04	1.55	YES	5.0
	42	Total-pentadioxins	355.8546	30.95	2088.123	0.894	0.244		2.30	1.55	YES	5.7
	42	Total-pentadioxins	355.8546	30.71	1994.390	0.894	0.233		2.40	1.55	YES	6.3

ataset: P:\DIOXIN8290.PRO\130624DATA1.qld
ıst Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D

	15 123789-HxCDD	389.8157	37.52	365558.954	0.789	52.970	52.970	1.22	1.24	NO	1799.2
	14 123678-HxCDD	389.8157	37.10	392414.250	0.818	52.894	52.894	1.28	1.24	NO	1932.1
	13 123478-HxCDD	389.8157	36.98	390740.343	0.898	51.755	51.755	1.25	1.24	NO	1923.7
	43 Total-hexadioxins	389.8157	35.98	2680.963	0.835	0.367		1.33	1.24	NO	11.2

PD

	16 1234678-HpCDD	423.7766	41.92	307277.734	0.879	54.592	54.592	1.00	1.05	NO	928.9
	44 Total-heptadioxins	423.7766	40.62	6505.262	0.879	1.156		1.00	1.05	NO	23.2

ioxins,TD,PD,HD,HPD,OD

	41 Total-tetradioxins	319.8965	26.81	4430.723	0.936	0.385		0.81	0.77	NO	17.8
	41 Total-tetradioxins	319.8965	26.54	1695.804	0.936	0.148		4.77	0.77	YES	15.3
	41 Total-tetradioxins	319.8965	25.81	1200.863	0.936	0.104		0.84	0.77	NO	5.6
	11 2378-TCDD	319.8965	27.20	124515.828	0.936	10.832	10.832	0.73	0.77	NO	525.7
	12 12378-PeCDD	355.8546	32.32	445122.688	0.894	52.016	52.016	1.53	1.55	NO	1180.6
	42 Total-pentadioxins	355.8546	31.08	1515.121	0.894	0.177		3.04	1.55	YES	5.0
	42 Total-pentadioxins	355.8546	30.95	2088.123	0.894	0.244		2.30	1.55	YES	5.7
	42 Total-pentadioxins	355.8546	30.71	1994.390	0.894	0.233		2.40	1.55	YES	6.3
	15 123789-HxCDD	389.8157	37.52	365558.954	0.789	52.970	52.970	1.22	1.24	NO	1799.2
	14 123678-HxCDD	389.8157	37.10	392414.250	0.818	52.894	52.894	1.28	1.24	NO	1932.1
	13 123478-HxCDD	389.8157	36.98	390740.343	0.898	51.755	51.755	1.25	1.24	NO	1923.7
	43 Total-hexadioxins	389.8157	35.98	2680.963	0.835	0.367		1.33	1.24	NO	11.2
	16 1234678-HpCDD	423.7766	41.92	307277.734	0.879	54.592	54.592	1.00	1.05	NO	928.9
	44 Total-heptadioxins	423.7766	40.62	6505.262	0.879	1.156		1.00	1.05	NO	23.2
	17 OCDD	457.7377	48.04	447598.907	0.875	109.426	109...	0.87	0.89	NO	2069.7

ataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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otalTEQ,Furans,Dioxins

	1 2378-TCDF	303.9016	26.56	138518.398	0.771	11.516	11 516	0.76	0.77	NO	1040.8
	35 Total-tetrafurans	303.9016	26.38	1150.181	0.771	0.096		0.96	0.77	YES	10.3
	35 Total-tetrafurans	303.9016	25.64	4963.695	0.771	0.413		0.62	0.77	YES	31.9
	35 Total-tetrafurans	303.9016	25.47	26141.784	0.771	2.173		0.78	0.77	NO	208.7
	35 Total-tetrafurans	303.9016	25.32	2288.740	0.771	0.190		0.51	0.77	YES	15.9
	35 Total-tetrafurans	303.9016	24.08	666.464	0.771	0.055		0.83	0.77	NO	5.7
	37 Total-pentafurans	339.8597	30.92	15752.079	0.826	1.450		2.65	1.55	YES	70.1
	2 12378-PeCDF	339.8597	30.72	646057.047	0.814	53.356	53.356	1.53	1.55	NO	2615.2
	37 Total-pentafurans	339.8597	30.36	24008.195	0.826	2.209		1.44	1.55	NO	91.4
	37 Total-pentafurans	339.8597	29.63	22192.277	0.826	2.042		1.95	1.55	YES	90.5
	37 Total-pentafurans	339.8597	29.57	15783.866	0.826	1.452		1.07	1.55	YES	72.1
	37 Total-pentafurans	339.8597	33.11	4215.134	0.826	0.388		1.47	1.55	NO	16.6
	37 Total-pentafurans	339 8597	32.23	376.197	0.826	0.035		1.63	1.55	NO	3.5
	3 23478-PeCDF	339.8597	32.07	502894.016	0.837	52.453	52.453	1.48	1.55	NO	2083.7
	7 123789-HxCDF	373.8208	37.95	290716.751	0.874	53.902	53.902	1.19	1.24	NO	932.7
	5 234678-HxCDF	373.8208	36.85	401487.610	1.000	54.007	54.007	1.19	1.24	NO	1272.5
	38 Total-hexafurans	373.8208	36.06	2158.288	0 948	0.294		7.59	1.24	YES	13.7
	6 123678-HxCDF	373.8208	35.89	473992.406	0.951	52.796	52.796	1.25	1.24	NO	1456.1
	4 123478-HxCDF	373.8208	35.75	406976.110	0.967	52.984	52.984	1.24	1.24	NO	1324.0
	38 Total-hexafurans	373.8208	34.23	13520.747	0.948	1.841		1.13	1.24	NO	41.3
	38 Total-hexafurans	373.8208	34.01	6239.866	0.948	0.850		1.14	1.24	NO	18.4
	39 Total-heptafurans	407.7818	40.23	3892.539	1.079	0.736		0.76	1 05	YES	16.8
	8 1234678-HpCDF	407 7818	40.06	431235.234	1.072	71.528	71.528	1.03	1.05	NO	1409.3
	9 1234789-HpCDF	407.7818	42.85	246415.711	1.085	54.325	54.325	1.00	1.05	NO	697.4
	39 Total-heptafurans	407.7818	40.87	2320.907	1.079	0.439		0.81	1.05	YES	8.3
	39 Total-heptafurans	407.7818	40.54	964.556	1.079	0.182		1.23	1.05	YES	4.5
	10 OCDF	441.7428	48.33	408038.156	0.878	99.469	99.469	0.89	0.89	NO	1154.3
	41 Total-tetradioxins	319.8965	26.81	4430.723	0.936	0.385		0.81	0.77	NO	17.8
	41 Total-tetradioxins	319.8965	26.54	1695.804	0.936	0.148		4.77	0.77	YES	15.3
	41 Total-tetradioxins	319.8965	25.81	1200.863	0.936	0.104		0.84	0.77	NO	5.6
	11 2378-TCDD	319.8965	27.20	124515.828	0.936	10.832	10.832	0.73	0.77	NO	525.7
	12 12378-PeCDD	355.8546	32 32	445122.688	0.894	52.016	52.016	1.53	1.55	NO	1180.6
	42 Total-pentadioxins	355.8546	31 08	1515.121	0.894	0.177		3.04	1.55	YES	5.0
	42 Total-pentadioxins	355.8546	30.95	2088.123	0.894	0.244		2.30	1.55	YES	5.7
	42 Total-pentadioxins	355.8546	30.71	1994.390	0.894	0.233		2.40	1.55	YES	6.3
	15 123789-HxCDD	389.8157	37.52	365558.954	0.789	52.970	52.970	1.22	1.24	NO	1799.2
	14 123678-HxCDD	389.8157	37.10	392414.250	0.818	52.894	52.894	1.28	1.24	NO	1932.1
	13 123478-HxCDD	389.8157	36.98	390740.343	0.898	51.755	51.755	1.25	1.24	NO	1923.7
	43 Total-hexadioxins	389.8157	35.98	2680.963	0.835	0.367		1.33	1 24	NO	11.2
	16 1234678-HpCDD	423.7766	41.92	307277.734	0.879	54.592	54.592	1.00	1.05	NO	928.9
	44 Total-heptadioxins	423.7766	40.62	6505.262	0.879	1.156		1.00	1.05	NO	23.2
	17 OCDD	457.7377	48.04	447598.907	0.875	109.426	109....	0.87	0.89	NO	2069.7

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FK1

	48 FUNCTION1 PFK	330.9792	21.88	0 000						7.0
	48 FUNCTION1 PFK	330.9792	21.66	0.000						6.6
	48 FUNCTION1 PFK	330.9792	21.54	0.000						4.3
	48 FUNCTION1 PFK	330.9792	21.42	0.000						6.4
	48 FUNCTION1 PFK	330.9792	21.28	0.000						5.2
	48 FUNCTION1 PFK	330.9792	21.15	0.000						3.4
	48 FUNCTION1 PFK	330.9792	25.87	0.000						2.2
	48 FUNCTION1 PFK	330.9792	25.59	0.000						1.5
	48 FUNCTION1 PFK	330.9792	25.11	0.000						1.3
	48 FUNCTION1 PFK	330.9792	24.76	0.000						1.5
	48 FUNCTION1 PFK	330.9792	24.38	0.000						2.0
	48 FUNCTION1 PFK	330.9792	24.32	0.000						1.5
	48 FUNCTION1 PFK	330.9792	24.21	0.000						1.6
	48 FUNCTION1 PFK	330.9792	24.12	0.000						1.6
	48 FUNCTION1 PFK	330.9792	23.97	0.000						1.1
	48 FUNCTION1 PFK	330.9792	23.39	0.000						1.3
	48 FUNCTION1 PFK	330.9792	23.03	0.000						1.3
	48 FUNCTION1 PFK	330.9792	22.96	0.000						1.0
	48 FUNCTION1 PFK	330.9792	22.84	0.000						0.7
	48 FUNCTION1 PFK	330.9792	22.28	0.000						5.6
	48 FUNCTION1 PFK	330.9792	22.19	0.000						6.3
	48 FUNCTION1 PFK	330.9792	22.06	0.000						7.6
	48 FUNCTION1 PFK	330.9792	28.24	0.000						1.2
	48 FUNCTION1 PFK	330.9792	28.18	0.000						0.7
	48 FUNCTION1 PFK	330.9792	27.99	0.000						0.9
	48 FUNCTION1 PFK	330.9792	27.89	0.000						0.6
	48 FUNCTION1 PFK	330.9792	27.81	0.000						1.6
	48 FUNCTION1 PFK	330.9792	27.69	0.000						1.8
	48 FUNCTION1 PFK	330.9792	27.56	0.000						2.5
	48 FUNCTION1 PFK	330.9792	27.50	0.000						2.8
	48 FUNCTION1 PFK	330.9792	27.35	0.000						1 3
	48 FUNCTION1 PFK	330.9792	27.26	0.000						1.9
	48 FUNCTION1 PFK	330.9792	27.15	0.000						1.5
	48 FUNCTION1 PFK	330.9792	27.02	0.000						1.9
	48 FUNCTION1 PFK	330.9792	26.59	0.000						1.1
	48 FUNCTION1 PFK	330.9792	26.41	0.000						1.4
	48 FUNCTION1 PFK	330.9792	26.14	0.000						1.8
	48 FUNCTION1 PFK	330.9792	26.02	0.000						1.6
	48 FUNCTION1 PFK	330.9792	28.74	0.000						0.4
	48 FUNCTION1 PFK	330.9792	28.44	0.000						1.7
	48 FUNCTION1 PFK	330.9792	28.35	0 000						1.9

FK2

	49 FUNCTION2 PFK	366.9792	29.26	0.000	0.000					1.7
	49 FUNCTION2 PFK	366.9792	28.85	0.000	0.000					3.8

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ast Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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FK3

	50 FUNCTION3 PFK	380.9760	34 65	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	34.34	0.000	0.000					1.7
	50 FUNCTION3 PFK	380.9760	34.22	0.000	0.000					0.8
	50 FUNCTION3 PFK	380.9760	34.16	0.000	0.000					1.7
	50 FUNCTION3 PFK	380.9760	34.13	0.000	0.000					2.1
	50 FUNCTION3 PFK	380.9760	34.06	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	33.89	0.000	0.000					2.7
	50 FUNCTION3 PFK	380.9760	33.82	0.000	0.000					3.7
	50 FUNCTION3 PFK	380.9760	33.78	0.000	0.000					2.8
	50 FUNCTION3 PFK	380.9760	37.36	0.000	0.000					2.0
	50 FUNCTION3 PFK	380.9760	37.22	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	36.96	0.000	0.000					1.2
	50 FUNCTION3 PFK	380.9760	36.90	0.000	0.000					1.8
	50 FUNCTION3 PFK	380.9760	36.72	0 000	0.000					1.5
	50 FUNCTION3 PFK	380.9760	36.54	0.000	0.000					0.4
	50 FUNCTION3 PFK	380.9760	36.51	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	35.96	0.000	0 000					1 1
	50 FUNCTION3 PFK	380.9760	35.93	0 000	0.000					2.0
	50 FUNCTION3 PFK	380.9760	35.85	0.000	0.000					1.8
	50 FUNCTION3 PFK	380.9760	35.72	0.000	0.000					0.5
	50 FUNCTION3 PFK	380.9760	35.26	0.000	0.000					1.3
	50 FUNCTION3 PFK	380.9760	35.14	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	34.90	0.000	0.000					0.6
	50 FUNCTION3 PFK	380.9760	34.85	0.000	0.000					0.5
	50 FUNCTION3 PFK	380.9760	34.71	0.000	0.000					0 6
	50 FUNCTION3 PFK	380.9760	38.74	0.000	0.000					0.4
	50 FUNCTION3 PFK	380.9760	38.59	0.000	0.000					0.9
	50 FUNCTION3 PFK	380.9760	38.49	0.000	0.000					1.4
	50 FUNCTION3 PFK	380.9760	38.40	0.000	0.000					1.2
	50 FUNCTION3 PFK	380.9760	38.36	0 000	0.000					1.6
	50 FUNCTION3 PFK	380.9760	38.25	0.000	0.000					2.3
	50 FUNCTION3 PFK	380.9760	38.01	0.000	0.000					0.5
	50 FUNCTION3 PFK	380.9760	37.94	0.000	0.000					0.4
	50 FUNCTION3 PFK	380.9760	37 90	0.000	0.000					2.1
	50 FUNCTION3 PFK	380.9760	37.70	0.000	0.000					0.7
	50 FUNCTION3 PFK	380.9760	37.60	0.000	0.000					0.6

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FK4

	51 FUNCTION4 PFK	430.9728	39.39	0.000						2.2
	51 FUNCTION4 PFK	430.9728	39.17	0 000						10.3
	51 FUNCTION4 PFK	430.9728	39.15	0.000						9.9
	51 FUNCTION4 PFK	430.9728	39.06	0.000						13.1
	51 FUNCTION4 PFK	430.9728	41.28	0.000						0.5
	51 FUNCTION4 PFK	430.9728	41.22	0.000						1.6
	51 FUNCTION4 PFK	430.9728	41.18	0.000						0.4
	51 FUNCTION4 PFK	430.9728	41.02	0.000						0.5
	51 FUNCTION4 PFK	430.9728	40.96	0.000						0.6
	51 FUNCTION4 PFK	430.9728	40.91	0.000						1.4
	51 FUNCTION4 PFK	430.9728	40.84	0.000						1.3
	51 FUNCTION4 PFK	430.9728	40.49	0.000						0.6
	51 FUNCTION4 PFK	430.9728	40.43	0.000						0.7
	51 FUNCTION4 PFK	430.9728	40.30	0.000						0.4
	51 FUNCTION4 PFK	430.9728	40.20	0.000						0 5
	51 FUNCTION4 PFK	430.9728	39.95	0.000						1.5
	51 FUNCTION4 PFK	430.9728	39.88	0.000						0.5
	51 FUNCTION4 PFK	430.9728	39.84	0.000						0.6
	51 FUNCTION4 PFK	430.9728	39.74	0.000						0.8
	51 FUNCTION4 PFK	430.9728	39.65	0.000						1.1
	51 FUNCTION4 PFK	430.9728	42.68	0.000						1.4
	51 FUNCTION4 PFK	430.9728	42.58	0.000						1.1
	51 FUNCTION4 PFK	430.9728	42.52	0.000						0.5
	51 FUNCTION4 PFK	430.9728	42.48	0.000						0.6
	51 FUNCTION4 PFK	430.9728	42.43	0.000						1.3
	51 FUNCTION4 PFK	430.9728	42.26	0.000						0.8
	51 FUNCTION4 PFK	430.9728	42.17	0.000						0.9
	51 FUNCTION4 PFK	430.9728	42.11	0.000						0.4
	51 FUNCTION4 PFK	430.9728	42.08	0.000						0.4
	51 FUNCTION4 PFK	430.9728	42.04	0.000						0.8
	51 FUNCTION4 PFK	430.9728	41.83	0.000						0.7
	51 FUNCTION4 PFK	430.9728	41.64	0.000						0.4
	51 FUNCTION4 PFK	430.9728	41.56	0.000						1.1
	51 FUNCTION4 PFK	430.9728	41.37	0.000						0.7
	51 FUNCTION4 PFK	430.9728	41.34	0.000						0.9
	51 FUNCTION4 PFK	430.9728	41.31	0.000						0.7
	51 FUNCTION4 PFK	430.9728	43.88	0 000						1.1
	51 FUNCTION4 PFK	430.9728	43.82	0.000						1.3
	51 FUNCTION4 PFK	430 9728	43.77	0.000						1.7
	51 FUNCTION4 PFK	430.9728	43.71	0.000						1.4
	51 FUNCTION4 PFK	430.9728	43.52	0.000						0.9
	51 FUNCTION4 PFK	430.9728	43.49	0.000						1.1
	51 FUNCTION4 PFK	430.9728	43.46	0.000						1.6
	51 FUNCTION4 PFK	430.9728	43.34	0.000						0.3
	51 FUNCTION4 PFK	430.9728	43.29	0.000						1.3
	51 FUNCTION4 PFK	430.9728	43.26	0.000						1.3
	51 FUNCTION4 PFK	430.9728	43.18	0.000						0.6
	51 FUNCTION4 PFK	430.9728	43.14	0.000						0.9
	51 FUNCTION4 PFK	430.9728	43.09	0.000						0.4

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FK4

[redacted]	51	FUNCTION4 PFK	430.9728	42.96	0.000						1.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.88	0.000						1.9
[redacted]	51	FUNCTION4 PFK	430.9728	42.74	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	44.97	0.000						2.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.79	0.000						1.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.66	0.000						2.1
[redacted]	51	FUNCTION4 PFK	430.9728	44.54	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.48	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	44.43	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	44.11	0.000						2.0
[redacted]	51	FUNCTION4 PFK	430.9728	43.98	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	43.93	0.000						1.6

FK5

[redacted]	52	FUNCTION5 PFK	480.9696	46.67	0.000						1.0
[redacted]	52	FUNCTION5 PFK	480.9696	46.02	0.000						1.8
[redacted]	52	FUNCTION5 PFK	480.9696	45.85	0.000						1.9
[redacted]	52	FUNCTION5 PFK	480.9696	45.55	0.000						2.0
[redacted]	52	FUNCTION5 PFK	480.9696	45.29	0.000						0 9
[redacted]	52	FUNCTION5 PFK	480.9696	45.06	0.000						0.8
[redacted]	52	FUNCTION5 PFK	480.9696	48.71	0.000						0.9
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[redacted]	52	FUNCTION5 PFK	480.9696	48.64	0.000						1.5
[redacted]	52	FUNCTION5 PFK	480.9696	48.48	0.000						1 8
[redacted]	52	FUNCTION5 PFK	480.9696	48.12	0.000						2.2
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[redacted]	52	FUNCTION5 PFK	480.9696	47.57	0.000						1.5
[redacted]	52	FUNCTION5 PFK	480.9696	47.16	0.000						1.0
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THERS1

[redacted]											

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

D: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

ETHERS2

	54	FUNCTION1 HPCD...	409.7974	24.11	0.000	0.000				3 0
	54	FUNCTION1 HPCD...	409.7974	23.63	0.000	0.000				1.8
	54	FUNCTION1 HPCD...	409.7974	23.37	0.000	0.000				1.8
	54	FUNCTION1 HPCD...	409.7974	22.97	0.000	0.000				2.3
	54	FUNCTION1 HPCD...	409.7974	28.29	0.000	0.000				3.8
	54	FUNCTION1 HPCD...	409.7974	27.57	0.000	0.000				1.9
	54	FUNCTION1 HPCD...	409.7974	27.45	0.000	0.000				1.9
	54	FUNCTION1 HPCD...	409.7974	27.23	0.000	0.000				3.0
	54	FUNCTION1 HPCD...	409.7974	26.54	0.000	0.000				2.0
	54	FUNCTION1 HPCD...	409.7974	26.50	0.000	0.000				2.1
	54	FUNCTION1 HPCD...	409.7974	26.27	0.000	0.000				2.2
	54	FUNCTION1 HPCD...	409.7974	26.11	0.000	0.000				1.5
	54	FUNCTION1 HPCD...	409.7974	24.17	0.000	0.000				1.6

ETHERS3

	55	FUNCTION2 HPCD...	409.7974	32.48	0.000	0.000				1.9
	55	FUNCTION2 HPCD...	409.7974	32.25	0.000	0.000				2.1
	55	FUNCTION2 HPCD..	409.7974	32.01	0.000	0.000				1.6
	55	FUNCTION2 HPCD...	409.7974	31.60	0.000	0.000				1.4
	55	FUNCTION2 HPCD...	409.7974	30 73	0.000	0.000				2.7
	55	FUNCTION2 HPCD...	409.7974	30.47	0.000	0.000				1.4
	55	FUNCTION2 HPCD...	409.7974	33.09	0.000	0.000				2.7

ETHERS4

	56	FUNCTION3 OCDPE	445.7555	36.51	0.000	0.000				4.7

ETHERS5

	57	FUNCTION4 NCDPE	479.7165	43.97	0.000	0.000				1.5
	57	FUNCTION4 NCDPE	479.7165	43.87	0.000	0.000				2.7
	57	FUNCTION4 NCDPE	479.7165	43.62	0.000	0.000				1.3
	57	FUNCTION4 NCDPE	479.7165	43.45	0.000	0.000				2.5
	57	FUNCTION4 NCDPE	479.7165	43.39	0.000	0.000				2.4
	57	FUNCTION4 NCDPE	479.7165	43.18	0.000	0.000				1.8
	57	FUNCTION4 NCDPE	479.7165	42.78	0.000	0.000				2.4
	57	FUNCTION4 NCDPE	479.7165	41.48	0.000	0.000				3.7
	57	FUNCTION4 NCDPE	479.7165	40.16	0.000	0.000				1.3

ETHERS6

	58	FUNCTION5 DCDPE	513.6775	47.34	0.000	0.000				2.9

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

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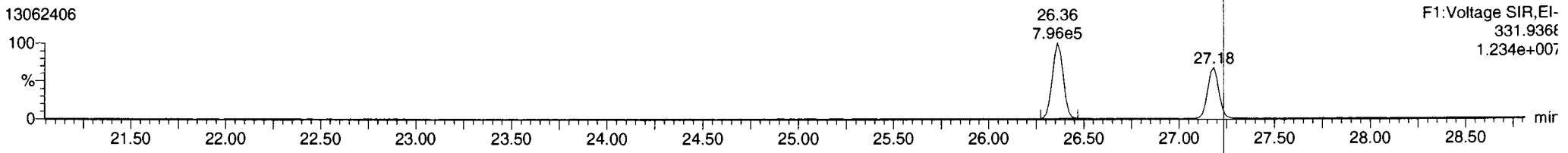
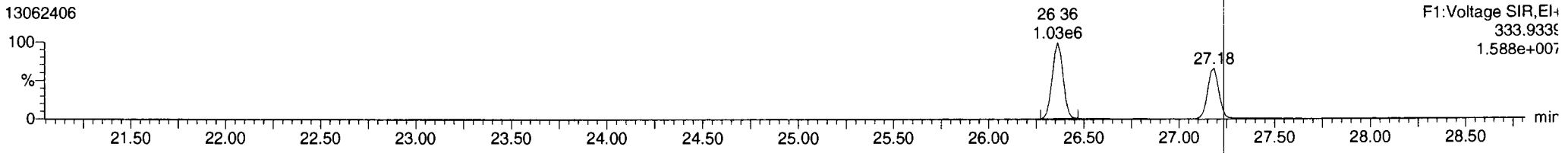
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

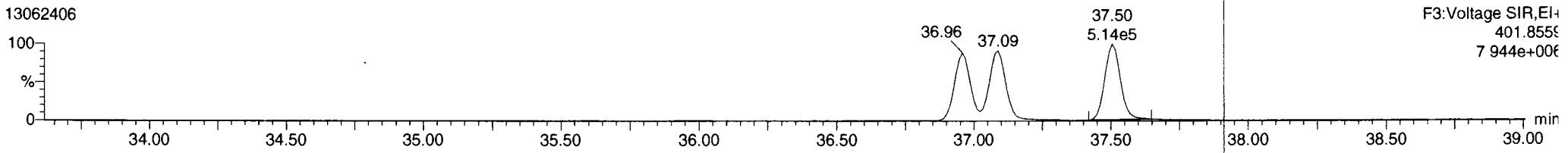
13C-1234-TCDD



13C-1234-TCDD



13C-123789-HxCDD



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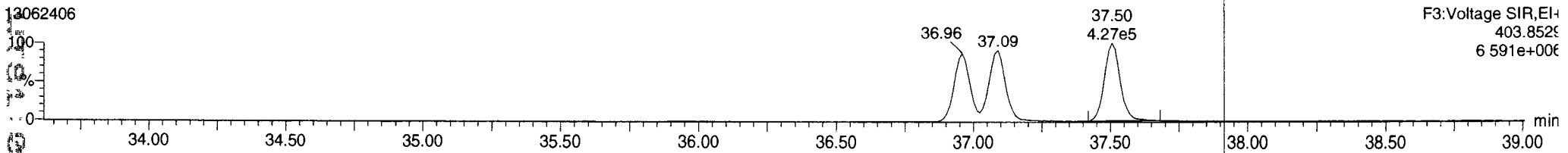

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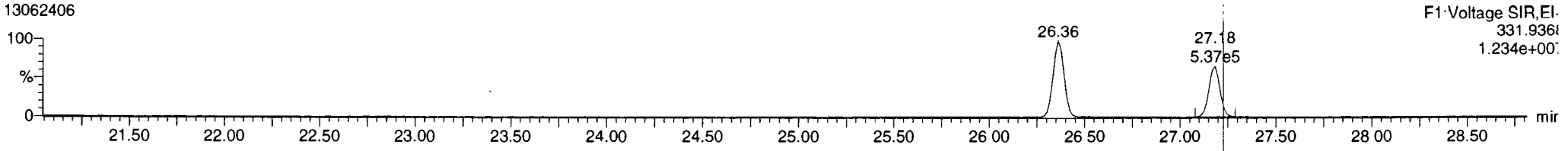
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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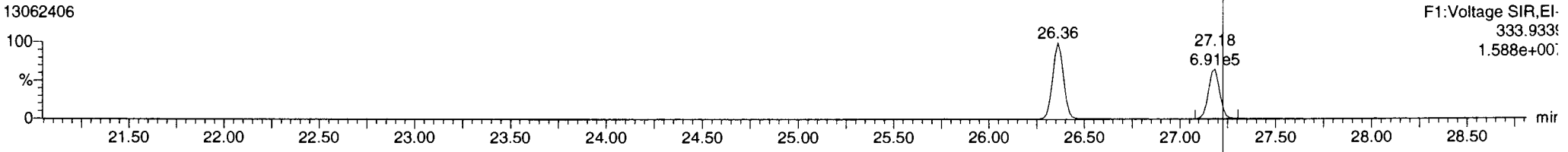
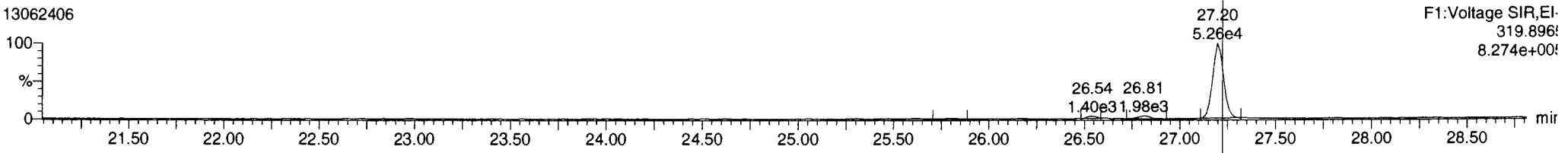
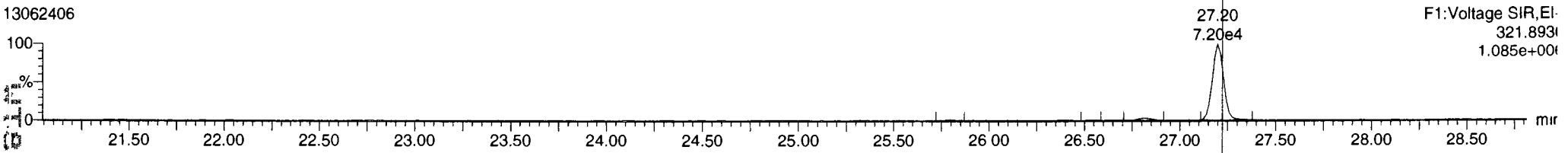


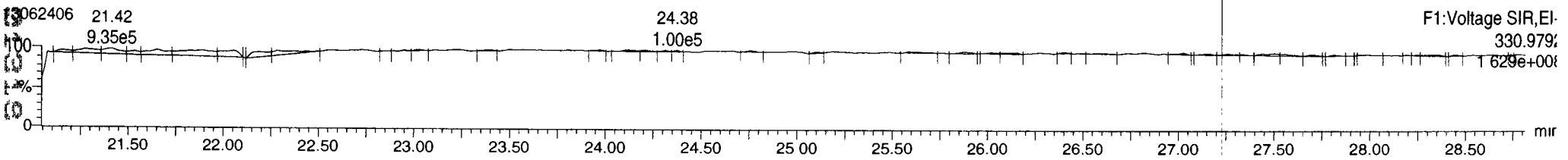
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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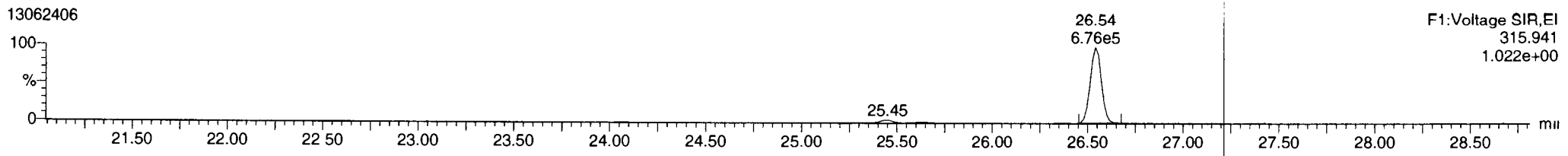
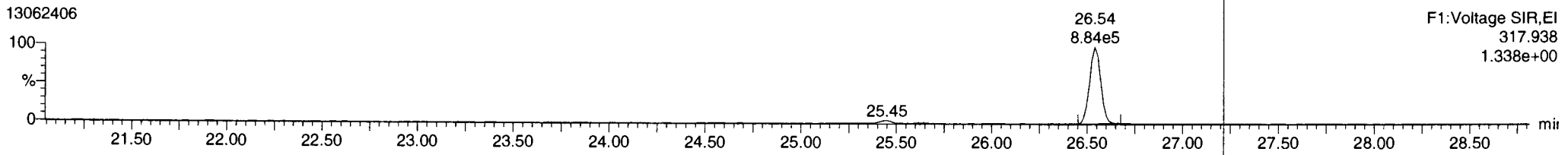
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

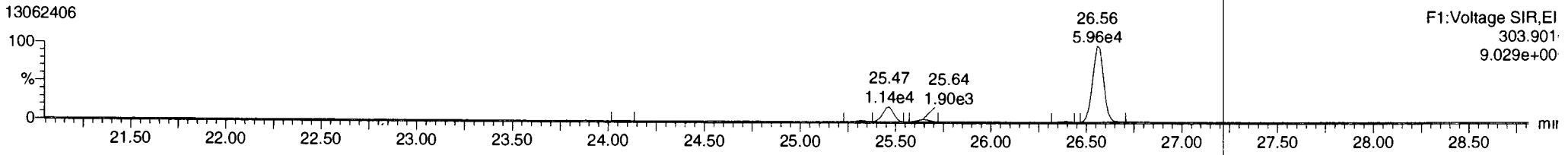
13C-2378-TCDF



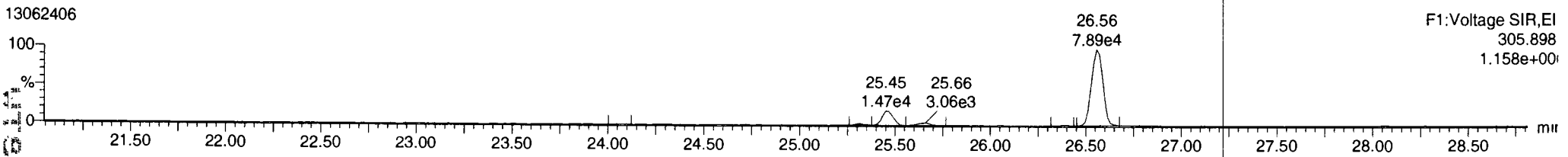
13C-2378-TCDF



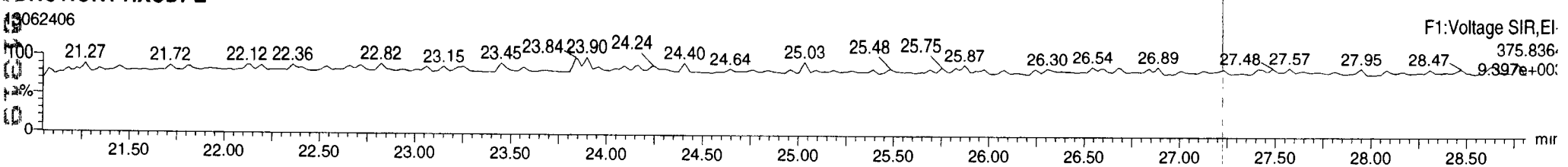
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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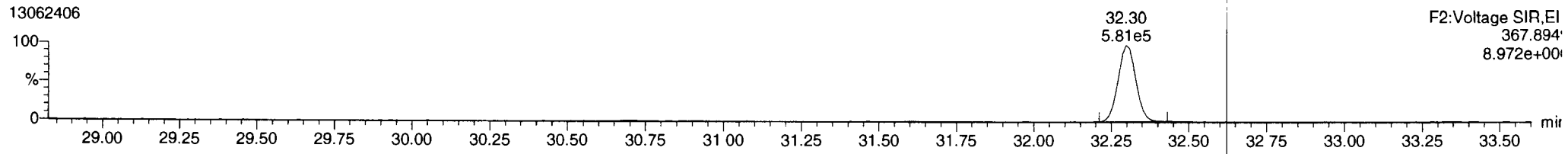
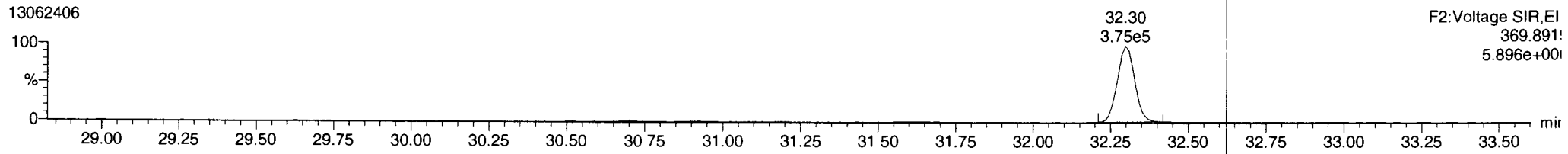
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

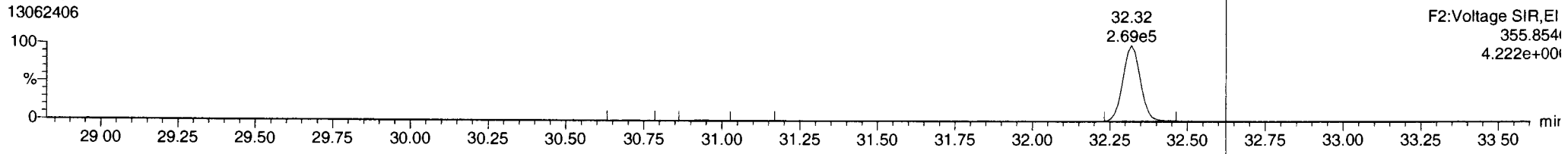
13C-12378-PeCDD



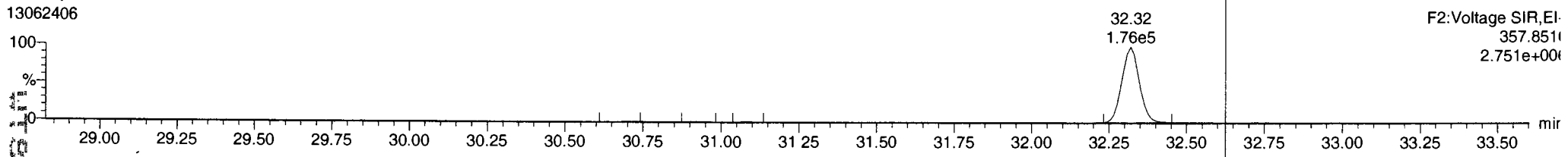
13C-12378-PeCDD



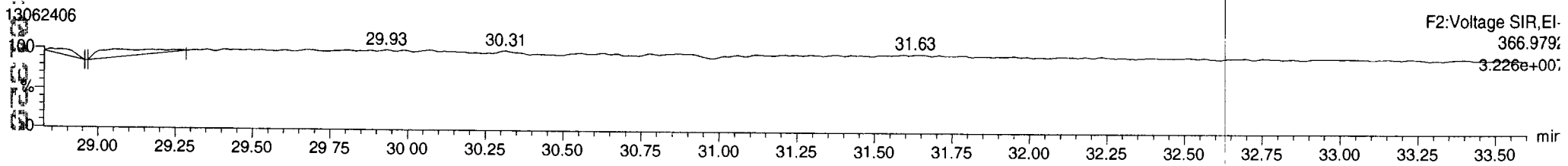
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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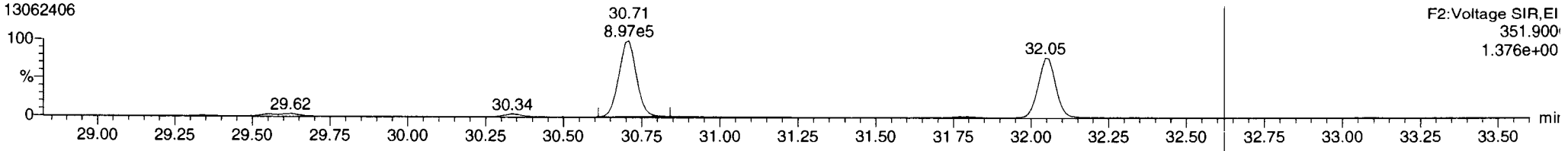
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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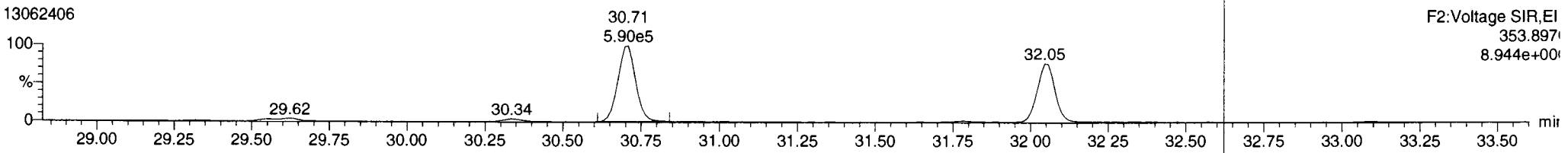
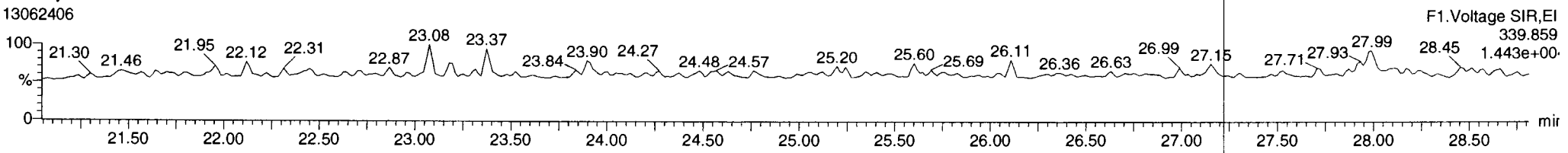
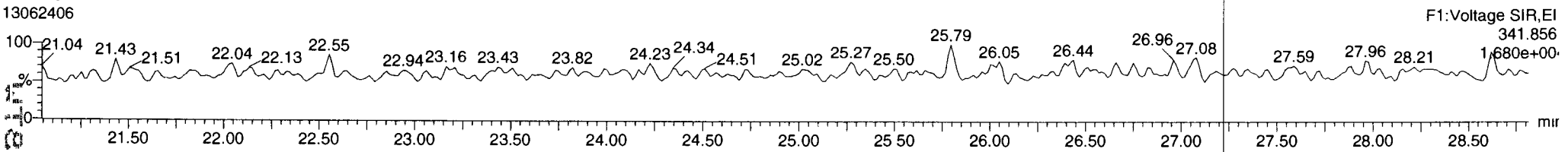


Total-penta1



Total-penta1



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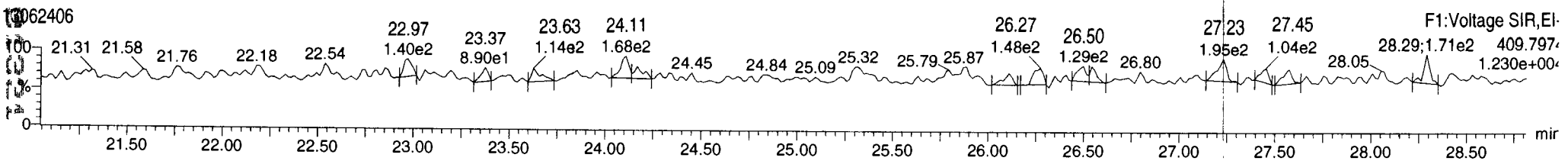

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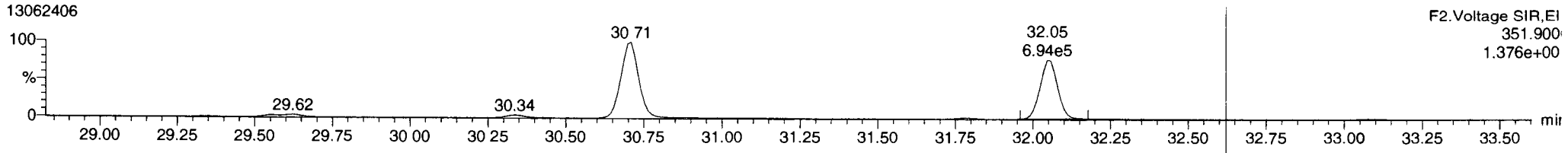
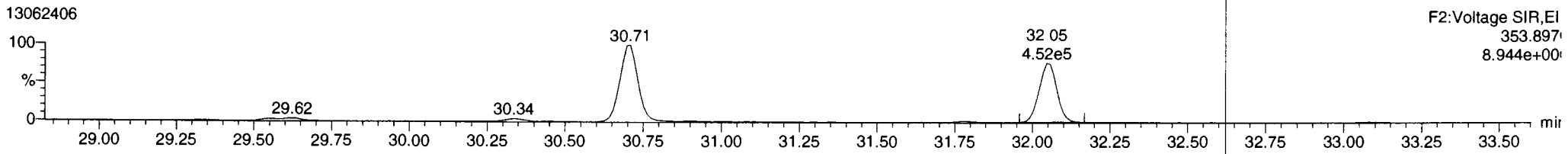
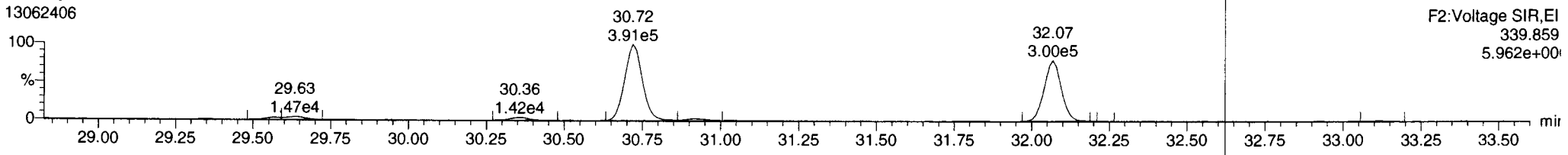
13C-23478-PeCDF



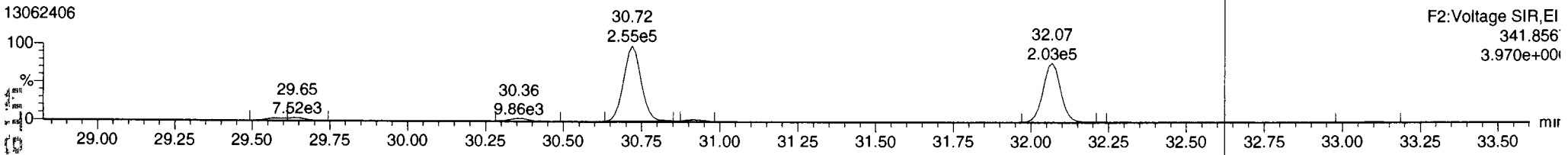
13C-23478-PeCDF



Total-pentafurans



Total-pentafurans



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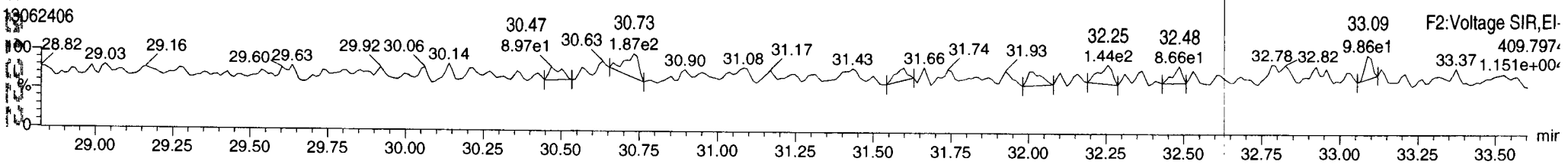

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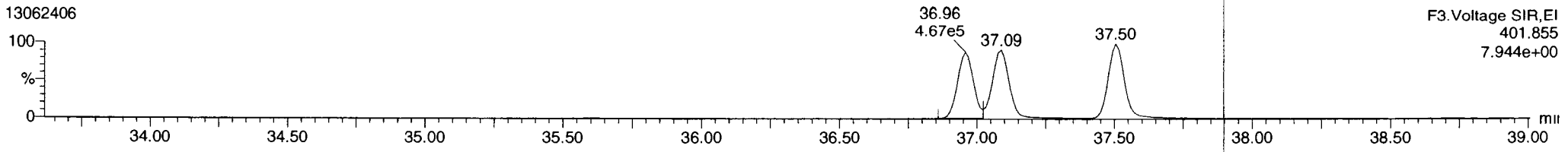
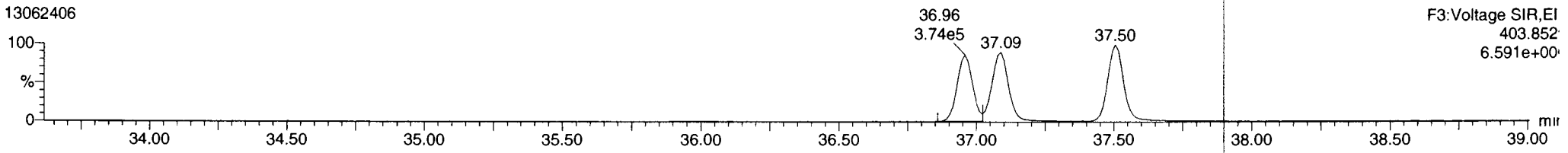
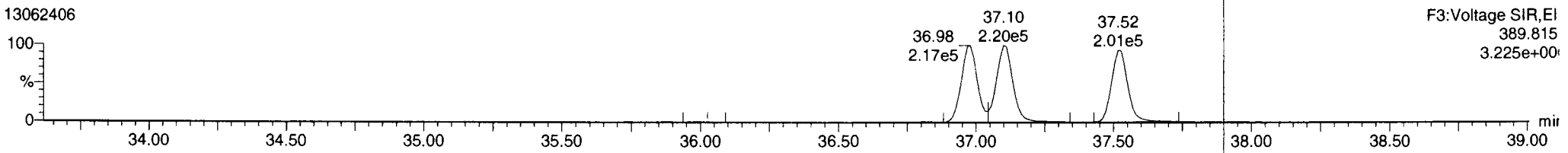
13C-123478-HxCDD



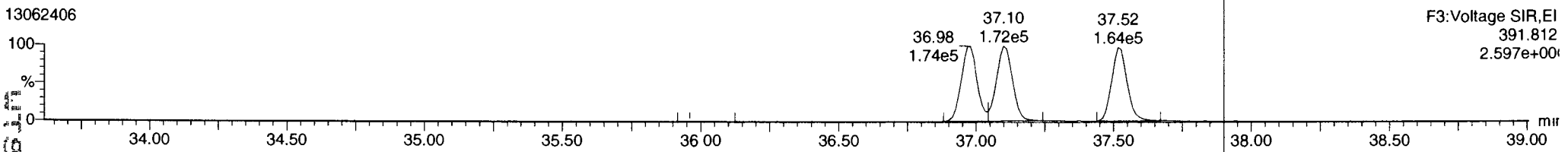
13C-123478-HxCDD



Total-hexadioxins



Total-hexadioxins



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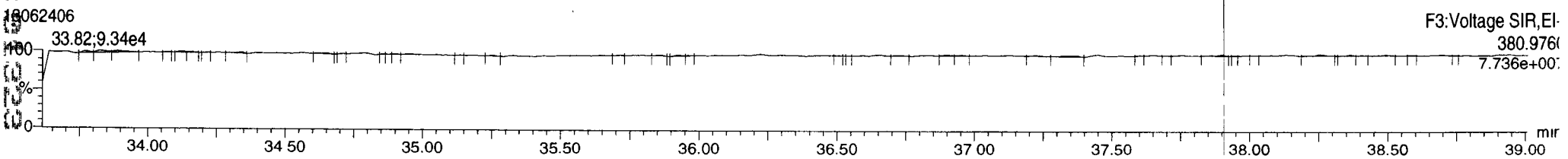

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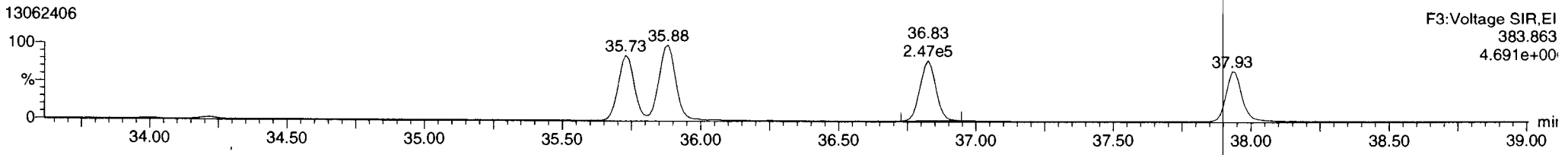
13C-234678-HxCDF



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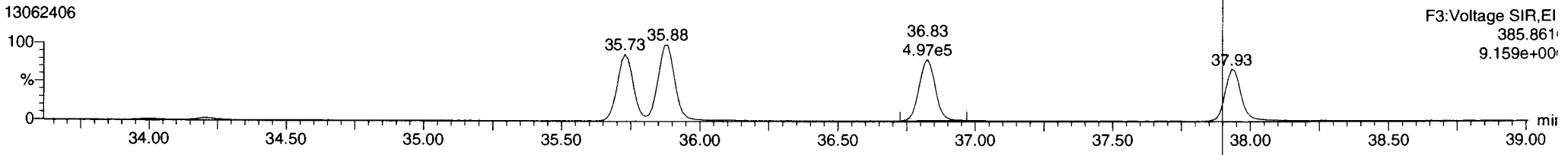
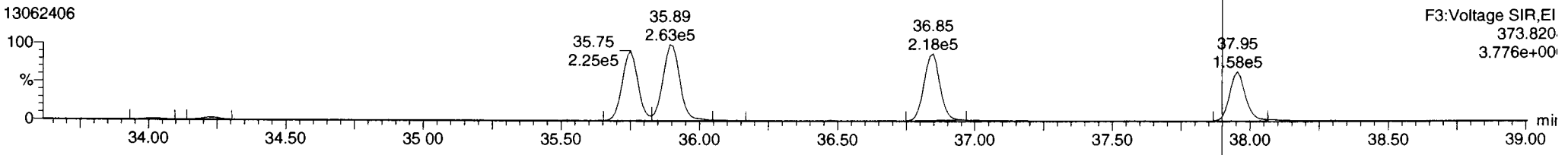
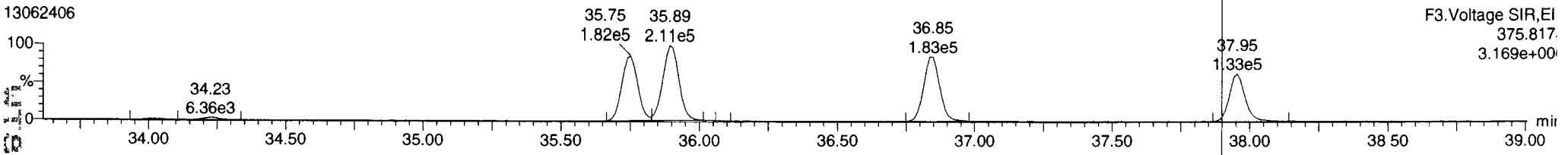


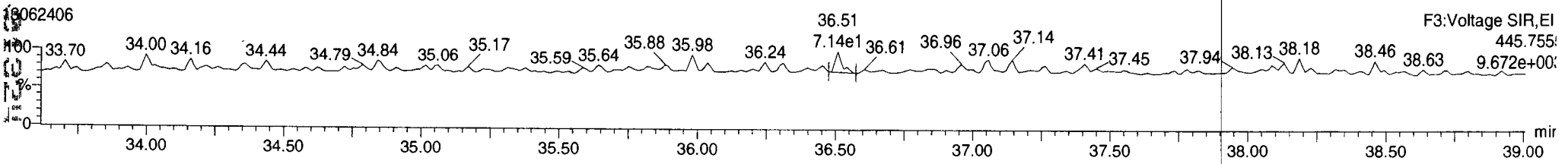
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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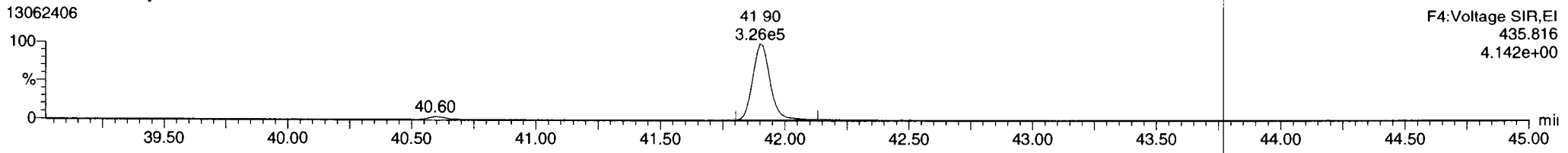
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDD



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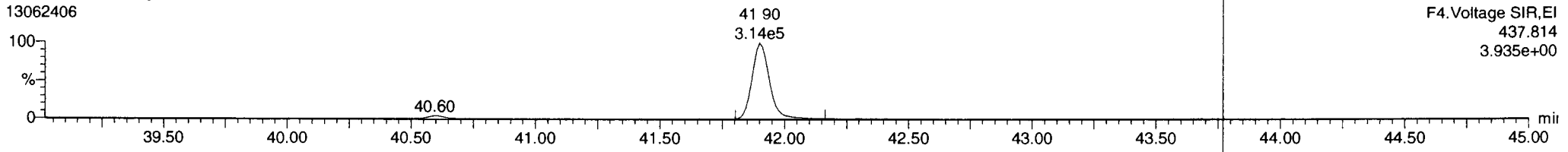
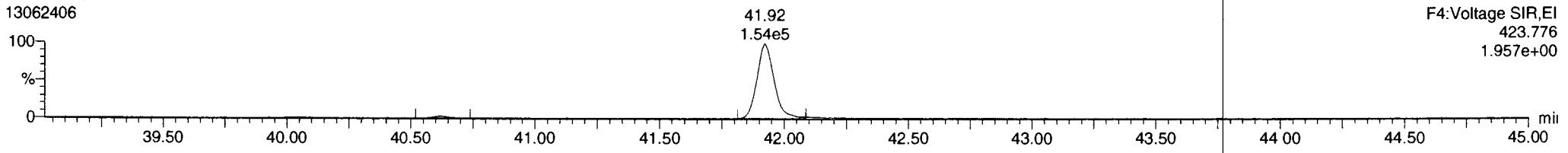
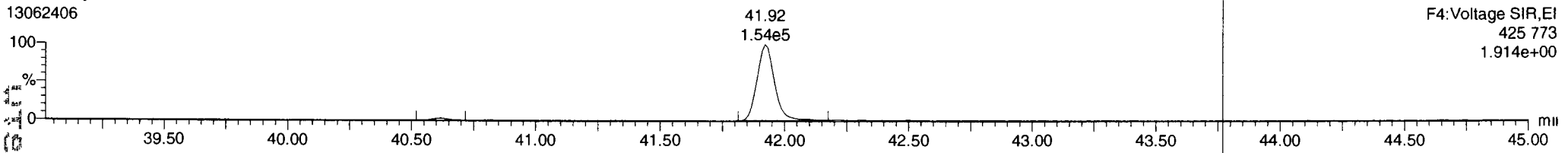


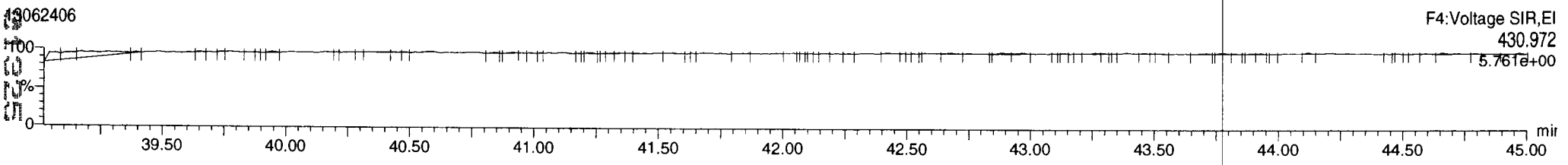
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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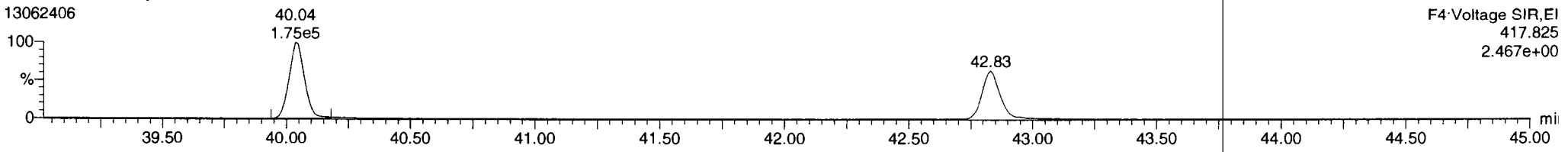
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:46:40 Pacific Daylight Time

ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



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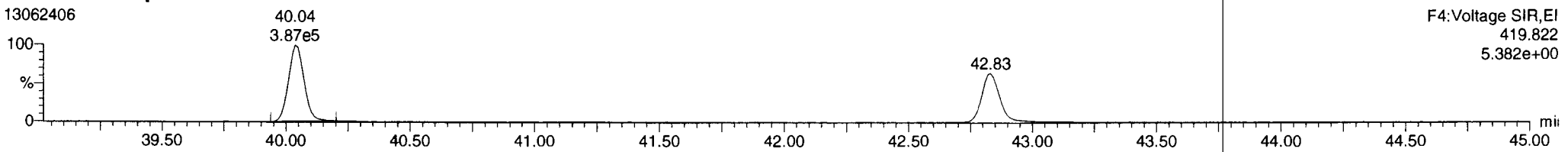
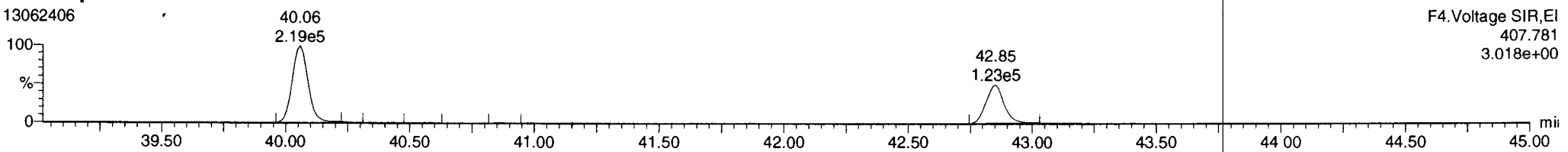
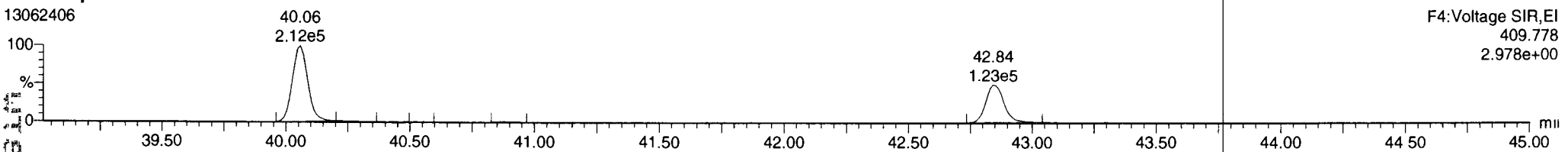


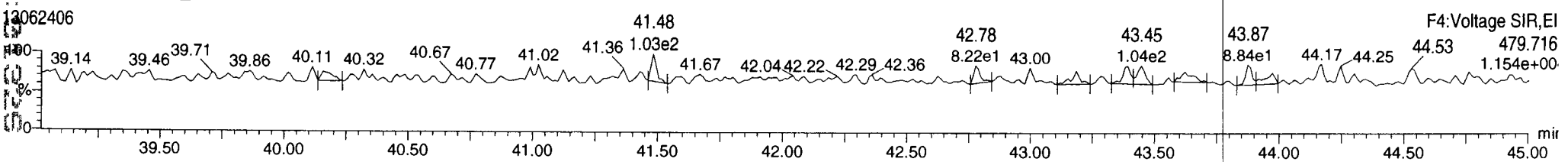
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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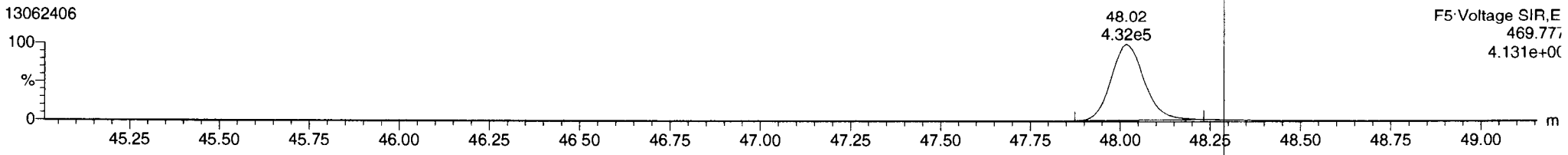
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

13C-OCDD



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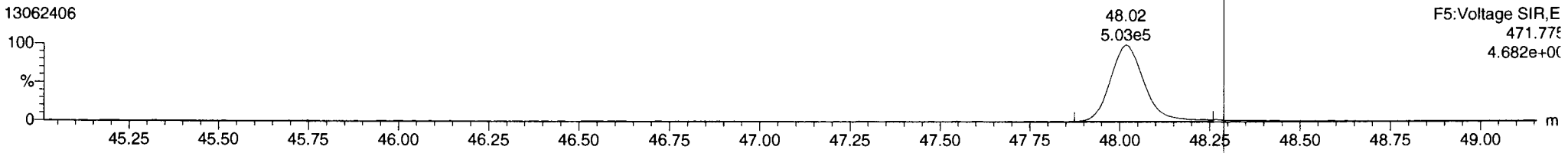
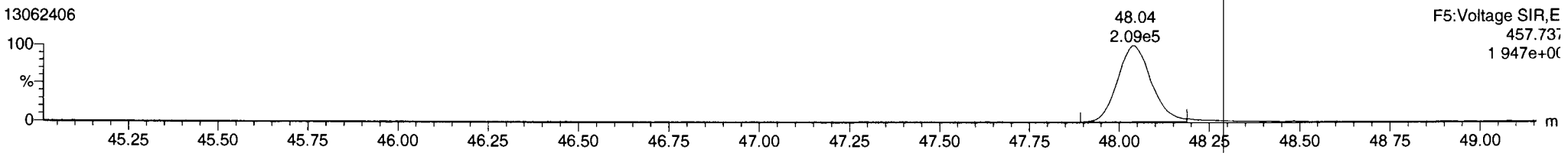
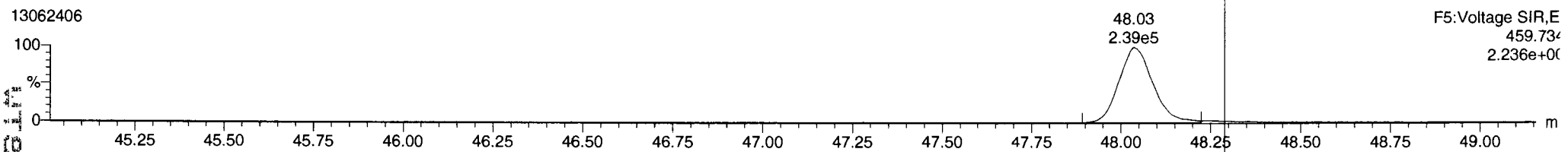


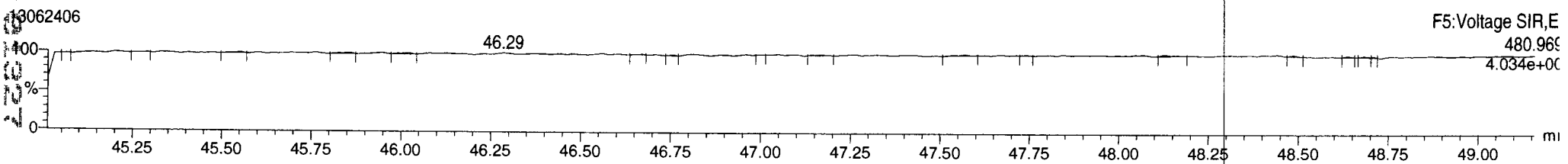
OCDD



OCDD



FUNCTION5 PFK



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Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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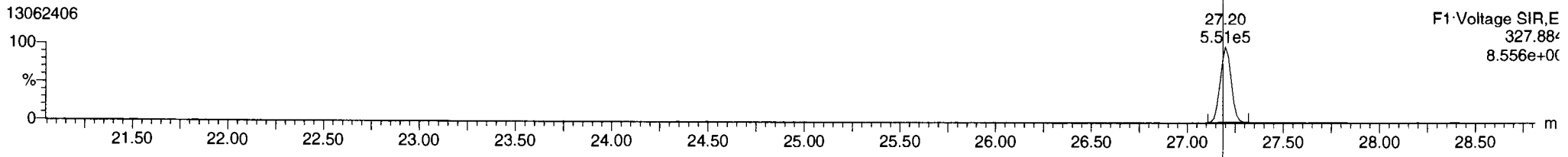
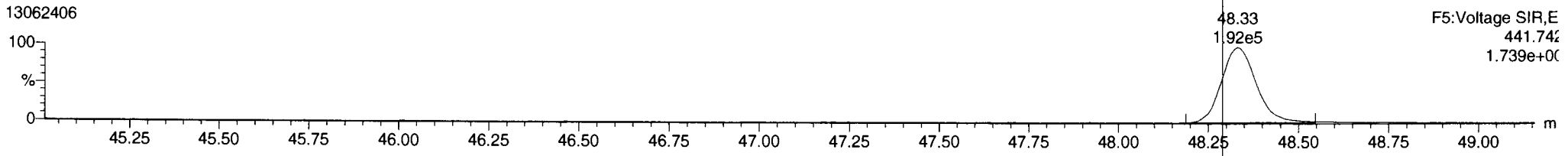
ID: WS91OPR, Name: 13062406, Date: 24-Jun-2013, Time: 13:38:37, Conditions: AUTOSPEC01, User: pk

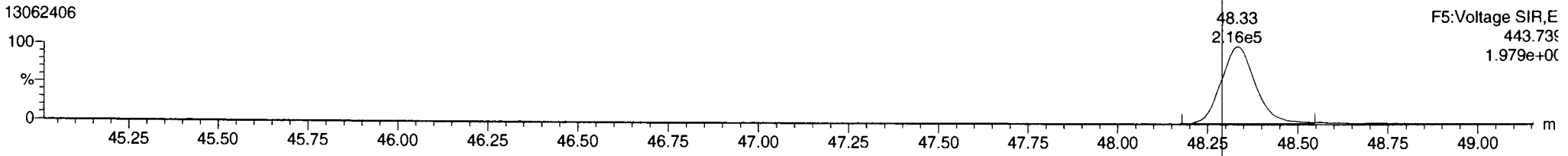
37CL-2378-TCDD



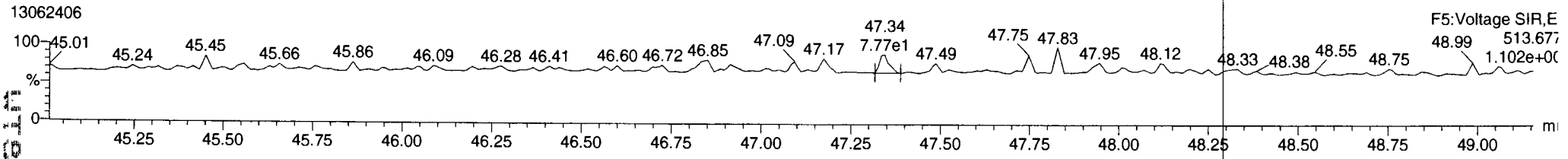
OCDF



OCDF



FUNCTION5 DCDPE



Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

JW 6/25/13

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

Name	RT	RRT	Ion Ratio	Lock Mass	Area	Height	RRF	S/N	Peak 1	Peak 2	Baseline	Noise	Flags	S/N Noise	pg
2378-TCDF	26.571	1.001	3.92e3	5.39e3	0.771	0.728	0.770	28.9	2126	2494	6.14e4	8.16e4	NO	0.998	0.998
12378-PeCDF	30.742	1.000	9.64e3	6.59e3	0.814	1.464	1.550	91.4	1663	2510	1.52e5	9.26e4	NO	1.009	1.009
23478-PeCDF	32.101	1.001	1.78e4	1.19e4	0.837	1.488	1.550	155.3	1663	2510	2.58e5	1.64e5	NO	1.874	1.874
123478-HxCDF	35.806	1.001	3.50e4	2.73e4	0.967	1.278	1.240	261.5	1936	3130	5.06e5	4.05e5	NO	4.907	4.907
234678-HxCDF	36.913	1.001	1.87e4	1.57e4	1.000	1.190	1.240	98.1	1936	3130	1.90e5	1.76e5	NO	2.912	2.912
123678-HxCDF	35.948	1.000	1.42e4	1.17e4	0.951	1.210	1.240	110.1	1936	3130	2.13e5	1.61e5	NO	1.997	1.997
123789-HxCDF	37.987	1.000	5.66e3	4.65e3	0.874	1.218	1.240	37.5	1936	3130	7.25e4	6.62e4	NO	1.030	1.030
1234678-HpCDF	40.157	1.001	1.00e5	1.01e5	1.072	0.997	1.050	858.9	1686	1099	1.45e6	1.47e6	NO	27.608	27.608
1234789-HpCDF	42.941	1.001	7.21e3	6.97e3	1.085	1.034	1.050	51.6	1686	1099	8.71e4	8.86e4	NO	2.463	2.463
OCDF	48.483	1.006	1.10e5	1.26e5	0.878	0.873	0.890	512.0	2026	1406	1.04e6	1.21e6	NO	77.106	77.106
2378-TCDD	27.214	1.001	7.62e2	2.42e3	0.936	0.315	0.770	5.4	2341	2069	1.25e4	4.52e4	YES	0.129	0.235
12378-PeCDD	32.342	1.000	5.91e3	4.22e3	0.894	1.401	1.550	48.2	1647	1460	7.94e4	4.85e4	NO	0.707	0.707
123478-HxCDD	37.044	1.001	6.08e3	4.85e3	0.898	1.255	1.240	65.3	1539	1771	1.01e5	7.35e4	NO	0.970	0.970
123678-HxCDD	37.176	1.001	2.38e4	2.01e4	0.818	1.186	1.240	230.4	1539	1771	3.55e5	3.16e5	NO	4.205	4.205
123789-HxCDD	37.581	1.012	1.31e4	1.06e4	0.789	1.230	1.240	134.4	1539	1771	2.07e5	1.74e5	NO	2.375	2.375
1234678-HpCDD	42.020	1.000	2.85e5	2.79e5	0.879	1.021	1.050	1524.0	2452	2786	3.74e6	3.72e6	NO	94.749	94.749
OCDD	48.196	1.000	1.94e6	2.22e6	0.875	0.872	0.890	10104.9	1864	1602	1.88e7	2.15e7	NO	1366.059	1366.059
13C-2378-TCDF	26.556	1.007	5.25e5	6.85e5	1.190	0.767	0.770	2189.0	3665	5999	8.02e6	1.05e7	NO		26.241
13C-12378-PeCDF	30.731	1.165	1.20e6	7.79e5	0.904	1.535	1.550	4587.8	3990	2692	1.83e7	1.19e7	NO		56.353
13C-23478-PeCDF	32.079	1.216	1.15e6	7.47e5	0.877	1.538	1.550	4323.6	3990	2692	1.73e7	1.13e7	NO		55.724
13C-123478-HxCDF	35.784	0.952	4.40e5	8.74e5	1.096	0.503	0.510	2718.7	2347	3617	6.38e6	1.26e7	NO		61.368
13C-123678-HxCDF	35.937	0.957	4.61e5	9.05e5	1.187	0.510	0.510	2894.6	2347	3617	6.79e6	1.33e7	NO		58.902
13C-234678-HxCDF	36.891	0.982	4.02e5	7.81e5	1.040	0.514	0.510	2594.9	2347	3617	6.09e6	1.18e7	NO		58.271
13C-123789-HxCDF	37.998	1.011	3.92e5	7.53e5	0.941	0.520	0.510	2523.4	2347	3617	5.92e6	1.14e7	NO		62.324
13C-1234678-HpCDF	40.135	1.068	2.09e5	4.69e5	0.825	0.445	0.440	1805.9	1673	1852	3.02e6	6.81e6	NO		42.080
13C-1234789-HpCDF	42.919	1.142	1.63e5	3.68e5	0.609	0.442	0.440	1155.5	1673	1852	1.93e6	4.42e6	NO		44.602
13C-1234-TCDD	26.377	0.000	1.70e6	2.17e6	1.000	0.783	0.770	2436.8	10865	3215	2.65e7	3.41e7	NO		100.000
13C-2378-TCDD	27.199	1.031	6.30e5	8.16e5	0.920	0.772	0.770	899.8	10865	3215	9.78e6	1.24e7	NO		40.560
13C-12378-PeCDD	32.331	1.226	9.72e5	6.30e5	0.669	1.543	1.550	4626.1	3205	1984	1.48e7	9.58e6	NO		61.730
13C-123478-HxCDD	37.022	0.985	6.96e5	5.60e5	1.032	1.244	1.240	4914.5	2182	2202	1.07e7	8.67e6	NO		62.348
13C-123678-HxCDD	37.154	0.989	7.02e5	5.73e5	1.146	1.226	1.240	4821.8	2182	2202	1.05e7	8.58e6	NO		57.013
13C-1234678-HpCDD	42.009	1.118	3.43e5	3.34e5	0.789	1.029	1.050	2287.2	1975	1368	4.52e6	4.44e6	NO		43.972
13C-OCDD	48.178	1.282	3.29e5	3.67e5	0.696	0.895	0.890	2906.7	1114	1168	3.24e6	3.63e6	NO		51.216

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

Name															
13C-123789-HxCDD	37.570	0.000	1.07e6	8.80e5	1.000	1.220	1.240	7862.6	2182	2202	1.72e7	1.39e7	NO		100.000
Total-tetrafurans			9.21e4		0.771				2126		1.28e6				23.481
Total-penta1			9.33e4						1687		1.17e6				8.793
Total-pentafurans			1.80e5		0.826				1663		2.41e6				18.722
Total-hexafurans			3.46e5		0.948				1936		4.92e6				52.767
Total-heptafurans			2.83e5		1.079				1686		3.91e6				83.590
Total-Furans			1.10e6		0.925				2126		1.47e7				264.458
Total-tetradioxins			2.07e4		0.936				2341		2.91e5				3.404
Total-pentadioxins			5.25e4		0.894				1647		7.21e5				6.253
Total-hexadioxins			1.74e5		0.835				1539		2.22e6				29.635
Total-heptadioxins			6.04e5		0.879				2452		8.22e6				201.014
Total-Dioxins			2.79e6		0.870				2341		3.03e7				1606.365
Total-TEQ			3.89e6						2341		4.50e7				1870.823
37CL-2378-TCDD	27.214	1.032	7.55e5		1.000			4293.2	2691		1.16e7				19.481
FUNCTION1 PFK			3.34e6						914715		5.67e7				
FUNCTION2 PFK			4.81e5						313573		1.06e7				0.000
FUNCTION3 PFK			7.86e3						545487		4.91e5				0.000
FUNCTION4 PFK			7.83e5						474102		2.28e7				
FUNCTION5 PFK			2.76e5						342105		8.60e6				
FUNCTION1 HXCDPE			5.38e2						673		1.09e4				0.000
FUNCTION1 HPCDPE			1.45e3						1102		2.81e4				0.000
FUNCTION2 HPCDPE			3.27e2						1252		1.01e4				0.000
FUNCTION3 OCDPE			6.82e2						964		1.52e4				0.000
FUNCTION4 NCDPE			1.27e3						1281		3.30e4				0.000
FUNCTION5 DCDPE			1.50e2						897		4.40e3				0.000

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

TF

	#	Name	Trace	RT	Area	RRF M	Δ ppt	EMPC	I. Ratio	Id Ratio	I. Pass	S/N
[redacted]	35	Total-tetrafurans	303.9016	25.24	25683.312	0.771	2.753		0.76	0.77	NO	64.7
[redacted]	35	Total-tetrafurans	303.9016	24.81	3848.885	0.771	0.413		0.78	0.77	NO	12.8
[redacted]	35	Total-tetrafurans	303.9016	24.67	6545.576	0.771	0.702		0.74	0.77	NO	20.0
[redacted]	35	Total-tetrafurans	303.9016	24.57	3753.667	0.771	0.402		0.67	0.77	NO	9.2
[redacted]	35	Total-tetrafurans	303.9016	24.40	4837.240	0.771	0.518		0.75	0.77	NO	18.4
[redacted]	35	Total-tetrafurans	303.9016	24.32	2438.910	0.771	0.261		0.68	0.77	NO	6.8
[redacted]	35	Total-tetrafurans	303.9016	24.20	7381.610	0.771	0.791		0.67	0.77	NO	15.2
[redacted]	35	Total-tetrafurans	303.9016	24.09	12995.900	0.771	1.393		0.87	0.77	NO	29.9
[redacted]	35	Total-tetrafurans	303.9016	23.90	16832.294	0.771	1.804		0.72	0.77	NO	36.2
[redacted]	35	Total-tetrafurans	303.9016	23.31	5184.714	0.771	0.556		0.92	0.77	YES	14.8
[redacted]	35	Total-tetrafurans	303.9016	23.06	5228.411	0.771	0.560		0.81	0.77	NO	17.5
[redacted]	35	Total-tetrafurans	303.9016	28.08	2557.811	0.771	0.274		0.38	0.77	YES	7.0
[redacted]	35	Total-tetrafurans	303.9016	27.08	1675.407	0.771	0.180		0.76	0.77	NO	4.6
[redacted]	35	Total-tetrafurans	303.9016	26.81	19488.243	0.771	2.089		0.60	0.77	YES	53.7
[redacted]	35	Total-tetrafurans	303.9016	26.71	23897.699	0.771	2.562		0.72	0.77	NO	68.7
[redacted]	1	2378-TCDF	303.9016	26.57	9312.674	0.771	0.998	0.998	0.73	0.77	NO	28.9
[redacted]	35	Total-tetrafurans	303.9016	26.33	17023.980	0.771	1.825		0.78	0.77	NO	40.0
[redacted]	35	Total-tetrafurans	303.9016	26.20	1880.763	0.771	0.202		0.68	0.77	NO	6.7
[redacted]	35	Total-tetrafurans	303.9016	26.08	16822.013	0.771	1.803		0.77	0.77	NO	50.2
[redacted]	35	Total-tetrafurans	303.9016	25.88	4065.722	0.771	0.436		0.68	0.77	NO	10.4
[redacted]	35	Total-tetrafurans	303.9016	25.66	11965.509	0.771	1.283		0.74	0.77	NO	38.1
[redacted]	35	Total-tetrafurans	303.9016	25.48	9514.316	0.771	1.020		0.63	0.77	YES	22.6
[redacted]	35	Total-tetrafurans	303.9016	25.33	6131.491	0.771	0.657		0.71	0.77	NO	23.7

PP

	#	Name	Trace	RT	Area	RRF M	Δ ppt	EMPC	I. Ratio	Id Ratio	I. Pass	S/N
[redacted]	36	Total-penta1	339.8597	28.01	156007.730		8.793		1.49	1.55	NO	691.9

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

PF

	#	Name	Trace	RT	Area/Resp	RRF M	pg	EMPC	1° Ratio	2° Ratio	2° R	S/N
	37	Total-pentafurans	339.8597	30.28	2548.261	0.826	0.160		1.25	1.55	YES	16.8
	37	Total-pentafurans	339.8597	30.16	12211.698	0.826	0.764		1.63	1.55	NO	63.1
	37	Total-pentafurans	339.8597	29.95	2150.440	0.826	0.135		1.92	1.55	YES	13.5
	37	Total-pentafurans	339.8597	29.67	47220.918	0.826	2.956		1.32	1.55	YES	243.8
	37	Total-pentafurans	339.8597	29.59	32273.427	0.826	2.020		1.76	1.55	NO	202.0
	37	Total-pentafurans	339.8597	29.46	40310.849	0.826	2.524		1.61	1.55	NO	124.2
	37	Total-pentafurans	339.8597	33.13	3261.715	0.826	0.204		2.28	1.55	YES	15.7
	3	23478-PeCDF	339.8597	32.10	29714.091	0.837	1.874	1.874	1.49	1.55	NO	155.3
	37	Total-pentafurans	339.8597	31.95	8015.420	0.826	0.502		1.31	1.55	YES	48.4
	37	Total-pentafurans	339.8597	31.83	30503.277	0.826	1.910		1.49	1.55	NO	156.6
	37	Total-pentafurans	339.8597	31.59	2563.000	0.826	0.160		1.86	1.55	YES	14.1
	37	Total-pentafurans	339.8597	31.23	3841.895	0.826	0.241		1.22	1.55	YES	20.2
	37	Total-pentafurans	339.8597	31.06	9505.479	0.826	0.595		1.60	1.55	NO	60.3
	37	Total-pentafurans	339.8597	30.95	17659.588	0.826	1.106		1.53	1.55	NO	95.1
	2	12378-PeCDF	339.8597	30.74	16233.428	0.814	1.009	1.009	1.46	1.55	NO	91.4
	37	Total-pentafurans	339.8597	30.39	40938.377	0.826	2.563		1.49	1.55	NO	129.0

HF

	#	Name	Trace	RT	Area/Resp	RRF M	pg	EMPC	1° Ratio	2° Ratio	2° R	S/N
	38	Total-hexafurans	373.8208	35.64	26460.855	0.948	2.230		1.27	1.24	NO	109.8
	38	Total-hexafurans	373.8208	35.15	190831.258	0.948	16.081		1.21	1.24	NO	817.1
	38	Total-hexafurans	373.8208	34.83	5979.392	0.948	0.504		1.15	1.24	NO	24.8
	38	Total-hexafurans	373.8208	34.56	2977.856	0.948	0.251		1.55	1.24	YES	14.2
	38	Total-hexafurans	373.8208	34.28	183534.820	0.948	15.466		1.22	1.24	NO	700.0
	38	Total-hexafurans	373.8208	34.06	77166.742	0.948	6.503		1.20	1.24	NO	322.6
	7	123789-HxCDF	373.8208	37.99	10306.860	0.874	1.030	1.030	1.22	1.24	NO	37.5
	5	234678-HxCDF	373.8208	36.91	34452.355	1.000	2.912	2.912	1.19	1.24	NO	98.1
	38	Total-hexafurans	373.8208	36.53	3263.130	0.948	0.275		1.04	1.24	YES	12.8
	38	Total-hexafurans	373.8208	36.31	4176.188	0.948	0.352		1.26	1.24	NO	17.6
	38	Total-hexafurans	373.8208	36.18	3068.648	0.948	0.259		1.58	1.24	YES	15.9
	6	123678-HxCDF	373.8208	35.95	25941.478	0.951	1.997	1.997	1.21	1.24	NO	110.1
	4	123478-HxCDF	373.8208	35.81	62304.082	0.967	4.907	4.907	1.28	1.24	NO	261.5

HPF

	#	Name	Trace	RT	Area/Resp	RRF M	pg	EMPC	1° Ratio	2° Ratio	2° R	S/N
	39	Total-heptafurans	407.7818	40.97	340554.828	1.079	52.248		1.01	1.05	NO	1368.6
	39	Total-heptafurans	407.7818	40.66	8277.983	1.079	1.270		1.24	1.05	YES	38.5
	8	1234678-HpCDF	407.7818	40.16	200704.281	1.072	27.608	27.608	1.00	1.05	NO	858.9
	9	1234789-HpCDF	407.7818	42.94	14177.581	1.085	2.463	2.463	1.03	1.05	NO	51.6

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D: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	35	Total-tetrafurans	303.9016	25.24	25683.312	0.771	2.753		0.76	0.77	NO	64.7
	35	Total-tetrafurans	303.9016	24.81	3848.885	0.771	0.413		0.78	0.77	NO	12.8
	35	Total-tetrafurans	303.9016	24.67	6545.576	0.771	0.702		0.74	0.77	NO	20.0
	35	Total-tetrafurans	303.9016	24.57	3753.667	0.771	0.402		0.67	0.77	NO	9.2
	35	Total-tetrafurans	303.9016	24.40	4837.240	0.771	0.518		0.75	0.77	NO	18.4
	35	Total-tetrafurans	303.9016	24.32	2438.910	0.771	0.261		0.68	0.77	NO	6.8
	35	Total-tetrafurans	303.9016	24.20	7381.610	0.771	0.791		0.67	0.77	NO	15.2
	35	Total-tetrafurans	303.9016	24.09	12995.900	0.771	1.393		0.87	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	23.90	16832.294	0.771	1.804		0.72	0.77	NO	36.2
	35	Total-tetrafurans	303.9016	23.31	5184.714	0.771	0.556		0.92	0.77	YES	14.8
	35	Total-tetrafurans	303.9016	23.06	5228.411	0.771	0.560		0.81	0.77	NO	17.5
	35	Total-tetrafurans	303.9016	28.08	2557.811	0.771	0.274		0.38	0.77	YES	7.0
	35	Total-tetrafurans	303.9016	27.08	1675.407	0.771	0.180		0.76	0.77	NO	4.6
	35	Total-tetrafurans	303.9016	26.81	19488.243	0.771	2.089		0.60	0.77	YES	53.7
	35	Total-tetrafurans	303.9016	26.71	23897.699	0.771	2.562		0.72	0.77	NO	68.7
	1	2378-TCDF	303.9016	26.57	9312.674	0.771	0.998	0.998	0.73	0.77	NO	28.9
	35	Total-tetrafurans	303.9016	26.33	17023.980	0.771	1.825		0.78	0.77	NO	40.0
	35	Total-tetrafurans	303.9016	26.20	1880.763	0.771	0.202		0.68	0.77	NO	6.7
	35	Total-tetrafurans	303.9016	26.08	16822.013	0.771	1.803		0.77	0.77	NO	50.2
	35	Total-tetrafurans	303.9016	25.88	4065.722	0.771	0.436		0.68	0.77	NO	10.4
	35	Total-tetrafurans	303.9016	25.66	11965.509	0.771	1.283		0.74	0.77	NO	38.1
	35	Total-tetrafurans	303.9016	25.48	9514.316	0.771	1.020		0.63	0.77	YES	22.6
	35	Total-tetrafurans	303.9016	25.33	6131.491	0.771	0.657		0.71	0.77	NO	23.7
	37	Total-pentafurans	339.8597	30.28	2548.261	0.826	0.160		1.25	1.55	YES	16.8
	37	Total-pentafurans	339.8597	30.16	12211.698	0.826	0.764		1.63	1.55	NO	63.1
	37	Total-pentafurans	339.8597	29.95	2150.440	0.826	0.135		1.92	1.55	YES	13.5
	37	Total-pentafurans	339.8597	29.67	47220.918	0.826	2.956		1.32	1.55	YES	243.8
	37	Total-pentafurans	339.8597	29.59	32273.427	0.826	2.020		1.76	1.55	NO	202.0
	37	Total-pentafurans	339.8597	29.46	40310.849	0.826	2.524		1.61	1.55	NO	124.2
	37	Total-pentafurans	339.8597	33.13	3261.715	0.826	0.204		2.28	1.55	YES	15.7
	3	23478-PeCDF	339.8597	32.10	29714.091	0.837	1.874	1.874	1.49	1.55	NO	155.3
	37	Total-pentafurans	339.8597	31.95	8015.420	0.826	0.502		1.31	1.55	YES	48.4
	37	Total-pentafurans	339.8597	31.83	30503.277	0.826	1.910		1.49	1.55	NO	156.6
	37	Total-pentafurans	339.8597	31.59	2563.000	0.826	0.160		1.86	1.55	YES	14.1
	37	Total-pentafurans	339.8597	31.23	3841.895	0.826	0.241		1.22	1.55	YES	20.2
	37	Total-pentafurans	339.8597	31.06	9505.479	0.826	0.595		1.60	1.55	NO	60.3
	37	Total-pentafurans	339.8597	30.95	17659.588	0.826	1.106		1.53	1.55	NO	95.1
	2	12378-PeCDF	339.8597	30.74	16233.428	0.814	1.009	1.009	1.46	1.55	NO	91.4
	37	Total-pentafurans	339.8597	30.39	40938.377	0.826	2.563		1.49	1.55	NO	129.0
	38	Total-hexafurans	373.8208	35.64	26460.855	0.948	2.230		1.27	1.24	NO	109.8
	38	Total-hexafurans	373.8208	35.15	190831.258	0.948	16.081		1.21	1.24	NO	817.1
	38	Total-hexafurans	373.8208	34.83	5979.392	0.948	0.504		1.15	1.24	NO	24.8
	38	Total-hexafurans	373.8208	34.56	2977.856	0.948	0.251		1.55	1.24	YES	14.2
	38	Total-hexafurans	373.8208	34.28	183534.820	0.948	15.466		1.22	1.24	NO	700.0
	38	Total-hexafurans	373.8208	34.06	77166.742	0.948	6.503		1.20	1.24	NO	322.6
	7	123789-HxCDF	373.8208	37.99	10306.860	0.874	1.030	1.030	1.22	1.24	NO	37.5
	5	234678-HxCDF	373.8208	36.91	34452.355	1.000	2.912	2.912	1.19	1.24	NO	98.1
	38	Total-hexafurans	373.8208	36.53	3263.130	0.948	0.275		1.04	1.24	YES	12.8
	38	Total-hexafurans	373.8208	36.31	4176.188	0.948	0.352		1.26	1.24	NO	17.6

D: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
38	Total-hexafurans	373.8208	36.18	3068.648	0.948	0.259		1.58	1.24	YES	15.9
6	123678-HxCDF	373.8208	35.95	25941.478	0.951	1.997	1.997	1.21	1.24	NO	110.1
4	123478-HxCDF	373.8208	35.81	62304.082	0.967	4.907	4.907	1.28	1.24	NO	261.5
39	Total-heptafurans	407.7818	40.97	340554.828	1.079	52.248		1.01	1.05	NO	1368.6
39	Total-heptafurans	407.7818	40.66	8277.983	1.079	1.270		1.24	1.05	YES	38.5
8	1234678-HpCDF	407.7818	40.16	200704.281	1.072	27.608	27.608	1.00	1.05	NO	858.9
10	OCDF	441.7428	48.48	235575.617	0.878	77.106	77.106	0.87	0.89	NO	512.0
9	1234789-HpCDF	407.7818	42.94	14177.581	1.085	2.463	2.463	1.03	1.05	NO	51.6
36	Total-penta1	339.8597	28.01	156007.730		8.793		1.49	1.55	NO	691.9

TD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
41	Total-tetradioxins	319.8965	24.61	7195.705	0.936	0.532		0.60	0.77	YES	18.0
41	Total-tetradioxins	319.8965	24.33	6549.167	0.936	0.484		0.79	0.77	NO	20.7
41	Total-tetradioxins	319.8965	27.81	2193.883	0.936	0.162		1.08	0.77	YES	6.3
41	Total-tetradioxins	319.8965	27.35	3382.938	0.936	0.250		0.78	0.77	NO	9.0
11	2378-TCDD	319.8965	27.21	3182.090	0.936	0.235	0.129	0.31	0.77	YES	5.4
41	Total-tetradioxins	319.8965	26.84	6085.015	0.936	0.450		0.76	0.77	NO	13.6
41	Total-tetradioxins	319.8965	26.56	3293.754	0.936	0.243		2.97	0.77	YES	14.7
41	Total-tetradioxins	319.8965	26.39	2466.673	0.936	0.182		1.19	0.77	YES	5.9
41	Total-tetradioxins	319.8965	26.18	3308.289	0.936	0.244		0.79	0.77	NO	8.5
41	Total-tetradioxins	319.8965	25.82	4976.427	0.936	0.368		0.85	0.77	NO	13.4
41	Total-tetradioxins	319.8965	25.56	3449.148	0.936	0.255		0.76	0.77	NO	8.7

PD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
42	Total-pentadioxins	355.8546	32.76	3719.946	0.894	0.260		1.20	1.55	YES	20.0
12	12378-PeCDD	355.8546	32.34	10127.607	0.894	0.707	0.707	1.40	1.55	NO	48.2
42	Total-pentadioxins	355.8546	31.66	7093.032	0.894	0.495		1.48	1.55	NO	39.6
42	Total-pentadioxins	355.8546	31.26	8858.440	0.894	0.619		1.51	1.55	NO	34.3
42	Total-pentadioxins	355.8546	31.10	11229.937	0.894	0.784		1.35	1.55	NO	58.8
42	Total-pentadioxins	355.8546	30.96	6670.768	0.894	0.466		1.39	1.55	NO	37.6
42	Total-pentadioxins	355.8546	30.74	17321.697	0.894	1.209		1.64	1.55	NO	105.8
42	Total-pentadioxins	355.8546	30.12	3451.737	0.894	0.241		1.81	1.55	YES	23.8
42	Total-pentadioxins	355.8546	29.65	21087.556	0.894	1.472		1.25	1.55	YES	69.3

HD

#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratl...	1° Ratl...	1° R...	S/N
15	123789-HxCDD	389.8157	37.58	23730.483	0.789	2.375	2.375	1.23	1.24	NO	134.4
43	Total-hexadioxins	389.8157	37.34	8395.712	0.835	0.795		1.25	1.24	NO	44.9
14	123678-HxCDD	389.8157	37.18	43849.494	0.818	4.205	4.205	1.19	1.24	NO	230.4
13	123478-HxCDD	389.8157	37.04	10932.975	0.898	0.970	0.970	1.25	1.24	NO	65.3
43	Total-hexadioxins	389.8157	36.18	6097.351	0.835	0.577		1.50	1.24	YES	38.3
43	Total-hexadioxins	389.8157	36.08	116681.848	0.835	11.043		1.27	1.24	NO	395.4
43	Total-hexadioxins	389.8157	35.69	35252.236	0.835	3.336		1.36	1.24	NO	192.3
43	Total-hexadioxins	389.8157	34.86	66928.512	0.835	6.334		1.22	1.24	NO	342.2

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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HPD

	#	Name	Trace	RT	Area	RRT M...	Conc	EMPC	I Rat...	I Rat...	Det...	S/N
	16	1234678-HpCDD	423.7766	42.02	564146.750	0.879	94.749	94.749	1.02	1.05	NO	1524.0
	44	Total-heptadioxins	423.7766	40.72	632710.188	0.879	106.264		1.02	1.05	NO	1827.1

Dioxins,TD,PD,HD,HPD,OD

	#	Name	Trace	RT	Area	RRT M...	Conc	EMPC	I Rat...	I Rat...	Det...	S/N
	41	Total-tetradioxins	319.8965	24.61	7195.705	0.936	0.532		0.60	0.77	YES	18.0
	41	Total-tetradioxins	319.8965	24.33	6549.167	0.936	0.484		0.79	0.77	NO	20.7
	41	Total-tetradioxins	319.8965	27.81	2193.883	0.936	0.162		1.08	0.77	YES	6.3
	41	Total-tetradioxins	319.8965	27.35	3382.938	0.936	0.250		0.78	0.77	NO	9.0
	11	2378-TCDD	319.8965	27.21	3182.090	0.936	0.235	0.129	0.31	0.77	YES	5.4
	41	Total-tetradioxins	319.8965	26.84	6085.015	0.936	0.450		0.76	0.77	NO	13.6
	41	Total-tetradioxins	319.8965	26.56	3293.754	0.936	0.243		2.97	0.77	YES	14.7
	41	Total-tetradioxins	319.8965	26.39	2466.673	0.936	0.182		1.19	0.77	YES	5.9
	41	Total-tetradioxins	319.8965	26.18	3308.289	0.936	0.244		0.79	0.77	NO	8.5
	41	Total-tetradioxins	319.8965	25.82	4976.427	0.936	0.368		0.85	0.77	NO	13.4
	41	Total-tetradioxins	319.8965	25.56	3449.148	0.936	0.255		0.76	0.77	NO	8.7
	42	Total-pentadioxins	355.8546	32.76	3719.946	0.894	0.260		1.20	1.55	YES	20.0
	12	12378-PeCDD	355.8546	32.34	10127.607	0.894	0.707	0.707	1.40	1.55	NO	48.2
	42	Total-pentadioxins	355.8546	31.66	7093.032	0.894	0.495		1.48	1.55	NO	39.6
	42	Total-pentadioxins	355.8546	31.26	8858.440	0.894	0.619		1.51	1.55	NO	34.3
	42	Total-pentadioxins	355.8546	31.10	11229.937	0.894	0.784		1.35	1.55	NO	58.8
	42	Total-pentadioxins	355.8546	30.96	6670.768	0.894	0.466		1.39	1.55	NO	37.6
	42	Total-pentadioxins	355.8546	30.74	17321.697	0.894	1.209		1.64	1.55	NO	105.8
	42	Total-pentadioxins	355.8546	30.12	3451.737	0.894	0.241		1.81	1.55	YES	23.8
	42	Total-pentadioxins	355.8546	29.65	21087.556	0.894	1.472		1.25	1.55	YES	69.3
	15	123789-HxCDD	389.8157	37.58	23730.483	0.789	2.375	2.375	1.23	1.24	NO	134.4
	43	Total-hexadioxins	389.8157	37.34	8395.712	0.835	0.795		1.25	1.24	NO	44.9
	14	123678-HxCDD	389.8157	37.18	43849.494	0.818	4.205	4.205	1.19	1.24	NO	230.4
	13	123478-HxCDD	389.8157	37.04	10932.975	0.898	0.970	0.970	1.25	1.24	NO	65.3
	43	Total-hexadioxins	389.8157	36.18	6097.351	0.835	0.577		1.50	1.24	YES	38.3
	43	Total-hexadioxins	389.8157	36.08	116681.848	0.835	11.043		1.27	1.24	NO	395.4
	43	Total-hexadioxins	389.8157	35.69	35252.236	0.835	3.336		1.36	1.24	NO	192.3
	43	Total-hexadioxins	389.8157	34.86	66928.512	0.835	6.334		1.22	1.24	NO	342.2
	16	1234678-HpCDD	423.7766	42.02	564146.750	0.879	94.749	94.749	1.02	1.05	NO	1524.0
	44	Total-heptadioxins	423.7766	40.72	632710.188	0.879	106.264		1.02	1.05	NO	1827.1
	17	OCDD	457.7377	48.20	4161688.000	0.875	1366.0...	1366...	0.87	0.89	NO	10104.9

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TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abs Peak	RRF	pg	TEQ PG	11 Ratio	12 Ratio	IP Flag	S/N
	35	Total-tetrafurans	303.9016	25.24	25683.312	0.771	2.753		0.76	0.77	NO	64.7
	35	Total-tetrafurans	303.9016	24.81	3848.885	0.771	0.413		0.78	0.77	NO	12.8
	35	Total-tetrafurans	303.9016	24.67	6545.576	0.771	0.702		0.74	0.77	NO	20.0
	35	Total-tetrafurans	303.9016	24.57	3753.667	0.771	0.402		0.67	0.77	NO	9.2
	35	Total-tetrafurans	303.9016	24.40	4837.240	0.771	0.518		0.75	0.77	NO	18.4
	35	Total-tetrafurans	303.9016	24.32	2438.910	0.771	0.261		0.68	0.77	NO	6.8
	35	Total-tetrafurans	303.9016	24.20	7381.610	0.771	0.791		0.67	0.77	NO	15.2
	35	Total-tetrafurans	303.9016	24.09	12995.900	0.771	1.393		0.87	0.77	NO	29.9
	35	Total-tetrafurans	303.9016	23.90	16832.294	0.771	1.804		0.72	0.77	NO	36.2
	35	Total-tetrafurans	303.9016	23.31	5184.714	0.771	0.556		0.92	0.77	YES	14.8
	35	Total-tetrafurans	303.9016	23.06	5228.411	0.771	0.560		0.81	0.77	NO	17.5
	35	Total-tetrafurans	303.9016	28.08	2557.811	0.771	0.274		0.38	0.77	YES	7.0
	35	Total-tetrafurans	303.9016	27.08	1675.407	0.771	0.180		0.76	0.77	NO	4.6
	35	Total-tetrafurans	303.9016	26.81	19488.243	0.771	2.089		0.60	0.77	YES	53.7
	35	Total-tetrafurans	303.9016	26.71	23897.699	0.771	2.562		0.72	0.77	NO	68.7
	1	2378-TCDF	303.9016	26.57	9312.674	0.771	0.998	0.998	0.73	0.77	NO	28.9
	35	Total-tetrafurans	303.9016	26.33	17023.980	0.771	1.825		0.78	0.77	NO	40.0
	35	Total-tetrafurans	303.9016	26.20	1880.763	0.771	0.202		0.68	0.77	NO	6.7
	35	Total-tetrafurans	303.9016	26.08	16822.013	0.771	1.803		0.77	0.77	NO	50.2
	35	Total-tetrafurans	303.9016	25.88	4065.722	0.771	0.436		0.68	0.77	NO	10.4
	35	Total-tetrafurans	303.9016	25.66	11965.509	0.771	1.283		0.74	0.77	NO	38.1
	35	Total-tetrafurans	303.9016	25.48	9514.316	0.771	1.020		0.63	0.77	YES	22.6
	35	Total-tetrafurans	303.9016	25.33	6131.491	0.771	0.657		0.71	0.77	NO	23.7
	37	Total-pentafurans	339.8597	30.28	2548.261	0.826	0.160		1.25	1.55	YES	16.8
	37	Total-pentafurans	339.8597	30.16	12211.698	0.826	0.764		1.63	1.55	NO	63.1
	37	Total-pentafurans	339.8597	29.95	2150.440	0.826	0.135		1.92	1.55	YES	13.5
	37	Total-pentafurans	339.8597	29.67	47220.918	0.826	2.956		1.32	1.55	YES	243.8
	37	Total-pentafurans	339.8597	29.59	32273.427	0.826	2.020		1.76	1.55	NO	202.0
	37	Total-pentafurans	339.8597	29.46	40310.849	0.826	2.524		1.61	1.55	NO	124.2
	37	Total-pentafurans	339.8597	33.13	3261.715	0.826	0.204		2.28	1.55	YES	15.7
	3	23478-PeCDF	339.8597	32.10	29714.091	0.837	1.874	1.874	1.49	1.55	NO	155.3
	37	Total-pentafurans	339.8597	31.95	8015.420	0.826	0.502		1.31	1.55	YES	48.4
	37	Total-pentafurans	339.8597	31.83	30503.277	0.826	1.910		1.49	1.55	NO	156.6
	37	Total-pentafurans	339.8597	31.59	2563.000	0.826	0.160		1.86	1.55	YES	14.1
	37	Total-pentafurans	339.8597	31.23	3841.895	0.826	0.241		1.22	1.55	YES	20.2
	37	Total-pentafurans	339.8597	31.06	9505.479	0.826	0.595		1.60	1.55	NO	60.3
	37	Total-pentafurans	339.8597	30.95	17659.588	0.826	1.106		1.53	1.55	NO	95.1
	2	12378-PeCDF	339.8597	30.74	16233.428	0.814	1.009	1.009	1.46	1.55	NO	91.4
	37	Total-pentafurans	339.8597	30.39	40938.377	0.826	2.563		1.49	1.55	NO	129.0
	38	Total-hexafurans	373.8208	35.64	26460.855	0.948	2.230		1.27	1.24	NO	109.8
	38	Total-hexafurans	373.8208	35.15	190831.258	0.948	16.081		1.21	1.24	NO	817.1
	38	Total-hexafurans	373.8208	34.83	5979.392	0.948	0.504		1.15	1.24	NO	24.8
	38	Total-hexafurans	373.8208	34.56	2977.856	0.948	0.251		1.55	1.24	YES	14.2
	38	Total-hexafurans	373.8208	34.28	183534.820	0.948	15.466		1.22	1.24	NO	700.0
	38	Total-hexafurans	373.8208	34.06	77166.742	0.948	6.503		1.20	1.24	NO	322.6
	7	123789-HxCDF	373.8208	37.99	10306.860	0.874	1.030	1.030	1.22	1.24	NO	37.5
	5	234678-HxCDF	373.8208	36.91	34452.355	1.000	2.912	2.912	1.19	1.24	NO	98.1
	38	Total-hexafurans	373.8208	36.53	3263.130	0.948	0.275		1.04	1.24	YES	12.8
	38	Total-hexafurans	373.8208	36.31	4176.188	0.948	0.352		1.26	1.24	NO	17.6

Quantify Totals Report MassLynx 4.1 SCN 714
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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trace	RT	Area	RRF M	pg	EMPC	1° Rat.	2° Rat.	4 Ri.	S/N
[redacted]	38	Total-hexafurans	373.8208	36.18	3068.648	0.948	0.259		1.58	1.24	YES	15.9
[redacted]	6	123678-HxCDF	373.8208	35.95	25941.478	0.951	1.997	1.997	1.21	1.24	NO	110.1
[redacted]	4	123478-HxCDF	373.8208	35.81	62304.082	0.967	4.907	4.907	1.28	1.24	NO	261.5
[redacted]	39	Total-heptafurans	407.7818	40.97	340554.828	1.079	52.248		1.01	1.05	NO	1368.6
[redacted]	39	Total-heptafurans	407.7818	40.66	8277.983	1.079	1.270		1.24	1.05	YES	38.5
[redacted]	8	1234678-HpCDF	407.7818	40.16	200704.281	1.072	27.608	27.608	1.00	1.05	NO	858.9
[redacted]	10	OCDF	441.7428	48.48	235575.617	0.878	77.106	77.106	0.87	0.89	NO	512.0
[redacted]	9	1234789-HpCDF	407.7818	42.94	14177.581	1.085	2.463	2.463	1.03	1.05	NO	51.6
[redacted]	36	Total-penta1	339.8597	28.01	156007.730		8.793		1.49	1.55	NO	691.9
[redacted]	41	Total-tetradioxins	319.8965	24.61	7195.705	0.936	0.532		0.60	0.77	YES	18.0
[redacted]	41	Total-tetradioxins	319.8965	24.33	6549.167	0.936	0.484		0.79	0.77	NO	20.7
[redacted]	41	Total-tetradioxins	319.8965	27.81	2193.883	0.936	0.162		1.08	0.77	YES	6.3
[redacted]	41	Total-tetradioxins	319.8965	27.35	3382.938	0.936	0.250		0.78	0.77	NO	9.0
[redacted]	11	2378-TCDD	319.8965	27.21	3182.090	0.936	0.235	0.129	0.31	0.77	YES	5.4
[redacted]	41	Total-tetradioxins	319.8965	26.84	6085.015	0.936	0.450		0.76	0.77	NO	13.6
[redacted]	41	Total-tetradioxins	319.8965	26.56	3293.754	0.936	0.243		2.97	0.77	YES	14.7
[redacted]	41	Total-tetradioxins	319.8965	26.39	2466.673	0.936	0.182		1.19	0.77	YES	5.9
[redacted]	41	Total-tetradioxins	319.8965	26.18	3308.289	0.936	0.244		0.79	0.77	NO	8.5
[redacted]	41	Total-tetradioxins	319.8965	25.82	4976.427	0.936	0.368		0.85	0.77	NO	13.4
[redacted]	41	Total-tetradioxins	319.8965	25.56	3449.148	0.936	0.255		0.76	0.77	NO	8.7
[redacted]	42	Total-pentadioxins	355.8546	32.76	3719.946	0.894	0.260		1.20	1.55	YES	20.0
[redacted]	12	12378-PeCDD	355.8546	32.34	10127.607	0.894	0.707	0.707	1.40	1.55	NO	48.2
[redacted]	42	Total-pentadioxins	355.8546	31.66	7093.032	0.894	0.495		1.48	1.55	NO	39.6
[redacted]	42	Total-pentadioxins	355.8546	31.26	8858.440	0.894	0.619		1.51	1.55	NO	34.3
[redacted]	42	Total-pentadioxins	355.8546	31.10	11229.937	0.894	0.784		1.35	1.55	NO	58.8
[redacted]	42	Total-pentadioxins	355.8546	30.96	6670.768	0.894	0.466		1.39	1.55	NO	37.6
[redacted]	42	Total-pentadioxins	355.8546	30.74	17321.697	0.894	1.209		1.64	1.55	NO	105.8
[redacted]	42	Total-pentadioxins	355.8546	30.12	3451.737	0.894	0.241		1.81	1.55	YES	23.8
[redacted]	42	Total-pentadioxins	355.8546	29.65	21087.556	0.894	1.472		1.25	1.55	YES	69.3
[redacted]	15	123789-HxCDD	389.8157	37.58	23730.483	0.789	2.375	2.375	1.23	1.24	NO	134.4
[redacted]	43	Total-hexadioxins	389.8157	37.34	8395.712	0.835	0.795		1.25	1.24	NO	44.9
[redacted]	14	123678-HxCDD	389.8157	37.18	43849.494	0.818	4.205	4.205	1.19	1.24	NO	230.4
[redacted]	13	123478-HxCDD	389.8157	37.04	10932.975	0.898	0.970	0.970	1.25	1.24	NO	65.3
[redacted]	43	Total-hexadioxins	389.8157	36.18	6097.351	0.835	0.577		1.50	1.24	YES	38.3
[redacted]	43	Total-hexadioxins	389.8157	36.08	116681.848	0.835	11.043		1.27	1.24	NO	395.4
[redacted]	43	Total-hexadioxins	389.8157	35.69	35252.236	0.835	3.336		1.36	1.24	NO	192.3
[redacted]	43	Total-hexadioxins	389.8157	34.86	66928.512	0.835	6.334		1.22	1.24	NO	342.2
[redacted]	16	1234678-HpCDD	423.7766	42.02	564146.750	0.879	94.749	94.749	1.02	1.05	NO	1524.0
[redacted]	44	Total-heptadioxins	423.7766	40.72	632710.188	0.879	106.264		1.02	1.05	NO	1827.1
[redacted]	17	OCDD	457.7377	48.20	4161688.000	0.875	1366.0...	1366...	0.87	0.89	NO	10104.9

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PFK1

	#	Name		RT	Area Ratio	RRF M...	ng	EMPC	1° Ion ...	1° Ion ...	S:N	S/N
[redacted]	48	FUNCTION1 PFK	330.9792	22.90	0.000							1.1
	48	FUNCTION1 PFK	330.9792	22.72	0.000							0.4
	48	FUNCTION1 PFK	330.9792	22.64	0.000							1.5
	48	FUNCTION1 PFK	330.9792	22.58	0.000							0.9
	48	FUNCTION1 PFK	330.9792	22.48	0.000							1.8
	48	FUNCTION1 PFK	330.9792	22.28	0.000							1.7
	48	FUNCTION1 PFK	330.9792	22.03	0.000							1.6
	48	FUNCTION1 PFK	330.9792	21.92	0.000							1.1
	48	FUNCTION1 PFK	330.9792	21.85	0.000							1.0
	48	FUNCTION1 PFK	330.9792	21.78	0.000							1.5
	48	FUNCTION1 PFK	330.9792	21.70	0.000							0.5
	48	FUNCTION1 PFK	330.9792	21.34	0.000							0.0
	48	FUNCTION1 PFK	330.9792	21.21	0.000							2.2
	48	FUNCTION1 PFK	330.9792	21.12	0.000							0.9
	48	FUNCTION1 PFK	330.9792	25.48	0.000							1.4
	48	FUNCTION1 PFK	330.9792	25.39	0.000							1.0
	48	FUNCTION1 PFK	330.9792	25.32	0.000							1.8
	48	FUNCTION1 PFK	330.9792	24.99	0.000							2.0
	48	FUNCTION1 PFK	330.9792	24.93	0.000							0.4
	48	FUNCTION1 PFK	330.9792	24.67	0.000							1.5
	48	FUNCTION1 PFK	330.9792	24.54	0.000							1.4
	48	FUNCTION1 PFK	330.9792	24.42	0.000							2.2
	48	FUNCTION1 PFK	330.9792	24.29	0.000							1.3
	48	FUNCTION1 PFK	330.9792	24.20	0.000							2.4
	48	FUNCTION1 PFK	330.9792	24.14	0.000							1.9
	48	FUNCTION1 PFK	330.9792	23.70	0.000							2.0
	48	FUNCTION1 PFK	330.9792	23.60	0.000							1.3
	48	FUNCTION1 PFK	330.9792	23.31	0.000							1.5
	48	FUNCTION1 PFK	330.9792	23.24	0.000							0.9
	48	FUNCTION1 PFK	330.9792	23.03	0.000							0.7
	48	FUNCTION1 PFK	330.9792	28.71	0.000							1.6
	48	FUNCTION1 PFK	330.9792	28.10	0.000							1.9
	48	FUNCTION1 PFK	330.9792	27.92	0.000							3.0
	48	FUNCTION1 PFK	330.9792	27.83	0.000							1.5
	48	FUNCTION1 PFK	330.9792	27.66	0.000							0.7
	48	FUNCTION1 PFK	330.9792	27.51	0.000							0.6
	48	FUNCTION1 PFK	330.9792	27.29	0.000							0.6
	48	FUNCTION1 PFK	330.9792	27.24	0.000							0.7
	48	FUNCTION1 PFK	330.9792	27.18	0.000							0.9
	48	FUNCTION1 PFK	330.9792	26.96	0.000							1.7
	48	FUNCTION1 PFK	330.9792	26.81	0.000							2.4
	48	FUNCTION1 PFK	330.9792	26.51	0.000							2.1
	48	FUNCTION1 PFK	330.9792	26.15	0.000							0.8
	48	FUNCTION1 PFK	330.9792	25.84	0.000							0.4
	48	FUNCTION1 PFK	330.9792	25.63	0.000							1.4
	48	FUNCTION1 PFK	330.9792	25.57	0.000							1.7

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PFK2

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rel...	2° Rel...	1° R...	S/N
	49	FUNCTION2 PFK	366.9792	31.75	0.000		0.000					1.2
	49	FUNCTION2 PFK	366.9792	31.50	0.000		0.000					2.4
	49	FUNCTION2 PFK	366.9792	31.31	0.000		0.000					0.4
	49	FUNCTION2 PFK	366.9792	31.28	0.000		0.000					0.4
	49	FUNCTION2 PFK	366.9792	31.18	0.000		0.000					1.6
	49	FUNCTION2 PFK	366.9792	30.87	0.000		0.000					1.9
	49	FUNCTION2 PFK	366.9792	30.64	0.000		0.000					1.1
	49	FUNCTION2 PFK	366.9792	30.15	0.000		0.000					0.6
	49	FUNCTION2 PFK	366.9792	29.94	0.000		0.000					1.3
	49	FUNCTION2 PFK	366.9792	29.76	0.000		0.000					1.0
	49	FUNCTION2 PFK	366.9792	29.61	0.000		0.000					0.6
	49	FUNCTION2 PFK	366.9792	29.16	0.000		0.000					1.8
	49	FUNCTION2 PFK	366.9792	29.11	0.000		0.000					2.5
	49	FUNCTION2 PFK	366.9792	29.05	0.000		0.000					2.9
	49	FUNCTION2 PFK	366.9792	28.97	0.000		0.000					3.4
	49	FUNCTION2 PFK	366.9792	33.10	0.000		0.000					0.5
	49	FUNCTION2 PFK	366.9792	32.85	0.000		0.000					0.7
	49	FUNCTION2 PFK	366.9792	32.55	0.000		0.000					0.6
	49	FUNCTION2 PFK	366.9792	32.29	0.000		0.000					1.5
	49	FUNCTION2 PFK	366.9792	32.21	0.000		0.000					1.4
	49	FUNCTION2 PFK	366.9792	32.11	0.000		0.000					1.9
	49	FUNCTION2 PFK	366.9792	32.03	0.000		0.000					2.5
	49	FUNCTION2 PFK	366.9792	31.88	0.000		0.000					1.6

PFK3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Rel...	2° Rel...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	37.57	0.000		0.000					0.9

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

D: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

PFK4

[redacted]	51	FUNCTION4 PFK	430.9728	39.61	0.000						1.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.56	0.000						1.8
[redacted]	51	FUNCTION4 PFK	430.9728	39.33	0.000						2.0
[redacted]	51	FUNCTION4 PFK	430.9728	39.23	0.000						1.4
[redacted]	51	FUNCTION4 PFK	430.9728	39.16	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.70	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.60	0.000						1.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.56	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	41.52	0.000						1.6
[redacted]	51	FUNCTION4 PFK	430.9728	41.49	0.000						1.8
[redacted]	51	FUNCTION4 PFK	430.9728	41.36	0.000						1.9
[redacted]	51	FUNCTION4 PFK	430.9728	41.14	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	40.94	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.87	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	40.81	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	40.65	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	40.12	0.000						1.5
[redacted]	51	FUNCTION4 PFK	430.9728	39.97	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	39.84	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	39.72	0.000						1.1
[redacted]	51	FUNCTION4 PFK	430.9728	39.66	0.000						1.1
[redacted]	51	FUNCTION4 PFK	430.9728	43.64	0.000						0.3
[redacted]	51	FUNCTION4 PFK	430.9728	43.23	0.000						0.9
[redacted]	51	FUNCTION4 PFK	430.9728	43.19	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.84	0.000						1.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.78	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	42.73	0.000						0.7
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[redacted]	51	FUNCTION4 PFK	430.9728	42.65	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	42.55	0.000						1.2
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[redacted]	51	FUNCTION4 PFK	430.9728	42.35	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	42.22	0.000						0.7
[redacted]	51	FUNCTION4 PFK	430.9728	42.14	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	41.98	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	41.91	0.000						0.4
[redacted]	51	FUNCTION4 PFK	430.9728	44.84	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.80	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	44.66	0.000						0.5
[redacted]	51	FUNCTION4 PFK	430.9728	44.60	0.000						0.8
[redacted]	51	FUNCTION4 PFK	430.9728	44.49	0.000						1.3
[redacted]	51	FUNCTION4 PFK	430.9728	44.34	0.000						1.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.23	0.000						1.2
[redacted]	51	FUNCTION4 PFK	430.9728	44.16	0.000						1.0
[redacted]	51	FUNCTION4 PFK	430.9728	44.04	0.000						0.6
[redacted]	51	FUNCTION4 PFK	430.9728	43.97	0.000						1.3

D: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

PFK5

[redacted]	#	Name	Mass	RT	Abs Resp	RRF M...	pg	EMPC	T. Ratio	T. Ratio	T. R...	S/N
[redacted]	52	FUNCTION5 PFK	480.9696	46.07	0.000							1.8
[redacted]	52	FUNCTION5 PFK	480.9696	46.03	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	45.81	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	45.33	0.000							1.1
[redacted]	52	FUNCTION5 PFK	480.9696	45.26	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	48.99	0.000							0.9
[redacted]	52	FUNCTION5 PFK	480.9696	48.89	0.000							2.2
[redacted]	52	FUNCTION5 PFK	480.9696	48.82	0.000							2.3
[redacted]	52	FUNCTION5 PFK	480.9696	48.08	0.000							1.4
[redacted]	52	FUNCTION5 PFK	480.9696	47.95	0.000							1.3
[redacted]	52	FUNCTION5 PFK	480.9696	47.51	0.000							0.7
[redacted]	52	FUNCTION5 PFK	480.9696	47.25	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	47.11	0.000							1.9
[redacted]	52	FUNCTION5 PFK	480.9696	47.05	0.000							1.5
[redacted]	52	FUNCTION5 PFK	480.9696	46.99	0.000							1.6
[redacted]	52	FUNCTION5 PFK	480.9696	46.95	0.000							1.9
[redacted]	52	FUNCTION5 PFK	480.9696	46.58	0.000							0.6
[redacted]	52	FUNCTION5 PFK	480.9696	46.43	0.000							0.8
[redacted]	52	FUNCTION5 PFK	480.9696	46.39	0.000							1.1

ETHERS1

[redacted]	#	Name	Mass	RT	Abs Resp	RRF M...	pg	EMPC	T. Ratio	T. Ratio	T. R...	S/N
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.27	0.000	0.000						1.3
[redacted]	53	FUNCTION1 HXCD...	375.8364	28.08	0.000	0.000						2.2
[redacted]	53	FUNCTION1 HXCD...	375.8364	27.24	0.000	0.000						4.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.57	0.000	0.000						3.0
[redacted]	53	FUNCTION1 HXCD...	375.8364	24.42	0.000	0.000						2.4
[redacted]	53	FUNCTION1 HXCD...	375.8364	22.54	0.000	0.000						3.4

ETHERS2

[redacted]	#	Name	Mass	RT	Abs Resp	RRF M...	pg	EMPC	T. Ratio	T. Ratio	T. R...	S/N
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.81	0.000	0.000						1.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	27.66	0.000	0.000						2.3
[redacted]	54	FUNCTION1 HPCD...	409.7974	26.47	0.000	0.000						2.0
[redacted]	54	FUNCTION1 HPCD...	409.7974	25.73	0.000	0.000						1.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.69	0.000	0.000						3.7
[redacted]	54	FUNCTION1 HPCD...	409.7974	23.33	0.000	0.000						1.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.85	0.000	0.000						3.2
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.39	0.000	0.000						1.8
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.33	0.000	0.000						1.4
[redacted]	54	FUNCTION1 HPCD...	409.7974	22.16	0.000	0.000						2.1
[redacted]	54	FUNCTION1 HPCD...	409.7974	28.36	0.000	0.000						2.6
[redacted]	54	FUNCTION1 HPCD...	409.7974	28.11	0.000	0.000						2.0

ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	33.11	0.000		0.000					2.3
	55	FUNCTION2 HPCD...	409.7974	31.40	0.000		0.000					2.4
	55	FUNCTION2 HPCD...	409.7974	30.38	0.000		0.000					3.4

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	38.51	0.000		0.000					3.2
	56	FUNCTION3 OCDPE	445.7555	37.36	0.000		0.000					1.2
	56	FUNCTION3 OCDPE	445.7555	37.26	0.000		0.000					3.0
	56	FUNCTION3 OCDPE	445.7555	36.24	0.000		0.000					2.0
	56	FUNCTION3 OCDPE	445.7555	35.05	0.000		0.000					1.8
	56	FUNCTION3 OCDPE	445.7555	33.94	0.000		0.000					4.5

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	41.12	0.000		0.000					1.3
	57	FUNCTION4 NCDPE	479.7165	40.41	0.000		0.000					2.1
	57	FUNCTION4 NCDPE	479.7165	44.75	0.000		0.000					2.1
	57	FUNCTION4 NCDPE	479.7165	43.72	0.000		0.000					3.4
	57	FUNCTION4 NCDPE	479.7165	43.65	0.000		0.000					3.0
	57	FUNCTION4 NCDPE	479.7165	43.07	0.000		0.000					1.1
	57	FUNCTION4 NCDPE	479.7165	42.99	0.000		0.000					2.7
	57	FUNCTION4 NCDPE	479.7165	42.48	0.000		0.000					2.2
	57	FUNCTION4 NCDPE	479.7165	42.42	0.000		0.000					3.5
	57	FUNCTION4 NCDPE	479.7165	41.87	0.000		0.000					2.5
	57	FUNCTION4 NCDPE	479.7165	41.48	0.000		0.000					1.9

ETHERS6

	#	Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	58	FUNCTION5 DCDPE	513.6775	48.82	0.000		0.000					2.2
	58	FUNCTION5 DCDPE	513.6775	47.62	0.000		0.000					2.7

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

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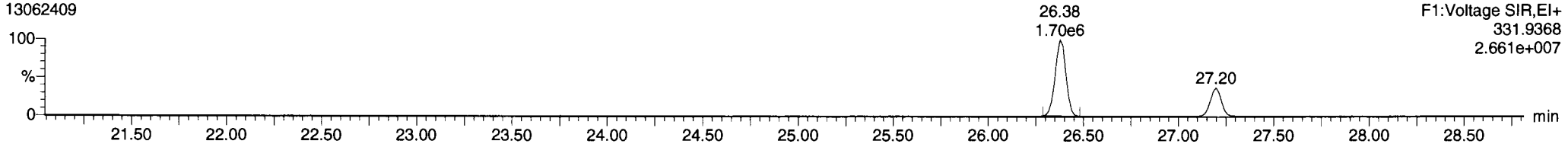
ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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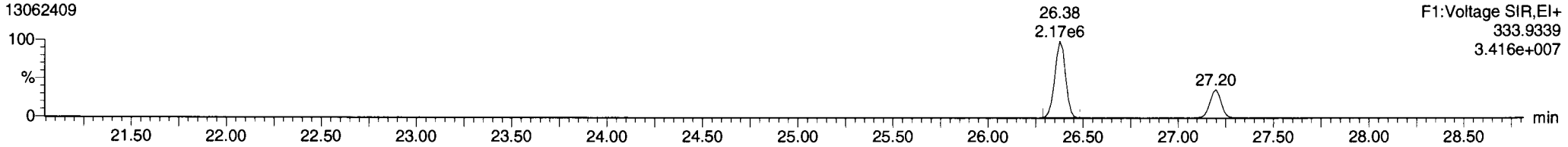

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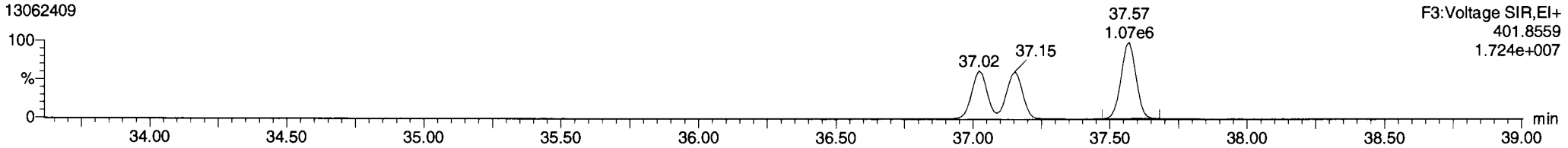

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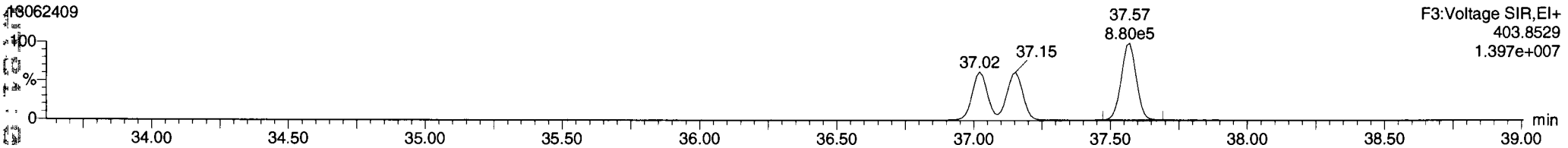

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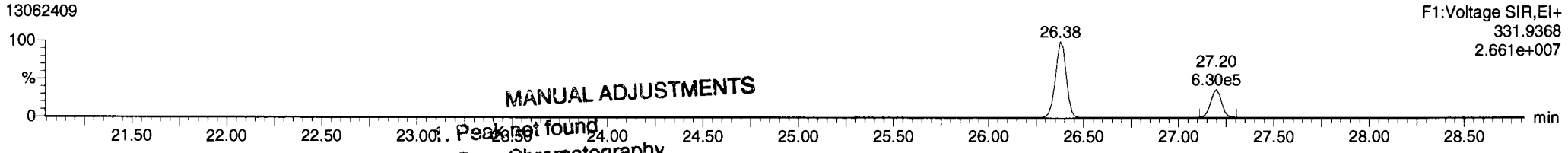
ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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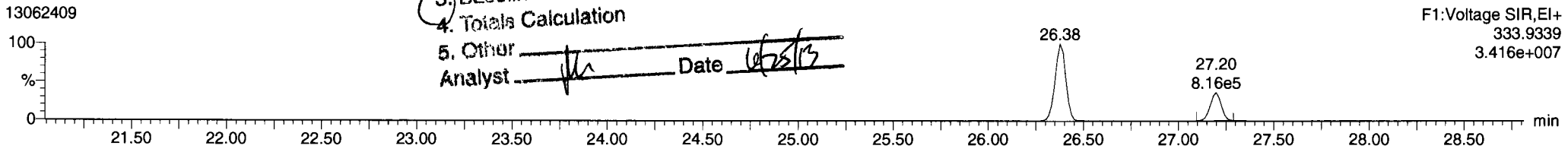
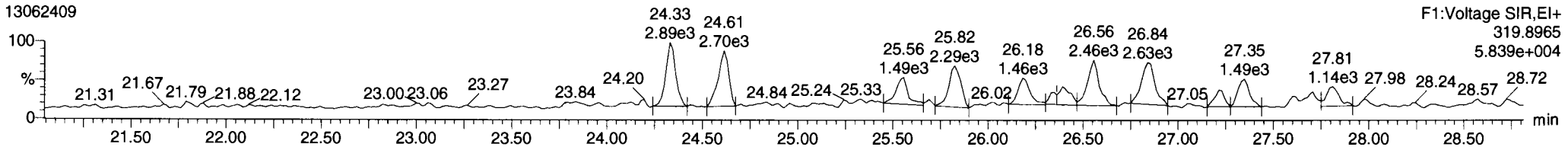
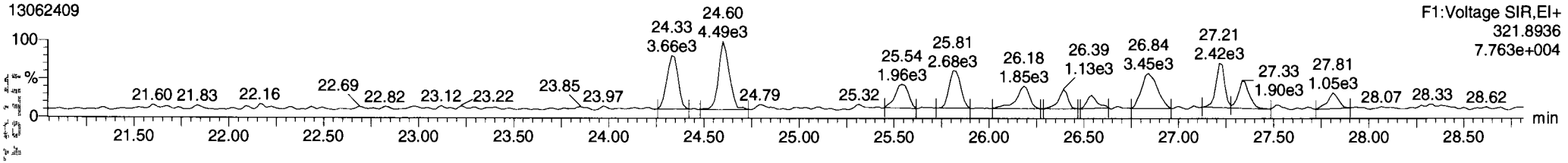


Total-tetradioxins



Total-tetradioxins



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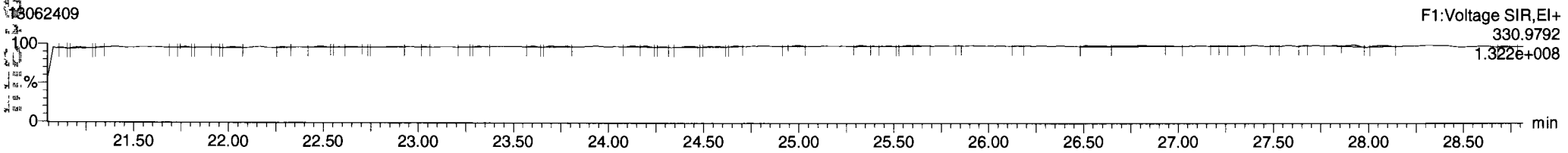

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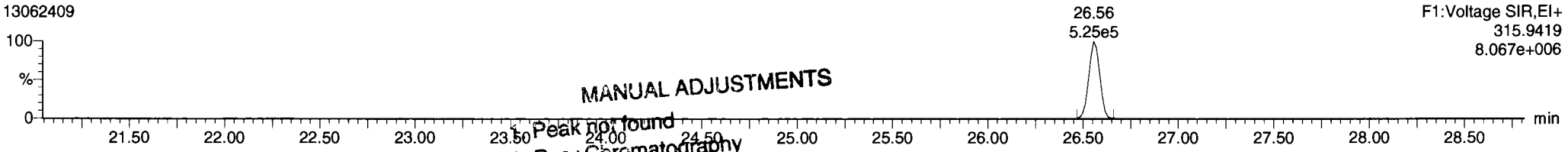
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

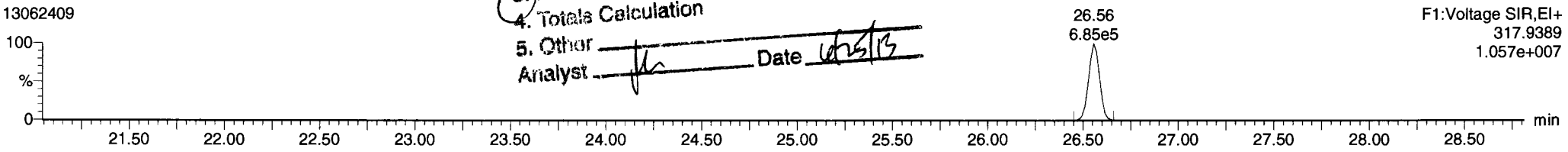
ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

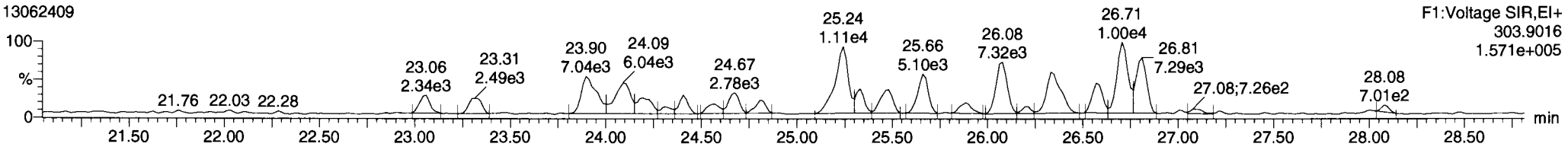


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/25/13

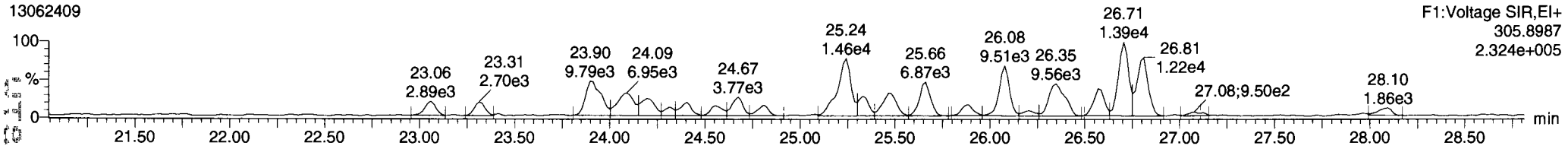
13C-2378-TCDF



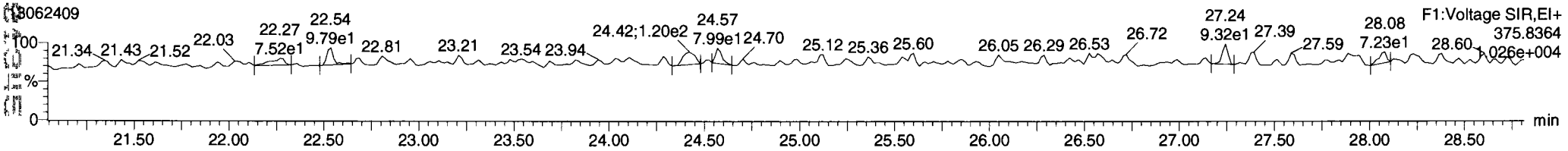
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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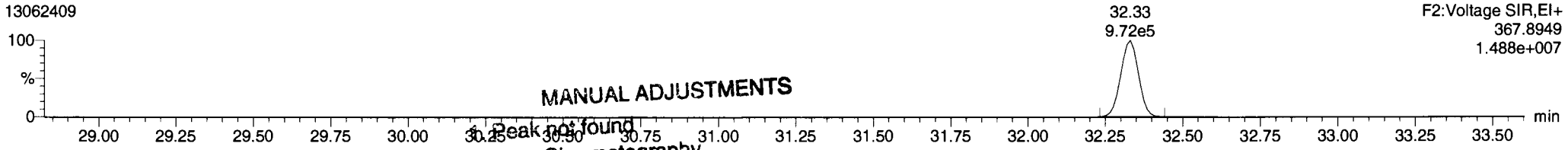
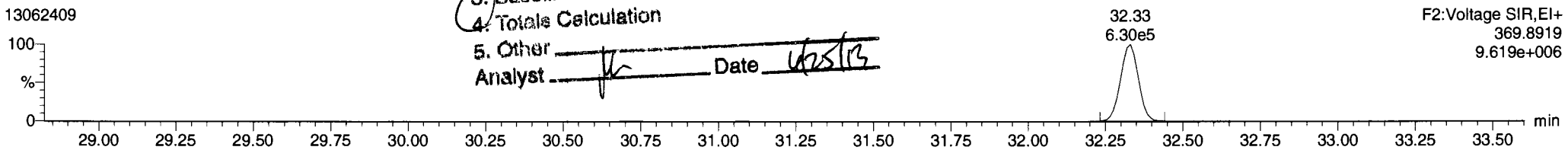
13C-12378-PeCDD

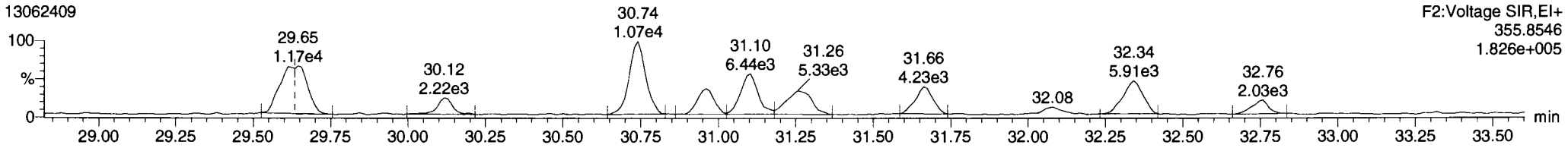


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/25/13

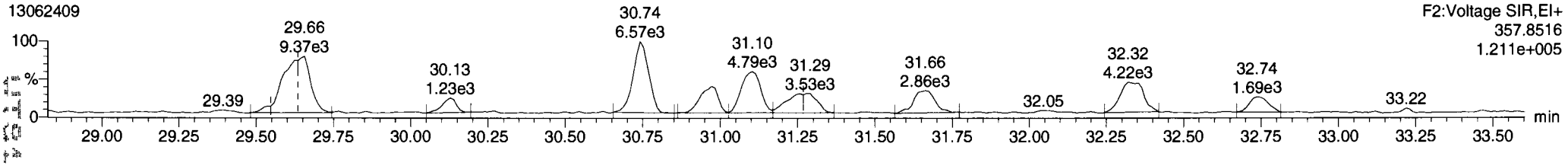
13C-12378-PeCDD



Total-pentadioxins



Total-pentadioxins



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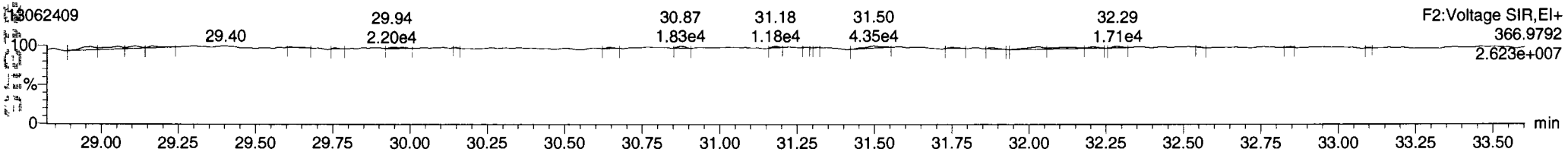

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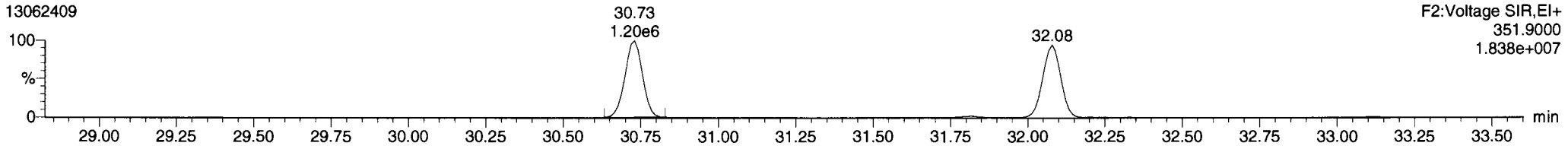
Printed: Tuesday, June 25, 2013 14:47:52 Pacific Daylight Time

ID: WT81A, Name: 13062409, Date: 24-Jun-2013, Time: 16:16:48, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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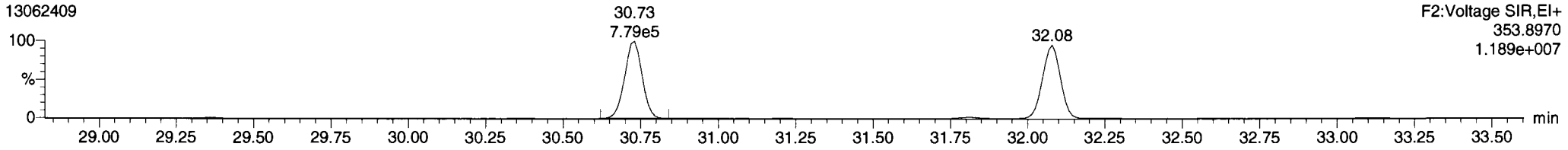

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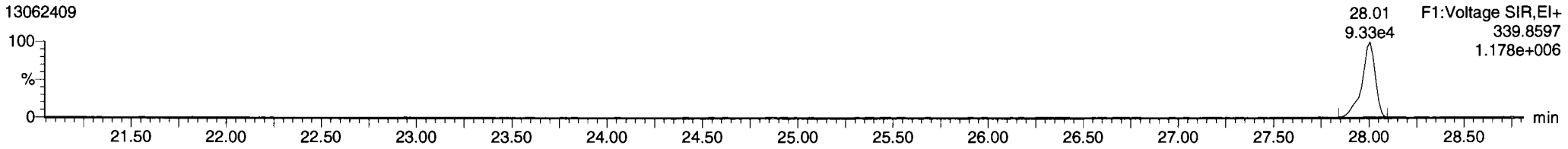

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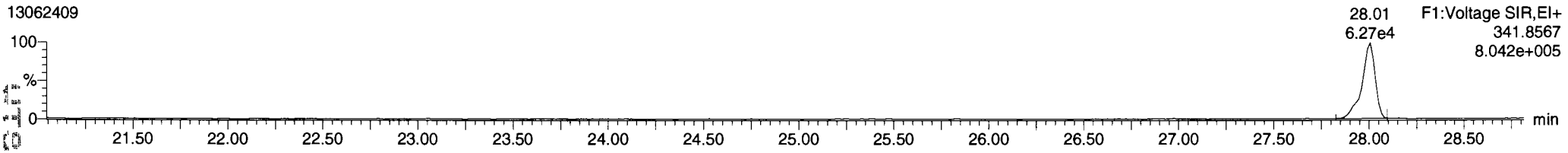

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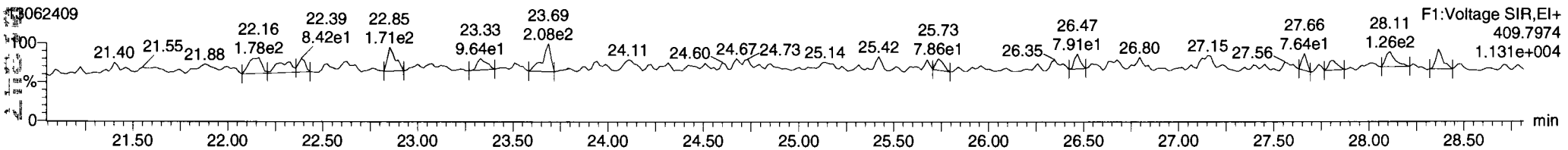

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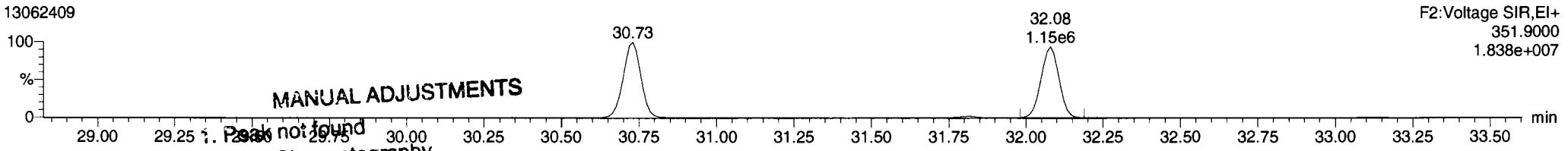
13C-23478-PeCDF



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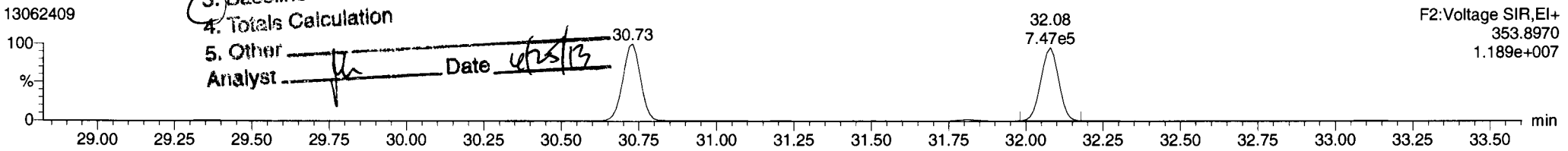

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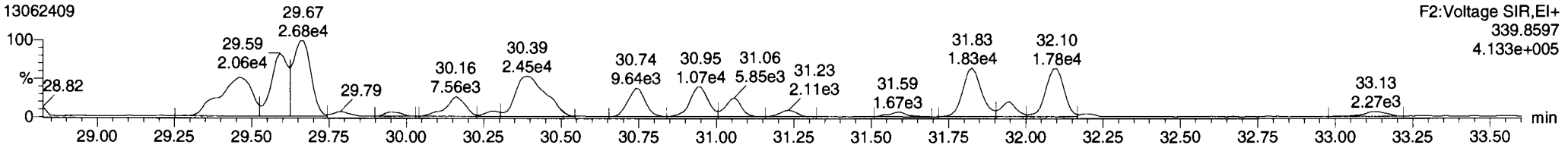

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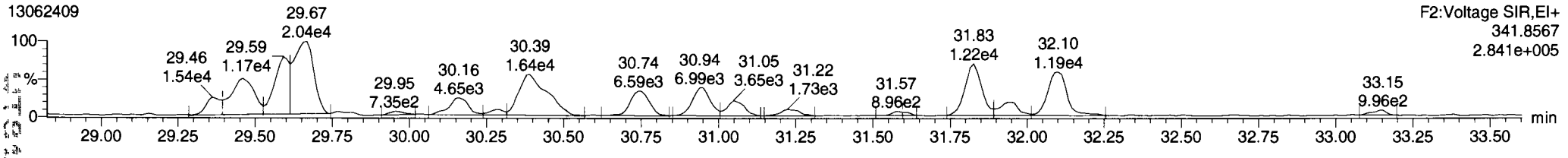

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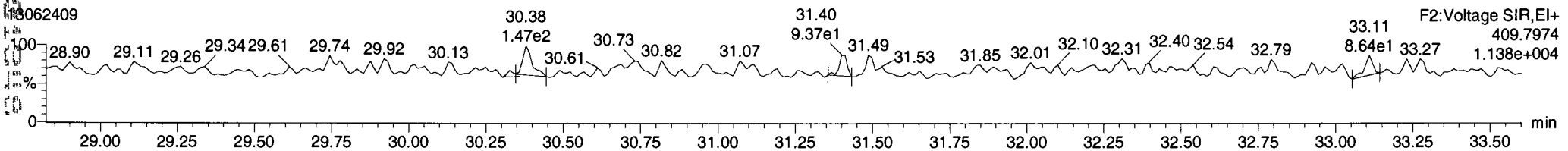

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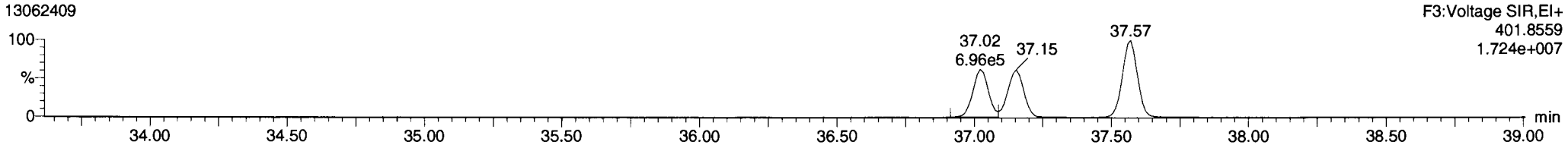
13C-123478-HxCDD



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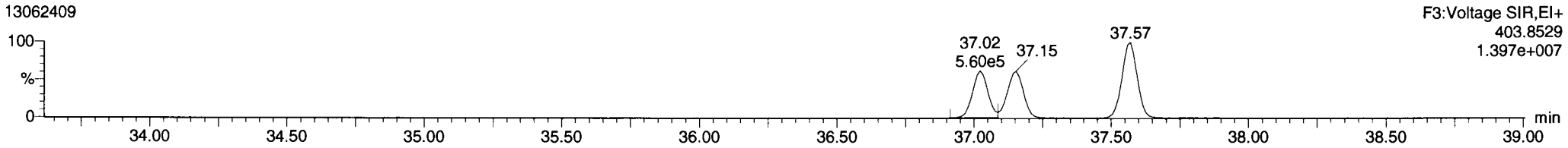

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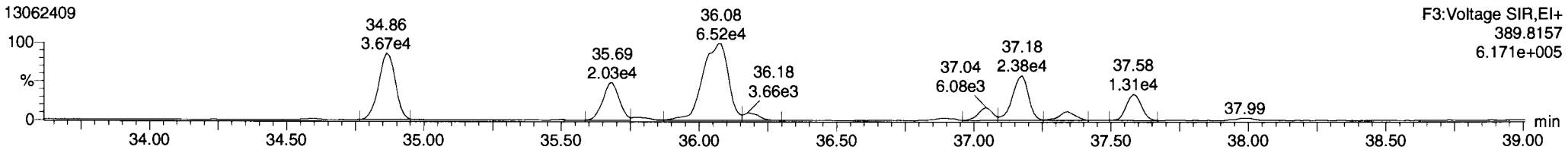
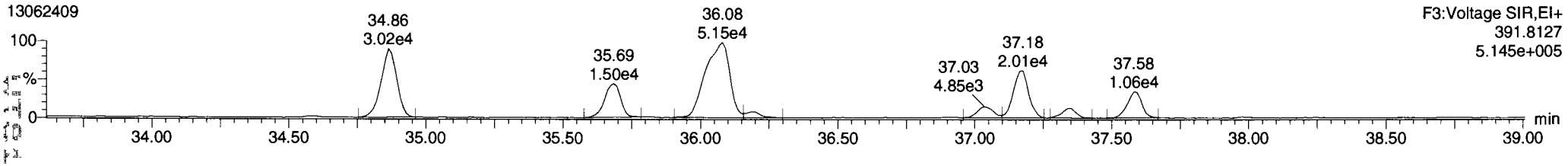


Total-hexadioxins



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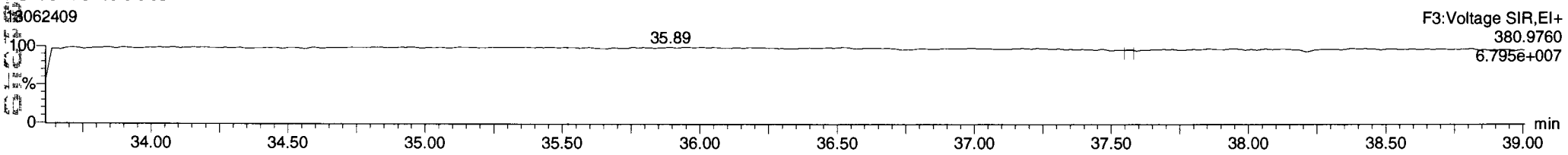

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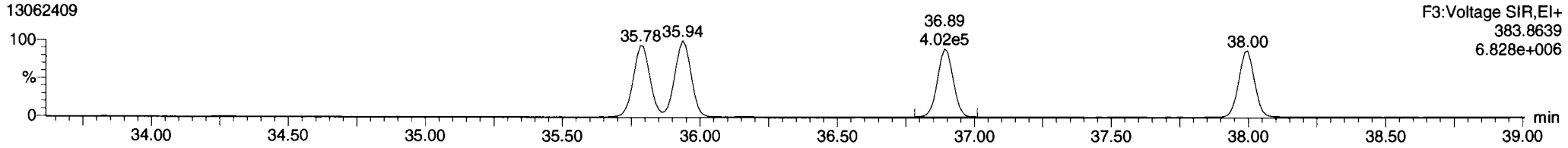
13C-234678-HxCDF



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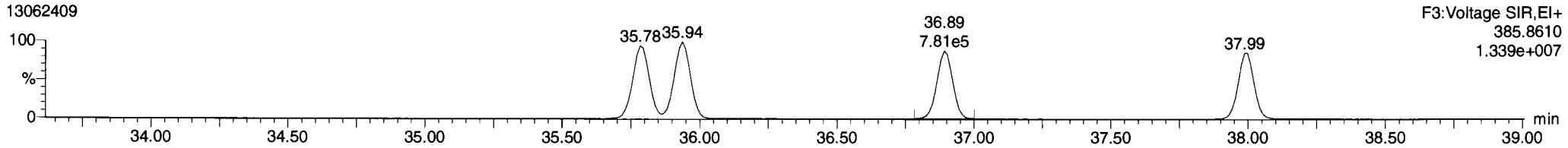
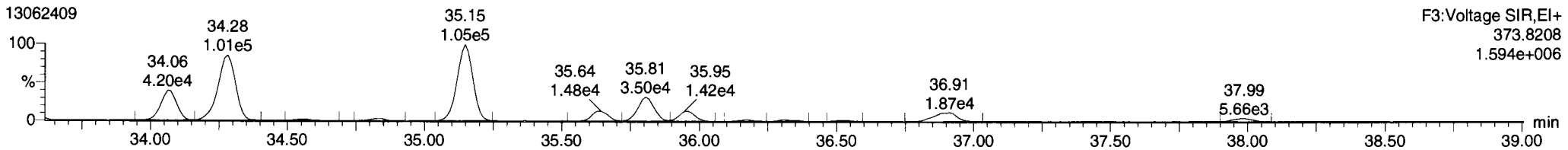


Total-hexafurans



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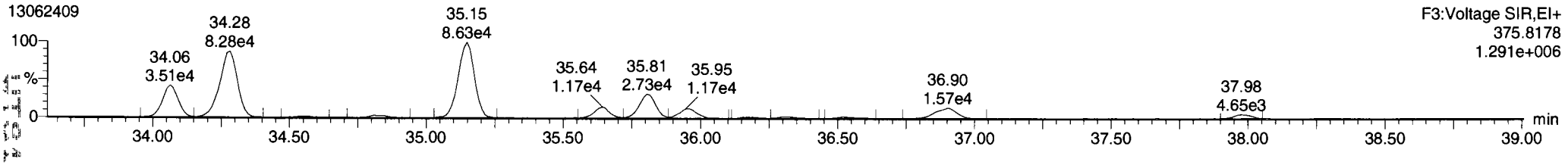

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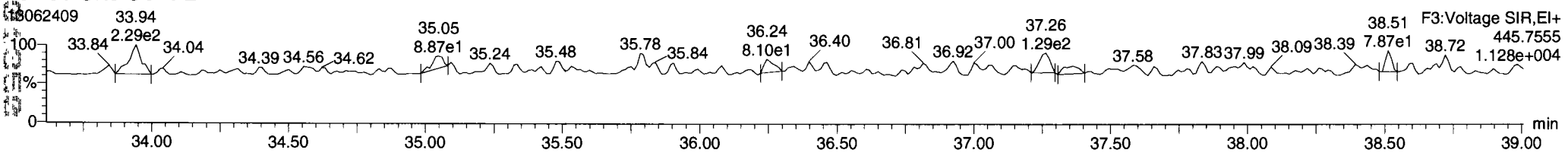

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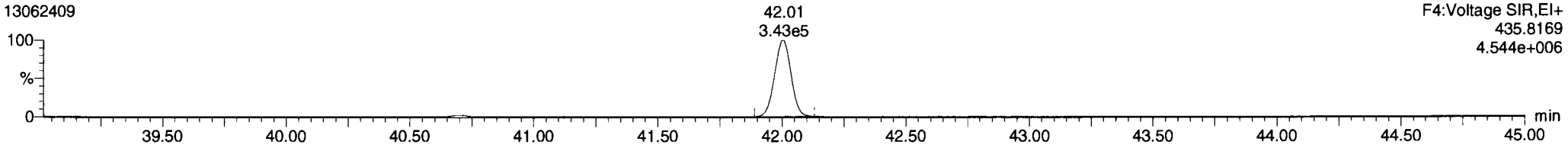
13C-1234678-HpCDD



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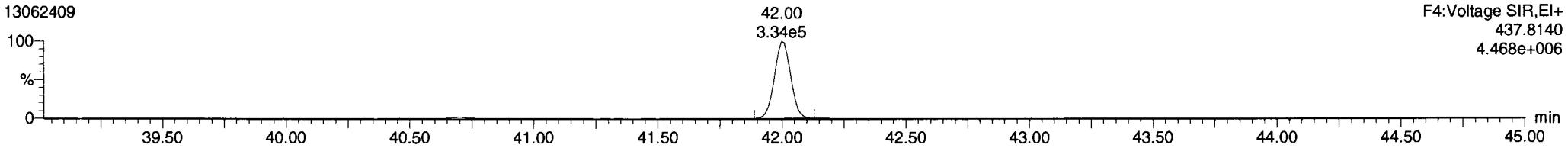
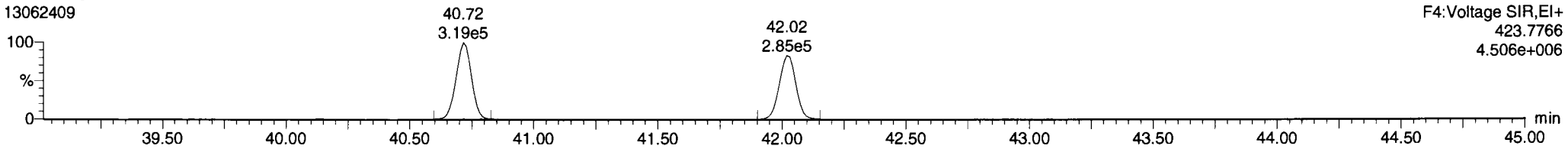
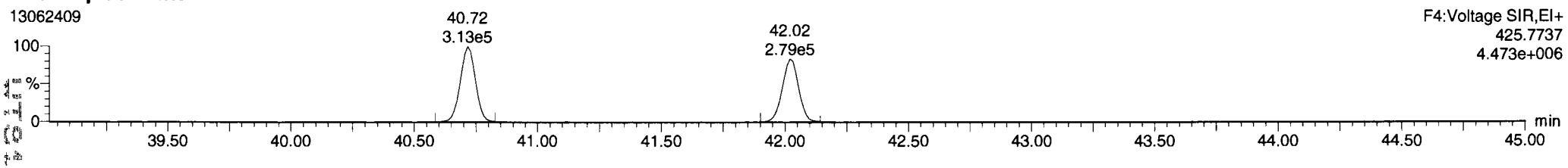


Total-heptadioxins



Total-heptadioxins



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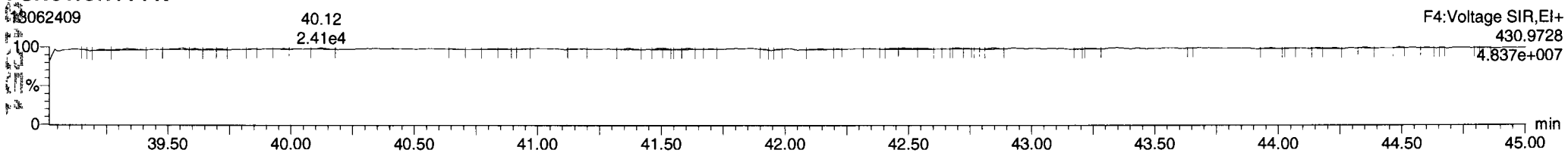

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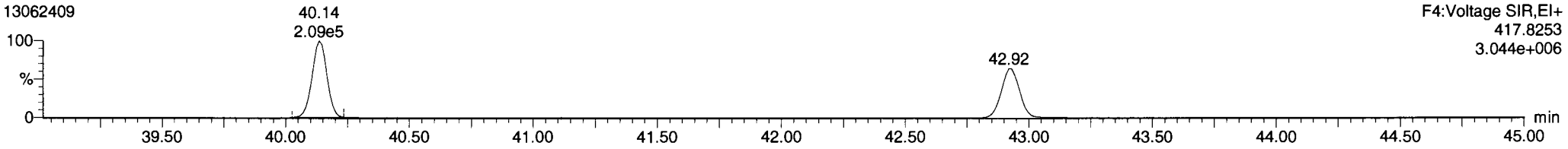
13C-1234678-HpCDF



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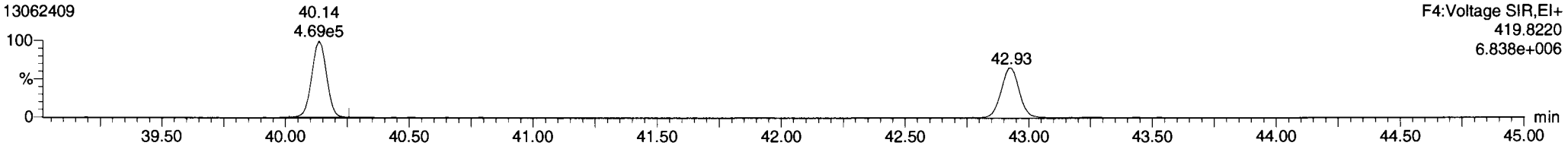
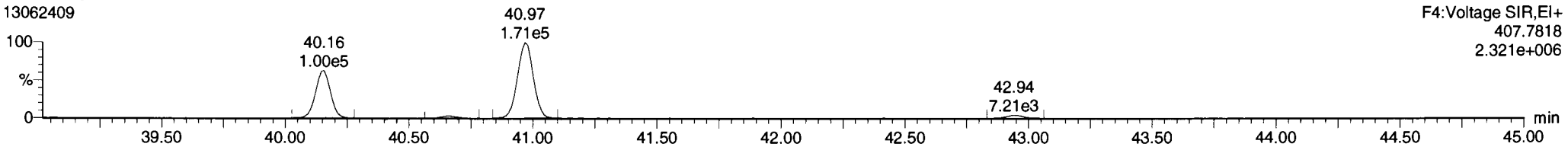


Total-heptafurans



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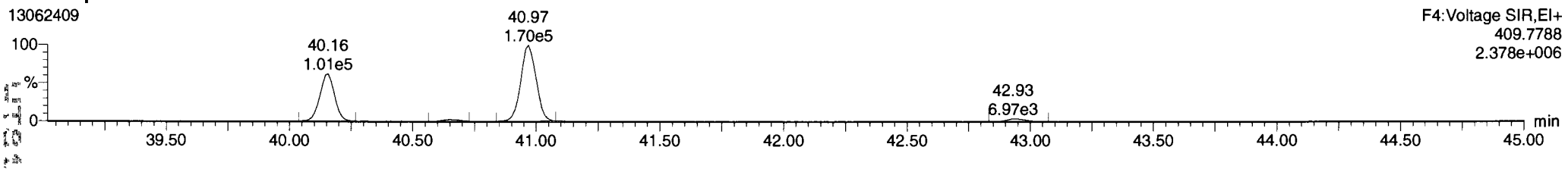

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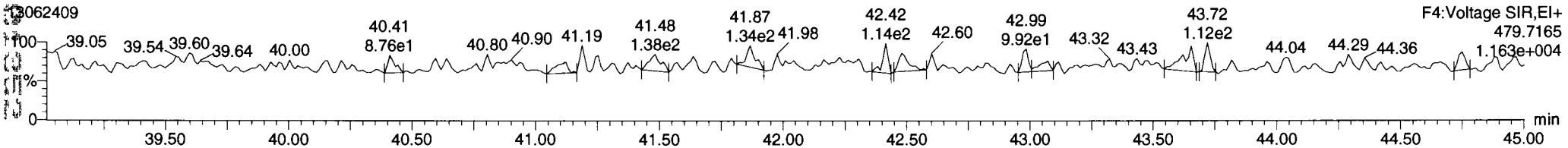

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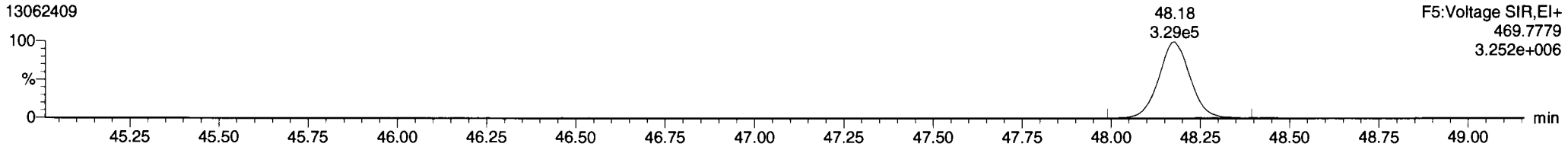
13C-OCDD



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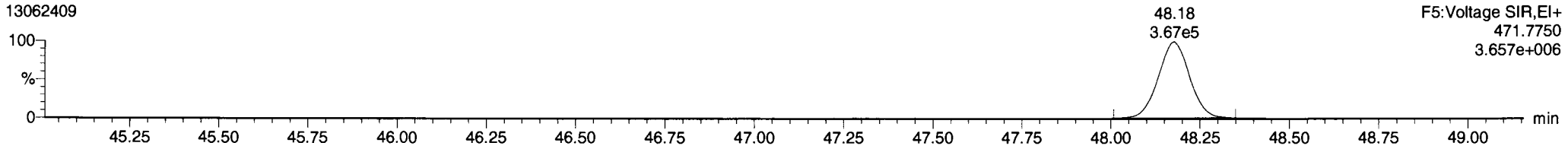

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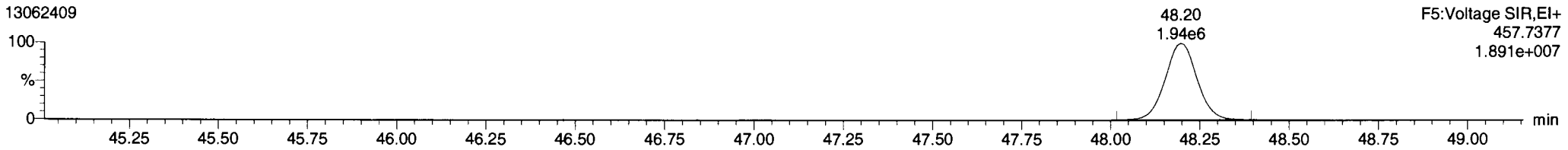

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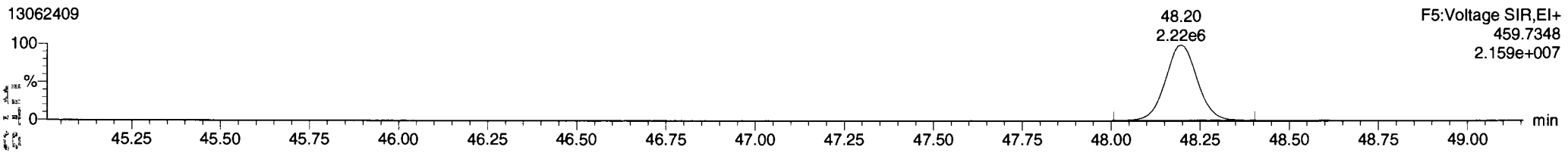

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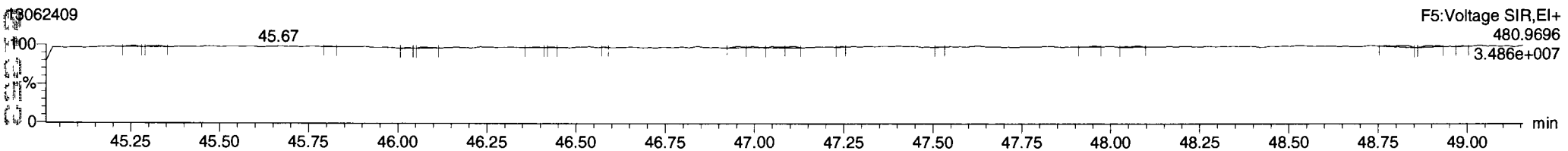

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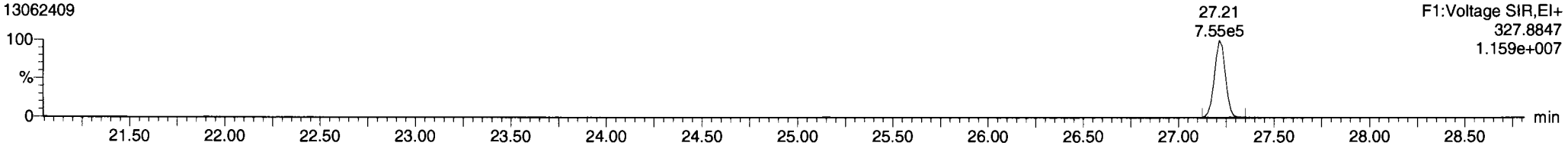
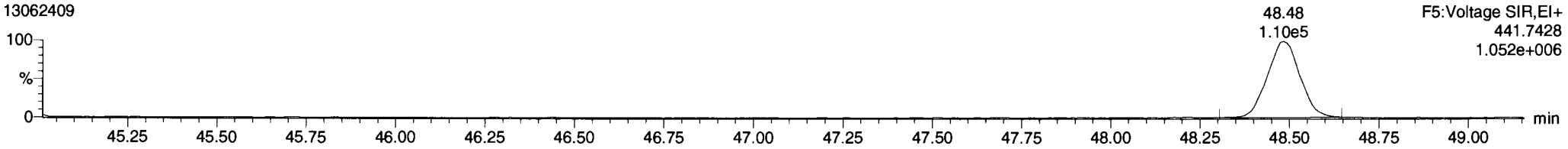
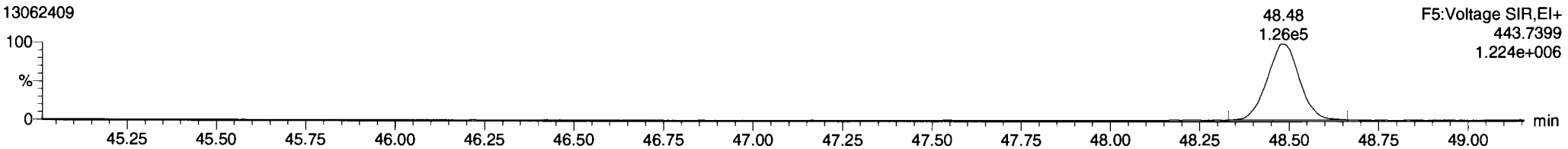
37CL-2378-TCDD



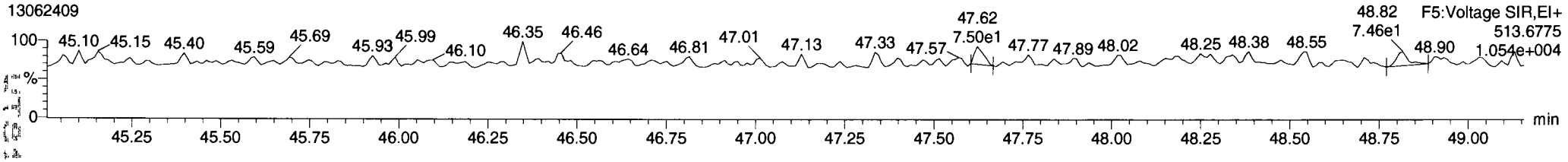
OCDF



OCDF



FUNCTION5 DCDPE



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jlc 6/25/13

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ID: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

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2378-TCDF	26.586	1.001	1.50e3	2.17e3	0.771	0.693	0.770	11.1	2441	3306	2.70e4	2.98e4	NO	0.730	0.730
12378-PeCDF	30.752	1.000	4.73e3	3.36e3	0.814	1.409	1.550	41.5	1823	2942	7.57e4	5.01e4	NO	0.718	0.718
23478-PeCDF	32.100	1.000	7.76e3	4.17e3	0.837	1.860	1.550	61.4	1823	2942	1.12e5	6.16e4	YES	0.989	1.110
123478-HxCDF	35.816	1.001	1.74e4	1.45e4	0.967	1.203	1.240	115.8	2162	2176	2.50e5	2.17e5	NO	3.929	3.929
234678-HxCDF	36.890	1.000	1.41e4	1.12e4	1.000	1.256	1.240	62.7	2162	2176	1.35e5	1.07e5	NO	3.278	3.278
123678-HxCDF	35.959	1.000	1.02e4	8.87e3	0.951	1.155	1.240	66.4	2162	2176	1.44e5	1.37e5	NO	2.237	2.237
123789-HxCDF	37.997	1.000	3.40e3	2.88e3	0.874	1.180	1.240	21.0	2162	2176	4.53e4	4.25e4	NO	0.984	0.984
1234678-HpCDF	40.157	1.000	1.30e5	1.27e5	1.072	1.024	1.050	1343.2	1393	1416	1.87e6	1.87e6	NO	57.675	57.675
1234789-HpCDF	42.952	1.001	7.51e3	7.45e3	1.085	1.008	1.050	68.8	1393	1416	9.59e4	9.24e4	NO	4.421	4.421
OCDF	48.482	1.006	1.78e5	2.04e5	0.878	0.870	0.890	1365.4	1257	1365	1.72e6	1.98e6	NO	219.165	219.165
2378-TCDD	27.229	1.001	1.32e3	2.71e3	0.936	0.488	0.770	5.8	3097	2318	1.80e4	4.09e4	YES	0.359	0.477
12378-PeCDD	32.353	1.000	8.17e3	6.12e3	0.894	1.336	1.550	43.4	2524	2579	1.10e5	7.26e4	NO	1.376	1.376
123478-HxCDD	37.055	1.001	9.06e3	7.66e3	0.898	1.183	1.240	76.6	1896	2555	1.45e5	1.21e5	NO	2.284	2.284
123678-HxCDD	37.175	1.000	3.64e4	2.99e4	0.818	1.216	1.240	285.3	1896	2555	5.41e5	4.69e5	NO	9.623	9.623
123789-HxCDD	37.592	1.011	1.83e4	1.44e4	0.789	1.270	1.240	152.0	1896	2555	2.88e5	2.37e5	NO	4.985	4.985
1234678-HpCDD	42.031	1.001	5.08e5	4.95e5	0.879	1.027	1.050	2520.3	2721	2558	6.86e6	6.54e6	NO	279.273	279.273
OCDD	48.195	1.000	2.33e6	2.67e6	0.875	0.873	0.890	8395.6	2727	4285	2.29e7	2.63e7	NO	2873.218	2873.218
13C-2378-TCDF	26.571	1.007	2.79e5	3.73e5	1.190	0.747	0.770	990.4	4340	5339	4.30e6	5.68e6	NO		17.910
13C-12378-PeCDF	30.741	1.165	8.39e5	5.44e5	0.904	1.543	1.550	3819.8	3421	2739	1.31e7	8.50e6	NO		49.949
13C-23478-PeCDF	32.090	1.216	7.81e5	5.05e5	0.877	1.547	1.550	3571.7	3421	2739	1.22e7	7.90e6	NO		47.876
13C-123478-HxCDF	35.794	0.952	2.83e5	5.57e5	1.096	0.507	0.510	1252.9	3236	3555	4.05e6	8.08e6	NO		68.752
13C-123678-HxCDF	35.948	0.957	3.05e5	5.92e5	1.187	0.516	0.510	1424.2	3236	3555	4.61e6	8.97e6	NO		67.874
13C-234678-HxCDF	36.902	0.982	2.60e5	5.14e5	1.040	0.507	0.510	1238.2	3236	3555	4.01e6	7.89e6	NO		66.811
13C-123789-HxCDF	37.997	1.011	2.46e5	4.83e5	0.941	0.509	0.510	1183.1	3236	3555	3.83e6	7.59e6	NO		69.563
13C-1234678-HpCDF	40.146	1.068	1.24e5	2.90e5	0.825	0.429	0.440	1184.5	1537	1886	1.82e6	4.25e6	NO		45.063
13C-1234789-HpCDF	42.930	1.142	9.62e4	2.16e5	0.609	0.446	0.440	799.6	1537	1886	1.23e6	2.75e6	NO		45.943
13C-1234-TCDD	26.392	0.000	1.35e6	1.71e6	1.000	0.785	0.770	1818.8	11237	3151	2.04e7	2.59e7	NO		100.000
13C-2378-TCDD	27.199	1.031	3.93e5	5.10e5	0.920	0.771	0.770	518.3	11237	3151	5.82e6	7.63e6	NO		32.080
13C-12378-PeCDD	32.342	1.225	7.02e5	4.60e5	0.669	1.526	1.550	3621.1	3001	2522	1.09e7	7.01e6	NO		56.691
13C-123478-HxCDD	37.033	0.985	4.52e5	3.64e5	1.032	1.241	1.240	3322.1	2093	1883	6.95e6	5.62e6	NO		70.978
13C-123678-HxCDD	37.165	0.989	4.62e5	3.81e5	1.146	1.211	1.240	3323.4	2093	1883	6.96e6	5.70e6	NO		66.055
13C-1234678-HpCDD	42.009	1.118	2.06e5	2.02e5	0.789	1.020	1.050	1707.2	1611	1122	2.75e6	2.70e6	NO		46.453
13C-OCDD	48.178	1.282	1.87e5	2.11e5	0.696	0.886	0.890	1472.0	1262	1835	1.86e6	2.09e6	NO		51.231

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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ID: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

Name														
13C-123789-HxCDD	37.581	0.000	6.18e5	4.96e5	1.000	1.245	1.240	4639.6	2093	1883	9.71e6	7.88e6	NO	100.000
Total-tetrafurans			2.37e4		0.771				2441		3.45e5			10.407
Total-penta1			9.07e4						1684		1.20e6			12.059
Total-pentafurans			6.70e4		0.826				1823		9.89e5			10.100
Total-hexafurans			3.41e5		0.948				2162		4.88e6			80.604
Total-heptafurans			3.74e5		1.079				1393		5.33e6			182.443
Total-Furans			1.07e6		0.925				2441		1.45e7			514.777
Total-tetradioxins			1.20e4		0.936				3097		1.75e5			3.316
Total-pentadioxins			5.50e4		0.894				2524		7.12e5			8.695
Total-hexadioxins			3.45e5		0.835				1896		4.59e6			90.122
Total-heptadioxins			1.52e6		0.879				2721		2.14e7			838.791
Total-Dioxins			4.26e6		0.870				3097		4.98e7			3814.184
Total-TEQ			5.33e6						3097		6.43e7			4328.961
37CL-2378-TCDD	27.229	1.032	4.61e5		1.000			2618.7	2672		7.00e6			15.060
FUNCTION1 PFK			2.86e6						714993		3.13e7			
FUNCTION2 PFK			0.00e0						302171		0.00e0			
FUNCTION3 PFK			1.70e6						540746		3.73e7			0.000
FUNCTION4 PFK			9.20e5						429838		2.50e7			
FUNCTION5 PFK			0.00e0						270040		0.00e0			
FUNCTION1 HXCDPE			2.05e3						1039		4.43e4			0.000
FUNCTION1 HPCDPE			1.50e3						982		2.87e4			0.000
FUNCTION2 HPCDPE			7.56e2						1499		2.07e4			0.000
FUNCTION3 OCDPE			3.02e2						1100		7.33e3			0.000
FUNCTION4 NCDPE			1.00e3						1168		2.56e4			0.000
FUNCTION5 DCDPE			8.57e1						753		2.50e3			0.000

)ataset: P:\DIOXIN8290.PRO\130624DATA1.qld
.ast Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

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'F

	#	Name	Mass	RT	Abs.Resp	RRF M...	[ ]	EMPC	I. Ratio	M. Ratio	I. R...	S/N
	35	Total-tetrafurans	303.9016	24.11	1254.947	0.771	0.250		2.98	0.77	YES	5.9
	35	Total-tetrafurans	303.9016	23.90	6634.253	0.771	1.319		1.08	0.77	YES	16.3
	35	Total-tetrafurans	303.9016	23.33	1268.137	0.771	0.252		0.78	0.77	NO	4.0
	35	Total-tetrafurans	303.9016	26.09	2741.344	0.771	0.545		0.94	0.77	YES	9.1
	35	Total-tetrafurans	303.9016	25.67	3777.324	0.771	0.751		0.62	0.77	YES	8.0
	35	Total-tetrafurans	303.9016	25.48	3050.434	0.771	0.606		0.57	0.77	YES	7.0
	35	Total-tetrafurans	303.9016	25.33	2054.211	0.771	0.408		0.71	0.77	NO	5.6
	35	Total-tetrafurans	303.9016	25.24	6756.494	0.771	1.343		0.65	0.77	YES	15.1
	35	Total-tetrafurans	303.9016	24.69	2169.605	0.771	0.431		0.99	0.77	YES	5.4
	35	Total-tetrafurans	303.9016	24.42	1141.892	0.771	0.227		0.82	0.77	NO	4.3
	35	Total-tetrafurans	303.9016	26.83	5962.635	0.771	1.185		0.89	0.77	YES	17.1
	35	Total-tetrafurans	303.9016	26.72	7842.093	0.771	1.559		0.81	0.77	NO	23.6
	1	2378-TCDF	303.9016	26.59	3671.533	0.771	0.730	0.730	0.69	0.77	NO	11.1
	35	Total-tetrafurans	303.9016	26.35	4017.805	0.771	0.799		0.92	0.77	YES	8.9

'P

	#	Name	Mass	RT	Abs.Resp	RRF M...	[ ]	EMPC	I. Ratio	M. Ratio	I. R...	S/N
	36	Total-penta1	339.8597	28.02	147544.501		12.059		1.60	1.55	NO	712.1

'F

	#	Name	Mass	RT	Abs.Resp	RRF M...	[ ]	EMPC	I. Ratio	M. Ratio	I. R...	S/N
	37	Total-pentafurans	339.8597	29.48	10252.115	0.826	0.931		1.39	1.55	NO	36.3
	37	Total-pentafurans	339.8597	29.38	2242.964	0.826	0.204		0.67	1.55	YES	12.4
	3	23478-PeCDF	339.8597	32.10	11937.723	0.837	1.110	0.989	1.86	1.55	YES	61.4
	37	Total-pentafurans	339.8597	31.96	5466.136	0.826	0.496		1.30	1.55	YES	26.4
	37	Total-pentafurans	339.8597	31.85	7016.065	0.826	0.637		1.52	1.55	NO	35.0
	37	Total-pentafurans	339.8597	31.05	2501.915	0.826	0.227		1.98	1.55	YES	12.7
	37	Total-pentafurans	339.8597	30.96	7883.727	0.826	0.716		1.50	1.55	NO	43.2
	2	12378-PeCDF	339.8597	30.75	8086.791	0.814	0.718	0.718	1.41	1.55	NO	41.5
	37	Total-pentafurans	339.8597	30.39	18850.338	0.826	1.711		1.64	1.55	NO	76.6
	37	Total-pentafurans	339.8597	29.68	21800.121	0.826	1.979		1.60	1.55	NO	113.4
	37	Total-pentafurans	339.8597	29.60	15112.103	0.826	1.372		1.38	1.55	NO	83.7

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HF

	#	Name	Theor.	RT	Abs Area	RRF M...	ng	EMPC	1 Ratio	1 Ratio	1 R...	S/N
	7	123789-HxCDF	373.8208	38.00	6272.885	0.874	0.984	0.984	1.18	1.24	NO	21.0
	5	234678-HxCDF	373.8208	36.89	25370.824	1.000	3.278	3.278	1.26	1.24	NO	62.7
	38	Total-hexafurans	373.8208	36.34	1546.353	0.948	0.201		1.51	1.24	YES	6.6
	6	123678-HxCDF	373.8208	35.96	19106.138	0.951	2.237	2.237	1.15	1.24	NO	66.4
	4	123478-HxCDF	373.8208	35.82	31892.888	0.967	3.929	3.929	1.20	1.24	NO	115.8
	38	Total-hexafurans	373.8208	35.65	7395.624	0.948	0.963		1.19	1.24	NO	31.1
	38	Total-hexafurans	373.8208	35.16	209539.469	0.948	27.282		1.21	1.24	NO	779.7
	38	Total-hexafurans	373.8208	34.84	3335.818	0.948	0.434		1.18	1.24	NO	14.3
	38	Total-hexafurans	373.8208	34.29	235290.165	0.948	30.635		1.23	1.24	NO	857.3
	38	Total-hexafurans	373.8208	34.08	81865.543	0.948	10.659		1.20	1.24	NO	301.3

HPF

	#	Name	Theor.	RT	Abs Area	RRF M...	ng	EMPC	1 Ratio	1 Ratio	1 R...	S/N
	9	1234789-HpCDF	407.7818	42.95	14957.885	1.085	4.421	4.421	1.01	1.05	NO	68.8
	39	Total-heptafurans	407.7818	40.98	466612.906	1.079	119.153		1.01	1.05	NO	2389.4
	39	Total-heptafurans	407.7818	40.68	4674.853	1.079	1.194		1.20	1.05	NO	23.2
	8	1234678-HpCDF	407.7818	40.16	256193.563	1.072	57.675	57.675	1.02	1.05	NO	1343.2

)uantify Totals Report MassLynx 4.1 SCN 714
)ataset: P:\DIOXIN8290.PRO\130624DATA1.qld
.ast Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
'rinted: Tuesday, June 25, 2013 14:50:03 Pacific Daylight Time

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urans,TF,PP,PF,HF,HPF,OF

	35	Total-tetrafurans	303.9016	24.11	1254.947	0.771	0.250		2.98	0.77	YES	5.9
	35	Total-tetrafurans	303.9016	23.90	6634.253	0.771	1.319		1.08	0.77	YES	16.3
	35	Total-tetrafurans	303.9016	23.33	1268.137	0.771	0.252		0.78	0.77	NO	4.0
	35	Total-tetrafurans	303.9016	26.09	2741.344	0.771	0.545		0.94	0.77	YES	9.1
	35	Total-tetrafurans	303.9016	25.67	3777.324	0.771	0.751		0.62	0.77	YES	8.0
	35	Total-tetrafurans	303.9016	25.48	3050.434	0.771	0.606		0.57	0.77	YES	7.0
	35	Total-tetrafurans	303.9016	25.33	2054.211	0.771	0.408		0.71	0.77	NO	5.6
	35	Total-tetrafurans	303.9016	25.24	6756.494	0.771	1.343		0.65	0.77	YES	15.1
	35	Total-tetrafurans	303.9016	24.69	2169.605	0.771	0.431		0.99	0.77	YES	5.4
	35	Total-tetrafurans	303.9016	24.42	1141.892	0.771	0.227		0.82	0.77	NO	4.3
	35	Total-tetrafurans	303.9016	26.83	5962.635	0.771	1.185		0.89	0.77	YES	17.1
	35	Total-tetrafurans	303.9016	26.72	7842.093	0.771	1.559		0.81	0.77	NO	23.6
	1	2378-TCDF	303.9016	26.59	3671.533	0.771	0.730	0.730	0.69	0.77	NO	11.1
	35	Total-tetrafurans	303.9016	26.35	4017.805	0.771	0.799		0.92	0.77	YES	8.9
	37	Total-pentafurans	339.8597	29.48	10252.115	0.826	0.931		1.39	1.55	NO	36.3
	37	Total-pentafurans	339.8597	29.38	2242.964	0.826	0.204		0.67	1.55	YES	12.4
	3	23478-PeCDF	339.8597	32.10	11937.723	0.837	1.110	0.989	1.86	1.55	YES	61.4
	37	Total-pentafurans	339.8597	31.96	5466.136	0.826	0.496		1.30	1.55	YES	26.4
	37	Total-pentafurans	339.8597	31.85	7016.065	0.826	0.637		1.52	1.55	NO	35.0
	37	Total-pentafurans	339.8597	31.05	2501.915	0.826	0.227		1.98	1.55	YES	12.7
	37	Total-pentafurans	339.8597	30.96	7883.727	0.826	0.716		1.50	1.55	NO	43.2
	2	12378-PeCDF	339.8597	30.75	8086.791	0.814	0.718	0.718	1.41	1.55	NO	41.5
	37	Total-pentafurans	339.8597	30.39	18850.338	0.826	1.711		1.64	1.55	NO	76.6
	37	Total-pentafurans	339.8597	29.68	21800.121	0.826	1.979		1.60	1.55	NO	113.4
	37	Total-pentafurans	339.8597	29.60	15112.103	0.826	1.372		1.38	1.55	NO	83.7
	7	123789-HxCDF	373.8208	38.00	6272.885	0.874	0.984	0.984	1.18	1.24	NO	21.0
	5	234678-HxCDF	373.8208	36.89	25370.824	1.000	3.278	3.278	1.26	1.24	NO	62.7
	38	Total-hexafurans	373.8208	36.34	1546.353	0.948	0.201		1.51	1.24	YES	6.6
	6	123678-HxCDF	373.8208	35.96	19106.138	0.951	2.237	2.237	1.15	1.24	NO	66.4
	4	123478-HxCDF	373.8208	35.82	31892.888	0.967	3.929	3.929	1.20	1.24	NO	115.8
	38	Total-hexafurans	373.8208	35.65	7395.624	0.948	0.963		1.19	1.24	NO	31.1
	38	Total-hexafurans	373.8208	35.16	209539.469	0.948	27.282		1.21	1.24	NO	779.7
	38	Total-hexafurans	373.8208	34.84	3335.818	0.948	0.434		1.18	1.24	NO	14.3
	38	Total-hexafurans	373.8208	34.29	235290.165	0.948	30.635		1.23	1.24	NO	857.3
	38	Total-hexafurans	373.8208	34.08	81865.543	0.948	10.659		1.20	1.24	NO	301.3
	9	1234789-HpCDF	407.7818	42.95	14957.885	1.085	4.421	4.421	1.01	1.05	NO	68.8
	39	Total-heptafurans	407.7818	40.98	466612.906	1.079	119.153		1.01	1.05	NO	2389.4
	39	Total-heptafurans	407.7818	40.68	4674.853	1.079	1.194		1.20	1.05	NO	23.2
	8	1234678-HpCDF	407.7818	40.16	256193.563	1.072	57.675	57.675	1.02	1.05	NO	1343.2
	10	OCDF	441.7428	48.48	382179.312	0.878	219.165	219....	0.87	0.89	NO	1365.4
	36	Total-penta1	339.8597	28.02	147544.501		12.059		1.60	1.55	NO	712.1

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TD

		Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	41	Total-tetradioxins	319.8965	24.61	3654.625	0.936	0.432		0.64	0.77	YES	6.9
	41	Total-tetradioxins	319.8965	24.33	3084.976	0.936	0.365		0.64	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	27.83	2480.805	0.936	0.293		1.02	0.77	YES	5.3
	41	Total-tetradioxins	319.8965	27.36	2791.786	0.936	0.330		0.90	0.77	YES	6.4
	11	2378-TCDD	319.8965	27.23	4030.615	0.936	0.477	0.359	0.49	0.77	YES	5.8
	41	Total-tetradioxins	319.8965	26.85	2909.490	0.936	0.344		0.58	0.77	YES	4.0
	41	Total-tetradioxins	319.8965	26.57	2031.848	0.936	0.240		1.79	0.77	YES	6.0
	41	Total-tetradioxins	319.8965	26.20	2153.905	0.936	0.255		0.77	0.77	NO	4.4
	41	Total-tetradioxins	319.8965	25.84	2988.924	0.936	0.353		0.77	0.77	NO	6.7
	41	Total-tetradioxins	319.8965	25.56	1916.223	0.936	0.227		0.75	0.77	NO	4.9

PD

		Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	12	12378-PeCDD	355.8546	32.35	14293.442	0.894	1.376	1.376	1.34	1.55	NO	43.4
	42	Total-pentadioxins	355.8546	31.68	3546.994	0.894	0.341		1.25	1.55	YES	10.3
	42	Total-pentadioxins	355.8546	31.29	11721.005	0.894	1.128		1.83	1.55	YES	33.3
	42	Total-pentadioxins	355.8546	31.11	9977.715	0.894	0.960		1.22	1.55	YES	32.0
	42	Total-pentadioxins	355.8546	30.97	8328.034	0.894	0.802		1.75	1.55	NO	33.8
	42	Total-pentadioxins	355.8546	30.75	11604.234	0.894	1.117		1.56	1.55	NO	38.7
	42	Total-pentadioxins	355.8546	30.14	6645.565	0.894	0.640		1.67	1.55	NO	25.5
	42	Total-pentadioxins	355.8546	29.65	19373.614	0.894	1.865		1.69	1.55	NO	48.2
	42	Total-pentadioxins	355.8546	32.76	4846.442	0.894	0.466		1.78	1.55	NO	16.8

HD

		Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	15	123789-HxCDD	389.8157	37.59	32640.547	0.789	4.985	4.985	1.27	1.24	NO	152.0
	43	Total-hexadioxins	389.8157	37.35	13828.414	0.835	1.997		1.31	1.24	NO	64.6
	14	123678-HxCDD	389.8157	37.18	66334.994	0.818	9.623	9.623	1.22	1.24	NO	285.3
	13	123478-HxCDD	389.8157	37.05	16724.869	0.898	2.284	2.284	1.18	1.24	NO	76.6
	43	Total-hexadioxins	389.8157	36.89	1051.876	0.835	0.152		4.38	1.24	YES	7.0
	43	Total-hexadioxins	389.8157	36.19	28407.083	0.835	4.102		1.37	1.24	NO	132.0
	43	Total-hexadioxins	389.8157	36.08	213454.391	0.835	30.824		1.23	1.24	NO	611.7
	43	Total-hexadioxins	389.8157	35.70	41879.190	0.835	6.048		1.37	1.24	NO	181.1
	43	Total-hexadioxins	389.8157	34.87	208487.516	0.835	30.107		1.21	1.24	NO	908.7

HPD

		Name	Trace	RT	Abs Resp	RRF M...	pg	EMPC	1° Ratio	2° Ratio	1° R...	S/N
	44	Total-heptadioxins	423.7766	40.73	2008148.313	0.879	559.518		1.01	1.05	NO	5359.8
	16	1234678-HpCDD	423.7766	42.03	1002330.469	0.879	279.273	279....	1.03	1.05	NO	2520.3

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

[redacted]	#	Name	Trace	RT	Abs Area	RRF	pg	EMPC	Ion Ratio	Ion Ratio...	Valid	S/N
[redacted]	41	Total-tetradioxins	319.8965	24.61	3654.625	0.936	0.432		0.64	0.77	YES	6.9
[redacted]	41	Total-tetradioxins	319.8965	24.33	3084.976	0.936	0.365		0.64	0.77	YES	6.1
[redacted]	41	Total-tetradioxins	319.8965	27.83	2480.805	0.936	0.293		1.02	0.77	YES	5.3
[redacted]	41	Total-tetradioxins	319.8965	27.36	2791.786	0.936	0.330		0.90	0.77	YES	6.4
[redacted]	11	2378-TCDD	319.8965	27.23	4030.615	0.936	0.477	0.359	0.49	0.77	YES	5.8
[redacted]	41	Total-tetradioxins	319.8965	26.85	2909.490	0.936	0.344		0.58	0.77	YES	4.0
[redacted]	41	Total-tetradioxins	319.8965	26.57	2031.848	0.936	0.240		1.79	0.77	YES	6.0
[redacted]	41	Total-tetradioxins	319.8965	26.20	2153.905	0.936	0.255		0.77	0.77	NO	4.4
[redacted]	41	Total-tetradioxins	319.8965	25.84	2988.924	0.936	0.353		0.77	0.77	NO	6.7
[redacted]	41	Total-tetradioxins	319.8965	25.56	1916.223	0.936	0.227		0.75	0.77	NO	4.9
[redacted]	45	Total-Dioxins	319.8965	28.45	332.082	0.870	0.042		3.28	0.77	YES	1.8
[redacted]	12	12378-PeCDD	355.8546	32.35	14293.442	0.894	1.376	1.376	1.34	1.55	NO	43.4
[redacted]	42	Total-pentadioxins	355.8546	31.68	3546.994	0.894	0.341		1.25	1.55	YES	10.3
[redacted]	42	Total-pentadioxins	355.8546	31.29	11721.005	0.894	1.128		1.83	1.55	YES	33.3
[redacted]	42	Total-pentadioxins	355.8546	31.11	9977.715	0.894	0.960		1.22	1.55	YES	32.0
[redacted]	42	Total-pentadioxins	355.8546	30.97	8328.034	0.894	0.802		1.75	1.55	NO	33.8
[redacted]	42	Total-pentadioxins	355.8546	30.75	11604.234	0.894	1.117		1.56	1.55	NO	38.7
[redacted]	42	Total-pentadioxins	355.8546	30.14	6645.565	0.894	0.640		1.67	1.55	NO	25.5
[redacted]	42	Total-pentadioxins	355.8546	29.65	19373.614	0.894	1.865		1.69	1.55	NO	48.2
[redacted]	42	Total-pentadioxins	355.8546	32.76	4846.442	0.894	0.466		1.78	1.55	NO	16.8
[redacted]	15	123789-HxCDD	389.8157	37.59	32640.547	0.789	4.985	4.985	1.27	1.24	NO	152.0
[redacted]	43	Total-hexadioxins	389.8157	37.35	13828.414	0.835	1.997		1.31	1.24	NO	64.6
[redacted]	14	123678-HxCDD	389.8157	37.18	66334.994	0.818	9.623	9.623	1.22	1.24	NO	285.3
[redacted]	13	123478-HxCDD	389.8157	37.05	16724.869	0.898	2.284	2.284	1.18	1.24	NO	76.6
[redacted]	43	Total-hexadioxins	389.8157	36.89	1051.876	0.835	0.152		4.38	1.24	YES	7.0
[redacted]	43	Total-hexadioxins	389.8157	36.19	28407.083	0.835	4.102		1.37	1.24	NO	132.0
[redacted]	43	Total-hexadioxins	389.8157	36.08	213454.391	0.835	30.824		1.23	1.24	NO	611.7
[redacted]	43	Total-hexadioxins	389.8157	35.70	41879.190	0.835	6.048		1.37	1.24	NO	181.1
[redacted]	43	Total-hexadioxins	389.8157	34.87	208487.516	0.835	30.107		1.21	1.24	NO	908.7
[redacted]	44	Total-heptadioxins	423.7766	40.73	2008148.313	0.879	559.518		1.01	1.05	NO	5359.8
[redacted]	16	1234678-HpCDD	423.7766	42.03	1002330.469	0.879	279.273	279....	1.03	1.05	NO	2520.3
[redacted]	17	OCDD	457.7377	48.20	4995976.500	0.875	2873.2...	2873...	0.87	0.89	NO	8395.6

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D: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	#	Name	RT	Area	RRF	Amt	EMPC	I. Ratio	T. Ratio	I. Pk	S/N
	35	Total-tetrafurans	303.9016	24.11	1254.947	0.771	0.250		2.98	0.77	YES	5.9
	35	Total-tetrafurans	303.9016	23.90	6634.253	0.771	1.319		1.08	0.77	YES	16.3
	35	Total-tetrafurans	303.9016	23.33	1268.137	0.771	0.252		0.78	0.77	NO	4.0
	35	Total-tetrafurans	303.9016	26.09	2741.344	0.771	0.545		0.94	0.77	YES	9.1
	35	Total-tetrafurans	303.9016	25.67	3777.324	0.771	0.751		0.62	0.77	YES	8.0
	35	Total-tetrafurans	303.9016	25.48	3050.434	0.771	0.606		0.57	0.77	YES	7.0
	35	Total-tetrafurans	303.9016	25.33	2054.211	0.771	0.408		0.71	0.77	NO	5.6
	35	Total-tetrafurans	303.9016	25.24	6756.494	0.771	1.343		0.65	0.77	YES	15.1
	35	Total-tetrafurans	303.9016	24.69	2169.605	0.771	0.431		0.99	0.77	YES	5.4
	35	Total-tetrafurans	303.9016	24.42	1141.892	0.771	0.227		0.82	0.77	NO	4.3
	35	Total-tetrafurans	303.9016	26.83	5962.635	0.771	1.185		0.89	0.77	YES	17.1
	35	Total-tetrafurans	303.9016	26.72	7842.093	0.771	1.559		0.81	0.77	NO	23.6
	1	2378-TCDF	303.9016	26.59	3671.533	0.771	0.730	0.730	0.69	0.77	NO	11.1
	35	Total-tetrafurans	303.9016	26.35	4017.805	0.771	0.799		0.92	0.77	YES	8.9
	37	Total-pentafurans	339.8597	29.48	10252.115	0.826	0.931		1.39	1.55	NO	36.3
	37	Total-pentafurans	339.8597	29.38	2242.964	0.826	0.204		0.67	1.55	YES	12.4
	3	23478-PeCDF	339.8597	32.10	11937.723	0.837	1.110	0.989	1.86	1.55	YES	61.4
	37	Total-pentafurans	339.8597	31.96	5466.136	0.826	0.496		1.30	1.55	YES	26.4
	37	Total-pentafurans	339.8597	31.85	7016.065	0.826	0.637		1.52	1.55	NO	35.0
	37	Total-pentafurans	339.8597	31.05	2501.915	0.826	0.227		1.98	1.55	YES	12.7
	37	Total-pentafurans	339.8597	30.96	7883.727	0.826	0.716		1.50	1.55	NO	43.2
	2	12378-PeCDF	339.8597	30.75	8086.791	0.814	0.718	0.718	1.41	1.55	NO	41.5
	37	Total-pentafurans	339.8597	30.39	18850.338	0.826	1.711		1.64	1.55	NO	76.6
	37	Total-pentafurans	339.8597	29.68	21800.121	0.826	1.979		1.60	1.55	NO	113.4
	37	Total-pentafurans	339.8597	29.60	15112.103	0.826	1.372		1.38	1.55	NO	83.7
	7	123789-HxCDF	373.8208	38.00	6272.885	0.874	0.984	0.984	1.18	1.24	NO	21.0
	5	234678-HxCDF	373.8208	36.89	25370.824	1.000	3.278	3.278	1.26	1.24	NO	62.7
	38	Total-hexafurans	373.8208	36.34	1546.353	0.948	0.201		1.51	1.24	YES	6.6
	6	123678-HxCDF	373.8208	35.96	19106.138	0.951	2.237	2.237	1.15	1.24	NO	66.4
	4	123478-HxCDF	373.8208	35.82	31892.888	0.967	3.929	3.929	1.20	1.24	NO	115.8
	38	Total-hexafurans	373.8208	35.65	7395.624	0.948	0.963		1.19	1.24	NO	31.1
	38	Total-hexafurans	373.8208	35.16	209539.469	0.948	27.282		1.21	1.24	NO	779.7
	38	Total-hexafurans	373.8208	34.84	3335.818	0.948	0.434		1.18	1.24	NO	14.3
	38	Total-hexafurans	373.8208	34.29	235290.165	0.948	30.635		1.23	1.24	NO	857.3
	38	Total-hexafurans	373.8208	34.08	81865.543	0.948	10.659		1.20	1.24	NO	301.3
	9	1234789-HpCDF	407.7818	42.95	14957.885	1.085	4.421	4.421	1.01	1.05	NO	68.8
	39	Total-heptafurans	407.7818	40.98	466612.906	1.079	119.153		1.01	1.05	NO	2389.4
	39	Total-heptafurans	407.7818	40.68	4674.853	1.079	1.194		1.20	1.05	NO	23.2
	8	1234678-HpCDF	407.7818	40.16	256193.563	1.072	57.675	57.675	1.02	1.05	NO	1343.2
	10	OCDF	441.7428	48.48	382179.312	0.878	219.165	219....	0.87	0.89	NO	1365.4
	36	Total-penta1	339.8597	28.02	147544.501		12.059		1.60	1.55	NO	712.1
	41	Total-tetradioxins	319.8965	24.61	3654.625	0.936	0.432		0.64	0.77	YES	6.9
	41	Total-tetradioxins	319.8965	24.33	3084.976	0.936	0.365		0.64	0.77	YES	6.1
	41	Total-tetradioxins	319.8965	27.83	2480.805	0.936	0.293		1.02	0.77	YES	5.3
	41	Total-tetradioxins	319.8965	27.36	2791.786	0.936	0.330		0.90	0.77	YES	6.4
	11	2378-TCDD	319.8965	27.23	4030.615	0.936	0.477	0.359	0.49	0.77	YES	5.8
	41	Total-tetradioxins	319.8965	26.85	2909.490	0.936	0.344		0.58	0.77	YES	4.0
	41	Total-tetradioxins	319.8965	26.57	2031.848	0.936	0.240		1.79	0.77	YES	6.0
	41	Total-tetradioxins	319.8965	26.20	2153.905	0.936	0.255		0.77	0.77	NO	4.4

Quantify Totals Report MassLynx 4.1 SCN 714
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TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	Conc	EMPC	I. Ratio	T. Ratio	Type	S/N
[redacted]	41	Total-tetradioxins	319.8965	25.84	2988.924	0.936	0.353		0.77	0.77	NO	6.7
[redacted]	41	Total-tetradioxins	319.8965	25.56	1916.223	0.936	0.227		0.75	0.77	NO	4.9
[redacted]	45	Total-Dioxins	319.8965	28.45	332.082	0.870	0.042		3.28	0.77	YES	1.8
[redacted]	12	12378-PeCDD	355.8546	32.35	14293.442	0.894	1.376	1.376	1.34	1.55	NO	43.4
[redacted]	42	Total-pentadioxins	355.8546	31.68	3546.994	0.894	0.341		1.25	1.55	YES	10.3
[redacted]	42	Total-pentadioxins	355.8546	31.29	11721.005	0.894	1.128		1.83	1.55	YES	33.3
[redacted]	42	Total-pentadioxins	355.8546	31.11	9977.715	0.894	0.960		1.22	1.55	YES	32.0
[redacted]	42	Total-pentadioxins	355.8546	30.97	8328.034	0.894	0.802		1.75	1.55	NO	33.8
[redacted]	42	Total-pentadioxins	355.8546	30.75	11604.234	0.894	1.117		1.56	1.55	NO	38.7
[redacted]	42	Total-pentadioxins	355.8546	30.14	6645.565	0.894	0.640		1.67	1.55	NO	25.5
[redacted]	42	Total-pentadioxins	355.8546	29.65	19373.614	0.894	1.865		1.69	1.55	NO	48.2
[redacted]	42	Total-pentadioxins	355.8546	32.76	4846.442	0.894	0.466		1.78	1.55	NO	16.8
[redacted]	15	123789-HxCDD	389.8157	37.59	32640.547	0.789	4.985	4.985	1.27	1.24	NO	152.0
[redacted]	43	Total-hexadioxins	389.8157	37.35	13828.414	0.835	1.997		1.31	1.24	NO	64.6
[redacted]	14	123678-HxCDD	389.8157	37.18	66334.994	0.818	9.623	9.623	1.22	1.24	NO	285.3
[redacted]	13	123478-HxCDD	389.8157	37.05	16724.869	0.898	2.284	2.284	1.18	1.24	NO	76.6
[redacted]	43	Total-hexadioxins	389.8157	36.89	1051.876	0.835	0.152		4.38	1.24	YES	7.0
[redacted]	43	Total-hexadioxins	389.8157	36.19	28407.083	0.835	4.102		1.37	1.24	NO	132.0
[redacted]	43	Total-hexadioxins	389.8157	36.08	213454.391	0.835	30.824		1.23	1.24	NO	611.7
[redacted]	43	Total-hexadioxins	389.8157	35.70	41879.190	0.835	6.048		1.37	1.24	NO	181.1
[redacted]	43	Total-hexadioxins	389.8157	34.87	208487.516	0.835	30.107		1.21	1.24	NO	908.7
[redacted]	44	Total-heptadioxins	423.7766	40.73	2008148.313	0.879	559.518		1.01	1.05	NO	5359.8
[redacted]	16	1234678-HpCDD	423.7766	42.03	1002330.469	0.879	279.273	279....	1.03	1.05	NO	2520.3
[redacted]	17	OCDD	457.7377	48.20	4995976.500	0.875	2873.2...	2873...	0.87	0.89	NO	8395.6

PFK1

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M...	Conc	EMPC	I. Ratio	T. Ratio	Type	S/N
[redacted]	48	FUNCTION1 PFK	330.9792	21.54	0.000							4.6
[redacted]	48	FUNCTION1 PFK	330.9792	21.42	0.000							2.7
[redacted]	48	FUNCTION1 PFK	330.9792	21.33	0.000							2.4
[redacted]	48	FUNCTION1 PFK	330.9792	28.48	0.000							1.3
[redacted]	48	FUNCTION1 PFK	330.9792	28.33	0.000							3.7
[redacted]	48	FUNCTION1 PFK	330.9792	28.11	0.000							5.7
[redacted]	48	FUNCTION1 PFK	330.9792	28.08	0.000							4.2
[redacted]	48	FUNCTION1 PFK	330.9792	27.80	0.000							4.0
[redacted]	48	FUNCTION1 PFK	330.9792	27.69	0.000							2.1
[redacted]	48	FUNCTION1 PFK	330.9792	27.26	0.000							1.9
[redacted]	48	FUNCTION1 PFK	330.9792	27.00	0.000							0.6
[redacted]	48	FUNCTION1 PFK	330.9792	26.62	0.000							1.7
[redacted]	48	FUNCTION1 PFK	330.9792	26.50	0.000							1.2
[redacted]	48	FUNCTION1 PFK	330.9792	26.42	0.000							1.3
[redacted]	48	FUNCTION1 PFK	330.9792	26.00	0.000							0.5
[redacted]	48	FUNCTION1 PFK	330.9792	23.91	0.000							1.4
[redacted]	48	FUNCTION1 PFK	330.9792	23.64	0.000							2.3
[redacted]	48	FUNCTION1 PFK	330.9792	22.84	0.000							1.4
[redacted]	48	FUNCTION1 PFK	330.9792	22.19	0.000							0.8

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:03 Pacific Daylight Time

ID: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

PFK2

	#	Name	Trace	S/N

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:03 Pacific Daylight Time

D: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

PFK3

[redacted]	#	Name	Trace	RT	Abs Resp	RRF M	[redacted]	S/N
[redacted]	50	FUNCTION3 PFK	380.9760	34.88	0.000	0.000		0.7
[redacted]	50	FUNCTION3 PFK	380.9760	34.81	0.000	0.000		0.7
[redacted]	50	FUNCTION3 PFK	380.9760	34.70	0.000	0.000		1.0
[redacted]	50	FUNCTION3 PFK	380.9760	34.65	0.000	0.000		1.0
[redacted]	50	FUNCTION3 PFK	380.9760	34.60	0.000	0.000		0.7
[redacted]	50	FUNCTION3 PFK	380.9760	34.46	0.000	0.000		1.2
[redacted]	50	FUNCTION3 PFK	380.9760	34.41	0.000	0.000		1.5
[redacted]	50	FUNCTION3 PFK	380.9760	34.30	0.000	0.000		2.4
[redacted]	50	FUNCTION3 PFK	380.9760	34.16	0.000	0.000		0.7
[redacted]	50	FUNCTION3 PFK	380.9760	34.00	0.000	0.000		1.8
[redacted]	50	FUNCTION3 PFK	380.9760	33.91	0.000	0.000		2.8
[redacted]	50	FUNCTION3 PFK	380.9760	33.85	0.000	0.000		2.6
[redacted]	50	FUNCTION3 PFK	380.9760	33.73	0.000	0.000		1.1
[redacted]	50	FUNCTION3 PFK	380.9760	33.70	0.000	0.000		0.4
[redacted]	50	FUNCTION3 PFK	380.9760	37.13	0.000	0.000		0.4
[redacted]	50	FUNCTION3 PFK	380.9760	37.03	0.000	0.000		1.4
[redacted]	50	FUNCTION3 PFK	380.9760	36.99	0.000	0.000		2.0
[redacted]	50	FUNCTION3 PFK	380.9760	36.86	0.000	0.000		1.8
[redacted]	50	FUNCTION3 PFK	380.9760	36.63	0.000	0.000		0.8
[redacted]	50	FUNCTION3 PFK	380.9760	36.52	0.000	0.000		1.8
[redacted]	50	FUNCTION3 PFK	380.9760	36.43	0.000	0.000		2.0
[redacted]	50	FUNCTION3 PFK	380.9760	36.39	0.000	0.000		1.7
[redacted]	50	FUNCTION3 PFK	380.9760	36.32	0.000	0.000		1.6
[redacted]	50	FUNCTION3 PFK	380.9760	36.21	0.000	0.000		2.1
[redacted]	50	FUNCTION3 PFK	380.9760	36.15	0.000	0.000		0.8
[redacted]	50	FUNCTION3 PFK	380.9760	35.94	0.000	0.000		1.3
[redacted]	50	FUNCTION3 PFK	380.9760	35.75	0.000	0.000		1.6
[redacted]	50	FUNCTION3 PFK	380.9760	35.53	0.000	0.000		1.0
[redacted]	50	FUNCTION3 PFK	380.9760	35.33	0.000	0.000		1.4
[redacted]	50	FUNCTION3 PFK	380.9760	35.05	0.000	0.000		1.2
[redacted]	50	FUNCTION3 PFK	380.9760	38.79	0.000	0.000		1.4
[redacted]	50	FUNCTION3 PFK	380.9760	38.59	0.000	0.000		2.5
[redacted]	50	FUNCTION3 PFK	380.9760	38.56	0.000	0.000		1.7
[redacted]	50	FUNCTION3 PFK	380.9760	38.44	0.000	0.000		1.9
[redacted]	50	FUNCTION3 PFK	380.9760	38.29	0.000	0.000		1.1
[redacted]	50	FUNCTION3 PFK	380.9760	38.16	0.000	0.000		2.7
[redacted]	50	FUNCTION3 PFK	380.9760	38.12	0.000	0.000		2.6
[redacted]	50	FUNCTION3 PFK	380.9760	38.07	0.000	0.000		2.1
[redacted]	50	FUNCTION3 PFK	380.9760	38.00	0.000	0.000		2.8
[redacted]	50	FUNCTION3 PFK	380.9760	37.84	0.000	0.000		2.3
[redacted]	50	FUNCTION3 PFK	380.9760	37.64	0.000	0.000		0.9
[redacted]	50	FUNCTION3 PFK	380.9760	37.56	0.000	0.000		0.4
[redacted]	50	FUNCTION3 PFK	380.9760	37.50	0.000	0.000		1.2
[redacted]	50	FUNCTION3 PFK	380.9760	37.47	0.000	0.000		1.3
[redacted]	50	FUNCTION3 PFK	380.9760	37.31	0.000	0.000		1.0
[redacted]	50	FUNCTION3 PFK	380.9760	37.18	0.000	0.000		0.9
[redacted]	50	FUNCTION3 PFK	380.9760	38.94	0.000	0.000		0.7

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PFK4

	51	FUNCTION4 PFK	430.9728	41.04	0.000						1.2
	51	FUNCTION4 PFK	430.9728	40.54	0.000						1.8
	51	FUNCTION4 PFK	430.9728	40.51	0.000						1.1
	51	FUNCTION4 PFK	430.9728	40.40	0.000						1.8
	51	FUNCTION4 PFK	430.9728	40.35	0.000						0.7
	51	FUNCTION4 PFK	430.9728	40.13	0.000						1.1
	51	FUNCTION4 PFK	430.9728	39.99	0.000						0.9
	51	FUNCTION4 PFK	430.9728	39.90	0.000						2.1
	51	FUNCTION4 PFK	430.9728	39.85	0.000						1.7
	51	FUNCTION4 PFK	430.9728	39.81	0.000						0.7
	51	FUNCTION4 PFK	430.9728	39.60	0.000						1.5
	51	FUNCTION4 PFK	430.9728	39.55	0.000						0.8
	51	FUNCTION4 PFK	430.9728	39.51	0.000						0.8
	51	FUNCTION4 PFK	430.9728	39.32	0.000						2.5
	51	FUNCTION4 PFK	430.9728	43.46	0.000						0.6
	51	FUNCTION4 PFK	430.9728	43.26	0.000						1.8
	51	FUNCTION4 PFK	430.9728	43.16	0.000						2.0
	51	FUNCTION4 PFK	430.9728	43.12	0.000						1.9
	51	FUNCTION4 PFK	430.9728	42.47	0.000						2.7
	51	FUNCTION4 PFK	430.9728	42.40	0.000						2.3
	51	FUNCTION4 PFK	430.9728	42.34	0.000						1.7
	51	FUNCTION4 PFK	430.9728	42.31	0.000						1.4
	51	FUNCTION4 PFK	430.9728	41.92	0.000						1.6
	51	FUNCTION4 PFK	430.9728	41.89	0.000						2.2
	51	FUNCTION4 PFK	430.9728	41.84	0.000						2.1
	51	FUNCTION4 PFK	430.9728	41.66	0.000						1.6
	51	FUNCTION4 PFK	430.9728	41.60	0.000						1.1
	51	FUNCTION4 PFK	430.9728	41.55	0.000						0.8
	51	FUNCTION4 PFK	430.9728	41.45	0.000						2.1
	51	FUNCTION4 PFK	430.9728	41.17	0.000						1.7
	51	FUNCTION4 PFK	430.9728	44.97	0.000						0.8
	51	FUNCTION4 PFK	430.9728	44.88	0.000						1.6
	51	FUNCTION4 PFK	430.9728	44.84	0.000						1.1
	51	FUNCTION4 PFK	430.9728	44.71	0.000						0.4
	51	FUNCTION4 PFK	430.9728	44.66	0.000						0.7
	51	FUNCTION4 PFK	430.9728	44.58	0.000						0.5
	51	FUNCTION4 PFK	430.9728	44.42	0.000						0.9
	51	FUNCTION4 PFK	430.9728	44.23	0.000						1.3
	51	FUNCTION4 PFK	430.9728	44.07	0.000						0.9
	51	FUNCTION4 PFK	430.9728	44.00	0.000						0.9
	51	FUNCTION4 PFK	430.9728	43.88	0.000						0.6
	51	FUNCTION4 PFK	430.9728	43.84	0.000						0.6
	51	FUNCTION4 PFK	430.9728	43.80	0.000						0.9
	51	FUNCTION4 PFK	430.9728	43.49	0.000						0.7

PFK5

D: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	Δt	EMPG	1° Ratio	2° Ratio	1° Ra...	S/N
	53	FUNCTION1 HXCD...	375.8364	28.38	0.000	0.000						2.7
	53	FUNCTION1 HXCD...	375.8364	28.08	0.000	0.000						5.1
	53	FUNCTION1 HXCD...	375.8364	27.66	0.000	0.000						1.5
	53	FUNCTION1 HXCD...	375.8364	27.54	0.000	0.000						2.8
	53	FUNCTION1 HXCD...	375.8364	26.51	0.000	0.000						1.6
	53	FUNCTION1 HXCD...	375.8364	25.93	0.000	0.000						1.9
	53	FUNCTION1 HXCD...	375.8364	25.75	0.000	0.000						1.3
	53	FUNCTION1 HXCD...	375.8364	25.45	0.000	0.000						2.0
	53	FUNCTION1 HXCD...	375.8364	25.41	0.000	0.000						2.1
	53	FUNCTION1 HXCD...	375.8364	24.57	0.000	0.000						2.1
	53	FUNCTION1 HXCD...	375.8364	24.40	0.000	0.000						8.3
	53	FUNCTION1 HXCD...	375.8364	24.36	0.000	0.000						2.2
	53	FUNCTION1 HXCD...	375.8364	23.79	0.000	0.000						1.5
	53	FUNCTION1 HXCD...	375.8364	22.75	0.000	0.000						2.4
	53	FUNCTION1 HXCD...	375.8364	21.73	0.000	0.000						1.8
	53	FUNCTION1 HXCD...	375.8364	21.30	0.000	0.000						1.3
	53	FUNCTION1 HXCD...	375.8364	28.62	0.000	0.000						2.3

ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	Δt	EMPG	1° Ratio	2° Ratio	1° Ra...	S/N
	54	FUNCTION1 HPCD...	409.7974	28.41	0.000	0.000						2.1
	54	FUNCTION1 HPCD...	409.7974	28.02	0.000	0.000						2.4
	54	FUNCTION1 HPCD...	409.7974	27.81	0.000	0.000						1.6
	54	FUNCTION1 HPCD...	409.7974	27.51	0.000	0.000						2.8
	54	FUNCTION1 HPCD...	409.7974	26.96	0.000	0.000						2.8
	54	FUNCTION1 HPCD...	409.7974	26.12	0.000	0.000						1.8
	54	FUNCTION1 HPCD...	409.7974	25.30	0.000	0.000						1.5
	54	FUNCTION1 HPCD...	409.7974	25.24	0.000	0.000						2.0
	54	FUNCTION1 HPCD...	409.7974	24.96	0.000	0.000						1.4
	54	FUNCTION1 HPCD...	409.7974	24.82	0.000	0.000						2.4
	54	FUNCTION1 HPCD...	409.7974	24.42	0.000	0.000						1.7
	54	FUNCTION1 HPCD...	409.7974	22.85	0.000	0.000						1.6
	54	FUNCTION1 HPCD...	409.7974	21.46	0.000	0.000						2.2
	54	FUNCTION1 HPCD...	409.7974	21.15	0.000	0.000						2.8

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	Δt	EMPG	1° Ratio	2° Ratio	1° Ra...	S/N
	55	FUNCTION2 HPCD...	409.7974	33.27	0.000	0.000						2.0
	55	FUNCTION2 HPCD...	409.7974	31.80	0.000	0.000						1.6
	55	FUNCTION2 HPCD...	409.7974	30.66	0.000	0.000						3.3
	55	FUNCTION2 HPCD...	409.7974	29.79	0.000	0.000						1.9
	55	FUNCTION2 HPCD...	409.7974	29.72	0.000	0.000						1.4
	55	FUNCTION2 HPCD...	409.7974	29.15	0.000	0.000						1.2
	55	FUNCTION2 HPCD...	409.7974	29.02	0.000	0.000						2.5

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ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M	dp	EMPC	1° Ratio	1° Ratio	I.S.	S/N
	56	FUNCTION3 OCDPE	445.7555	37.55	0.000	0.000						2.7
	56	FUNCTION3 OCDPE	445.7555	35.09	0.000	0.000						2.0
	56	FUNCTION3 OCDPE	445.7555	33.94	0.000	0.000						1.9

ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M	dp	EMPC	1° Ratio	1° Ratio	I.S.	S/N
	57	FUNCTION4 NCDPE	479.7165	40.28	0.000	0.000						1.7
	57	FUNCTION4 NCDPE	479.7165	39.70	0.000	0.000						2.4
	57	FUNCTION4 NCDPE	479.7165	39.30	0.000	0.000						1.6
	57	FUNCTION4 NCDPE	479.7165	44.76	0.000	0.000						2.6
	57	FUNCTION4 NCDPE	479.7165	43.99	0.000	0.000						4.0
	57	FUNCTION4 NCDPE	479.7165	43.59	0.000	0.000						1.7
	57	FUNCTION4 NCDPE	479.7165	43.23	0.000	0.000						1.9
	57	FUNCTION4 NCDPE	479.7165	42.55	0.000	0.000						1.9
	57	FUNCTION4 NCDPE	479.7165	42.36	0.000	0.000						1.9
	57	FUNCTION4 NCDPE	479.7165	41.89	0.000	0.000						2.2

ETHERS6

	#	Name	Trace	RT	Abs Resp	RRF M	dp	EMPC	1° Ratio	1° Ratio	I.S.	S/N
	58	FUNCTION5 DCDPE	513.6775	48.73	0.000	0.000						3.3

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
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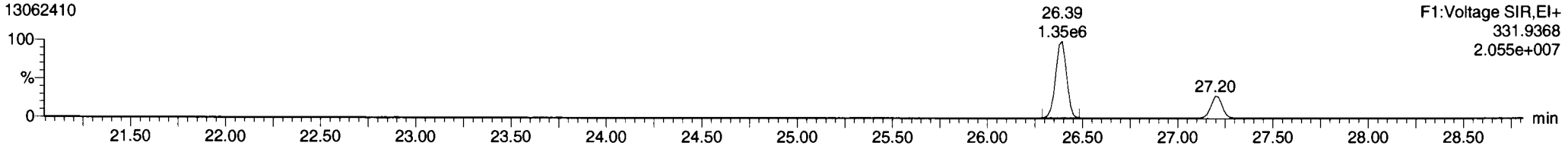
ID: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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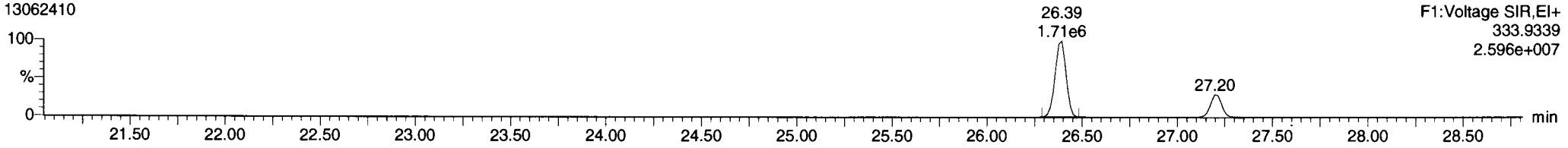

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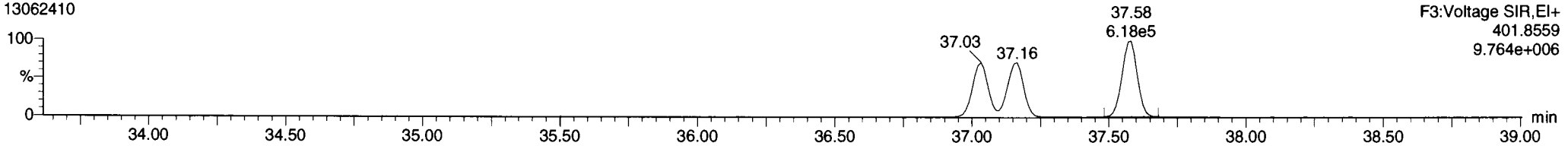

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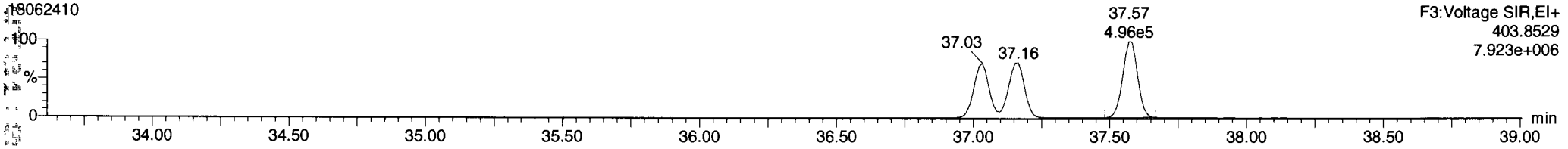

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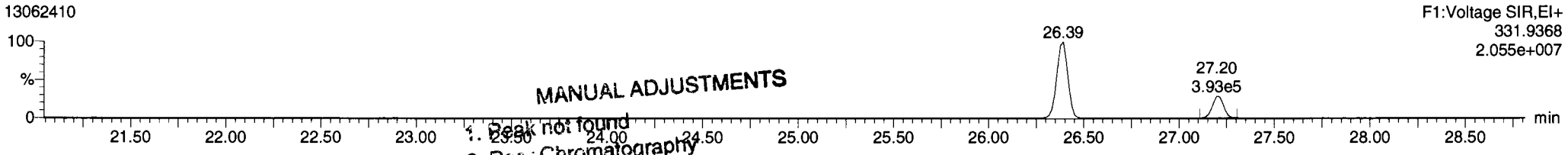
13C-2378-TCDD



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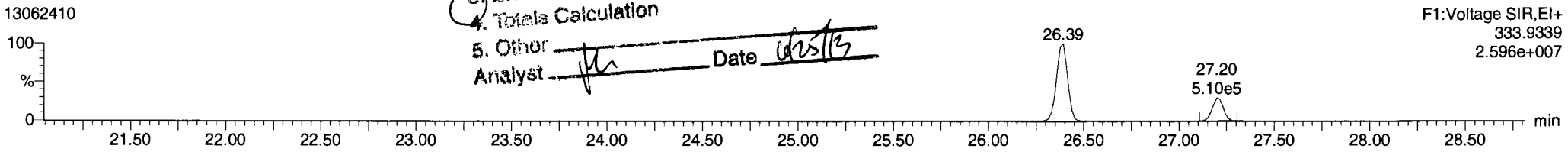

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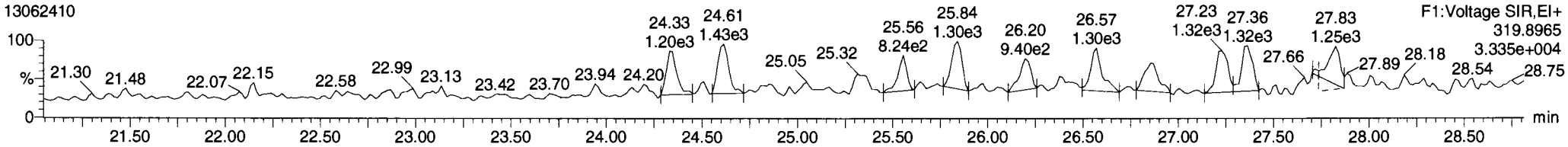

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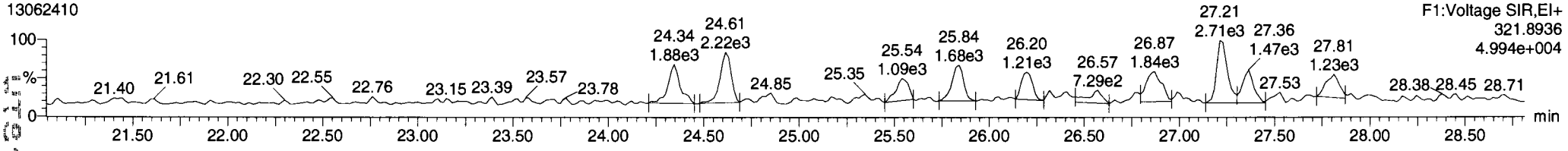
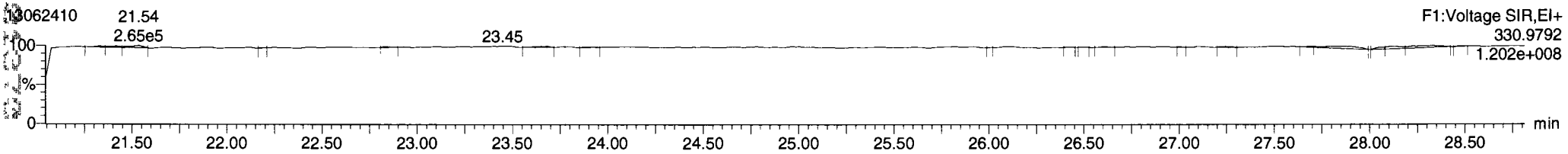


FUNCTION1 PFK



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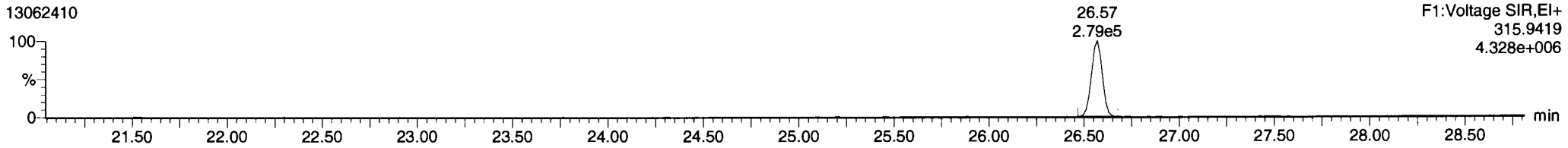
13C-2378-TCDF



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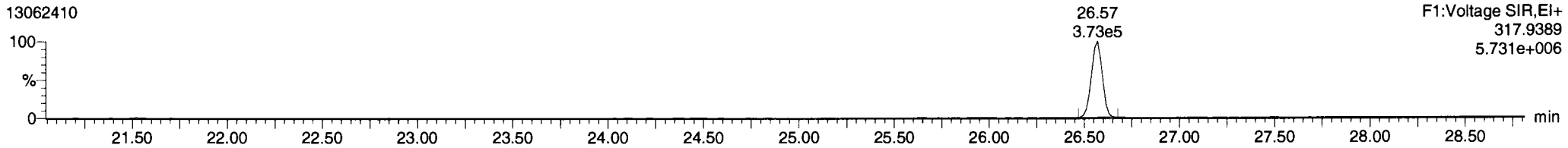
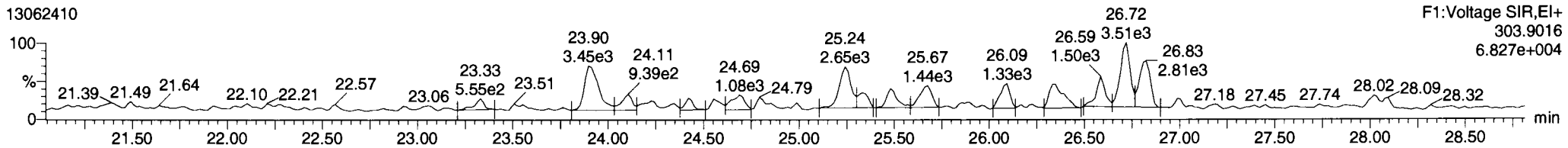


Total-tetrafurans



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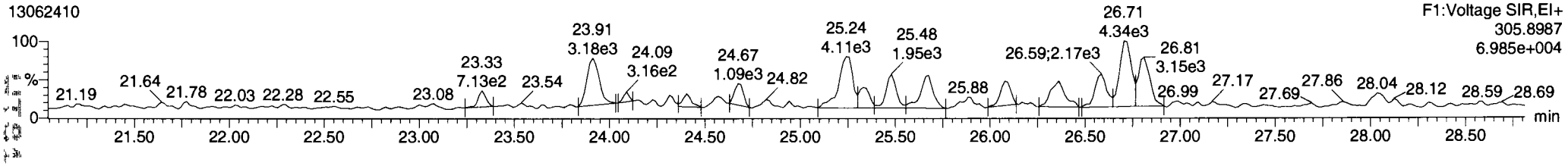
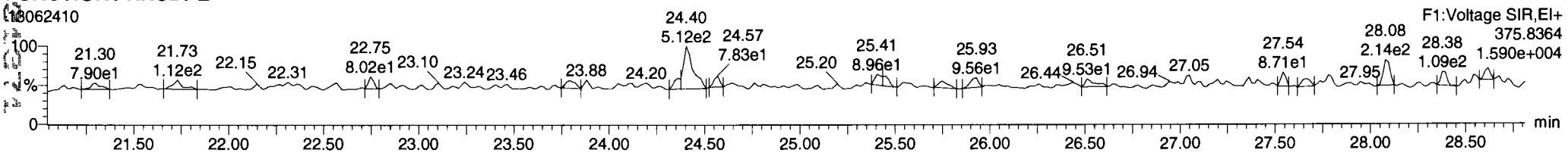


FUNCTION1 HXCDPE



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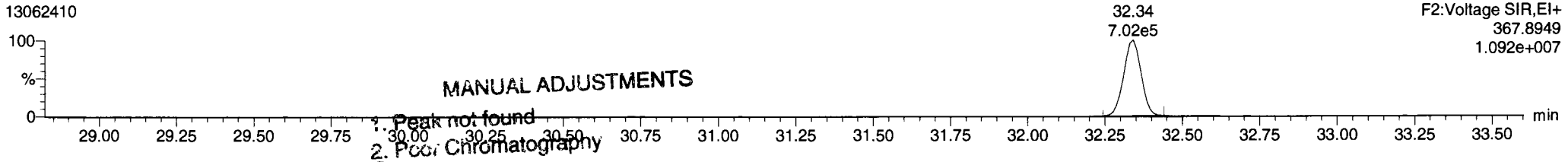
ID: WT81B, Name: 13062410, Date: 24-Jun-2013, Time: 17:09:02, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDD

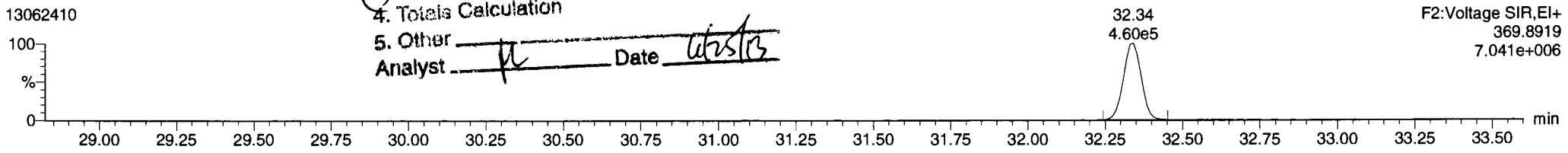


MANUAL ADJUSTMENTS

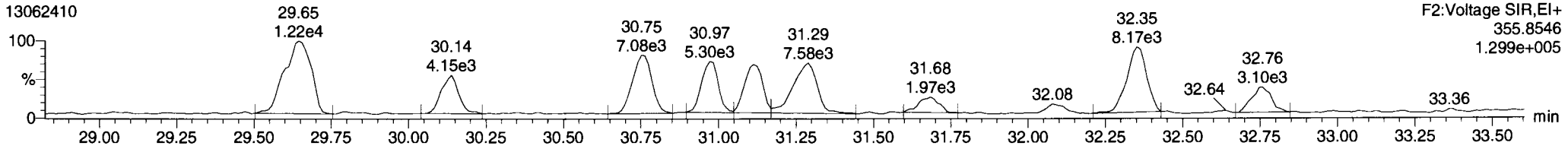
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst _____ Date 6/25/13

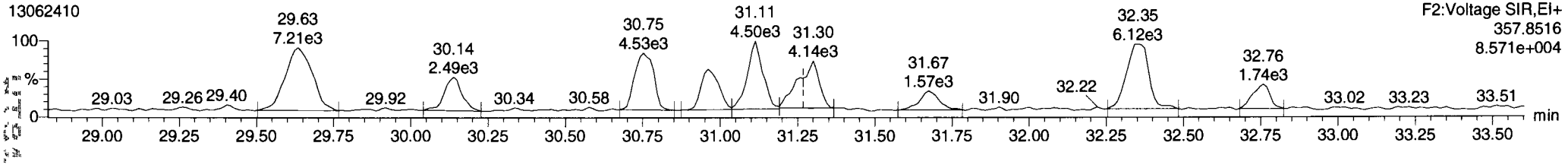
13C-12378-PeCDD



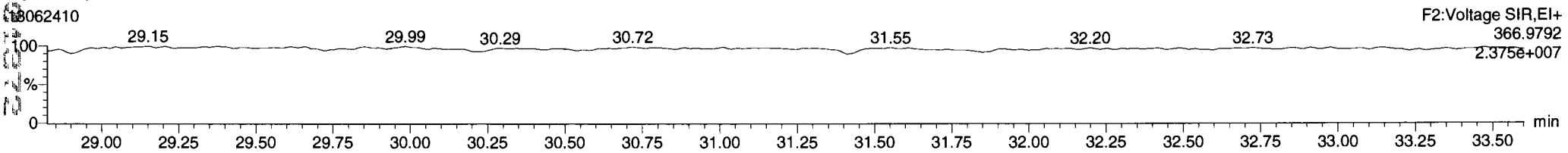
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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Printed: Tuesday, June 25, 2013 14:50:03 Pacific Daylight Time

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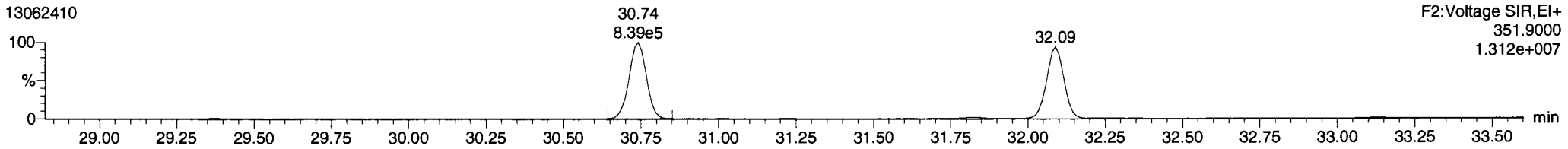
13C-12378-PeCDF



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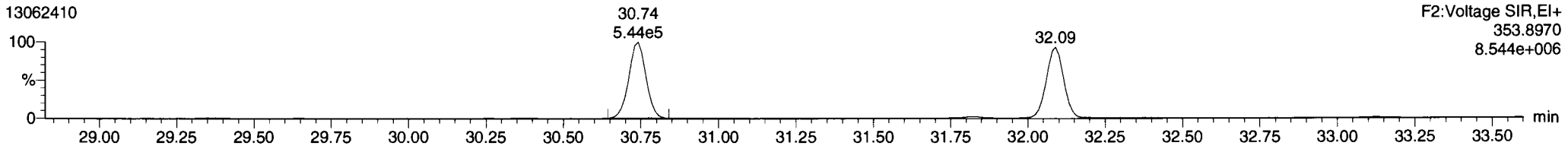
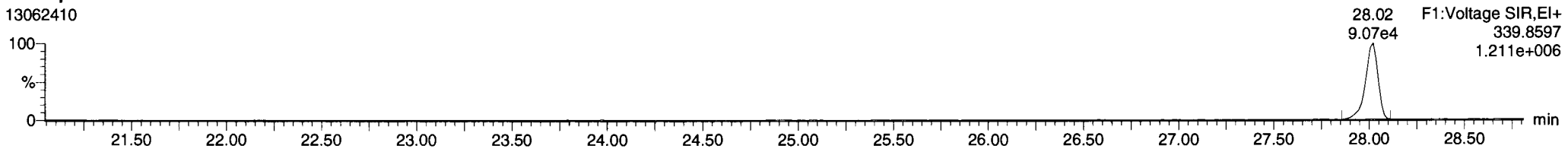
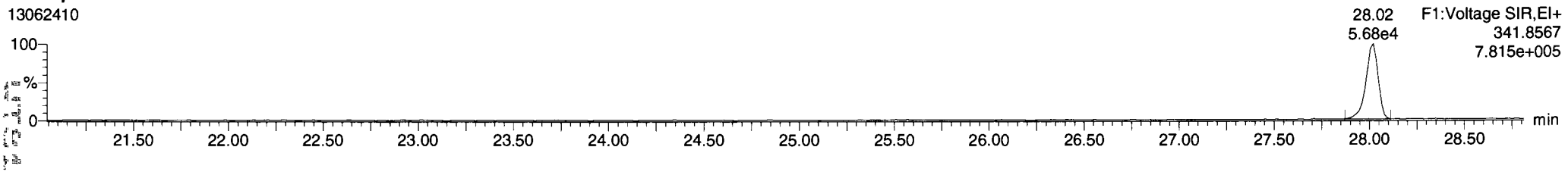


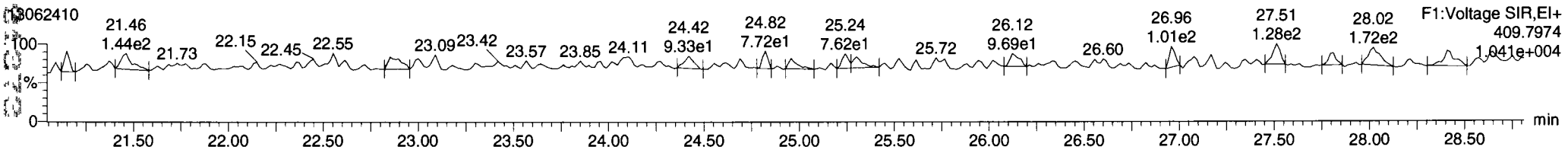
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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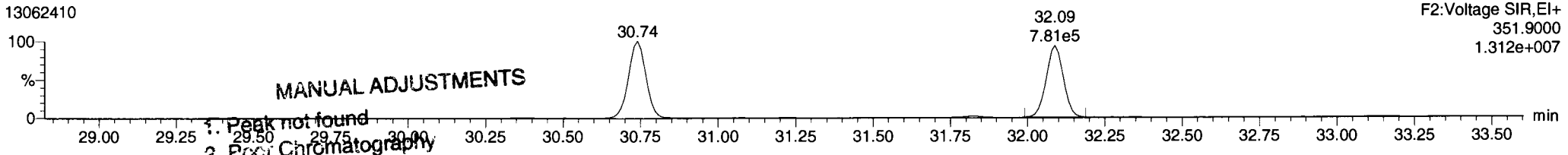
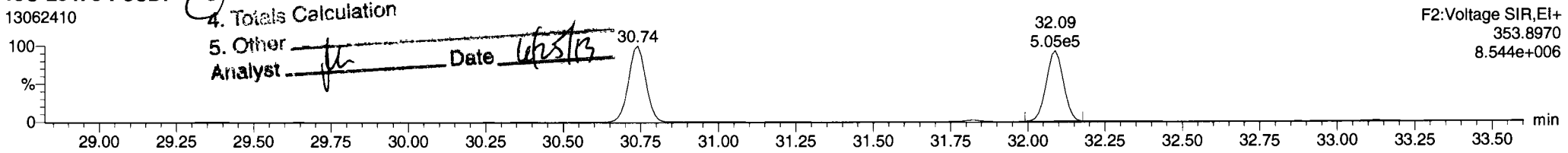
13C-23478-PeCDF

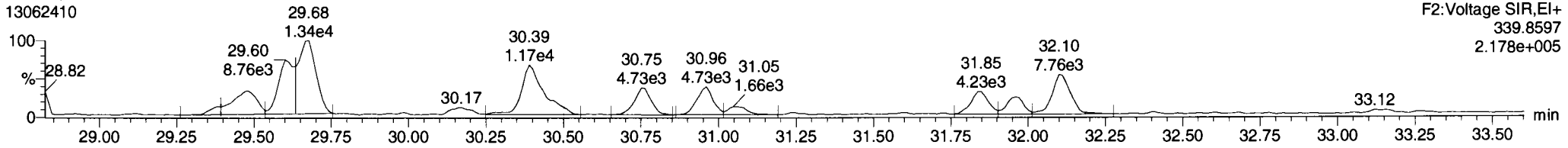


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/25/13

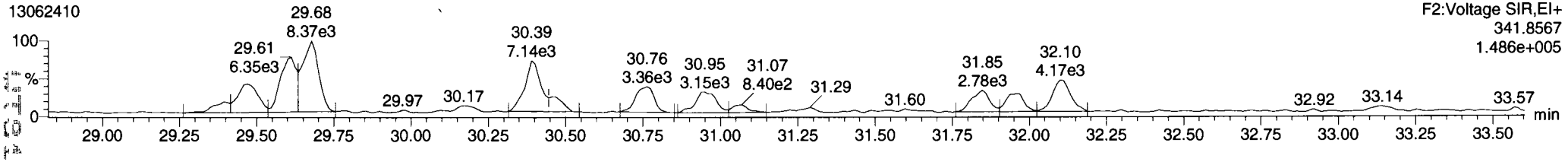
13C-23478-PeCDF



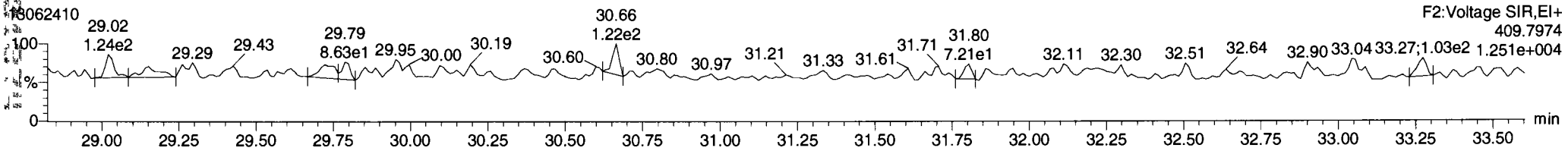
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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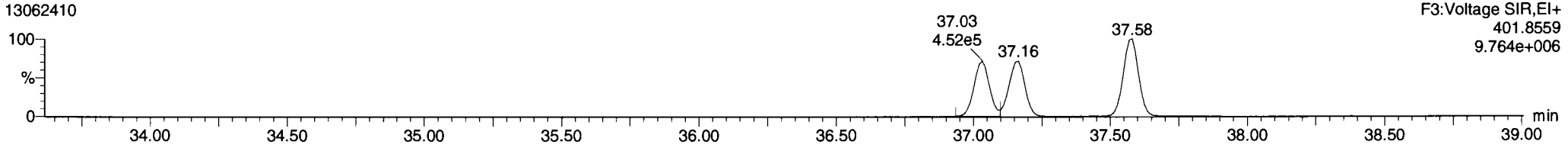
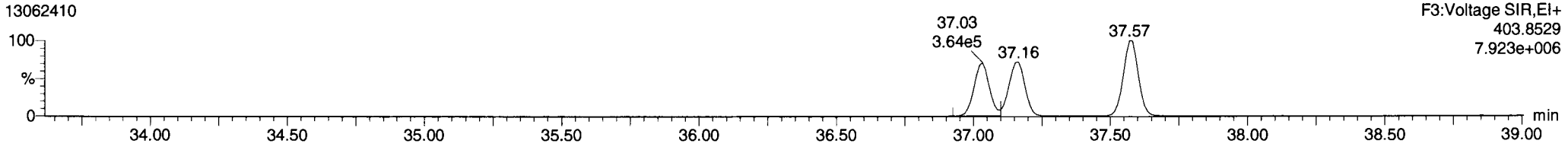
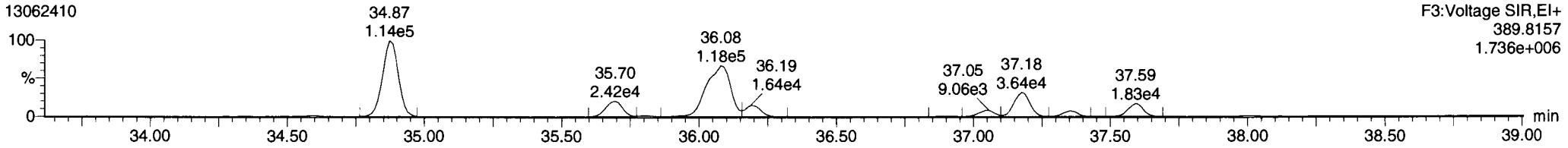
13C-123478-HxCDD



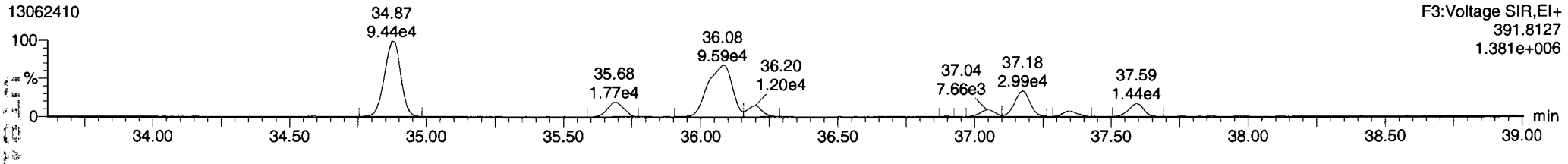
13C-123478-HxCDD



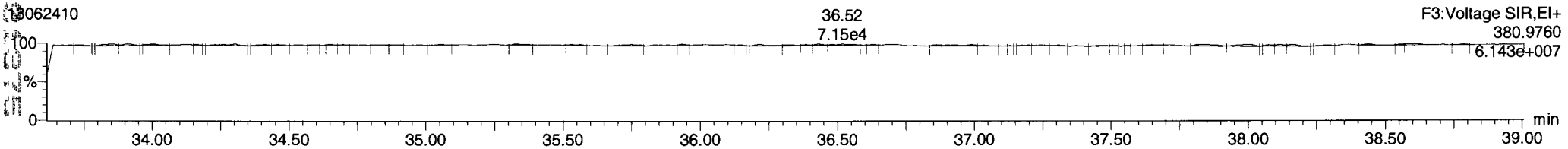
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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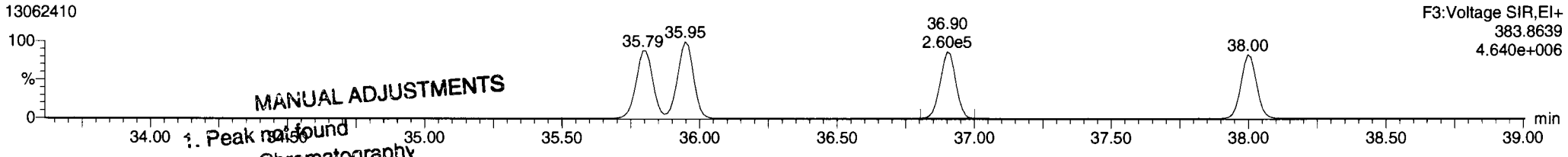
13C-234678-HxCDF



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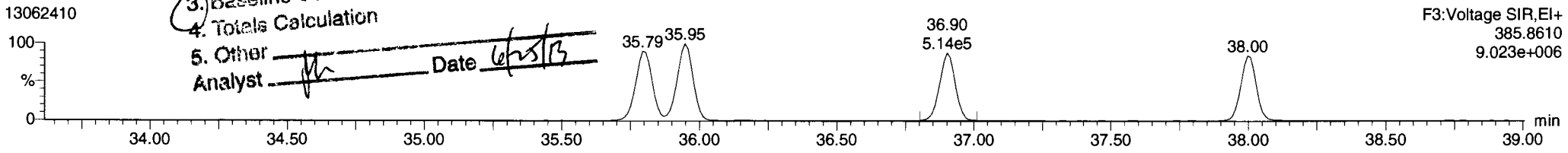
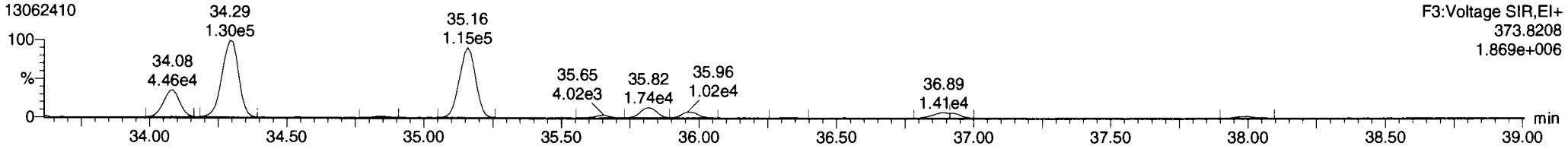
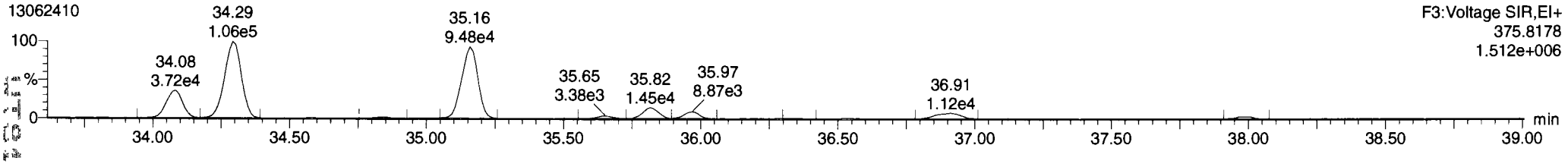


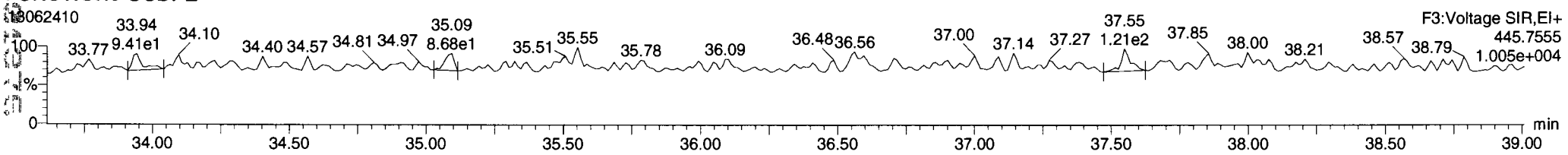
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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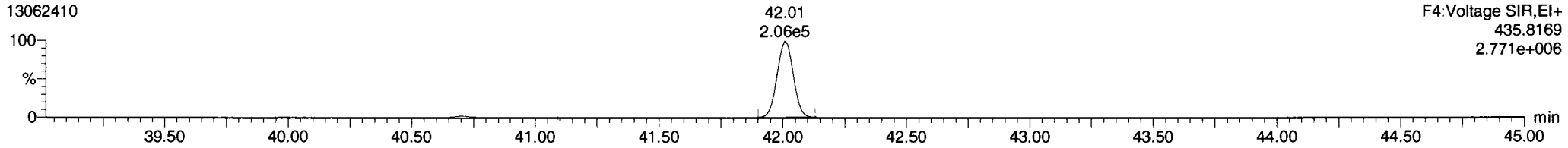
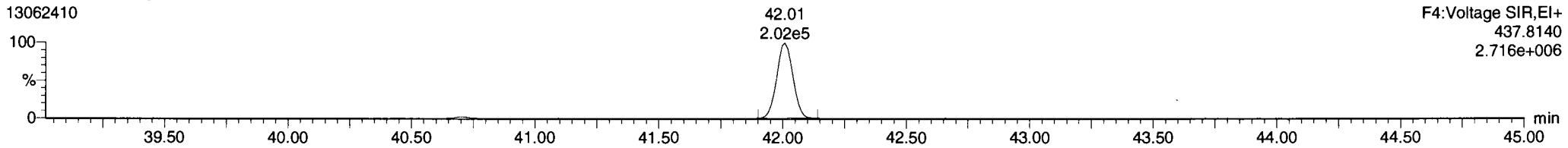
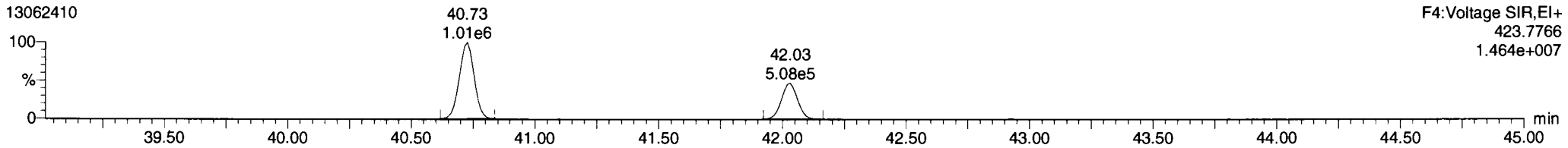
13C-1234678-HpCDD



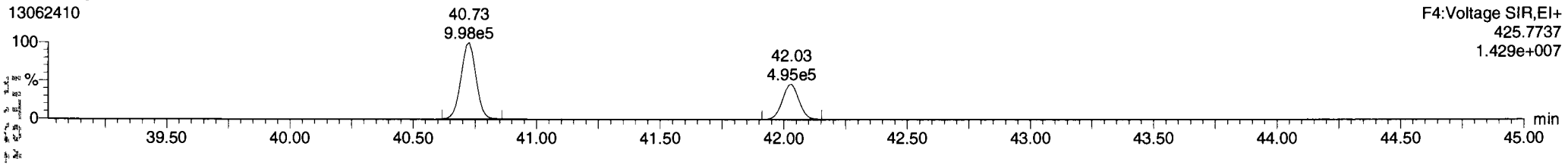
13C-1234678-HpCDD



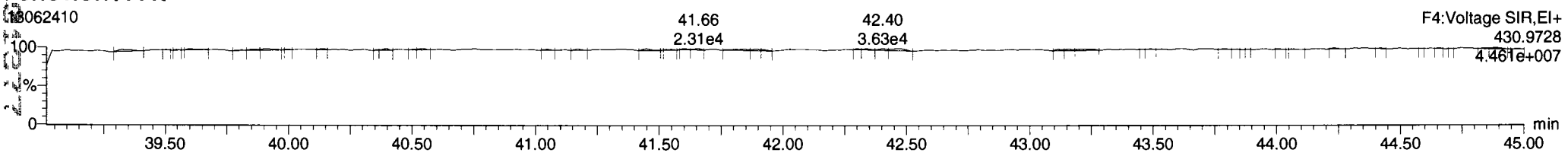
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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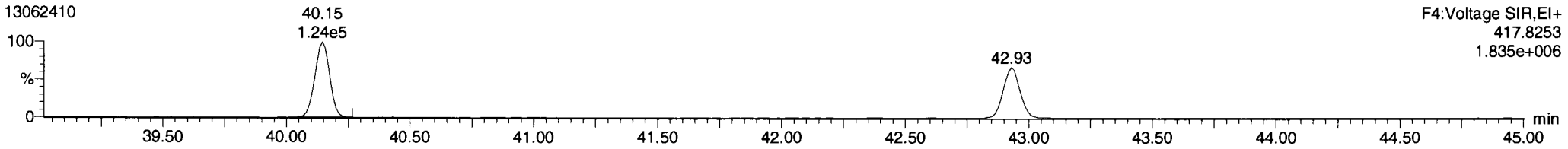
13C-1234678-HpCDF



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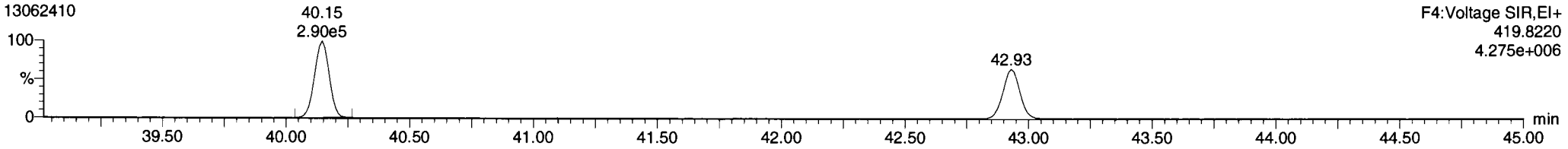
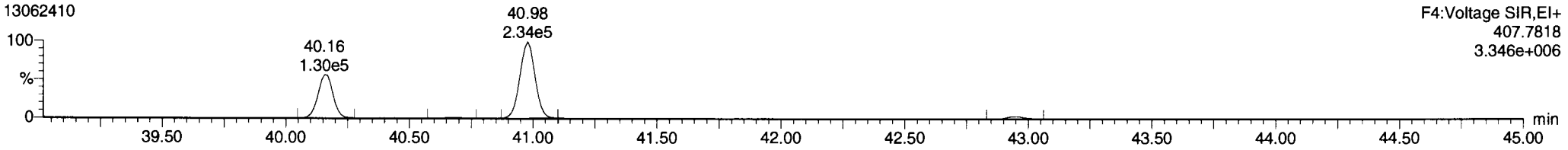
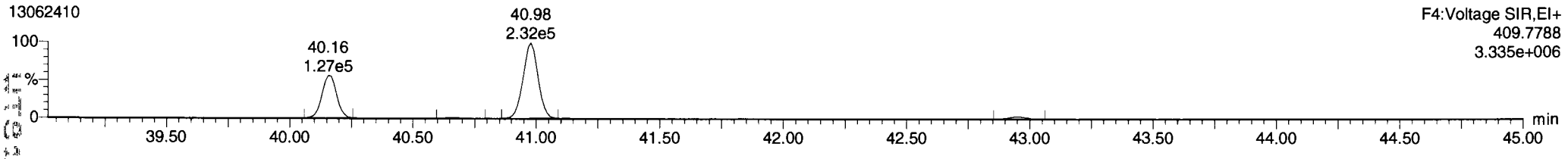


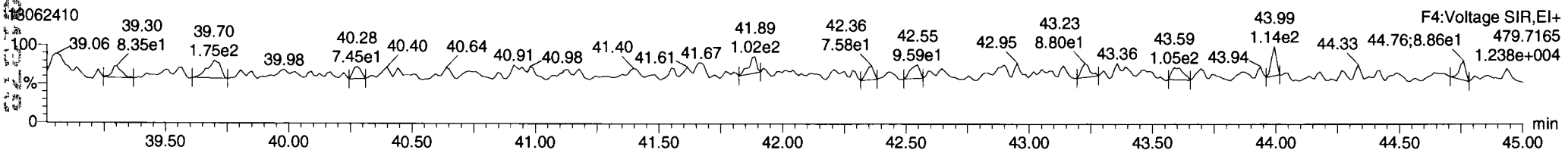
Total-heptafurans



Total-heptafurans



FUNCTION4 NCDPE



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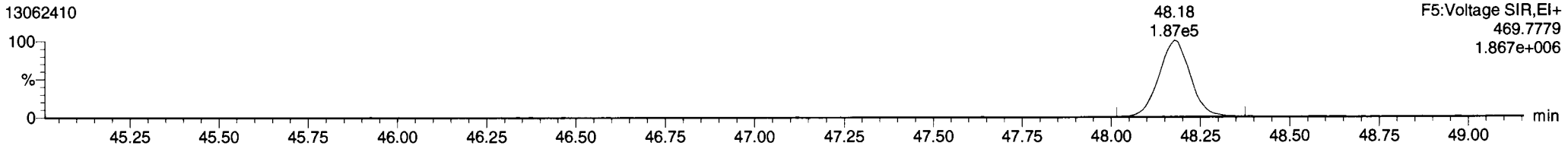
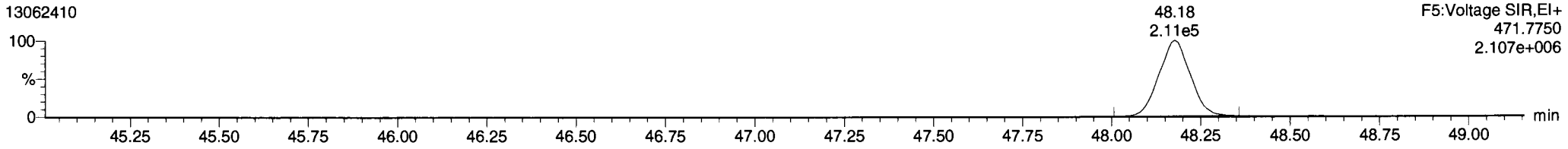
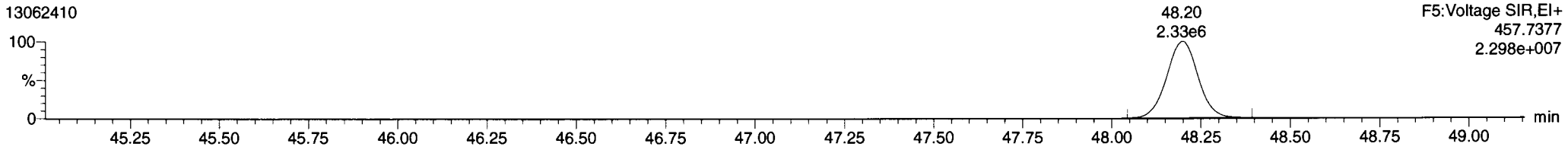
13C-OCDD



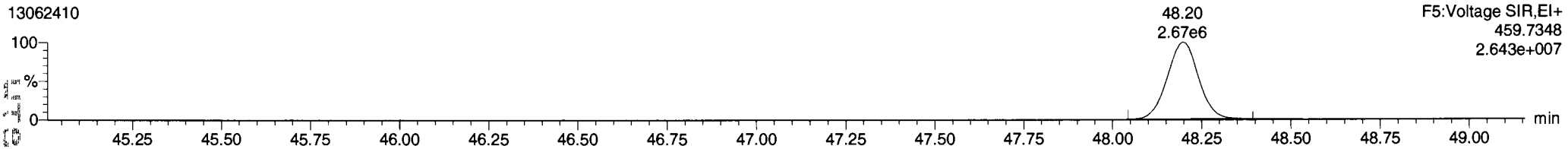
13C-OCDD



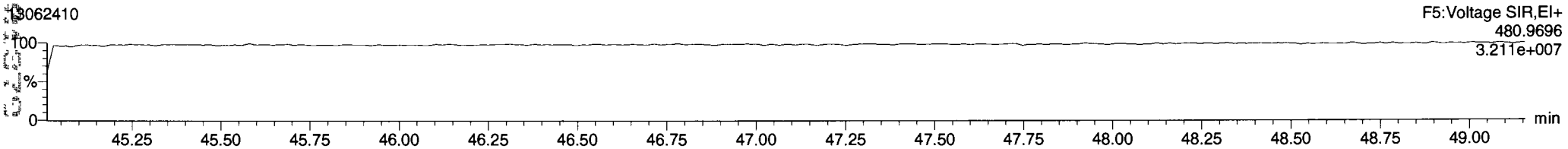
OCDD



OCDD



FUNCTION5 PFK



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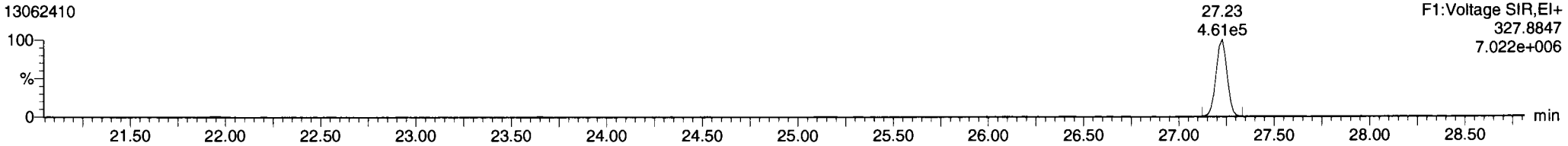
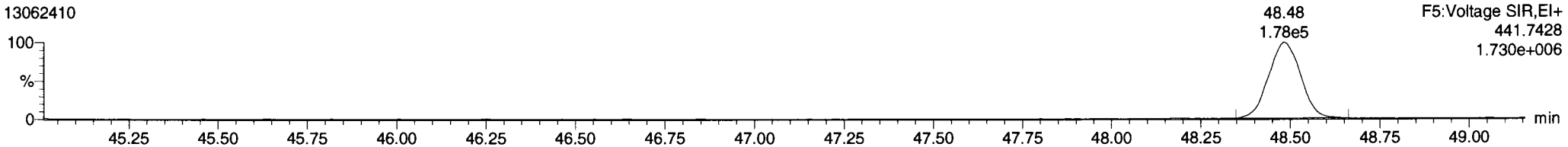
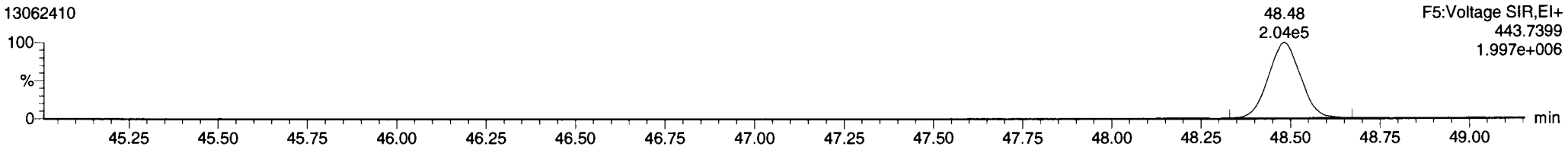
37CL-2378-TCDD



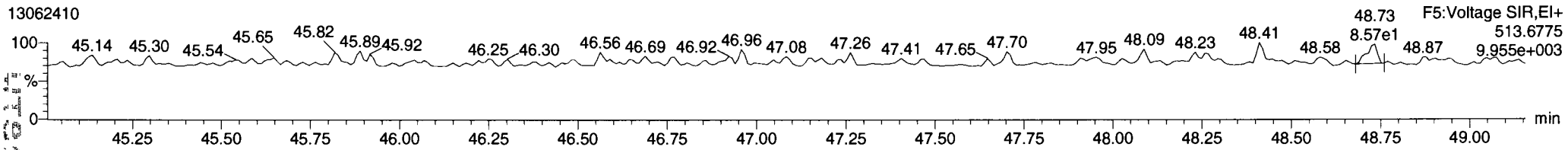
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report **MassLynx 4.1 SCN 714**
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

jlh 6/25/13

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

Name	RT	RRT	Ion Abd					S/N	Noise 1	Noise 2					
2378-TCDF	26.586	1.001	2.19e3	2.84e3	0.771	0.770	0.770	10.7	3415	2501	3.67e4	4.41e4	NO	0.583	0.583
12378-PeCDF	30.752	1.000	5.26e3	3.35e3	0.814	1.570	1.550	26.8	3066	2564	8.22e4	5.83e4	NO	0.672	0.672
23478-PeCDF	32.100	1.000	6.51e3	5.16e3	0.837	1.262	1.550	32.9	3066	2564	1.01e5	8.56e4	YES	0.865	0.942
123478-HxCDF	35.816	1.000	1.94e4	1.60e4	0.967	1.210	1.240	152.4	1876	3636	2.86e5	2.23e5	NO	3.681	3.681
234678-HxCDF	36.912	1.000	1.66e4	1.39e4	1.000	1.190	1.240	85.3	1876	3636	1.60e5	1.36e5	NO	3.300	3.300
123678-HxCDF	35.970	1.001	1.22e4	1.00e4	0.951	1.216	1.240	100.1	1876	3636	1.88e5	1.57e5	NO	2.176	2.176
123789-HxCDF	37.976	0.999	4.48e3	3.33e3	0.874	1.344	1.240	34.0	1876	3636	6.38e4	4.92e4	NO	1.001	1.001
1234678-HpCDF	40.157	1.001	1.67e5	1.66e5	1.072	1.008	1.050	1040.4	2403	2045	2.50e6	2.44e6	NO	58.086	58.086
1234789-HpCDF	42.952	1.001	9.01e3	8.62e3	1.085	1.045	1.050	48.6	2403	2045	1.17e5	9.96e4	NO	3.984	3.984
OCDF	48.483	1.006	2.44e5	2.78e5	0.878	0.877	0.890	1376.3	1717	2055	2.36e6	2.65e6	NO	217.077	217.077
2378-TCDD	27.228	1.001	1.89e3	3.21e3	0.936	0.590	0.770	9.7	2731	2209	2.65e4	4.88e4	YES	0.380	0.445
12378-PeCDD	32.363	1.001	9.26e3	6.11e3	0.894	1.517	1.550	65.0	2009	2135	1.31e5	8.54e4	NO	1.321	1.321
123478-HxCDD	37.055	1.001	1.06e4	8.12e3	0.898	1.305	1.240	60.7	2500	2527	1.52e5	1.36e5	NO	2.170	2.170
123678-HxCDD	37.187	1.001	4.46e4	3.63e4	0.818	1.229	1.240	277.5	2500	2527	6.94e5	5.55e5	NO	9.810	9.810
123789-HxCDD	37.592	1.012	2.10e4	1.82e4	0.789	1.153	1.240	138.9	2500	2527	3.47e5	2.91e5	NO	5.042	5.042
1234678-HpCDD	42.021	1.000	6.46e5	6.34e5	0.879	1.019	1.050	2586.4	3274	3113	8.47e6	8.38e6	NO	273.541	273.541
OCDD	48.196	1.000	2.99e6	3.41e6	0.875	0.877	0.890	12313.4	2336	2519	2.88e7	3.31e7	NO	2673.501	2673.501
13C-2378-TCDF	26.571	1.007	4.84e5	6.34e5	1.190	0.762	0.770	1383.3	5257	5978	7.27e6	9.66e6	NO		31.107
13C-12378-PeCDF	30.741	1.165	9.54e5	6.20e5	0.904	1.540	1.550	3231.2	4536	2774	1.47e7	9.58e6	NO		57.609
13C-23478-PeCDF	32.090	1.216	8.99e5	5.82e5	0.877	1.545	1.550	3064.1	4536	2774	1.39e7	9.13e6	NO		55.875
13C-123478-HxCDF	35.805	0.953	3.34e5	6.59e5	1.096	0.507	0.510	1234.9	3985	3428	4.92e6	9.62e6	NO		70.533
13C-123678-HxCDF	35.948	0.957	3.62e5	7.10e5	1.187	0.510	0.510	1332.9	3985	3428	5.31e6	1.05e7	NO		70.247
13C-234678-HxCDF	36.912	0.982	3.14e5	6.10e5	1.040	0.515	0.510	1183.9	3985	3428	4.72e6	9.21e6	NO		69.181
13C-123789-HxCDF	37.998	1.011	3.02e5	5.90e5	0.941	0.513	0.510	1185.9	3985	3428	4.73e6	9.22e6	NO		73.823
13C-1234678-HpCDF	40.135	1.068	1.64e5	3.71e5	0.825	0.442	0.440	1179.2	2057	1918	2.43e6	5.48e6	NO		50.379
13C-1234789-HpCDF	42.930	1.142	1.23e5	2.85e5	0.609	0.430	0.440	747.2	2057	1918	1.54e6	3.55e6	NO		52.096
13C-1234-TCDD	26.392	0.000	1.32e6	1.70e6	1.000	0.779	0.770	1995.3	10192	3909	2.03e7	2.60e7	NO		100.000
13C-2378-TCDD	27.198	1.031	5.34e5	6.90e5	0.920	0.774	0.770	778.6	10192	3909	7.94e6	1.04e7	NO		44.048
13C-12378-PeCDD	32.342	1.225	7.89e5	5.11e5	0.669	1.543	1.550	4195.8	2860	2572	1.20e7	7.83e6	NO		64.307
13C-123478-HxCDD	37.033	0.985	5.37e5	4.24e5	1.032	1.265	1.240	3597.0	2310	1709	8.31e6	6.56e6	NO		72.526
13C-123678-HxCDD	37.165	0.989	5.54e5	4.54e5	1.146	1.219	1.240	3767.7	2310	1709	8.70e6	7.07e6	NO		68.482
13C-1234678-HpCDD	42.009	1.118	2.72e5	2.60e5	0.789	1.046	1.050	2324.5	1531	1515	3.56e6	3.45e6	NO		52.509
13C-OCDD	48.178	1.282	2.56e5	2.92e5	0.696	0.879	0.890	1453.4	1673	1396	2.43e6	2.78e6	NO		61.232

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

Name	RT	Dev(RT)	Area	Ion2Area	RRF	Ratio	Exp Ratio	Dev	S/N	Height 1	Height 2	Flags	Conc
13C-123789-HxCDD	37.581	0.000	7.07e5	5.78e5	1.000	1.223	1.240	4944.5	2310	1709	1.14e7	9.35e6	NO	100.000
Total-tetrafurans			4.08e4		0.771				3415		5.88e5			10.751
Total-penta1			1.11e5						2302		1.49e6			13.183
Total-pentafurans			7.90e4		0.826				3066		1.16e6			10.387
Total-hexafurans			4.06e5		0.948				1876		5.93e6			79.581
Total-heptafurans			4.83e5		1.079				2403		6.90e6			182.083
Total-Furans			1.36e6		0.925				3415		1.84e7			513.062
Total-tetradioxins			2.09e4		0.936				2731		2.98e5			3.994
Total-pentadioxins			5.97e4		0.894				2009		9.32e5			8.665
Total-hexadioxins			3.99e5		0.835				2500		5.26e6			88.161
Total-heptadioxins			1.93e6		0.879				3274		2.69e7			814.672
Total-Dioxins			5.40e6		0.870				2731		6.22e7			3588.994
Total-TEQ			6.77e6						2731		8.06e7			4102.056
37CL-2378-TCDD	27.228	1.032	5.85e5		1.000			2863.6	3076		8.81e6			19.377
FUNCTION1 PFK			2.15e6						766774		5.16e6			
FUNCTION2 PFK			1.56e4						284419		5.27e5			0.000
FUNCTION3 PFK			1.27e6						515808		2.37e7			0.000
FUNCTION4 PFK			1.41e5						357064		5.15e6			
FUNCTION5 PFK			6.01e6						236685		5.94e7			
FUNCTION1 HXCDPE			1.76e3						1266		3.59e4			0.000
FUNCTION1 HPCDPE			1.27e3						1023		2.80e4			0.000
FUNCTION2 HPCDPE			9.65e2						1505		2.57e4			0.000
FUNCTION3 OCDPE			7.92e2						1161		2.20e4			0.000
FUNCTION4 NCDPE			2.12e3						1305		5.07e4			0.000
FUNCTION5 DCDPE			7.09e1						674		2.64e3			0.000

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

TF

	35	Total-tetrafurans	303.9016	24.67	3434.537	0.771	0.398		0.70	0.77	NO	7.7
	35	Total-tetrafurans	303.9016	24.57	2948.307	0.771	0.342		0.73	0.77	NO	6.2
	35	Total-tetrafurans	303.9016	24.40	2044.418	0.771	0.237		0.65	0.77	YES	3.6
	35	Total-tetrafurans	303.9016	24.32	1490.757	0.771	0.173		0.71	0.77	NO	3.0
	35	Total-tetrafurans	303.9016	24.21	3069.373	0.771	0.356		0.84	0.77	NO	4.7
	35	Total-tetrafurans	303.9016	24.09	3870.193	0.771	0.449		0.74	0.77	NO	6.4
	35	Total-tetrafurans	303.9016	23.91	13156.569	0.771	1.526		0.72	0.77	NO	22.7
	35	Total-tetrafurans	303.9016	23.33	2243.610	0.771	0.260		0.82	0.77	NO	4.1
	35	Total-tetrafurans	303.9016	23.06	2642.414	0.771	0.307		0.95	0.77	YES	5.3
	35	Total-tetrafurans	303.9016	28.02	1891.132	0.771	0.219		1.38	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	26.81	8071.787	0.771	0.936		0.75	0.77	NO	14.7
	35	Total-tetrafurans	303.9016	26.72	7174.048	0.771	0.832		0.94	0.77	YES	15.0
	1	2378-TCDF	303.9016	26.59	5029.941	0.771	0.583	0.583	0.77	0.77	NO	10.7
	35	Total-tetrafurans	303.9016	26.36	5887.406	0.771	0.683		1.04	0.77	YES	7.9
	35	Total-tetrafurans	303.9016	26.08	3912.100	0.771	0.454		0.73	0.77	NO	8.3
	35	Total-tetrafurans	303.9016	25.90	1617.881	0.771	0.188		0.89	0.77	YES	4.6
	35	Total-tetrafurans	303.9016	25.66	6921.607	0.771	0.803		0.85	0.77	NO	14.7
	35	Total-tetrafurans	303.9016	25.48	5192.242	0.771	0.602		0.50	0.77	YES	8.7
	35	Total-tetrafurans	303.9016	25.33	2457.852	0.771	0.285		0.56	0.77	YES	5.2
	35	Total-tetrafurans	303.9016	25.24	9625.940	0.771	1.117		0.87	0.77	NO	14.5

PP

	36	Total-penta1	339.8597	28.02	184634.719		13.183		1.49	1.55	NO	648.2

PF

	2	12378-PeCDF	339.8597	30.75	8617.844	0.814	0.672	0.672	1.57	1.55	NO	26.8
	37	Total-pentafurans	339.8597	30.39	21827.132	0.826	1.731		1.63	1.55	NO	50.9
	37	Total-pentafurans	339.8597	30.17	3463.675	0.826	0.275		1.40	1.55	NO	9.5
	37	Total-pentafurans	339.8597	29.68	29022.720	0.826	2.302		1.40	1.55	NO	84.4
	37	Total-pentafurans	339.8597	29.61	18392.144	0.826	1.459		1.52	1.55	NO	61.4
	37	Total-pentafurans	339.8597	29.48	12639.820	0.826	1.002		1.32	1.55	NO	30.1
	37	Total-pentafurans	339.8597	29.39	2784.102	0.826	0.221		1.47	1.55	NO	8.5
	3	23478-PeCDF	339.8597	32.10	11674.937	0.837	0.942	0.865	1.26	1.55	YES	32.9
	37	Total-pentafurans	339.8597	31.96	6339.687	0.826	0.503		1.90	1.55	YES	20.3
	37	Total-pentafurans	339.8597	31.84	7312.625	0.826	0.580		1.89	1.55	YES	24.2
	37	Total-pentafurans	339.8597	30.96	8835.962	0.826	0.701		1.96	1.55	YES	29.4

ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

HF

	6	123678-HxCDF	373.8208	35.97	22191.646	0.951	2.176	2.176	1.22	1.24	NO	100.1
	4	123478-HxCDF	373.8208	35.82	35359.447	0.967	3.681	3.681	1.21	1.24	NO	152.4
	38	Total-hexafurans	373.8208	35.65	8020.375	0.948	0.872		1.37	1.24	NO	39.7
	38	Total-hexafurans	373.8208	35.16	250745.922	0.948	27.252		1.24	1.24	NO	1092.6
	38	Total-hexafurans	373.8208	34.84	3605.613	0.948	0.392		1.17	1.24	NO	14.1
	38	Total-hexafurans	373.8208	34.29	279858.101	0.948	30.415		1.24	1.24	NO	1220.7
	38	Total-hexafurans	373.8208	34.08	95055.234	0.948	10.331		1.21	1.24	NO	413.3
	7	123789-HxCDF	373.8208	37.98	7804.986	0.874	1.001	1.001	1.34	1.24	NO	34.0
	5	234678-HxCDF	373.8208	36.91	30499.786	1.000	3.300	3.300	1.19	1.24	NO	85.3
	38	Total-hexafurans	373.8208	36.33	1491.122	0.948	0.162		1.10	1.24	NO	6.7

HPF

	9	1234789-HpCDF	407.7818	42.95	17628.421	1.085	3.984	3.984	1.05	1.05	NO	48.6
	39	Total-heptafurans	407.7818	42.04	528.146	1.079	0.104		0.68	1.05	YES	2.9
	39	Total-heptafurans	407.7818	40.97	603007.844	1.079	118.684		1.01	1.05	NO	1764.5
	39	Total-heptafurans	407.7818	40.67	6222.913	1.079	1.225		1.02	1.05	NO	15.6
	8	1234678-HpCDF	407.7818	40.16	332724.626	1.072	58.086	58.086	1.01	1.05	NO	1040.4

uantify Totals Report MassLynx 4.1 SCN 714
ataset: P:\DIOXIN8290.PRO\130624DATA1.qld
ast Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
rinted: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

): WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

urans,TF,PP,PF,HF,HPF,OF

	#	Name	Trace	RT	Abs Area	Area%	Conc	EMPC	Ion Ratio	Ion Ratio Lo	Ion Ratio Flag	S/N
	35	Total-tetrafurans	303.9016	24.67	3434.537	0.771	0.398		0.70	0.77	NO	7.7
	35	Total-tetrafurans	303.9016	24.57	2948.307	0.771	0.342		0.73	0.77	NO	6.2
	35	Total-tetrafurans	303.9016	24.40	2044.418	0.771	0.237		0.65	0.77	YES	3.6
	35	Total-tetrafurans	303.9016	24.32	1490.757	0.771	0.173		0.71	0.77	NO	3.0
	35	Total-tetrafurans	303.9016	24.21	3069.373	0.771	0.356		0.84	0.77	NO	4.7
	35	Total-tetrafurans	303.9016	24.09	3870.193	0.771	0.449		0.74	0.77	NO	6.4
	35	Total-tetrafurans	303.9016	23.91	13156.569	0.771	1.526		0.72	0.77	NO	22.7
	35	Total-tetrafurans	303.9016	23.33	2243.610	0.771	0.260		0.82	0.77	NO	4.1
	35	Total-tetrafurans	303.9016	23.06	2642.414	0.771	0.307		0.95	0.77	YES	5.3
	35	Total-tetrafurans	303.9016	28.02	1891.132	0.771	0.219		1.38	0.77	YES	4.0
	35	Total-tetrafurans	303.9016	26.81	8071.787	0.771	0.936		0.75	0.77	NO	14.7
	35	Total-tetrafurans	303.9016	26.72	7174.048	0.771	0.832		0.94	0.77	YES	15.0
	1	2378-TCDF	303.9016	26.59	5029.941	0.771	0.583	0.583	0.77	0.77	NO	10.7
	35	Total-tetrafurans	303.9016	26.36	5887.406	0.771	0.683		1.04	0.77	YES	7.9
	35	Total-tetrafurans	303.9016	26.08	3912.100	0.771	0.454		0.73	0.77	NO	8.3
	35	Total-tetrafurans	303.9016	25.90	1617.881	0.771	0.188		0.89	0.77	YES	4.6
	35	Total-tetrafurans	303.9016	25.66	6921.607	0.771	0.803		0.85	0.77	NO	14.7
	35	Total-tetrafurans	303.9016	25.48	5192.242	0.771	0.602		0.50	0.77	YES	8.7
	35	Total-tetrafurans	303.9016	25.33	2457.852	0.771	0.285		0.56	0.77	YES	5.2
	35	Total-tetrafurans	303.9016	25.24	9625.940	0.771	1.117		0.87	0.77	NO	14.5
	2	12378-PeCDF	339.8597	30.75	8617.844	0.814	0.672	0.672	1.57	1.55	NO	26.8
	37	Total-pentafurans	339.8597	30.39	21827.132	0.826	1.731		1.63	1.55	NO	50.9
	37	Total-pentafurans	339.8597	30.17	3463.675	0.826	0.275		1.40	1.55	NO	9.5
	37	Total-pentafurans	339.8597	29.68	29022.720	0.826	2.302		1.40	1.55	NO	84.4
	37	Total-pentafurans	339.8597	29.61	18392.144	0.826	1.459		1.52	1.55	NO	61.4
	37	Total-pentafurans	339.8597	29.48	12639.820	0.826	1.002		1.32	1.55	NO	30.1
	37	Total-pentafurans	339.8597	29.39	2784.102	0.826	0.221		1.47	1.55	NO	8.5
	3	23478-PeCDF	339.8597	32.10	11674.937	0.837	0.942	0.865	1.26	1.55	YES	32.9
	37	Total-pentafurans	339.8597	31.96	6339.687	0.826	0.503		1.90	1.55	YES	20.3
	37	Total-pentafurans	339.8597	31.84	7312.625	0.826	0.580		1.89	1.55	YES	24.2
	37	Total-pentafurans	339.8597	30.96	8835.962	0.826	0.701		1.96	1.55	YES	29.4
	6	123678-HxCDF	373.8208	35.97	22191.646	0.951	2.176	2.176	1.22	1.24	NO	100.1
	4	123478-HxCDF	373.8208	35.82	35359.447	0.967	3.681	3.681	1.21	1.24	NO	152.4
	38	Total-hexafurans	373.8208	35.65	8020.375	0.948	0.872		1.37	1.24	NO	39.7
	38	Total-hexafurans	373.8208	35.16	250745.922	0.948	27.252		1.24	1.24	NO	1092.6
	38	Total-hexafurans	373.8208	34.84	3605.613	0.948	0.392		1.17	1.24	NO	14.1
	38	Total-hexafurans	373.8208	34.29	279858.101	0.948	30.415		1.24	1.24	NO	1220.7
	38	Total-hexafurans	373.8208	34.08	95055.234	0.948	10.331		1.21	1.24	NO	413.3
	7	123789-HxCDF	373.8208	37.98	7804.986	0.874	1.001	1.001	1.34	1.24	NO	34.0
	5	234678-HxCDF	373.8208	36.91	30499.786	1.000	3.300	3.300	1.19	1.24	NO	85.3
	38	Total-hexafurans	373.8208	36.33	1491.122	0.948	0.162		1.10	1.24	NO	6.7
	9	1234789-HpCDF	407.7818	42.95	17628.421	1.085	3.984	3.984	1.05	1.05	NO	48.6
	39	Total-heptafurans	407.7818	42.04	528.146	1.079	0.104		0.68	1.05	YES	2.9
	39	Total-heptafurans	407.7818	40.97	603007.844	1.079	118.684		1.01	1.05	NO	1764.5
	39	Total-heptafurans	407.7818	40.67	6222.913	1.079	1.225		1.02	1.05	NO	15.6
	8	1234678-HpCDF	407.7818	40.16	332724.626	1.072	58.086	58.086	1.01	1.05	NO	1040.4
	10	OCDF	441.7428	48.48	521856.094	0.878	217.077	217....	0.88	0.89	NO	1376.3
	36	Total-penta1	339.8597	28.02	184634.719		13.183		1.49	1.55	NO	648.2

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
Printed: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

TD

	#	Name	Trans	RT	Abs Area	RRF M-1	Conc	EMPC	T Ratio	T Ratio	T Resp	S/N
	41	Total-tetradioxins	319.8965	25.84	4810.333	0.936	0.420		0.97	0.77	YES	10.8
	41	Total-tetradioxins	319.8965	25.57	3361.137	0.936	0.293		0.79	0.77	NO	7.1
	41	Total-tetradioxins	319.8965	24.61	6894.748	0.936	0.602		0.75	0.77	NO	16.0
	41	Total-tetradioxins	319.8965	24.34	6742.896	0.936	0.588		0.78	0.77	NO	17.8
	41	Total-tetradioxins	319.8965	27.84	3491.063	0.936	0.305		0.80	0.77	NO	6.8
	41	Total-tetradioxins	319.8965	27.35	2597.616	0.936	0.227		0.87	0.77	NO	6.7
	11	2378-TCDD	319.8965	27.23	5102.308	0.936	0.445	0.380	0.59	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	26.84	4503.650	0.936	0.393		0.93	0.77	YES	9.2
	41	Total-tetradioxins	319.8965	26.57	3057.600	0.936	0.267		5.15	0.77	YES	14.4
	41	Total-tetradioxins	319.8965	26.41	2077.387	0.936	0.181		0.49	0.77	YES	4.1
	41	Total-tetradioxins	319.8965	26.20	3133.449	0.936	0.273		0.52	0.77	YES	6.6

PD

	#	Name	Trans	RT	Abs Area	RRF M-1	Conc	EMPC	T Ratio	T Ratio	T Resp	S/N
	42	Total-pentadioxins	355.8546	29.63	10856.720	0.894	0.934		1.74	1.55	NO	63.2
	42	Total-pentadioxins	355.8546	32.76	5071.101	0.894	0.436		1.31	1.55	YES	23.5
	12	12378-PeCDD	355.8546	32.36	15368.046	0.894	1.321	1.321	1.52	1.55	NO	65.0
	42	Total-pentadioxins	355.8546	31.68	4604.798	0.894	0.396		0.97	1.55	YES	16.2
	42	Total-pentadioxins	355.8546	31.28	13100.380	0.894	1.126		1.50	1.55	NO	44.8
	42	Total-pentadioxins	355.8546	31.10	10740.564	0.894	0.924		1.54	1.55	NO	51.6
	42	Total-pentadioxins	355.8546	30.97	9182.085	0.894	0.790		1.55	1.55	NO	42.5
	42	Total-pentadioxins	355.8546	30.76	12559.910	0.894	1.080		1.77	1.55	NO	58.0
	42	Total-pentadioxins	355.8546	30.14	7491.950	0.894	0.644		1.29	1.55	YES	38.1
	42	Total-pentadioxins	355.8546	29.66	11794.664	0.894	1.014		1.12	1.55	YES	61.0

HD

	#	Name	Trans	RT	Abs Area	RRF M-1	Conc	EMPC	T Ratio	T Ratio	T Resp	S/N
	14	123678-HxCDD	389.8157	37.19	80865.453	0.818	9.810	9.810	1.23	1.24	NO	277.5
	13	123478-HxCDD	389.8157	37.06	18724.599	0.898	2.170	2.170	1.31	1.24	NO	60.7
	43	Total-hexadioxins	389.8157	36.20	32610.536	0.835	3.966		1.16	1.24	NO	111.3
	43	Total-hexadioxins	389.8157	36.09	246286.758	0.835	29.954		1.25	1.24	NO	531.0
	43	Total-hexadioxins	389.8157	35.70	50101.653	0.835	6.093		1.28	1.24	NO	161.0
	43	Total-hexadioxins	389.8157	34.88	238786.398	0.835	29.041		1.21	1.24	NO	764.6
	15	123789-HxCDD	389.8157	37.59	39196.453	0.789	5.042	5.042	1.15	1.24	NO	138.9
	43	Total-hexadioxins	389.8157	37.36	17142.697	0.835	2.085		1.30	1.24	NO	59.4

HPD

	#	Name	Trans	RT	Abs Area	RRF M-1	Conc	EMPC	T Ratio	T Ratio	T Resp	S/N
	16	1234678-HpCDD	423.7766	42.02	1280035.875	0.879	273.541	273....	1.02	1.05	NO	2586.4
	44	Total-heptadioxins	423.7766	40.72	2532222.375	0.879	541.131		1.03	1.05	NO	5639.9

Quantify Totals Report MassLynx 4.1 SCN 714
Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	41	Total-tetradioxins	319.8965	25.84	4810.333	0.936	0.420		0.97	0.77	YES	10.8
	41	Total-tetradioxins	319.8965	25.57	3361.137	0.936	0.293		0.79	0.77	NO	7.1
	41	Total-tetradioxins	319.8965	24.61	6894.748	0.936	0.602		0.75	0.77	NO	16.0
	41	Total-tetradioxins	319.8965	24.34	6742.896	0.936	0.588		0.78	0.77	NO	17.8
	41	Total-tetradioxins	319.8965	27.84	3491.063	0.936	0.305		0.80	0.77	NO	6.8
	41	Total-tetradioxins	319.8965	27.35	2597.616	0.936	0.227		0.87	0.77	NO	6.7
	11	2378-TCDD	319.8965	27.23	5102.308	0.936	0.445	0.380	0.59	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	26.84	4503.650	0.936	0.393		0.93	0.77	YES	9.2
	41	Total-tetradioxins	319.8965	26.57	3057.600	0.936	0.267		5.15	0.77	YES	14.4
	41	Total-tetradioxins	319.8965	26.41	2077.387	0.936	0.181		0.49	0.77	YES	4.1
	41	Total-tetradioxins	319.8965	26.20	3133.449	0.936	0.273		0.52	0.77	YES	6.6
	42	Total-pentadioxins	355.8546	29.63	10856.720	0.894	0.934		1.74	1.55	NO	63.2
	42	Total-pentadioxins	355.8546	32.76	5071.101	0.894	0.436		1.31	1.55	YES	23.5
	12	12378-PeCDD	355.8546	32.36	15368.046	0.894	1.321	1.321	1.52	1.55	NO	65.0
	42	Total-pentadioxins	355.8546	31.68	4604.798	0.894	0.396		0.97	1.55	YES	16.2
	42	Total-pentadioxins	355.8546	31.28	13100.380	0.894	1.126		1.50	1.55	NO	44.8
	42	Total-pentadioxins	355.8546	31.10	10740.564	0.894	0.924		1.54	1.55	NO	51.6
	42	Total-pentadioxins	355.8546	30.97	9182.085	0.894	0.790		1.55	1.55	NO	42.5
	42	Total-pentadioxins	355.8546	30.76	12559.910	0.894	1.080		1.77	1.55	NO	58.0
	42	Total-pentadioxins	355.8546	30.14	7491.950	0.894	0.644		1.29	1.55	YES	38.1
	42	Total-pentadioxins	355.8546	29.66	11794.664	0.894	1.014		1.12	1.55	YES	61.0
	14	123678-HxCDD	389.8157	37.19	80865.453	0.818	9.810	9.810	1.23	1.24	NO	277.5
	13	123478-HxCDD	389.8157	37.06	18724.599	0.898	2.170	2.170	1.31	1.24	NO	60.7
	43	Total-hexadioxins	389.8157	36.20	32610.536	0.835	3.966		1.16	1.24	NO	111.3
	43	Total-hexadioxins	389.8157	36.09	246286.758	0.835	29.954		1.25	1.24	NO	531.0
	43	Total-hexadioxins	389.8157	35.70	50101.653	0.835	6.093		1.28	1.24	NO	161.0
	43	Total-hexadioxins	389.8157	34.88	238786.398	0.835	29.041		1.21	1.24	NO	764.6
	15	123789-HxCDD	389.8157	37.59	39196.453	0.789	5.042	5.042	1.15	1.24	NO	138.9
	43	Total-hexadioxins	389.8157	37.36	17142.697	0.835	2.085		1.30	1.24	NO	59.4
	16	1234678-HpCDD	423.7766	42.02	1280035.875	0.879	273.541	273....	1.02	1.05	NO	2586.4
	44	Total-heptadioxins	423.7766	40.72	2532222.375	0.879	541.131		1.03	1.05	NO	5639.9
	17	OCDD	457.7377	48.20	6408761.250	0.875	2673.5...	2673...	0.88	0.89	NO	12313.4

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

[redacted]	#	Name	Trans	RT	Area Resp	RRF M...	pg	EMPC	13 Ratio	37 Ratio	M Rej	S/N
[redacted]	35	Total-tetrafurans	303.9016	24.67	3434.537	0.771	0.398		0.70	0.77	NO	7.7
[redacted]	35	Total-tetrafurans	303.9016	24.57	2948.307	0.771	0.342		0.73	0.77	NO	6.2
[redacted]	35	Total-tetrafurans	303.9016	24.40	2044.418	0.771	0.237		0.65	0.77	YES	3.6
[redacted]	35	Total-tetrafurans	303.9016	24.32	1490.757	0.771	0.173		0.71	0.77	NO	3.0
[redacted]	35	Total-tetrafurans	303.9016	24.21	3069.373	0.771	0.356		0.84	0.77	NO	4.7
[redacted]	35	Total-tetrafurans	303.9016	24.09	3870.193	0.771	0.449		0.74	0.77	NO	6.4
[redacted]	35	Total-tetrafurans	303.9016	23.91	13156.569	0.771	1.526		0.72	0.77	NO	22.7
[redacted]	35	Total-tetrafurans	303.9016	23.33	2243.610	0.771	0.260		0.82	0.77	NO	4.1
[redacted]	35	Total-tetrafurans	303.9016	23.06	2642.414	0.771	0.307		0.95	0.77	YES	5.3
[redacted]	35	Total-tetrafurans	303.9016	28.02	1891.132	0.771	0.219		1.38	0.77	YES	4.0
[redacted]	35	Total-tetrafurans	303.9016	26.81	8071.787	0.771	0.936		0.75	0.77	NO	14.7
[redacted]	35	Total-tetrafurans	303.9016	26.72	7174.048	0.771	0.832		0.94	0.77	YES	15.0
[redacted]	1	2378-TCDF	303.9016	26.59	5029.941	0.771	0.583	0.583	0.77	0.77	NO	10.7
[redacted]	35	Total-tetrafurans	303.9016	26.36	5887.406	0.771	0.683		1.04	0.77	YES	7.9
[redacted]	35	Total-tetrafurans	303.9016	26.08	3912.100	0.771	0.454		0.73	0.77	NO	8.3
[redacted]	35	Total-tetrafurans	303.9016	25.90	1617.881	0.771	0.188		0.89	0.77	YES	4.6
[redacted]	35	Total-tetrafurans	303.9016	25.66	6921.607	0.771	0.803		0.85	0.77	NO	14.7
[redacted]	35	Total-tetrafurans	303.9016	25.48	5192.242	0.771	0.602		0.50	0.77	YES	8.7
[redacted]	35	Total-tetrafurans	303.9016	25.33	2457.852	0.771	0.285		0.56	0.77	YES	5.2
[redacted]	35	Total-tetrafurans	303.9016	25.24	9625.940	0.771	1.117		0.87	0.77	NO	14.5
[redacted]	2	12378-PeCDF	339.8597	30.75	8617.844	0.814	0.672	0.672	1.57	1.55	NO	26.8
[redacted]	37	Total-pentafurans	339.8597	30.39	21827.132	0.826	1.731		1.63	1.55	NO	50.9
[redacted]	37	Total-pentafurans	339.8597	30.17	3463.675	0.826	0.275		1.40	1.55	NO	9.5
[redacted]	37	Total-pentafurans	339.8597	29.68	29022.720	0.826	2.302		1.40	1.55	NO	84.4
[redacted]	37	Total-pentafurans	339.8597	29.61	18392.144	0.826	1.459		1.52	1.55	NO	61.4
[redacted]	37	Total-pentafurans	339.8597	29.48	12639.820	0.826	1.002		1.32	1.55	NO	30.1
[redacted]	37	Total-pentafurans	339.8597	29.39	2784.102	0.826	0.221		1.47	1.55	NO	8.5
[redacted]	3	23478-PeCDF	339.8597	32.10	11674.937	0.837	0.942	0.865	1.26	1.55	YES	32.9
[redacted]	37	Total-pentafurans	339.8597	31.96	6339.687	0.826	0.503		1.90	1.55	YES	20.3
[redacted]	37	Total-pentafurans	339.8597	31.84	7312.625	0.826	0.580		1.89	1.55	YES	24.2
[redacted]	37	Total-pentafurans	339.8597	30.96	8835.962	0.826	0.701		1.96	1.55	YES	29.4
[redacted]	6	123678-HxCDF	373.8208	35.97	22191.646	0.951	2.176	2.176	1.22	1.24	NO	100.1
[redacted]	4	123478-HxCDF	373.8208	35.82	35359.447	0.967	3.681	3.681	1.21	1.24	NO	152.4
[redacted]	38	Total-hexafurans	373.8208	35.65	8020.375	0.948	0.872		1.37	1.24	NO	39.7
[redacted]	38	Total-hexafurans	373.8208	35.16	250745.922	0.948	27.252		1.24	1.24	NO	1092.6
[redacted]	38	Total-hexafurans	373.8208	34.84	3605.613	0.948	0.392		1.17	1.24	NO	14.1
[redacted]	38	Total-hexafurans	373.8208	34.29	279858.101	0.948	30.415		1.24	1.24	NO	1220.7
[redacted]	38	Total-hexafurans	373.8208	34.08	95055.234	0.948	10.331		1.21	1.24	NO	413.3
[redacted]	7	123789-HxCDF	373.8208	37.98	7804.986	0.874	1.001	1.001	1.34	1.24	NO	34.0
[redacted]	5	234678-HxCDF	373.8208	36.91	30499.786	1.000	3.300	3.300	1.19	1.24	NO	85.3
[redacted]	38	Total-hexafurans	373.8208	36.33	1491.122	0.948	0.162		1.10	1.24	NO	6.7
[redacted]	9	1234789-HpCDF	407.7818	42.95	17628.421	1.085	3.984	3.984	1.05	1.05	NO	48.6
[redacted]	39	Total-heptafurans	407.7818	42.04	528.146	1.079	0.104		0.68	1.05	YES	2.9
[redacted]	39	Total-heptafurans	407.7818	40.97	603007.844	1.079	118.684		1.01	1.05	NO	1764.5
[redacted]	39	Total-heptafurans	407.7818	40.67	6222.913	1.079	1.225		1.02	1.05	NO	15.6
[redacted]	8	1234678-HpCDF	407.7818	40.16	332724.626	1.072	58.086	58.086	1.01	1.05	NO	1040.4
[redacted]	10	OCDF	441.7428	48.48	521856.094	0.878	217.077	217....	0.88	0.89	NO	1376.3
[redacted]	36	Total-penta1	339.8597	28.02	184634.719		13.183		1.49	1.55	NO	648.2
[redacted]	41	Total-tetradioxins	319.8965	25.84	4810.333	0.936	0.420		0.97	0.77	YES	10.8

D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	#	Name	Trace	RT	Abundance	RRF M...	pg	EMPC	1² Rati...	1² Ratio	1² Fl...	S/N
	41	Total-tetradioxins	319.8965	25.57	3361.137	0.936	0.293		0.79	0.77	NO	7.1
	41	Total-tetradioxins	319.8965	24.61	6894.748	0.936	0.602		0.75	0.77	NO	16.0
	41	Total-tetradioxins	319.8965	24.34	6742.896	0.936	0.588		0.78	0.77	NO	17.8
	41	Total-tetradioxins	319.8965	27.84	3491.063	0.936	0.305		0.80	0.77	NO	6.8
	41	Total-tetradioxins	319.8965	27.35	2597.616	0.936	0.227		0.87	0.77	NO	6.7
	11	2378-TCDD	319.8965	27.23	5102.308	0.936	0.445	0.380	0.59	0.77	YES	9.7
	41	Total-tetradioxins	319.8965	26.84	4503.650	0.936	0.393		0.93	0.77	YES	9.2
	41	Total-tetradioxins	319.8965	26.57	3057.600	0.936	0.267		5.15	0.77	YES	14.4
	41	Total-tetradioxins	319.8965	26.41	2077.387	0.936	0.181		0.49	0.77	YES	4.1
	41	Total-tetradioxins	319.8965	26.20	3133.449	0.936	0.273		0.52	0.77	YES	6.6
	42	Total-pentadioxins	355.8546	29.63	10856.720	0.894	0.934		1.74	1.55	NO	63.2
	42	Total-pentadioxins	355.8546	32.76	5071.101	0.894	0.436		1.31	1.55	YES	23.5
	12	12378-PeCDD	355.8546	32.36	15368.046	0.894	1.321	1.321	1.52	1.55	NO	65.0
	42	Total-pentadioxins	355.8546	31.68	4604.798	0.894	0.396		0.97	1.55	YES	16.2
	42	Total-pentadioxins	355.8546	31.28	13100.380	0.894	1.126		1.50	1.55	NO	44.8
	42	Total-pentadioxins	355.8546	31.10	10740.564	0.894	0.924		1.54	1.55	NO	51.6
	42	Total-pentadioxins	355.8546	30.97	9182.085	0.894	0.790		1.55	1.55	NO	42.5
	42	Total-pentadioxins	355.8546	30.76	12559.910	0.894	1.080		1.77	1.55	NO	58.0
	42	Total-pentadioxins	355.8546	30.14	7491.950	0.894	0.644		1.29	1.55	YES	38.1
	42	Total-pentadioxins	355.8546	29.66	11794.664	0.894	1.014		1.12	1.55	YES	61.0
	14	123678-HxCDD	389.8157	37.19	80865.453	0.818	9.810	9.810	1.23	1.24	NO	277.5
	13	123478-HxCDD	389.8157	37.06	18724.599	0.898	2.170	2.170	1.31	1.24	NO	60.7
	43	Total-hexadioxins	389.8157	36.20	32610.536	0.835	3.966		1.16	1.24	NO	111.3
	43	Total-hexadioxins	389.8157	36.09	246286.758	0.835	29.954		1.25	1.24	NO	531.0
	43	Total-hexadioxins	389.8157	35.70	50101.653	0.835	6.093		1.28	1.24	NO	161.0
	43	Total-hexadioxins	389.8157	34.88	238786.398	0.835	29.041		1.21	1.24	NO	764.6
	15	123789-HxCDD	389.8157	37.59	39196.453	0.789	5.042	5.042	1.15	1.24	NO	138.9
	43	Total-hexadioxins	389.8157	37.36	17142.697	0.835	2.085		1.30	1.24	NO	59.4
	16	1234678-HpCDD	423.7766	42.02	1280035.875	0.879	273.541	273....	1.02	1.05	NO	2586.4
	44	Total-heptadioxins	423.7766	40.72	2532222.375	0.879	541.131		1.03	1.05	NO	5639.9
	17	OCDD	457.7377	48.20	6408761.250	0.875	2673.5...	2673...	0.88	0.89	NO	12313.4

PFK1

	#	Name	Trace	RT	Abundance	RRF M...	pg	EMPC	1² Rati...	1² Ratio	1² Fl...	S/N
	48	FUNCTION1 PFK	330.9792	28.32	0.000							3.6
	48	FUNCTION1 PFK	330.9792	27.75	0.000							3.2

PFK2

	#	Name	Trace	RT	Abundance	RRF M...	pg	EMPC	1² Rati...	1² Ratio	1² Fl...	S/N
	49	FUNCTION2 PFK	366.9792	29.85	0.000		0.000					1.9

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PFK3

	#	Name	Trace	RT	Abs.Resp	RRF M...	dq	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	50	FUNCTION3 PFK	380.9760	35.02	0.000		0.000					0.4
	50	FUNCTION3 PFK	380.9760	34.76	0.000		0.000					0.6
	50	FUNCTION3 PFK	380.9760	34.19	0.000		0.000					1.6
	50	FUNCTION3 PFK	380.9760	34.05	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	33.89	0.000		0.000					0.6
	50	FUNCTION3 PFK	380.9760	33.74	0.000		0.000					1.0
	50	FUNCTION3 PFK	380.9760	38.06	0.000		0.000					5.2
	50	FUNCTION3 PFK	380.9760	38.01	0.000		0.000					5.9
	50	FUNCTION3 PFK	380.9760	37.69	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	37.43	0.000		0.000					0.8
	50	FUNCTION3 PFK	380.9760	37.03	0.000		0.000					2.8
	50	FUNCTION3 PFK	380.9760	36.93	0.000		0.000					3.0
	50	FUNCTION3 PFK	380.9760	36.84	0.000		0.000					1.9
	50	FUNCTION3 PFK	380.9760	36.70	0.000		0.000					0.6
	50	FUNCTION3 PFK	380.9760	36.46	0.000		0.000					1.7
	50	FUNCTION3 PFK	380.9760	36.19	0.000		0.000					1.4
	50	FUNCTION3 PFK	380.9760	36.09	0.000		0.000					1.5
	50	FUNCTION3 PFK	380.9760	36.04	0.000		0.000					1.9
	50	FUNCTION3 PFK	380.9760	35.93	0.000		0.000					2.4
	50	FUNCTION3 PFK	380.9760	35.55	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	35.52	0.000		0.000					0.7
	50	FUNCTION3 PFK	380.9760	35.13	0.000		0.000					0.5
	50	FUNCTION3 PFK	380.9760	38.91	0.000		0.000					1.1
	50	FUNCTION3 PFK	380.9760	38.74	0.000		0.000					1.8
	50	FUNCTION3 PFK	380.9760	38.67	0.000		0.000					1.2
	50	FUNCTION3 PFK	380.9760	38.52	0.000		0.000					0.9
	50	FUNCTION3 PFK	380.9760	38.15	0.000		0.000					4.0

PFK4

	#	Name	Trace	RT	Abs.Resp	RRF M...	dq	EMPC	1° Rat...	2° Rat...	1° R...	S/N
	51	FUNCTION4 PFK	430.9728	43.56	0.000							1.6
	51	FUNCTION4 PFK	430.9728	43.14	0.000							0.9
	51	FUNCTION4 PFK	430.9728	42.97	0.000							0.6
	51	FUNCTION4 PFK	430.9728	42.73	0.000							1.5
	51	FUNCTION4 PFK	430.9728	42.68	0.000							1.3
	51	FUNCTION4 PFK	430.9728	41.55	0.000							1.3
	51	FUNCTION4 PFK	430.9728	41.29	0.000							1.4
	51	FUNCTION4 PFK	430.9728	41.03	0.000							2.0
	51	FUNCTION4 PFK	430.9728	40.90	0.000							1.3
	51	FUNCTION4 PFK	430.9728	39.14	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.71	0.000							1.1
	51	FUNCTION4 PFK	430.9728	44.49	0.000							0.5

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
Last Altered: Tuesday, June 25, 2013 14:27:40 Pacific Daylight Time
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D: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

PFK5

	#	Name	Trace	RT	Abs Resp	RRF M...	ng	EMPC	1° Rati...	2° Rati...	1°/2°...	S/N
	52	FUNCTION5 PFK	480.9696	46.55	0.000							0.7
	52	FUNCTION5 PFK	480.9696	46.51	0.000							0.6
	52	FUNCTION5 PFK	480.9696	46.47	0.000							1.3
	52	FUNCTION5 PFK	480.9696	46.31	0.000							0.4
	52	FUNCTION5 PFK	480.9696	46.20	0.000							0.7
	52	FUNCTION5 PFK	480.9696	46.16	0.000							0.5
	52	FUNCTION5 PFK	480.9696	45.92	0.000							7.8
	52	FUNCTION5 PFK	480.9696	45.81	0.000							12.4
	52	FUNCTION5 PFK	480.9696	45.42	0.000							30.1
	52	FUNCTION5 PFK	480.9696	45.31	0.000							35.2
	52	FUNCTION5 PFK	480.9696	45.27	0.000							36.3
	52	FUNCTION5 PFK	480.9696	45.09	0.000							43.1
	52	FUNCTION5 PFK	480.9696	45.06	0.000							45.7
	52	FUNCTION5 PFK	480.9696	48.18	0.000							2.0
	52	FUNCTION5 PFK	480.9696	48.13	0.000							2.6
	52	FUNCTION5 PFK	480.9696	47.96	0.000							1.3
	52	FUNCTION5 PFK	480.9696	47.84	0.000							1.7
	52	FUNCTION5 PFK	480.9696	47.76	0.000							1.2
	52	FUNCTION5 PFK	480.9696	47.63	0.000							2.3
	52	FUNCTION5 PFK	480.9696	47.59	0.000							2.4
	52	FUNCTION5 PFK	480.9696	47.53	0.000							2.4
	52	FUNCTION5 PFK	480.9696	47.48	0.000							0.5
	52	FUNCTION5 PFK	480.9696	47.44	0.000							1.3
	52	FUNCTION5 PFK	480.9696	47.41	0.000							3.0
	52	FUNCTION5 PFK	480.9696	46.96	0.000							1.2
	52	FUNCTION5 PFK	480.9696	46.88	0.000							1.4
	52	FUNCTION5 PFK	480.9696	46.79	0.000							0.6
	52	FUNCTION5 PFK	480.9696	46.63	0.000							1.1
	52	FUNCTION5 PFK	480.9696	46.59	0.000							1.3
	52	FUNCTION5 PFK	480.9696	49.04	0.000							1.0
	52	FUNCTION5 PFK	480.9696	48.75	0.000							0.5
	52	FUNCTION5 PFK	480.9696	48.67	0.000							1.5
	52	FUNCTION5 PFK	480.9696	48.64	0.000							2.4
	52	FUNCTION5 PFK	480.9696	48.60	0.000							1.1
	52	FUNCTION5 PFK	480.9696	48.55	0.000							1.7
	52	FUNCTION5 PFK	480.9696	48.23	0.000							1.5

ETHERS1

	#	Name	Trace	RT	Abs Resp	RRF M...	ng	EMPC	1° Rati...	2° Rati...	1°/2°...	S/N
	53	FUNCTION1 HXCD...	375.8364	27.15	0.000	0.000						2.5
	53	FUNCTION1 HXCD...	375.8364	26.93	0.000	0.000						2.5
	53	FUNCTION1 HXCD...	375.8364	26.83	0.000	0.000						2.2
	53	FUNCTION1 HXCD...	375.8364	26.39	0.000	0.000						2.1
	53	FUNCTION1 HXCD...	375.8364	25.94	0.000	0.000						1.8
	53	FUNCTION1 HXCD...	375.8364	25.56	0.000	0.000						1.7
	53	FUNCTION1 HXCD...	375.8364	24.42	0.000	0.000						13.1
	53	FUNCTION1 HXCD...	375.8364	22.04	0.000	0.000						2.3

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ETHERS2

	#	Name	Trace	RT	Abs Resp	RRF M...	Po	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	54	FUNCTION1 HPCD...	409.7974	28.72	0.000		0.000					2.0
	54	FUNCTION1 HPCD...	409.7974	27.78	0.000		0.000					1.9
	54	FUNCTION1 HPCD...	409.7974	27.14	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	25.87	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	25.44	0.000		0.000					4.4
	54	FUNCTION1 HPCD...	409.7974	24.32	0.000		0.000					1.3
	54	FUNCTION1 HPCD...	409.7974	24.11	0.000		0.000					2.0
	54	FUNCTION1 HPCD...	409.7974	23.91	0.000		0.000					2.1
	54	FUNCTION1 HPCD...	409.7974	23.58	0.000		0.000					1.6
	54	FUNCTION1 HPCD...	409.7974	23.40	0.000		0.000					1.8
	54	FUNCTION1 HPCD...	409.7974	22.99	0.000		0.000					2.6
	54	FUNCTION1 HPCD...	409.7974	22.82	0.000		0.000					2.3
	54	FUNCTION1 HPCD...	409.7974	22.51	0.000		0.000					1.4

ETHERS3

	#	Name	Trace	RT	Abs Resp	RRF M...	Po	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	55	FUNCTION2 HPCD...	409.7974	29.27	0.000		0.000					1.6
	55	FUNCTION2 HPCD...	409.7974	32.65	0.000		0.000					1.8
	55	FUNCTION2 HPCD...	409.7974	32.40	0.000		0.000					1.1
	55	FUNCTION2 HPCD...	409.7974	31.65	0.000		0.000					2.5
	55	FUNCTION2 HPCD...	409.7974	31.63	0.000		0.000					2.2
	55	FUNCTION2 HPCD...	409.7974	30.72	0.000		0.000					3.2
	55	FUNCTION2 HPCD...	409.7974	30.35	0.000		0.000					1.6
	55	FUNCTION2 HPCD...	409.7974	29.79	0.000		0.000					3.3

ETHERS4

	#	Name	Trace	RT	Abs Resp	RRF M...	Po	EMPC	1° Ratl...	2° Ratl...	1° R...	S/N
	56	FUNCTION3 OCDPE	445.7555	38.97	0.000		0.000					2.3
	56	FUNCTION3 OCDPE	445.7555	38.36	0.000		0.000					2.1
	56	FUNCTION3 OCDPE	445.7555	38.03	0.000		0.000					3.3
	56	FUNCTION3 OCDPE	445.7555	37.12	0.000		0.000					3.1
	56	FUNCTION3 OCDPE	445.7555	36.34	0.000		0.000					2.4
	56	FUNCTION3 OCDPE	445.7555	35.81	0.000		0.000					2.1
	56	FUNCTION3 OCDPE	445.7555	35.74	0.000		0.000					1.6
	56	FUNCTION3 OCDPE	445.7555	35.08	0.000		0.000					2.0

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ETHERS5

	#	Name	Trace	RT	Abs Resp	RRF M...	...pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	57	FUNCTION4 NCDPE	479.7165	43.80	0.000		0.000					2.8
	57	FUNCTION4 NCDPE	479.7165	43.75	0.000		0.000					2.4
	57	FUNCTION4 NCDPE	479.7165	42.58	0.000		0.000					3.3
	57	FUNCTION4 NCDPE	479.7165	42.25	0.000		0.000					2.4
	57	FUNCTION4 NCDPE	479.7165	41.69	0.000		0.000					2.2
	57	FUNCTION4 NCDPE	479.7165	41.65	0.000		0.000					2.0
	57	FUNCTION4 NCDPE	479.7165	41.30	0.000		0.000					1.2
	57	FUNCTION4 NCDPE	479.7165	41.20	0.000		0.000					1.2
	57	FUNCTION4 NCDPE	479.7165	41.07	0.000		0.000					1.3
	57	FUNCTION4 NCDPE	479.7165	40.84	0.000		0.000					1.6
	57	FUNCTION4 NCDPE	479.7165	39.96	0.000		0.000					1.8
	57	FUNCTION4 NCDPE	479.7165	39.72	0.000		0.000					6.6
	57	FUNCTION4 NCDPE	479.7165	39.56	0.000		0.000					3.5
	57	FUNCTION4 NCDPE	479.7165	39.53	0.000		0.000					2.1
	57	FUNCTION4 NCDPE	479.7165	39.06	0.000		0.000					2.5
	57	FUNCTION4 NCDPE	479.7165	44.55	0.000		0.000					1.9

ETHERS6

	#	Name	Trace	RT	Abs Resp	RRF M...	...pg	EMPC	1° Rati...	2° Rati...	1° R...	S/N
	58	FUNCTION5 DCDPE	513.6775	45.89	0.000		0.000					3.9

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Method: P:\DIOXIN8290.pro\MethDB\Dioxin130617.mdb 21 Jun 2013 12:25:14
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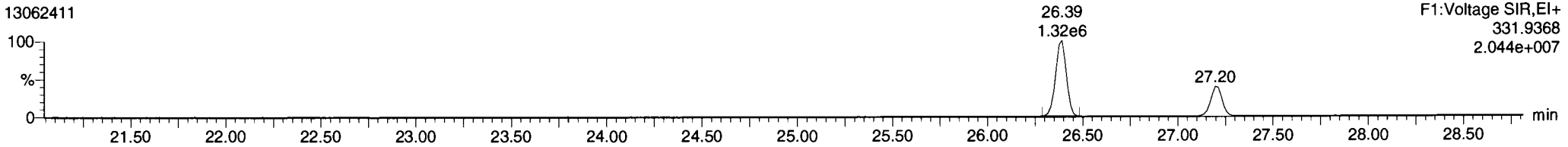
ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD



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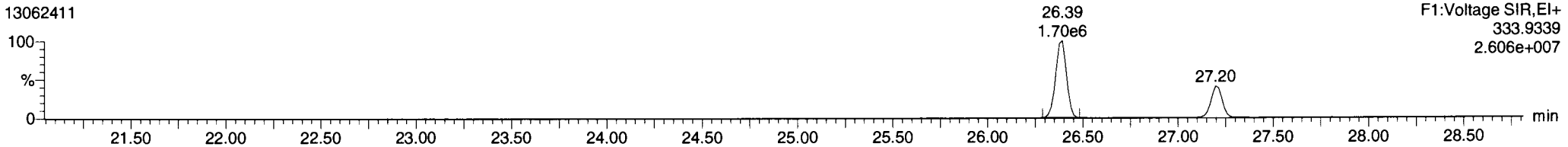

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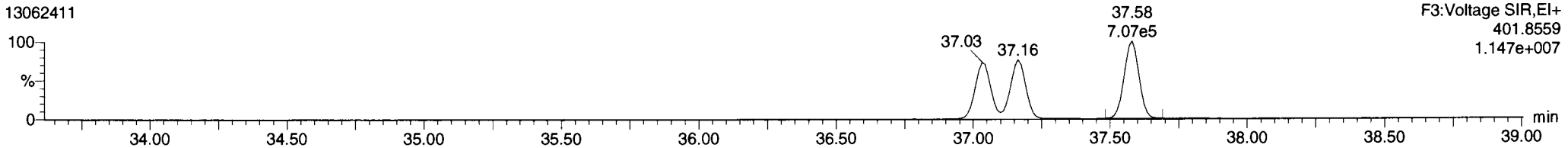

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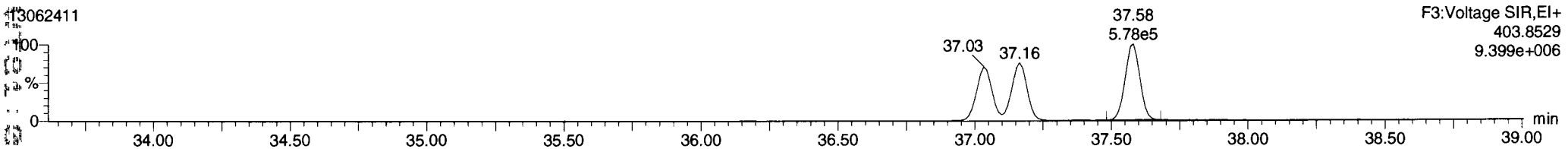

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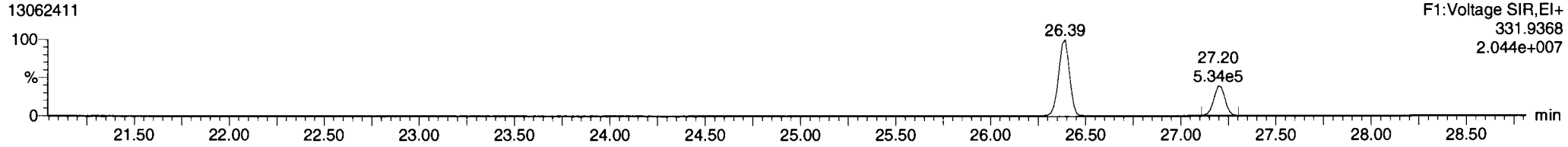
13C-2378-TCDD



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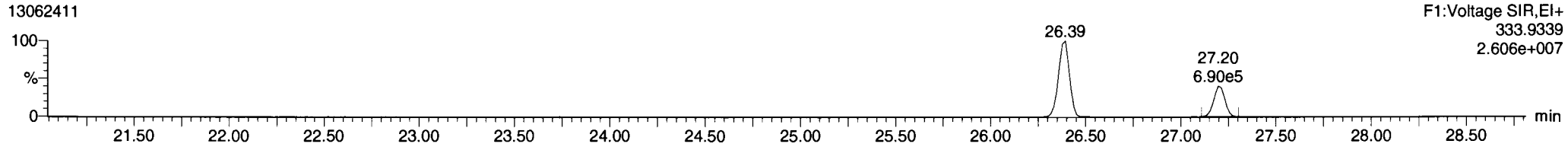
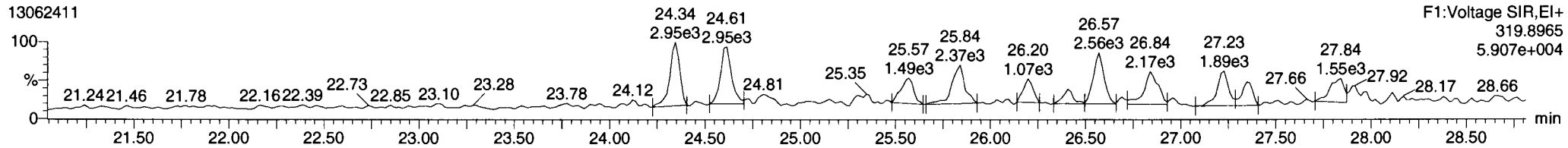
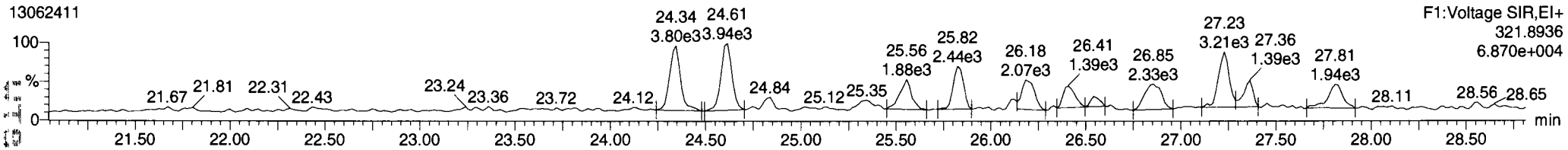


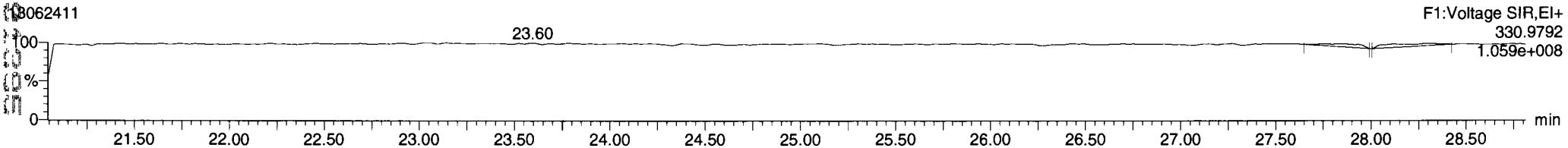
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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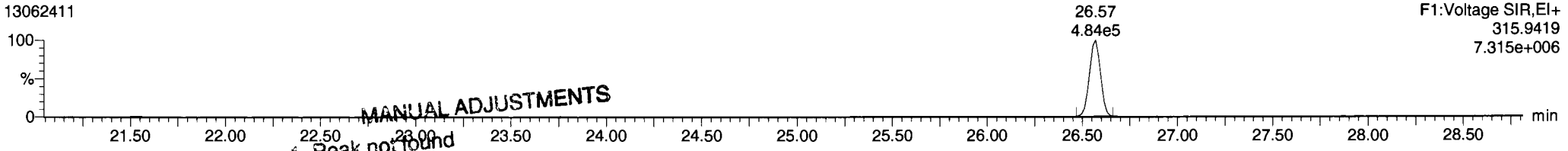
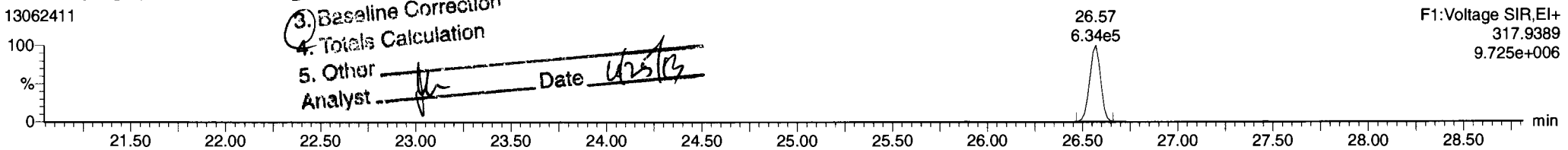
ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF

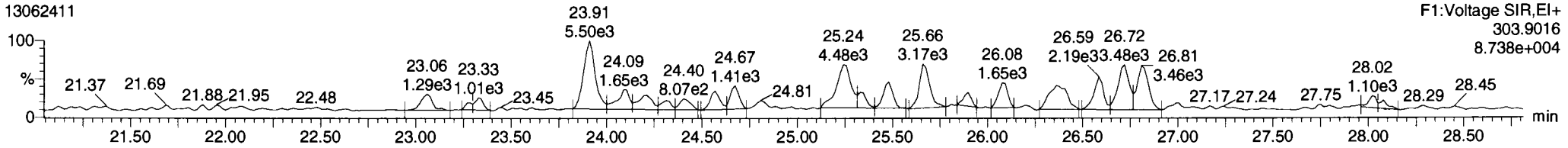


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst _____ Date 6/25/13

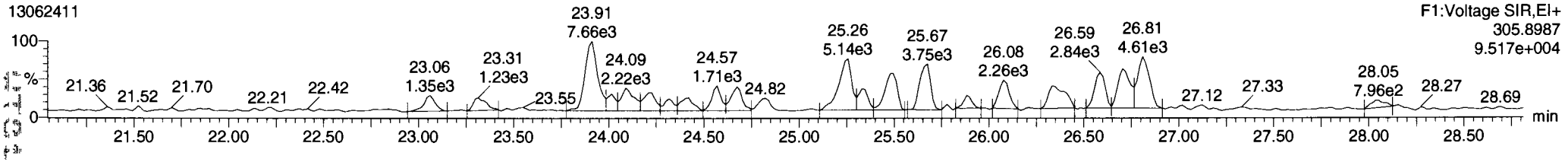
13C-2378-TCDF



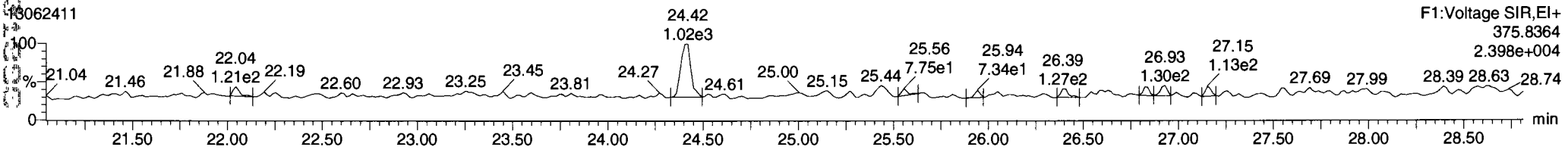
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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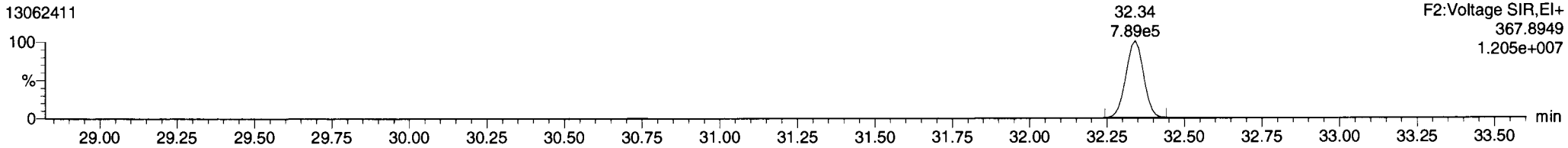
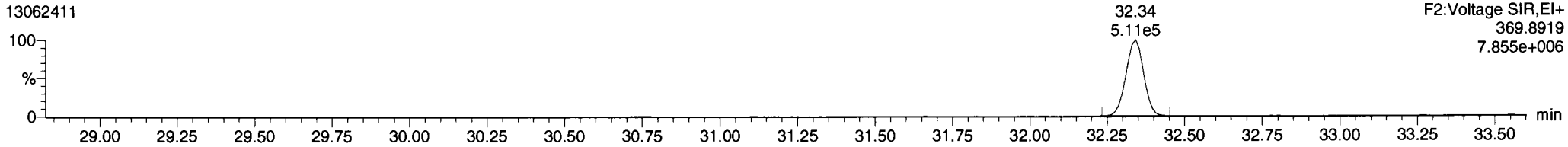
Printed: Tuesday, June 25, 2013 14:50:26 Pacific Daylight Time

ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

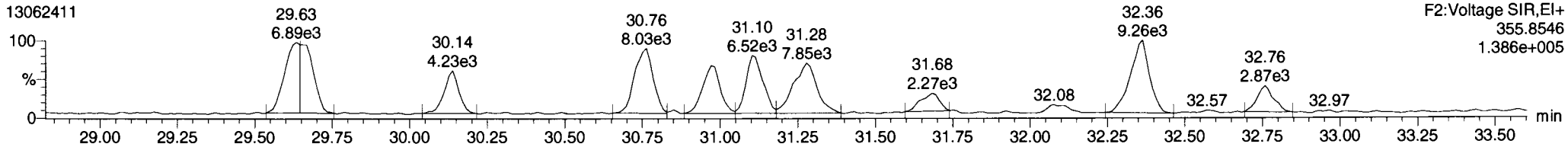
13C-12378-PeCDD



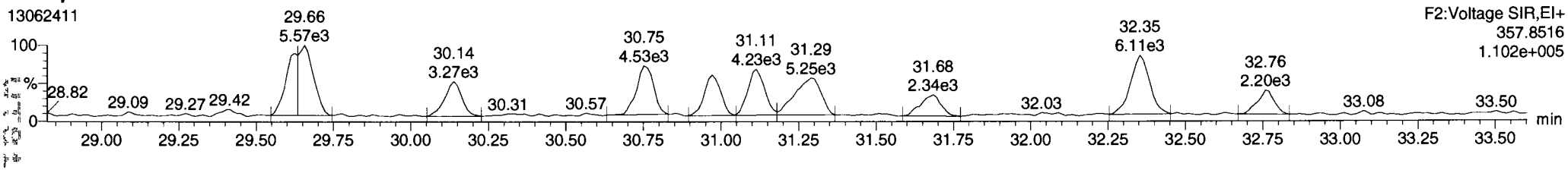
13C-12378-PeCDD



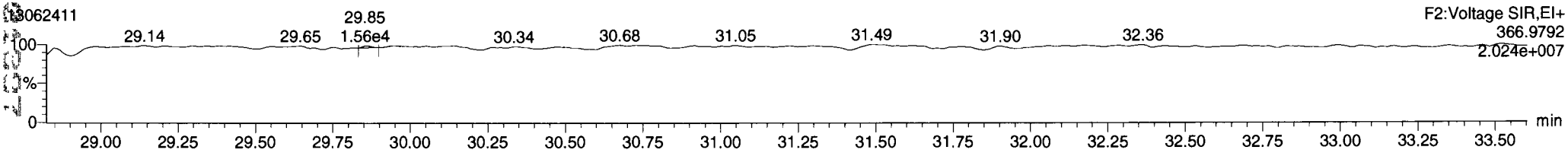
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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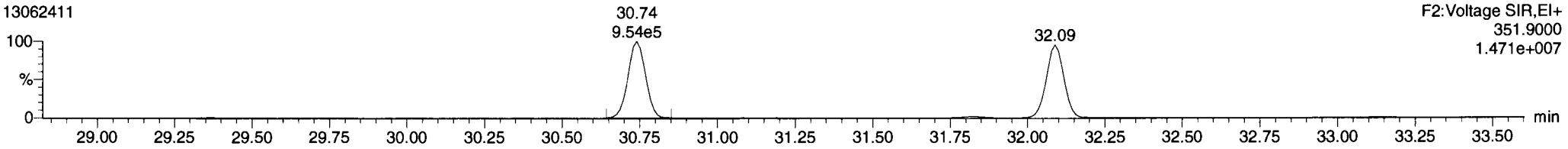
ID: WT81C, Name: 13062411, Date: 24-Jun-2013, Time: 18:01:22, Conditions: AUTOSPEC01, User: pk

13C-12378-PeCDF



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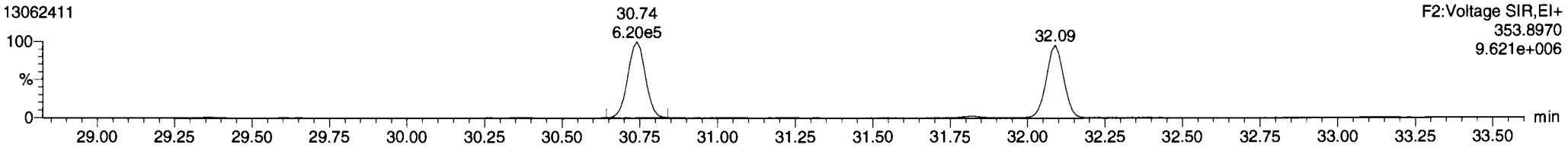

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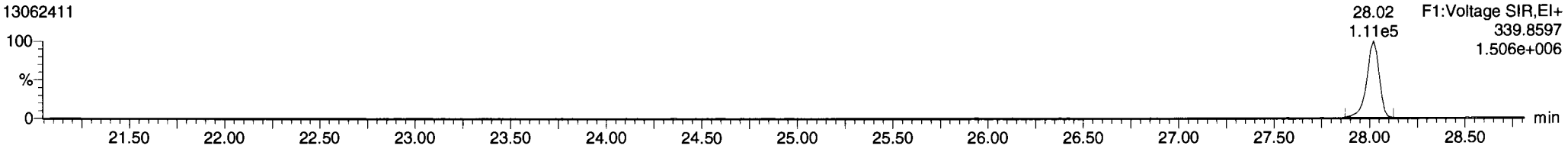
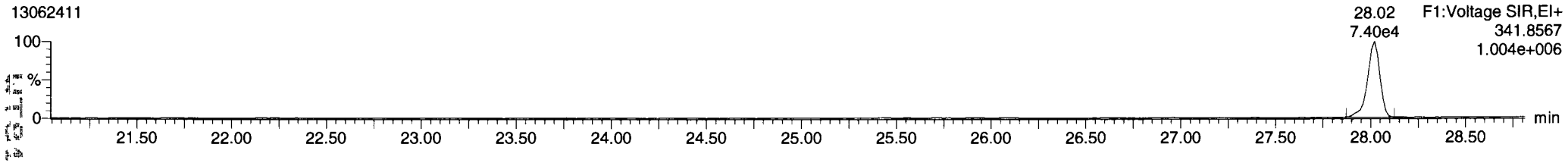


Total-penta1



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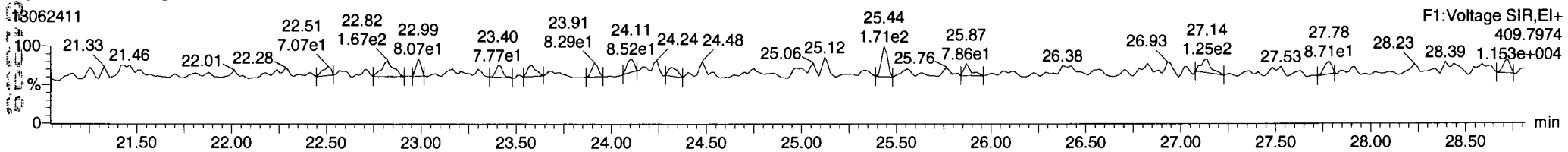

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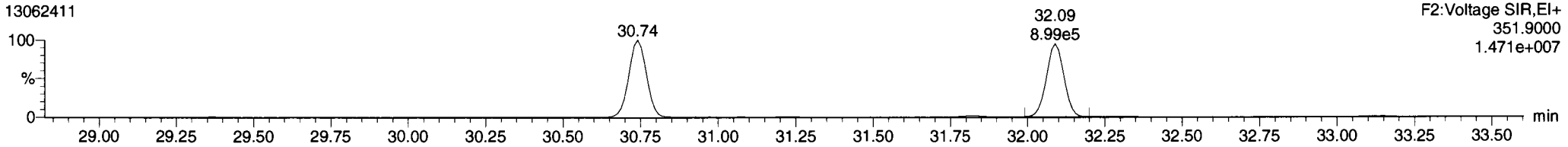
13C-23478-PeCDF



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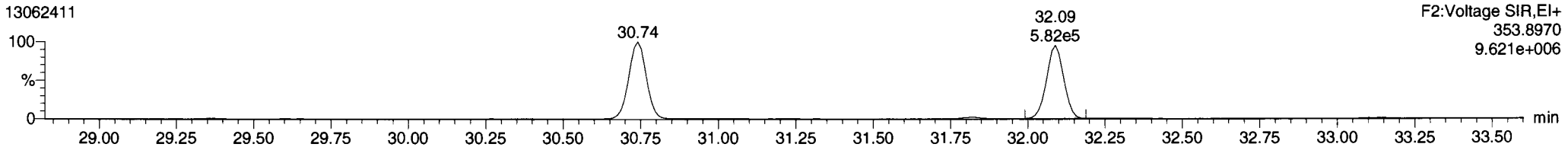
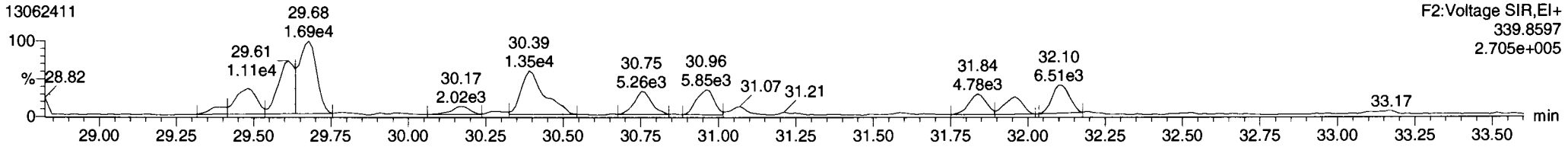


Total-pentafurans



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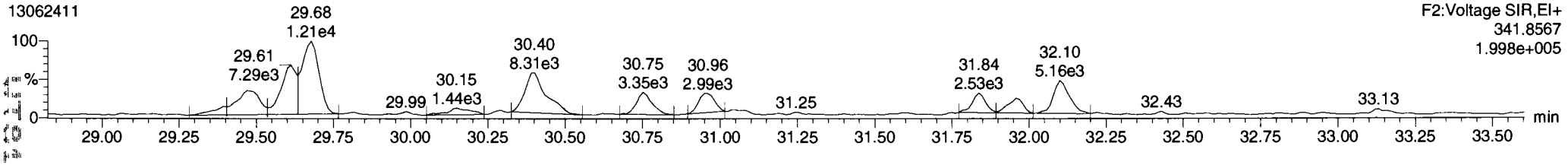

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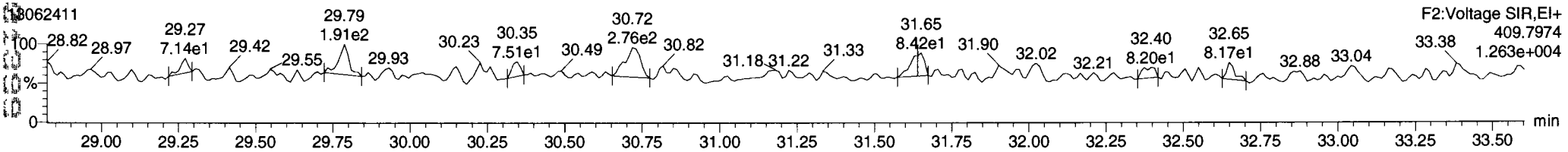

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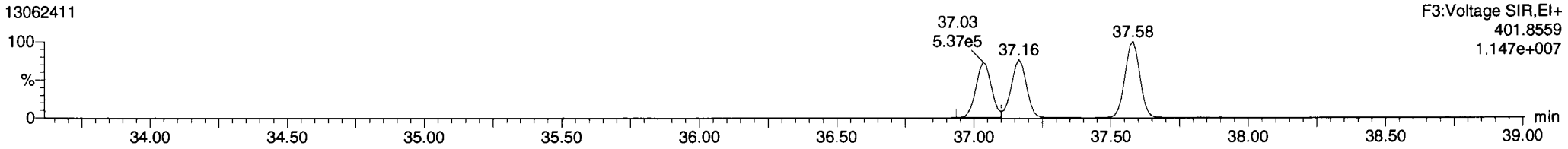
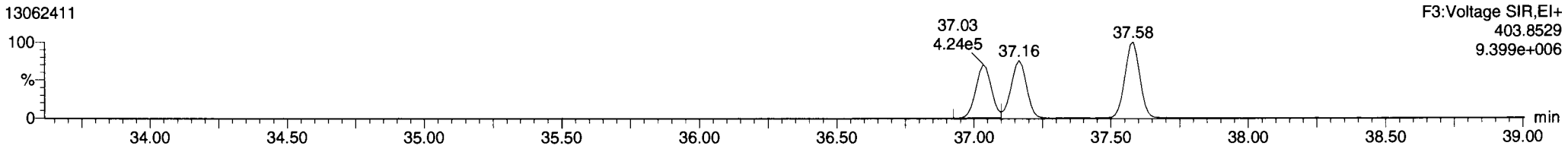
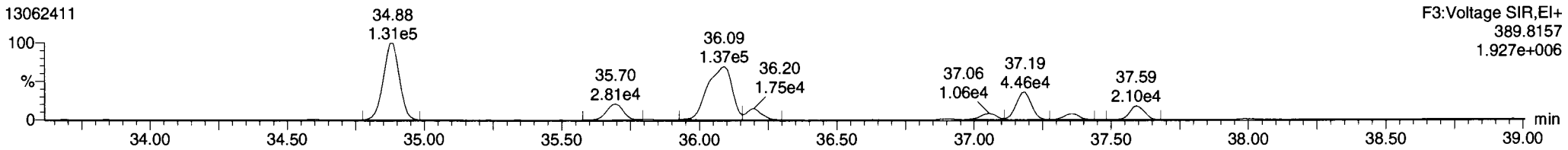
13C-123478-HxCDD



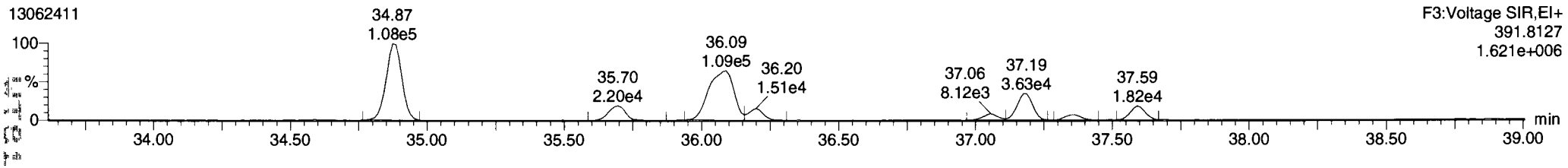
13C-123478-HxCDD



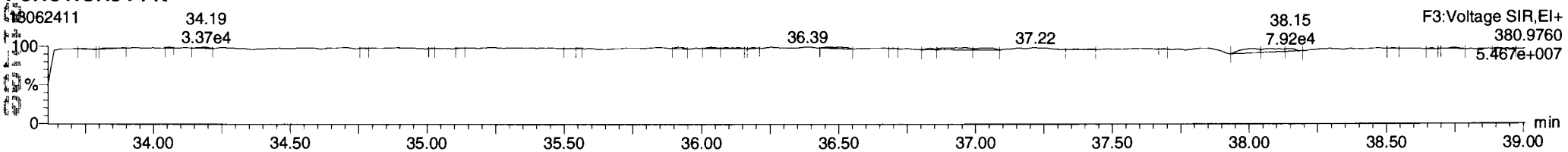
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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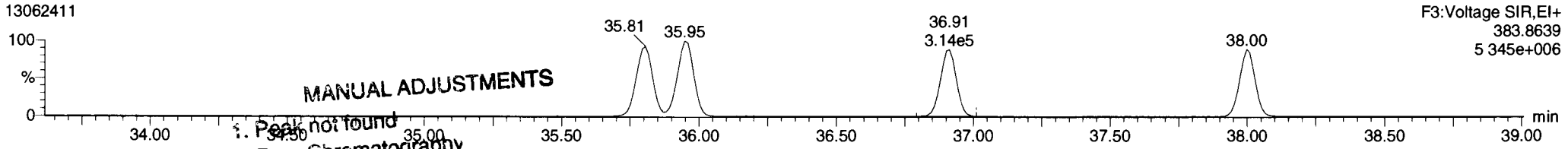
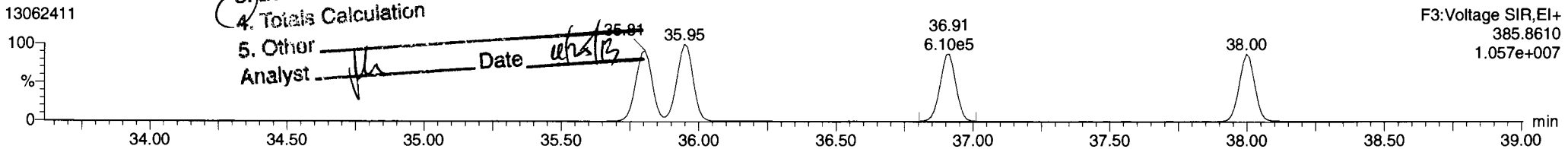
13C-234678-HxCDF

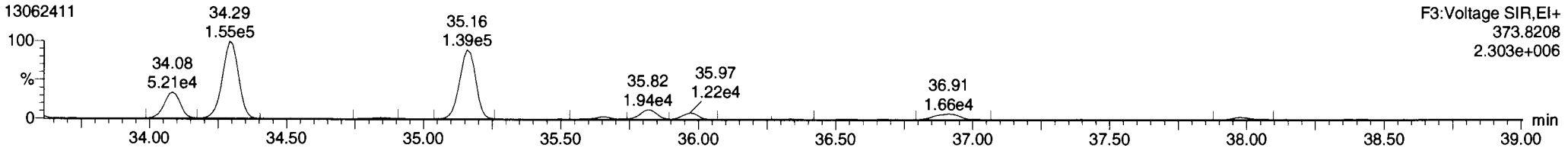


MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other
Analyst
Date

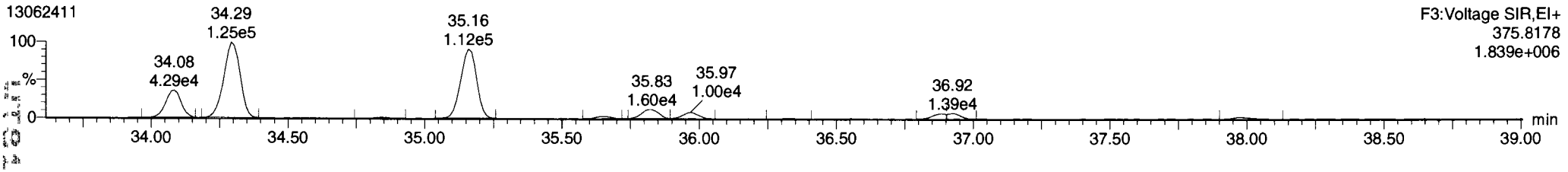
13C-234678-HxCDF



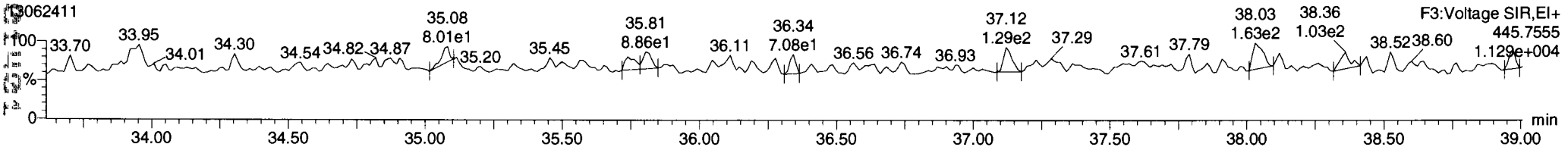
Total-hexafurans



Total-hexafurans



FUNCTION3 OCDPE



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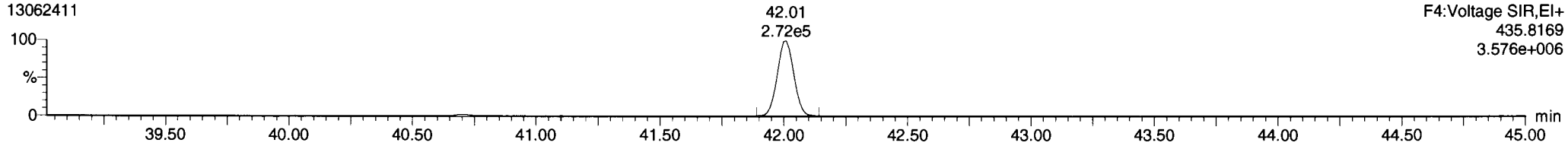
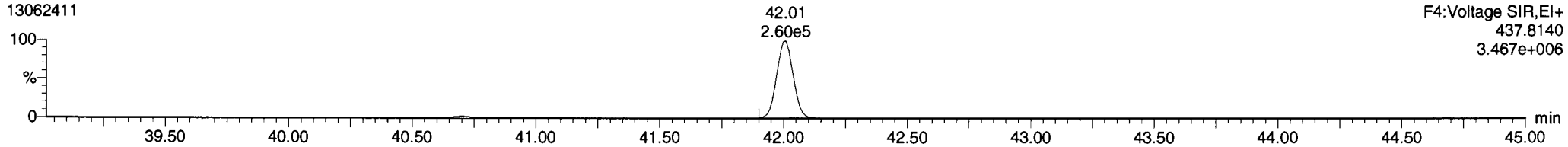
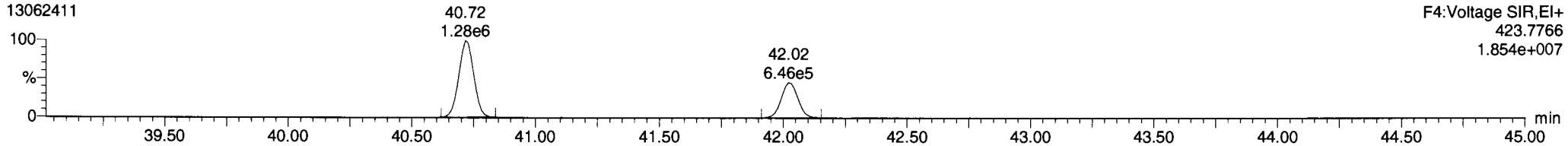
13C-1234678-HpCDD



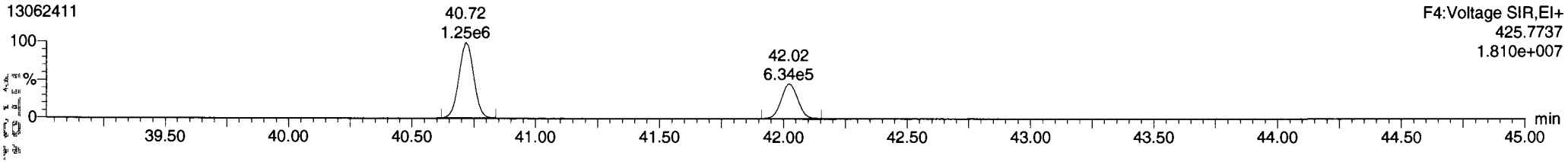
13C-1234678-HpCDD



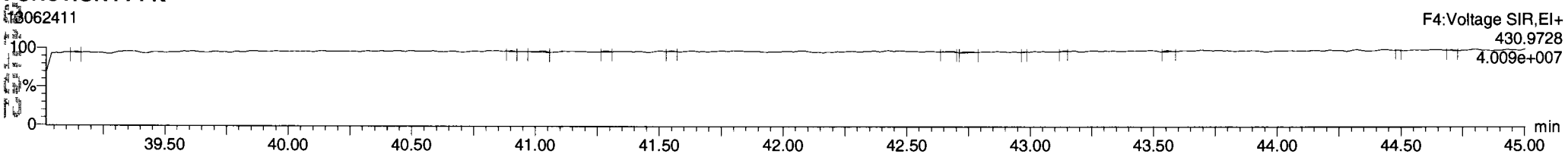
Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK



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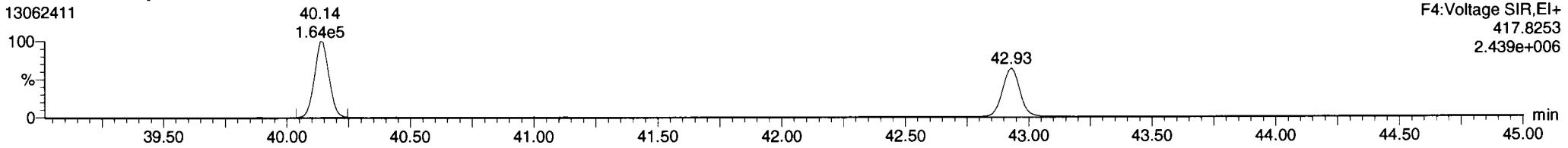
13C-1234678-HpCDF



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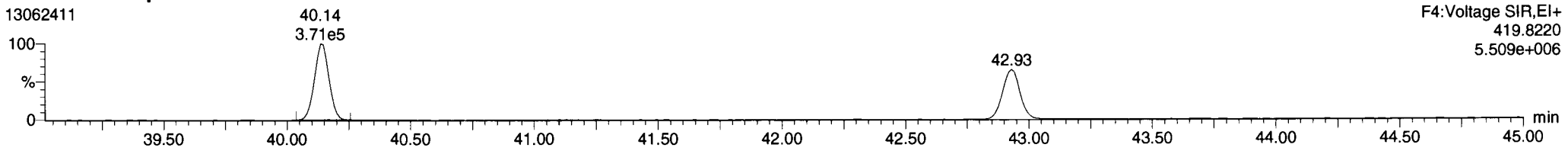
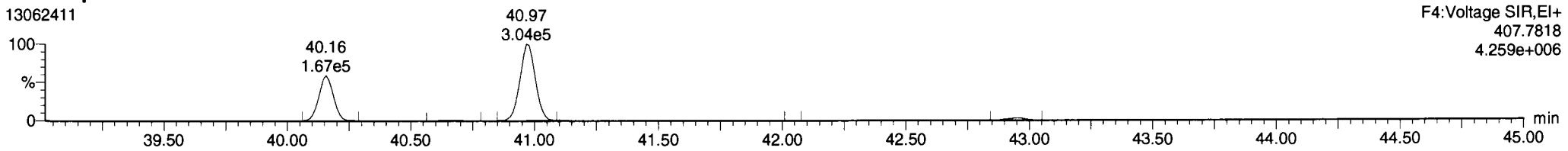


Total-heptafurans



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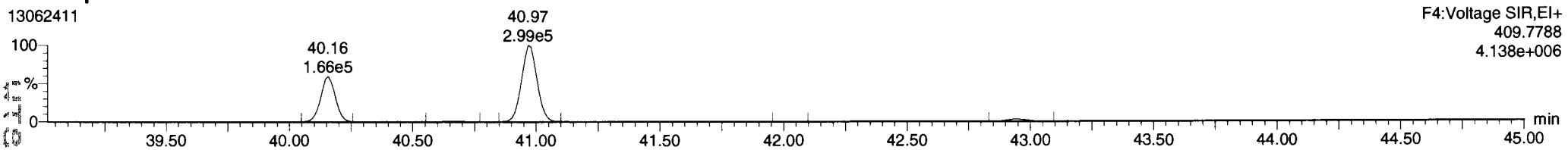
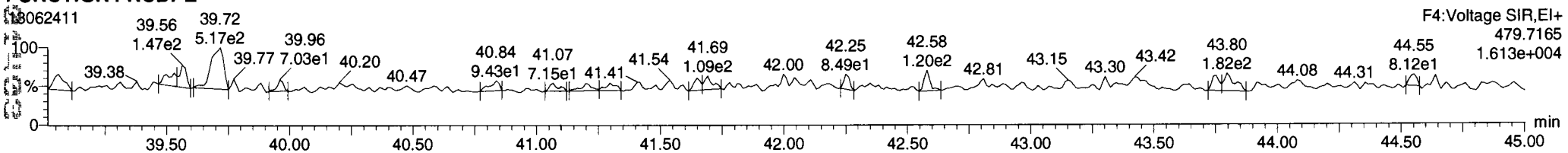


FUNCTION4 NCDPE



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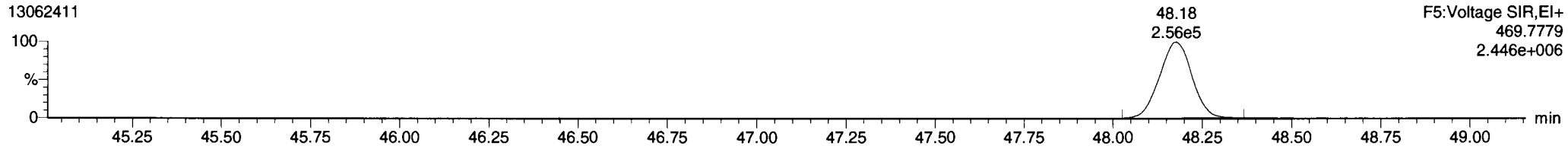
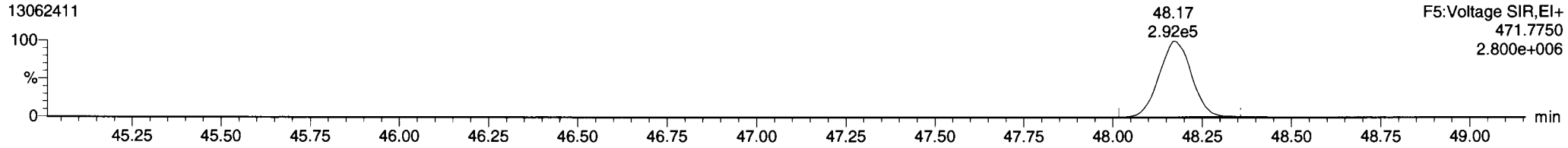
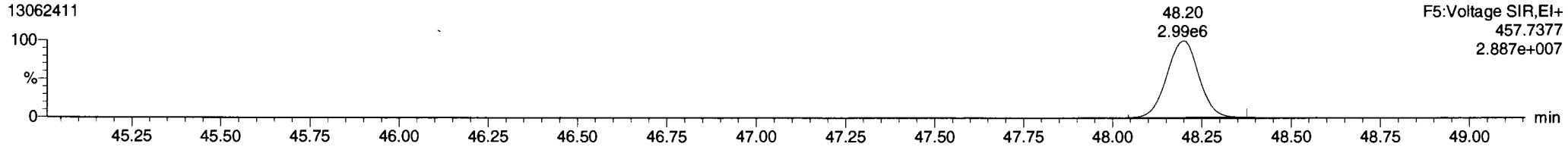
13C-OCDD



13C-OCDD



OCDD



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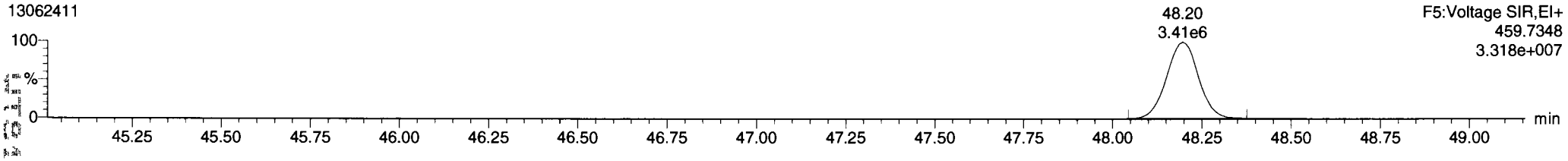
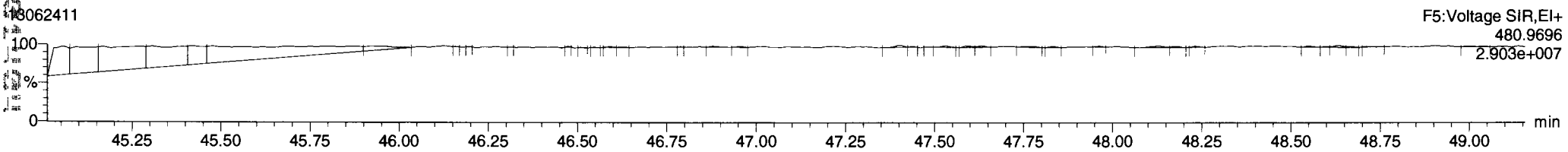


FUNCTION5 PFK



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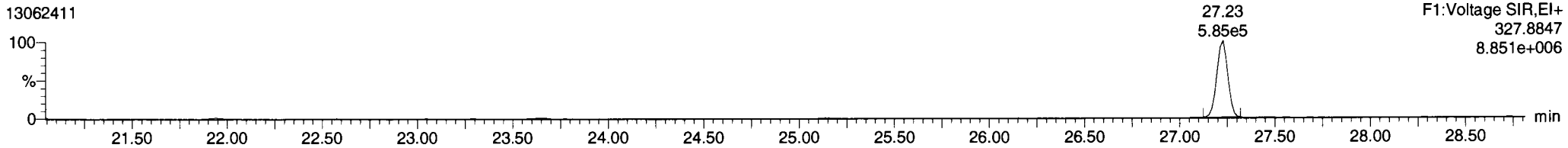
37CL-2378-TCDD



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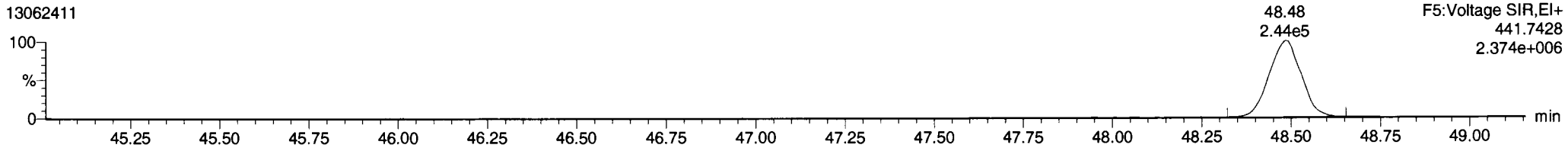

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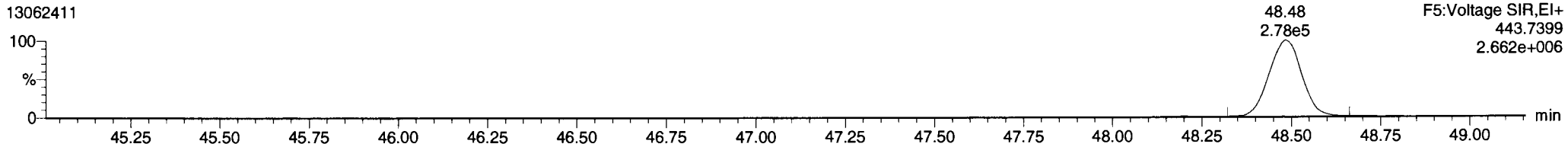
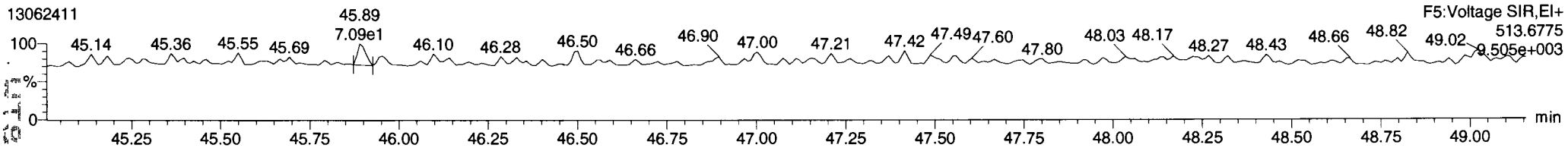


FUNCTION5 DCDPE



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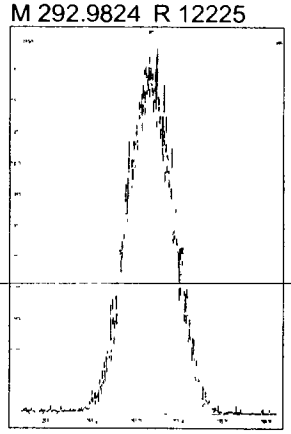

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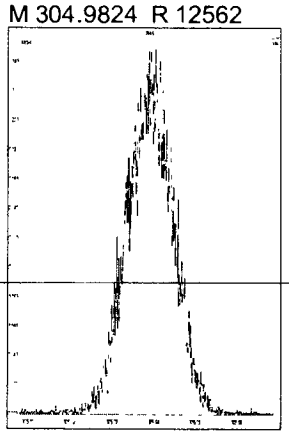

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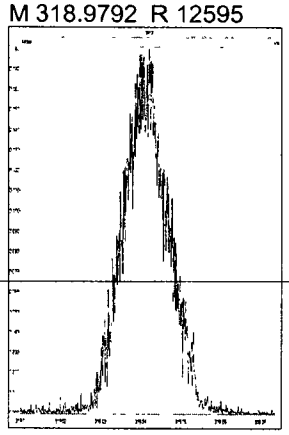

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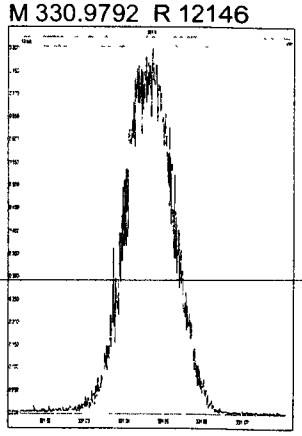

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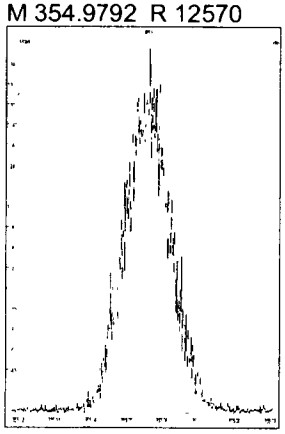

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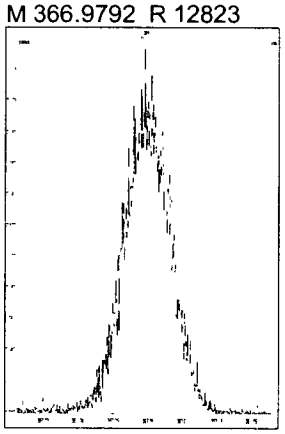

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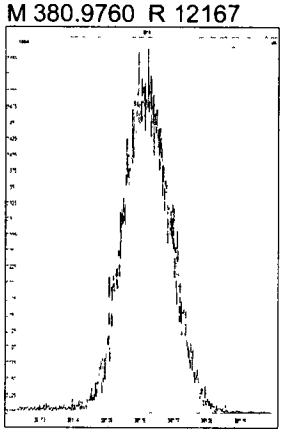

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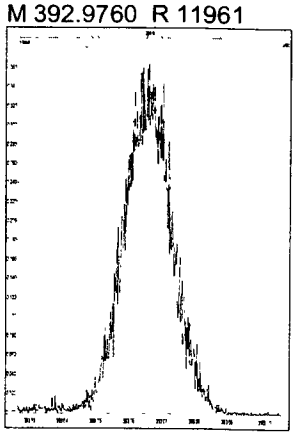

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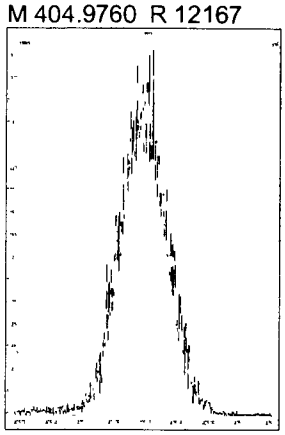

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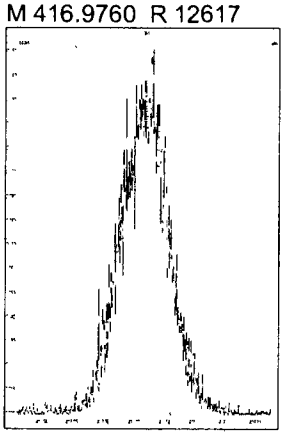

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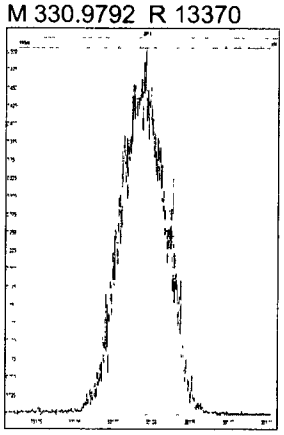

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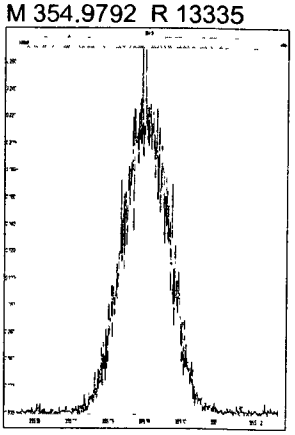

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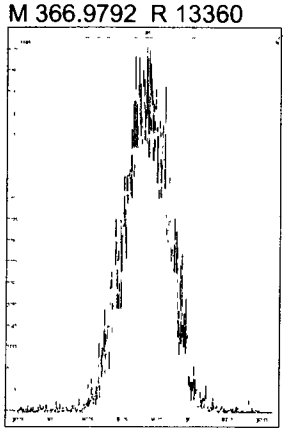

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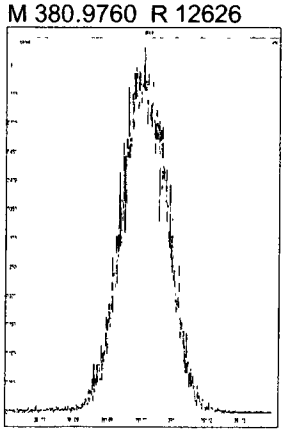

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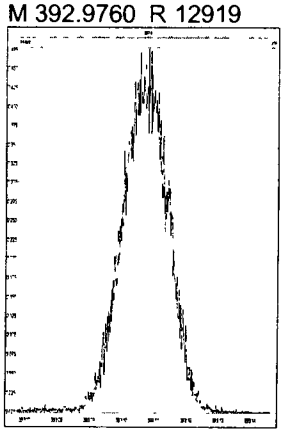

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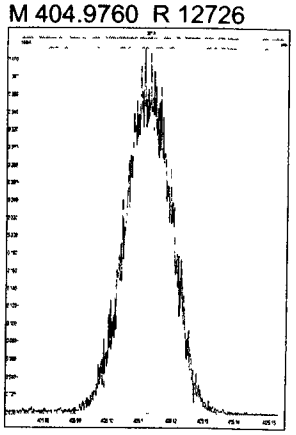

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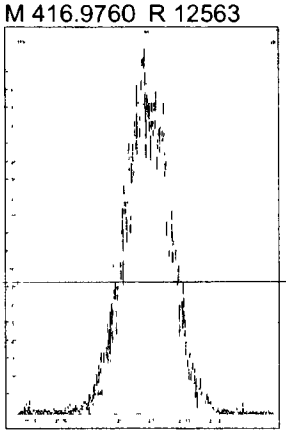

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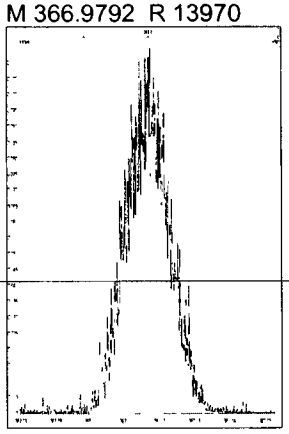

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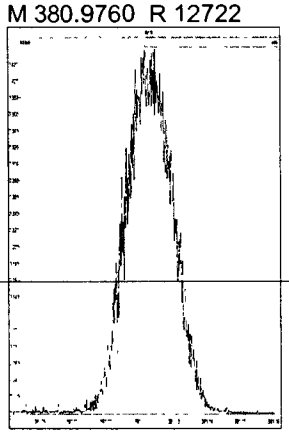

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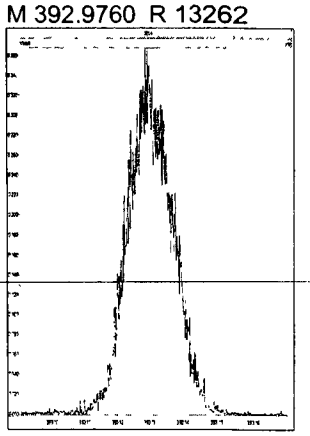

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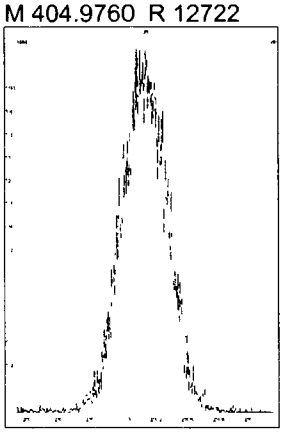

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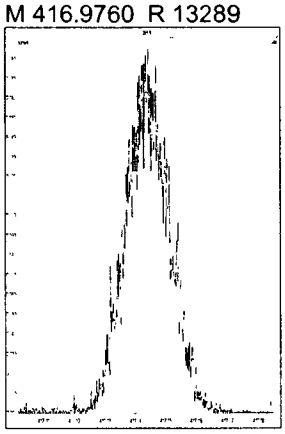

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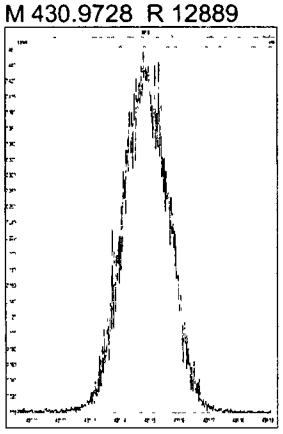

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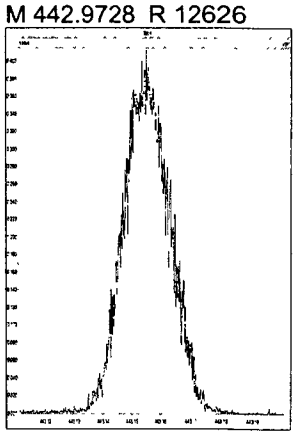

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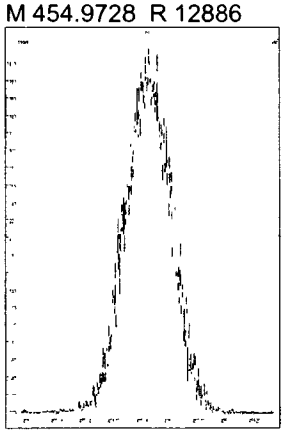

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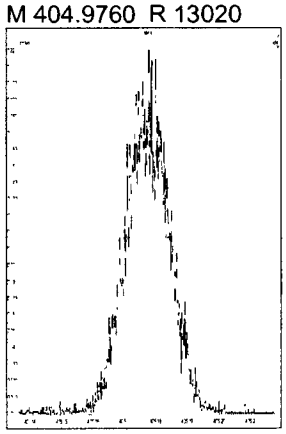

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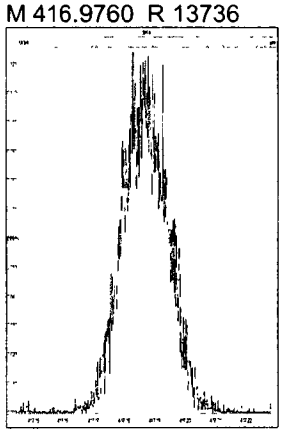

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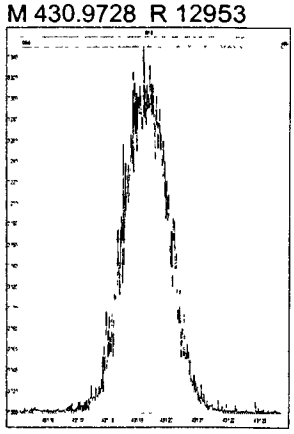

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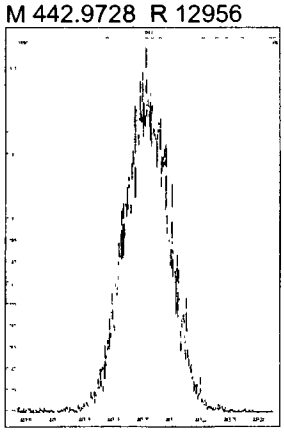

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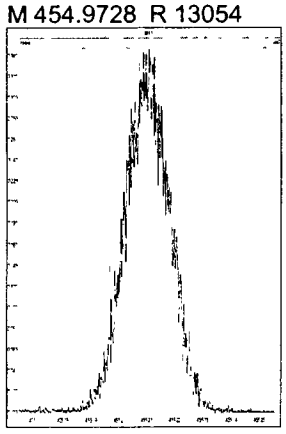

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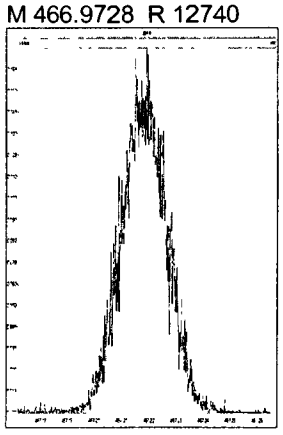

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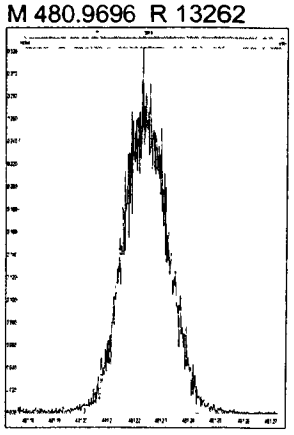

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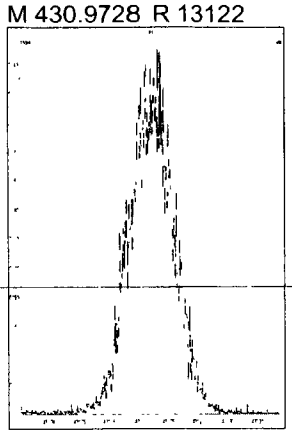

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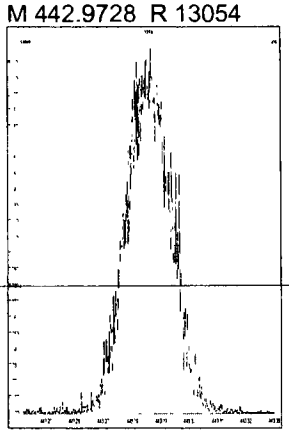

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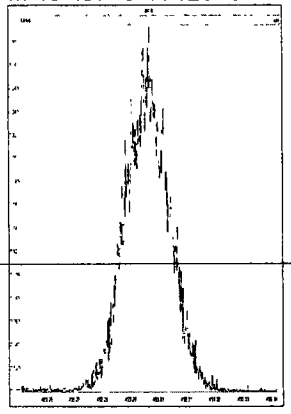

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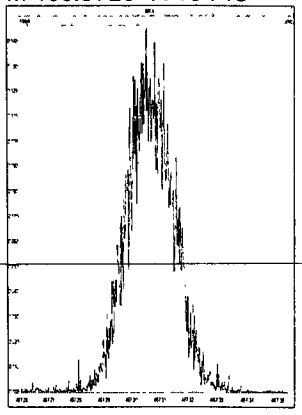

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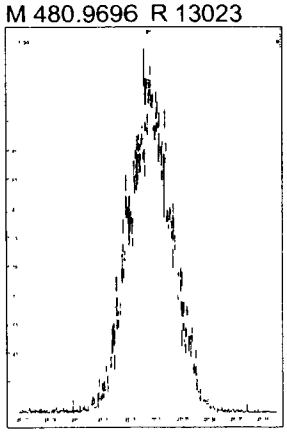

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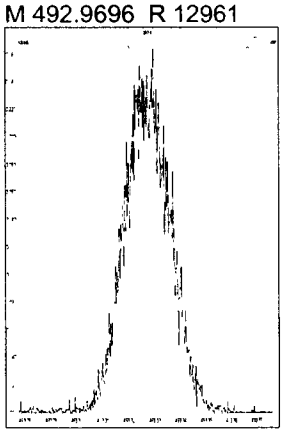

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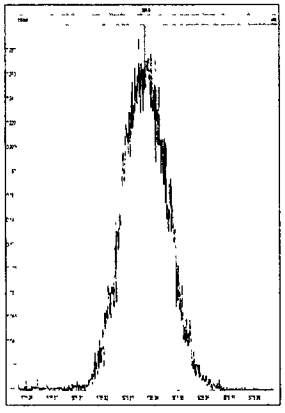

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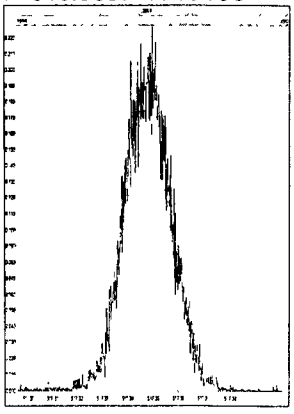

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Printed: Tuesday, June 25, 2013 16:27:01 Pacific Daylight Time

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ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

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23478-PeCDF	32.079	1.001	6.19e5	4.06e5	0.837	1.522	1.550	3804.8	NO	51.087	51.087
123478-HxCDF	35.762	1.001	4.70e5	3.81e5	0.967	1 234	1.240	1778.0	NO	50.705	50.705
234678-HxCDF	36.858	1.001	4.65e5	3.84e5	1.000	1.213	1.240	1731.5	NO	52.257	52.257
123678-HxCDF	35.916	1.001	4.80e5	3.89e5	0.951	1.233	1.240	1774.9	NO	50.586	50.586
123789-HxCDF	37.965	1.001	3.99e5	3.36e5	0.874	1.188	1.240	1569.3	NO	53.176	53.176
1234678-HpCDF	40.070	1.000	3.49e5	3.49e5	1.072	1.000	1.050	3268.1	NO	52.281	52.281
1234789-HpCDF	42.865	1.000	2.68e5	2.69e5	1.085	0.996	1.050	2158.0	NO	51.445	51.445
OCDF	48.358	1.007	4.03e5	4.54e5	0.878	0.886	0.890	2806.5	NO	106.896	106.896
2378-TCDD	27.199	1.000	9.93e4	1 32e5	0.936	0.753	0.770	916 3	NO	10.420	10.420
12378-PeCDD	32.331	1.001	4.91e5	3.21e5	0.894	1.531	1.550	3441.8	NO	51.294	51.294
123478-HxCDD	36.990	1.001	4.09e5	3.25e5	0.898	1.258	1.240	2190.9	NO	51.136	51.136
123678-HxCDD	37.110	1.000	3.82e5	3.25e5	0.818	1.175	1.240	2010.2	NO	51.498	51.498
123789-HxCDD	37.527	1.012	3.93e5	3.25e5	0.789	1.208	1.240	2134.2	NO	55.475	55.475
1234678-HpCDD	41.944	1.000	2.81e5	2.75e5	0.879	1.023	1.050	1943.3	NO	52.693	52.693
OCDD	48.071	1.001	3.87e5	4.44e5	0.875	0.871	0.890	2559.3	NO	103.996	103.996
13C-2378-TCDF	26.541	1.007	1.37e6	1.80e6	1.190	0.761	0.770	6734.2	NO		110.978
13C-12378-PeCDF	30.709	1.165	1.51e6	9.89e5	0.904	1.530	1.550	9449.4	NO		114.983
13C-23478-PeCDF	32.057	1.216	1.46e6	9.36e5	0.877	1.562	1.550	9042.3	NO		113.682
13C-123478-HxCDF	35.740	0.953	5.89e5	1.15e6	1.096	0.513	0.510	2301.1	NO		99.107
13C-123678-HxCDF	35.894	0.957	6.05e5	1.20e6	1.187	0.504	0.510	2356.4	NO		95.113
13C-234678-HxCDF	36.836	0.982	5 51e5	1.07e6	1.040	0.513	0.510	2189.6	NO		97.699
13C-123789-HxCDF	37.944	1.011	5.38e5	1.04e6	0.941	0.515	0.510	2239.7	NO		105.172
13C-1234678-HpCDF	40.059	1.068	3.78e5	8.70e5	0.825	0.434	0.440	3389.6	NO		94.483
13C-1234789-HpCDF	42.843	1.142	2.93e5	6.69e5	0.609	0.438	0.440	2190.4	NO		98.679
13C-1234-TCDD	26.362	0.000	1.06e6	1.35e6	1.000	0.784	0.770	1796.5	NO		100.000
13C-2378-TCDD	27.184	1.031	1.03e6	1.34e6	0.920	0.765	0.770	1764.2	NO		107.144
13C-12378-PeCDD	32.309	1.226	1.08e6	6.92e5	0.669	1.557	1.550	5420.5	NO		109.958
13C-123478-HxCDD	36.968	0.985	8.86e5	7.14e5	1.032	1.241	1.240	6313.0	NO		96.977
13C-123678-HxCDD	37.099	0.989	9.21e5	7.57e5	1.146	1.216	1.240	6422.7	NO		91.629
13C-1234678-HpCDD	41.922	1.117	6.16e5	5.84e5	0.789	1.056	1.050	4445.8	NO		95.118
13C-OCDD	48.044	1.281	8.58e5	9.68e5	0.696	0.887	0.890	4937.9	NO		164.051

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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Printed: Tuesday, June 25, 2013 16:27:01 Pacific Daylight Time

ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

13C-123789-HxCDD	37.516	0.000	8.80e5	7 19e5	1.000	1.222	1.240	6385.3	NO	100.000
Total-tetrafurans			3.46e5		0.771					33.223
Total-penta1			1.00e6							73.701
Total-pentafurans			1.89e6		0.826					155.085
Total-hexafurans			2.37e6		0.948					269.702
Total-heptafurans			6.18e5		1.079					103.791
Total-Furans			6.63e6		0.925					742.434
Total-tetradioxins			5.52e5		0.936					57.579
Total-pentadioxins			1.71e6		0.894					178.460
Total-hexadioxins			1.70e6		0.835					227.008
Total-heptadioxins			6.11e5		0.879					114.308
Total-Dioxins			4.97e6		0.870					681 372
Total-TEQ			1.16e7							1423.807
37CL-2378-TCDD	27.199	1.032	2.54e5		1.000			1122.3		10.558
FUNCTION1 PFK			1.87e6							
FUNCTION2 PFK			2.98e5							0.000
FUNCTION3 PFK			0.00e0							
FUNCTION4 PFK			6.34e5							
FUNCTION5 PFK			5 10e5							
FUNCTION1 HXCDPE			5.13e2							0.000
FUNCTION1 HPCDPE			7.17e2							0.000
FUNCTION2 HPCDPE			1.39e3							0.000
FUNCTION3 OCDPE			5.21e2							0.000
FUNCTION4 NCDPE			4.43e2							0.000
FUNCTION5 DCDPE			0.00e0							

Dataset: P:\DIOXIN8290.PRO\130624DATA1.qld
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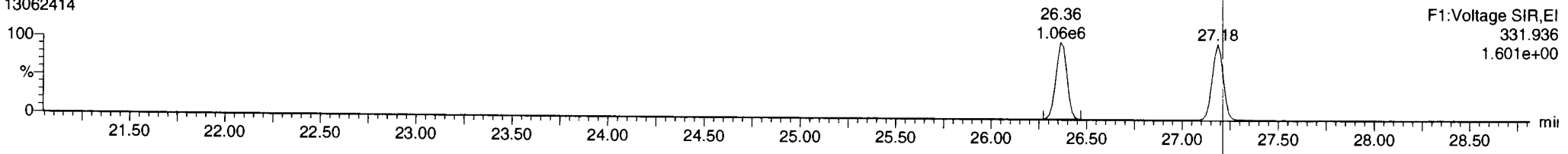
Calibration: P:\DIOXIN8290.pro\CurveDB\130620ICAL.cdb 21 Jun 2013 09:11:11

ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

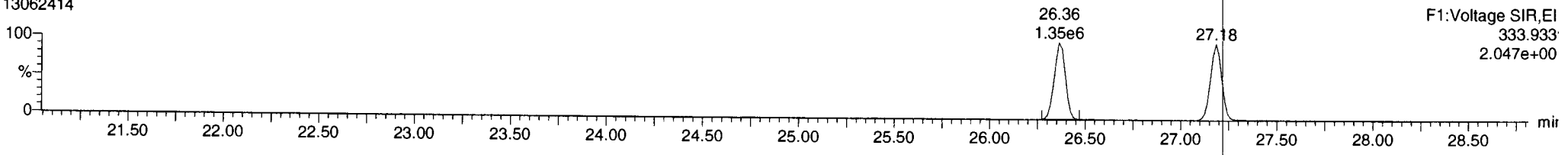
13C-1234-TCDD

13062414



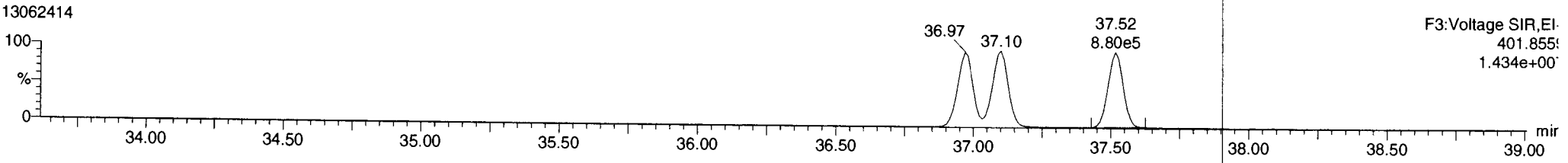
13C-1234-TCDD

13062414



13C-123789-HxCDD

13062414



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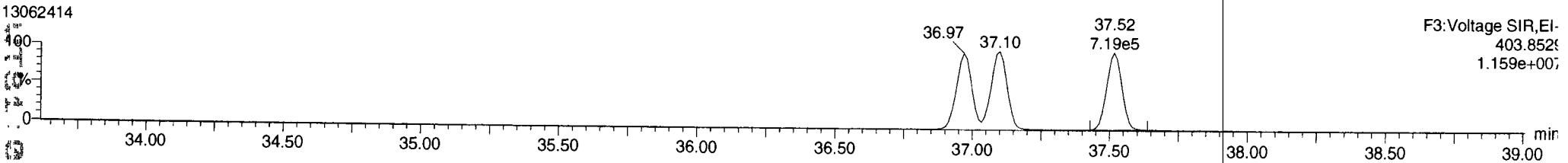
13062414



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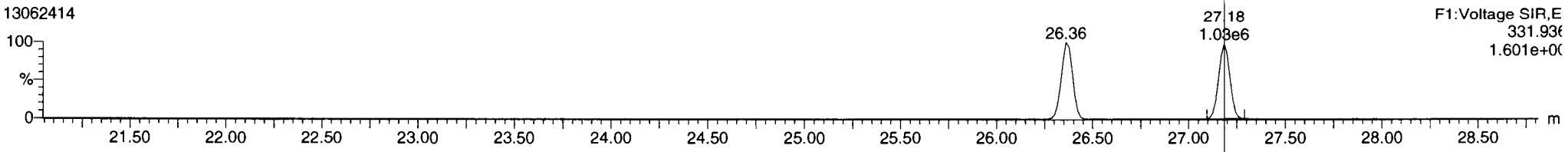
ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDD



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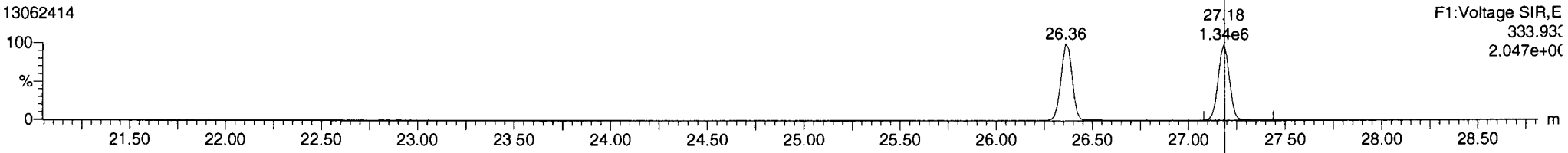
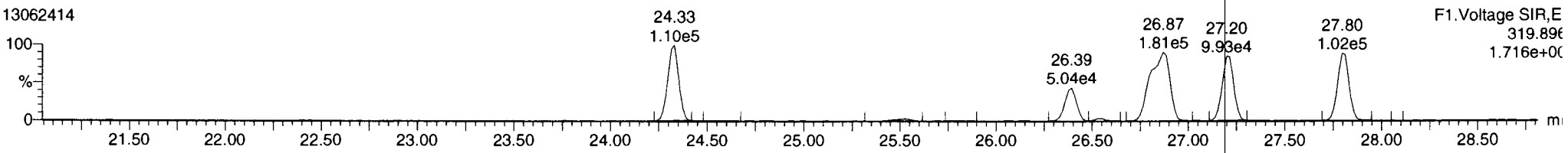
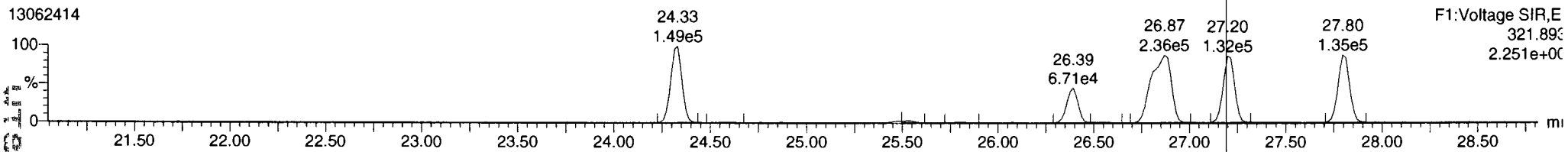


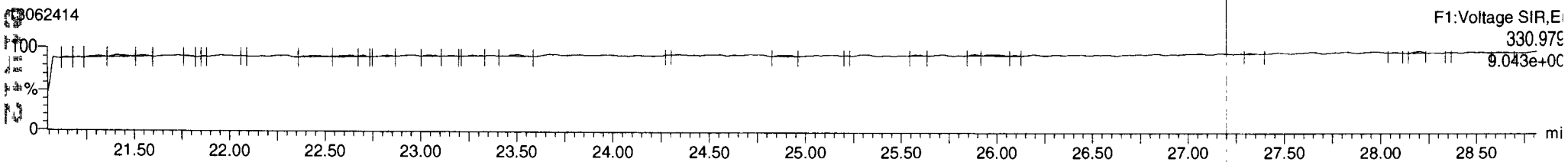
Total-tetradioxins



Total-tetradioxins



FUNCTION1 PFK



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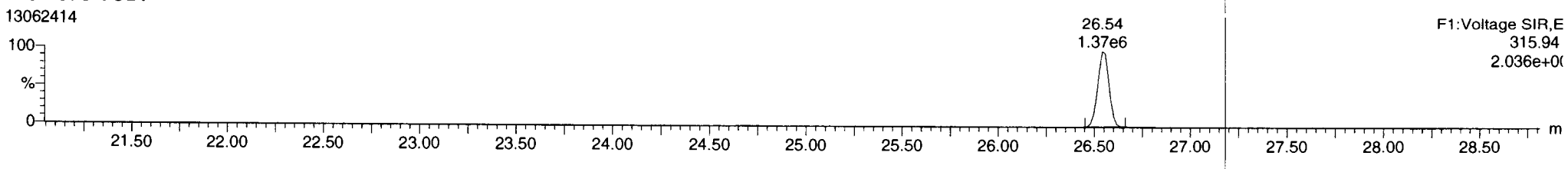
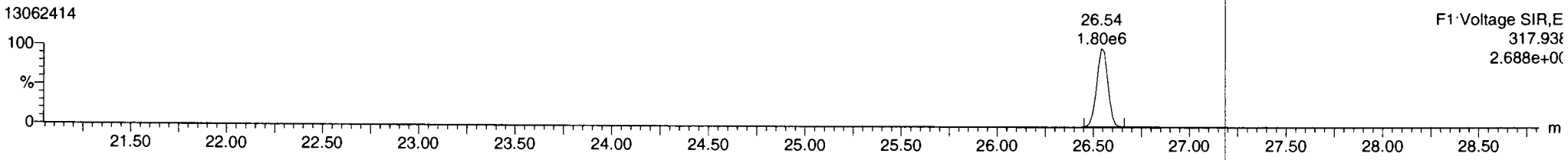
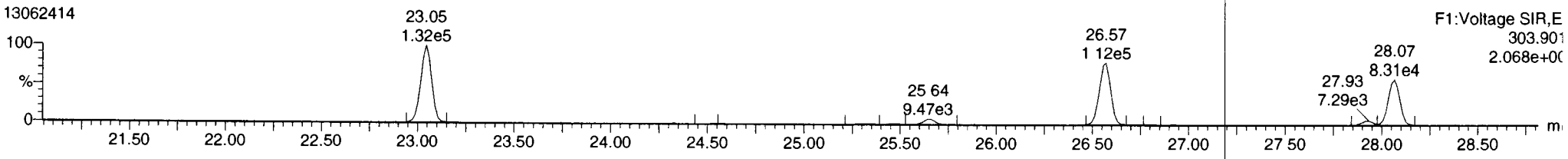
13C-2378-TCDF



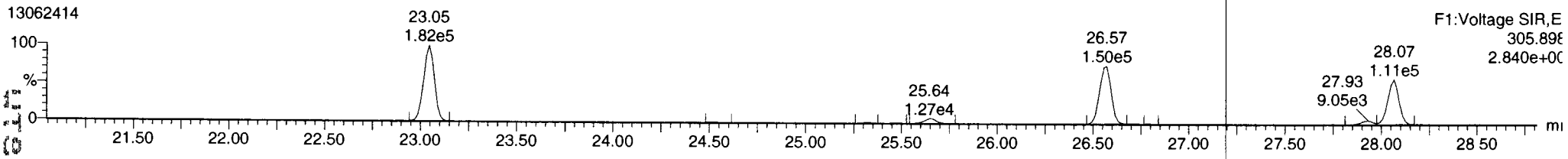
13C-2378-TCDF



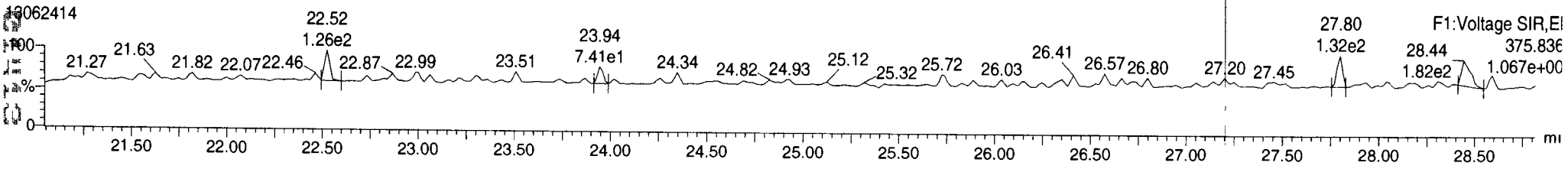
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



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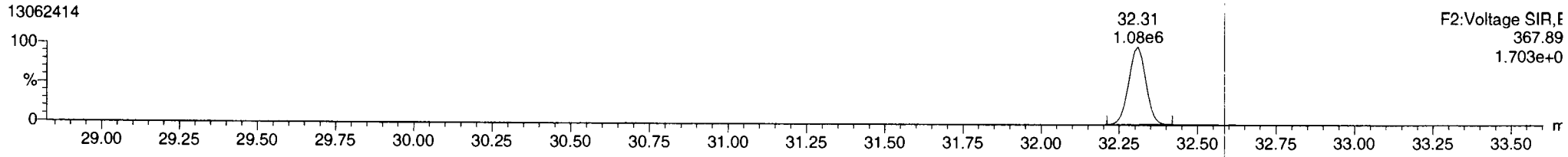
13C-12378-PeCDD



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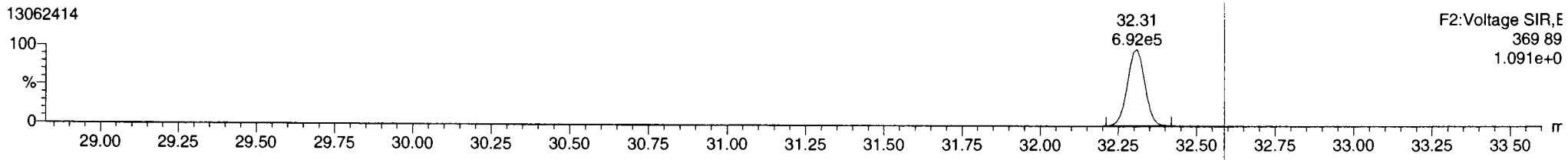
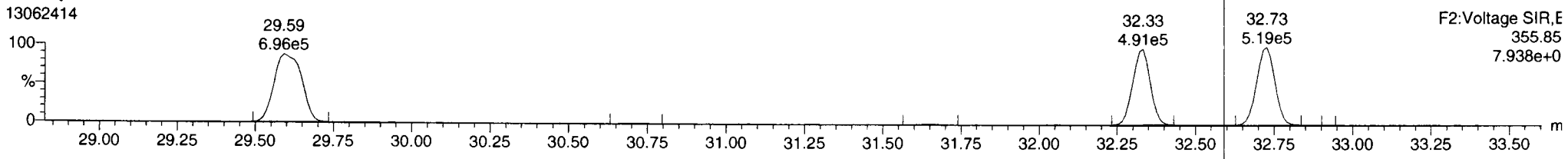
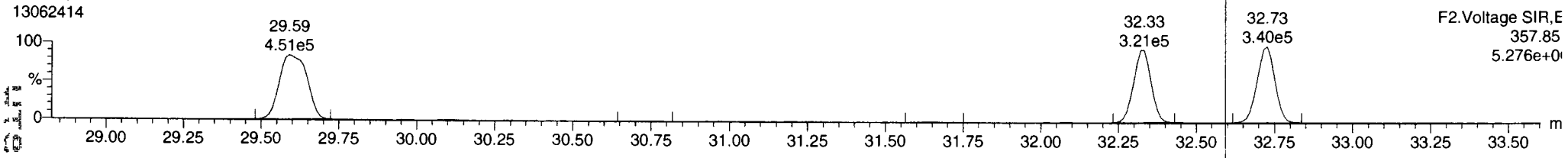


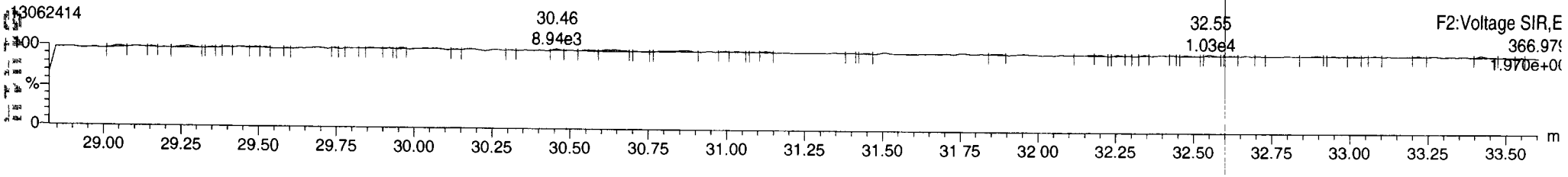
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



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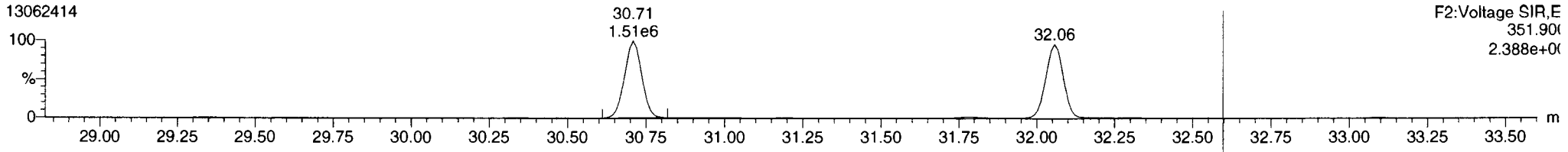
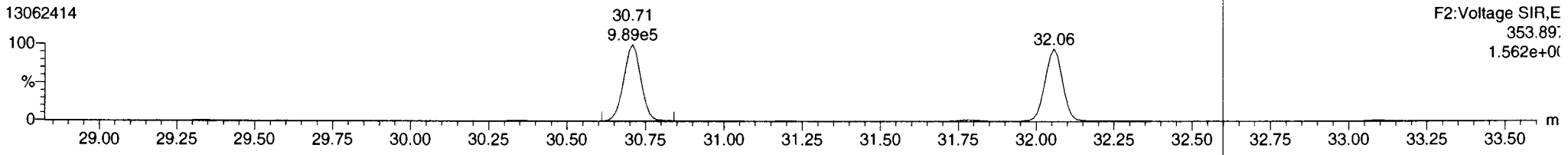
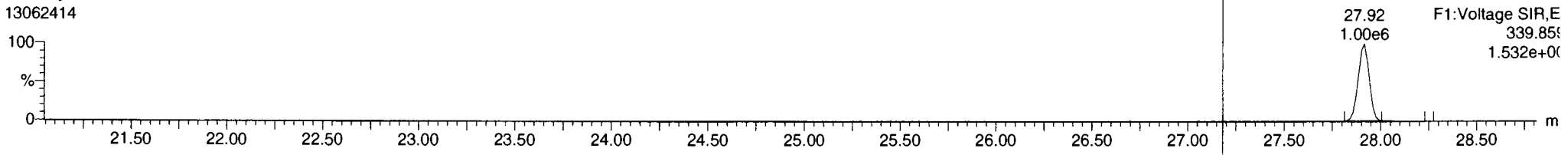
13C-12378-PeCDF



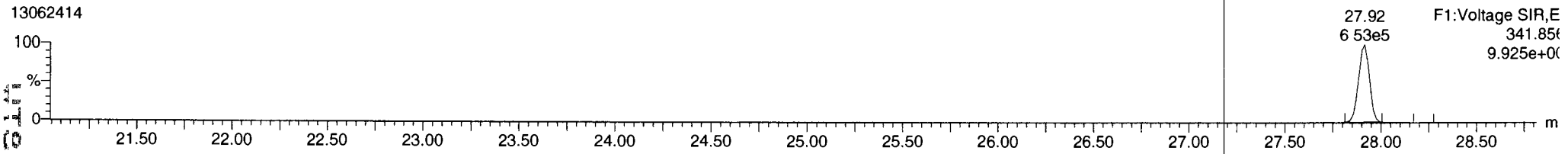
13C-12378-PeCDF



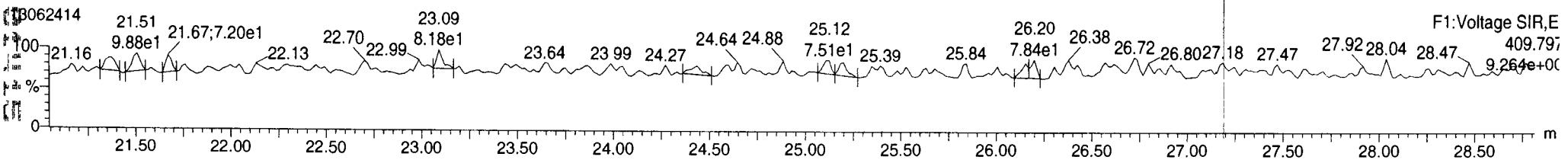
Total-penta1



Total-penta1



FUNCTION1 HPCDPE



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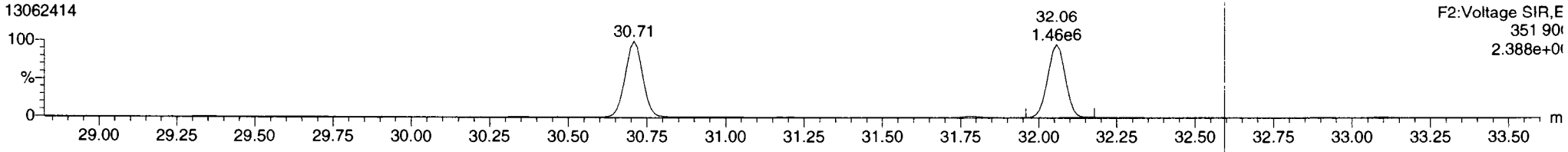
13C-23478-PeCDF



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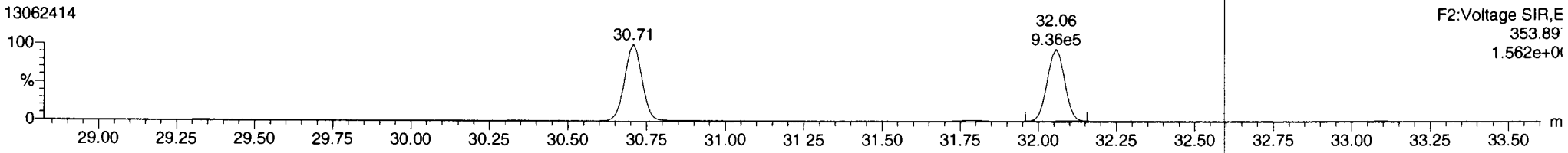
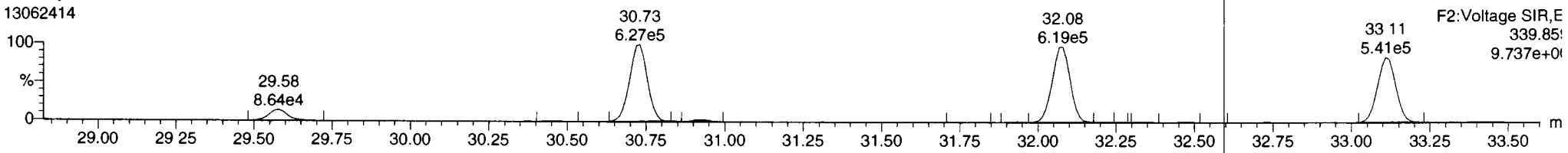
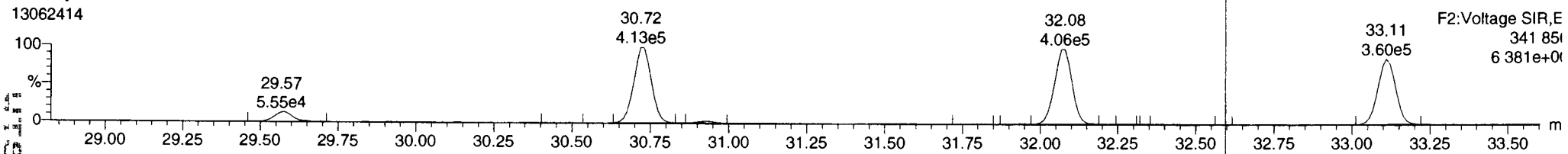


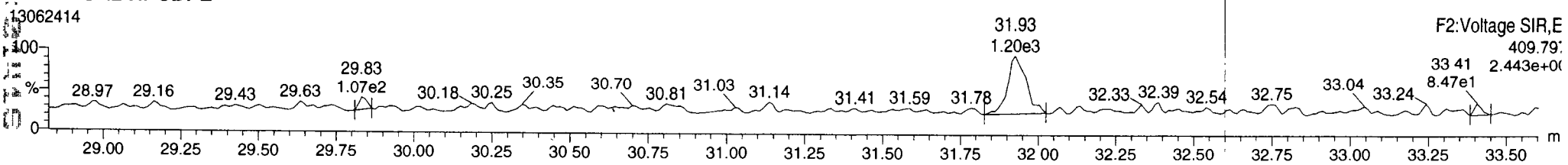
Total-pentafurans



Total-pentafurans



FUNCTION2 HPCDPE



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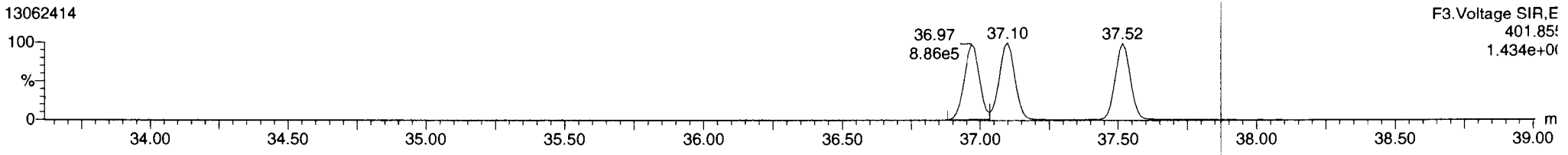
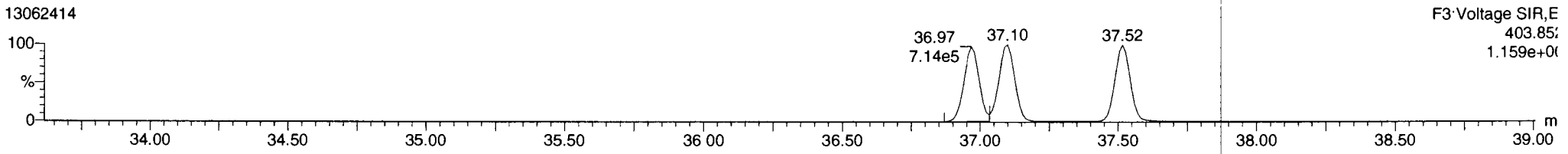
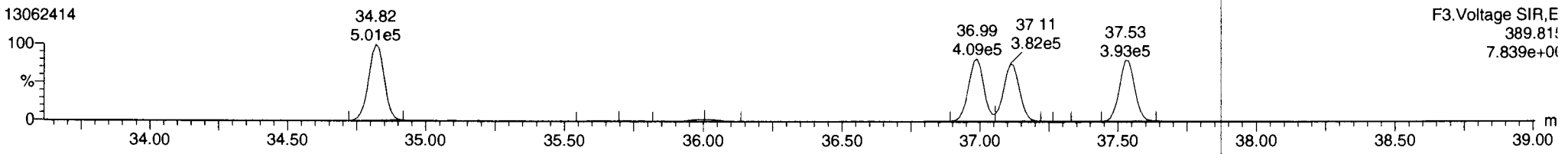
13C-123478-HxCDD



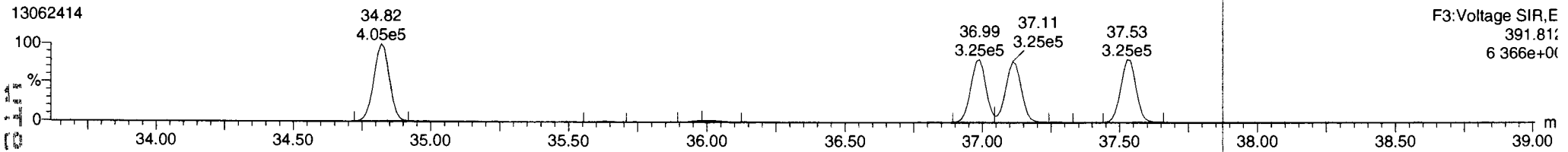
13C-123478-HxCDD



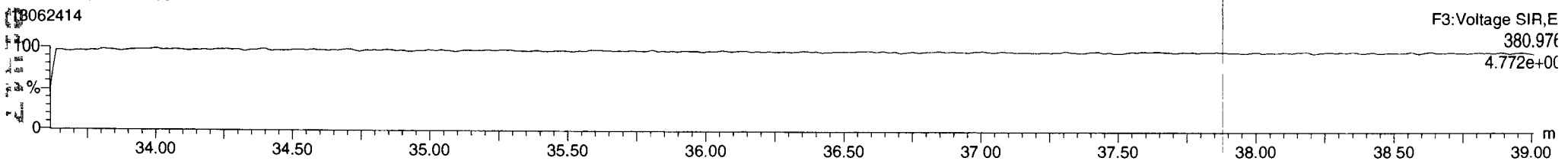
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK



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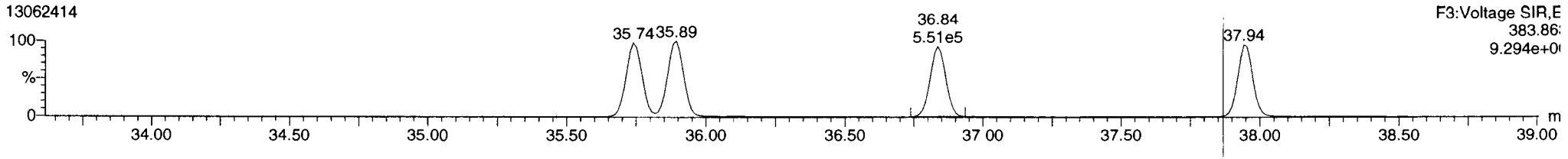
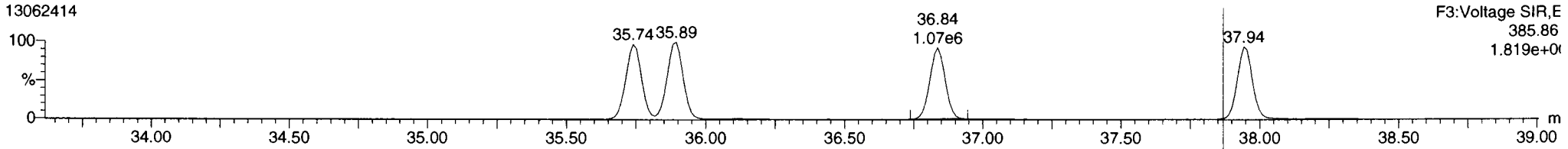
Printed: Tuesday, June 25, 2013 16:27:01 Pacific Daylight Time

ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

13C-234678-HxCDF



13C-234678-HxCDF



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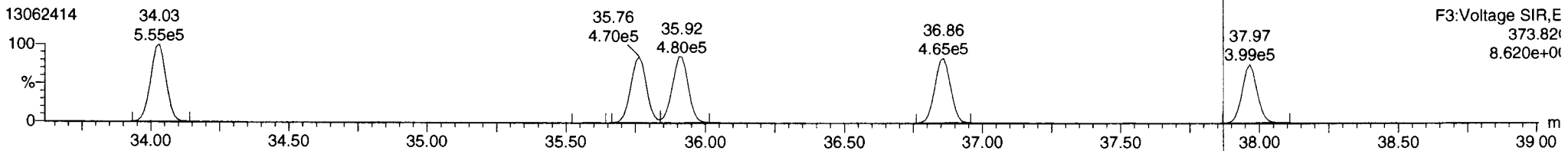

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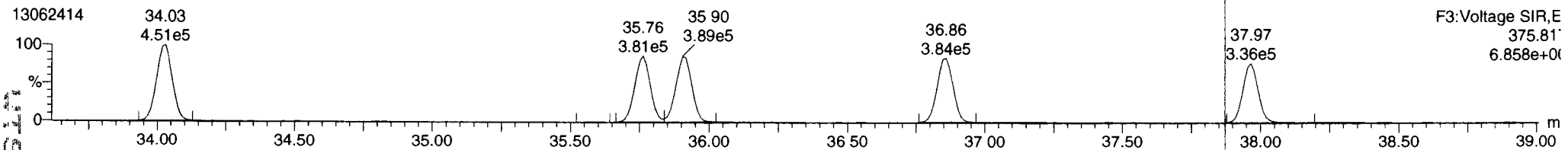
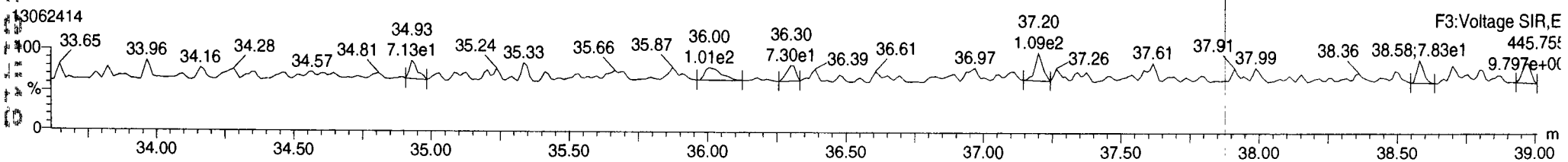


FUNCTION3 OCDPE



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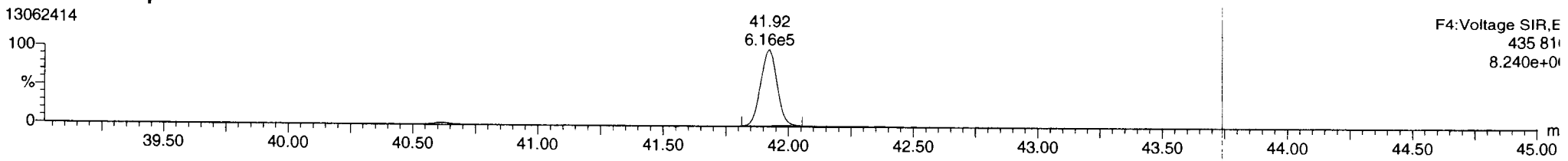
13C-1234678-HpCDD



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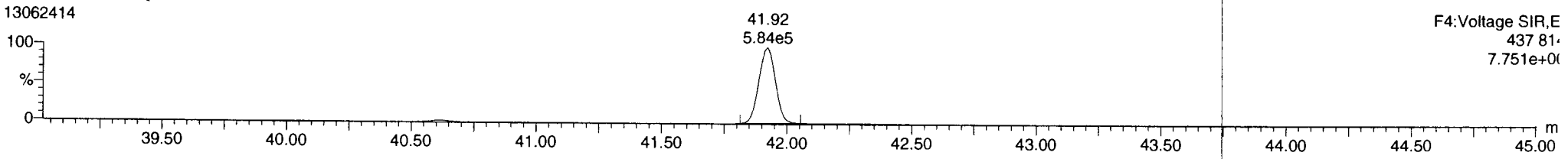

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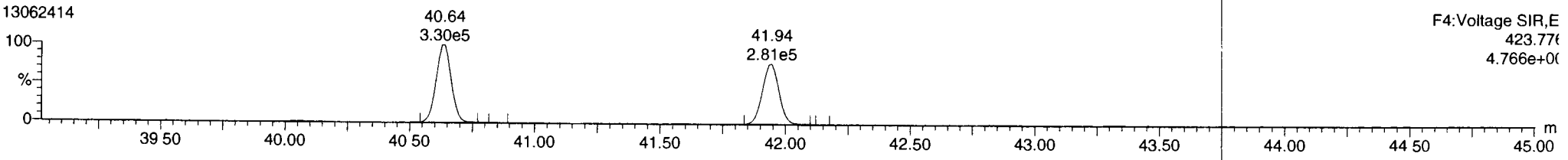

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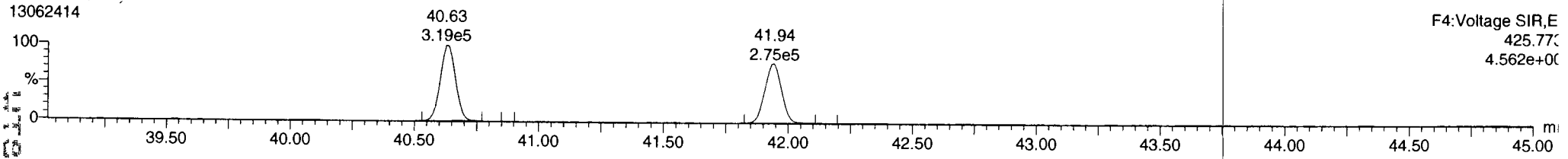
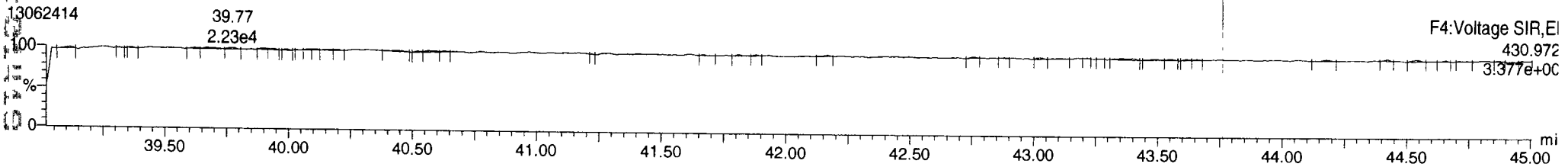


FUNCTION4 PFK



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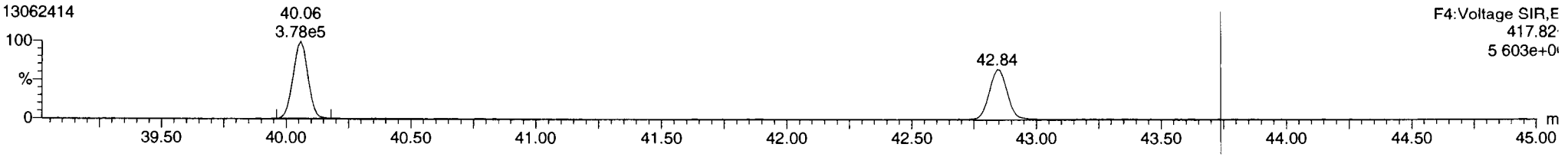
13C-1234678-HpCDF



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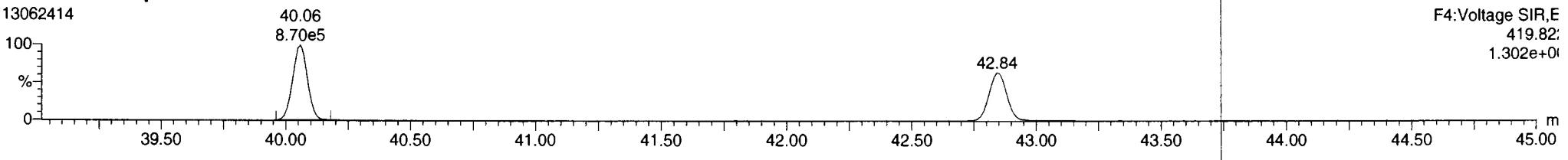

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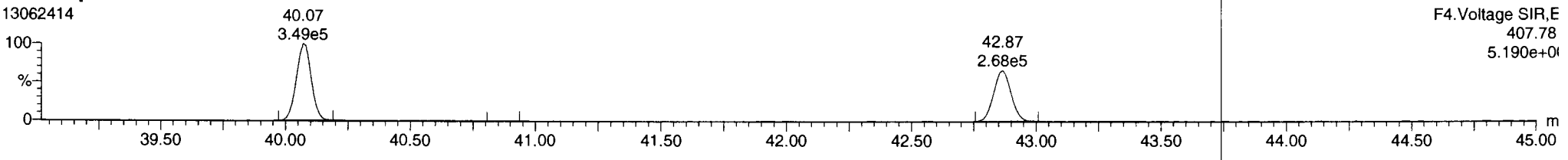
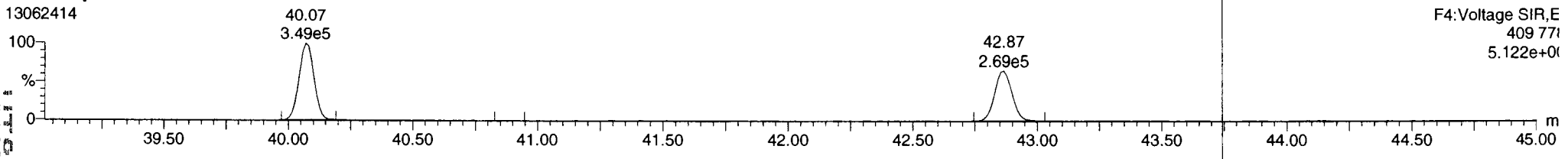
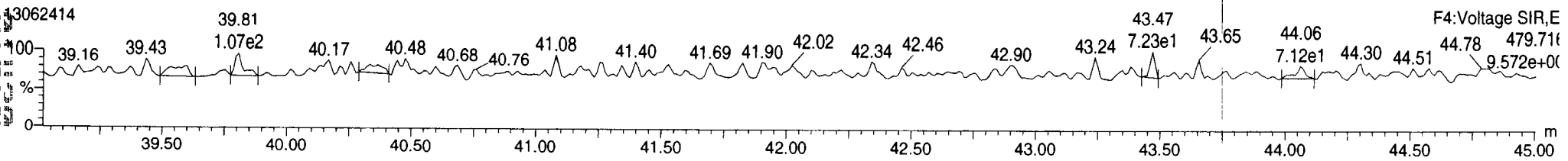


Total-heptafurans



FUNCTION4 NCDPE



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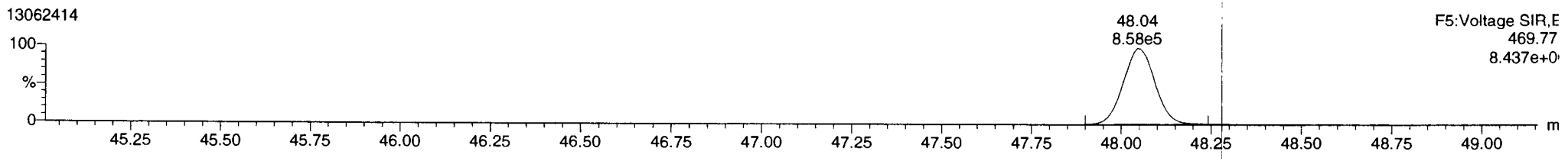
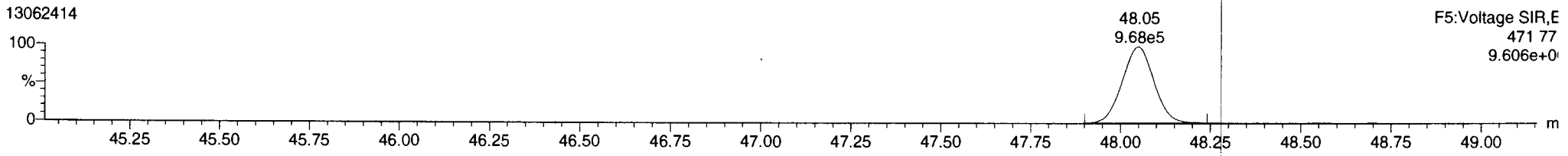
ID: CS3, Name: 13062414, Date: 24-Jun-2013, Time: 20:38:11, Conditions: AUTOSPEC01, User: pk

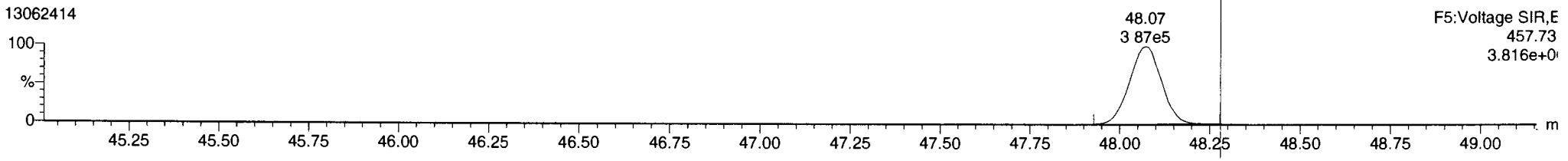
13C-OCDD



13C-OCDD



OCDD



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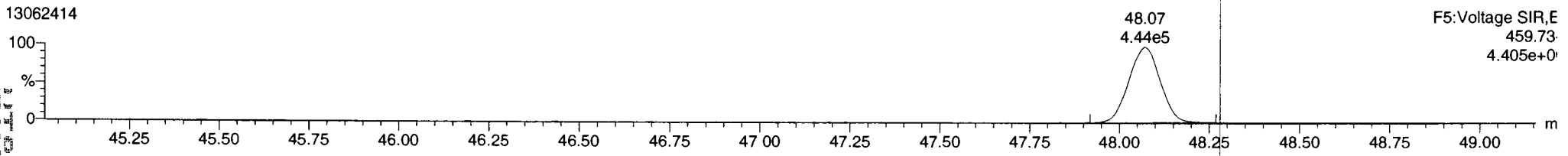
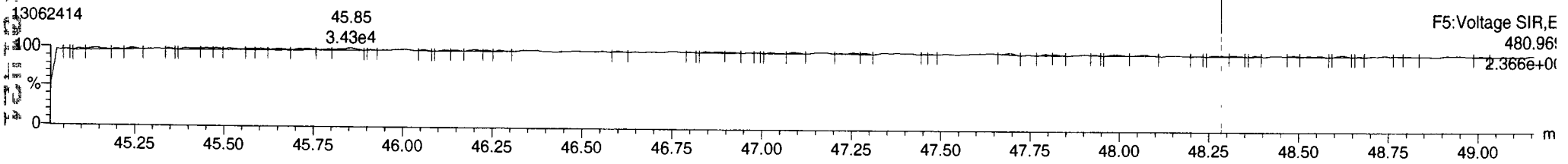


FUNCTION5 PFK



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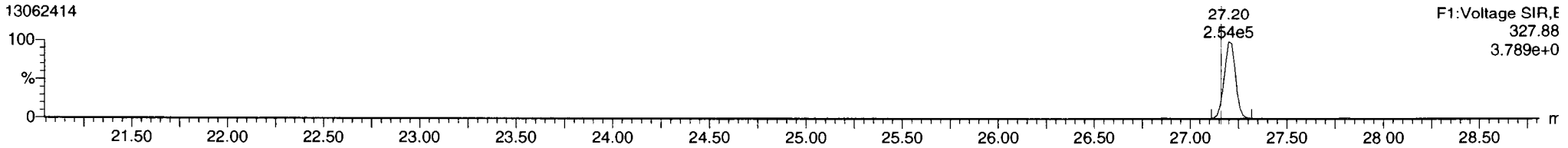
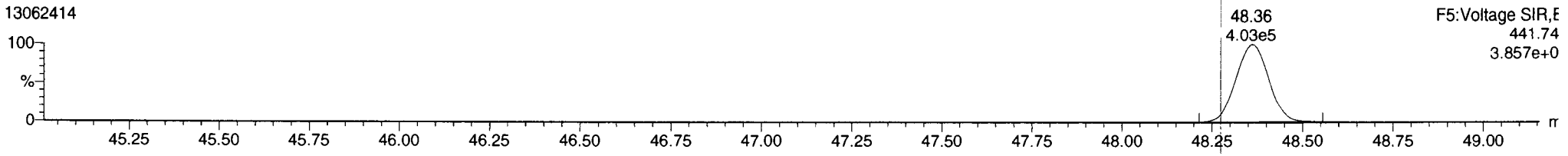
37CL-2378-TCDD



OCDF



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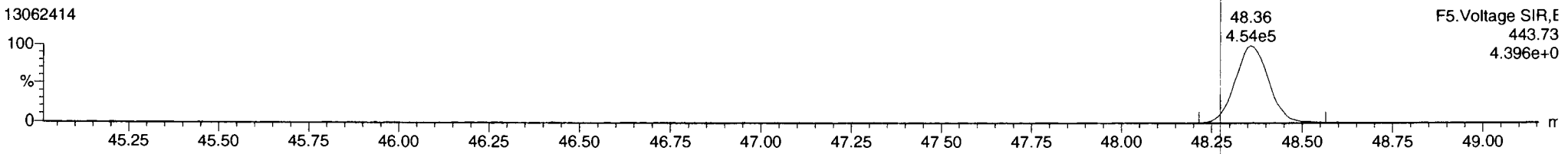
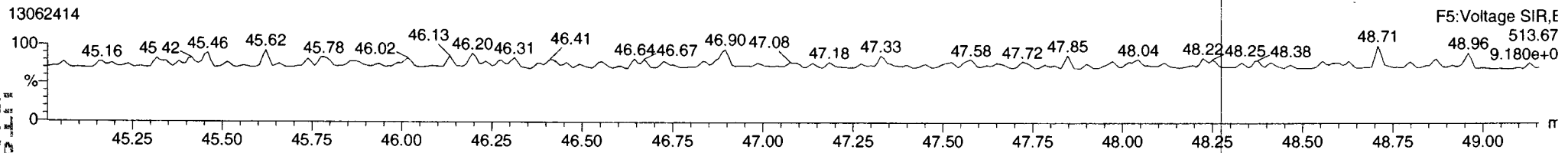


FUNCTION5 DCDPE



Pesticide Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

Miscellaneous
Water/Soil/Sed/Tissue/Other
Separatory Funnel (3510C)/Liq-Liq (3520C)
Sonication (3550C)/Microwave (3546)
TissueMize (Modified 3550C)

Parameter Pest PSDDA

Preparation Test Misc # 1

ARI Job No(s) WT81

Pest Program

2mL + 0.5mL Ethyl Acetate (3) very high sulfur

Batch set up by: SH

Bottle #	ARI Sample I.D.	Verify Client ID	Weight ~~Or Volume~~ Extracted	~~Sonic Horn ID~~ + ~~Chk~~	KD	Turbo Vap (1) 2 3	(REQ) Clean-Up GPC (2) clean (Y)/N 1:1	(REQ) Clean-Up Sulfur clean (Y) N	(REQ) Clean-Up Silica Gel (Y) N	After GPC KD (2X) 2mL Hexane Exchange	Turbo Vap (1) 2 3	Final Effective Volume	Volume to Lab	Comments
	WT81													10g Actual Wt
	MB	Date	12.5g					2.5mL	1mL 1:2.5			2.5mL	1mL	
	SB		12.5g					2.5mL	1mL 1:2.5			2.5mL	1mL	
	SB Dup.													
	QLS WT81		12.5g					2.5mL	2mL 1:2.5			2.5mL	1mL	
3	A		30.1g				1:2	2.5mL	2mL 2:2.5			2.5mL	1mL	See notes
8	B		32.0g					2.5mL	2mL 2:2.5			2.5mL	1mL	
8	C		32.0g					2.5mL	2mL 2:2.5			2.5mL	1mL	
8	CMS		32.0g					2.5mL	2mL 2:2.5			2.5mL	1mL	
8	CMSD		32.0g					2.5mL	2mL 2:2.5			2.5mL	1mL	
	Analyst/Date:	YL 6/19/13			QQ 6/20/13		SP 6/21/13	SP 6/24/13	SP 6/24/13	QQ 6/24/13	SP 6/24/13	SP 6/24/13	SP 6/24/13	Reviewed by SP 6/24/13

	Standard Conc.	Standard ID	Volume	Expiration Date	Analyst	Witness
Pest	Surrogate 2	N (B###151)	50 µL	4/30/14	CT	AC
	Spike		µL			
Pest	Spike 0.5/1/5	3 (B###650)	100 µL	12/09/13	CT	AC
	Spike	(B###567)	µL		CT	
Pest	QLS Spike 0.25-2.5	QLS 10 (B###576)	25 µL	12/10/13		AC
	Extraction Time: 13:20	Balance ID: B1146426114	Liq/Liq Start:		Liq/Liq Stop:	

SPECIAL INSTRUCTIONS:
3057F

(1X) 1:1 HexAce
(1X) 8:2 HexAce
Large Drying columns
(2X) 2mL Hexane Exchange After GPC

Revision 06
12/23/10

WT81 : 6/19/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WT81 Client ID: SAIC

Parameter: Pest PSDDA Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other: C = wet	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)= A=sludge B=texture=pudding	AC 6-13-13
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). GC analyst, (Centrifuge#1 used for all Centrifugations) Sample pre-screens indicate	
possible aroclor activity.	JH 6/17/13
Took A,B,C, Cms, CmsD to 5mL and loaded 1:2 split on GPC. due to sample viscosity.	SP 6/21/13
Doubled the split for silica Gel cleanups to achieve desired reporting limits per laboratory director.	JH 6/24/13

WT81 : 01425

Pesticide Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 06/19/13 Internal Standard ID 2606-1 Expiration 07/26/13

Endrin/DDT Breakdown <15%?	YES / NO / NA	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration		Secondary Source	Standard #	Expiration
DS	B370	08/29/13	C	INDA ICAV 6/26/13	2023-1	05/16/13
IB	1982-2	05/16/13	F	WND ICV	2064-1	01/17/14
INDA	B339	12/10/13	S	HCB/HCBD	1886-2	05/28/12
Toxaphene	B558	09/29/14				
WND	B559	07/27/13				

Retol

Detail problems, corrective actions and/or other pertinent information below:

Analyst: JK **Date:** 06/24/13

Reviewer: VD **Date:** 6/25/13

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 06/19/13 Analysis: Pest Analyst: JR

Column 1 Serial No.: 1085624 Column Type: CLP1

Column 2 Serial No.: 1094709 Column Type: CLP2

GC Method: Pest ICal Date: 2µL (US.inj)

IS	Ical/Ccal	ICV
2016-1	B339	1708-1
	B559	2064-1
	B959	1836-2
	B370	

Document All Maintenance Tasks In StarLIMS

	Inject Date/Time	Filename	DF	LabID
1	19-JUN-2013 17:21	0619a010.d	1	IB
2	19-JUN-2013 17:39	0619a011.d	1	DS
3	19-JUN-2013 17:57	0619a012.d	1	INDAE
4	19-JUN-2013 18:14	0619a013.d	1	INDAA
5	19-JUN-2013 18:32	0619a014.d	1	INDAB
6	19-JUN-2013 18:50	0619a015.d	1	INDAC
7	19-JUN-2013 19:08	0619a016.d	1	INDAD
8	19-JUN-2013 19:26	0619a017.d	1	INDAF
9	19-JUN-2013 19:44	0619a018.d	1	INDAG
10	19-JUN-2013 20:01	0619a019.d	1	INDA ICV
11	19-JUN-2013 20:19	0619a020.d	1	HCB/HCBD
12	19-JUN-2013 23:17	0619a030.d	1	TOXAPHENI
13	19-JUN-2013 20:55	0619a022.d	1	WNDE
14	19-JUN-2013 21:13	0619a023.d	1	WNDA
15	19-JUN-2013 21:30	0619a024.d	1	WNDB
16	19-JUN-2013 21:48	0619a025.d	1	WNDC
17	19-JUN-2013 22:06	0619a026.d	1	WNDD
18	19-JUN-2013 22:24	0619a027.d	1	WNDF
19	19-JUN-2013 22:42	0619a028.d	1	WNDG
20	19-JUN-2013 22:59	0619a029.d	1	WND ICV
21	19-JUN-2013 23:35	0619a031.d	1	TECHCHLOI
22	19-JUN-2013 23:53	0619a032.d	1	TECH ICV
23	20-JUN-2013 00:10	0619a033.d	1	DS
24	20-JUN-2013 00:28	0619a034.d	1	INDAE#1
25	20-JUN-2013 00:46	0619a035.d	1	WNDE#1
26	20-JUN-2013 01:04	0619a036.d	1	WT36MBS1
27	20-JUN-2013 01:22	0619a037.d	1	WT36LCS1
28	20-JUN-2013 01:40	0619a038.d	1	WT36LCSDS
29	20-JUN-2013 01:57	0619a039.d	1	WT36A
30	20-JUN-2013 02:15	0619a040.d	1	WS91A
31	20-JUN-2013 02:33	0619a041.d	1	WS91AMS
32	20-JUN-2013 02:51	0619a042.d	1	WS91AMSD
33	20-JUN-2013 03:09	0619a043.d	1	WT53MBW1
34	20-JUN-2013 03:26	0619a044.d	1	WT53LCSW1
35	20-JUN-2013 03:44	0619a045.d	1	WT53LCSDW
36	20-JUN-2013 04:02	0619a046.d	1	DS
37	20-JUN-2013 04:20	0619a047.d	1	INDAE#2
38	20-JUN-2013 04:38	0619a048.d	1	WNDE#2
39	20-JUN-2013 04:55	0619a049.d	1	WT53QLS
40	20-JUN-2013 05:13	0619a050.d	1	WT53A
41	20-JUN-2013 05:31	0619a051.d	1	WT53B
42	20-JUN-2013 05:49	0619a052.d	1	WT53C
43	20-JUN-2013 06:07	0619a053.d	1	WT53D
44	20-JUN-2013 06:24	0619a054.d	1	WT53E
45	20-JUN-2013 06:42	0619a055.d	1	WT07MBW1
46	20-JUN-2013 07:00	0619a056.d	1	WT07LCSW1
47	20-JUN-2013 07:18	0619a057.d	1	WT07LCSDW
48	20-JUN-2013 07:36	0619a058.d	1	WT07QLS
49	20-JUN-2013 07:53	0619a059.d	1	DS
50	20-JUN-2013 08:11	0619a060.d	1	INDAE#3
51	20-JUN-2013 08:29	0619a061.d	1	WNDE#3
52	20-JUN-2013 08:47	0619a062.d	1	WT07A
53	20-JUN-2013 09:05	0619a063.d	1	WT07B
54	20-JUN-2013 09:23	0619a064.d	1	WS90MBW1
55	20-JUN-2013 09:41	0619a065.d	1	WS90LCSS1
56	20-JUN-2013 09:59	0619a066.d	1	WS90LCSDS1
57	20-JUN-2013 10:16	0619a067.d	1	WS90QLS
58	20-JUN-2013 10:34	0619a068.d	1	WS90A
59	20-JUN-2013 10:52	0619a069.d	1	WS90B
60	20-JUN-2013 11:11	0619a070.d	1	DS
61	20-JUN-2013 11:28	0619a071.d	1	INDAE#4
62	20-JUN-2013 11:46	0619a072.d	1	WNDE#4

06/25/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

WT91 : 01429

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130619PEST.b/ical-1.b

ARI Job No.: IB Method: PEST0619.m Instrument: ecd6.i Date: 19-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1721	0619a010.d	IB		1	NO MANUAL INTEGRATION
1739	0619a011.d	DS		1	NO MANUAL INTEGRATION
1757	0619a012.d	INDAE		1	NO MANUAL INTEGRATION
1814	0619a013.d	INDAA		1	NO MANUAL INTEGRATION
1832	0619a014.d	INDAB		1	NO MANUAL INTEGRATION
1850	0619a015.d	INDAC		1	NO MANUAL INTEGRATION
1908	0619a016.d	INDAD		1	NO MANUAL INTEGRATION
1926	0619a017.d	INDAF		1	NO MANUAL INTEGRATION
1944	0619a018.d	INDAG		1	NO MANUAL INTEGRATION
2001	0619a019.d	INDA ICV		1	NO MANUAL INTEGRATION
2019	0619a020.d	HCB/HCBD ICV		1	NO MANUAL INTEGRATION
2317	0619a030.d	TOXAPHENE		1	NO MANUAL INTEGRATION
2055	0619a022.d	WNDE		1	NO MANUAL INTEGRATION
2113	0619a023.d	WNDA		1	NO MANUAL INTEGRATION
2130	0619a024.d	WNDB		1	NO MANUAL INTEGRATION
2148	0619a025.d	WNDC		1	NO MANUAL INTEGRATION
2206	0619a026.d	WNDD		1	NO MANUAL INTEGRATION
2224	0619a027.d	WNDF		1	NO MANUAL INTEGRATION
2242	0619a028.d	WNDG		1	NO MANUAL INTEGRATION
2259	0619a029.d	WND ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Cal Date : 24-Jun-2013 16:04 yev
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a023.d
Level 2: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a024.d
Level 3: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a025.d
Level 4: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a026.d
Level 5: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a030.d
Level 6: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a027.d
Level 7: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a028.d
Level 8: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a030.d

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
1 Hexachlorobutadiene	1.90255	1.82746	1.72475	1.80538	1.63952	1.70403		
	1.70205	+++++					1.75796	5.148
3 Hexachlorobenzene	1.48607	1.38489	1.25065	1.29219	1.15823	1.18938		
	1.17400	+++++					1.27649	9.523
4 alpha-BHC	1.54387	1.55472	1.51023	1.66746	1.57221	1.68013		
	1.70242	+++++					1.60443	4.784
5 gamma-BHC (Lindane)	1.43893	1.45162	1.38660	1.51406	1.41885	1.50915		
	1.52105	+++++					1.46289	3.596
6 beta-BHC	0.72267	0.69399	0.62885	0.65445	0.59777	0.61724		
	0.61539	+++++					0.64719	7.088
7 delta-BHC	1.31076	1.33767	1.29222	1.44170	1.36734	1.47377		
	1.50098	+++++					1.38921	5.957

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
8 Heptachlor	1.46111	1.44992	1.37073	1.46029	1.33959	1.38629		
	1.35896	+++++					1.40384	3.694
9 Aldrin	1.38090	1.38032	1.30360	1.42040	1.31018	1.37139		
	1.35489	+++++					1.36024	3.048
38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
11 Heptachlor epoxide b	1.37134	1.33627	1.22935	1.30893	1.18548	1.21388		
	1.18211	+++++					1.26105	6.081
12 gamma-Chlordane	1.34452	1.32741	1.23423	1.33704	1.23398	1.29746		
	1.29333	+++++					1.29542	3.551
13 alpha-Chlordane	1.35279	1.31541	1.21079	1.29571	1.18577	1.23709		
	1.22879	+++++					1.26091	4.844
14 Endosulfan I	1.29513	1.26141	1.15224	1.22045	1.10253	1.12302		
	1.09618	+++++					1.17871	6.801
15 4,4'-DDE	1.01389	0.98313	0.90492	0.95484	0.88046	0.93369		
	0.96207	+++++					0.94757	4.806

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
16 Dieldrin	1.28716	1.29785	1.22354	1.30837	1.19093	1.21674		
	1.19385	+++++					1.24549	4.066
17 Endrin	1.26711	1.27002	1.20537	1.25522	1.15780	1.15955		
	1.12413	+++++					1.20560	4.958
18 4,4'-DDD	1.20014	1.19876	1.14202	1.17837	1.10056	1.13288		
	1.10599	+++++					1.15125	3.621
19 Endosulfan II	1.28259	1.26594	1.19796	1.24319	1.13952	1.14153		
	1.10718	+++++					1.19684	5.775
20 4,4'-DDT	1.15079	1.15997	1.10760	1.17386	1.09155	1.13724		
	1.12168	+++++					1.13467	2.595
21 Endrin aldehyde	1.02599	1.01548	0.94464	0.98095	0.88920	0.89428		
	0.87136	+++++					0.94598	6.675
22 Methoxychlor	0.60895	0.59288	0.53434	0.53623	0.48400	0.49787		
	0.50489	+++++					0.53702	8.891
23 Endosulfan sulfate	1.12427	1.11725	1.04391	1.08924	0.99727	1.02307		
	1.00241	+++++					1.05677	5.047
24 Endrin ketone	1.47123	1.40999	1.29907	1.33968	1.20839	1.24100		
	1.21628	+++++					1.31223	7.673

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
26 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
27 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
28 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
29 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

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Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Cal Date : 24-Jun-2013 16:04 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(6)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
30 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
31 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++						

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
32 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
33 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.05135	+++++		
	+++++	0.05135					0.05135	0.000
(2)	+++++	+++++	+++++	+++++	0.03543	+++++		
	+++++	+++++					0.03543	0.000
(3)	+++++	+++++	+++++	+++++	0.05845	+++++		
	+++++	+++++					0.05845	0.000
(4)	+++++	+++++	+++++	+++++	0.05954	+++++		
	+++++	+++++					0.05954	0.000
(5)	+++++	+++++	+++++	+++++	0.03954	+++++		
	+++++	+++++					0.03954	0.000
(6)	+++++	+++++	+++++	+++++	0.03356	+++++		
	+++++	+++++					0.03356	0.000
39 2,4-DDE	0.87274	0.86308	0.83381	0.82491	0.81805	0.80267		
	0.74462	+++++					0.82284	5.152
40 2,4-DDD	0.77761	0.77575	0.74597	0.74361	0.73419	0.72905		
	0.68555	+++++					0.74168	4.206
41 2,4-DDT	0.88597	0.88005	0.86843	0.85814	0.85985	0.84955		
	0.80325	+++++					0.85789	3.174

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
43 Oxychlordane	1.15065	1.13104	1.11190	1.08121	1.07576	1.03688		
	0.95359	+++++					1.07729	6.160
44 trans-Nonachlor	1.35198	1.34250	1.32180	1.31589	1.32536	1.33307		
	1.26444	+++++					1.32215	2.140
45 cis-Nonachlor	1.49934	1.50007	1.44006	1.44337	1.45793	1.46723		
	1.40485	+++++					1.45898	2.327
46 Mirex	0.98377	0.93549	0.90240	0.86728	0.86159	0.86043		
	0.82136	+++++					0.89033	6.139
47 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
59 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

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	80.000 Level 7	0.000e+00 Level 8						
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
60 Kepone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
61 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Cal Date : 24-Jun-2013 16:04 yev
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
$ 2 Tetrachloro-m-xylene	1.15603	1.13307	1.06647	1.12441	1.02482	1.05901		
	1.04003	+++++					1.08626	4.688
$ 25 Decachlorobiphenyl	1.13367	1.09978	0.99247	1.01808	0.91736	0.94702		
	0.93976	+++++					1.00688	8.224

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a023.d
Level 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a024.d
Level 3: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a025.d
Level 4: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a026.d
Level 5: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a030.d
Level 6: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a027.d
Level 7: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a028.d
Level 8: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a030.d/0619a030.cdf

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
1 Hexachlorobutadiene	1.77542	1.77383	1.66890	1.76599	1.56096	1.58663		
	1.45961	+++++					1.65591	7.511
3 Hexachlorobenzene	1.90014	1.75831	1.56896	1.61188	1.42856	1.42008		
	1.34315	+++++					1.57587	12.689
4 alpha-BHC	1.89067	1.95848	1.86011	2.02052	1.85761	1.92559		
	1.86606	+++++					1.91129	3.192
5 gamma-BHC (Lindane)	1.71793	1.72173	1.63161	1.77057	1.62732	1.68032		
	1.68059	+++++					1.69001	3.036
6 beta-BHC	1.05921	0.95999	0.81135	0.80846	0.72028	0.73231		
	0.70444	+++++					0.82800	16.171
7 delta-BHC	1.64820	1.66251	1.57188	1.72634	1.59922	1.65937		
	1.66482	+++++					1.64748	3.028

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
8 Heptachlor	1.93228	1.79619	1.66661	1.72620	1.52645	1.48015		
	1.34701	+++++					1.63927	12.258
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
9 Aldrin	1.83405	1.66591	1.53672	1.62235	1.44396	1.43019		
	1.33013	+++++					1.55190	10.956
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
11 Heptachlor epoxide b	1.81675	1.63979	1.40438	1.43813	1.26288	1.22389		
	1.11487	+++++					1.41439	17.374
12 gamma-Chlordane	1.82983	1.64233	1.46128	1.50701	1.34625	1.35044		
	1.28248	+++++					1.48852	12.951
13 alpha-Chlordane	1.60468	1.49416	1.35051	1.40092	1.25024	1.25659		
	1.19492	+++++					1.36457	10.765
14 Endosulfan I	1.51918	1.41686	1.27203	1.32343	1.17177	1.14586		
	1.04761	+++++					1.27096	12.890
15 4,4'-DDE	1.53674	1.45951	1.32415	1.36063	1.17900	1.14945		
	1.02941	+++++					1.29127	13.988

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
16 Dieldrin	1.59950	1.45277	1.32593	1.35123	1.15396	1.10181		
	0.99360	+++++					1.28269	16.499
17 Endrin	1.90141	1.86720	1.72775	1.74870	1.52078	1.45639		
	1.32506	+++++					1.64961	13.234
18 4,4'-DDD	2.10942	1.99577	1.81214	1.84639	1.60315	1.58015		
	1.48408	+++++					1.77587	12.988
19 Endosulfan II	1.97192	1.91679	1.77518	1.83122	1.58158	1.56461		
	1.45551	+++++					1.72812	11.340
20 4,4'-DDT	1.74714	1.69628	1.59021	1.63006	1.43826	1.47388		
	1.43879	+++++					1.57352	8.000
21 Endrin aldehyde	1.58468	1.51144	1.33959	1.35940	1.19370	1.18610		
	1.11175	+++++					1.32666	13.257
22 Endosulfan sulfate	1.73214	1.64211	1.47745	1.51465	1.34424	1.33317		
	1.25492	+++++					1.47124	11.811
23 Methoxychlor	0.73051	0.70763	0.62021	0.60272	0.52386	0.51201		
	0.40225	+++++					0.58560	19.746
24 Endrin ketone	1.63883	1.60020	1.48325	1.53566	1.34995	1.36416		
	1.32073	+++++					1.47040	8.684

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
26 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
27 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
28 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
29 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	___ RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
30 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
31 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
32 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
33 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
End Cal Date : 19-JUN-2013 23:17
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
34 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
35 Toxaphene(1)	+++++	+++++	+++++	+++++	0.05597	+++++		
	+++++	+++++					0.05597	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	0.08258	+++++		
	+++++	+++++					0.08258	0.000
(3)	+++++	+++++	+++++	+++++	0.09061	+++++		
	+++++	+++++					0.09061	0.000
(4)	+++++	+++++	+++++	+++++	0.06531	+++++		
	+++++	+++++					0.06531	0.000
(5)	+++++	+++++	+++++	+++++	0.08305	+++++		
	+++++	+++++					0.08305	0.000
38 2,4-DDE	0.80626	0.82048	0.79847	0.78354	0.75300	0.69902		
	0.61137	+++++					0.75316	9.901
39 2,4-DDD	1.13292	1.14334	1.11231	1.09801	1.08138	1.03514		
	0.92519	+++++					1.07547	7.001
40 2,4-DDT	1.20070	1.21618	1.21055	1.20015	1.18944	1.14928		
	1.03688	+++++					1.17188	5.412
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
42 Oxychlordane	1.05303	1.08292	1.07870	1.07429	1.05167	1.01445		
	0.94342	+++++					1.04264	4.756

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
43 trans-Nonachlor	1.98806	2.04006	2.05919	2.05043	2.00581	1.96863		
	1.70892	+++++					1.97444	6.167
44 cis-Nonachlor	2.06223	2.12219	2.13854	2.12945	2.10040	2.07532		
	1.76577	+++++					2.05627	6.378
45 Mirex	1.11651	1.05520	0.99593	0.98159	0.96129	0.94571		
	0.90853	+++++					0.99497	7.061
46 bis-(2-ethylhexyl) Phthalate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Tech-Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JUN-2013 17:57
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Target Version : 3.50
Integrator : HP Genie
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Cal Date : 24-Jun-2013 12:16 jrains
Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
	80.000 Level 7	0.000e+00 Level 8						
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
57 Kepone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
58 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 2 Tetrachloro-m-xylene	1.53064	1.48891	1.36733	1.41327	1.22546	1.18954		
	1.04722	+++++					1.32319	13.239
$ 25 Decachlorobiphenyl	1.47476	1.42068	1.29648	1.32353	1.16810	1.19962		
	1.16903	+++++					1.29317	9.469

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0619a022	0619a023	0619a024	0619a025	0619a026	0619a027	0619a028
INJ.DATE:	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013
INJ.TIME:	20:55	21:13	21:30	21:48	22:06	22:24	22:42

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.312	2.262-2.362	+++++	+++++
*	54 1Bromo-2nitrobenzene	3.131	3.131	3.130	3.131	3.131	3.130	3.130	3.130	3.080-3.180	3.131	0.000
*	58 Hexabromobiphenyl	8.927	8.927	8.927	8.926	8.928	8.927	8.927	8.927	8.877-8.977	8.927	0.000
$	2 Tetrachloro-m-xylene	3.800	3.800	3.800	3.800	3.800	3.799	3.799	3.799	3.749-3.849	3.800	0.000
	3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.140	4.090-4.190	+++++	+++++
	4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.286	4.236-4.336	+++++	+++++
	5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.569	4.519-4.619	+++++	+++++
	6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.644	4.594-4.694	+++++	+++++
	7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.813	4.763-4.863	+++++	+++++
	8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.015	4.965-5.065	+++++	+++++
	9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.307	5.257-5.357	+++++	+++++
	38 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
	10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
	11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.883	5.832-5.933	+++++	+++++
	12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.002	5.952-6.052	+++++	+++++
	13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.126	6.076-6.176	+++++	+++++
	14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.260	6.210-6.310	+++++	+++++

Reviewer 1 _____ Date: 06/24/13 06/25/13
Reviewer 2 _____ Date: 6/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.184	6.134-6.234	+++++	+++++
16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.483	6.433-6.533	+++++	+++++
17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.701	6.651-6.751	+++++	+++++
18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.740	6.690-6.790	+++++	+++++
19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.906	6.856-6.956	+++++	+++++
20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.998	6.948-7.048	+++++	+++++
21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.284	7.234-7.334	+++++	+++++
22 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.424	7.374-7.474	+++++	+++++
23 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.674	7.624-7.724	+++++	+++++
24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.930	7.880-7.980	+++++	+++++
$ 25 Decachlorobipheny1	8.777	8.777	8.777	8.776	8.777	8.776	8.777	8.777	8.727-8.827	8.777	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.958	6.908-7.008	+++++	+++++
39 2,4-DDE	5.862	5.863	5.863	5.863	5.863	5.861	5.861	5.861	5.811-5.911	5.862	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.349	6.350	6.350	6.350	6.350	6.348	6.348	6.348	6.298-6.398	6.349	0.001
41 2,4-DDT	6.587	6.587	6.587	6.588	6.588	6.587	6.587	6.587	6.537-6.637	6.588	0.000
42 Hexachloroethane	1.758	1.758	1.758	1.759	1.758	1.756	1.758	1.758	1.708-1.808	1.758	0.001
43 Oxychlordane	5.787	5.787	5.787	5.787	5.788	5.787	5.787	5.787	5.737-5.837	5.787	0.000
44 trans-Nonachlor	6.110	6.110	6.110	6.110	6.111	6.110	6.110	6.110	6.060-6.160	6.110	0.000
45 cis-Nonachlor	6.726	6.726	6.727	6.727	6.727	6.726	6.727	6.727	6.677-6.777	6.726	0.000
46 Mirex	7.601	7.601	7.600	7.601	7.601	7.601	7.601	7.601	7.551-7.651	7.601	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.935	4.885-4.985	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++
60 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.581	6.531-6.631	+++++	+++++
61 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.903-7.003	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-1.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0619a012	0619a013	0619a014	0619a015	0619a016	0619a017	0619a018
INJ.DATE:	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013
INJ.TIME:	17:57	18:14	18:32	18:50	19:08	19:26	19:44

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Hexachlorobutadiene	2.311	2.310	2.311	2.311	2.310	2.311	2.312	2.312	2.262-2.362	2.311	0.001
* 54	1Bromo-2nitrobenzene	3.130	3.130	3.131	3.130	3.130	3.130	3.131	3.130	3.080-3.180	3.130	0.000
* 58	Hexabromobiphenyl	8.927	8.927	8.927	8.926	8.927	8.927	8.927	8.927	8.877-8.977	8.927	0.000
$ 2	Tetrachloro-m-xylene	3.799	3.799	3.800	3.799	3.799	3.799	3.799	3.799	3.749-3.849	3.799	0.000
3	Hexachlorobenzene	4.140	4.141	4.141	4.141	4.140	4.140	4.140	4.140	4.090-4.190	4.140	0.001
4	alpha-BHC	4.286	4.286	4.286	4.286	4.286	4.286	4.286	4.286	4.236-4.336	4.286	0.000
5	gamma-BHC (Lindane)	4.569	4.568	4.569	4.568	4.568	4.569	4.569	4.569	4.519-4.619	4.569	0.000
6	beta-BHC	4.645	4.646	4.646	4.645	4.645	4.644	4.644	4.644	4.594-4.694	4.645	0.001
7	delta-BHC	4.814	4.815	4.815	4.815	4.814	4.814	4.813	4.813	4.763-4.863	4.814	0.001
8	Heptachlor	5.014	5.014	5.015	5.014	5.014	5.015	5.015	5.015	4.965-5.065	5.014	0.000
9	Aldrin	5.307	5.307	5.307	5.307	5.306	5.307	5.307	5.307	5.257-5.357	5.307	0.000
38	Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.627	13.577-13.677	+++++	+++++
10	Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.869	10.819-10.919	+++++	+++++
11	Heptachlor epoxide b	5.882	5.882	5.883	5.882	5.881	5.882	5.883	5.883	5.832-5.933	5.882	0.000
12	gamma-Chlordane	6.002	6.002	6.002	6.002	6.001	6.002	6.002	6.002	5.952-6.052	6.002	0.000
13	alpha-Chlordane	6.126	6.127	6.126	6.126	6.126	6.126	6.126	6.126	6.076-6.176	6.126	0.000
14	Endosulfan I	6.260	6.259	6.259	6.259	6.259	6.259	6.260	6.260	6.210-6.310	6.259	0.000

Reviewer 1 _____ Date: 06/25/13
Reviewer 2 _____ Date: 6/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.183	6.184	6.183	6.182	6.182	6.184	6.184	6.184	6.134-6.234	6.183	0.001
16 Dieldrin	6.482	6.482	6.482	6.482	6.482	6.482	6.483	6.483	6.433-6.533	6.482	0.000
17 Endrin	6.701	6.701	6.700	6.700	6.700	6.700	6.701	6.701	6.651-6.751	6.700	0.000
18 4,4'-DDD	6.741	6.743	6.743	6.742	6.741	6.740	6.740	6.740	6.690-6.790	6.741	0.001
19 Endosulfan II	6.906	6.907	6.907	6.906	6.906	6.906	6.906	6.906	6.856-6.956	6.906	0.000
20 4,4'-DDT	6.999	7.000	7.000	6.999	6.999	6.998	6.998	6.998	6.948-7.048	6.999	0.001
21 Endrin aldehyde	7.284	7.284	7.284	7.283	7.283	7.283	7.284	7.284	7.234-7.334	7.284	0.000
22 Methoxychlor	7.425	7.425	7.425	7.424	7.424	7.424	7.424	7.424	7.374-7.474	7.425	0.000
23 Endosulfan sulfate	7.674	7.675	7.674	7.674	7.674	7.674	7.674	7.674	7.624-7.724	7.674	0.000
24 Endrin ketone	7.930	7.929	7.930	7.929	7.929	7.929	7.930	7.930	7.880-7.980	7.929	0.000
$ 25 Decachlorobiphenyl	8.777	8.777	8.777	8.776	8.777	8.777	8.777	8.777	8.727-8.827	8.777	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.831-4.931	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.309-5.409	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.715-3.815	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.368-4.468	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.207-5.307	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	5.995-6.095	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.251-8.351	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.209-11.309	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.958	6.908-7.008	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.861	5.811-5.911	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-1.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.348	6.298-6.398	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.587	6.537-6.637	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.758	1.708-1.808	+++++	+++++
43 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.787	5.737-5.837	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.110	6.060-6.160	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.727	6.677-6.777	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.601	7.551-7.651	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.106-20.206	+++++	+++++
59 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.935	4.885-4.985	+++++	+++++
48 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.269-6.369	+++++	+++++
49 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.886-9.986	+++++	+++++
50 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.841-11.941	+++++	+++++
51 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.777-14.877	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.700-9.800	+++++	+++++
55 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.057-9.157	+++++	+++++
56 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.201-10.301	+++++	+++++
60 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.581	6.531-6.631	+++++	+++++
61 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.903-7.003	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0619a012	0619a013	0619a014	0619a015	0619a016	0619a017	0619a018
INJ.DATE:	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013
INJ.TIME:	17:57	18:14	18:32	18:50	19:08	19:26	19:44

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	2.467	2.467	2.468	2.467	2.467	2.468	2.469	2.469	2.419-2.519	2.468	0.001
* 52 1Bromo-2nitrobenzene	3.300	3.300	3.300	3.299	3.299	3.300	3.300	3.299	3.249-3.349	3.300	0.000
* 55 Hexabromobiphenyl	10.289	10.288	10.289	10.289	10.289	10.289	10.289	10.288	10.238-10.338	10.289	0.000
$ 2 Tetrachloro-m-xylene	4.127	4.127	4.127	4.127	4.126	4.127	4.128	4.128	4.079-4.178	4.127	0.001
3 Hexachlorobenzene	4.586	4.586	4.587	4.586	4.586	4.586	4.586	4.586	4.536-4.636	4.586	0.000
4 alpha-BHC	4.709	4.709	4.709	4.709	4.708	4.709	4.710	4.710	4.660-4.760	4.709	0.001
5 gamma-BHC (Lindane)	5.066	5.065	5.065	5.065	5.065	5.066	5.066	5.066	5.016-5.116	5.065	0.000
6 beta-BHC	5.138	5.139	5.139	5.139	5.138	5.138	5.138	5.138	5.088-5.188	5.138	0.001
7 delta-BHC	5.449	5.450	5.450	5.449	5.449	5.450	5.450	5.450	5.400-5.500	5.450	0.000
8 Heptachlor	5.529	5.528	5.529	5.528	5.528	5.529	5.529	5.529	5.479-5.579	5.529	0.001
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	5.867	5.866	5.867	5.866	5.866	5.867	5.867	5.867	5.817-5.917	5.867	0.001
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	6.422	6.421	6.421	6.420	6.420	6.421	6.422	6.422	6.372-6.472	6.421	0.001
12 gamma-Chlordane	6.604	6.604	6.604	6.603	6.603	6.604	6.604	6.604	6.554-6.654	6.604	0.000
13 alpha-Chlordane	6.742	6.741	6.742	6.741	6.741	6.742	6.742	6.742	6.692-6.792	6.741	0.001
14 Endosulfan I	6.809	6.808	6.809	6.808	6.808	6.808	6.809	6.809	6.759-6.859	6.808	0.000

Reviewer 1 _____ Date: 06/25/13

Reviewer 2 _____ Date: 6/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	6.868	6.869	6.869	6.868	6.868	6.869	6.870	6.870	6.820-6.920	6.869	0.001
16 Dieldrin	7.066	7.066	7.065	7.065	7.066	7.067	7.067	7.067	7.017-7.117	7.066	0.001
17 Endrin	7.355	7.355	7.355	7.355	7.355	7.356	7.356	7.356	7.306-7.406	7.355	0.001
18 4,4'-DDD	7.407	7.408	7.407	7.407	7.407	7.406	7.407	7.407	7.357-7.457	7.407	0.001
19 Endosulfan II	7.544	7.544	7.544	7.544	7.544	7.545	7.545	7.545	7.495-7.595	7.544	0.001
20 4,4'-DDT	7.695	7.694	7.694	7.694	7.694	7.694	7.694	7.694	7.644-7.744	7.694	0.000
21 Endrin aldehyde	7.842	7.841	7.841	7.841	7.841	7.842	7.843	7.843	7.793-7.893	7.842	0.000
22 Endosulfan sulfate	8.087	8.087	8.086	8.087	8.087	8.087	8.087	8.087	8.037-8.137	8.087	0.000
23 Methoxychlor	8.277	8.277	8.277	8.277	8.277	8.277	8.282	8.282	8.232-8.332	8.278	0.002
24 Endrin ketone	8.578	8.577	8.577	8.577	8.577	8.578	8.578	8.578	8.528-8.628	8.577	0.001
$ 25 Decachlorobiphenyl	9.725	9.724	9.725	9.724	9.725	9.724	9.725	9.725	9.675-9.775	9.724	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.291	7.241-7.341	+++++	+++++
38 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.580	6.530-6.630	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/ical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.065	7.015-7.115	+++++	+++++
40 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.353	7.303-7.403	+++++	+++++
41 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.726	1.676-1.776	+++++	+++++
42 Oxychlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.332	6.282-6.382	+++++	+++++
43 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.690	6.640-6.740	+++++	+++++
44 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.415	7.365-7.465	+++++	+++++
45 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.564	8.514-8.614	+++++	+++++
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.378	5.328-5.428	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++
57 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.286-7.386	+++++	+++++
58 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.695-7.795	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-2.b
Inst ID: ecd6.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0619a022	0619a023	0619a024	0619a025	0619a026	0619a027	0619a028
INJ.DATE:	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013	19-JUN-2013
INJ.TIME:	20:55	21:13	21:30	21:48	22:06	22:24	22:42

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.469	2.419-2.519	+++++	+++++
* 52 1Bromo-2nitrobenzene	3.300	3.300	3.300	3.300	3.300	3.300	3.299	3.299	3.249-3.349	3.300	0.000
* 55 Hexabromobiphenyl	10.289	10.289	10.289	10.288	10.290	10.289	10.288	10.288	10.238-10.338	10.289	0.000
$ 2 Tetrachloro-m-xylene	4.127	4.126	4.127	4.127	4.127	4.127	4.127	4.128	4.079-4.178	4.127	0.000
3 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.586	4.536-4.636	+++++	+++++
4 alpha-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.710	4.660-4.760	+++++	+++++
5 gamma-BHC (Lindane)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.066	5.016-5.116	+++++	+++++
6 beta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.138	5.088-5.188	+++++	+++++
7 delta-BHC	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.450	5.400-5.500	+++++	+++++
8 Heptachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.529	5.479-5.579	+++++	+++++
37 Chlorthalonil	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.588	14.538-14.638	+++++	+++++
9 Aldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.867	5.817-5.917	+++++	+++++
10 Heptachlor Epoxide a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.680	12.630-12.730	+++++	+++++
11 Heptachlor epoxide b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.422	6.372-6.472	+++++	+++++
12 gamma-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.604	6.554-6.654	+++++	+++++
13 alpha-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.742	6.692-6.792	+++++	+++++
14 Endosulfan I	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.809	6.759-6.859	+++++	+++++

Reviewer 1 _____ Date: 6/25/13
Reviewer 2 _____ Date: 6/25/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.870	6.820-6.920	+++++	+++++
16 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.067	7.017-7.117	+++++	+++++
17 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.356	7.306-7.406	+++++	+++++
18 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.407	7.357-7.457	+++++	+++++
19 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.545	7.495-7.595	+++++	+++++
20 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.694	7.644-7.744	+++++	+++++
21 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.843	7.793-7.893	+++++	+++++
22 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.087	8.037-8.137	+++++	+++++
23 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.282	8.232-8.332	+++++	+++++
24 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.578	8.528-8.628	+++++	+++++
$ 25 Decachlorobiphenyl	9.725	9.725	9.725	9.724	9.725	9.725	9.724	9.725	9.675-9.775	9.725	0.000
26 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.130-4.230	+++++	+++++
27 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.001-5.101	+++++	+++++
28 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.121-5.221	+++++	+++++
29 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.920-5.020	+++++	+++++
30 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.235-5.335	+++++	+++++
31 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.918-6.018	+++++	+++++
32 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.717-6.817	+++++	+++++
33 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.664-9.764	+++++	+++++
34 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.741-11.841	+++++	+++++
35 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.291	7.241-7.341	+++++	+++++
38 2,4-DDE	6.580	6.580	6.580	6.580	6.581	6.580	6.580	6.580	6.530-6.630	6.580	0.000

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20130619PEST.b/PEST0619B.m
Batch File: /chem2/ecd6.i/20130619PEST.b/wical-2.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
39 2,4-DDD	7.065	7.065	7.065	7.066	7.066	7.065	7.065	7.065	7.015-7.115	7.065	0.000
40 2,4-DDT	7.352	7.352	7.352	7.352	7.352	7.352	7.353	7.353	7.303-7.403	7.352	0.000
41 Hexachloroethane	1.727	1.726	1.727	1.727	1.726	1.726	1.726	1.726	1.676-1.776	1.727	0.000
42 Oxychlordane	6.331	6.331	6.331	6.331	6.332	6.332	6.332	6.332	6.282-6.382	6.331	0.001
43 trans-Nonachlor	6.688	6.688	6.687	6.688	6.689	6.688	6.690	6.690	6.640-6.740	6.688	0.001
44 cis-Nonachlor	7.412	7.411	7.412	7.412	7.413	7.412	7.415	7.415	7.365-7.465	7.412	0.001
45 Mirex	8.564	8.564	8.564	8.563	8.565	8.565	8.564	8.564	8.514-8.614	8.564	0.000
46 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.449-21.549	+++++	+++++
56 Tech-Chlordane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.378	5.328-5.428	+++++	+++++
47 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.821-4.921	+++++	+++++
48 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.590-6.690	+++++	+++++
49 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.065-8.165	+++++	+++++
50 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.236-11.336	+++++	+++++
51 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.477-6.577	+++++	+++++
53 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.292-6.392	+++++	+++++
54 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.791-6.891	+++++	+++++
57 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.286-7.386	+++++	+++++
58 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.695-7.795	+++++	+++++

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a010.d ARI ID: IB
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a010.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 17:21
Compound Sublist: wpest Report Date: 06/25/2013 09:50
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.131	-0.001	5445201	3.300	0.000	27743026	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.272	-0.014	1237	4.712	0.002	5841	0.0113	0.0088	25.0	alpha-BHC
----			5.142	0.003	6031	0.0000	0.0210	---	beta-BHC
4.809	-0.005	1463	5.464	0.014	13614	0.0155	0.0238	42.5*	delta-BHC
----			5.068	0.001	9540	0.0000	0.0163	---	gamma-BHC (Lindane)
----			5.545	0.015	13162	0.0000	0.0232	---	Heptachlor
5.324	0.017	1263	5.852	-0.015	17483	0.0136	0.0325	81.7*	Aldrin
5.892	0.010	3416	6.400	-0.022	27268	0.0398	0.0556	33.1	Heptachlor epoxide b
6.299	0.039	1341	6.782	-0.027	5404	0.0167	0.0123	30.7	Endosulfan I
6.464	-0.018	5067	7.109	0.042	9944	0.0598	0.0224	91.1*	Dieldrin
6.180	-0.004	2407	6.869	-0.001	3466	0.0373	0.0077	131.3*	4,4'-DDE
6.667	-0.034	3562	7.373	0.017	23753	0.0502	0.0729	36.9	Endrin
6.913	0.007	2185	7.551	0.006	5567	0.0310	0.0163	62.1*	Endosulfan II
6.763	0.023	2946	----			0.0434	0.0000	---	4,4'-DDD
7.675	0.001	1856	8.088	0.001	2732	0.0298	0.0094	104.2*	Endosulfan sulfate
6.979	-0.019	7544	7.708	0.013	39804	0.1129	0.1280	12.6	4,4'-DDT
7.383	-0.041	1252	8.259	-0.023	37348	0.0396	0.3227	156.3*	Methoxychlor
7.926	-0.004	15142	8.585	0.007	30994	0.1959	0.1066	59.0*	Endrin ketone
7.303	0.019	3898	7.834	-0.008	11414	0.0700	0.0435	46.6*	Endrin aldehyde
5.988	-0.014	2452	6.626	0.021	24027	0.0278	0.0465	50.4*	gamma-Chlordane
6.127	0.000	4338	6.744	0.002	3096	0.0505	0.0065	154.2*	alpha-Chlordane
2.312	0.000	3453	2.469	-0.001	3790	0.0289	0.0066	125.5*	Hexachlorobutadiene
4.139	0.000	39886	4.583	-0.003	14742	0.4591	0.0270	177.8*	Hexachlorobenzene
5.755	-0.031	1280	6.335	0.003	10455	0.0202	0.0289	35.6	Oxychlordane
----			6.571	-0.009	7079	0.0000	0.0271	---	2,4-DDE
----			6.687	-0.004	4941	0.0000	0.0127	---	trans-Nonachlor
6.335	-0.014	2519	7.045	-0.019	15599	0.0577	0.0734	24.0	2,4-DDD
6.587	0.000	1121	----			0.0222	0.0000	---	2,4-DDT
6.717	-0.010	8796	7.412	-0.003	4224	0.1024	0.0104	163.1*	cis-Nonachlor
7.576	-0.024	8765	8.535	-0.029	217054	0.1671	1.1037	147.4*	Mirex
8.927	0.000	4712338	10.289	0.001	15811694	80.0000	80.0000	0.0	Hexabromobiphenyl
1.757	-0.001	3388	1.727	0.001	198727	0.0000	0.0000	---	Hexachloroethane
6.562	-0.019	2192	7.316	-0.020	7938	0.0000	0.0000	---	Kepone
3.800	0.000	2775489	4.127	-0.001	17285223	37.5388	37.6693	0.3	Tetrachloro-m-xylen
8.777	0.000	2204810	9.726	0.001	9380530	37.1748	36.7014	1.3	Decachlorobiphenyl

06/25/13

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	93.8	94.2	93.8~	130- 0
Decachlorobiphenyl	92.9	91.8	91.8~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

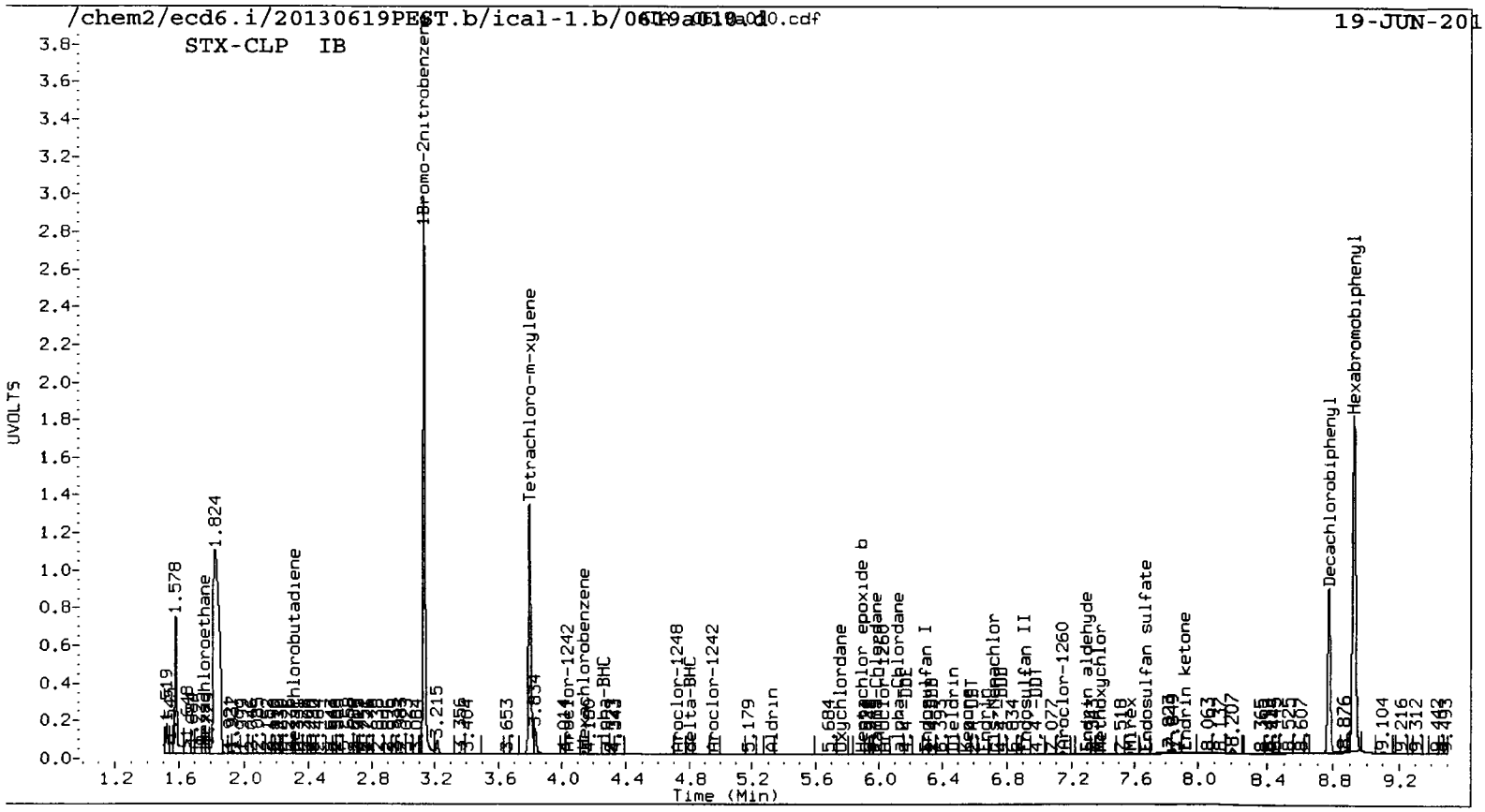
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5445201	-2.6
Hexabromobiphenyl	4870538	4712338	-3.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	27743026	-2.0
Hexabromobiphenyl	16454599	15811694	-3.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.979	0.020	7544	2.5	1	7.316	0.025	7938	0.7
Toxaphene	2	---			0.000	2	7.586	-0.029	150016	9.2
Toxaphene	3	7.303	0.035	3898	1.1	3	7.834	-0.012	11414	0.6
Toxaphene	4	7.576	-0.016	8765	2.5	4	8.317	0.003	5589	0.4
Toxaphene	5	7.675	0.043	1856	0.8	5	8.352	-0.001	1996	0.1
Toxaphene	6	7.926	0.012	15142	7.7	NS	---			----
Total STX-CLPAve (5 peaks): 2.916						Total CLP2Ave (5 peaks): 2.220				RPD = 27
Corrected Ave (4 peaks): 1.731						Corrected Ave (4 peaks): 0.477				RPD = 114*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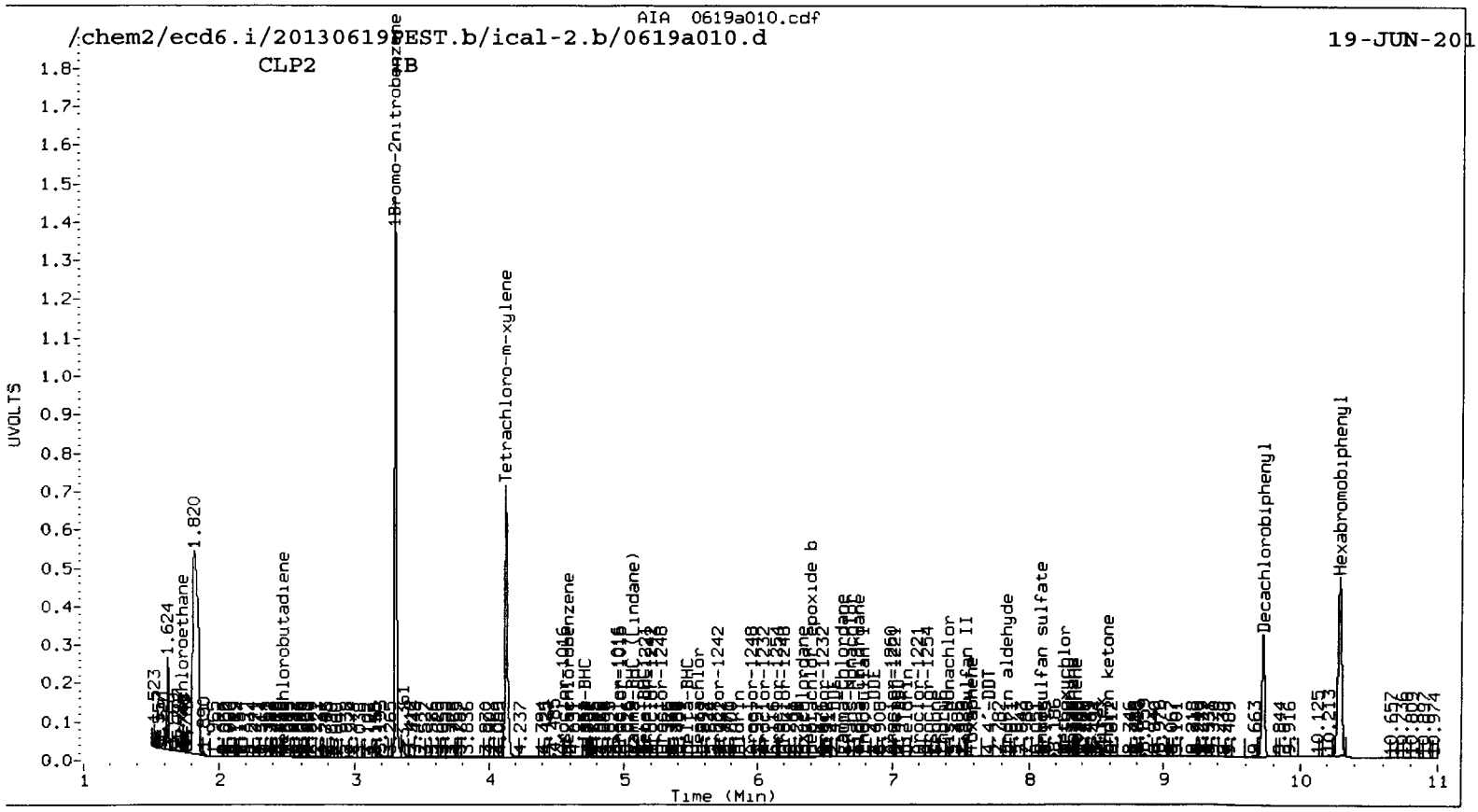
19-JUN-201
STX-CLP IB
UVOLTS
Time (Min)
1.578
1.824
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl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19-JUN-201
CLP2 IB
UVOLTS
Time (Min)
1.820
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

7E

8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20130619PEST

Analysis Date: 19-JUN-2013 17:39 Init. Calib. Date: 19-JUN-2013

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4'-DDE	6.186	95936
Endrin	6.701	6813037
4,4'-DDD	6.742	278389
4,4'-DDT	7.000	6738589
Endrin ketone	7.930	275869
Endrin aldehyde	7.284	115494

DDT Percent Breakdown = 5.3 %
((95936+278389) * 100)/(95936+278389+6738589)

Endrin Percent Breakdown = 5.4 %
((115494+275869) * 100)/(115494+275869+6813037)

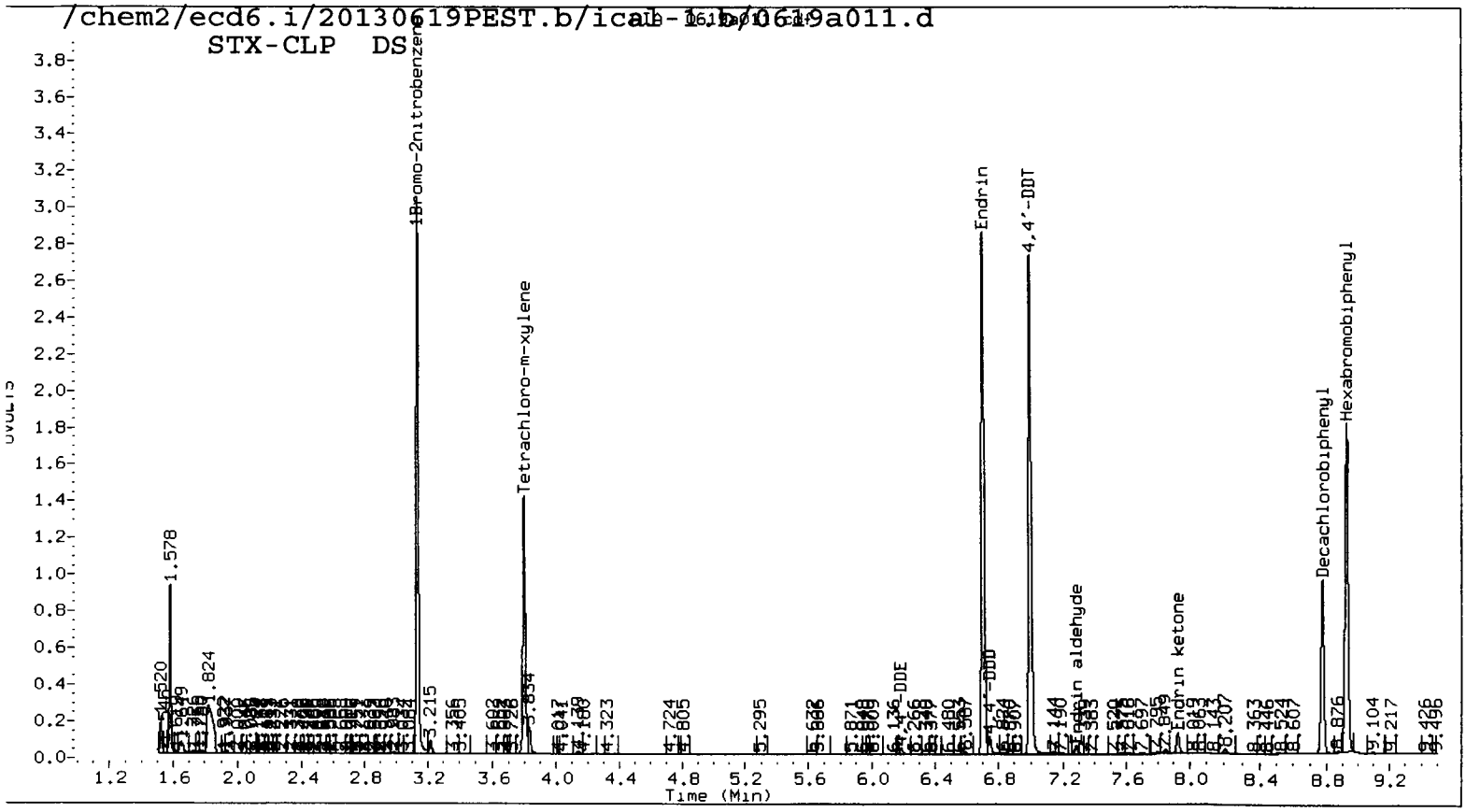
GC Column: STX-CLP2 ID: 0.53(mm)

06/25/13

COMPOUND	RT	AREA
4,4'-DDE	6.869	489895
Endrin	7.356	27988972
4,4'-DDD	7.407	1891401
4,4'-DDT	7.695	28478839
Endrin ketone	8.578	1018617
Endrin aldehyde	7.842	619288

DDT Percent Breakdown = 7.7 %
((489895+1891401) * 100)/(489895+1891401+28478839)

Endrin Percent Breakdown = 5.5 %
((619288+1018617) * 100)/(619288+1018617+27988972)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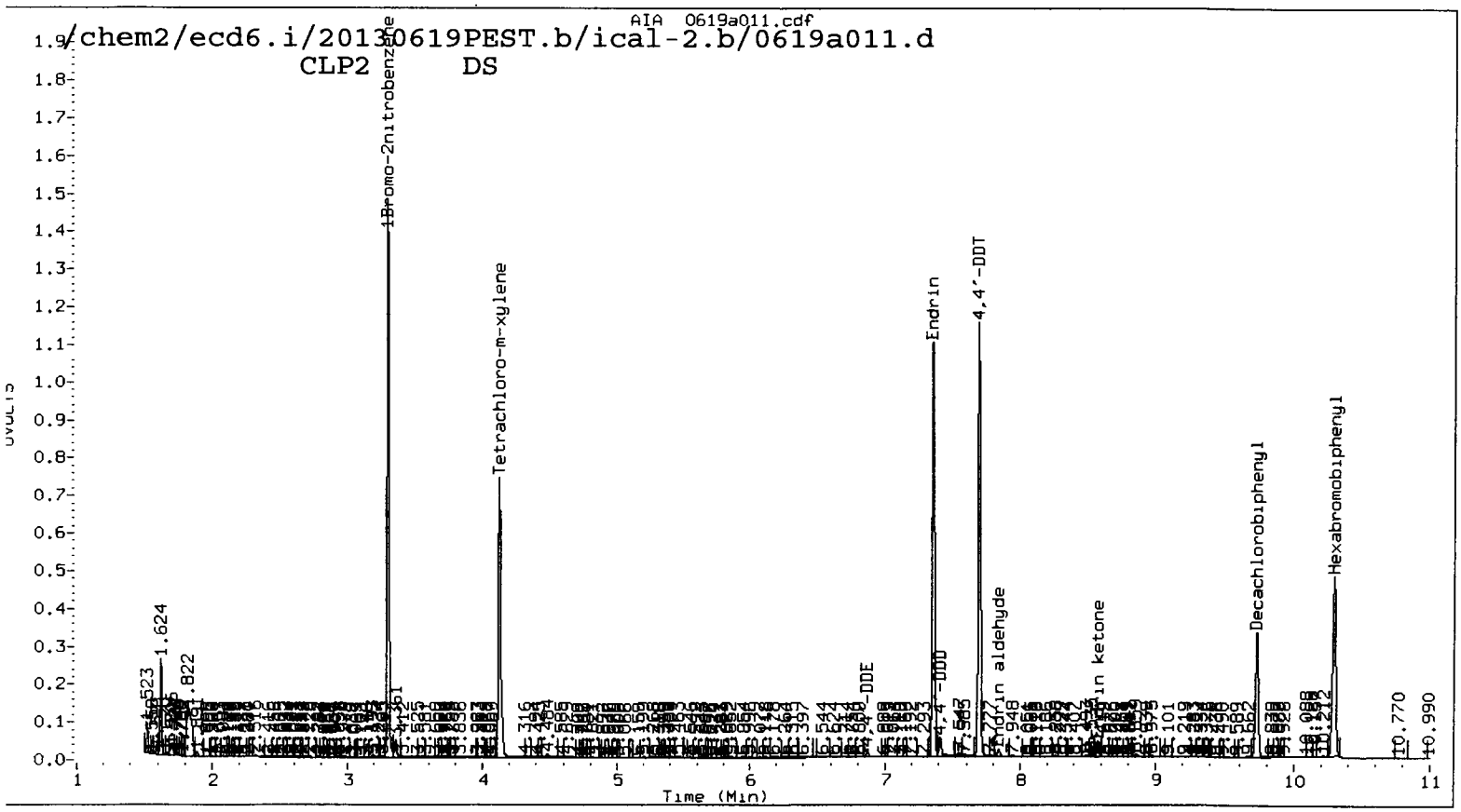
STX-CLP DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
1.578
Time (Min)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CLP2 DS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Decachlorobiphenyl
Hexabromobiphenyl
1.624
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a012.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a012.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 17:57
Compound Sublist: INDA Report Date: 06/25/2013 09:50
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.130	-0.001	5590801	3.300	0.000	28320361	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	2197479	4.709	-0.001	13152047	19.5983	19.4383	0.8	alpha-BHC
4.645	0.001	835510	5.138	0.000	5099619	18.4728	17.3979	6.0	beta-BHC
4.814	0.001	1911138	5.449	-0.001	11322606	19.6853	19.4141	1.4	delta-BHC
4.569	0.000	1983131	5.066	-0.001	11521601	19.3979	19.2581	0.7	gamma-BHC (Lindane)
5.014	0.000	1872342	5.529	-0.001	10807405	19.0846	18.6236	2.4	Heptachlor
5.307	0.000	1831236	5.867	0.000	10223350	19.2639	18.6089	3.5	Aldrin
5.882	0.000	1656941	6.422	0.000	8941275	18.8014	17.8576	5.1	Heptachlor epoxide b
6.260	0.000	1541002	6.809	0.000	8296243	18.7074	18.4391	1.4	Endosulfan I
6.482	0.000	3329129	7.066	-0.001	16340234	38.2478	35.9857	6.1	Dieldrin
6.183	-0.001	2461228	6.868	-0.002	16694923	37.1669	36.5223	1.7	4,4'-DDE
6.701	0.000	2819551	7.355	-0.001	12511920	38.4140	36.8761	4.1	Endrin
6.906	0.001	2775029	7.544	-0.001	13012156	38.0841	36.6083	4.0	Endosulfan II
6.741	0.001	2680166	7.407	0.000	13189613	38.2390	36.1096	5.7	4,4'-DDD
7.674	0.000	2428615	8.087	0.000	11059493	37.7476	36.5472	3.2	Endosulfan sulfate
6.999	0.001	2658216	7.695	0.000	11832997	38.4799	36.5617	5.1	4,4'-DDT
7.425	0.000	5893323	8.277	-0.005	21549834	180.2526	178.9147	0.7	Methoxychlor
7.930	0.000	2942761	8.578	-0.001	11106420	36.8347	36.7234	0.3	Endrin ketone
7.284	0.000	2165447	7.842	-0.001	9820893	37.5991	35.9909	4.4	Endrin aldehyde
6.002	0.000	1724732	6.604	0.000	9531588	19.0513	18.0885	5.2	gamma-Chlordane
6.126	0.000	1657348	6.742	0.000	8851820	18.8082	18.3243	2.6	alpha-Chlordane
2.311	-0.001	2291552	2.467	-0.002	11051717	18.6525	18.8532	1.1	Hexachlorobutadiene
4.140	0.001	1618855	4.586	0.000	10114339	18.1471	18.1305	0.1	Hexachlorobenzene
8.927	0.000	4870538	10.289	0.001	16454599	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	2864775	4.127	-0.002	17352669	37.7374	37.0454	1.9	Tetrachloro-m-xylen
8.777	-0.001	2234017	9.725	0.000	9610334	36.4437	36.1314	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.3	92.6	92.6~	115- 0
Decachlorobiphenyl	91.1	90.3	90.3~	115- 0

~ Indicates recovery outside QC Limits

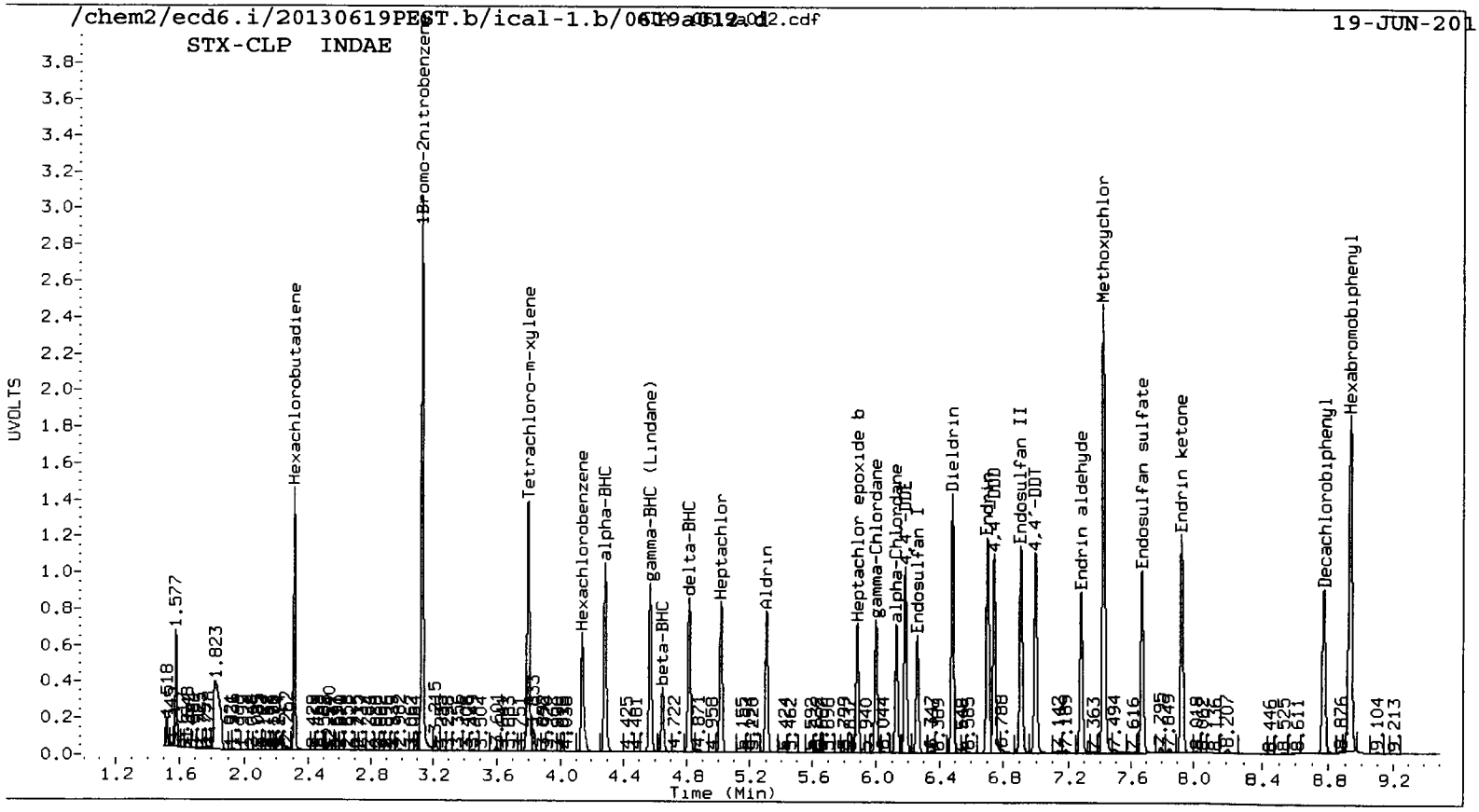
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5590801	5590801	0.0
Hexabromobiphenyl	4870538	4870538	0.0

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	28320361	28320361	0.0
Hexabromobiphenyl	16454599	16454599	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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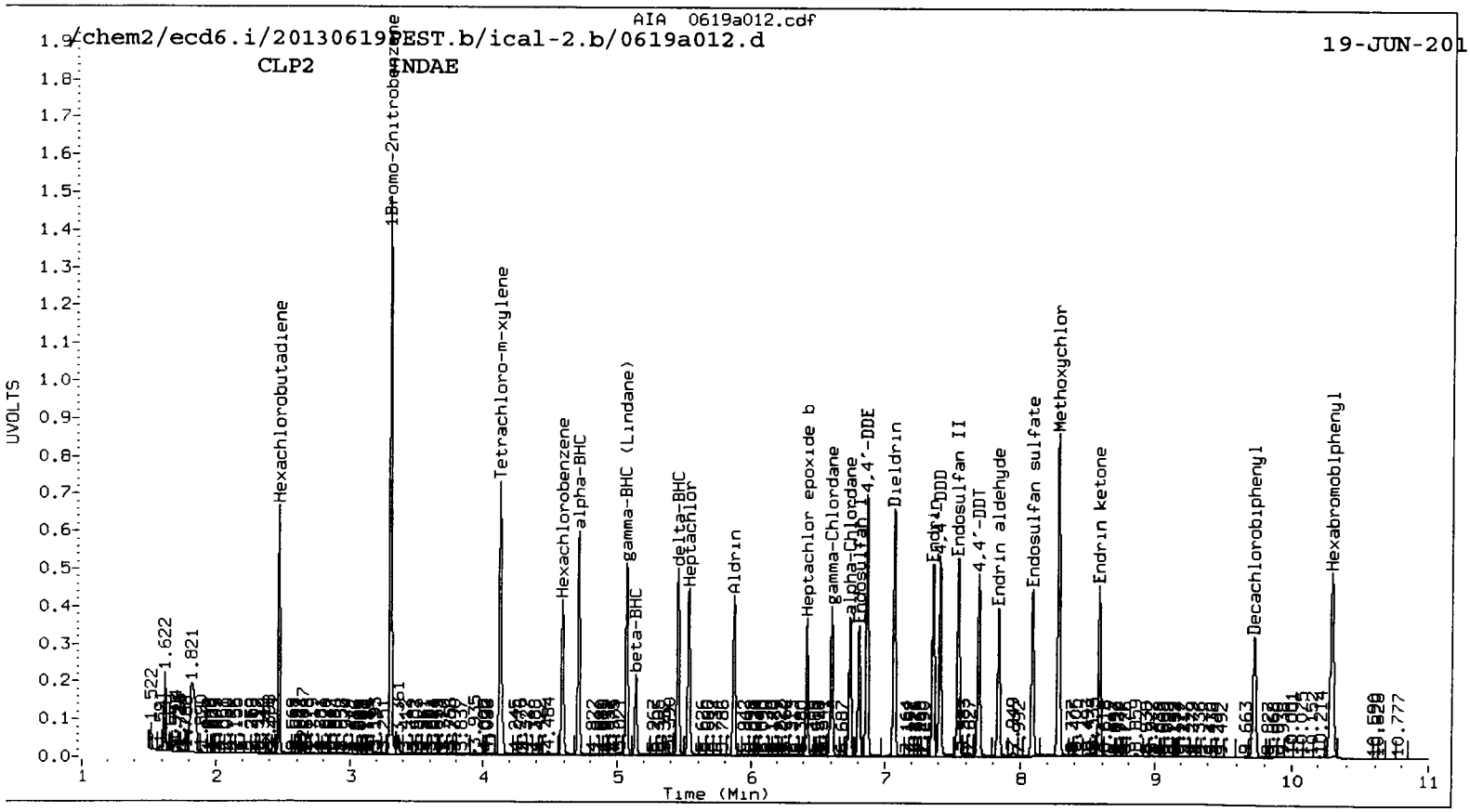
STX-CLP INDAE
19-JUN-201
UVOLTS
Time (Min)
1.577
1.823
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 INDAE
19-JUN-201
UVOLTS
Time (Min)
1.622
1.821
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a013.d ARI ID: INDAA
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a013.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 18:14
Compound Sublist: INDA Report Date: 06/25/2013 09:50
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.130	-0.001	5443407	3.300	0.000	27626455	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	131311	4.709	-0.001	816134	1.2028	1.2365	2.8	alpha-BHC
4.646	0.002	61465	5.139	0.001	457221	1.3958	1.5990	13.6	beta-BHC
4.815	0.002	111484	5.450	0.000	711469	1.1794	1.2506	5.9	delta-BHC
4.568	0.000	122386	5.065	-0.001	741566	1.2295	1.2706	3.3	gamma-BHC (Lindane)
5.014	-0.001	124272	5.528	-0.001	834093	1.3010	1.4734	12.4	Heptachlor
5.307	0.000	117450	5.866	-0.001	791691	1.2690	1.4773	15.2	Aldrin
5.882	0.000	116637	6.421	-0.001	784226	1.3593	1.6056	16.6	Heptachlor epoxide b
6.259	-0.001	110155	6.808	-0.001	655773	1.3735	1.4941	8.4	Endosulfan I
6.482	-0.001	218954	7.066	-0.002	1380894	2.5836	3.1175	18.7	Dieldrin
6.184	0.000	172469	6.869	-0.001	1326712	2.6750	2.9753	10.6	4,4'-DDE
6.701	0.000	188353	7.355	-0.001	955890	2.6276	2.8816	9.2	Endrin
6.907	0.001	190654	7.544	-0.001	991338	2.6791	2.8527	6.3	Endosulfan II
6.743	0.003	178398	7.408	0.001	1060462	2.6062	2.9696	13.0	4,4'-DDD
7.675	0.000	167119	8.087	-0.001	870793	2.6597	2.9433	10.1	Endosulfan sulfate
7.000	0.002	171062	7.694	0.000	878337	2.5355	2.7759	9.0	4,4'-DDT
7.425	0.001	452591	8.277	-0.005	1836243	14.1742	15.5933	9.5	Methoxychlor
7.929	0.000	218694	8.577	-0.001	823887	2.8029	2.7864	0.6	Endrin ketone
7.284	0.001	152510	7.841	-0.001	796663	2.7114	2.9862	9.6	Endrin aldehyde
6.002	0.000	114356	6.604	-0.001	789869	1.2974	1.5366	16.9	gamma-Chlordane
6.127	0.000	115059	6.741	-0.001	692681	1.3411	1.4699	9.2	alpha-Chlordane
2.310	-0.002	161818	2.467	-0.002	766383	1.3528	1.3402	0.9	Hexachlorobutadiene
4.141	0.001	126395	4.586	0.000	820221	1.4552	1.5072	3.5	Hexachlorobenzene
8.927	-0.001	4756712	10.288	0.000	16087272	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	196648	4.127	-0.002	1321445	2.6606	2.8919	8.3	Tetrachloro-m-xylene
8.777	-0.001	168517	9.724	-0.001	741403	2.8148	2.8511	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	6.7	7.2	6.7~	115- 0
Decachlorobiphenyl	7.0	7.1	7.0~	115- 0

~ Indicates recovery outside QC Limits

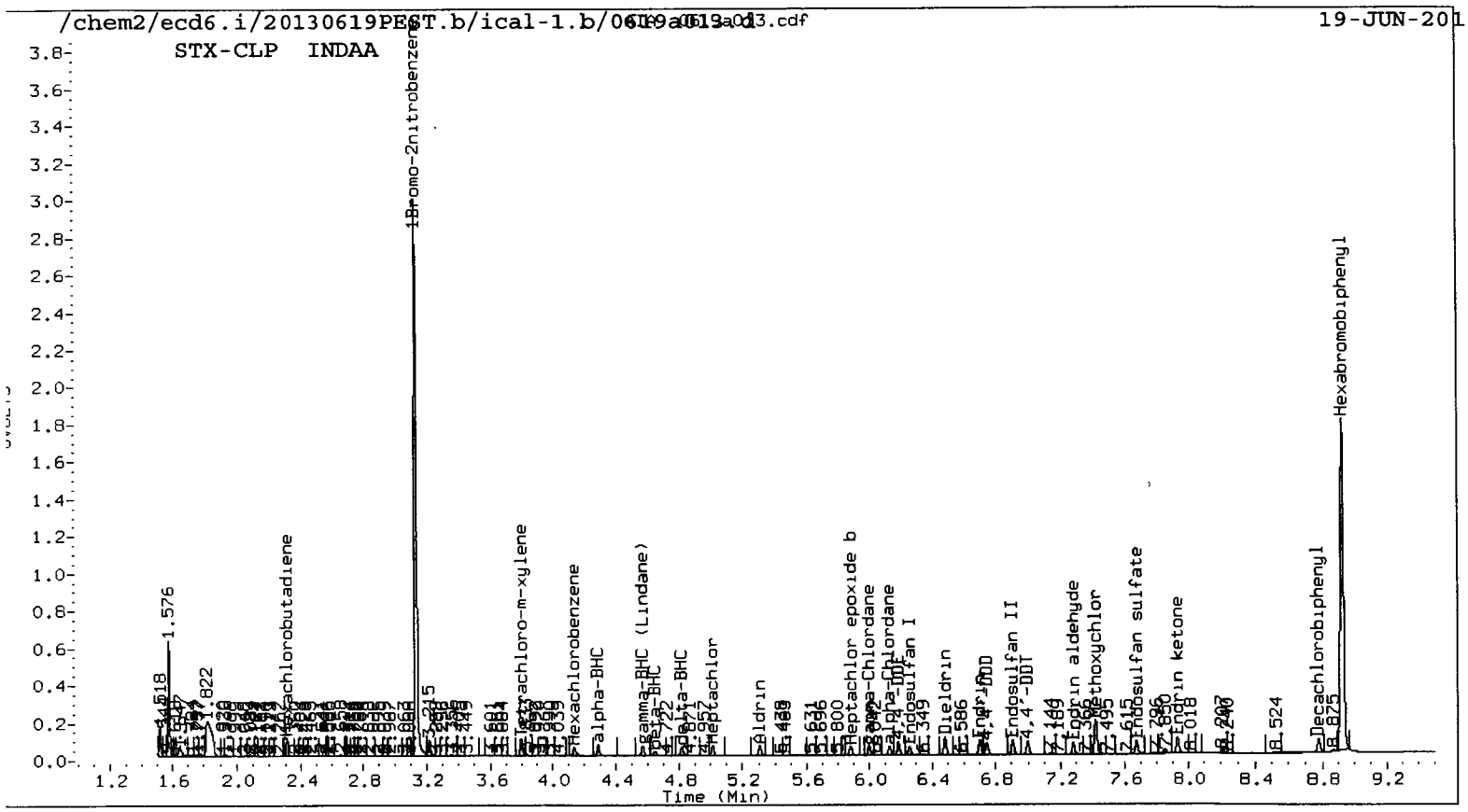
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	%D
Bromo-Nitrobenzene	5590801	5443407	-2.6
Hexabromobiphenyl	4870538	4756712	-2.3

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	%D
Bromo-Nitrobenzene	28320361	27626455	-2.5
Hexabromobiphenyl	16454599	16087272	-2.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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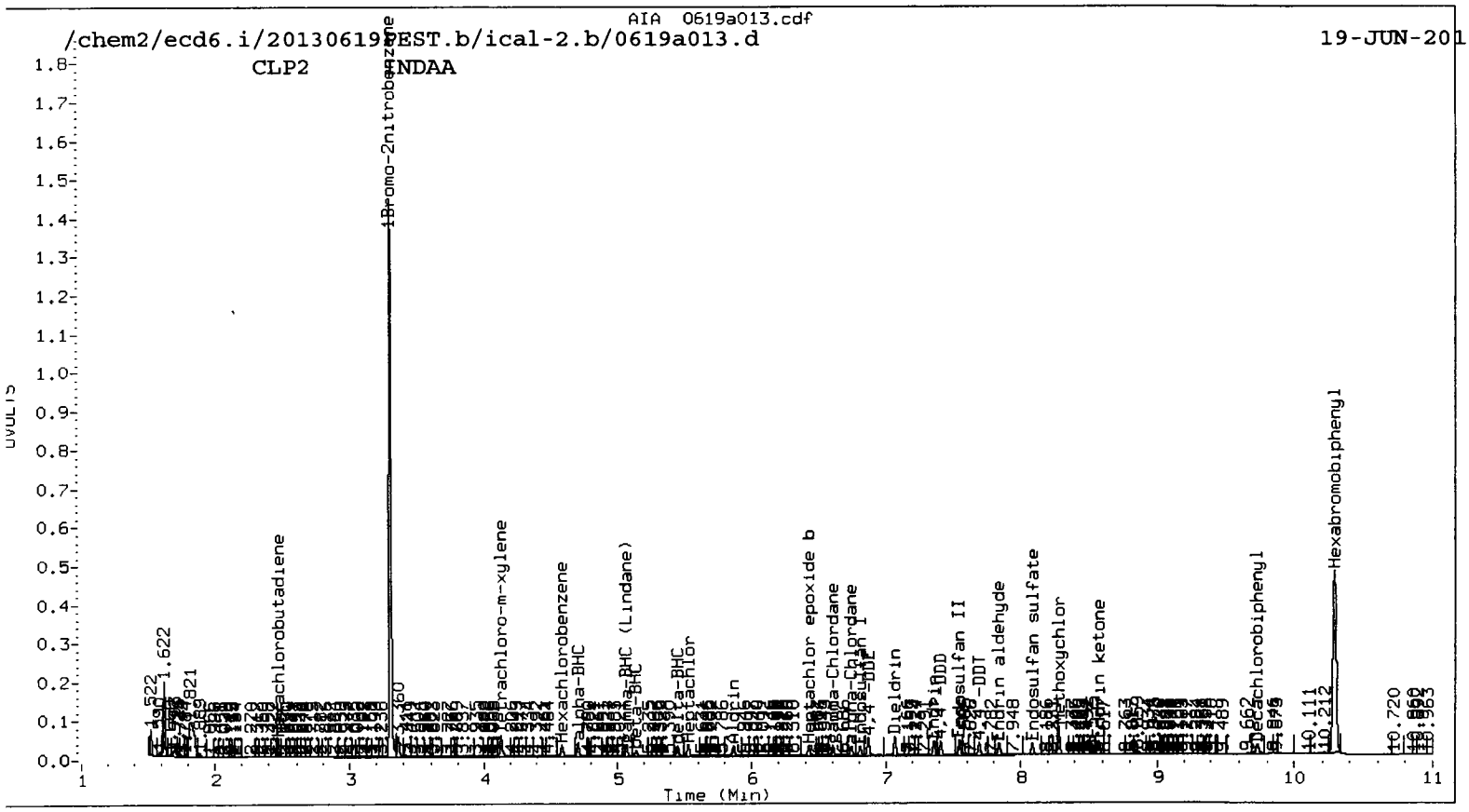
STX-CLP INDAA
Time (Min)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19-JUN-201
CLP2 INDAA
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a014.d ARI ID: INDAB
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a014.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 18:32
Compound Sublist: INDA Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.131	-0.001	5578569	3.300	0.001	28124817	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	271034	4.709	-0.001	1721306	2.4225	2.5617	5.6	alpha-BHC
4.646	0.002	120984	5.139	0.001	843735	2.6808	2.8985	7.8	beta-BHC
4.815	0.002	233196	5.450	0.000	1461179	2.4073	2.5228	4.7	delta-BHC
4.569	0.000	253061	5.065	-0.001	1513233	2.4807	2.5469	2.6	gamma-BHC (Lindane)
5.015	0.000	252765	5.529	-0.001	1578669	2.5821	2.7393	5.9	Heptachlor
5.307	0.000	240632	5.867	-0.001	1464165	2.5369	2.6837	5.6	Aldrin
5.883	0.000	232952	6.421	-0.001	1441216	2.6491	2.8984	9.0	Heptachlor epoxide b
6.259	0.000	219902	6.809	0.000	1245281	2.6754	2.7870	4.1	Endosulfan I
6.482	0.000	452509	7.065	-0.002	2553673	5.2102	5.6630	8.3	Dieldrin
6.183	-0.001	342779	6.869	-0.001	2565531	5.1876	5.6514	8.6	4,4'-DDE
6.700	-0.001	387178	7.355	-0.001	1913011	5.2672	5.6595	7.2	Endrin
6.907	0.001	385932	7.544	-0.001	1963811	5.2886	5.5459	4.7	Endosulfan II
6.743	0.003	365453	7.407	0.001	2044731	5.2064	5.6191	7.6	4,4'-DDD
7.674	0.000	340604	8.086	-0.001	1682393	5.2861	5.5807	5.4	Endosulfan sulfate
7.000	0.002	353629	7.694	0.000	1737896	5.1115	5.3901	5.3	4,4'-DDT
7.425	0.001	903724	8.277	-0.005	3624930	27.6004	30.2095	9.0	Methoxychlor
7.930	0.000	429848	8.577	-0.001	1639454	5.3725	5.4414	1.3	Endrin ketone
7.284	0.000	309578	7.841	-0.001	1548519	5.3673	5.6964	5.9	Endrin aldehyde
6.002	0.000	231407	6.604	-0.001	1443449	2.5617	2.7583	7.4	gamma-Chlordane
6.126	0.000	229315	6.742	0.000	1313218	2.6081	2.7374	4.8	alpha-Chlordane
2.311	-0.001	318581	2.468	-0.002	1559023	2.5988	2.6780	3.0	Hexachlorobutadiene
4.141	0.002	241429	4.587	0.000	1545377	2.7123	2.7894	2.8	Hexachlorobenzene
8.927	0.000	4877747	10.289	0.001	16392538	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.001	395058	4.127	-0.001	2617199	5.2155	5.6262	7.6	Tetrachloro-m-xylene
8.777	-0.001	335277	9.725	0.000	1455538	5.4613	5.4930	0.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	13.0	14.1	13.0~	115- 0
Decachlorobiphenyl	13.7	13.7	13.7~	115- 0

~ Indicates recovery outside QC Limits

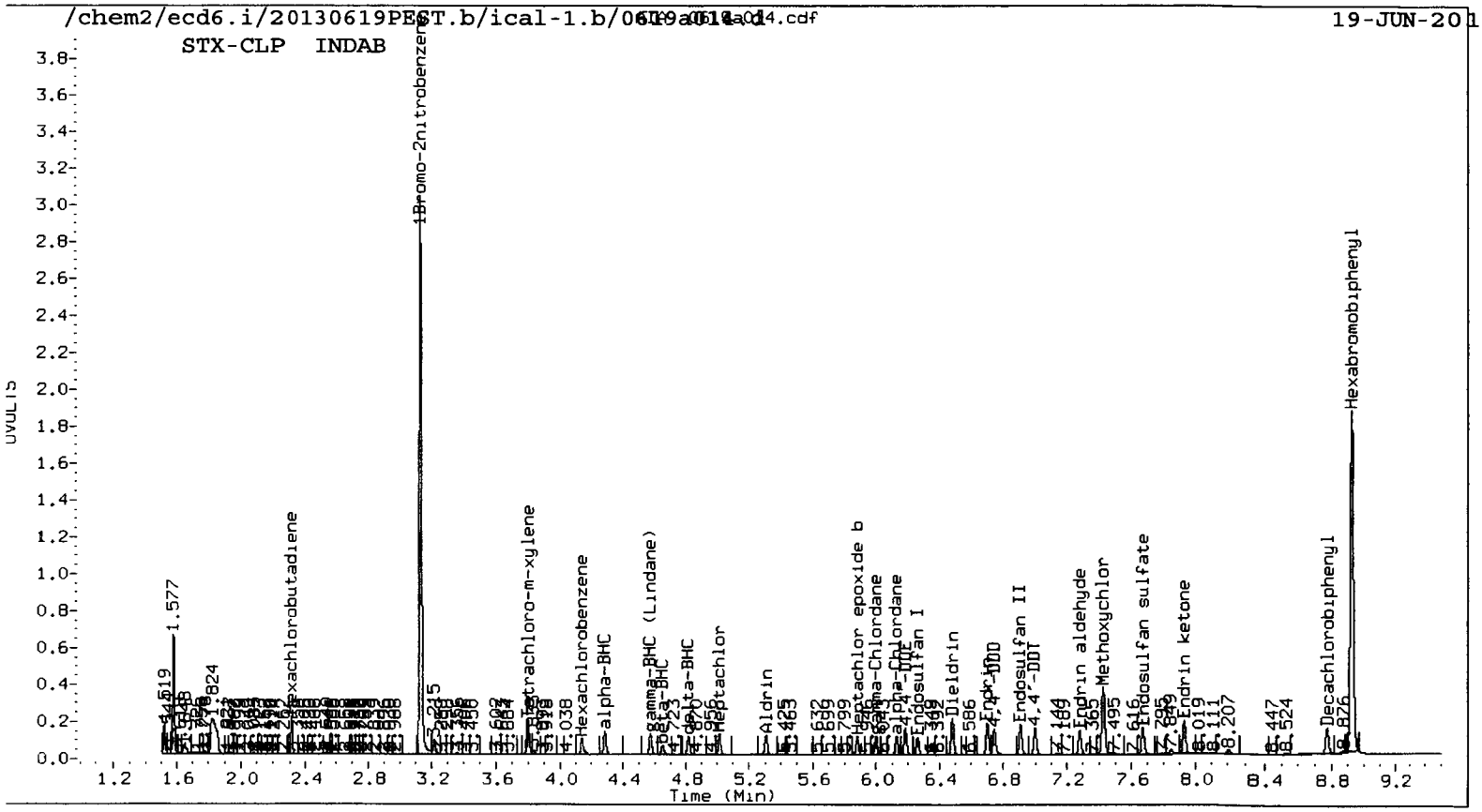
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5590801	5578569	-0.2
Hexabromobiphenyl	4870538	4877747	0.1

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	28320361	28124817	-0.7
Hexabromobiphenyl	16454599	16392538	-0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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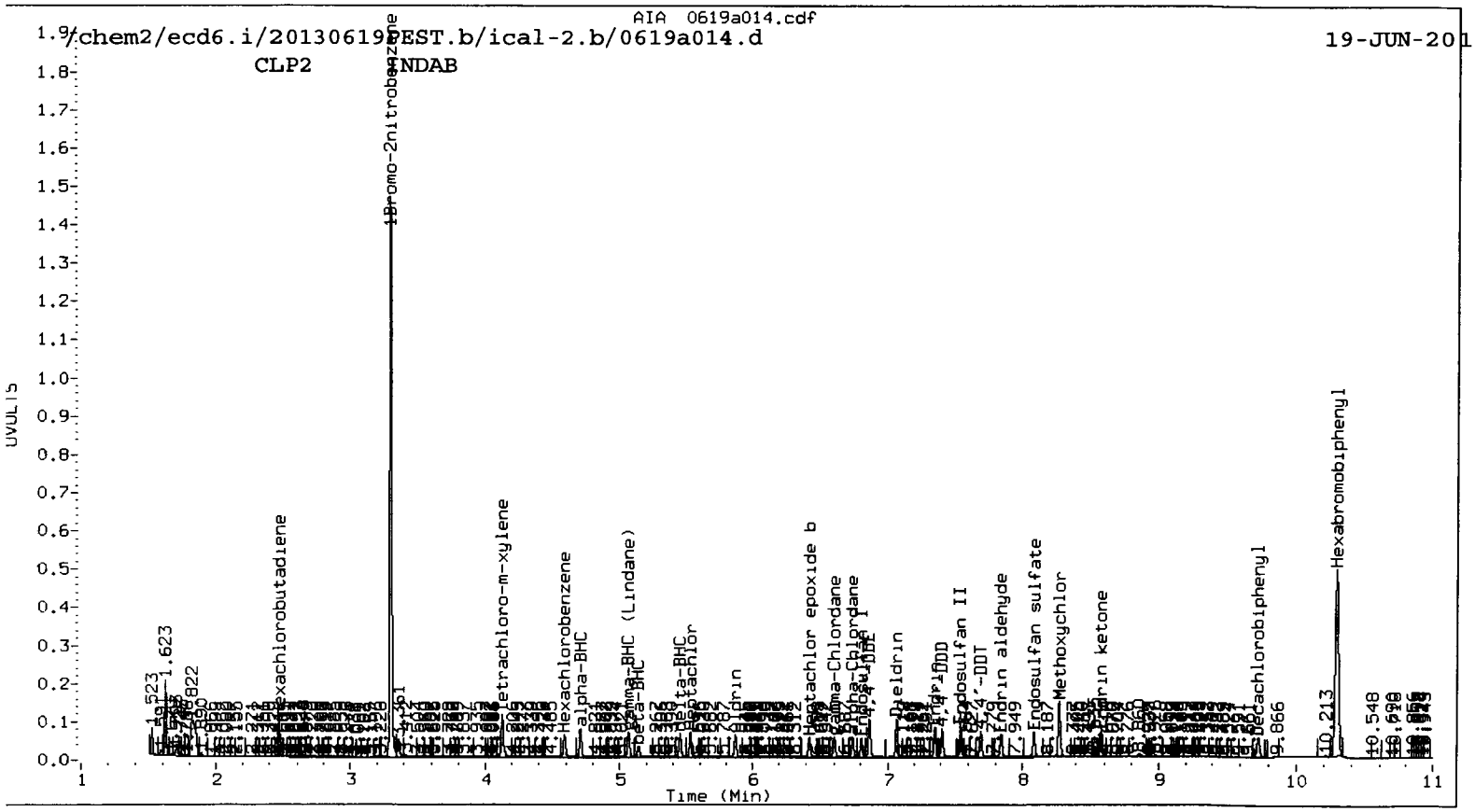
0619a014.cdf
19-JUN-201
STX-CLP INDAB
UVVOLTS
Time (Min)
1.577
1-Bromo-2-nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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19-JUN-201
CLP2 INDAB
UVVOLTS
Time (Min)
1.623
1-Bromo-2-nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a015.d ARI ID: INDAC
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a015.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 18:50
Compound Sublist: INDA Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.130	-0.001	5651084	3.299	0.000	28473248	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	533404	4.709	-0.001	3310204	4.7064	4.8661	3.3	alpha-BHC
4.645	0.001	222104	5.139	0.000	1443860	4.8583	4.8994	0.8	beta-BHC
4.815	0.001	456403	5.449	-0.001	2797279	4.6509	4.7706	2.5	delta-BHC
4.568	0.000	489737	5.065	-0.001	2903570	4.7392	4.8272	1.8	gamma-BHC (Lindane)
5.014	-0.001	484132	5.528	-0.001	2965857	4.8821	5.0834	4.0	Heptachlor
5.307	-0.001	460422	5.866	-0.001	2734717	4.7918	4.9511	3.3	Aldrin
5.882	-0.001	434196	6.420	-0.002	2499209	4.8743	4.9646	1.8	Heptachlor epoxide b
6.259	-0.001	406962	6.808	-0.001	2263684	4.8877	5.0042	2.4	Endosulfan I
6.482	-0.001	864291	7.065	-0.002	4719193	9.8238	10.3371	5.1	Dieldrin
6.182	-0.002	639222	6.868	-0.002	4712850	9.5499	10.2546	7.1	4,4'-DDE
6.700	-0.001	739889	7.355	-0.002	3566322	9.9981	10.4737	4.6	Endrin
6.906	0.000	735342	7.544	-0.002	3664235	10.0093	10.2723	2.6	Endosulfan II
6.742	0.002	701003	7.407	0.000	3740522	9.9198	10.2042	2.8	4,4'-DDD
7.674	-0.001	640784	8.087	-0.001	3049684	9.8783	10.0422	1.6	Endosulfan sulfate
6.999	0.001	679878	7.694	0.000	3282418	9.7614	10.1061	3.5	4,4'-DDT
7.424	0.000	1639957	8.277	-0.005	6401010	49.7500	52.9550	6.2	Methoxychlor
7.929	0.000	797409	8.577	-0.002	3061655	9.8997	10.0874	1.9	Endrin ketone
7.283	0.000	579846	7.841	-0.001	2765107	9.9858	10.0974	1.1	Endrin aldehyde
6.002	-0.001	435922	6.603	-0.001	2600459	4.7638	4.9085	3.0	gamma-Chlordane
6.126	-0.001	427644	6.741	-0.002	2403332	4.8013	4.9485	3.0	alpha-Chlordane
2.311	-0.001	609169	2.467	-0.002	2969940	4.9055	5.0392	2.7	Hexachlorobutadiene
4.141	0.001	441722	4.586	0.000	2792079	4.8988	4.9781	1.6	Hexachlorobenzene
8.926	-0.001	4910634	10.289	0.000	16513179	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	753339	4.127	-0.002	4866543	9.8178	10.3336	5.1	Tetrachloro-m-xylene
8.776	-0.001	609208	9.724	-0.001	2676119	9.8569	10.0256	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	24.5	25.8	24.5~	115- 0
Decachlorobiphenyl	24.6	25.1	24.6~	115- 0

~ Indicates recovery outside QC Limits

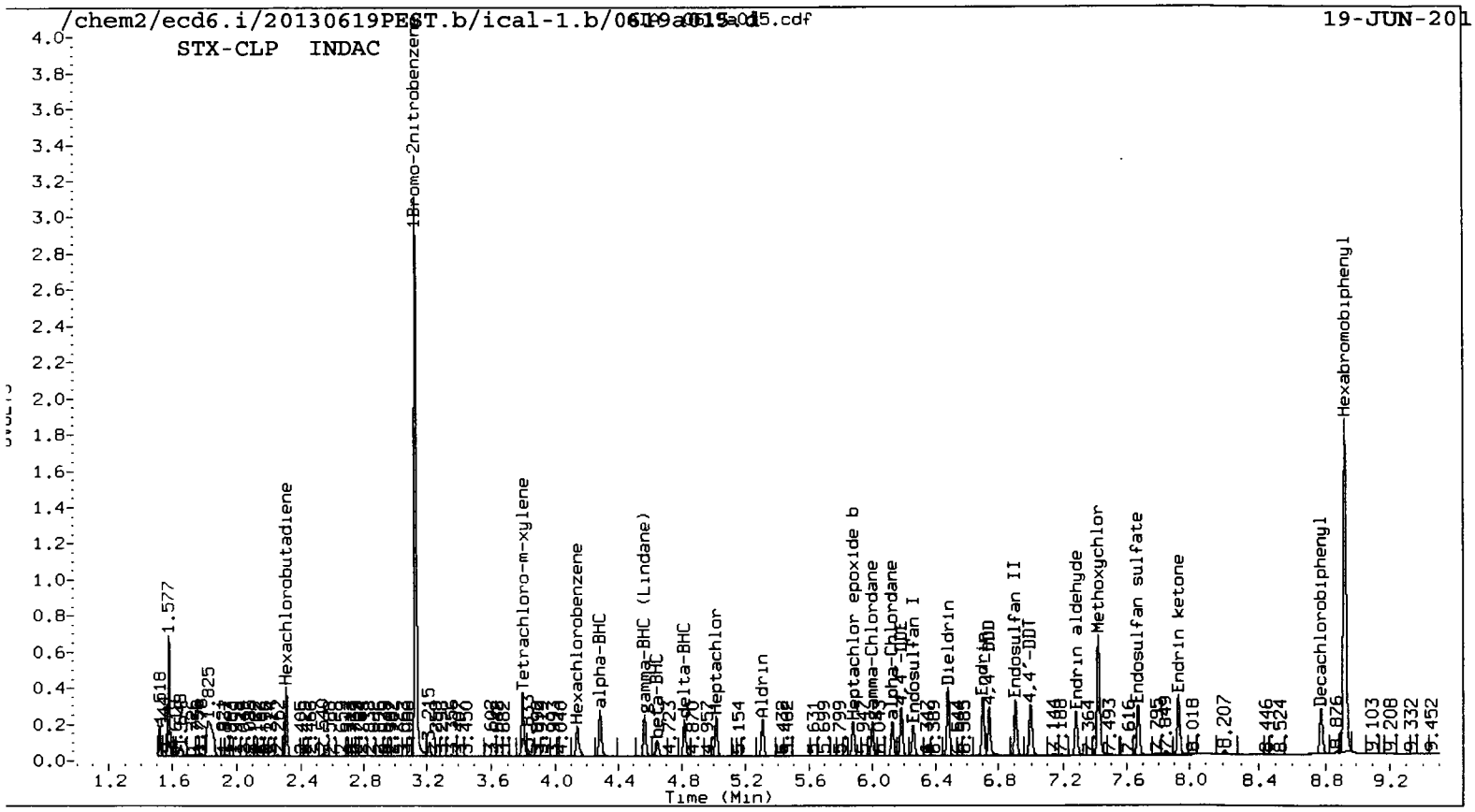
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D
Bromo-Nitrobenzene	5590801	5651084	1.1
Hexabromobiphenyl	4870538	4910634	0.8

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D
Bromo-Nitrobenzene	28320361	28473248	0.5
Hexabromobiphenyl	16454599	16513179	0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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19-JUN-201
STX-CLP INDAC
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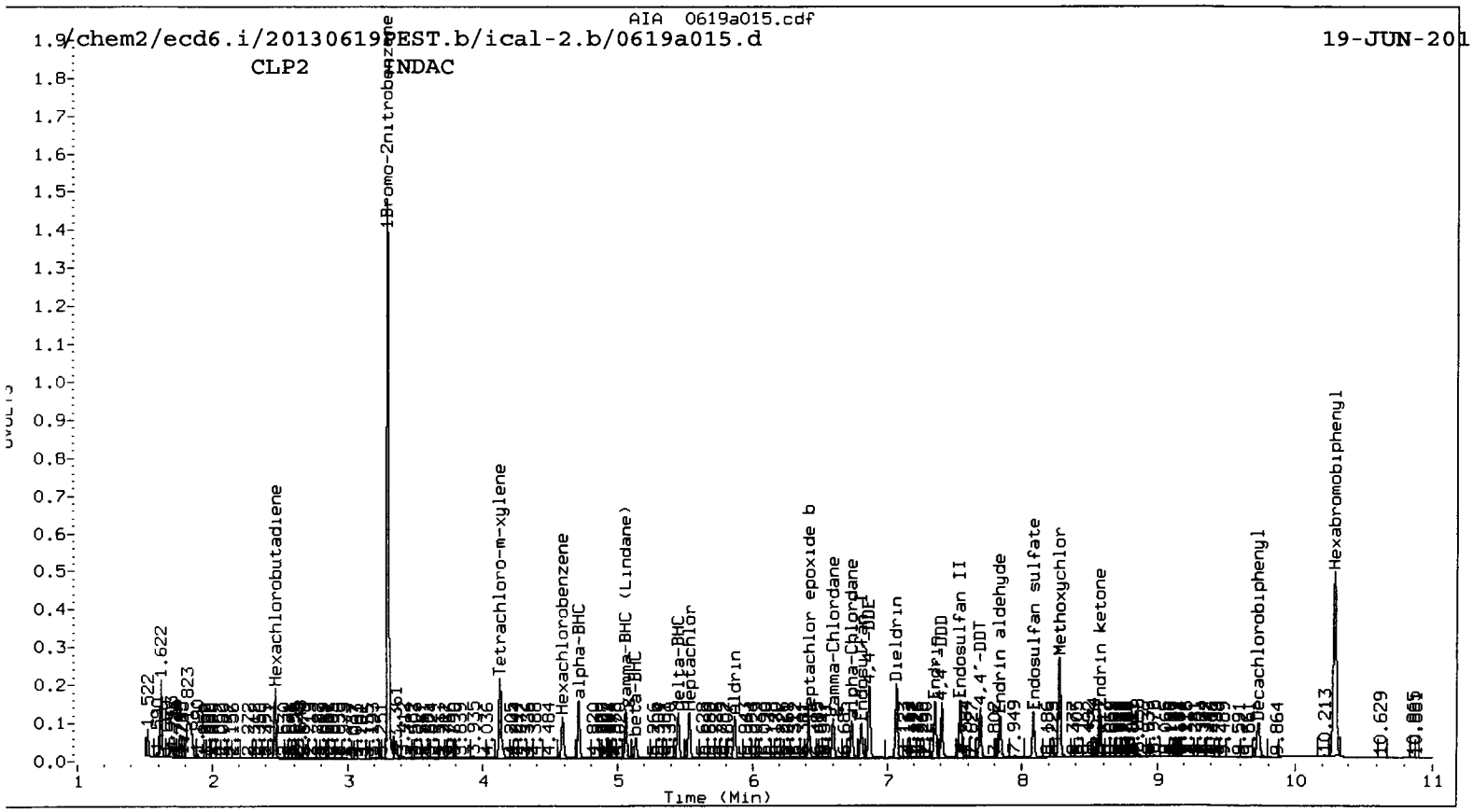
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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19-JUN-201
CLP2 INDAC
1.622
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a016.d ARI ID: INDAD
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a016.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 19:08
Compound Sublist: INDA Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.130	-0.002	5597417	3.299	0.000	28402073	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	-0.001	1166684	4.708	-0.002	7173359	10.3928	10.5715	1.7	alpha-BHC
4.645	0.001	457904	5.138	0.000	2870240	10.1121	9.7639	3.5	beta-BHC
4.814	0.000	1008727	5.449	-0.001	6128970	10.3779	10.4787	1.0	delta-BHC
4.568	0.000	1059355	5.065	-0.002	6285992	10.3498	10.4767	1.2	gamma-BHC (Lindane)
5.014	-0.001	1021731	5.528	-0.001	6128452	10.4021	10.5303	1.2	Heptachlor
5.306	-0.001	993823	5.866	-0.002	5759762	10.4423	10.4540	0.1	Aldrin
5.881	-0.001	915825	6.420	-0.002	5105747	10.3796	10.1679	2.1	Heptachlor epoxide b
6.259	-0.001	853922	6.808	-0.001	4698518	10.3541	10.4128	0.6	Endosulfan I
6.482	-0.001	1830874	7.066	-0.002	9594439	21.0097	21.0688	0.3	Dieldrin
6.182	-0.002	1336155	6.868	-0.002	9661210	20.1534	21.0743	4.5	4,4'-DDE
6.700	-0.001	1543295	7.355	-0.001	7307158	20.8231	21.2013	1.8	Endrin
6.906	0.000	1528510	7.544	-0.001	7652018	20.7745	21.1933	2.0	Endosulfan II
6.741	0.001	1448815	7.407	0.000	7715403	20.4712	20.7942	1.6	4,4'-DDD
7.674	0.000	1339229	8.087	-0.001	6329186	20.6145	20.5902	0.1	Endosulfan sulfate
6.999	0.000	1443267	7.694	-0.001	6811436	20.6908	20.7187	0.1	4,4'-DDT
7.424	0.000	3296480	8.277	-0.005	12592818	99.8523	102.9243	3.0	Methoxychlor
7.929	0.000	1647140	8.577	-0.001	6416942	20.4182	20.8876	2.3	Endrin ketone
7.283	0.000	1206079	7.841	-0.001	5680432	20.7392	20.4935	1.2	Endrin aldehyde
6.001	-0.001	935499	6.603	-0.001	5350283	10.3213	10.1242	1.9	gamma-Chlordane
6.126	-0.001	906578	6.741	-0.001	4973613	10.2760	10.2663	0.1	alpha-Chlordane
2.310	-0.002	1263182	2.467	-0.002	6269724	10.2697	10.6648	3.8	Hexachlorobutadiene
4.140	0.000	904118	4.586	-0.001	5722607	10.1230	10.2285	1.0	Hexachlorobenzene
8.927	0.000	4918023	10.289	0.001	16714534	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	1573454	4.126	-0.002	10034915	20.7024	21.3614	3.1	Tetrachloro-m-xylen
8.777	-0.001	1251738	9.725	0.000	5530544	20.2226	20.4695	1.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	51.8	53.4	51.8~	115- 0
Decachlorobiphenyl	50.6	51.2	50.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

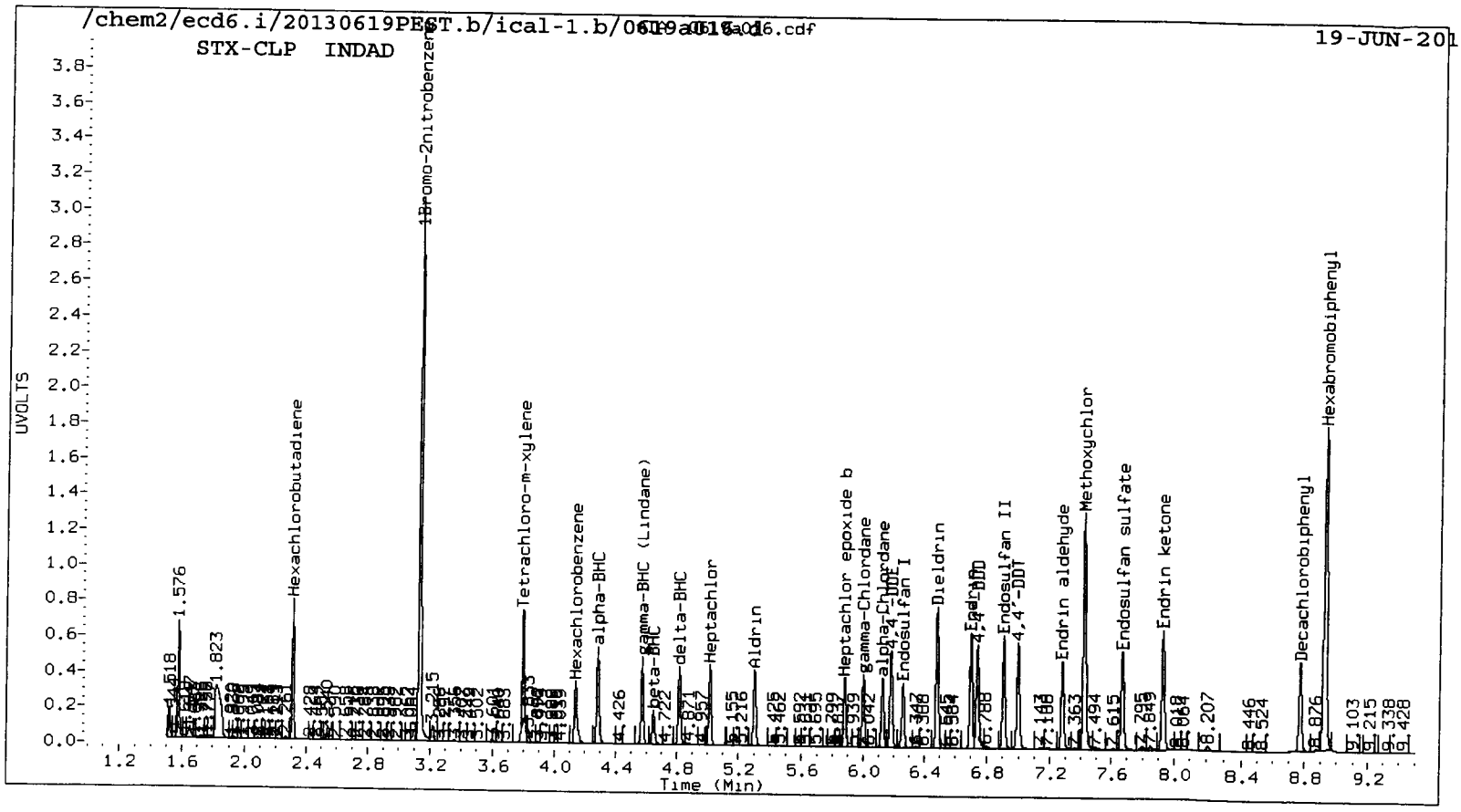
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5597417	0.1
Hexabromobiphenyl	4870538	4918023	1.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28402073	0.3
Hexabromobiphenyl	16454599	16714534	1.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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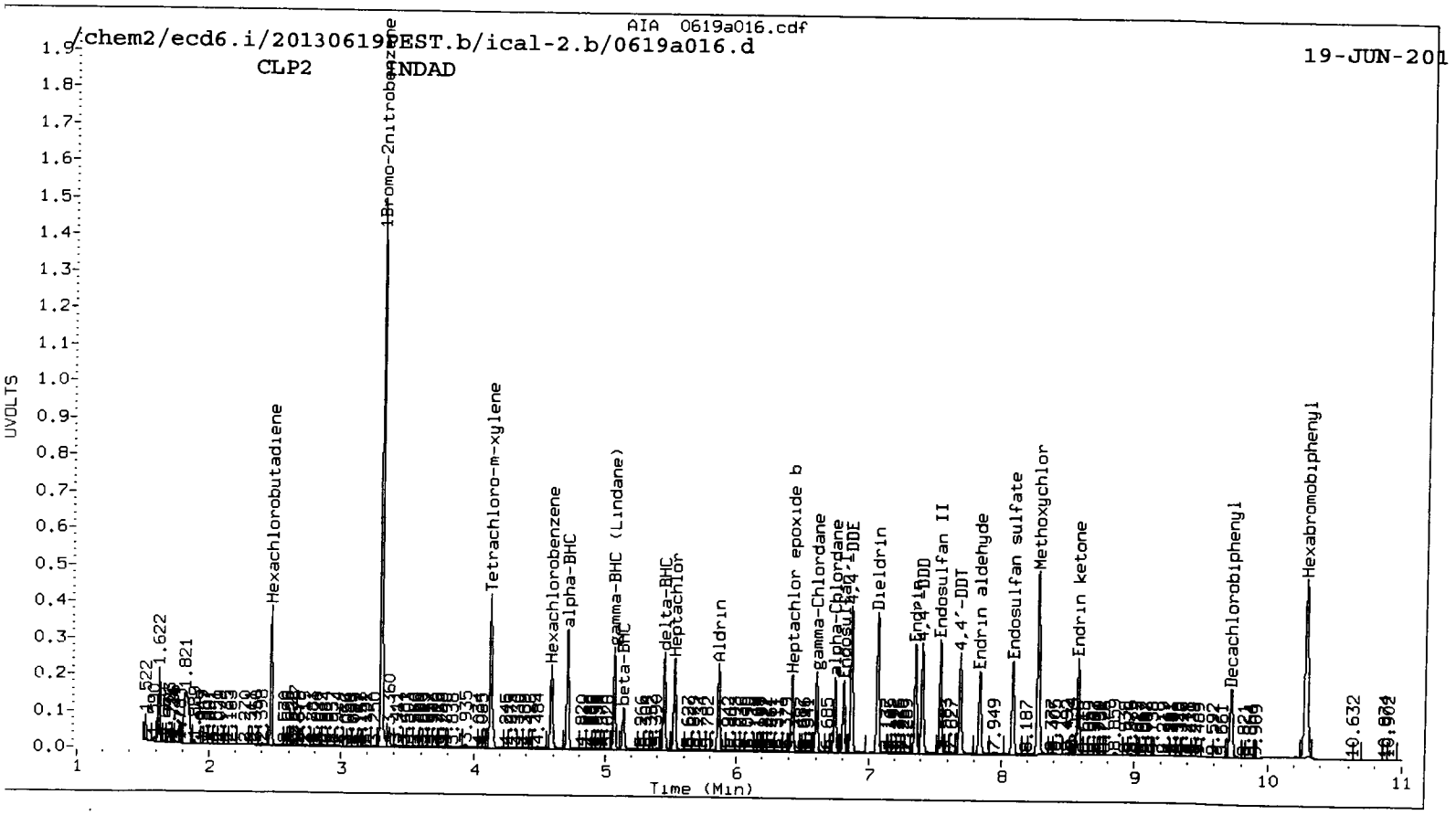
STX-CLP INDAD
19-JUN-201
UVOLTS
Time (Min)
1.576
1.823
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 INDAD
19-JUN-201
UVOLTS
Time (Min)
1.622
1.821
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a017.d ARI ID: INDAF
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a017.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar

Injection Date: 19-JUN-2013 19:26
Report Date: 06/25/2013 09:51
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.130	-0.001	5751246	3.300	0.000	29146657	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	4831430	4.709	-0.001	28062312	41.8872	40.2993	3.9	alpha-BHC
4.644	0.000	1774946	5.138	-0.001	10672180	38.1486	35.3770	7.5	beta-BHC
4.814	0.000	4238006	5.450	0.000	24182583	42.4349	40.2888	5.2	delta-BHC
4.569	0.000	4339740	5.066	-0.001	24487912	41.2647	39.7707	3.7	gamma-BHC (Lindane)
5.015	0.000	3986440	5.529	0.000	21570666	39.4998	36.1173	8.9	Heptachlor
5.307	0.000	3943610	5.867	-0.001	20842596	40.3280	36.8629	9.0	Aldrin
5.882	0.000	3490657	6.421	-0.001	17836183	38.5037	34.6127	10.6	Heptachlor epoxide
6.259	0.000	3229378	6.808	-0.001	16698987	38.1102	36.0627	5.5	Endosulfan I
6.482	0.000	6997753	7.067	0.000	32113961	78.1531	68.7187	12.8	Dieldrin
6.184	-0.001	5369897	6.869	-0.001	33502698	78.8284	71.2136	10.2	4,4'-DDE
6.700	-0.001	5893266	7.356	-0.001	25263950	76.9443	70.6293	8.6	Endrin
6.906	0.000	5801680	7.545	-0.001	27141373	76.3028	72.4309	5.2	Endosulfan II
6.740	0.000	5757700	7.406	0.000	27410859	78.7235	71.1830	10.1	4,4'-DDD
7.674	0.000	5199603	8.087	-0.001	23126577	77.4483	72.4924	6.6	Endosulfan sulfate
6.998	0.000	5779869	7.694	0.000	25567397	80.1811	74.9342	6.8	4,4'-DDT
7.424	0.000	12651909	8.277	-0.004	44409139	370.8413	349.7334	5.9	Methoxychlor
7.929	0.000	6307219	8.578	-0.001	23664020	75.6572	74.2197	1.9	Endrin ketone
7.283	0.000	4545058	7.842	-0.001	20575239	75.6274	71.5236	5.6	Endrin aldehyde
6.002	0.000	3731013	6.604	0.000	19680475	40.0629	36.2896	9.9	gamma-Chlordane
6.126	0.000	3557417	6.742	-0.001	18312770	39.2446	36.8348	6.3	alpha-Chlordane
2.311	-0.001	4900160	2.468	-0.001	23122415	38.7729	38.3265	1.2	Hexachlorobutadiene
4.140	0.000	3420199	4.586	0.000	20695310	37.2703	36.0457	3.3	Hexachlorobenzene
8.927	0.000	5082371	10.289	0.001	17347014	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	6090602	4.127	-0.002	34671082	77.9926	71.9193	8.1	Tetrachloro-m-xylen
8.777	-0.001	4813124	9.724	-0.001	20809777	75.2444	74.2124	1.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13
06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	195.0	179.8	179.8~	115- 0
Decachlorobiphenyl	188.1	185.5	185.5~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

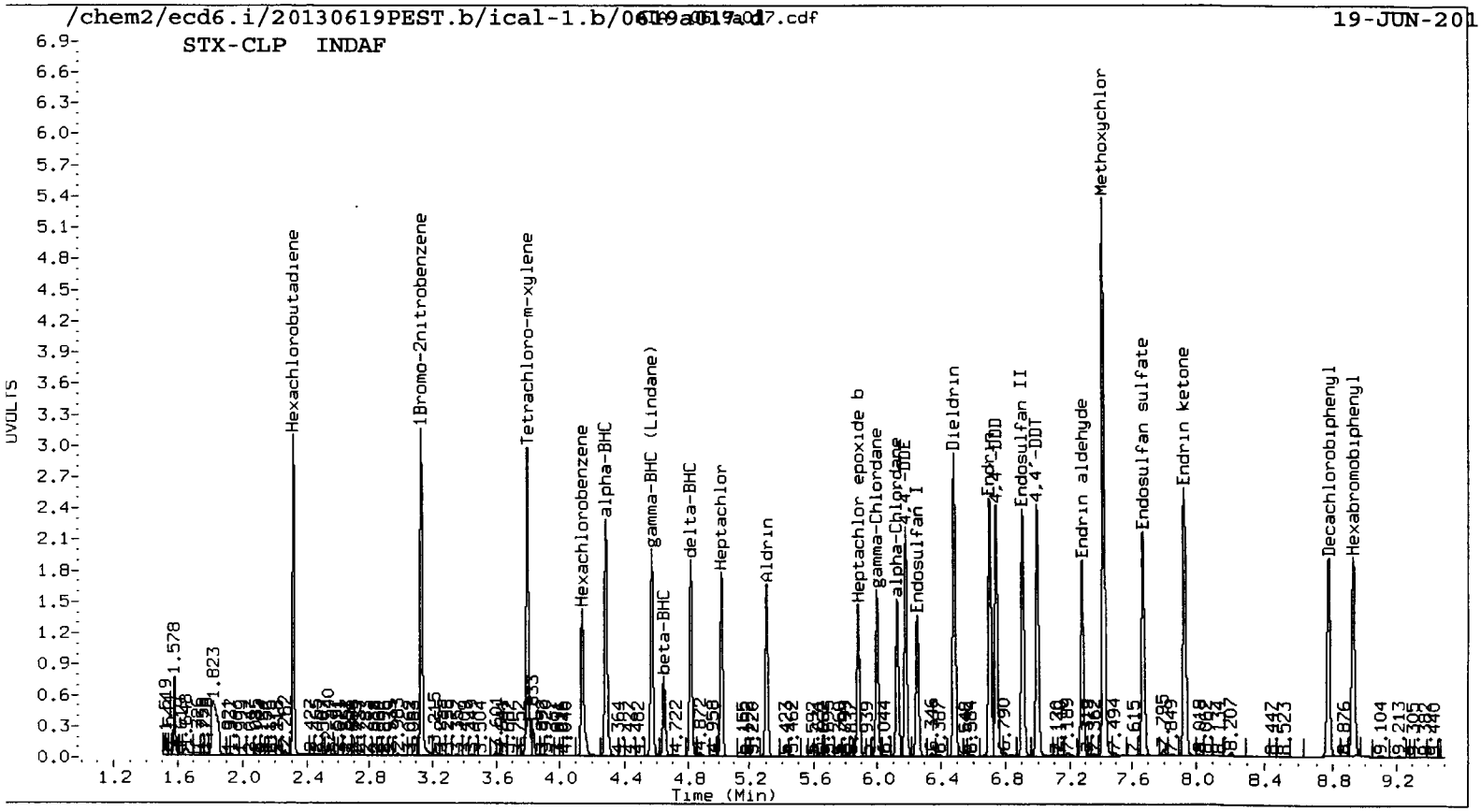
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5751246	2.9
Hexabromobiphenyl	4870538	5082371	4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29146657	2.9
Hexabromobiphenyl	16454599	17347014	5.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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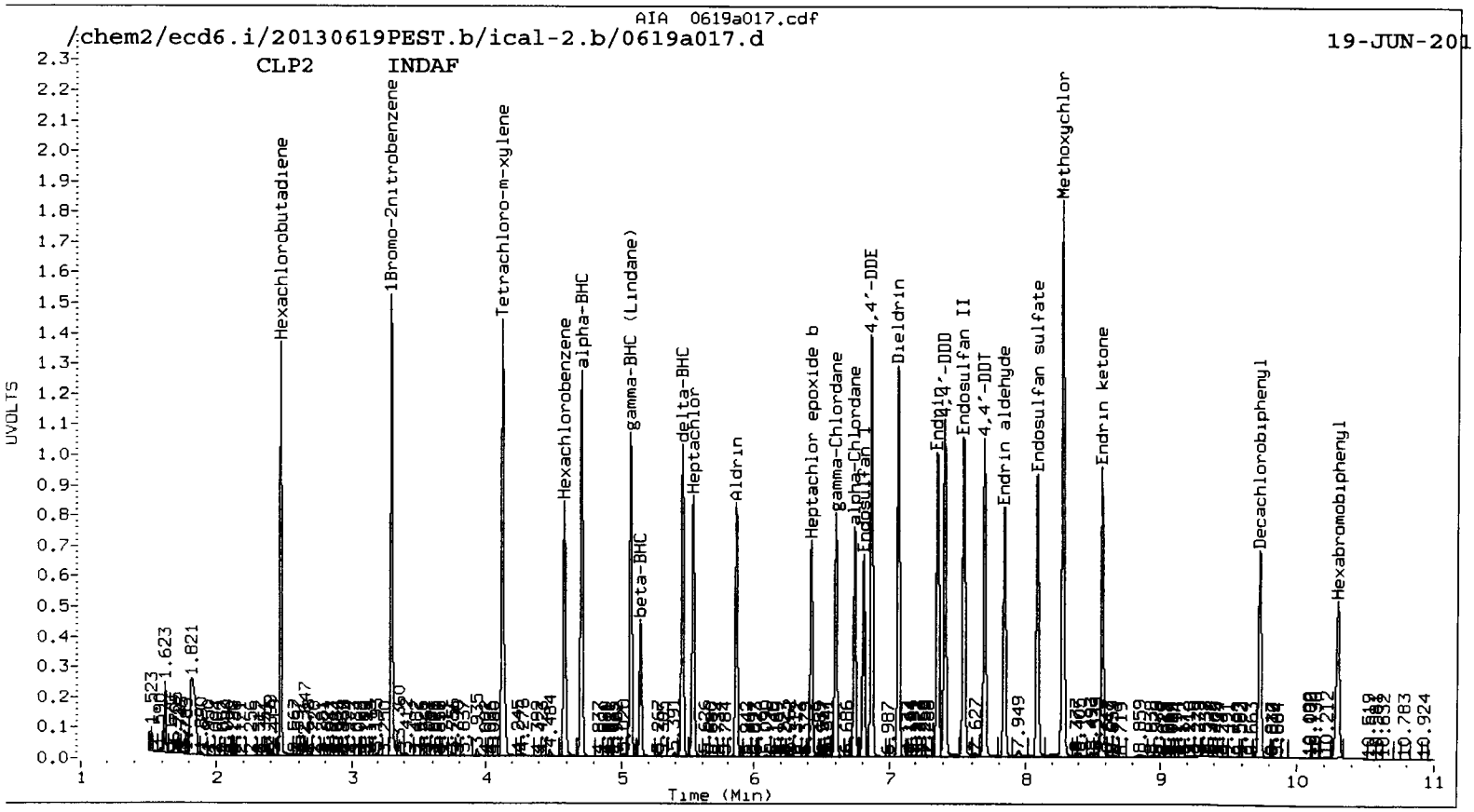
19-JUN-201
STX-CLP INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0619a017.cdf
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19-JUN-201
CLP2 INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a018.d ARI ID: INDAG
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a018.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 19:44
Compound Sublist: INDA Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.131	-0.001	5601251	3.300	0.001	28311756	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	9535674	4.710	0.000	52831349	84.8857	78.1067	8.3	alpha-BHC
4.644	0.000	3446963	5.138	0.000	19944043	76.0689	68.0618	11.1	beta-BHC
4.813	0.000	8407388	5.450	0.000	47133896	86.4369	80.8420	6.7	delta-BHC
4.569	0.000	8519760	5.066	0.000	47580501	83.1801	79.5541	4.5	gamma-BHC (Lindane)
5.015	0.000	7611890	5.529	0.000	38136107	77.4425	65.7370	16.4	Heptachlor
5.307	0.000	7589069	5.867	0.000	37658349	79.6852	68.5679	15.0	Aldrin
5.883	0.000	6621317	6.422	0.000	31564056	74.9924	63.0591	17.3	Heptachlor epoxide
6.260	0.000	6139988	6.809	0.000	29659615	74.3988	65.9410	12.1	Endosulfan I
6.483	0.000	13374054	7.067	0.000	56261276	153.3655	123.9403	21.2	Dieldrin
6.184	0.000	10777552	6.870	0.000	58288946	162.4477	127.5532	24.1	4,4'-DDE
6.701	0.000	11315372	7.356	0.000	45268029	149.1881	128.5208	14.9	Endrin
6.906	0.000	11144702	7.545	0.000	49724483	148.0130	134.7600	9.4	Endosulfan II
6.740	0.000	11132759	7.407	0.000	50700725	153.7104	133.7107	13.9	4,4'-DDD
7.674	0.000	10090121	8.087	0.000	42871891	151.7690	136.4747	10.6	Endosulfan sulfat
6.998	0.000	11290652	7.694	0.000	49153383	158.1677	146.3004	7.8	4,4'-DDT
7.424	0.000	25410659	8.282	0.000	68710958	752.1298	549.5270	31.1	Methoxychlor
7.930	0.000	12242959	8.578	0.000	45120219	148.3008	143.7144	3.1	Endrin ketone
7.284	0.000	8770972	7.843	0.000	37980609	147.3779	134.0802	9.4	Endrin aldehyde
6.002	0.000	7244242	6.604	0.000	36309167	79.8704	68.9264	14.7	gamma-Chlordane
6.126	0.000	6882735	6.742	0.000	33830196	77.9620	70.0537	10.7	alpha-Chlordane
2.312	0.000	9533617	2.469	0.000	41324182	77.4557	70.5167	9.4	Hexachlorobutadiene
4.140	0.000	6575895	4.586	0.000	38026898	73.5771	68.1858	7.6	Hexachlorobenzene
8.927	0.000	5032937	10.289	0.001	17081518	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	11650961	4.128	0.000	59297060	153.1904	126.6289	19.0	Tetrachloro-m-xyl
8.777	0.000	9459476	9.725	0.000	39937738	149.3341	144.6407	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	383.0	316.6	316.6~	115- 0
Decachlorobiphenyl	373.3	361.6	361.6~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

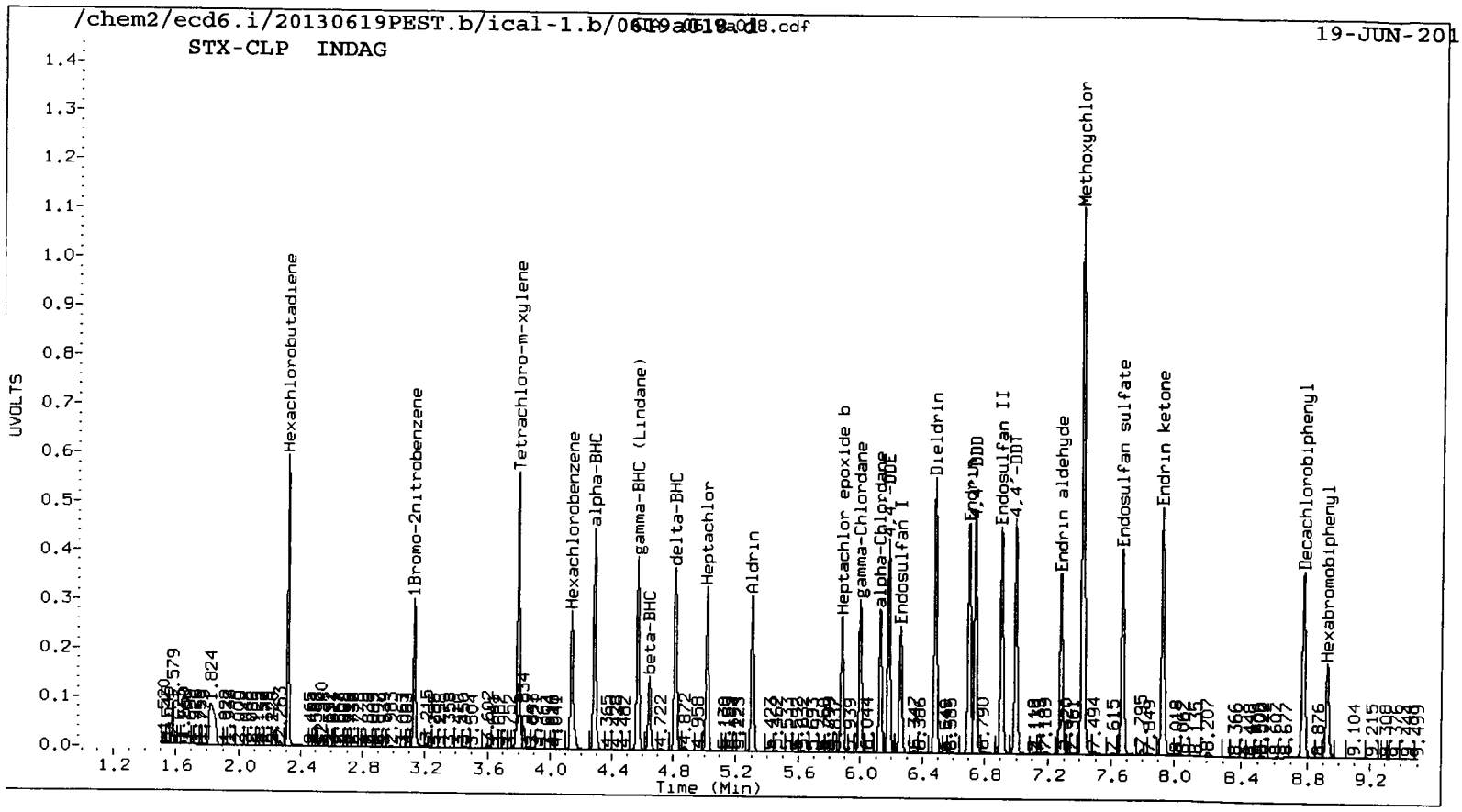
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5601251	0.2
Hexabromobiphenyl	4870538	5032937	3.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28311756	0.0
Hexabromobiphenyl	16454599	17081518	3.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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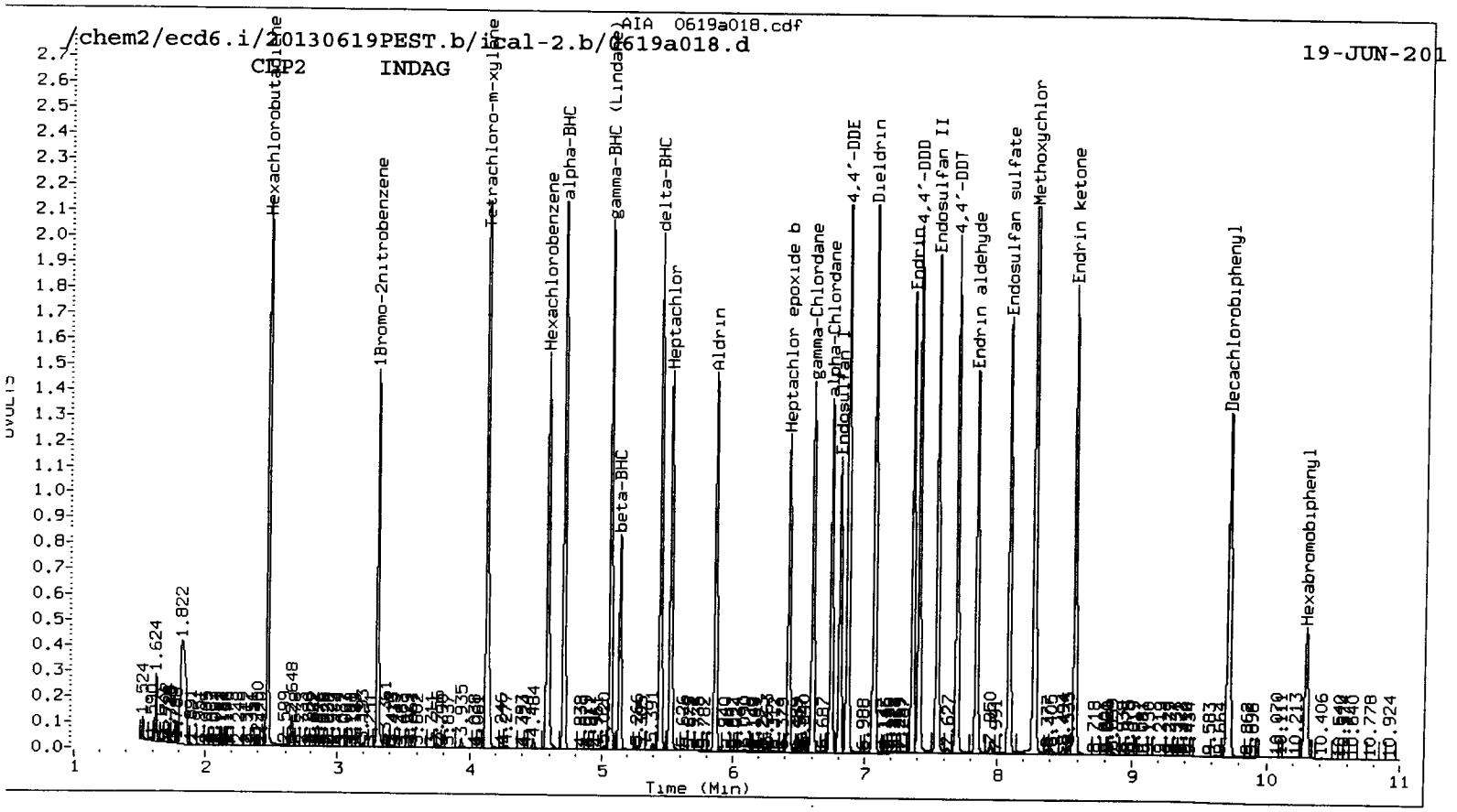
STX-CLP INDAG
19-JUN-201
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a018.cdf
CLP2 INDAG
19-JUN-201
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a019.d ARI ID: INDA ICV
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a019.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 20:01
Compound Sublist: INDA Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.130	-0.001	5662321	3.300	0.000	28347211	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.286	0.000	4855154	4.710	0.000	27588708	42.7540	40.7366	4.8	alpha-BHC
4.645	0.001	1822898	5.139	0.000	10652715	39.7945	36.3084	9.2	beta-BHC
4.814	0.001	4184696	5.450	0.000	23785579	42.5591	40.7450	4.4	delta-BHC
4.569	0.000	4344523	5.066	0.000	24367918	41.9589	40.6919	3.1	gamma-BHC (Lindane)
5.015	0.000	3968184	5.530	0.000	21193899	39.9364	36.4872	9.0	Heptachlor
5.307	0.000	4065594	5.867	-0.001	21069990	42.2283	38.3160	9.7	Aldrin
5.882	0.000	3520931	6.422	0.000	17669895	39.4476	35.2570	11.2	Heptachlor epoxide
6.260	0.000	3339914	6.809	0.000	16390864	40.0336	36.3956	9.5	Endosulfan I
6.482	0.000	3635982	7.067	-0.001	17715883	41.2455	38.9783	5.7	Dieldrin
6.186	0.001	3446918	6.870	0.000	17845149	51.3943	39.0016	27.4	4,4'-DDE
6.701	0.000	3061363	7.356	0.000	13742736	40.4364	38.9338	3.8	Endrin
6.907	0.001	2960864	7.545	0.000	14554305	39.3951	39.3599	0.1	Endosulfan II
6.742	0.002	2998582	7.408	0.001	14669806	41.4771	38.6054	7.2	4,4'-DDD
7.675	0.000	2678851	8.087	0.000	12153450	40.3671	38.6057	4.5	Endosulfan sulfate
6.999	0.001	2896942	7.695	0.000	13011033	40.6566	38.6434	5.1	4,4'-DDT
7.425	0.001	1399039	8.277	-0.005	5503814	41.4857	43.9237	5.7	Methoxychlor
7.930	0.000	3140634	8.578	0.000	12066382	38.1124	38.3511	0.6	Endrin ketone
7.284	0.000	2303678	7.842	-0.001	10586002	38.7792	37.2912	3.9	Endrin aldehyde
6.002	0.000	3758964	6.605	0.000	19267024	40.9970	36.5292	11.5	gamma-Chlordane
6.126	0.000	3606097	6.742	0.000	18191702	40.4064	37.6232	7.1	alpha-Chlordane
2.294	-0.017	4300	2.454	-0.016	8293	0.0346	0.0141	83.9*	Hexachlorobutadiene
4.139	-0.001	47437	4.597	0.011	15351	0.5250	0.0275	180.1*	Hexachlorobenzene
8.927	0.000	5023768	10.289	0.000	17118059	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	3012987	4.127	-0.002	18593722	39.1884	39.6573	1.2	Tetrachloro-m-xylen
8.777	0.000	2476257	9.725	0.000	10738704	39.1633	38.8089	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	98.0	99.1	98.0~	115- 0
Decachlorobiphenyl	97.9	97.0	97.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

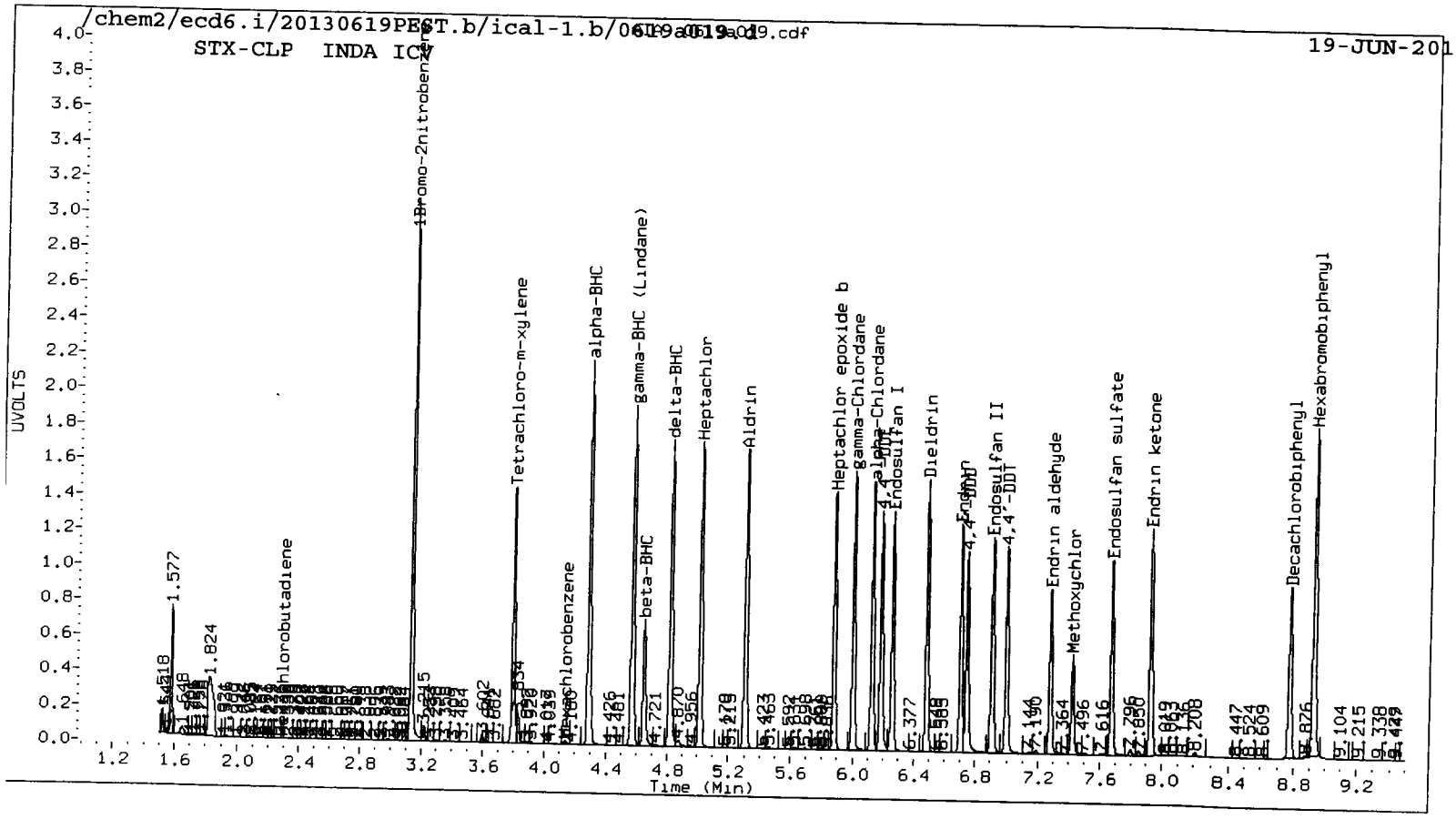
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5662321	1.3
Hexabromobiphenyl	4870538	5023768	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28347211	0.1
Hexabromobiphenyl	16454599	17118059	4.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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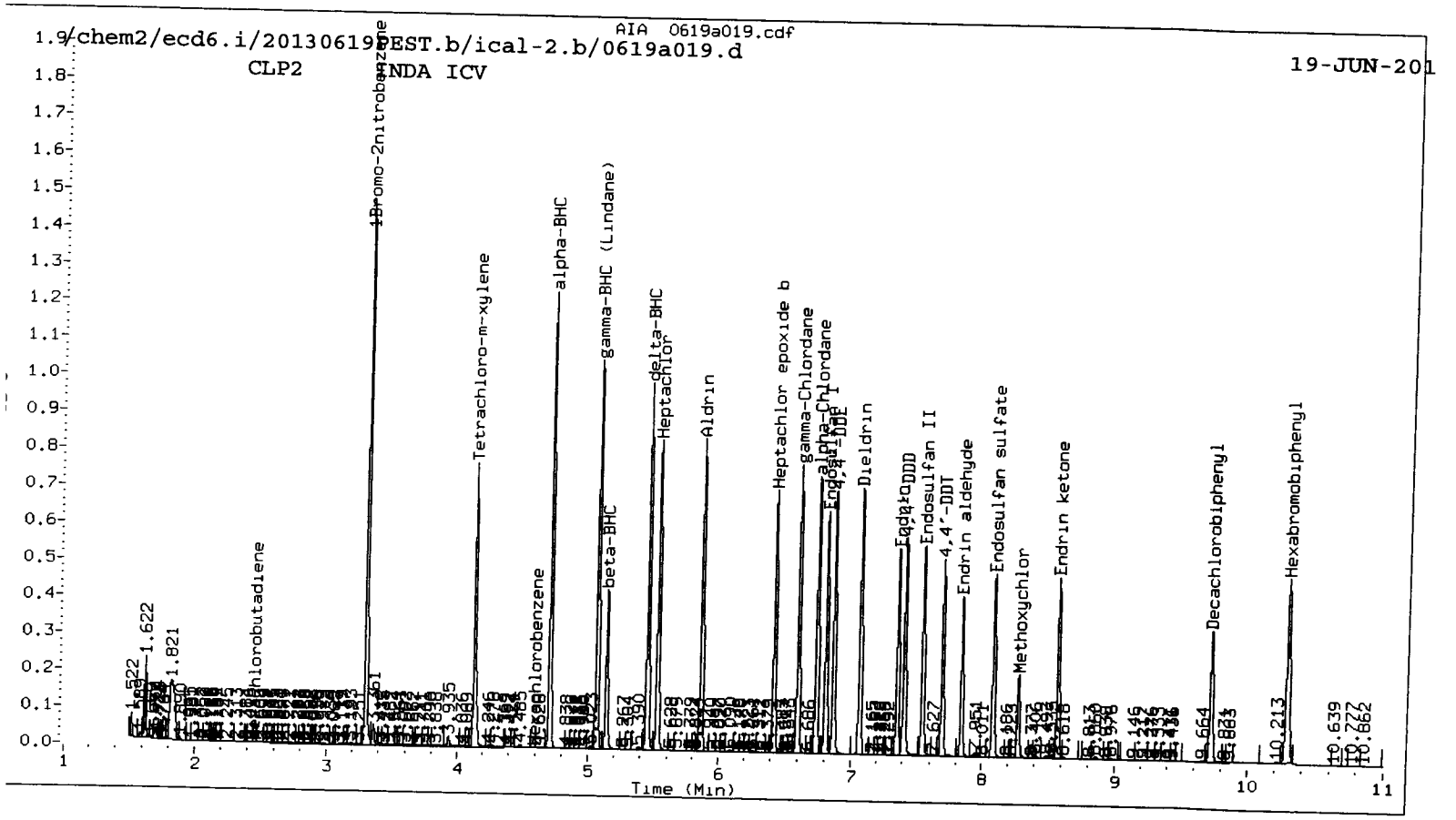
0619a019.cdf
STX-CLP INDA ICV
19-JUN-201
UVOLTS
Time (Min)
1.577
1.824
Hexachlorobutadiene
1.518
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a019.cdf
CLP2 INDA ICV
19-JUN-201
Time (Min)
1.622
1.821
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a020.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a020.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 20:19
Compound Sublist: wpest Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.131	-0.001	5825856	3.300	0.000	29136306	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.270	-0.016	15741	----			0.1347	0.0000	---	alpha-BHC
4.638	-0.006	6185	5.153	0.015	34366	0.1312	0.1140	14.1	beta-BHC
4.807	-0.007	7827	5.460	0.010	55686	0.0774	0.0928	18.1	delta-BHC
4.568	-0.001	6365	5.039	-0.027	48784	0.0597	0.0793	28.1	gamma-BHC (Lindane)
5.011	-0.004	3542	5.532	0.003	24053	0.0346	0.0403	15.1	Heptachlor
5.321	0.014	5699	5.852	-0.016	197176	0.0575	0.3489	143.4*	Aldrin
5.889	0.006	6810	6.421	-0.001	28673	0.0742	0.0557	28.5	Heptachlor epoxide b
6.261	0.001	2191	6.806	-0.004	50626	0.0255	0.1094	124.3*	Endosulfan I
6.470	-0.013	6721	7.043	-0.024	10216	0.0741	0.0219	108.9*	Dieldrin
6.184	-0.001	7689	6.868	-0.002	52897	0.1114	0.1125	0.9	4,4'-DDE
6.664	-0.038	4458	7.355	-0.001	17421	0.0557	0.0477	15.5	Endrin
6.907	0.001	3007	7.523	-0.022	46924	0.0379	0.1227	105.6*	Endosulfan II
6.736	-0.004	11288	7.408	0.001	34975	0.1478	0.0890	49.7*	4,4'-DDD
7.676	0.001	2737	8.087	0.000	30094	0.0390	0.0924	81.2*	Endosulfan sulfate
6.996	-0.002	4564	7.702	0.008	61753	0.0606	0.1773	98.1*	4,4'-DDT
7.429	0.004	2297	8.277	-0.004	19064	0.0645	0.1471	78.1*	Methoxychlor
7.924	-0.005	12452	8.574	-0.004	24754	0.1430	0.0761	61.1*	Endrin ketone
7.285	0.001	3329	7.841	-0.001	51003	0.0530	0.1737	106.4*	Endrin aldehyde
5.977	-0.025	27144	6.612	0.007	182548	0.2877	0.3367	15.7	gamma-Chlordane
6.121	-0.005	10392	6.743	0.001	26109	0.1132	0.0525	73.2*	alpha-Chlordane
2.311	-0.001	5901418	2.469	-0.001	26560599	46.0975	44.0411	4.6	Hexachlorobutadiene
4.139	-0.001	3444301	4.585	-0.001	18722188	37.0522	32.6206	12.7	Hexachlorobenzene
5.786	-0.001	2264	6.329	-0.003	59974	0.0317	0.1579	133.2*	Oxychlordane
----			6.572	-0.008	30438	0.0000	0.1110	---	2,4-DDE
----			6.685	-0.005	39610	0.0000	0.0906	---	trans-Nonachlor
6.347	-0.001	4676	7.062	-0.003	27477	0.0950	0.1154	19.4	2,4-DDD
6.587	0.000	5399	7.371	0.018	18445	0.0949	0.0711	28.6	2,4-DDT
----			----			0.0000	0.0000	---	cis-Nonachlor
7.597	-0.004	2451	8.534	-0.030	243505	0.0415	1.1056	185.5*	Mirex
8.926	-0.001	5307615	10.289	0.000	17708234	80.0000	80.0000	0.0	Hexabromobiphenyl
1.759	0.001	2077	1.727	0.001	136283	0.0000	0.0000	---	Hexachloroethane
6.553	-0.028	5051	7.331	-0.006	21984	0.0000	0.0000	---	Kepone
3.799	0.000	3282589	4.126	-0.002	18514400	41.4965	38.4186	7.7	Tetrachloro-m-xylen
8.776	-0.001	2787558	9.725	0.000	11737142	41.7290	41.0035	1.8	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

KR 06/25/13

UT01 : 01491

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	103.7	96.0	96.0~	130- 0
Decachlorobiphenyl	104.3	102.5	102.5~	130- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

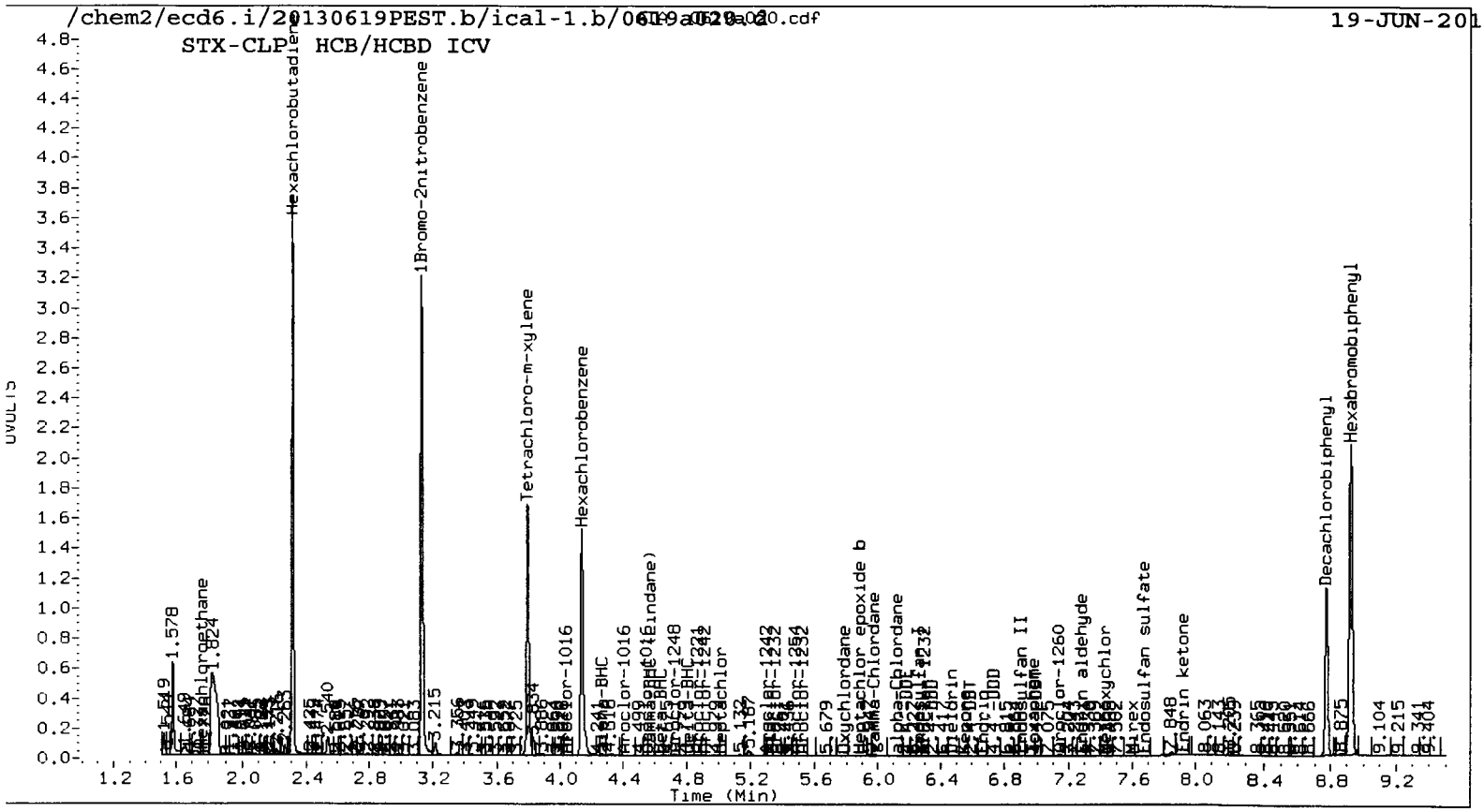
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5825856	4.2
Hexabromobiphenyl	4870538	5307615	9.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29136306	2.9
Hexabromobiphenyl	16454599	17708234	7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.977	0.019	5656	1.7	1	7.285	-0.006	21029	1.7
Toxaphene	2	6.996	-0.013	4564	1.9	2	7.584	-0.031	161753	8.8
Toxaphene	3	7.285	0.018	3329	0.9	3	7.841	-0.005	51003	2.5
Toxaphene	4	7.597	0.004	2451	0.6	4	8.313	-0.001	27940	1.9
Toxaphene	5	---			0.000	5	8.374	0.022	31267	1.7
Toxaphene	6	7.924	0.011	12452	5.6	NS	---			----
Total STX-CLPAve (5 peaks): 2.135						Total CLP2Ave (5 peaks): 3.345				RPD = 44*
Corrected Ave (4 peaks): 1.270						Corrected Ave (4 peaks): 1.968				RPD = 43*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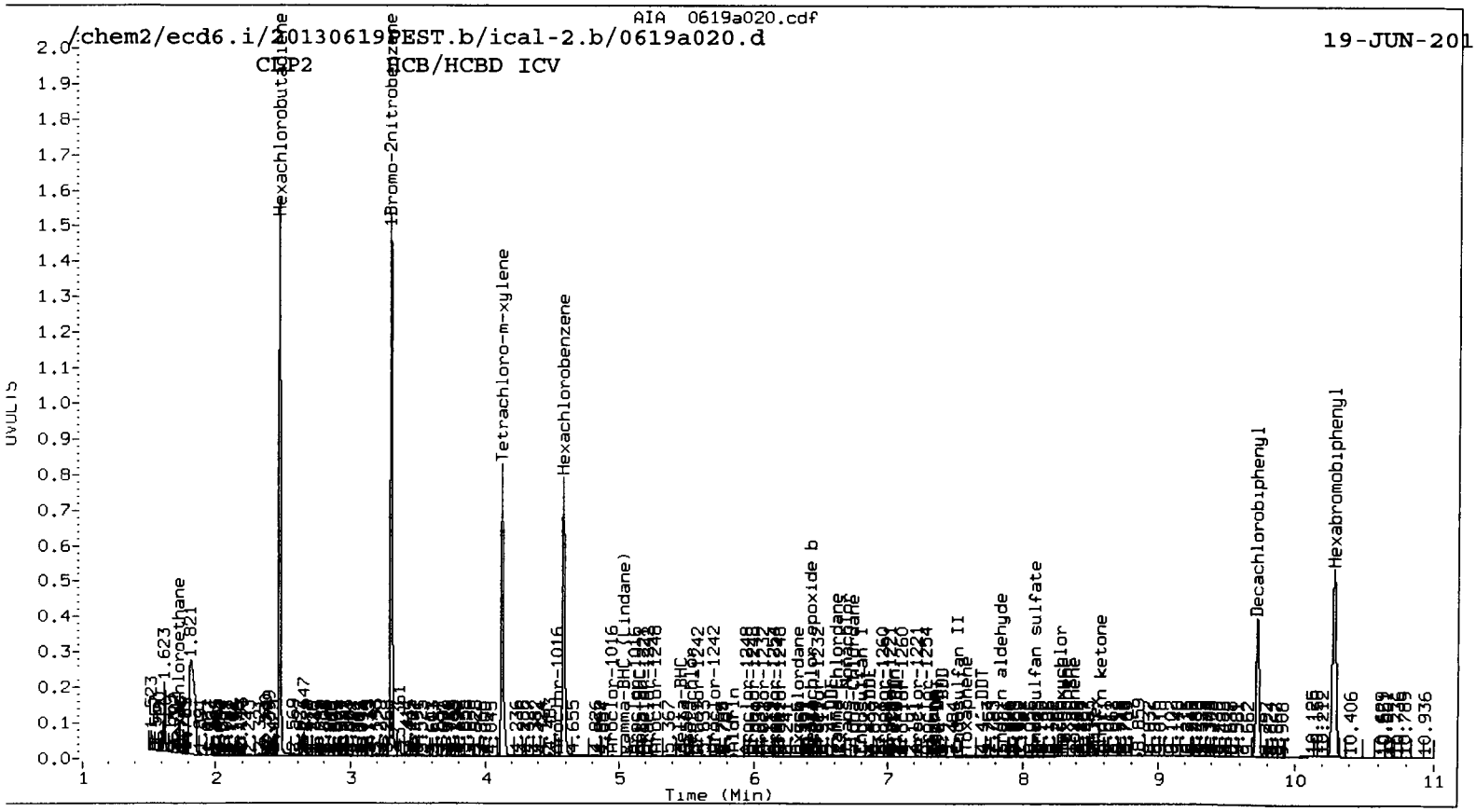
0619a020.cdf
19-JUN-201
STX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl
1.578
1.824
5.215
4.241
Heptachlor epoxide b
Endosulfan sulfate
Endrin ketone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19-JUN-201
CLP2 HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl
1.623
1.821
4.655
10.406
10.936

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/ical-1.b/0619a030.d ARI ID: TOXAPHENE
Data file 2: /chem2/ecd6.i/20130619PEST.b/ical-2.b/0619a030.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 23:17
Compound Sublist: TOXAPH Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.132	0.000	6058478	3.301	0.001	29930668	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.927	0.000	5799142	10.289	0.000	19105364	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.001	2712292	4.127	-0.001	16671590	32.9707	33.6765	2.1	Tetrachloro-m-xylen
8.777	0.000	2659985	9.724	0.000	11618435	36.4442	37.6206	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	82.4	84.2	82.4~	150- 0
Decachlorobiphenyl	91.1	94.1	91.1~	150- 0

~ Indicates recovery outside QC Limits

6/25/13

INTERNAL STANDARD SUMMARY

Column 1

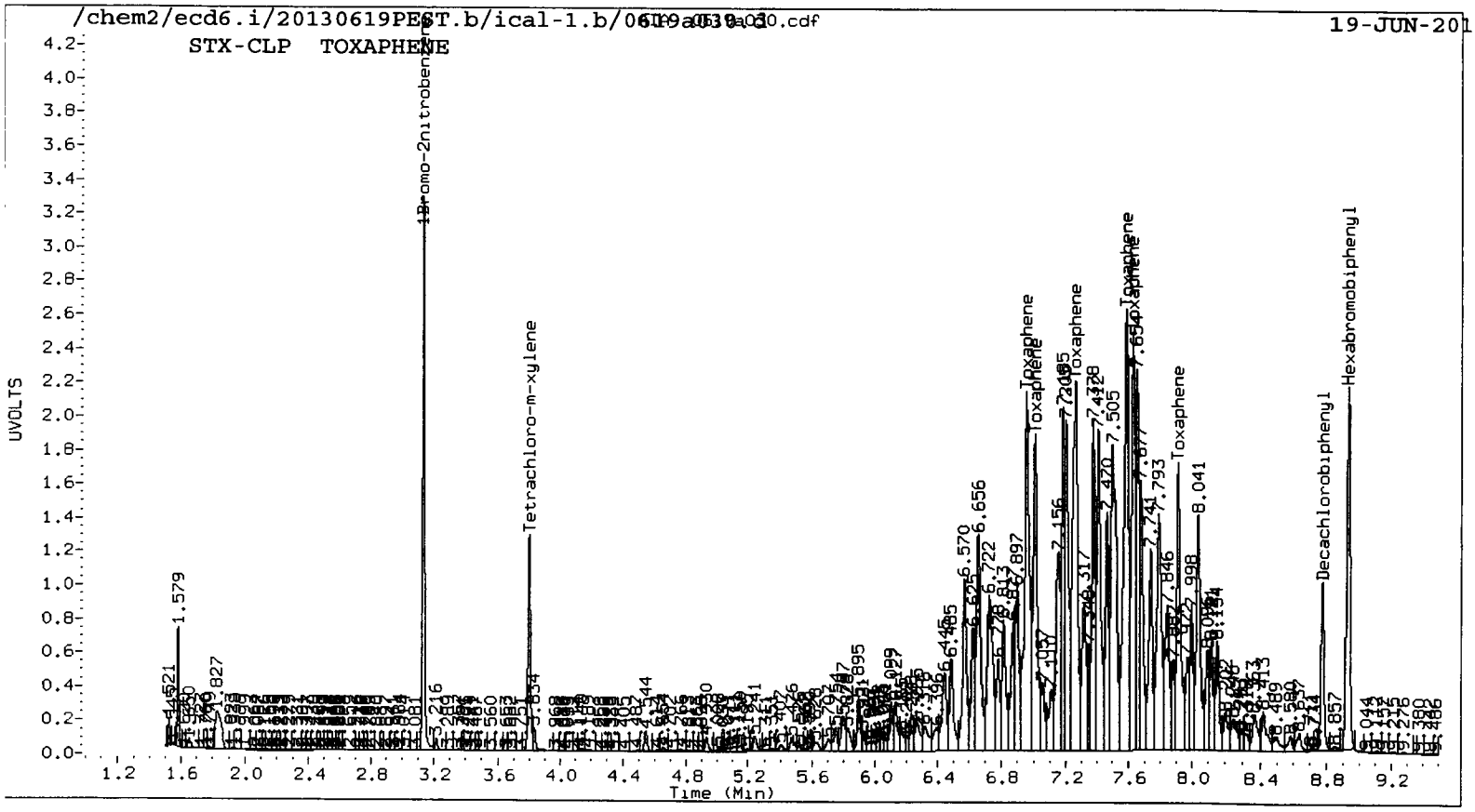
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6058478	8.4
Hexabromobiphenyl	4870538	5799142	19.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29930668	5.7
Hexabromobiphenyl	16454599	19105364	16.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.958	0.000	9305172	2500.0	1	7.291	0.000	33416871	2500.0
Toxaphene	2	7.010	0.000	6420857	2500.0	2	7.615	0.000	49303313	2500.0
Toxaphene	3	7.267	0.000	10593063	2500.0	3	7.846	0.000	54099773	2500.0
Toxaphene	4	7.593	0.000	10790117	2500.0	4	8.314	0.000	38993888	2500.0
Toxaphene	5	7.632	0.000	7165051	2500.0	5	8.353	0.000	49587064	2500.0
Toxaphene	6	7.913	0.000	6082441	2500.0	NS	---			----
Total STX-CLPAve (6 peaks): 2500.000						Total CLP2Ave (5 peaks): 2500.000				RPD = 0
Corrected Ave (6 peaks): 2500.000						Corrected Ave (5 peaks): 2500.000				RPD = 0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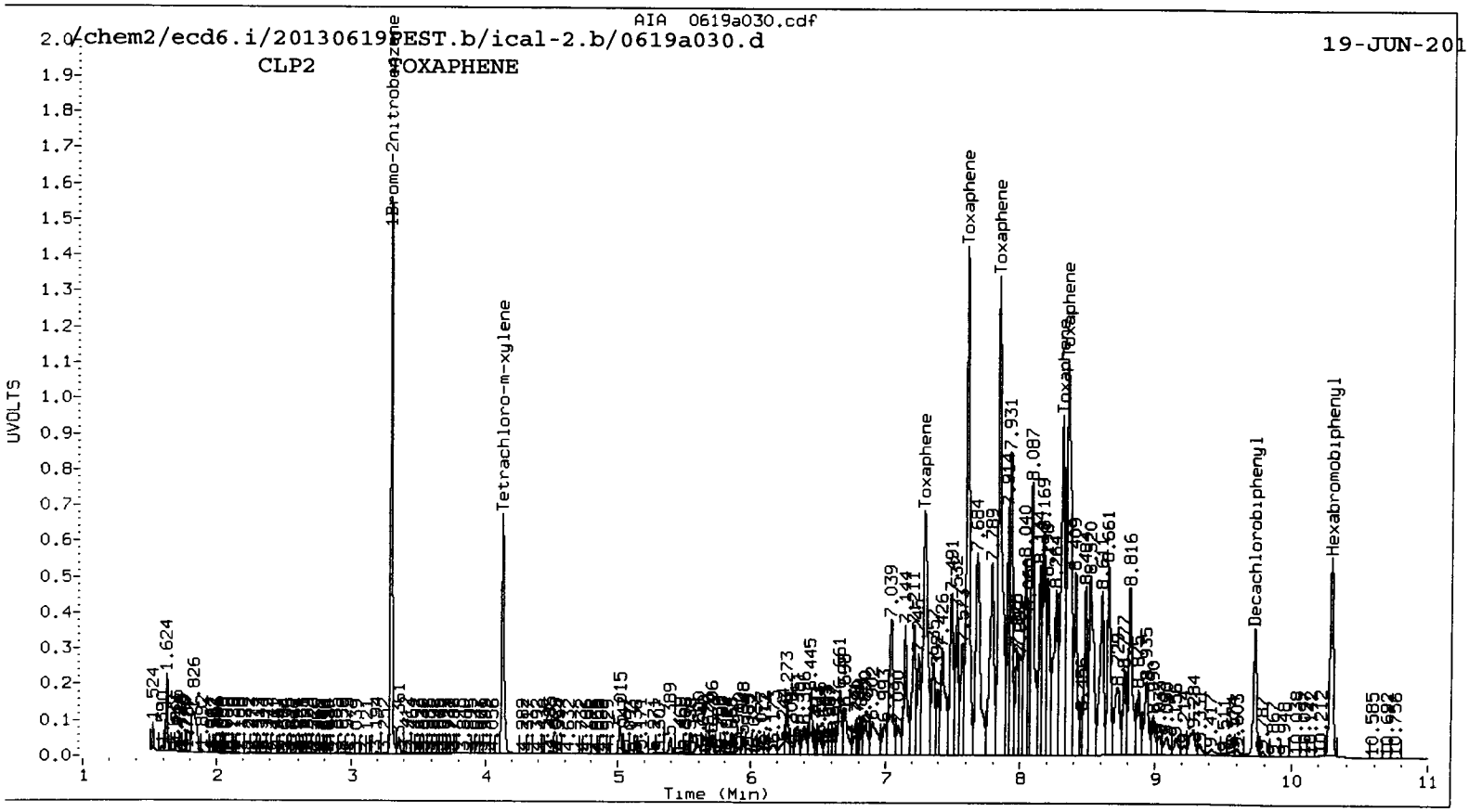
STX-CLP TOXAPHENE
19-JUN-201
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 TOXAPHENE
19-JUN-201
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a022.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a022.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Injection Date: 19-JUN-2013 20:55
Compound Sublist: WND
Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
1.758	0.001	1274	1.727	0.001	146749	0.0000	0.0000	---	Hexachloroethane
3.131	-0.001	5981300	3.300	0.000	29422294	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	2908033	6.331	-0.001	15471323	39.9432	40.3466	1.0	Oxychlordane
5.862	0.001	2211390	6.580	0.000	11077550	39.7672	39.9916	0.6	2,4-DDE
6.110	0.000	3582762	6.688	-0.002	18301689	40.0972	40.6354	1.3	trans-Nonachlor
6.349	0.001	1984688	7.065	0.000	9866849	39.5962	40.2197	1.6	2,4-DDD
6.587	0.000	2324382	7.352	-0.001	10852842	40.0914	40.5992	1.3	2,4-DDT
6.726	0.000	3941134	7.412	-0.003	19164808	39.9713	40.8584	2.2	cis-Nonachlor
7.601	0.000	2329092	8.564	-0.001	8771162	38.7089	38.6461	0.2	Mirex
8.927	0.000	5406477	10.289	0.001	18248706	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.000	3055226	4.127	-0.002	18478701	37.6186	37.9718	0.9	Tetrachloro-m-xylen
8.777	0.000	2538730	9.725	0.000	10820368	37.3092	36.6812	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

JF 06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.0	94.9	94.0~	150- 0
Decachlorobiphenyl	93.3	91.7	91.7~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

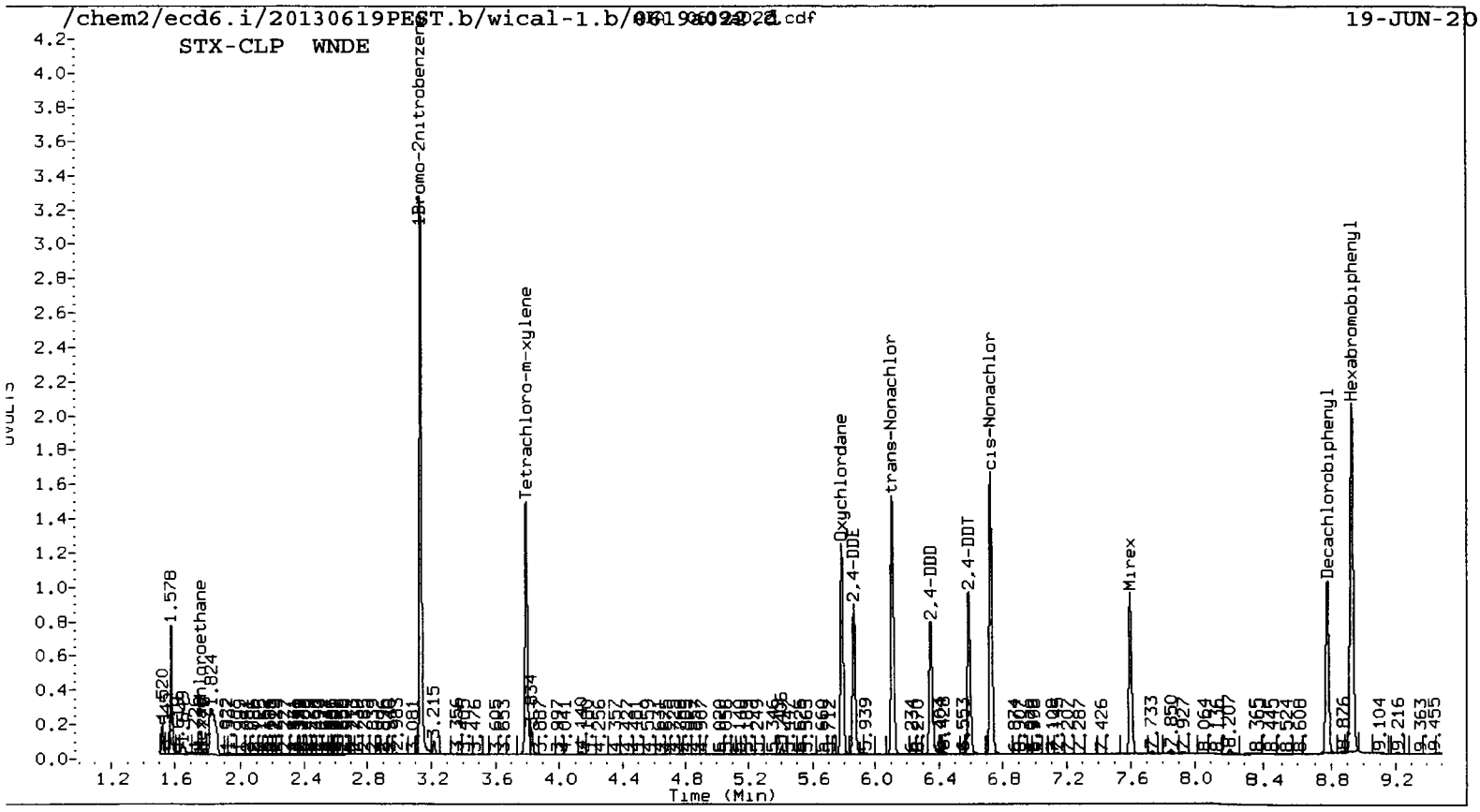
Standard Cpnd	Column 1 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5981300	7.0
Hexabromobiphenyl	4870538	5406477	11.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29422294	3.9
Hexabromobiphenyl	16454599	18248706	10.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

			STX-CLP Col				CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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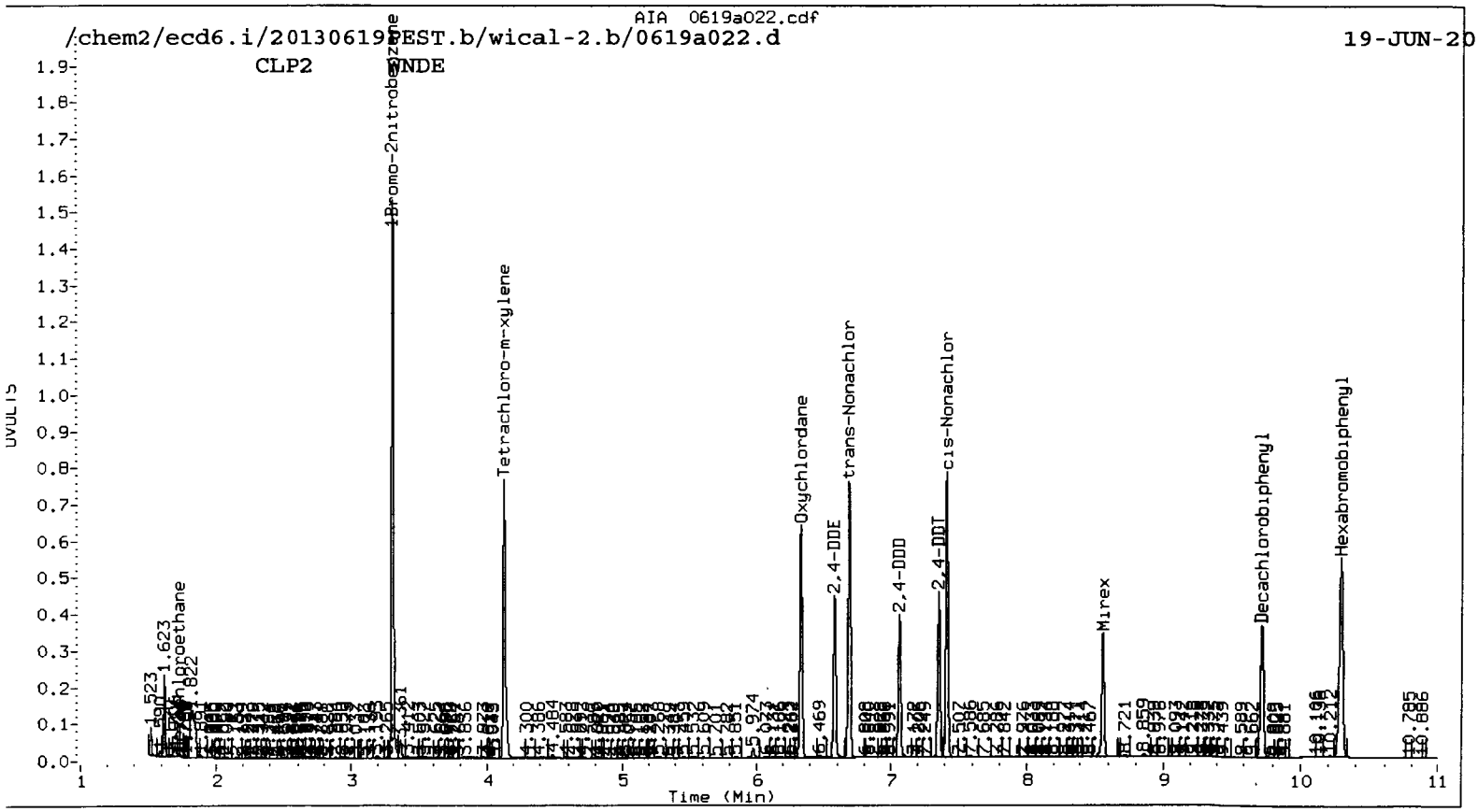
19-JUN-20
STX-CLP WNDE
UVUL15
1.578
Hexachloroethane
1.824
1Bromo-2nitrobenzene
3.215
Tetrachloro-m-xylene
4.834
Oxychlordane
5.939
2,4-DDE
trans-Nonachlor
6.553
2,4-DDD
2,4-DDT
cis-Nonachlor
7.426
Mirex
8.733
Decachlorobiphenyl
8.826
Hexabromobiphenyl
9.104
9.216
9.363
9.455
Time (Min)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19-JUN-20
CLP2 WNDE
UVUL15
1.523
1.623
Hexachloroethane
1.822
1Bromo-2nitrobenzene
3.361
Tetrachloro-m-xylene
4.469
Oxychlordane
5.300
2,4-DDE
trans-Nonachlor
6.502
2,4-DDD
2,4-DDT
cis-Nonachlor
7.721
Mirex
8.559
Decachlorobiphenyl
9.196
Hexabromobiphenyl
9.785
9.882
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a023.d ARI ID: WNDA
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a023.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 21:13
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.758	0.001	735	1.726	0.000	123087	0.0000	0.0000	---	Hexachloroethane
3.131	-0.001	5831093	3.300	0.001	28731894	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	186864	6.331	-0.002	945490	2.6702	2.5249	5.6	Oxychlordane
5.863	0.001	141733	6.580	0.000	723920	2.6516	2.6763	0.9	2,4-DDE
6.110	-0.001	219560	6.688	-0.002	1094437	2.5564	2.5172	1.5	trans-Nonachlor
6.350	0.002	126284	7.065	0.000	623677	2.6211	2.6335	0.5	2,4-DDD
6.587	0.000	143881	7.352	-0.001	660992	2.5818	2.5615	0.8	2,4-DDT
6.726	-0.001	243492	7.411	-0.004	1135268	2.5692	2.5072	2.4	cis-Nonachlor
7.601	0.000	159764	8.564	-0.001	614646	2.7624	2.8054	1.5	Mirex
8.927	-0.001	5196778	10.289	0.001	17616180	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.001	185150	4.126	-0.002	1188081	2.3385	2.5000	6.7	Tetrachloro-m-xylene
8.777	-0.001	172900	9.725	0.000	734360	2.6435	2.5789	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	5.8	6.3	5.8~	150- 0
Decachlorobiphenyl	6.6	6.4	6.4~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

	Column 1		
	Standard	Sample	
Standard Cpnd	Area*	Area	%D
Bromo-Nitrobenzene	5590801	5831093	4.3
Hexabromobiphenyl	4870538	5196778	6.7

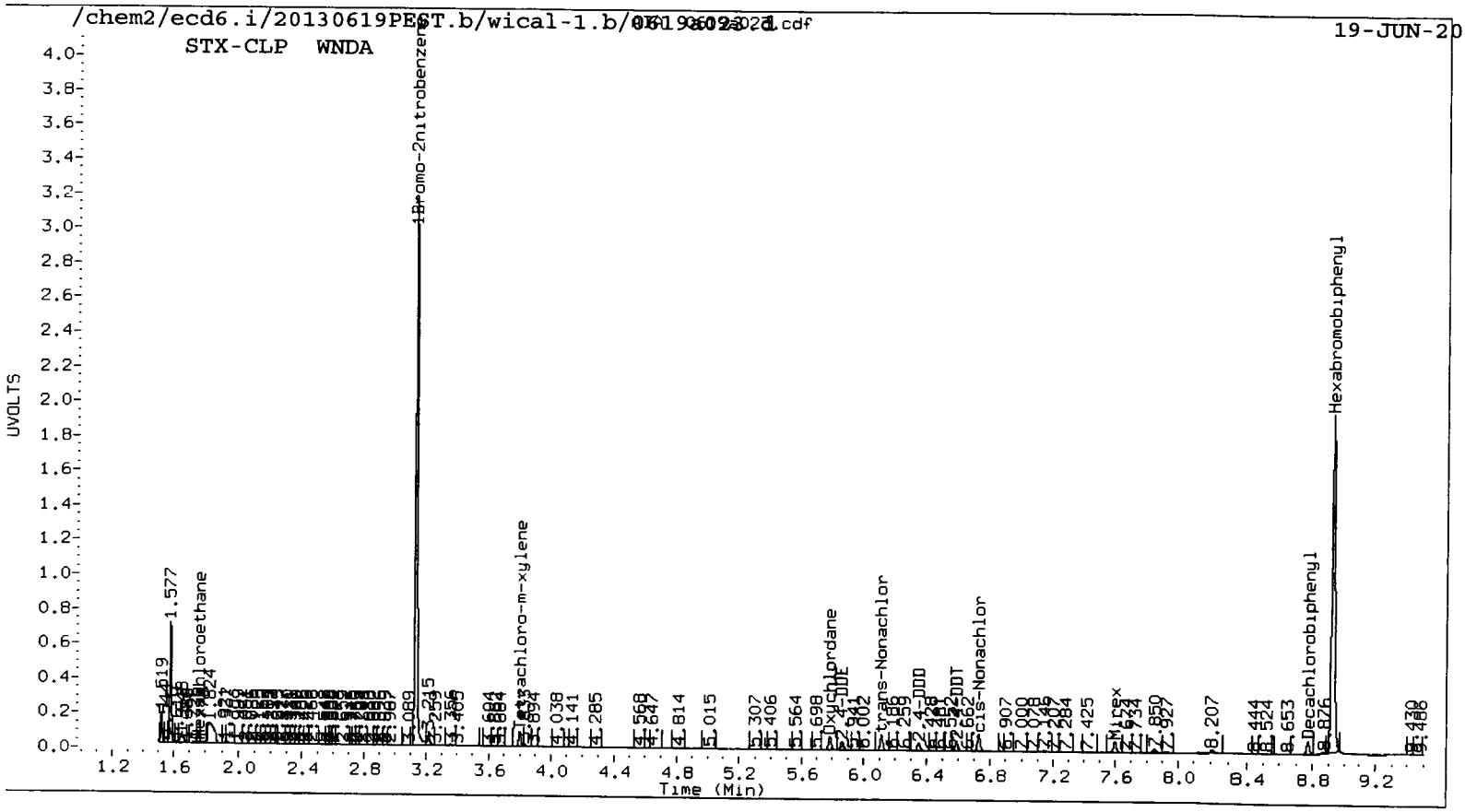
WT91:01583

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28731894	1.5
Hexabromobiphenyl	16454599	17616180	7.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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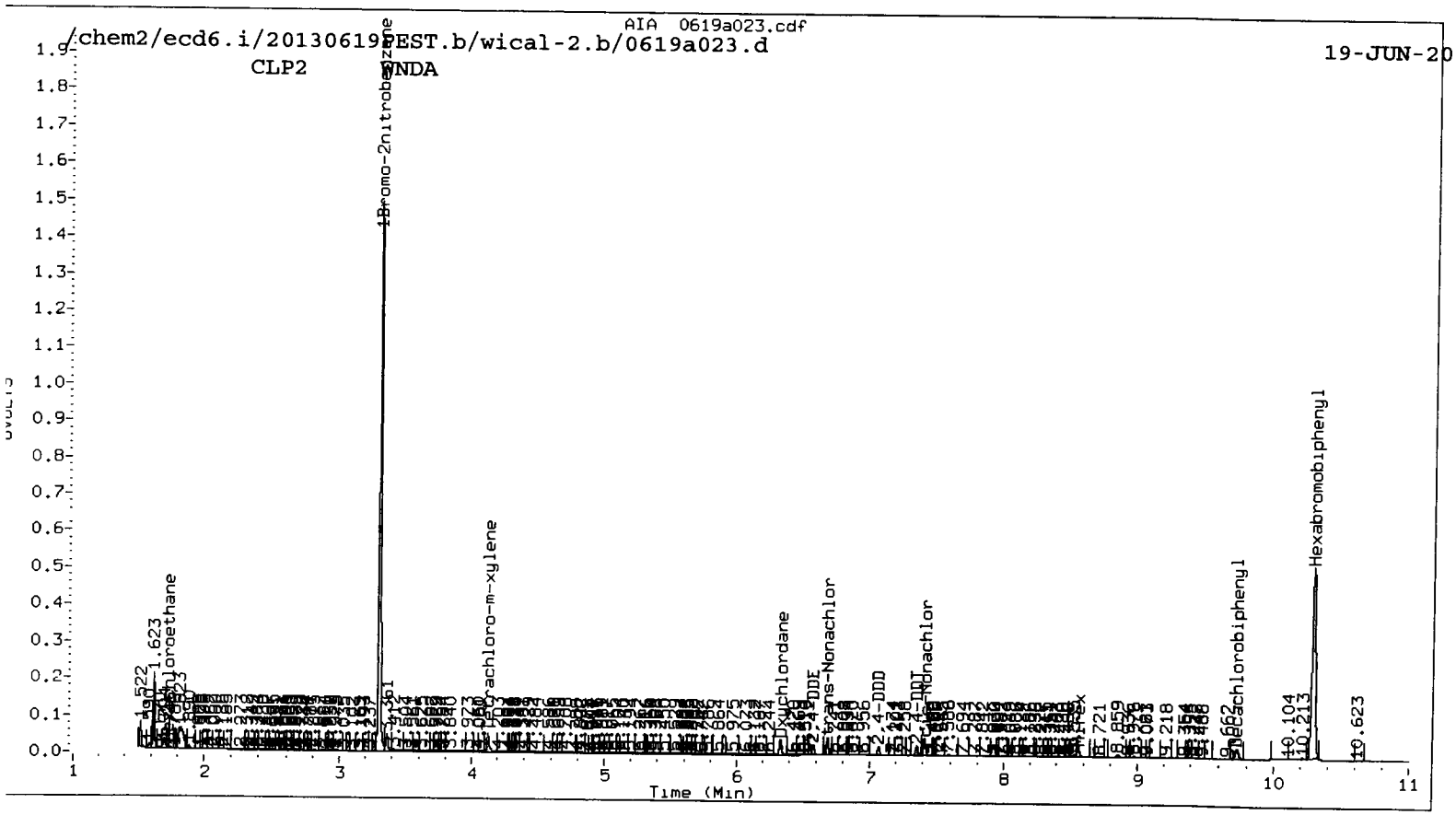
STX-CLP WNDA
19-JUN-20
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
1.577
Tetrachloroethane
Pentachloro-m-xylene
Oxychlordane
4,4'-DDE
trans-Nonachlor
2,4'-DDD
4,4'-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a023.cdf
CLP2 WNDA
19-JUN-20
Time (Min)
1Bromo-2nitrobenzene
1.623
Tetrachloroethane
Pentachloro-m-xylene
Oxychlordane
4,4'-DDE
trans-Nonachlor
2,4'-DDD
4,4'-DDT
cis-Nonachlor
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a024.d ARI ID: WNDB
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a024.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 21:30
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.758	0.000	821	1.727	0.001	125733	0.0000	0.0000	---	Hexachloroethane
3.130	-0.001	5811438	3.300	0.000	28704362	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	370207	6.331	-0.002	1942777	5.2495	5.1931	1.1	Oxychlordane
5.863	0.001	282499	6.580	0.000	1471963	5.2445	5.4469	3.8	2,4-DDE
6.110	-0.001	439420	6.687	-0.003	2255304	5.0770	5.1662	1.7	trans-Nonachlor
6.350	0.002	253914	7.065	0.001	1263973	5.2297	5.3155	1.6	2,4-DDD
6.587	0.000	288053	7.352	-0.001	1344496	5.1291	5.1890	1.2	2,4-DDT
6.727	0.000	490995	7.412	-0.004	2346101	5.1408	5.1603	0.4	cis-Nonachlor
7.600	0.000	306200	8.564	0.000	1166537	5.2536	5.3027	0.9	Mirex
8.927	0.000	5237048	10.289	0.001	17688146	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.000	369366	4.127	-0.002	2455096	4.6809	5.1712	10.0	Tetrachloro-m-xylene
8.777	0.000	341718	9.725	0.000	1439576	5.1844	5.0348	2.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	11.7	12.9	11.7~	150- 0
Decachlorobiphenyl	13.0	12.6	12.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

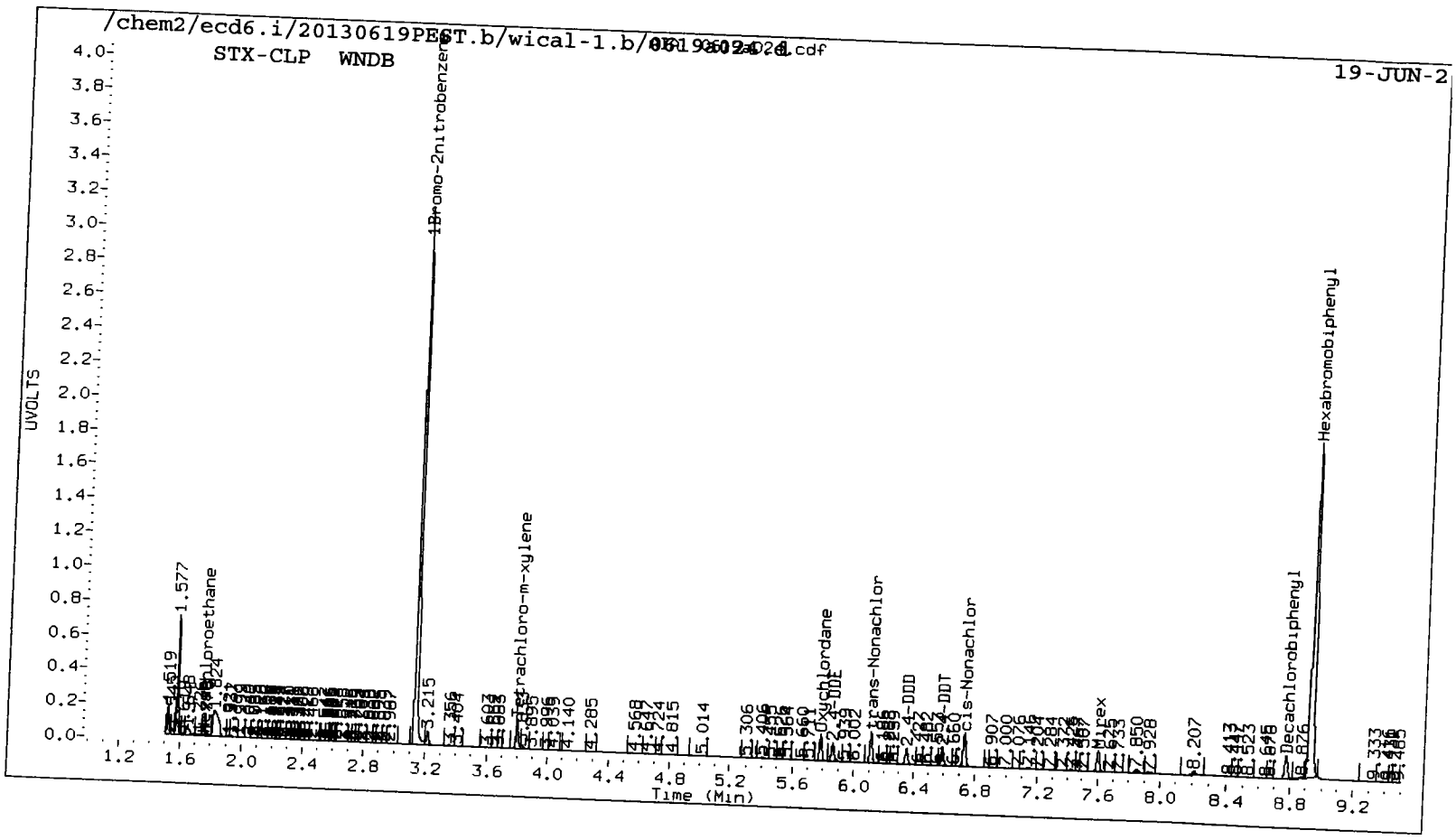
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5811438	3.9
Hexabromobiphenyl	4870538	5237048	7.5

UT81:81506

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28704362	1.4
Hexabromobiphenyl	16454599	17688146	7.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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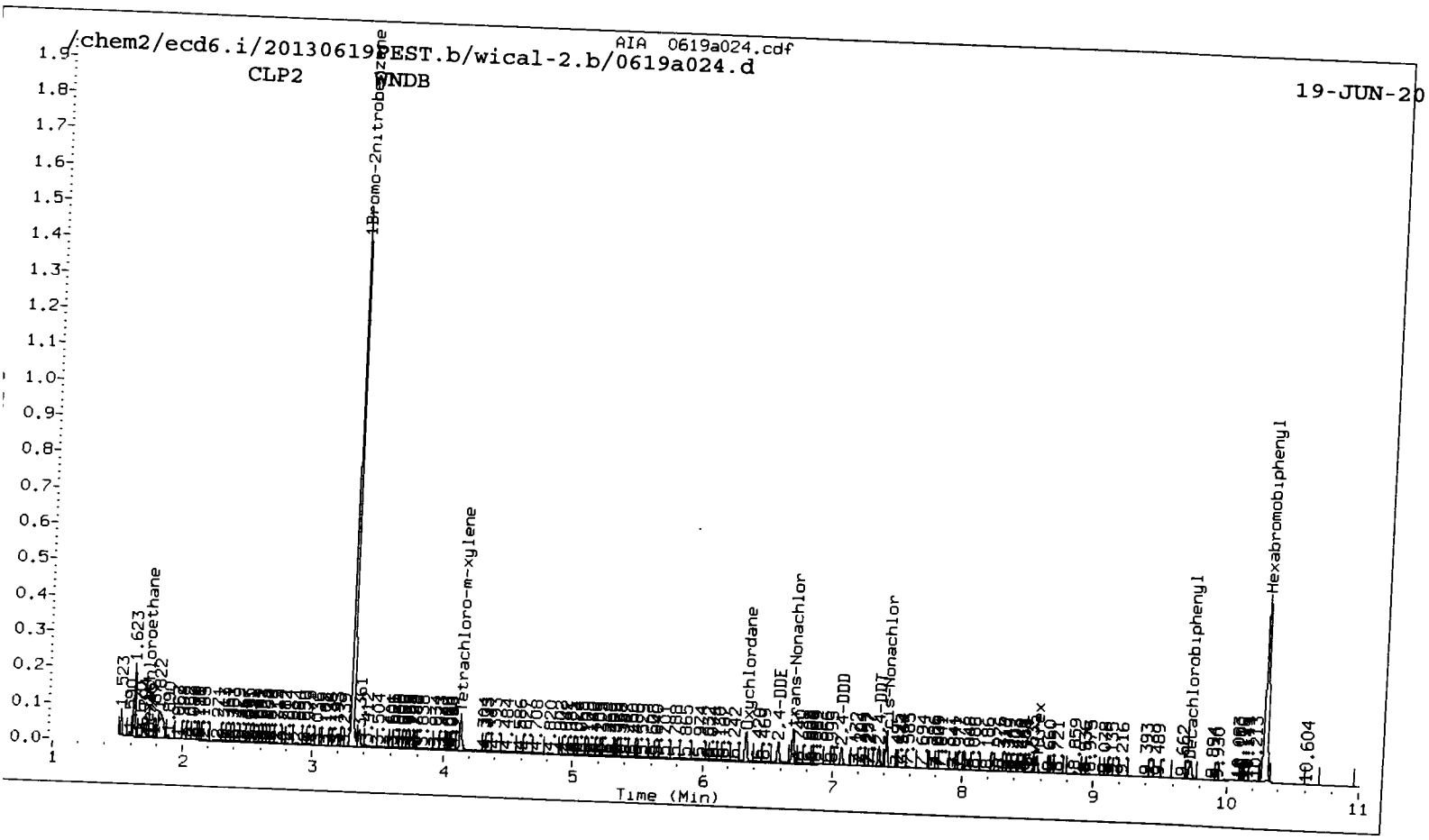
AIA 0619a024.cdf
STX-CLP WNDB
19-JUN-2
UVOLTS
Time (Min)
1.577
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4'-DDD
2,4'-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a024.cdf
CLP2 WNDB
19-JUN-20
Time (Min)
1.623
1-Bromo-2-nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4'-DDD
2,4'-DDT
cis-Nonachlor
Decachlorobiphenyl
Hexabromobiphenyl
10.604

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a025.d ARI ID: WNDC
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a025.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 21:48
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.759	0.001	791	1.727	0.001	131582	0.0000	0.0000	---	Hexachloroethane
3.131	-0.001	5920700	3.300	0.001	29296978	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	743037	6.331	-0.001	3950329	10.3213	10.3459	0.2	Oxychlordane
5.863	0.001	557203	6.580	0.000	2924113	10.1333	10.6016	4.5	2,4-DDE
6.110	0.000	883302	6.688	-0.002	4661405	9.9973	10.4292	4.2	trans-Nonachlor
6.350	0.002	498501	7.066	0.001	2517945	10.0579	10.3425	2.8	2,4-DDD
6.588	0.001	580337	7.352	0.000	2740346	10.1229	10.3300	2.0	2,4-DDT
6.727	0.000	962333	7.412	-0.003	4841041	9.8703	10.4001	5.2	cis-Nonachlor
7.601	0.000	603038	8.563	-0.001	2254506	10.1356	10.0097	1.2	Mirex
8.926	-0.001	5346075	10.288	0.000	18109694	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.001	744789	4.127	-0.001	4872540	9.2644	10.0554	8.2	Tetrachloro-m-xylene
8.776	-0.001	647176	9.724	-0.001	2804700	9.6184	9.5810	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	23.2	25.1	23.2~	150- 0
Decachlorobiphenyl	24.0	24.0	24.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

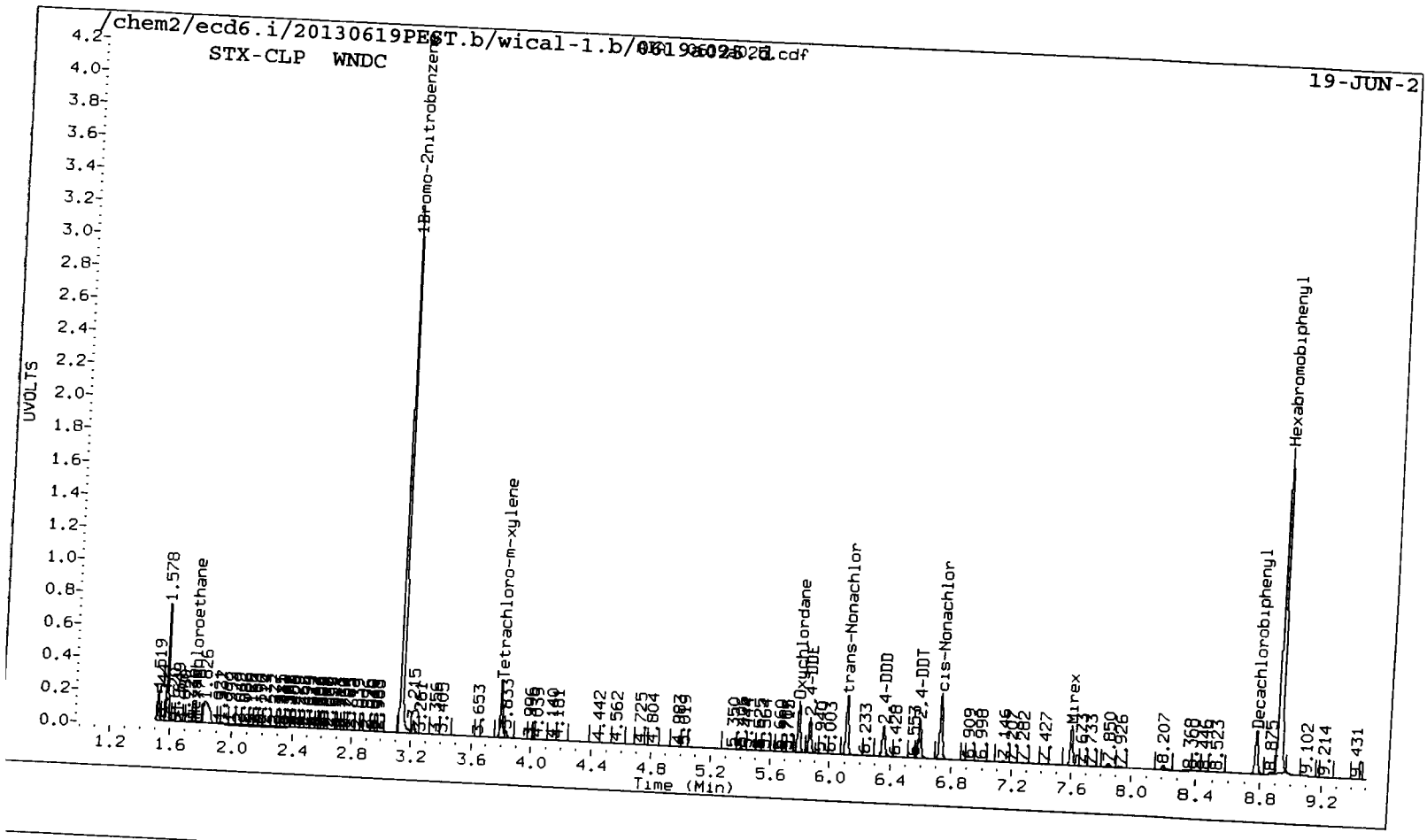
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5920700	5.9
Hexabromobiphenyl	4870538	5346075	9.8

WT91:01589

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29296978	3.4
Hexabromobiphenyl	16454599	18109694	10.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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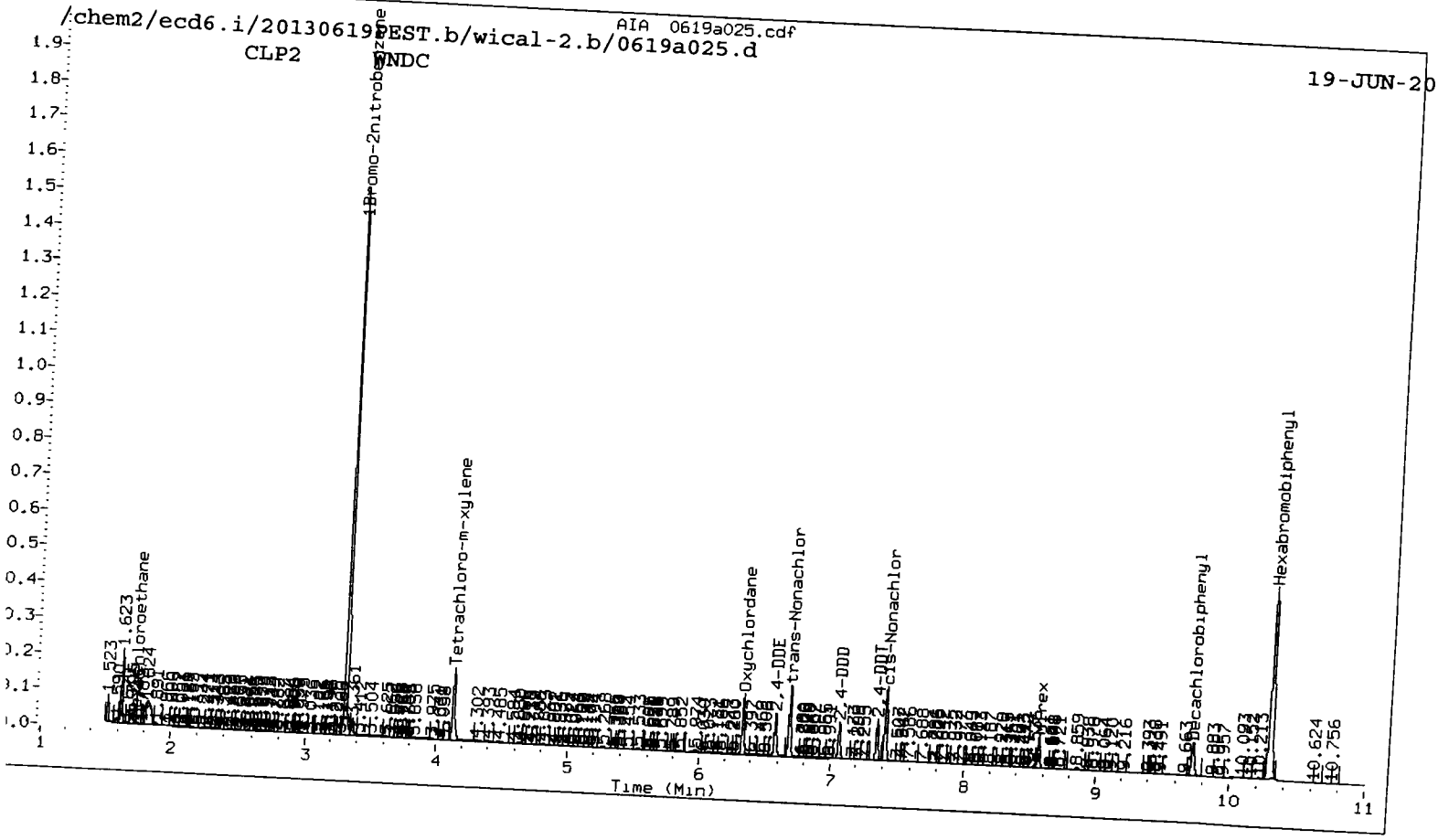
STX-CLP WNDC
19-JUN-2
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a025.cdf
CLP2 WNDC
19-JUN-20
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a026.d ARI ID: WNDD
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a026.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 22:06
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.758	0.001	1046	1.726	0.001	140170	0.0000	0.0000	---	Hexachloroethane
3.131	-0.001	5825954	3.300	0.001	28828761	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.788	0.001	1417285	6.332	-0.001	7742609	20.0729	20.6071	2.6	Oxychlordane
5.863	0.001	1081320	6.581	0.001	5647091	20.0504	20.8065	3.7	2,4-DDE
6.111	0.000	1724901	6.689	-0.002	9125838	19.9053	20.7697	4.3	trans-Nonachlor
6.350	0.002	974743	7.066	0.001	4886930	20.0521	20.4193	1.8	2,4-DDD
6.588	0.001	1124874	7.352	0.000	5341498	20.0058	20.4824	2.4	2,4-DDT
6.727	0.000	1892006	7.413	-0.003	9477549	19.7860	20.7118	4.6	cis-Nonachlor
7.601	0.000	1136859	8.565	0.000	4368778	19.4823	19.7312	1.3	Mirex
8.928	0.000	5243309	10.290	0.001	17802786	80.0000	80.0000	0.0	Hexabromobiphenyl
3.800	0.001	1458232	4.127	-0.001	9366030	18.4338	19.6425	6.3	Tetrachloro-m-xylene
8.777	0.000	1240181	9.725	0.000	5343942	18.7929	18.5698	1.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

JC 06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	46.1	49.1	46.1~	150- 0
Decachlorobiphenyl	47.0	46.4	46.4~	150- 0

~ Indicates recovery outside QC Limits

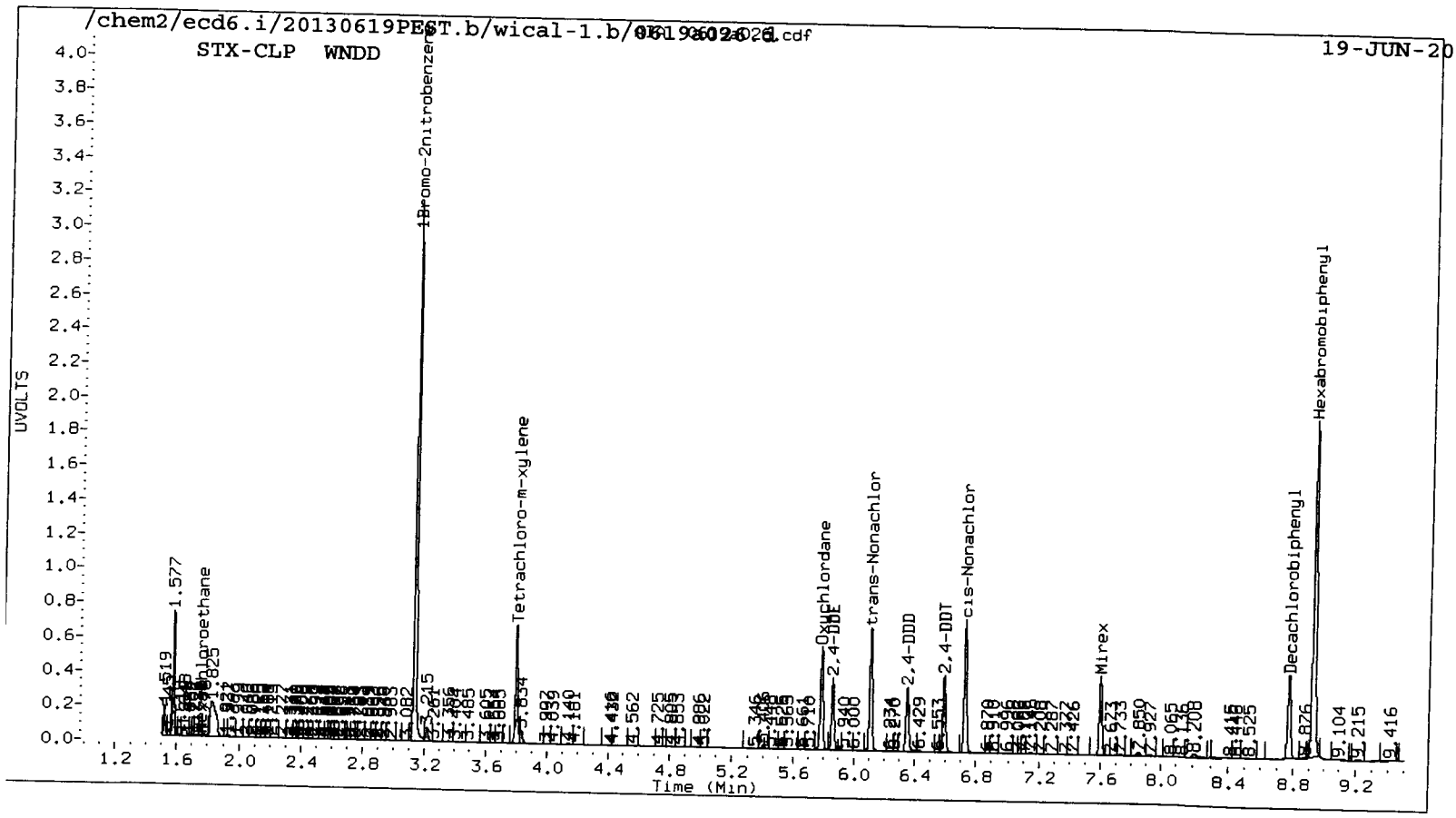
INTERNAL STANDARD SUMMARY

	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5825954	4.2
Hexabromobiphenyl	4870538	5243309	7.7

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28828761	1.8
Hexabromobiphenyl	16454599	17802786	8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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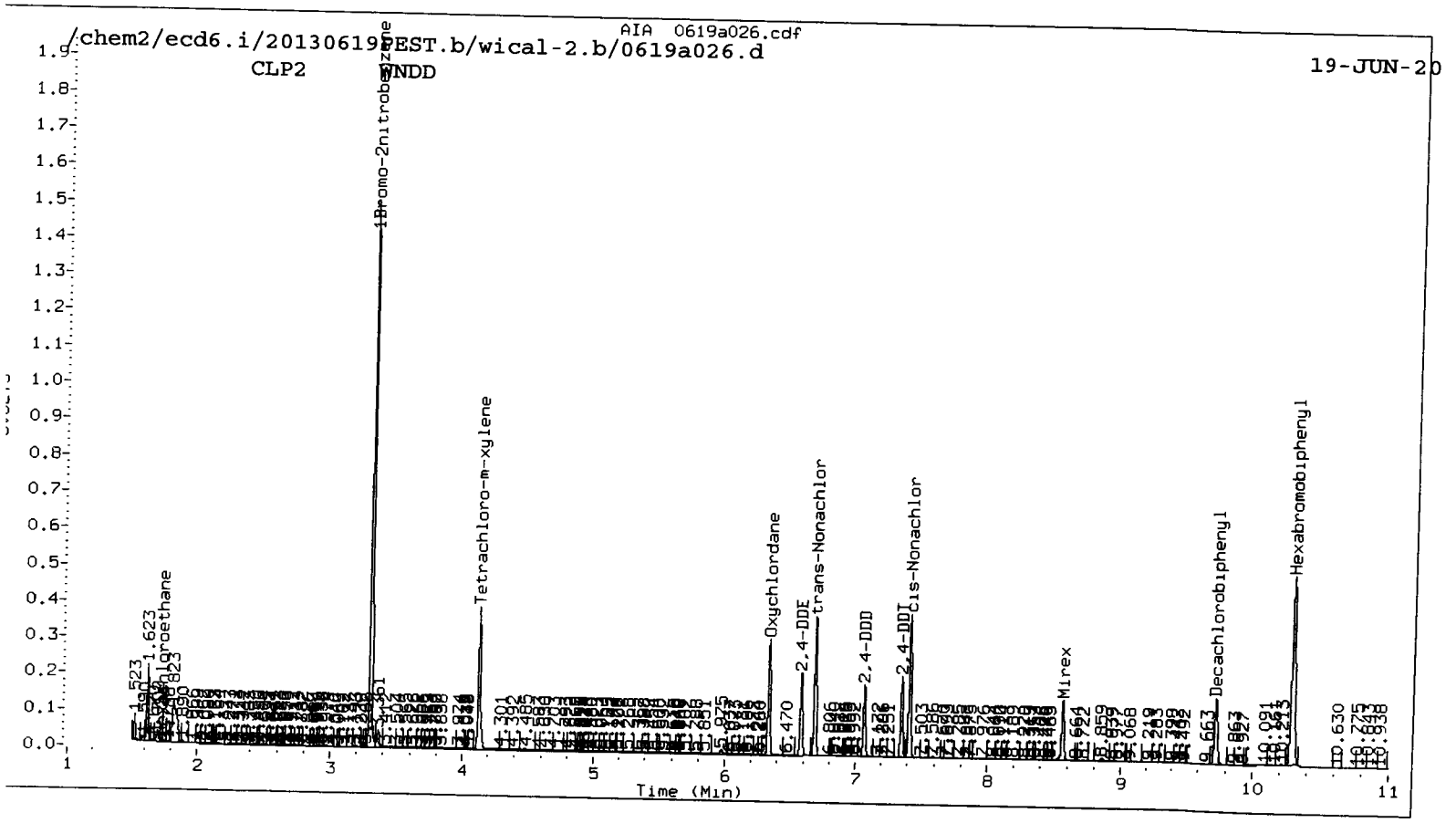
STX-CLP WNDD
19-JUN-20
UVOLTS
Time (Min)
1.577
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0619a026.cdf
/chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a026.d
CLP2 WNDD
19-JUN-20
Time (Min)
1.623
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a027.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a027.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 22:24
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.756	-0.001	1746	1.726	0.000	191313	0.0000	0.0000	---	Hexachloroethane
3.130	-0.001	5852777	3.300	0.000	28874628	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	5496120	6.332	-0.001	29291826	76.9993	77.8369	1.1	Oxychlordane
5.861	0.000	4254664	6.580	-0.001	20183802	78.0390	74.2485	5.0	2,4-DDE
6.110	0.000	7066116	6.688	-0.002	35122691	80.6611	79.7644	1.1	trans-Nonachlor
6.348	0.000	3864434	7.065	0.000	18468214	78.6383	77.0003	2.1	2,4-DDD
6.587	0.000	4503164	7.352	-0.001	20504517	79.2224	78.4569	1.0	2,4-DDT
6.726	0.000	7777229	7.412	-0.003	37026269	80.4524	80.7412	0.4	cis-Nonachlor
7.601	0.000	4560804	8.565	0.000	16872664	77.3130	76.0396	1.7	Mirex
8.927	0.000	5300626	10.289	0.000	17841215	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	6041881	4.127	-0.002	34519068	76.0265	72.2785	5.1	Tetrachloro-m-xylen
8.776	-0.001	5004883	9.725	0.000	21145178	75.0205	73.3197	2.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

6/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	190.1	180.7	180.7~	150- 0
Decachlorobiphenyl	187.6	183.3	183.3~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

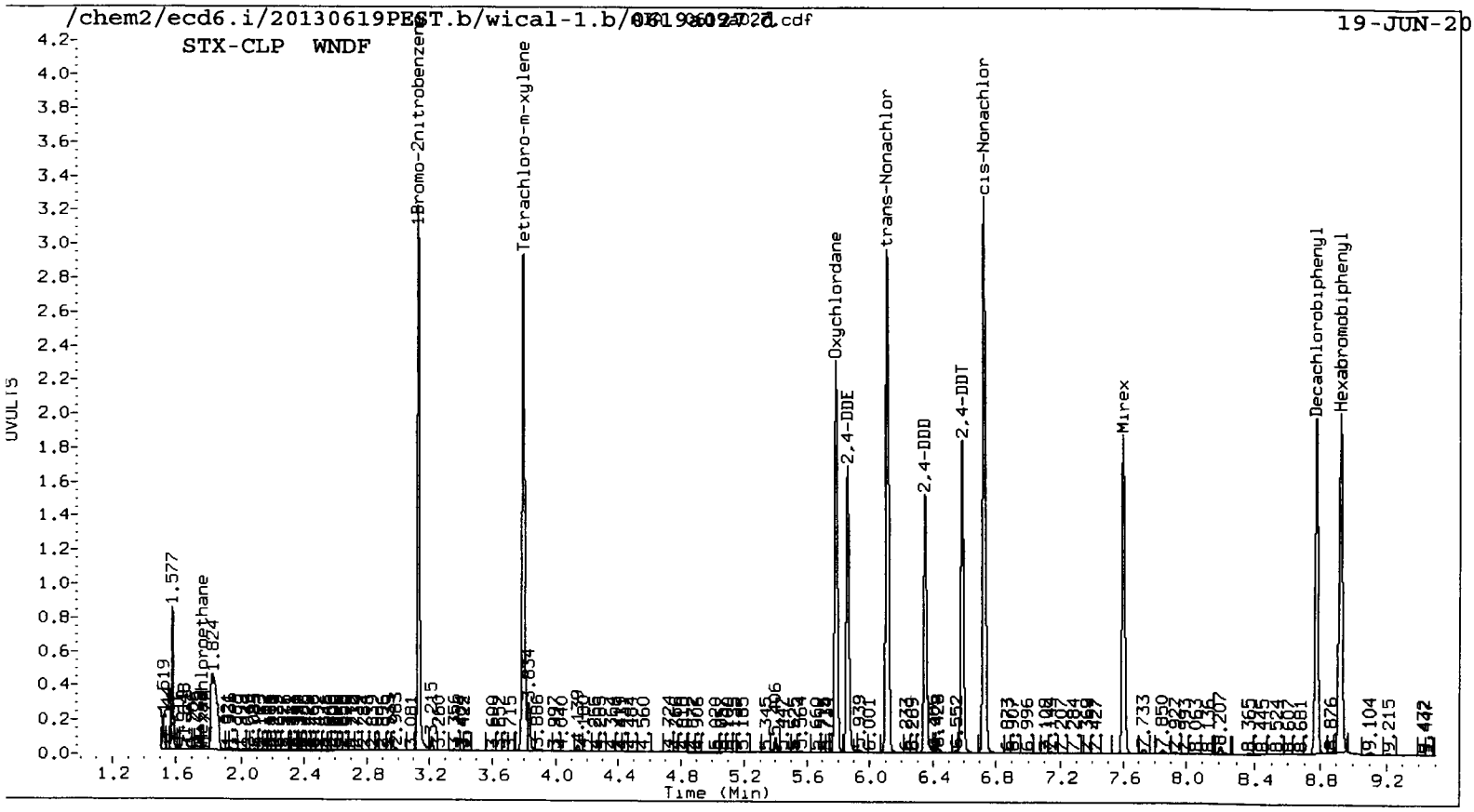
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5852777	4.7
Hexabromobiphenyl	4870538	5300626	8.8

WT01 : 041515

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28874628	2.0
Hexabromobiphenyl	16454599	17841215	8.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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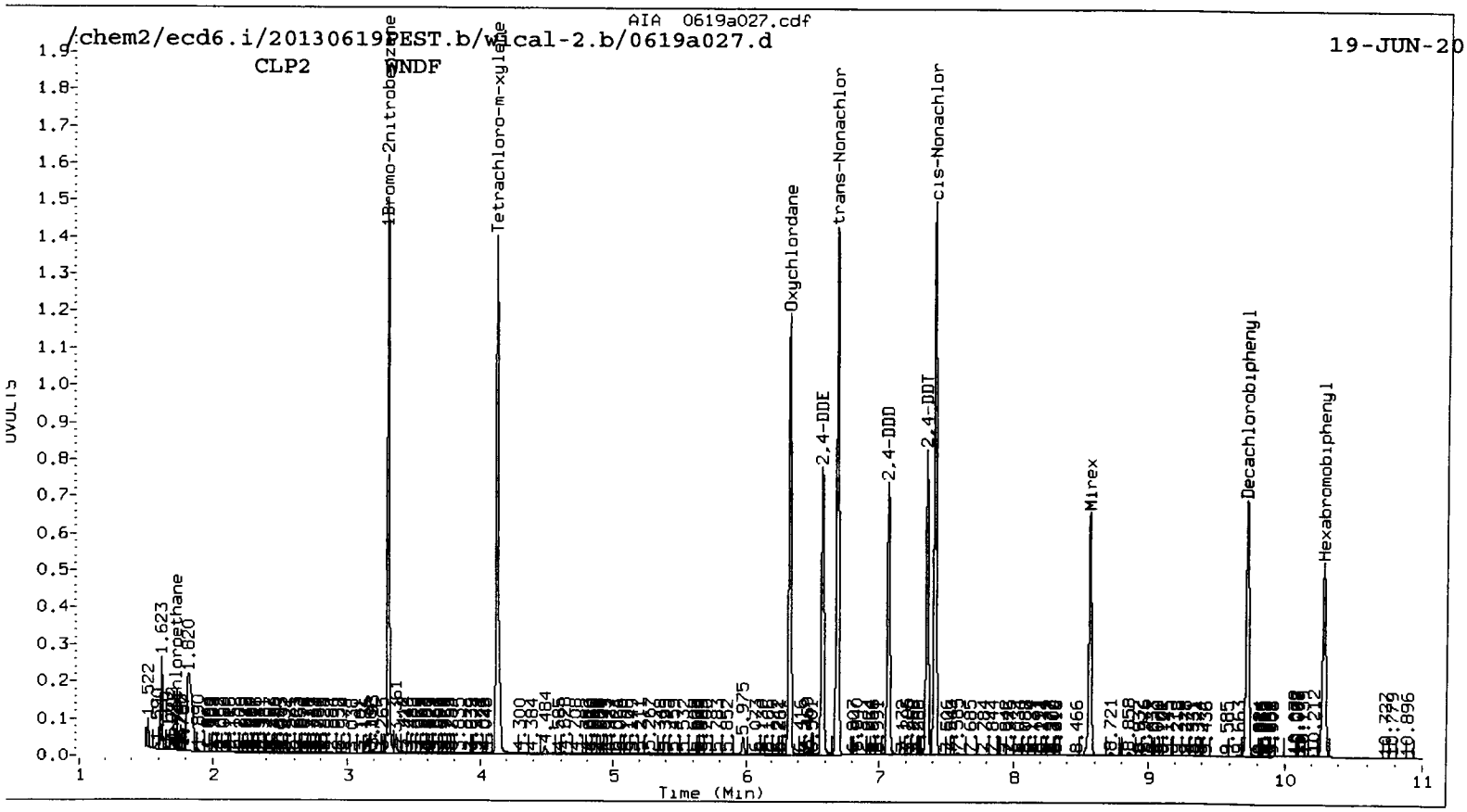
19-JUN-20
STX-CLP WNDF
UVOLTS
Time (Min)
1.577
1.824
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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19-JUN-20
CLP2 WNDF
UVOLTS
Time (Min)
1.623
1.820
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a028.d ARI ID: WNDG
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a028.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 22:42
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.758	0.000	2172	1.726	0.000	459344	0.0000	0.0000	---	Hexachloroethane
3.130	-0.001	5777001	3.299	0.000	28352573	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	10041452	6.332	0.000	53496498	141.6274	144.7734	2.2	Oxychlordane
5.861	0.000	7841014	6.580	0.000	34667644	144.7901	129.8772	10.9	2,4-DDE
6.110	0.000	13314783	6.690	0.000	60674113	153.0163	138.4836	10.0	trans-Nonachlor
6.348	0.000	7219024	7.065	0.000	32848121	147.8928	137.6422	7.2	2,4-DDD
6.587	0.000	8458360	7.353	0.000	36813655	149.8087	141.5676	5.7	2,4-DDT
6.727	0.000	14793375	7.415	0.000	62692268	154.0642	137.3955	11.4	cis-Nonachlor
7.601	0.000	8649046	8.564	0.000	32256718	147.6044	146.0999	1.0	Mirex
8.927	0.000	5265103	10.288	0.000	17752152	80.0000	80.0000	0.0	Hexabromobiphenyl
3.799	0.000	11433536	4.127	-0.002	59324331	145.7582	126.5048	14.1	Tetrachloro-m-xyl
8.777	-0.001	9543559	9.724	0.000	40008772	144.0181	139.4241	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	364.4	316.3	316.3~	150- 0
Decachlorobiphenyl	360.0	348.6	348.6~	150- 0

~ Indicates recovery outside QC Limits

06/25/13

INTERNAL STANDARD SUMMARY

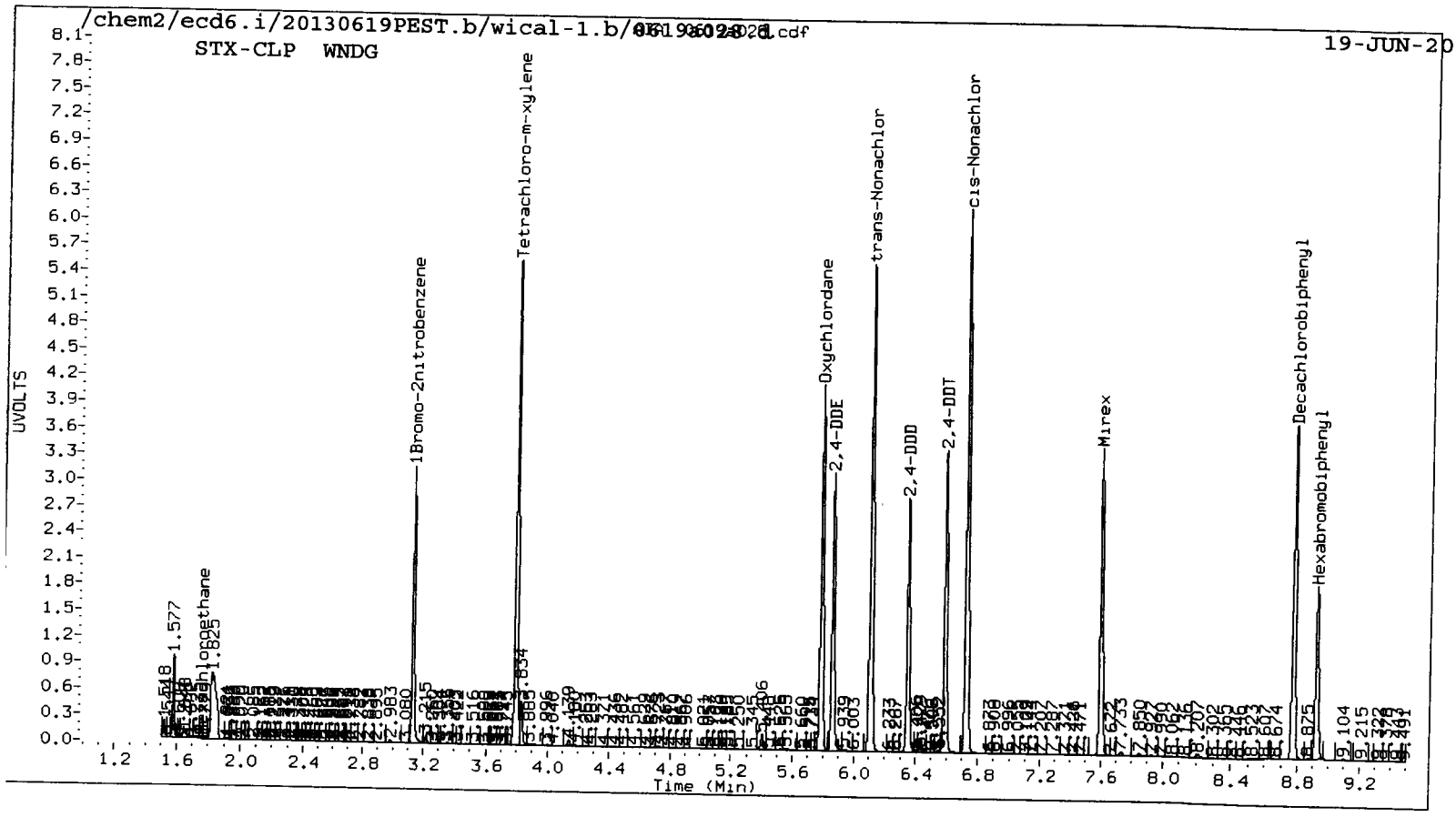
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5777001	3.3
Hexabromobiphenyl	4870538	5265103	8.1

WT91:01510

Standard Cpnd	Column 2 Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28352573	0.1
Hexabromobiphenyl	16454599	17752152	7.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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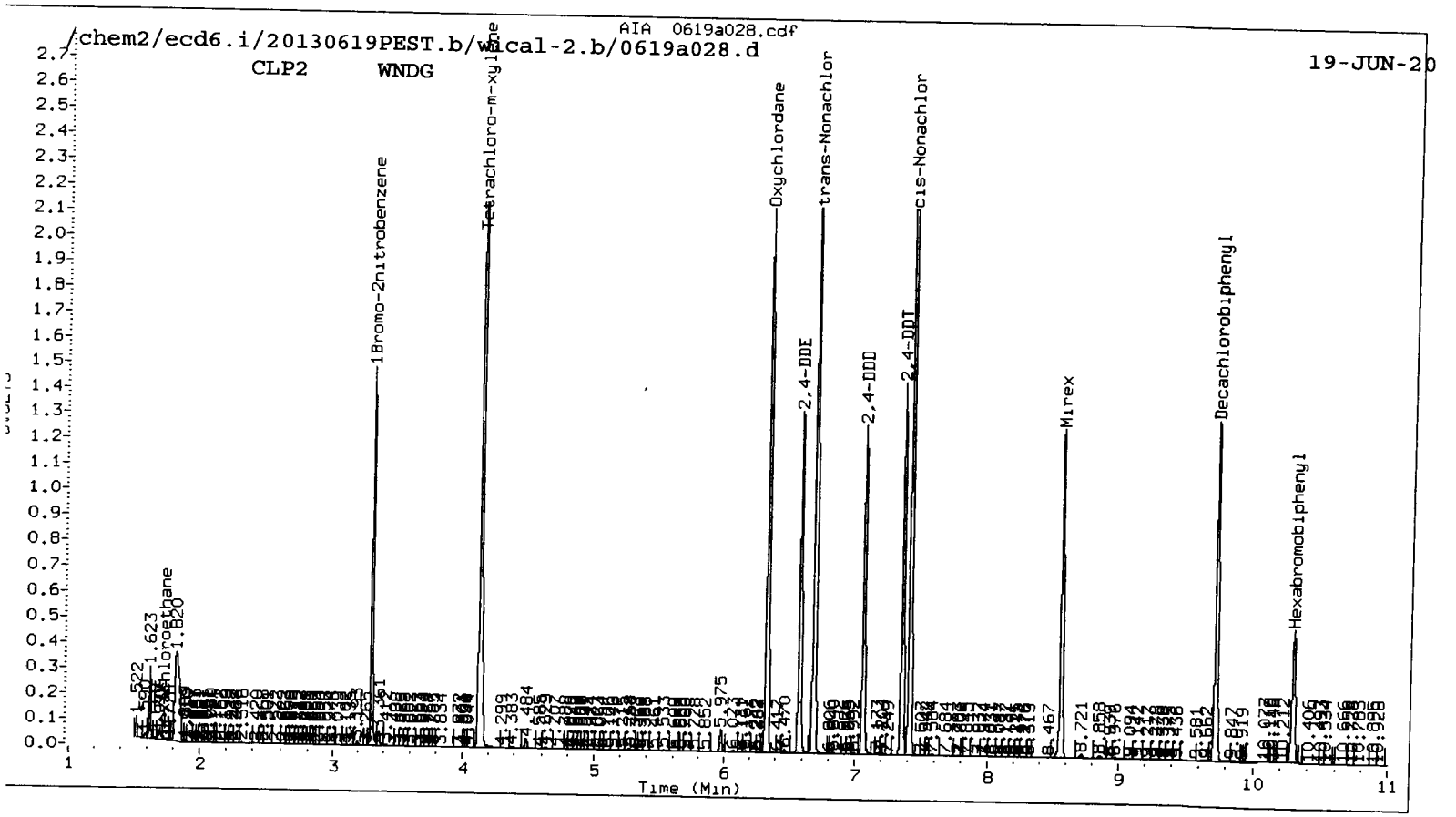
AIA 0619a028.cdf
STX-CLP WNDG
19-JUN-20
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0619a028.cdf
CLP2 WNDG
19-JUN-20
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a029.d ARI ID: WND ICV
Data file 2: /chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a029.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 19-JUN-2013 22:59
Compound Sublist: WND Report Date: 06/25/2013 09:51
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
1.758	0.001	826	1.726	0.000	153413	0.0000	0.0000	---	Hexachloroethane
3.130	-0.001	5841693	3.299	0.000	28922276	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
5.787	0.000	3597148	6.331	-0.001	17914975	49.2350	47.5269	3.5	Oxychlordane
5.861	-0.001	2932889	6.580	0.000	14207629	52.5566	52.1783	0.7	2,4-DDE
6.110	-0.001	4035811	6.688	-0.002	19905533	45.0090	44.7751	0.5	trans-Nonachlor
6.348	0.000	2687997	7.064	0.000	12861642	53.4395	53.1136	0.6	2,4-DDD
6.587	0.000	3215633	7.353	0.000	14586359	55.2691	55.2803	0.0	2,4-DDT
6.726	0.000	4401299	7.413	-0.002	20968088	44.4816	45.2883	1.8	cis-Nonachlor
7.598	-0.002	1170	8.574	0.010	45639	0.0194	0.2037	165.3*	Mirex
8.926	-0.001	5425526	10.289	0.000	18012862	80.0000	80.0000	0.0	Hexabromobiphenyl
3.797	-0.002	17239	4.129	0.001	47453	0.2173	0.0992	74.6*	Tetrachloro-m-xylene
8.780	0.003	7350	9.727	0.003	5151	0.1076	0.0177	143.5*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

06/25/13

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	0.5	0.2	0.2~	150- 0
Decachlorobiphenyl	0.3	0.0	0.0~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

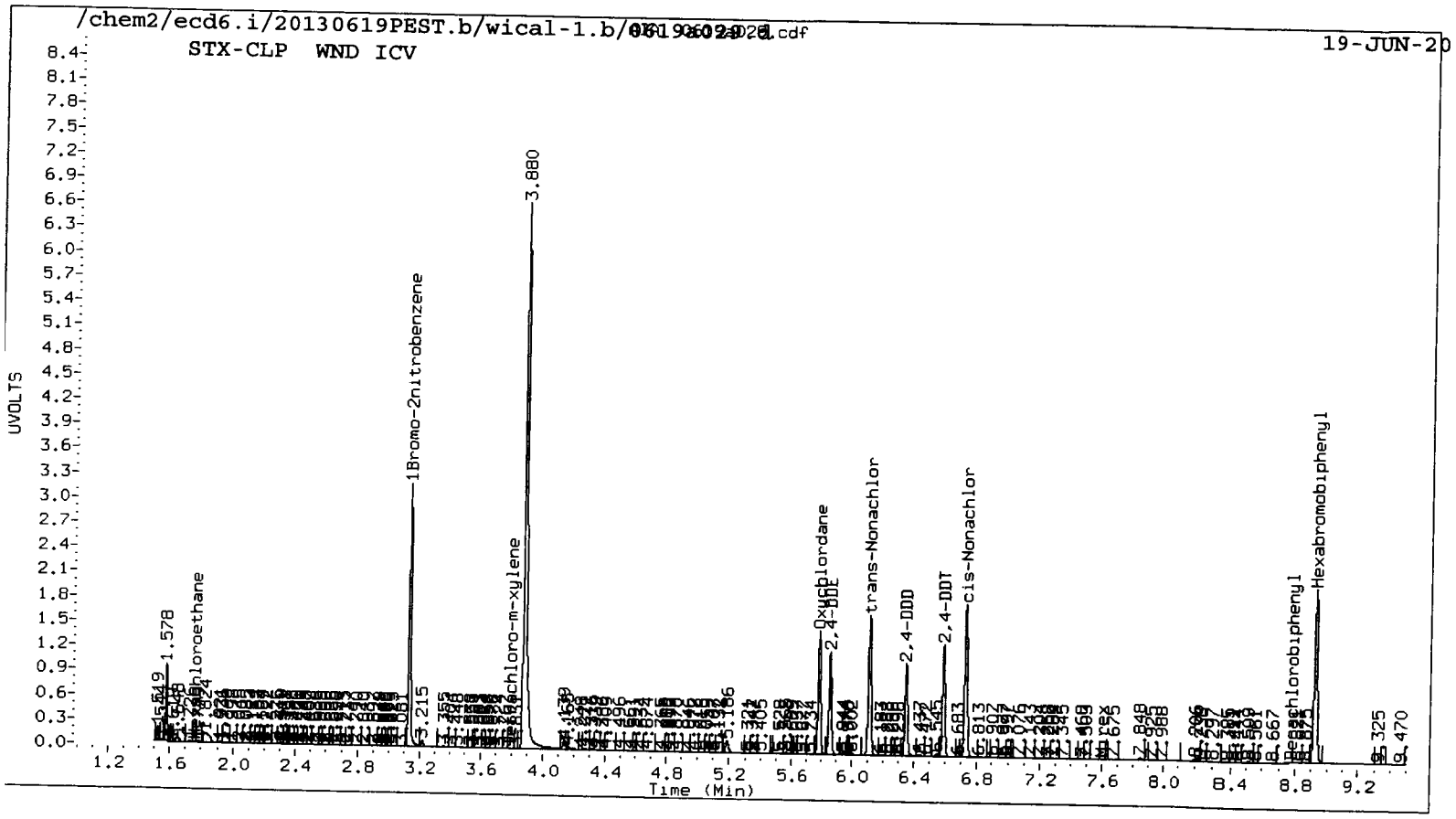
	Column 1		
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5841693	4.5
Hexabromobiphenyl	4870538	5425526	11.4

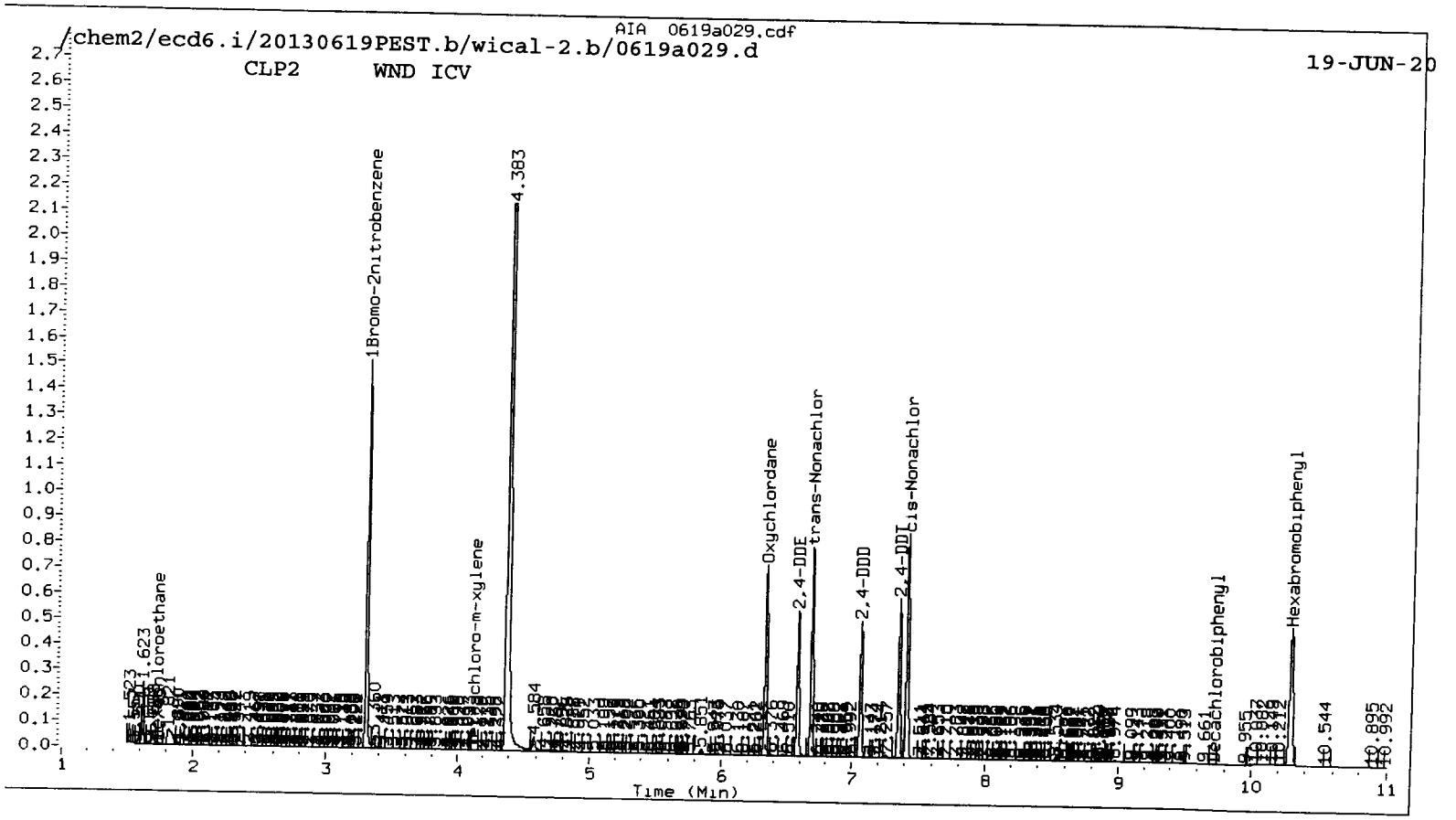
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28922276	2.1
Hexabromobiphenyl	16454599	18012862	9.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount


/chem2/ecd6.i/20130619PEST.b/wical-1.b/0619a029.d
AIA 0619a029.cdf
STX-CLP WND ICV
19-JUN-20
UVOLTS
1.578
1Bromo-2nitrobenzene
3.215
3.880
chloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Hexabromobiphenyl
Time (Min)


/chem2/ecd6.i/20130619PEST.b/wical-2.b/0619a029.d
AIA 0619a029.cdf
CLP2 WND ICV
19-JUN-20
1.623
1Bromo-2nitrobenzene
4.383
chloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Hexabromobiphenyl
Time (Min)

Pesticide Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: UT81 Client ID: SAL8

METHOD: **8082A**(PCB) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 (ECD-6) ECD-7 ECD-8

Curve Date: 06/19/13 Analysis Start Date: _____

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / (Y) / N / ✓	Method Blank in Control?	(Y) / N / ✓
Retention times within Windows?	(Y) / N / ✓	LCS / LCSD Recovery in Control?	(Y) / N / ✓
CCAL met %D Criteria?	(Y) / N / ✓	~~LCS / LCSD RPD ≤30%?~~	NA / LCS only
Surrogate Recovery in Control?	Y / (N) / ✓	MS / MSD Recovery in Control?	Y / (N) / See NOTES
Internal STD. within 50-200%?	NA / Y / (N) / ✓	MS / MSD RPD ≤30%?	(NA) / Y
Manual Integrations?	Y / (N) / ✓	Samples Diluted?	(Y) / N / (5x, 100x)
Integration Summary?	Y / (N) / ✓	Special Analysis Request?	(Y) / N / ✓

Detail problems, corrective actions and/or other pertinent information below

- Samples were run @ 5x dilution due to very dark color of the extracts, bad matrix (see screens).
- Closing ccals failed very low on both columns, DPT break down = 22%. IS failed low on cc_{p2} column.
- C/Cms/Cmsd: I-S failed on cc_{p2} column due to matrix effect. Surrogates recoveries reported as is.
- Samples were rerun @ 100x dilution on 06/27/13. Closing ccals: okay on cc_p, failed low on cc_{p2}. DS - okay

(Review 1) Analyst: YZ **Date:** 6/28/13

(Review 2) Reviewer: [signature] **Date:** 6/27/13

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 6/27/13 Analysis: Pest Analyst: YZ

Column 1 Serial No.: 108526A Column Type: CLP

Column 2 Serial No.: 109 4709 Column Type: CLP

GC Method: Pest ICal Date: 06/19/13

IS	Ical/Ccal	ICV
2000-1	B339	
	B559	
	B370.	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130619PEST.b/0627-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	27-JUN-2013 15:36	0627a005.d	1	DS	
2	27-JUN-2013 15:54	0627a006.d	1	INDAE	
3	27-JUN-2013 16:12	0627a007.d	1	TOXAPH	
4	27-JUN-2013 16:29	0627a008.d	1	WV67MBW1	WV67MBW1
5	27-JUN-2013 16:47	0627a009.d	1	WV67LCSW1	WV67LCSW1
6	27-JUN-2013 17:05	0627a010.d	1	WV67LCSDW1	WV67LCSDW1
7	27-JUN-2013 17:23	0627a011.d	1	WV67E	UP-CB-B8-20130626-W
8	27-JUN-2013 17:41	0627a012.d	1	DS	
9	27-JUN-2013 17:58	0627a013.d	1	INDAE	
10	27-JUN-2013 18:16	0627a014.d	1	TOXAPH	
11	27-JUN-2013 18:34	0627a015.d	100	WT81A	AM-VT-INF-20130612-
12	27-JUN-2013 18:52	0627a016.d	100	WT81B	AM-SF4-EFF-20130612
13	27-JUN-2013 19:10	0627a017.d	100	WT81C	AM-FD-01-20130612-S
14	27-JUN-2013 19:27	0627a018.d	1	DS	
15	27-JUN-2013 19:45	0627a019.d	1	INDAE	
16	27-JUN-2013 20:03	0627a020.d	1	TOXAPH	

YZ 6/28/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.: Organics Instrument Log

ECD6 Serial No.: US00007128

Date: 6/25/13 Analysis: Pest Analyst: YE

Column 1 Serial No.: 1085624 Column Type: ccq

Column 2 Serial No.: 109 4709 Column Type: ccqc

GC Method: Pest ICal Date: 06/19/13

IS	Ical/Ccal	ICV
2006-1	B339	
	B559	
	B370	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20130619PEST.b/0625-1.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	25-JUN-2013 15:10	0625a005.d	1	DS	
2	25-JUN-2013 15:28	0625a006.d	1	INDAE	
3	25-JUN-2013 15:45	0625a007.d	1	TOXAPH	
4	25-JUN-2013 16:03	0625a008.d	1	WT81MBS1	WT81MBS1
5	25-JUN-2013 16:21	0625a009.d	1	WT81LCSS1	WT81LCSS1
6	25-JUN-2013 16:39	0625a010.d	1	WT81QLS	
7	25-JUN-2013 16:57	0625a011.d	5	WT81A	AM-VT-INF-20130612-
8	25-JUN-2013 17:14	0625a012.d	5	WT81B	AM-SF4-EFF-20130612
9	25-JUN-2013 17:32	0625a013.d	5	WT81C	AM-FD-01-20130612-S
10	25-JUN-2013 17:50	0625a014.d	5	WT81CMS	AM-FD-01-201306 MS
11	25-JUN-2013 18:08	0625a015.d	5	WT81CMSD	AM-FD-01-201306 MSD
12	25-JUN-2013 18:26	0625a016.d	1	DS	
13	25-JUN-2013 18:43	0625a017.d	1	INDAE	
14	25-JUN-2013 19:01	0625a018.d	1	TOXAPH	

YE 6/28/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a006.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a006.d Client ID: YZ 6/27/13
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 15:28
Compound Sublist: INDA Report Date: 06/27/2013 15:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.008	6980936	3.300	0.000	29495923	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.277	-0.009	2797146	4.709	-0.001	13274439	19.9788	18.8372	5.9	alpha-BHC
4.636	-0.009	1033627	5.140	0.001	5096553	18.3023	16.6944	9.2	beta-BHC
4.805	-0.009	2434956	5.450	0.000	11603735	20.0863	19.1032	5.0	delta-BHC
4.559	-0.010	2496216	5.066	0.000	11397417	19.5544	18.2913	6.7	gamma-BHC (Lindane)
5.004	-0.011	2364045	5.530	0.000	10617234	19.2981	17.5667	9.4	Heptachlor
5.296	-0.011	2328364	5.868	0.000	10268969	19.6160	17.9470	8.9	Aldrin
5.869	-0.013	2070761	6.422	0.000	9118015	18.8180	17.4848	7.3	Heptachlor epoxide b
6.246	-0.014	1938991	6.810	0.001	8351026	18.8515	17.8211	5.6	Endosulfan I
6.468	-0.015	4168349	7.066	-0.001	16633763	38.3531	35.1721	8.7	Dieldrin
6.170	-0.014	3060736	6.869	-0.001	16762062	37.0161	35.2077	5.0	4,4'-DDE
6.686	-0.015	3554445	7.356	-0.001	13038309	35.0744	35.1128	0.1	Endrin
6.892	-0.014	3524130	7.545	0.000	14038573	35.0297	36.0891	3.0	Endosulfan II
6.727	-0.013	3379696	7.408	0.001	13775928	34.9246	34.4616	1.3	4,4'-DDD
7.658	-0.017	3157273	8.087	0.000	12215181	35.5429	36.8843	3.7	Endosulfan sulfate
6.984	-0.014	3441443	7.695	0.000	12680639	36.0822	35.8010	0.8	4,4'-DDT
7.409	-0.016	7377530	8.277	-0.005	21204559	163.4336	160.8623	1.6	Methoxychlor
7.912	-0.017	3814135	8.577	-0.001	12614161	34.5785	38.1109	9.7	Endrin ketone
7.268	-0.016	2843526	7.842	-0.001	11097512	35.7598	37.1613	3.8	Endrin aldehyde
5.989	-0.013	2185015	6.605	0.000	9525090	19.3294	17.3557	10.8	gamma-Chlordane
6.113	-0.014	2094183	6.742	0.000	8818416	19.0330	17.5276	8.2	alpha-Chlordane
2.305	-0.006	2837852	2.467	-0.003	10840837	18.4994	17.7564	4.1	Hexachlorobutadiene
4.132	-0.008	2021376	4.586	0.000	10627367	18.1471	18.2908	0.8	Hexachlorobenzene
8.906	-0.021	6724624	10.287	-0.001	18007957	80.0000	80.0000	0.0	Hexabromobiphenyl
3.792	-0.007	3570486	4.127	-0.001	17945671	37.6677	36.7845	2.4	Tetrachloro-m-xylen
8.756	-0.021	2946617	9.724	-0.001	10382663	34.8152	35.6679	2.4	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	94.2	92.0	92.0~	115- 0
Decachlorobiphenyl	87.0	89.2	87.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

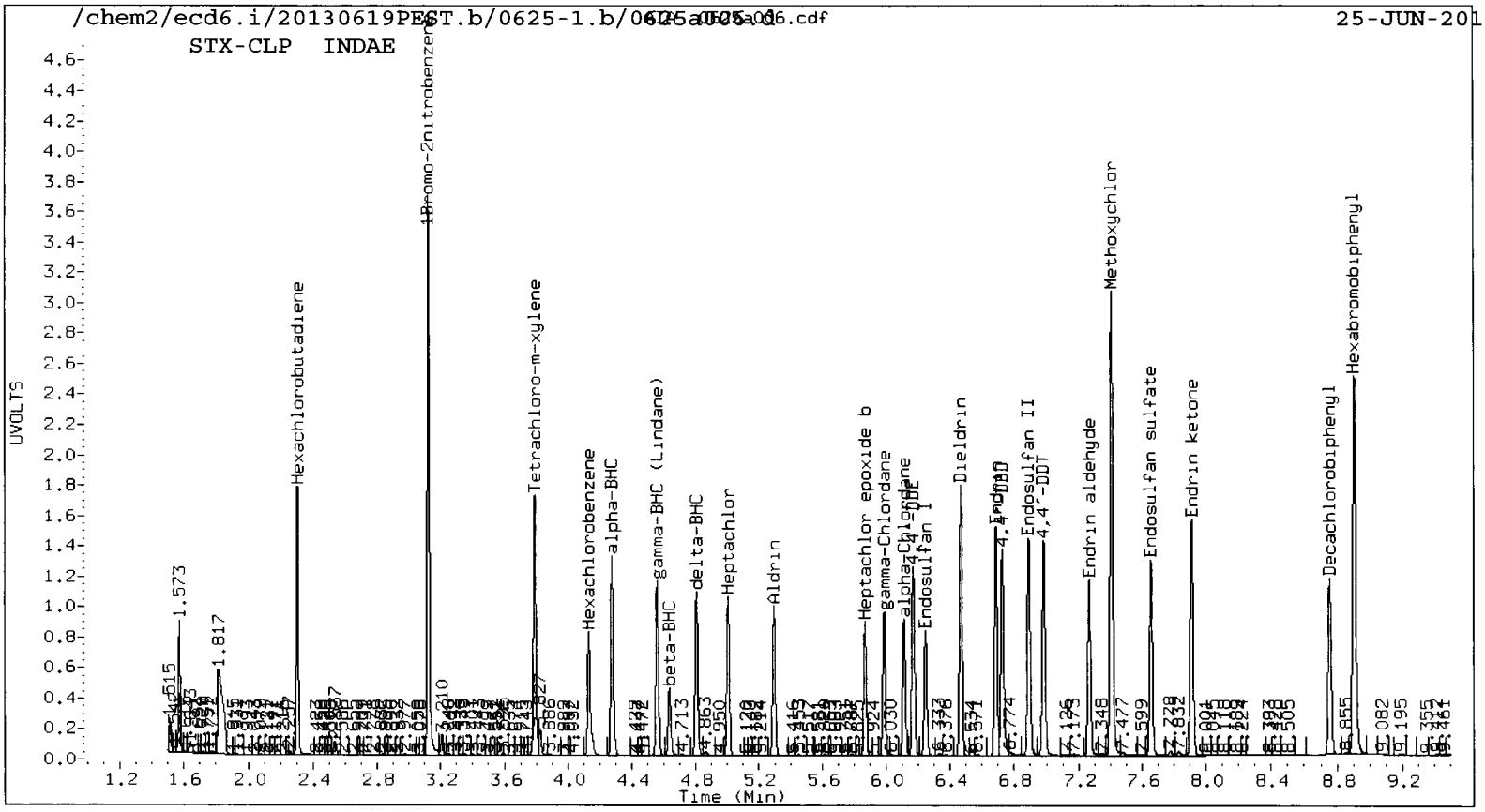
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6980936	24.9
Hexabromobiphenyl	4870538	6724624	38.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29495923	4.2
Hexabromobiphenyl	16454599	18007957	9.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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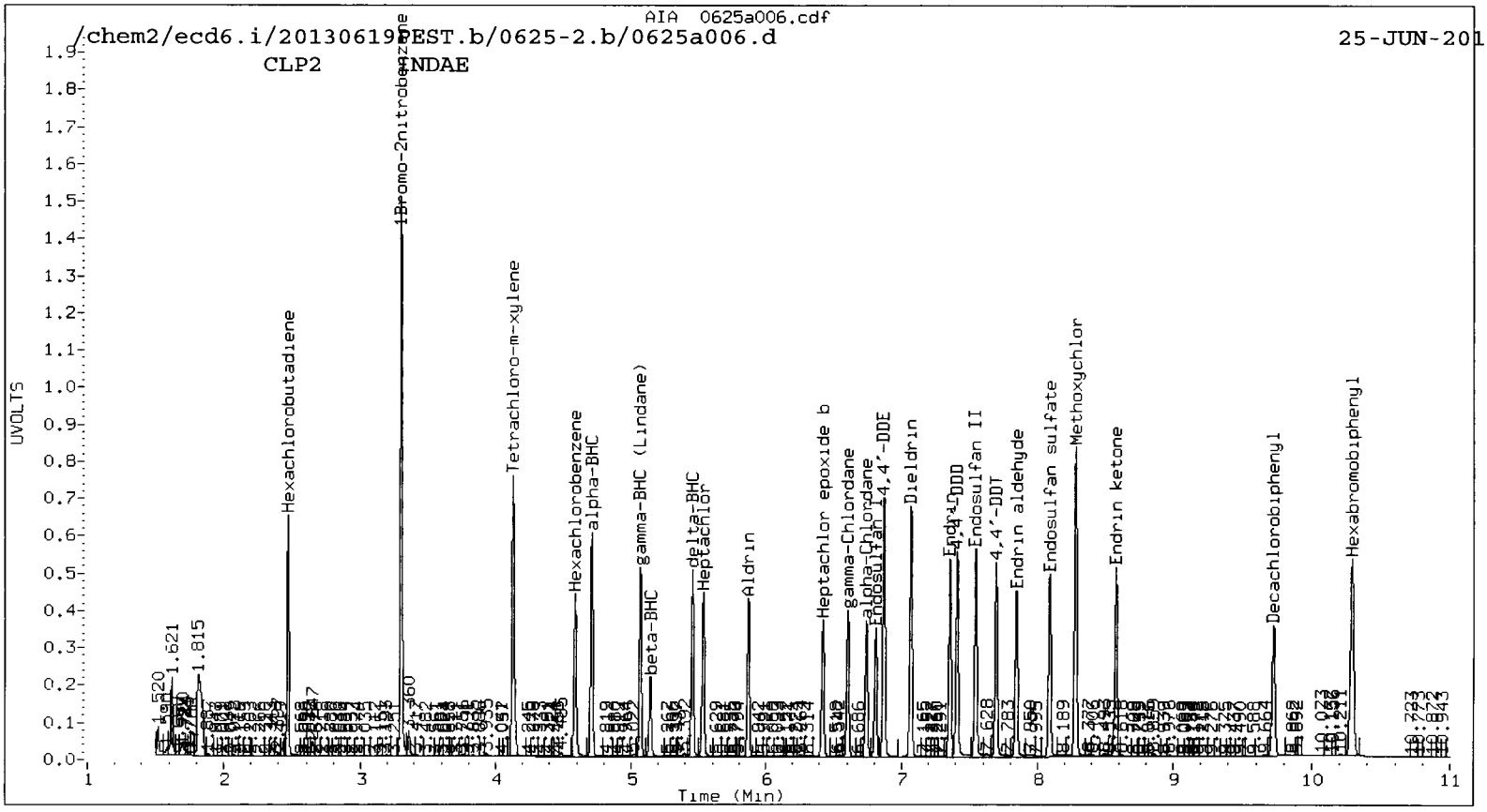
AIA 0625a006.cdf
25-JUN-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.573
1.817
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0625a006.cdf
/chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a006.d
25-JUN-201
CLP2 INDAE
UVOLTS
Time (Min)
1.621
1.815
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/27/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a007.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a007.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 15:45
Compound Sublist: TOXAPH Report Date: 06/27/2013 15:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.124	-0.007	6885906	3.300	0.000	29667902	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.907	-0.021	6946802	10.287	-0.001	18224259	80.0000	80.0000	0.0	Hexabromobiphenyl
3.792	-0.007	2856793	4.127	-0.001	15196802	30.5543	30.9693	1.3	Tetrachloro-m-xylen
8.756	-0.021	2815216	9.724	-0.001	9965427	32.1988	33.8283	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	76.4	77.4	76.4~	150- 0
Decachlorobiphenyl	80.5	84.6	80.5~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

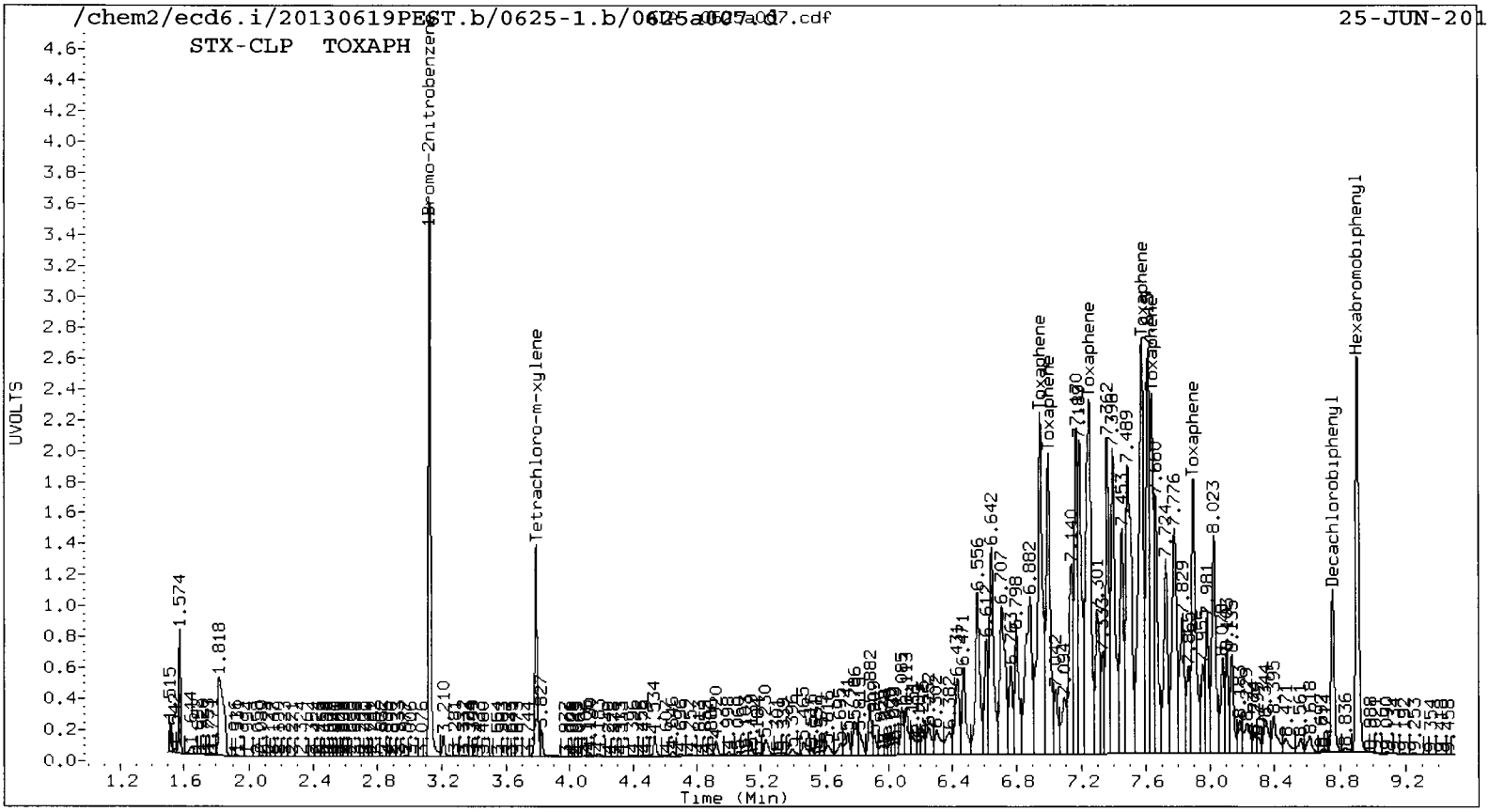
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6885906	23.2
Hexabromobiphenyl	4870538	6946802	42.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29667902	4.8
Hexabromobiphenyl	16454599	18224259	10.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.943	-0.015	9632796	2160.5	1	7.291	0.000	28289057	2218.7	
Toxaphene	2	6.995	-0.015	6711066	2181.3	2	7.616	0.001	41792568	2221.6	
Toxaphene	3	7.251	-0.016	10985596	2164.3	3	7.848	0.002	45773750	2217.5	
Toxaphene	4	7.576	-0.017	11186636	2163.7	4	8.314	0.000	33859404	2275.8	
Toxaphene	5	7.637	0.005	6222996	1812.6	5	8.353	0.001	43606572	2304.8	
Toxaphene	6	7.896	-0.018	6290626	2158.4	NS	---			----	
Total STX-CLPAve (6 peaks): 2106.795						Total CLP2Ave (5 peaks): 2247.674				RPD = 6	
Corrected Ave (6 peaks): 2106.795						Corrected Ave (5 peaks): 2247.674				RPD = 6	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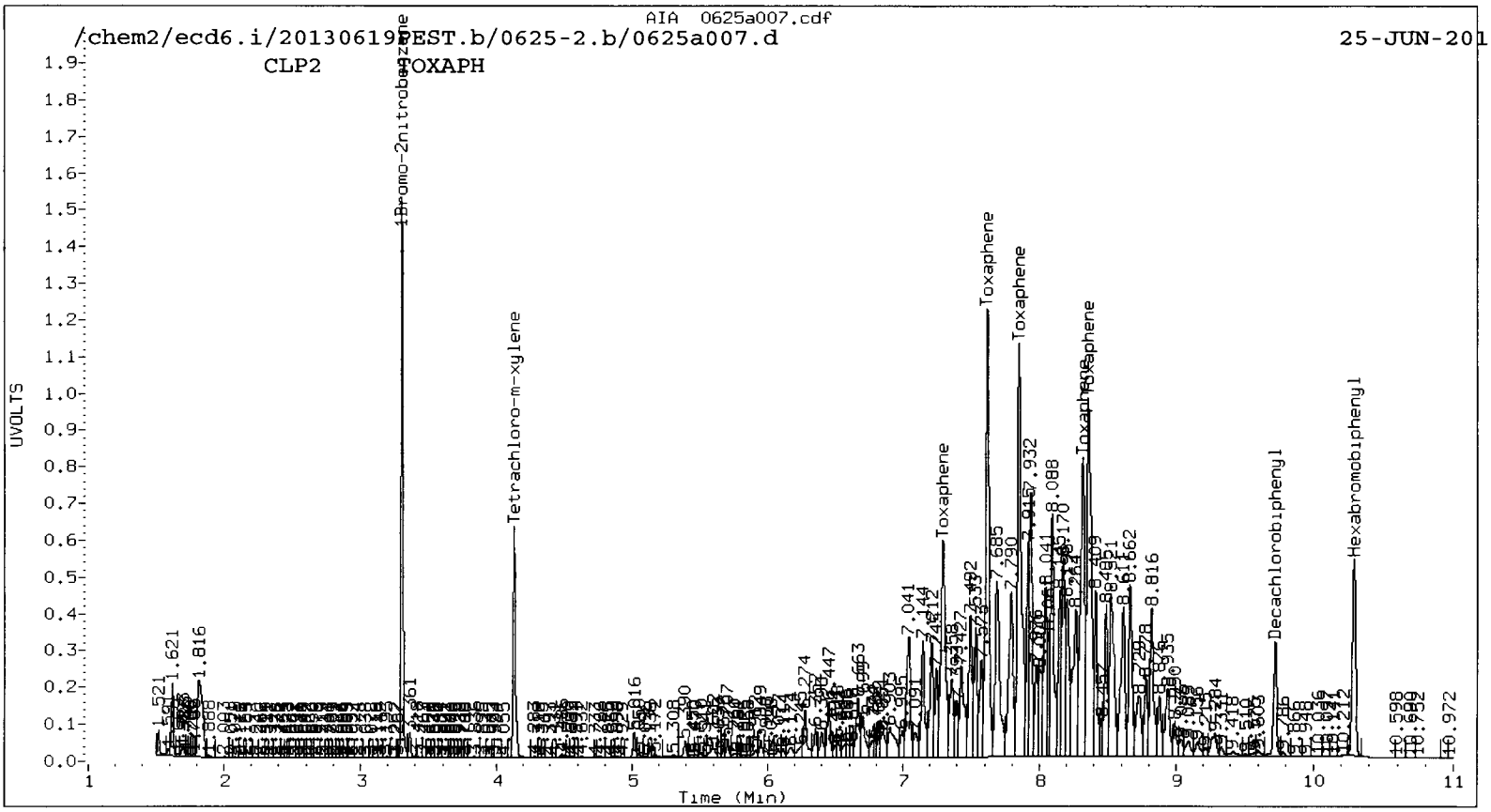
25-JUN-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1.574
1.818
3.210
3.827
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
8.023


AIA 0625a007.cdf
/chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a007.d
25-JUN-201
CLP2 TOXAPH
UVOLTS
Time (Min)
1.621
1.816
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
7.932
8.088
8.816

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

12 6/27/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a008.d ARI ID: WT81MBS1
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a008.d Client ID: WT81MBS1
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 16:03
Compound Sublist: wpest Report Date: 06/27/2013 15:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.008	6637557	3.299	-0.001	27952473	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.275	-0.012	5025	4.708	-0.002	21324	~~0.0377~~	~~0.0319~~	16.7	alpha-BHC
4.607	-0.037	2814	5.155	0.016	41614	0.0524	0.1438	93.2*	beta-BHC
4.786	-0.028	16186	5.459	0.009	55782	0.1404	0.0969	36.7	delta-BHC
4.556	-0.012	4492	5.044	-0.022	794547	0.0370	1.3456	189.3*	gamma-BHC (Lindane)
5.037	0.022	1712	5.528	-0.002	37604	0.0147	0.0657	126.8*	Heptachlor
5.287	-0.020	4416	5.844	-0.024	769547	0.0391	1.4192	189.3*	Aldrin
5.878	-0.004	16244	6.454	0.032	45985	0.1553	0.0931	50.1*	Heptachlor epoxide b
6.234	-0.026	2566	6.804	-0.006	40177	0.0262	0.0905	110.1*	Endosulfan I
6.447	-0.035	2473	7.109	0.042	47503	0.0239	0.1060	126.3*	Dieldrin
6.169	-0.015	4904	6.870	-0.001	65659	0.0624	0.1455	80.0*	4,4'-DDE
6.654	-0.047	2806	7.372	0.015	72172	0.0289	0.2135	152.3*	Endrin
6.902	-0.004	2304	7.549	0.004	73333	0.0239	0.2071	158.6*	Endosulfan II
6.755	0.015	11798	7.405	-0.002	50399	0.1273	0.1385	8.5	4,4'-DDD
7.653	-0.021	5912	8.087	0.000	42858	0.0695	0.1422	68.7*	Endosulfan sulfate
6.982	-0.016	2663	7.702	0.007	163157	0.0291	0.5061	178.2*	4,4'-DDT
7.451	0.026	7987	8.268	-0.014	64897	0.1847	0.5409	98.2*	Methoxychlor
7.907	-0.023	20432	8.584	0.006	164698	0.1934	0.5467	95.5*	Endrin ketone
7.264	-0.020	3867	7.838	-0.004	105139	0.0508	0.3868	153.6*	Endrin aldehyde
5.986	-0.016	25822	6.610	0.005	110090	0.2402	0.2117	12.6	gamma-Chlordane
6.110	-0.016	3748	6.746	0.004	33768	0.0358	0.0708	65.6*	alpha-Chlordane
2.319	0.007	40818	2.453	-0.016	268173	0.2798	0.4635	49.4*	Hexachlorobutadiene
4.130	-0.009	78586	4.585	-0.001	185756	0.7420	0.3374	75.0*	Hexachlorobenzene
5.771	-0.016	28722	6.323	-0.009	102095	0.3311	0.2802	16.6	Oxychlordane
----			6.565	-0.015	89625	0.0000	0.3406	---	2,4-DDE
6.065	-0.046	6201	6.688	-0.002	81321	0.0582	0.2010	110.1*	trans-Nonachlor
6.373	0.025	3030	7.062	-0.003	89104	0.0507	0.4044	155.4*	2,4-DDD
6.586	-0.001	1924	----			0.0279	0.0000	---	2,4-DDT
6.698	-0.029	5108	----			0.0435	0.0000	---	cis-Nonachlor
7.579	-0.022	2756	8.533	-0.031	188063	~~0.0384~~	~~0.9226~~	184.0*	Mirex
8.905	-0.022	6441794	10.287	-0.002	16390268	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.749	-0.009	35955	1.719	-0.007	26631830	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.532	-0.049	5121	7.327	-0.009	90849	~~0.0000~~	~~0.0000~~	---	Kepone
3.791	-0.008	2371233	4.126	-0.002	9197268	26.3100	19.8932	27.8	Tetrachloro-m-xylene
8.756	-0.021	2383359	9.723	-0.001	8188344	29.3965	30.9061	5.0	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	65.8	49.7	49.7	42-112
Decachlorobiphenyl	73.5	77.3	73.5	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

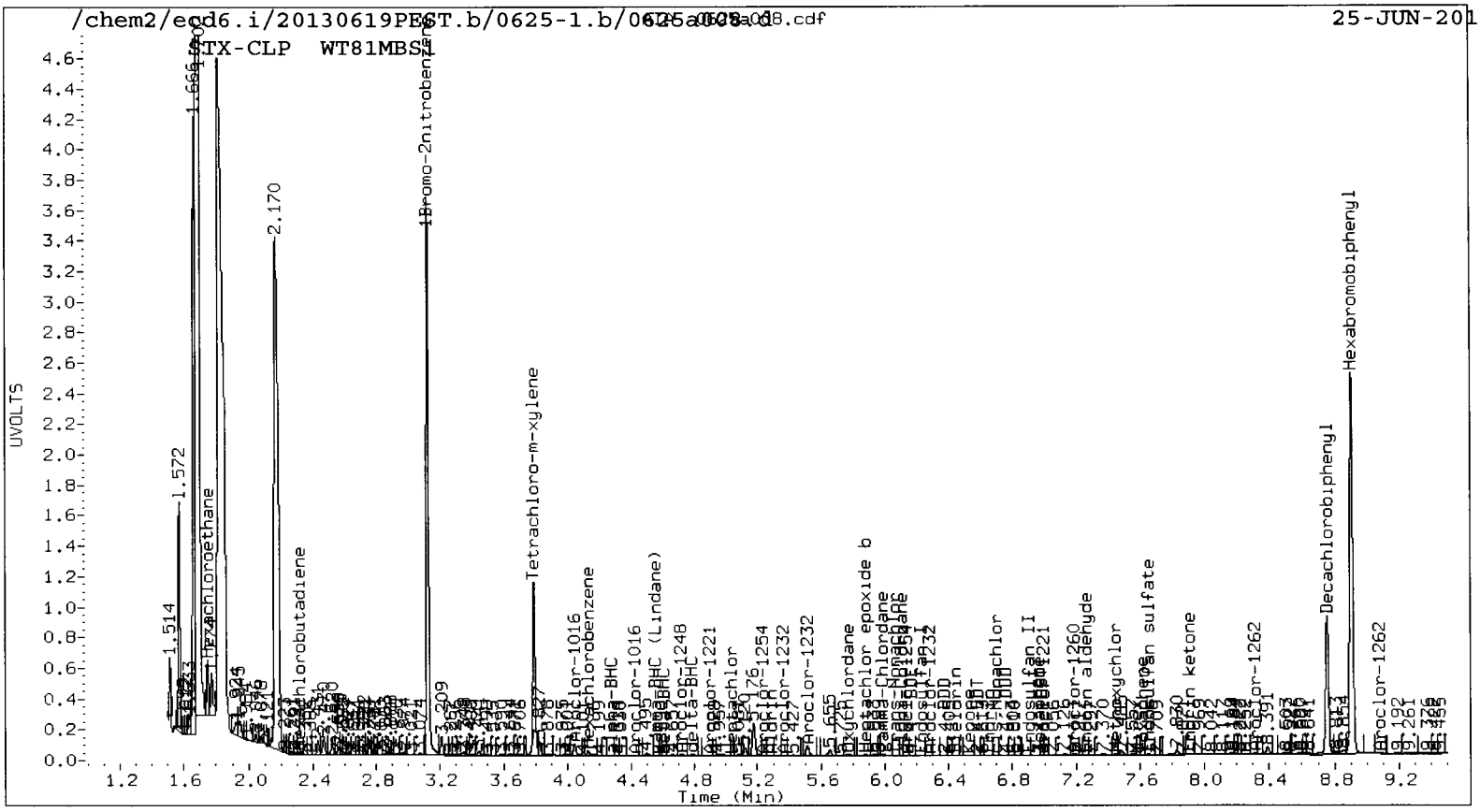
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6637557	18.7
Hexabromobiphenyl	4870538	6441794	32.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	27952473	-1.3
Hexabromobiphenyl	16454599	16390268	-0.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.962	0.004	4598	1.1	1	7.271	-0.020	28031	2.4
Toxaphene	2	6.996	-0.013	2828	1.0	2	7.627	0.012	66923	4.0
Toxaphene	3	7.264	-0.003	3867	0.8	3	7.838	-0.008	105139	5.7
Toxaphene	4	7.579	-0.014	2756	0.6	4	8.293	-0.021	119054	8.9
Toxaphene	5	7.614	-0.018	2390	0.8	5	8.353	0.001	94980	5.6
Toxaphene	6	7.907	-0.006	20432	7.6	NS	---			----
Total STX-CLPAve (6 peaks): 1.968						Total CLP2Ave (5 peaks): 5.309			RPD = 92*	
Corrected Ave (5 peaks): 0.850						Corrected Ave (5 peaks): 5.309			RPD = 145*	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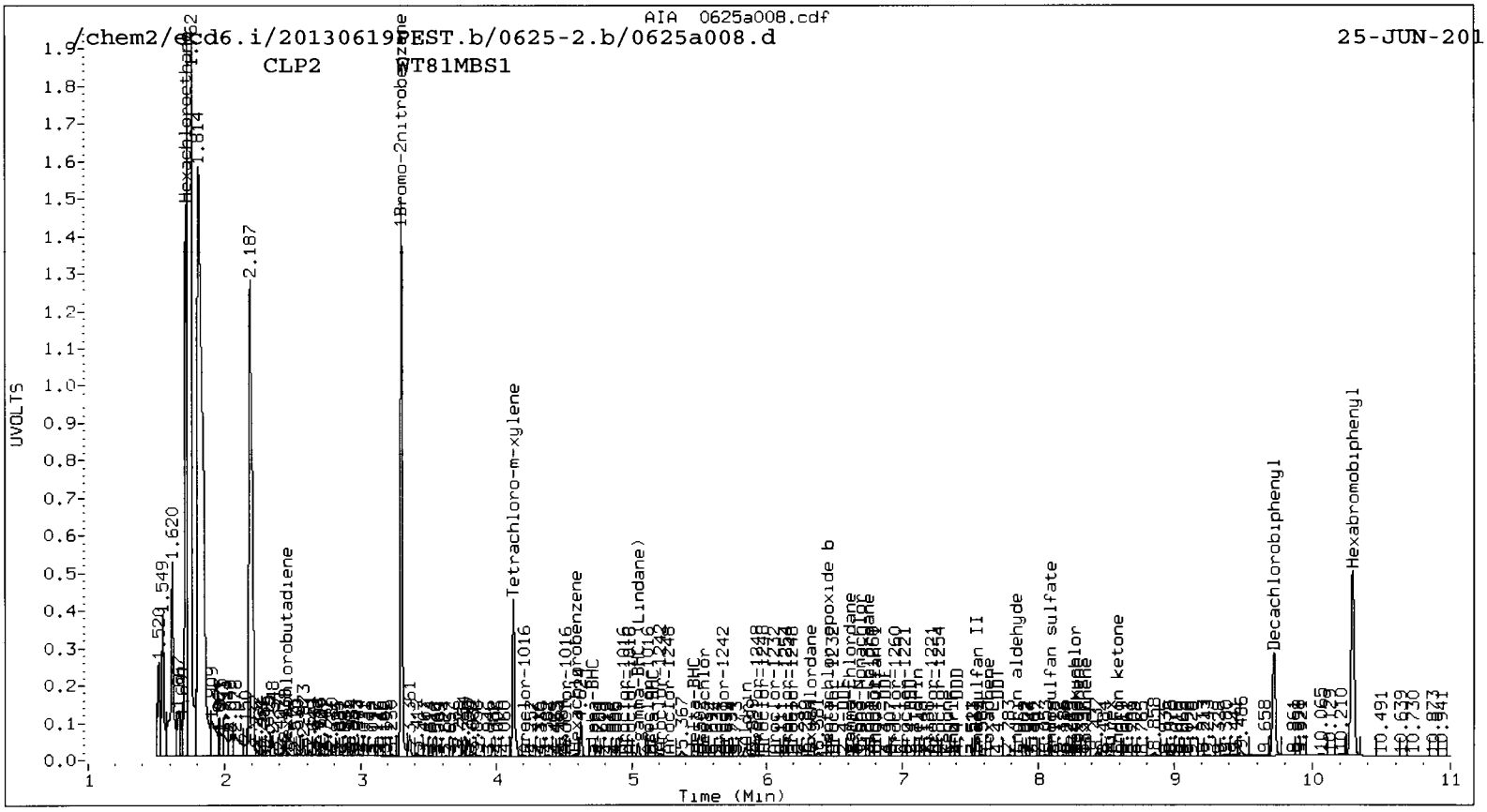
25-JUN-201
STX-CLP WT81MBS1
UVOLTS
Time (Min)
1.514
1.572
1.666
2.170
3.209
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 WT81MBS1
UVOLTS
Time (Min)
1.514
1.549
1.620
2.187
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/27/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a009.d ARI ID: WT81LCSS1
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a009.d Client ID: WT81LCSS1
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 16:21
Compound Sublist: wpest Report Date: 06/27/2013 15:33
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.008	6571407	3.299	0.000	28115041	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.277	-0.009	1572702	4.709	-0.001	7170602	11.9332	10.6753	11.1	alpha-BHC
4.635	-0.009	679287	5.139	0.001	3011880	12.7776	10.3504	21.0	beta-BHC
4.804	-0.009	873006	5.450	0.000	3906055	7.6504	6.7464	12.6	delta-BHC
4.559	-0.010	1564283	5.065	-0.001	7054983	13.0177	11.8784	9.2	gamma-BHC (Lindane)
5.004	-0.010	1463219	5.530	0.000	6362406	12.6889	11.0439	13.9	Heptachlor
5.296	-0.011	1384567	5.868	0.000	6633324	12.3917	12.1624	1.9	Aldrin
5.870	-0.013	1504882	6.422	0.000	6328695	14.5279	12.7320	13.2	Heptachlor epoxide b
6.246	-0.014	1430540	6.809	0.000	5753951	14.7749	12.8820	13.7	Endosulfan I
6.468	-0.014	3025522	7.067	0.000	12302692	29.5727	27.2918	8.0	Dieldrin
6.170	-0.014	2810232	6.870	0.000	11781447	36.1046	25.9616	32.7	4,4'-DDE
6.687	-0.014	2617356	7.357	0.000	9770531	27.2581	29.7313	8.7	Endrin
6.892	-0.014	2617895	7.545	0.000	9888116	27.4632	28.7222	4.5	Endosulfan II
6.726	-0.014	2452399	7.408	0.001	9989703	26.7460	28.2370	5.4	4,4'-DDD
7.658	-0.017	2045877	8.088	0.000	8135714	24.3071	27.7581	13.3	Endosulfan sulfate
6.984	-0.014	2461161	7.695	0.001	8418706	27.2336	26.8566	1.4	4,4'-DDT
7.408	-0.016	5578167	8.277	-0.005	16750227	130.4173	143.5812	9.6	Methoxychlor
7.912	-0.018	2800017	8.578	-0.001	9178780	26.7907	31.3349	15.6	Endrin ketone
7.268	-0.015	1338231	7.842	0.000	5366590	17.7616	20.3056	13.4	Endrin aldehyde
5.989	-0.013	1549189	6.605	0.001	6441493	14.5587	12.3136	16.7	gamma-Chlordane
6.113	-0.013	1471324	6.742	0.000	5948480	14.2055	12.4040	13.5	alpha-Chlordane
2.305	-0.007	1435962	2.466	-0.003	5586364	9.9441	9.5994	3.5	Hexachlorobutadiene
4.131	-0.009	1189916	4.586	0.000	5899615	11.3483	10.6526	6.3	Hexachlorobenzene
5.775	-0.012	14791	6.321	-0.011	73538	0.1724	0.2007	15.2	Oxychlordane
----			6.543	-0.037	138020	0.0000	0.5214	---	2,4-DDE
6.066	-0.045	1854	6.687	-0.004	145695	0.0176	0.3704	181.8*	trans-Nonachlor
6.334	-0.014	30309	----			0.5131	0.0000	---	2,4-DDD
6.571	-0.016	14075	----			0.2060	0.0000	---	2,4-DDT
6.775	0.048	62489	----			0.5178	0.0000	---	cis-Nonachlor
7.600	-0.001	10475	8.534	-0.030	161256	0.1477	0.8135	138.5*	Mirex
8.905	-0.022	6371690	10.287	-0.002	15937223	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.749	-0.009	33333	1.720	-0.006	27361022	0.0000	0.0000	---	Hexachloroethane
6.531	-0.050	3270	7.291	-0.045	97732	0.0000	0.0000	---	Kepone
3.792	-0.008	2110958	4.126	-0.002	9079316	23.6579	19.5246	19.1	Tetrachloro-m-xylene
8.757	-0.021	2287035	9.723	-0.001	8009306	28.5188	31.0897	8.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	59.1	48.8	48.8	42-112
Decachlorobiphenyl	71.3	77.7	71.3	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	1090322.4	0.0	0.0~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	1089345.7	0.0	0.0~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

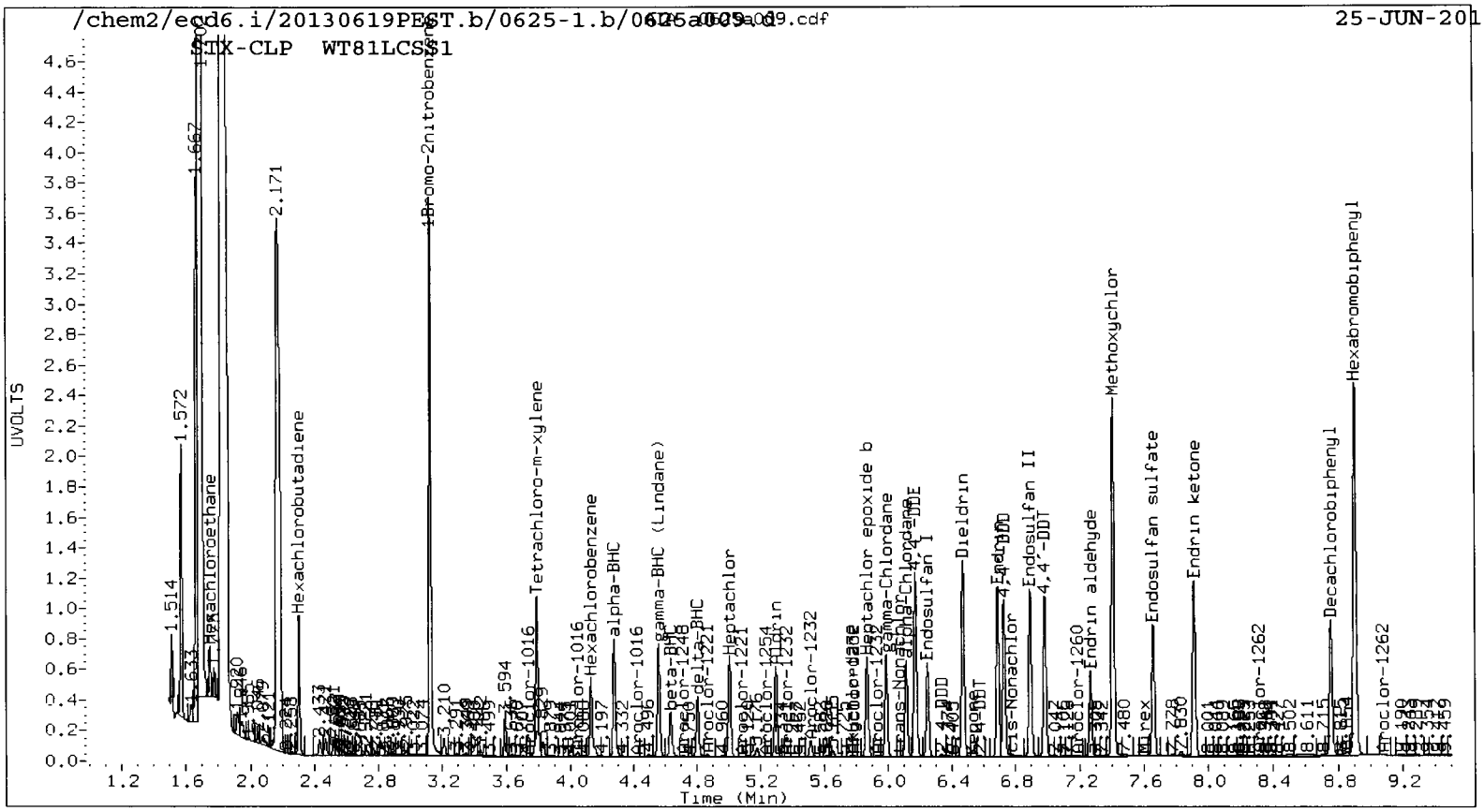
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6571407	17.5
Hexabromobiphenyl	4870538	6371690	30.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28115041	-0.7
Hexabromobiphenyl	16454599	15937223	-3.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.984	0.025	2461161	601.8	1	7.291	0.000	97732	8.8
Toxaphene	2	---			0.000	2	7.627	0.012	234489	14.3
Toxaphene	3	7.268	0.001	1338231	287.4	3	7.842	-0.004	5366590	297.3
Toxaphene	4	7.600	0.007	10475	2.2	4	8.277	-0.036	16750227	1287.4
Toxaphene	5	7.658	0.026	2045877	649.7	5	8.378	0.025	226484	13.7
Toxaphene	6	7.912	-0.001	2800017	1047.4	NS	---			----
Total STX-CLPAve (5 peaks): 517.723						Total CLP2Ave (5 peaks): 324.276				RPD = 46*
Corrected Ave (4 peaks): 385.292						Corrected Ave (4 peaks): 83.500				RPD = 129*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25-JUN-201
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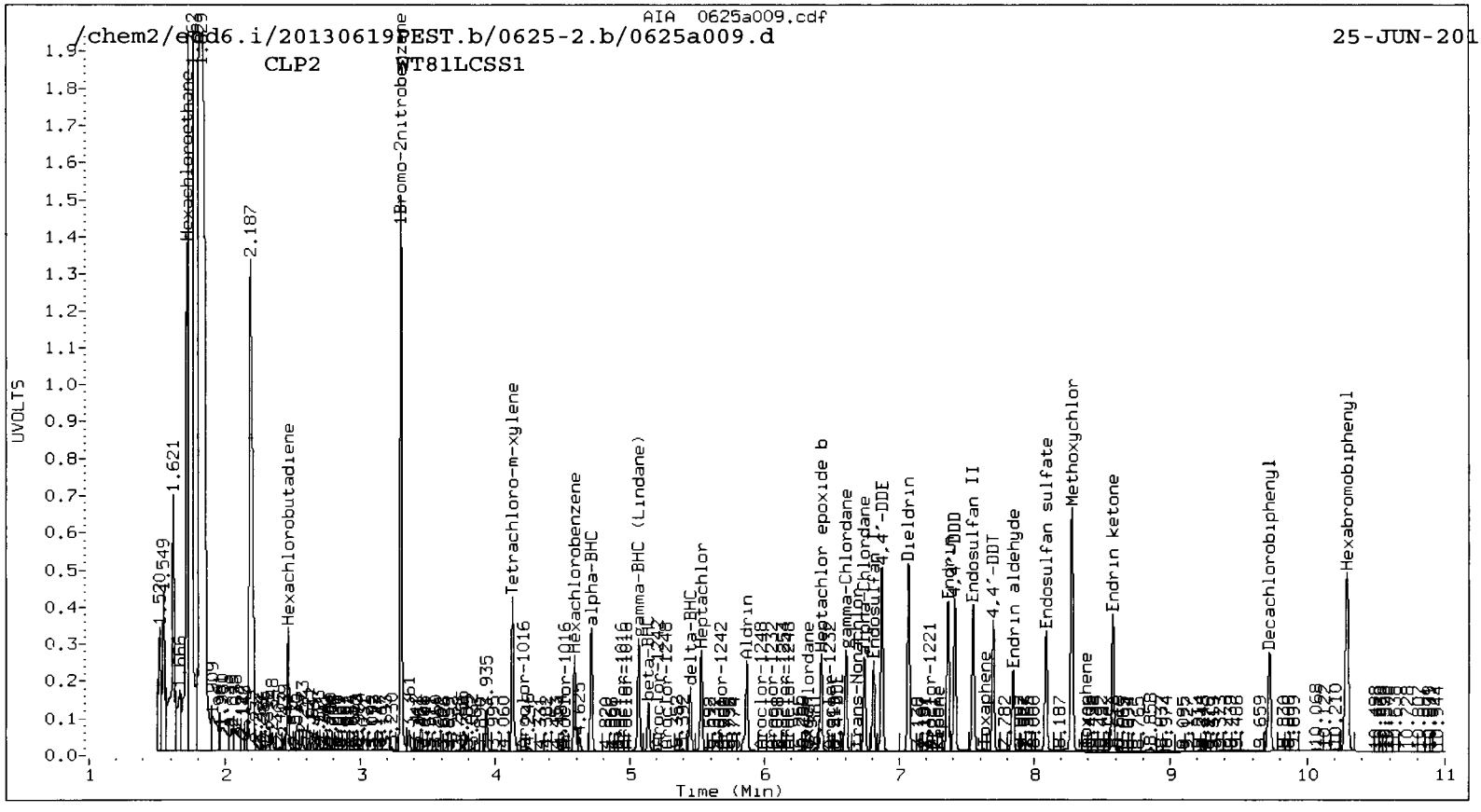
UVOLTS
Time (Min)
1.514
1.572
1.633
1.667
Hexachloroethane
2.171
Hexachlorobutadiene
1.960
Bromo-2nitrobenzene
3.210
Tetrachloro-m-xylene
4.197
Hexachlorobenzene
4.332
alpha-BHC
4.496
gamma-BHC (Lindane)
4.750
beta-BHC
4.960
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDT
Endosulfan II
cis-Nonachlor
4,4'-DDD
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 WT81LCSS1
UVOLTS
Time (Min)
1.520
1.549
1.621
Hexachloroethane
2.187
Hexachlorobutadiene
1.960
Bromo-2nitrobenzene
Tetrachloro-m-xylene
4.025
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a011.d ARI ID: WT81A
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a011.d Client ID: AM-VT-INF-20130612-
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 16:57
Compound Sublist: wpest Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.009	5937304	3.299	-0.001	20436447	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.264	-0.022	530522	4.696	-0.014	1023822	4.4554	2.0969	72.0*	alpha-BHC
4.630	-0.014	190608	5.161	0.023	788579	3.9683	3.7282	6.2	beta-BHC
4.791	-0.022	326234	5.460	0.010	3268347	3.1642	7.7659	84.2*	delta-BHC
4.565	-0.004	29041	5.060	-0.007	1348103	0.2675	3.1226	168.4*	gamma-BHC (Lindane)
5.022	0.007	469538	5.537	0.008	74179	4.5066	0.1771	184.9*	Heptachlor
5.305	-0.002	124721	5.885	0.017	304021	1.2354	0.7669	46.8*	Aldrin
5.882	0.000	837640	6.411	-0.011	554278	8.9501	1.5341	141.5*	Heptachlor epoxide b
6.247	-0.013	182769	6.819	0.010	647079	2.0893	1.9930	4.7	Endosulfan I
6.467	-0.016	88779	7.057	-0.010	238042	0.9604	0.7265	27.7	Dieldrin
6.169	-0.015	473711	6.867	-0.003	309546	6.7360	0.9384	151.1*	4,4'-DDE
6.684	-0.017	100118	7.374	0.018	76102	1.1275	0.4070	93.9*	Endrin
6.924	0.018	323059	7.530	-0.015	1671018	3.6648	8.5310	79.8*	Endosulfan II
6.779	0.039	189594	7.442	0.035	177064	2.2360	0.8797	87.1*	4,4'-DDD
7.668	-0.006	172239	8.112	0.024	426488	2.2129	2.5575	14.4	Endosulfan sulfate
6.998	0.000	477866	7.696	0.001	320454	5.7180	1.7967	104.4*	4,4'-DDT
7.427	0.003	335857	8.285	0.004	679485	8.4912	10.2370	18.6	Methoxychlor
7.941	0.012	70575	8.589	0.011	1385218	0.7302	8.3114	167.7*	Endrin ketone
7.289	0.006	51763	----			0.7429	0.0000	---	Endrin aldehyde
5.992	-0.010	92920	6.610	0.006	459209	0.9665	1.2077	22.2	gamma-Chlordane
----			6.743	0.001	141257	0.0000	0.4052	---	alpha-Chlordane
2.303	-0.009	12100	2.474	0.005	71464	0.0927	0.1689	58.2*	Hexachlorobutadiene
4.130	-0.010	131190	4.576	-0.010	765922	1.3848	1.9026	31.5	Hexachlorobenzene
5.774	-0.013	166077	6.318	-0.015	1587018	2.0931	5.9584	96.0*	Oxychlordane
5.831	-0.031	64582	6.574	-0.006	200238	1.0656	1.0407	2.4	2,4-DDE
6.099	-0.011	182569	6.687	-0.003	2123729	1.8748	9.4896	134.0*	trans-Nonachlor
6.328	-0.021	94760	7.106	0.041	142004	1.7347	1.1649	39.3	2,4-DDD
6.586	-0.001	152453	7.353	0.000	128693	2.4127	0.9689	85.4*	2,4-DDT
6.723	-0.003	545803	7.418	0.003	79140	5.0792	0.3396	174.9*	cis-Nonachlor
7.605	0.004	697587	8.544	-0.020	771330	10.6379	6.8395	43.5*	Mirex
8.921	-0.006	5892262	10.297	0.009	9067730	80.0000	80.0000	0.0	Hexabromobiphenyl
1.748	-0.009	20048	1.760	0.034	99403421	0.0000	0.0000	---	Hexachloroethane
6.534	-0.047	602479	7.318	-0.018	291776	0.0000	0.0000	---	Kepone
3.797	-0.002	606277	4.127	-0.002	1111017	7.5203	3.2869	78.3*	Tetrachloro-m-xylene
8.758	-0.019	2002022	9.737	0.012	1049503	26.9961	7.1601	116.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	18.8	8.2	8.2~	42-112
Decachlorobiphenyl	67.5	17.9	17.9~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

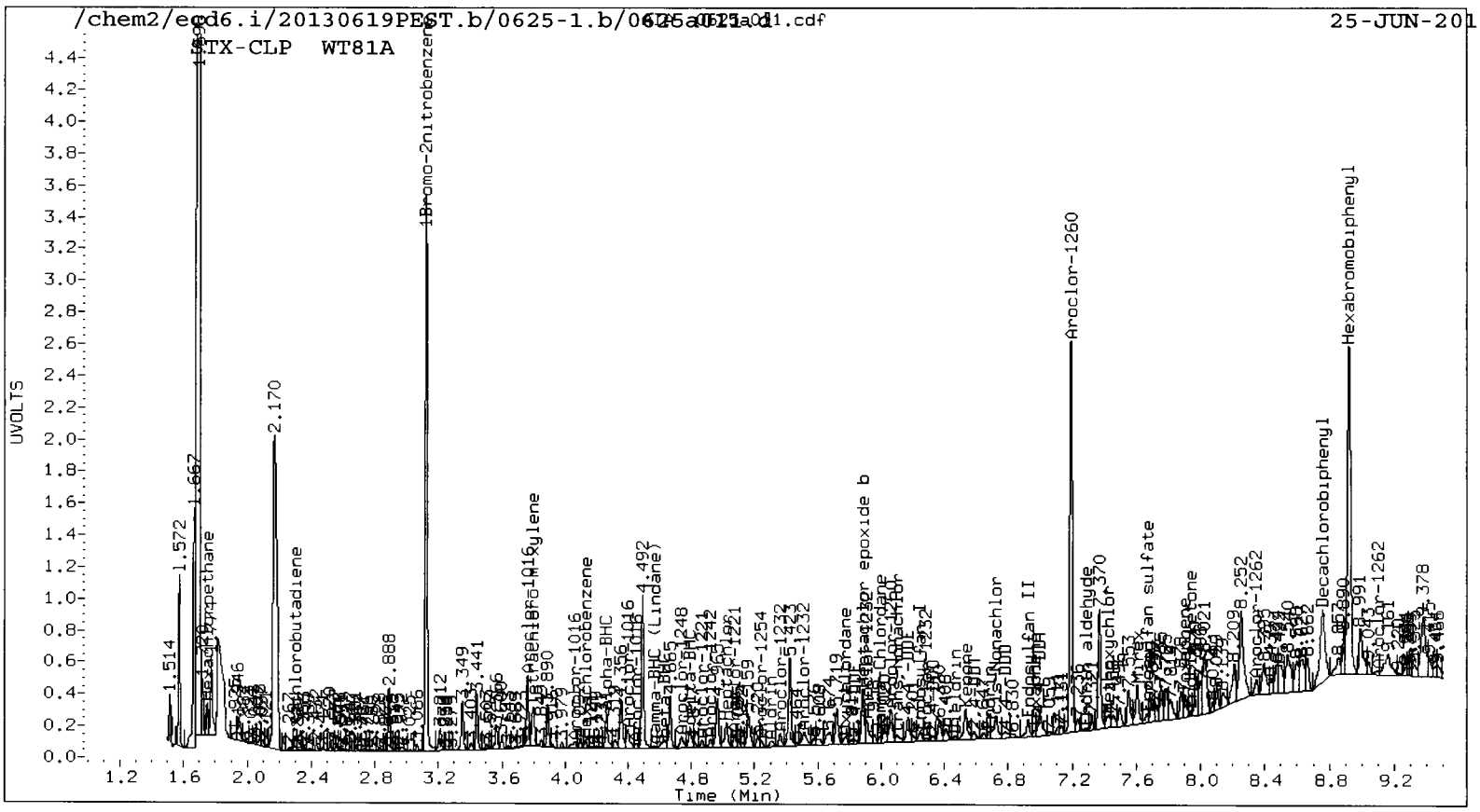
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5937304	6.2
Hexabromobiphenyl	4870538	5892262	21.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	20436447	-27.8
Hexabromobiphenyl	16454599	9067730	-44.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.967	0.008	92911	24.6	1	7.290	-0.001	476837	75.2
Toxaphene	2	6.998	-0.012	477866	183.1	2	7.624	0.009	239206	25.6
Toxaphene	3	7.289	0.022	51763	12.0	3	---			0.0
Toxaphene	4	7.605	0.012	697587	159.1	4	8.333	0.019	2654040	358.5
Toxaphene	5	---			0.000	5	8.371	0.019	226424	24.1
Toxaphene	6	7.903	-0.010	360748	145.9	NS	---			---
Total STX-CLPAve (5 peaks): 104.943						Total CLP2Ave (4 peaks): 120.821				RPD = 14
Corrected Ave (4 peaks): 85.399						Corrected Ave (3 peaks): 41.590				RPD = 69*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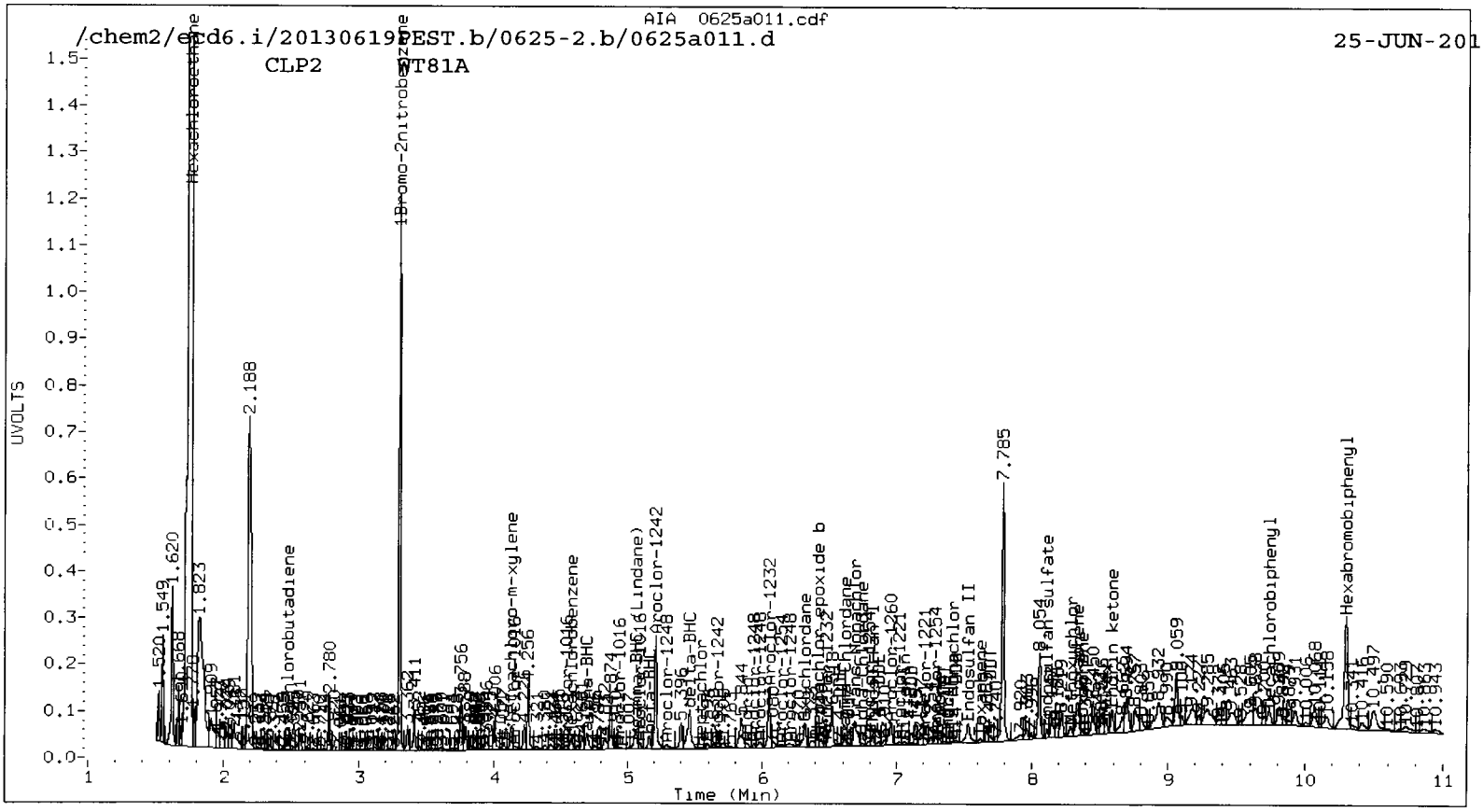
25-JUN-201
TX-CLP WT81A
UVOLTS
Time (Min)
1.514
1.572
1.662
2.170
2.888
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Aroclor-1260
Hexabromobiphenyl
Decachlorobiphenyl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25-JUN-201
CLP2 WT81A
UVOLTS
Time (Min)
1.520
1.549
1.620
1.823
2.188
2.780
7.785
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a012.d ARI ID: WT81B
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a012.d Client ID: AM-SF4-EFF-20130612
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 17:14
Compound Sublist: wpest Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.009	6055291	3.299	-0.001	16942234	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.266	-0.021	1115216	4.708	-0.003	2821140	9.1832	6.9698 Y	27.4	alpha-BHC
4.633	-0.011	158232	5.138	0.000	144263	~~3.2301~~	~~0.8227~~	118.8*	beta-BHC
4.793	-0.020	84421	5.443	-0.007	1467540	~~0.8029~~	~~4.2062~~	135.9*	delta-BHC
4.572	0.003	113738	5.066	0.000	3802378	~~1.0272~~	~~10.6239~~	164.7*	gamma-BHC (Lindane)
5.012	-0.002	207244	5.538	0.008	124536	~~1.9504~~	~~0.3587~~	137.9*	Heptachlor
5.318	0.011	119587	5.847	-0.021	7996578	~~1.1615~~	~~24.3310~~	181.8*	Aldrin
5.886	0.003	971484	6.415	-0.007	1250665	10.1779	4.1753 Y	83.6*	Heptachlor epoxide b
6.254	-0.006	54442	6.825	0.016	2381927	~~0.6102~~	~~8.8494~~	174.2*	Endosulfan I
6.476	-0.007	143738	7.069	0.002	901668	~~1.5247~~	~~3.3193~~	74.1*	Dieldrin
6.185	0.001	186362	6.871	0.001	822418	~~2.5984~~	~~3.0074~~	14.6	4,4'-DDE
6.693	-0.008	60661	----			0.6023	0.0000	---	Endrin
6.900	-0.006	18148	7.536	-0.009	5543676	~~0.1815~~	~~29.6263~~	197.6*	Endosulfan II
6.785	0.045	368851	7.384	-0.023	528857	3.8351	2.7503	32.9	4,4'-DDD
7.684	0.010	179967	8.063	-0.024	9458386	2.0385	59.3726	186.7*	Endosulfan sulfate
7.008	0.010	958475	7.674	-0.021	425028	~~10.1113~~	~~2.4946~~	120.8*	4,4'-DDT
7.442	0.018	542889	8.295	0.013	1034522	~~12.1009~~	~~16.3152~~	29.7	Methoxychlor
7.918	-0.012	685566	8.555	-0.023	1085903	6.2537	16.8204 Y	8.7	Endrin ketone
7.248	-0.035	414198	7.823	-0.020	367265	~~5.2411~~	~~2.5567~~	68.9*	Endrin aldehyde
5.996	-0.007	309750	6.613	0.009	1337561	~~3.1590~~	~~4.2431~~	29.3	gamma-Chlordane
----			6.749	0.007	339838	~~0.0000~~	~~1.1760~~	---	alpha-Chlordane
2.307	-0.005	31822	2.474	0.004	63044	~~0.2392~~	0.1798	28.3	Hexachlorobutadiene
4.132	-0.008	513935	4.579	-0.008	2787892	~~5.3192~~	8.3536 Y	44.4*	Hexachlorobenzene RT
5.763	-0.024	120504	6.321	-0.011	2760030	~~1.3390~~	~~12.4997~~	161.3*	Oxychlordane co-e overlap
5.817	-0.044	222582	6.581	0.001	445133	3.2380	2.7907	14.8	2,4-DDE
6.121	0.011	164105	6.691	0.000	5293338	1.4857	84.7593	177.4*	trans-Nonachlor
6.341	-0.008	243432	7.027	-0.038	827242	3.9288	7.1037	57.6*	2,4-DDD
6.602	0.015	391478	----			5.4623	0.0000	---	2,4-DDT
6.725	-0.002	526166	7.418	0.002	879727	4.3169	3.9511	8.8	cis-Nonachlor
7.623	0.022	1378745	8.526	-0.038	2577028	~~18.5366~~	~~23.9201~~	25.4	Mirex
8.954	0.027	6683328	10.318	0.029	8662376	80.0000	80.0000	0.0	Hexabromobiphenyl N
1.748	-0.009	10967	1.754	0.028	76759982	0.0000	0.0000	---	Hexachloroethane
6.563	-0.018	156961	7.321	-0.015	3321819	0.0000	0.0000	---	Kepone
3.801	0.002	1207528	4.128	-0.001	1159999	14.6865	4.1396	112.0*	Tetrachloro-m-xylene
8.783	0.006	5787241	9.763	0.038	1195449	68.8006	8.5374	155.8*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	36.7	10.3	10.3~	42-112
Decachlorobiphenyl	172.0	21.3	21.3~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

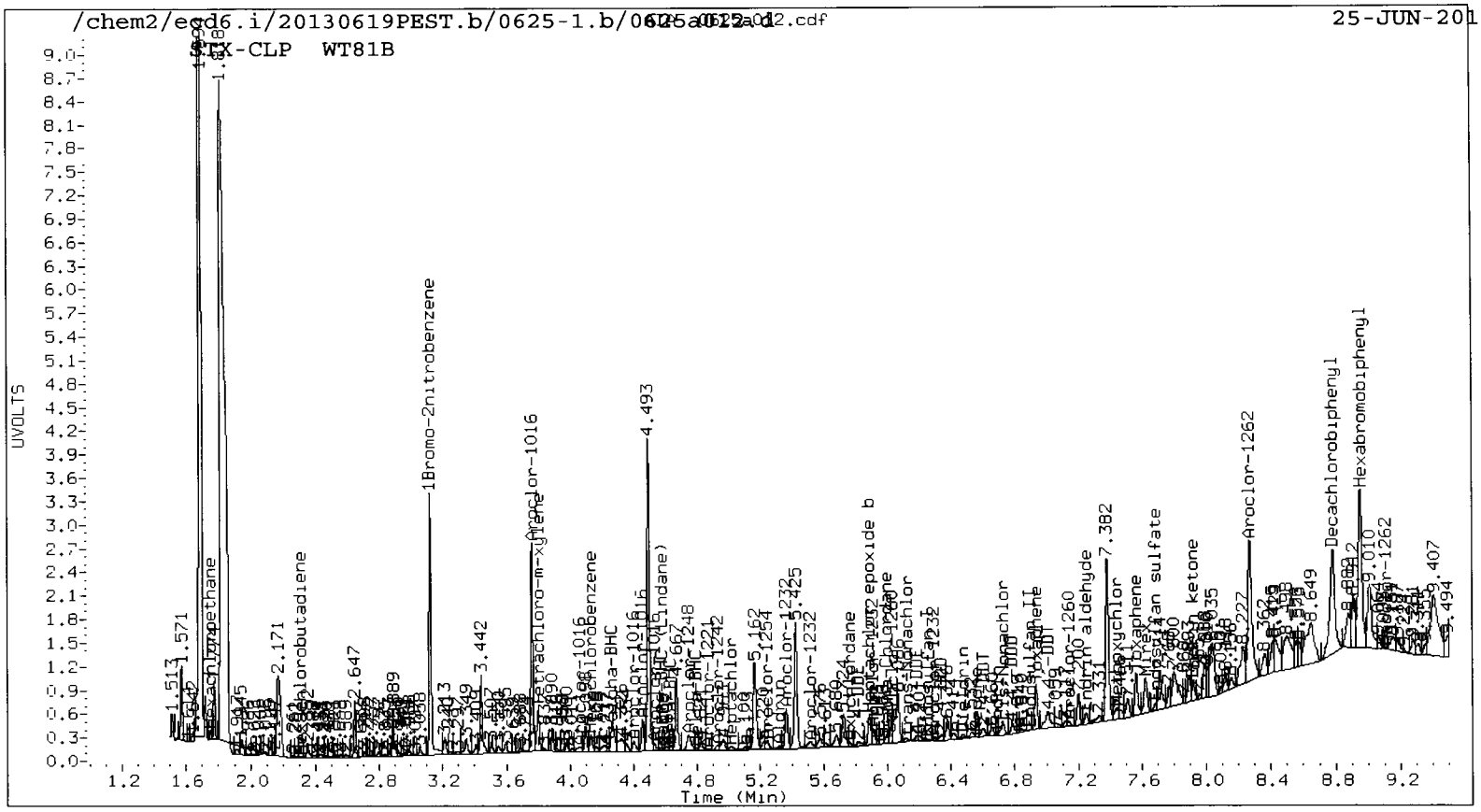
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6055291	8.3
Hexabromobiphenyl	4870538	6683328	37.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	16942234	-40.2
Hexabromobiphenyl	16454599	8662376	-47.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.933	-0.025	1370621	319.5	1	7.321	0.030	3321819	548.1
Toxaphene	2	7.008	-0.002	958475	323.8	2	7.632	0.017	1653986	185.0
Toxaphene	3	7.248	-0.019	414198	84.8	3	7.823	-0.024	367265	37.4
Toxaphene	4	7.565	-0.028	1433658	288.2	4	8.295	-0.019	1034522	146.3
Toxaphene	5	7.623	-0.009	1378745	417.4	5	8.346	-0.007	5087101	565.7
Toxaphene	6	7.918	0.004	685566	244.5	NS	---			----
Total STX-CLPAve (6 peaks): 279.718						Total CLP2Ave (5 peaks): 296.494				RPD = 6
Corrected Ave (6 peaks): 279.718						Corrected Ave (3 peaks): 122.898				RPD = 78*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STX-CLP WT81B
UVOLTS
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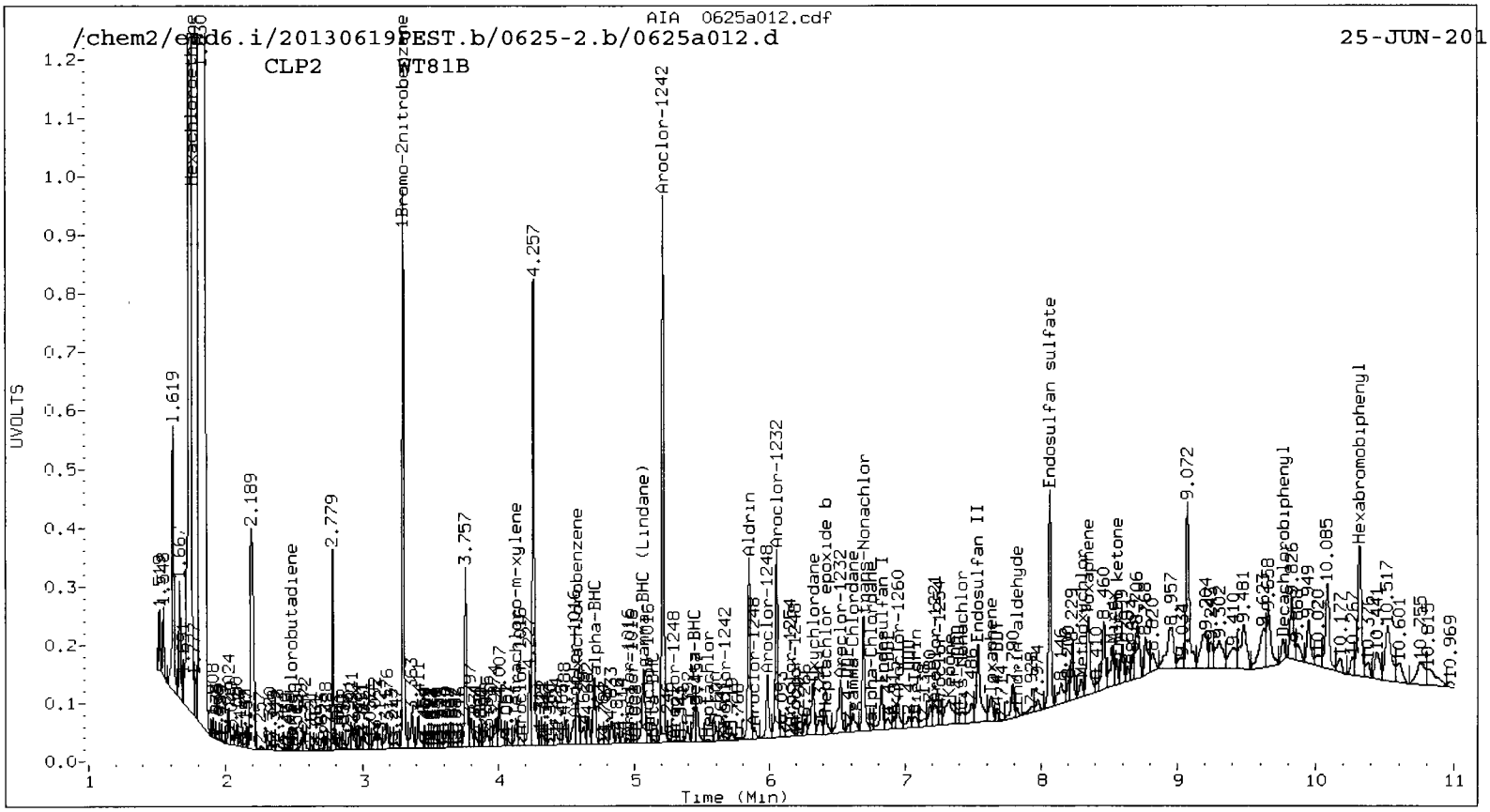
Aroclor-1016
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 WT81B
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Aroclor-1242
Aroclor-1232
Endosulfan sulfate
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a013.d ARI ID: WT81C
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a013.d Client ID: AM-FD-01-20130612-S
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 17:32
Compound Sublist: wpest Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.008	4833990	3.299	0.000	13493748	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.265	-0.021	753014	4.708	-0.003	1964758	7.7672	6.0945 Y	24.1	alpha-BHC
4.633	-0.011	194450	5.140	0.002	99583	~~4.9723~~	~~0.7130~~	149.8*	beta-BHC
4.794	-0.020	96288	5.457	0.006	2907574	~~1.1471~~	~~10.4633~~	160.5*	delta-BHC
4.572	0.003	164875	5.067	0.001	3250581	~~1.8652~~	~~11.4033~~	143.8*	gamma-BHC (Lindane)
5.013	-0.002	176915	5.539	0.009	126376	2.0856	0.4571	128.1*	Heptachlor
5.319	0.012	129391	5.847	-0.020	7671372	~~1.5742~~	~~29.3067~~	179.6*	Aldrin
5.887	0.005	935852	6.417	-0.005	1727376	12.2817	7.2406 Y	51.6*	Heptachlor epoxide b
6.254	-0.006	62884	6.826	0.017	2176732	~~0.8829~~	~~10.1538~~	168.0*	Endosulfan I RT, RPD
6.477	-0.006	146577	7.071	0.004	1391930	~~1.9476~~	~~6.4336~~	107.0*	Dieldrin
6.188	0.004	210762	6.871	0.001	1195070	~~3.6810~~	~~5.4870~~	39.4	4,4'-DDE
6.694	-0.007	89897	7.360	0.003	1110344	~~1.1664~~	~~7.1502~~	143.9*	Endrin
6.935	0.029	1618425	7.537	-0.008	6890963	21.1523	42.3592 Y	66.8*	Endosulfan II RPD, RT
6.725	-0.015	488481	7.388	-0.019	819203	~~6.6371~~	~~4.9003~~	30.1	4,4'-DDD
7.685	0.011	166142	8.066	-0.022	9045768	~~2.4592~~	~~65.3134~~	185.5*	Endosulfan sulfate
7.009	0.011	1152068	7.674	-0.020	473446	~~15.8822~~	~~3.1962~~	133.0*	4,4'-DDT
7.444	0.019	472045	8.295	0.013	1310566	~~13.7497~~	~~23.7738~~	53.4*	Methoxychlor
7.919	-0.010	675483	8.601	0.023	3416621	8.0520	~~24.6833~~	101.6*	Endrin ketone
7.294	0.011	111012	7.824	-0.018	405265	~~1.8356~~	~~3.2450~~	55.5*	Endrin aldehyde
5.998	-0.004	160922	6.616	0.011	1959089	~~2.0558~~	~~7.8029~~	116.6*	gamma-Chlordane
6.122	-0.004	143846	6.749	0.007	634850	~~1.8880~~	~~2.7582~~	37.5	alpha-Chlordane
2.307	-0.005	26677	2.472	0.003	61328	~~0.2511~~	~~0.2196~~	13.4	Hexachlorobutadiene
4.133	-0.007	557843	4.581	-0.006	2692678	7.2323	10.1303 Y	33.4	Hexachlorobenzene
5.764	-0.022	138320	6.322	-0.010	3073766	~~2.0084~~	17.4781	158.8*	Oxychlordane mostly overlaps Cl9
5.837	-0.025	56973	6.583	0.003	769278	1.0831	6.0555	139.3*	2,4-DDE
6.067	-0.044	2386557	6.692	0.002	5721378	28.2354	30.7820	8.6	trans-Nonachlor
6.340	-0.008	247522	7.028	-0.037	1017227	5.2204	10.0476	63.2*	2,4-DDD
6.602	0.015	369304	----			6.7337	0.0000	---	2,4-DDT
----			7.417	0.001	1777766	0.0000	9.1841	---	cis-Nonachlor
7.566	-0.034	1436695	8.558	-0.007	2096116	~~25.2415~~	~~22.3793~~	12.0	Mirex
8.957	0.030	5114322	10.320	0.032	7530938	80.0000	80.0000 IS	0.0	Hexabromobiphenyl M
1.749	-0.009	12013	1.755	0.029	76172033	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.565	-0.016	142015	7.320	-0.016	3191530	~~0.0000~~	0.0000	---	Kepone
3.802	0.002	1234784	4.128	-0.001	1003720	18.8122	4.4972	122.8*	Tetrachloro-m-xylene
8.785	0.008	6317144	9.767	0.042	1623385	98.1400	13.3354	152.1*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

WT81C : 0625a013

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	47.0	11.2	11.2~	42-112
Decachlorobiphenyl	245.4	33.3	33.3~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

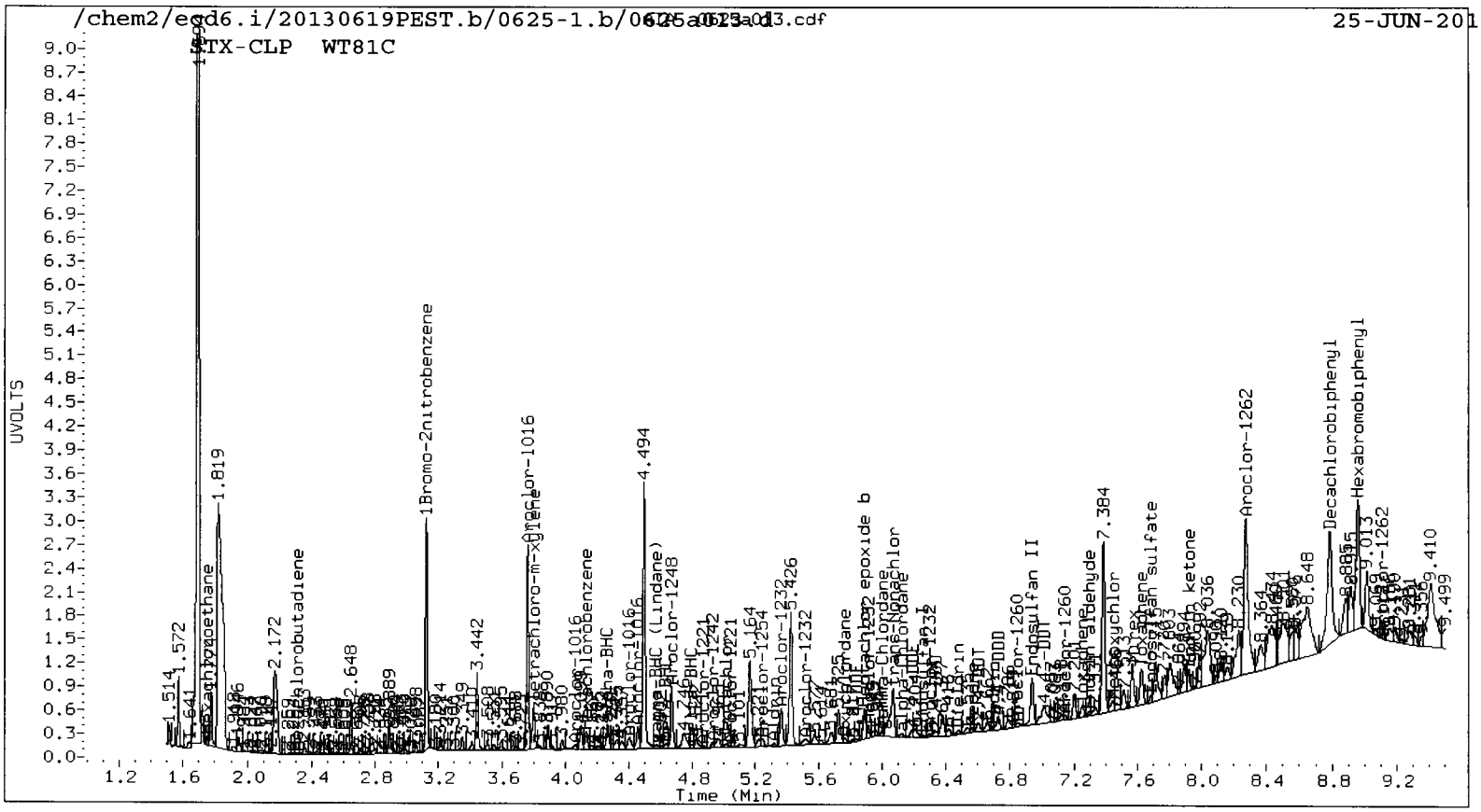
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	4833990	-13.5
Hexabromobiphenyl	4870538	5114322	5.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	13493748	-52.4 <-
Hexabromobiphenyl	16454599	7530938	-54.2 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.935	-0.023	1618425	493.0	1	7.320	0.029	3191530	605.7
Toxaphene	2	7.009	-0.001	1152068	508.6	2	7.634	0.019	2597446	334.1
Toxaphene	3	7.251	-0.016	406671	108.8	3	7.824	-0.022	405265	47.5
Toxaphene	4	7.566	-0.026	1436695	377.4	4	8.295	-0.019	1310566	213.2
Toxaphene	5	7.625	-0.007	1378491	545.4	5	8.348	-0.005	5432042	694.8
Toxaphene	6	7.919	0.006	675483	314.8	NS	--			----
Total STX-CLPAve (6 peaks): 391.356						Total CLP2Ave (5 peaks): 379.061				RPD = 3
Corrected Ave (6 peaks): 391.356						Corrected Ave (4 peaks): 300.133				RPD = 26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25-JUN-201
STX-CLP WT81C
UVOLTS
Time (Min)
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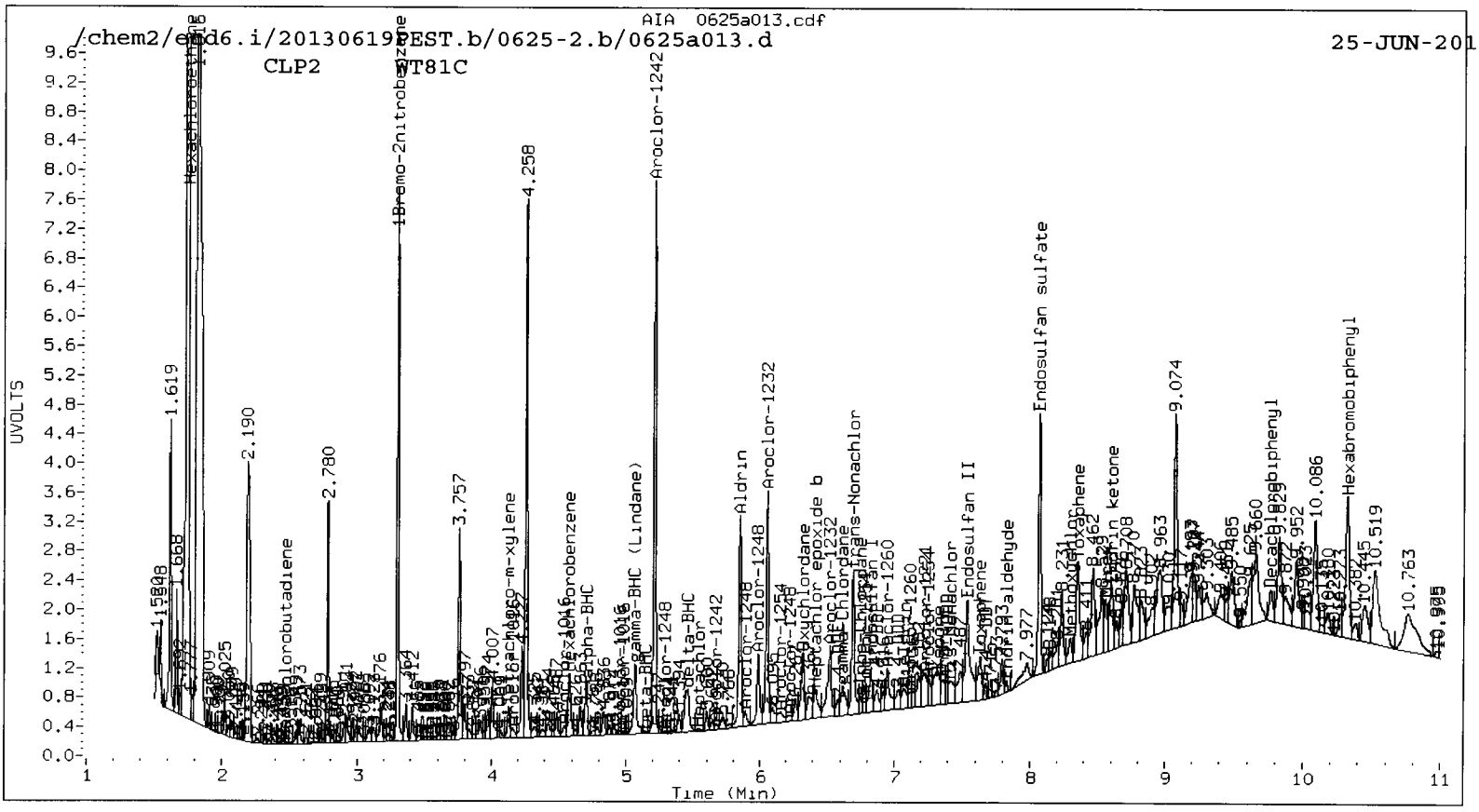
1.572
1.641
1.819
2.172
2.648
3.442
1Bromo-2nitrobenzene
Aroclor-1016
4.494
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 WT81C
UVOLTS
Time (Min)
Hexachloroethane
1.619
2.190
2.780
3.757
1Bromo-2nitrobenzene
4.258
Aroclor-1242
Aldrin
Aroclor-1232
Endosulfan sulfate
9.074
Decachlorobiphenyl
10.086
Hexabromobiphenyl
10.519
10.763

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Y2 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a014.d ARI ID: WT81CMS
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a014.d Client ID: AM-FD-01-201306 MS
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 17:50
Compound Sublist: wpest Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.009	5697582	3.299	0.000	14288443	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.265	-0.021	916638	4.708	-0.002	2666949	8.0219	7.8126	2.6	alpha-BHC
4.635	-0.009	251510	5.142	0.004	222103	5.4566	1.5019	113.7*	beta-BHC
4.795	-0.019	104746	5.457	0.007	2922263	1.0587	9.9313	161.5*	delta-BHC
4.564	-0.005	246009	5.066	0.000	3258244	2.3612	10.7944	128.2*	gamma-BHC (Lindane)
5.008	-0.007	298967	5.534	0.004	354720	2.9902	1.2116	84.7*	Heptachlor
5.302	-0.006	276131	5.848	-0.020	7787018	2.8504	28.0939	163.2*	Aldrin
5.886	0.004	1142464	6.419	-0.002	1256623	12.7207	4.9744	87.6*	Heptachlor epoxide b
6.254	-0.006	150880	6.826	0.017	1884440	1.7973	8.3015	128.8*	Endosulfan I
6.477	-0.006	421592	7.073	0.006	834075	4.7528	3.6407	26.5	Dieldrin
6.184	0.000	980395	6.878	0.007	894134	14.5274	3.8769	115.7*	4,4'-DDE
6.697	-0.004	308912	7.363	0.007	836874	3.2175	5.0431	44.2*	Endrin
6.935	0.029	1719801	7.537	-0.008	6330788	18.0435	36.4171	67.5*	Endosulfan II
6.728	-0.012	678830	7.418	0.011	906502	7.4041	5.0743	37.3	4,4'-DDD N
7.683	0.009	198057	8.066	-0.022	9570868	2.3534	64.6678	186.0*	Endosulfan sulfate
7.008	0.010	1095793	7.675	-0.019	424017	12.1266	2.6788	127.6*	4,4'-DDT
7.430	0.006	907926	8.292	0.010	1291426	21.2295	21.9225	3.2	Methoxychlor
7.922	-0.008	857404	8.558	-0.020	1745581	8.2045	11.8012	36.0	Endrin ketone
7.251	-0.032	355767	7.825	-0.018	340972	4.7224	2.5549	59.6*	Endrin aldehyde
5.998	-0.004	497098	6.614	0.010	1504864	5.3880	5.6604	4.9	gamma-Chlordane
6.122	-0.004	415005	6.750	0.008	557281	4.6214	2.2866	67.6*	alpha-Chlordane
2.304	-0.007	227609	2.466	-0.003	869643	1.8179	2.9404	47.2*	Hexachlorobutadiene
4.133	-0.007	625358	4.581	-0.005	2898553	6.8788	10.2983	39.8	Hexachlorobenzene
5.764	-0.023	110180	6.322	-0.010	2637803	~~1.2843~~	~~14.1649~~	166.7*	Oxychlordane
5.836	-0.026	97648	6.583	0.003	348457	1.4901	2.5904	53.9*	2,4-DDE
6.067	-0.043	2255987	6.692	0.002	4890521	21.4258	24.6225	13.9	trans-Nonachlor
6.339	-0.009	254570	7.028	-0.037	260491	4.3100	2.4078	56.6*	2,4-DDD
6.601	0.014	335960	----			4.9174	0.0000	---	2,4-DDT
----			7.418	0.003	906502	0.0000	4.3824	---	cis-Nonachlor
7.567	-0.034	1478589	8.529	-0.036	3000292	~~20.8534~~	~~29.9761~~	35.9	Mirex
8.957	0.030	6371028	10.320	0.032	8047650	80.0000	80.0000 IS	0.0	Hexabromobiphenyl M
1.748	-0.010	9291	1.753	0.027	76113332	~~0.0000~~	~~0.0000~~	---	Hexachloroethane
6.566	-0.015	169322	7.323	-0.014	1257365	~~0.0000~~	0.0000	---	Kepone
3.801	0.002	1253942	4.128	0.000	998597	16.2085	4.2254	117.3*	Tetrachloro-m-xylene
8.785	0.008	6823110	9.767	0.042	1126880	85.0915	8.6625	163.0*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	40.5	10.6	10.6~	42-112
Decachlorobiphenyl	212.7	21.7	21.7~	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	643490.3	201.7	201.7~	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	2425321.7	107.2	107.2~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

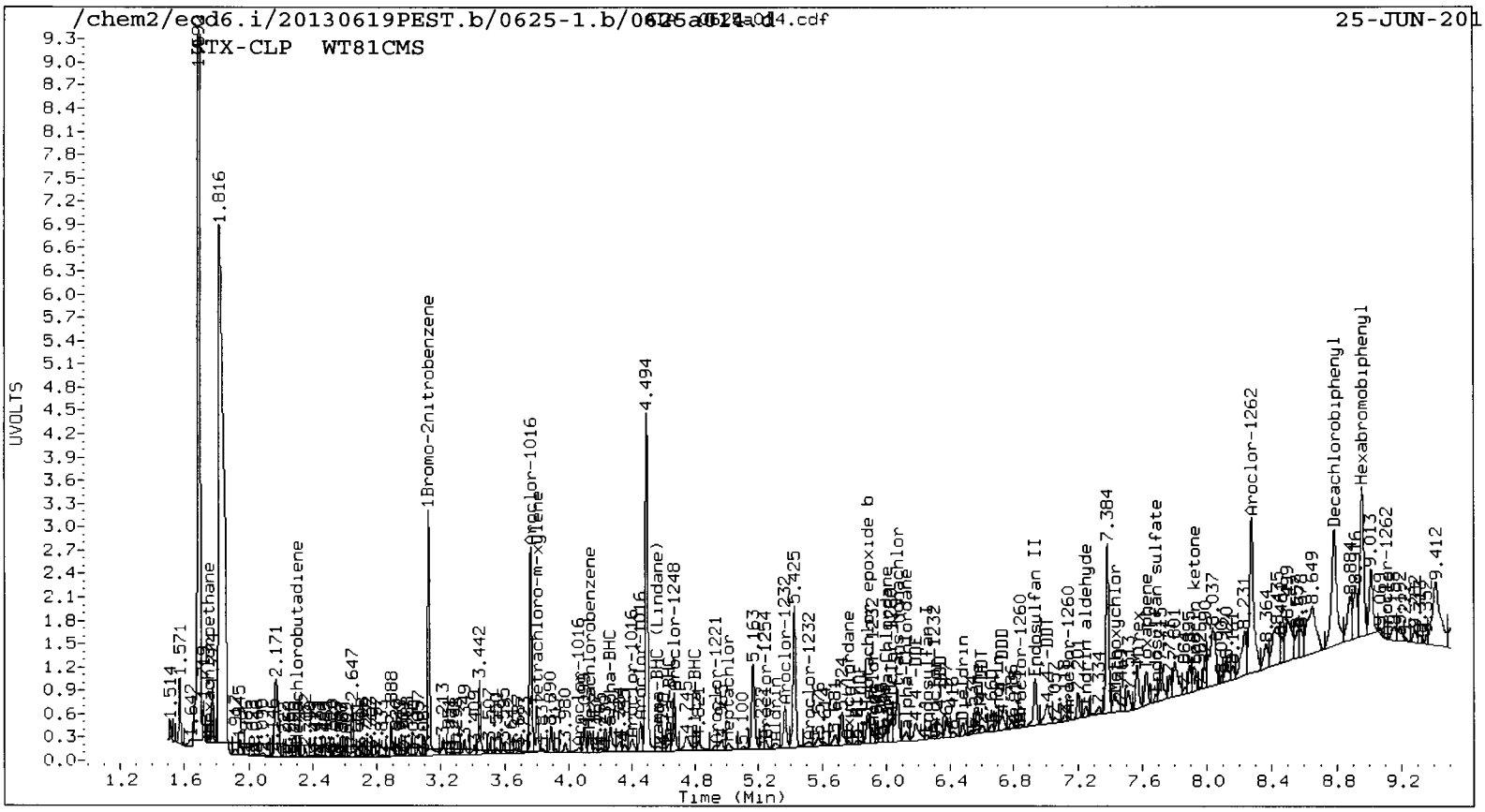
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5697582	1.9
Hexabromobiphenyl	4870538	6371028	30.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	14288443	-49.5
Hexabromobiphenyl	16454599	8047650	-51.1 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.935	-0.024	1719801	420.6	1	7.323	0.031	1257365	223.3
Toxaphene	2	7.008	-0.001	1095793	388.4	2	7.634	0.019	2415542	290.8
Toxaphene	3	7.251	-0.016	355767	76.4	3	7.851	0.005	18941	2.1
Toxaphene	4	7.567	-0.026	1478589	311.8	4	8.292	-0.021	1291426	196.6
Toxaphene	5	7.625	-0.007	1232327	391.4	5	8.348	-0.004	4229606	506.2
Toxaphene	6	7.922	0.009	857404	320.8	NS	---			----
Total STX-CLPAve (6 peaks): 318.225						Total CLP2Ave (5 peaks): 243.796				RPD = 26
Corrected Ave (6 peaks): 318.225						Corrected Ave (4 peaks): 178.184				RPD = 56*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UVOLTS
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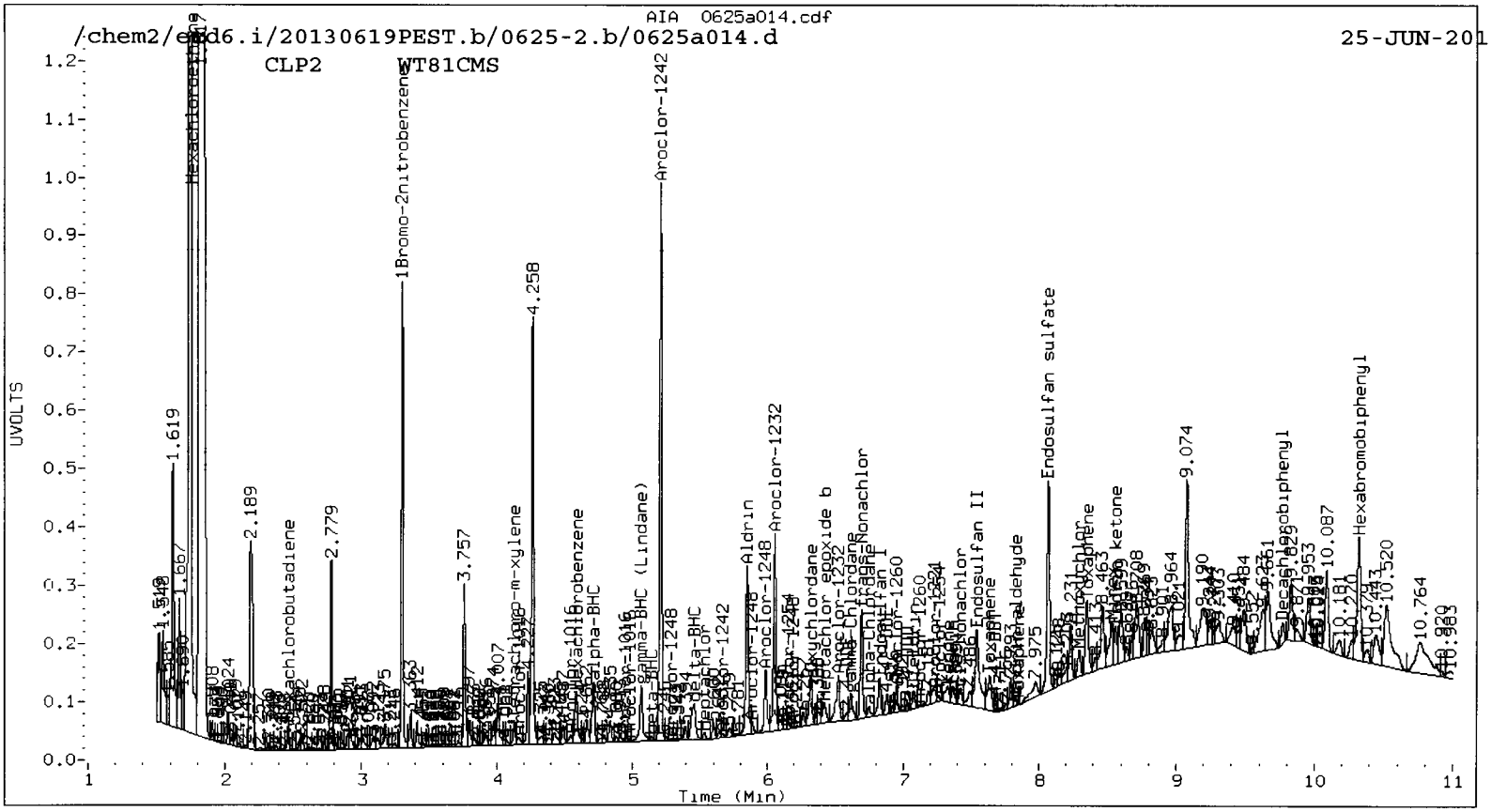
1.571
1.816
2.171
2.647
3.442
1Bromo-2nitrobenzene
4.494
5.425
7.384
9.412
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 WT81CMS
UVOLTS
Time (Min)
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2.189
2.779
3.757
4.258
1Bromo-2nitrobenzene
Aroclor-1242
Aroclor-1232
Aldrin
Endosulfan sulfate
9.074
10.764
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a015.d ARI ID: WT81CMSD
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a015.d Client ID: AM-FD-01-201306 MSD
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 18:08
Compound Sublist: wpest Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 5.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.123	-0.009	5379525	3.299	-0.001	14018776	80.0000	80.0000 LS	0.0	1Bromo-2nitrobenzen
4.265	-0.022	851195	4.708	-0.002	3495643	7.8896	10.4371	27.8	alpha-BHC
4.636	-0.009	259932	5.143	0.005	229881	5.9727	1.5843	116.1*	beta-BHC
4.795	-0.018	102860	5.458	0.008	2634952	1.1011	9.1271	156.9*	delta-BHC
4.562	-0.007	352055	5.067	0.001	3907100	3.5789	13.1930	114.6*	gamma-BHC (Lindane)
5.007	-0.008	280205	5.534	0.004	403797	2.9683	1.4057	71.4*	Heptachlor
5.302	-0.005	294659	5.848	-0.020	7607583	3.2214	27.9745	158.7*	Aldrin
5.886	0.003	1138609	6.417	-0.005	1662384	13.4273	6.7072	66.8*	Heptachlor epoxide b
6.255	-0.005	115112	6.827	0.018	2109596	1.4523	9.4721	146.8*	Endosulfan I
6.476	-0.006	487613	7.073	0.006	860828	5.8221	3.8298	41.3*	Dieldrin
6.183	-0.001	1099904	6.877	0.007	934233	17.2619	4.1287	122.8*	4,4'-DDE
6.696	-0.005	331614	7.364	0.008	683567	3.0470	4.2004	31.8	Endrin
6.934	0.029	1773608	7.538	-0.008	5655045	16.4156	33.1703	67.6*	Endosulfan II
6.728	-0.012	816462	7.418	0.011	570040	7.8560	3.2537	82.9*	4,4'-DDD N
7.716	0.041	1703074	8.066	-0.021	10160760	17.8520	70.0048	118.7*	Endosulfan sulfate
7.007	0.009	1117708	7.675	-0.019	307915	10.9118	1.9836	138.5*	4,4'-DDT
7.430	0.006	946621	8.291	0.010	1300618	19.5263	22.5131	14.2	Methoxychlor
7.920	-0.010	862047	8.599	0.020	3723960	7.2771	25.6718	111.7*	Endrin ketone
7.290	0.007	209749	7.823	-0.019	484275	2.4561	3.7001	40.4*	Endrin aldehyde
5.998	-0.004	463091	6.615	0.010	1561080	5.3162	5.9848	11.8	gamma-Chlordane
6.122	-0.004	427579	6.750	0.008	373490	5.0429	1.5619	105.4*	alpha-Chlordane
2.305	-0.007	247924	2.466	-0.003	922519	2.0973	3.1792	41.0*	Hexachlorobutadiene
4.132	-0.007	636473	4.582	-0.004	2835678	7.4150	10.2687	32.3	Hexachlorobenzene
5.764	-0.023	121184	6.322	-0.010	2484441	1.2461	13.5980	166.4*	Oxychlordane
5.836	-0.025	72310	6.581	0.001	474580	0.9735	3.5958	114.8*	2,4-DDE
6.067	-0.044	1810058	6.692	0.001	4754637	15.1652	24.4095	46.7*	trans-Nonachlor
6.339	-0.009	240999	7.026	-0.039	578492	3.5995	5.4524	40.9*	2,4-DDD
6.600	0.013	349699	----			4.5154	0.0000	---	2,4-DDT
----			7.418	0.003	570040	0.0000	2.8100	---	cis-Nonachlor
7.566	-0.034	1462057	8.558	-0.006	1855594	18.1907	18.9043	3.8	Mirex
8.957	0.029	7221941	10.320	0.032	7892312	80.0000	80.0000 LS	0.0	Hexabromobiphenyl M
1.748	-0.010	10579	1.753	0.027	74207604	0.0000	0.0000	---	Hexachloroethane
6.563	-0.018	239272	7.326	-0.010	1259164	0.0000	0.0000	---	Kepone
3.801	0.002	1251723	4.128	-0.001	940044	17.1364	4.0542	123.5*	Tetrachloro-m-xylene
8.784	0.007	7497203	9.768	0.043	1034428	82.4819	8.1083	164.2*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	42.8	10.1	10.1~	42-112
Decachlorobiphenyl	206.2	20.3	20.3~	59-123
4,4'-DDE	0.0	0.0	0.0~	0- 0
Endrin	609390.5	168.0	168.0	10-200
4,4'-DDD	0.0	0.0	0.0~	0- 0
4,4'-DDT	2182351.8	79.3	79.3~	0- 0
Endrin ketone	0.0	0.0	0.0~	0- 0
Endrin aldehyde	0.0	0.0	0.0~	0- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

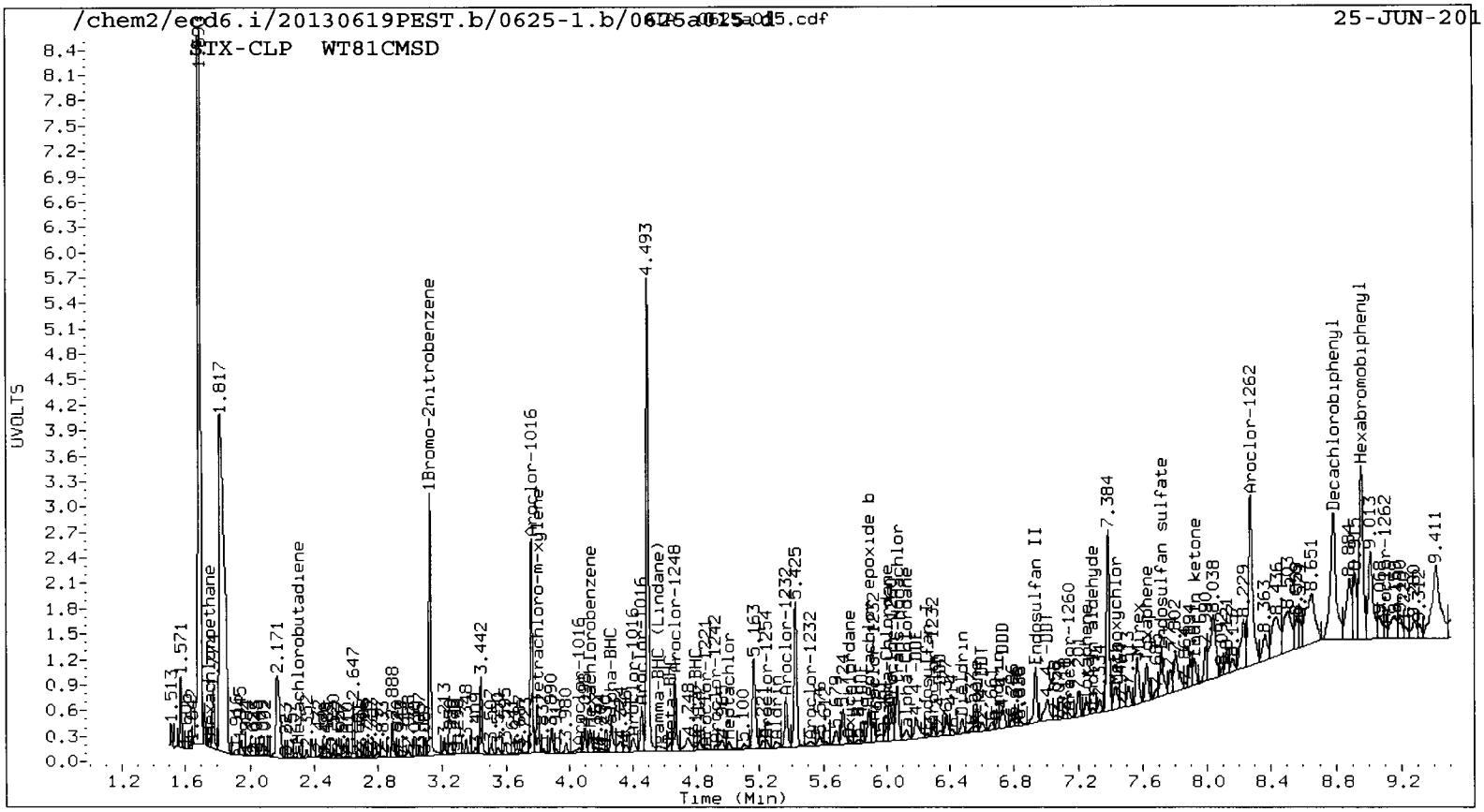
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	5379525	-3.8
Hexabromobiphenyl	4870538	7221941	48.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	14018776	-50.5 <-
Hexabromobiphenyl	16454599	7892312	-52.0 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.934	-0.024	1773608	382.6	1	7.257	-0.034	272142	49.3
Toxaphene	2	7.007	-0.003	1117708	349.5	2	7.634	0.019	1936422	237.7
Toxaphene	3	7.250	-0.017	485599	92.0	3	7.823	-0.023	484275	54.2
Toxaphene	4	7.566	-0.026	1462057	272.0	4	8.291	-0.022	1300618	201.9
Toxaphene	5	7.624	-0.008	1284509	359.9	5	8.348	-0.004	4400997	537.1
Toxaphene	6	7.920	0.007	862047	284.5	NS	---			----
Total STX-CLPAve (6 peaks): 290.087						Total CLP2Ave (5 peaks): 216.026				RPD = 29
Corrected Ave (6 peaks): 290.087						Corrected Ave (4 peaks): 135.752				RPD = 72*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1Bromo-2nitrobenzene
3.442
Aroclor-1016
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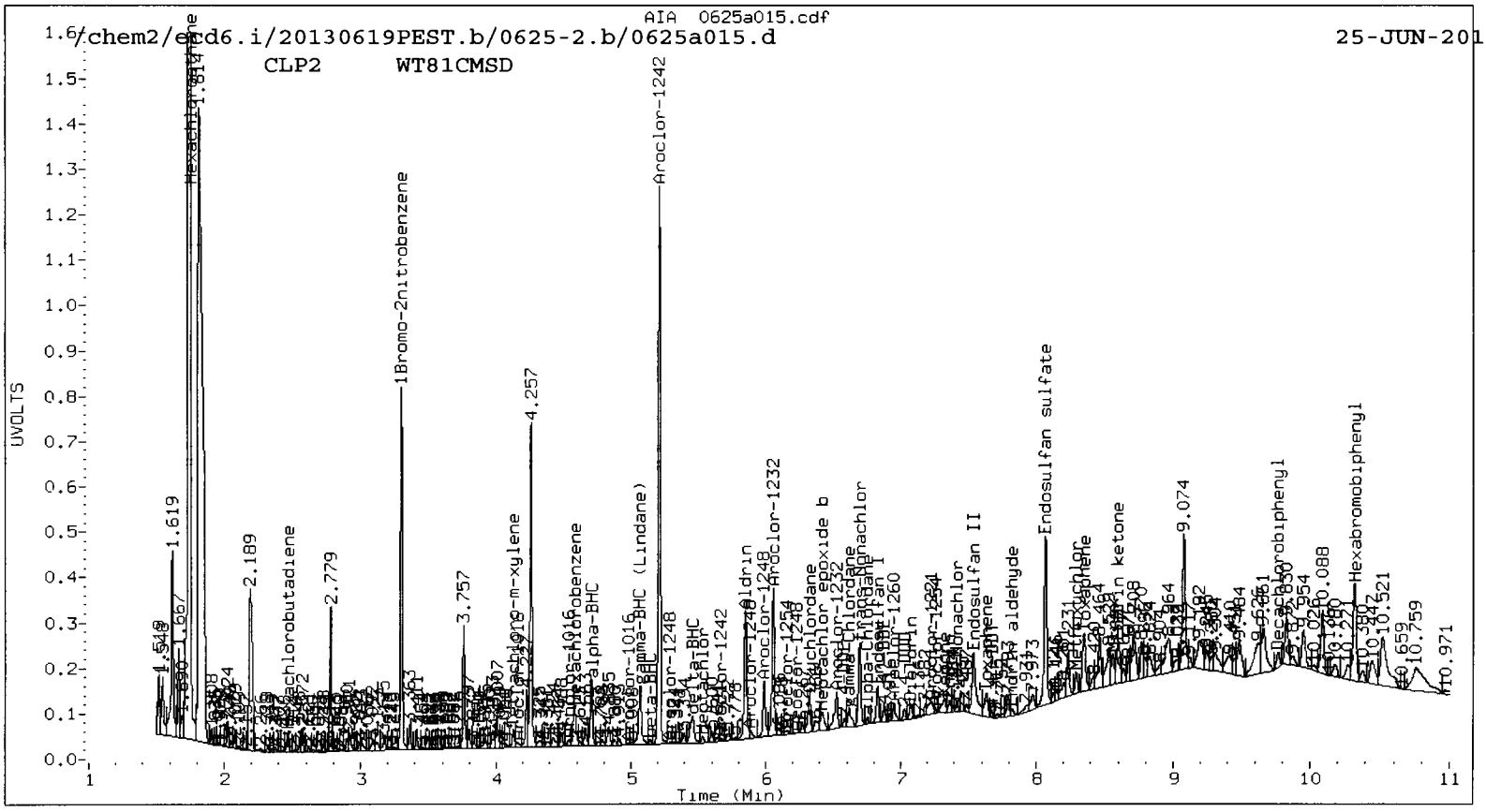
Aroclor-1248
Aroclor-1232
Aroclor-1262
Decachlorobiphenyl
Hexabromobiphenyl
9.411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25-JUN-201
CLP2 WT81CMSD
UVOLTS
Time (Min)
1.619
1Bromo-2nitrobenzene
2.189
2.779
3.757
4.257
Aroclor-1242
Aroclor-1248
Aroclor-1232
Endosulfan sulfate
9.074
Decachlorobiphenyl
Hexabromobiphenyl
10.521
10.759
10.971

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a017.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a017.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 18:43
Compound Sublist: INDA Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.125	-0.007	6442561	3.301	0.001	27899775	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.278	-0.008	2182938	4.711	0.001	7453440	16.8947	11.1820	40.7*	alpha-BHC
4.638	-0.006	752792	5.143	0.005	2511977	14.4435	8.6991	49.6*	beta-BHC
4.808	-0.006	1710152	5.453	0.003	5405205	15.2862	9.4077	47.6*	delta-BHC
4.560	-0.008	1855455	5.068	0.002	6063286	15.7496	10.2875	42.0*	gamma-BHC (Lindane)
5.006	-0.009	1650090	5.531	0.002	4915661	14.5956	8.5985	51.7*	Heptachlor
5.298	-0.009	1683375	5.869	0.002	4391530	15.3673	8.1141	61.8*	Aldrin
5.871	-0.011	1409169	6.423	0.001	3685450	13.8759	7.4716	60.0*	Heptachlor epoxide b
6.247	-0.013	1298381	6.811	0.002	2652340	13.6781	5.9839	78.3*	Endosulfan I
6.469	-0.013	2707147	7.068	0.001	6483834	26.9900	14.4944	60.2*	Dieldrin
6.172	-0.012	2416611	6.871	0.001	5459075	31.6684	12.1225	89.3*	4,4'-DDE
6.687	-0.014	2240369	7.358	0.001	4391890	30.2945	28.2370	7.0	Endrin
6.893	-0.012	2162820	7.547	0.002	5346774	29.4599	32.8147	10.8	Endosulfan II
6.728	-0.012	2394635	7.409	0.003	5246004	33.9093	31.3304	7.9	4,4'-DDD
7.659	-0.015	1826503	8.089	0.002	4987913	28.1764	35.9571	24.3	Endosulfan sulfate
6.985	-0.013	1578762	7.696	0.002	4475419	22.6827	30.1656	28.3	4,4'-DDT
7.409	-0.015	4287933	8.279	-0.003	8417798	130.1678	152.4570	15.8	Methoxychlor
7.913	-0.016	2323985	8.580	0.002	6803657	28.8715	49.0747	51.8*	Endrin ketone
7.269	-0.014	1879211	7.844	0.002	4078692	32.3847	32.6069	0.7	Endrin aldehyde
5.991	-0.011	1433808	6.607	0.002	3746337	13.7439	7.2168	62.3*	gamma-Chlordane
6.114	-0.012	1365574	6.744	0.002	2819682	13.4482	5.9251	77.7*	alpha-Chlordane
2.306	-0.006	2486232	2.467	-0.002	9588127	17.5616	16.6030	5.6	Hexachlorobutadiene
4.133	-0.006	1677507	4.588	0.002	6103688	16.3184	11.1061	38.0	Hexachlorobenzene
8.907	-0.020	4907300	10.290	0.002	7542941	80.0000	80.0000	0.0	Hexabromobiphenyl
3.793	-0.006	3052223	4.129	0.000	11061262	34.8909	23.9701	37.1	Tetrachloro-m-xylen
8.758	-0.020	2328590	9.726	0.001	4409425	37.7020	36.1639	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	87.2	59.9	59.9~	115- 0
Decachlorobiphenyl	94.3	90.4	90.4~	115- 0

~ Indicates recovery outside QC Limits

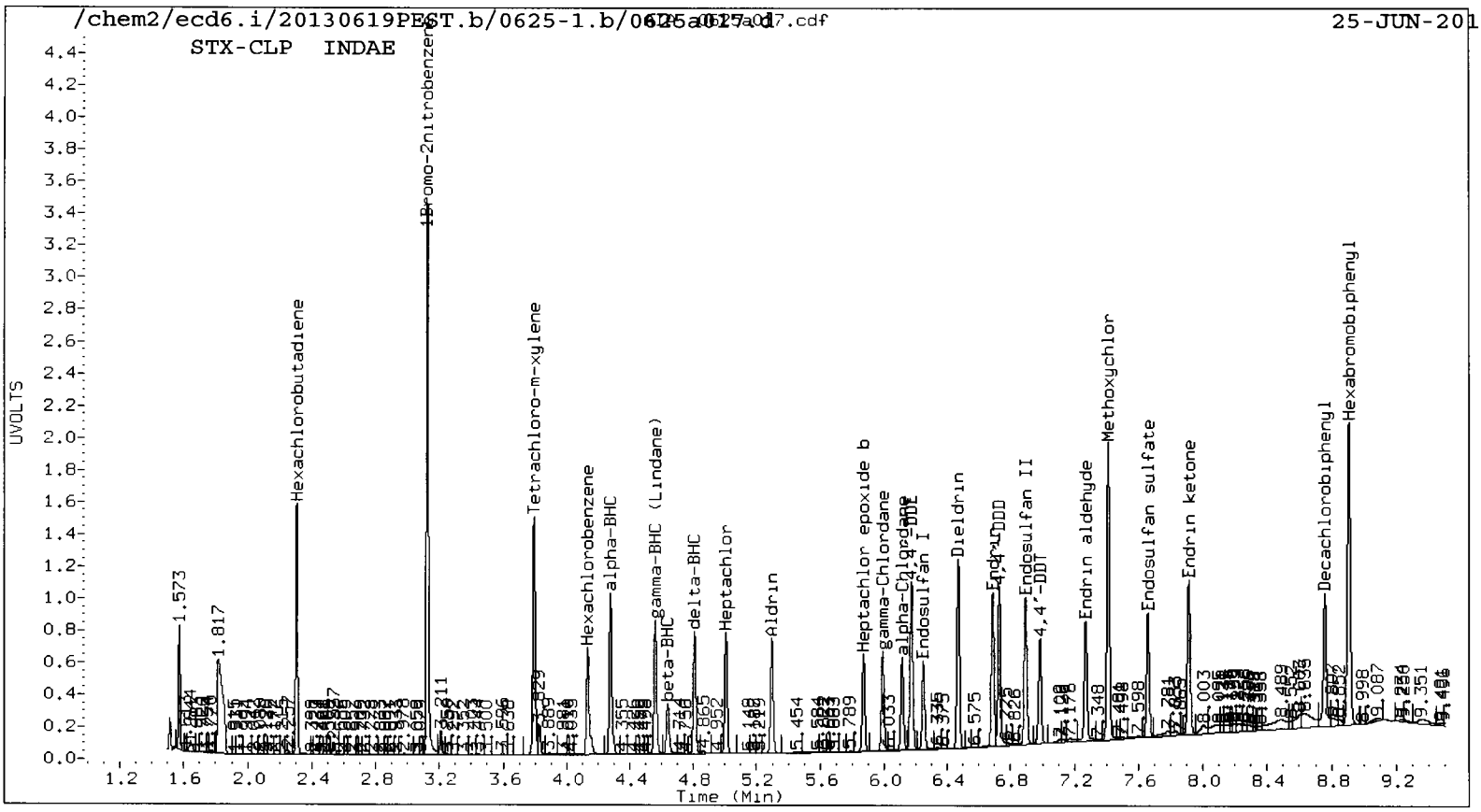
INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1 Standard Area*	Column 1 Sample Area	Column 1 %D	
Bromo-Nitrobenzene	5590801	6442561	15.2	
Hexabromobiphenyl	4870538	4907300	0.8	

Standard Cpnd	Column 2 Standard Area*	Column 2 Sample Area	Column 2 %D	
Bromo-Nitrobenzene	28320361	27899775	-1.5	
Hexabromobiphenyl	16454599	7542941	-54.2	<-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

Cpnd	STX-CLP Col Peak#	RT	Shift	Height	Amount	CLP2 Col Peak#	RT	Shift	Height	Amount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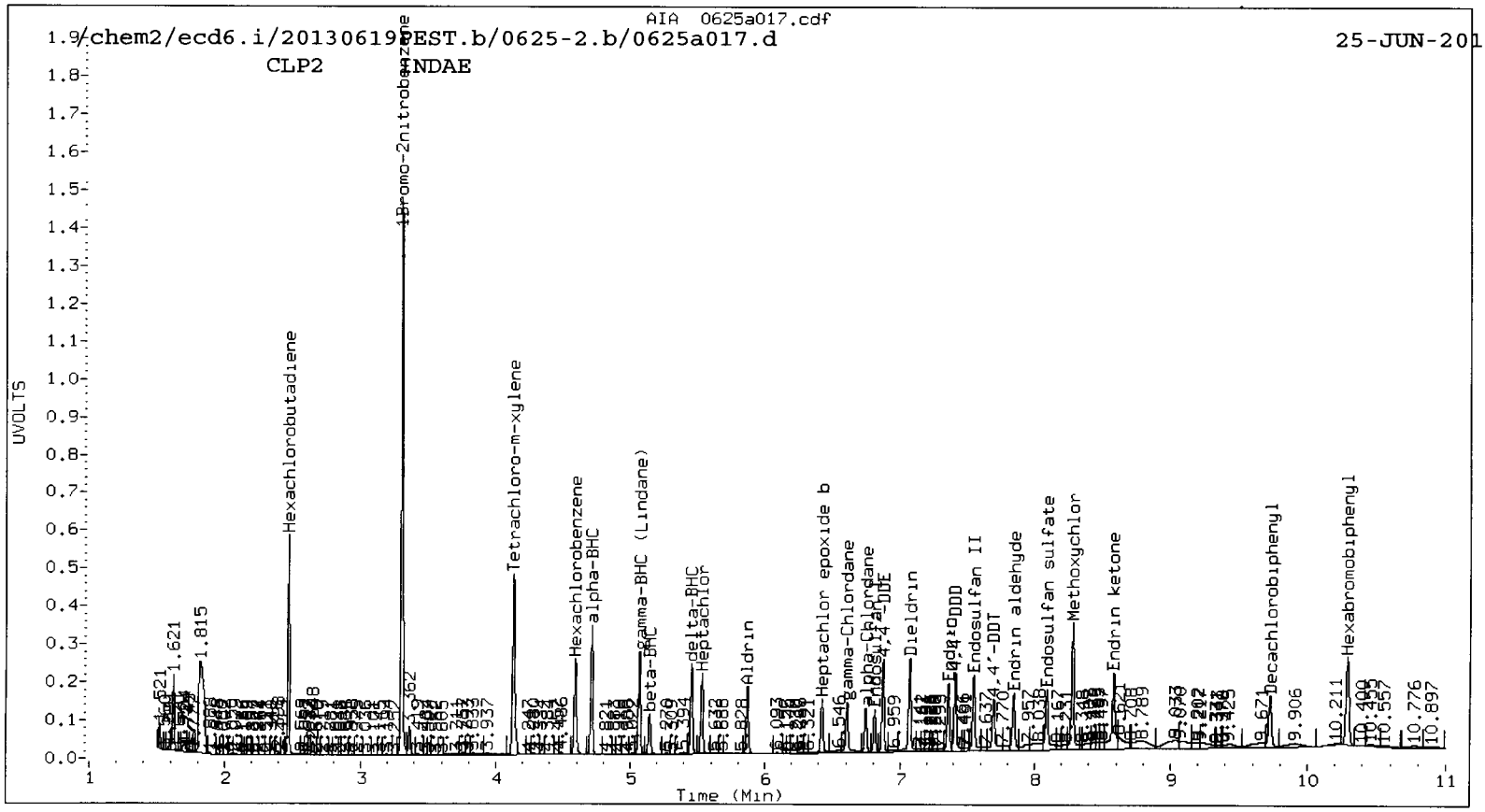
AIA 0625a017.cdf
25-JUN-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.573
1.817
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-JUN-201
CLP2 INDAE
UVOLTS
Time (Min)
1.621
1.815
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Y.t 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0625-1.b/0625a018.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130619PEST.b/0625-2.b/0625a018.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 25-JUN-2013 19:01
Compound Sublist: TOXAPH Report Date: 06/27/2013 16:05
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.125	-0.007	6254364	3.301	0.001	27802299	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.907	-0.020	4986411	10.290	0.002	7959546	80.0000	80.0000	0.0	Hexabromobiphenyl
3.793	-0.006	2504017	4.129	0.000	13448587	29.4855	29.2457	0.8	Tetrachloro-m-xylen
8.758	-0.020	2175540	9.726	0.001	3866885	34.6651	30.0543	14.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	73.7	73.1	73.1~	150- 0
Decachlorobiphenyl	86.7	75.1	75.1~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6254364	11.9
Hexabromobiphenyl	4870538	4986411	2.4

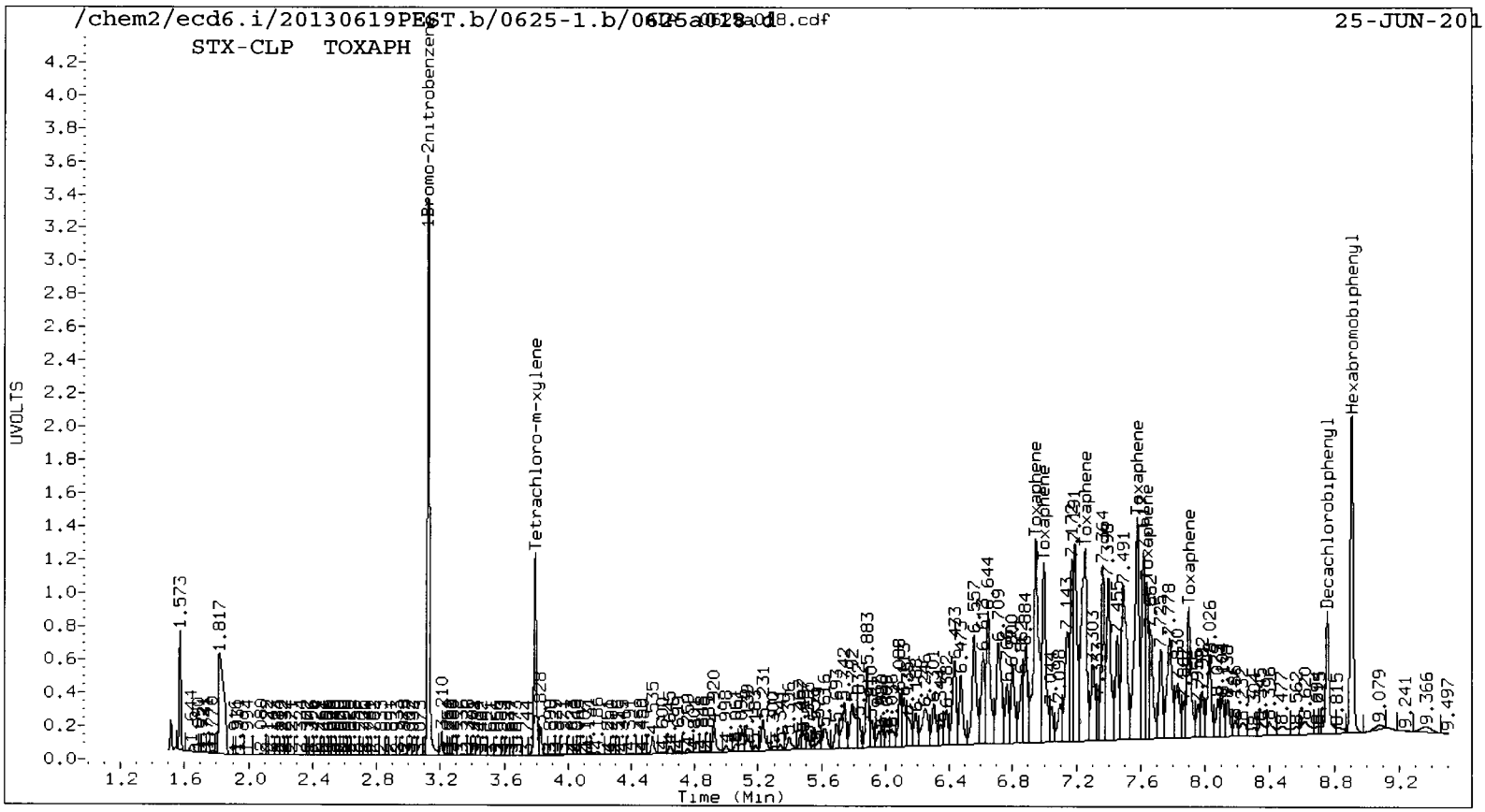
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	27802299	-1.8
Hexabromobiphenyl	16454599	7959546	-51.6 <-

WT01 : 01560

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.946	-0.013	5212965	1628.8	1	7.294	0.003	9693547	1740.7
Toxaphene	2	6.997	-0.013	3636912	1646.9	2	7.619	0.004	14607612	1777.9
Toxaphene	3	7.254	-0.013	5474324	1502.5	3	7.849	0.002	14057341	1559.2
Toxaphene	4	7.579	-0.014	5321109	1433.8	4	8.316	0.003	9305502	1432.0
Toxaphene	5	7.639	0.007	2349672	953.5	5	8.355	0.003	11081126	1341.0
Toxaphene	6	7.898	-0.015	2656394	1269.8	NS	---			----
Total STX-CLPAve (6 peaks): 1405.880						Total CLP2Ave (5 peaks): 1570.173				RPD = 11
Corrected Ave (6 peaks): 1405.880						Corrected Ave (5 peaks): 1570.173				RPD = 11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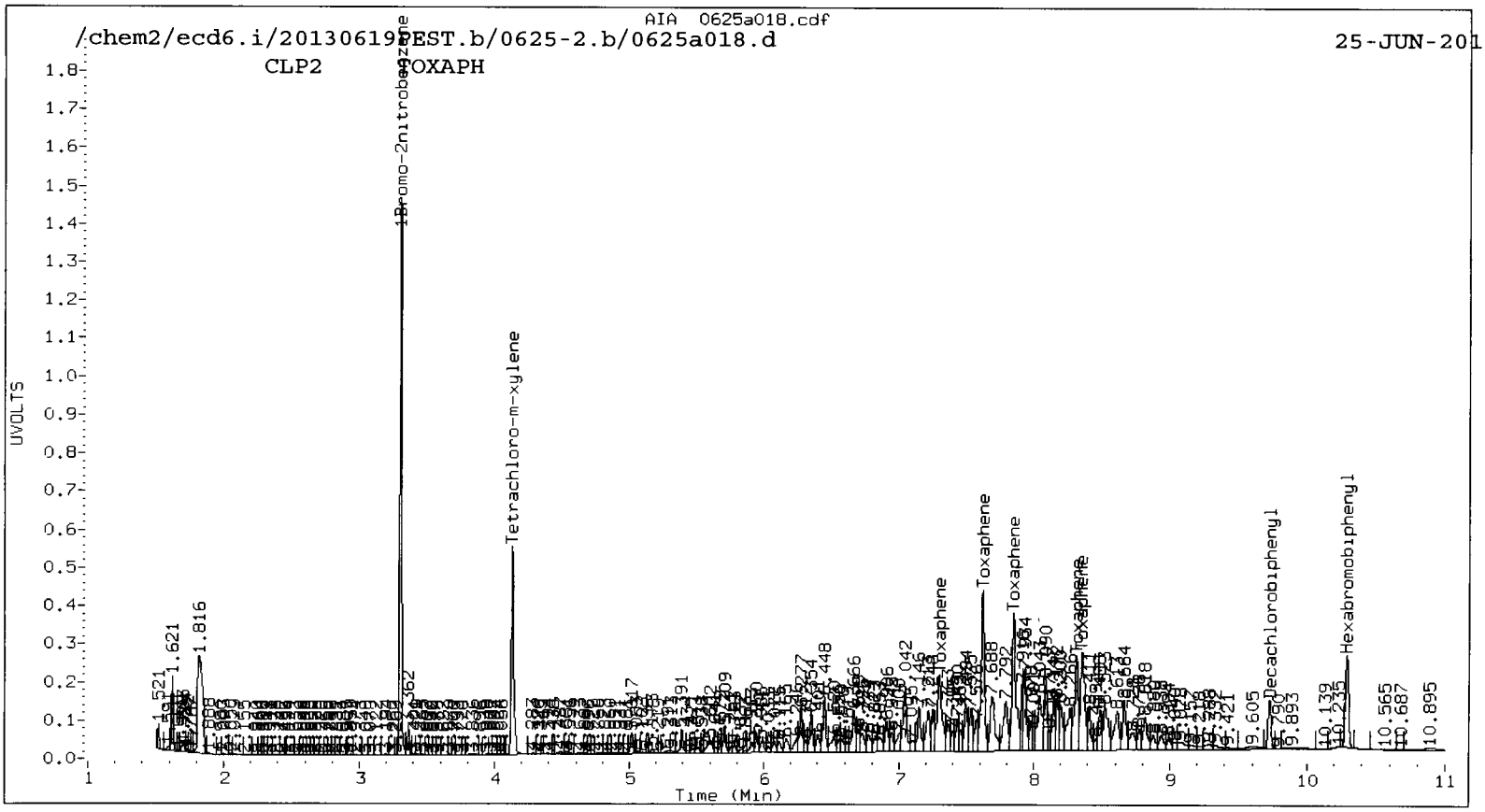
0625a018.cdf
25-JUN-201
STX-CLP TOXAPH
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
1.573
1.817
UVOLTS
Time (Min)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25-JUN-201
CLP2 TOXAPH
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
1.621
1.816
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a013.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a013.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 17:58
Compound Sublist: INDA Report Date: 06/28/2013 14:18
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.007	6715782	3.300	0.001	28121646	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.278	-0.008	3049503	4.711	0.000	13615940	22.6413	20.2661	11.1	alpha-BHC
4.636	-0.008	1129977	5.141	0.003	5065252	20.7983	17.4027	17.8	beta-BHC
4.806	-0.008	2611593	5.452	0.002	11665185	22.3940	20.1429	10.6	delta-BHC
4.560	-0.009	2725144	5.067	0.001	11950911	22.1906	20.1169	9.8	gamma-BHC (Lindane)
5.005	-0.010	2565026	5.530	0.001	10778358	21.7654	18.7048	15.1	Heptachlor
5.296	-0.011	2560012	5.868	0.001	10255039	22.4192	18.7985	17.6	Aldrin
5.870	-0.013	2280662	6.422	0.000	8810807	21.5438	17.7213	19.5	Heptachlor epoxide b
6.246	-0.014	2112882	6.810	0.001	8021449	21.3532	17.9543	17.3	Endosulfan I
6.469	-0.014	4579429	7.068	0.000	16036664	43.7990	35.5667	20.7	Dieldrin
6.170	-0.014	3484574	6.870	0.000	16120910	43.8058	35.5157	20.9	4,4'-DDE
6.686	-0.015	3883404	7.357	0.000	12314259	41.6098	42.1168	1.2	Endrin
6.892	-0.014	3865132	7.546	0.001	13159929	41.7171	42.9645	2.9	Endosulfan II
6.727	-0.013	3689575	7.409	0.002	12790259	41.3995	40.6347	1.9	4,4'-DDD
7.658	-0.016	3365699	8.088	0.001	10844815	41.1415	41.5879	1.1	Endosulfan sulfate
6.984	-0.014	3671620	7.696	0.001	11622344	41.7998	41.6726	0.3	4,4'-DDT
7.409	-0.015	8079245	8.278	-0.004	20257908	194.3416	195.1744	0.4	Methoxychlor
7.913	-0.017	4182960	8.579	0.001	10911819	41.1774	41.8689	1.7	Endrin ketone
7.269	-0.015	3015242	7.843	0.001	9966015	41.1742	42.3828	2.9	Endrin aldehyde
5.990	-0.012	2401557	6.606	0.002	9076466	22.0838	17.3465	24.0	gamma-Chlordane
6.113	-0.013	2283231	6.743	0.001	8397529	21.5705	17.5067	20.8	alpha-Chlordane
2.305	-0.007	3147754	2.467	-0.003	11763777	21.3297	20.2097	5.4	Hexachlorobutadiene
4.133	-0.007	2214500	4.588	0.002	11196829	20.6658	20.2127	2.2	Hexachlorobenzene
8.908	-0.019	6193033	10.288	0.000	14179509	80.0000	80.0000	0.0	Hexabromobiphenyl
3.792	-0.007	3944201	4.128	0.000	18984086	43.2531	40.8146	5.8	Tetrachloro-m-xylen
8.757	-0.020	3128142	9.725	0.000	9167940	40.1325	39.9985	0.3	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	108.1	102.0	102.0~	115- 0
Decachlorobiphenyl	100.3	100.0	100.0~	115- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

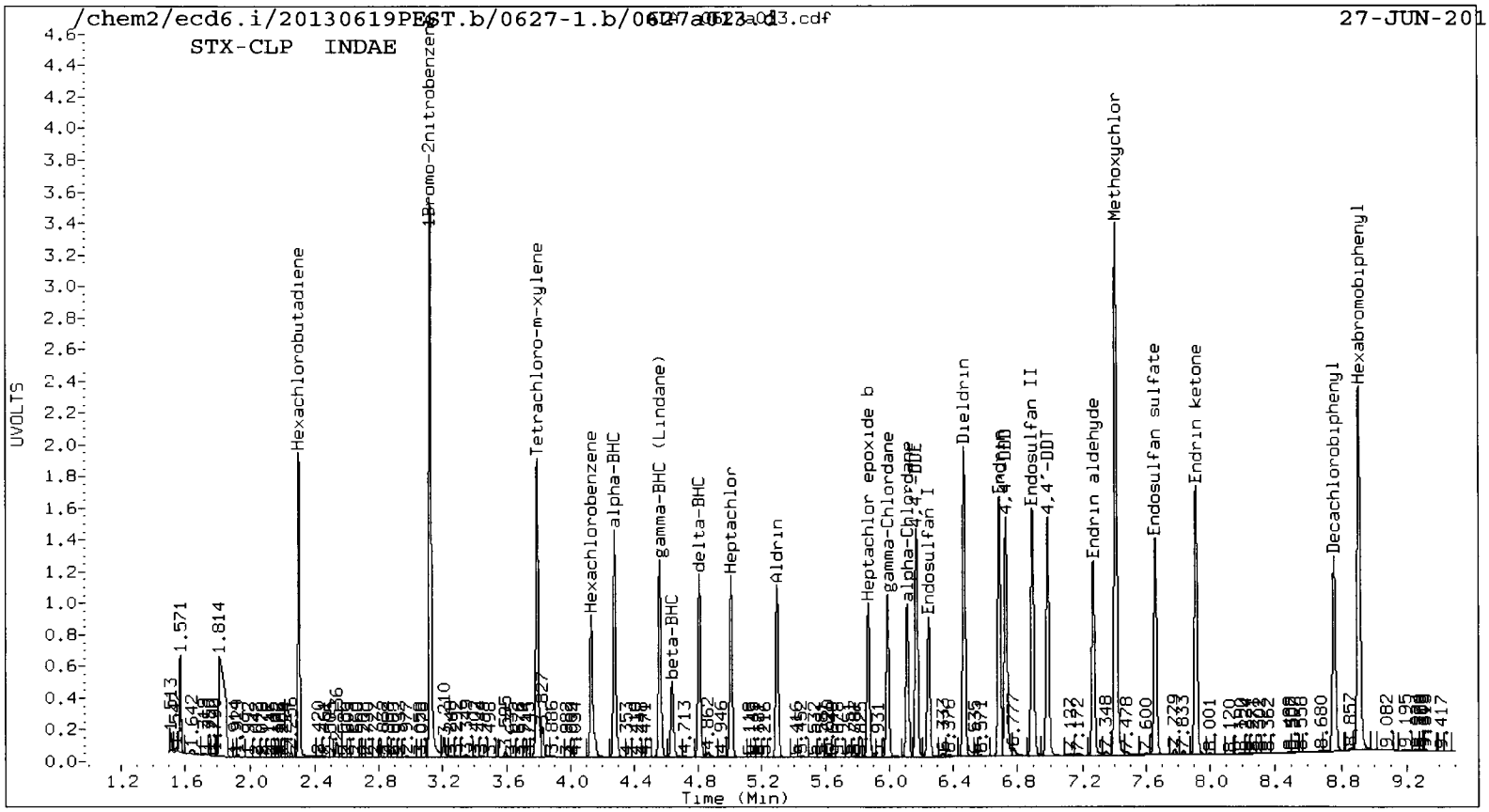
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6715782	20.1
Hexabromobiphenyl	4870538	6193033	27.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28121646	-0.7
Hexabromobiphenyl	16454599	14179509	-13.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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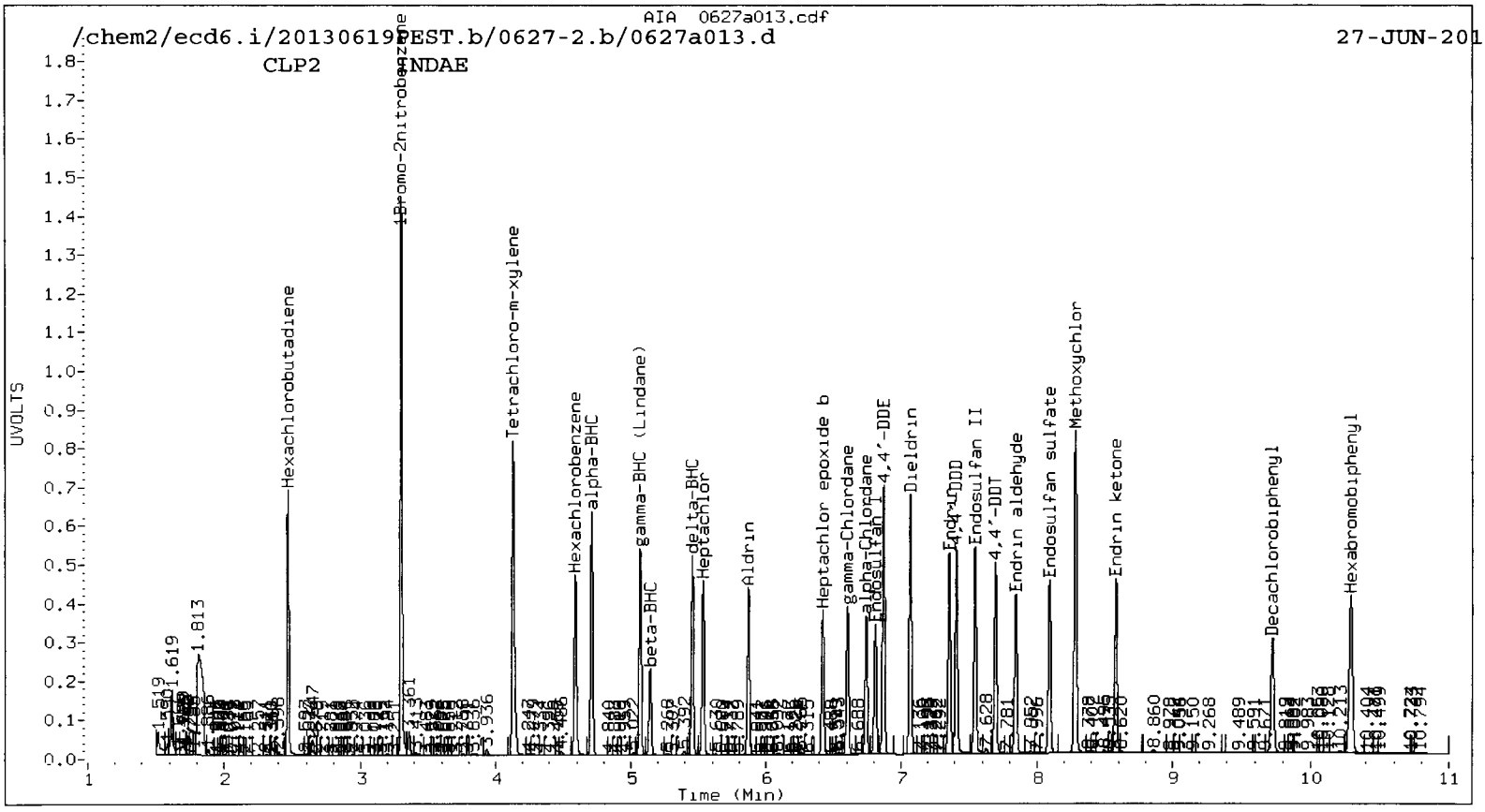
27-JUN-201
STX-CLP INDAE
UVOLTS
Time (Min)
1.571
1.814
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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27-JUN-201
CLP2 INDAE
UVOLTS
Time (Min)
1.619
1.813
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/27/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a014.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a014.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 18:16
Compound Sublist: TOXAPH Report Date: 06/28/2013 14:18
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.125	-0.007	6878588	3.301	0.001	29135804	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.908	-0.019	6507625	10.289	0.000	15486641	80.0000	80.0000	0.0	Hexabromobiphenyl
3.794	-0.006	2778236	4.129	0.000	14570678	29.7457	30.2357	1.6	Tetrachloro-m-xylen
8.757	-0.020	2563464	9.725	0.001	7791590	31.2981	31.1245	0.6	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.4	75.6	74.4~	150- 0
Decachlorobiphenyl	78.2	77.8	77.8~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

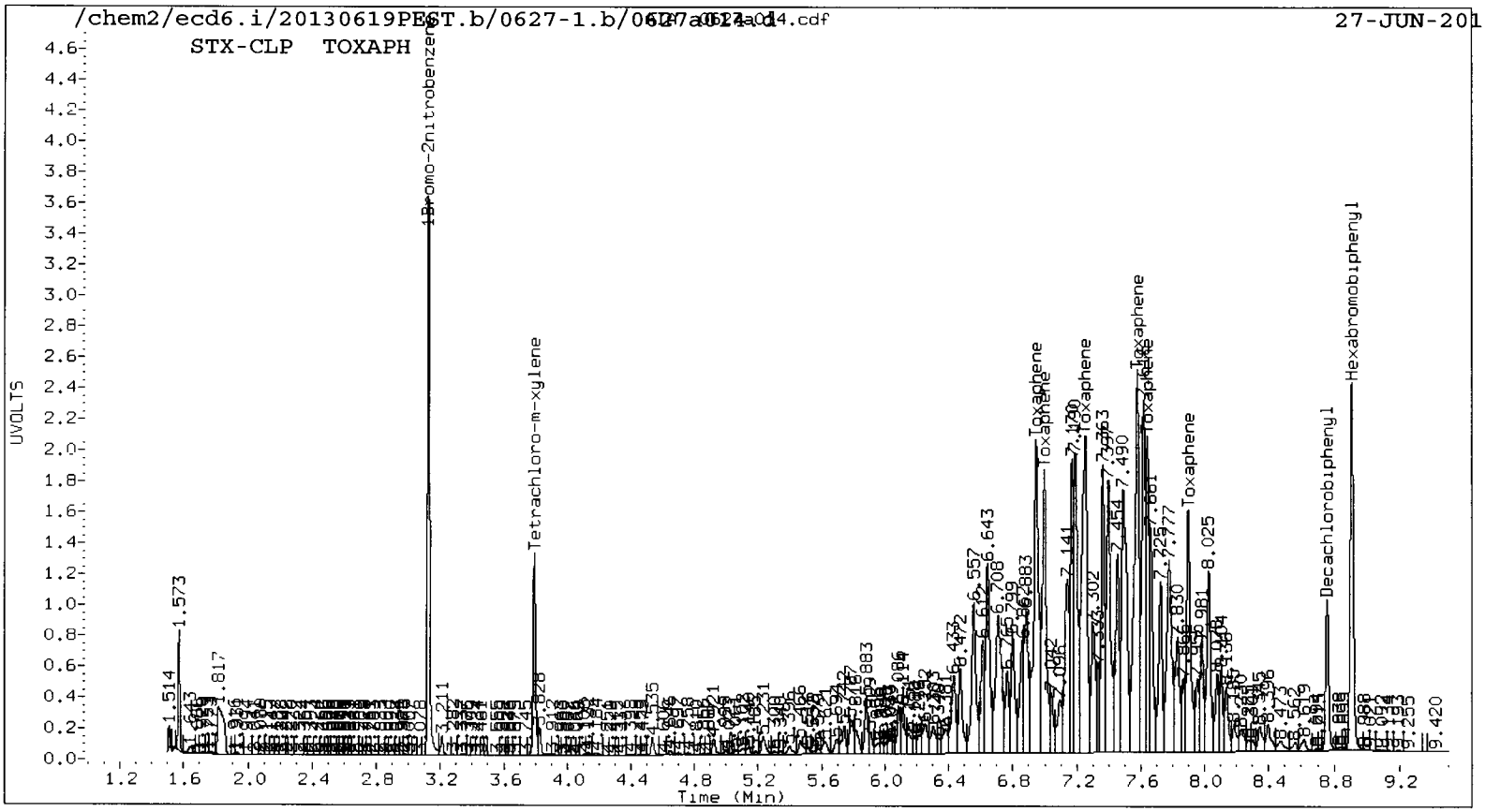
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6878588	23.0
Hexabromobiphenyl	4870538	6507625	33.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29135804	2.9
Hexabromobiphenyl	16454599	15486641	-5.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount	
Toxaphene	1	6.945	-0.014	8831614	2114.4	1	7.293	0.002	24347476	2247.1	
Toxaphene	2	6.996	-0.014	6514247	2260.2	2	7.618	0.003	35867671	2243.7	
Toxaphene	3	7.252	-0.015	10022847	2107.9	3	7.848	0.002	38648295	2203.3	
Toxaphene	4	7.577	-0.015	10021467	2069.1	4	8.315	0.002	26118305	2065.8	
Toxaphene	5	7.638	0.006	5460479	1697.8	5	8.355	0.002	32992094	2052.0	
Toxaphene	6	7.897	-0.017	5532997	2026.6	NS	---			----	
Total STX-CLPAve (6 peaks): 2046.018						Total CLP2Ave (5 peaks): 2162.384				RPD = 6	
Corrected Ave (6 peaks): 2046.018						Corrected Ave (5 peaks): 2162.384				RPD = 6	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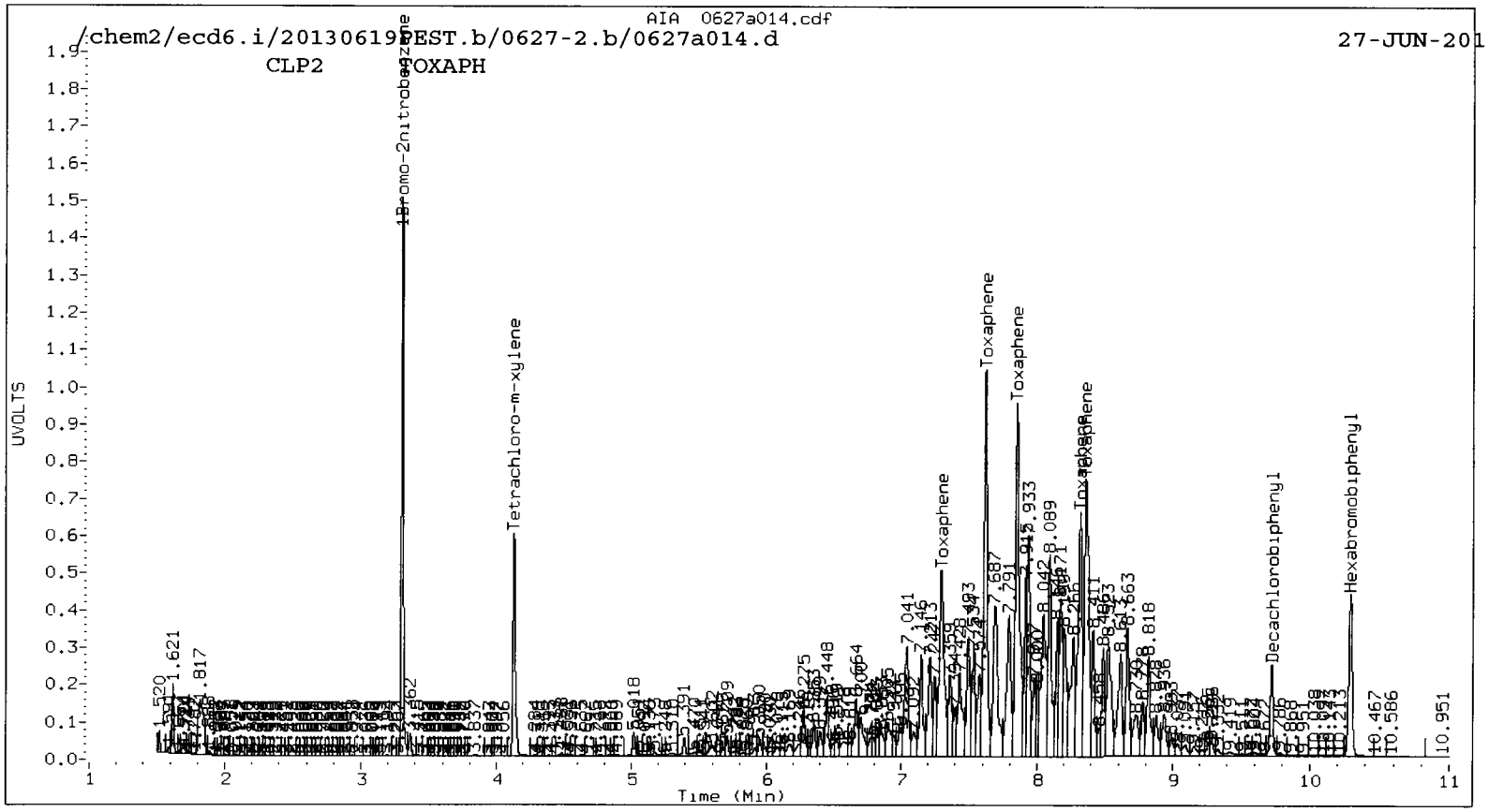
27-JUN-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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27-JUN-201
CLP2 TOXAPH
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a015.d ARI ID: WT81A
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a015.d Client ID: AM-VT-INF-20130612-
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 18:34
Compound Sublist: wpest Report Date: 06/28/2013 12:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000 100

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.007	6857090	3.300	0.001	27111274	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.265	-0.021	54416	4.697	-0.013	122193	0.3957	0.1887	70.9*	alpha-BHC
4.631	-0.013	29353	5.137	-0.001	14276	0.5291	0.0509	164.9*	beta-BHC
4.793	-0.020	48467	5.460	0.010	441031	0.4070	0.7899	64.0*	delta-BHC
4.569	0.000	11153	5.059	-0.007	152326	0.0889	0.2660	99.8*	gamma-BHC (Lindane)
5.001	-0.013	10942	5.545	0.015	59316	0.0909	0.1068	16.0	Heptachlor
5.305	-0.002	19961	5.842	-0.025	407463	0.1712	0.7748	127.6*	Aldrin
5.862	-0.021	66987	6.409	-0.013	203286	0.6197	0.4241	37.5	Heptachlor epoxide b
6.237	-0.022	36456	6.817	0.008	56260	0.3608	0.1306	93.7*	Endosulfan I
6.466	-0.017	6800	7.107	0.039	13223	0.0637	0.0304	70.7*	Dieldrin
6.169	-0.015	44192	6.868	-0.003	26346	0.5441	0.0602	160.1*	4,4'-DDE
6.695	-0.006	11609	7.355	-0.002	10908	0.1279	0.0439	97.8*	Endrin
6.920	0.015	24673	7.528	-0.017	138431	0.2739	0.5319	64.1*	Endosulfan II
6.721	-0.019	40471	7.409	0.002	9308	0.4670	0.0348	172.3*	4,4'-DDD
7.663	-0.012	8749	8.109	0.022	16463	0.1100	0.0743	38.7	Endosulfan sulfate
6.994	-0.004	36666	7.696	0.001	26977	0.4293	0.1139	116.1*	4,4'-DDT
7.428	0.004	13957	8.285	0.003	61629	0.3453	0.6989	67.7*	Methoxychlor
7.899	-0.030	29382	8.586	0.008	95081	0.2974	0.4294	36.3	Endrin ketone
7.261	-0.022	6840	----			0.0960	0.0000	---	Endrin aldehyde
5.991	-0.011	6573	6.607	0.002	45861	0.0592	0.0909	42.2*	gamma-Chlordane
6.119	-0.007	16504	6.744	0.002	15579	0.1527	0.0337	127.7*	alpha-Chlordane
2.303	-0.009	4211	2.472	0.003	29423	0.0280	0.0524	60.9*	Hexachlorobutadiene
4.131	-0.009	22064	4.577	-0.010	109538	0.2017	0.2051	1.7	Hexachlorobenzene
5.776	-0.011	23158	6.318	-0.014	180811	0.2856	0.5117	56.7*	Oxychlordane
5.830	-0.031	4407	6.571	-0.009	42154	0.0711	0.1652	79.6*	2,4-DDE
6.090	-0.020	9556	6.685	-0.005	140341	0.0960	0.4720	132.4*	trans-Nonachlor
6.331	-0.018	18583	7.053	-0.012	36614	0.3328	0.2261	38.2	2,4-DDD
6.581	-0.006	21795	7.370	0.017	14564	0.3375	0.0825	121.4*	2,4-DDT
----			7.453	0.038	27069	0.0000	0.0874	---	cis-Nonachlor
7.599	-0.001	44542	8.538	-0.026	111336	0.6646	0.7431	11.2	Mirex
8.905	-0.022	6022363	10.288	-0.001	12047145	80.0000	80.0000	0.0	Hexabromobiphenyl
1.750	-0.008	2260	1.719	-0.007	981207	0.0000	0.0000	---	Hexachloroethane
6.532	-0.049	50346	7.319	-0.018	73992	0.0000	0.0000	---	Kepone
3.795	-0.004	66406	4.128	-0.001	141703	0.7132	0.3160	77.2*	Tetrachloro-m-xylene
8.752	-0.025	118752	9.729	0.004	141438	1.5667	0.7263	73.3*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	1.8	0.8	0.8~	42-112
Decachlorobiphenyl	3.9	1.8	1.8~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

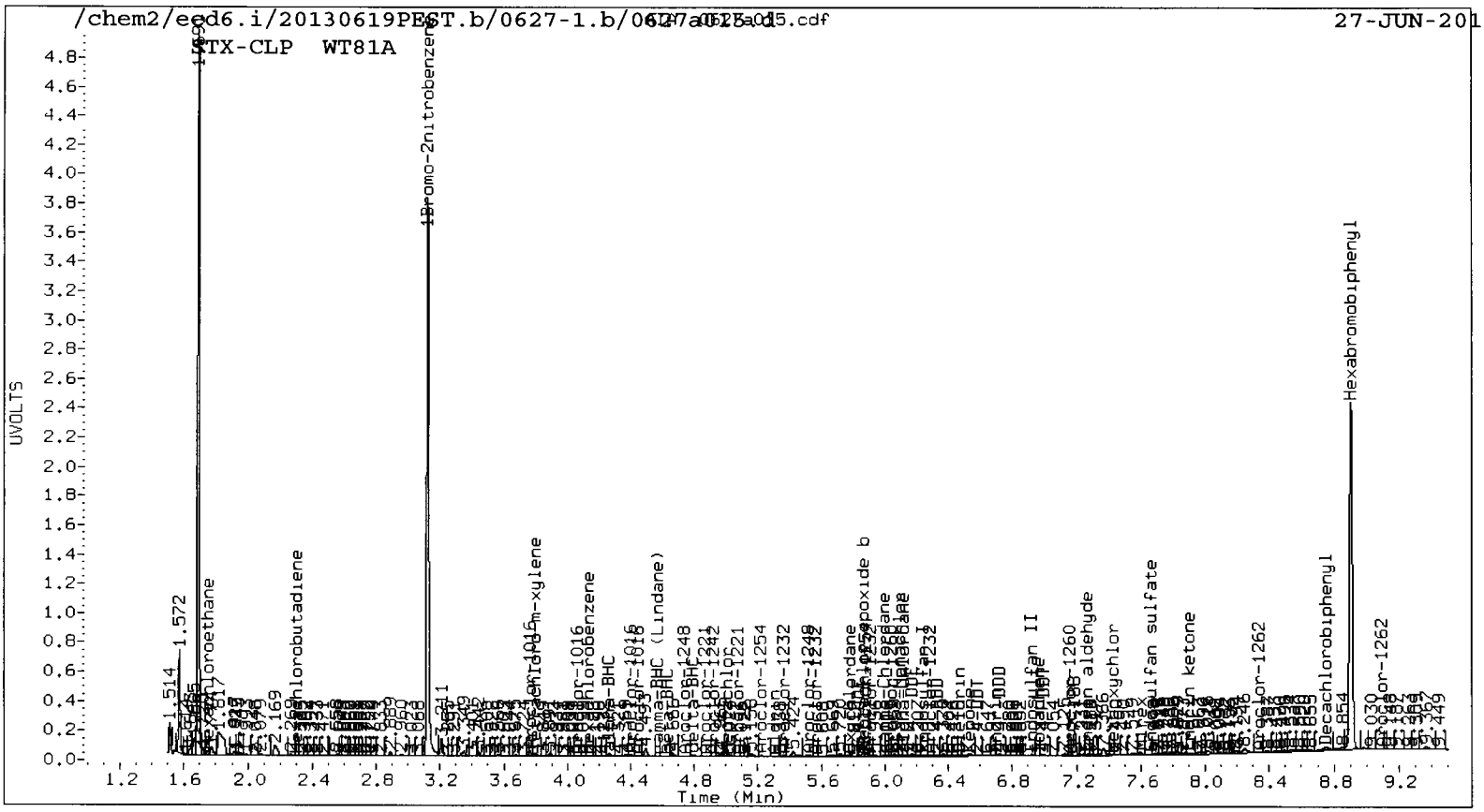
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6857090	22.6
Hexabromobiphenyl	4870538	6022363	23.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	27111274	-4.3
Hexabromobiphenyl	16454599	12047145	-26.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.962	0.004	9596	2.5	1	7.319	0.027	73992	8.8
Toxaphene	2	6.994	-0.015	36666	13.7	2	7.625	0.010	26594	2.1
Toxaphene	3	7.261	-0.006	6840	1.6	3	---			0.0
Toxaphene	4	7.599	0.007	44542	9.9	4	8.326	0.013	196980	20.0
Toxaphene	5	7.663	0.031	8749	2.9	5	8.372	0.020	22232	1.8
Toxaphene	6	7.899	-0.014	29382	11.6	NS	---			----
Total STX-CLPAve (6 peaks): 7.048						Total CLP2Ave (4 peaks): 8.181			RPD = 15	
Corrected Ave (5 peaks): 5.709						Corrected Ave (3 peaks): 4.232			RPD = 30	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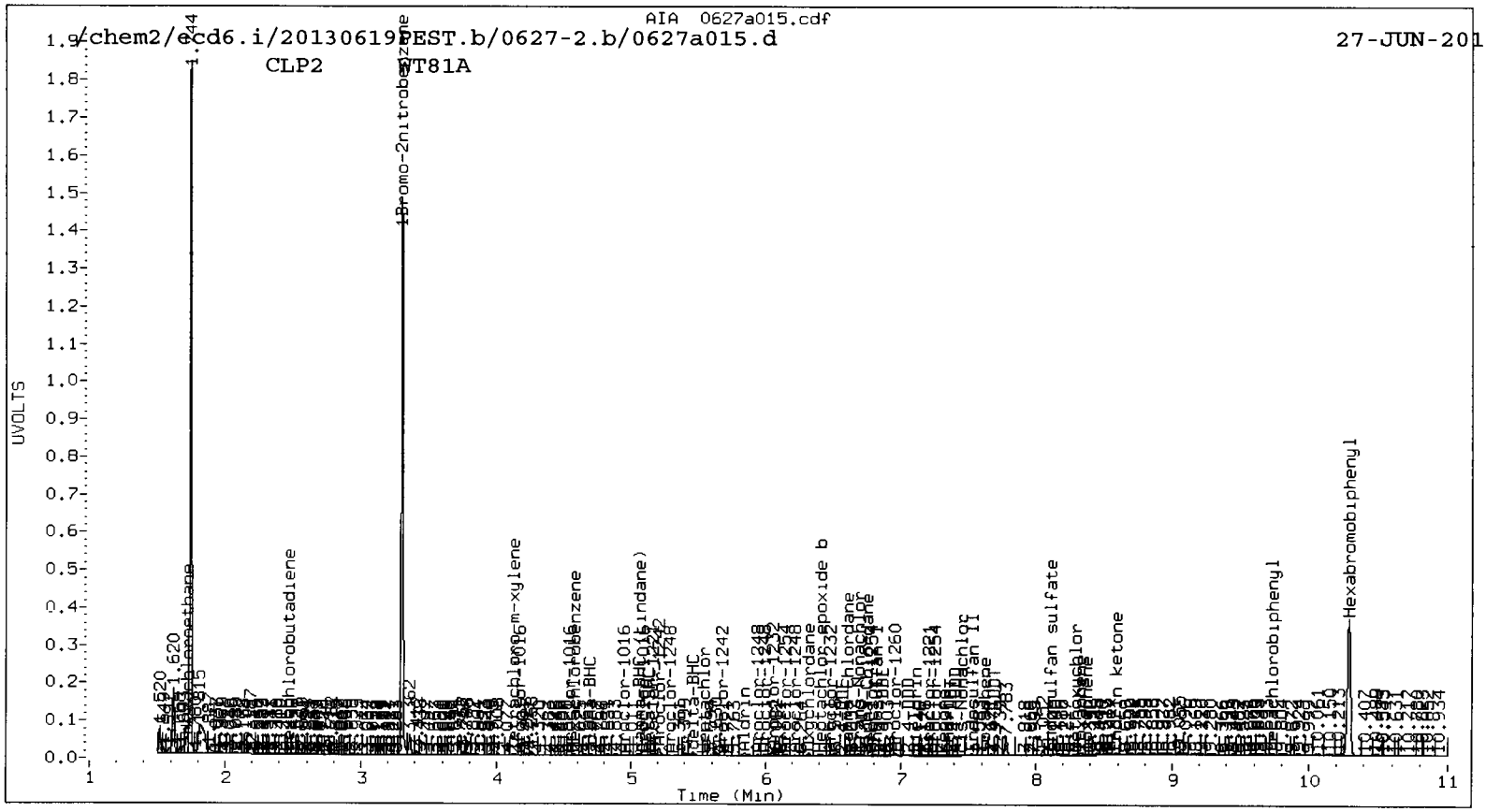
27-JUN-201
STX-CLP WT81A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
m-xylene
Hexabromobiphenyl
Decachlorobiphenyl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27-JUN-201
CLP2 WT81A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
m-xylene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a016.d ARI ID: WT81B YZ 6/28/13
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a016.d Client ID: AM-SF4-EFF-20130612
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 18:52
Compound Sublist: wpest Report Date: 06/28/2013 12:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: ~~1.000~~ 100

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.008	7223342	3.300	0.001	28212544	80.0000	80.0000 JS	0.0	1Bromo-2nitrobenzen
4.264	-0.022	79375	4.706	-0.005	160926	0.5479	0.2388	78.6*	alpha-BHC
4.631	-0.013	18298	5.132	-0.006	15219	0.3131	0.0521	142.9*	beta-BHC
4.792	-0.021	14066	5.458	0.008	303772	0.1121	0.5828	129.4*	delta-BHC
4.569	0.000	21186	5.070	0.004	369871	0.1604	0.6206	117.9*	gamma-BHC (Lindane)
5.005	-0.010	23762	5.539	0.009	21270	0.1875	0.0368	134.4*	Heptachlor
5.314	0.007	6722	5.884	0.017	64472	0.0547	0.1178	73.1*	Aldrin
5.881	-0.001	70999	6.409	-0.013	94224	0.6236	0.1889	107.0*	Heptachlor epoxide b
6.243	-0.016	4629	6.818	0.009	153489	0.0435	0.3424	154.9*	Endosulfan I
6.470	-0.013	8241	7.107	0.040	14858	0.0733	0.0328	76.2*	Dieldrin
6.172	-0.012	15282	6.867	-0.003	39695	0.1786	0.0872	68.8*	4,4'-DDE
----			7.372	0.016	54574	0.0000	0.2476	---	Endrin
6.921	0.015	77485	7.527	-0.018	399061	0.8585	1.7283	67.2*	Endosulfan II
6.720	-0.020	39436	7.408	0.001	67071	0.4543	0.2827	46.6*	4,4'-DDD
7.697	0.023	79682	8.111	0.024	15672	0.9999	0.0797	170.5*	Endosulfan sulfate
6.995	-0.003	49818	7.671	-0.023	150200	0.5822	0.7144	20.4	4,4'-DDT
7.424	0.000	18094	8.284	0.002	61569	0.4468	0.7869	55.1*	Methoxychlor
7.899	-0.031	46846	8.587	0.008	141378	0.4734	0.7196	41.3*	Endrin ketone
7.289	0.006	11507	7.870	0.028	47777	0.1613	0.2695	50.2*	Endrin aldehyde
5.991	-0.011	17796	6.606	0.002	41601	0.1522	0.0793	63.0*	gamma-Chlordane
6.112	-0.015	15762	6.744	0.002	12383	0.1384	0.0257	137.3*	alpha-Chlordane
2.306	-0.006	4953	2.474	0.004	18780	0.0312	0.0322	3.0	Hexachlorobutadiene
4.131	-0.009	46702	4.580	-0.007	328125	0.4052	0.5904	37.2	Hexachlorobenzene
5.757	-0.030	7654	6.319	-0.013	204399	0.0942	0.5559	142.0*	Oxychlordane
5.836	-0.025	4376	6.573	-0.007	26512	0.0705	0.0998	34.4	2,4-DDE
6.142	0.031	3337	6.684	-0.006	360485	0.0335	1.3664	190.4*	trans-Nonachlor
6.329	-0.019	18465	7.055	-0.010	17584	0.3302	0.1224	91.8*	2,4-DDD
6.583	-0.004	34928	----			0.5399	0.0000	---	2,4-DDT
6.770	0.043	21153	----			0.1923	0.0000	---	cis-Nonachlor
7.601	0.000	73184	8.540	-0.024	99325	1.0900	0.7471	37.3	Mirex
8.908	-0.019	6032955	10.289	0.001	10689121	80.0000	80.0000 JS	0.0	Hexabromobiphenyl
1.750	-0.008	1884	1.720	-0.006	807282	0.0000	0.0000	---	Hexachloroethane
----			7.316	-0.020	251172	0.0000	0.0000	---	Kepone
3.801	0.002	125575	4.128	-0.001	165587	1.2803	0.3549	113.2*	Tetrachloro-m-xylene
8.749	-0.028	292049	9.733	0.009	164171	3.8463	0.9501	120.8*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.2	0.9	0.9~	42-112
Decachlorobiphenyl	9.6	2.4	2.4~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	7223342	29.2
Hexabromobiphenyl	4870538	6032955	23.9

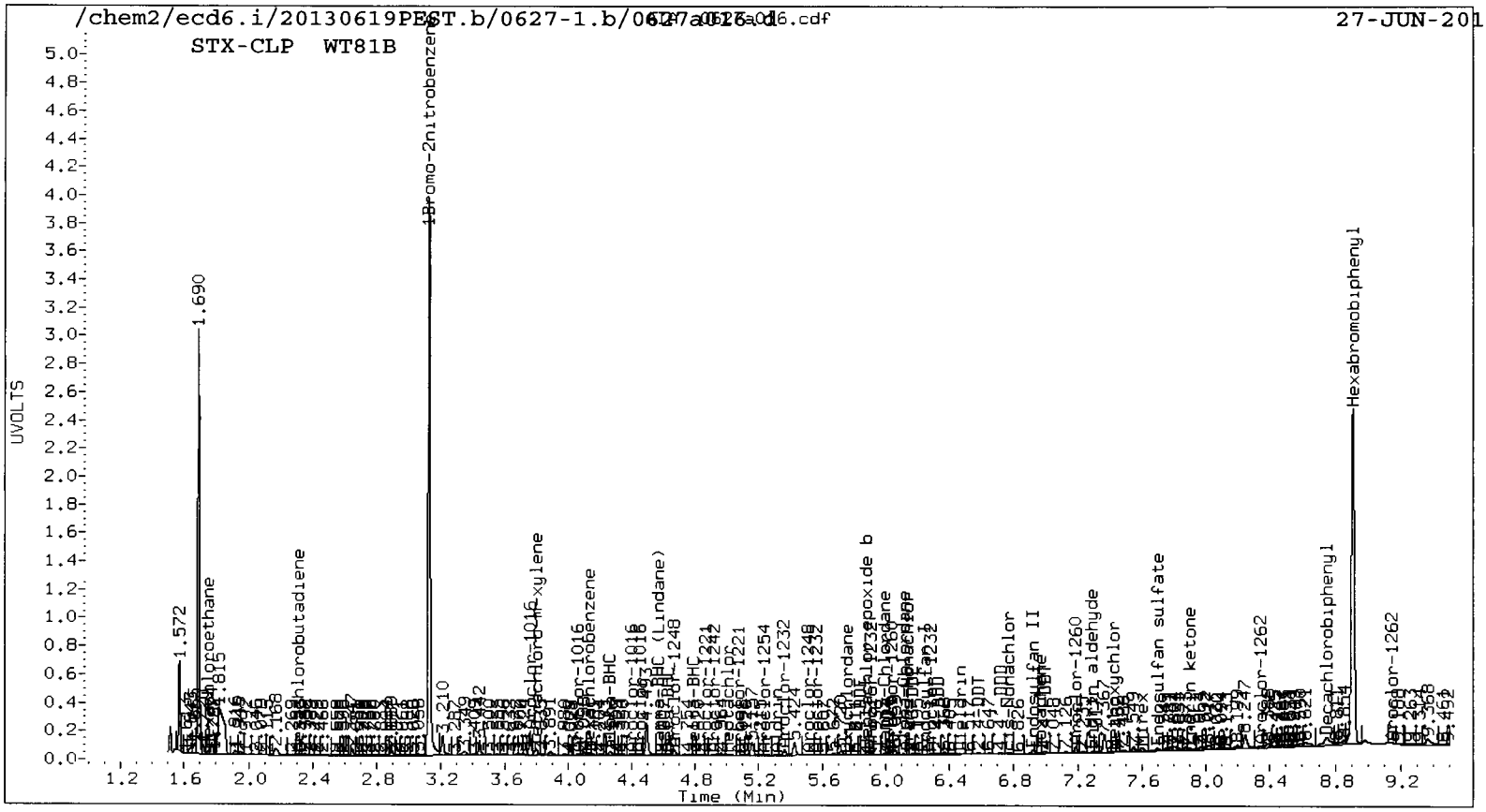
Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28212544	-0.4
Hexabromobiphenyl	16454599	10689121	-35.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.963	0.004	17599	4.5	1	7.316	0.025	251172	33.6
Toxaphene	2	6.995	-0.015	49818	18.6	2	7.614	-0.001	74043	6.7
Toxaphene	3	7.289	0.022	11507	2.6	3	7.870	0.024	47777	3.9
Toxaphene	4	7.601	0.008	73184	16.3	4	8.331	0.017	358536	41.1
Toxaphene	5	---			0.000	5	---			0.000
Toxaphene	6	7.899	-0.015	46846	18.5	NS	---			----

Total STX-CLPAve (5 peaks): 12.122 Total CLP2Ave (4 peaks): 21.332 RPD = 55*
Corrected Ave (5 peaks): 12.122 Corrected Ave (3 peaks): 14.748 RPD = 20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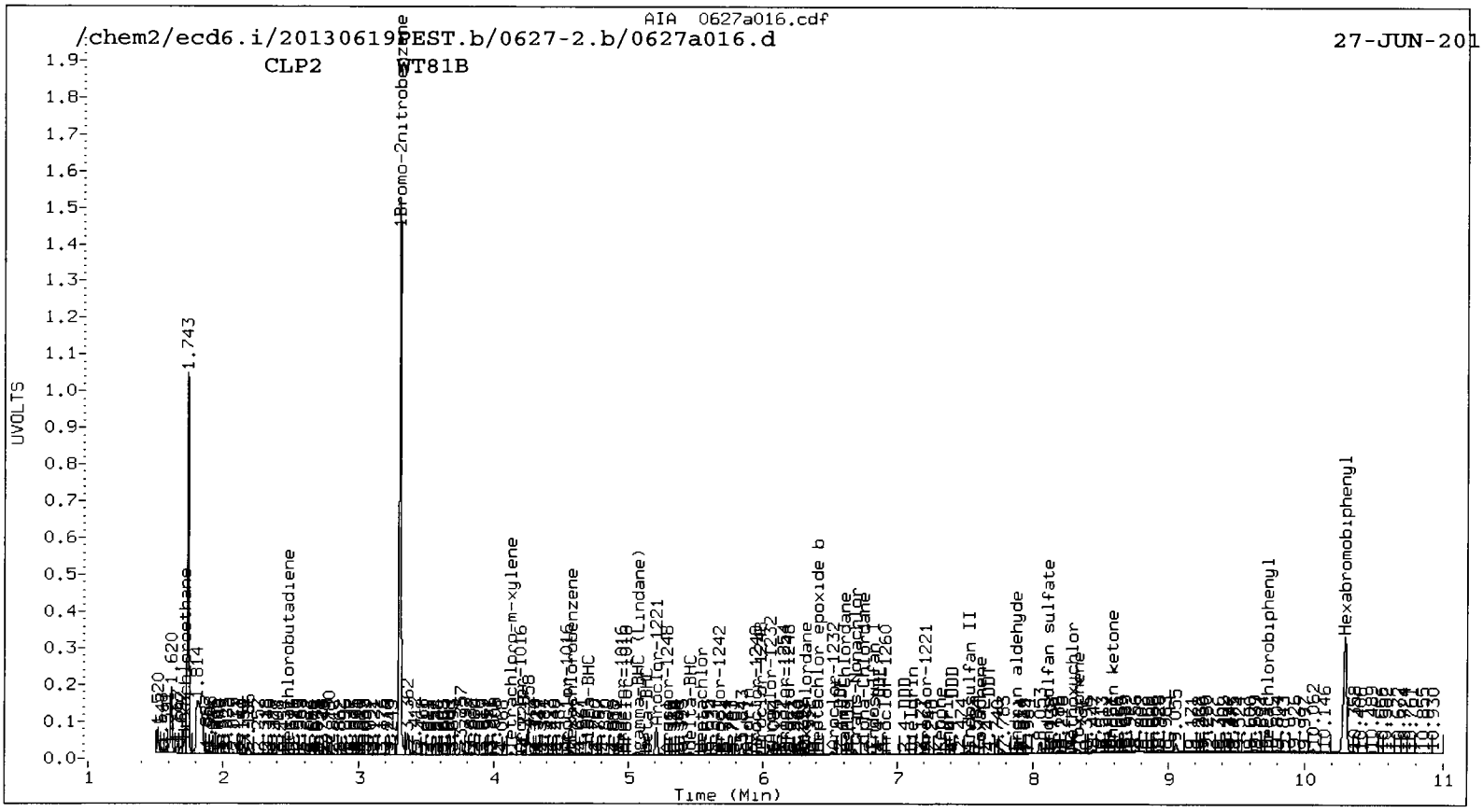
27-JUN-201
STX-CLP WT81B
UVOLTS
Time (Min)
1.572
1.690
3.210
4-Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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27-JUN-201
CLP2 WT81B
UVOLTS
Time (Min)
1.743
4-Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a017.d ARI ID: WT81C
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Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 19:10
Compound Sublist: wpest Report Date: 06/28/2013 12:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: ~~1.000~~ 100

STX-CLP Col			CLP2 Col			STX-CLP	CLP2		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
3.124	-0.008	7120602	3.301	0.001	26749253	80.0000	80.0000 IS	0.0	1Bromo-2nitrobenzen
4.264	-0.022	64595	4.705	-0.005	124171	0.4523	0.1943	79.8*	alpha-BHC
4.631	-0.013	20303	5.132	-0.006	11261	0.3525	0.0407	158.6*	beta-BHC
4.791	-0.022	11264	5.458	0.008	242570	0.0911	0.4403	131.4*	delta-BHC
4.569	0.000	21212	5.070	0.004	296202	0.1629	0.5242	105.2*	gamma-BHC (Lindane)
5.006	-0.009	13074	5.539	0.009	18396	0.1046	0.0336	102.9*	Heptachlor
5.314	0.007	6632	5.885	0.017	54420	0.0548	0.1049	62.8*	Aldrin
5.880	-0.002	70085	6.409	-0.013	84403	0.6244	0.1785	111.1*	Heptachlor epoxide b
6.243	-0.017	5441	6.817	0.008	111356	0.0519	0.2620	133.9*	Endosulfan I
6.468	-0.014	10463	7.106	0.039	12747	0.0944	0.0297	104.2*	Dieldrin
6.173	-0.011	11061	6.865	-0.005	45640	0.1312	0.1057	21.5	4,4'-DDE
----			7.372	0.016	51216	0.0000	0.2446	---	Endrin
6.920	0.014	67432	7.527	-0.018	393338	0.7695	1.7934	79.9*	Endosulfan II
6.719	-0.021	30671	7.409	0.002	71493	0.3639	0.3172	13.7	4,4'-DDD
7.663	-0.011	8502	8.112	0.024	16049	0.1099	0.0860	24.4	Endosulfan sulfate
6.994	-0.004	50947	7.705	0.010	43023	0.6133	0.2154	96.0*	4,4'-DDT
7.429	0.005	12031	8.284	0.002	43825	0.3069	0.5897	63.3*	Methoxychlor
7.898	-0.031	43818	8.587	0.008	164873	0.4561	0.8835	63.8*	Endrin ketone
7.290	0.007	15477	7.878	0.035	39706	0.2235	0.2358	5.4	Endrin aldehyde
5.991	-0.011	17302	6.606	0.002	41715	0.1501	0.0838	56.6*	gamma-Chlordane
6.110	-0.016	15480	6.744	0.002	19691	0.1379	0.0432	104.7*	alpha-Chlordane
2.306	-0.006	4040	2.474	0.005	17932	0.0258	0.0324	22.6	Hexachlorobutadiene
4.131	-0.009	46329	4.581	-0.005	311314	0.4078	0.5908	36.7	Hexachlorobenzene
5.757	-0.030	6552	6.319	-0.014	180374	0.0831	0.5174	144.7*	Oxychlordane
5.904	0.043	30053	6.573	-0.008	29329	0.4989	0.1165	124.3*	2,4-DDE
6.142	0.032	3799	6.684	-0.006	331745	0.0392	1.3239	188.5*	trans-Nonachlor
6.327	-0.021	23818	7.058	-0.007	11737	0.4386	0.0860	134.4*	2,4-DDD
6.582	-0.005	25827	7.351	-0.002	42946	0.4112	0.2888	35.0	2,4-DDT
6.769	0.042	17614	----			0.1649	0.0000	---	cis-Nonachlor
7.599	-0.001	68884	8.540	-0.024	102571	1.0567	0.8123	26.2	Mirex
8.907	-0.020	5857223	10.288	0.000	10153222	80.0000	80.0000 IS	0.0	Hexabromobiphenyl
1.750	-0.008	1581	1.720	-0.006	573452	0.0000	0.0000	---	Hexachloroethane
6.555	-0.026	1995	7.313	-0.023	171011	0.0000	0.0000	---	Kepone
3.801	0.002	115144	4.128	-0.001	163825	1.1909	0.3703	105.1*	Tetrachloro-m-xylene
8.748	-0.030	275719	9.734	0.009	133098	3.7402	0.8110	128.7*	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

WT81C : 0627a017

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	3.0	0.9	0.9~	42-112
Decachlorobiphenyl	9.4	2.0	2.0~	59-123

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

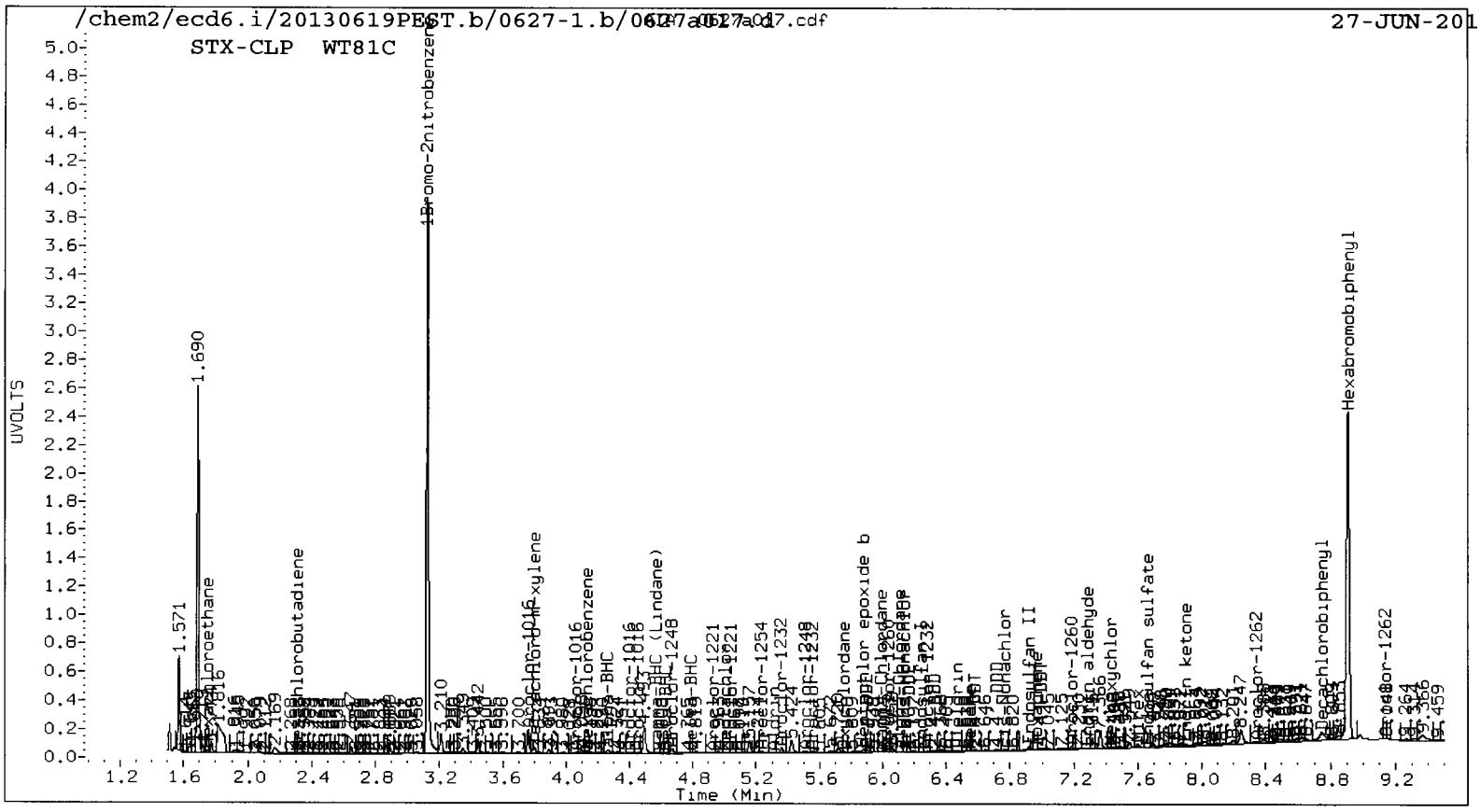
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	7120602	27.4
Hexabromobiphenyl	4870538	5857223	20.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	26749253	-5.5
Hexabromobiphenyl	16454599	10153222	-38.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col				CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.964	0.006	18183	4.8	1	7.313	0.022	171011	24.1
Toxaphene	2	6.994	-0.016	50947	19.6	2	7.618	0.003	47945	4.6
Toxaphene	3	7.290	0.023	15477	3.6	3	7.878	0.032	39706	3.5
Toxaphene	4	7.599	0.007	68884	15.8	4	8.332	0.019	330027	39.8
Toxaphene	5	7.663	0.031	8502	2.9	5	---			0.0
Toxaphene	6	7.898	-0.015	43818	17.8	NS	---			----
Total STX-CLPAve (6 peaks): 10.777						Total CLP2Ave (4 peaks): 17.979				RPD = 50*
Corrected Ave (5 peaks): 9.005						Corrected Ave (3 peaks): 10.700				RPD = 17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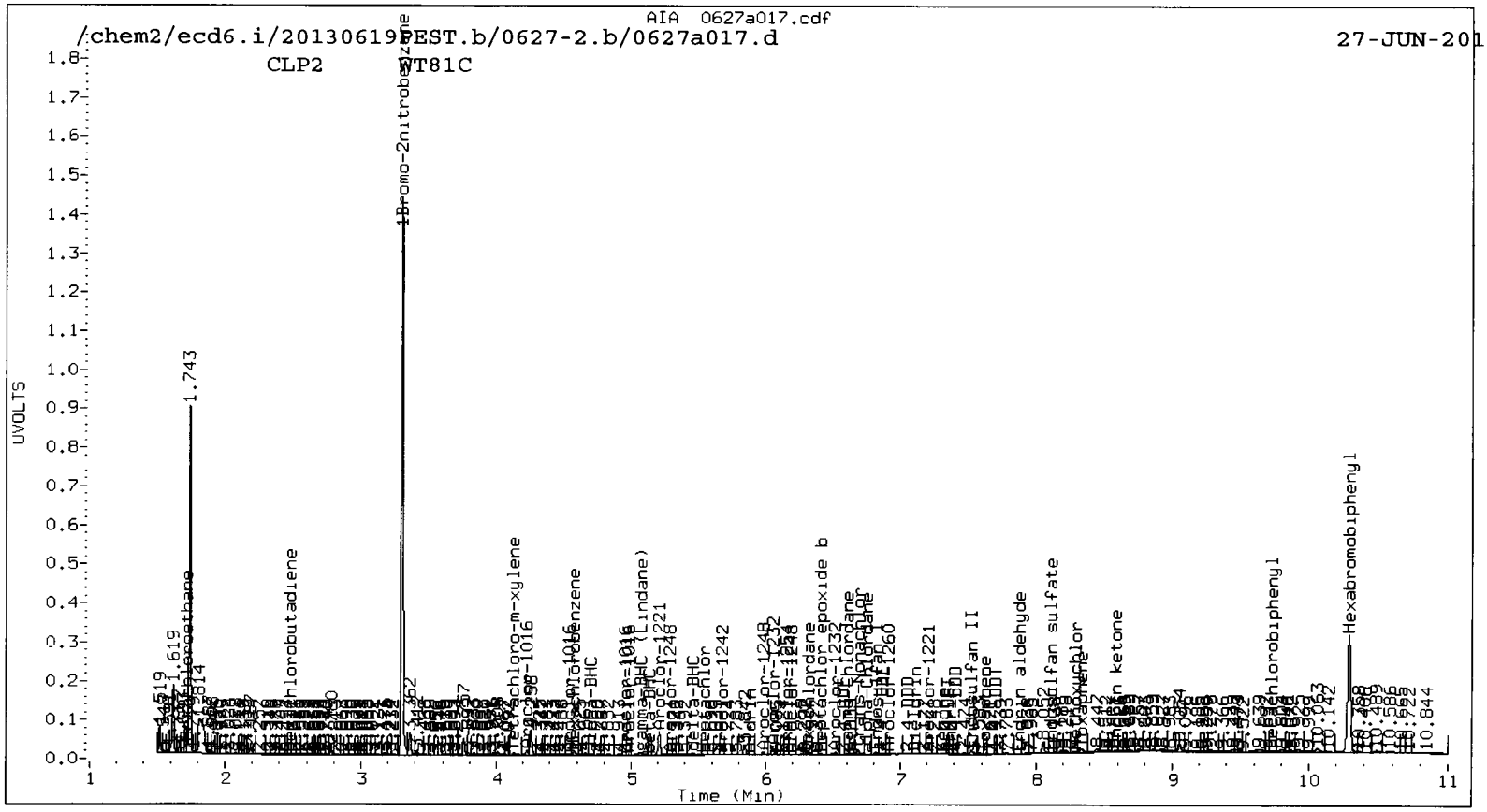
27-JUN-201
STX-CLP WT81C
UVOLTS
Time (Min)
1.571
1.690
1Bromo-2nitrobenzene
Hexabromobiphenyl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27-JUN-201
CLP2 WT81C
UVOLTS
Time (Min)
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1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a019.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a019.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m
Compound Sublist: INDA
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: ar
Injection Date: 27-JUN-2013 19:45
Report Date: 06/28/2013 12:11
Matrix: NONE
Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.125	-0.007	6575595	3.301	0.002	28503895	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
4.278	-0.008	2923198	4.711	0.001	12632126	22.1662	18.5496	17.8	alpha-BHC
4.637	-0.007	1066160	5.142	0.003	4669427	20.0421	15.8277	23.5	beta-BHC
4.806	-0.007	2458362	5.453	0.003	10709480	21.5295	18.2446	16.5	delta-BHC
4.560	-0.009	2590072	5.068	0.001	11046955	21.5404	18.3459	16.0	gamma-BHC (Lindane)
5.005	-0.010	2433457	5.531	0.002	9960725	21.0892	17.0540	21.2	Heptachlor
5.297	-0.010	2410613	5.869	0.001	8934262	21.5609	16.1577	28.6	Aldrin
5.870	-0.012	2100341	6.423	0.001	7434375	20.2634	14.7524	31.5	Heptachlor epoxide b
6.247	-0.013	1934621	6.810	0.001	5837362	19.9685	12.8905	43.1*	Endosulfan I
6.469	-0.014	4158540	7.068	0.001	12017352	40.6215	26.2951	42.8*	Dieldrin
6.171	-0.013	3307852	6.870	0.000	11985182	42.4707	26.0503	47.9*	4,4'-DDE
6.687	-0.014	3501036	7.357	0.001	8460012	43.4543	37.9317	13.6	Endrin
6.892	-0.014	3374634	7.546	0.001	9241643	42.1918	39.5539	6.5	Endosulfan II
6.728	-0.012	3256179	7.408	0.002	8596868	42.3233	35.8049	16.7	4,4'-DDD
7.658	-0.016	2830101	8.088	0.001	7024891	40.0737	35.3158	12.6	Endosulfan sulfate
6.985	-0.013	3145802	7.696	0.001	8107312	41.4859	38.1082	8.5	4,4'-DDT
7.409	-0.015	7433485	8.278	-0.004	15784910	207.1285	199.3677	3.8	Methoxychlor
7.913	-0.017	3533308	8.578	0.000	7895758	40.2911	39.7167	1.4	Endrin ketone
7.268	-0.015	2613474	7.843	0.000	6631673	41.3403	36.9722	11.2	Endrin aldehyde
5.990	-0.012	2195888	6.606	0.002	7016348	20.6231	13.2295	43.7*	gamma-Chlordane
6.114	-0.013	2084476	6.743	0.001	6091438	20.1126	12.5288	46.5*	alpha-Chlordane
2.305	-0.006	3095458	2.467	-0.002	11753055	21.4225	19.9205	7.3	Hexachlorobutadiene
4.133	-0.006	2139798	4.589	0.002	10448642	20.3944	18.6091	9.2	Hexachlorobenzene
8.907	-0.020	5346271	10.289	0.000	10816249	80.0000	80.0000	0.0	Hexabromobiphenyl
3.793	-0.006	3857957	4.129	0.000	17990142	43.2093	38.1590	12.4	Tetrachloro-m-xylen
8.757	-0.021	2707206	9.725	0.000	6792191	40.2331	38.8478	3.5	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	108.0	95.4	95.4~	115- 0
Decachlorobiphenyl	100.6	97.1	97.1~	115- 0

WTB4 : 0875

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

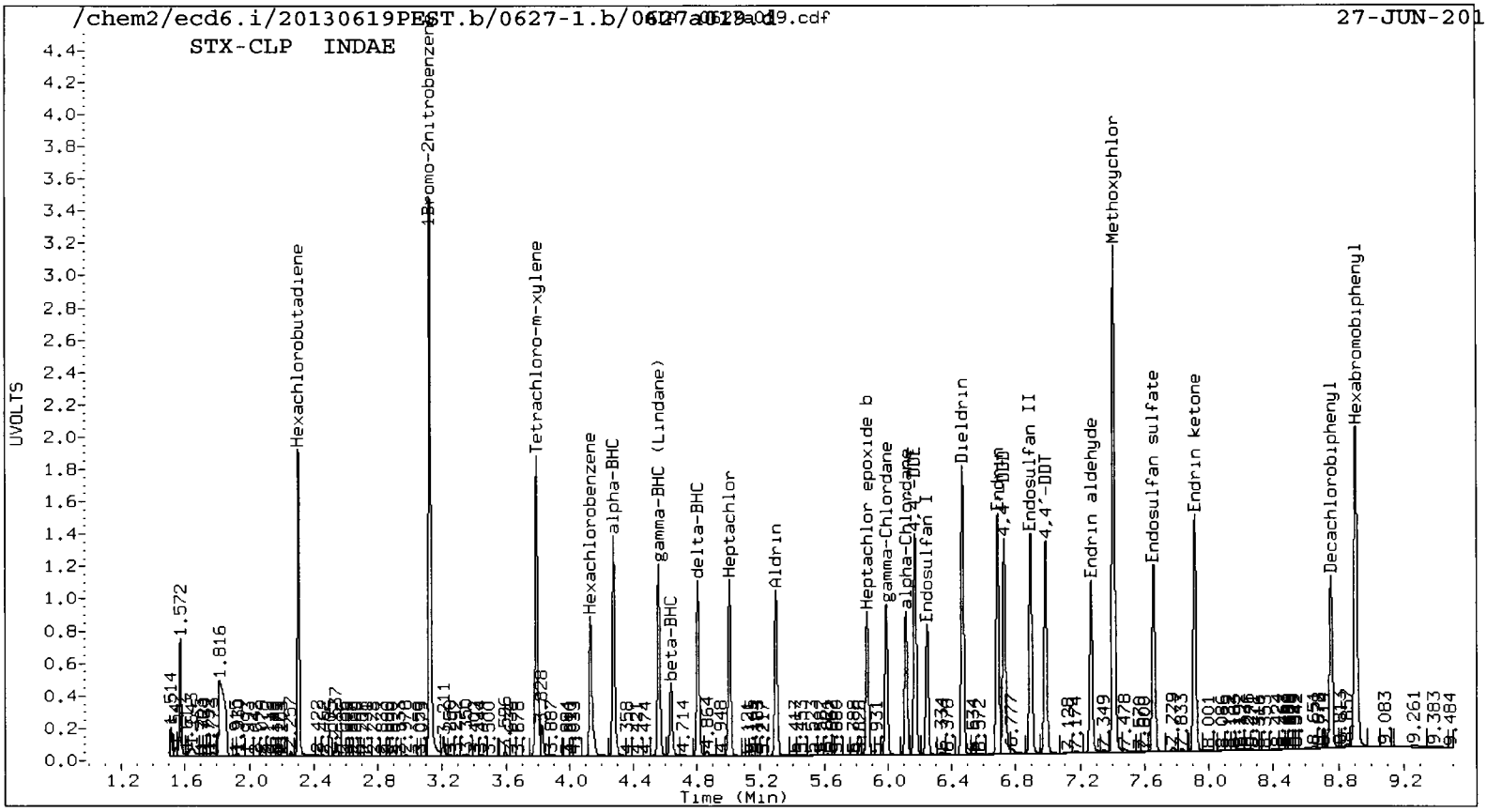
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6575595	17.6
Hexabromobiphenyl	4870538	5346271	9.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	28503895	0.6
Hexabromobiphenyl	16454599	10816249	-34.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

	STX-CLP Col					CLP2 Col				
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount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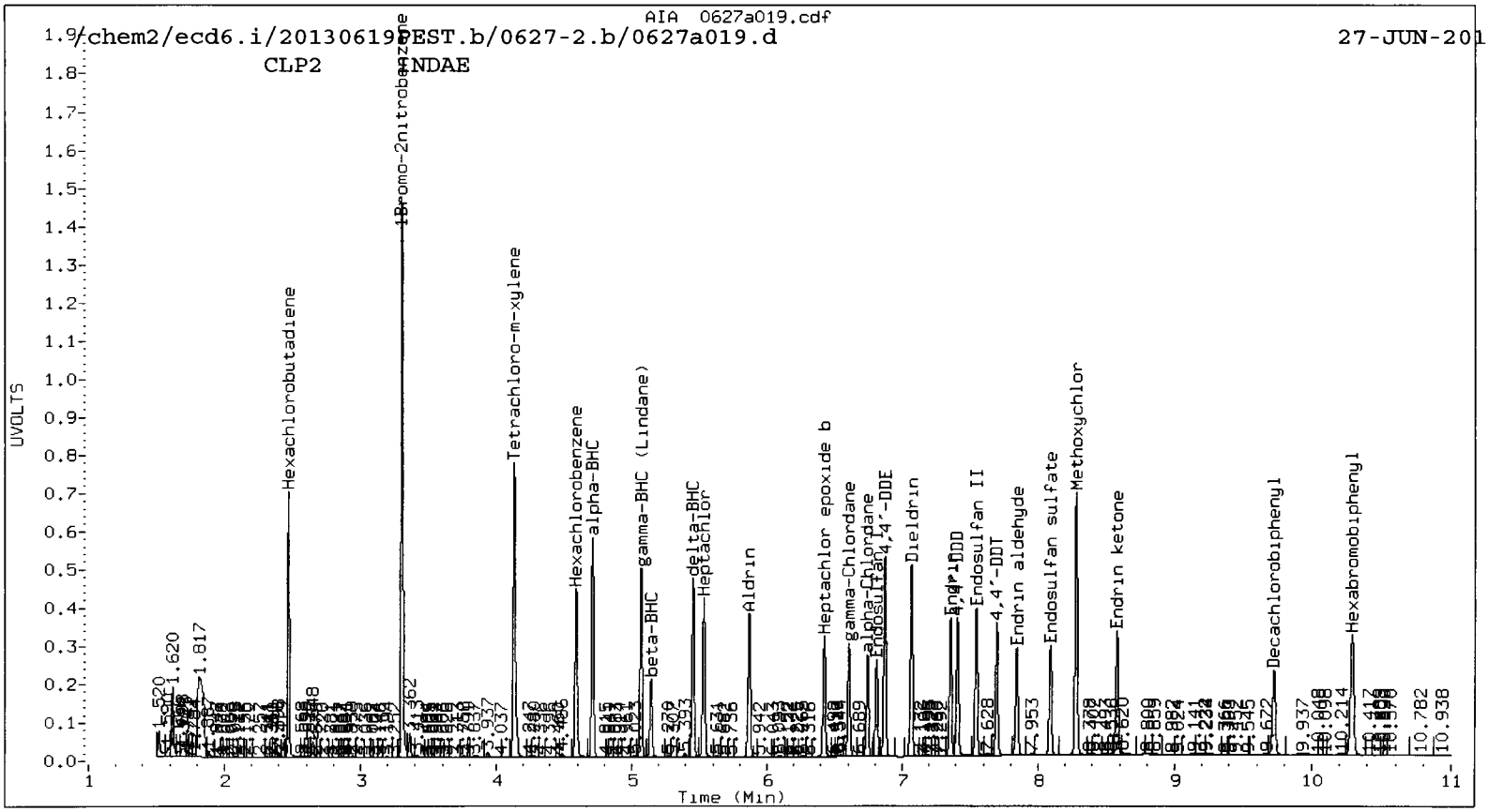
27-JUN-201
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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27-JUN-201
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

YZ 6/28/13

Data file 1: /chem2/ecd6.i/20130619PEST.b/0627-1.b/0627a020.d ARI ID: TOXAPH
Data file 2: /chem2/ecd6.i/20130619PEST.b/0627-2.b/0627a020.d Client ID:
Method: /chem2/ecd6.i/20130619PEST.b/PEST0619.m Injection Date: 27-JUN-2013 20:03
Compound Sublist: TOXAPH Report Date: 06/28/2013 12:11
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

STX-CLP Col RT	Shift	Response	CLP2 Col RT	Shift	Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.125	-0.007	6932872	3.301	0.002	29825953	80.0000	80.0000	0.0	1Bromo-2nitrobenzen
8.907	-0.020	6133778	10.288	0.000	12373371	80.0000	80.0000	0.0	Hexabromobiphenyl
3.794	-0.006	2796433	4.129	0.001	14895609	29.7061	30.1947	1.6	Tetrachloro-m-xylen
8.756	-0.021	2425393	9.724	-0.001	6211497	31.4172	31.0557	1.2	Decachlorobiphenyl

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

SURR/SPIKE	Col1	Col2	Lower	Limits
Tetrachloro-m-xylene	74.3	75.5	74.3~	150- 0
Decachlorobiphenyl	78.5	77.6	77.6~	150- 0

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

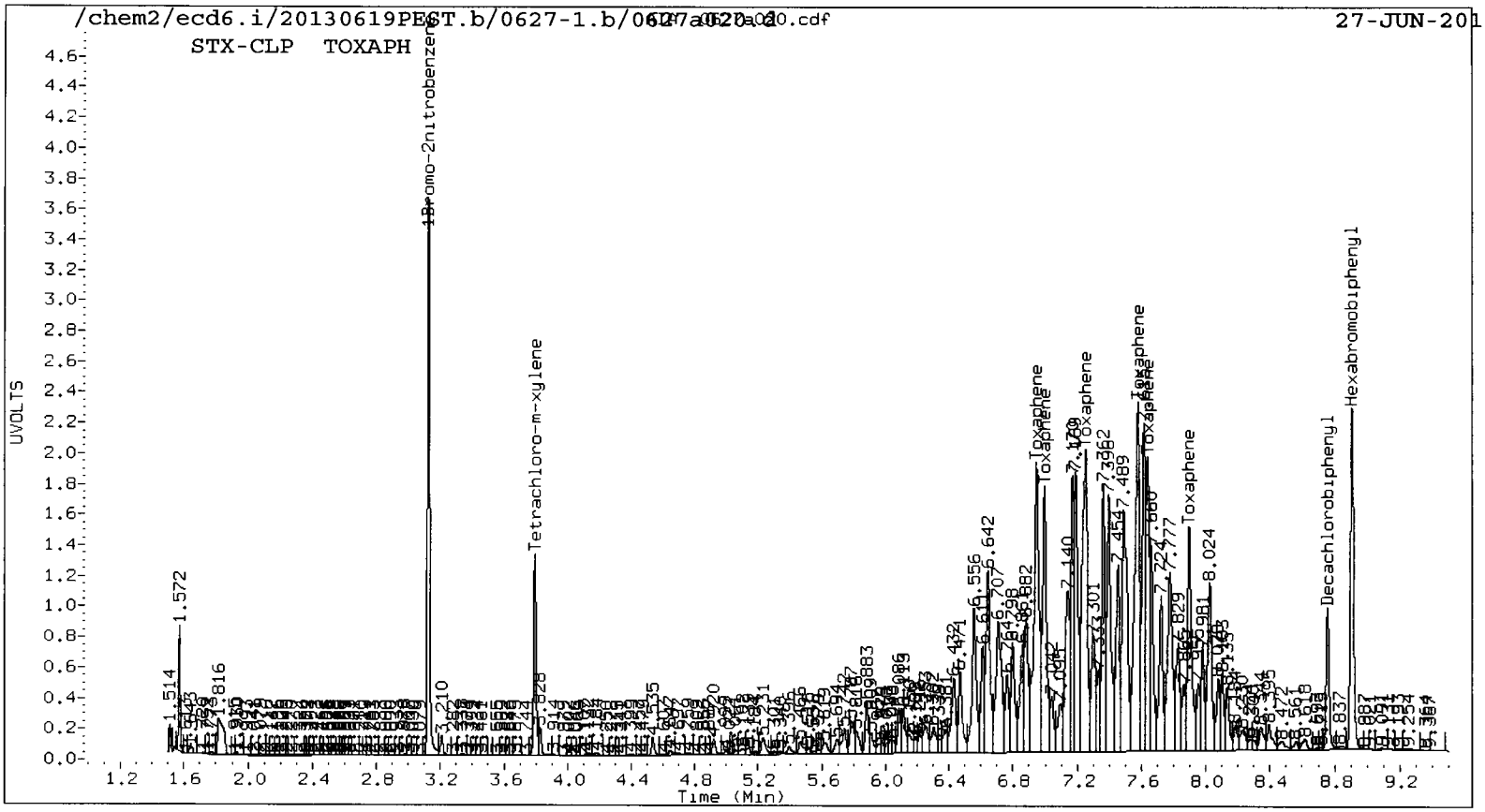
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5590801	6932872	24.0
Hexabromobiphenyl	4870538	6133778	25.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	28320361	29825953	5.3
Hexabromobiphenyl	16454599	12373371	-24.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 19-JUN-2013
<- Indicates standard response outside Limits (-50 to +100%)

		STX-CLP Col					CLP2 Col			
Cpnd	Peak#	RT	Shift	Height	Amount	Peak#	RT	Shift	Height	Amount
Toxaphene	1	6.944	-0.014	8277714	2102.6	1	7.292	0.001	18174382	2099.4
Toxaphene	2	6.995	-0.015	6201959	2283.0	2	7.617	0.002	28531393	2233.9
Toxaphene	3	7.252	-0.015	9396309	2096.6	3	7.848	0.002	28712575	2048.7
Toxaphene	4	7.577	-0.016	9320742	2041.7	4	8.315	0.001	19603583	1940.6
Toxaphene	5	7.637	0.005	5034908	1660.9	5	8.354	0.001	25135238	1956.7
Toxaphene	6	7.896	-0.018	5126245	1992.0	NS	---			----
Total STX-CLPAve (6 peaks): 2029.488						Total CLP2Ave (5 peaks): 2055.868				RPD = 1
Corrected Ave (6 peaks): 2029.488						Corrected Ave (5 peaks): 2055.868				RPD = 1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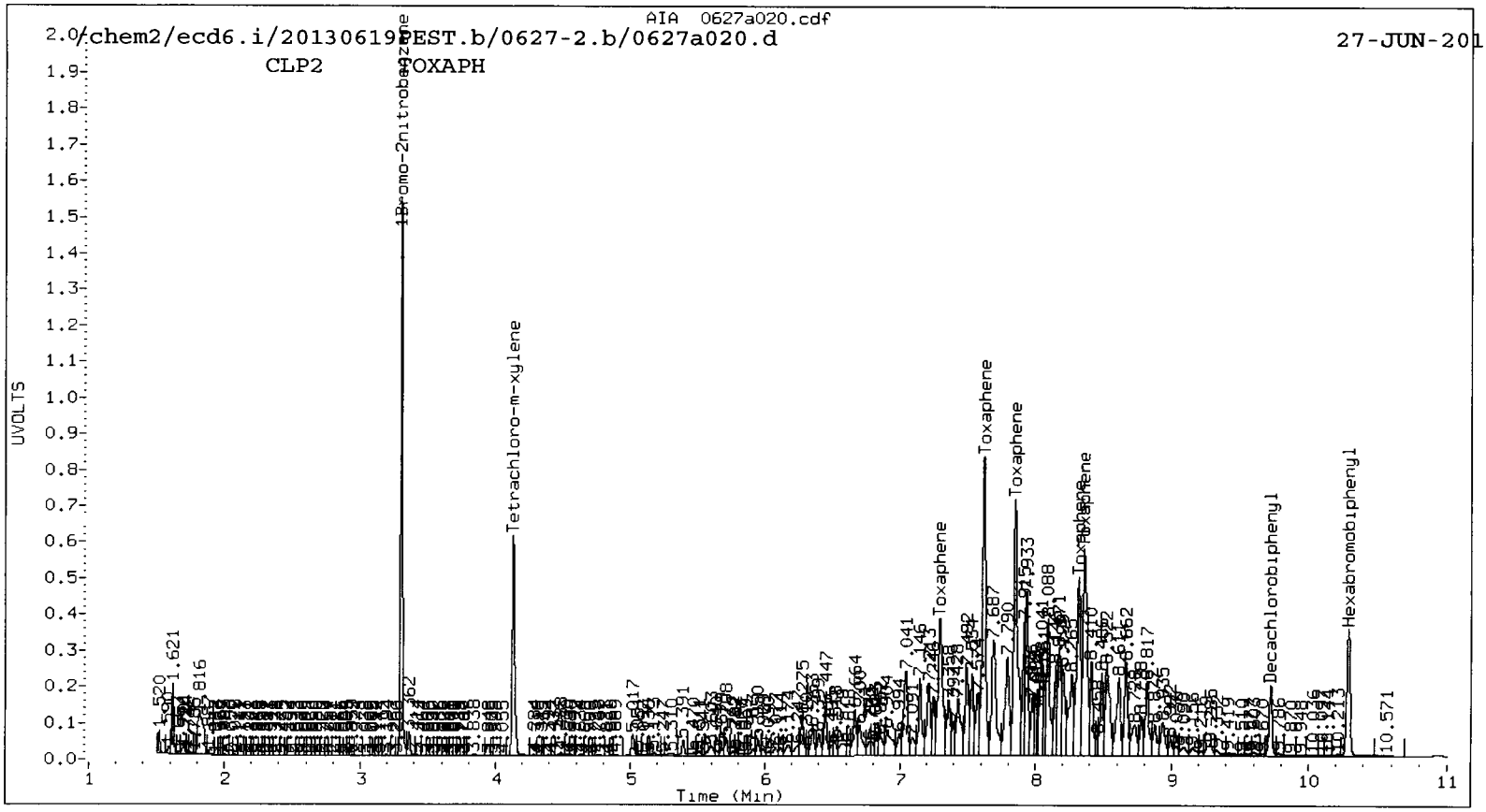
27-JUN-201
STX-CLP TOXAPH
UVOLTS
Time (Min)
1.572
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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27-JUN-201
CLP2 TOXAPH
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
10.571

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Incorporated
Analytical Chemists and Consultants

(8082A) PCB – Soil / Sediment / Solid
Microwave (3546) (SOP # 3304S)

Preparation Test PCB PSDDA # 19 (PCBSDMP4)

ARI Job No(s) WT82, WT81, WT86 Page 1 of 1

PSDDA (4ppb)
Batch set up by: JH

Bottle #	ARI Sample I.D.	Weight Extracted (eq. to 12.5g dry wt)	(REQ) Acid Clean (2.5mL)	(REQ) Sulfur Clean (2.5mL) Very high 1 2 (3) sulfur	(REQ) Silica Gel Clean (1:2.5)	Extraction Final Volume	Volume to Lab	Comments	Verify Client ID
	MBS WT82	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual W)	AR 06/18/13 Analyst/Date
	SBS	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual Wt)	Microwave 1 (2) 3 AR 06/18/13 Analyst/Date
	SBSDup	12.50g	2.5mL	2.5mL	1mL	2.5mL	1mL	(10g Actual Wt)	
	~~QLS~~	~~12.50g~~	~~2.5mL~~	~~2.5mL~~	~~1mL~~	~~2.5mL~~	~~1mL~~	~~(10g Actual Wt)~~	
1	WT82 A	14.51	2.5mL	2.5mL	1mL	2.5mL	1mL		KD 100°C Hexane Exchange (2 X 20mL) 2 3 4 5 6 06/19/13 Analyst/Date
3	WT81 A	34.35	2.5mL	2.5mL	1mL	2.5mL	1mL		
3	Ams	34.80	2.5mL	2.5mL	1mL	2.5mL	1mL		
3	Amsd	34.17	2.5mL	2.5mL	1mL	2.5mL	1mL		
8	B	32.91	2.5mL	2.5mL	1mL	2.5mL	1mL		
8	C	32.39	2.5mL	2.5mL	1mL	2.5mL	1mL		
1	WT86 A	29.39	2.5mL	2.5mL	1mL	2.5mL	1mL		TurboVap 1 (2) 3 Pre-Cleanups CJZ 6/21/13 Analyst/Date
			2.5mL	2.5mL	1mL	2.5mL	1mL		
			2.5mL	~~2.5mL~~	1mL	2.5mL	1mL		
			2.5mL	2.5mL	1mL	2.5mL	~~1mL~~		
			2.5mL	2.5mL	1mL	2.5mL	1mL		
Analyst/Date	AR 06/18/13		CJZ 6/21/13	CJZ 6/21/13	CJZ 6/21/13	CJZ 6/21/13	CJZ 6/21/13	Reviewed By CJZ 6/21/13	TurboVap 1 2 (3) Post Cleanups CJZ 6/21/13 Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	N(Bppp151)	2µg/mL	50µL	4/30/14	AR	AC
Spike	1 (2074-4)	20µg/mL	63µL	10/31/13	AR	AC
~~QLS Spike~~	5 ( )	~~2µg/mL~~	~~25µL~~			

Extraction Time: 12:20 Balance ID: B13929002

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Snyder~~ Large Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial with Hexane.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

12640
12636
12654

WT81 : 01503

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

ARI Job#: 1078 1 Client ID: SRK

Analyst: MS Date: 6/22/12

ARI Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Dilution Factor	Primary Dilution (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Final Dilution Factor
B	100	Hex	400	5X				
C	100	"	"	5X				
		"						

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: WT81 Client ID: SAIC

Parameter: PCB PSDDA (4ppb) Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other: C = wet	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)= A=sludge B=texture=pudding	AC 6-13-13
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☑ Other Notes/Comments= (Note problems, concerns, corrective actions). GC analyst, (Centrifuge#1 used for all Centrifugations) Sample pre-screens indicate possible aroclor activity.	JH 6/17/13

3056F

Revision 009
08/14/12

WT81 : 21595

PCB Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B ~~FID-5~~ FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 05/14/13 ~~05/14/13~~ Internal Standard ID 2006-1 Expiration 04/26/13

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	~~YES~~ / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	~~YES~~ / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
AR1660	B161	04/30/14	AR1660	B182	04/30/14
AR1242	B163		AR1242	B190	
AR1248	B172		AR1248	B191	
AR1254	B173		AR1254	B192	
AR2162	B174		AR2162	B193	
AR3268	B175		AR3268	B 194	
IB	1902-2	05/16/13			
DPTs	1991-2	01/21/13			
PS	2067-1	05/16/13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: _____ **Date:** 05/14/13

Reviewer: _____ **Date:** 5/14/13

WT01:01507

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Calibration File Names:
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Level 3: /chem2/ecd7.i/20130513.b/ical-2.b/0513a009.d/0513a009.cdf
Level 4: /chem2/ecd7.i/20130513.b/ical-2.b/0513a005.d/0513a005.cdf
Level 5: /chem2/ecd7.i/20130513.b/ical-2.b/0513a010.d/0513a010.cdf
Level 6: /chem2/ecd7.i/20130513.b/ical-2.b/0513a008.d/0513a008.cdf
Level 7: /chem2/ecd7.i/20130513.b/ical-2.b/0513a015.d
Level 8: /chem2/ecd7.i/20130513.b/ddt-2.b/0513a022.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
1 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01248	+++++					0.01248	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00723	+++++					0.00723	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02172	+++++					0.02172	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00790	+++++					0.00790	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01561	+++++					0.01561	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01760	+++++					0.01760	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03322	+++++					0.03322	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01132	+++++					0.01132	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01620	+++++					0.01620	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03274	+++++					0.03274	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06680	+++++					0.06680	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02656	+++++					0.02656	0.000
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01509	+++++					0.01509	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04054	+++++					0.04054	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02948	+++++					0.02948	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.04049	+++++	0.04049	0.000
7 Aroclor-1016(1)	0.02357	0.02126	0.01982	0.01714	0.01579	0.01550	+++++	+++++	0.01885	17.197
(2)	0.05112	0.04679	0.04338	0.03786	0.03511	0.03489	+++++	+++++	0.04153	16.039
(3)	0.10106	0.09440	0.08673	0.07709	0.07315	0.07473	+++++	+++++	0.08453	13.555
(4)	0.03059	0.03094	0.02726	0.02257	0.02069	0.02033	+++++	+++++	0.02540	19.042
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02638	+++++	0.02638	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.03339	+++++	0.03339	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05526	+++++	0.05526	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05583	+++++	0.05583	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04022	+++++					0.04022	0.000
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.07330	+++++					0.07330	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14645	+++++					0.14645	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06357	+++++					0.06357	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09595	+++++					0.09595	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05096	+++++					0.05096	0.000
9 Aroclor-1260(1)	0.10277	0.09209	0.08450	0.07105	0.06991	0.07235		
	+++++	+++++					0.08211	16.328
(2)	0.08370	0.07509	0.06865	0.05694	0.05618	0.05780		
	+++++	+++++					0.06639	17.145
(3)	0.15112	0.13880	0.13207	0.11336	0.11571	0.12197		
	+++++	+++++					0.12884	11.330

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(4)	0.10017	0.09379	0.08851	0.07536	0.07576	0.07845		
	+++++	+++++					0.08534	12.178
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.15308	+++++					0.15308	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14371	+++++					0.14371	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.11569	+++++					0.11569	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.34541	+++++					0.34541	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	592					592	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	934					934	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	535					535	0.000
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	718					718	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 16:06
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB2.m
Cal Date : 14-May-2013 07:27 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	870	870	0.000
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 Tetrachloro-m-xylene	1.05997	1.01014	0.99875	0.93934	0.92120	0.95847	+++++	+++++	0.98131	5.240
$ 13 Decachlorobiphenyl	0.93552	1.02412	1.00785	0.92820	0.90254	0.96715	+++++	+++++	0.96090	4.960

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd7.i/20130513.b/ical-1.b/0513a006.d
Level 2: /chem2/ecd7.i/20130513.b/ical-1.b/0513a007.d
Level 3: /chem2/ecd7.i/20130513.b/ical-1.b/0513a009.d
Level 4: /chem2/ecd7.i/20130513.b/ical-1.b/0513a005.d
Level 5: /chem2/ecd7.i/20130513.b/ical-1.b/0513a010.d
Level 6: /chem2/ecd7.i/20130513.b/ical-1.b/0513a008.d
Level 7: /chem2/ecd7.i/20130513.b/ical-1.b/0513a015.d
Level 8: /chem2/ecd7.i/20130513.b/ddt-1.b/0513a022.d

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00940	+++++					0.00940	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00793	+++++					0.00793	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02309	+++++					0.02309	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02034	+++++					0.02034	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06806	+++++					0.06806	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02678	+++++					0.02678	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02531	+++++	0.02531	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01552	+++++	0.01552	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00958	+++++	0.00958	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.03130	+++++	0.03130	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01261	+++++	0.01261	0.000
7 Aroclor-1016(1)	0.02671	0.02616	0.02534	0.02372	0.02270	0.02335	+++++	+++++	0.02466	6.628
(2)	0.08767	0.08572	0.08442	0.08022	0.07822	0.08131	+++++	+++++	0.08293	4.335
(3)	0.03601	0.03497	0.03377	0.03143	0.03015	0.03112	+++++	+++++	0.03291	7.146
(4)	0.02340	0.02175	0.02046	0.01843	0.01731	0.01765	+++++	+++++	0.01983	12.321

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03940	+++++					0.03940	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02565	+++++					0.02565	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03634	+++++					0.03634	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04602	+++++					0.04602	0.000
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04842	+++++					0.04842	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03019	+++++					0.03019	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05914	+++++					0.05914	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06073	+++++					0.06073	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.06009	+++++					0.06009	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
9 Aroclor-1260(1)	0.06582	0.05973	0.05625	0.05220	0.04985	0.05188	+++++	+++++	0.05596	10.707
(2)	0.06241	0.05842	0.05636	0.05244	0.05115	0.05331	+++++	+++++	0.05568	7.618
(3)	0.13540	0.13164	0.13088	0.12392	0.12209	0.12832	+++++	+++++	0.12871	3.884
(4)	0.07005	0.06879	0.06849	0.06473	0.06412	0.06745	+++++	+++++	0.06727	3.514
(5)	0.03090	0.03075	0.03047	0.02845	0.02775	0.02910	+++++	+++++	0.02957	4.473
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.06792	+++++	0.06792	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.15657	+++++	0.15657	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05095	+++++	0.05095	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05998	+++++	0.05998	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(5)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04822	+++++					0.04822	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.16630	+++++					0.16630	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.14844	+++++					0.14844	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.12278	+++++					0.12278	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.34570	+++++					0.34570	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	683					683	0.000
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	632					632	0.000
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	797					797	0.000
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1113					1113	0.000

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-MAY-2013 09:10
End Cal Date : 13-MAY-2013 15:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd7.i/20130513.b/PCB1.m
Cal Date : 14-May-2013 07:30 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	942	942	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1063	1063	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 1 Tetrachloro-m-xylene	0.90546	0.90248	0.92943	0.92359	0.92976	0.98864	+++++	+++++	0.92989	3.346
$ 13 Decachlorobiphenyl	1.09498	1.04106	1.01408	0.93790	0.91270	0.96426	+++++	+++++	0.99416	6.889

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130513.b/PCB1.m
Batch File: /chem2/ecd7.i/20130513.b/ical-1.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0513a005	0513a006	0513a007	0513a008	0513a009	0513a010
INJ.DATE:	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013
INJ.TIME:	09:10	09:32	09:54	10:16	10:38	11:00

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.788	2.787	2.784	2.788	2.788	2.785	2.788	2.688-2.888	2.786	0.002
$ 1 Tetrachloro-m-xylene	5.733	5.732	5.730	5.733	5.733	5.732	5.733	5.633-5.833	5.732	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	6.191	6.091-6.291	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.646-7.846	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.520	6.420-6.620	+++++	+++++
7 Aroclor-1016	7.743	7.743	7.740	7.743	7.743	7.740	7.740	7.640-7.840	7.742	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	8.259	8.159-8.359	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	10.228	10.128-10.328	+++++	+++++
9 Aroclor-1260	12.043	12.044	12.045	12.044	12.044	12.044	12.044	11.944-12.144	12.044	0.000
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	12.361	12.261-12.461	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	13.239	13.139-13.339	+++++	+++++
$ 13 Decachlorobiphenyl	14.591	14.592	14.592	14.592	14.592	14.593	14.593	14.493-14.693	14.592	0.000
* 12 IS-HBBP	14.852	14.851	14.852	14.851	14.851	14.852	14.852	14.752-14.952	14.852	0.000
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	10.190	10.140-10.240	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.765	10.715-10.815	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	11.285	11.235-11.335	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	10.641	10.541-10.741	+++++	+++++

Reviewer 1 _____ Date: 05/14/13
Reviewer 2 _____ Date: 5/14/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130513.b/PCB1.m
Batch File: /chem2/ecd7.i/20130513.b/ical-1.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	11.230	11.130-11.330	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	11.751	11.651-11.851	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130513.b/PCB2.m
Batch File: /chem2/ecd7.i/20130513.b/ical-2.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0513a005	0513a006	0513a007	0513a008	0513a009	0513a010
INJ.DATE:	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013	13-MAY-2013
INJ.TIME:	09:10	09:32	09:54	10:16	10:38	11:00

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB	3.204	3.203	3.200	3.205	3.205	3.201	3.204	3.104-3.304	3.203	0.002
$ 2 Tetrachloro-m-xylene	5.390	5.390	5.386	5.390	5.390	5.388	5.388	5.288-5.488	5.389	0.002
1 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	6.215	6.115-6.315	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	6.645	6.545-6.745	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.648	6.548-6.748	+++++	+++++
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	7.527	7.427-7.627	+++++	+++++
7 Aroclor-1016	6.646	6.646	6.644	6.645	6.646	6.644	6.646	6.546-6.746	6.645	0.001
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	10.049	9.948-10.149	+++++	+++++
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	12.498	12.398-12.598	+++++	+++++
9 Aroclor-1260	11.952	11.953	11.953	11.954	11.952	11.953	11.952	11.852-12.052	11.953	0.001
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	13.273	13.173-13.373	+++++	+++++
$ 13 Decachlorobiphenyl	14.632	14.633	14.632	14.633	14.633	14.633	14.633	14.533-14.733	14.633	0.000
* 12 IS-HBBP	15.229	15.230	15.228	15.229	15.228	15.229	15.228	15.128-15.328	15.229	0.001
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	10.323	10.273-10.373	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.725	10.675-10.775	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	11.031	10.931-11.131	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	11.500	11.400-11.600	+++++	+++++

Reviewer 1 _____ Date: 5/14/13
Reviewer 2 _____ Date: 5/14/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd7.i/20130513.b/PCB2.m
Batch File: /chem2/ecd7.i/20130513.b/ical-2.b
Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	11.937	11.837-12.037	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.117	7.017-7.217	+++++	+++++

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130513.b/ical-2.b

ARI Job No.: IB Method: PCB2.m Instrument: ecd7.i Date: 13-MAY-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0848	0513a004.d	IB		1	NO MANUAL INTEGRATION
0910	0513a005.d	0.25PPM	AR1660	1	NO MANUAL INTEGRATION
0932	0513a006.d	0.02PPM	AR1660	1	NO MANUAL INTEGRATION
0954	0513a007.d	0.05PPM	AR1660	1	NO MANUAL INTEGRATION
1016	0513a008.d	1PPM	AR1660	1	NO MANUAL INTEGRATION
1038	0513a009.d	0.1PPM	AR1660	1	NO MANUAL INTEGRATION
1100	0513a010.d	0.5PPM	AR1660	1	NO MANUAL INTEGRATION
1122	0513a011.d	AR1242		1	NO MANUAL INTEGRATION
1144	0513a012.d	AR1248		1	NO MANUAL INTEGRATION
1206	0513a013.d	AR1254		1	NO MANUAL INTEGRATION
1228	0513a014.d	AR2162		1	NO MANUAL INTEGRATION
1250	0513a015.d	AR3268		1	NO MANUAL INTEGRATION
1312	0513a016.d	ICV1660		1	NO MANUAL INTEGRATION
1334	0513a017.d	ICV1242		1	NO MANUAL INTEGRATION
1356	0513a018.d	ICV1248		1	NO MANUAL INTEGRATION
1418	0513a019.d	ICV1254		1	NO MANUAL INTEGRATION
1440	0513a020.d	ICV2162		1	NO MANUAL INTEGRATION
1502	0513a021.d	ICV3268		1	NO MANUAL INTEGRATION
0848	0513a004.d	IB		1	NO MANUAL INTEGRATION
0910	0513a005.d	0.25PPM	AR1660	1	NO MANUAL INTEGRATION

0932 0513a006.d 0.02PPM AR1660 1 NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130513.b/ical-2.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0954	0513a007.d	0.05PPM	AR1660	1	NO MANUAL INTEGRATION
1016	0513a008.d	1PPM	AR1660	1	NO MANUAL INTEGRATION
1038	0513a009.d	0.1PPM	AR1660	1	NO MANUAL INTEGRATION
1100	0513a010.d	0.5PPM	AR1660	1	NO MANUAL INTEGRATION
1122	0513a011.d	AR1242		1	NO MANUAL INTEGRATION
1144	0513a012.d	AR1248		1	NO MANUAL INTEGRATION
1206	0513a013.d	AR1254		1	NO MANUAL INTEGRATION
1228	0513a014.d	AR2162		1	NO MANUAL INTEGRATION
1250	0513a015.d	AR3268		1	NO MANUAL INTEGRATION
1312	0513a016.d	ICV1660		1	NO MANUAL INTEGRATION
1334	0513a017.d	ICV1242		1	NO MANUAL INTEGRATION
1356	0513a018.d	ICV1248		1	NO MANUAL INTEGRATION
1418	0513a019.d	ICV1254		1	NO MANUAL INTEGRATION
1440	0513a020.d	ICV2162		1	NO MANUAL INTEGRATION
1502	0513a021.d	ICV3268		1	NO MANUAL INTEGRATION

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a004.d
Data file 2: 20130513.b/ical-2.b/0513a004.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 13-MAY-2013 08:48
Report Date: 05/14/2013 08:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.731	-0.002	2755118	5.388	0.000	4755848	44.1	41.9	5.2	Tetrachloro-m-xylene
14.591	-0.002	1963733	14.632	0.000	3014105	38.8	40.5	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	110.4	104.7
Decachlorobiphenyl	97.1	101.2

jc 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5369822	-1.5
Hexabromobiphenyl	4223695	4069872	-3.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9254999	-3.2
Hexabromobiphenyl	6702455	6201001	-7.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

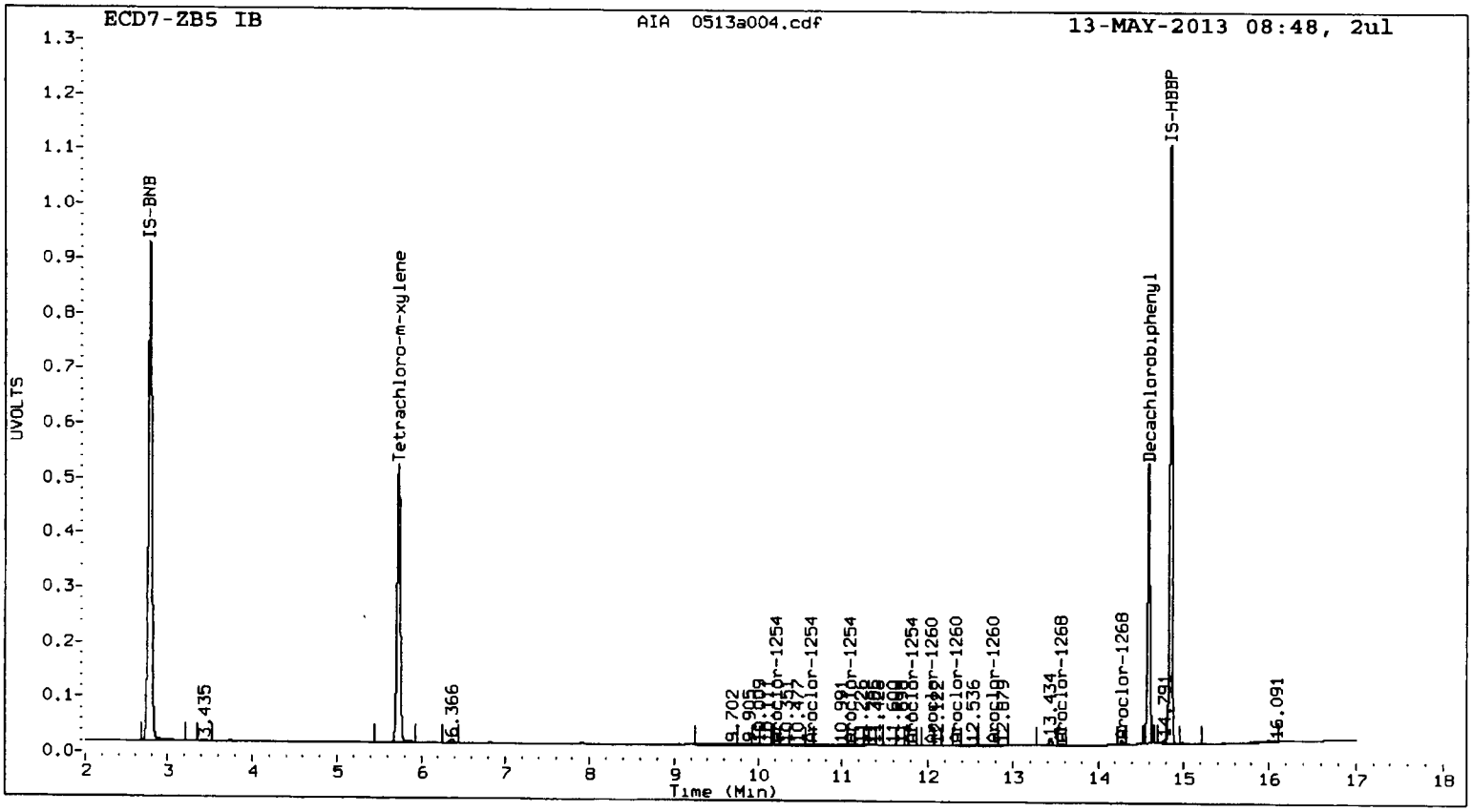
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	6.632	-0.014	13117	6.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	8.392	0.054	21159	2.2
Aroclor-1016	4	---			0.0	4	8.963	0.027	21900	7.5
	Col1Ave: <3 Quant Peaks					Col2Ave: 5.2				
Aroclor-1221	1	---			0.0	1	6.217	0.001	67870	47.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	6.632	-0.015	13117	5.2
Aroclor-1221	NS	---			----	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	6.632	-0.013	13117	7.3
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	8.392	0.055	21159	5.5
Aroclor-1232	4	---			0.0	4	8.963	0.027	21900	16.7
	Col1Ave: <3 Quant Peaks					Col2Ave: 9.8				
Aroclor-1242	1	---			0.0	1	6.632	-0.016	13117	7.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	8.392	0.052	21159	2.7
Aroclor-1242	4	---			0.0	4	9.459	0.053	121956	39.7
	Col1Ave: <3 Quant Peaks					Col2Ave: 16.5				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	8.392	0.055	21159	4.5
Aroclor-1248	3	---			0.0	3	8.963	0.025	21900	6.4
Aroclor-1248	4	---			0.0	4	10.287	-0.059	107260	22.9
	Col1Ave: <3 Quant Peaks					Col2Ave: 11.3				
Aroclor-1254	1	10.223	-0.005	11410	3.5	1	---			0.0
Aroclor-1254	2	10.640	0.024	16380	8.1	2	10.287	0.053	107260	27.8
Aroclor-1254	3	---			0.0	3	10.918	-0.011	27509	4.3
Aroclor-1254	4	11.101	-0.017	15920	3.9	4	---			0.0
Aroclor-1254	5	11.817	0.003	11322	2.8	5	11.950	-0.004	23808	5.1
	Total Col1Ave (4 peaks):				4.6	Total Col2Ave (3 peaks):				12.4 RPD = 92*
	Corrected Ave (3 peaks):				3.4	Corrected Ave: < 3 Peaks				
Aroclor-1260	1	12.053	0.009	18505	6.5	1	---			0.0
Aroclor-1260	2	12.341	-0.020	10961	3.9	2	---			0.0
Aroclor-1260	3	12.771	0.039	17456	2.7	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
	Total Col1Ave (3 peaks):				4.3	Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	12.341	-0.020	10961	3.2	1	---			0.0
Aroclor-1262	2	12.771	0.039	17456	2.2	2	---			0.0
Aroclor-1262	3	---			0.0	3	13.227	-0.046	10338	2.1
Aroclor-1262	4	---			0.0	4	---			0.0
Aroclor-1262	5	---			0.0	5	13.992	0.035	18767	4.8
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	13.562	-0.089	13359	2.1	3	---			0.0
Aroclor-1268	4	14.278	-0.010	24999	1.4	4	---			0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.833 - 14.493) = 551656 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 949801 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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13-MAY-2013 08:48, 2ul
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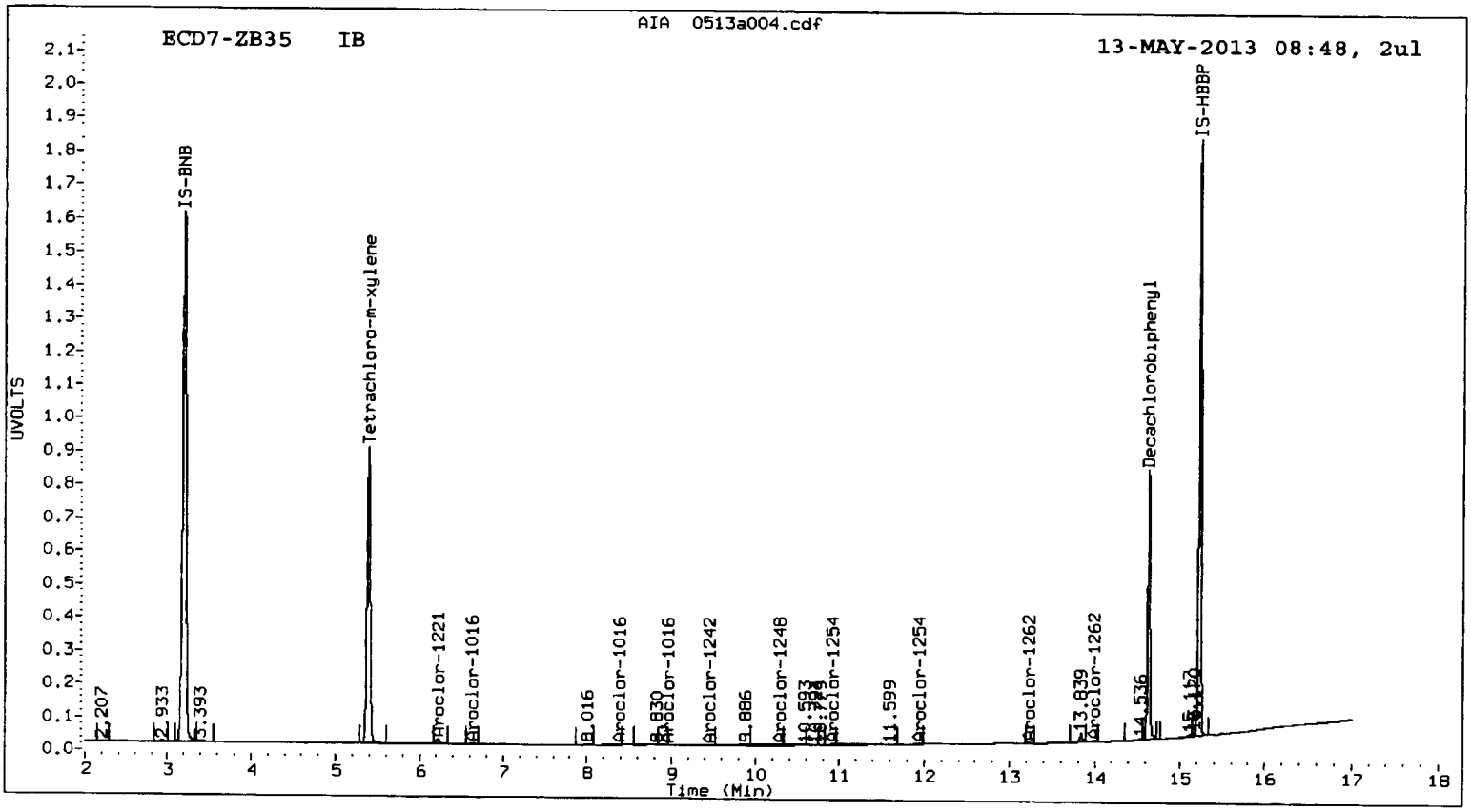
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
Aroclor-1268
3.435
6.366
9.702
13.434
14.791
16.091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Time (Min)
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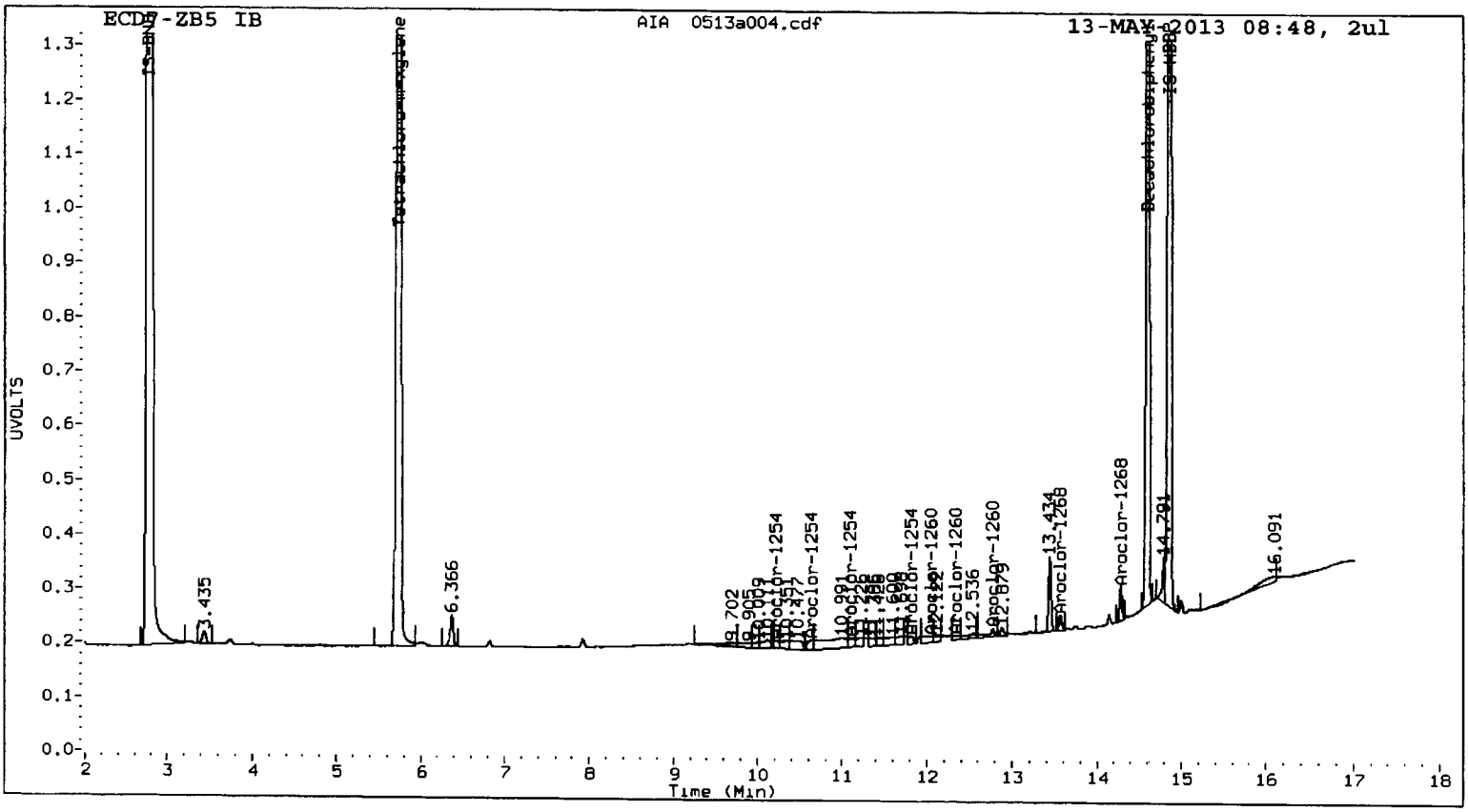
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1262
2.207
2.933
3.393
8.016
8.830
9.886
11.599
13.839
14.536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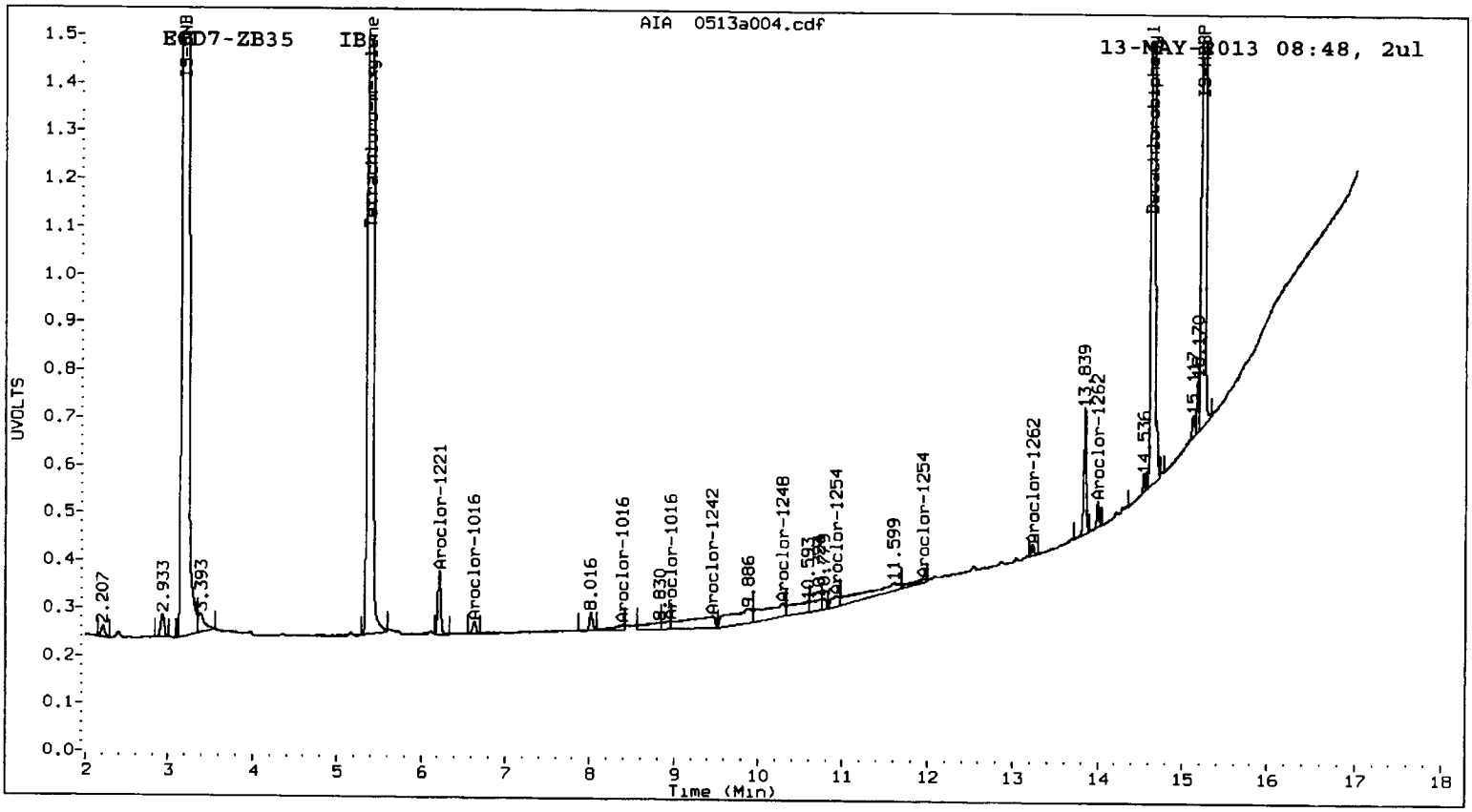
13-MAY-2013 08:48, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
Aroclor-1268
6.366
13.434
14.291
16.091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13-MAY-2013 08:48, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1262
Aroclor-1268
13.839
14.536

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a005.d
Data file 2: 20130513.b/ical-2.b/0513a005.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 09:10
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	1259276	5.390	0.002	2244323	19.9	19.1	3.7	Tetrachloro-m-xylene
14.591	-0.002	990351	14.632	0.000	1555299	18.9	19.3	2.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	49.7	47.9
Decachlorobiphenyl	47.2	48.3

JR 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5453827	0.0
Hexabromobiphenyl	4223695	4223695	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9556981	0.0
Hexabromobiphenyl	6702455	6702455	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

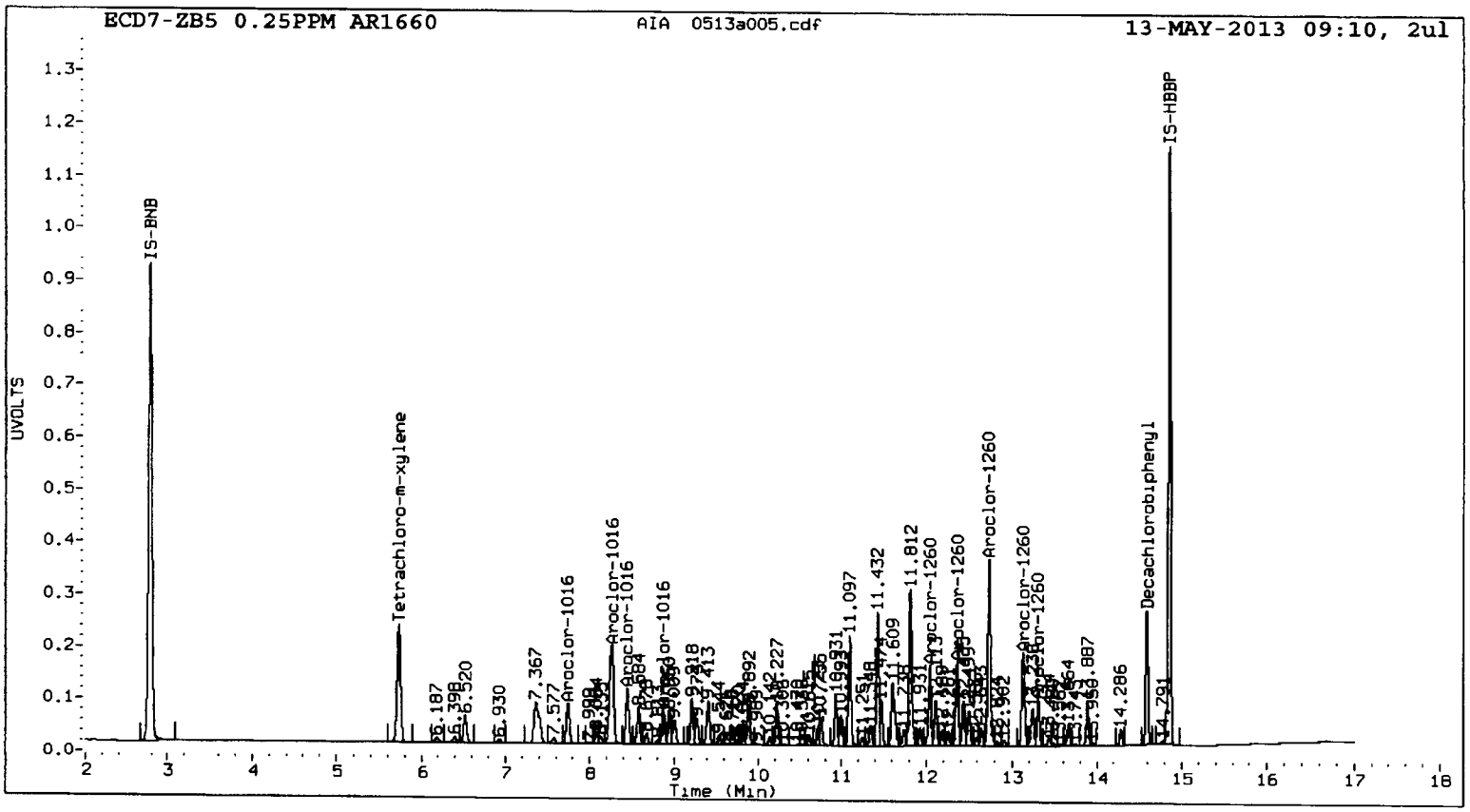
	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.743	0.002	404229	240.4	1	6.646	0.001	511879	227.4
Aroclor-1016	2	8.264	0.001	1367139	241.8	2	7.526	0.001	1130674	227.9
Aroclor-1016	3	8.448	0.001	535664	238.8	3	8.337	-0.001	2302303	228.0
Aroclor-1016	4	8.874	0.000	314137	232.3	4	8.936	0.000	674137	222.2
Total Col1Ave (4 peaks):					238.3	Total Col2Ave (4 peaks):				226.4 RPD = 5
Corrected Ave (3 peaks):					237.2	Corrected Ave (3 peaks):				225.8 RPD = 5
Aroclor-1260	1	12.043	-0.001	689026	233.2	1	11.952	0.000	1488115	216.3
Aroclor-1260	2	12.361	0.000	692209	235.5	2	12.496	-0.001	1192647	214.4
Aroclor-1260	3	12.731	-0.001	1635674	240.7	3	12.767	0.000	2374371	220.0
Aroclor-1260	4	13.127	-0.001	854412	240.6	4	13.328	0.000	1578333	220.8
Aroclor-1260	5	13.307	0.000	375528	240.5	NS	---			----
Total Col1Ave (5 peaks):					238.1	Total Col2Ave (4 peaks):				217.9 RPD = 9
Corrected Ave (4 peaks):					237.5	Corrected Ave (3 peaks):				216.9 RPD = 9

Total PCB Area Col1 (5.833 - 14.493) = 20306409 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 32693850 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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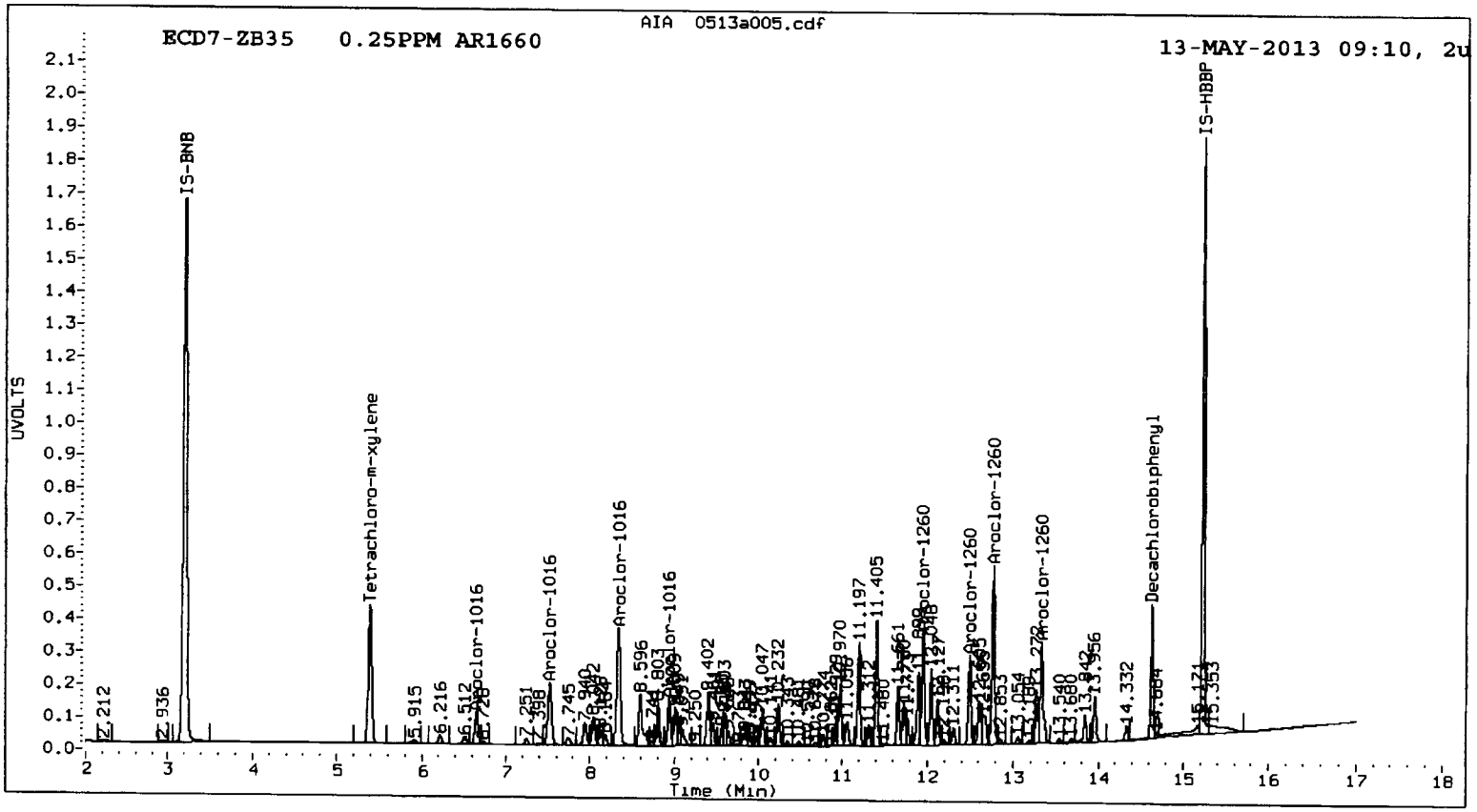
13-MAY-2013 09:10, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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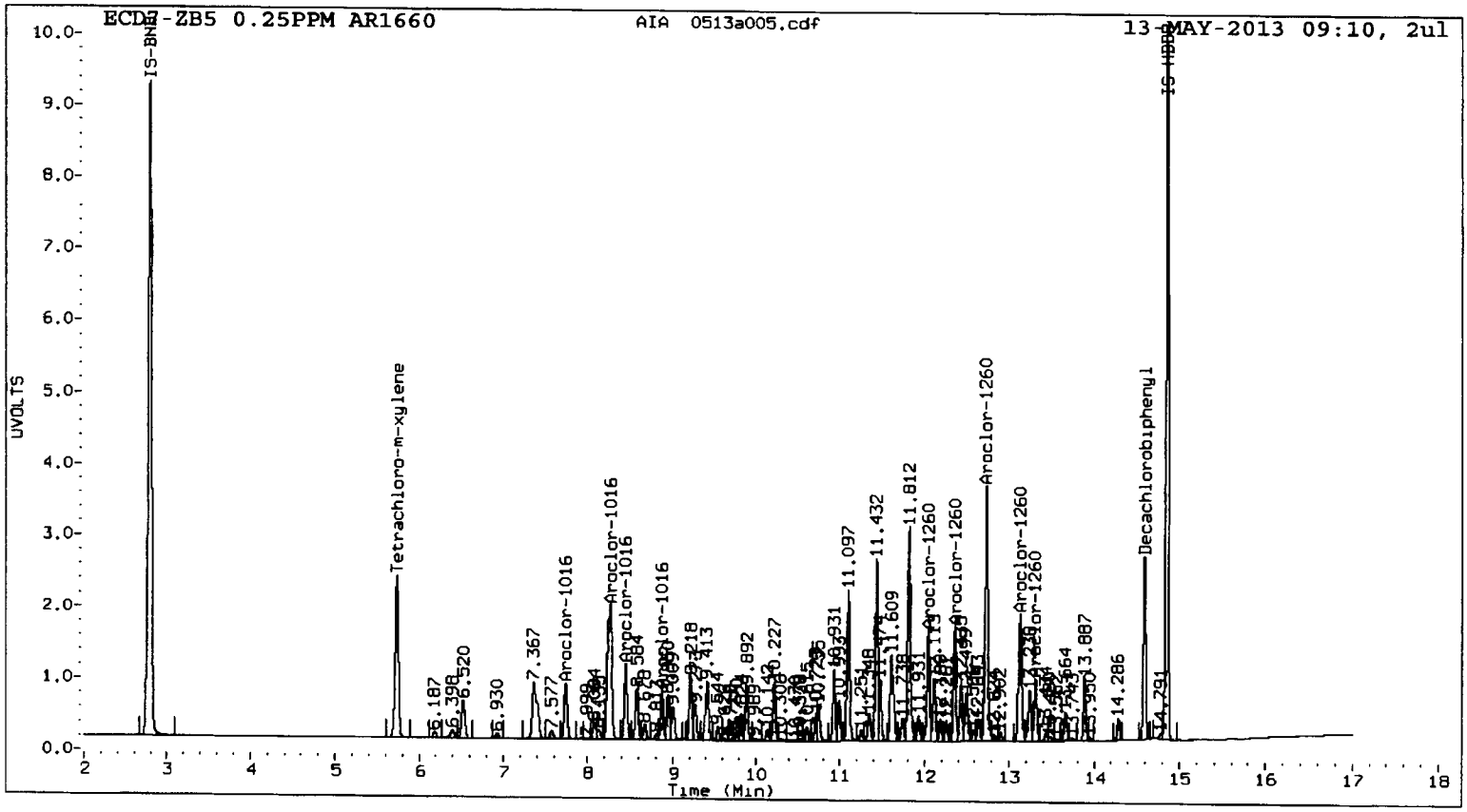
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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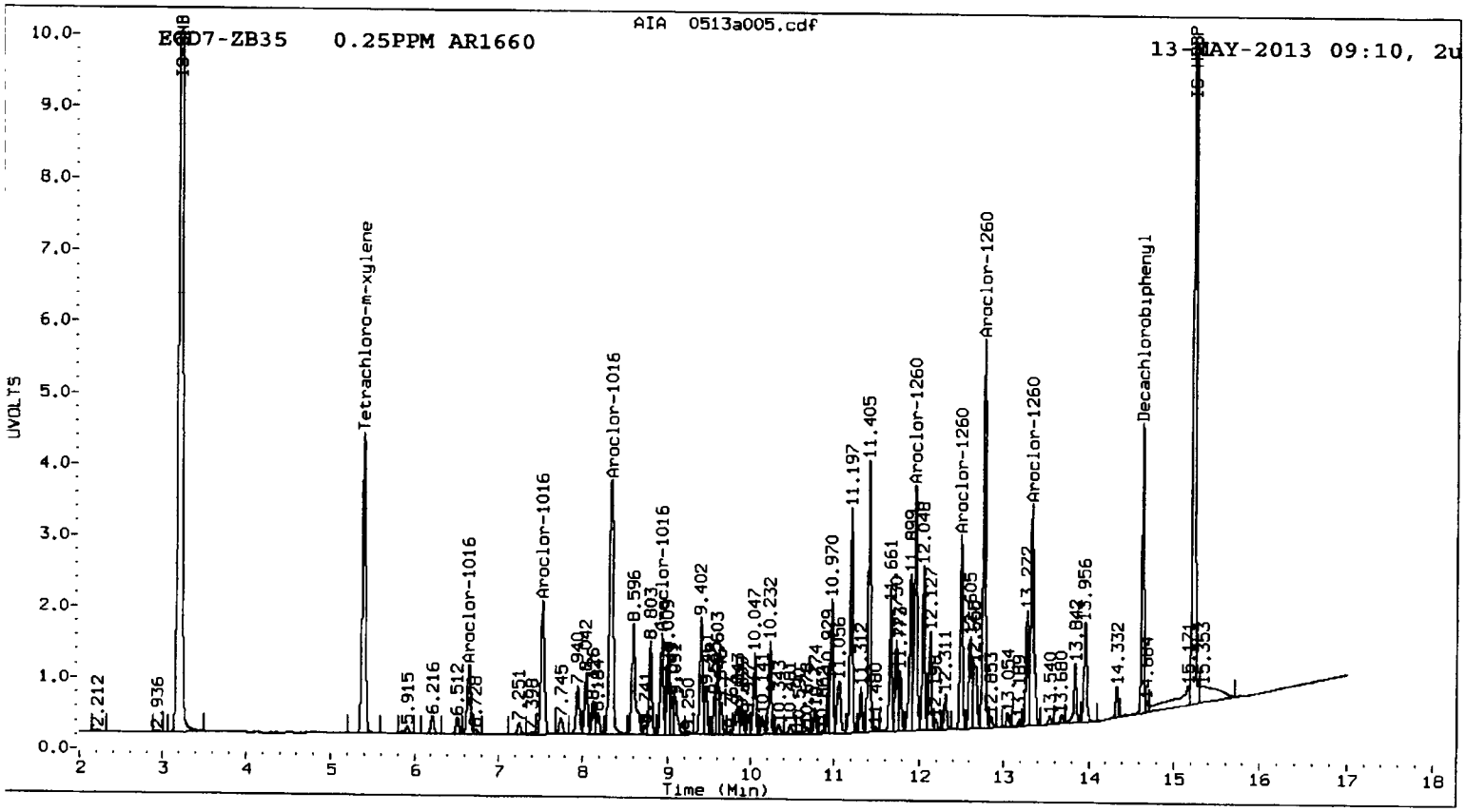
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-DBB
UVOLTS
Time (Min)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13-MAY-2013 09:10, 2u
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-DBB
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a006.d
Data file 2: 20130513.b/ical-2.b/0513a006.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 09:32
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.732	-0.001	98877	5.390	0.002	203203	1.6	1.7	10.4	Tetrachloro-m-xylene
14.592	-0.001	92523	14.633	0.000	120270	1.8	1.6	12.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	3.9	4.3
Decachlorobiphenyl	4.4	3.9

JK 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5460030	0.1
Hexabromobiphenyl	4223695	4224878	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9585331	0.3
Hexabromobiphenyl	6702455	6427979	-4.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

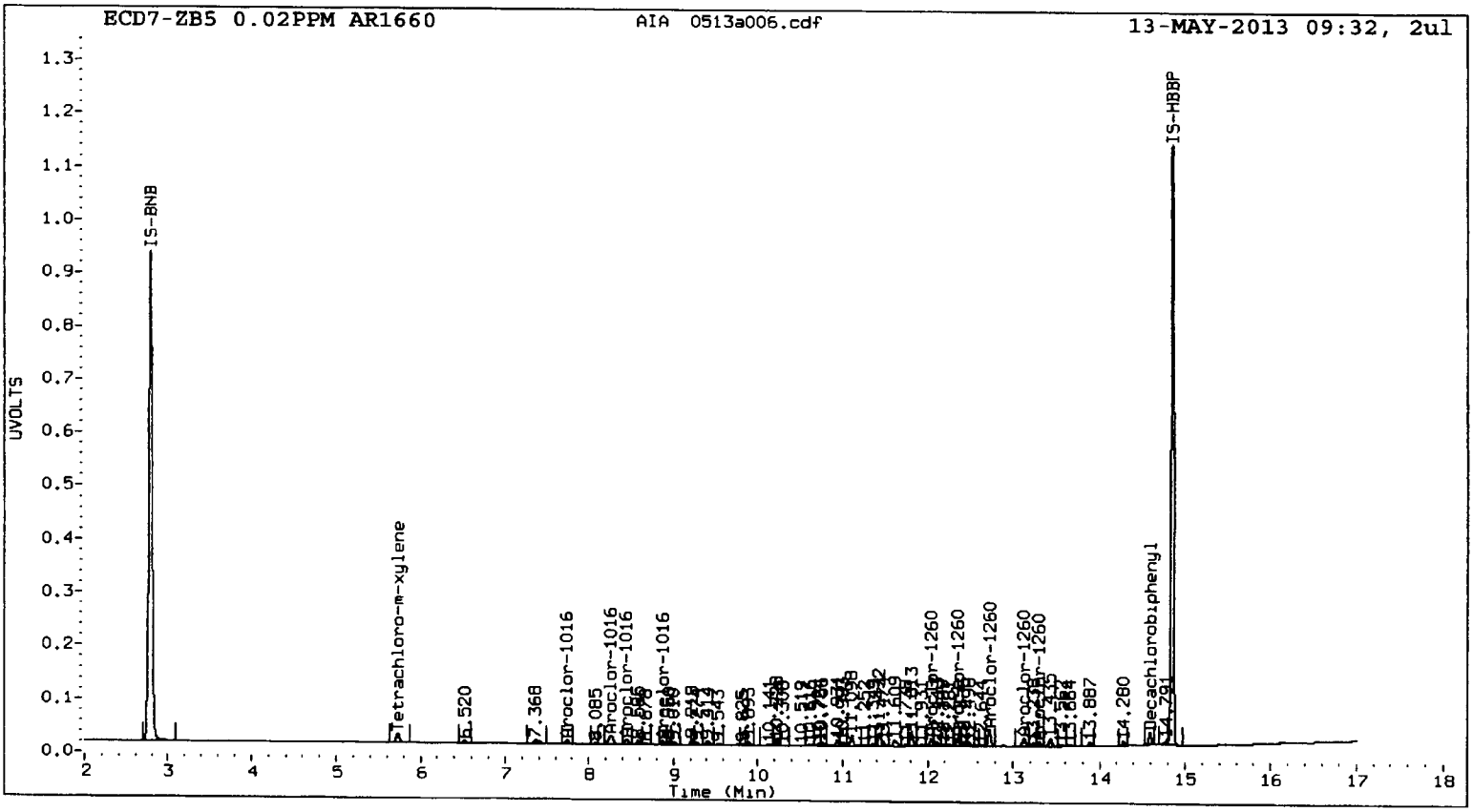
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.743	0.003	36458	21.7	1	6.646	0.000	56485	25.0
Aroclor-1016	2	8.261	-0.002	119670	21.1	2	7.526	0.001	122504	24.6
Aroclor-1016	3	8.449	0.001	49157	21.9	3	8.337	-0.001	242164	23.9
Aroclor-1016	4	8.875	0.001	31941	23.6	4	8.936	0.000	73296	24.1
	Total Col1Ave (4 peaks):				22.1	Total Col2Ave (4 peaks):				24.4 RPD = 10
	Corrected Ave (3 peaks):				21.6	Corrected Ave (3 peaks):				24.2 RPD = 12
Aroclor-1260	1	12.044	0.000	69518	23.5	1	11.953	0.001	165155	25.0
Aroclor-1260	2	12.361	0.000	65922	22.4	2	12.497	0.000	134510	25.2
Aroclor-1260	3	12.732	0.000	143015	21.0	3	12.767	0.000	242857	23.5
Aroclor-1260	4	13.128	0.000	73984	20.8	4	13.328	0.000	160965	23.5
Aroclor-1260	5	13.307	0.000	32636	20.9	NS	---			----
	Total Col1Ave (5 peaks):				21.7	Total Col2Ave (4 peaks):				24.3 RPD = 11
	Corrected Ave (4 peaks):				21.3	Corrected Ave (3 peaks):				24.0 RPD = 12

Total PCB Area Col1 (5.833 - 14.493) = 2108277 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 3816976 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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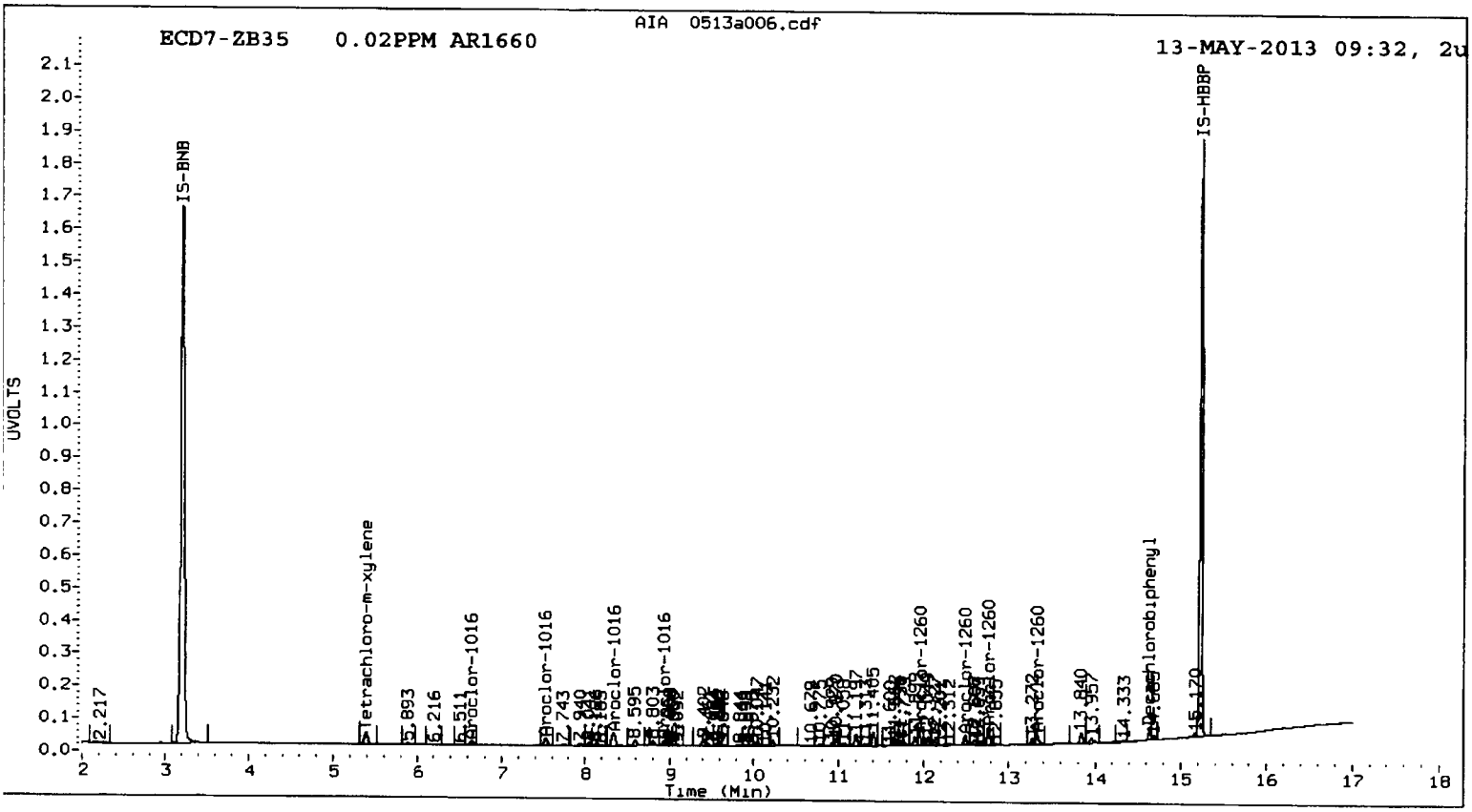
AIA 0513a006.cdf
13-MAY-2013 09:32, 2ul
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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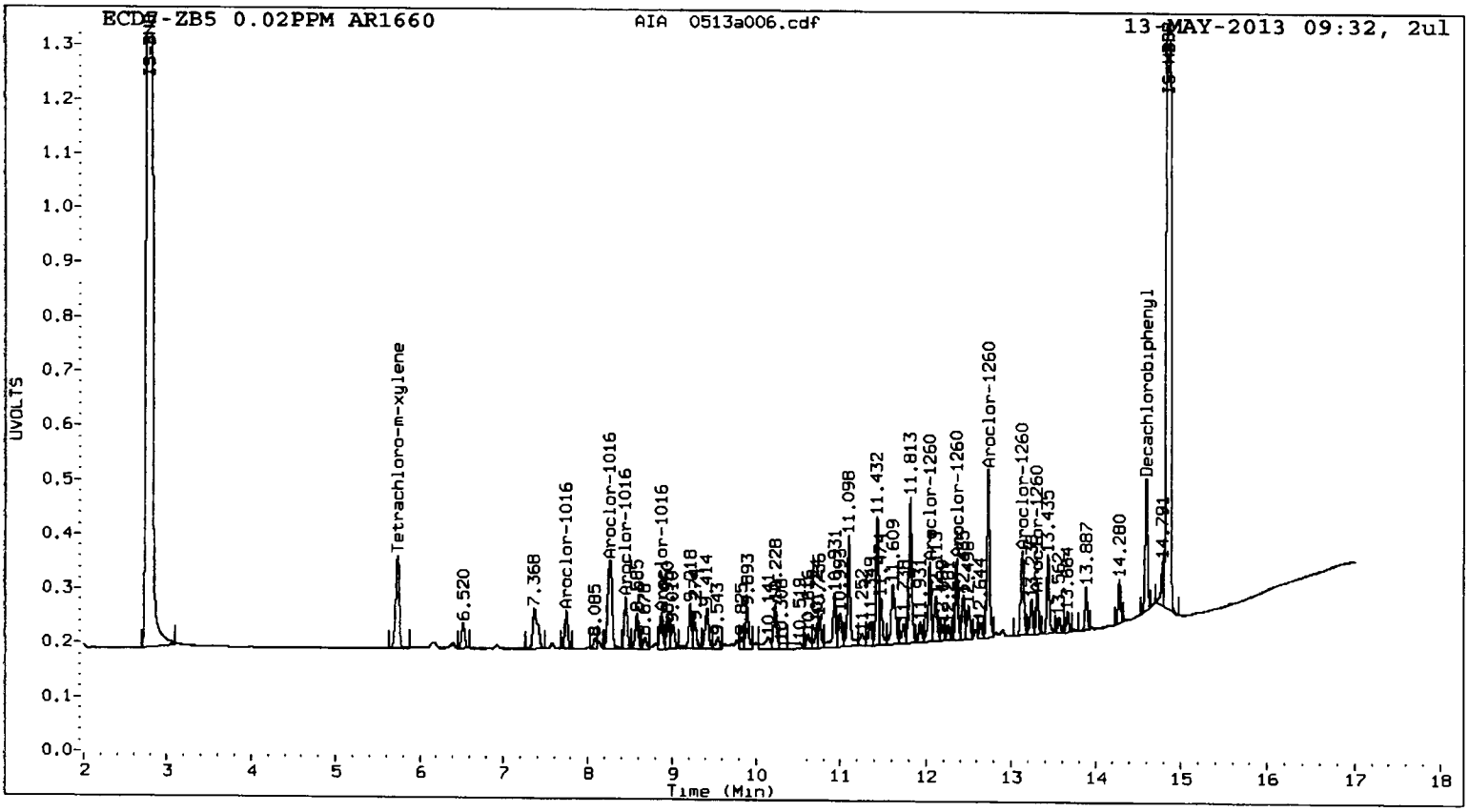
13-MAY-2013 09:32, 2u
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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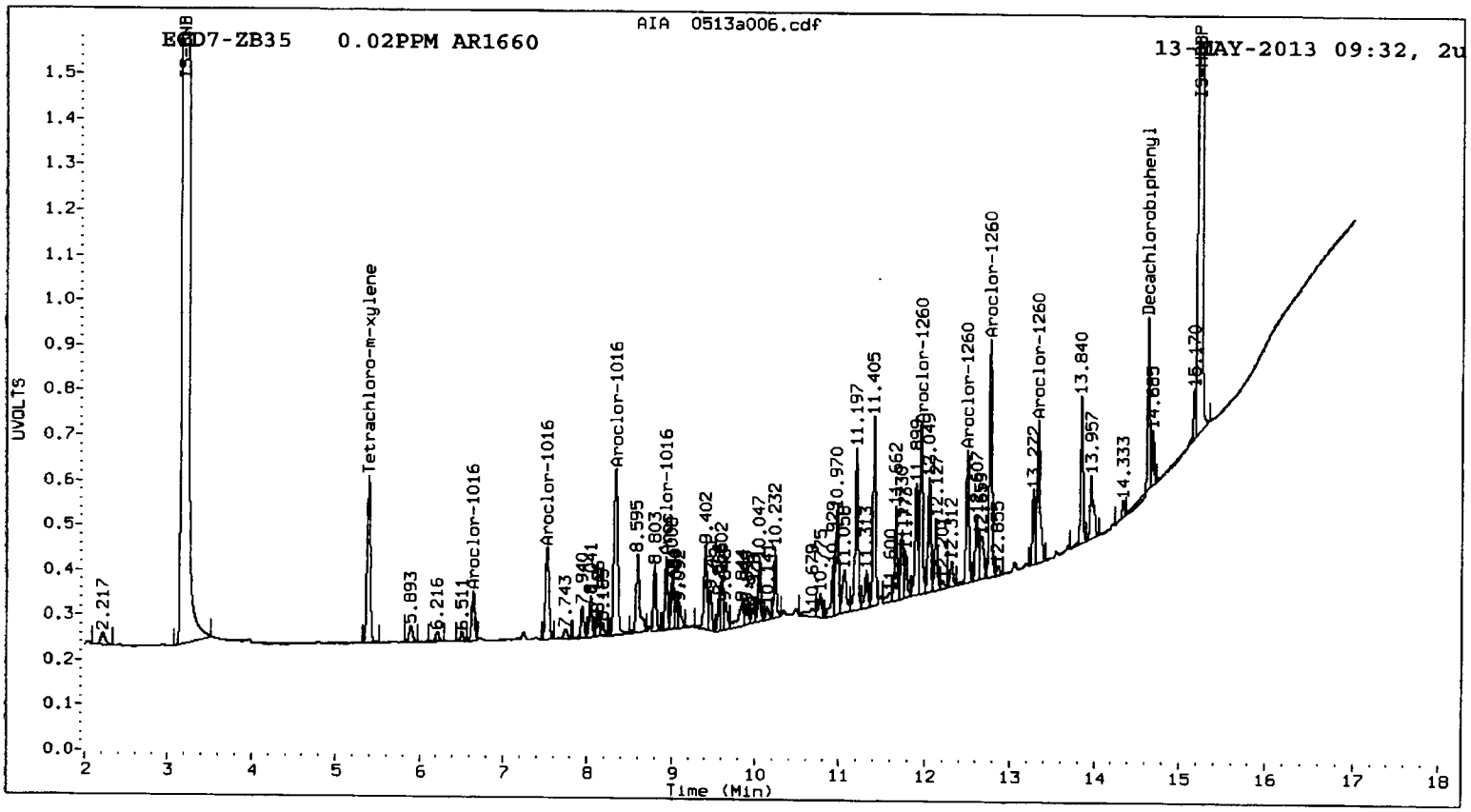
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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13-MAY-2013 09:32, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a007.d
Data file 2: 20130513.b/ical-2.b/0513a007.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 09:54
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.730	-0.003	247330	5.386	-0.002	489567	3.9	4.1	5.9	Tetrachloro-m-xylene
14.592	-0.001	220143	14.632	0.000	332245	4.2	4.3	1.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	9.7	10.3
Decachlorobiphenyl	10.5	10.7

JL 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5481103	0.5
Hexabromobiphenyl	4223695	4229191	0.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9693088	1.4
Hexabromobiphenyl	6702455	6488389	-3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

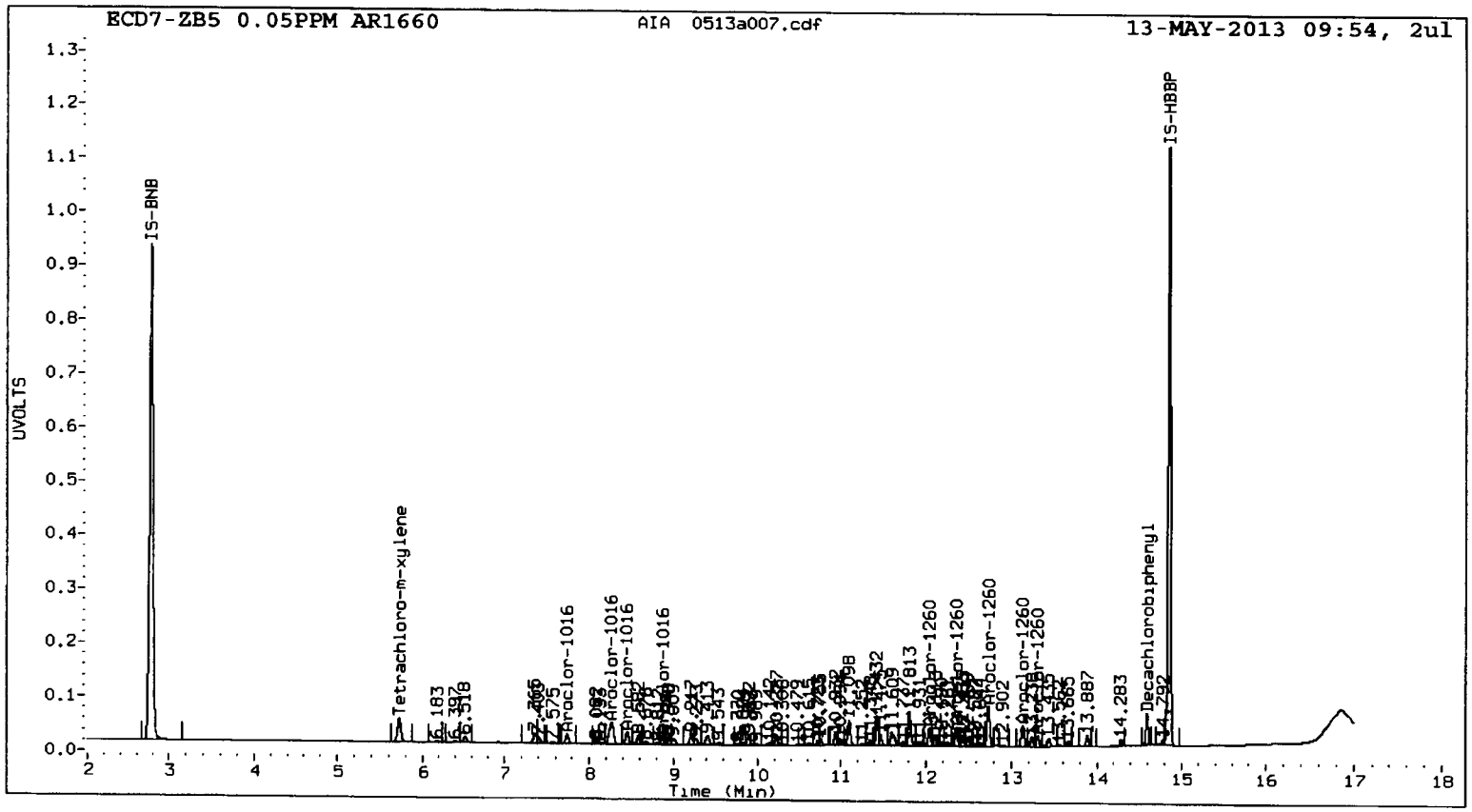
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.740	0.000	89600	53.0	1	6.644	-0.002	128772	56.4
Aroclor-1016	2	8.261	-0.002	293645	51.7	2	7.523	-0.003	283472	56.3
Aroclor-1016	3	8.447	0.000	119788	53.1	3	8.336	-0.002	571909	55.8
Aroclor-1016	4	8.873	0.000	74507	54.8	4	8.935	-0.001	187438	60.9
Total Col1Ave (4 peaks):					53.2	Total Col2Ave (4 peaks):			57.4	RPD = 8
Corrected Ave (3 peaks):					52.6	Corrected Ave (3 peaks):			56.2	RPD = 7
Aroclor-1260	1	12.045	0.000	157875	53.4	1	11.953	0.000	373462	56.1
Aroclor-1260	2	12.361	0.000	154414	52.5	2	12.497	0.000	304488	56.5
Aroclor-1260	3	12.732	0.000	347949	51.1	3	12.767	0.000	562863	53.9
Aroclor-1260	4	13.127	-0.001	181838	51.1	4	13.327	-0.001	380324	54.9
Aroclor-1260	5	13.307	0.000	81289	52.0	NS	---			----
Total Col1Ave (5 peaks):					52.0	Total Col2Ave (4 peaks):			55.4	RPD = 6
Corrected Ave (4 peaks):					51.7	Corrected Ave (3 peaks):			55.0	RPD = 6

Total PCB Area Col1 (5.833 - 14.493) = 4668836 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 8844035 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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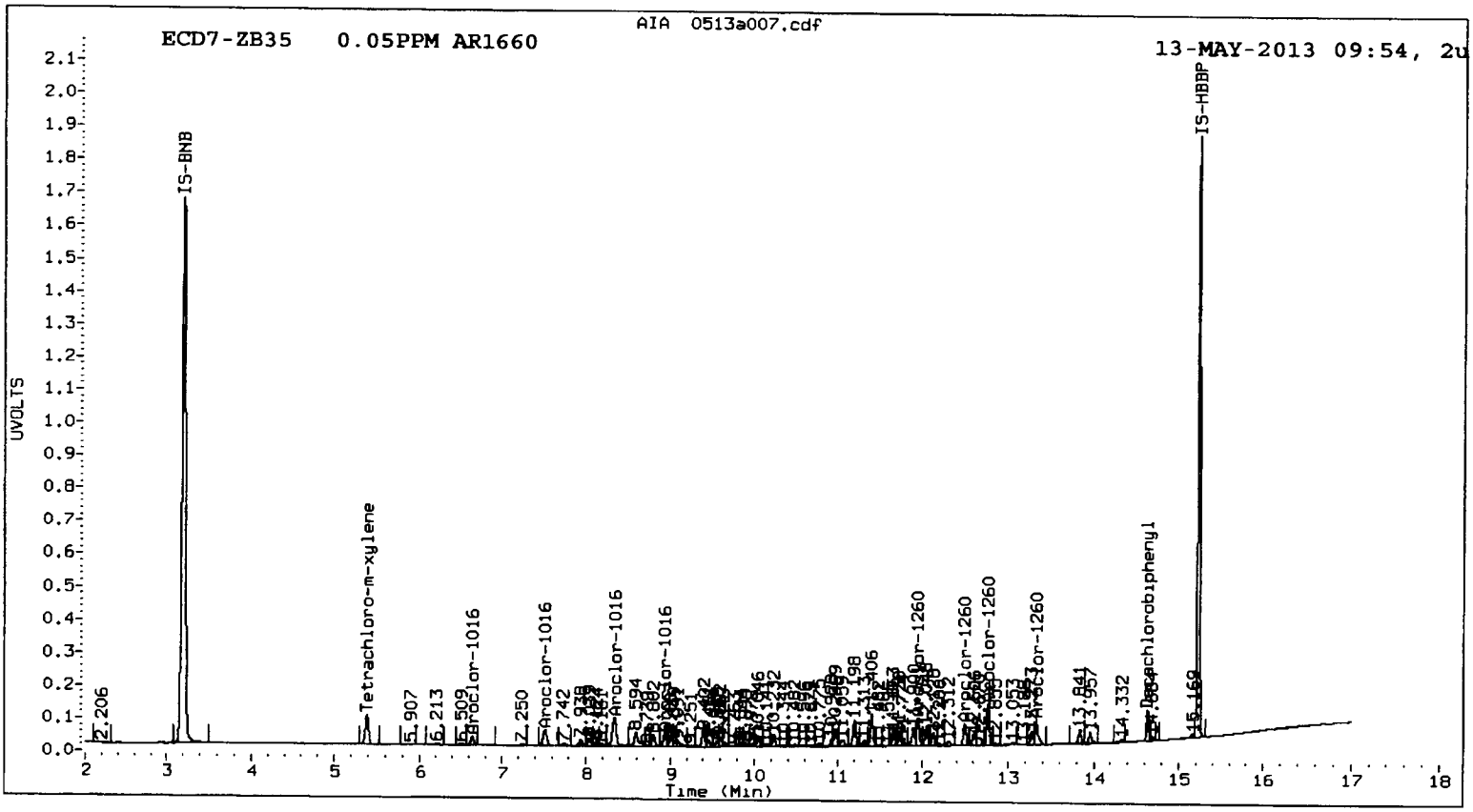
13-MAY-2013 09:54, 2ul
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)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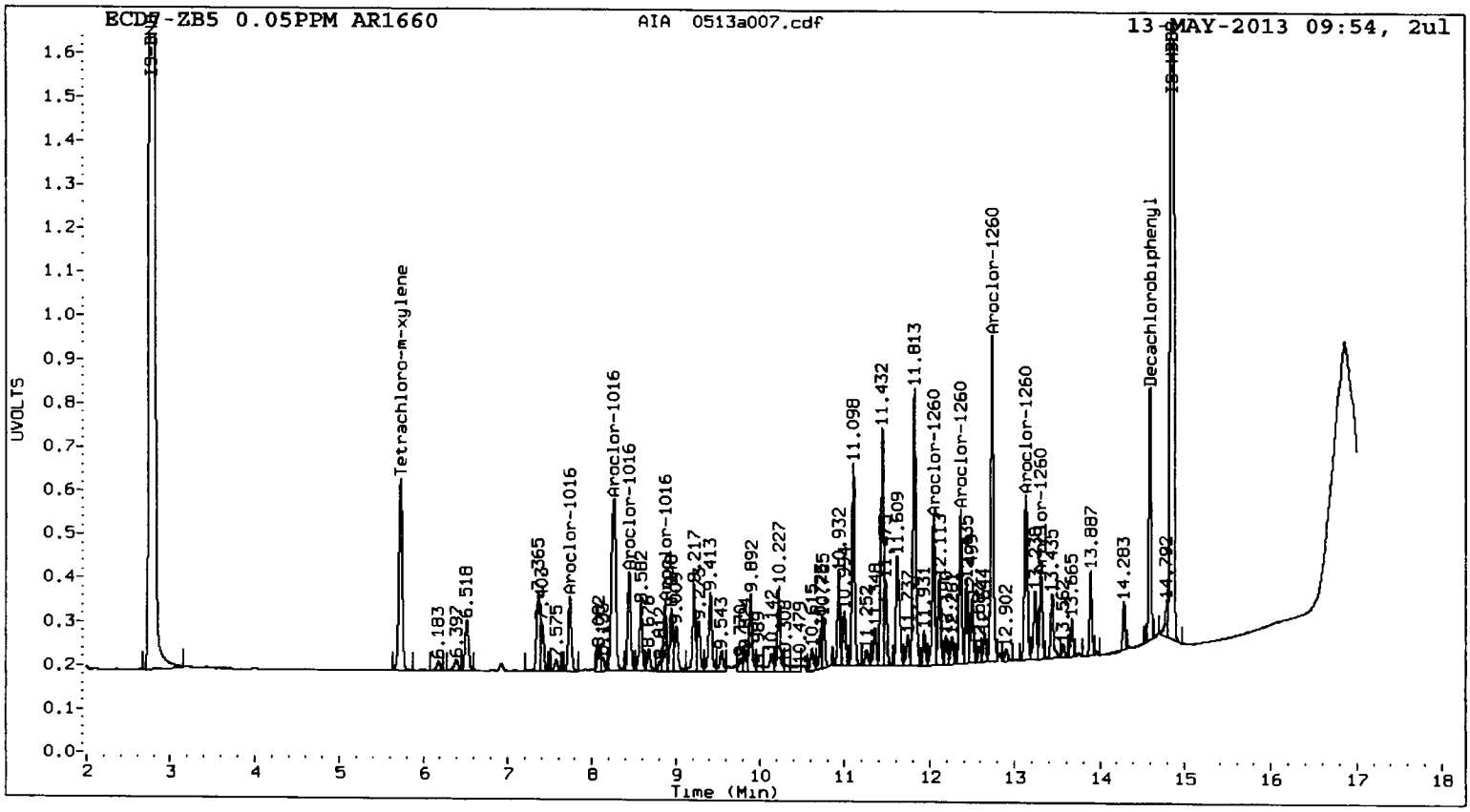
IS-BNB
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)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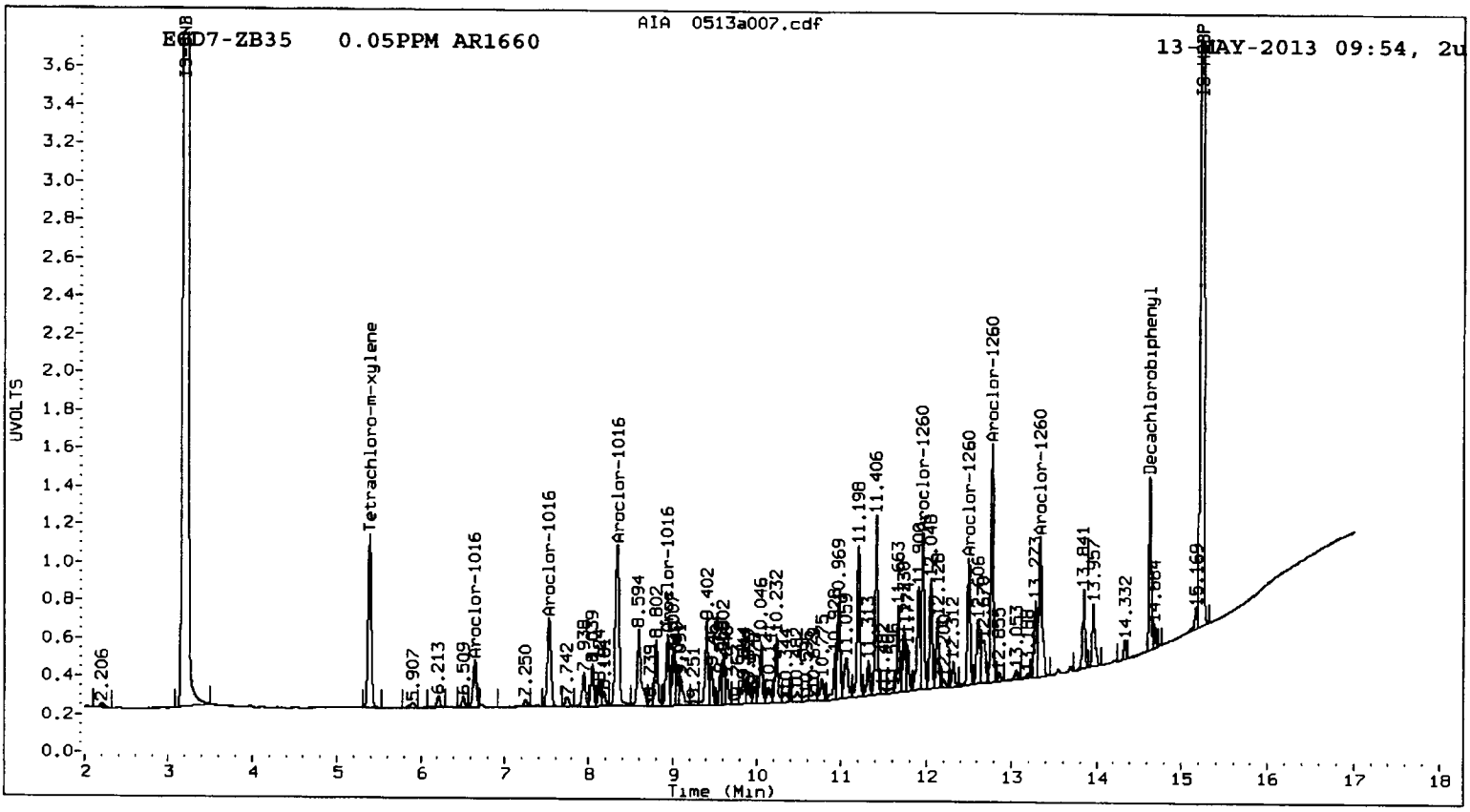
AIA 0513a007.cdf
13-MAY-2013 09:54, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD7-ZB35 0.05PPM AR1660
AIA 0513a007.cdf
13-MAY-2013 09:54, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a008.d
Data file 2: 20130513.b/ical-2.b/0513a008.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 10:16
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	5083000	5.390	0.002	8704813	85.1	78.1	8.5	Tetrachloro-m-xylene
14.592	-0.001	3846532	14.633	0.000	5913106	77.6	80.5	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	212.6	195.3
Decachlorobiphenyl	194.0	201.3

JA 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5141417	-5.7
Hexabromobiphenyl	4223695	3989119	-5.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9081991	-5.0
Hexabromobiphenyl	6702455	6113929	-8.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

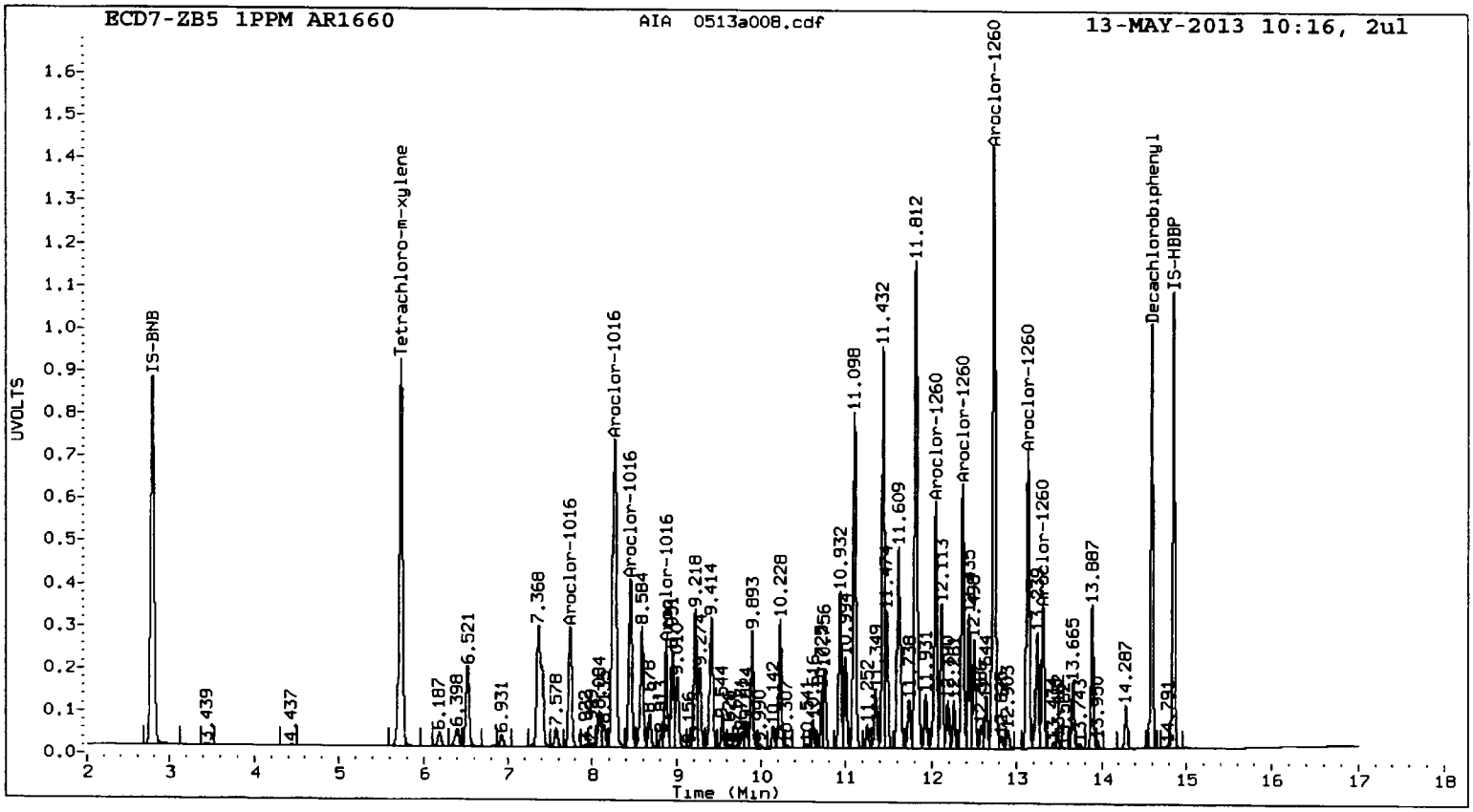
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.743	0.003	1500676	946.8	1	6.645	-0.001	1760035	822.6
Aroclor-1016	2	8.263	0.000	5225534	980.5	2	7.525	0.000	3961306	840.3
Aroclor-1016	3	8.449	0.001	1999780	945.6	3	8.338	0.000	8483944	884.1
Aroclor-1016	4	8.875	0.002	1134619	890.1	4	8.936	0.000	2308005	800.5
Total Col1Ave (4 peaks):					940.7	Total Col2Ave (4 peaks):			836.9	RPD = 12
Corrected Ave (3 peaks):					927.5	Corrected Ave (3 peaks):			821.1	RPD = 12
Aroclor-1260	1	12.044	0.000	2587084	927.2	1	11.954	0.002	5529452	881.1
Aroclor-1260	2	12.361	0.000	2658123	957.4	2	12.497	0.000	4417272	870.6
Aroclor-1260	3	12.732	0.000	6398728	997.0	3	12.768	0.001	9321825	946.7
Aroclor-1260	4	13.129	0.001	3363412	1002.7	4	13.328	0.001	5995648	919.3
Aroclor-1260	5	13.308	0.001	1450806	983.9	NS	---			----
Total Col1Ave (5 peaks):					973.6	Total Col2Ave (4 peaks):			904.4	RPD = 7
Corrected Ave (4 peaks):					966.4	Corrected Ave (3 peaks):			890.3	RPD = 8

Total PCB Area Col1 (5.833 - 14.493) = 75641419 Col1 Total PCB = 2.0 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 115302622 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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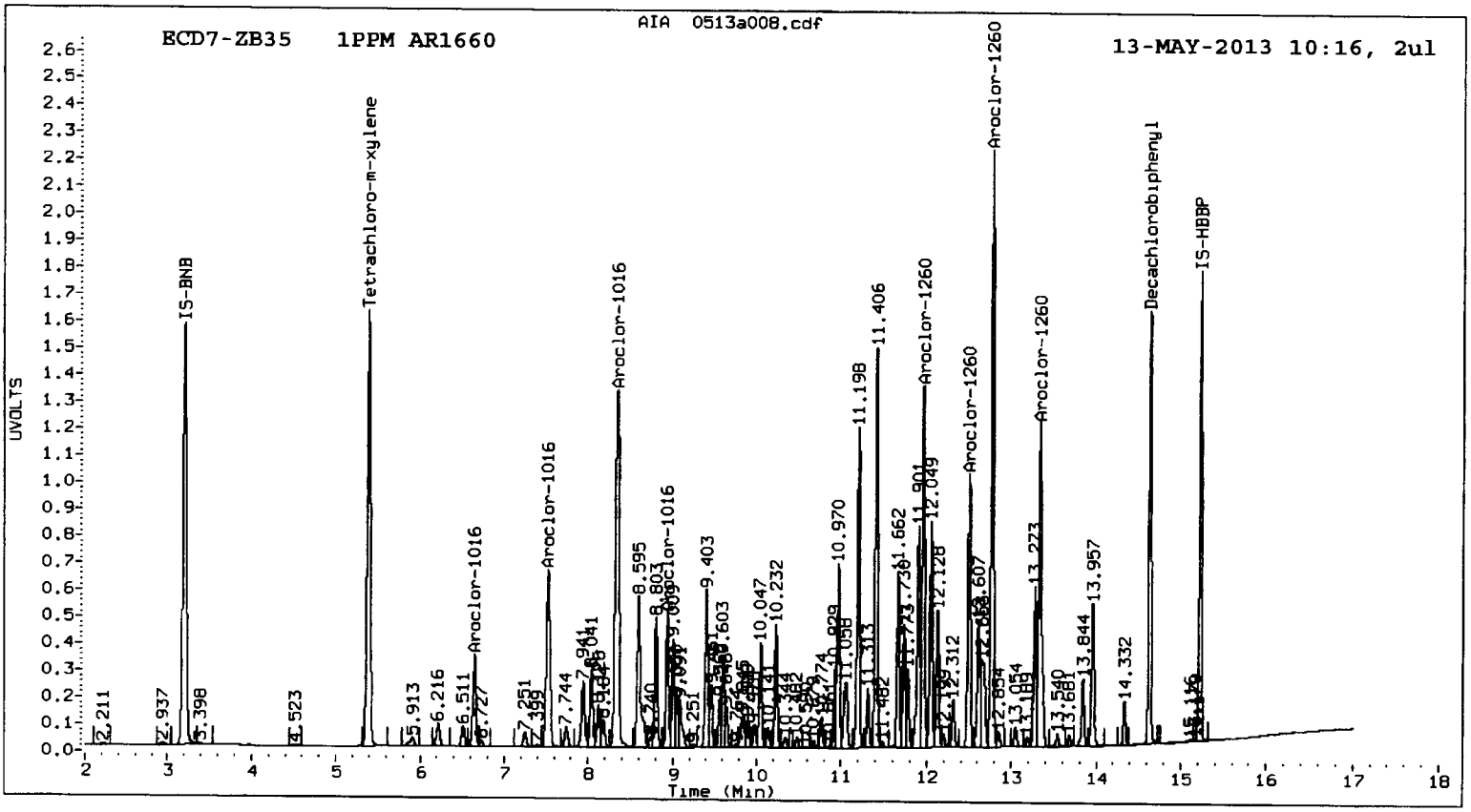
13-MAY-2013 10:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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Time (Min)
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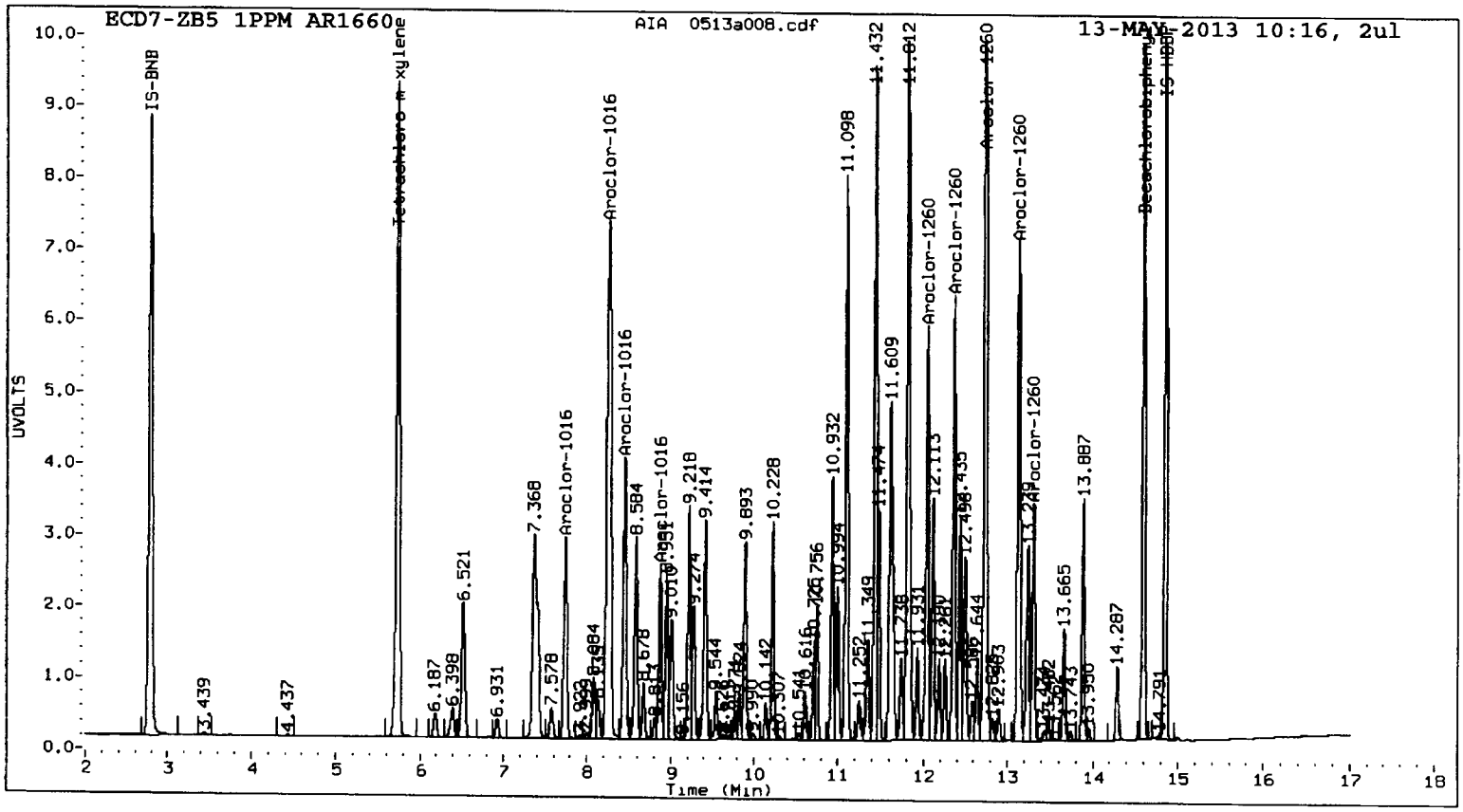
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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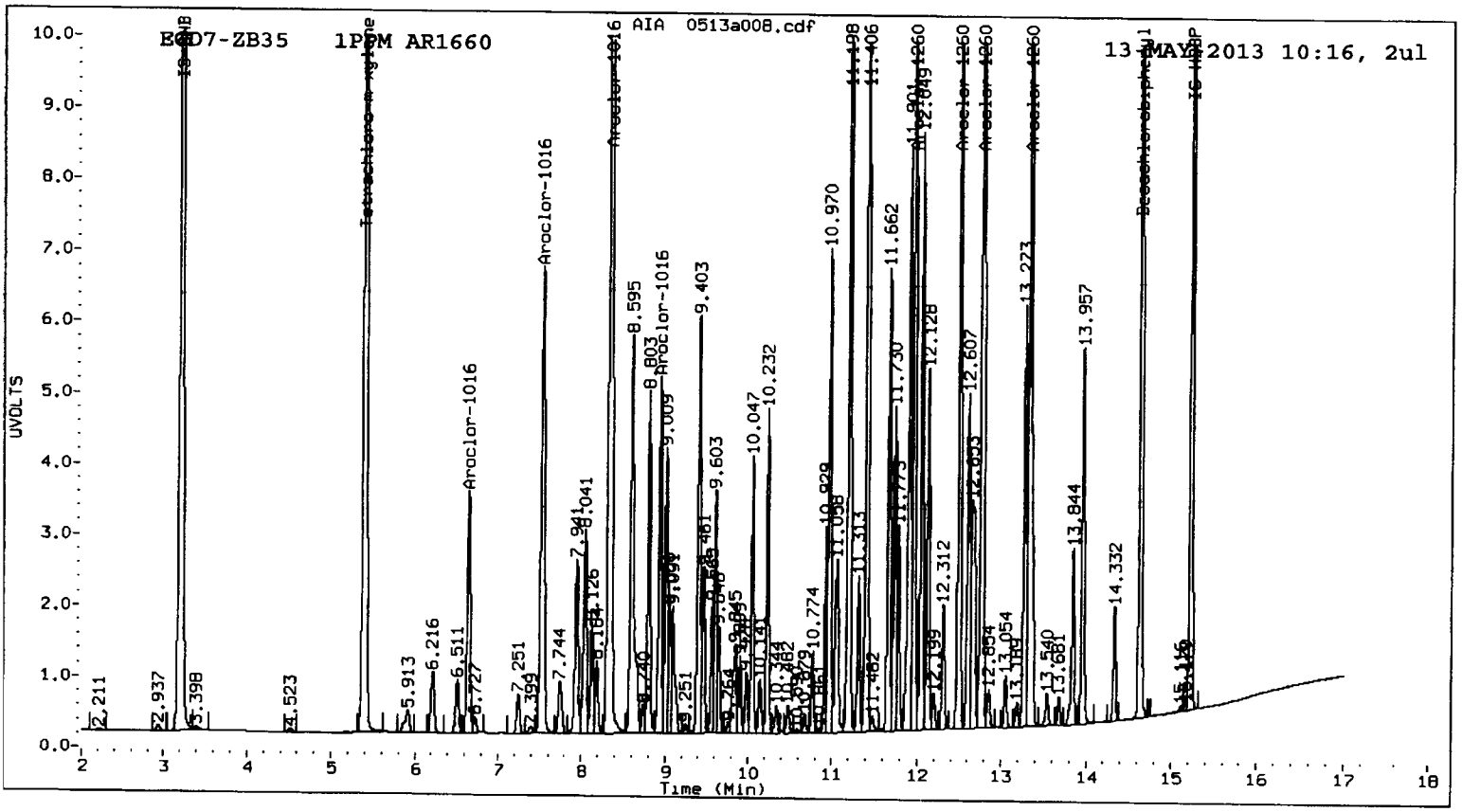
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBB


ECD7-ZB35 1PPM AR1660
AIA 0513a008.cdf
13-MAY-2013 10:16, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a009.d
Data file 2: 20130513.b/ical-2.b/0513a009.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 10:38
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	511652	5.390	0.002	976678	8.0	8.1	1.8	Tetrachloro-m-xylene
14.592	-0.001	436229	14.633	0.000	663980	8.2	8.4	2.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	20.0	20.4
Decachlorobiphenyl	20.4	21.0

JE 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5505021	0.9
Hexabromobiphenyl	4223695	4301720	1.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9778983	2.3
Hexabromobiphenyl	6702455	6588075	-1.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

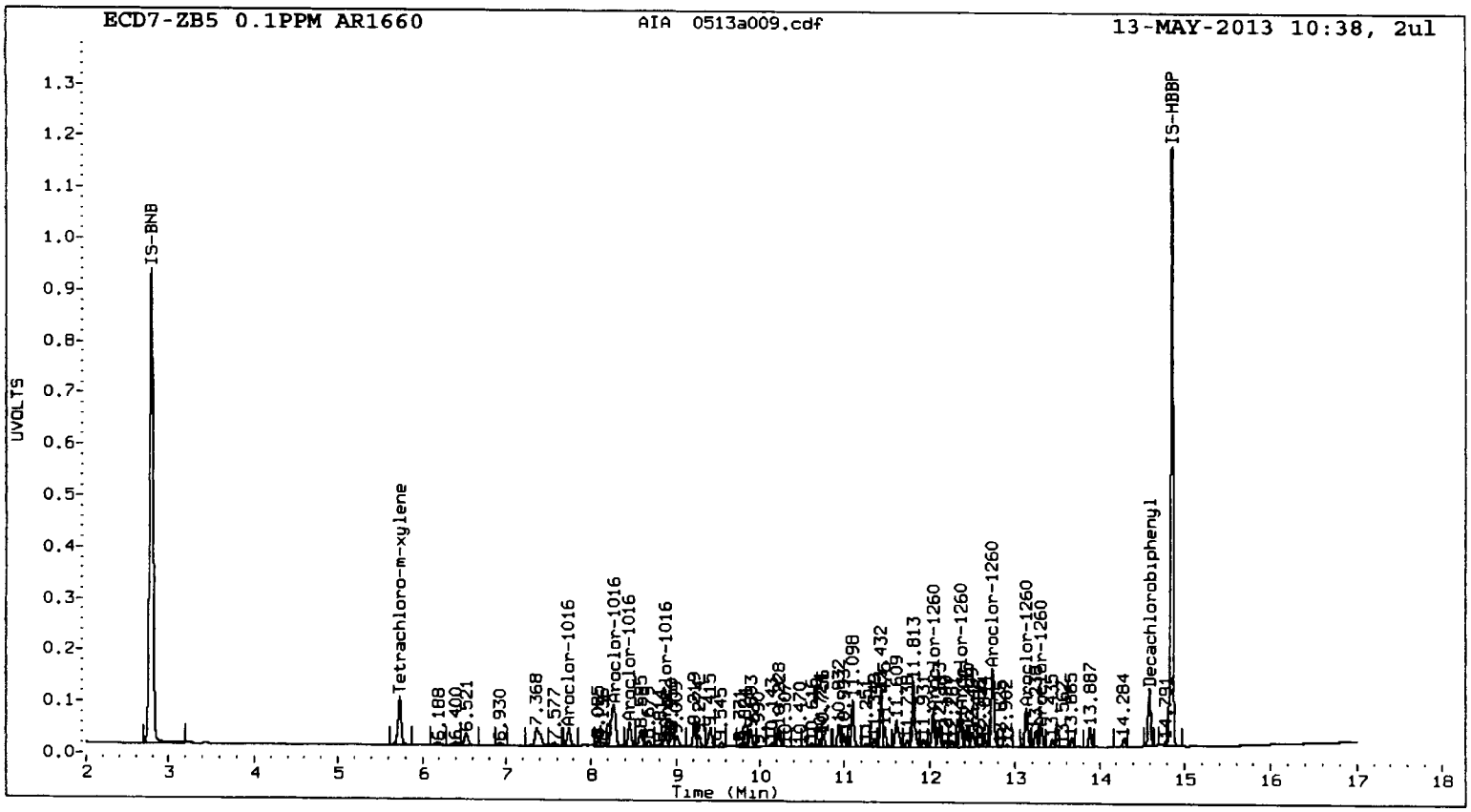
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	7.743	0.003	174398	102.8	1	6.646	0.000	242280	105.2
Aroclor-1016	2	8.263	0.001	580901	101.8	2	7.526	0.000	530254	104.5
Aroclor-1016	3	8.449	0.002	232379	102.6	3	8.338	0.000	1060159	102.6
Aroclor-1016	4	8.875	0.002	140813	103.2	4	8.936	0.000	333250	107.3
Total Col1Ave (4 peaks):					102.6	Total Col2Ave (4 peaks):				104.9 RPD = 2
Corrected Ave (3 peaks):					102.4	Corrected Ave (3 peaks):				104.1 RPD = 2
Aroclor-1260	1	12.044	0.000	302446	100.5	1	11.952	0.000	695883	102.9
Aroclor-1260	2	12.361	0.000	303070	101.2	2	12.497	0.000	565379	103.4
Aroclor-1260	3	12.731	-0.002	703787	101.7	3	12.767	0.000	1087621	102.5
Aroclor-1260	4	13.128	0.000	368284	101.8	4	13.328	0.000	728924	103.7
Aroclor-1260	5	13.307	0.000	163825	103.0	NS	---			----
Total Col1Ave (5 peaks):					101.7	Total Col2Ave (4 peaks):				103.1 RPD = 1
Corrected Ave (4 peaks):					101.3	Corrected Ave (3 peaks):				102.9 RPD = 2

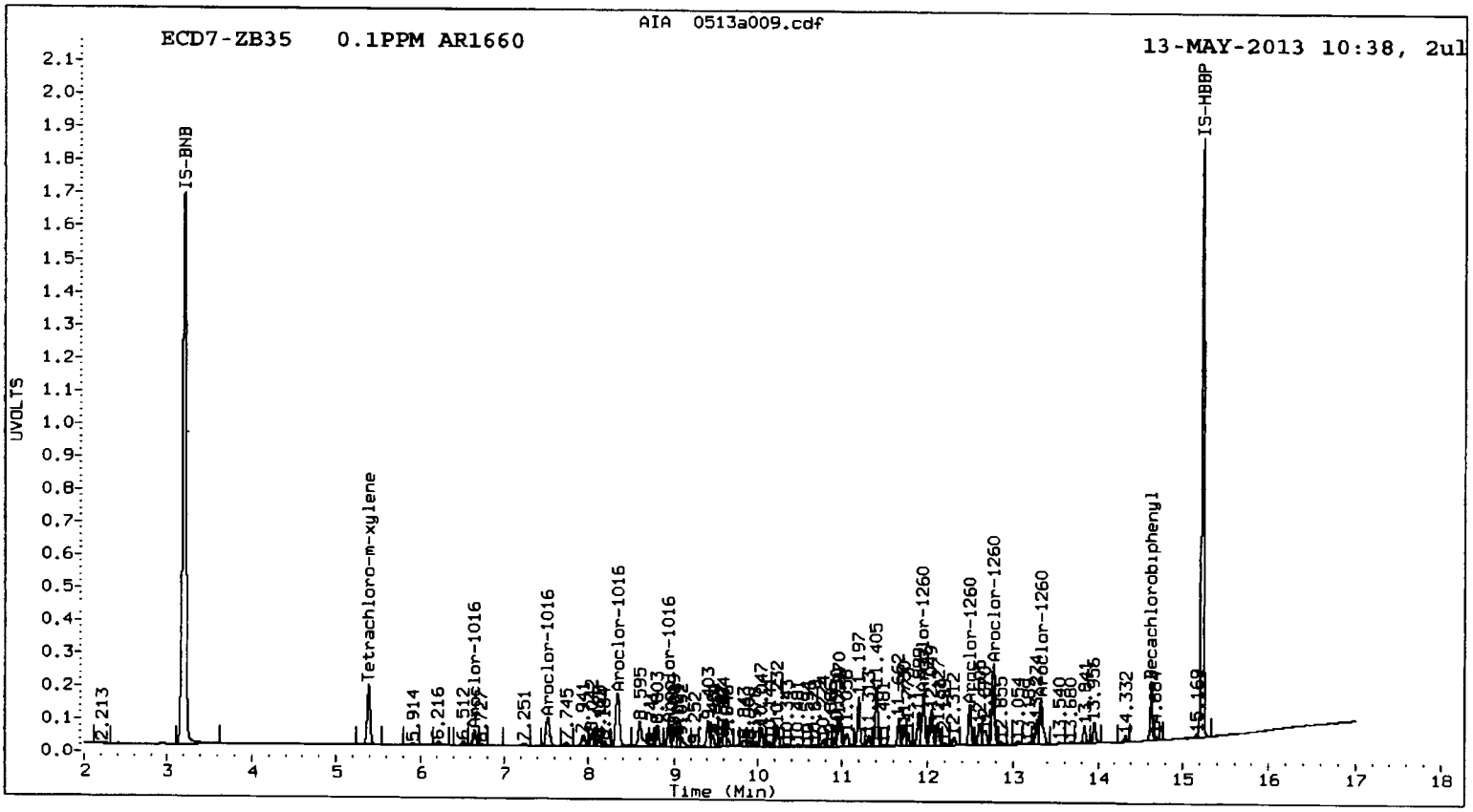
Total PCB Area Col1 (5.833 - 14.493) = 8896672 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 15726380 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD7-ZB5 0.1PPM AR1660
AIA 0513a009.cdf
13-MAY-2013 10:38, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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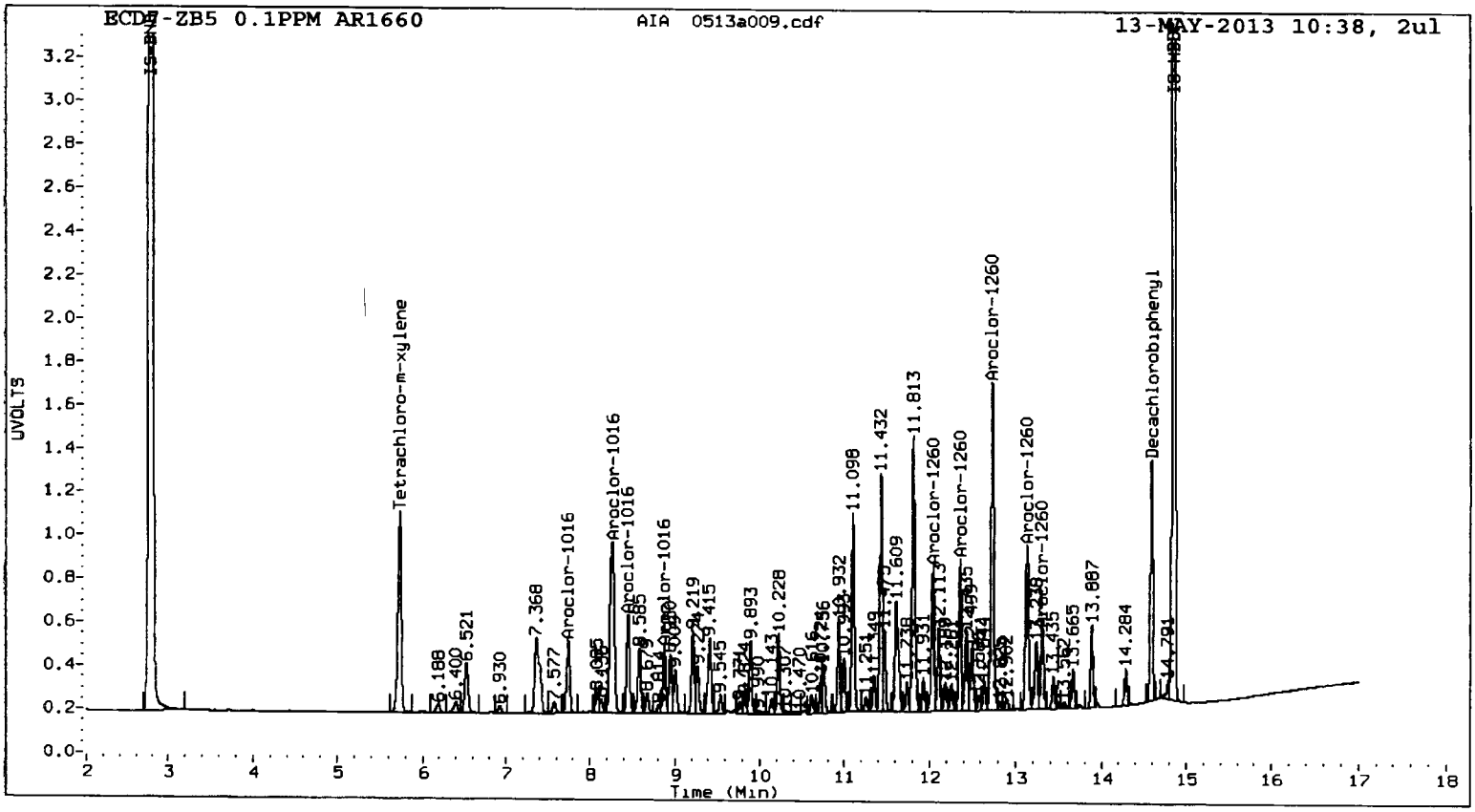
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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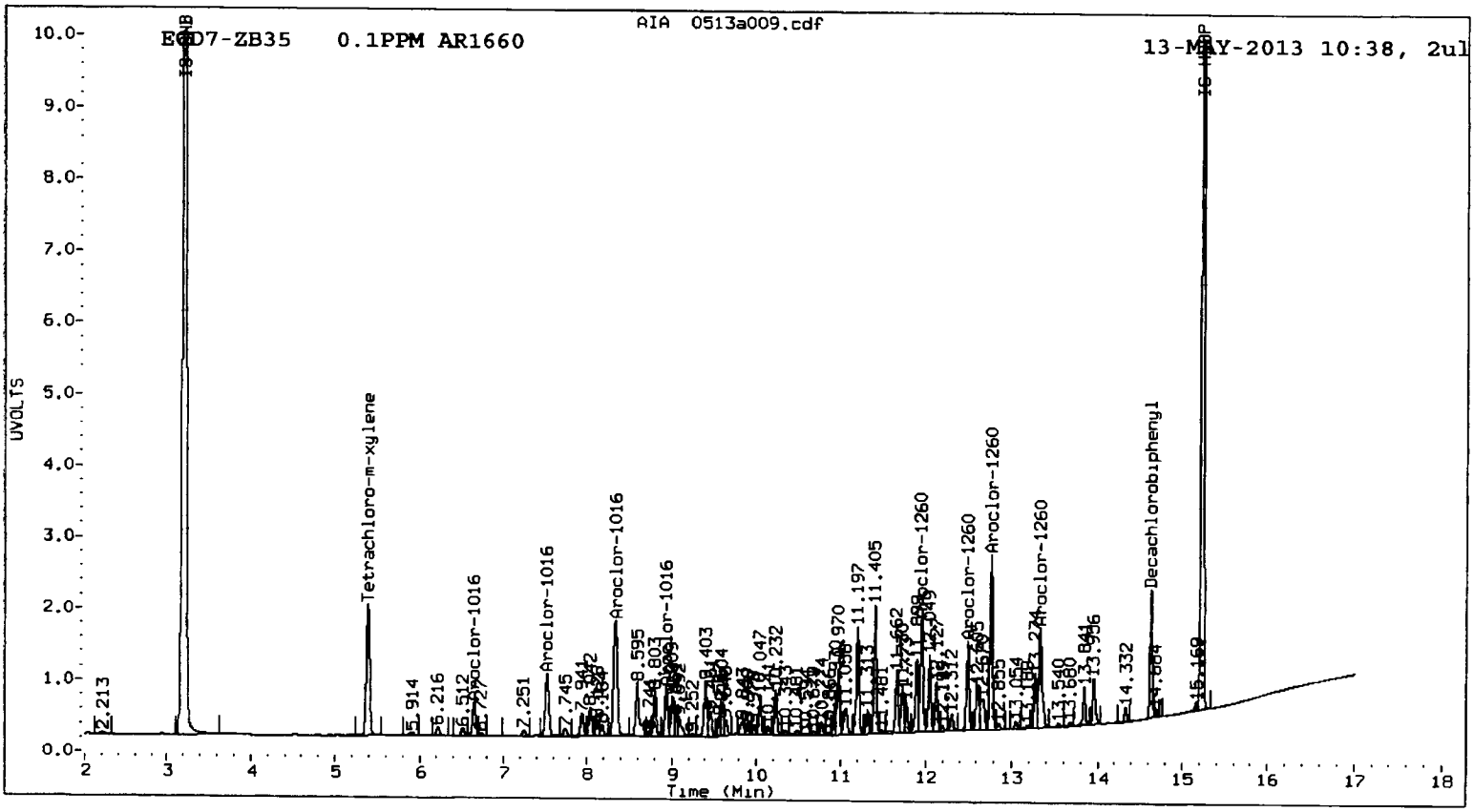
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl


ECD7-ZB35 0.1PPM AR1660
AIA 0513a009.cdf
13-MAY-2013 10:38, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a010.d
Data file 2: 20130513.b/ical-2.b/0513a010.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPM AR1660
Client ID:
Injection Date: 13-MAY-2013 11:00
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.732	-0.001	2597187	5.388	0.000	4564057	40.0	37.5	6.3	Tetrachloro-m-xylene
14.593	-0.001	1999562	14.633	0.000	3031352	36.7	37.6	2.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.0	93.9
Decachlorobiphenyl	91.8	93.9

05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5586769	2.4
Hexabromobiphenyl	4223695	4381623	3.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9908964	3.7
Hexabromobiphenyl	6702455	6717350	0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

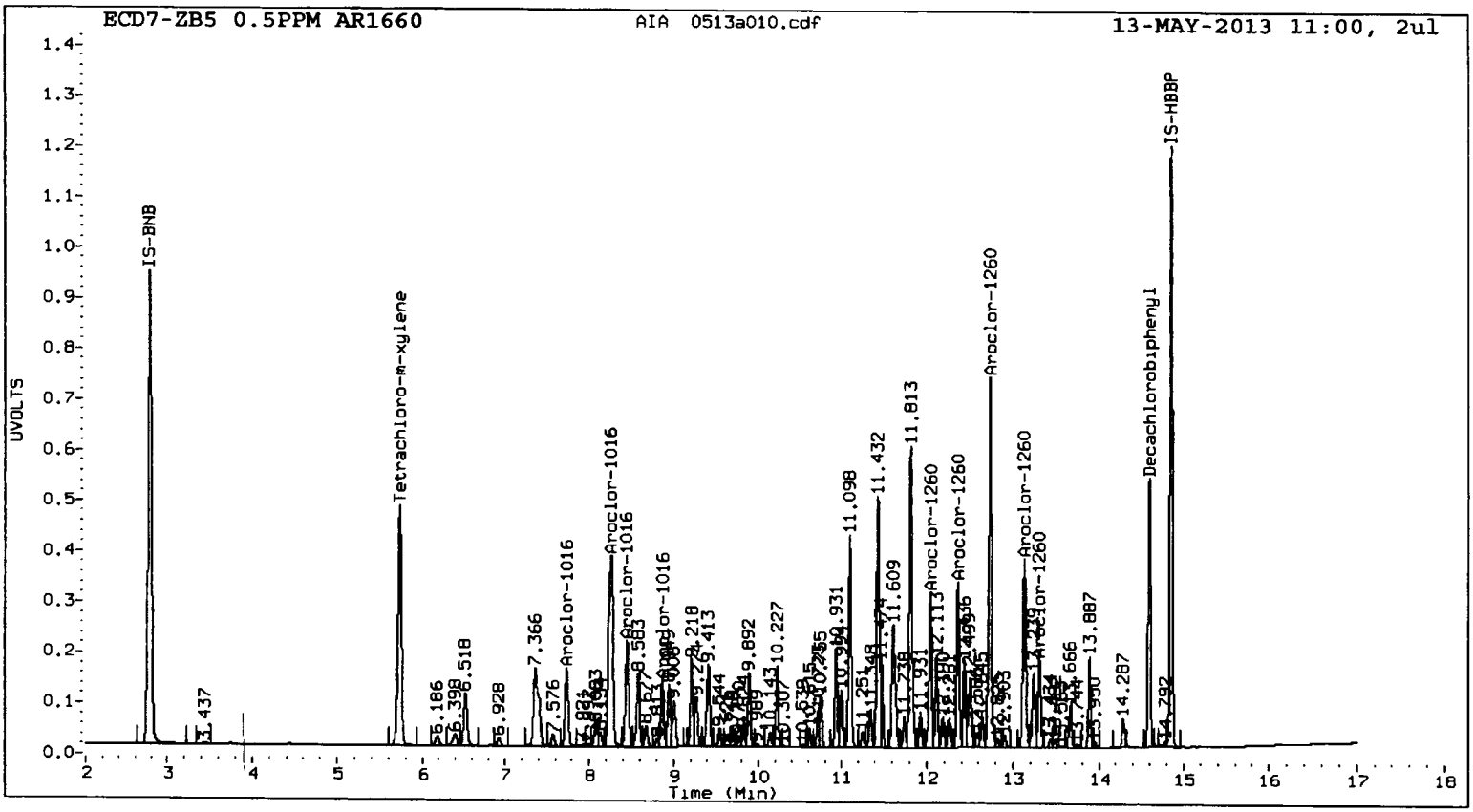
		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.740	0.000	792518	460.2	1	6.644	-0.002	977787	418.9
Aroclor-1016	2	8.263	0.000	2731310	471.6	2	7.523	-0.002	2174568	422.8
Aroclor-1016	3	8.448	0.000	1052598	458.0	3	8.336	-0.002	4529974	432.7
Aroclor-1016	4	8.873	0.000	604447	436.4	4	8.935	-0.001	1281343	407.3
Total Col1Ave (4 peaks):					456.6	Total Col2Ave (4 peaks):				420.4 RPD = 8
Corrected Ave (3 peaks):					451.5	Corrected Ave (3 peaks):				416.3 RPD = 8
Aroclor-1260	1	12.044	0.000	1365283	445.5	1	11.953	0.001	2934937	425.7
Aroclor-1260	2	12.361	0.000	1400621	459.3	2	12.497	0.000	2358444	423.1
Aroclor-1260	3	12.732	0.000	3343427	474.3	3	12.767	0.000	4857788	449.0
Aroclor-1260	4	13.128	0.000	1755816	476.5	4	13.328	0.000	3180852	443.9
Aroclor-1260	5	13.307	0.000	760048	469.3	NS	---			----
Total Col1Ave (5 peaks):					465.0	Total Col2Ave (4 peaks):				435.4 RPD = 7
Corrected Ave (4 peaks):					462.1	Corrected Ave (3 peaks):				430.9 RPD = 7

Total PCB Area Col1 (5.833 - 14.493) = 39884478 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 62927907 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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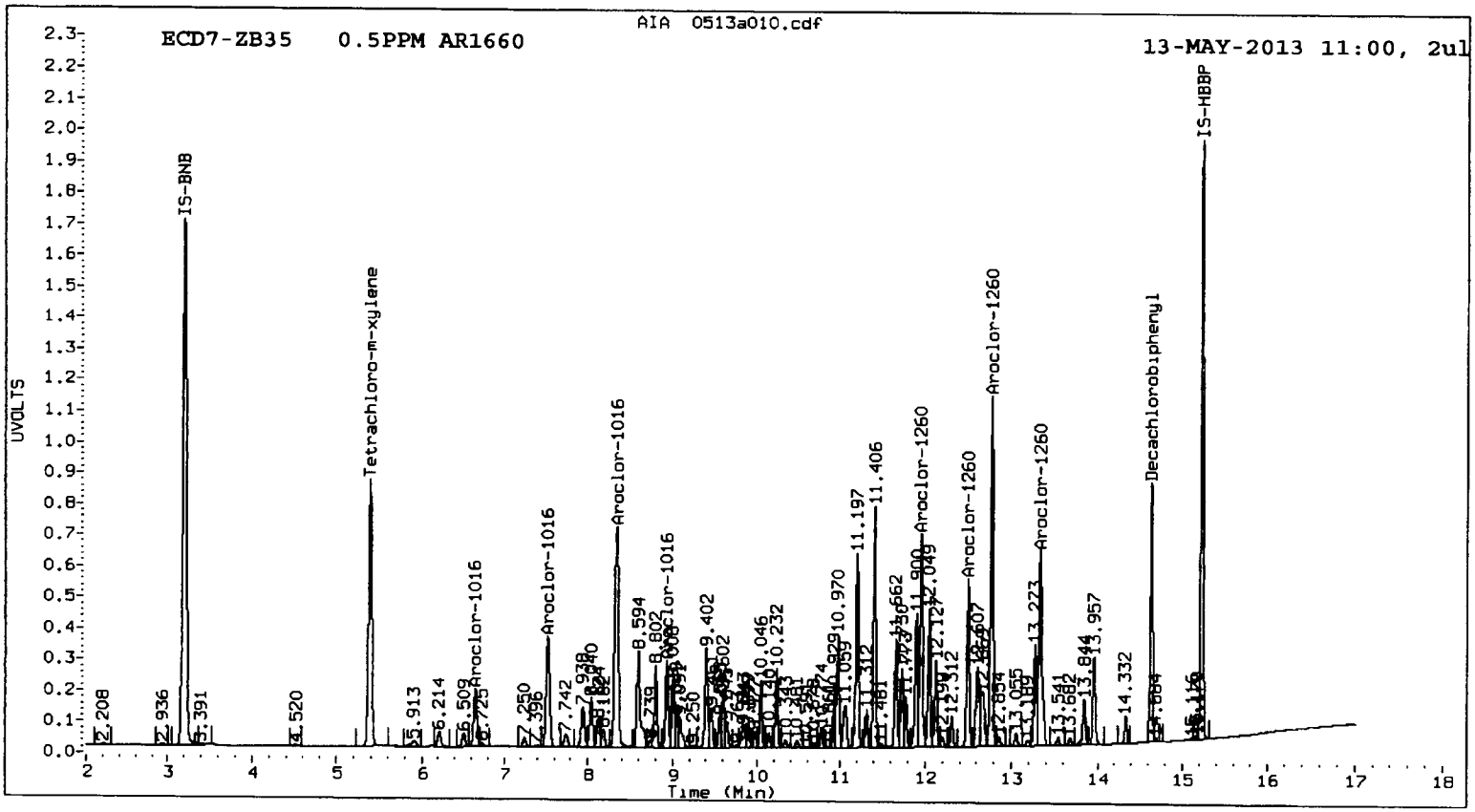
13-MAY-2013 11:00, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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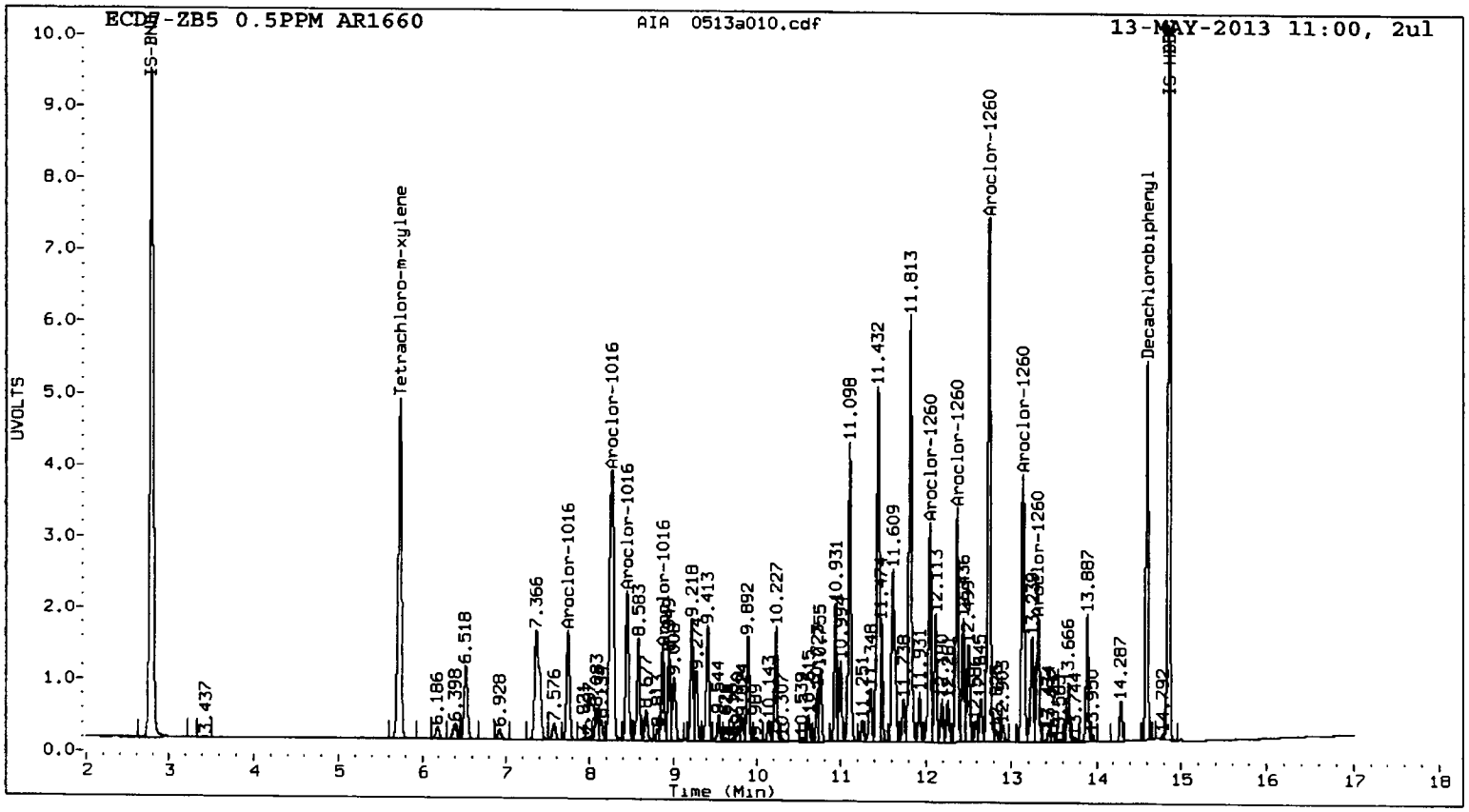
13-MAY-2013 11:00, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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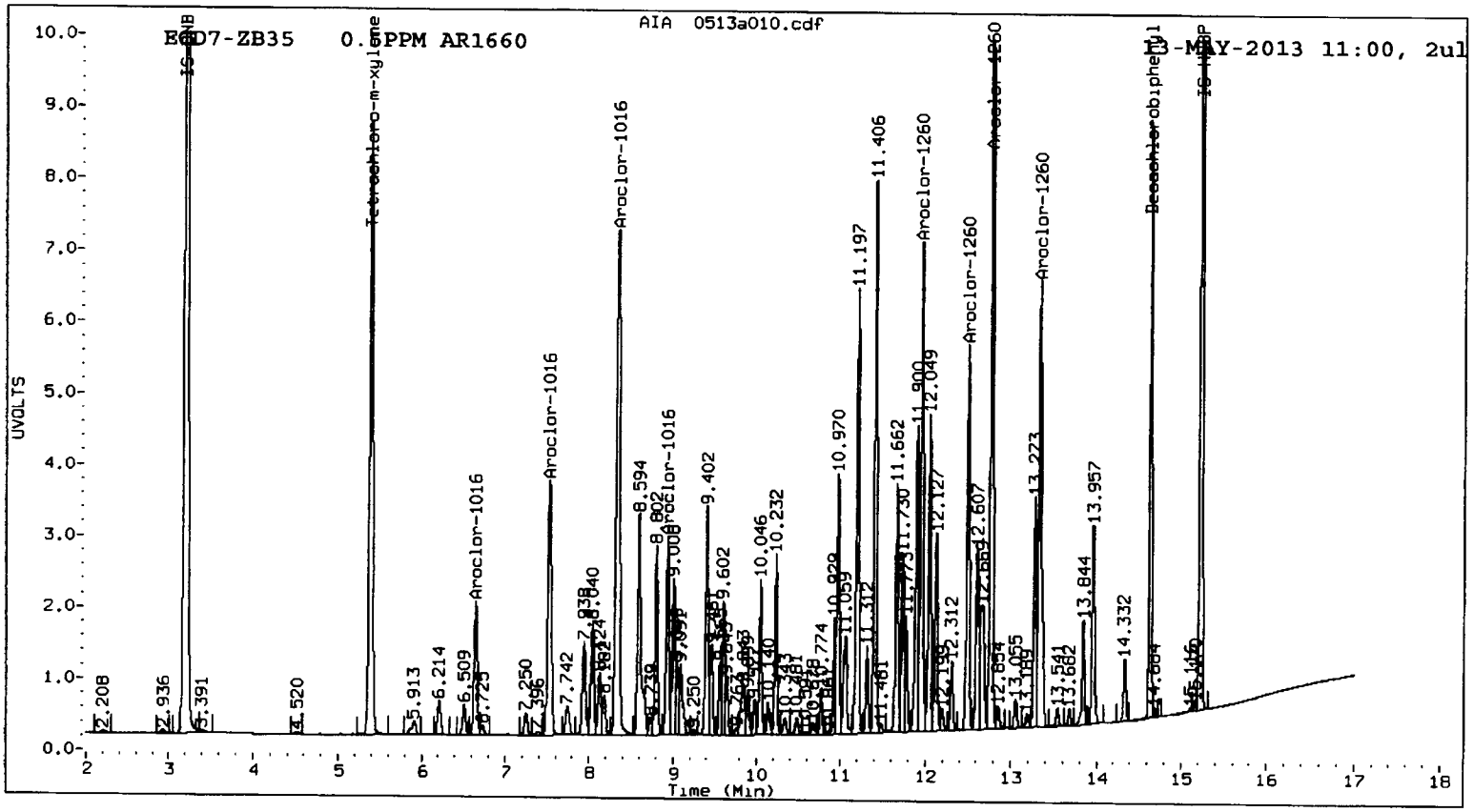
13-MAY-2013 11:00, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-DCBP
UVOLTS
Time (Min)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AIA 0513a010.cdf
13-MAY-2013 11:00, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-DCBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a011.d
Data file 2: 20130513.b/ical-2.b/0513a011.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 13-MAY-2013 11:22
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.735	0.002	2747753	5.392	0.004	4898938	43.2	40.9	5.5	Tetrachloro-m-xylene
14.593	0.000	2228823	14.633	0.000	3387287	41.5	42.5	2.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	107.9	102.1
Decachlorobiphenyl	103.8	106.4

JF 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5477153	0.4
Hexabromobiphenyl	4223695	4321157	2.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9774589	2.3
Hexabromobiphenyl	6702455	6628867	-1.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.746	0.000	348120	250.0	1	6.648	0.000	494754	250.0
Aroclor-1242	2	8.266	0.000	1164973	250.0	2	7.528	0.000	1000160	250.0
Aroclor-1242	3	8.453	0.000	458294	250.0	3	8.340	0.000	2040352	250.0
Aroclor-1242	4	9.417	0.000	433209	250.0	4	9.406	0.000	811317	250.0

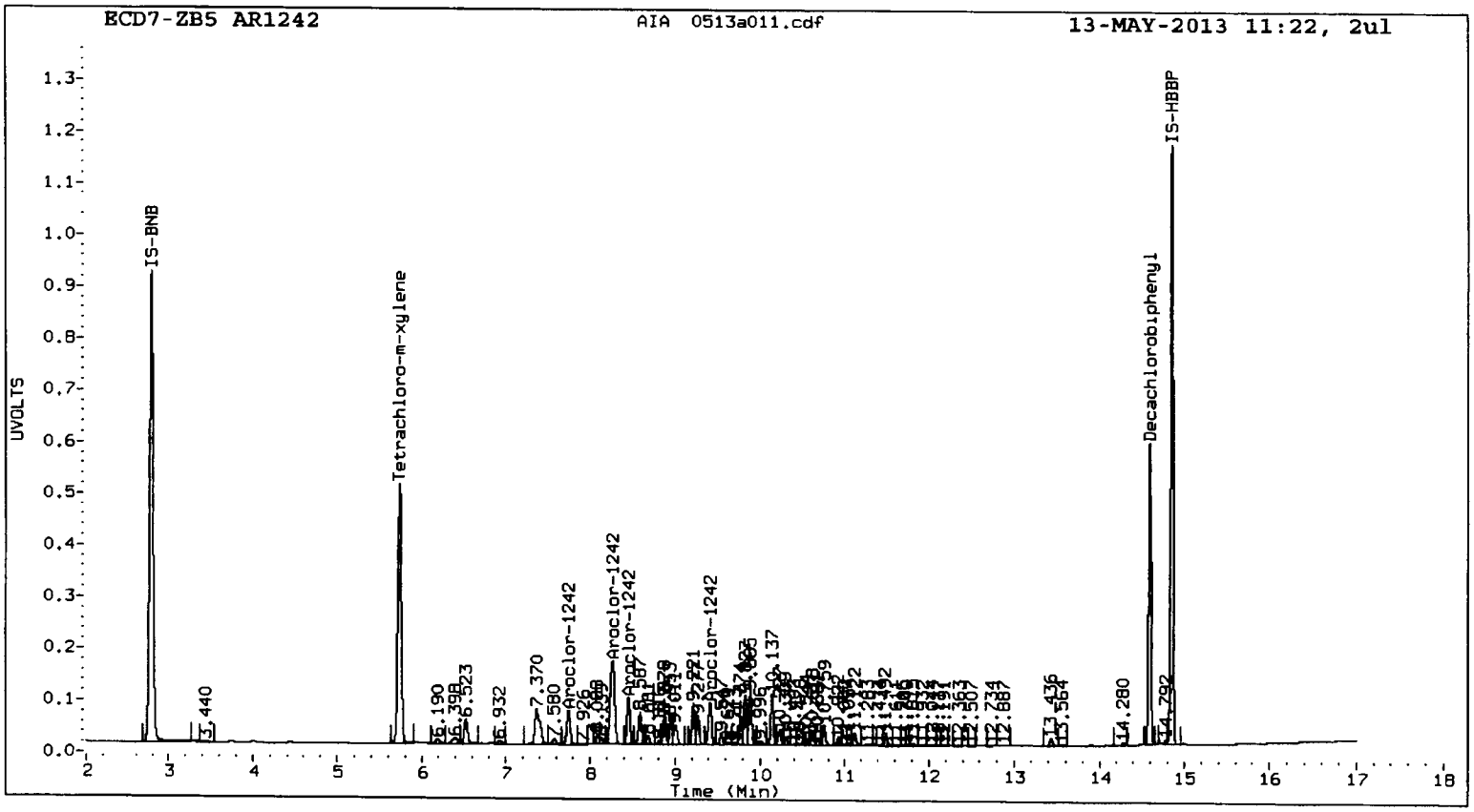
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.833 - 14.493) = 8521558 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 15486414 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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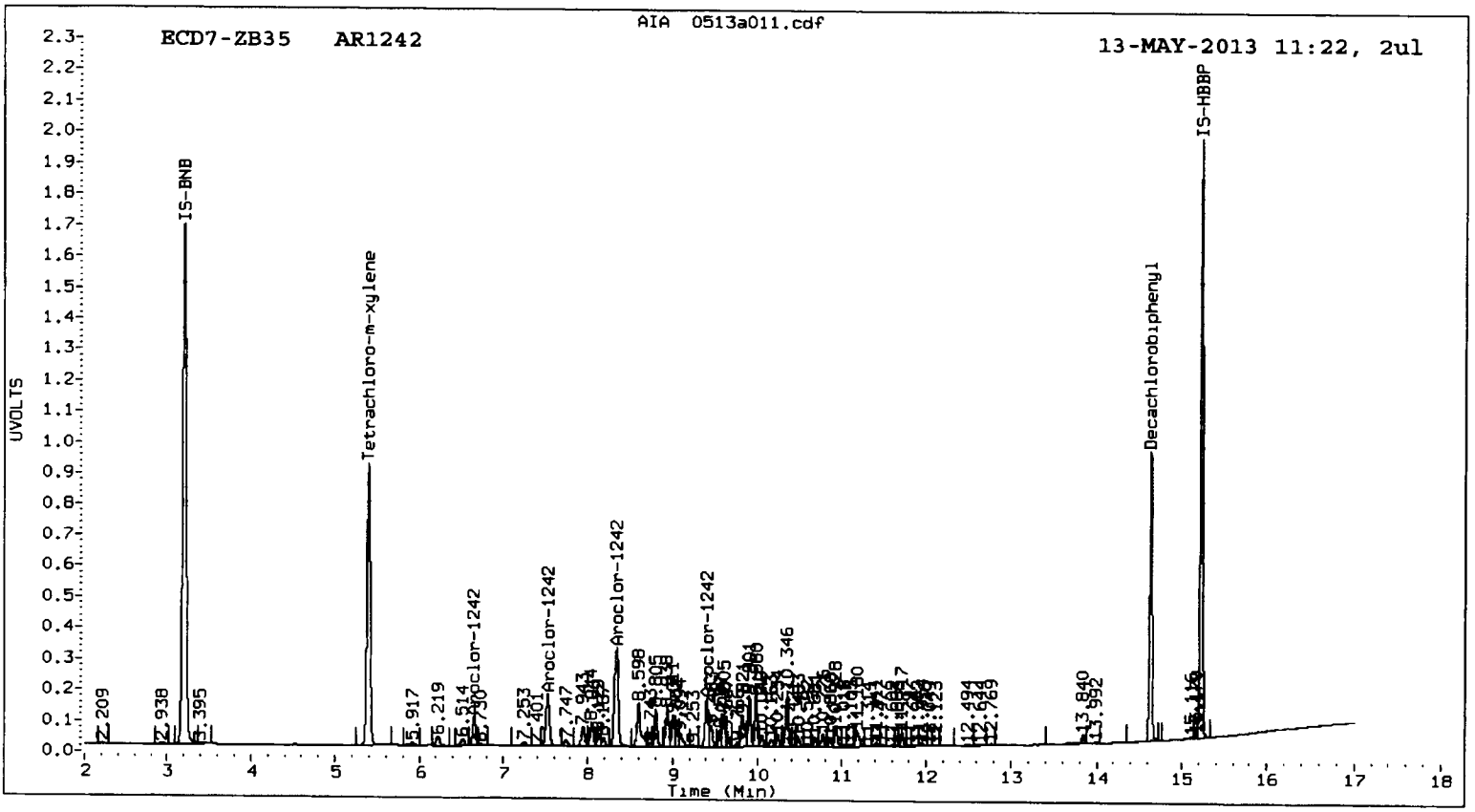
AIA 0513a011.cdf
13-MAY-2013 11:22, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP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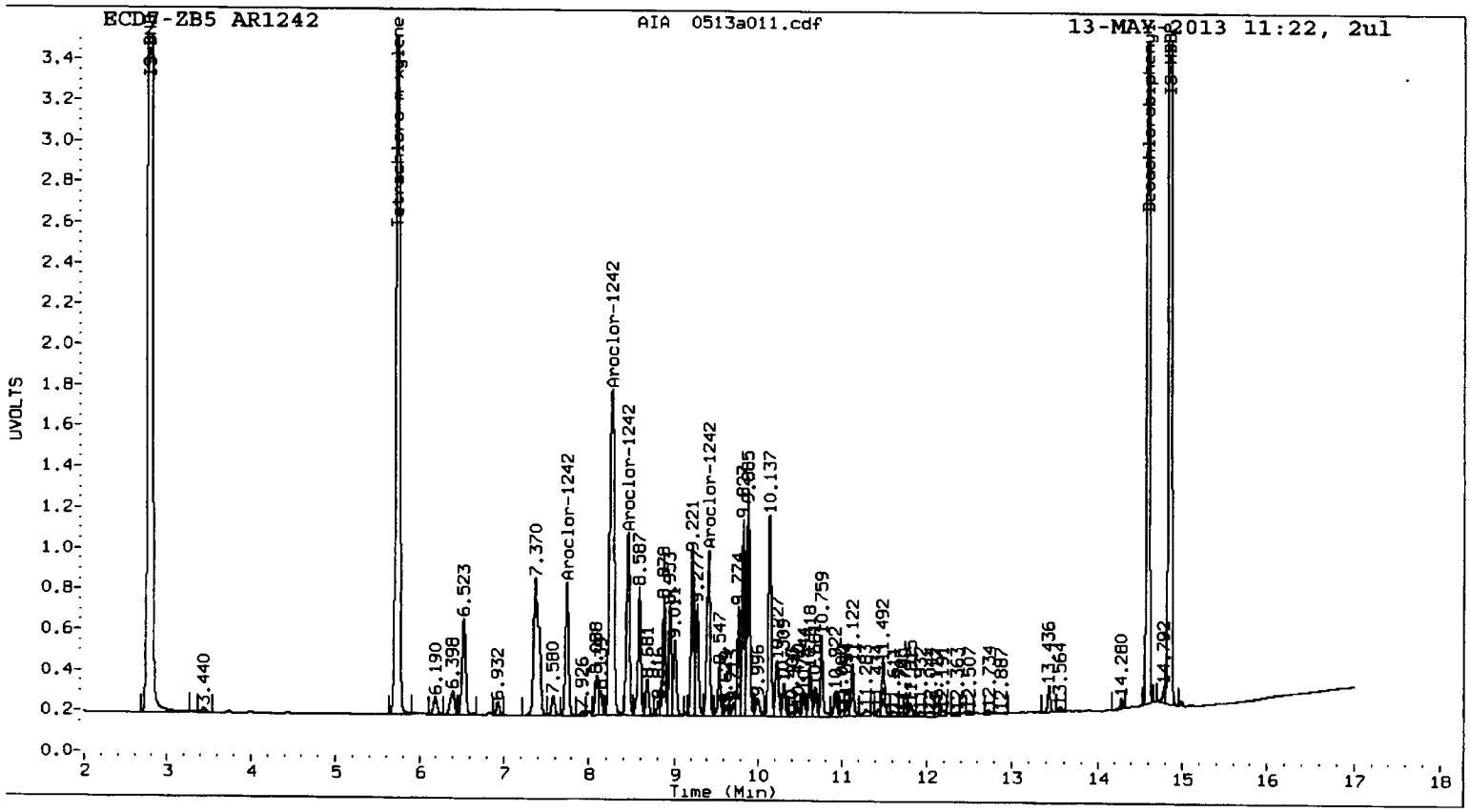
13-MAY-2013 11:22, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


ECD7-ZB5 AR1242
AIA 0513a011.cdf
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1242
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7.370
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9.221
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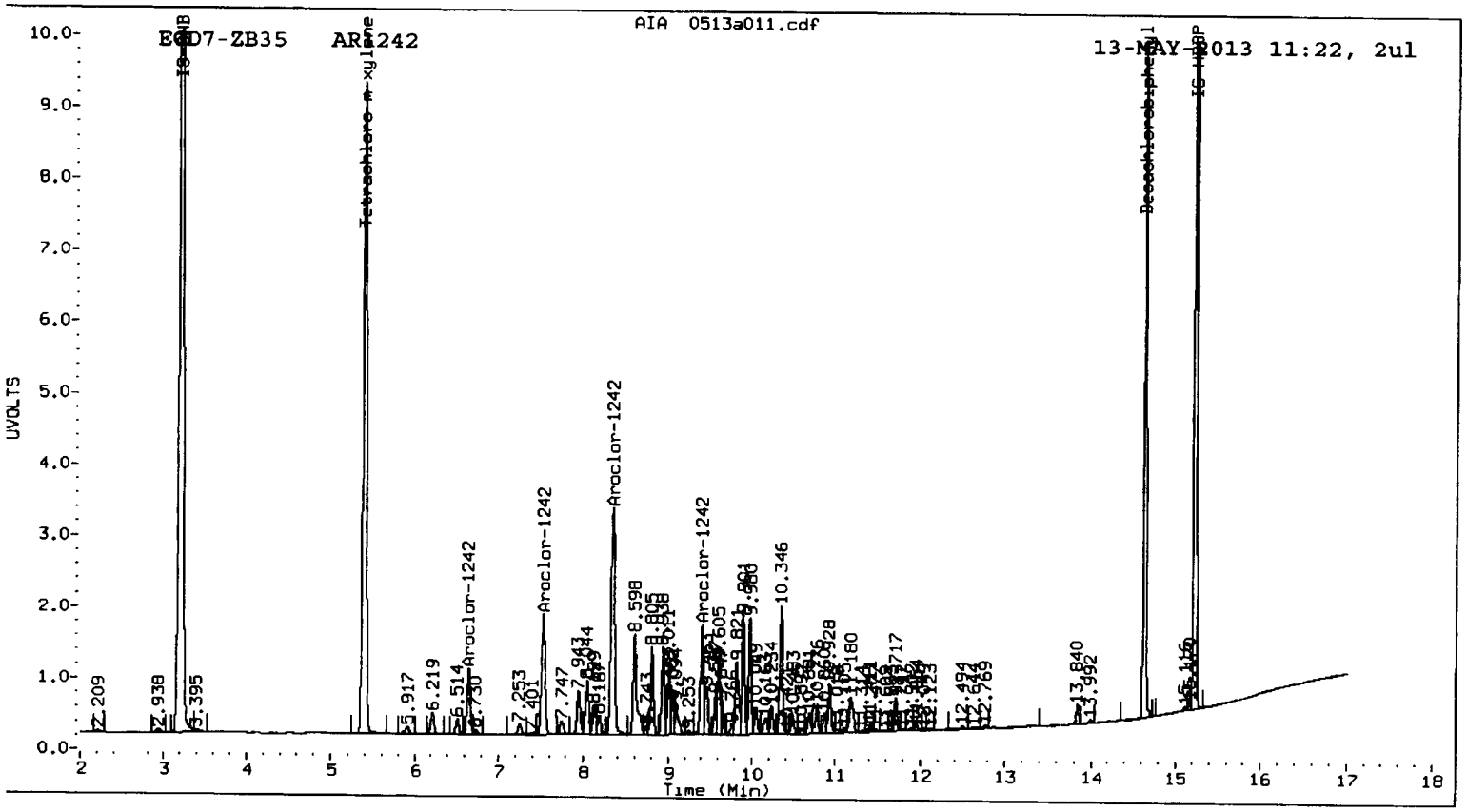
13.564
14.280
14.792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13-MAY-2013 11:22, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1242
6.219
6.514
7.253
7.747
8.598
10.346
13.840
13.992

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a012.d
Data file 2: 20130513.b/ical-2.b/0513a012.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 13-MAY-2013 11:44
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.737	0.004	2553389	5.393	0.005	4565037	38.8	36.9	4.9	Tetrachloro-m-xylene
14.592	-0.001	1989365	14.633	0.000	3007837	35.5	36.4	2.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	97.0	92.3
Decachlorobiphenyl	88.8	91.1

JL 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5664247	3.9
Hexabromobiphenyl	4223695	4507656	6.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10074876	5.4
Hexabromobiphenyl	6702455	6871133	2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1248	1	8.259	0.000	697421	250.0	1	7.527	0.000	475045	250.0
Aroclor-1248	2	8.877	0.000	454019	250.0	2	8.337	0.000	1276239	250.0
Aroclor-1248	3	9.416	0.000	643233	250.0	3	8.938	0.000	928224	250.0
Aroclor-1248	4	9.886	0.000	814575	250.0	4	10.346	0.000	1274636	250.0

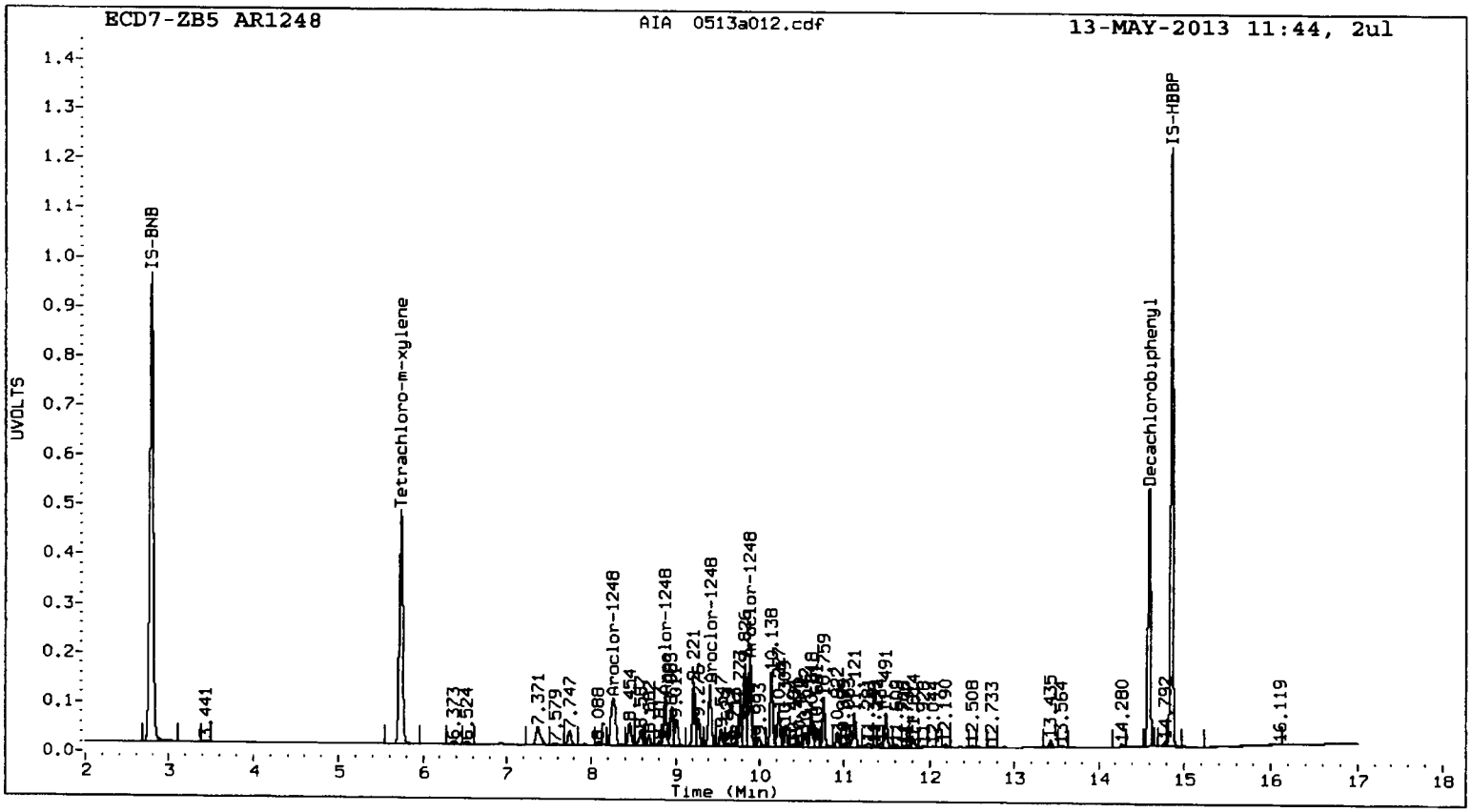
Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.833 - 14.493) = 10056779 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 17893834 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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AIA 0513a012.cdf
13-MAY-2013 11:44, 2ul
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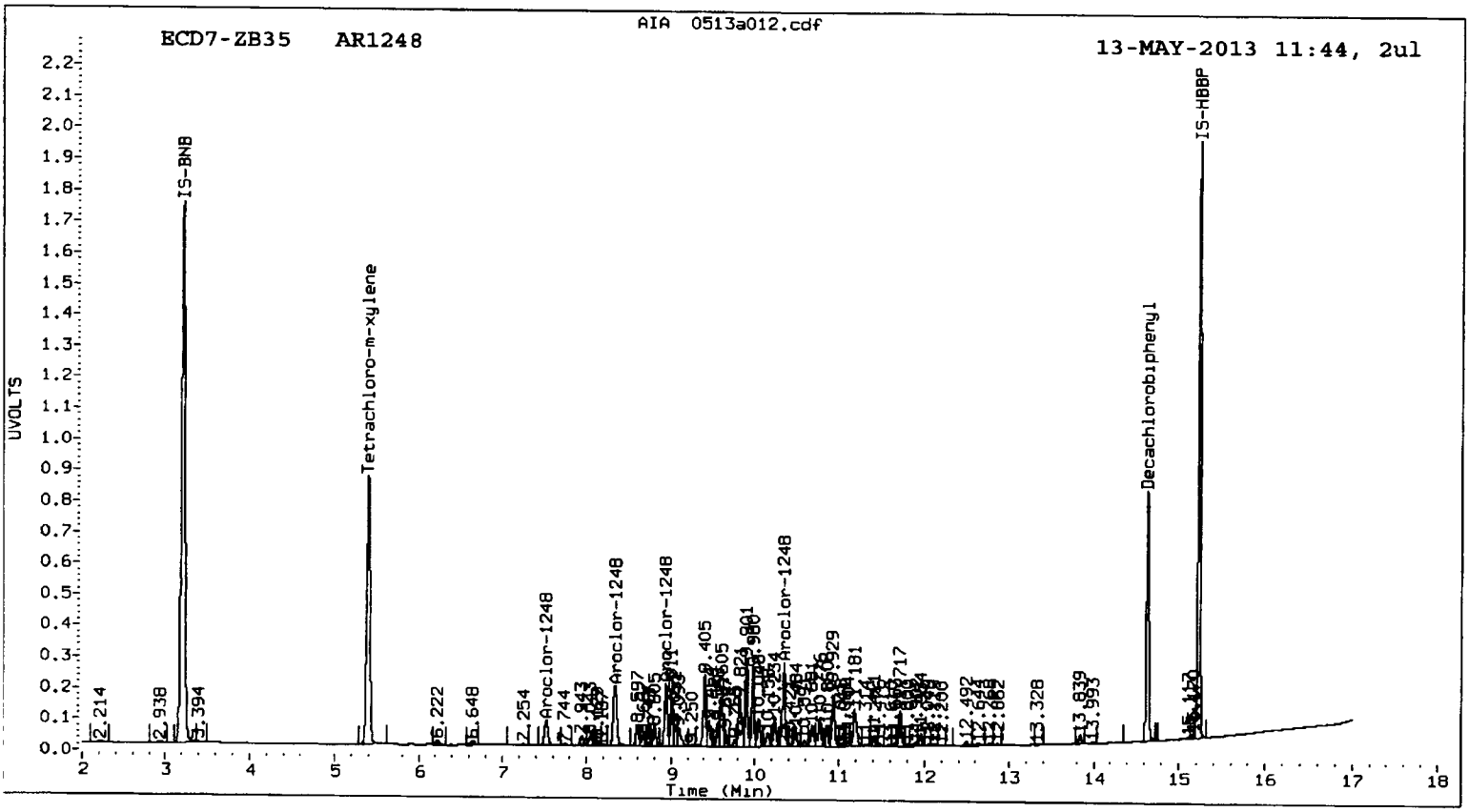
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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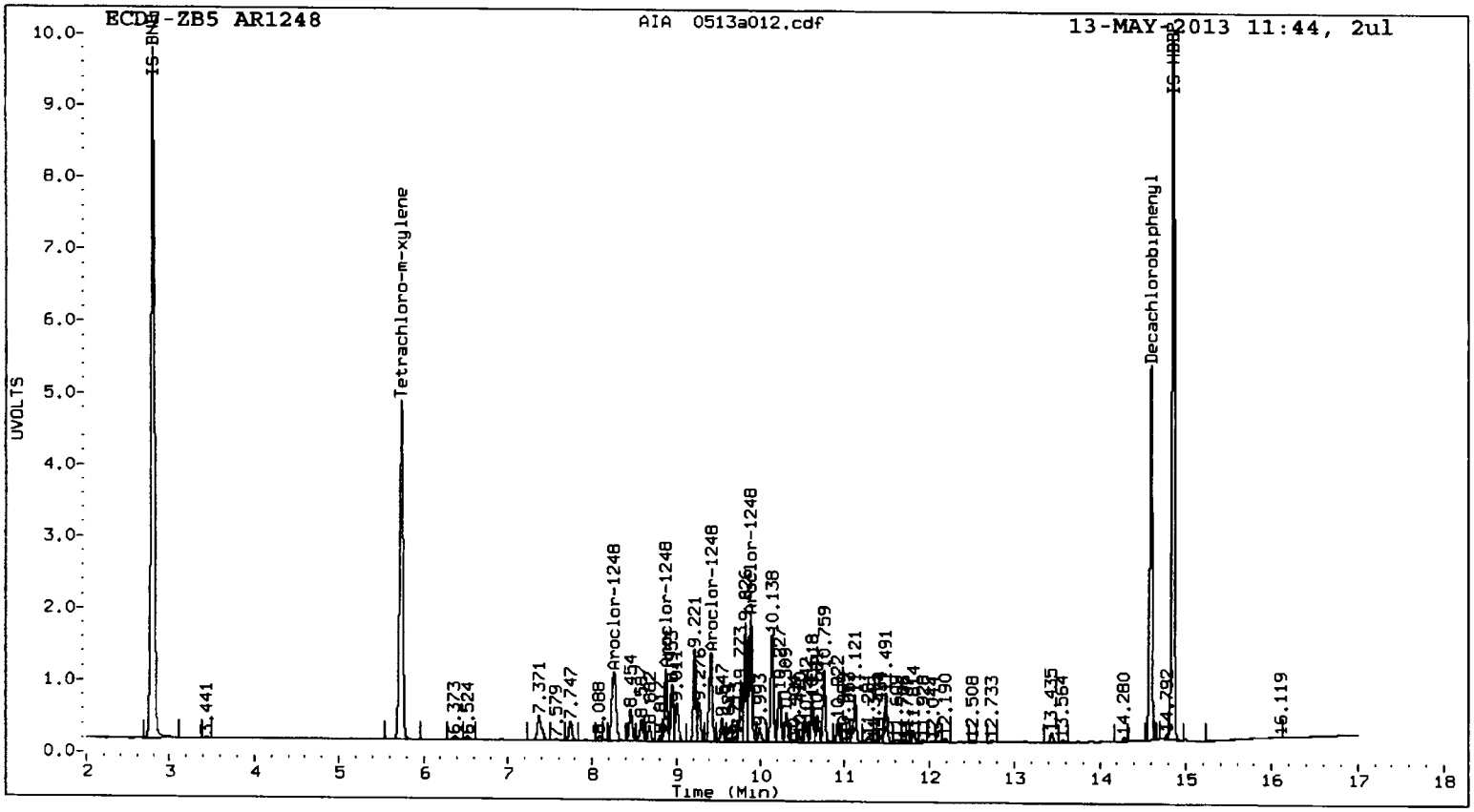
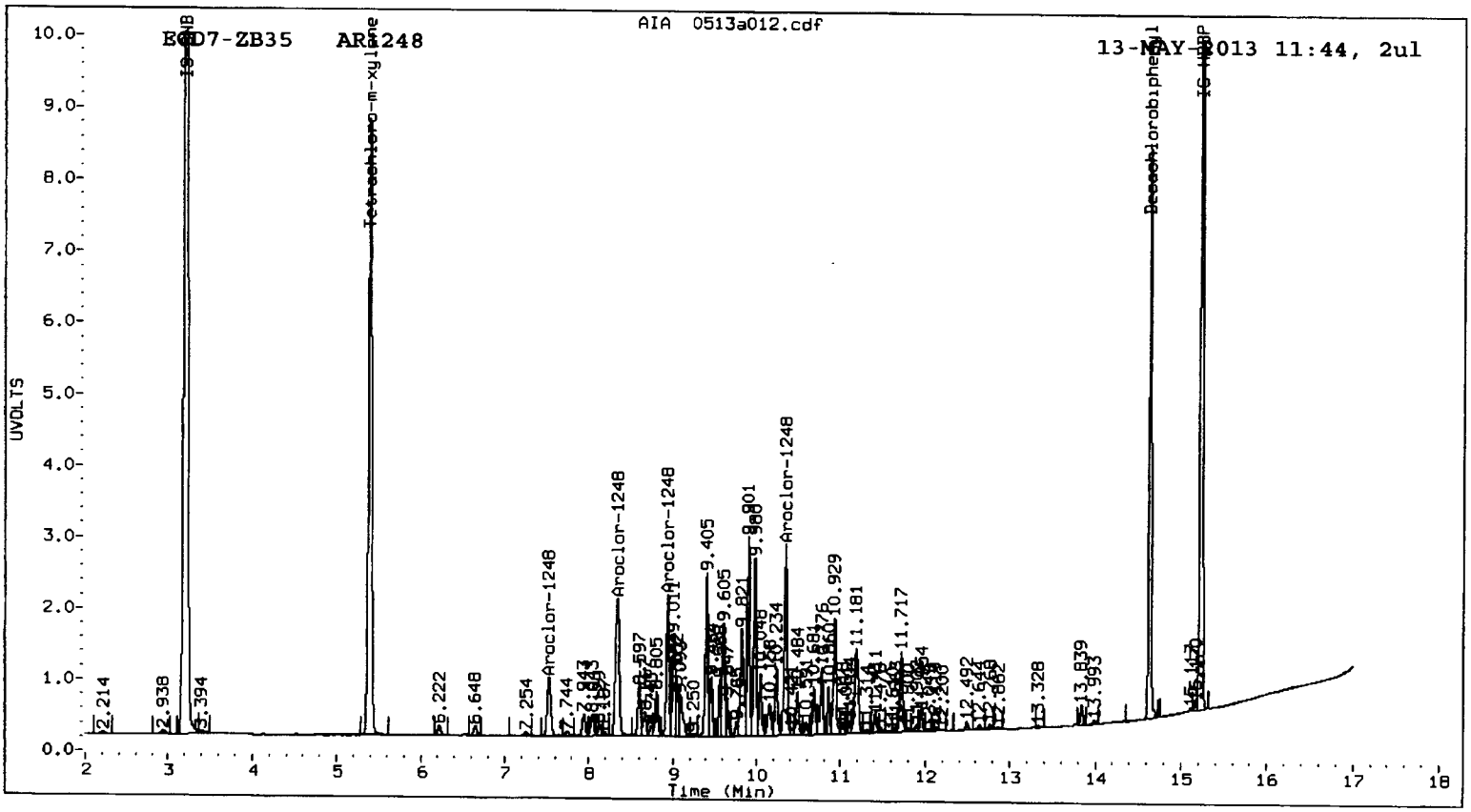
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


ECD7-ZB5 AR1248
AIA 0513a012.cdf
13-MAY-2013 11:44, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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13-MAY-2013 11:44, 2ul
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a013.d
Data file 2: 20130513.b/ical-2.b/0513a013.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 13-MAY-2013 12:06
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.735	0.002	3273356	5.392	0.003	5797878	40.1	38.1	5.0	Tetrachloro-m-xylene
14.593	0.000	2548986	14.634	0.001	4105886	36.4	36.2	0.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.2	95.4
Decachlorobiphenyl	91.1	90.5

JK 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7023013	28.8
Hexabromobiphenyl	4223695	5627395	33.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	12391227	29.7
Hexabromobiphenyl	6702455	9447663	41.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	ZB5 Col Peak#	RT	Shift	Area	Amount	ZB35 Col Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	10.228	0.000	1062608	250.0	1	10.049	0.000	1021350	250.0
Aroclor-1254	2	10.617	0.000	662475	250.0	2	10.234	0.000	1292805	250.0
Aroclor-1254	3	10.759	0.000	1297899	250.0	3	10.929	0.000	2139816	250.0
Aroclor-1254	4	11.118	0.000	1332745	250.0	4	11.184	0.000	2161872	250.0
Aroclor-1254	5	11.814	0.000	1318863	250.0	5	11.954	0.000	1557433	250.0

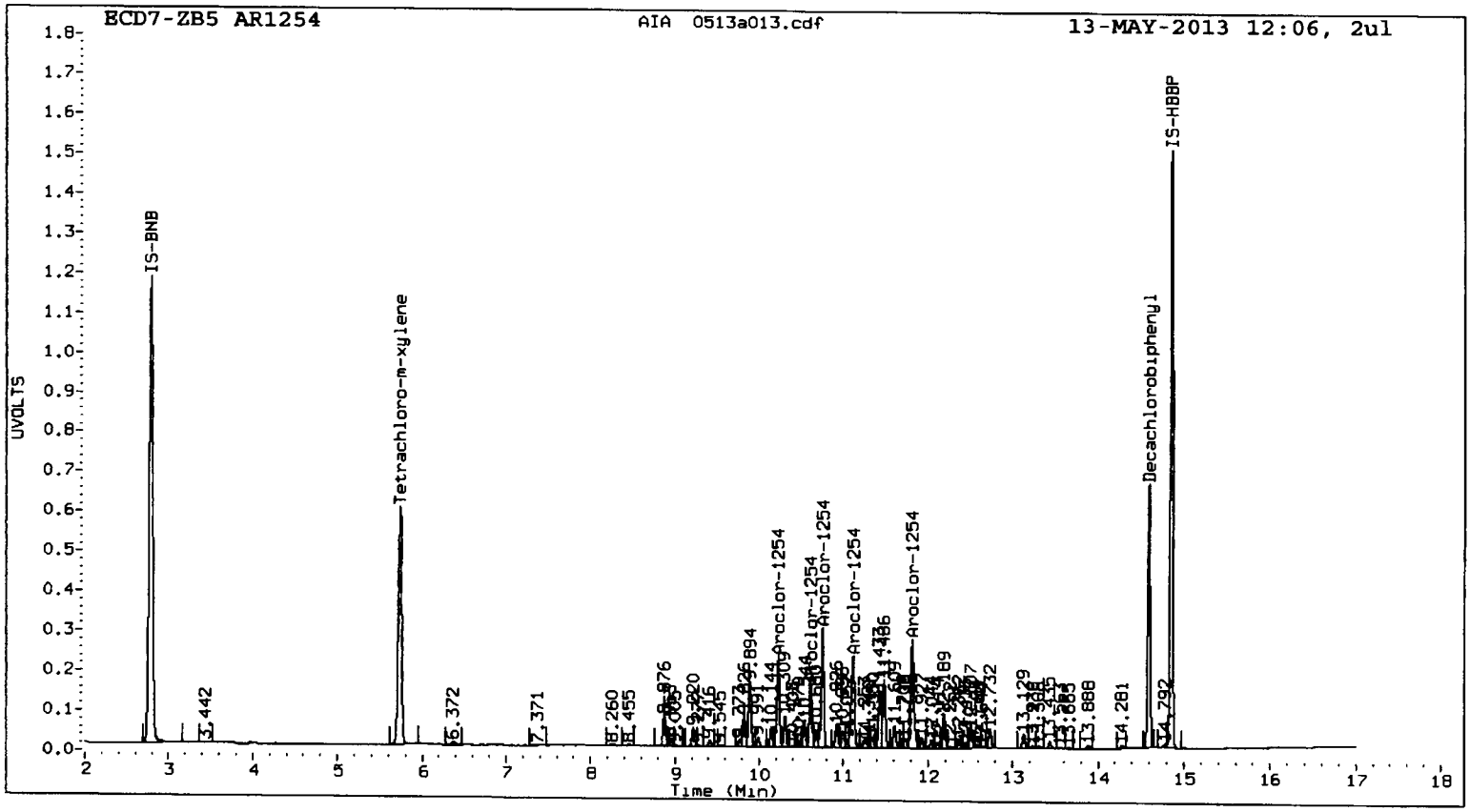
Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (5.833 - 14.493) = 13183766 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 21492058 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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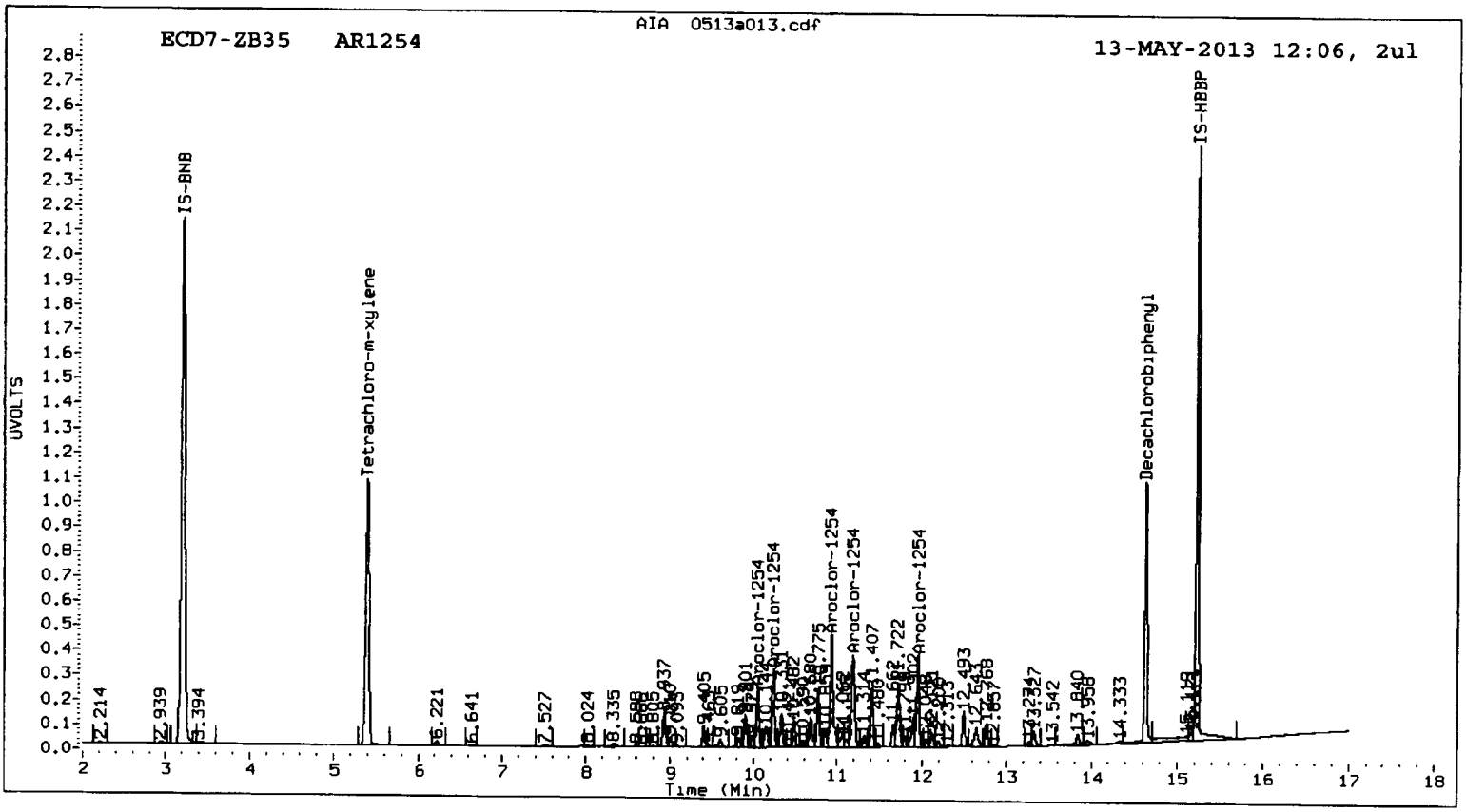
AIA 0513a013.cdf
13-MAY-2013 12:06, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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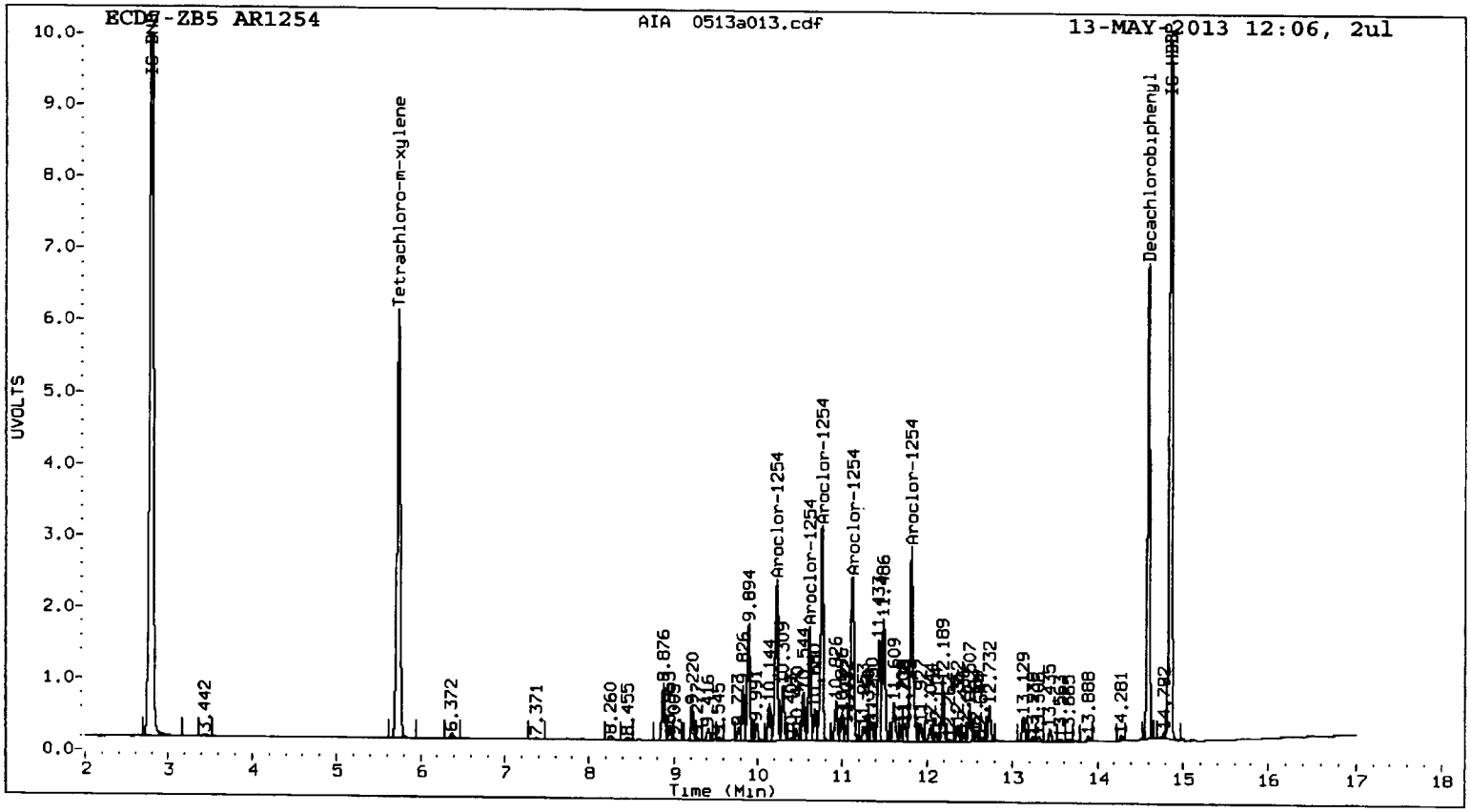
AIA 0513a013.cdf
13-MAY-2013 12:06, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP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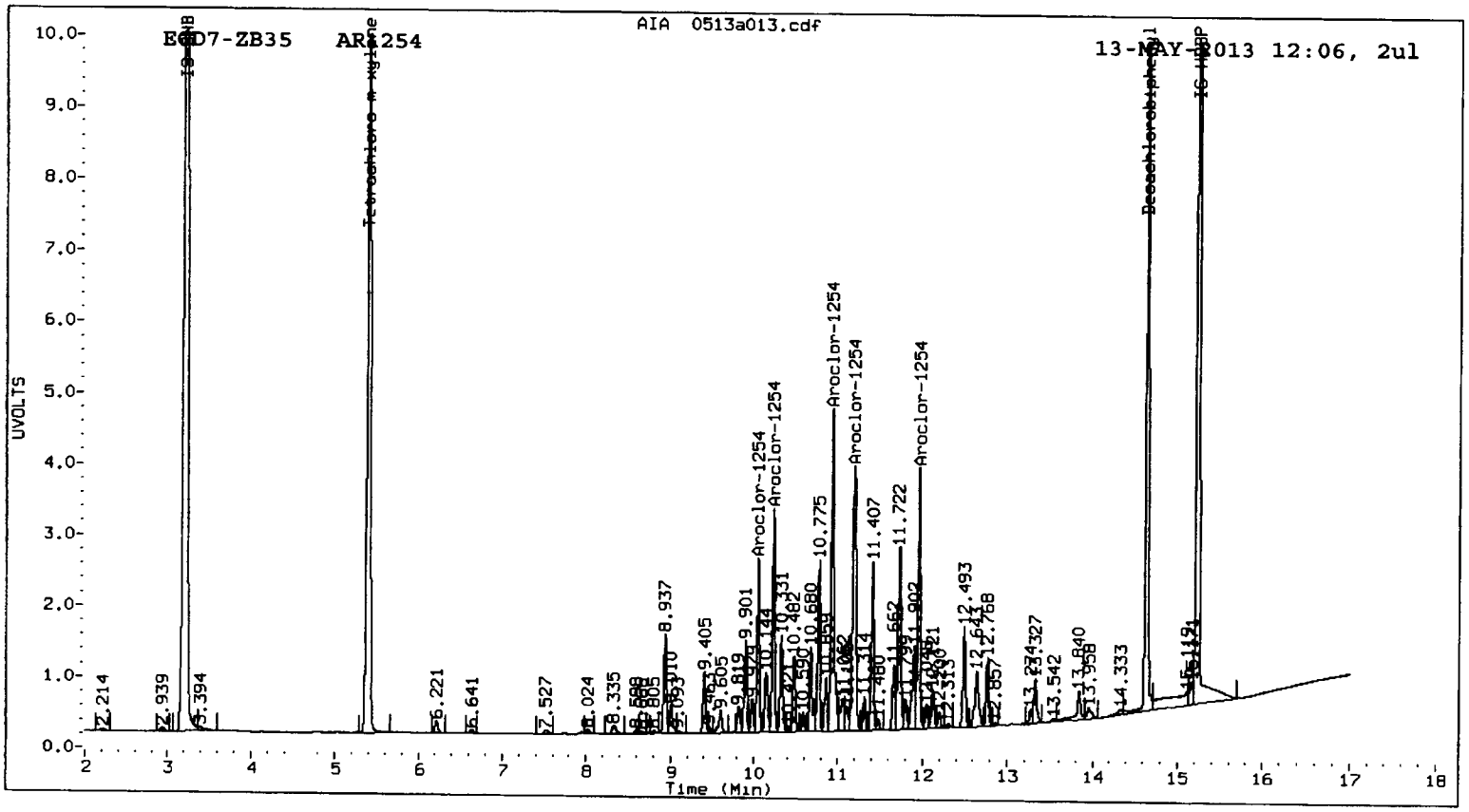
AIA 0513a013.cdf
13-MAY-2013 12:06, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1254
UVOLTS
Time (Min)


ECD7-ZB35 AR1254
AIA 0513a013.cdf
13-MAY-2013 12:06, 2ul
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1254
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a014.d
Data file 2: 20130513.b/ical-2.b/0513a014.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 13-MAY-2013 12:28
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.735	0.001	2713858	5.392	0.004	4797917	39.7	37.8	4.8	Tetrachloro-m-xylene
14.592	-0.001	2071205	14.633	0.000	3178240	35.9	37.2	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

JR 05/14/13

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.3	94.6
Decachlorobiphenyl	89.6	93.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5880460	7.8
Hexabromobiphenyl	4223695	4648818	10.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10338415	8.2
Hexabromobiphenyl	6702455	7110547	6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

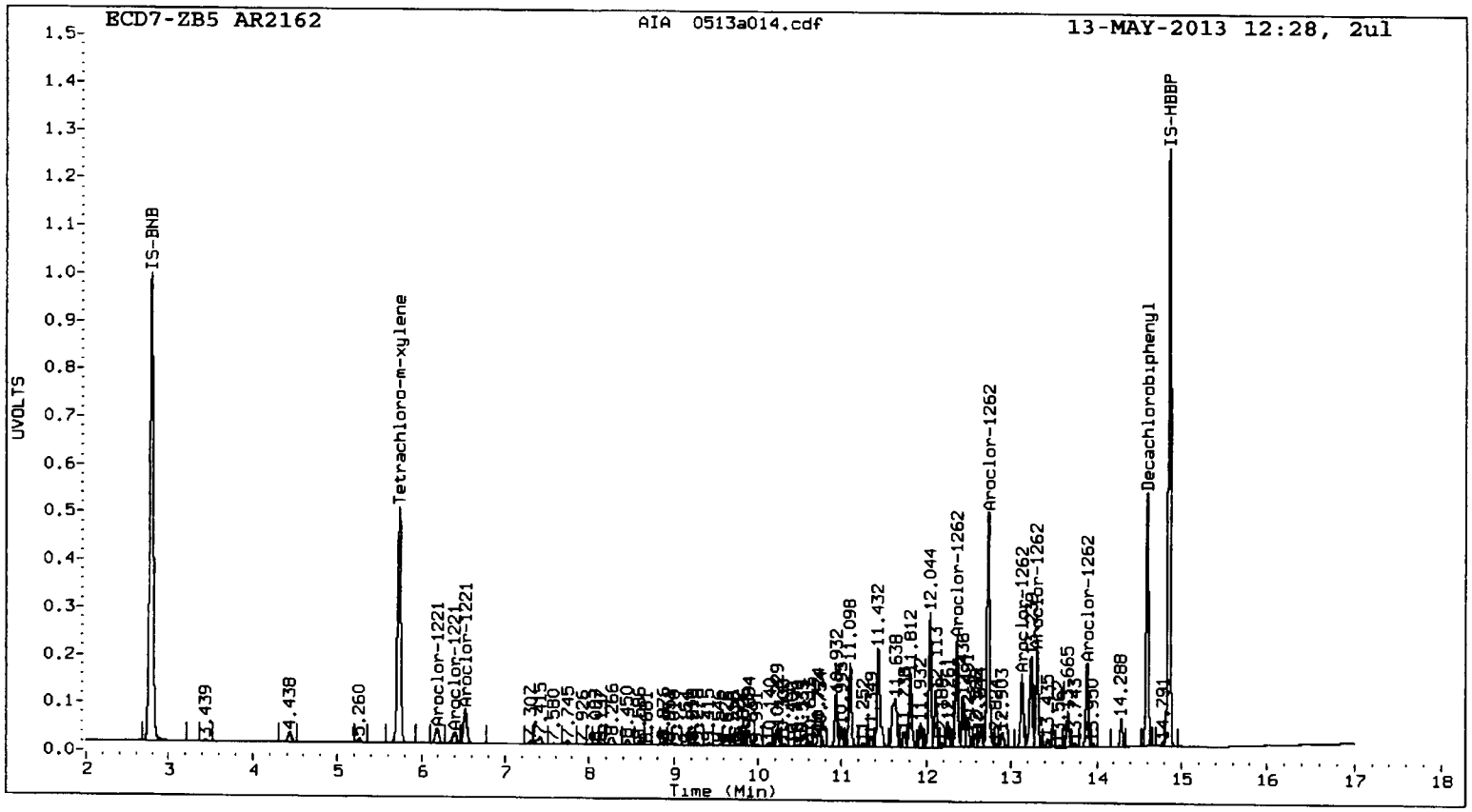
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1221	1	6.191	0.000	172821	250.0	1	6.215	0.000	403072	250.0
Aroclor-1221	2	6.400	0.000	145725	250.0	2	6.512	0.000	233572	250.0
Aroclor-1221	3	6.523	0.000	424400	250.0	3	6.647	0.000	701803	250.0
Aroclor-1221	NS	---			----	4	7.540	0.000	255385	250.0
	Total Col1Ave (3 peaks):				250.0	Total Col2Ave (4 peaks):			250.0	RPD = 0
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):			250.0	
Aroclor-1262	1	12.361	0.000	986775	250.0	1	12.498	0.000	1628650	250.0
Aroclor-1262	2	12.731	0.000	2274632	250.0	2	12.767	0.000	3254227	250.0
Aroclor-1262	3	13.128	0.000	740173	250.0	3	13.273	0.000	1412662	250.0
Aroclor-1262	4	13.307	0.000	871301	250.0	4	13.330	0.000	2132162	250.0
Aroclor-1262	5	13.887	0.000	700583	250.0	5	13.957	0.000	1132409	250.0
	Total Col1Ave (5 peaks):				250.0	Total Col2Ave (5 peaks):			250.0	RPD = 0
	Corrected Ave (4 peaks):				250.0	Corrected Ave (4 peaks):			250.0	RPD = 0

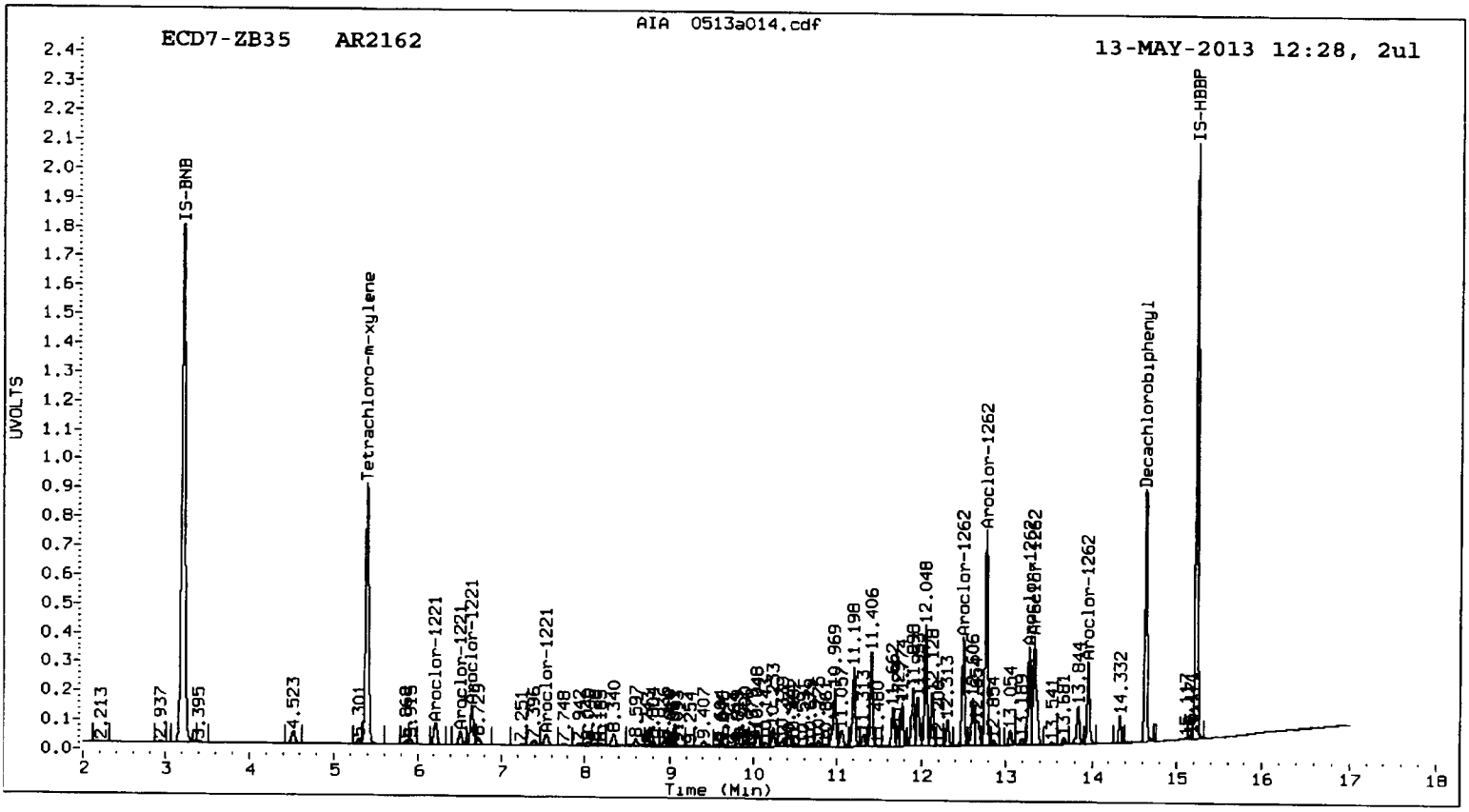
Total PCB Area Col1 (5.833 - 14.493) = 17154187 Col1 Total PCB = 0.4 ppm*

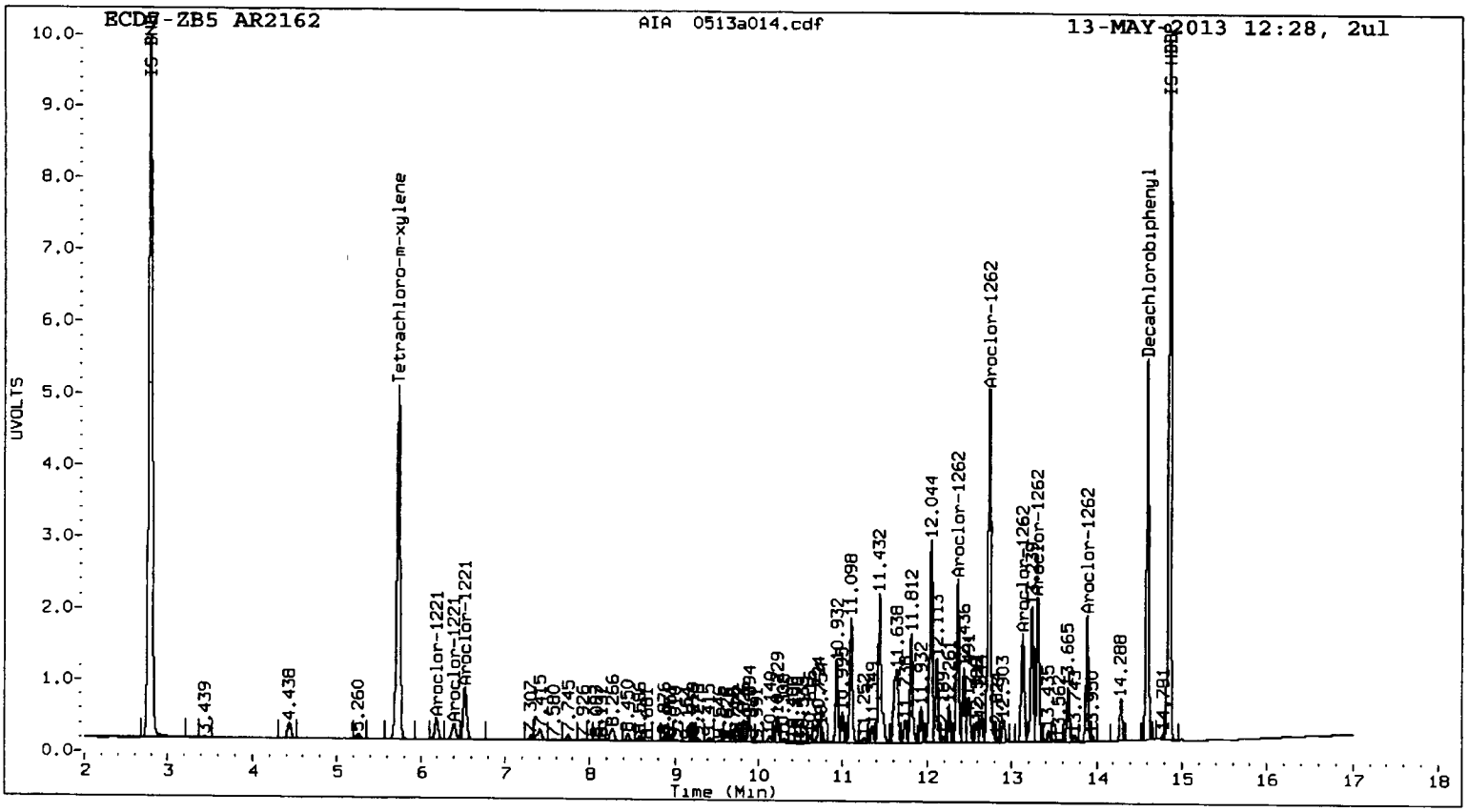
Total PCB Area Col2 (5.488 - 14.533) = 27726709 Col2 Total PCB = 0.4 ppm*

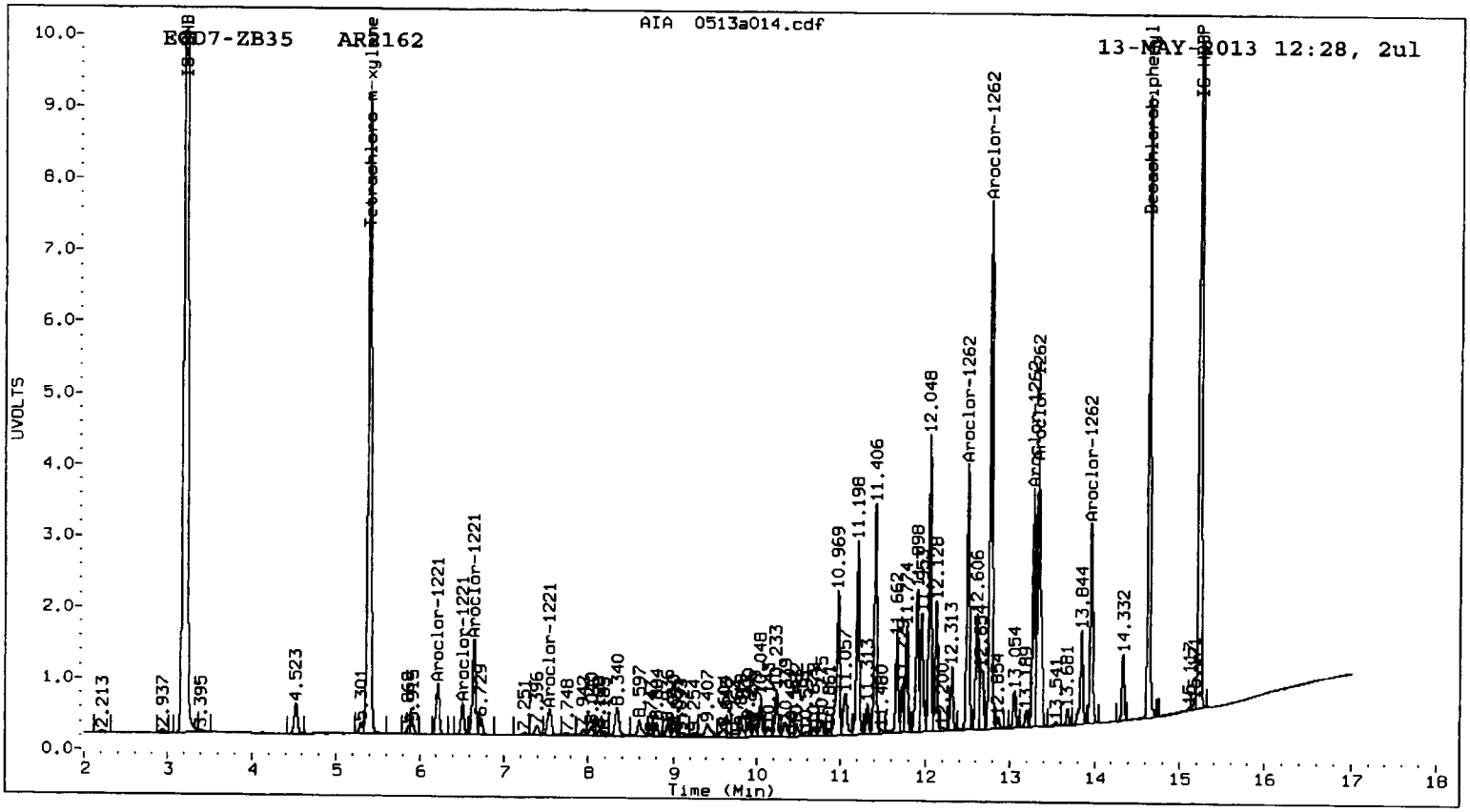
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD7-ZB5 AR2162
AIA 0513a014.cdf
13-MAY-2013 12:28, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Decachlorobiphenyl
IS-HBBP


ECD7-ZB35 AR2162
AIA 0513a014.cdf
13-MAY-2013 12:28, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Decachlorobiphenyl
IS-HBBP


ECD7-ZB5 AR2162
AIA 0513a014.cdf
13-MAY-2013 12:28, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


ECD7-ZB35 AR2162
AIA 0513a014.cdf
13-MAY-2013 12:28, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1262
Aroclor-1262
Aroclor-1262
Aroclor-1262
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a015.d
Data file 2: 20130513.b/ical-2.b/0513a015.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 13-MAY-2013 12:50
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	2689243	5.388	0.000	4768070	39.4	37.5	4.9	Tetrachloro-m-xylene
14.593	0.000	3033792	14.633	0.000	4620357	51.7	53.7	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	98.6	93.9
Decachlorobiphenyl	129.2	134.2

JA 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5865530	7.5
Hexabromobiphenyl	4223695	4724358	11.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10354228	8.3
Hexabromobiphenyl	6702455	7164877	6.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

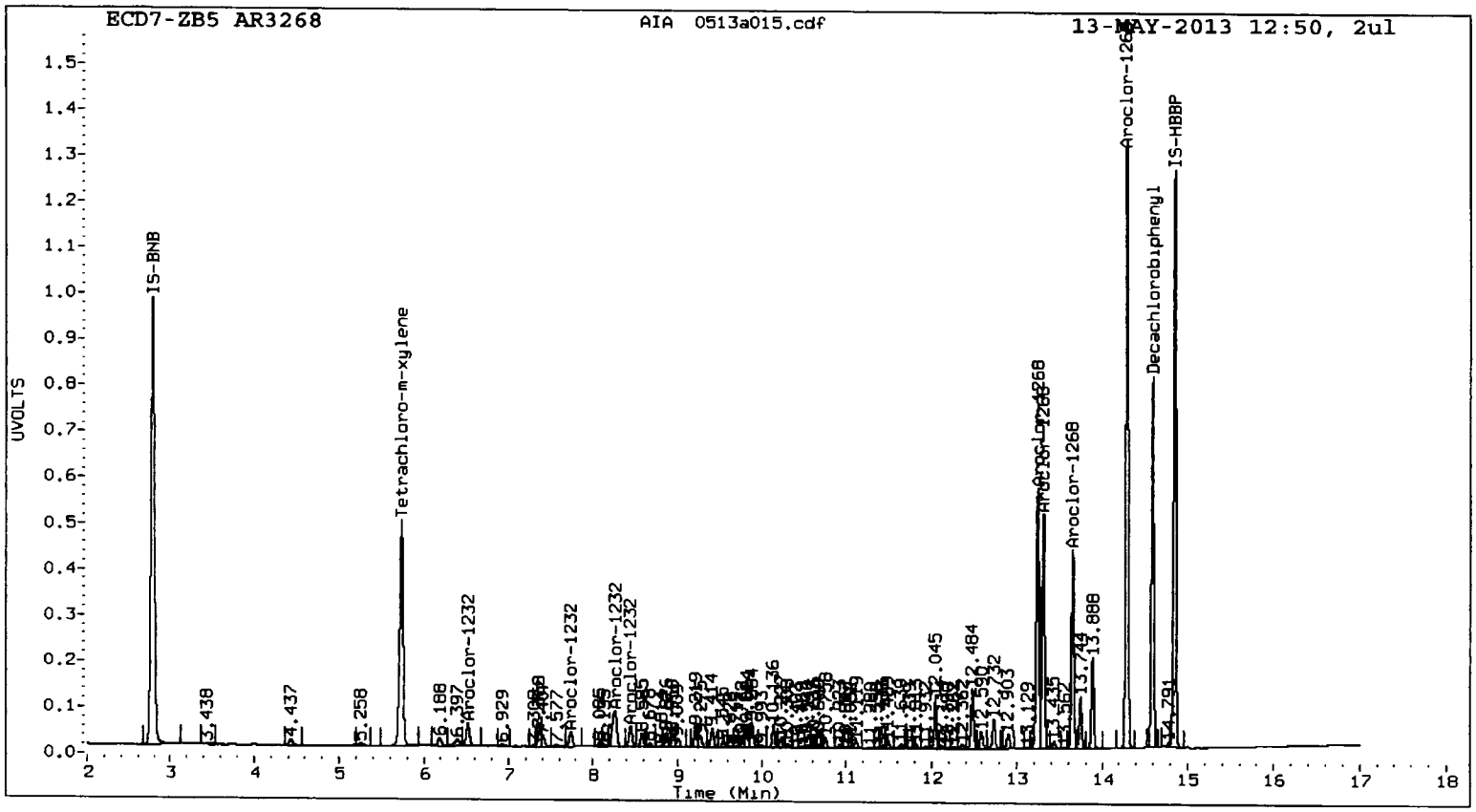
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1232	1	6.520	0.000	284458	250.0	1	6.645	0.000	505163	250.0
Aroclor-1232	2	7.743	0.000	175535	250.0	2	7.525	0.000	569364	250.0
Aroclor-1232	3	8.263	0.000	573802	250.0	3	8.337	0.000	1074788	250.0
Aroclor-1232	4	8.449	0.000	231210	250.0	4	8.936	0.000	366312	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	13.239	0.000	2455163	250.0	1	13.273	0.000	3427563	250.0
Aroclor-1268	2	13.306	0.000	2191474	250.0	2	13.335	0.000	3217661	250.0
Aroclor-1268	3	13.651	0.000	1812689	250.0	3	13.681	0.000	2590345	250.0
Aroclor-1268	4	14.288	0.000	5103729	250.0	4	14.332	0.000	7733857	250.0
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0 RPD = 0

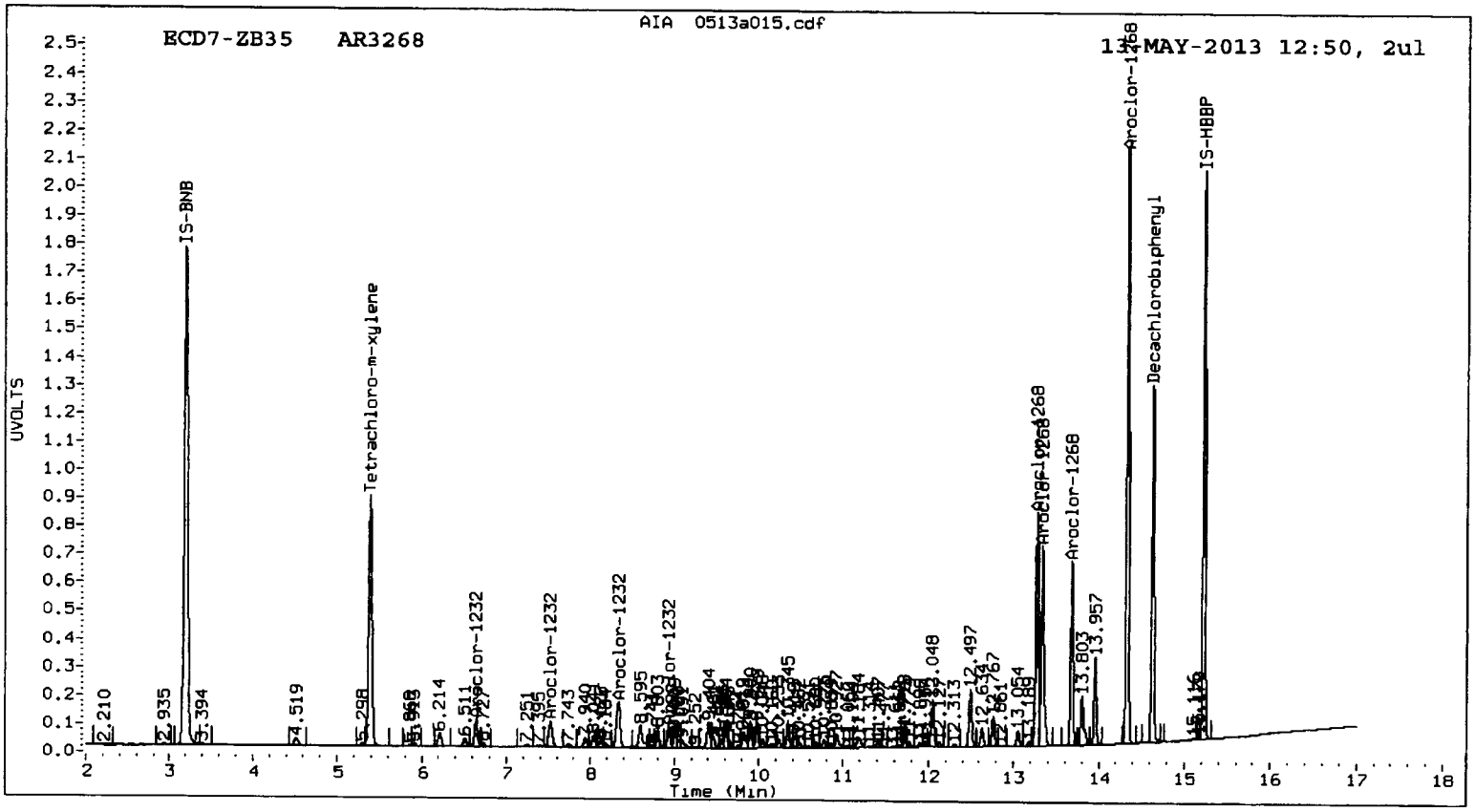
Total PCB Area Col1 (5.833 - 14.493) = 19798291 Col1 Total PCB = 0.5 ppm*

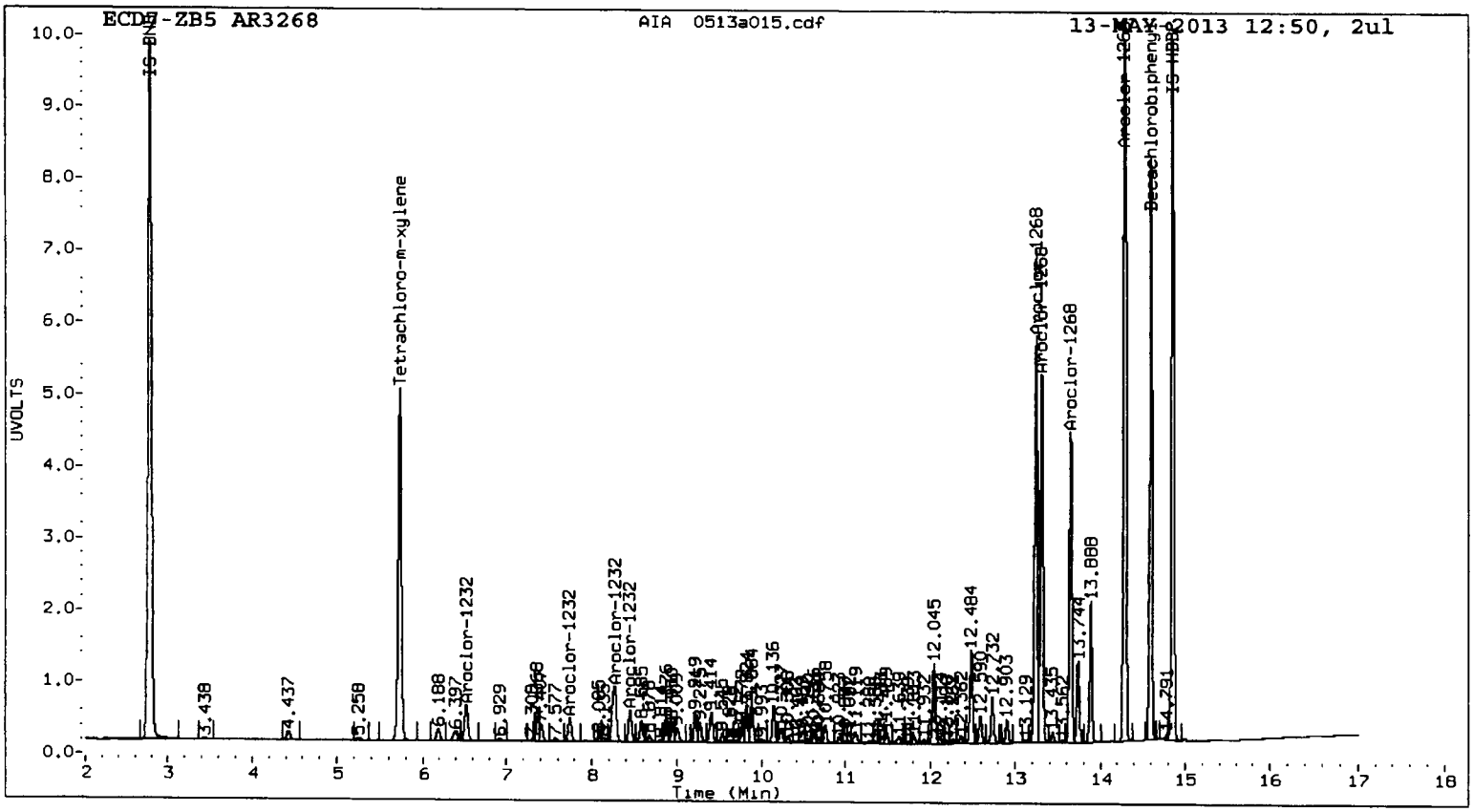
Total PCB Area Col2 (5.488 - 14.533) = 31996539 Col2 Total PCB = 0.5 ppm*

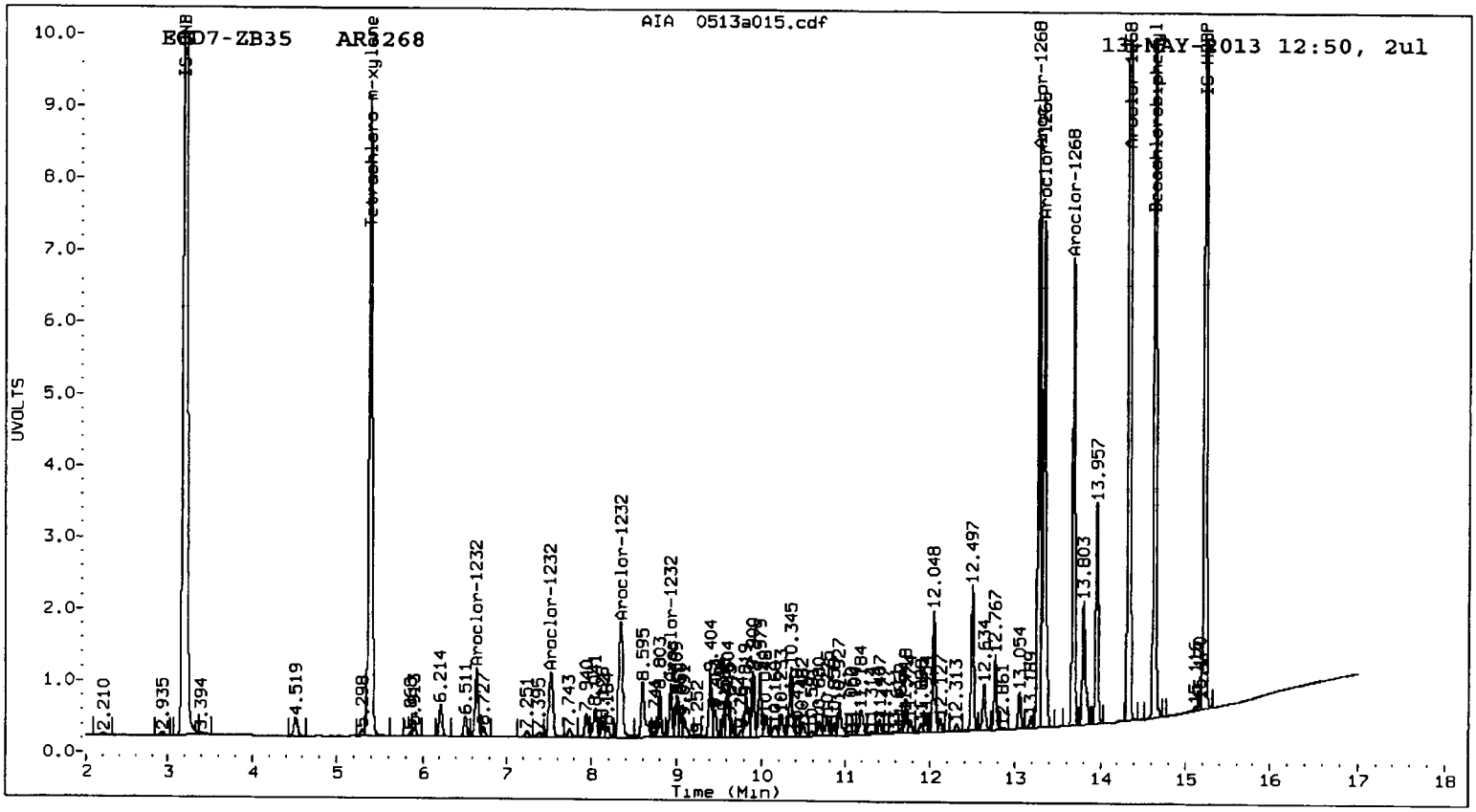
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD7-ZB5 AR3268
AIA 0513a015.cdf
13-MAY-2013 12:50, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD7-ZB35 AR3268
AIA 0513a015.cdf
13-MAY-2013 12:50, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD7-ZB5 AR3268
AIA 0513a015.cdf
13-MAY-2013 12:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
13.888
13.744
12.484
12.045
12.903
12.732
13.129
14.291
13.438
14.437
15.258
16.188
16.397
16.929


ECD7-ZB35 AR3268
AIA 0513a015.cdf
13-MAY-2013 12:50, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
13.957
13.803
12.497
12.048
12.634
12.767
13.054
12.313
12.861
12.127
2.210
2.935
3.394
4.519
5.298
6.214
6.511
6.727
7.251
7.395
7.743
8.595
10.345

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a016.d
Data file 2: 20130513.b/ical-2.b/0513a016.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV1660
Client ID:
Injection Date: 13-MAY-2013 13:12
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	2612198	5.389	0.001	4642497	43.0	40.5	5.9	Tetrachloro-m-xylene
14.593	0.000	2041030	14.633	0.000	3108003	39.5	41.0	3.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	107.4	101.3
Decachlorobiphenyl	98.8	102.5

JK 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5229612	-4.1
Hexabromobiphenyl	4223695	4157104	-1.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9344927	-2.2
Hexabromobiphenyl	6702455	6312124	-5.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

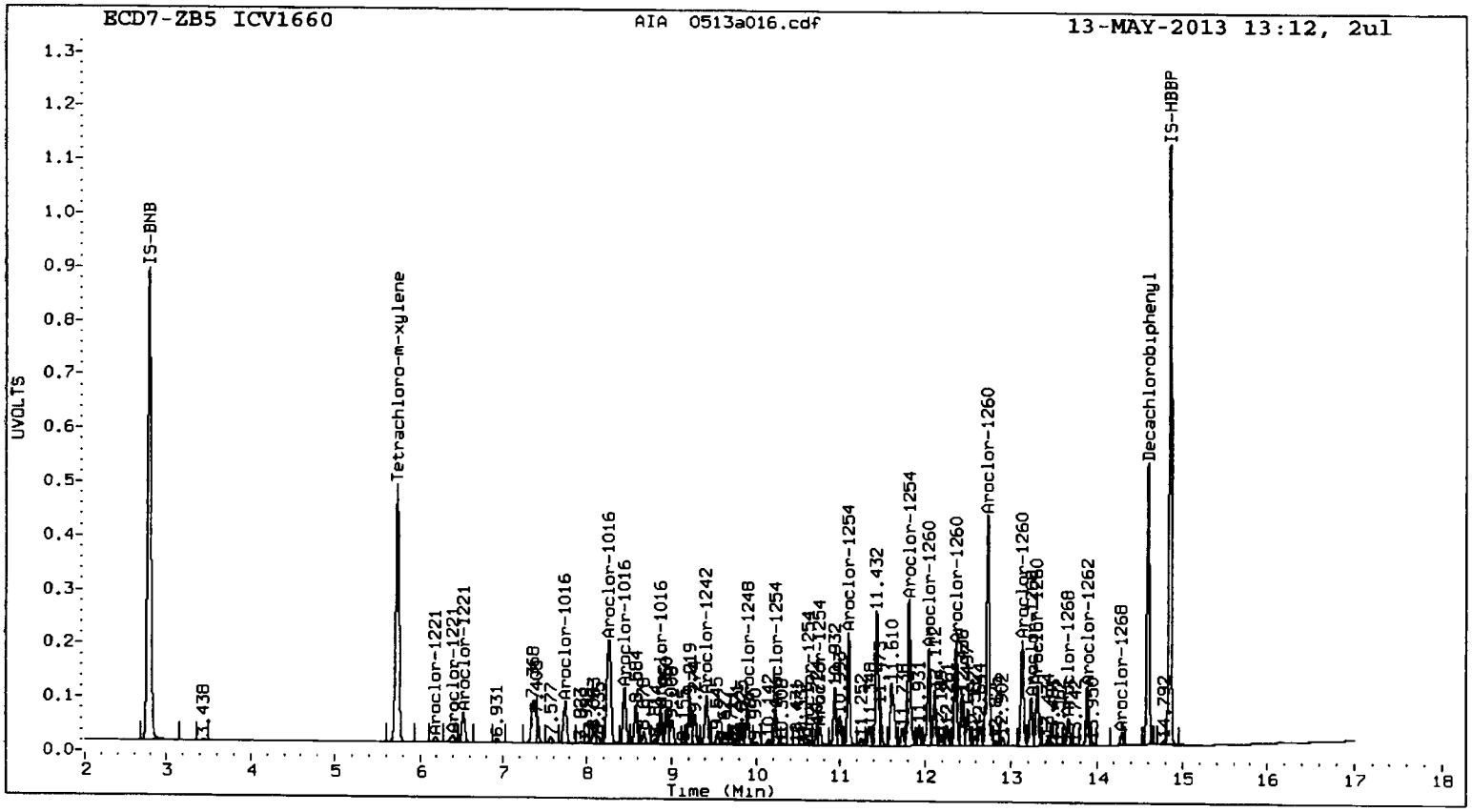
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	7.742	0.002	408523	253.4	1	6.645	-0.001	563809	256.1	
Aroclor-1016	2	8.263	0.000	1364868	251.8	2	7.524	-0.001	1167979	240.8	
Aroclor-1016	3	8.449	0.001	539378	250.7	3	8.336	-0.002	2359045	238.9	
Aroclor-1016	4	8.874	0.001	310563	239.5	4	8.936	0.000	684457	230.7	
	Total Col1Ave (4 peaks):				248.9		Total Col2Ave (4 peaks):			241.6	RPD = 3
	Corrected Ave (3 peaks):				247.3		Corrected Ave (3 peaks):			236.8	RPD = 4
Aroclor-1221	1	6.187	-0.004	58530	95.2	1	6.215	0.000	182538	125.3	
Aroclor-1221	2	6.397	-0.002	91584	176.7	2	6.510	-0.002	133310	157.9	
Aroclor-1221	3	6.520	-0.003	307317	203.6	3	6.645	-0.002	563809	222.2	
Aroclor-1221	NS	---			----	4	7.524	-0.016	1167979	1264.9	
	Total Col1Ave (3 peaks):				158.5		Total Col2Ave (4 peaks):			442.6	RPD = 95*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			168.4	
Aroclor-1232	1	6.520	0.000	307317	302.9	1	6.645	0.000	563809	309.2	
Aroclor-1232	2	7.742	-0.001	408523	652.6	2	7.524	-0.001	1167979	568.2	
Aroclor-1232	3	8.263	0.000	1364868	667.0	3	8.336	-0.001	2359045	608.0	
Aroclor-1232	4	8.449	-0.001	539378	654.1	4	8.936	0.000	684457	517.6	
	Total Col1Ave (4 peaks):				569.2		Total Col2Ave (4 peaks):			500.7	RPD = 13
	Corrected Ave (3 peaks):				536.5		Corrected Ave (3 peaks):			465.0	RPD = 14
Aroclor-1242	1	7.742	-0.004	408523	307.3	1	6.645	-0.003	563809	298.0	
Aroclor-1242	2	8.263	-0.003	1364868	306.8	2	7.524	-0.004	1167979	305.4	
Aroclor-1242	3	8.449	-0.004	539378	308.2	3	8.336	-0.004	2359045	302.3	
Aroclor-1242	4	9.414	-0.002	492782	297.8	4	9.403	-0.003	857451	276.4	
	Total Col1Ave (4 peaks):				305.0		Total Col2Ave (4 peaks):			295.5	RPD = 3
	Corrected Ave (3 peaks):				304.0		Corrected Ave (3 peaks):			292.2	RPD = 4
Aroclor-1248	1	8.263	0.004	1364868	529.9	1	7.524	-0.003	1167979	662.7	
Aroclor-1248	2	8.874	-0.003	310563	185.2	2	8.336	-0.001	2359045	498.2	
Aroclor-1248	3	9.414	-0.002	492782	207.4	3	8.936	-0.002	684457	198.7	
Aroclor-1248	4	9.892	0.006	307102	102.1	4	10.345	-0.001	72954	15.4	
	Total Col1Ave (4 peaks):				256.2		Total Col2Ave (4 peaks):			343.8	RPD = 29
	Corrected Ave (3 peaks):				164.9		Corrected Ave (3 peaks):			237.5	RPD = 36
Aroclor-1254	1	10.228	0.000	285695	90.3	1	10.047	-0.001	449423	145.9	
Aroclor-1254	2	10.616	-0.001	51777	26.2	2	10.232	-0.002	473432	121.4	
Aroclor-1254	3	10.755	-0.003	137685	35.6	3	10.969	0.040	1131454	175.3	
Aroclor-1254	4	11.098	-0.020	904886	228.0	4	11.198	0.014	1378930	211.4	
Aroclor-1254	5	11.812	-0.002	1245393	317.0	5	11.953	0.000	1337601	284.7	
	Total Col1Ave (5 peaks):				139.4		Total Col2Ave (5 peaks):			187.7	RPD = 30
	Corrected Ave (4 peaks):				95.0		Corrected Ave (4 peaks):			163.5	RPD = 53*
Aroclor-1260	1	12.044	-0.001	824859	283.7	1	11.953	0.001	1337601	206.5	
Aroclor-1260	2	12.361	0.000	818055	282.7	2	12.498	0.001	1337984	255.4	
Aroclor-1260	3	12.731	-0.001	1960016	293.1	3	12.767	0.000	2802240	275.7	
Aroclor-1260	4	13.128	0.000	946920	270.9	4	13.327	-0.001	1840081	273.3	
Aroclor-1260	5	13.307	0.000	481668	313.5	NS	---			----	
	Total Col1Ave (5 peaks):				288.8		Total Col2Ave (4 peaks):			252.7	RPD = 13
	Corrected Ave (4 peaks):				282.6		Corrected Ave (3 peaks):			245.0	RPD = 14
Aroclor-1262	1	12.361	0.001	818055	231.8	1	12.498	0.000	1337984	231.4	
Aroclor-1262	2	12.731	0.000	1960016	240.9	2	12.767	0.000	2802240	242.5	
Aroclor-1262	3	13.128	0.001	946920	357.7	3	13.273	0.000	819611	163.4	
Aroclor-1262	4	13.307	0.001	481668	154.6	4	13.327	-0.003	1840081	243.0	
Aroclor-1262	5	13.887	0.000	437166	174.5	5	13.957	0.000	721292	179.4	
	Total Col1Ave (5 peaks):				231.9		Total Col2Ave (5 peaks):			211.9	RPD = 9
	Corrected Ave (4 peaks):				200.4		Corrected Ave (4 peaks):			204.2	RPD = 2
Aroclor-1268	1	13.239	-0.001	413142	47.8	1	13.273	0.000	819611	67.9	

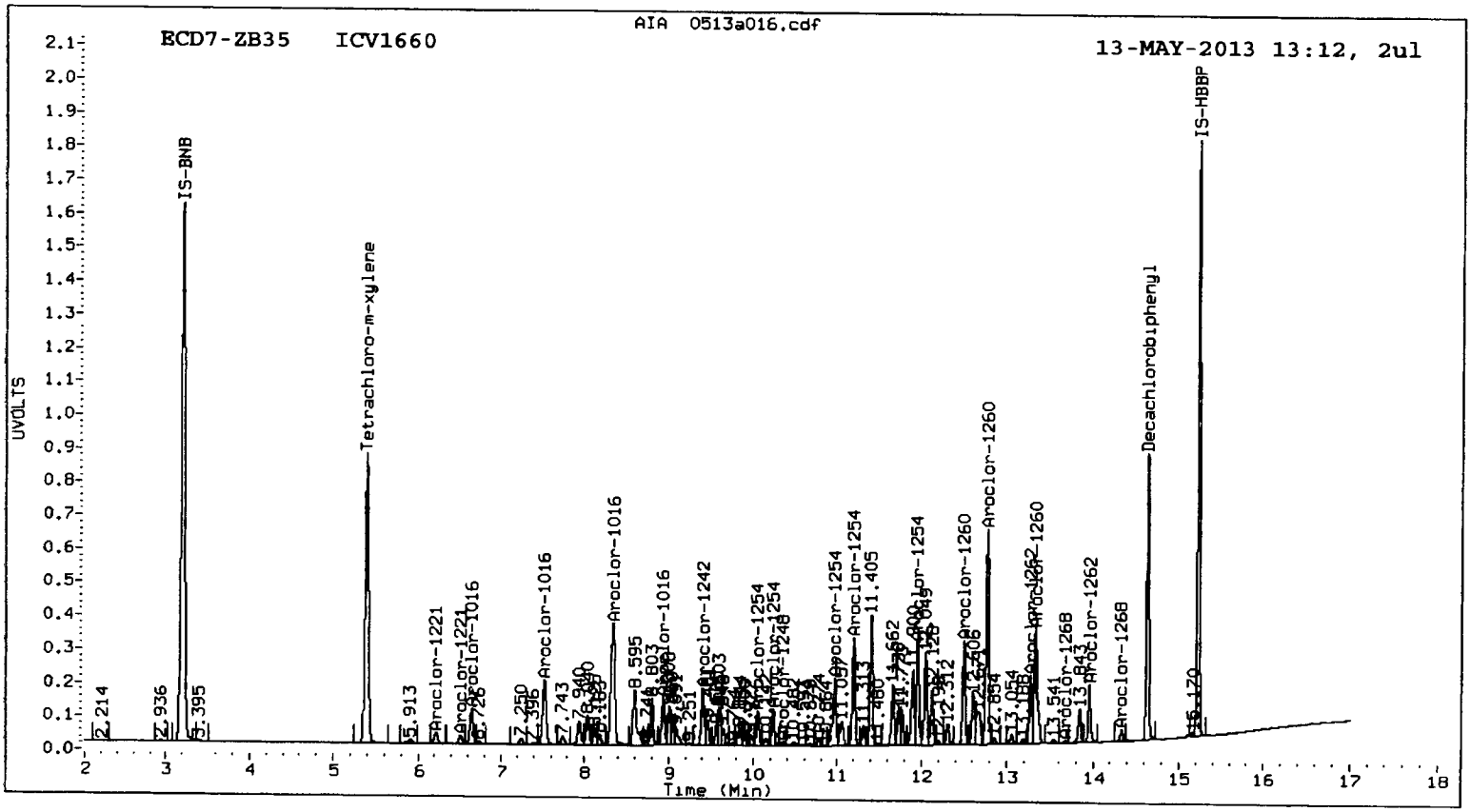
Aroclor-1268 2	13.307	0.001	481668	62.4	2	13.327	-0.007	1840081	162.3
Aroclor-1268 3	13.666	0.015	209181	32.8	3	13.681	0.001	25500	2.8
Aroclor-1268 4	14.287	-0.002	98068	5.5	4	14.332	0.000	133458	4.9
Total Col1Ave (4 peaks):			37.1		Total Col2Ave (4 peaks):			59.5	RPD = 46*
Corrected Ave (3 peaks):			28.7		Corrected Ave (3 peaks):			25.2	RPD = 13

Total PCB Area Col1 (5.833 - 14.493) = 21233150 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 34596144 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD7-ZB5 ICV1660
AIA 0513a016.cdf
13-MAY-2013 13:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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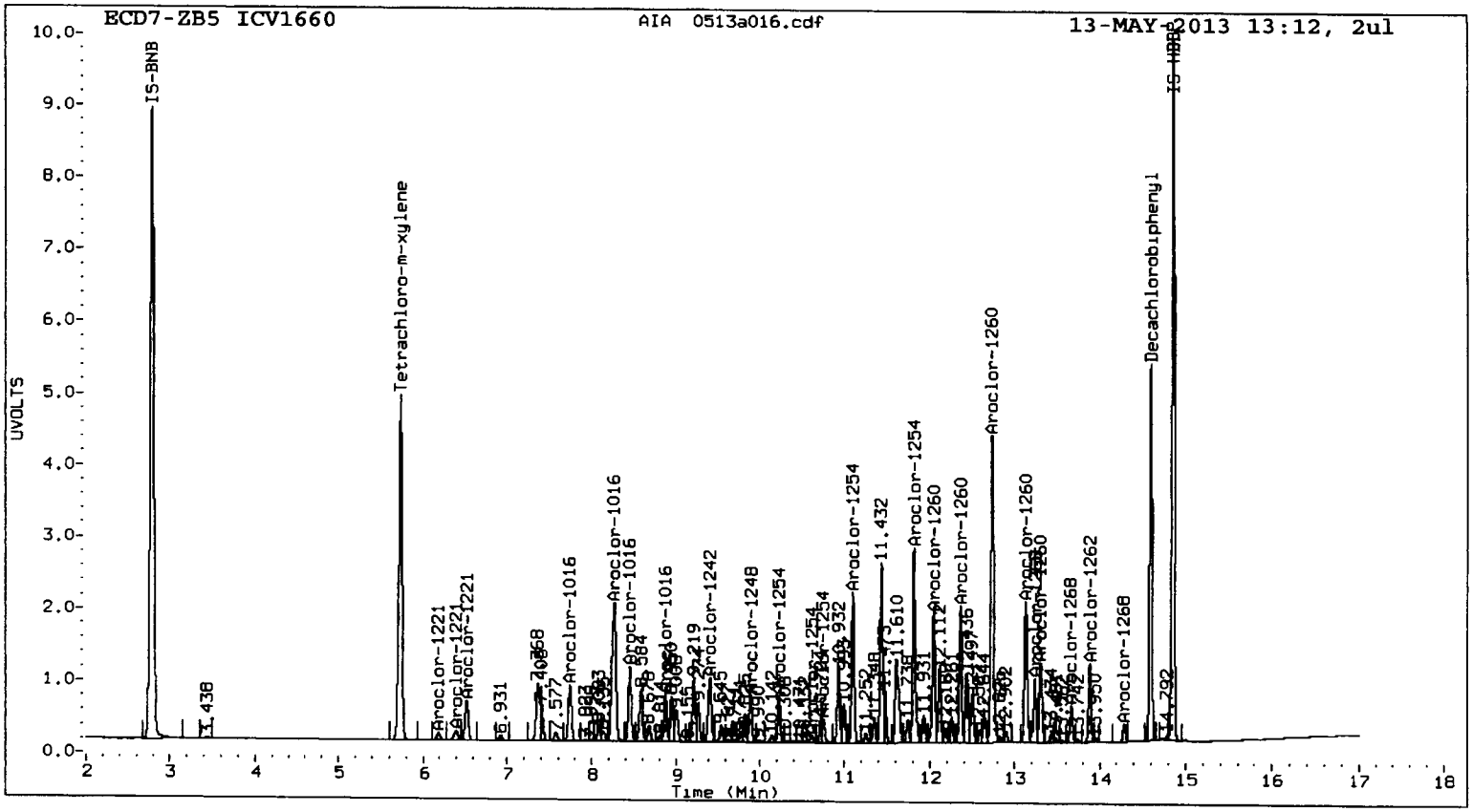
AIA 0513a016.cdf
13-MAY-2013 13:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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AIA 0513a016.cdf
13-MAY-2013 13:12, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1221
Aroclor-1016
Aroclor-1242
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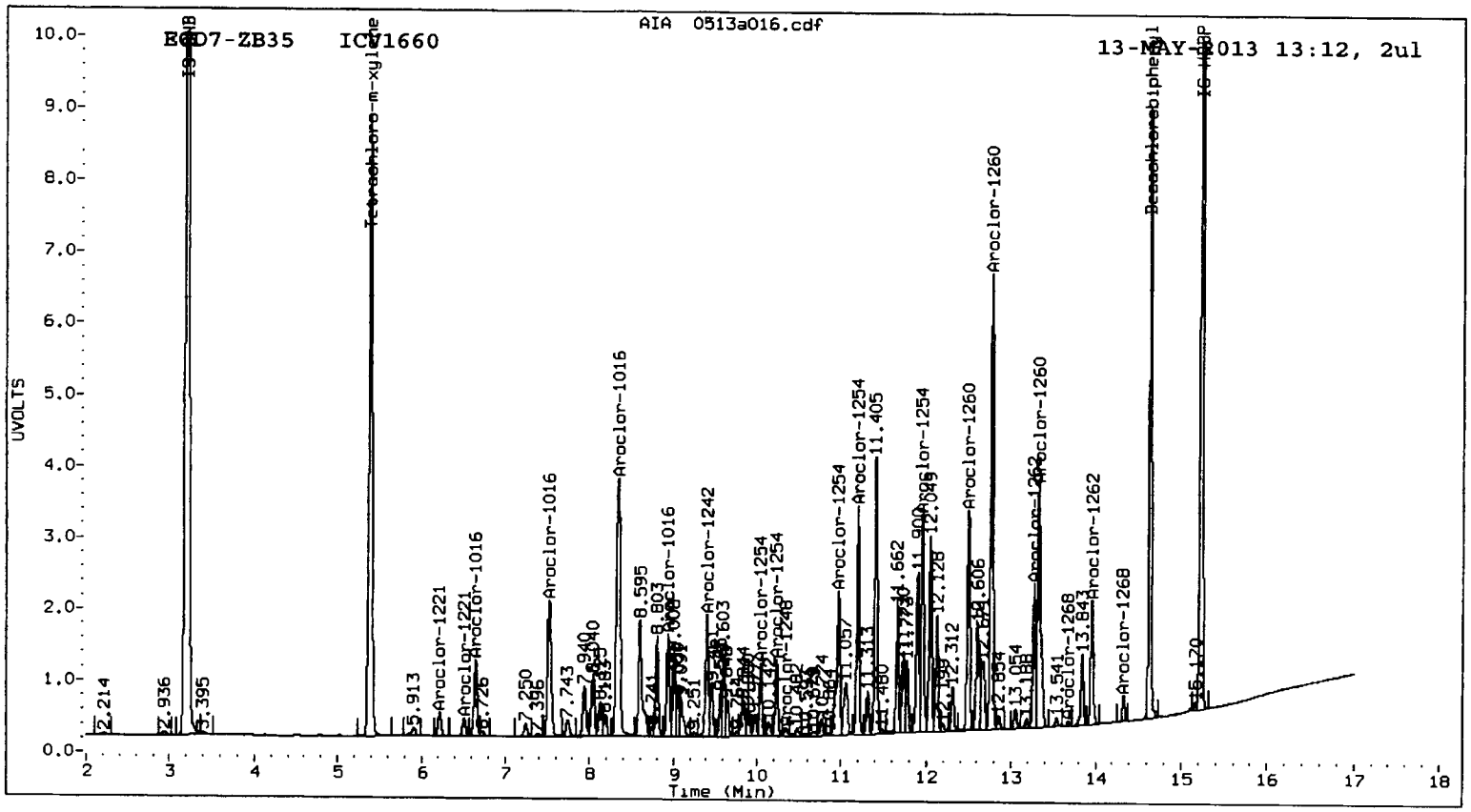
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
UVOLTS
Time (Min)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AIA 0513a016.cdf
13-MAY-2013 13:12, 2ul
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a017.d
Data file 2: 20130513.b/ical-2.b/0513a017.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV1242
Client ID:
Injection Date: 13-MAY-2013 13:34
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	2626230	5.390	0.001	4680990	40.0	37.9	5.5	Tetrachloro-m-xylene
14.593	0.000	2031995	14.633	0.001	3097976	36.0	37.4	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.0	94.7
Decachlorobiphenyl	90.0	93.5

14
05/07/13
05/04/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5647345	3.5
Hexabromobiphenyl	4223695	4542379	7.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10074444	5.4
Hexabromobiphenyl	6702455	6895823	2.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	7.743	0.003	314778	180.8	1	6.645	0.000	443315	186.8	
Aroclor-1016	2	8.263	0.000	1044349	178.4	2	7.526	0.000	919615	175.9	
Aroclor-1016	3	8.449	0.001	414467	178.4	3	8.337	-0.001	1855305	174.3	
Aroclor-1016	4	8.875	0.002	253747	181.2	4	8.936	0.000	575159	179.8	
Total Col1Ave (4 peaks):		179.7				Total Col2Ave (4 peaks):		179.2		RPD = 0	
Corrected Ave (3 peaks):		179.2				Corrected Ave (3 peaks):		176.7		RPD = 1	
Aroclor-1221	1	6.188	-0.003	43488	65.5	1	6.217	0.001	156407	99.6	
Aroclor-1221	2	6.395	-0.005	76800	137.2	2	6.512	-0.001	104540	114.8	
Aroclor-1221	3	6.521	-0.002	235175	144.3	3	6.645	-0.002	443315	162.1	
Aroclor-1221	NS	---			----	4	7.526	-0.014	919615	923.8	
Total Col1Ave (3 peaks):		115.7				Total Col2Ave (4 peaks):		325.1		RPD = 95*	
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		125.5			
Aroclor-1232	1	6.521	0.001	235175	214.7	1	6.645	0.000	443315	225.5	
Aroclor-1232	2	7.743	0.000	314778	465.6	2	7.526	0.000	919615	415.0	
Aroclor-1232	3	8.263	0.000	1044349	472.6	3	8.337	0.000	1855305	443.5	
Aroclor-1232	4	8.449	0.000	414467	465.5	4	8.936	0.000	575159	403.4	
Total Col1Ave (4 peaks):		404.6				Total Col2Ave (4 peaks):		371.9		RPD = 8	
Corrected Ave (3 peaks):		381.9				Corrected Ave (3 peaks):		348.0		RPD = 9	
Aroclor-1242	1	7.743	-0.003	314778	219.2	1	6.645	-0.003	443315	217.3	
Aroclor-1242	2	8.263	-0.003	1044349	217.4	2	7.526	-0.003	919615	223.0	
Aroclor-1242	3	8.449	-0.004	414467	219.3	3	8.337	-0.003	1855305	220.6	
Aroclor-1242	4	9.415	-0.002	397770	222.6	4	9.402	-0.003	755589	225.9	
Total Col1Ave (4 peaks):		219.6				Total Col2Ave (4 peaks):		221.7		RPD = 1	
Corrected Ave (3 peaks):		218.6				Corrected Ave (3 peaks):		220.3		RPD = 1	
Aroclor-1248	1	8.263	0.004	1044349	375.5	1	7.526	-0.001	919615	484.0	
Aroclor-1248	2	8.875	-0.002	253747	140.1	2	8.337	0.000	1855305	363.4	
Aroclor-1248	3	9.415	-0.001	397770	155.1	3	8.936	-0.002	575159	154.9	
Aroclor-1248	4	9.884	-0.002	440668	135.6	4	10.345	-0.001	748771	146.9	
Total Col1Ave (4 peaks):		201.6				Total Col2Ave (4 peaks):		287.3		RPD = 35	
Corrected Ave (3 peaks):		143.6				Corrected Ave (3 peaks):		221.7		RPD = 43*	
Aroclor-1254	1	10.225	-0.002	187817	55.0	1	10.047	-0.002	231332	69.6	
Aroclor-1254	2	10.617	0.000	125951	59.1	2	10.232	-0.002	255712	60.8	
Aroclor-1254	3	10.758	-0.001	217086	52.0	3	10.928	-0.002	404593	58.1	
Aroclor-1254	4	11.120	0.002	182822	42.6	4	11.180	-0.004	405243	57.6	
Aroclor-1254	5	11.814	0.000	96854	22.8	5	11.954	0.000	141953	28.0	
Total Col1Ave (5 peaks):		46.3				Total Col2Ave (5 peaks):		54.9		RPD = 17	
Corrected Ave (4 peaks):		43.1				Corrected Ave (4 peaks):		51.2		RPD = 17	
Aroclor-1260	1	12.045	0.001	27486	8.7	1	11.954	0.001	141953	20.1	
Aroclor-1260	2	12.363	0.002	23021	7.3	2	12.492	-0.005	63631	11.1	
Aroclor-1260	3	12.732	0.000	25347	3.5	3	12.768	0.001	30361	2.7	
Aroclor-1260	4	13.128	0.000	16271	4.3	4	13.327	0.000	18274	2.5	
Aroclor-1260	5	---			0.0	NS	---			----	
Total Col1Ave (4 peaks):		5.9				Total Col2Ave (4 peaks):		9.1		RPD = 42*	
Corrected Ave (3 peaks):		5.0				Corrected Ave (3 peaks):		5.4		RPD = 8	
Aroclor-1262	1	12.363	0.002	23021	6.0	1	12.492	-0.006	63631	10.1	
Aroclor-1262	2	12.732	0.001	25347	2.9	2	12.768	0.000	30361	2.4	
Aroclor-1262	3	13.128	0.000	16271	5.6	3	13.327	0.055	18274	3.3	
Aroclor-1262	4	---			0.0	4	---			0.0	
Aroclor-1262	5	---			0.0	5	13.991	0.035	21618	4.9	
Total Col1Ave (3 peaks):		4.8				Total Col2Ave (4 peaks):		5.2		RPD = 7	
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		3.6			
Aroclor-1268	1	13.200	-0.039	10263	1.1	1	---			0.0	

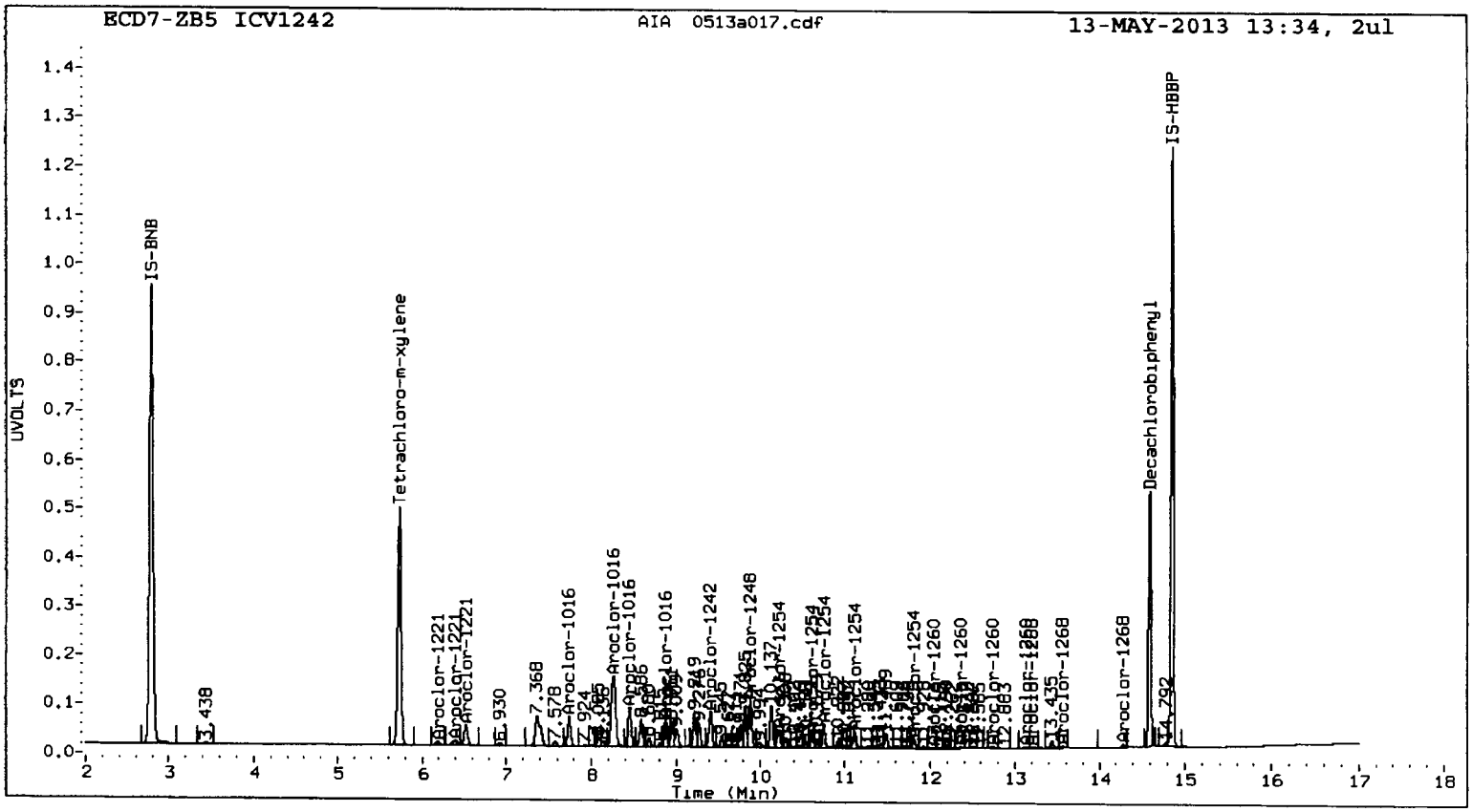
Aroclor-1268	2	---		0.0	2	---		0.0
Aroclor-1268	3	13.564	-0.087	14940	2.1	3	---	0.0
Aroclor-1268	4	14.281	-0.007	12698	0.6	4	---	0.0
Total Col1Ave (3 peaks):				1.3		Col2Ave: <3 Quant Peaks		

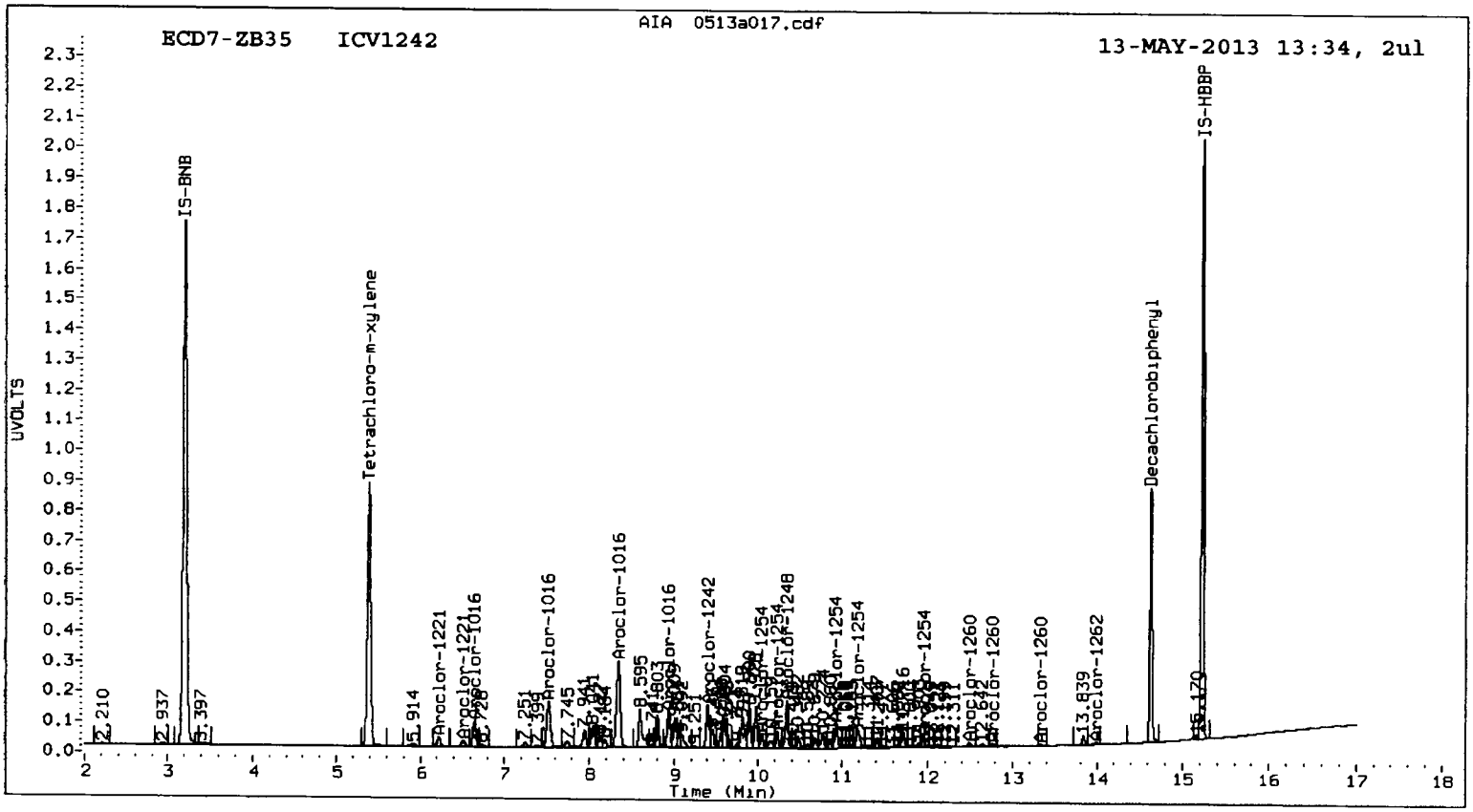
Total PCB Area Col1 (5.833 - 14.493) = 8395201 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 15588990 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD7-ZB5 ICV1242
AIA 0513a017.cdf
13-MAY-2013 13:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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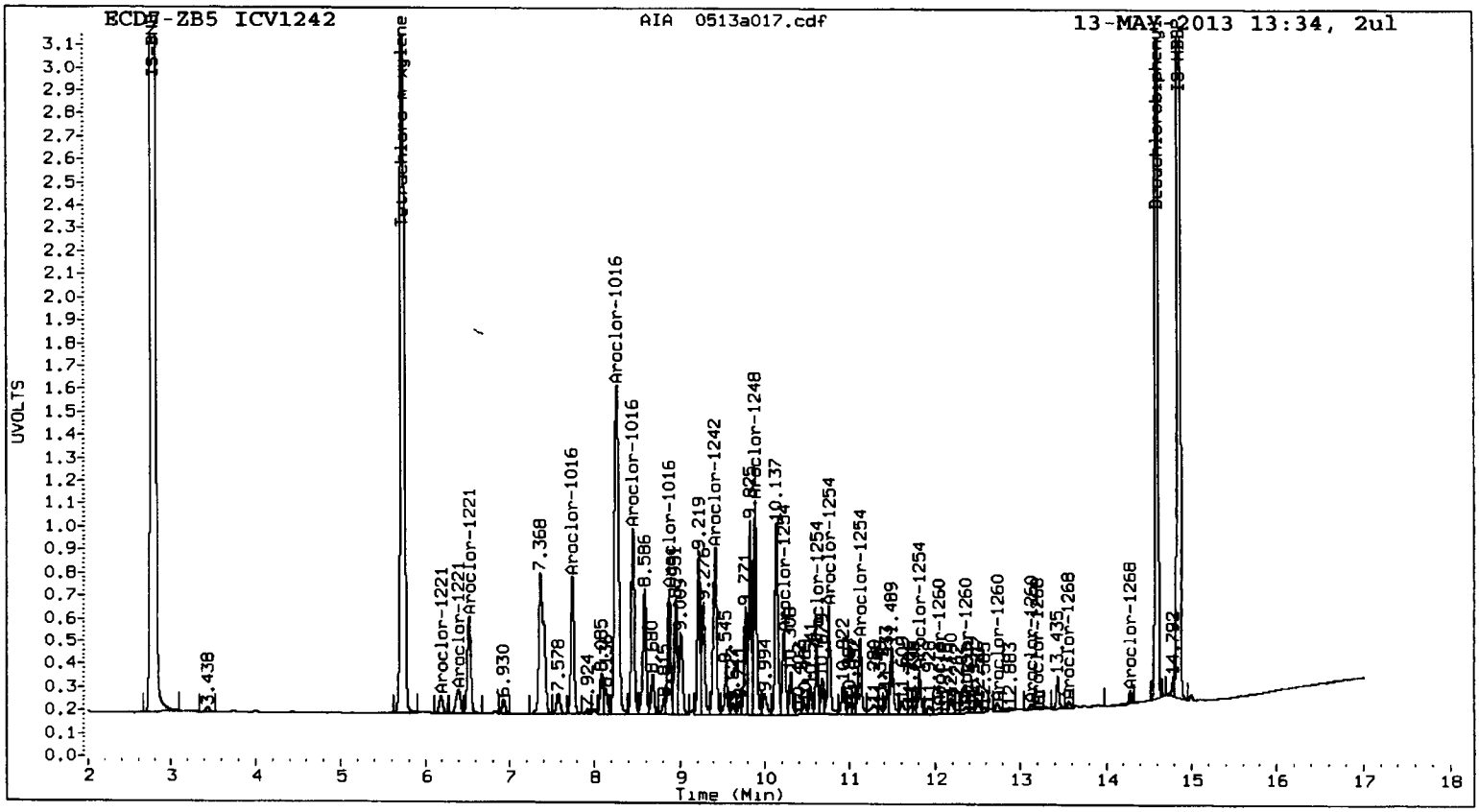
AIA 0513a017.cdf
13-MAY-2013 13:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262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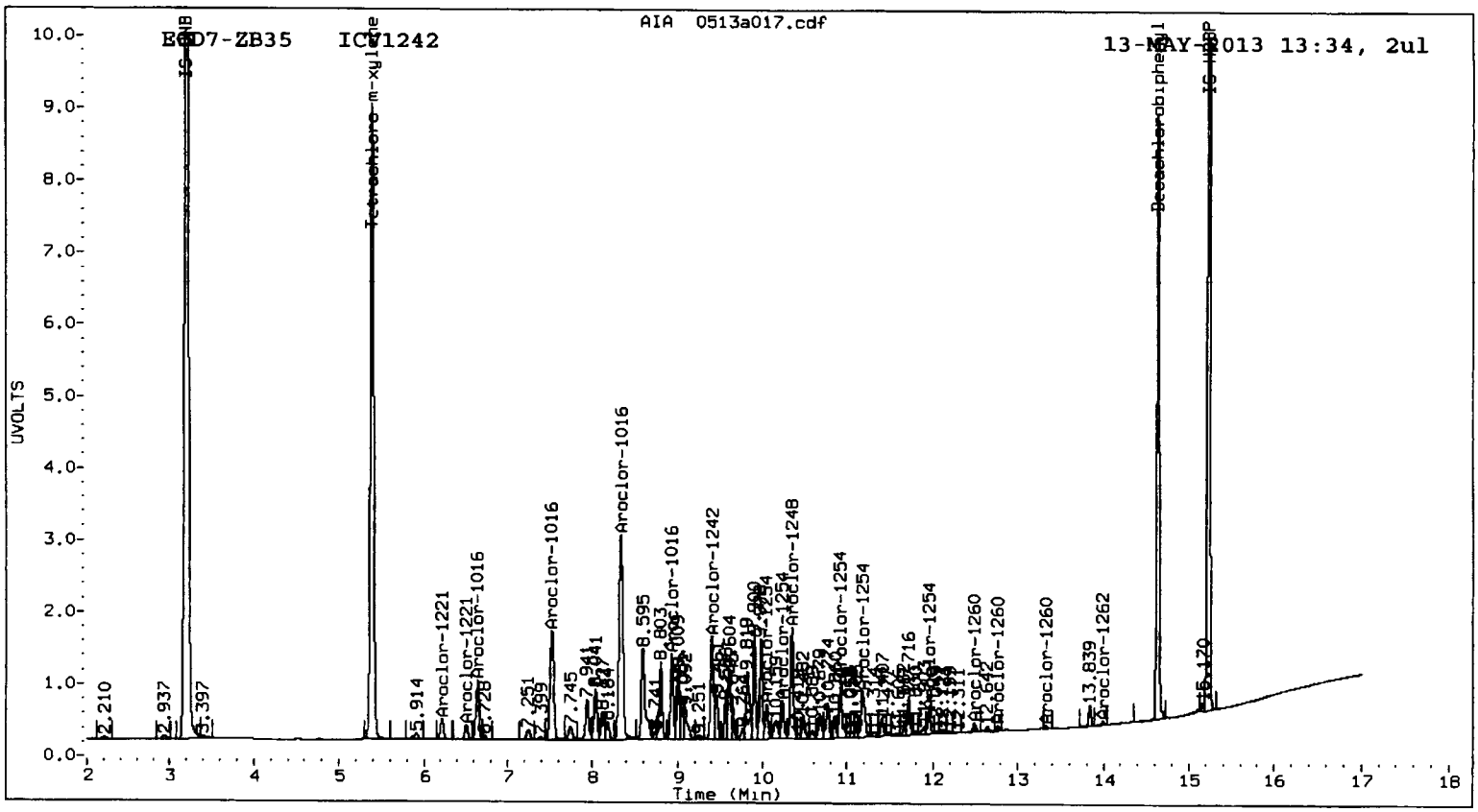
AIA 0513a017.cdf
13-MAY-2013 13:34, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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13-MAY-2013 13:34, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a018.d
Data file 2: 20130513.b/ical-2.b/0513a018.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV1248
Client ID:
Injection Date: 13-MAY-2013 13:56
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	2520180	5.390	0.002	4510794	37.2	35.6	4.2	Tetrachloro-m-xylene
14.593	0.000	1995385	14.632	0.000	3035477	33.9	35.3	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	92.9	89.1
Decachlorobiphenyl	84.7	88.3

JH 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5833077	7.0
Hexabromobiphenyl	4223695	4737874	12.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10322167	8.0
Hexabromobiphenyl	6702455	7157497	6.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.744	0.004	159237	88.6	1	6.646	0.000	115168	47.4
Aroclor-1016	2	8.258	-0.005	710336	117.5	2	7.524	-0.002	505679	94.4
Aroclor-1016	3	8.452	0.005	254797	106.2	3	8.335	-0.003	1288067	118.1
Aroclor-1016	4	8.876	0.003	440019	304.3	4	8.936	0.000	888098	271.0
	Total Col1Ave (4 peaks):				154.1		Total Col2Ave (4 peaks):			132.7 RPD = 15
	Corrected Ave (3 peaks):				104.1		Corrected Ave (3 peaks):			86.6 RPD = 18
Aroclor-1221	1	---			0.0	1	6.219	0.004	81452	50.6
Aroclor-1221	2	6.378	-0.028	38231	66.1	2	6.512	-0.001	19771	21.2
Aroclor-1221	3	6.521	-0.002	50942	30.3	3	6.646	-0.001	115168	41.1
Aroclor-1221	NS	---			----	4	7.524	-0.016	505679	495.8
	Col1Ave: <3 Quant Peaks						Col2Ave: 152.2			
Aroclor-1232	1	6.521	0.001	50942	45.0	1	6.646	0.001	115168	57.2
Aroclor-1232	2	7.744	0.000	159237	228.0	2	7.524	-0.001	505679	222.7
Aroclor-1232	3	8.258	-0.005	710336	311.2	3	8.335	-0.002	1288067	300.5
Aroclor-1232	4	8.452	0.003	254797	277.0	4	8.936	0.000	888098	608.0
	Total Col1Ave (4 peaks):				215.3		Total Col2Ave (4 peaks):			297.1 RPD = 32
	Corrected Ave (3 peaks):				183.4		Corrected Ave (3 peaks):			193.5 RPD = 5
Aroclor-1242	1	7.744	-0.002	159237	107.4	1	6.646	-0.002	115168	55.1
Aroclor-1242	2	8.258	-0.008	710336	143.1	2	7.524	-0.004	505679	119.7
Aroclor-1242	3	8.452	-0.001	254797	130.5	3	8.335	-0.005	1288067	149.5
Aroclor-1242	4	9.415	-0.002	605725	328.2	4	9.403	-0.002	1023909	298.8
	Total Col1Ave (4 peaks):				177.3		Total Col2Ave (4 peaks):			155.8 RPD = 13
	Corrected Ave (3 peaks):				127.0		Corrected Ave (3 peaks):			108.1 RPD = 16
Aroclor-1248	1	8.258	-0.001	710336	247.3	1	7.524	-0.003	505679	259.7
Aroclor-1248	2	8.876	-0.001	440019	235.3	2	8.335	-0.002	1288067	246.3
Aroclor-1248	3	9.415	-0.001	605725	228.6	3	8.936	-0.002	888098	233.5
Aroclor-1248	4	9.885	-0.002	766224	228.4	4	10.344	-0.002	1196935	229.1
	Total Col1Ave (4 peaks):				234.9		Total Col2Ave (4 peaks):			242.2 RPD = 3
	Corrected Ave (3 peaks):				230.7		Corrected Ave (3 peaks):			236.3 RPD = 2
Aroclor-1254	1	10.225	-0.003	368194	104.3	1	10.047	-0.001	397186	116.7
Aroclor-1254	2	10.617	0.000	251235	114.2	2	10.233	-0.001	428605	99.5
Aroclor-1254	3	10.757	-0.001	418893	97.1	3	10.927	-0.002	698056	97.9
Aroclor-1254	4	11.120	0.002	323184	73.0	4	11.179	-0.004	700179	97.2
Aroclor-1254	5	11.813	0.000	96029	21.9	5	11.953	-0.001	135450	26.1
	Total Col1Ave (5 peaks):				82.1		Total Col2Ave (5 peaks):			87.5 RPD = 6
	Corrected Ave (4 peaks):				74.1		Corrected Ave (4 peaks):			80.2 RPD = 8
Aroclor-1260	1	12.044	0.000	35875	10.8	1	11.953	0.001	135450	18.4
Aroclor-1260	2	12.362	0.001	26089	7.9	2	12.493	-0.004	70593	11.9
Aroclor-1260	3	12.732	-0.001	37369	4.9	3	12.766	-0.001	49350	4.3
Aroclor-1260	4	13.128	0.000	15459	3.9	4	13.329	0.001	28218	3.7
Aroclor-1260	5	13.307	-0.001	10628	6.1	NS	---			----
	Total Col1Ave (5 peaks):				6.7		Total Col2Ave (4 peaks):			9.6 RPD = 35
	Corrected Ave (4 peaks):				5.7		Corrected Ave (3 peaks):			6.6 RPD = 15
Aroclor-1262	1	12.362	0.001	26089	6.5	1	12.493	-0.005	70593	10.8
Aroclor-1262	2	12.732	0.000	37369	4.0	2	12.766	-0.001	49350	3.8
Aroclor-1262	3	13.128	0.000	15459	5.1	3	13.271	-0.002	16911	3.0
Aroclor-1262	4	13.307	0.000	10628	3.0	4	13.329	-0.001	28218	3.3
Aroclor-1262	5	---			0.0	5	13.991	0.034	21703	4.8
	Total Col1Ave (4 peaks):				4.7		Total Col2Ave (5 peaks):			5.1 RPD = 9
	Corrected Ave (3 peaks):				4.0		Corrected Ave (4 peaks):			3.7 RPD = 9
Aroclor-1268	1	13.238	-0.002	11045	1.1	1	13.271	-0.002	16911	1.2
Aroclor-1268	2	13.307	0.000	10628	1.2	2	13.329	-0.006	28218	2.2

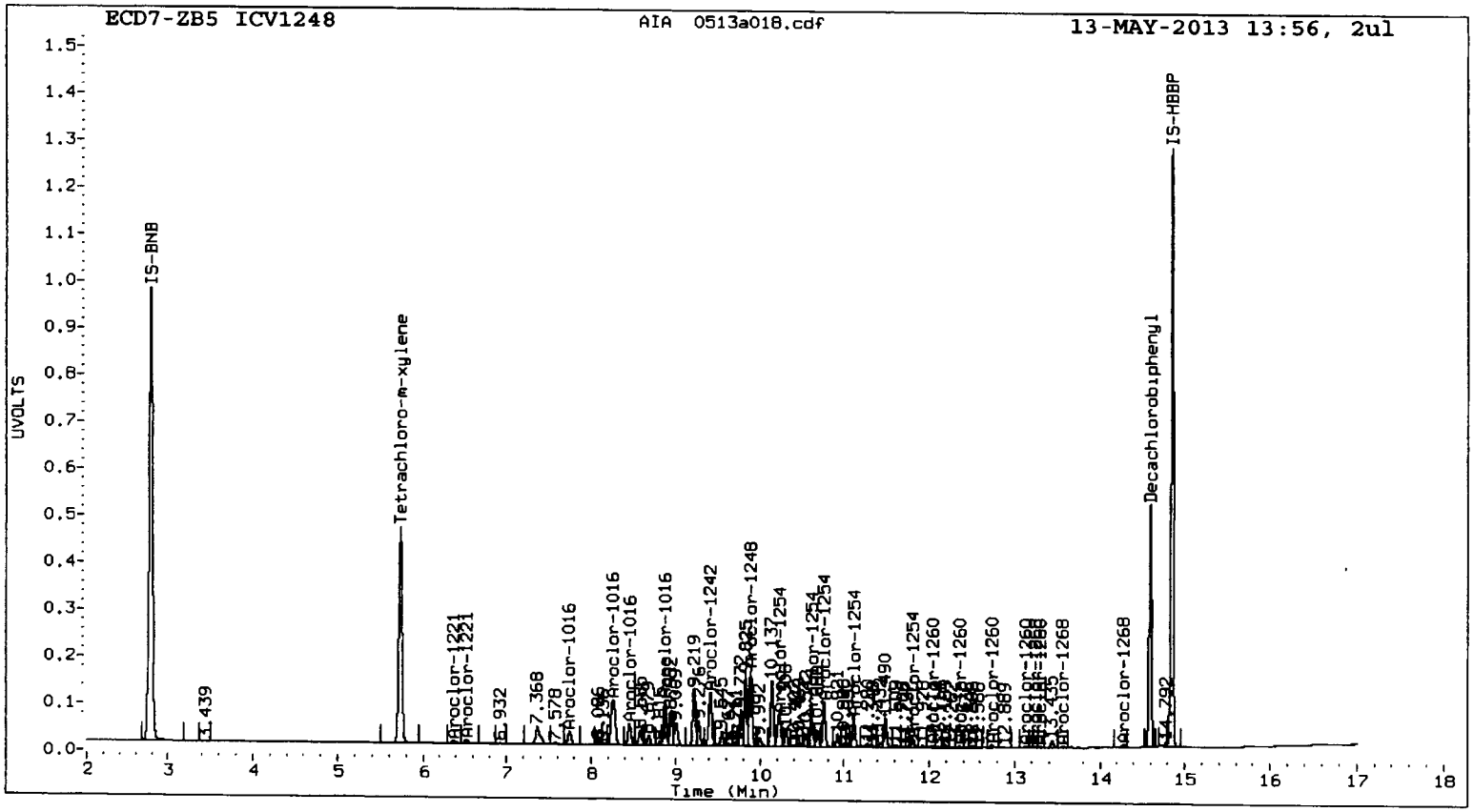
Aroclor-1268 3	13.563	-0.088	14955	2.1	3	---	0.0
Aroclor-1268 4	14.281	-0.007	23632	1.2	4	---	0.0
Total Col1Ave (4 peaks):			1.4		Col2Ave: <3 Quant Peaks		

Total PCB Area Col1 (5.833 - 14.493) = 10127323 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 17760303 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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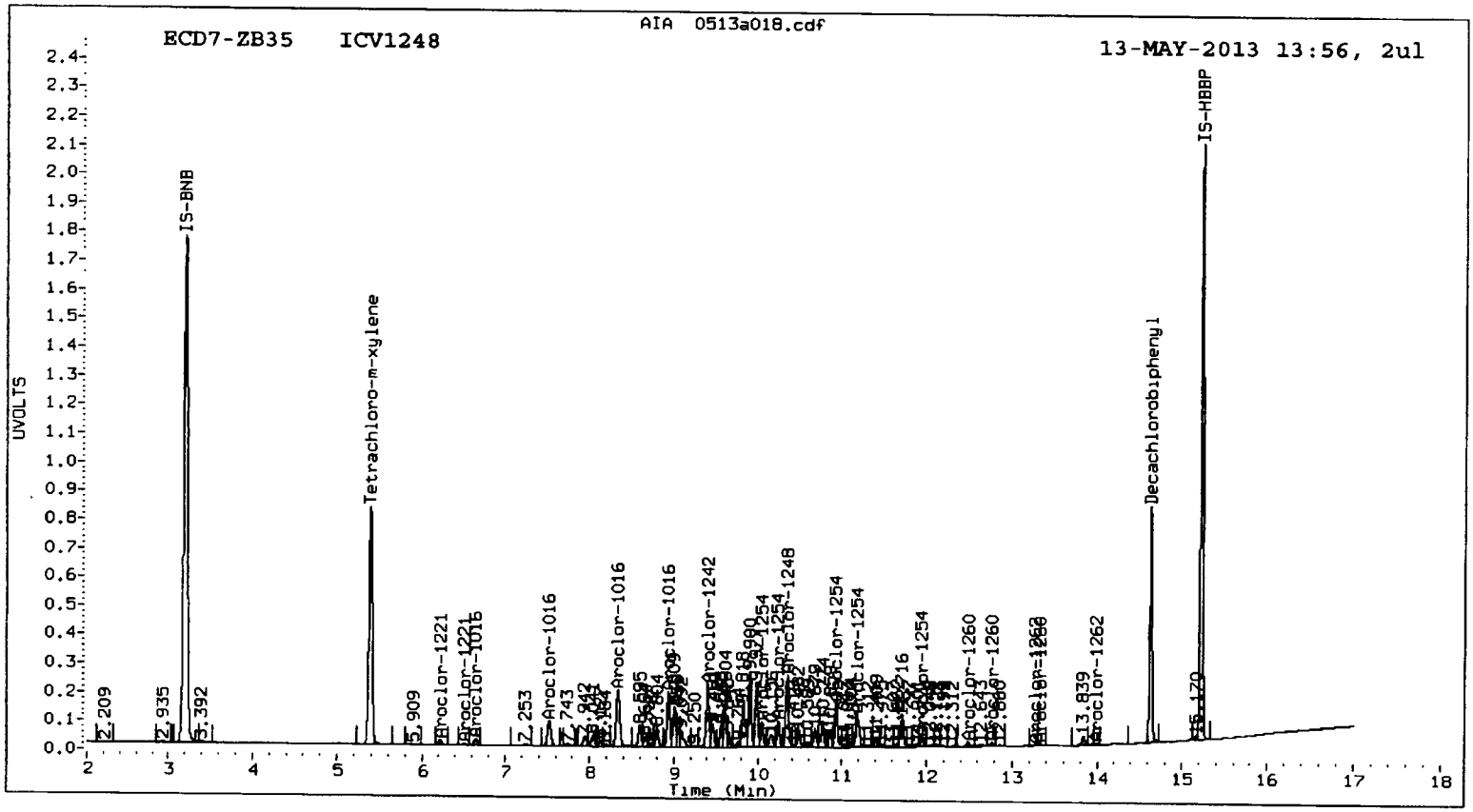
AIA 0513a018.cdf
13-MAY-2013 13:56, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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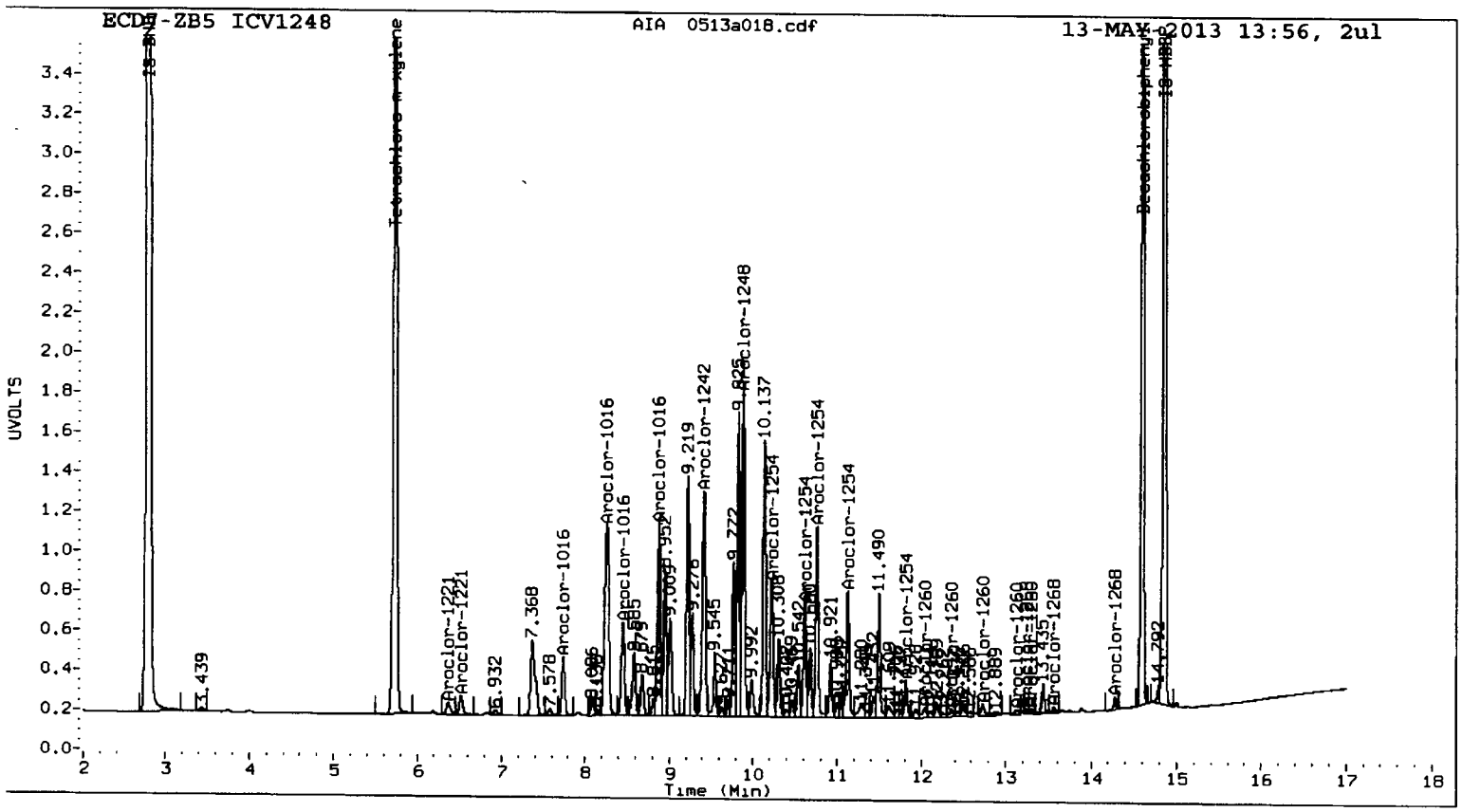
13-MAY-2013 13:56, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262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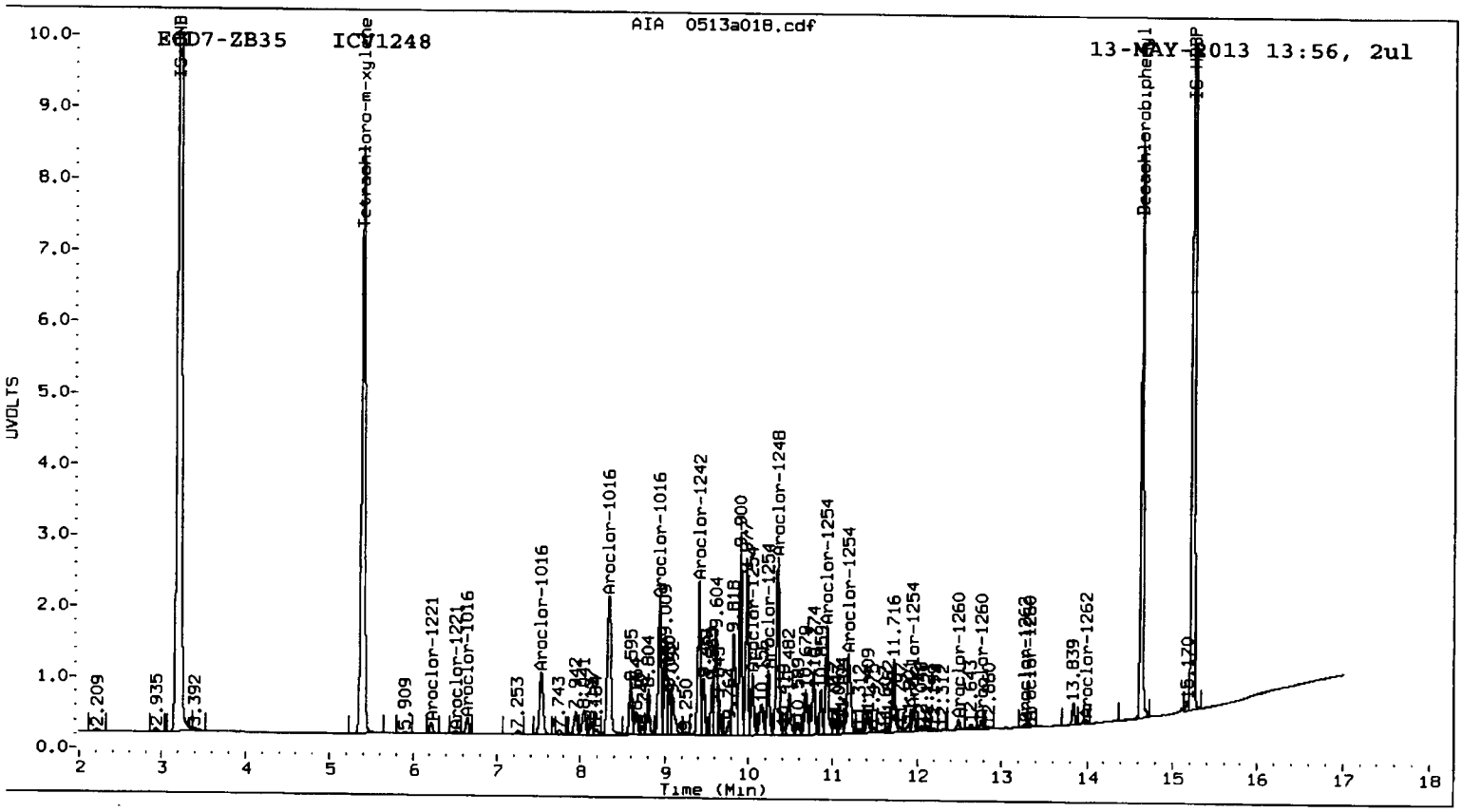
AIA 0513a018.cdf
13-MAY-2013 13:56, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268


ECD7-ZB35 ICV1248
AIA 0513a018.cdf
13-MAY-2013 13:56, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a019.d
Data file 2: 20130513.b/ical-2.b/0513a019.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV1254
Client ID:
Injection Date: 13-MAY-2013 14:18
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.733	0.000	2550162	5.389	0.000	4565555	38.3	36.6	4.4	Tetrachloro-m-xylene
14.592	-0.001	2023378	14.632	-0.001	3086826	35.2	36.7	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	95.6	91.5
Decachlorobiphenyl	88.0	91.7

05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5734409	5.1
Hexabromobiphenyl	4223695	4626168	9.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10167071	6.4
Hexabromobiphenyl	6702455	7007158	4.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	6.635	-0.011	19314	8.1	
Aroclor-1016	2	8.251	-0.011	22230	3.7	2	7.524	-0.001	18325	3.5	
Aroclor-1016	3	8.459	0.011	12043	5.1	3	8.327	-0.011	54489	5.1	
Aroclor-1016	4	8.876	0.002	332870	234.1	4	8.934	-0.002	580890	180.0	
	Total Col1Ave (3 peaks):				81.0	Total Col2Ave (4 peaks):				49.1	RPD = 49*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				5.5	
Aroclor-1221	1	---			0.0	1	6.218	0.003	67850	42.8	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	6.635	-0.012	19314	7.0	
Aroclor-1221	NS	---			----	4	7.524	-0.016	18325	18.2	
	Col1Ave: <3 Quant Peaks					Col2Ave:		22.7			
Aroclor-1232	1	---			0.0	1	6.635	-0.010	19314	9.7	
Aroclor-1232	2	---			0.0	2	7.524	-0.001	18325	8.2	
Aroclor-1232	3	8.251	-0.011	22230	9.9	3	8.327	-0.010	54489	12.9	
Aroclor-1232	4	8.459	0.010	12043	13.3	4	8.934	-0.001	580890	403.7	
	Col1Ave: <3 Quant Peaks					Col2Ave:		108.6			
Aroclor-1242	1	---			0.0	1	6.635	-0.013	19314	9.4	
Aroclor-1242	2	8.251	-0.014	22230	4.6	2	7.524	-0.004	18325	4.4	
Aroclor-1242	3	8.459	0.006	12043	6.3	3	8.327	-0.013	54489	6.4	
Aroclor-1242	4	9.415	-0.002	85171	46.9	4	9.403	-0.003	377581	111.9	
	Total Col1Ave (3 peaks):				19.3	Total Col2Ave (4 peaks):				33.0	RPD = 53*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				6.7	
Aroclor-1248	1	8.251	-0.008	22230	7.9	1	7.524	-0.003	18325	9.6	
Aroclor-1248	2	8.876	-0.002	332870	181.0	2	8.327	-0.010	54489	10.6	
Aroclor-1248	3	9.415	-0.001	85171	32.7	3	8.934	-0.003	580890	155.0	
Aroclor-1248	4	9.893	0.007	673326	204.1	4	10.328	-0.017	650858	126.5	
	Total Col1Ave (4 peaks):				106.4	Total Col2Ave (4 peaks):				75.4	RPD = 34
	Corrected Ave (3 peaks):				73.9	Corrected Ave (3 peaks):				48.9	RPD = 41*
Aroclor-1254	1	10.227	-0.001	986414	284.2	1	10.047	-0.002	960184	286.4	
Aroclor-1254	2	10.616	-0.001	632899	292.5	2	10.232	-0.002	1225867	288.9	
Aroclor-1254	3	10.757	-0.002	1179190	278.2	3	10.927	-0.002	1960426	279.1	
Aroclor-1254	4	11.117	-0.001	1243335	285.6	4	11.181	-0.003	2054694	289.6	
Aroclor-1254	5	11.814	0.000	1185336	275.2	5	11.953	-0.001	1451007	283.9	
	Total Col1Ave (5 peaks):				283.1	Total Col2Ave (5 peaks):				285.6	RPD = 1
	Corrected Ave (4 peaks):				280.8	Corrected Ave (4 peaks):				284.6	RPD = 1
Aroclor-1260	1	12.043	-0.001	55405	17.1	1	11.953	0.001	1451007	201.7	
Aroclor-1260	2	12.362	0.001	65040	20.2	2	12.491	-0.006	554345	95.3	
Aroclor-1260	3	12.732	-0.001	140267	18.8	3	12.767	0.000	310387	27.5	
Aroclor-1260	4	13.128	0.000	136750	35.2	4	13.325	-0.002	207962	27.8	
Aroclor-1260	5	---			0.0	NS	---			----	
	Total Col1Ave (4 peaks):				22.8	Total Col2Ave (4 peaks):				88.1	RPD = 118*
	Corrected Ave (3 peaks):				18.7	Corrected Ave (3 peaks):				50.2	RPD = 91*
Aroclor-1262	1	12.362	0.001	65040	16.6	1	12.491	-0.007	554345	86.3	
Aroclor-1262	2	12.732	0.000	140267	15.5	2	12.767	0.000	310387	24.2	
Aroclor-1262	3	13.128	0.000	136750	46.4	3	13.273	0.000	43949	7.9	
Aroclor-1262	4	---			0.0	4	13.325	-0.005	207962	24.7	
Aroclor-1262	5	---			0.0	5	13.991	0.034	30647	6.9	
	Total Col1Ave (3 peaks):				26.2	Total Col2Ave (5 peaks):				30.0	RPD = 14
	Corrected Ave: < 3 Peaks					Corrected Ave (4 peaks):				15.9	
Aroclor-1268	1	---			0.0	1	13.273	0.001	43949	3.3	
Aroclor-1268	2	---			0.0	2	13.325	-0.009	207962	16.5	
Aroclor-1268	3	13.562	-0.089	13581	1.9	3	---			0.0	

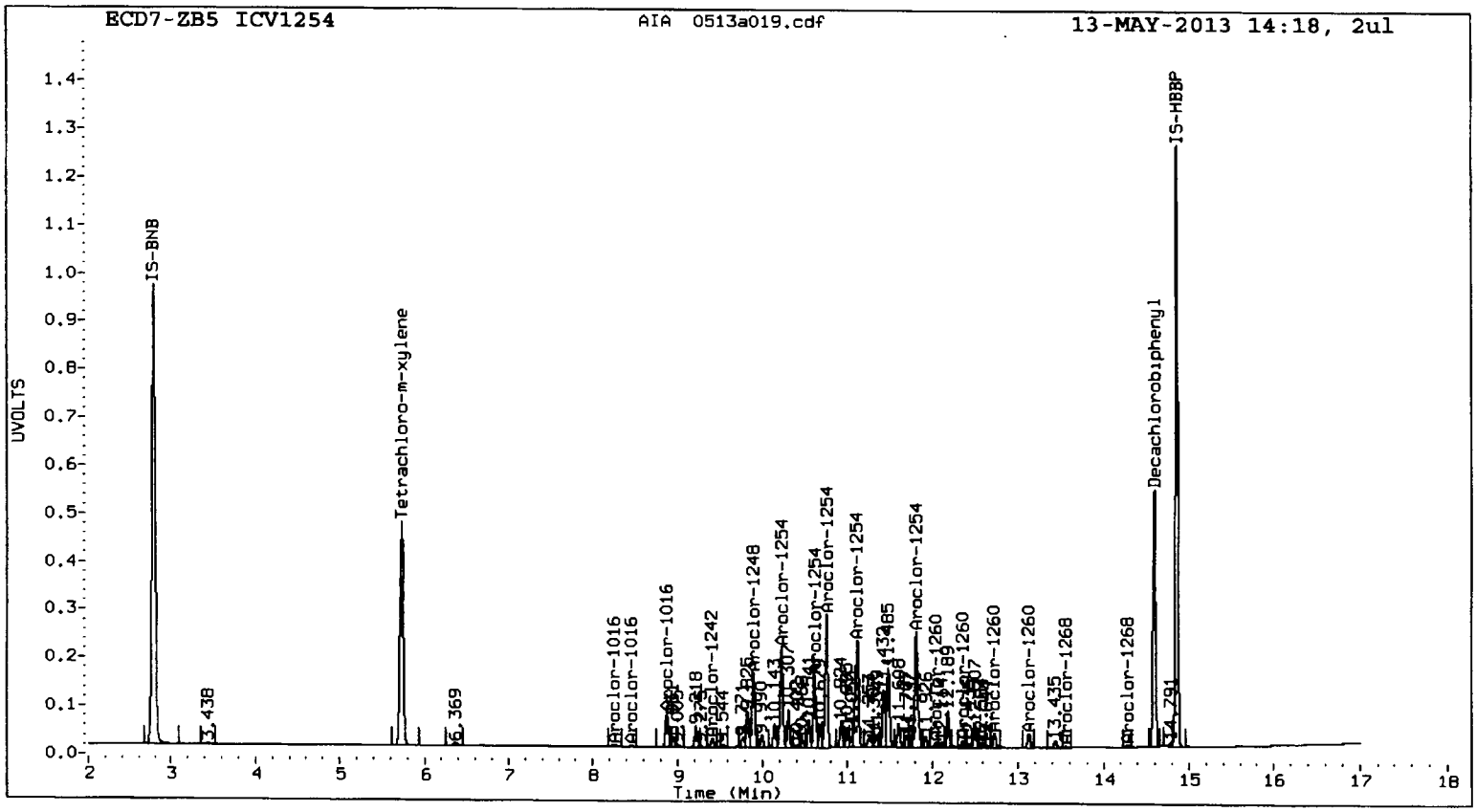
Aroclor-1268	4	14.279	-0.009	23191	1.2	4	---	0.0
	Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks		

Total PCB Area Col1 (5.833 - 14.493) = 11989181 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 20076305 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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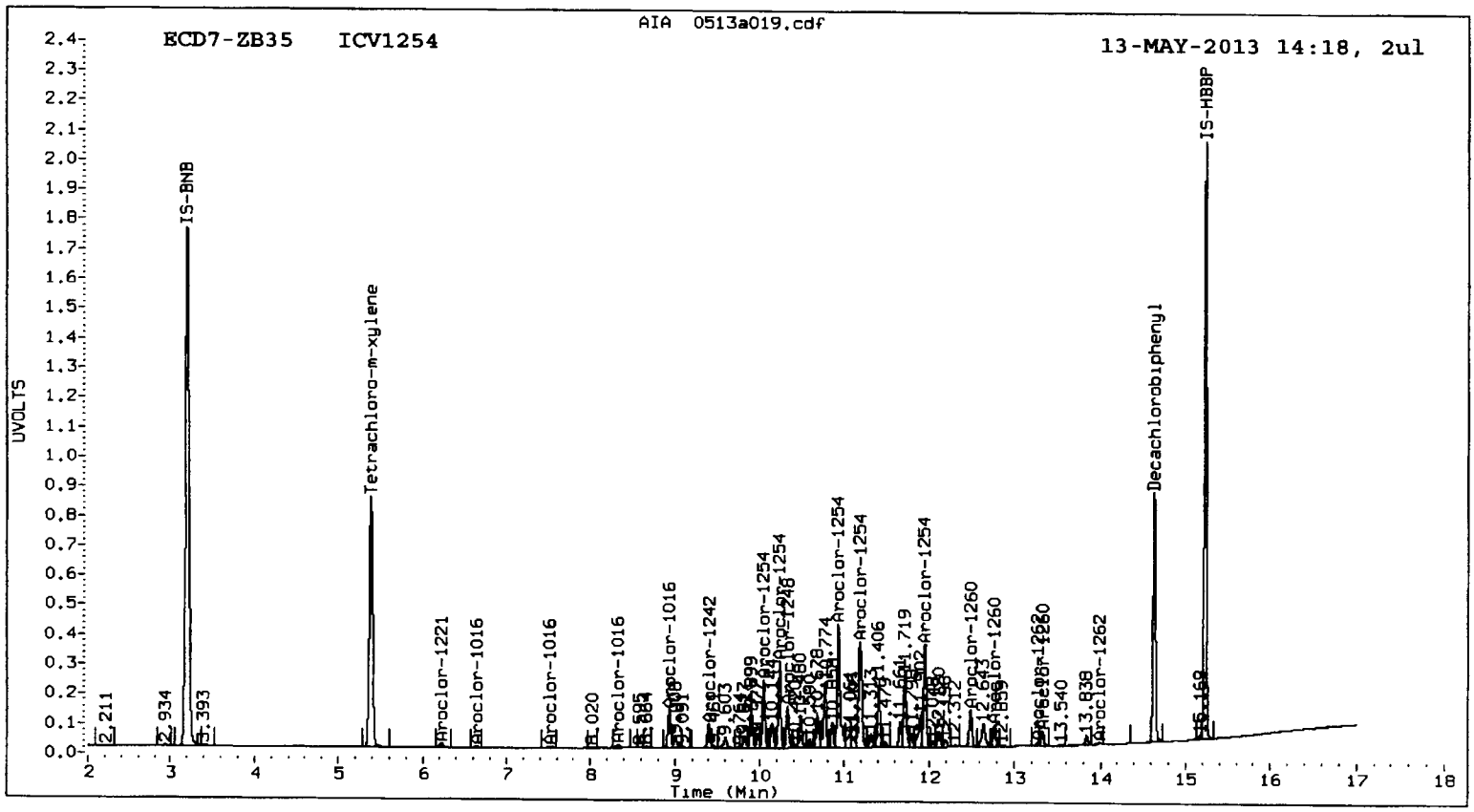
AIA 0513a019.cdf
13-MAY-2013 14:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268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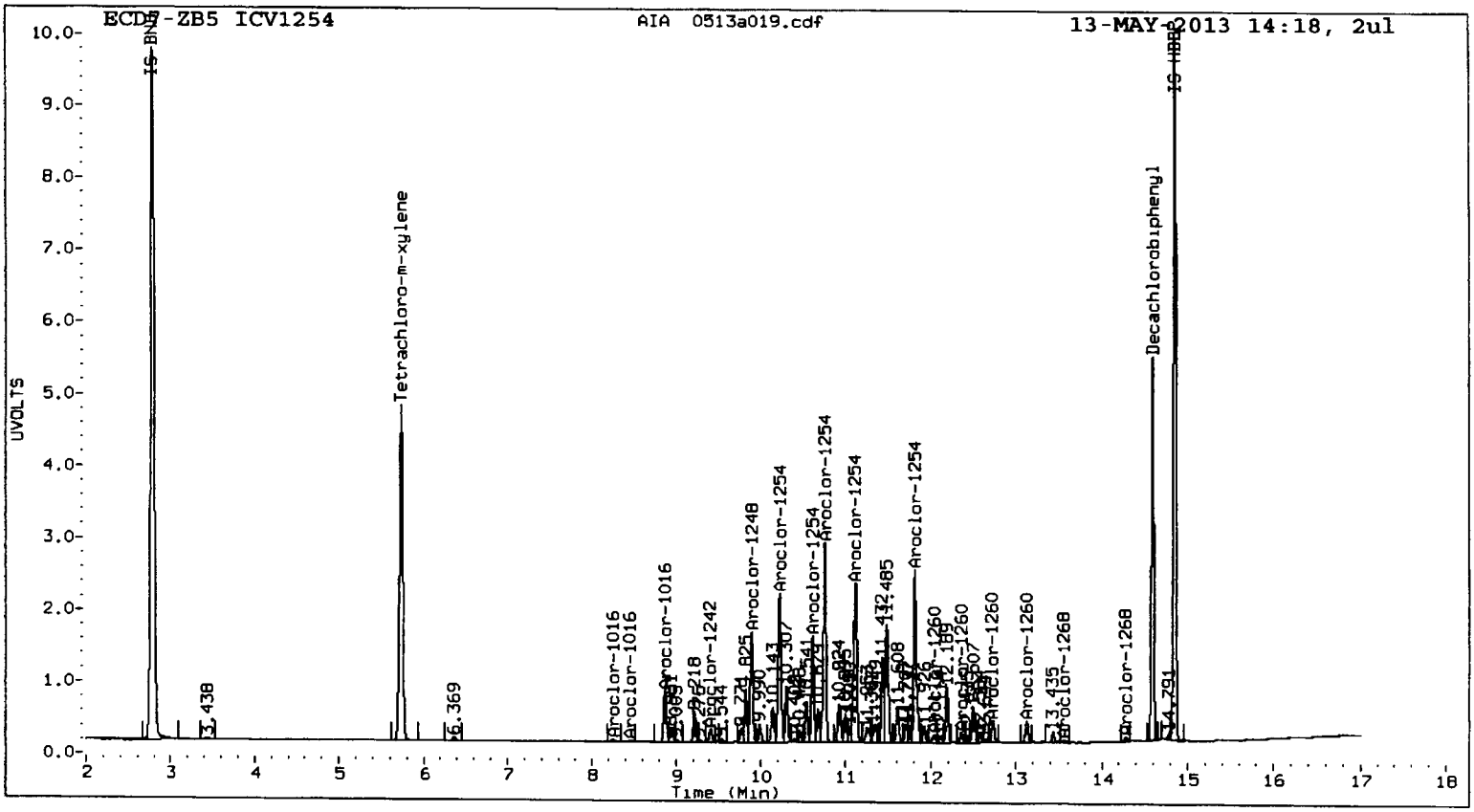
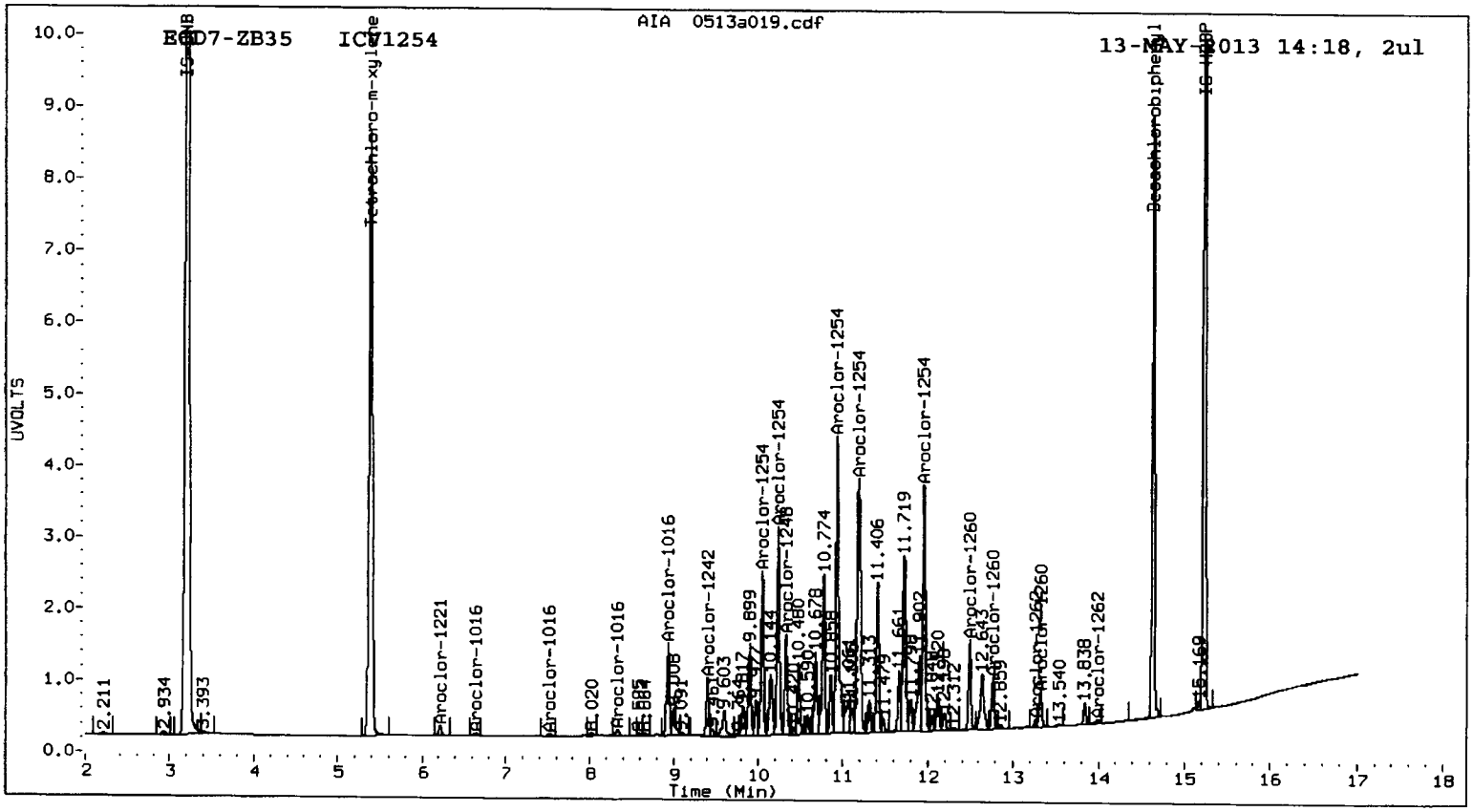
AIA 0513a019.cdf
13-MAY-2013 14:18, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262


ECD7-ZB5 ICV1254
AIA 0513a019.cdf
13-MAY-2013 14:18, 2ul
IS-BNB
Tetrachloro-m-xylene
IS-HBB
Decachlorobiphenyl
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
UVOLTS
Time (Min)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IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a020.d
Data file 2: 20130513.b/ical-2.b/0513a020.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV2162
Client ID:
Injection Date: 13-MAY-2013 14:40
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.732	-0.001	2649733	5.388	-0.001	4643464	39.0	37.0	5.2	Tetrachloro-m-xylene
14.592	-0.001	2065648	14.633	0.000	3144889	35.3	36.7	4.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	97.4	92.5
Decachlorobiphenyl	88.1	91.8

05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5850857	7.3
Hexabromobiphenyl	4223695	4714513	11.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10232179	7.1
Hexabromobiphenyl	6702455	7133256	6.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	7.741	0.001	36775	20.4	1	6.644	-0.002	713547	296.0	
Aroclor-1016	2	8.262	0.000	97745	16.1	2	7.538	0.013	229665	43.2	
Aroclor-1016	3	8.448	0.000	46640	19.4	3	8.335	-0.003	230861	21.4	
Aroclor-1016	4	8.874	0.001	25957	17.9	4	8.934	-0.002	79854	24.6	
	Total Col1Ave (4 peaks):				18.4	Total Col2Ave (4 peaks):				96.3	RPD = 136*
	Corrected Ave (3 peaks):				17.8	Corrected Ave (3 peaks):				29.7	RPD = 50*
Aroclor-1221	1	6.188	-0.003	177392	257.9	1	6.212	-0.003	410070	257.0	
Aroclor-1221	2	6.398	-0.002	147166	253.7	2	6.509	-0.003	238752	258.2	
Aroclor-1221	3	6.521	-0.002	432439	256.0	3	6.644	-0.003	713547	256.8	
Aroclor-1221	NS	---			----	4	7.538	-0.001	229665	227.2	
	Total Col1Ave (3 peaks):				255.9	Total Col2Ave (4 peaks):				249.8	RPD = 2
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				247.0	
Aroclor-1232	1	6.521	0.000	432439	381.0	1	6.644	-0.001	713547	357.3	
Aroclor-1232	2	7.741	-0.002	36775	52.5	2	7.538	0.013	229665	102.0	
Aroclor-1232	3	8.262	0.000	97745	42.7	3	8.335	-0.002	230861	54.3	
Aroclor-1232	4	8.448	-0.001	46640	50.6	4	8.934	-0.002	79854	55.1	
	Total Col1Ave (4 peaks):				131.7	Total Col2Ave (4 peaks):				142.2	RPD = 8
	Corrected Ave (3 peaks):				48.6	Corrected Ave (3 peaks):				70.5	RPD = 37
Aroclor-1242	1	7.741	-0.005	36775	24.7	1	6.644	-0.004	713547	344.4	
Aroclor-1242	2	8.262	-0.003	97745	19.6	2	7.538	0.010	229665	54.8	
Aroclor-1242	3	8.448	-0.005	46640	23.8	3	8.335	-0.004	230861	27.0	
Aroclor-1242	4	9.413	-0.003	27835	15.0	4	9.404	-0.002	138985	40.9	
	Total Col1Ave (4 peaks):				20.8	Total Col2Ave (4 peaks):				116.8	RPD = 140*
	Corrected Ave (3 peaks):				19.5	Corrected Ave (3 peaks):				40.9	RPD = 71*
Aroclor-1248	1	8.262	0.004	97745	33.9	1	7.538	0.011	229665	119.0	
Aroclor-1248	2	8.874	-0.003	25957	13.8	2	8.335	-0.001	230861	44.5	
Aroclor-1248	3	9.413	-0.003	27835	10.5	3	8.934	-0.004	79854	21.2	
Aroclor-1248	4	9.892	0.006	134656	40.0	4	10.340	-0.006	97526	18.8	
	Total Col1Ave (4 peaks):				24.6	Total Col2Ave (4 peaks):				50.9	RPD = 70*
	Corrected Ave (3 peaks):				19.4	Corrected Ave (3 peaks):				28.2	RPD = 37
Aroclor-1254	1	10.227	0.000	153300	43.3	1	10.047	-0.002	237532	70.4	
Aroclor-1254	2	10.615	-0.001	35309	16.0	2	10.231	-0.002	276286	64.7	
Aroclor-1254	3	10.723	-0.036	209256	48.4	3	10.969	0.039	1001674	141.7	
Aroclor-1254	4	11.098	-0.020	734041	165.3	4	11.197	0.013	1135650	159.0	
Aroclor-1254	5	11.812	-0.001	660726	150.3	5	11.953	-0.001	722847	140.5	
	Total Col1Ave (5 peaks):				84.7	Total Col2Ave (5 peaks):				115.3	RPD = 31
	Corrected Ave (4 peaks):				64.5	Corrected Ave (4 peaks):				104.3	RPD = 47*
Aroclor-1260	1	12.044	0.000	1189758	360.8	1	11.953	0.001	722847	98.7	
Aroclor-1260	2	12.361	0.000	982453	299.4	2	12.498	0.001	1609369	271.9	
Aroclor-1260	3	12.732	-0.001	2186120	288.2	3	12.766	-0.001	3086098	268.6	
Aroclor-1260	4	13.128	0.000	719126	181.4	4	13.330	0.002	2101904	276.2	
Aroclor-1260	5	13.306	-0.001	881519	505.9	NS	---			----	
	Total Col1Ave (5 peaks):				327.1	Total Col2Ave (4 peaks):				228.9	RPD = 35
	Corrected Ave (4 peaks):				282.5	Corrected Ave (3 peaks):				213.1	RPD = 28
Aroclor-1262	1	12.361	0.000	982453	245.4	1	12.498	0.000	1609369	246.3	
Aroclor-1262	2	12.732	0.000	2186120	236.9	2	12.766	-0.001	3086098	236.3	
Aroclor-1262	3	13.128	0.000	719126	239.5	3	13.271	-0.001	1416856	249.9	
Aroclor-1262	4	13.306	0.000	881519	249.4	4	13.330	0.000	2101904	245.7	
Aroclor-1262	5	13.886	-0.001	691366	243.3	5	13.956	-0.001	1096630	241.3	
	Total Col1Ave (5 peaks):				242.9	Total Col2Ave (5 peaks):				243.9	RPD = 0
	Corrected Ave (4 peaks):				241.3	Corrected Ave (4 peaks):				242.4	RPD = 0
Aroclor-1268	1	13.238	-0.001	888574	90.7	1	13.271	-0.001	1416856	103.8	

Aroclor-1268 2	13.306	0.000	881519	100.8	2	13.330	-0.005	2101904	164.0
Aroclor-1268 3	13.664	0.013	336082	46.4	3	13.680	0.000	96282	9.3
Aroclor-1268 4	14.287	-0.001	247909	12.2	4	14.331	0.000	364959	11.8

Total Col1Ave (4 peaks): 62.5 Total Col2Ave (4 peaks): 72.3 RPD = 14

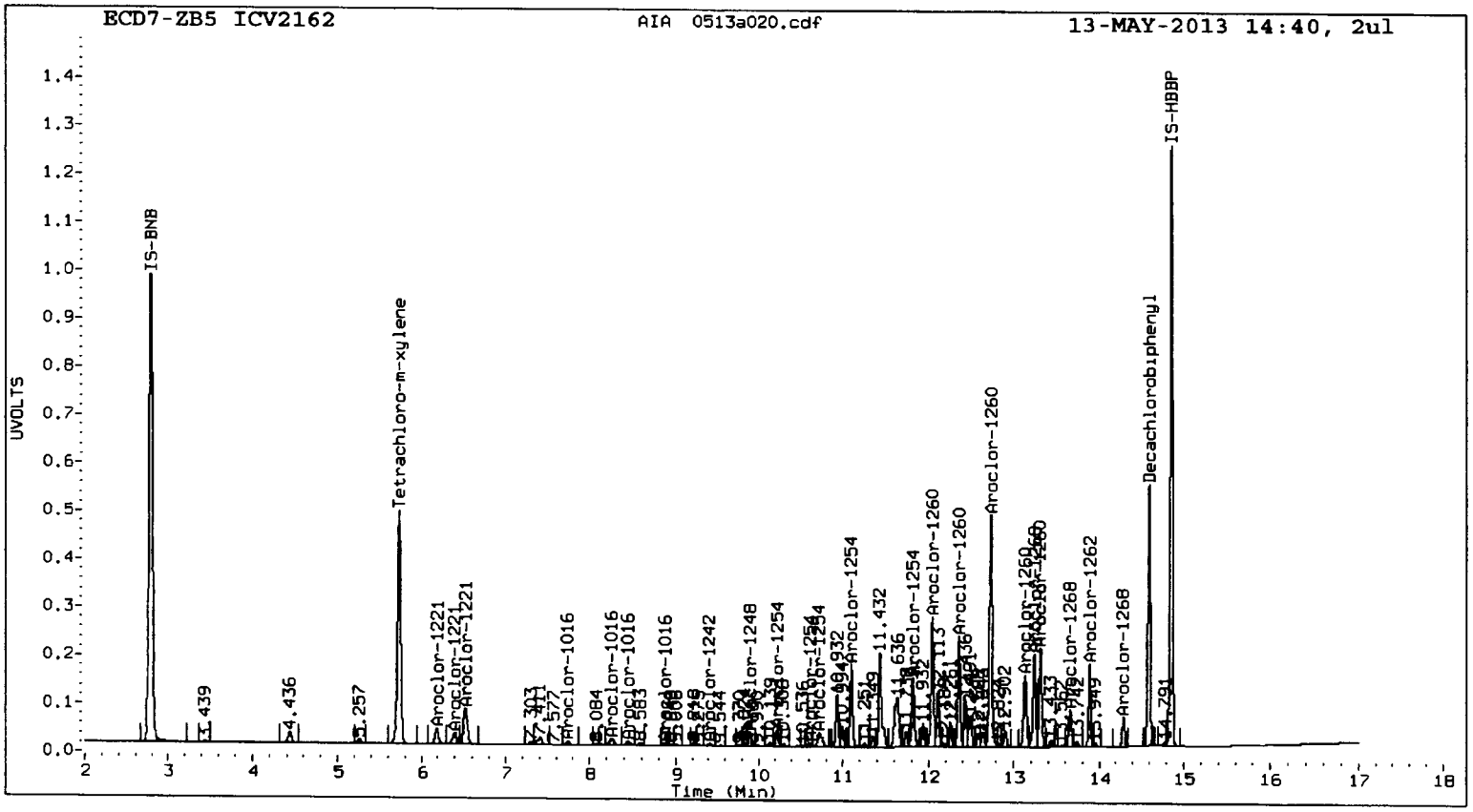
Corrected Ave (3 peaks): 49.8 Corrected Ave (3 peaks): 41.7 RPD = 18

Total PCB Area Col1 (5.833 - 14.493) = 16327086 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 26149382 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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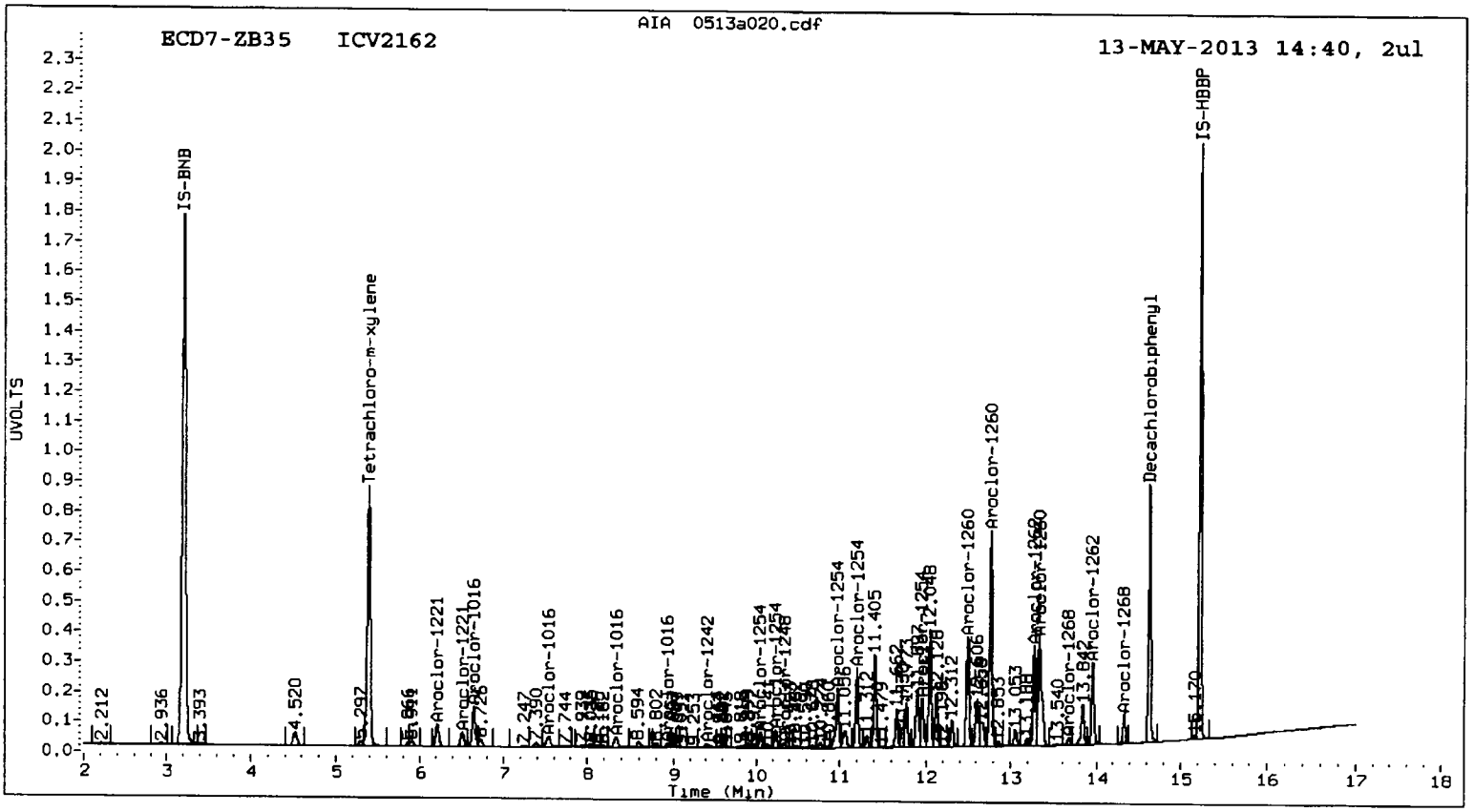
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
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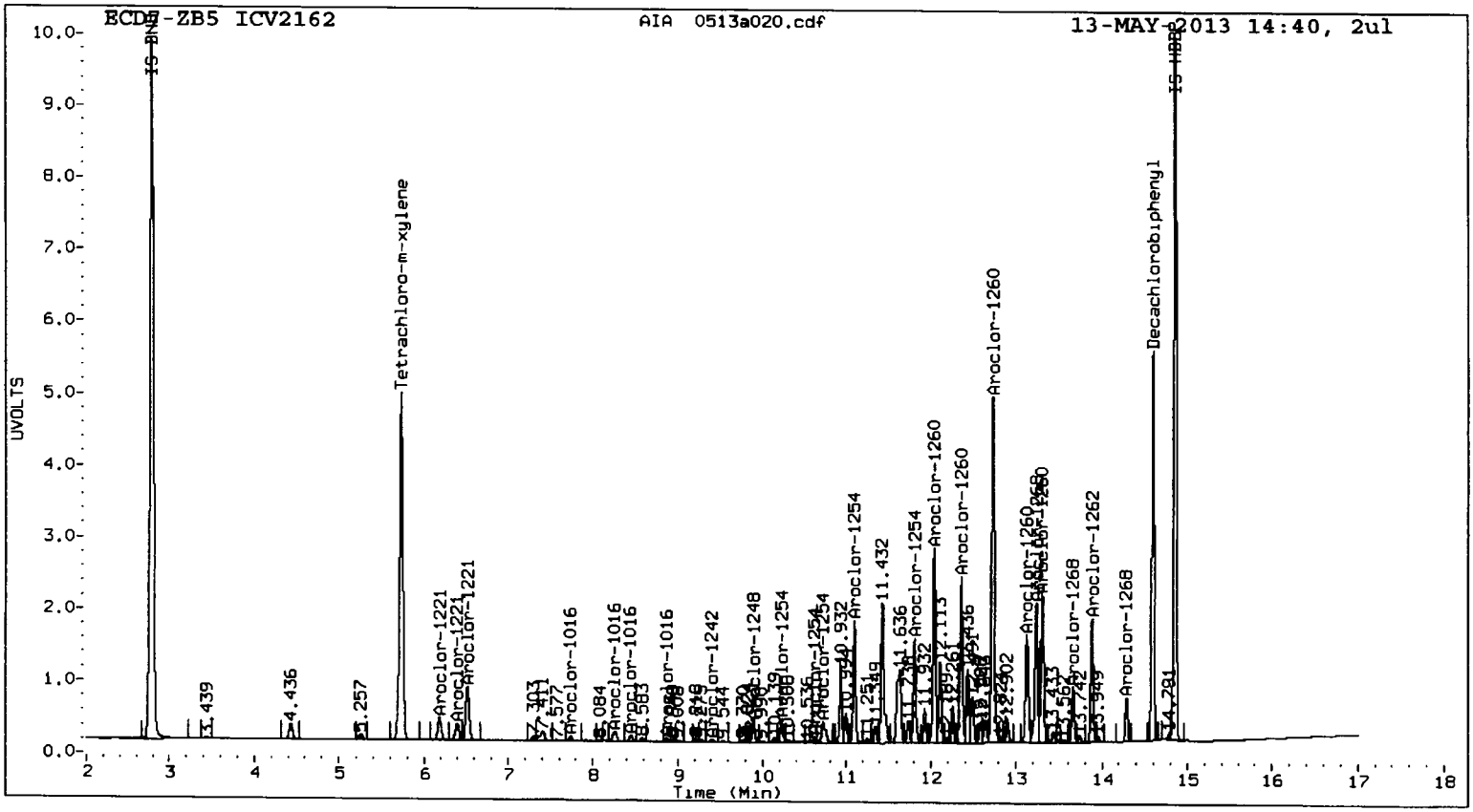
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13-MAY-2013 14:40, 2ul
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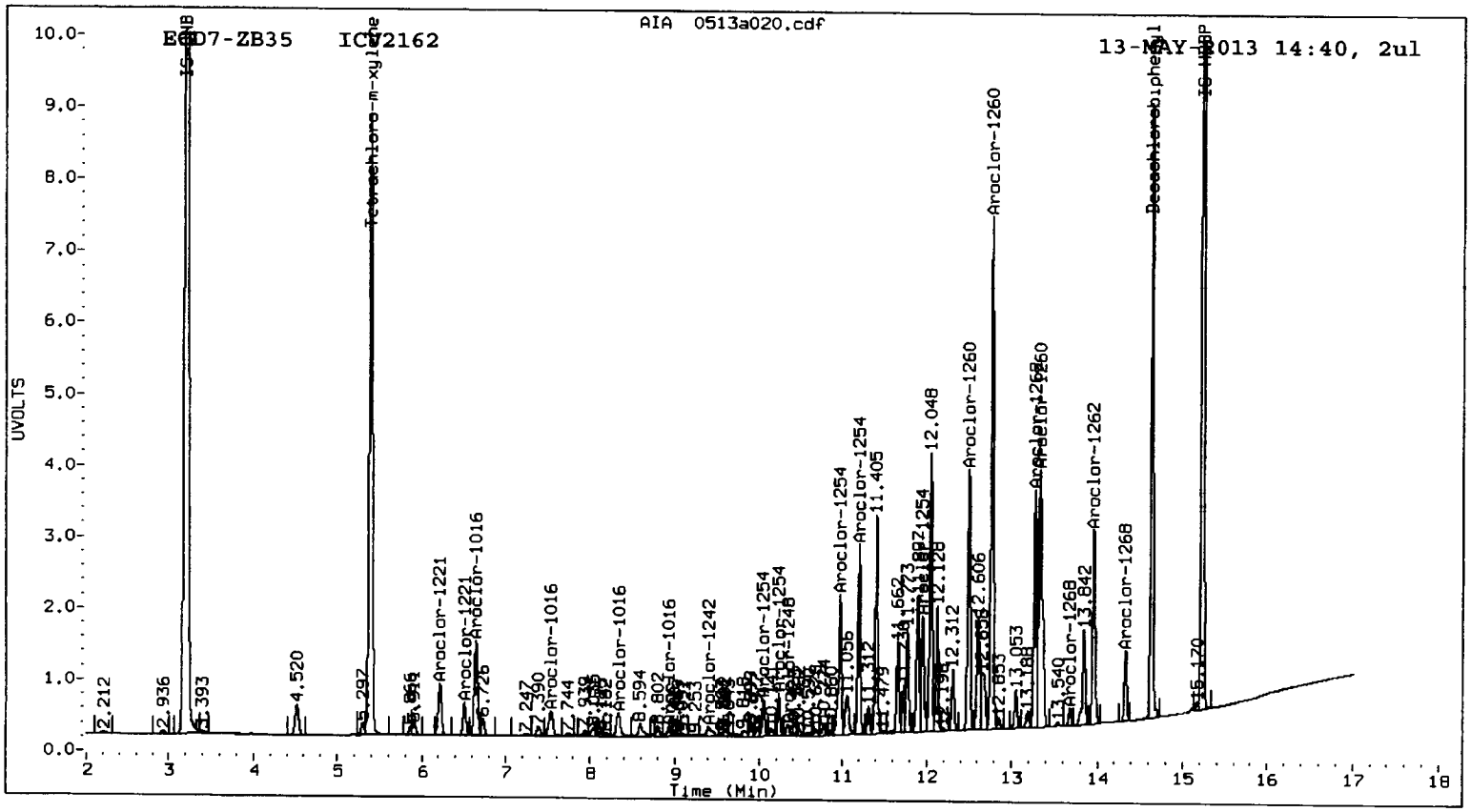
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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13-MAY-2013 14:40, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/ical-1.b/0513a021.d
Data file 2: 20130513.b/ical-2.b/0513a021.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: ICV3268
Client ID:
Injection Date: 13-MAY-2013 15:02
Report Date: 05/14/2013 08:46
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.734	0.001	2634039	5.390	0.002	4681763	39.4	37.5	4.9	Tetrachloro-m-xylene
14.593	0.000	2765463	14.633	0.000	4234110	48.1	50.1	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	98.5	93.8
Decachlorobiphenyl	120.1	125.2

JL 05/14/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	5750105	5.4
Hexabromobiphenyl	4223695	4630389	9.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10172481	6.4
Hexabromobiphenyl	6702455	7038146	5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

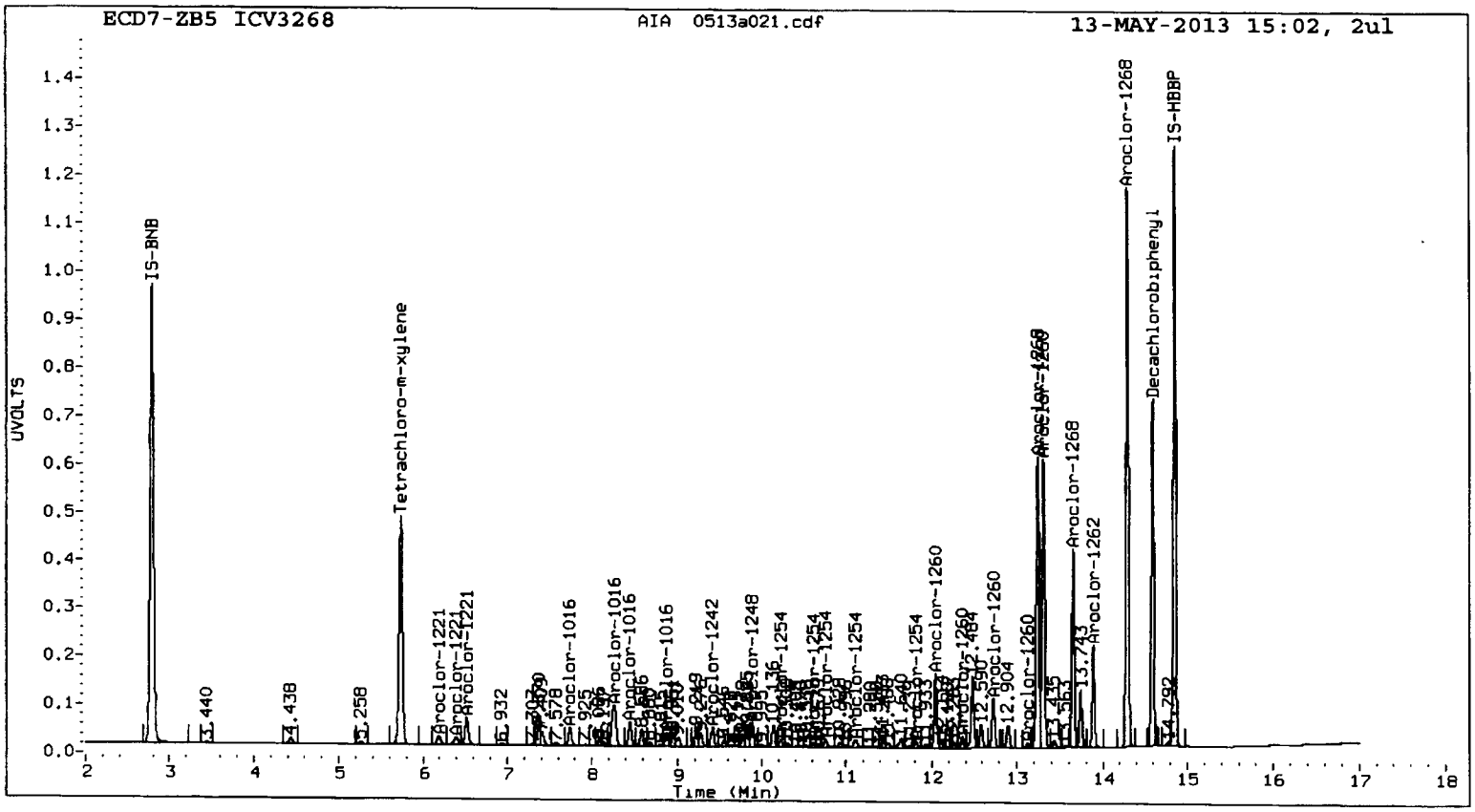
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	7.744	0.004	190464	107.4	1	6.646	0.000	581270	242.6	
Aroclor-1016	2	8.264	0.002	614526	103.1	2	7.528	0.002	621578	117.7	
Aroclor-1016	3	8.450	0.002	247861	104.8	3	8.338	0.000	1159290	107.9	
Aroclor-1016	4	8.875	0.002	134610	94.4	4	8.936	0.000	332549	103.0	
	Total Col1Ave (4 peaks):				102.4		Total Col2Ave (4 peaks):			142.8	RPD = 33
	Corrected Ave (3 peaks):				100.8		Corrected Ave (3 peaks):			109.5	RPD = 8
Aroclor-1221	1	6.190	-0.001	104588	154.7	1	6.215	0.000	275424	173.6	
Aroclor-1221	2	6.399	-0.001	107011	187.7	2	6.511	-0.001	164288	178.7	
Aroclor-1221	3	6.521	-0.001	329820	198.7	3	6.646	-0.001	581270	210.4	
Aroclor-1221	NS	---			----	4	7.528	-0.012	621578	618.4	
	Total Col1Ave (3 peaks):				180.4		Total Col2Ave (4 peaks):			295.3	RPD = 48*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			187.6	
Aroclor-1232	1	6.521	0.001	329820	295.7	1	6.646	0.001	581270	292.8	
Aroclor-1232	2	7.744	0.000	190464	276.7	2	7.528	0.002	621578	277.8	
Aroclor-1232	3	8.264	0.002	614526	273.1	3	8.338	0.001	1159290	274.5	
Aroclor-1232	4	8.450	0.001	247861	273.4	4	8.936	0.000	332549	231.0	
	Total Col1Ave (4 peaks):				279.7		Total Col2Ave (4 peaks):			269.0	RPD = 4
	Corrected Ave (3 peaks):				274.4		Corrected Ave (3 peaks):			261.1	RPD = 5
Aroclor-1242	1	7.744	-0.002	190464	130.3	1	6.646	-0.003	581270	282.2	
Aroclor-1242	2	8.264	-0.001	614526	125.6	2	7.528	-0.001	621578	149.3	
Aroclor-1242	3	8.450	-0.003	247861	128.8	3	8.338	-0.002	1159290	136.5	
Aroclor-1242	4	9.415	-0.002	216793	119.2	4	9.404	-0.002	490243	145.2	
	Total Col1Ave (4 peaks):				126.0		Total Col2Ave (4 peaks):			178.3	RPD = 34
	Corrected Ave (3 peaks):				124.5		Corrected Ave (3 peaks):			143.6	RPD = 14
Aroclor-1248	1	8.264	0.006	614526	217.0	1	7.528	0.001	621578	324.0	
Aroclor-1248	2	8.875	-0.002	134610	73.0	2	8.338	0.001	1159290	224.9	
Aroclor-1248	3	9.415	-0.001	216793	83.0	3	8.936	-0.002	332549	88.7	
Aroclor-1248	4	9.884	-0.002	234719	71.0	4	10.345	-0.001	443151	86.1	
	Total Col1Ave (4 peaks):				111.0		Total Col2Ave (4 peaks):			180.9	RPD = 48*
	Corrected Ave (3 peaks):				75.7		Corrected Ave (3 peaks):			133.2	RPD = 55*
Aroclor-1254	1	10.227	-0.001	81457	23.4	1	10.048	-0.001	124592	37.1	
Aroclor-1254	2	10.617	0.001	50439	23.2	2	10.233	0.000	132208	31.1	
Aroclor-1254	3	10.758	0.000	103473	24.3	3	10.927	-0.002	165365	23.5	
Aroclor-1254	4	11.106	-0.012	118504	27.2	4	11.195	0.011	227554	32.1	
Aroclor-1254	5	11.813	-0.001	66438	15.4	5	11.954	0.000	79080	15.5	
	Total Col1Ave (5 peaks):				22.7		Total Col2Ave (5 peaks):			27.9	RPD = 20
	Corrected Ave (4 peaks):				21.6		Corrected Ave (4 peaks):			25.5	RPD = 17
Aroclor-1260	1	12.045	0.001	669812	206.8	1	11.954	0.002	79080	10.9	
Aroclor-1260	2	12.362	0.001	106802	33.1	2	12.497	0.000	1078131	184.6	
Aroclor-1260	3	12.733	0.000	477744	64.1	3	12.767	0.000	719489	63.5	
Aroclor-1260	4	13.129	0.001	45232	11.6	4	13.334	0.006	3778438	503.3	
Aroclor-1260	5	13.306	-0.001	2589002	1512.7	NS	---			----	
	Total Col1Ave (5 peaks):				365.7		Total Col2Ave (4 peaks):			190.6	RPD = 63*
	Corrected Ave (4 peaks):				78.9		Corrected Ave (3 peaks):			86.3	RPD = 9
Aroclor-1262	1	12.362	0.001	106802	27.2	1	12.497	-0.001	1078131	167.2	
Aroclor-1262	2	12.733	0.001	477744	52.7	2	12.767	-0.001	719489	55.8	
Aroclor-1262	3	13.129	0.001	45232	15.3	3	13.272	-0.001	3639075	650.6	
Aroclor-1262	4	13.306	-0.001	2589002	745.8	4	13.334	0.004	3778438	447.6	
Aroclor-1262	5	13.887	0.000	845269	302.8	5	13.956	0.000	1267250	282.6	
	Total Col1Ave (5 peaks):				228.8		Total Col2Ave (5 peaks):			320.8	RPD = 33
	Corrected Ave (4 peaks):				99.5		Corrected Ave (4 peaks):			238.3	RPD = 82*
Aroclor-1268	1	13.239	0.000	2641915	274.5	1	13.272	0.000	3639075	270.2	

Aroclor-1268 2	13.306	-0.001	2589002	301.3	2	13.334	0.000	3778438	298.9
Aroclor-1268 3	13.652	0.001	1735163	244.2	3	13.681	0.000	2436212	239.4
Aroclor-1268 4	14.287	-0.001	4489339	224.4	4	14.332	0.001	6814136	224.3
Total Col1Ave (4 peaks):			261.1		Total Col2Ave (4 peaks):			258.2	RPD = 1
Corrected Ave (3 peaks):			247.7		Corrected Ave (3 peaks):			244.6	RPD = 1

Total PCB Area Col1 (5.833 - 14.493) = 20599842 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.488 - 14.533) = 33243589 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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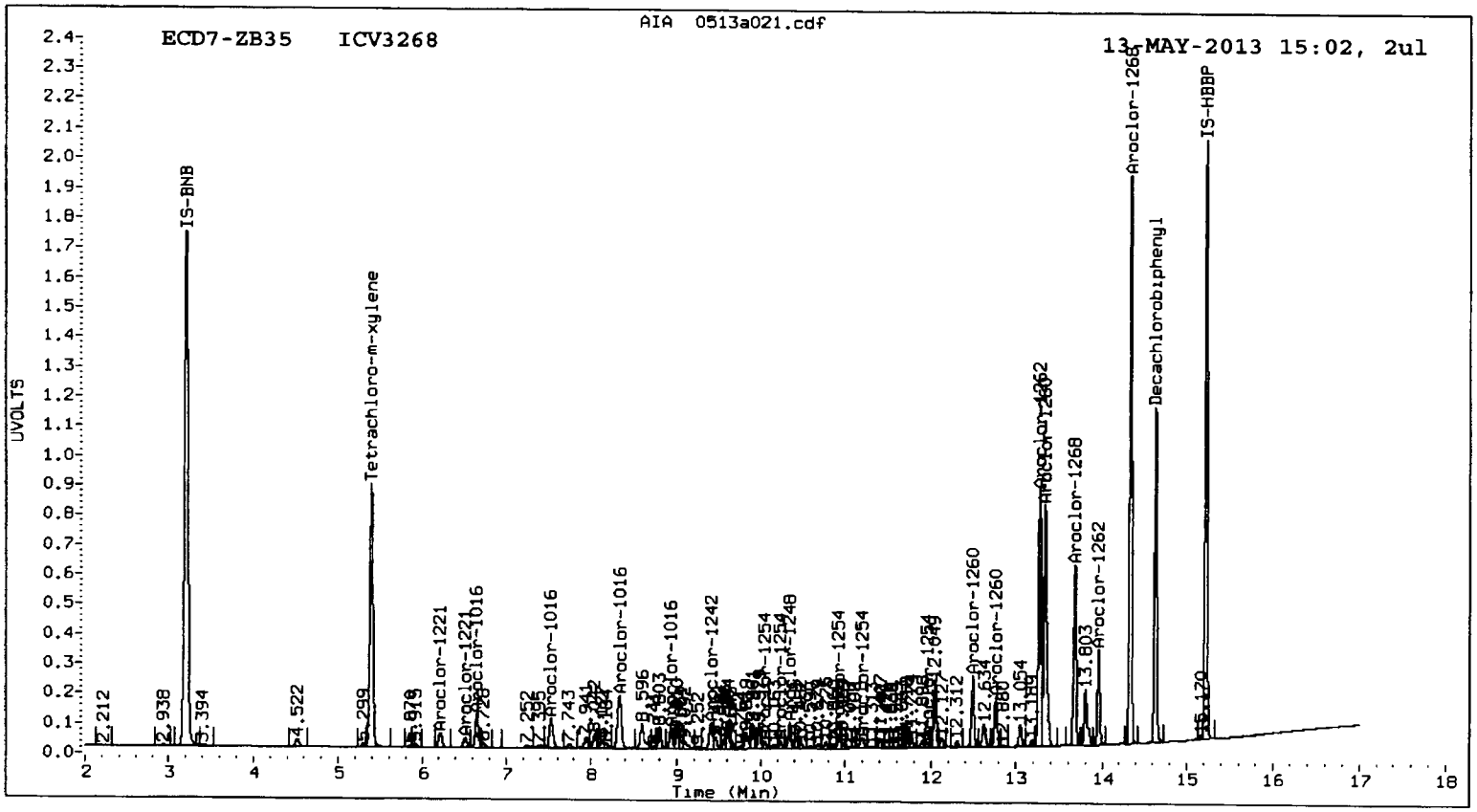
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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Aroclor-1242
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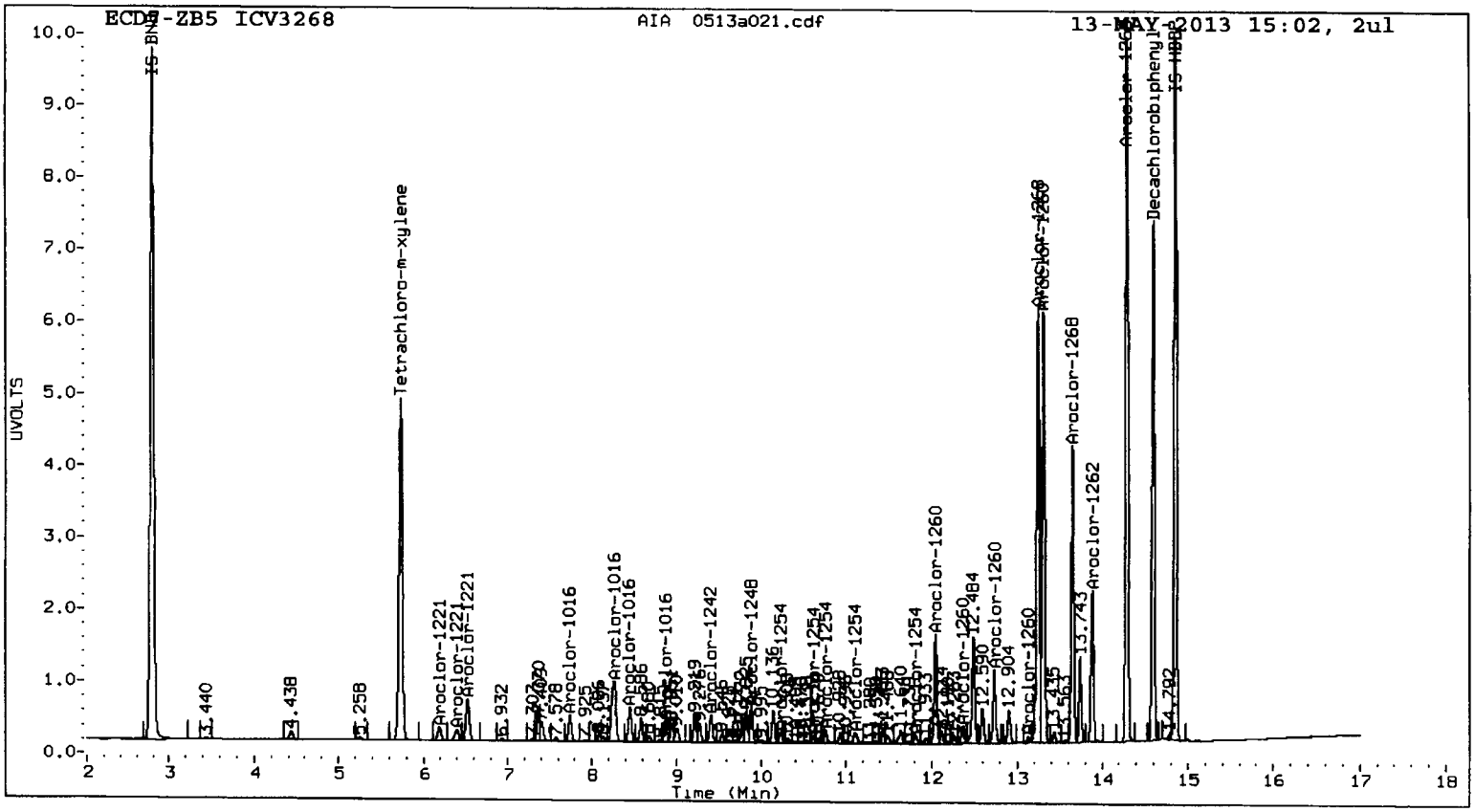
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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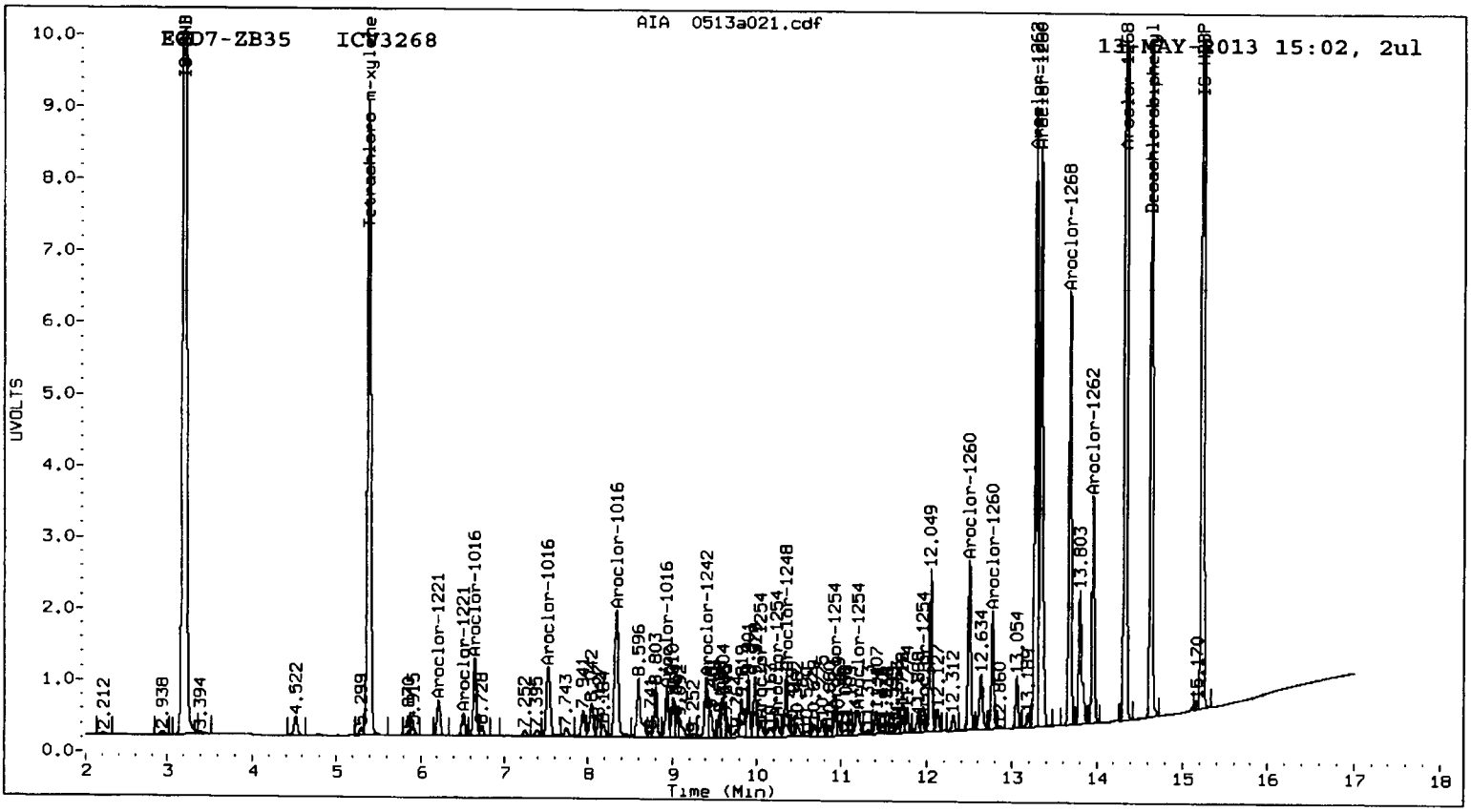
IS-HBB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Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20130513.b/ddt-1.b/0513a022.d ARI ID: DDT'S

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
10.190	0.000	4936876	10.323	0.000	7627951	0.100	0.100	0.0	2,4-DDE
10.765	0.000	4574272	10.725	0.000	12028314	0.100	0.100	0.0	2,4-DDD
11.285	0.000	5765229	11.500	0.000	18499770	0.100	0.200#	66.7*	2,4-DDT
10.641	0.000	8046312	11.031	0.000	6883579	0.100	0.100	0.0	4,4-DDE
11.230	0.000	6812076	11.500	0.000	18499770	0.100	0.200#	66.7*	4,4-DDD
11.751	0.000	7688572	11.937	0.000	11208924	0.100	0.100	0.0	4,4-DDT

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

05/14/13

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD
Instrument: ecd7.i Data File: 20130513.b/ddt-1.b/0513a023.d
Analysis Date: 13-MAY-2013 15:46 Init. Calib. Date: 13-MAY-2013

GC Column: ZB5 ID: 0.53 (mm)

COMPOUND	RT	AREA
4,4-DDE	10.640	45694
4,4-DDD	11.233	58404
4,4-DDT	11.750	7707273

Col 1: 4,4-DDT Percent Breakdown = 1.3 %

GC Column: ZB35 ID: 0.53 (mm)

COMPOUND	RT	AREA
4,4-DDE	11.032	46338
4,4-DDD/2,4-DDT	11.504	95269
4,4-DDT	11.938	11305771

Col 2: 4,4-DDT Percent Breakdown = 1.2 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

05/14/13

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WT81 Client ID: NPDES

METHOD: **8082A**(PCB) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date: 05/13/13 Analysis Start Date: 06/22/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / Y / N / ✓	Method Blank in Control?	Y / N / ✓
Retention times within Windows?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
CCAL met %D Criteria?	Y / N / ✓ (zero)	LCS / LCSD RPD ≤30%?	NA / <10%
Surrogate Recovery in Control?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Internal STD. within 50-200%?	NA / Y / N / ✓	MS / MSD RPD ≤30%?	<5% NA / NA
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N ✓ 06/24/13
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N

Detail problems, corrective actions and/or other pertinent information below

misc. peaks throughout, went w/ best fit, skimmed only baseline rise. samples diluted due to screen front column for AR1254 ccal is low ~0.9% can drop low peak to bring w/in qc.

(Review 1) Analyst: JE **Date:** 06/24/13

(Review 2) Reviewer: [signature] **Date:** 6/24/13

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130513.b/0622-1.b

ARI Job No.: RINS Method: PCB1.m Instrument: ecd7.i Date: 22-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1409	0622a001.d	RINSE		1	NO MANUAL INTEGRATION
1431	0622a002.d	DDT		1	NO MANUAL INTEGRATION
1453	0622a003.d	DDT BD		1	NO MANUAL INTEGRATION
1515	0622a004.d	AR1254		1	NO MANUAL INTEGRATION
1537	0622a005.d	AR1660		1	NO MANUAL INTEGRATION
1559	0622a006.d	WU90MBS1	WU90MBS1	1	NO MANUAL INTEGRATION
1621	0622a007.d	WU90LCSS1	WU90LCSS1	1	NO MANUAL INTEGRATION
1643	0622a008.d	WU90LCSDS1	WU90LCSDS1	1	NO MANUAL INTEGRATION
1704	0622a009.d	WU90A	CB806-1306	1	NO MANUAL INTEGRATION
1726	0622a010.d	WU90B	CB807-1306	1	NO MANUAL INTEGRATION
1748	0622a011.d	WU90C	CB809-1306	1	NO MANUAL INTEGRATION
1810	0622a012.d	AR1248		1	NO MANUAL INTEGRATION
1832	0622a013.d	AR1660		1	NO MANUAL INTEGRATION
1854	0622a014.d	WU38A	CS-061813	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
1916	0622a015.d	WU38B	HL-061813	1	NO MANUAL INTEGRATION
1938	0622a016.d	WT82MBS1	WT82MBS1	1	NO MANUAL INTEGRATION
2000	0622a017.d	WT82LCSS1	WT82LCSS1	1	NO MANUAL INTEGRATION
2022	0622a018.d	WT82LCSDS1	WT82LCSDS1	1	NO MANUAL INTEGRATION
2044	0622a019.d	WT82A	SD-PEB007	1	NO MANUAL INTEGRATION
2106	0622a020.d	WT86A	CL-MH-SPS-	5	NO MANUAL INTEGRATION

2128	0622a021.d AR1242	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd7.i/20130513.b/0622-1.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2150	0622a022.d	AR1660		1	NO MANUAL INTEGRATION
2212	0622a023.d	WT81A	AM-VT-INF-	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
2234	0622a024.d	WT81AMS	AM-VT-INF-	1	NO MANUAL INTEGRATION
2256	0622a025.d	WT81AMSD	AM-VT-INF-	1	NO MANUAL INTEGRATION
2318	0622a026.d	WT81B	AM-SF4-EFF	5	Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
2340	0622a027.d	WT81C	AM-FD-01-2	5	Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
0002	0622a028.d	AR1254		1	NO MANUAL INTEGRATION
0024	0622a029.d	AR1660		1	NO MANUAL INTEGRATION

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a012.d
Data file 2: 20130513.b/0622-2.b/0622a012.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 22-JUN-2013 18:10
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.735	-0.006	3298439	5.390	-0.004	4374822	39.7	38.2	3.9	Tetrachloro-m-xylene
14.594	-0.001	2330521	14.632	0.000	2772865	34.9	36.8	5.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.2	95.4
Decachlorobiphenyl	87.2	92.1

JL 06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7150355	31.1
Hexabromobiphenyl	4223695	5376606	27.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9345285	-2.2
Hexabromobiphenyl	6702455	6266616	-6.5

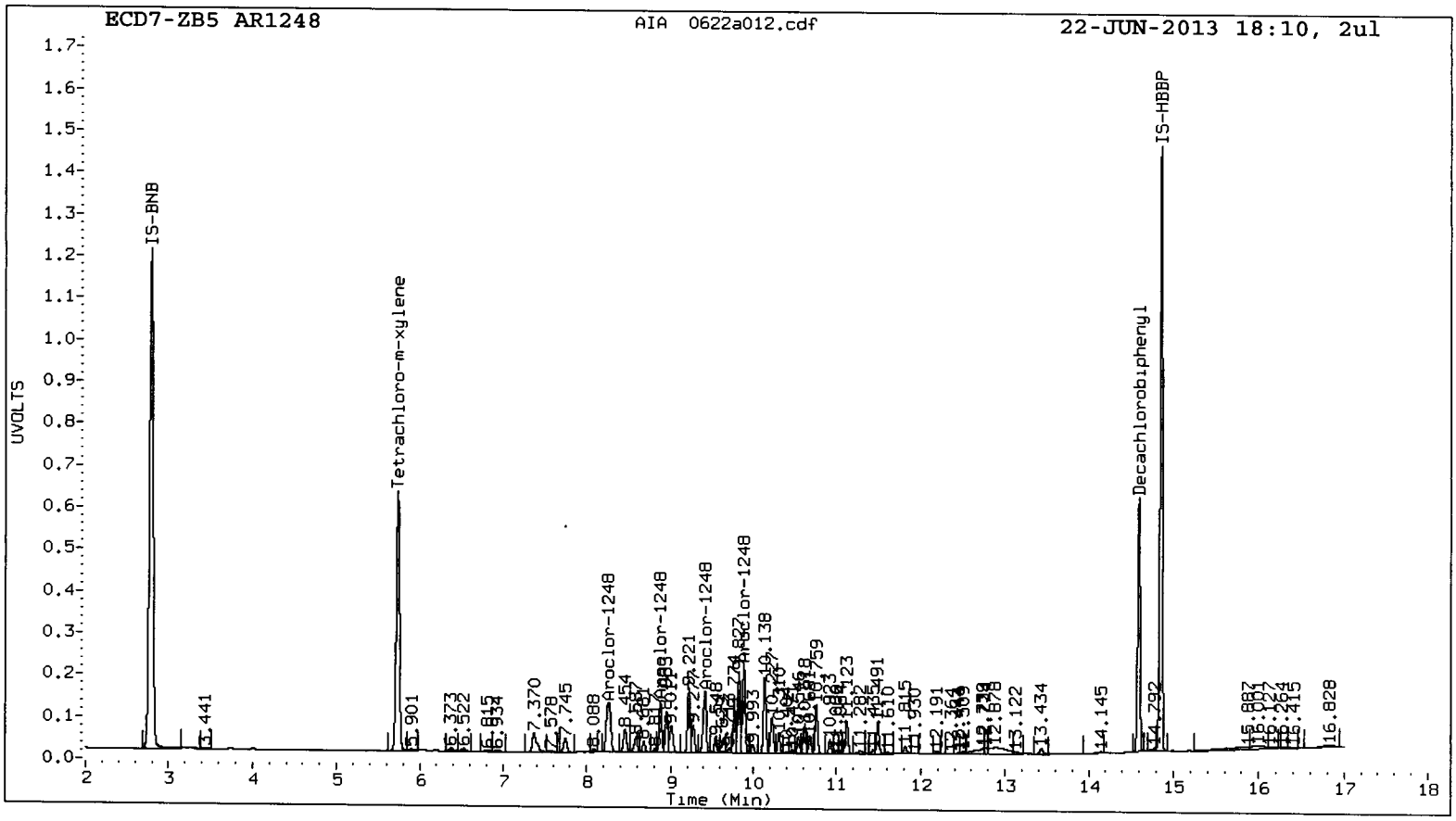
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1248	1	8.259	0.000	862833	245.0	1	7.525	0.000	448342	254.4
Aroclor-1248	2	8.878	0.000	552684	241.1	2	8.334	0.000	1167980	246.7
Aroclor-1248	3	9.417	0.000	765808	235.8	3	8.937	0.000	841911	244.5
Aroclor-1248	4	9.887	0.000	960719	233.6	4	10.345	0.000	1118411	236.5
Total Col1Ave (4 peaks):					238.9	Total Col2Ave (4 peaks):				245.5 RPD = 3
Corrected Ave (3 peaks):					236.8	Corrected Ave (3 peaks):				242.5 RPD = 2

Total PCB Area Col1 (5.841 - 14.494) = 12351612 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 16898784 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical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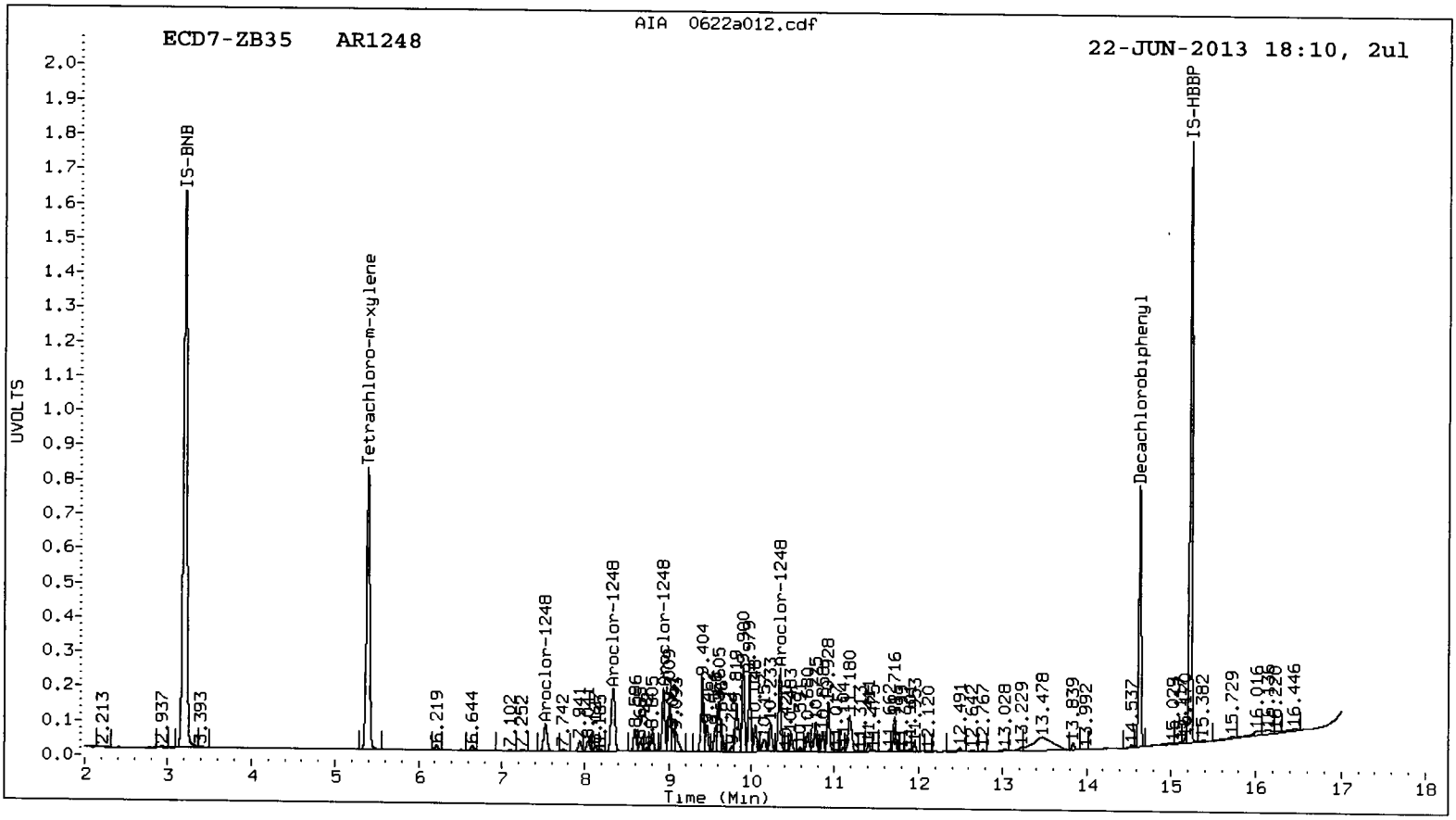
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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Time (Min)
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Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a013.d
Data file 2: 20130513.b/0622-2.b/0622a013.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 22-JUN-2013 18:32
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.734	-0.007	3327648	5.389	-0.005	4391150	40.2	38.2	5.1	Tetrachloro-m-xylene
14.593	-0.001	2426141	14.632	-0.001	2807350	35.6	34.8	2.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.4	95.4
Decachlorobiphenyl	89.0	87.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7126300	30.7
Hexabromobiphenyl	4223695	5486880	29.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9380932	-1.8
Hexabromobiphenyl	6702455	6715729	0.2

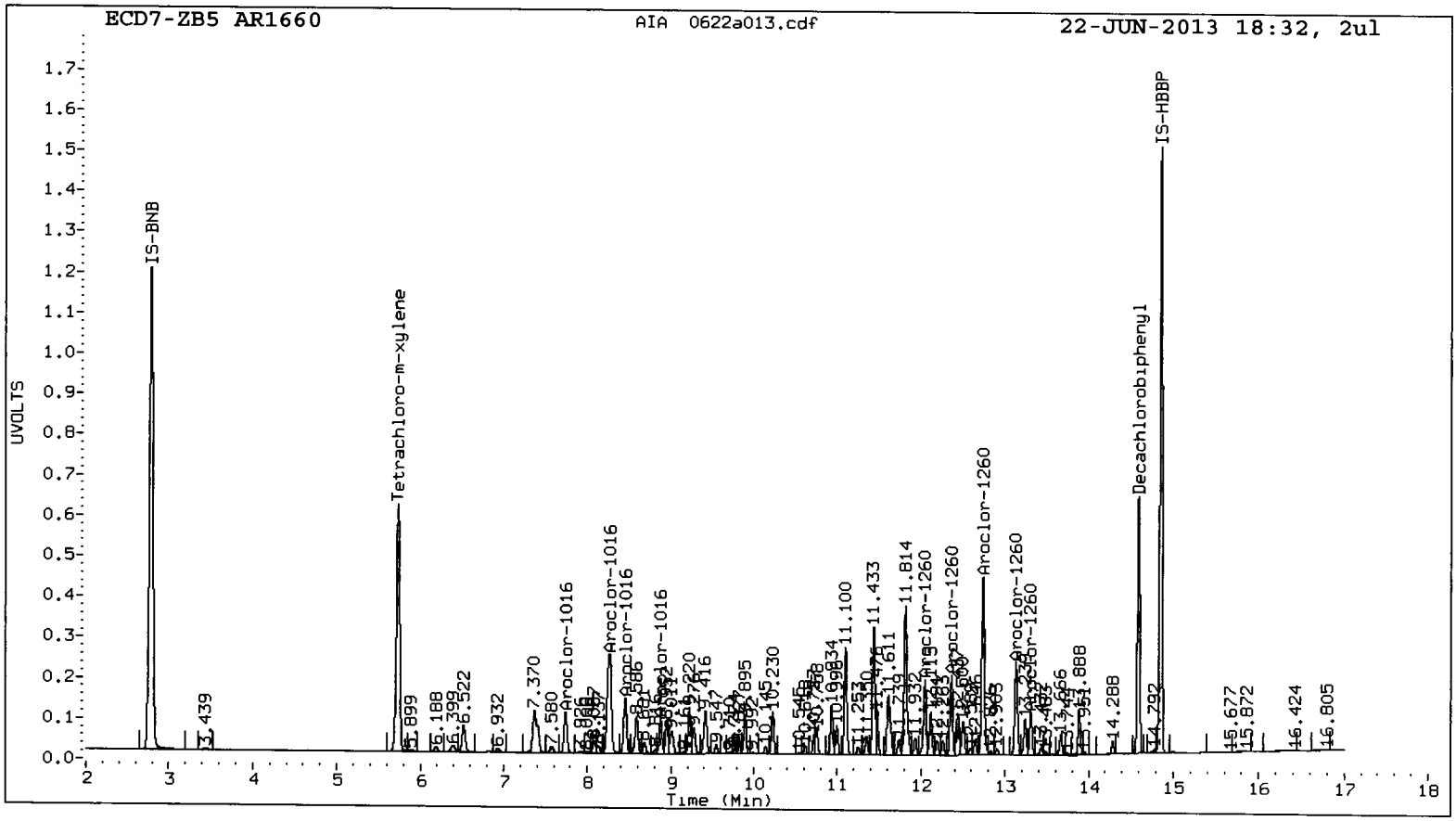
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.745	-0.004	511859	233.0	1	6.646	-0.004	513912	232.5
Aroclor-1016	2	8.266	-0.003	1749474	236.8	2	7.526	-0.002	1118037	229.6
Aroclor-1016	3	8.451	-0.004	672710	229.5	3	8.336	-0.003	2244222	226.4
Aroclor-1016	4	8.877	-0.004	388999	220.2	4	8.936	-0.002	649340	218.0
Total Col1Ave (4 peaks):					229.9	Total Col2Ave (4 peaks):				226.7 RPD = 1
Corrected Ave (3 peaks):					227.5	Corrected Ave (3 peaks):				224.7 RPD = 1
Aroclor-1260	1	12.046	-0.002	819286	213.5	1	11.953	-0.001	1391567	201.9
Aroclor-1260	2	12.363	-0.002	837936	219.4	2	12.496	-0.001	1100187	197.4
Aroclor-1260	3	12.733	-0.002	2004408	227.1	3	12.767	0.000	2215498	204.8
Aroclor-1260	4	13.130	-0.002	1064783	230.8	4	13.326	-0.001	1466070	204.6
Aroclor-1260	5	13.308	-0.002	460768	227.2	NS	---			----
Total Col1Ave (5 peaks):					223.6	Total Col2Ave (4 peaks):				202.2 RPD = 10
Corrected Ave (4 peaks):					221.8	Corrected Ave (3 peaks):				201.3 RPD = 10

Total PCB Area Col1 (5.841 - 14.494) = 24610935 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 31287727 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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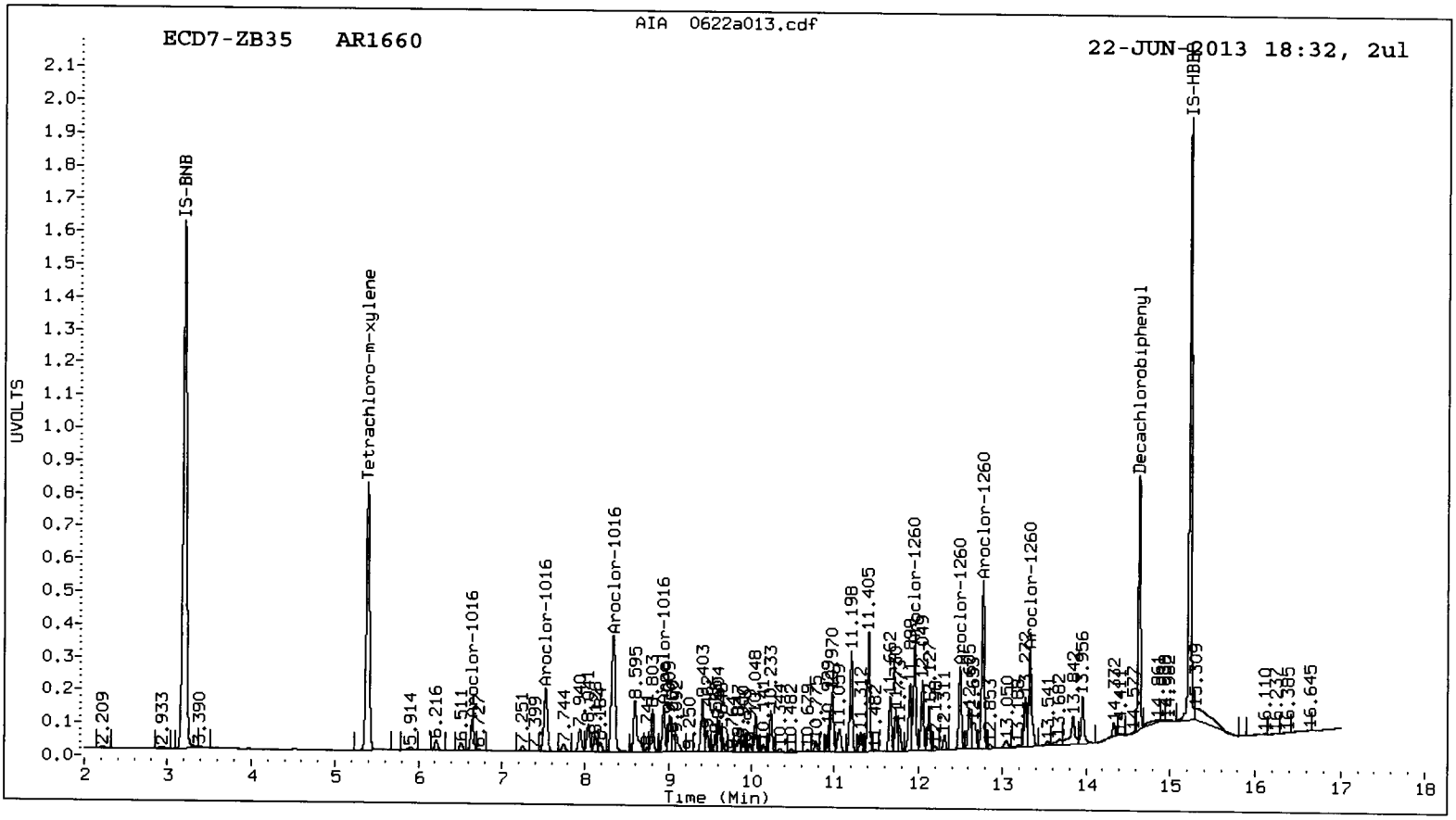
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a016.d
Data file 2: 20130513.b/0622-2.b/0622a016.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT82MBS1
Client ID: WT82MBS1
Injection Date: 22-JUN-2013 19:38
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.739	-0.002	2878453	5.393	-0.001	3852981	30.0	29.0	3.1	Tetrachloro-m-xylene
14.592	-0.002	2540544	14.632	0.000	3024528	33.4	35.5	6.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	74.9	72.6
Decachlorobiphenyl	83.5	88.7

06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	8264295	51.5
Hexabromobiphenyl	4223695	6124364	45.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10815151	13.2
Hexabromobiphenyl	6702455	7097931	5.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

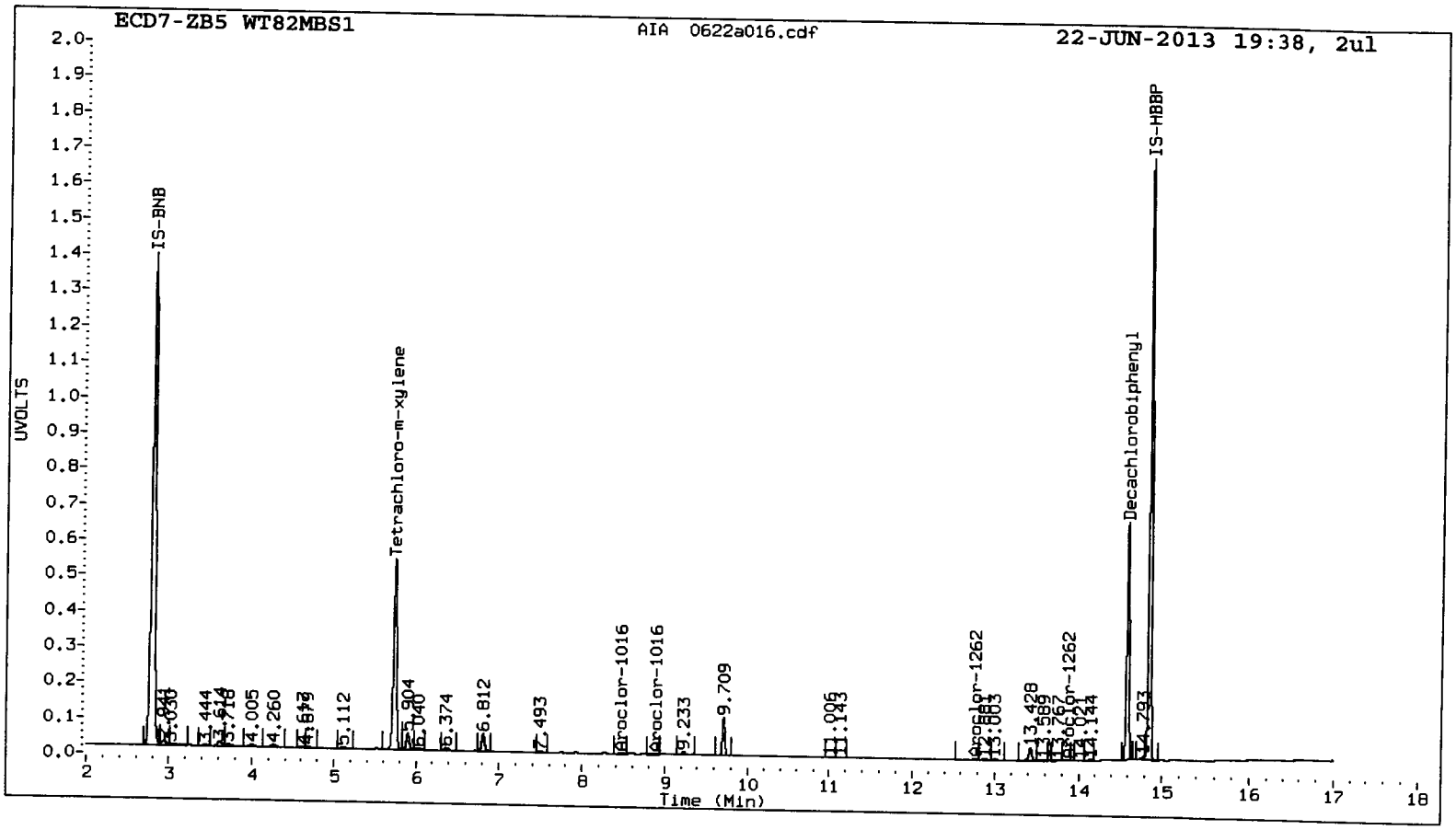
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	6.640	-0.010	16452	6.5
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	8.461	0.005	11426	3.4	3	8.339	0.000	11038	1.0
Aroclor-1016	4	8.885	0.004	11358	5.5	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1221	1	---			0.0	1	6.222	0.006	59200	35.1
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	6.640	-0.007	16452	5.6
Aroclor-1221	NS	---			----	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1232	1	---			0.0	1	6.640	-0.005	16452	7.8
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	8.339	0.002	11038	2.5
Aroclor-1232	4	---			0.0	4	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1242	1	---			0.0	1	6.640	-0.007	16452	7.5
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	8.339	0.001	11038	1.2
Aroclor-1242	4	---			0.0	4	9.401	-0.003	12804	3.6
		Col1Ave: <3 Quant Peaks					Col2Ave:	4.1		
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	8.339	0.006	11038	2.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	10.390	0.045	17052	3.1
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	12.774	0.042	29700	2.5	2	---			0.0
Aroclor-1262	3	---			0.0	3	13.227	-0.046	54445	9.7
Aroclor-1262	4	---			0.0	4	---			0.0
Aroclor-1262	5	13.878	-0.009	11931	3.2	5	13.991	0.034	61020	13.5
		Col1Ave: <3 Quant Peaks					Col2Ave: <3 Quant Peaks			
Aroclor-1268	1	---			0.0	1	13.227	-0.046	54445	4.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	13.663	-0.018	40869	4.0
Aroclor-1268	4	---			0.0	4	14.296	-0.036	64584	2.1
		Col1Ave: <3 Quant Peaks					Col2Ave:	3.4		

Total PCB Area Col1 (5.841 - 14.494) = 1354161 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 1783703 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-HBBP
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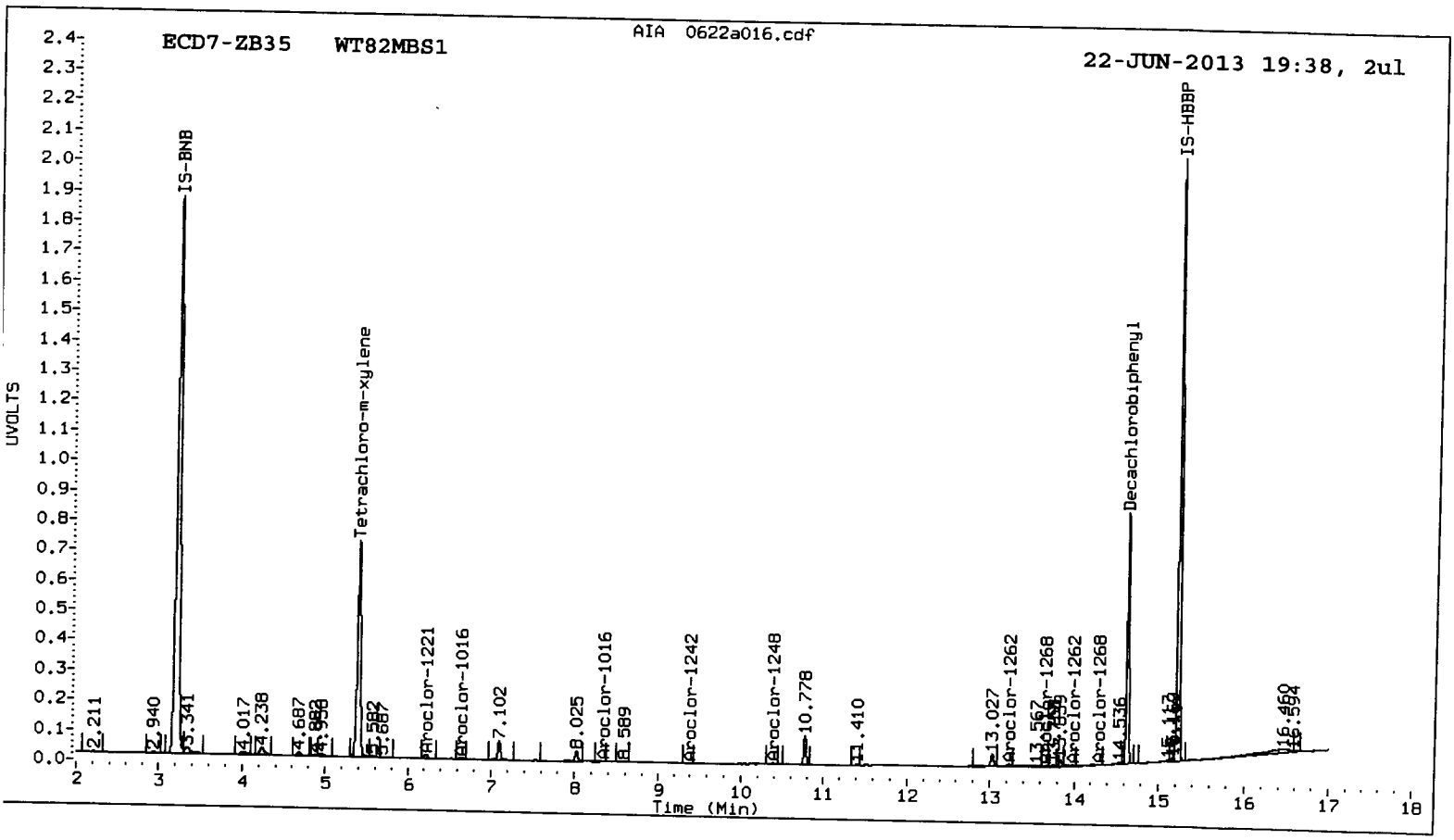
UVOLTS
Time (Min)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IS-HBBP
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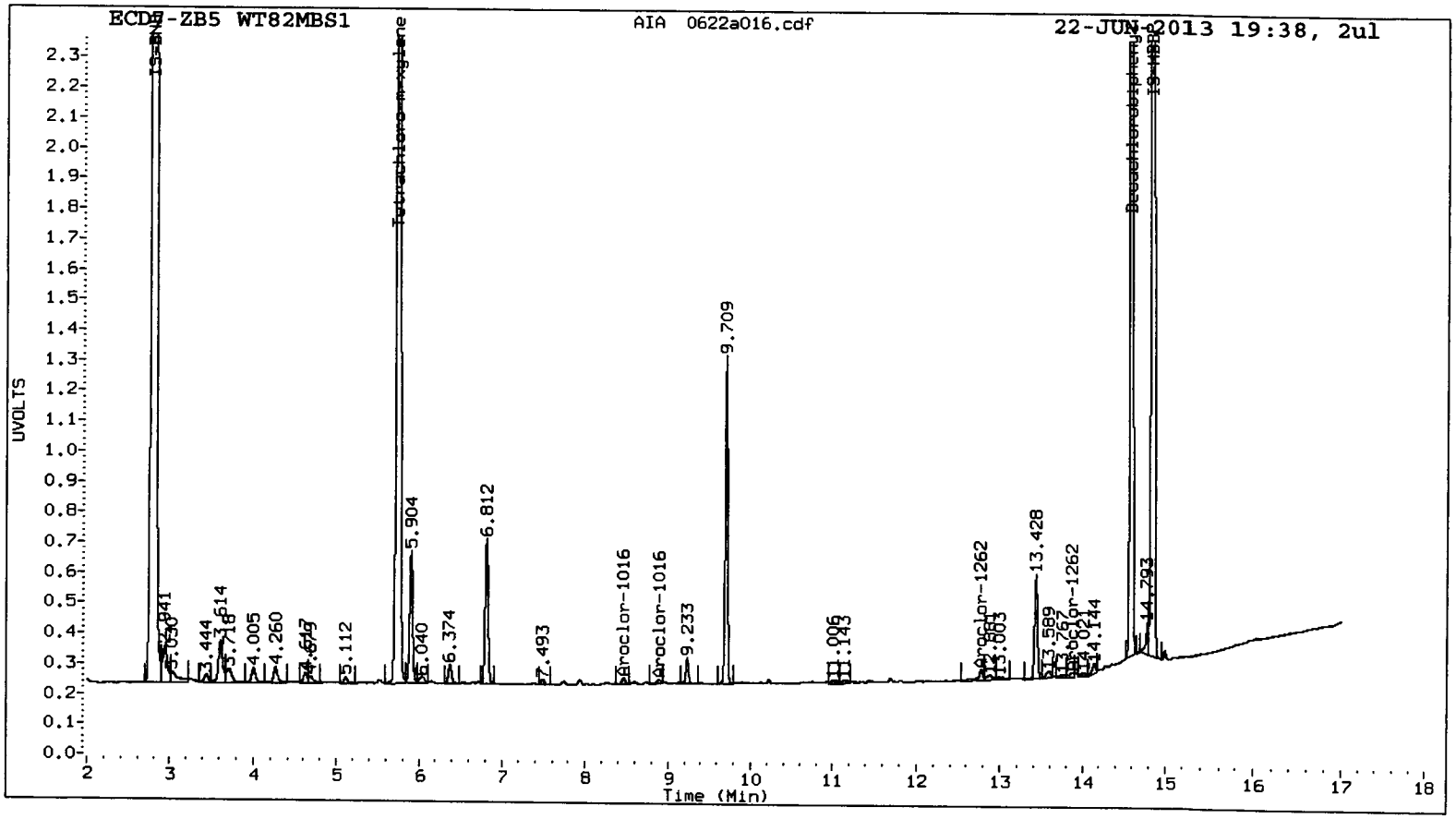
Time (Min)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Decachlorobiphenyl
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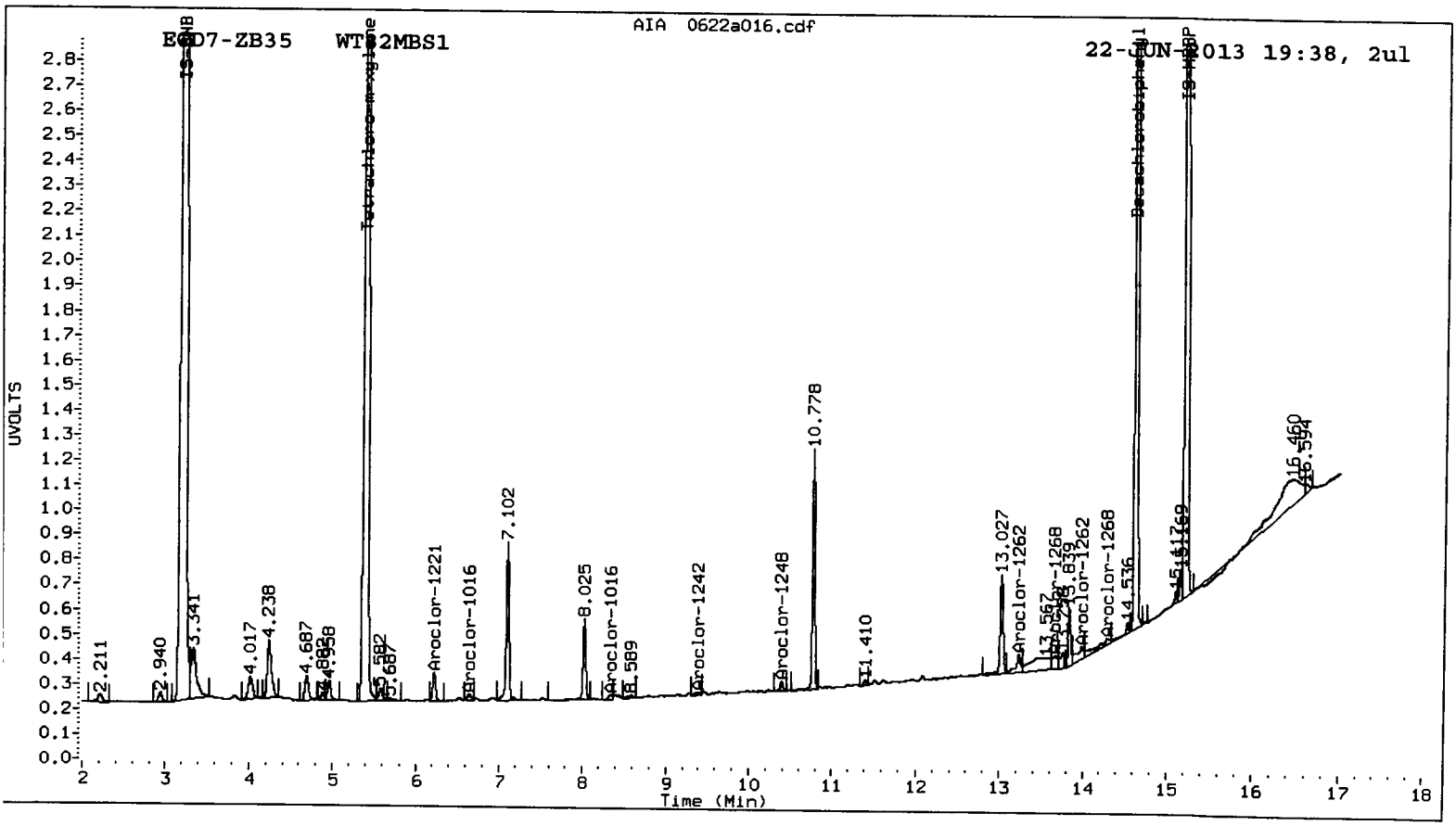
Aroclor-1016
Aroclor-1262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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
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10.778
13.027
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Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a017.d
Data file 2: 20130513.b/0622-2.b/0622a017.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT82LCSS1
Client ID: WT82LCSS1
Injection Date: 22-JUN-2013 20:00
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.735	-0.006	2811484	5.389	-0.005	3678789	29.9	28.3	5.3	Tetrachloro-m-xylene
14.593	-0.001	2602464	14.633	0.001	3050543	33.1	34.9	5.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	74.7	70.9
Decachlorobiphenyl	82.7	87.2

06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	8090173	48.3
Hexabromobiphenyl	4223695	6329072	49.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10582044	10.7
Hexabromobiphenyl	6702455	7281686	8.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.746	-0.003	928289	372.2	1	6.645	-0.004	831063	333.4
Aroclor-1016	2	8.266	-0.003	3282730	391.5	2	7.526	-0.002	1906723	347.1
Aroclor-1016	3	8.451	-0.004	1273751	382.8	3	8.337	-0.002	4063455	363.4
Aroclor-1016	4	8.877	-0.004	739215	368.5	4	8.936	-0.002	1161985	345.9
Total Col1Ave (4 peaks):		378.7				Total Col2Ave (4 peaks):			347.5	RPD = 9
Corrected Ave (3 peaks):		374.5				Corrected Ave (3 peaks):			342.1	RPD = 9
Aroclor-1221	1	6.189	-0.002	112004	117.8	1	6.216	0.000	220507	133.6
Aroclor-1221	2	6.401	0.001	156437	195.1	2	6.512	0.000	195398	204.3
Aroclor-1221	3	6.523	0.000	630631	270.0	3	6.645	-0.002	831063	289.2
Aroclor-1221	NS	---			----	4	7.526	-0.014	1906723	1823.5
Total Col1Ave (3 peaks):		194.3				Total Col2Ave (4 peaks):			612.7	RPD = 104*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			209.1	
Aroclor-1232	1	6.523	0.003	630631	401.8	1	6.645	0.000	831063	402.4
Aroclor-1232	2	7.746	0.002	928289	958.5	2	7.526	0.000	1906723	819.2
Aroclor-1232	3	8.266	0.004	3282730	1037.0	3	8.337	0.000	4063455	924.8
Aroclor-1232	4	8.451	0.002	1273751	998.5	4	8.936	0.001	1161985	776.0
Total Col1Ave (4 peaks):		849.0				Total Col2Ave (4 peaks):			730.6	RPD = 15
Corrected Ave (3 peaks):		786.3				Corrected Ave (3 peaks):			665.9	RPD = 17
Aroclor-1242	1	7.746	-0.001	928289	451.3	1	6.645	-0.001	831063	387.9
Aroclor-1242	2	8.266	0.000	3282730	476.9	2	7.526	-0.002	1906723	440.2
Aroclor-1242	3	8.451	-0.002	1273751	470.4	3	8.337	-0.001	4063455	459.9
Aroclor-1242	4	9.416	-0.001	1047103	409.1	4	9.402	-0.002	1375795	391.6
Total Col1Ave (4 peaks):		451.9				Total Col2Ave (4 peaks):			419.9	RPD = 7
Corrected Ave (3 peaks):		443.6				Corrected Ave (3 peaks):			406.6	RPD = 9
Aroclor-1248	1	8.266	0.007	3282730	823.9	1	7.526	0.001	1906723	955.4
Aroclor-1248	2	8.877	0.000	739215	285.0	2	8.337	0.004	4063455	757.8
Aroclor-1248	3	9.416	0.000	1047103	284.9	3	8.936	0.000	1161985	298.0
Aroclor-1248	4	9.895	0.008	795910	171.0	4	10.344	-0.001	103315	19.3
Total Col1Ave (4 peaks):		391.2				Total Col2Ave (4 peaks):			507.6	RPD = 26
Corrected Ave (3 peaks):		247.0				Corrected Ave (3 peaks):			358.4	RPD = 37
Aroclor-1254	1	10.230	0.000	844937	172.6	1	10.048	0.001	835407	239.4
Aroclor-1254	2	10.618	-0.002	175501	57.5	2	10.233	0.000	963433	218.2
Aroclor-1254	3	10.758	-0.002	507992	84.9	3	10.929	0.001	532993	72.9
Aroclor-1254	4	11.100	-0.020	2265511	368.9	4	11.197	0.016	2533650	343.1
Aroclor-1254	5	11.814	-0.003	3506646	577.0	5	11.953	0.000	2747979	516.5
Total Col1Ave (5 peaks):		252.2				Total Col2Ave (5 peaks):			278.0	RPD = 10
Corrected Ave (4 peaks):		171.0				Corrected Ave (4 peaks):			218.4	RPD = 24
Aroclor-1260	1	12.046	-0.002	1672951	377.9	1	11.953	0.000	2747979	367.7
Aroclor-1260	2	12.362	-0.002	1720438	390.5	2	12.496	-0.001	2207157	365.2
Aroclor-1260	3	12.733	-0.002	4181028	410.6	3	12.767	0.000	4591621	391.5
Aroclor-1260	4	13.129	-0.003	2213749	416.0	4	13.326	-0.001	3064628	394.5
Aroclor-1260	5	13.309	-0.001	960616	410.6	NS	---			----
Total Col1Ave (5 peaks):		401.1				Total Col2Ave (4 peaks):			379.7	RPD = 5
Corrected Ave (4 peaks):		397.4				Corrected Ave (3 peaks):			374.8	RPD = 6
Aroclor-1262	1	12.362	0.002	1720438	320.2	1	12.496	-0.002	2207157	330.8
Aroclor-1262	2	12.733	0.001	4181028	337.5	2	12.767	-0.001	4591621	344.5
Aroclor-1262	3	13.129	0.001	2213749	549.2	3	13.272	-0.001	1301975	225.0
Aroclor-1262	4	13.309	0.002	960616	202.5	4	13.326	-0.004	3064628	350.9
Aroclor-1262	5	13.888	0.001	919012	240.9	5	13.956	0.000	1137109	245.1
Total Col1Ave (5 peaks):		330.0				Total Col2Ave (5 peaks):			299.3	RPD = 10
Corrected Ave (4 peaks):		275.3				Corrected Ave (4 peaks):			286.4	RPD = 4
Aroclor-1268	1	13.240	0.001	831603	63.2	1	13.272	0.000	1301975	93.4

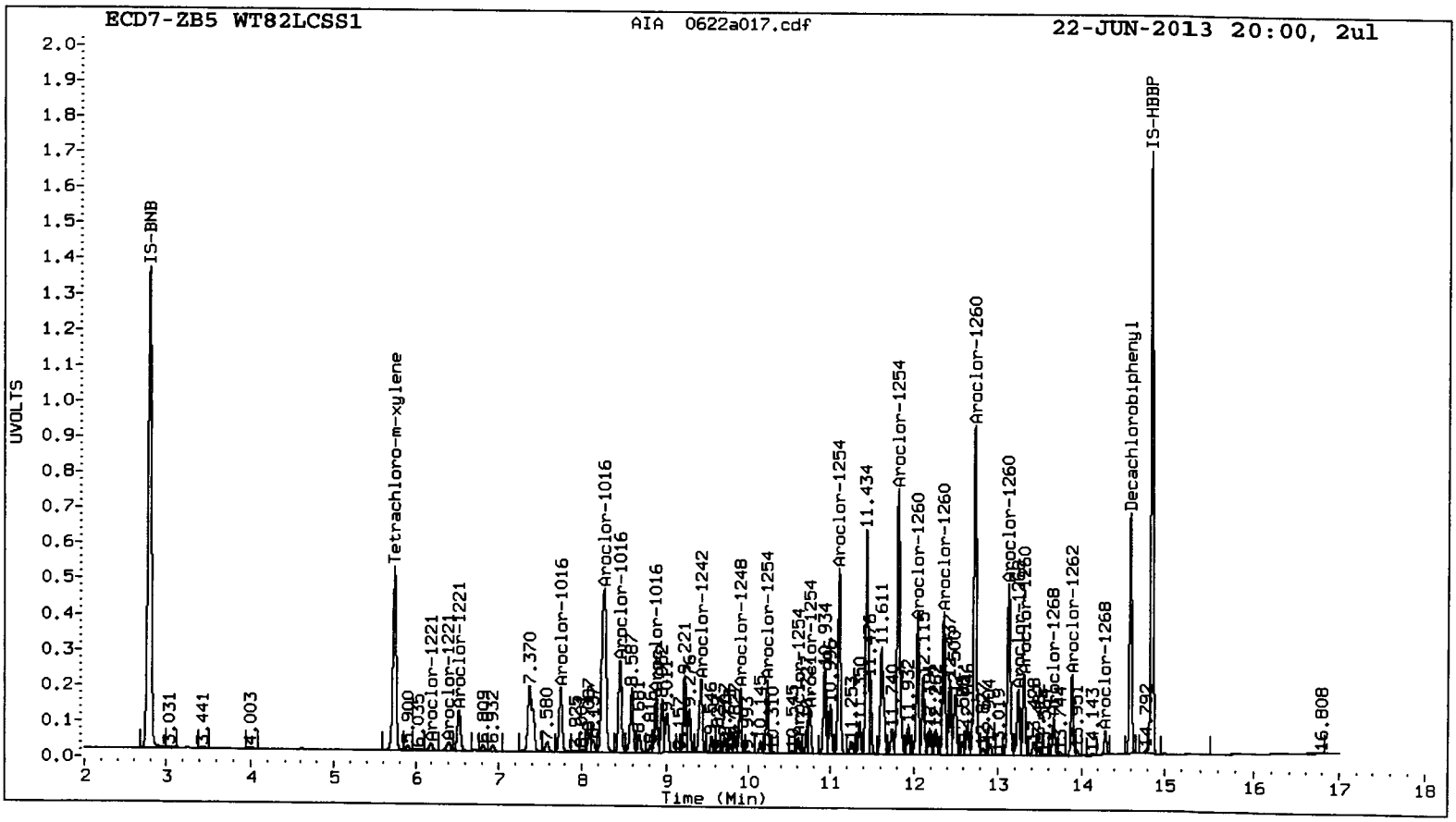
Aroclor-1268 2	13.309	0.002	960616	81.8	2	13.326	-0.008	3064628	234.3
Aroclor-1268 3	13.665	0.014	455776	46.9	3	13.680	-0.001	128171	12.2
Aroclor-1268 4	14.288	0.000	265182	9.7	4	14.332	0.000	320649	10.2
Total Col1Ave (4 peaks):				50.4	Total Col2Ave (4 peaks):			87.5	RPD = 54*
Corrected Ave (3 peaks):				39.9	Corrected Ave (3 peaks):			38.6	RPD = 3

Total PCB Area Col1 (5.841 - 14.494) = 49270419 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 58484247 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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IS-HBBP
Decachlorobiphenyl
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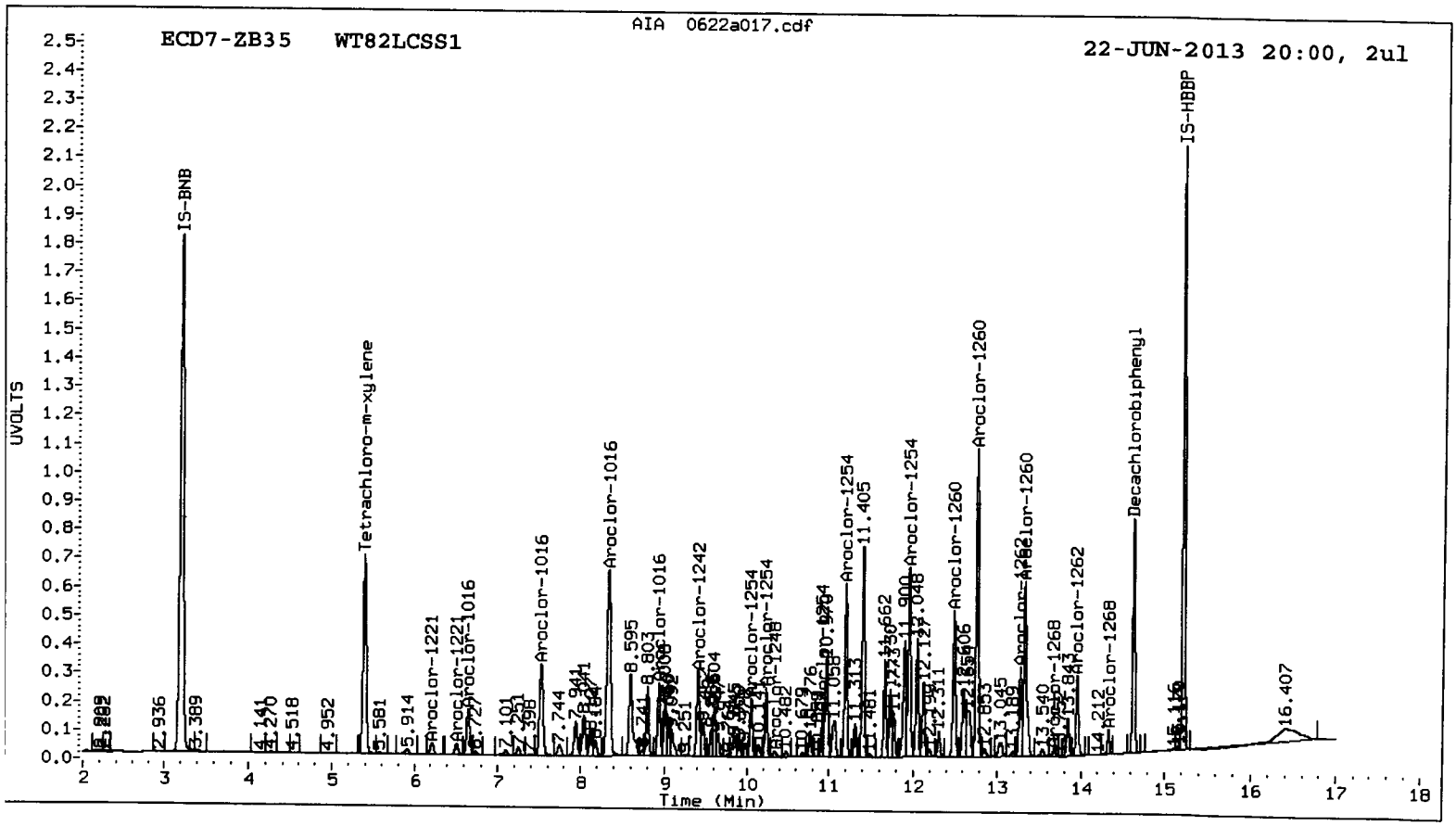
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
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Aroclor-1260
Aroclor-1262
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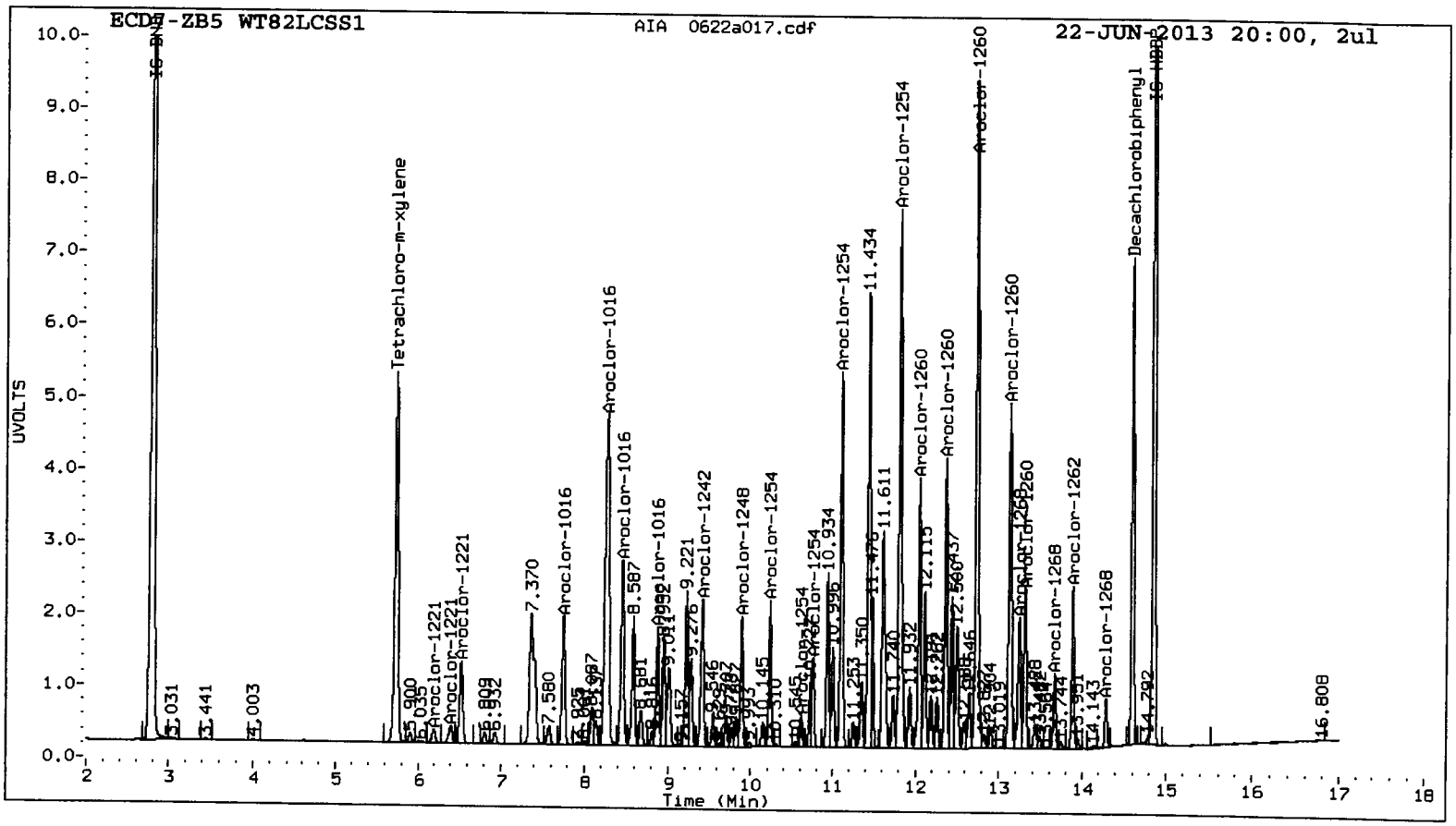
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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
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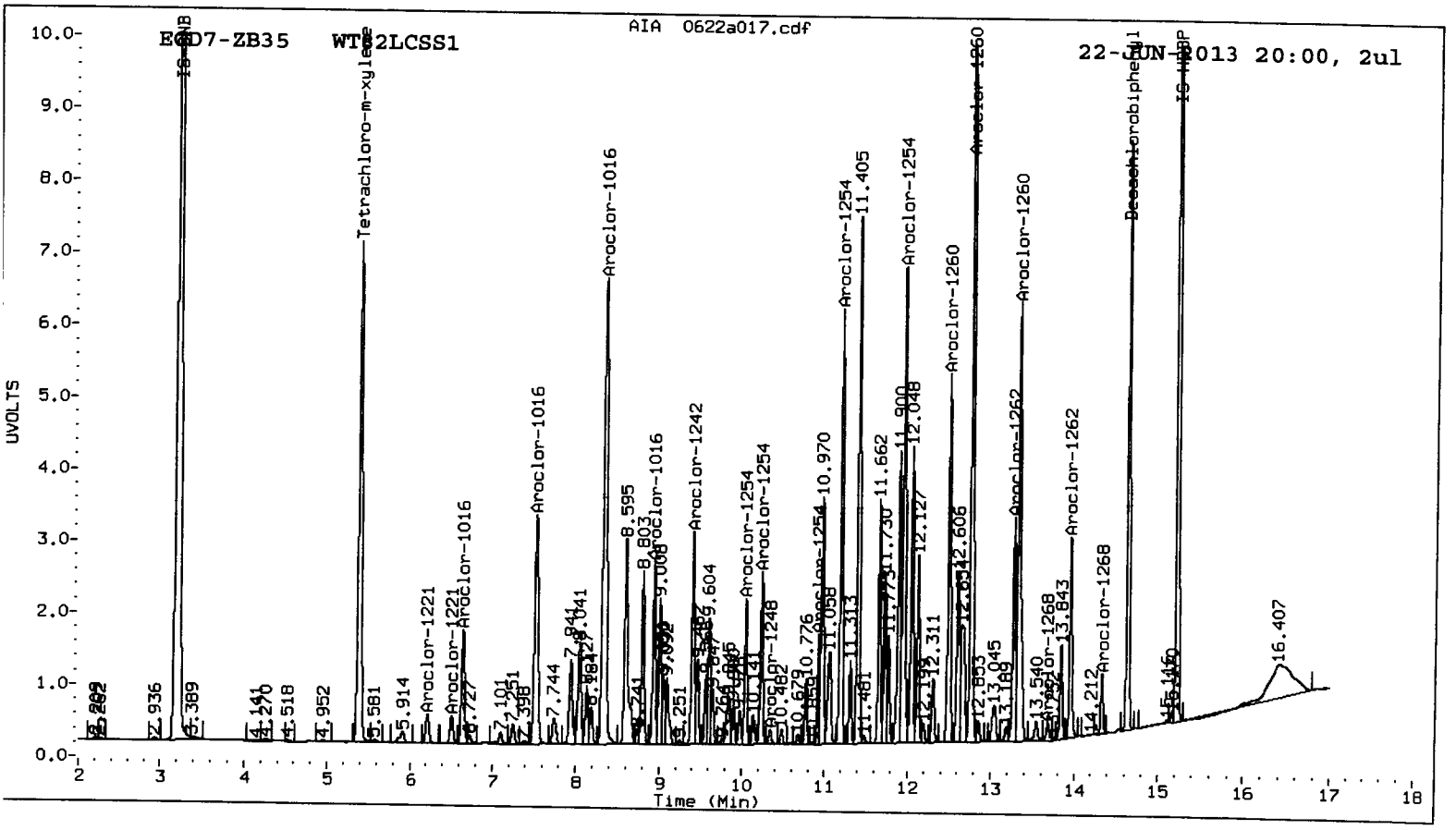
Aroclor-1260
Aroclor-1262
Aroclor-1268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Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a018.d
Data file 2: 20130513.b/0622-2.b/0622a018.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT82LCSDS1
Client ID: WT82LCSDS1
Injection Date: 22-JUN-2013 20:22
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.737	-0.004	2977828	5.391	-0.003	3942879	31.7	30.2	5.0	Tetrachloro-m-xylene
14.594	-0.001	2647693	14.632	0.000	3122797	34.4	36.3	5.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.3	75.4
Decachlorobiphenyl	86.0	90.8

06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	8081311	48.2
Hexabromobiphenyl	4223695	6194188	46.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	10654787	11.5
Hexabromobiphenyl	6702455	7158792	6.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

WT82LCSDS1

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.747	-0.002	982187	394.2	1	6.647	-0.002	889512	354.4
Aroclor-1016	2	8.268	-0.001	3464877	413.6	2	7.528	0.000	2024592	366.1
Aroclor-1016	3	8.453	-0.002	1343325	404.1	3	8.339	0.000	4316647	383.4
Aroclor-1016	4	8.878	-0.003	779739	389.2	4	8.937	-0.001	1236706	365.6
Total Col1Ave (4 peaks):					400.3	Total Col2Ave (4 peaks):				367.4 RPD = 9
Corrected Ave (3 peaks):					395.8	Corrected Ave (3 peaks):				362.0 RPD = 9
Aroclor-1221	1	6.191	0.000	118263	124.5	1	6.217	0.002	233619	140.6
Aroclor-1221	2	6.402	0.003	165050	206.0	2	6.515	0.003	261350	271.4
Aroclor-1221	3	6.525	0.002	665277	285.2	3	6.647	0.000	889512	307.5
Aroclor-1221	NS	---			----	4	7.528	-0.012	2024592	1923.1
Total Col1Ave (3 peaks):					205.2	Total Col2Ave (4 peaks):				660.6 RPD = 105*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				239.8
Aroclor-1232	1	6.525	0.005	665277	424.4	1	6.647	0.002	889512	427.8
Aroclor-1232	2	7.747	0.004	982187	1015.3	2	7.528	0.003	2024592	863.9
Aroclor-1232	3	8.268	0.005	3464877	1095.7	3	8.339	0.002	4316647	975.7
Aroclor-1232	4	8.453	0.004	1343325	1054.2	4	8.937	0.002	1236706	820.2
Total Col1Ave (4 peaks):					897.4	Total Col2Ave (4 peaks):				771.9 RPD = 15
Corrected Ave (3 peaks):					831.3	Corrected Ave (3 peaks):				704.0 RPD = 17
Aroclor-1242	1	7.747	0.000	982187	478.1	1	6.647	0.001	889512	412.3
Aroclor-1242	2	8.268	0.001	3464877	503.9	2	7.528	0.000	2024592	464.3
Aroclor-1242	3	8.453	0.000	1343325	496.6	3	8.339	0.000	4316647	485.2
Aroclor-1242	4	9.417	0.000	1096432	428.8	4	9.404	0.000	1455391	411.4
Total Col1Ave (4 peaks):					476.9	Total Col2Ave (4 peaks):				443.3 RPD = 7
Corrected Ave (3 peaks):					467.8	Corrected Ave (3 peaks):				429.3 RPD = 9
Aroclor-1248	1	8.268	0.009	3464877	870.5	1	7.528	0.003	2024592	1007.5
Aroclor-1248	2	8.878	0.000	779739	300.9	2	8.339	0.005	4316647	799.6
Aroclor-1248	3	9.417	0.000	1096432	298.7	3	8.937	0.001	1236706	315.0
Aroclor-1248	4	9.896	0.009	826881	177.9	4	10.344	-0.001	108838	20.2
Total Col1Ave (4 peaks):					412.0	Total Col2Ave (4 peaks):				535.5 RPD = 26
Corrected Ave (3 peaks):					259.2	Corrected Ave (3 peaks):				378.2 RPD = 37
Aroclor-1254	1	10.231	0.001	874318	178.8	1	10.049	0.001	875890	249.3
Aroclor-1254	2	10.618	-0.002	181181	59.4	2	10.233	0.000	999435	224.8
Aroclor-1254	3	10.758	-0.002	533692	89.3	3	10.929	0.001	541627	73.6
Aroclor-1254	4	11.100	-0.020	2333710	380.4	4	11.198	0.017	2622301	352.7
Aroclor-1254	5	11.815	-0.001	3608731	594.5	5	11.953	0.001	2853266	532.7
Total Col1Ave (5 peaks):					260.5	Total Col2Ave (5 peaks):				286.6 RPD = 10
Corrected Ave (4 peaks):					177.0	Corrected Ave (4 peaks):				225.1 RPD = 24
Aroclor-1260	1	12.046	-0.002	1723239	397.7	1	11.953	0.000	2853266	388.3
Aroclor-1260	2	12.364	-0.001	1772398	411.1	2	12.497	0.000	2304418	387.9
Aroclor-1260	3	12.733	-0.002	4314868	433.0	3	12.767	0.000	4738483	411.0
Aroclor-1260	4	13.129	-0.002	2288173	439.3	4	13.327	0.000	3186037	417.2
Aroclor-1260	5	13.309	-0.001	997459	435.7	NS	---			----
Total Col1Ave (5 peaks):					423.4	Total Col2Ave (4 peaks):				401.1 RPD = 5
Corrected Ave (4 peaks):					419.4	Corrected Ave (3 peaks):				395.7 RPD = 6
Aroclor-1262	1	12.364	0.003	1772398	337.0	1	12.497	-0.001	2304418	351.3
Aroclor-1262	2	12.733	0.002	4314868	355.9	2	12.767	0.000	4738483	361.6
Aroclor-1262	3	13.129	0.002	2288173	580.0	3	13.272	-0.001	1352528	237.7
Aroclor-1262	4	13.309	0.002	997459	214.8	4	13.327	-0.003	3186037	371.1
Aroclor-1262	5	13.888	0.001	947687	253.8	5	13.956	0.000	1190279	261.0
Total Col1Ave (5 peaks):					348.3	Total Col2Ave (5 peaks):				316.5 RPD = 10
Corrected Ave (4 peaks):					290.4	Corrected Ave (4 peaks):				302.9 RPD = 4
Aroclor-1268	1	13.240	0.001	862866	67.0	1	13.272	0.000	1352528	98.7

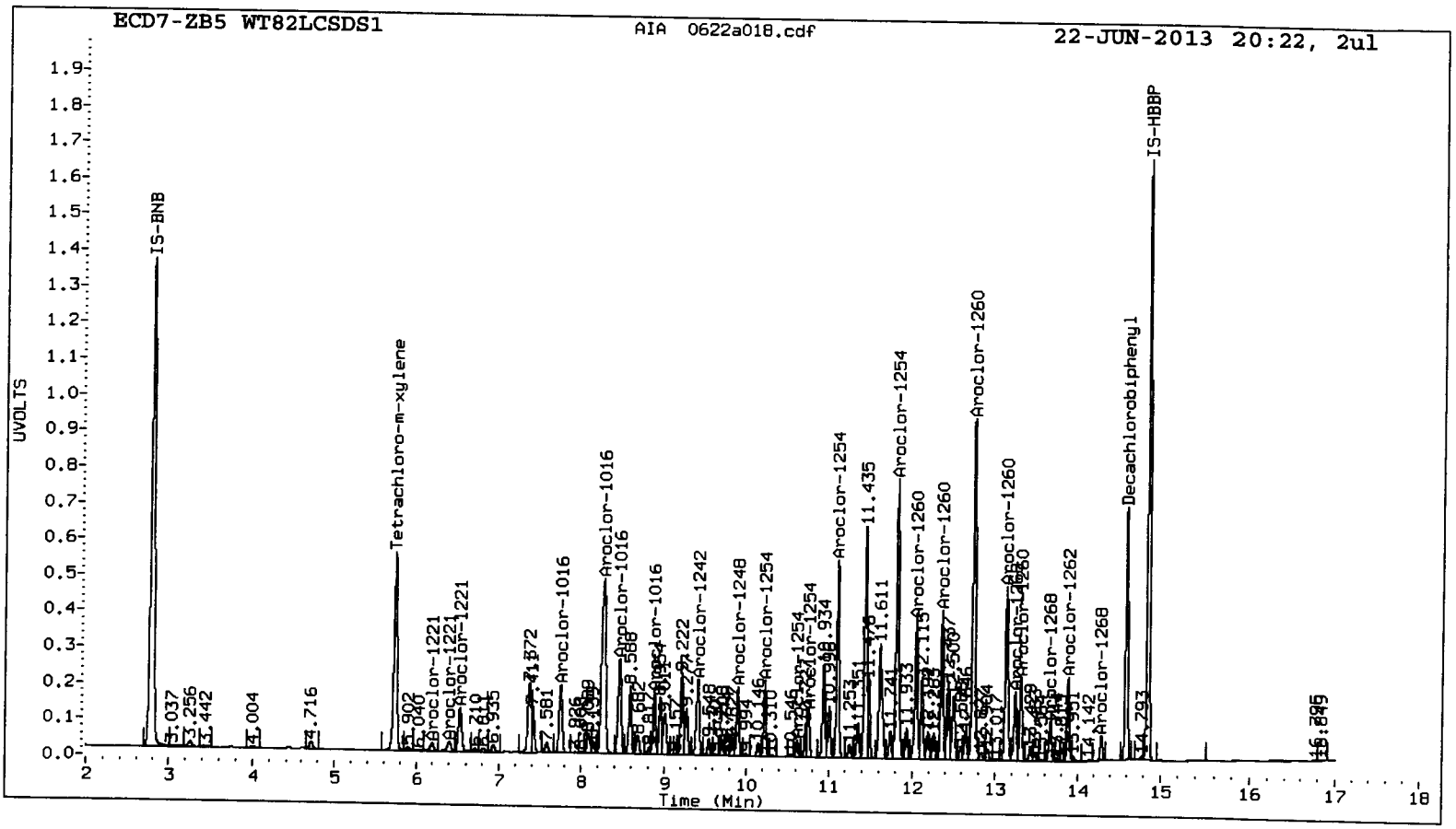
Aroclor-1268 2	13.309	0.002	997459	86.8	2	13.327	-0.008	3186037	247.8
Aroclor-1268 3	13.666	0.015	474740	49.9	3	13.680	-0.001	162821	15.7
Aroclor-1268 4	14.288	0.000	274209	10.2	4	14.331	-0.001	349431	11.3
Total Col1Ave (4 peaks):			53.5		Total Col2Ave (4 peaks):			93.4	RPD = 54*
Corrected Ave (3 peaks):			42.4		Corrected Ave (3 peaks):			41.9	RPD = 1

Total PCB Area Col1 (5.841 - 14.494) = 51213746 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 61433652 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1016
Aroclor-1221
Aroclor-1242
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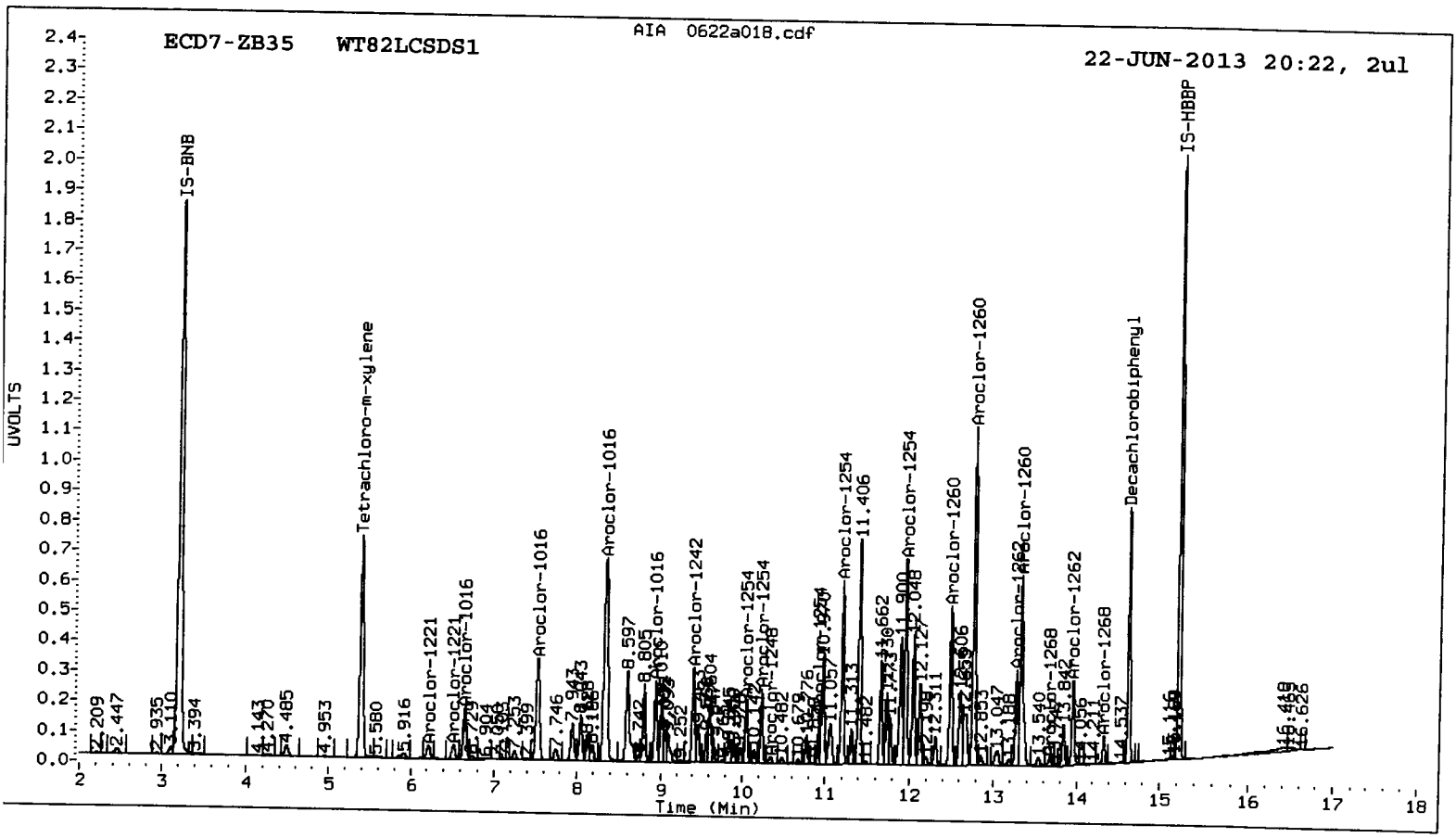
IS-HBBP
Decachlorobiphenyl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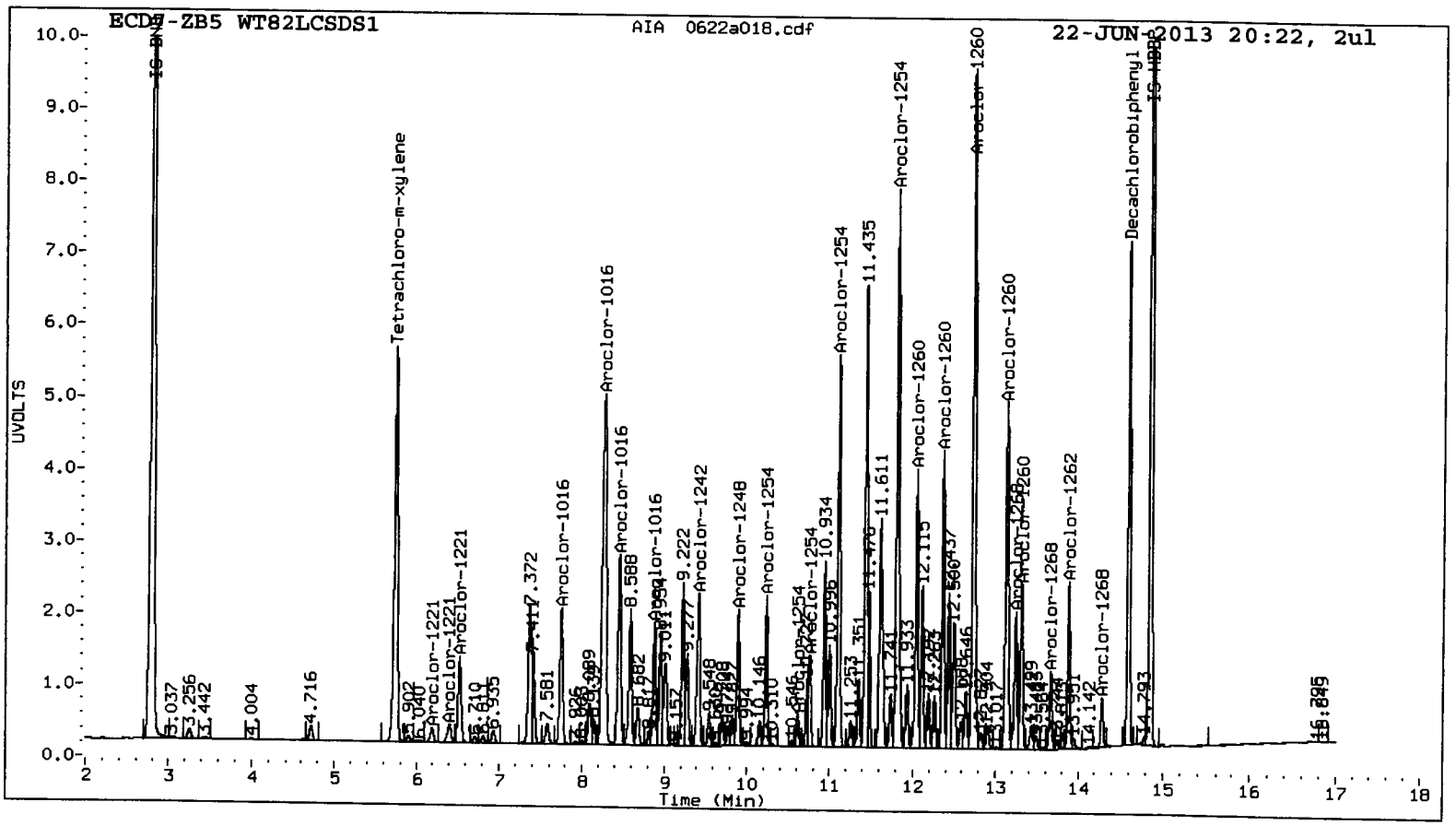
Decachlorobiphenyl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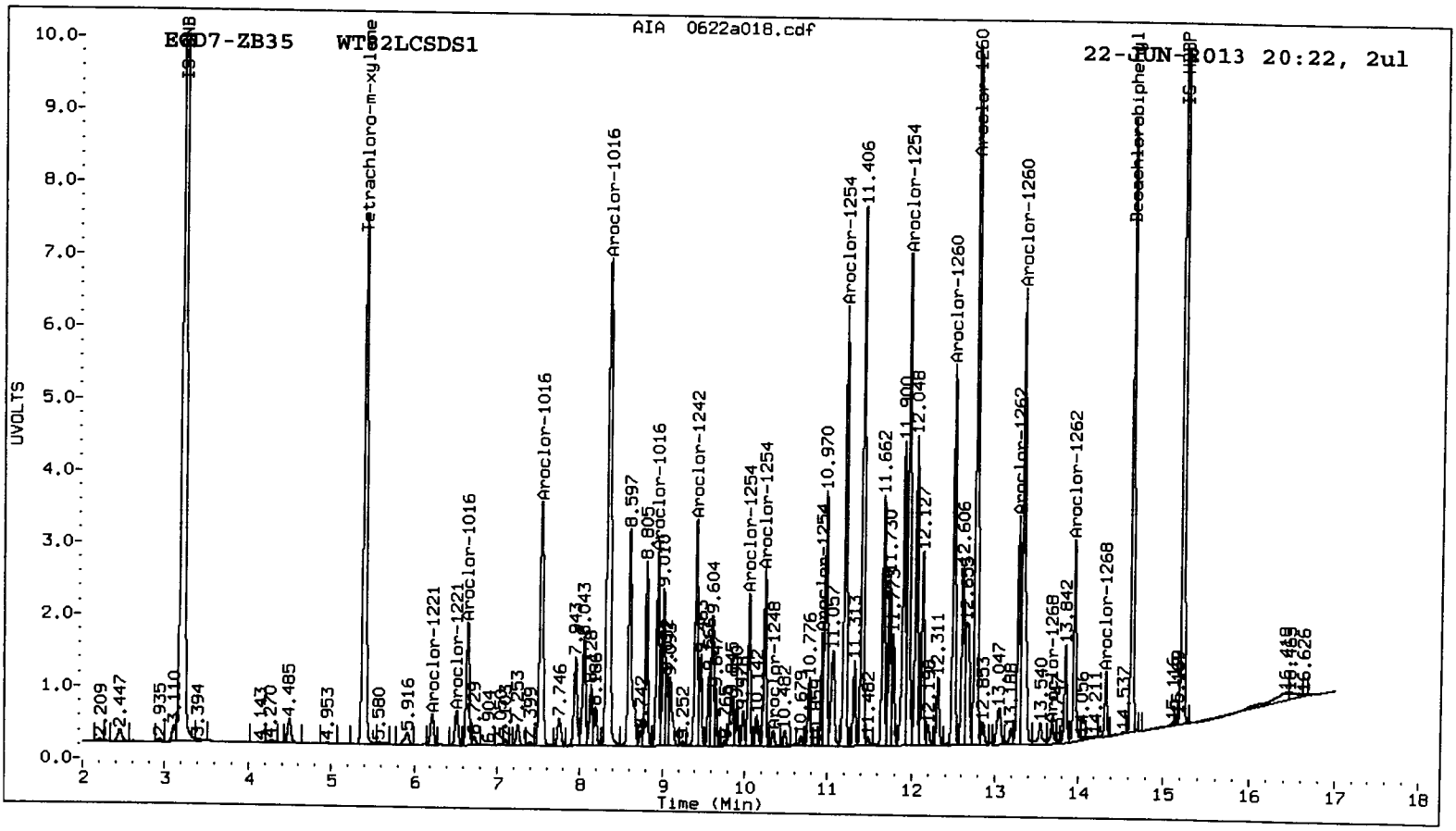
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Aroclor-1221
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a021.d
Data file 2: 20130513.b/0622-2.b/0622a021.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 22-JUN-2013 21:28
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.736	-0.005	3407460	5.390	-0.004	4567261	40.5	38.7	4.6	Tetrachloro-m-xylene
14.593	-0.001	2610289	14.632	0.000	3128459	38.5	40.9	6.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.3	96.7
Decachlorobiphenyl	96.4	102.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7233004	32.6
Hexabromobiphenyl	4223695	5449532	29.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9622450	0.7
Hexabromobiphenyl	6702455	6364695	-5.0

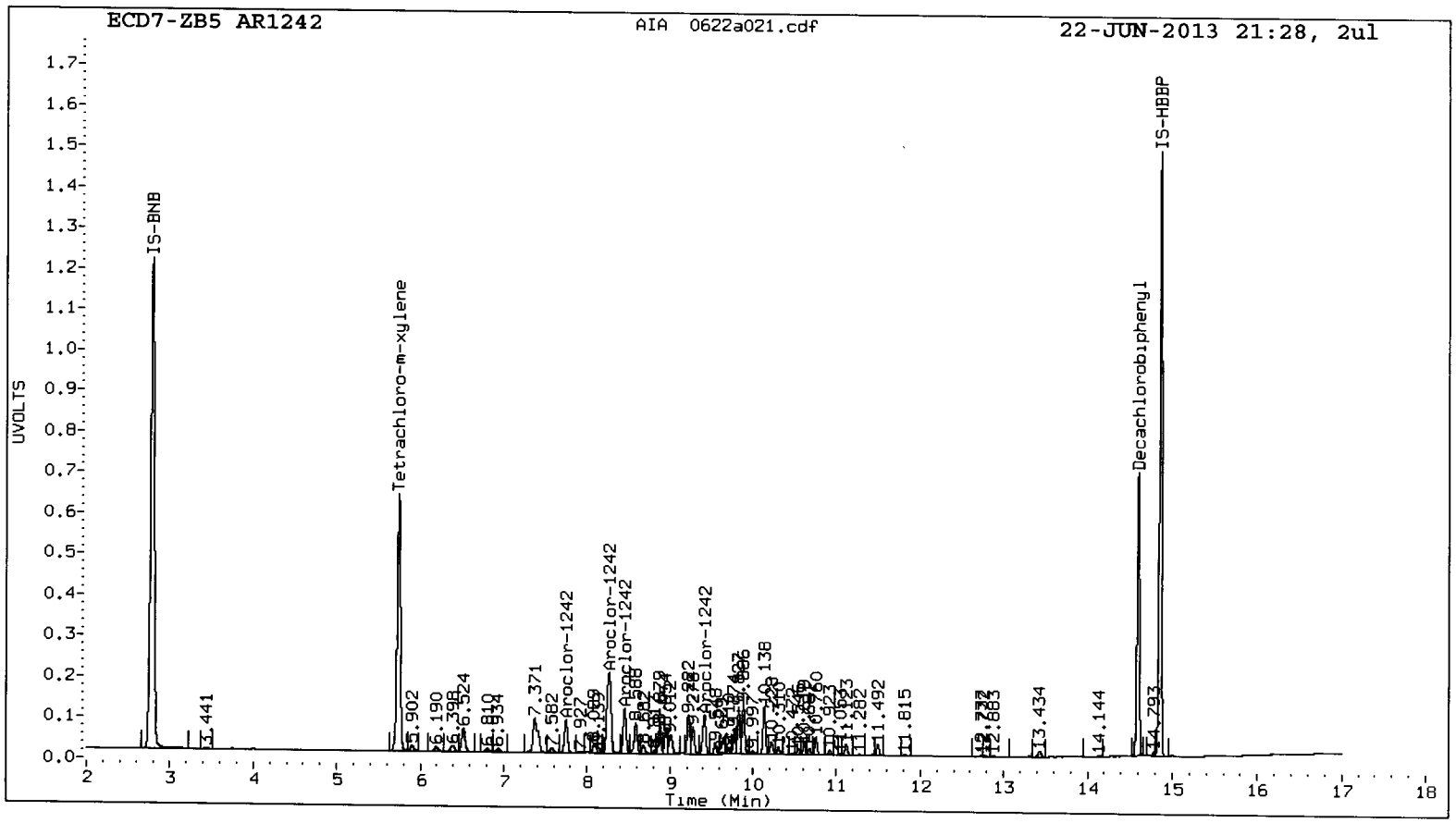
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1242	1	7.747	0.000	416049	226.3	1	6.646	0.000	463920	238.1
Aroclor-1242	2	8.267	0.000	1411384	229.4	2	7.528	0.000	926766	235.3
Aroclor-1242	3	8.454	0.000	547606	226.2	3	8.338	0.000	1866144	232.3
Aroclor-1242	4	9.417	0.000	501560	219.2	4	9.404	0.000	732319	229.2
Total Col1Ave (4 peaks):					225.2	Total Col2Ave (4 peaks):				233.7 RPD = 4
Corrected Ave (3 peaks):					223.9	Corrected Ave (3 peaks):				232.3 RPD = 4

Total PCB Area Col1 (5.841 - 14.494) = 9680501 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 13865283 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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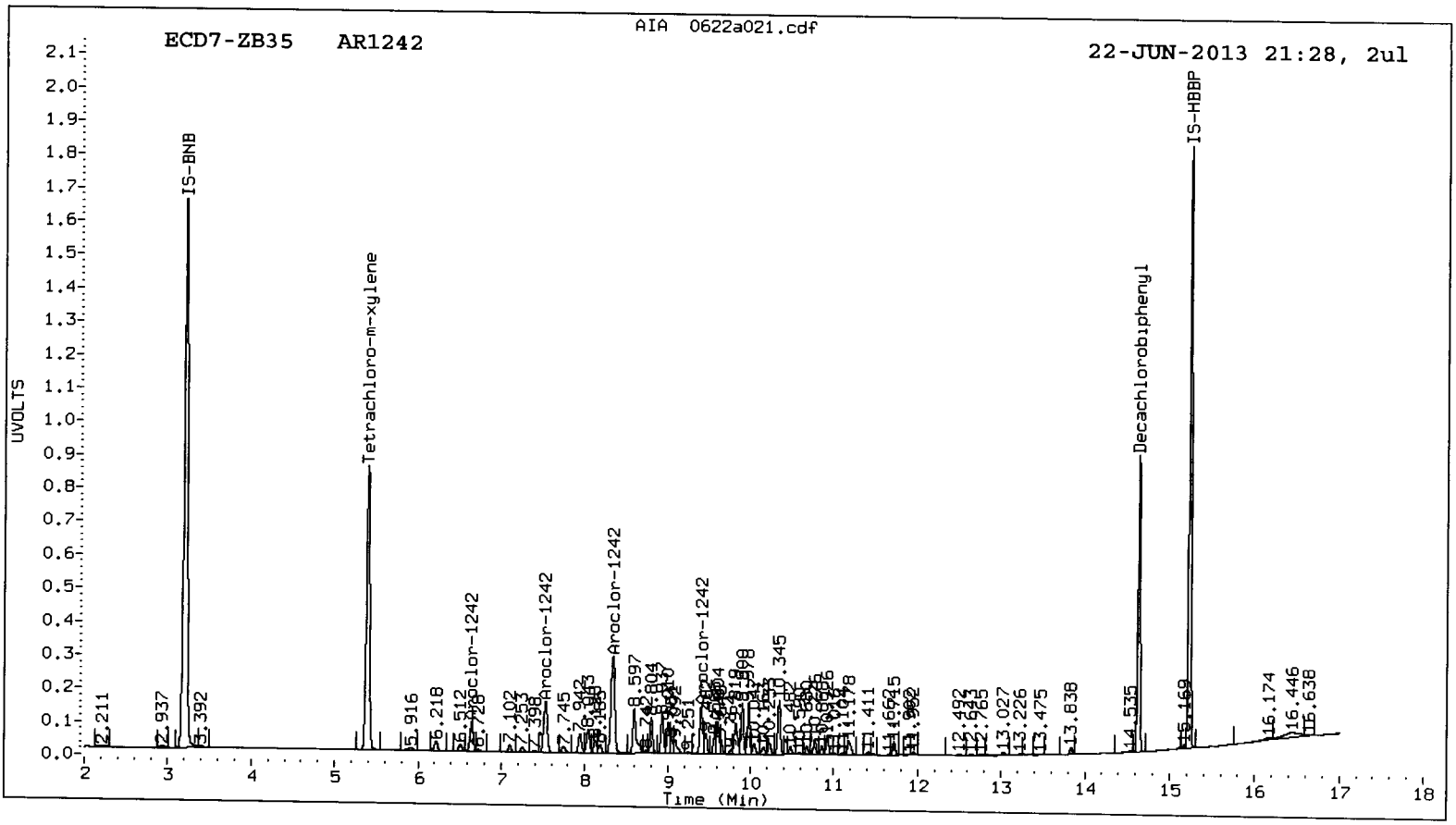
Decachlorobiphenyl
IS-HBBP
Time (Min)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Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a022.d
Data file 2: 20130513.b/0622-2.b/0622a022.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 22-JUN-2013 21:50
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.733	-0.008	3403014	5.387	-0.007	4552858	40.2	38.2	4.9	Tetrachloro-m-xylene
14.594	-0.001	2513194	14.632	-0.001	2973334	36.4	38.2	5.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.4	95.6
Decachlorobiphenyl	90.9	95.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7288887	33.6
Hexabromobiphenyl	4223695	5563331	31.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9709150	1.6
Hexabromobiphenyl	6702455	6473812	-3.4

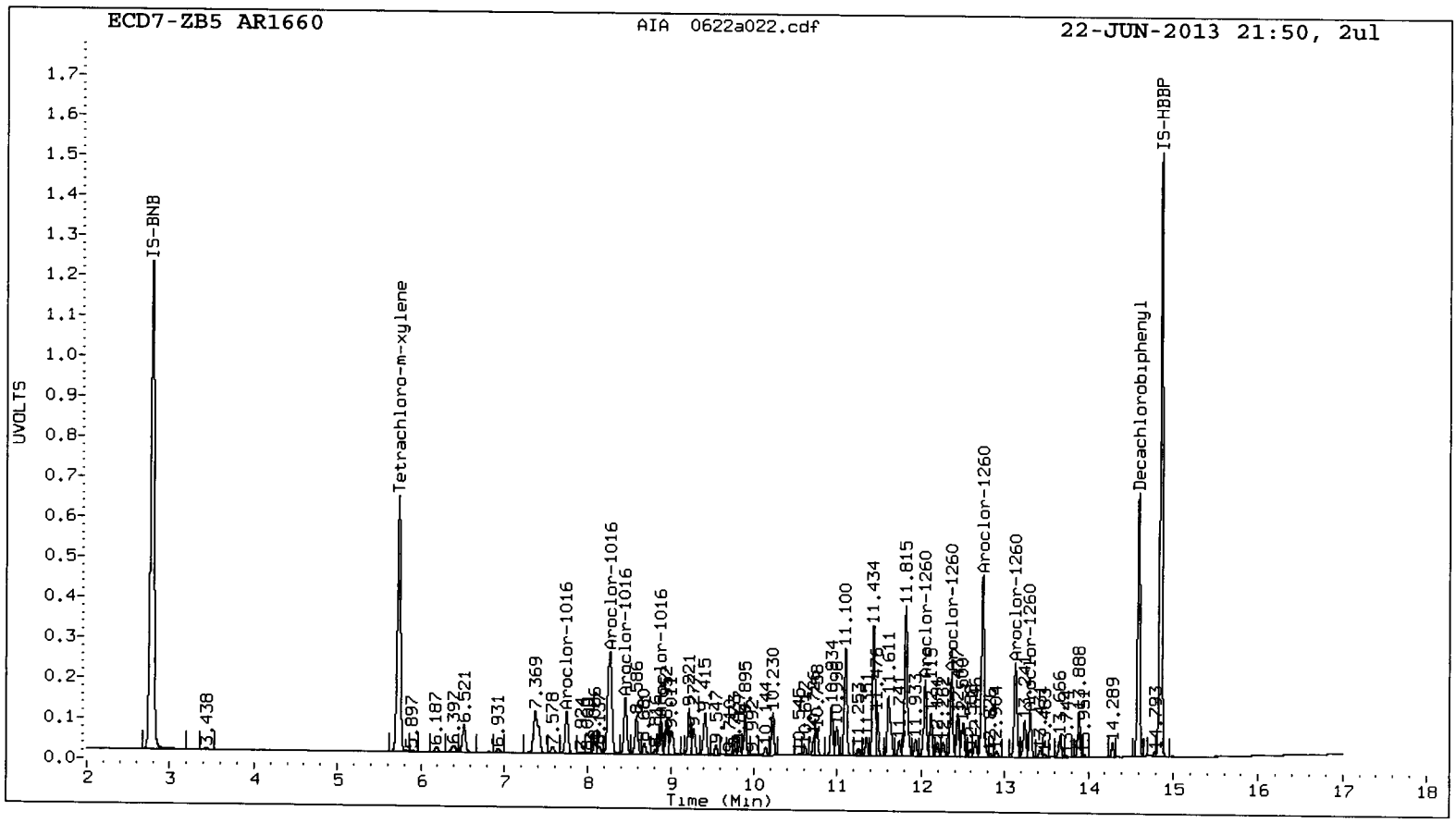
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.744	-0.005	522497	232.5	1	6.644	-0.006	531689	232.5
Aroclor-1016	2	8.265	-0.004	1789063	236.8	2	7.524	-0.004	1156256	229.4
Aroclor-1016	3	8.450	-0.005	687652	229.4	3	8.336	-0.003	2329493	227.1
Aroclor-1016	4	8.877	-0.004	397422	219.9	4	8.935	-0.003	672932	218.3
Total Col1Ave (4 peaks):					229.6	Total Col2Ave (4 peaks):				226.8 RPD = 1
Corrected Ave (3 peaks):					227.3	Corrected Ave (3 peaks):				224.9 RPD = 1
Aroclor-1260	1	12.046	-0.002	841158	216.2	1	11.952	-0.001	1456433	219.2
Aroclor-1260	2	12.363	-0.001	861443	222.5	2	12.496	-0.001	1165252	216.9
Aroclor-1260	3	12.734	-0.001	2066180	230.8	3	12.767	0.000	2337623	224.2
Aroclor-1260	4	13.129	-0.002	1090486	233.1	4	13.326	-0.001	1581774	229.0
Aroclor-1260	5	13.308	-0.002	473435	230.2	NS	---			----
Total Col1Ave (5 peaks):					226.6	Total Col2Ave (4 peaks):				222.3 RPD = 2
Corrected Ave (4 peaks):					224.9	Corrected Ave (3 peaks):				220.1 RPD = 2

Total PCB Area Col1 (5.841 - 14.494) = 25243170 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 32077863 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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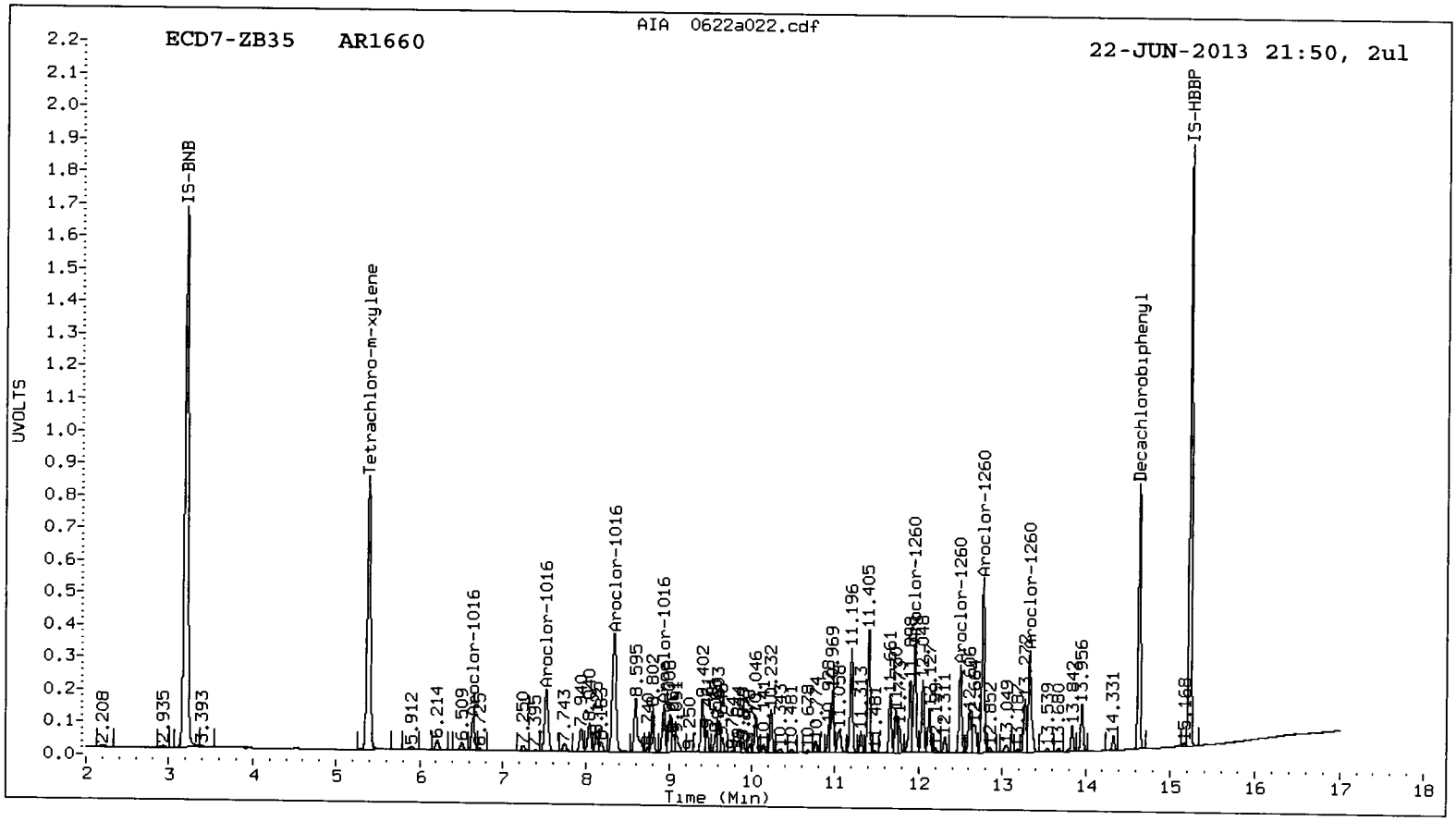
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1016
Aroclor-1260

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a023.d
Data file 2: 20130513.b/0622-2.b/0622a023.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT81A
Client ID: AM-VT-INF-20130612-
Injection Date: 22-JUN-2013 22:12
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.740	-0.001	2352272	5.396	0.001	2991300	26.8	26.7	0.2	Tetrachloro-m-xylene
14.601	0.007	1773138	14.639	0.007	2141118	27.6	29.5	6.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	66.9	66.8
Decachlorobiphenyl	69.1	73.7

JK 06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7557582	38.6
Hexabromobiphenyl	4223695	5164772	22.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9128183	-4.5
Hexabromobiphenyl	6702455	6044778	-9.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	7.751	0.002	47145	20.2	1	6.671	0.022	1479860	688.2
Aroclor-1016	2	8.282	0.013	220880	28.2	2	7.529	0.001	93913	19.8
Aroclor-1016	3	8.456	0.001	72502	23.3	3	8.343	0.004	283633	29.4
Aroclor-1016	4	8.882	0.001	133669	71.3	4	8.940	0.001	159069	54.9
Total Col1Ave (4 peaks):					35.8	Total Col2Ave (4 peaks):				198.1 RPD = 139*
Corrected Ave (3 peaks):					23.9	Corrected Ave (3 peaks):				34.7 RPD = 37
Aroclor-1221	1	6.199	0.008	12909	14.5	1	6.228	0.013	85593	60.1
Aroclor-1221	2	6.372	-0.028	60701	81.0	2	6.527	0.014	571421	692.7
Aroclor-1221	3	6.526	0.003	30631	14.0	3	6.671	0.024	1479860	597.1
Aroclor-1221	NS	---			----	4	7.529	-0.010	93913	104.1
Total Col1Ave (3 peaks):					36.5	Total Col2Ave (4 peaks):				363.5 RPD = 163*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				253.8
Aroclor-1232	1	6.526	0.006	30631	20.9	1	6.671	0.027	1479860	830.7
Aroclor-1232	2	7.751	0.007	47145	52.1	2	7.529	0.004	93913	46.8
Aroclor-1232	3	8.282	0.019	220880	74.7	3	8.343	0.006	283633	74.8
Aroclor-1232	4	8.456	0.007	72502	60.8	4	8.940	0.004	159069	123.1
Total Col1Ave (4 peaks):					52.1	Total Col2Ave (4 peaks):				268.9 RPD = 135*
Corrected Ave (3 peaks):					44.6	Corrected Ave (3 peaks):				81.6 RPD = 59*
Aroclor-1242	1	7.751	0.004	47145	24.5	1	6.671	0.025	1479860	800.7
Aroclor-1242	2	8.282	0.016	220880	34.4	2	7.529	0.002	93913	25.1
Aroclor-1242	3	8.456	0.003	72502	28.7	3	8.343	0.005	283633	37.2
Aroclor-1242	4	9.416	-0.002	197657	82.7	4	9.381	-0.023	451593	149.0
Total Col1Ave (4 peaks):					42.6	Total Col2Ave (4 peaks):				253.0 RPD = 142*
Corrected Ave (3 peaks):					29.2	Corrected Ave (3 peaks):				70.5 RPD = 83*
Aroclor-1248	1	8.282	0.023	220880	59.3	1	7.529	0.005	93913	54.5
Aroclor-1248	2	8.882	0.005	133669	55.2	2	8.343	0.010	283633	61.3
Aroclor-1248	3	9.416	-0.001	197657	57.6	3	8.940	0.003	159069	47.3
Aroclor-1248	4	9.896	0.009	208077	47.9	4	10.342	-0.003	170625	36.9
Total Col1Ave (4 peaks):					55.0	Total Col2Ave (4 peaks):				50.0 RPD = 9
Corrected Ave (3 peaks):					53.5	Corrected Ave (3 peaks):				46.3 RPD = 15
Aroclor-1254	1	10.231	0.001	284793	62.3	1	10.050	0.003	259684	86.3
Aroclor-1254	2	10.626	0.007	260514	91.4	2	10.242	0.009	457586	120.1
Aroclor-1254	3	10.763	0.003	375035	67.1	3	10.932	0.004	589423	93.5
Aroclor-1254	4	11.121	0.000	400215	69.8	4	11.169	-0.012	1130730	177.5
Aroclor-1254	5	11.820	0.003	442462	77.9	5	11.957	0.004	546098	119.0
Total Col1Ave (5 peaks):					73.7	Total Col2Ave (5 peaks):				119.3 RPD = 47*
Corrected Ave (4 peaks):					69.3	Corrected Ave (4 peaks):				104.7 RPD = 41*
Aroclor-1260	1	12.052	0.004	104023	28.8	1	11.957	0.004	546098	88.0
Aroclor-1260	2	12.370	0.005	83897	23.3	2	12.498	0.001	239787	47.8
Aroclor-1260	3	12.781	0.046	881086	106.0	3	12.773	0.007	317581	32.6
Aroclor-1260	4	13.136	0.004	140216	32.3	4	13.334	0.007	141106	21.9
Aroclor-1260	5	13.315	0.005	48562	25.4	NS	---			----
Total Col1Ave (5 peaks):					43.2	Total Col2Ave (4 peaks):				47.6 RPD = 10
Corrected Ave (4 peaks):					27.5	Corrected Ave (3 peaks):				34.1 RPD = 22
Aroclor-1262	1	12.370	0.009	83897	19.1	1	12.498	0.000	239787	43.3
Aroclor-1262	2	12.781	0.049	881086	87.2	2	12.773	0.006	317581	28.7
Aroclor-1262	3	13.136	0.008	140216	42.6	3	13.232	-0.041	987406	205.6
Aroclor-1262	4	13.315	0.008	48562	12.5	4	13.334	0.004	141106	19.5
Aroclor-1262	5	13.886	-0.001	379830	89.9	5	13.969	0.013	126191	32.8
Total Col1Ave (5 peaks):					50.3	Total Col2Ave (5 peaks):				66.0 RPD = 27
Corrected Ave (4 peaks):					40.4	Corrected Ave (4 peaks):				31.1 RPD = 26
Aroclor-1268	1	13.251	0.012	109174	10.2	1	13.232	-0.040	987406	85.4

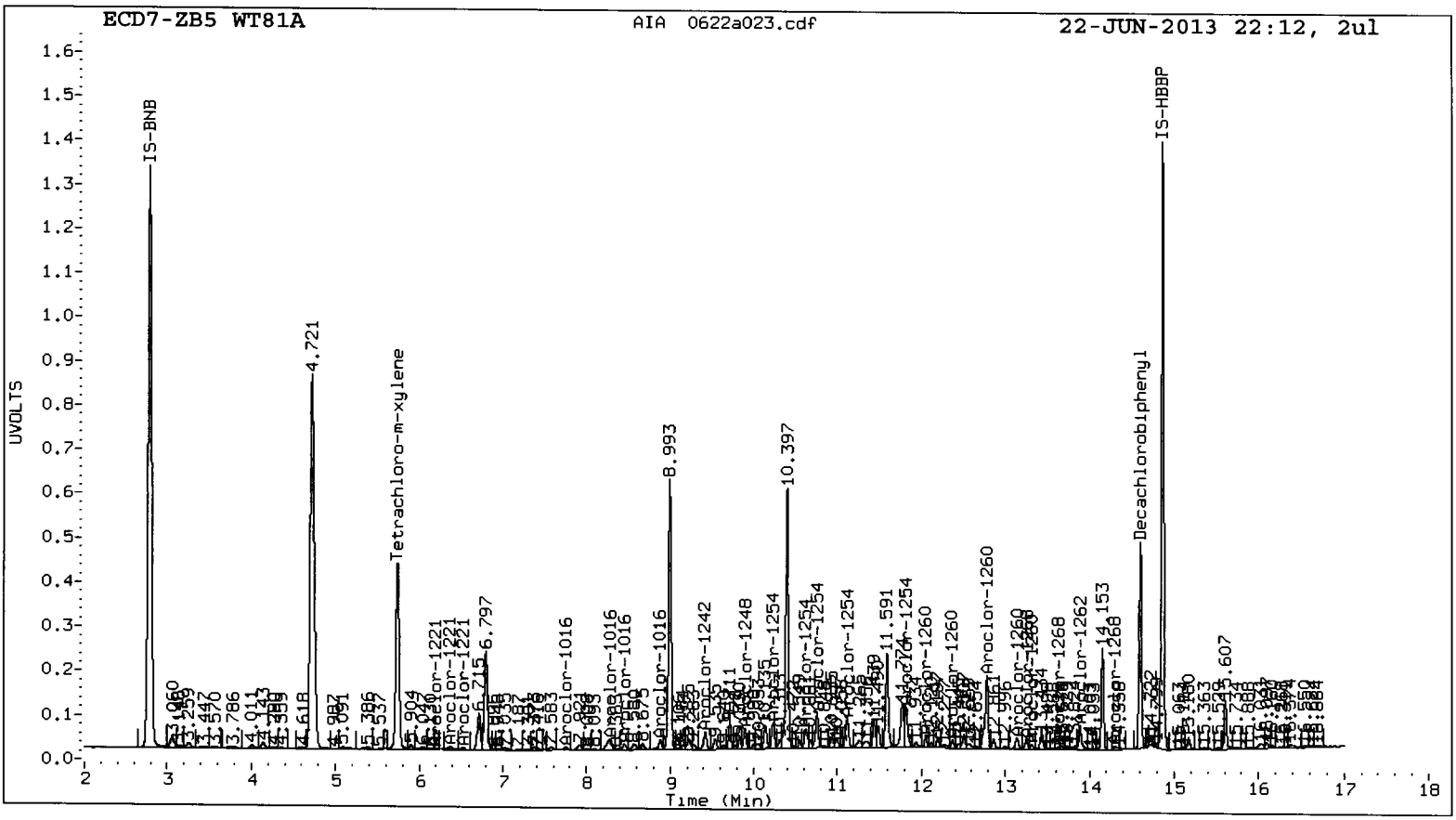
Aroclor-1268	2	13.315	0.008	48562	5.1	2	13.334	-0.001	141106	13.0
Aroclor-1268	3	13.635	-0.016	22209	2.8	3	13.683	0.002	35683	4.1
Aroclor-1268	4	14.301	0.013	39092	1.8	4	14.336	0.005	24128	0.9
Total Col1Ave (4 peaks):					4.9	Total Col2Ave (4 peaks):			25.8	RPD = 136*
Corrected Ave (3 peaks):					3.2	Corrected Ave (3 peaks):			6.0	RPD = 61*

Total PCB Area Col1 (5.841 - 14.494) = 17916474 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 24040560 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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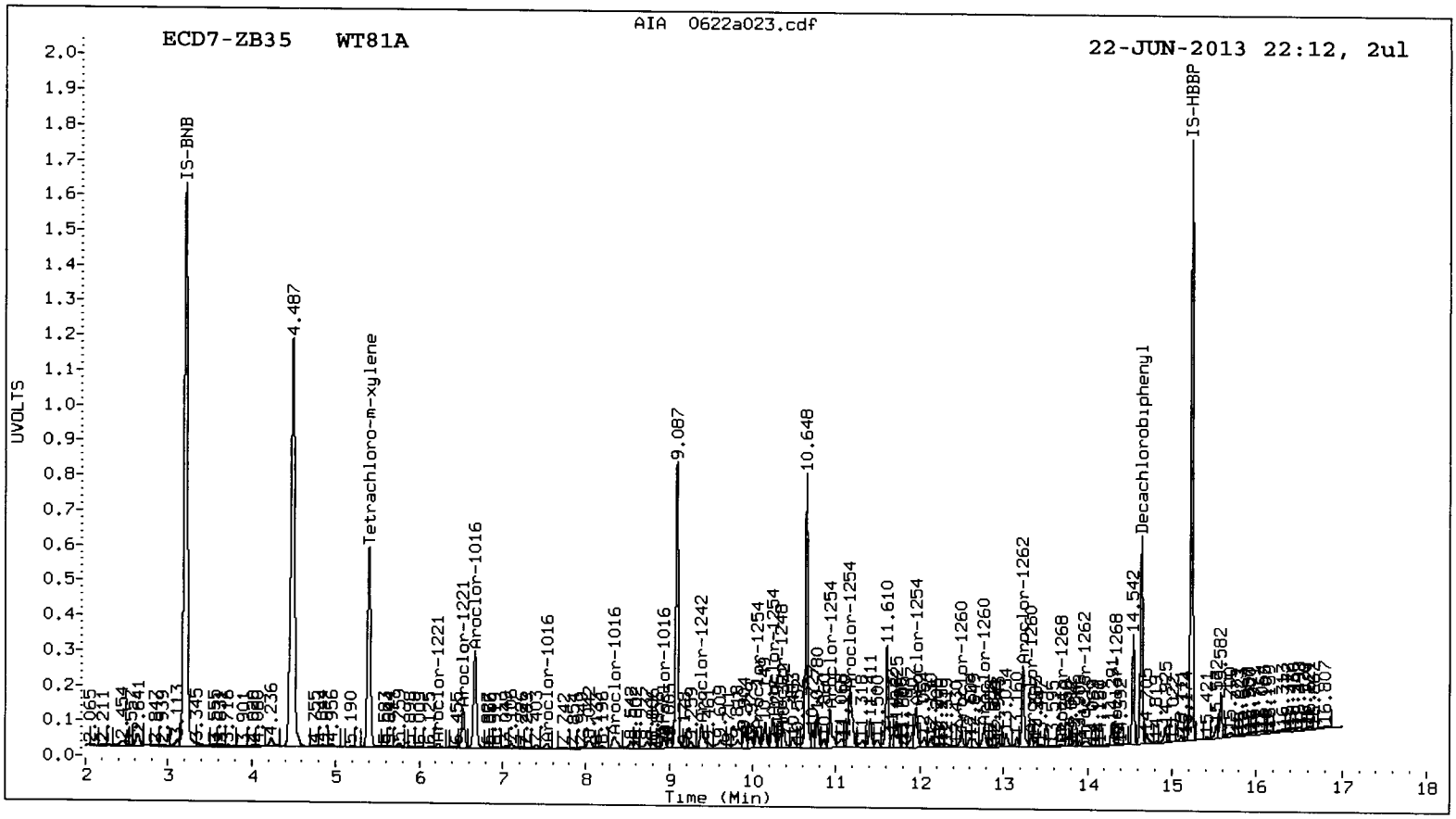
Decachlorobiphenyl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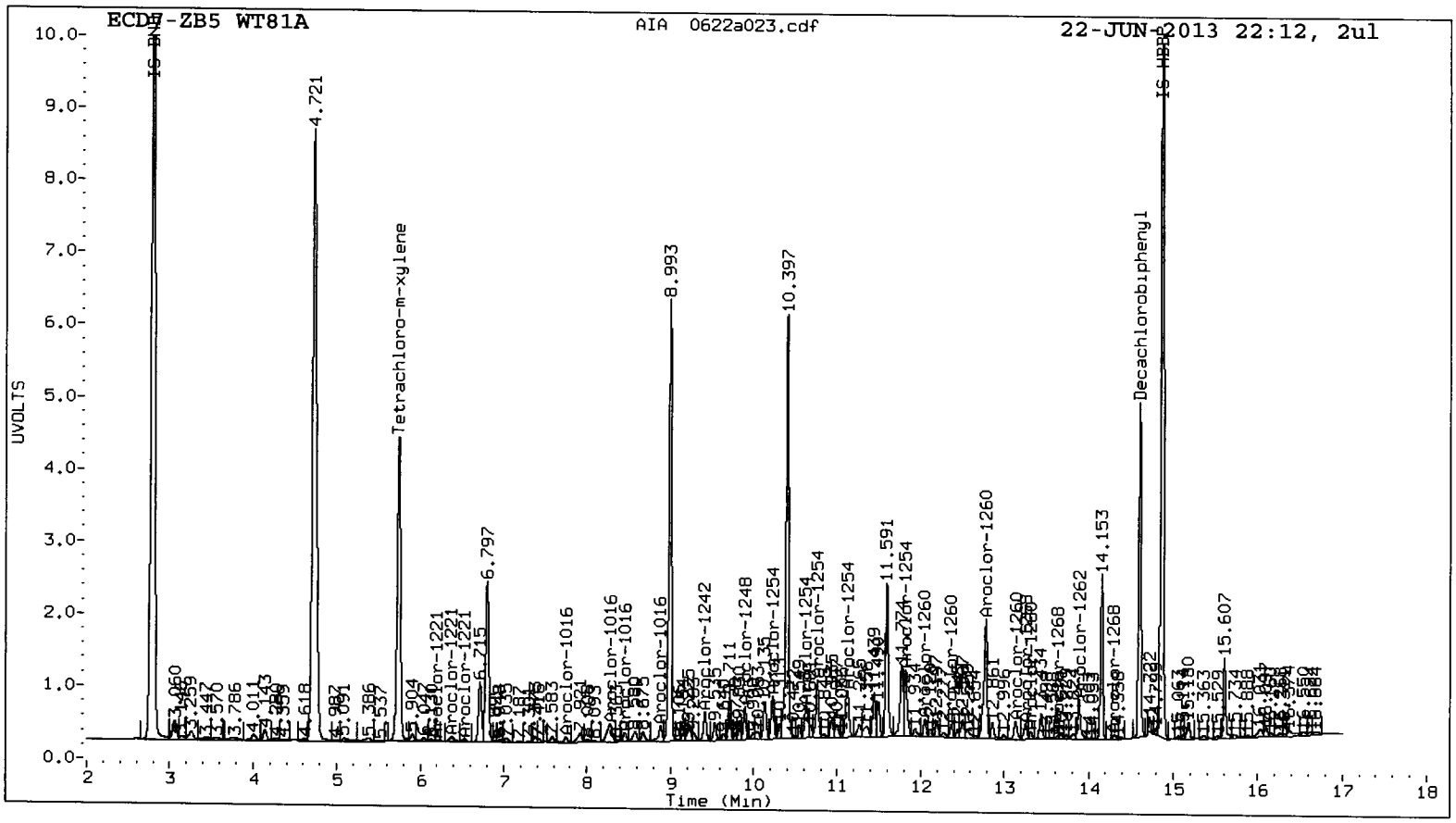
Decachlorobiphenyl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Decachlorobiphenyl
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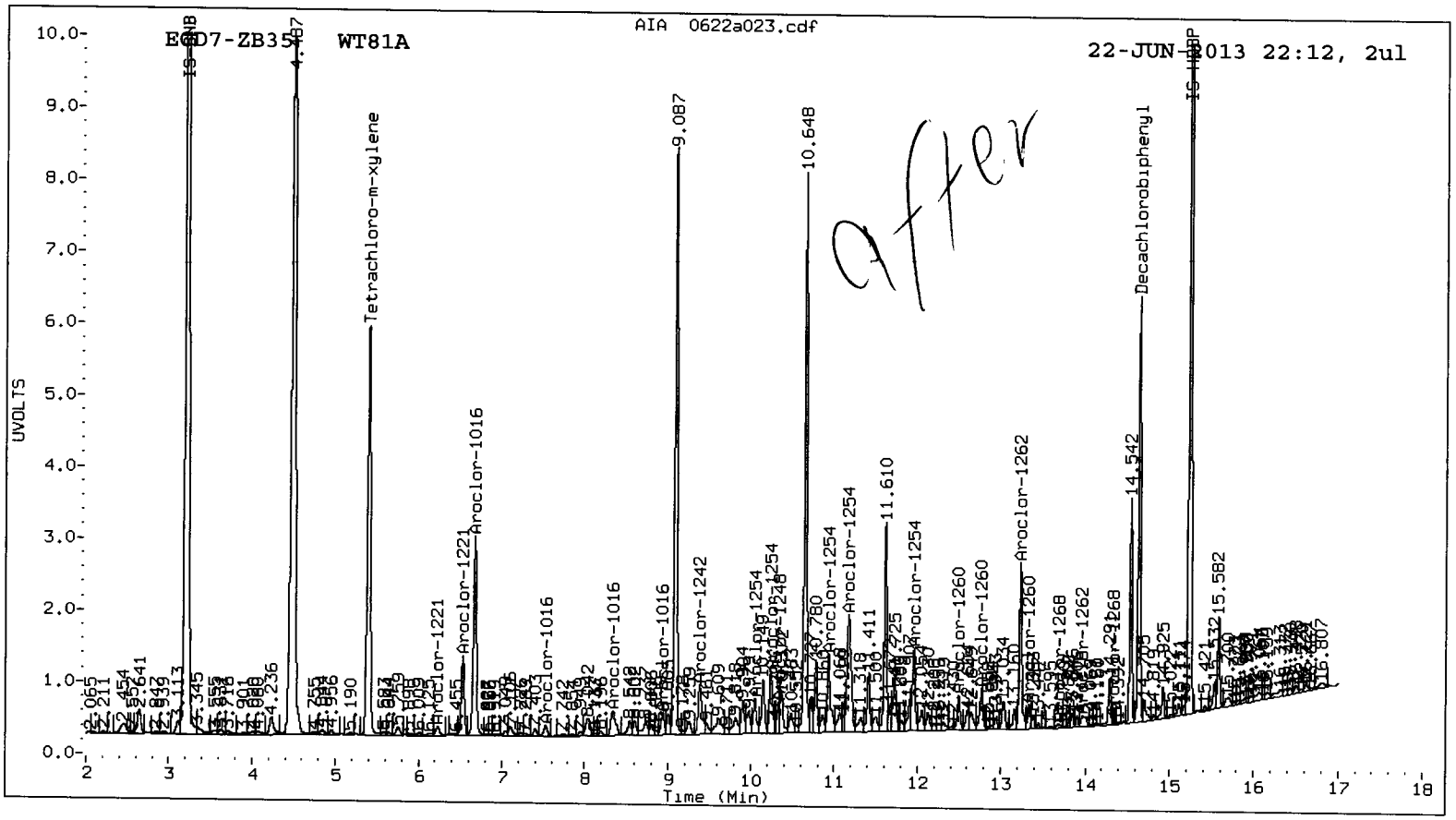
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Decachlorobiphenyl
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15.582
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Aroclor-1221
Aroclor-1242
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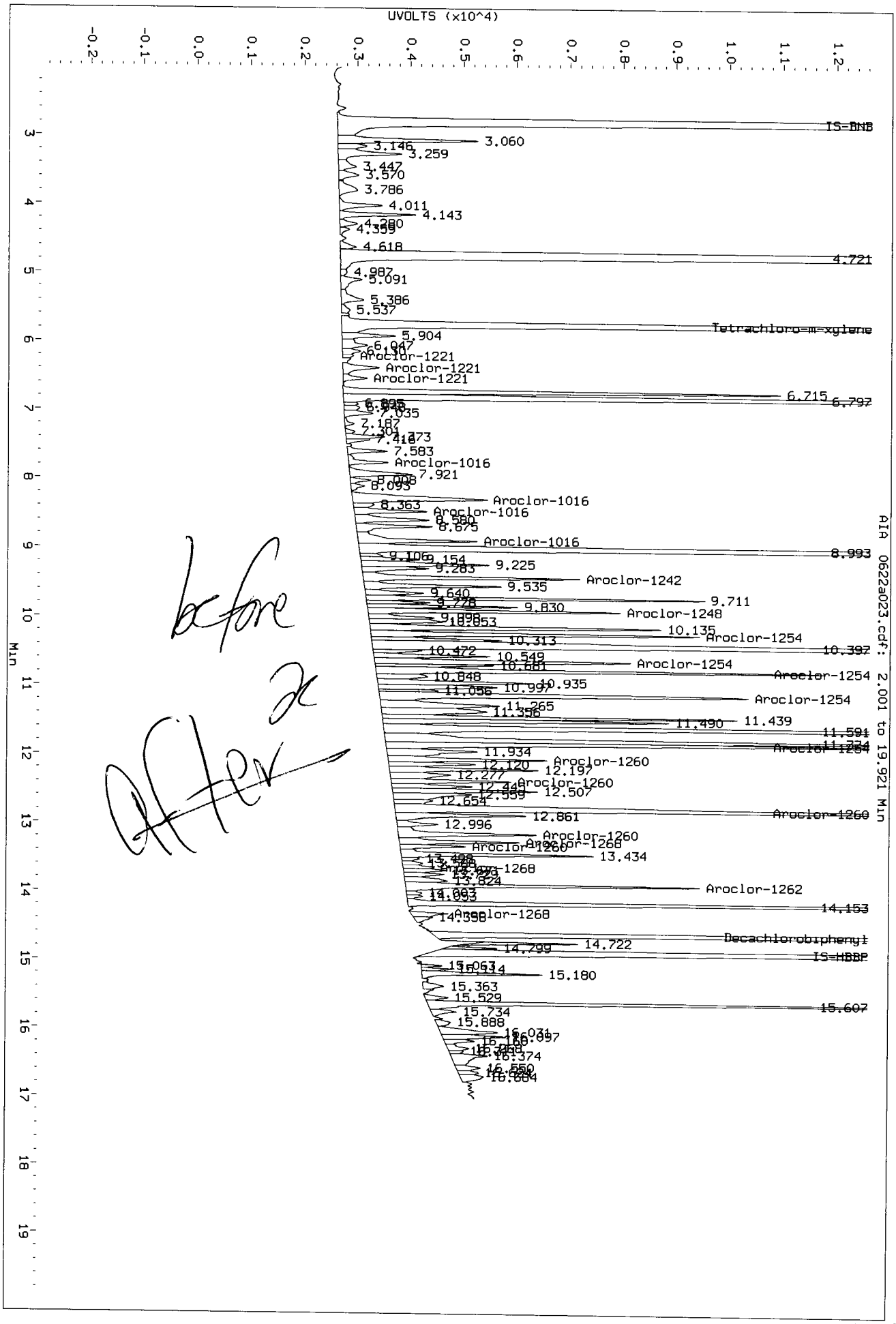
Aroclor-1260
Aroclor-1262
Aroclor-1268
After

WT81:81702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Instrument: ecd7.i
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Min
AIA 0622a023.cdf: 2.001 to 19.921 Min
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
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6.715
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7.921
8.993
9.711
10.135
10.397
11.439
11.591
12.197
12.507
12.861
13.434
14.153
14.722
15.180
15.607
before
after

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a024.d
Data file 2: 20130513.b/0622-2.b/0622a024.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT81AMS
Client ID: AM-VT-INF-20130 MS
Injection Date: 22-JUN-2013 22:34
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	0.000	2298259	5.395	0.001	2848518	26.6	25.5	4.4	Tetrachloro-m-xylene
14.601	0.006	1705765	14.638	0.005	2095219	29.4	32.1	8.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
~~Tetrachloro-m-xylene~~	~~66.5~~	~~63.6~~
Decachlorobiphenyl	73.4	80.3

JR 06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7436369	36.4
Hexabromobiphenyl	4223695	4672562	10.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9123362	-4.5
Hexabromobiphenyl	6702455	5430495	-19.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

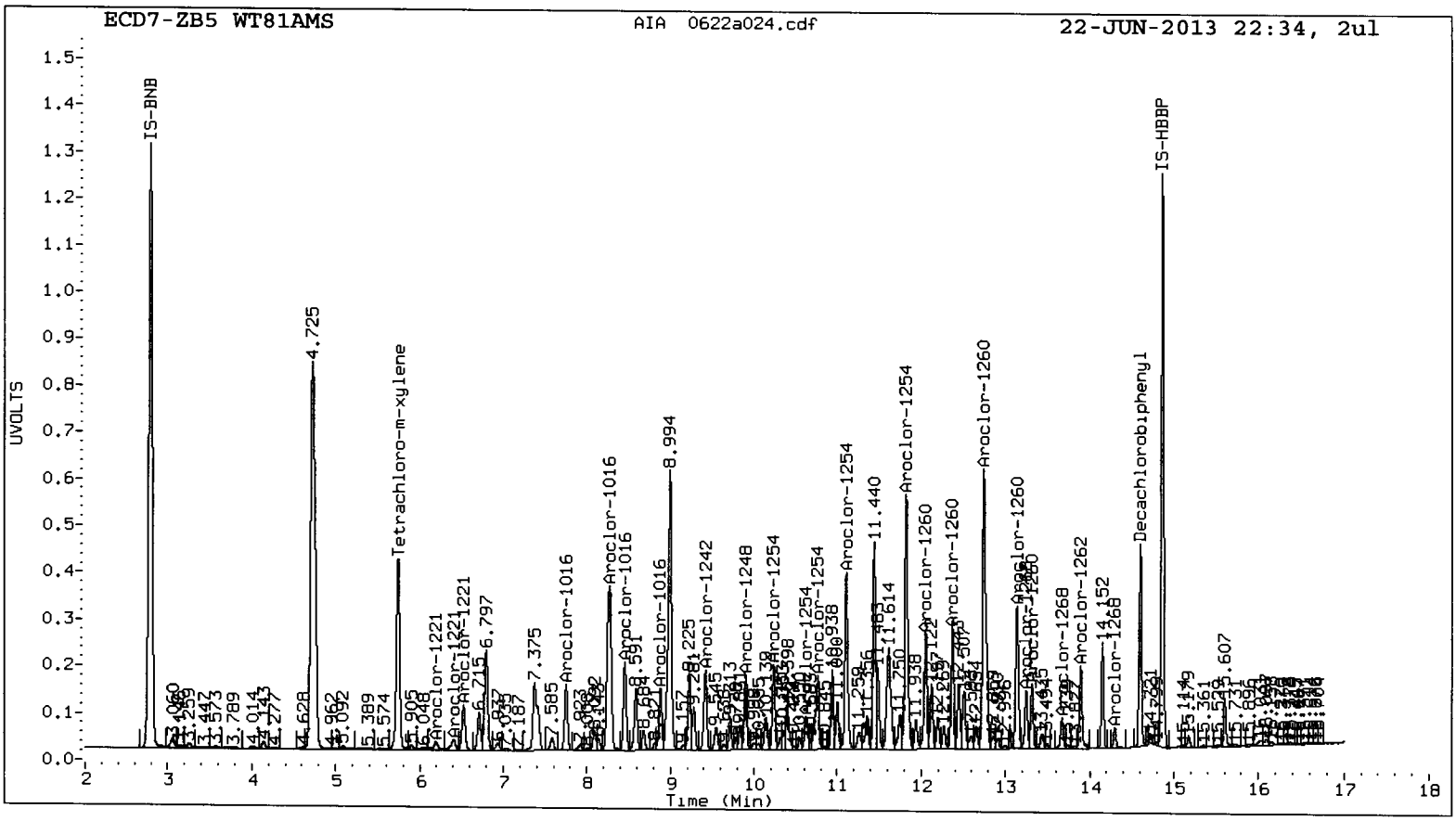
Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	7.751	0.002	719646	313.9	1	6.666	0.017	2084345	969.8
Aroclor-1016	2	8.271	0.002	2547935	330.5	2	7.529	0.001	1470996	310.6
Aroclor-1016	3	8.456	0.001	941686	307.9	3	8.342	0.002	3220426	334.1
Aroclor-1016	4	8.882	0.001	607602	329.5	4	8.940	0.001	934657	322.7
Total Col1Ave (4 peaks):					320.5	Total Col2Ave (4 peaks):				484.3 RPD = 41*
Corrected Ave (3 peaks):					317.1	Corrected Ave (3 peaks):				322.5 RPD = 2
Aroclor-1221	1	6.194	0.003	147647	168.9	1	6.222	0.007	200842	141.2
Aroclor-1221	2	6.406	0.007	172897	234.6	2	6.525	0.013	685247	831.1
Aroclor-1221	3	6.527	0.005	538169	250.7	3	6.666	0.019	2084345	841.4
Aroclor-1221	NS	---			----	4	7.529	-0.011	1470996	1631.8
Total Col1Ave (3 peaks):					218.0	Total Col2Ave (4 peaks):				861.4 RPD = 119*
Corrected Ave:		< 3 Peaks				Corrected Ave (3 peaks):				604.6
Aroclor-1232	1	6.527	0.007	538169	373.1	1	6.666	0.021	2084345	1170.7
Aroclor-1232	2	7.751	0.007	719646	808.4	2	7.529	0.004	1470996	733.0
Aroclor-1232	3	8.271	0.008	2547935	875.6	3	8.342	0.005	3220426	850.1
Aroclor-1232	4	8.456	0.007	941686	803.1	4	8.940	0.004	934657	723.9
Total Col1Ave (4 peaks):					715.1	Total Col2Ave (4 peaks):				869.5 RPD = 19
Corrected Ave (3 peaks):					661.5	Corrected Ave (3 peaks):				769.0 RPD = 15
Aroclor-1242	1	7.751	0.004	719646	380.6	1	6.666	0.020	2084345	1128.4
Aroclor-1242	2	8.271	0.004	2547935	402.7	2	7.529	0.001	1470996	393.9
Aroclor-1242	3	8.456	0.003	941686	378.4	3	8.342	0.003	3220426	422.8
Aroclor-1242	4	9.420	0.003	871889	370.6	4	9.405	0.001	1341675	442.9
Total Col1Ave (4 peaks):					383.1	Total Col2Ave (4 peaks):				597.0 RPD = 44*
Corrected Ave (3 peaks):					376.5	Corrected Ave (3 peaks):				419.9 RPD = 11
Aroclor-1248	1	8.271	0.011	2547935	695.7	1	7.529	0.004	1470996	854.9
Aroclor-1248	2	8.882	0.004	607602	254.8	2	8.342	0.008	3220426	696.6
Aroclor-1248	3	9.420	0.004	871889	258.1	3	8.940	0.003	934657	278.0
Aroclor-1248	4	9.898	0.011	720240	168.4	4	10.368	0.024	471594	102.1
Total Col1Ave (4 peaks):					344.3	Total Col2Ave (4 peaks):				482.9 RPD = 34
Corrected Ave (3 peaks):					227.1	Corrected Ave (3 peaks):				358.9 RPD = 45*
Aroclor-1254	1	10.234	0.004	819350	182.1	1	10.051	0.004	761992	253.3
Aroclor-1254	2	10.624	0.004	381873	136.1	2	10.239	0.006	1067760	280.4
Aroclor-1254	3	10.763	0.003	921242	167.6	3	10.933	0.005	753960	119.6
Aroclor-1254	4	11.105	-0.015	1845370	326.9	4	11.203	0.021	2284434	358.8
Aroclor-1254	5	11.820	0.004	2648743	474.2	5	11.959	0.006	2340676	510.3
Total Col1Ave (5 peaks):					257.4	Total Col2Ave (5 peaks):				304.5 RPD = 17
Corrected Ave (4 peaks):					203.2	Corrected Ave (4 peaks):				253.0 RPD = 22
Aroclor-1260	1	12.053	0.005	1147859	351.2	1	11.959	0.006	2340676	419.9
Aroclor-1260	2	12.370	0.005	1123724	345.5	2	12.502	0.005	1624733	360.5
Aroclor-1260	3	12.742	0.007	3429992	456.3	3	12.774	0.008	3309253	378.4
Aroclor-1260	4	13.137	0.006	1433277	364.8	4	13.333	0.006	2150812	371.3
Aroclor-1260	5	13.317	0.007	600958	348.0	NS	---			----
Total Col1Ave (5 peaks):					373.2	Total Col2Ave (4 peaks):				382.5 RPD = 2
Corrected Ave (4 peaks):					352.4	Corrected Ave (3 peaks):				370.1 RPD = 5
Aroclor-1262	1	12.370	0.009	1123724	283.2	1	12.502	0.004	1624733	326.6
Aroclor-1262	2	12.742	0.011	3429992	375.1	2	12.774	0.007	3309253	332.9
Aroclor-1262	3	13.137	0.009	1433277	481.6	3	13.280	0.007	858009	198.8
Aroclor-1262	4	13.317	0.010	600958	171.6	4	13.333	0.003	2150812	330.2
Aroclor-1262	5	13.895	0.008	803998	285.4	5	13.963	0.007	787499	227.6
Total Col1Ave (5 peaks):					319.4	Total Col2Ave (5 peaks):				283.2 RPD = 12
Corrected Ave (4 peaks):					278.8	Corrected Ave (4 peaks):				270.8 RPD = 3
Aroclor-1268	1	13.247	0.008	565966	58.3	1	13.280	0.007	858009	82.6

Aroclor-1268 2	13.317	0.011	600958	69.3	2	13.333	-0.001	2150812	220.5
Aroclor-1268 3	13.675	0.024	302617	42.2	3	13.686	0.005	83035	10.6
Aroclor-1268 4	14.298	0.009	187431	9.3	4	14.338	0.006	213972	9.1
Total Col1Ave (4 peaks):				44.8	Total Col2Ave (4 peaks):			80.7	RPD = 57*
Corrected Ave (3 peaks):				36.6	Corrected Ave (3 peaks):			34.1	RPD = 7

Total PCB Area Col1 (5.841 - 14.494) = 46029135 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 55978810 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical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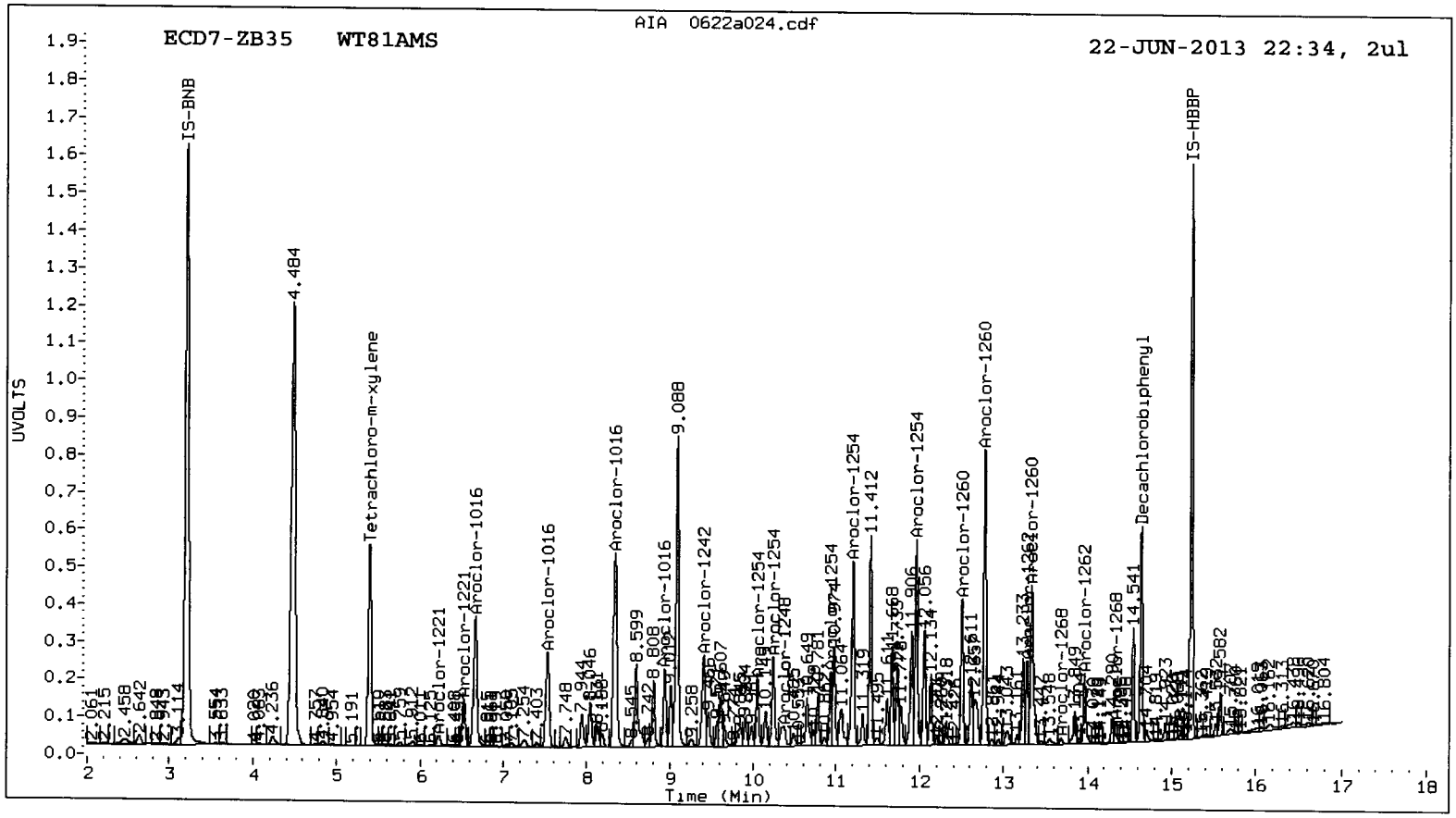
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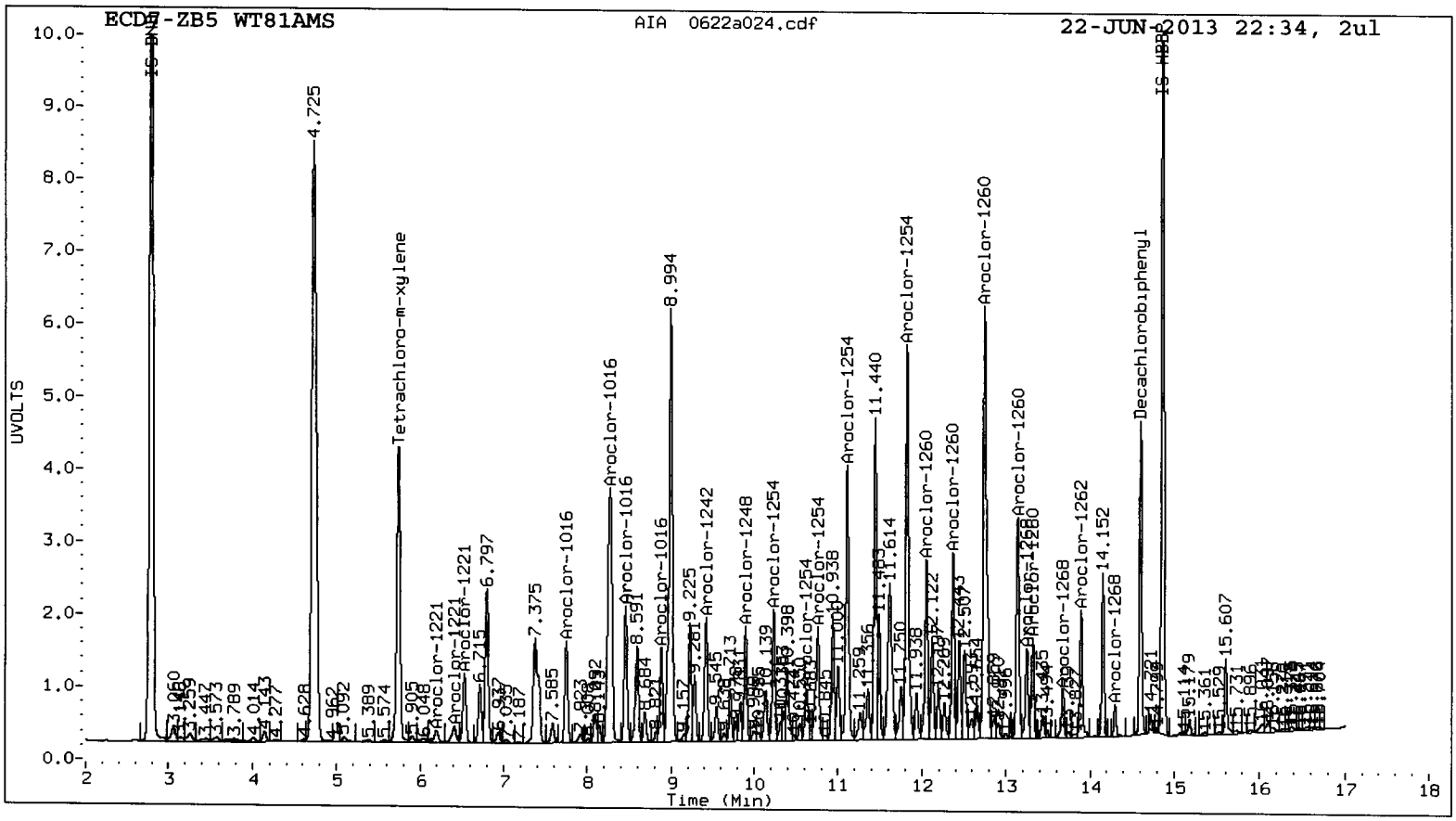
IS-HBBP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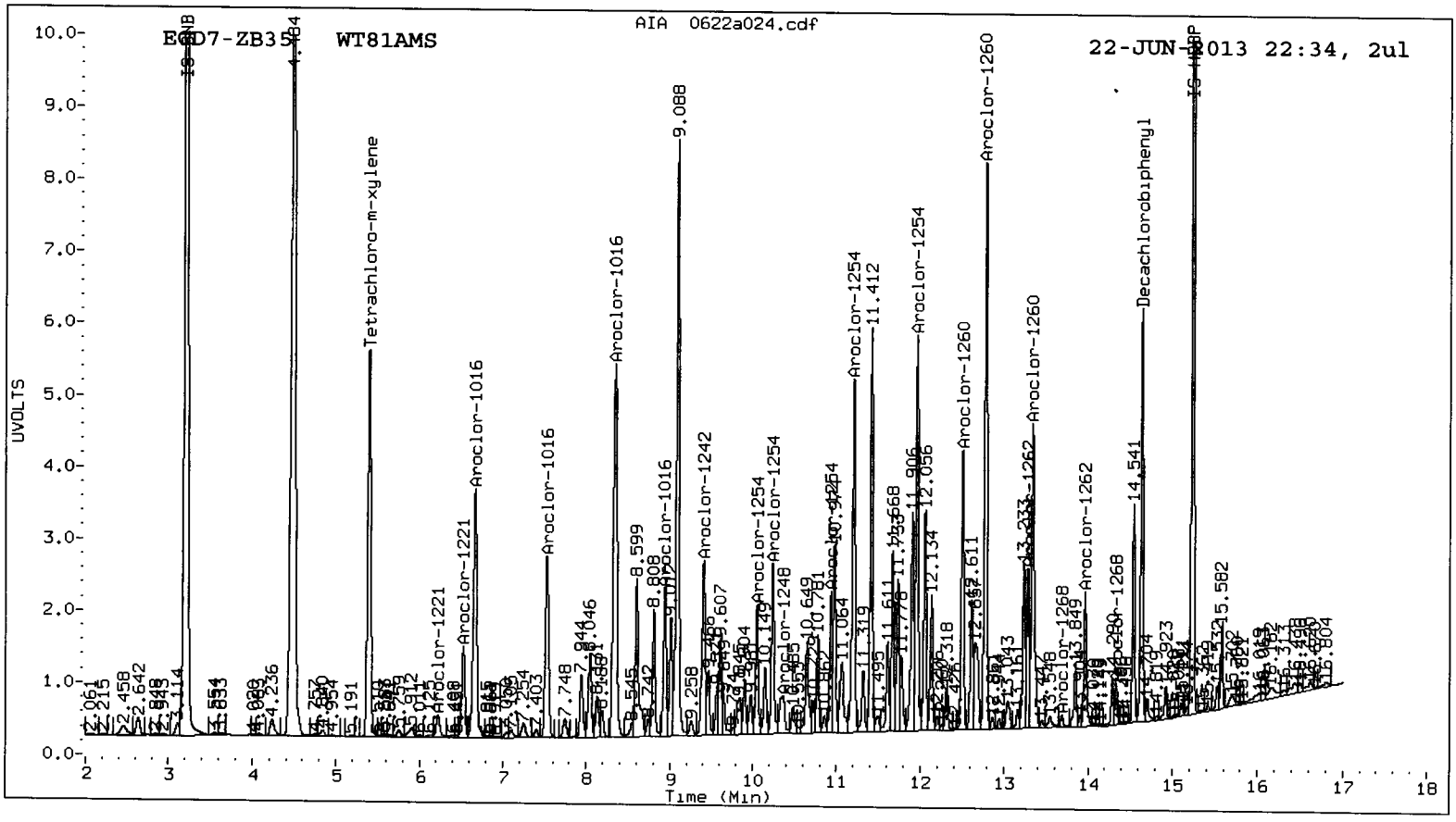
Decachlorobiphenyl
IS-HBBP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Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a025.d
Data file 2: 20130513.b/0622-2.b/0622a025.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT81AMSD
Client ID: AM-VT-INF-20130 MSD
Injection Date: 22-JUN-2013 22:56
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.742	0.001	2386871	5.397	0.003	2972152	25.8	25.1	2.9	Tetrachloro-m-xylene
14.601	0.006	1701591	14.638	0.006	2115517	28.3	31.0	9.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	64.6	62.8
Decachlorobiphenyl	70.7	77.5

JR 06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7949088	45.8
Hexabromobiphenyl	4223695	4845203	14.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9651687	1.0
Hexabromobiphenyl	6702455	5680026	-15.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

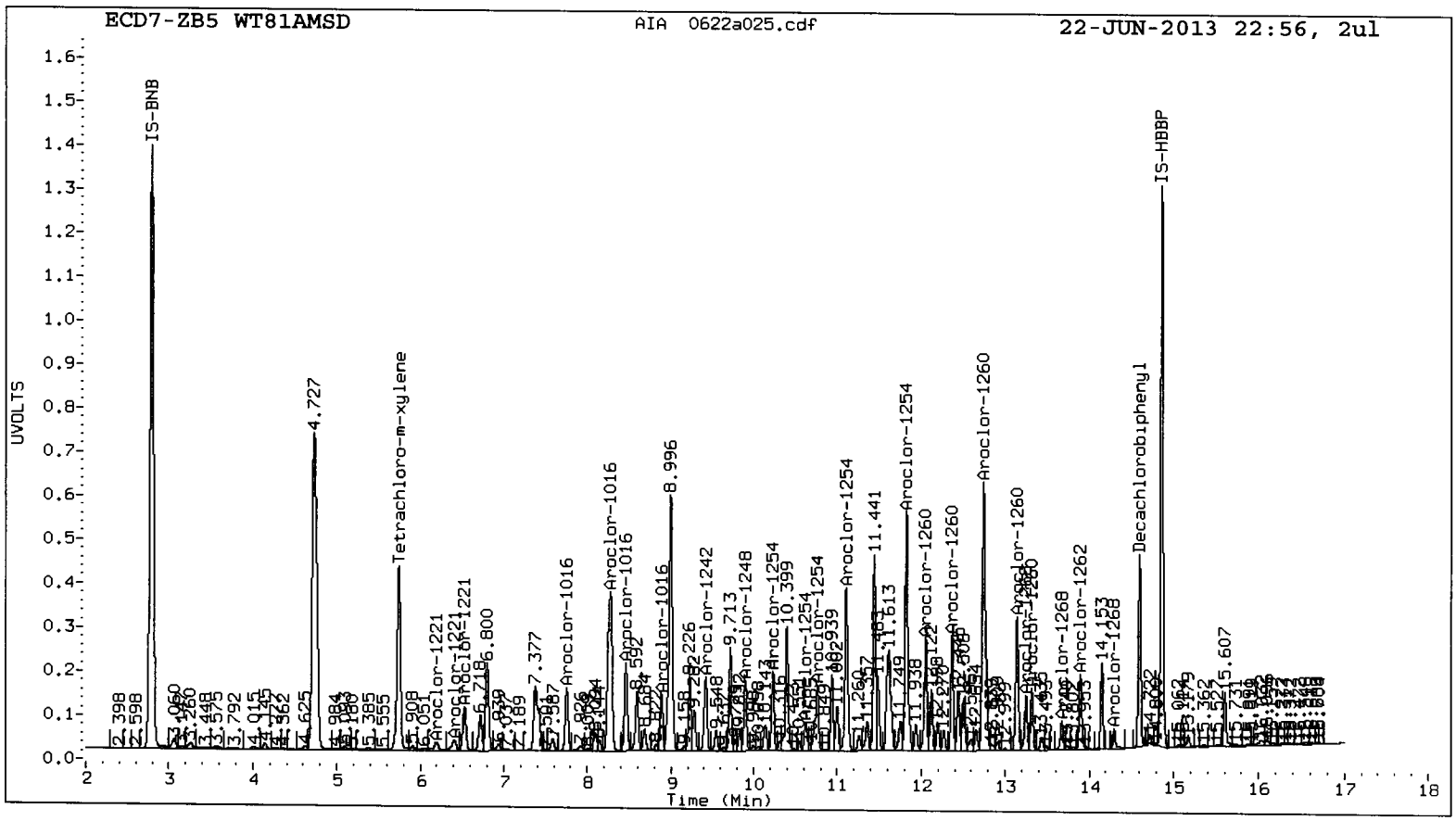
Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	7.752	0.003	739205	301.7	1	6.667	0.018	2011067	884.5
Aroclor-1016	2	8.272	0.004	2601030	315.7	2	7.532	0.004	1526951	304.8
Aroclor-1016	3	8.458	0.002	961771	294.1	3	8.342	0.003	3316538	325.2
Aroclor-1016	4	8.883	0.002	605866	307.4	4	8.942	0.003	943766	308.0
Total Col1Ave (4 peaks):					304.7	Total Col2Ave (4 peaks):				455.6 RPD = 40
Corrected Ave (3 peaks):					301.1	Corrected Ave (3 peaks):				312.7 RPD = 4
Aroclor-1221	1	6.195	0.005	155702	166.6	1	6.224	0.009	202992	134.9
Aroclor-1221	2	6.408	0.008	183357	232.7	2	6.527	0.015	696390	798.4
Aroclor-1221	3	6.529	0.007	546926	238.3	3	6.667	0.020	2011067	767.4
Aroclor-1221	NS	---			----	4	7.532	-0.008	1526951	1601.1
Total Col1Ave (3 peaks):					212.6	Total Col2Ave (4 peaks):				825.4 RPD = 118*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				566.9
Aroclor-1232	1	6.529	0.009	546926	354.7	1	6.667	0.022	2011067	1067.7
Aroclor-1232	2	7.752	0.009	739205	776.8	2	7.532	0.007	1526951	719.3
Aroclor-1232	3	8.272	0.010	2601030	836.2	3	8.342	0.005	3316538	827.6
Aroclor-1232	4	8.458	0.008	961771	767.4	4	8.942	0.006	943766	691.0
Total Col1Ave (4 peaks):					683.8	Total Col2Ave (4 peaks):				826.4 RPD = 19
Corrected Ave (3 peaks):					633.0	Corrected Ave (3 peaks):				745.9 RPD = 16
Aroclor-1242	1	7.752	0.006	739205	365.8	1	6.667	0.021	2011067	1029.1
Aroclor-1242	2	8.272	0.006	2601030	384.6	2	7.532	0.004	1526951	386.5
Aroclor-1242	3	8.458	0.004	961771	361.5	3	8.342	0.004	3316538	411.5
Aroclor-1242	4	9.422	0.005	875412	348.1	4	9.407	0.003	1336540	417.1
Total Col1Ave (4 peaks):					365.0	Total Col2Ave (4 peaks):				561.1 RPD = 42*
Corrected Ave (3 peaks):					358.5	Corrected Ave (3 peaks):				405.1 RPD = 12
Aroclor-1248	1	8.272	0.013	2601030	664.4	1	7.532	0.007	1526951	838.8
Aroclor-1248	2	8.883	0.006	605866	237.7	2	8.342	0.009	3316538	678.2
Aroclor-1248	3	9.422	0.005	875412	242.4	3	8.942	0.005	943766	265.3
Aroclor-1248	4	9.899	0.012	705171	154.2	4	10.343	-0.001	394061	80.7
Total Col1Ave (4 peaks):					324.7	Total Col2Ave (4 peaks):				465.7 RPD = 36
Corrected Ave (3 peaks):					211.5	Corrected Ave (3 peaks):				341.4 RPD = 47*
Aroclor-1254	1	10.235	0.005	783517	162.9	1	10.052	0.005	758657	238.4
Aroclor-1254	2	10.625	0.006	333165	111.1	2	10.239	0.006	1027097	255.0
Aroclor-1254	3	10.763	0.003	859543	146.3	3	10.933	0.005	711876	106.8
Aroclor-1254	4	11.106	-0.014	1792220	297.0	4	11.203	0.021	2239546	332.5
Aroclor-1254	5	11.821	0.005	2591274	434.0	5	11.959	0.006	2341778	482.6
Total Col1Ave (5 peaks):					230.2	Total Col2Ave (5 peaks):				285.1 RPD = 21
Corrected Ave (4 peaks):					179.3	Corrected Ave (4 peaks):				233.2 RPD = 26
Aroclor-1260	1	12.053	0.005	1113679	328.6	1	11.959	0.005	2341778	401.7
Aroclor-1260	2	12.369	0.004	1099628	326.1	2	12.502	0.005	1660494	352.3
Aroclor-1260	3	12.742	0.007	3361466	431.2	3	12.774	0.008	3385049	370.0
Aroclor-1260	4	13.138	0.006	1435046	352.2	4	13.333	0.006	2199666	363.0
Aroclor-1260	5	13.317	0.007	600899	335.5	NS	---			----
Total Col1Ave (5 peaks):					354.7	Total Col2Ave (4 peaks):				371.8 RPD = 5
Corrected Ave (4 peaks):					335.6	Corrected Ave (3 peaks):				361.8 RPD = 8
Aroclor-1262	1	12.369	0.008	1099628	267.3	1	12.502	0.004	1660494	319.1
Aroclor-1262	2	12.742	0.010	3361466	354.5	2	12.774	0.007	3385049	325.5
Aroclor-1262	3	13.138	0.010	1435046	465.1	3	13.279	0.006	894224	198.1
Aroclor-1262	4	13.317	0.011	600899	165.4	4	13.333	0.003	2199666	322.9
Aroclor-1262	5	13.895	0.007	749230	256.5	5	13.963	0.006	810756	224.1
Total Col1Ave (5 peaks):					301.8	Total Col2Ave (5 peaks):				277.9 RPD = 8
Corrected Ave (4 peaks):					260.9	Corrected Ave (4 peaks):				266.0 RPD = 2
Aroclor-1268	1	13.248	0.009	564656	56.1	1	13.279	0.006	894224	82.3

Aroclor-1268	2	13.317	0.011	600899	66.8	2	13.333	-0.001	2199666	215.6
Aroclor-1268	3	13.674	0.023	305223	41.0	3	13.686	0.006	90545	11.0
Aroclor-1268	4	14.297	0.009	208873	10.0	4	14.339	0.007	220408	9.0
Total Col1Ave (4 peaks):					43.5	Total Col2Ave (4 peaks):			79.5	RPD = 59*
Corrected Ave (3 peaks):					35.7	Corrected Ave (3 peaks):			34.1	RPD = 5

Total PCB Area Col1 (5.841 - 14.494) = 46203982 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 57330178 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical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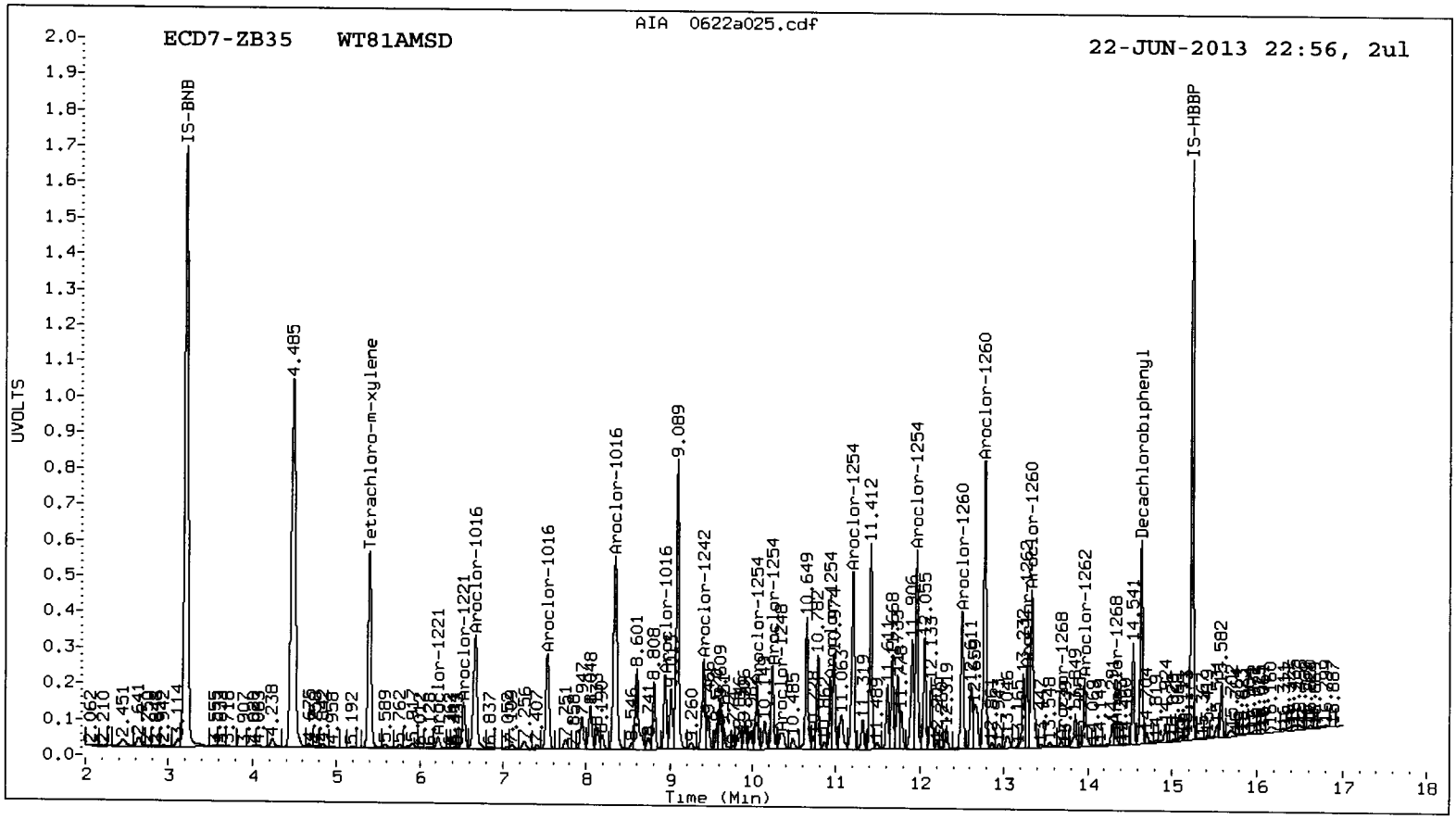
IS-HBBP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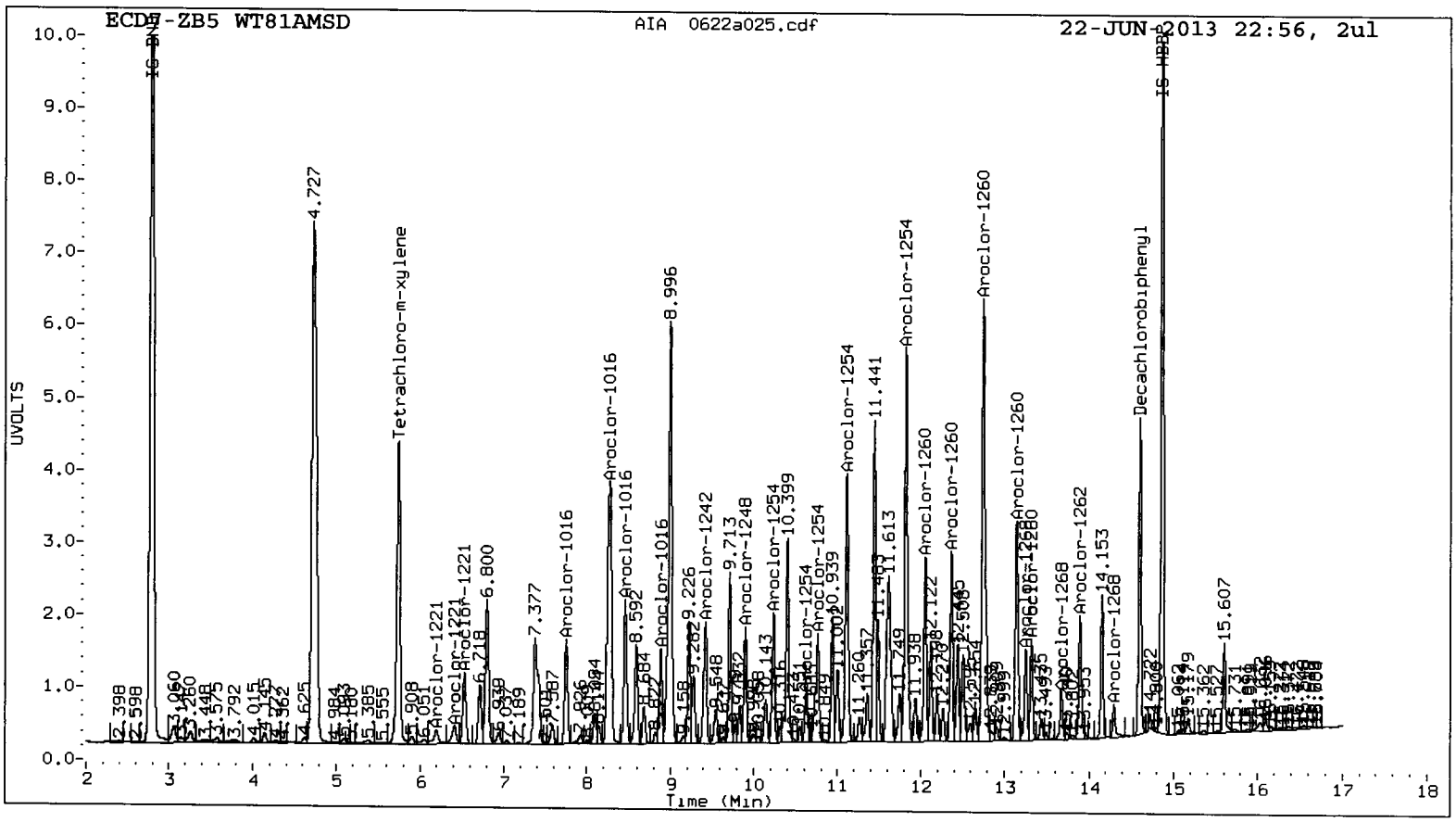
Decachlorobiphenyl
IS-HBBP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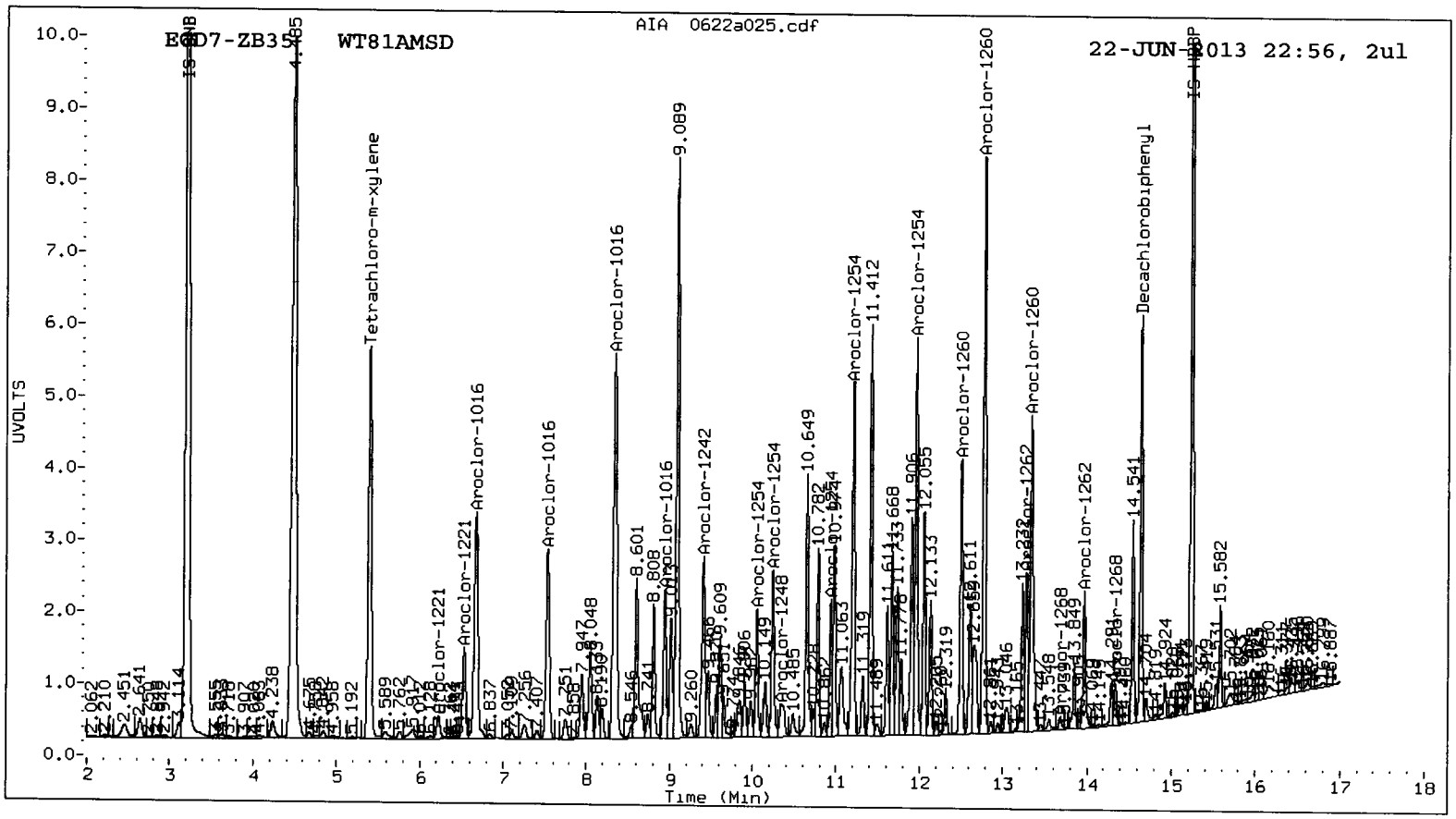
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Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a026.d
Data file 2: 20130513.b/0622-2.b/0622a026.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT81B
Client ID: AM-SF4-EFF-20130612
Injection Date: 22-JUN-2013 23:18
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	0.000	479157	5.395	0.001	659899	5.9	6.0	1.4	Tetrachloro-m-xylene
14.601	0.006	359731	14.637	0.005	469642	7.1	8.0	11.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	73.3	74.4
Decachlorobiphenyl	89.3	100.5

6/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7027175	28.8
Hexabromobiphenyl	4223695	4053136	-4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9039308	-5.4
Hexabromobiphenyl	6702455	4863173	-27.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	ZB5 Col Shift	Area	Amount	Peak#	RT	ZB35 Col Shift	Area	Amount
Aroclor-1016	1	7.752	0.002	21651	10.0	1	6.670	0.021	597905	280.8
Aroclor-1016	2	8.273	0.004	134843	18.5	2	7.532	0.003	54501	11.6
Aroclor-1016	3	8.458	0.002	35977	12.4	3	8.343	0.003	168750	17.7
Aroclor-1016	4	8.883	0.002	74978	43.0	4	8.938	0.000	90966	31.7
Total Col1Ave (4 peaks):					21.0	Total Col2Ave (4 peaks):				85.4 RPD = 121*
Corrected Ave (3 peaks):					13.7	Corrected Ave (3 peaks):				20.3 RPD = 39
Aroclor-1221	1	6.127	-0.064	38492	46.6	1	6.240	0.025	49235	34.9
Aroclor-1221	2	6.406	0.006	15843	22.7	2	6.527	0.015	679882	832.3
Aroclor-1221	3	6.528	0.006	15715	7.7	3	6.670	0.023	597905	243.6
Aroclor-1221	NS	---			----	4	7.532	-0.008	54501	61.0
Total Col1Ave (3 peaks):					25.7	Total Col2Ave (4 peaks):				293.0 RPD = 168*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				113.2
Aroclor-1232	1	6.528	0.008	15715	11.5	1	6.670	0.026	597905	338.9
Aroclor-1232	2	7.752	0.008	21651	25.7	2	7.532	0.006	54501	27.4
Aroclor-1232	3	8.273	0.010	134843	49.0	3	8.343	0.006	168750	45.0
Aroclor-1232	4	8.458	0.009	35977	32.5	4	8.938	0.003	90966	71.1
Total Col1Ave (4 peaks):					29.7	Total Col2Ave (4 peaks):				120.6 RPD = 121*
Corrected Ave (3 peaks):					23.2	Corrected Ave (3 peaks):				47.8 RPD = 69*
Aroclor-1242	1	7.752	0.005	21651	12.1	1	6.670	0.024	597905	326.7
Aroclor-1242	2	8.273	0.006	134843	22.6	2	7.532	0.004	54501	14.7
Aroclor-1242	3	8.458	0.004	35977	15.3	3	8.343	0.004	168750	22.4
Aroclor-1242	4	9.417	0.000	145674	65.5	4	9.380	-0.024	465964	155.3
Total Col1Ave (4 peaks):					28.9	Total Col2Ave (4 peaks):				129.8 RPD = 127*
Corrected Ave (3 peaks):					16.7	Corrected Ave (3 peaks):				64.1 RPD = 118*
Aroclor-1248	1	8.273	0.014	134843	39.0	1	7.532	0.007	54501	32.0
Aroclor-1248	2	8.883	0.005	74978	33.3	2	8.343	0.009	168750	36.8
Aroclor-1248	3	9.417	0.001	145674	45.6	3	8.938	0.002	90966	27.3
Aroclor-1248	4	9.898	0.011	130659	32.3	4	10.373	0.028	304323	66.5
Total Col1Ave (4 peaks):					37.5	Total Col2Ave (4 peaks):				40.7 RPD = 8
Corrected Ave (3 peaks):					34.9	Corrected Ave (3 peaks):				32.0 RPD = 8
Aroclor-1254	1	10.231	0.001	213414	50.2	1	10.051	0.004	136576	45.8
Aroclor-1254	2	10.639	0.019	244680	92.3	2	10.246	0.013	349620	92.7
Aroclor-1254	3	10.764	0.004	234774	45.2	3	10.933	0.005	240970	38.6
Aroclor-1254	4	11.123	0.003	266538	50.0	4	11.190	0.009	313941	49.8
Aroclor-1254	5	11.823	0.006	247375	46.9	5	11.957	0.004	332389	73.1
Total Col1Ave (5 peaks):					56.9	Total Col2Ave (5 peaks):				60.0 RPD = 5
Corrected Ave (4 peaks):					48.1	Corrected Ave (4 peaks):				51.8 RPD = 8
Aroclor-1260	1	12.054	0.006	52854	18.6	1	11.957	0.003	332389	66.6
Aroclor-1260	2	12.369	0.005	49080	17.4	2	12.497	0.000	107789	26.7
Aroclor-1260	3	12.781	0.046	609681	93.5	3	12.774	0.008	150926	19.3
Aroclor-1260	4	13.136	0.004	82416	24.2	4	13.335	0.008	76134	14.7
Aroclor-1260	5	13.316	0.006	34629	23.1	NS	---			----
Total Col1Ave (5 peaks):					35.4	Total Col2Ave (4 peaks):				31.8 RPD = 11
Corrected Ave (4 peaks):					20.8	Corrected Ave (3 peaks):				20.2 RPD = 3
Aroclor-1262	1	12.369	0.009	49080	14.3	1	12.497	-0.001	107789	24.2
Aroclor-1262	2	12.781	0.050	609681	76.9	2	12.774	0.007	150926	17.0
Aroclor-1262	3	13.136	0.008	82416	31.9	3	13.233	-0.040	708960	183.4
Aroclor-1262	4	13.316	0.009	34629	11.4	4	13.335	0.005	76134	13.1
Aroclor-1262	5	13.886	-0.003	198426	81.2	5	13.963	0.006	35589	11.5
Total Col1Ave (5 peaks):					43.1	Total Col2Ave (5 peaks):				49.8 RPD = 14
Corrected Ave (4 peaks):					33.6	Corrected Ave (4 peaks):				16.4 RPD = 69*
Aroclor-1268	1	13.249	0.010	61032	7.2	1	13.233	-0.040	708960	76.2

WT81 : 0622-1.B

Aroclor-1268	2	13.316	0.010	34629	4.6	2	13.335	0.001	76134	8.7
Aroclor-1268	3	13.668	0.017	14002	2.3	3	13.690	0.009	23236	3.3
Aroclor-1268	4	14.299	0.010	23796	1.4	4	14.289	-0.043	209169	10.0

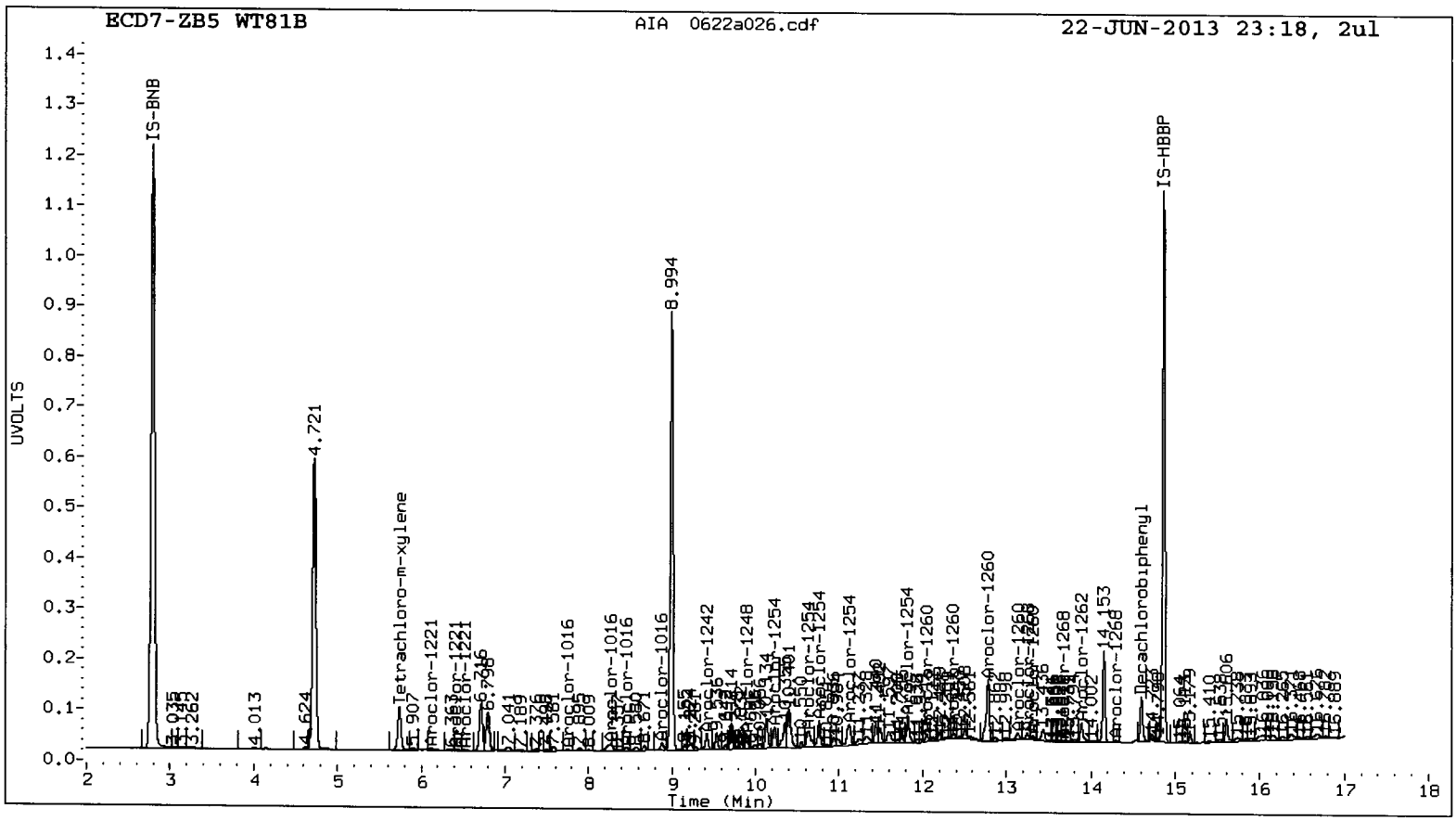
Total Col1Ave (4 peaks): 3.9 Total Col2Ave (4 peaks): 24.5 RPD = 146*

Corrected Ave (3 peaks): 2.7 Corrected Ave (3 peaks): 7.3 RPD = 91*

Total PCB Area Col1 (5.841 - 14.494) = 12031541 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 14480399 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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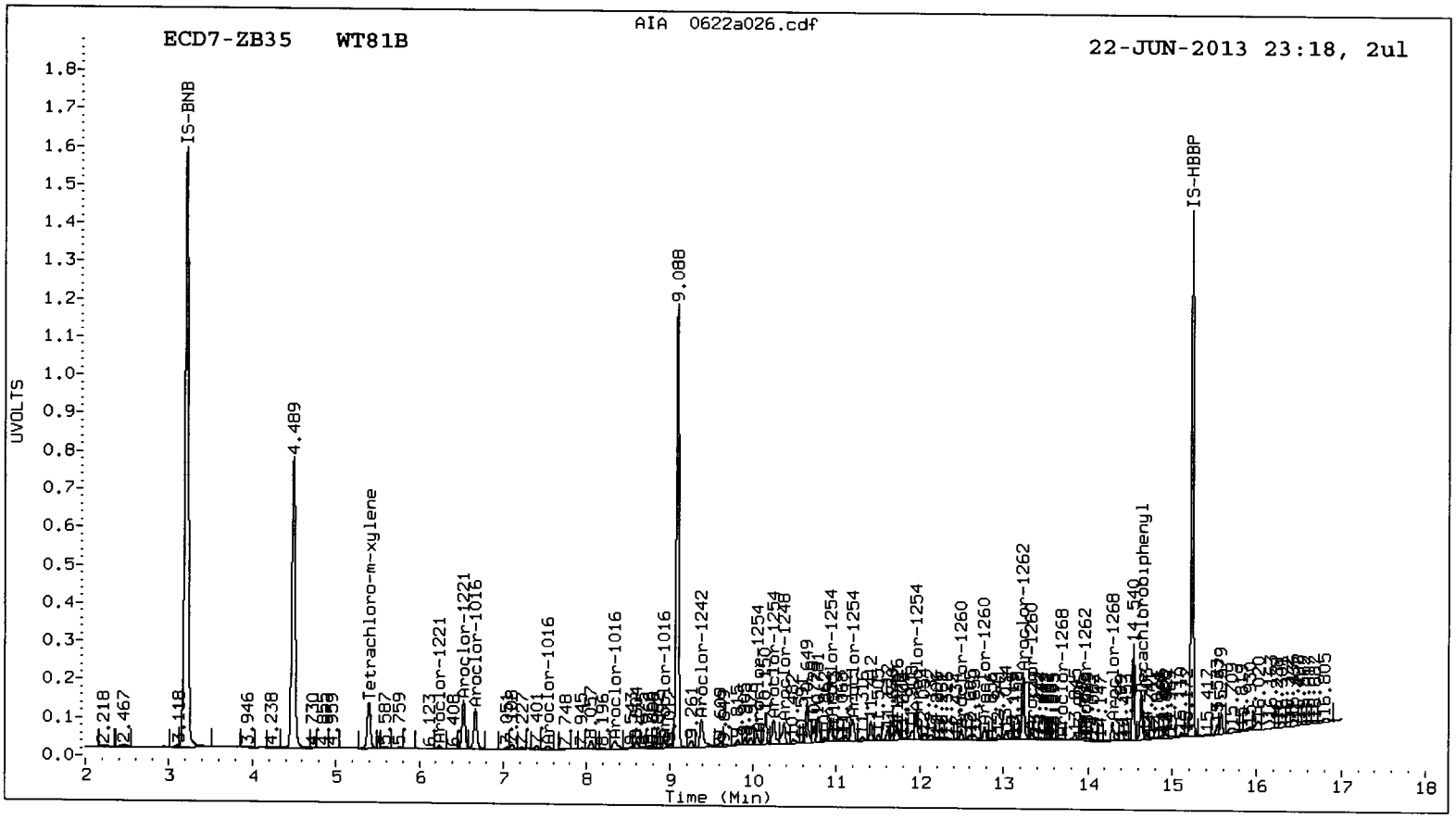
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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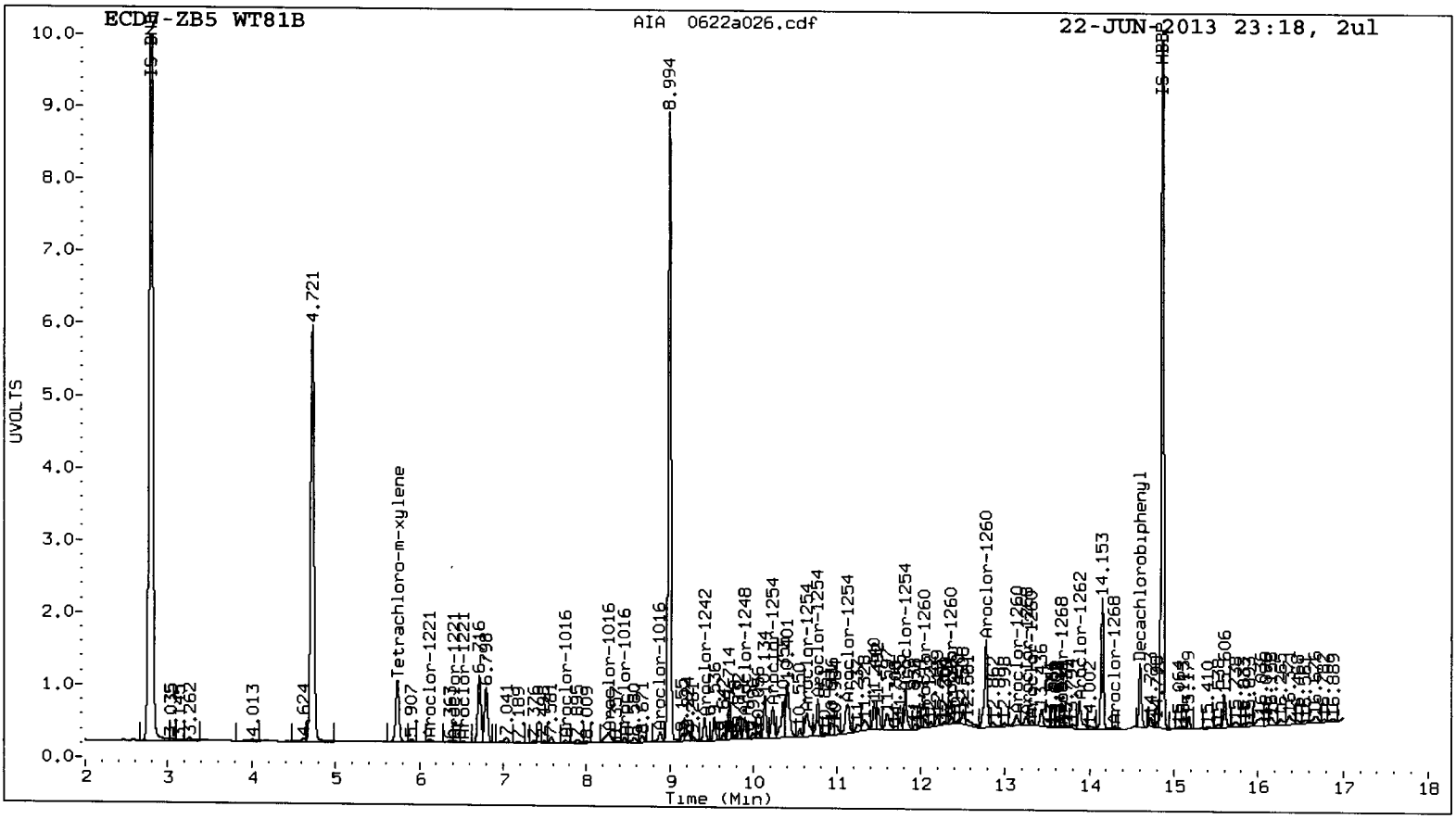
UVOLTS
Time (Min)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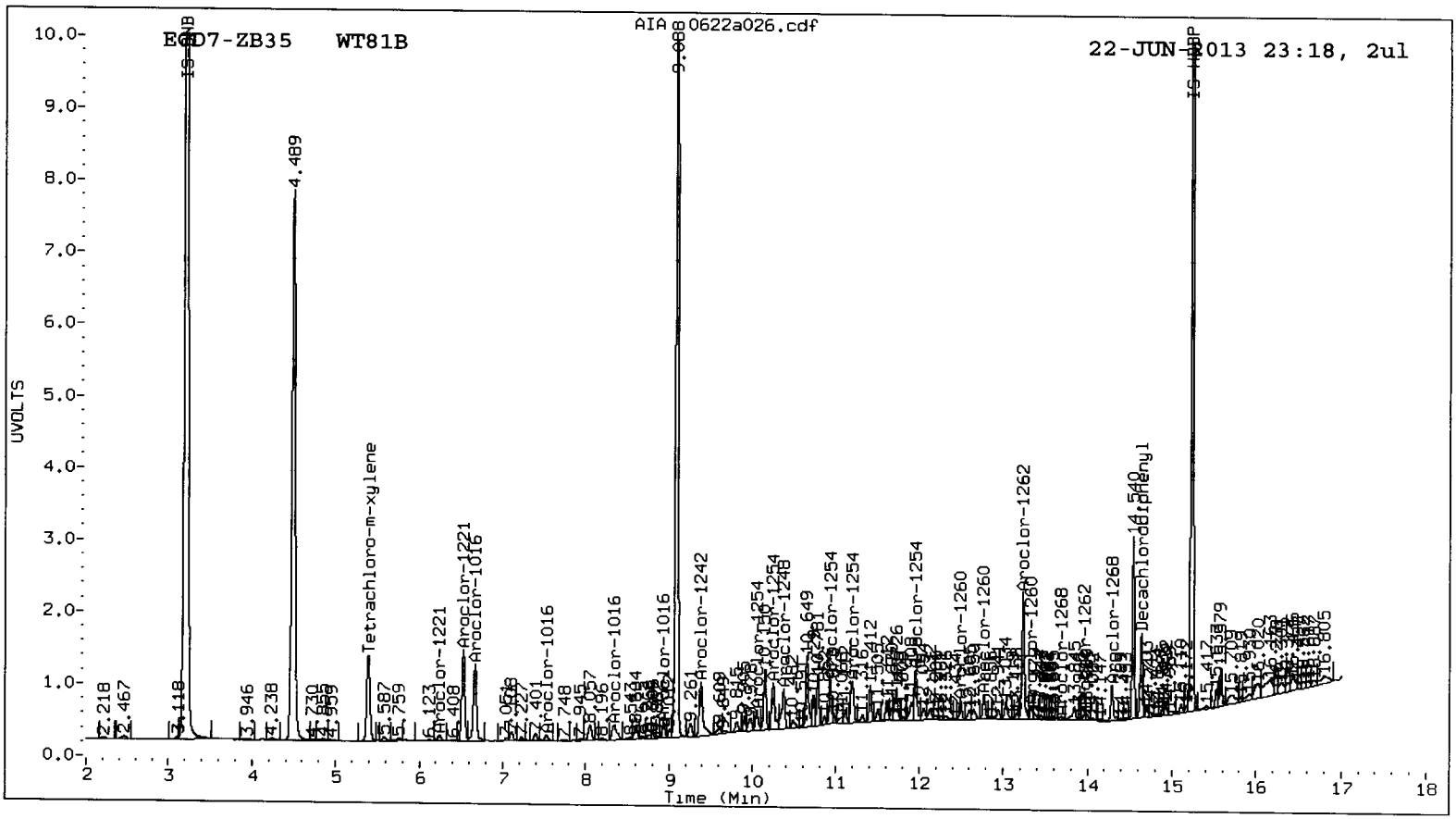
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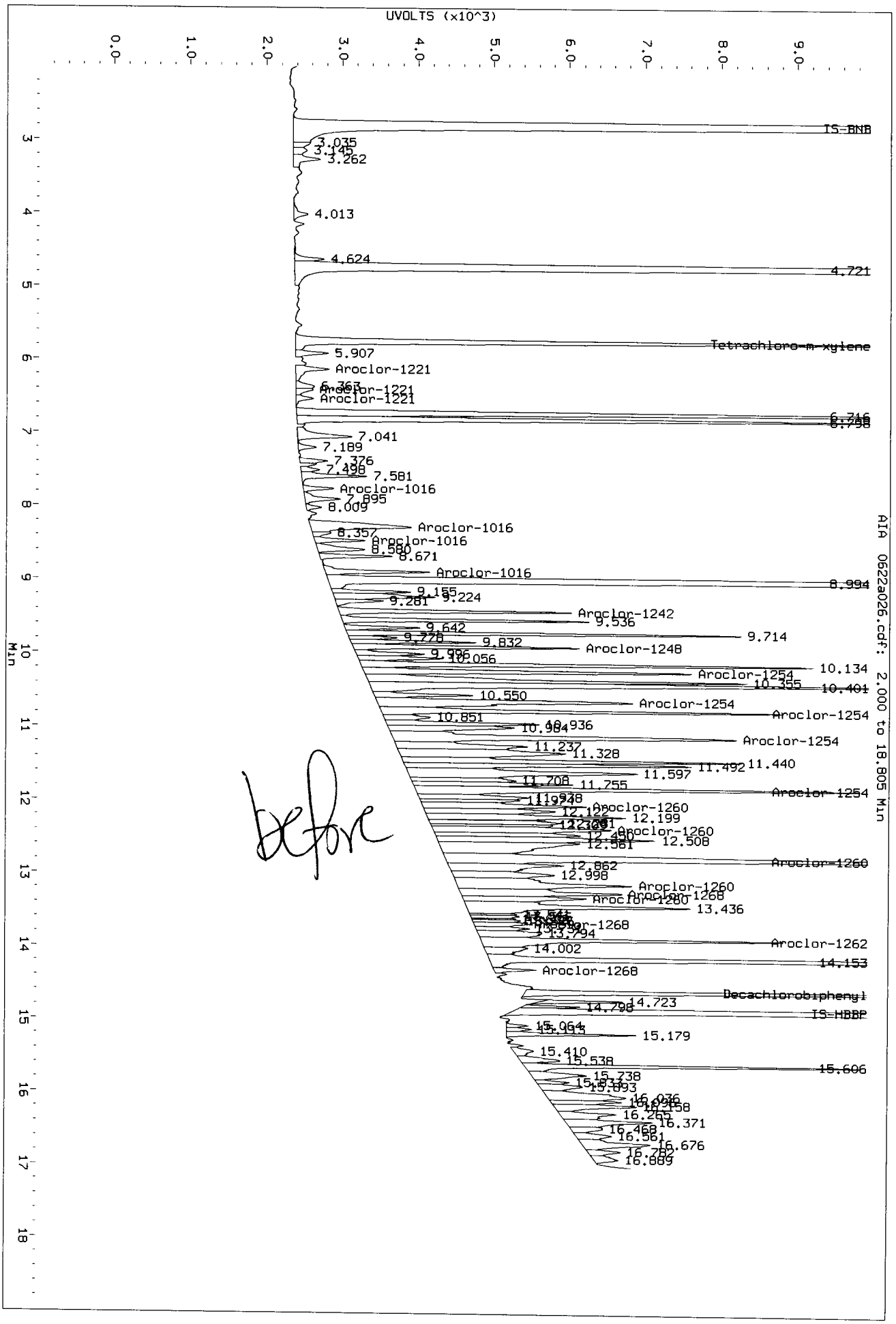
Tetrachloro-m-xylene
9.008
IS HBB
Decachlorobiphenyl
14.540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Instrument: ecd7.i
Client Sample ID: AM-SF4-EFF-20130612
UVOLTS (x10^3)
AIA 0622a026.cdf: 2.000 to 18.805 Min
Min
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
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3.262
4.013
4.624
4.721
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6.363
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16.468
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16.782
16.889
Before

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a027.d
Data file 2: 20130513.b/0622-2.b/0622a027.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: WT81C
Client ID: AM-FD-01-20130612-S
Injection Date: 22-JUN-2013 23:40
Report Date: 06/24/2013 07:33
Matrix: SOIL
Dilution Factor: 5.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.742	0.001	434668	5.394	0.000	724643	5.2	6.3	19.7	Tetrachloro-m-xylene
14.599	0.004	316042	14.636	0.004	424080	6.3	7.3	15.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	65.1	79.3
Decachlorobiphenyl	78.4	91.5

JR 06/24/13

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7185648	31.8
Hexabromobiphenyl	4223695	4053568	-4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9313274	-2.6
Hexabromobiphenyl	6702455	4821305	-28.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	7.752	0.003	18349	8.3	1	6.670	0.021	555682	253.3	
Aroclor-1016	2	8.273	0.004	109005	14.6	2	7.531	0.003	43885	9.1	
Aroclor-1016	3	8.457	0.002	29759	10.1	3	8.343	0.004	144477	14.7	
Aroclor-1016	4	8.883	0.002	67264	37.8	4	8.939	0.001	83094	28.1	
Total Col1Ave (4 peaks):				17.7		Total Col2Ave (4 peaks):			76.3		RPD = 125*
Corrected Ave (3 peaks):				11.0		Corrected Ave (3 peaks):			17.3		RPD = 44*
Aroclor-1221	1	6.126	-0.064	29728	35.2	1	6.240	0.025	48136	33.1	
Aroclor-1221	2	6.361	-0.038	25057	35.2	2	6.527	0.015	597098	709.4	
Aroclor-1221	3	6.527	0.004	12102	5.8	3	6.670	0.023	555682	219.7	
Aroclor-1221	NS	---			----	4	7.531	-0.009	43885	47.7	
Total Col1Ave (3 peaks):				25.4		Total Col2Ave (4 peaks):			252.5		RPD = 163*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			100.2		
Aroclor-1232	1	6.527	0.007	12102	8.7	1	6.670	0.025	555682	305.7	
Aroclor-1232	2	7.752	0.009	18349	21.3	2	7.531	0.006	43885	21.4	
Aroclor-1232	3	8.273	0.010	109005	38.8	3	8.343	0.006	144477	37.4	
Aroclor-1232	4	8.457	0.008	29759	26.3	4	8.939	0.003	83094	63.0	
Total Col1Ave (4 peaks):				23.8		Total Col2Ave (4 peaks):			106.9		RPD = 127*
Corrected Ave (3 peaks):				18.8		Corrected Ave (3 peaks):			40.6		RPD = 74*
Aroclor-1242	1	7.752	0.005	18349	10.0	1	6.670	0.024	555682	294.7	
Aroclor-1242	2	8.273	0.006	109005	17.8	2	7.531	0.003	43885	11.5	
Aroclor-1242	3	8.457	0.004	29759	12.4	3	8.343	0.004	144477	18.6	
Aroclor-1242	4	9.417	-0.001	125999	55.4	4	9.380	-0.024	443737	143.5	
Total Col1Ave (4 peaks):				23.9		Total Col2Ave (4 peaks):			117.1		RPD = 132*
Corrected Ave (3 peaks):				13.4		Corrected Ave (3 peaks):			57.9		RPD = 125*
Aroclor-1248	1	8.273	0.014	109005	30.8	1	7.531	0.007	43885	25.0	
Aroclor-1248	2	8.883	0.006	67264	29.2	2	8.343	0.009	144477	30.6	
Aroclor-1248	3	9.417	0.000	125999	38.6	3	8.939	0.003	83094	24.2	
Aroclor-1248	4	9.898	0.011	123534	29.9	4	10.373	0.029	269265	57.1	
Total Col1Ave (4 peaks):				32.1		Total Col2Ave (4 peaks):			34.2		RPD = 6
Corrected Ave (3 peaks):				30.0		Corrected Ave (3 peaks):			26.6		RPD = 12
Aroclor-1254	1	10.231	0.001	194395	44.7	1	10.051	0.003	135329	44.1	
Aroclor-1254	2	10.633	0.013	171180	63.1	2	10.246	0.013	332359	85.5	
Aroclor-1254	3	10.764	0.004	207701	39.1	3	10.933	0.004	249230	38.7	
Aroclor-1254	4	11.121	0.001	237976	43.6	4	11.188	0.007	309328	47.6	
Aroclor-1254	5	11.821	0.004	227712	42.2	5	11.958	0.006	315104	67.3	
Total Col1Ave (5 peaks):				46.6		Total Col2Ave (5 peaks):			56.6		RPD = 20
Corrected Ave (4 peaks):				42.4		Corrected Ave (4 peaks):			49.4		RPD = 15
Aroclor-1260	1	12.053	0.004	42394	15.0	1	11.958	0.005	315104	63.7	
Aroclor-1260	2	12.369	0.004	45637	16.2	2	12.499	0.002	96821	24.2	
Aroclor-1260	3	12.779	0.044	553471	84.9	3	12.773	0.007	127107	16.4	
Aroclor-1260	4	13.133	0.002	92989	27.3	4	13.332	0.005	119585	23.3	
Aroclor-1260	5	13.318	0.007	34215	22.8	NS	---			----	
Total Col1Ave (5 peaks):				33.2		Total Col2Ave (4 peaks):			31.9		RPD = 4
Corrected Ave (4 peaks):				20.3		Corrected Ave (3 peaks):			21.3		RPD = 5
Aroclor-1262	1	12.369	0.008	45637	13.3	1	12.499	0.001	96821	21.9	
Aroclor-1262	2	12.779	0.048	553471	69.8	2	12.773	0.006	127107	14.4	
Aroclor-1262	3	13.133	0.006	92989	36.0	3	13.232	-0.041	659052	172.0	
Aroclor-1262	4	13.318	0.011	34215	11.3	4	13.332	0.002	119585	20.7	
Aroclor-1262	5	13.885	-0.002	173202	70.9	5	13.965	0.008	31959	10.4	
Total Col1Ave (5 peaks):				40.2		Total Col2Ave (5 peaks):			47.9		RPD = 17
Corrected Ave (4 peaks):				32.6		Corrected Ave (4 peaks):			16.9		RPD = 64*
Aroclor-1268	1	13.251	0.012	60861	7.2	1	13.232	-0.041	659052	71.4	

Aroclor-1268	2	13.318	0.011	34215	4.5	2	13.332	-0.003	119585	13.8
Aroclor-1268	3	13.670	0.019	17418	2.8	3	13.664	-0.017	69282	9.9
Aroclor-1268	4	14.296	0.008	15533	0.9	4	14.289	-0.043	170261	8.2

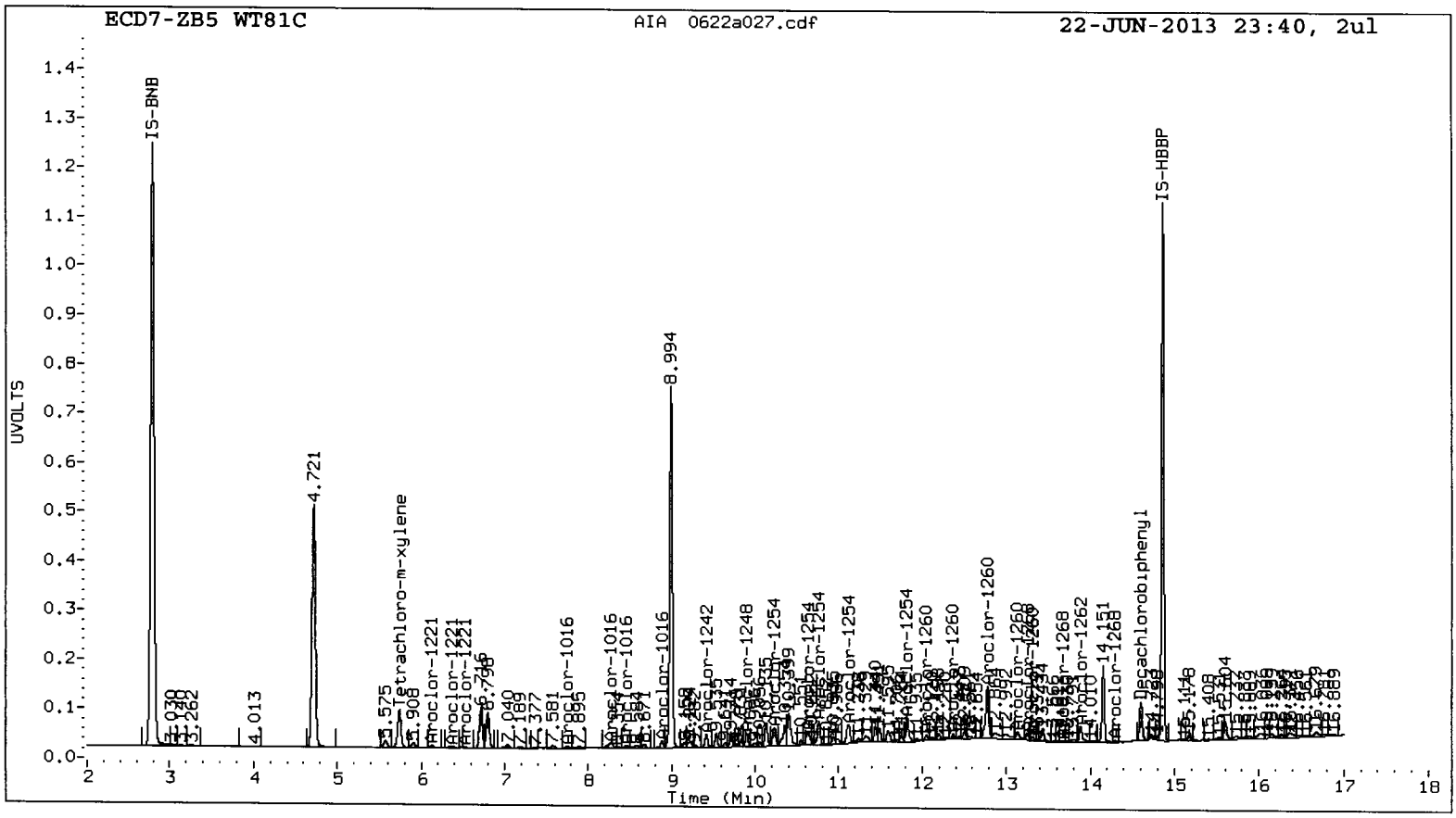
Total Col1Ave (4 peaks): 3.9 Total Col2Ave (4 peaks): 25.8 RPD = 148*

Corrected Ave (3 peaks): 2.7 Corrected Ave (3 peaks): 10.6 RPD = 118*

Total PCB Area Col1 (5.841 - 14.494) = 10578479 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 13669596 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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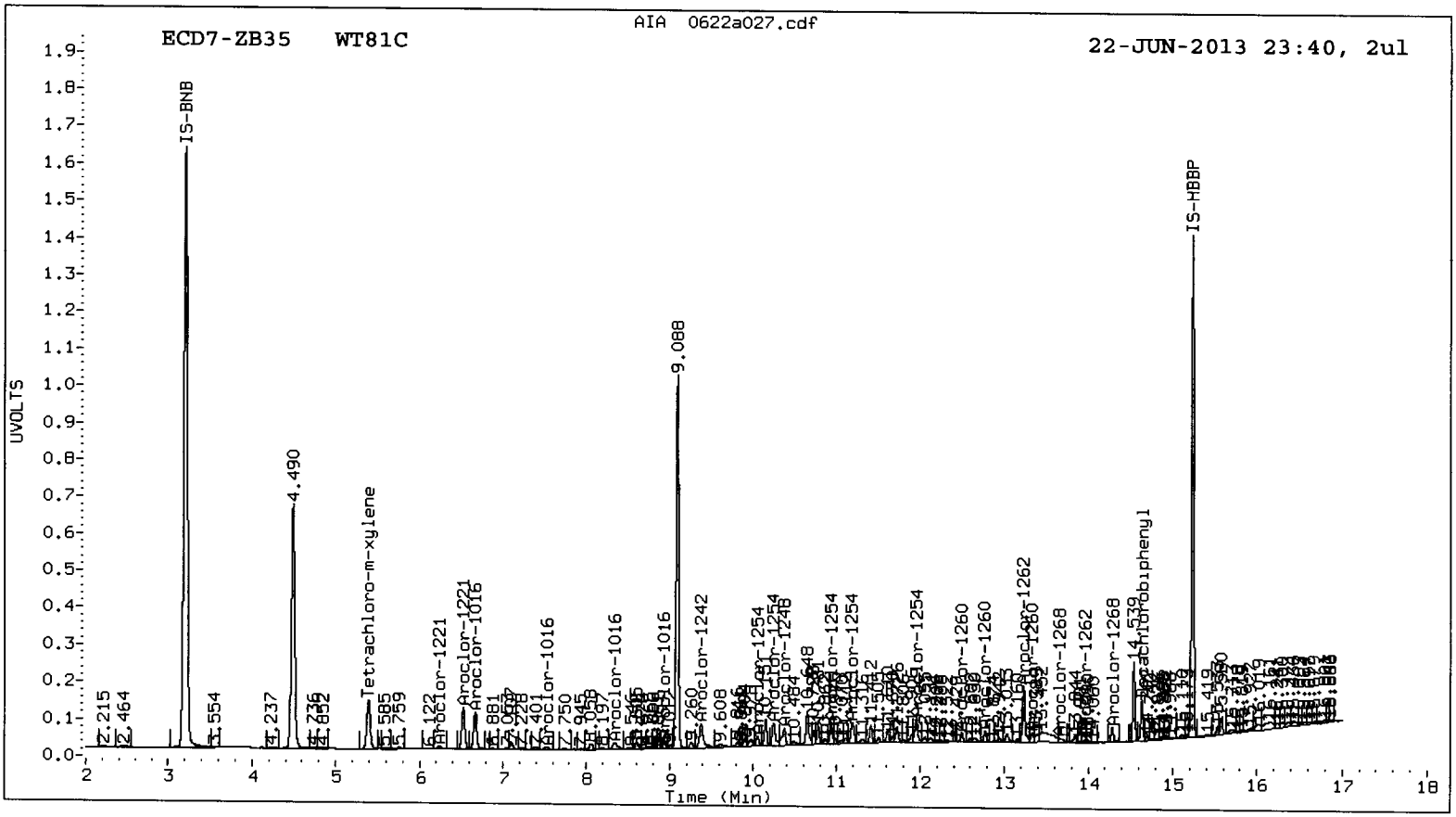
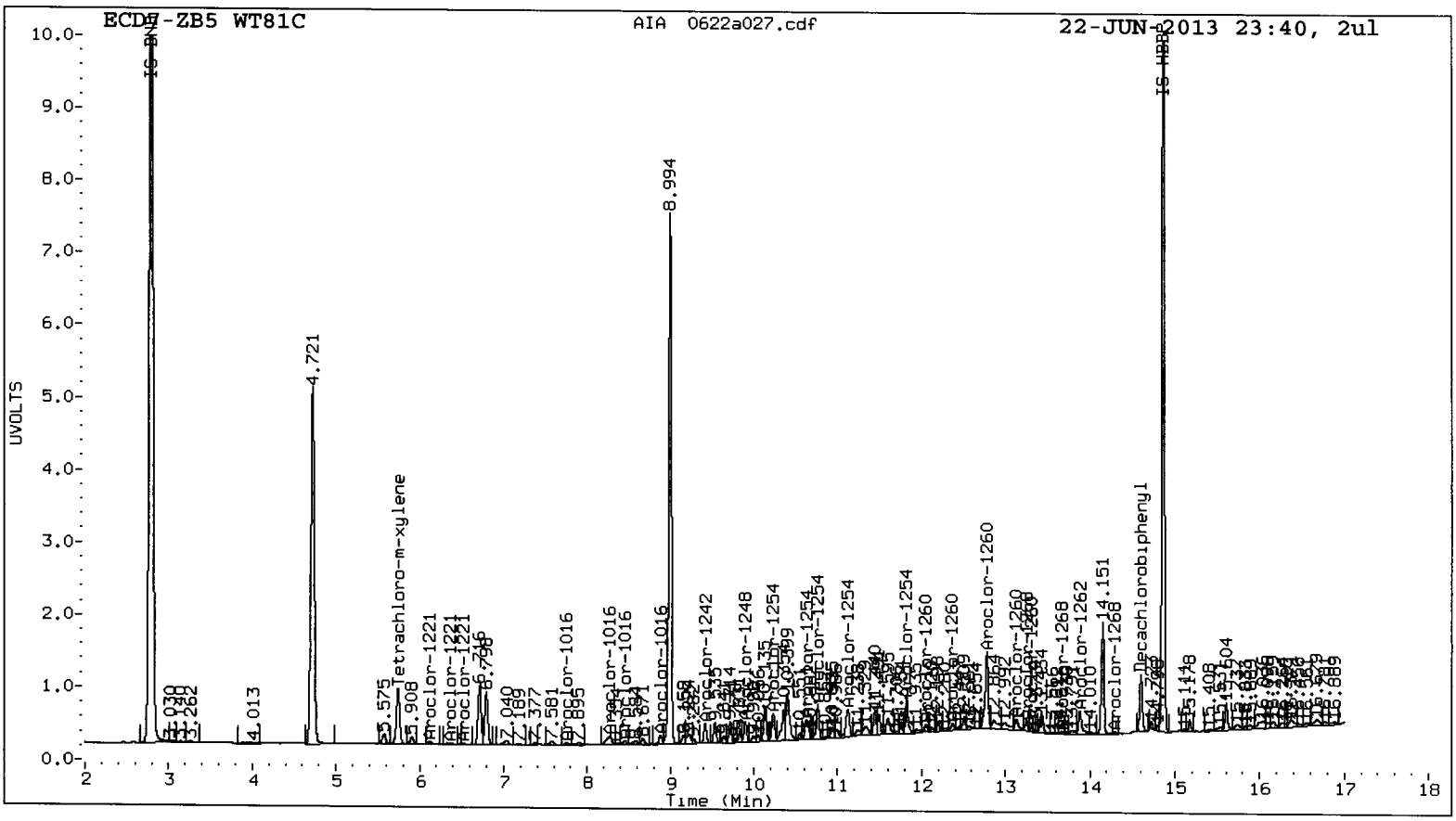
UVOLTS
Time (Min)
IS-BNB
4.721
Tetrachloro-m-xylene
8.994
IS-HBBP
Decachlorobiphenyl


ECD7-ZB35 WT81C
AIA 0622a027.cdf
22-JUN-2013 23:40, 2ul
UVOLTS
Time (Min)
IS-BNB
4.490
Tetrachloro-m-xylene
9.088
IS-HBBP
Decachlorobiphenyl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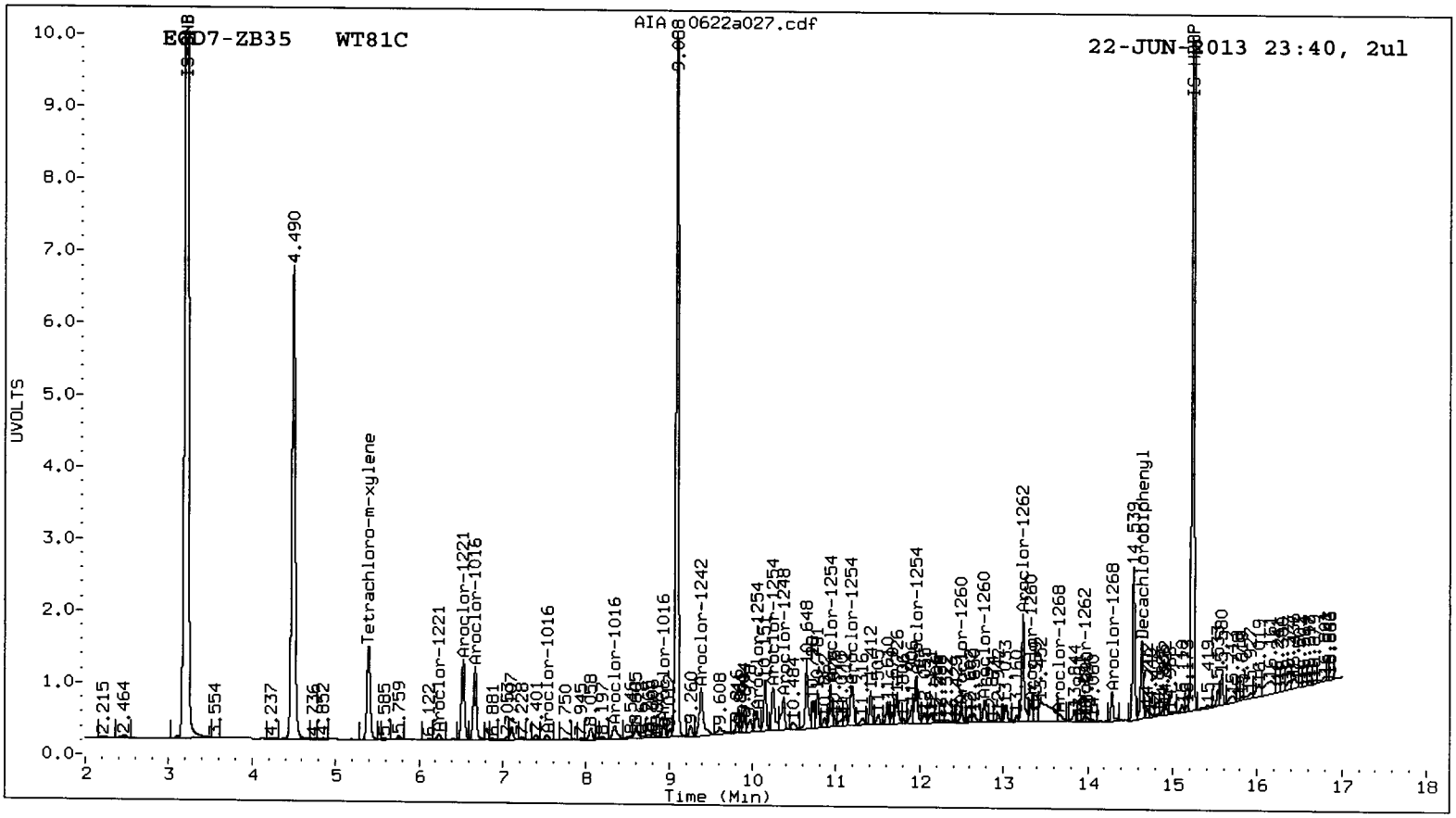
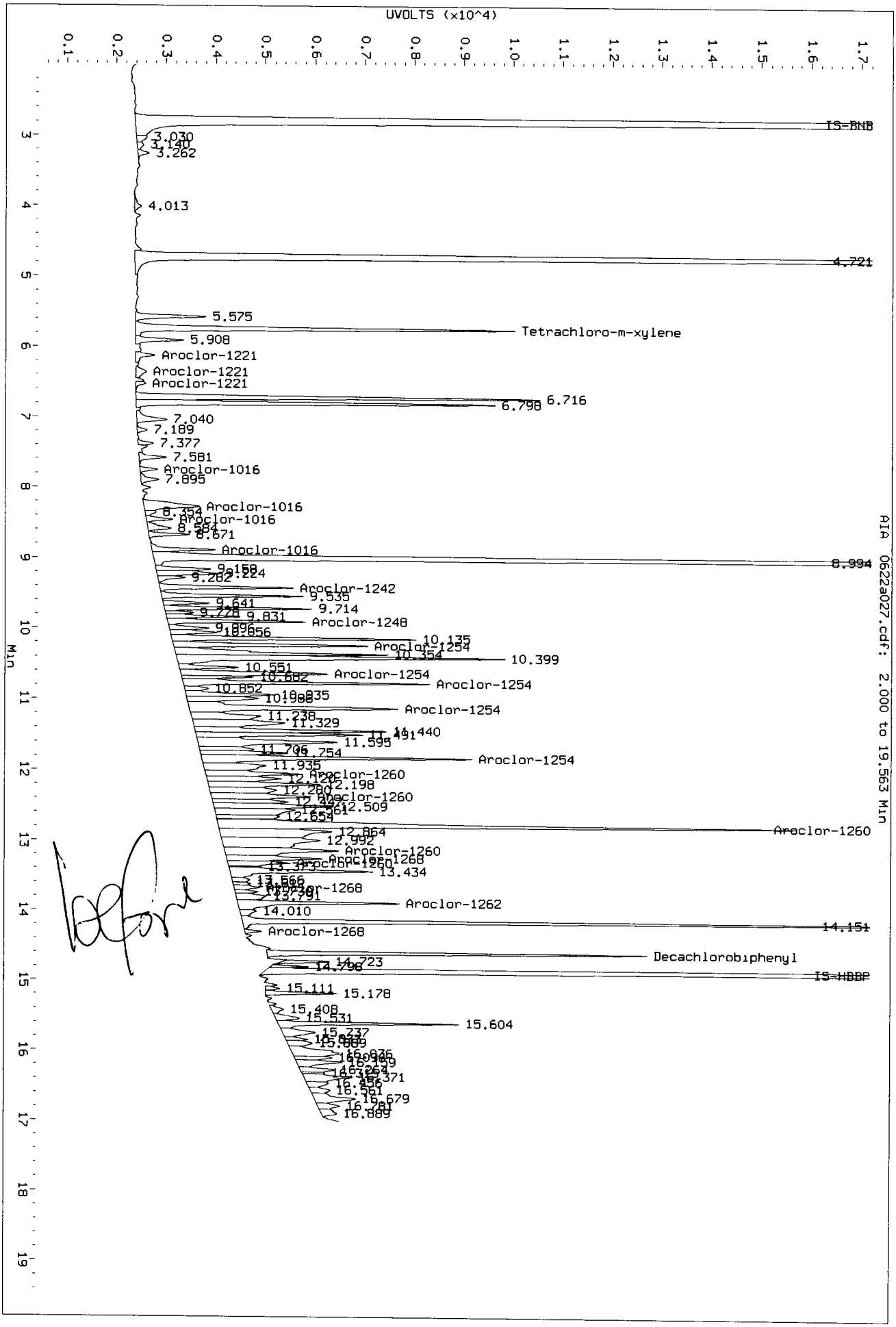
22-JUN-2013 23:40, 2ul
IS-DBB
4.721
8.994
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)


ECD7-ZB35 WT81C
AIA 0622a027.cdf
22-JUN-2013 23:40, 2ul
IS-DBB
4.490
9.008
IS-HBBP
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)


Data File: /chem2/ecd7.i/20130513.b/0622-1.b/0622a027.d/0622a027.cdf
Injection Date: 22-JUN-2013 23:40
Instrument: ecd7.i
Client Sample ID: AM-FD-01-20130612-S
UVOLTS (x10^4)
AIA 0622a027.cdf: 2.000 to 19.563 Min
Min
IS-BNB
4.721
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
8.994
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a028.d
Data file 2: 20130513.b/0622-2.b/0622a028.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 23-JUN-2013 00:02
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
5.738	-0.003	3285471	5.392	-0.002	4433293	39.5	39.0	1.3	Tetrachloro-m-xylene
14.594	0.000	1922799	14.633	0.000	2399313	38.3	40.8	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	98.8	97.4
Decachlorobiphenyl	95.7	102.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7155440	31.2
Hexabromobiphenyl	4223695	4042697	-4.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9272471	-3.0
Hexabromobiphenyl	6702455	4897175	-26.9

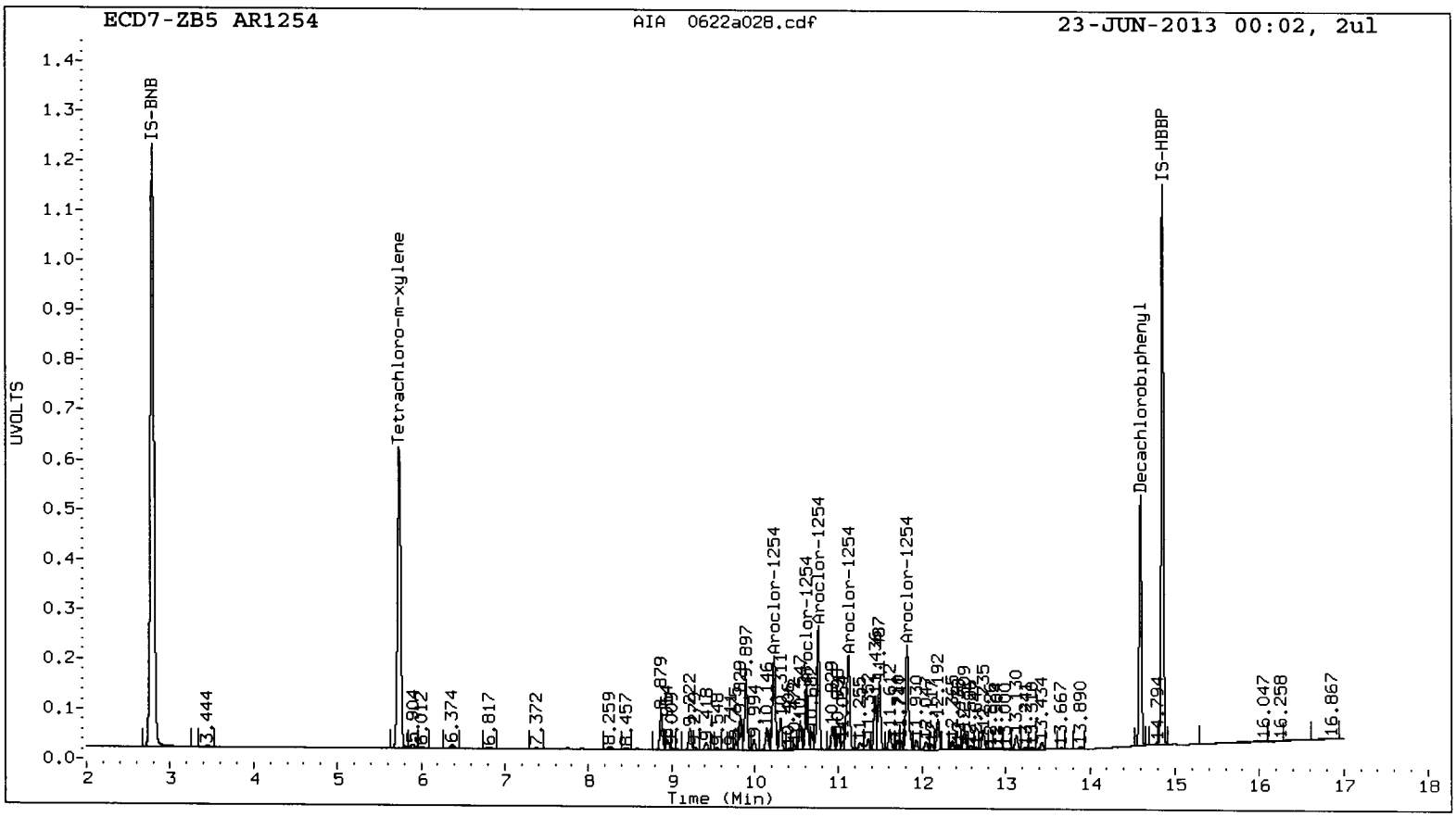
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	10.230	0.000	898803	207.5	1	10.047	0.000	699081	228.7
Aroclor-1254	2	10.620	0.000	541869	200.7	2	10.233	0.000	883588	228.3
Aroclor-1254	3	10.760	0.000	1049348	198.4	3	10.928	0.000	1431442	223.5
Aroclor-1254	4	11.120	0.000	1062353	195.6	4	11.181	0.000	1444017	223.2
Aroclor-1254	5	11.816	0.000	1003149	186.6	5	11.953	0.000	1008392	216.3
Total Col1Ave (5 peaks):				197.8		Total Col2Ave (5 peaks):			224.0	RPD = 12
Corrected Ave (4 peaks):				195.3		Corrected Ave (4 peaks):			222.8	RPD = 13

Total PCB Area Col1 (5.841 - 14.494) = 10765851 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 14285349 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical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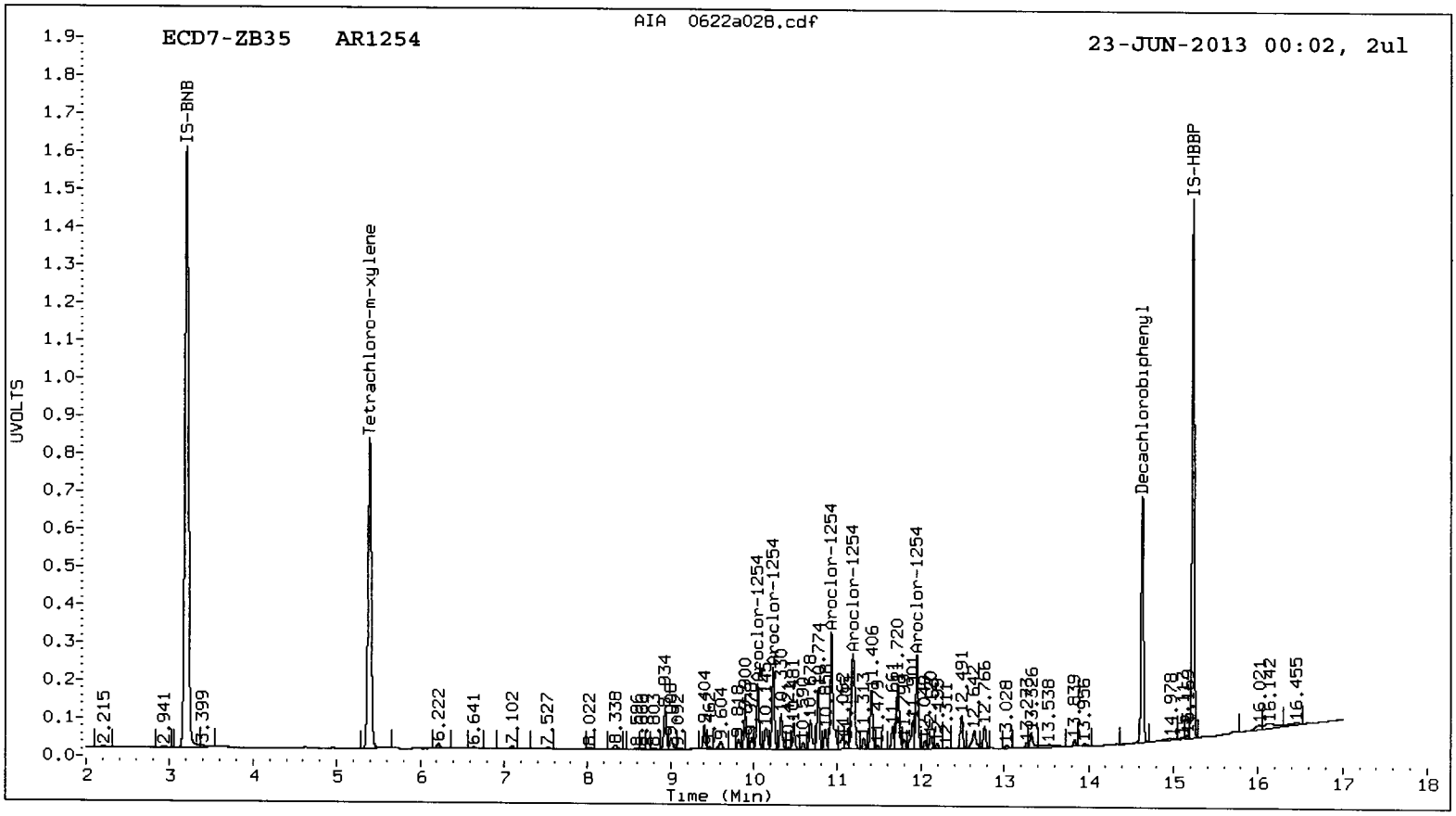
AIA 0622a028.cdf
23-JUN-2013 00:02, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


AIA 0622a028.cdf
ECD7-ZB35 AR1254
23-JUN-2013 00:02, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8082 PCB Quantitation Report

Data file 1: 20130513.b/0622-1.b/0622a029.d
Data file 2: 20130513.b/0622-2.b/0622a029.d
Method: /chem2/ecd7.i/20130513.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 23-JUN-2013 00:24
Report Date: 06/24/2013 11:45
Matrix: NONE
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.741	0.000	3393852	5.394	0.000	4526204	40.2	38.5	4.3	Tetrachloro-m-xylene
14.594	0.000	1971436	14.632	0.000	2429936	38.1	40.0	4.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.6	96.4
Decachlorobiphenyl	95.1	99.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	5453827	7254506	33.0
Hexabromobiphenyl	4223695	4168185	-1.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	9556981	9573512	0.2
Hexabromobiphenyl	6702455	5063926	-24.4

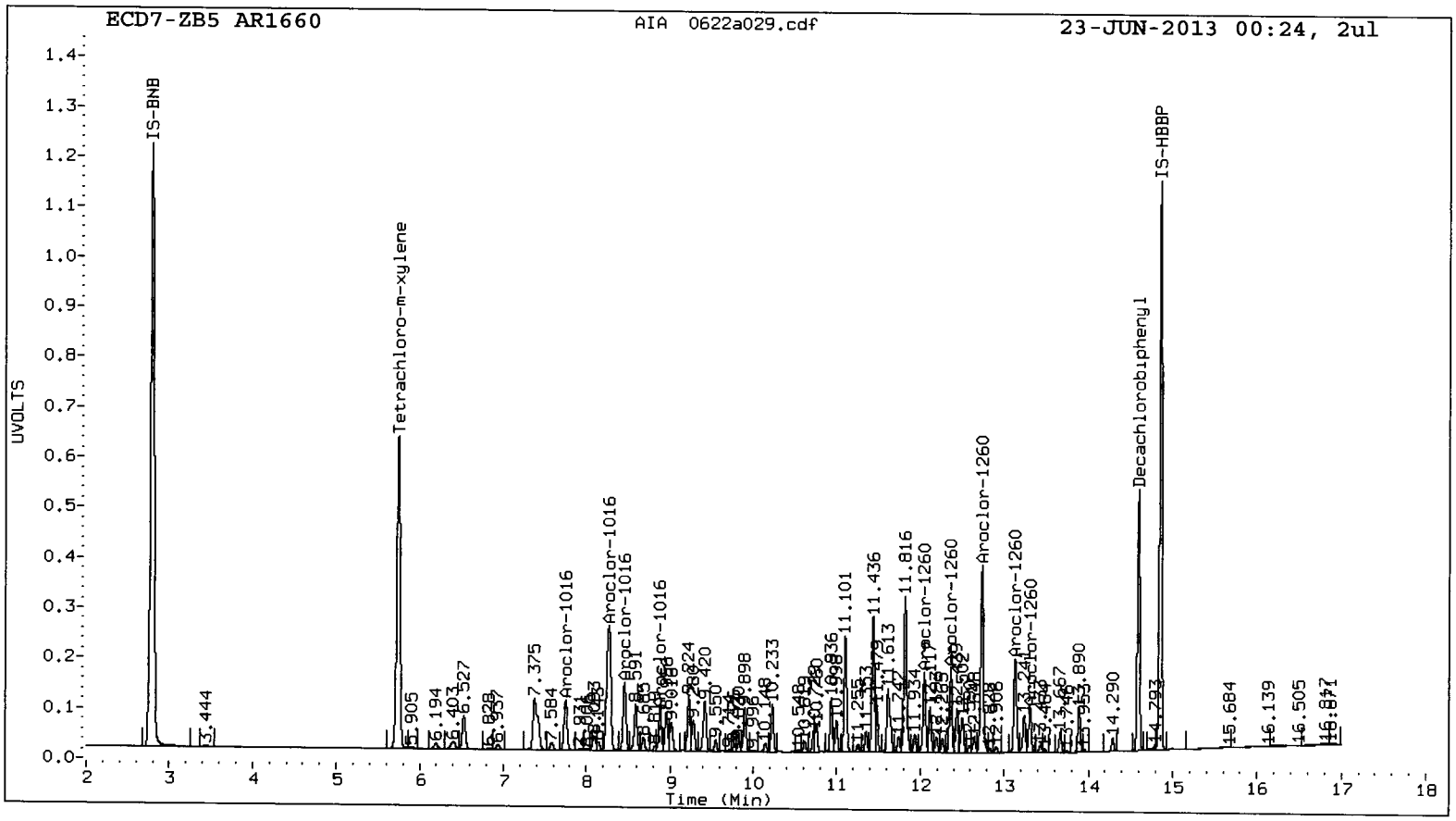
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 13-MAY-2013
<- Indicates standard response outside Limits (-50 to +100%)

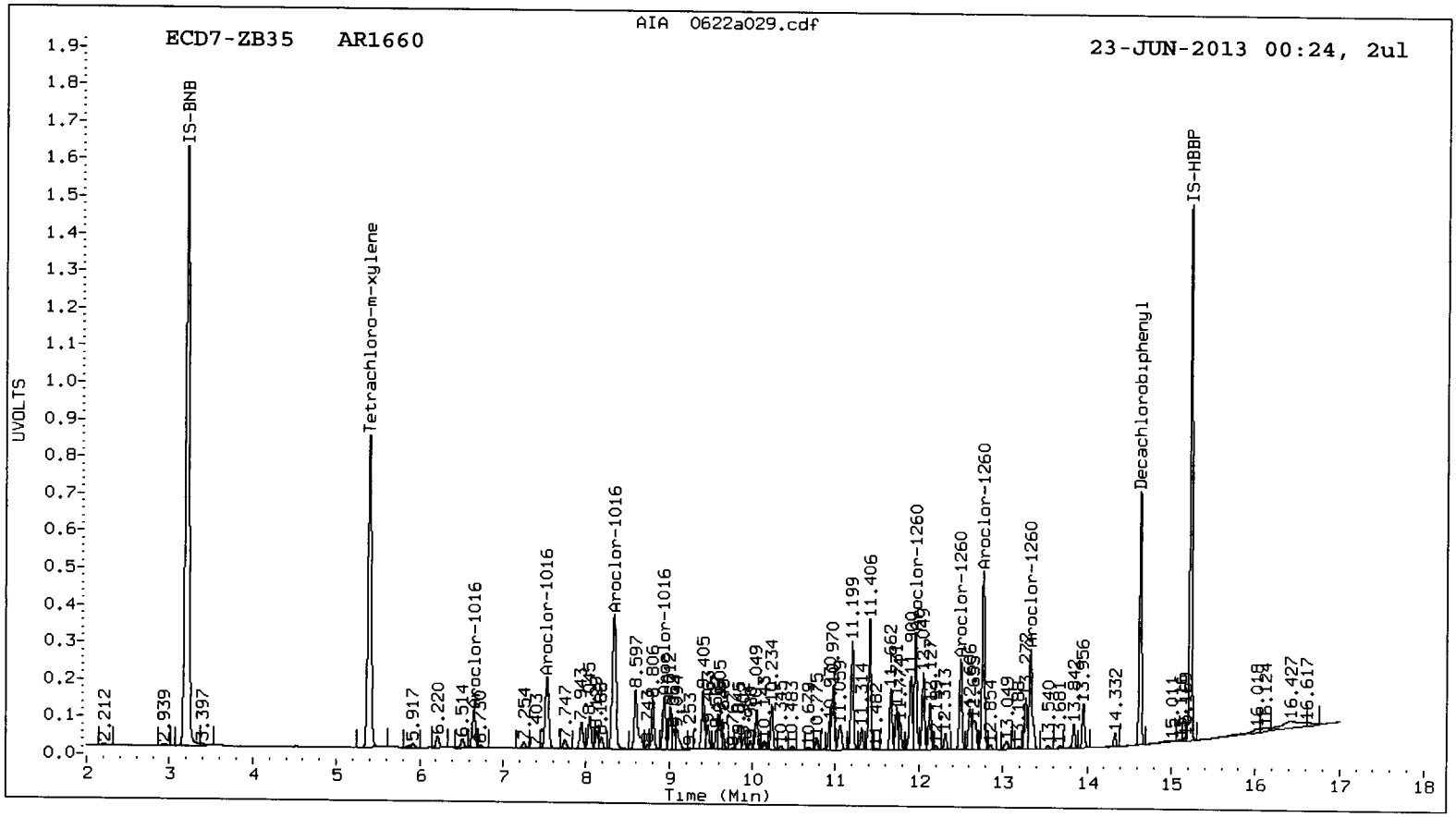
Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount
Aroclor-1016	1	7.749	0.000	520292	232.6	1	6.650	0.000	529505	234.8
Aroclor-1016	2	8.269	0.000	1771752	235.6	2	7.528	0.000	1153067	232.0
Aroclor-1016	3	8.456	0.000	678578	227.4	3	8.339	0.000	2320968	229.5
Aroclor-1016	4	8.881	0.000	386806	215.1	4	8.939	0.000	660149	217.2
Total Col1Ave (4 peaks):					227.7	Total Col2Ave (4 peaks):				228.4 RPD = 0
Corrected Ave (3 peaks):					225.0	Corrected Ave (3 peaks):				226.2 RPD = 1
Aroclor-1260	1	12.048	0.000	704218	241.6	1	11.954	0.000	1310427	252.1
Aroclor-1260	2	12.365	0.000	710109	244.8	2	12.497	0.000	1040270	247.5
Aroclor-1260	3	12.735	0.000	1674265	249.7	3	12.767	0.000	2080393	255.1
Aroclor-1260	4	13.132	0.000	880793	251.3	4	13.327	0.000	1349311	249.8
Aroclor-1260	5	13.310	0.000	382307	248.1	NS	---			----
Total Col1Ave (5 peaks):					247.1	Total Col2Ave (4 peaks):				251.1 RPD = 2
Corrected Ave (4 peaks):					246.0	Corrected Ave (3 peaks):				249.8 RPD = 2

Total PCB Area Col1 (5.841 - 14.494) = 22359081 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.494 - 14.532) = 29479471 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD7-ZB5 AR1660
AIA 0622a029.cdf
23-JUN-2013 00:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD7-ZB35 AR1660
AIA 0622a029.cdf
23-JUN-2013 00:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP

TPHD Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: WT81

Incorporated
Analytical Chemists and Consultants

Organic Extractions Bench Sheet

(8015C) NWTPHD-Soil/Sediment/Solid
Microwave (3546) (SOP # 3304S)

Preparation Test TPHD # 5
ARI Job No(s) WT86, WT81

Page 1 of 1

In-House (50 ppm)
Batch set up by: ~~SH~~

Bottle #	Extraction Requirements	Weight Extracted (wet wt)	Acid Clean (1:5) (2mL) Y/N	Silica Gel Clean (1:2) (1mL) Y/N	Final Effective Volume	Volume to Lab	Comments	Verifty Client ID
	MBS WT86	10.00g	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		YC 6/17/13
	SBS	10.00g	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		Analyst/Date
	SBS Dup.	10.00g	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		
	~~QLS~~	~~10.00g~~	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	~~10mL~~	~~1mL~~		Microwave 1 (2) 3
1	WT86 A	10.01	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		CT 6/17/13
8	WT81 B	10.01	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		
8	BMS	10.01	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		
8	BMSD	10.00	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		Analyst/Date
8	C	10.01	(1:5) (2mL) Y (N)	(1:2) (1mL) Y (N)	10mL	1mL		TurboVap (1) 2 3
		10.	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	10mL	1mL		~~Pre-Acid/Silica Clean~~ SP 6/18/13
		10.	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	10mL	1mL		
		10.	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	10mL	1mL		Analyst/Date SP 6/18/13
		10.	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	10mL	1mL		TurboVap 1 2 3 Post Acid/Silica Clean
		10.	(1:5) (2mL) Y/N	(1:2) (1mL) Y/N	10mL	1mL	Reviewed by SP 6/18/13	
Analyst/Date	YC 6/17/13				SP 6/18/13	SP 6/18/13		Analyst/Date

Standard	Standard ID	Concentration	Volume	Expiration Date	Analyst	Witness
Surrogate	P (B~~###~~232)	2250µg/mL	200µL	11/19/13	CT	~~AC~~
Spike	11 (B~~###~~176)	15000µg/mL	1000µL	5/01/14	CT	AC
~~QLS Spike~~	~~18(~~)	~~1000µg/mL~~	~~500µL~~			
Extraction Time: 2:55				Balance ID: B14642614		

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM to the vessel until the solvent is 1" above soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then let cool 15 min. in cold water bath. Re-homogenize while cool. 7. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 9. TurboVap. 10. ~~Acid/Silica Clean-up=RBB.~~ 11. TurboVap. 12. Vial in DCM.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

WT81 : 81763

Organic Extractions
Reagent and Solutions Identification

(8015C) NWTPHD-Soil/Sediment/Solid
Microwave (3546) (SOP # 3304S)

ARI Job No(s) WT86, WT81

(8015C) NWTPHD Soil/Sediment/Solid/Other:	Analyst/Date
Microwave Station:	Microwave
Methylene Chloride: (I# 8279)	CT 6/17/13
Anhydrous Sodium Sulfate: (I# 8134 + jar date 5-24-13)	6-18-13 CT
Neutral Glasswool: (I# 7998 + jar date 5-15-13)	
Vialing Station:	Vialing
Methylene Chloride: (I# 8279)	SP
Concentrated Sulfuric Acid: (I# N/A)	6-18-13
Silica Gel (SPE) Darts: (I# N/A)	

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Extract Dilution Bench Sheet

ARI Job#: WT81/WT48/WT86 Client ID: N/A
Analyst: JW Date: 6/18/13

ARI Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Dilution Factor	Primary Dilution (uL)	Diluent/Diluent ID	Diluent Volume (uL)	Final Dilution Factor
WT81 B	100	DCM/I8249	400	5x	6/21/13 300	DCM/I8249	300	10x
↓ BMS	↓	↓	↓	↓	↓	↓	↓	↓
BMSD								
↓ C								
6/19/13 WT48 A	100	DCM/I8249	400	5x				
↓ B	↓	↓	↓	↓	↓	↓	↓	↓
6/20/13 WT86	100	DCM/I	500	10x				

Analytical Resources, Incorporated
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Organic Extractions Laboratory Analyst Notes

ARI Job No.: WT81 Client ID: SAIC

Parameter: TPHD Client Project: NPDES Sampling Support

Screens: Soil/Sediment/Solid/Other: C = wet	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)= A=sludge B=texture=pudding	AC 6-13-13
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Other (Details)=	
☒ Other Notes/Comments= (Note problems, concerns, corrective actions). Extracted	
(Centrifuge#1 used for all Centrifugations) Samples to a 1@mL final volume,	
based on sample pre-screens.	JH 6/14/13

TPHD Raw Data
Initial Calibration

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 4/13/13 Internal Standard ID N/A Expiration 11/27/13

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Diesel/AK102	2091-2	3/15/14	Diesel/AK102	2043-1	10/20/13
Motor Oil	2041-4	11/27/13	Motor Oil	2043-2	10/9/10
RT	2043-4	10/20/13			
IB	2043-3	10/20/13			

Detail problems, corrective actions and/or other pertinent information below:

Analyst: JW **Date:** 4/16/13

Reviewer: [signature] **Date:** 4/16/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130413.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130413.b
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0413a006	0413a007	0413a008	0413a009	0413a010	0413a011
INJ.DATE:	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013
INJ.TIME:	11:53	12:13	12:34	12:54	13:15	13:35

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	Toluene	+++++	+++++	+++++	+++++	+++++	+++++	0.914	0.814-1.014	+++++	+++++
40	Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.023	0.973-1.073	+++++	+++++
39	Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.542	0.492-0.592	+++++	+++++
36	JetA	+++++	+++++	+++++	+++++	+++++	+++++	0.794	0.744-0.844	+++++	+++++
37	Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.729	0.679-0.779	+++++	+++++
38	Hydraulic Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.197	1.147-1.247	+++++	+++++
2	C8	1.165	1.136	1.132	1.133	1.135	1.134	1.134	1.034-1.234	1.139	0.013
3	C10	2.960	2.962	2.962	2.963	2.963	2.966	2.966	2.916-3.016	2.963	0.002
4	C12	3.905	3.904	3.905	3.906	3.907	3.910	3.910	3.860-3.960	3.906	0.002
5	C14	4.587	4.584	4.586	4.586	4.588	4.594	4.594	4.544-4.644	4.588	0.003
6	C16	5.170	5.167	5.168	5.171	5.171	5.178	5.178	5.128-5.228	5.171	0.004
7	C18	5.716	5.713	5.715	5.717	5.720	5.727	5.727	5.677-5.777	5.718	0.005
$ 8	o-terph	5.859	5.858	5.865	5.874	5.884	5.903	5.903	5.853-5.953	5.874	0.017
9	C20	6.268	6.263	6.265	6.266	6.268	6.274	6.274	6.224-6.324	6.267	0.004
10	C22	6.810	6.805	6.806	6.806	6.807	6.808	6.808	6.758-6.858	6.807	0.002
11	C24	7.324	7.320	7.319	7.321	7.318	7.319	7.319	7.269-7.369	7.320	0.002
12	C25	7.573	7.567	7.564	7.566	7.567	7.566	7.566	7.516-7.616	7.567	0.003

Reviewer 1 _____ Date: 4/16/13
Reviewer 2 _____ Date: 4/16/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130413.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130413.b
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
13 C26	7.811	7.808	7.806	7.827	7.833	7.827	7.827	7.777-7.877	7.819	0.012
14 C28	8.266	8.260	8.259	8.261	8.261	8.258	8.258	8.208-8.308	8.261	0.003
$ 15 Triacon Surr	8.706	8.710	8.706	8.711	8.712	8.700	8.700	8.650-8.750	8.707	0.004
16 C32	9.093	9.097	9.073	9.082	9.094	9.090	9.090	9.040-9.140	9.088	0.009
17 C34	9.462	9.465	9.462	9.469	9.468	9.458	9.458	9.408-9.508	9.464	0.004
18 Filter Peak	11.449	11.438	11.447	11.432	11.448	11.449	11.449	11.349-11.549	11.444	0.007
19 C36	9.835	9.834	9.819	9.827	9.827	9.824	9.824	9.774-9.874	9.828	0.006
20 C38	10.178	10.182	10.193	10.156	10.189	10.179	10.179	10.129-10.229	10.179	0.013
21 C40	10.533	10.531	10.533	10.538	10.535	10.541	10.541	10.491-10.591	10.535	0.004
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.683	0.633-0.733	+++++	+++++
42 Cal(IT) Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.499	0.449-0.549	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.662	0.612-0.712	+++++	+++++
30 NW MOil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 CRUDE	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.615	0.565-0.665	+++++	+++++
41 ABUNKERC	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130413.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130413.b
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0413a013	0413a014	0413a015	0413a016	0413a017	0413a018
INJ.DATE:	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013	13-APR-2013
INJ.TIME:	14:16	14:36	14:57	15:17	15:38	15:58

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	0.914	0.814-1.014	+++++	+++++
	40 Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.023	0.973-1.073	+++++	+++++
	39 Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.542	0.492-0.592	+++++	+++++
	36 JetA	+++++	+++++	+++++	+++++	+++++	+++++	0.794	0.744-0.844	+++++	+++++
	37 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.729	0.679-0.779	+++++	+++++
	38 Hydraulic Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.197	1.147-1.247	+++++	+++++
	2 C8	1.180	1.166	1.100	1.178	1.128	1.143	1.143	1.044-1.244	1.149	0.032
	3 C10	2.964	2.961	2.963	2.963	2.962	2.962	2.962	2.912-3.012	2.963	0.001
	4 C12	3.904	3.903	3.904	3.904	3.903	3.905	3.905	3.854-3.954	3.904	0.001
	5 C14	4.585	4.583	4.603	4.569	4.583	4.584	4.584	4.534-4.634	4.585	0.011
	6 C16	5.184	5.188	5.164	5.167	5.183	5.166	5.166	5.116-5.216	5.175	0.011
	7 C18	5.729	5.730	5.730	5.733	5.731	5.734	5.734	5.684-5.784	5.731	0.002
$	8 o-terph	5.903	5.902	5.900	5.902	5.899	5.904	5.904	5.854-5.955	5.902	0.002
	9 C20	6.285	6.273	6.281	6.283	6.280	6.287	6.287	6.237-6.336	6.281	0.005
	10 C22	6.807	6.807	6.806	6.805	6.804	6.808	6.808	6.758-6.857	6.806	0.002
	11 C24	7.321	7.329	7.314	7.320	7.321	7.311	7.311	7.261-7.361	7.319	0.006
	12 C25	7.577	7.569	7.572	7.563	7.556	7.572	7.572	7.522-7.622	7.568	0.008

Reviewer 1 _____ Date: 4/16/13
Reviewer 2 _____ Date: 4/16/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130413.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130413.b
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
13 C26	7.813	7.831	7.834	7.825	7.819	7.830	7.830	7.779-7.880	7.825	0.008
14 C28	8.258	8.257	8.247	8.256	8.257	8.258	8.258	8.209-8.309	8.255	0.004
$ 15 Triacon Surr	8.669	8.677	8.684	8.696	8.719	8.747	8.747	8.697-8.797	8.698	0.029
16 C32	9.082	9.091	9.091	9.090	9.084	9.095	9.095	9.045-9.145	9.089	0.005
17 C34	9.463	9.455	9.460	9.455	9.454	9.449	9.449	9.399-9.499	9.456	0.005
18 Filter Peak	11.443	11.451	11.444	11.452	11.438	11.443	11.443	11.343-11.543	11.445	0.005
19 C36	9.816	9.824	9.820	9.830	9.816	9.820	9.820	9.770-9.870	9.821	0.005
20 C38	10.173	10.184	10.178	10.178	10.168	10.185	10.185	10.136-10.236	10.178	0.007
21 C40	10.541	10.538	10.543	10.539	10.542	10.543	10.543	10.493-10.593	10.541	0.002
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.683	0.633-0.733	+++++	+++++
42 Cal(IT) Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.499	0.449-0.549	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.662	0.612-0.712	+++++	+++++
30 NW MOil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 CRUDE	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.615	0.565-0.665	+++++	+++++
41 ABUNKERC	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++

GC LOG SUMMARY FOR DATABATCH - /chem3/fid4a.i/20130413.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	13-APR-2013 09:47	0413a001.d	1	RINSE	
2	13-APR-2013 10:07	0413a002.d	1	RT0413	
3	13-APR-2013 10:27	0413a003.d	1	IB0413	
4	13-APR-2013 10:47	0413a004.d	1	DIESEL#1	
5	13-APR-2013 11:07	0413a005.d	1	MOIL#1	
6	13-APR-2013 11:53	0413a006.d	1	DIESEL50	
7	13-APR-2013 12:13	0413a007.d	1	DIESEL100	
8	13-APR-2013 12:34	0413a008.d	1	DIESEL250	
9	13-APR-2013 12:54	0413a009.d	1	DIESEL500	
10	13-APR-2013 13:15	0413a010.d	1	DIESEL1000	
11	13-APR-2013 13:35	0413a011.d	1	DIESEL2500	
12	13-APR-2013 13:56	0413a012.d	1	DIESELICV250	
13	13-APR-2013 14:16	0413a013.d	1	MOIL100	
14	13-APR-2013 14:36	0413a014.d	1	MOIL250	
15	13-APR-2013 14:57	0413a015.d	1	MOIL500	
16	13-APR-2013 15:17	0413a016.d	1	MOIL1000	
17	13-APR-2013 15:38	0413a017.d	1	MOIL2500	
18	13-APR-2013 15:58	0413a018.d	1	MOIL5000	
19	13-APR-2013 16:19	0413a019.d	1	MOILICV500	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/fid4a.i/20130413.b

ARI Job No.: RINS Method: ftphfid4a.m Instrument: fid4a.i Date: 13-APR-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0947	0413a001.d	RINSE		1	NO MANUAL INTEGRATION
1007	0413a002.d	RT0413		1	Toluene,
1027	0413a003.d	IB0413		1	NO MANUAL INTEGRATION
1047	0413a004.d	DIESEL#1		1	o-terph,
1107	0413a005.d	MOIL#1		1	NO MANUAL INTEGRATION
1153	0413a006.d	DIESEL50		1	o-terph,
1213	0413a007.d	DIESEL100		1	o-terph,
1234	0413a008.d	DIESEL250		1	o-terph,
1254	0413a009.d	DIESEL500		1	o-terph,
1315	0413a010.d	DIESEL1000		1	o-terph,
1335	0413a011.d	DIESEL2500		1	o-terph,
1356	0413a012.d	DIESELICV250		1	o-terph,
1416	0413a013.d	MOIL100		1	Triacon Surr,
1436	0413a014.d	MOIL250		1	Triacon Surr,
1457	0413a015.d	MOIL500		1	Triacon Surr,
1517	0413a016.d	MOIL1000		1	Triacon Surr,
1538	0413a017.d	MOIL2500		1	Triacon Surr,
1558	0413a018.d	MOIL5000		1	Triacon Surr,
1619	0413a019.d	MOILICV500		1	Triacon Surr,

8

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client:

SDG No.: 20130413 Project:

Instrument ID: FID4A GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.86 TRIAC: 8.70

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RINSE	04/13/13	0947	5.87	8.70
02		RT0413	04/13/13	1007	5.86	8.70
03		IB0413	04/13/13	1027	5.86	8.69
04		DIESEL#1	04/13/13	1047	5.87	8.69
05		MOIL#1	04/13/13	1107	5.85	8.69
06		DIESEL50	04/13/13	1153	5.86	8.71
07		DIESEL100	04/13/13	1213	5.86	8.71
08		DIESEL250	04/13/13	1234	5.87	8.71
09		DIESEL500	04/13/13	1254	5.87	8.71
10		DIESEL1000	04/13/13	1315	5.88	8.71
11		DIESEL2500	04/13/13	1335	5.90	8.70
12		DIESELICV250	04/13/13	1356	5.86	8.70
13		MOIL100	04/13/13	1416	5.90	8.67
14		MOIL250	04/13/13	1436	5.90	8.68
15		MOIL500	04/13/13	1457	5.90	8.68
16		MOIL1000	04/13/13	1517	5.90	8.70
17		MOIL2500	04/13/13	1538	5.90	8.72
18		MOIL5000	04/13/13	1558	5.90	8.75
19		MOILICV500	04/13/13	1619	5.90	8.68

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

6a
DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20130413

Instrument: FID4A.I Project:

Calibration Date: 13-APR-2013 SDG No.: 20130413

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	15188	15021	14479	14279	14226	13910	14517	3.4
AK Diesel	17981	17836	17184	16948	16866	16485	17217	3.4
OR Diesel	18067	17904	17254	17021	16941	16562	17291	3.4
Cal Diesel	17937	17789	17145	16910	16821	16447	17175	3.4
o-Terph	20876	20737	19497	18356	18320	17911	19283	6.7

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (3.908-7.326)
AK Diesel C10-C25 (2.967-7.574)
OR Diesel C10-C28 (2.967-8.269)
Cal Diesel C10-C24 (2.967-7.326)

Calibration Files	Analysis Time
0413a006.d	13-APR-2013 11:53
0413a007.d	13-APR-2013 12:13
0413a008.d	13-APR-2013 12:34
0413a009.d	13-APR-2013 12:54
0413a010.d	13-APR-2013 13:15
0413a011.d	13-APR-2013 13:35

FORM VI-Diesel

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a002.d ARI ID: RT0413
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 10:07
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	0.914	0.000	523273	404181	WATPHG	(Tol-C12)	1601919	103.09
C8	1.147	0.000	383436	378901	WATPHD	(C12-C24)	2482020	171.00
C10	2.967	0.000	554691	384061	WATPHM	(C24-C38)	3731338	274.28
C12	3.908	0.000	599973	392136	AK102	(C10-C25)	3297127	191.53
C14	4.587	0.000	632883	391482	AK103	(C25-C36)	3275864	355.99
C16	5.171	0.000	554416	390514				
C18	5.717	0.000	457643	373684				
C20	6.268	0.000	500619	352912				
C22	6.810	0.000	449542	363990	MIN.OIL	(C24-C38)	3731338	218.73
C24	7.326	0.000	451103	374543				
C25	7.574	0.000	428467	368739				
C26	7.826	0.000	1071962	1140709				
C28	8.269	0.000	451113	396216				
C32	9.081	0.000	434660	405330				
C34	9.457	0.000	423148	399566				
Filter Peak	11.442	0.000	2220	3573	CREOSOT	(C12-C22)	2071520	949.41 M
C36	9.823	0.000	376532	406269				
C38	10.179	0.000	384689	395168				
C40	10.533	0.000	339686	388792				
o-terph	5.861	0.000	933117	821007				
Triacon Surr	8.698	0.000	991072	1035385				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	821007	42.6	94.6
Triacontane	1035385	56.9	126.4

M Indicates the peak was manually integrated

JW 4/16/13

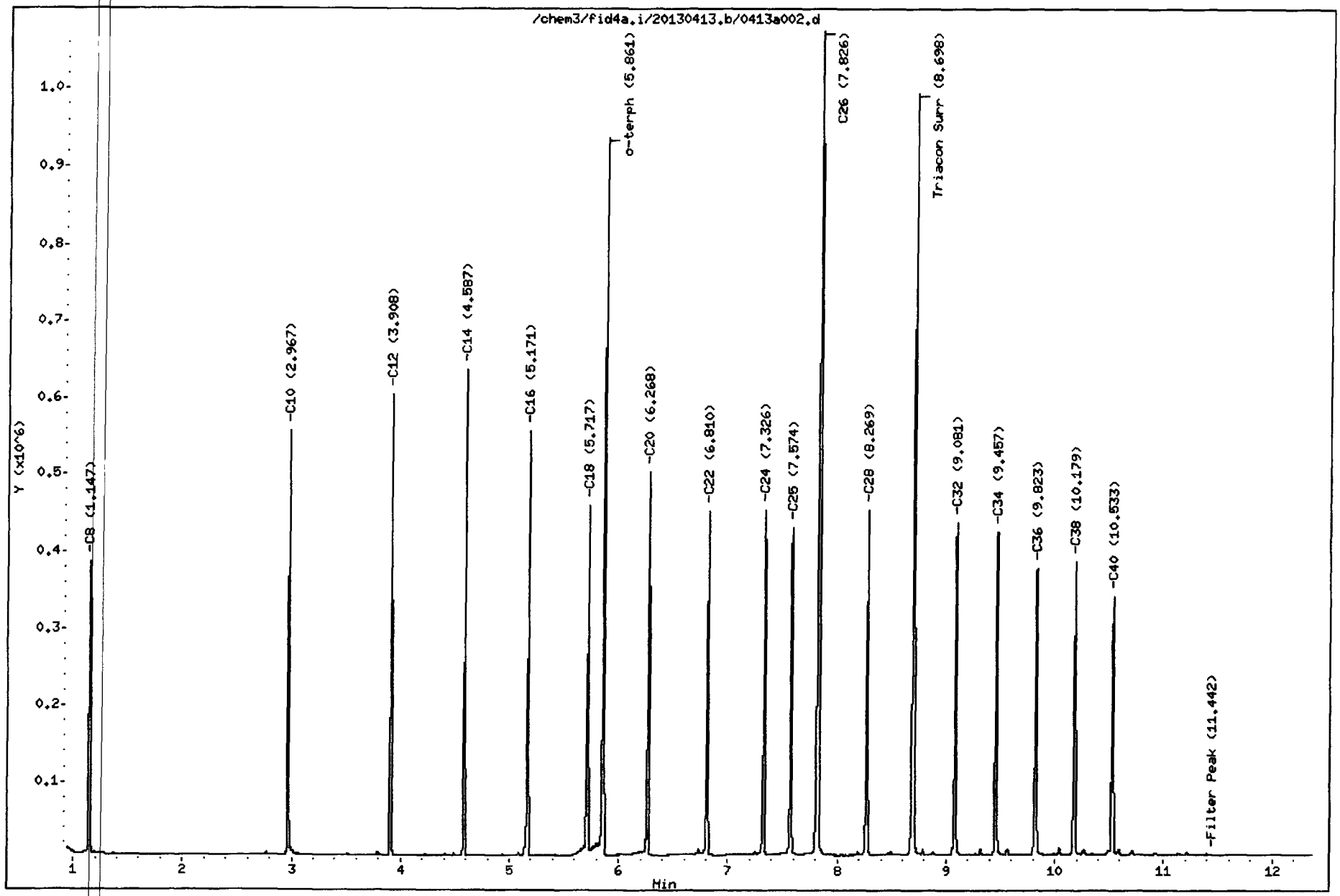
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130413.b/0413a002.d
Date : 13-APR-2013 10:07
Client ID:
Sample Info: RT0413

Column phase: RTX-1

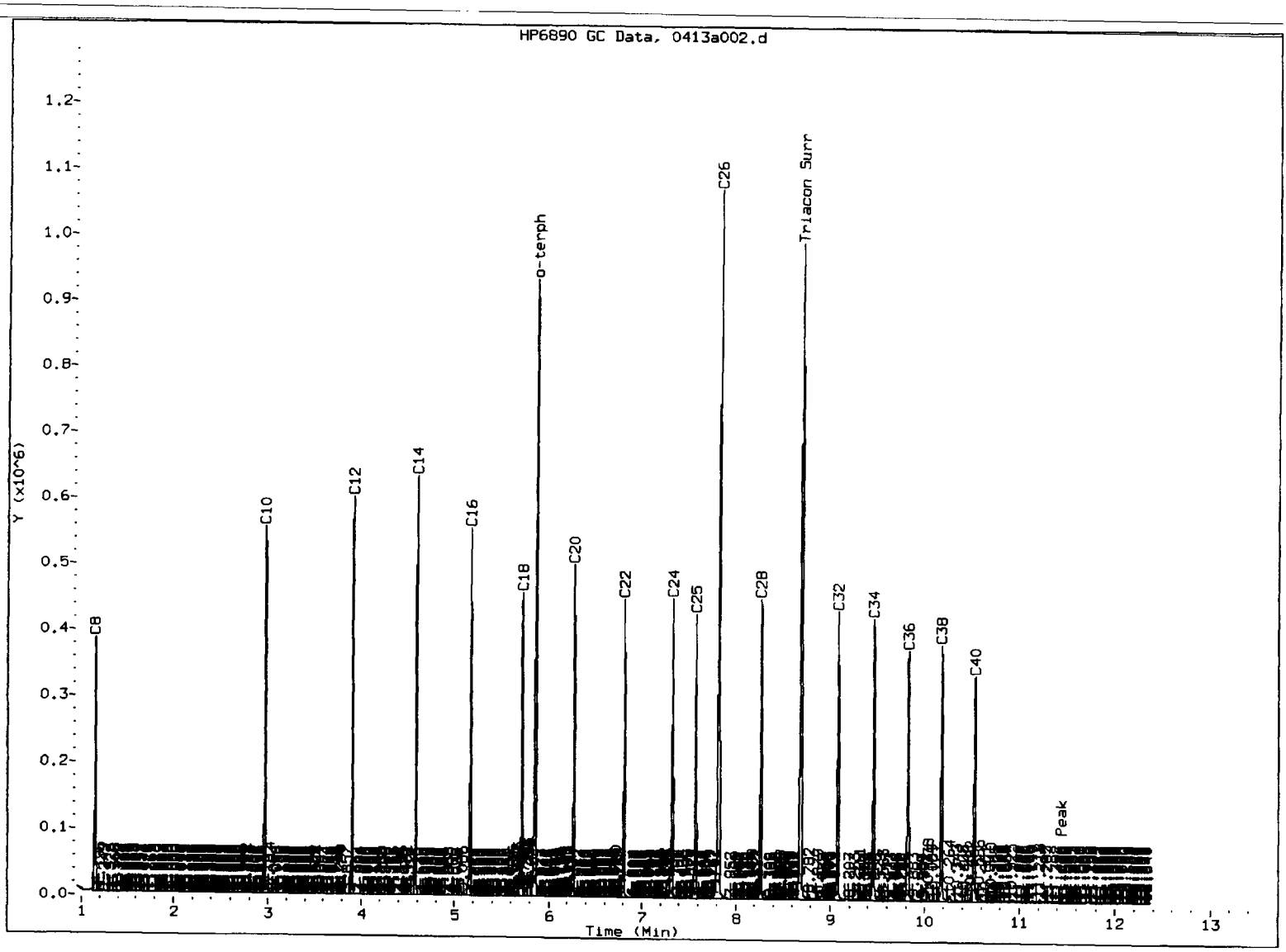
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 RT0413

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a003.d ARI ID: IB0413
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 10:27
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	17733	1.14
C8	1.102	-0.046	1135	2331	WATPHD	(C12-C24)	47239	3.25
C10	2.964	-0.004	232	237	WATPHM	(C24-C38)	117547	8.64
C12	3.905	-0.003	174	136	AK102	(C10-C25)	54060	3.14
C14	4.585	-0.003	110	101	AK103	(C25-C36)	90176	9.80
C16	5.167	-0.004	108	79				
C18	5.715	-0.002	160	177				
C20	6.261	-0.007	154	176				
C22	6.802	-0.008	133	182	MIN.OIL	(C24-C38)	117547	6.89
C24	7.321	-0.005	163	306				
C25	7.566	-0.008	139	147				
C26	7.807	-0.019	275	355				
C28	8.260	-0.009	813	902				
C32	9.055	-0.026	10958	9907				
C34	9.455	-0.002	490	696				
Filter Peak	11.440	-0.002	1869	927	CREOSOT	(C12-C22)	43412	19.90 M
C36	9.840	0.016	828	1744				
C38	10.165	-0.014	843	1177				
C40	10.527	-0.005	1196	569				
o-terph	5.863	0.002	1144381	871534				
Triacon Surr	8.687	-0.011	878761	820967				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	871534	45.2	100.4
Triacontane	820967	45.1	100.3

4/16/13

M Indicates the peak was manually integrated

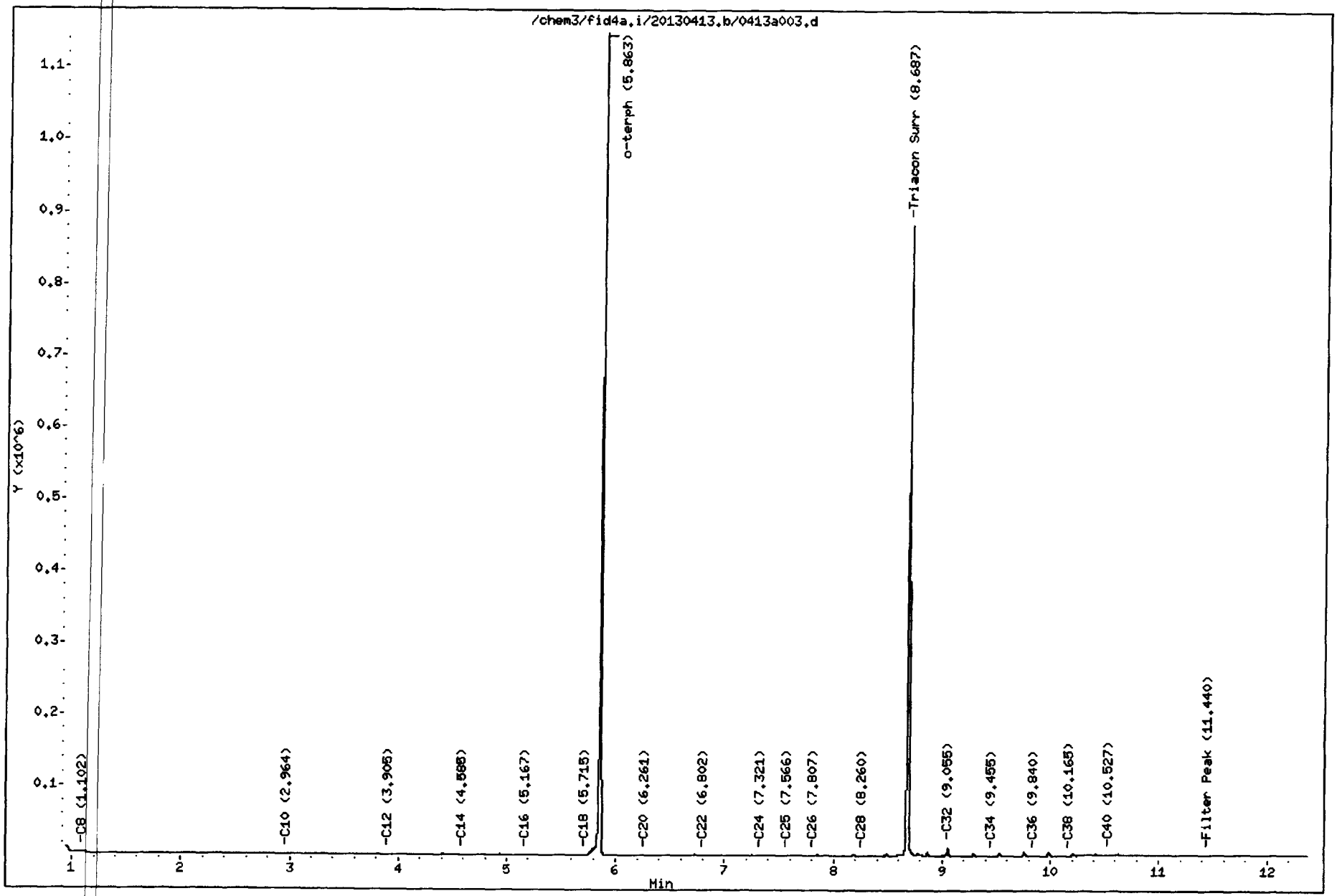
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

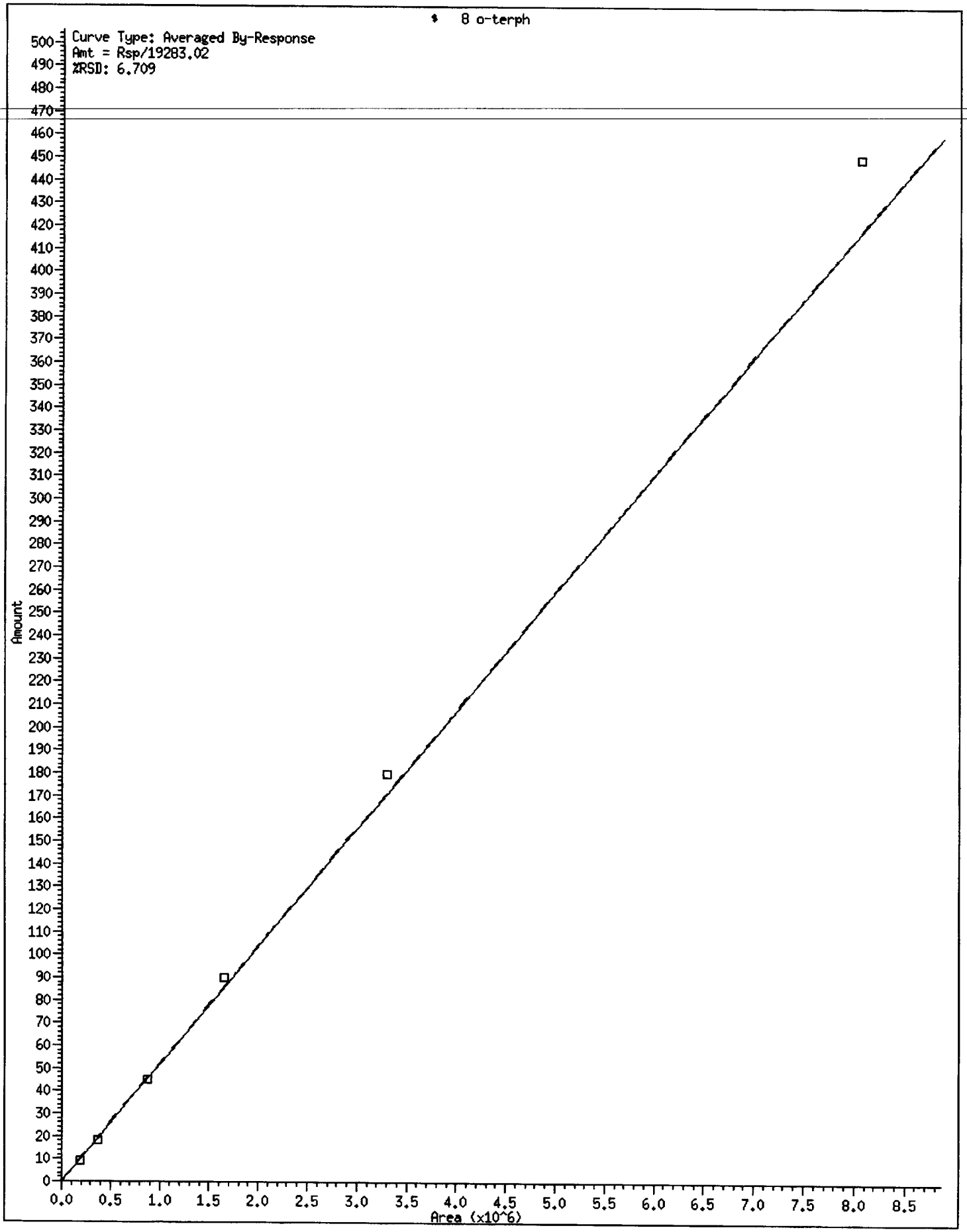
Data File: /chem3/fid4a.i/20130413.b/0413a003.d
Date : 13-APR-2013 10:27
Client ID:
Sample Info: IB0413

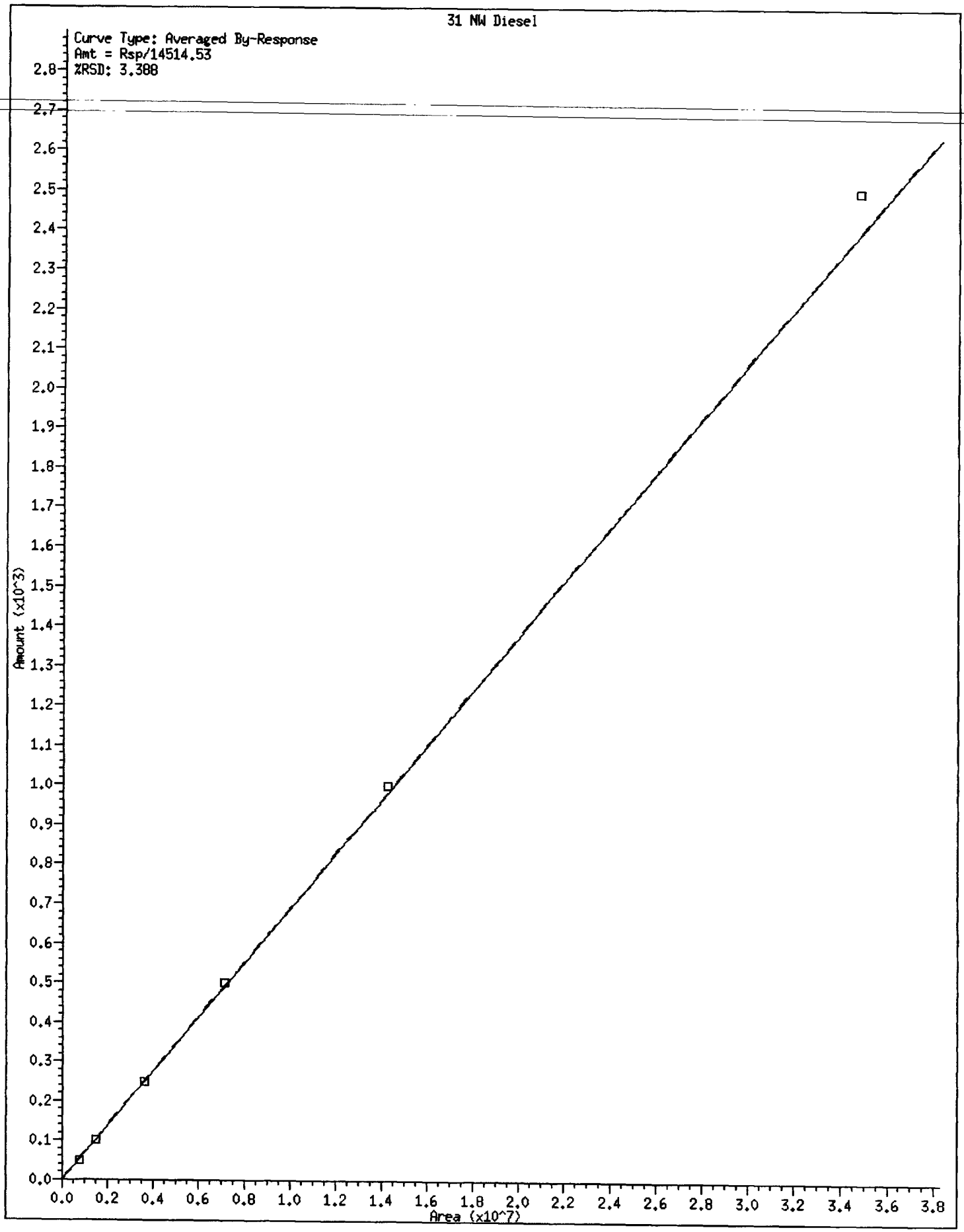
Column phase: RTX-1

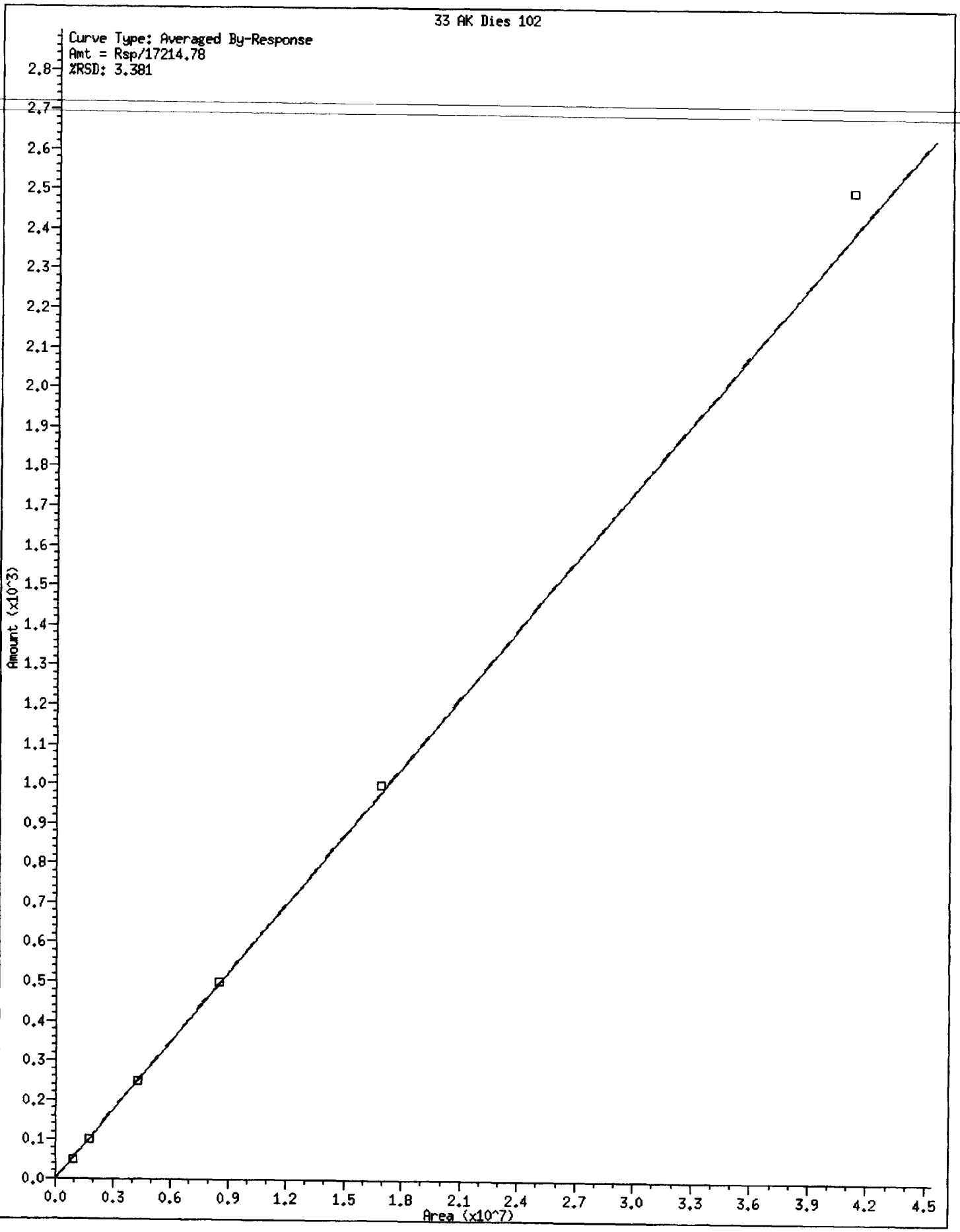
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25




8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/19283.02
%RSD: 6.709
Amount
Area (x10^6)


31 NW Diesel
Curve Type: Averaged By-Response
Amt = Rsp/14514.53
%RSD: 3.388
Amount (x10^3)
Area (x10^7)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8


33 AK Dies 102
Curve Type: Averaged By-Response
Amt = Rsp/17214.78
%RSD: 3.381
Amount (x10^3)
Area (x10^7)
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
0.1
0.2
0.4
0.5
0.7
0.8
1.0
1.1
1.3
1.4
1.6
1.7
1.9
2.0
2.2
2.3
2.5
2.6
2.8

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a006.d ARI ID: DIESEL50
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 11:53
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	215268	13.85
C8	1.165	0.018	806	2277	WATPHD	(C12-C24)	759390	52.32
C10	2.960	-0.007	6459	4378	WATPHM	(C24-C38)	46996	3.45
C12	3.905	-0.003	11694	9658	AK102	(C10-C25)	899046	52.23
C14	4.587	0.000	16140	16680	AK103	(C25-C36)	27960	3.04
C16	5.170	-0.001	27596	20440				
C18	5.716	-0.001	21356	18380				
C20	6.268	0.000	14791	13160				
C22	6.810	0.000	6671	6517	MIN.OIL	(C24-C38)	46996	2.75
C24	7.324	-0.002	1715	1968				
C25	7.573	-0.001	706	926				
C26	7.811	-0.015	292	348				
C28	8.266	-0.003	63	56				
C32	9.093	0.012	127	99				
C34	9.462	0.005	225	183				
Filter Peak	11.449	0.007	1566	2590	CREOSOT	(C12-C22)	735404	337.05 M
C36	9.835	0.012	564	945				
C38	10.178	-0.001	736	362				
C40	10.533	0.000	1052	1464				
o-terph	5.859	-0.002	284403	187888				
Triacon Surr	8.706	0.008	114	152				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	187888	9.7	21.7 M
Triacontane	152	0.0	0.0

JW 4/16/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130413.b/0413a006.d

Date : 13-APR-2013 11:53

Client ID:

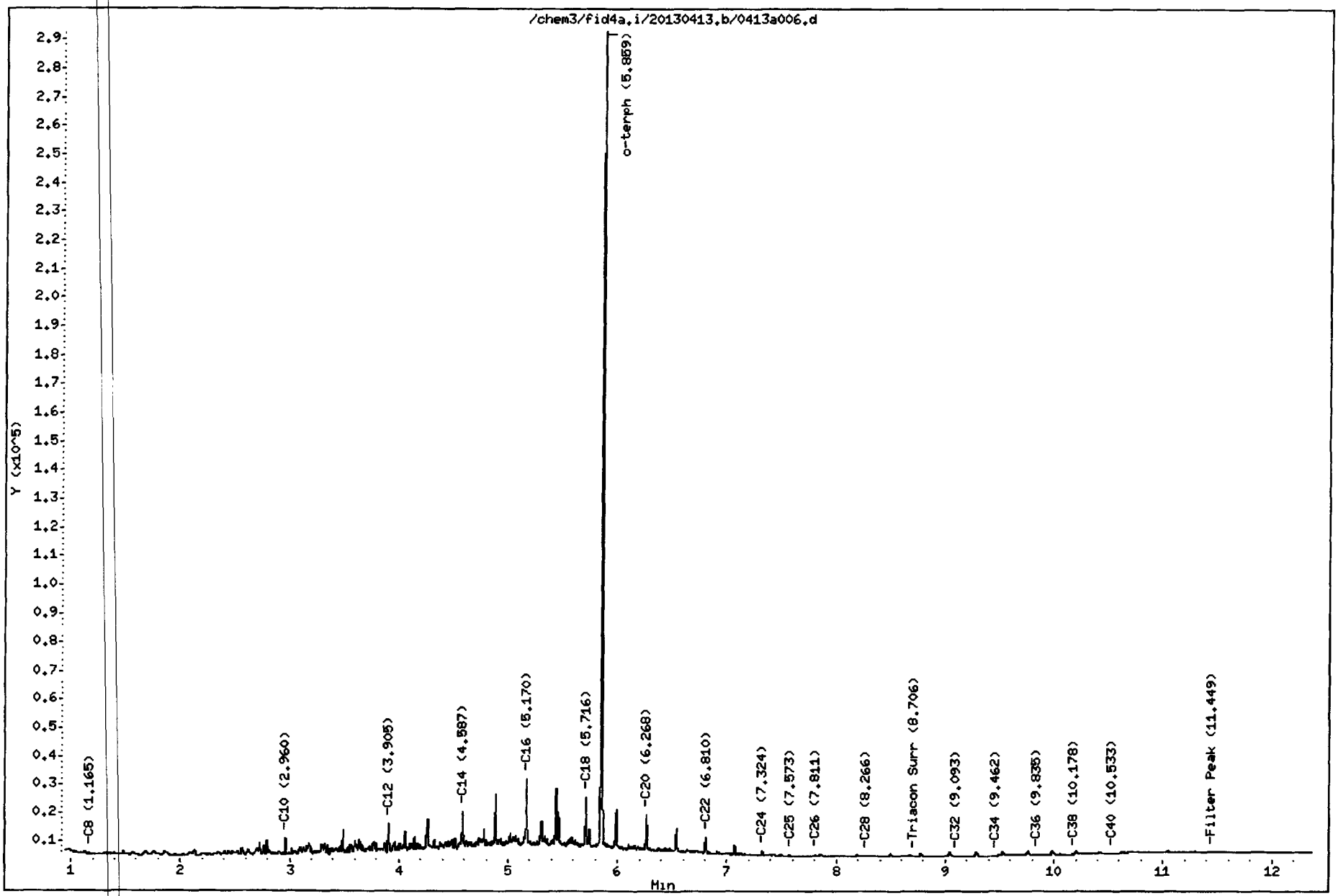
Sample Info: DIESEL50

Column phase: RTX-1

Instrument: fid4a.i

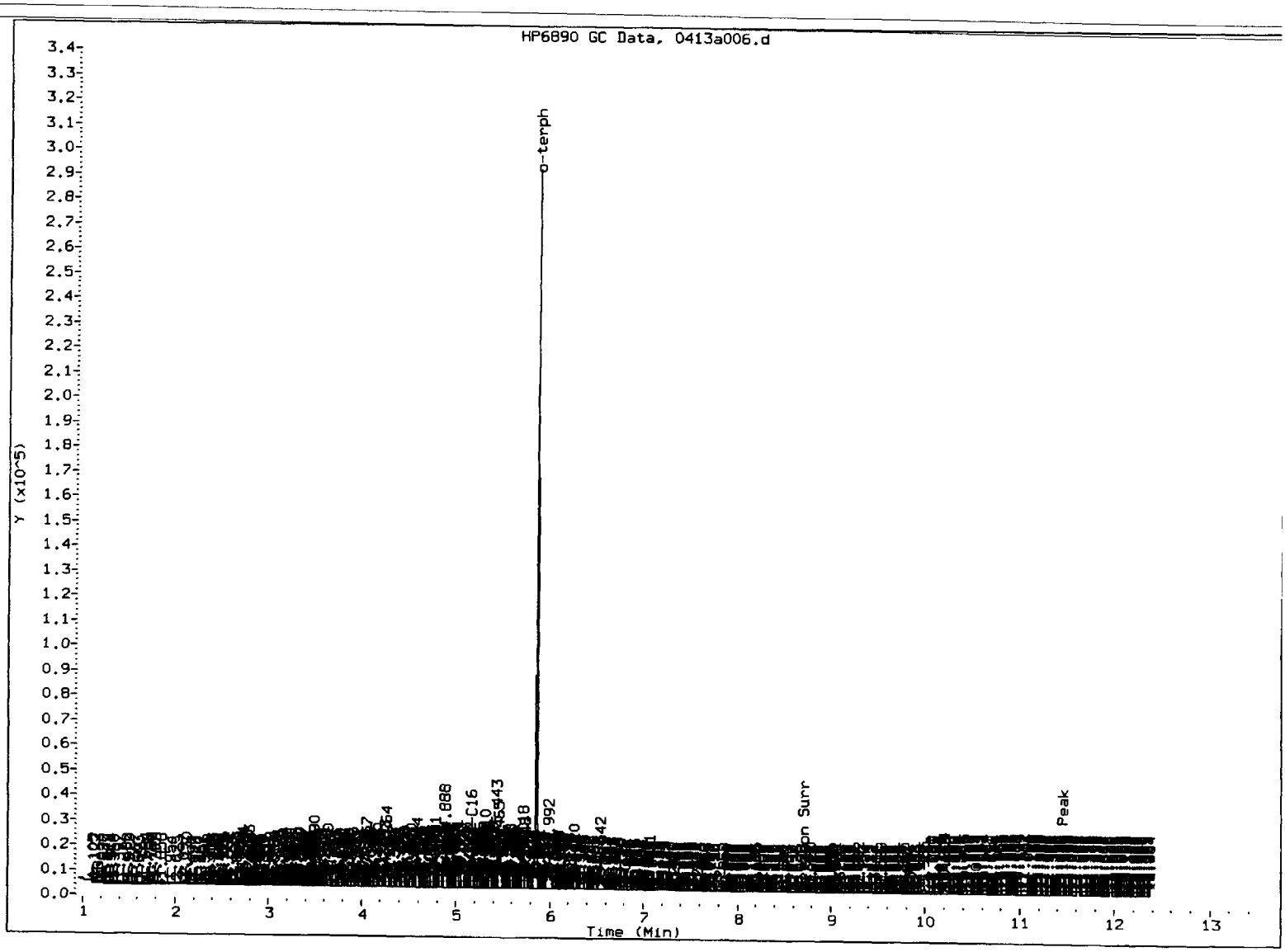
Operator: JR/VTS/JW

Column diameter: 0.25



FID:4A-2C/RTX-1 DIESEL50

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5). Skimmed surrogate

Analyst: JWi Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a007.d ARI ID: DIESEL100
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 12:13
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	417109	26.84
C8	1.136	-0.011	1941	3621	WATPHD	(C12-C24)	1502097	103.49
C10	2.962	-0.006	12519	8727	WATPHM	(C24-C38)	33140	2.44
C12	3.904	-0.005	20914	18536	AK102	(C10-C25)	1783636	103.61
C14	4.584	-0.003	33061	32735	AK103	(C25-C36)	20259	2.20
C16	5.167	-0.004	55285	41238				
C18	5.713	-0.004	42269	37534				
C20	6.263	-0.005	27729	25804				
C22	6.805	-0.005	12584	15117	MIN.OIL	(C24-C38)	33140	1.94
C24	7.320	-0.007	3636	4226				
C25	7.567	-0.007	1377	1724				
C26	7.808	-0.019	569	662				
C28	8.260	-0.009	83	67				
C32	9.097	0.016	105	158				
C34	9.465	0.008	182	122				
Filter Peak	11.438	-0.004	1449	1863	CREOSOT	(C12-C22)	1453523	666.17 M
C36	9.834	0.010	329	216				
C38	10.182	0.003	520	346				
C40	10.531	-0.002	816	1416				
o-terph	5.858	-0.003	557960	373271				
Triacon Surr	8.710	0.012	49	51				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	373271	19.4	43.0 M
Triacontane	51	0.0	0.0

JL 4/16/17

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

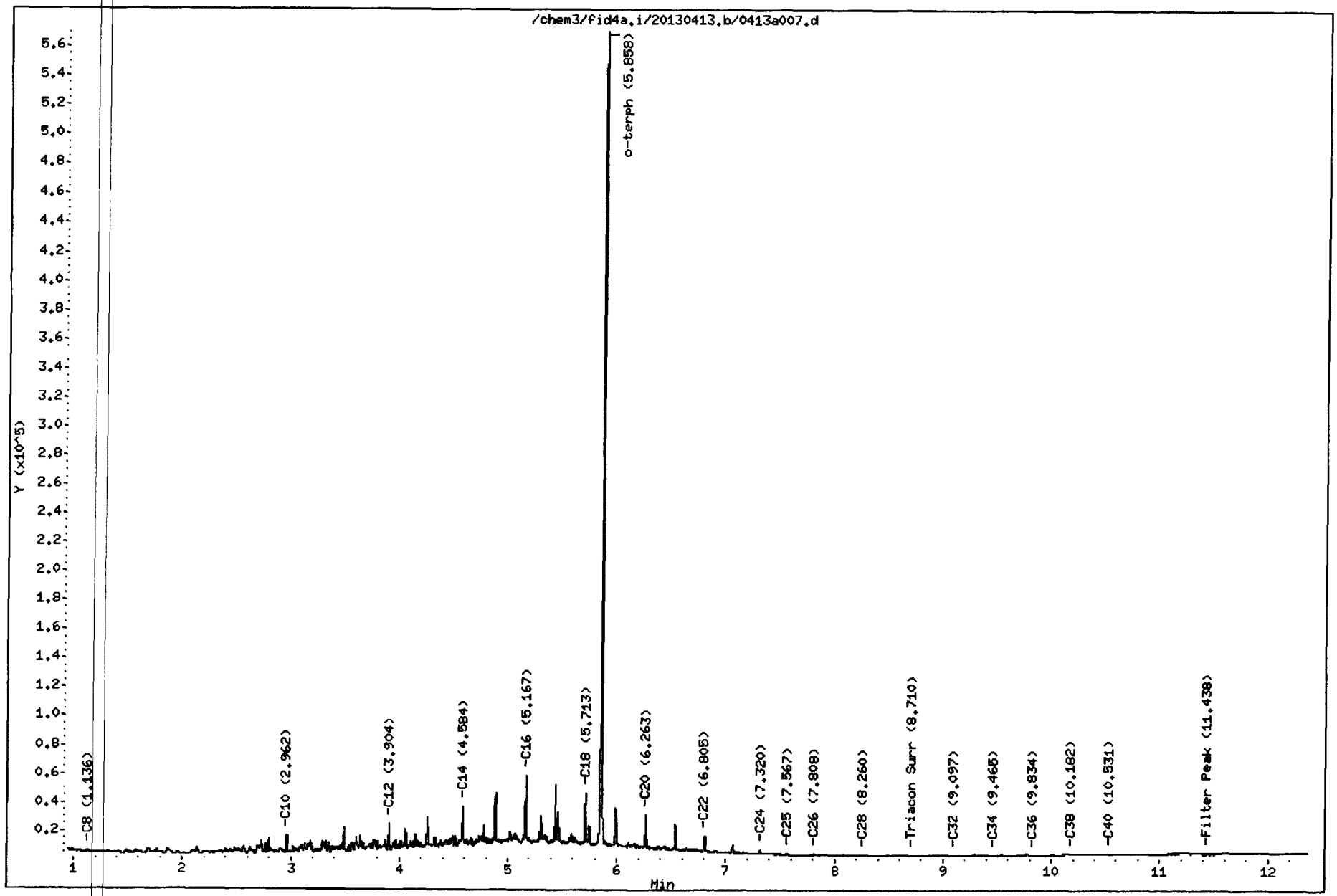
Data File: /chem3/fid4a.i/20130413.b/0413a007.d
Date : 13-APR-2013 12:13
Client ID:
Sample Info: DIESEL100

Column phase: RTX-1

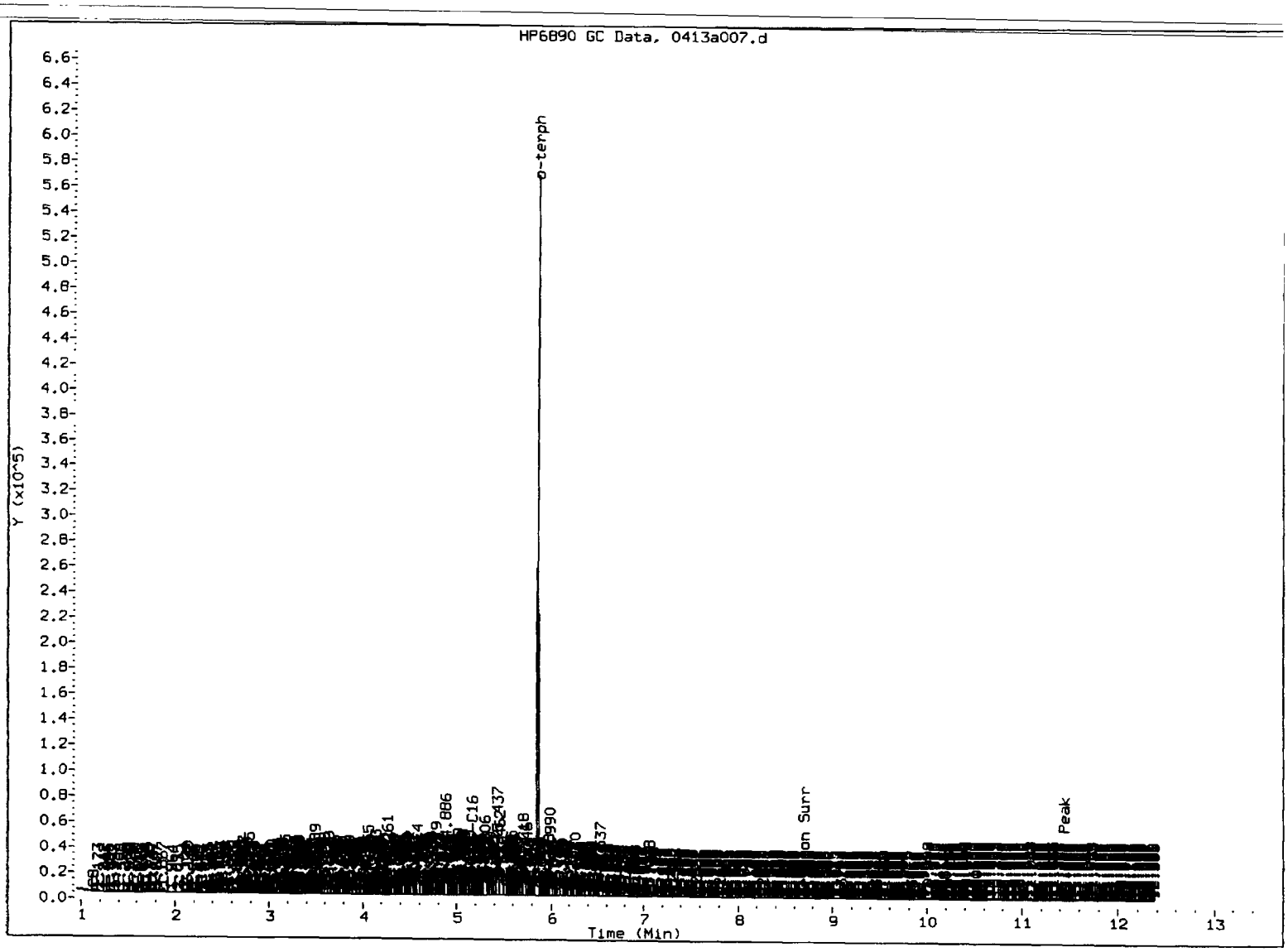
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

JW 4/16/13



FID:4A-2C/RTX-1 DIESEL100 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JL Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a008.d ARI ID: DIESEL250
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 12:34
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	986529	63.49
C8	1.132	-0.015	3781	5720	WATPHD	(C12-C24)	3619636	249.38
C10	2.962	-0.005	30152	20850	WATPHM	(C24-C38)	50857	3.74
C12	3.905	-0.003	49975	43741	AK102	(C10-C25)	4295925	249.55
C14	4.586	-0.002	76514	63530	AK103	(C25-C36)	30121	3.27
C16	5.168	-0.003	117704	98659				
C18	5.715	-0.002	94445	95631				
C20	6.265	-0.002	60449	59524				
C22	6.806	-0.004	28706	35806	MIN.OIL	(C24-C38)	50857	2.98
C24	7.319	-0.007	8050	9800				
C25	7.564	-0.010	3537	4263				
C26	7.806	-0.020	1367	1552				
C28	8.259	-0.010	179	167				
C32	9.073	-0.007	82	95				
C34	9.462	0.005	187	107				
Filter Peak	11.447	0.006	1441	1346	CREOSOT	(C12-C22)	3511755	1609.49 M
C36	9.819	-0.004	351	301				
C38	10.193	0.014	656	259				
C40	10.533	0.000	894	615				
o-terph	5.865	0.004	1088756	877347				
Triacon Surr	8.706	0.008	36	15				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	877347	45.5	101.1 M
Triacontane	15	0.0	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

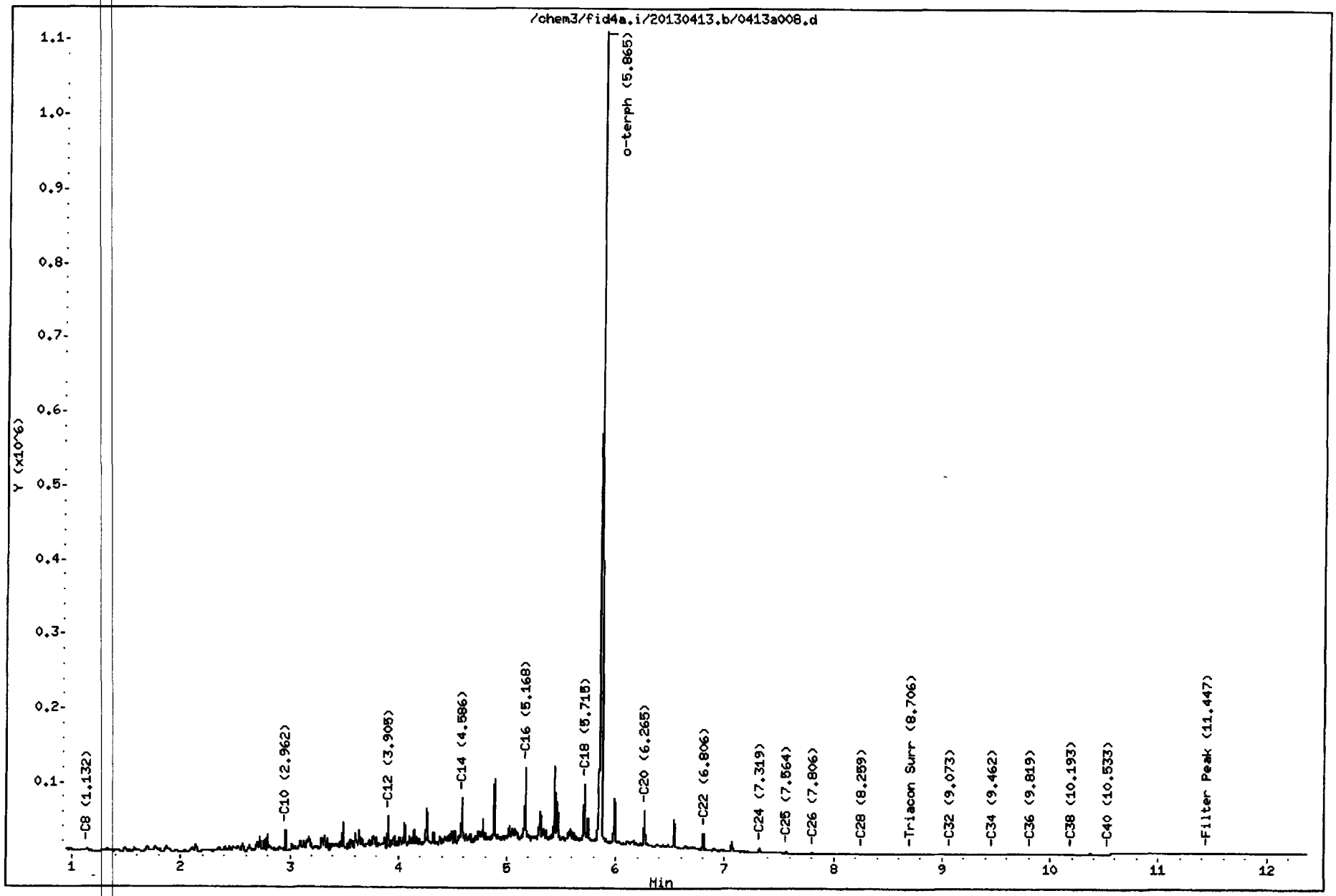
VTS 4/16/13

Data File: /chem3/fid4a.i/20130413.b/0413a008.d
Date : 13-APR-2013 12:34
Client ID:
Sample Info: DIESEL250

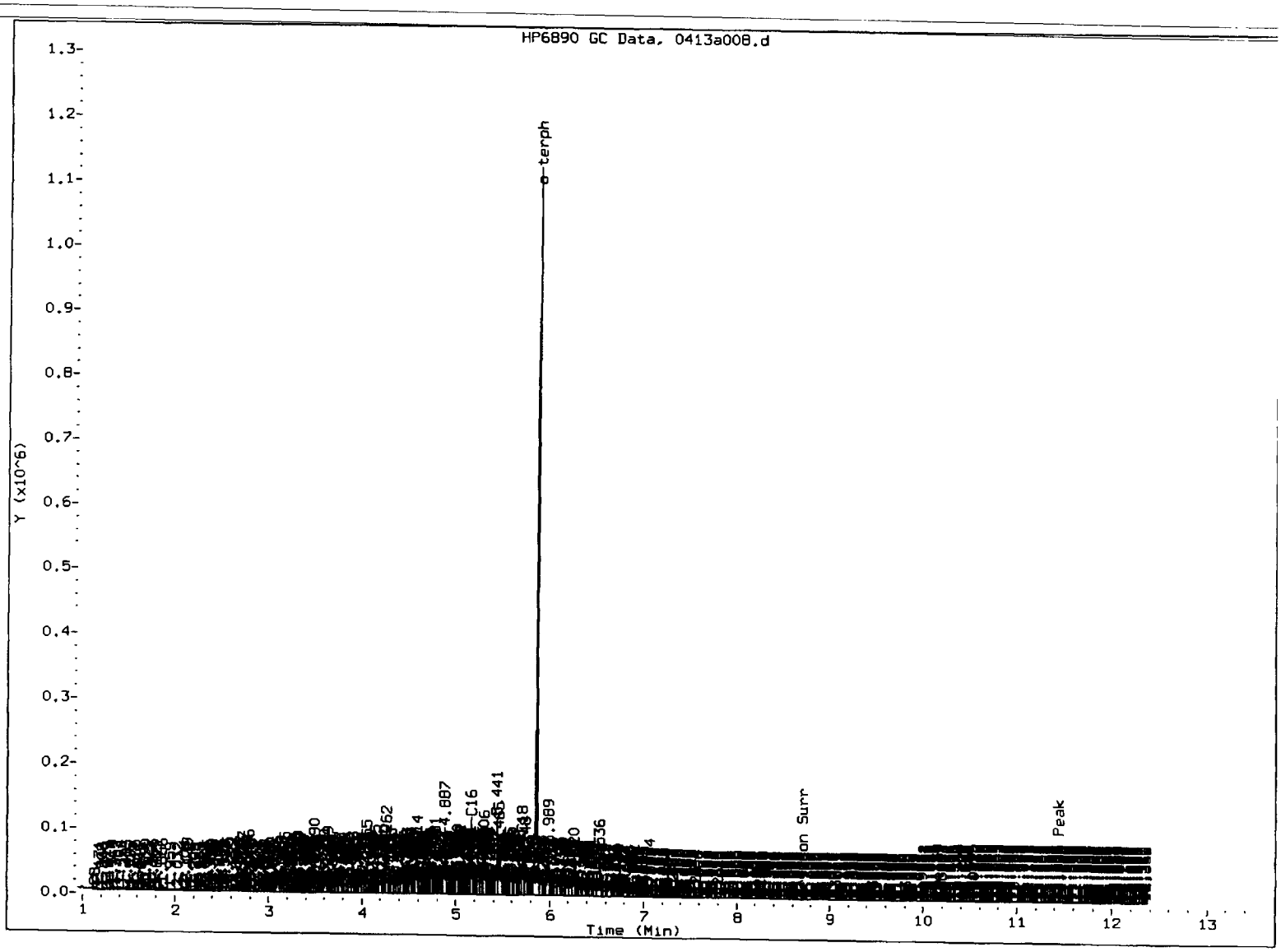
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 DIESEL250 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a009.d ARI ID: DIESEL500
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 12:54
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	1938503	124.75
C8	1.133	-0.014	6656	8984	WATPHD	(C12-C24)	7139483	491.89
C10	2.963	-0.005	60617	41059	WATPHM	(C24-C38)	73614	5.41
C12	3.906	-0.002	95786	86973	AK102	(C10-C25)	8473912	492.25
C14	4.586	-0.001	150874	130101	AK103	(C25-C36)	46507	5.05
C16	5.171	-0.001	221742	168860				
C18	5.717	0.000	183930	171594				
C20	6.266	-0.002	125277	138952				
C22	6.806	-0.004	61289	73010	MIN.OIL	(C24-C38)	73614	4.32
C24	7.321	-0.006	17056	16948				
C25	7.566	-0.008	7181	8056				
C26	7.827	0.001	795	590				
C28	8.261	-0.008	383	489				
C32	9.082	0.001	63	54				
C34	9.469	0.012	136	160				
Filter Peak	11.432	-0.010	1383	1663	CREOSOT	(C12-C22)	6912274	3168.01 M
C36	9.827	0.003	301	238				
C38	10.156	-0.023	477	399				
C40	10.538	0.005	798	1290				
o-terph	5.874	0.013	1524427	1652081				
Triacon Surr	8.711	0.013	30	9				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1652081	85.7	190.4 M
Triacontane	9	0.0	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

JW 4/16/13

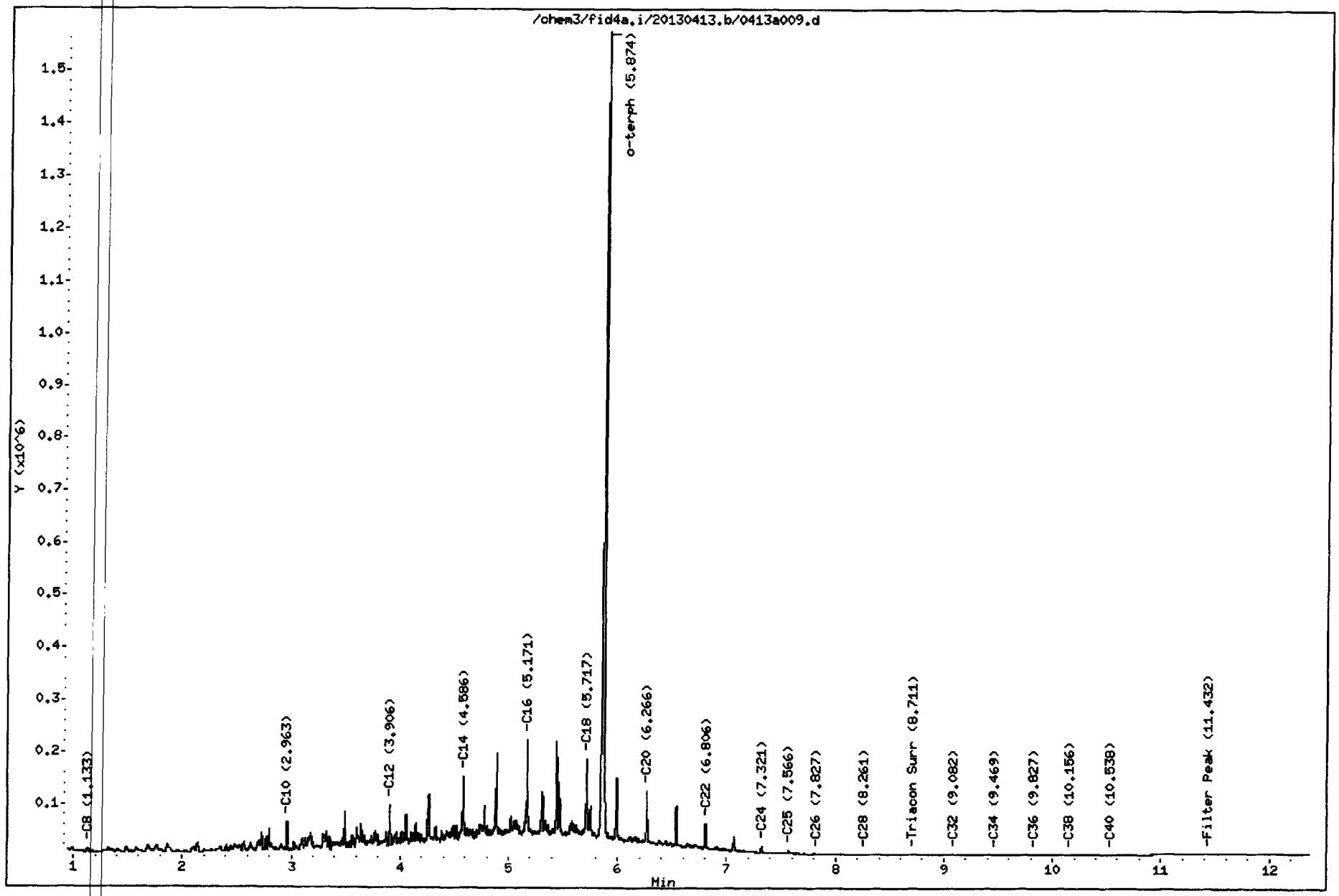
Data File: /chem3/fid4a.i/20130413.b/0413a009.d
Date : 13-APR-2013 12:54
Client ID:
Sample Info: DIESEL500

Column phase: RTX-1

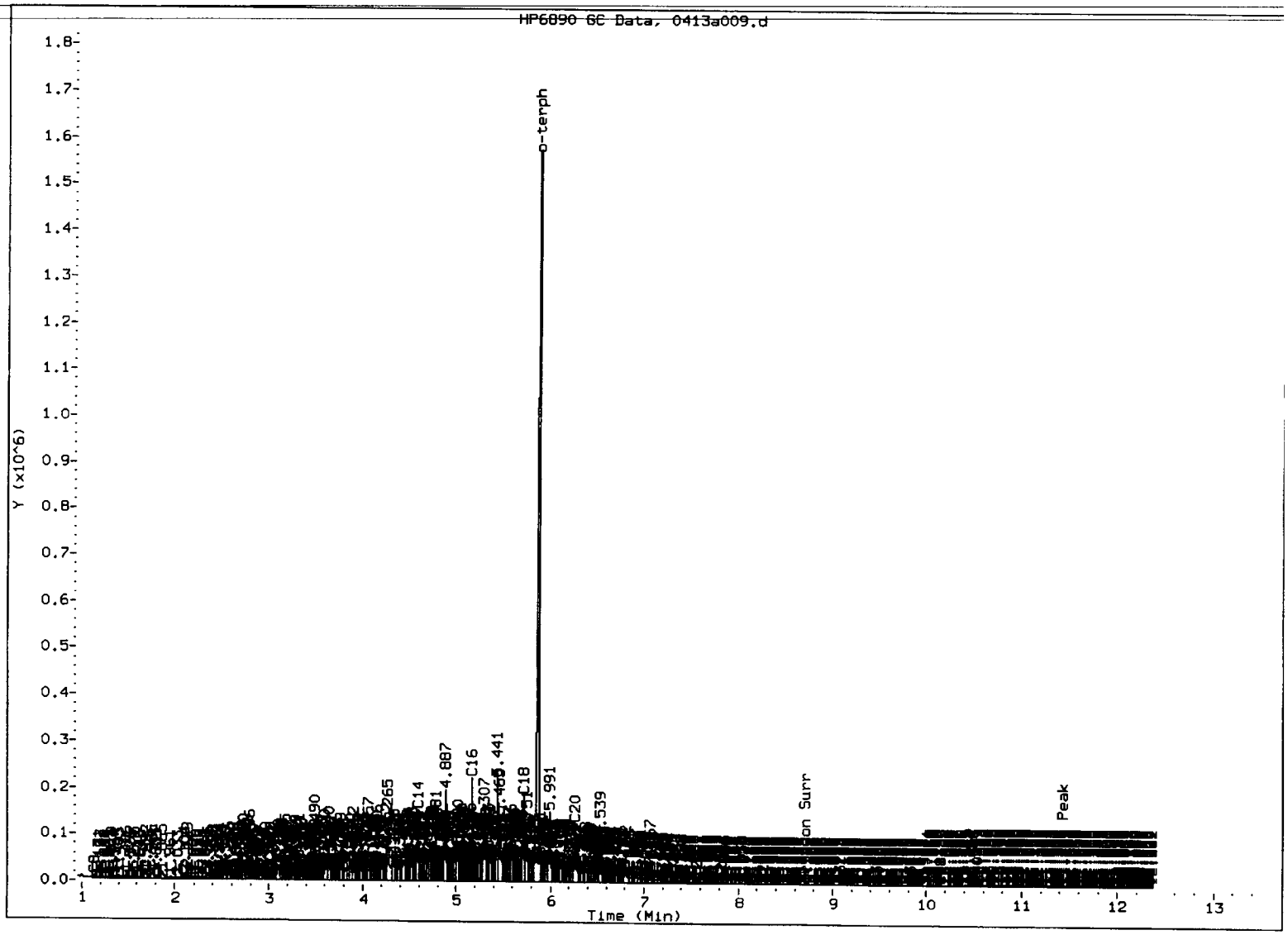
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

TCV 4/16/13



FID:4A-2C/RTX-1 DIESEL500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5) Skimmed surrogate

Analyst: JU Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a010.d ARI ID: DIESEL1000
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 13:15
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	3811929	245.31
C8	1.135	-0.013	12353	15129	WATPHD	(C12-C24)	14226320	980.14
C10	2.963	-0.004	115392	81567	WATPHM	(C24-C38)	139793	10.28
C12	3.907	-0.001	182454	170588	AK102	(C10-C25)	16866110	979.75
C14	4.588	0.001	281773	291443	AK103	(C25-C36)	86469	9.40
C16	5.171	0.000	434741	342755				
C18	5.720	0.003	345674	355731				
C20	6.268	0.001	228816	234559				
C22	6.807	-0.003	107722	108430	MIN.OIL	(C24-C38)	139793	8.19
C24	7.318	-0.008	31969	37766				
C25	7.567	-0.007	13295	16308				
C26	7.833	0.007	1443	522				
C28	8.261	-0.008	722	1112				
C32	9.094	0.014	29	7				
C34	9.468	0.011	112	107				
Filter Peak	11.448	0.007	1248	2720	CREOSOT	(C12-C22)	13802524	6325.92 M
C36	9.827	0.004	263	425				
C38	10.189	0.010	1014	1935				
C40	10.535	0.002	722	341				
o-terph	5.884	0.023	2512098	3297656				
Triacon Surr	8.712	0.014	48	18				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3297656	171.0	380.0 M
Triacontane	18	0.0	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

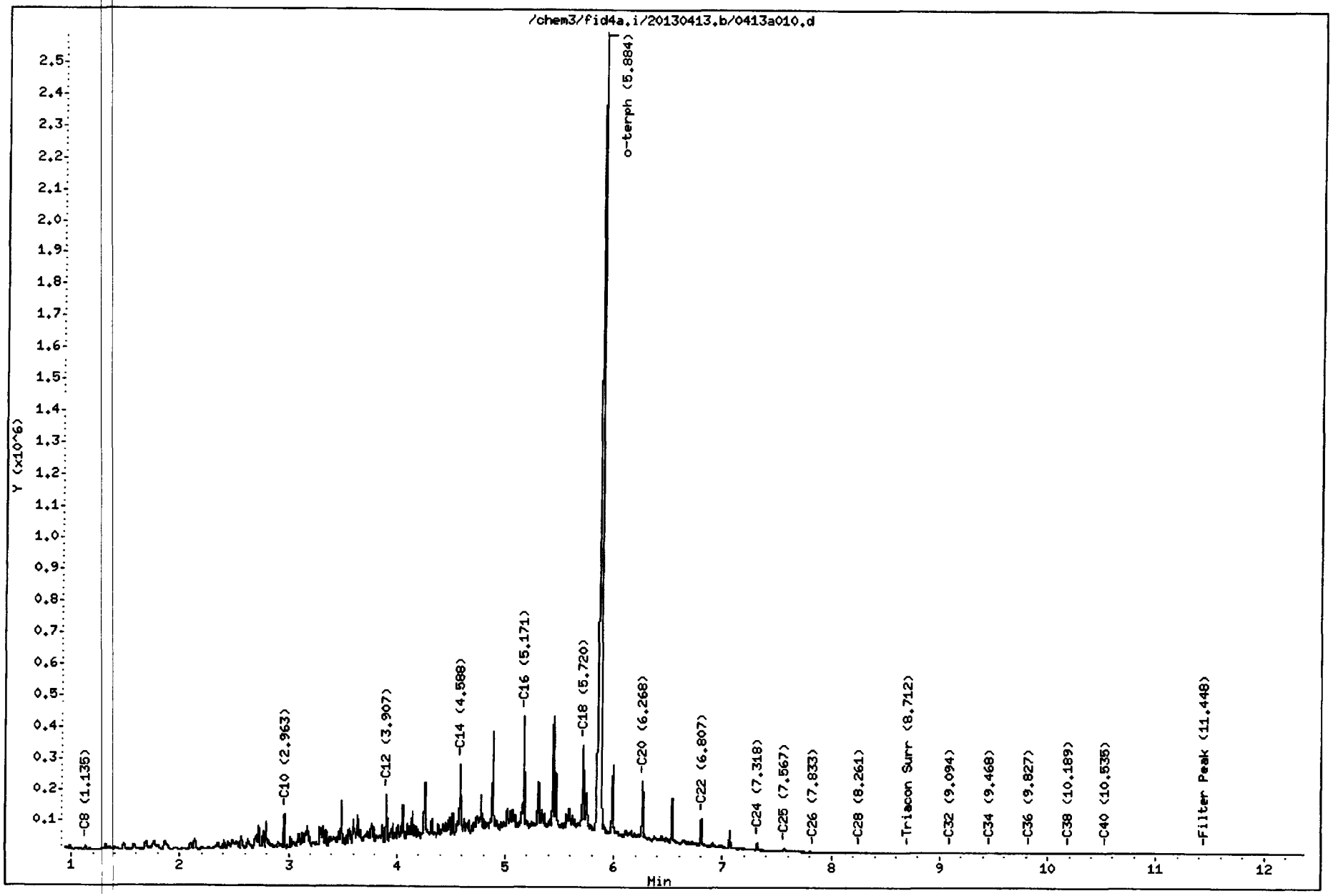
11/16/13

Data File: /chem3/fid4a.i/20130413.b/0413a010.d
Date : 13-APR-2013 13:15
Client ID:
Sample Info: DIESEL1000

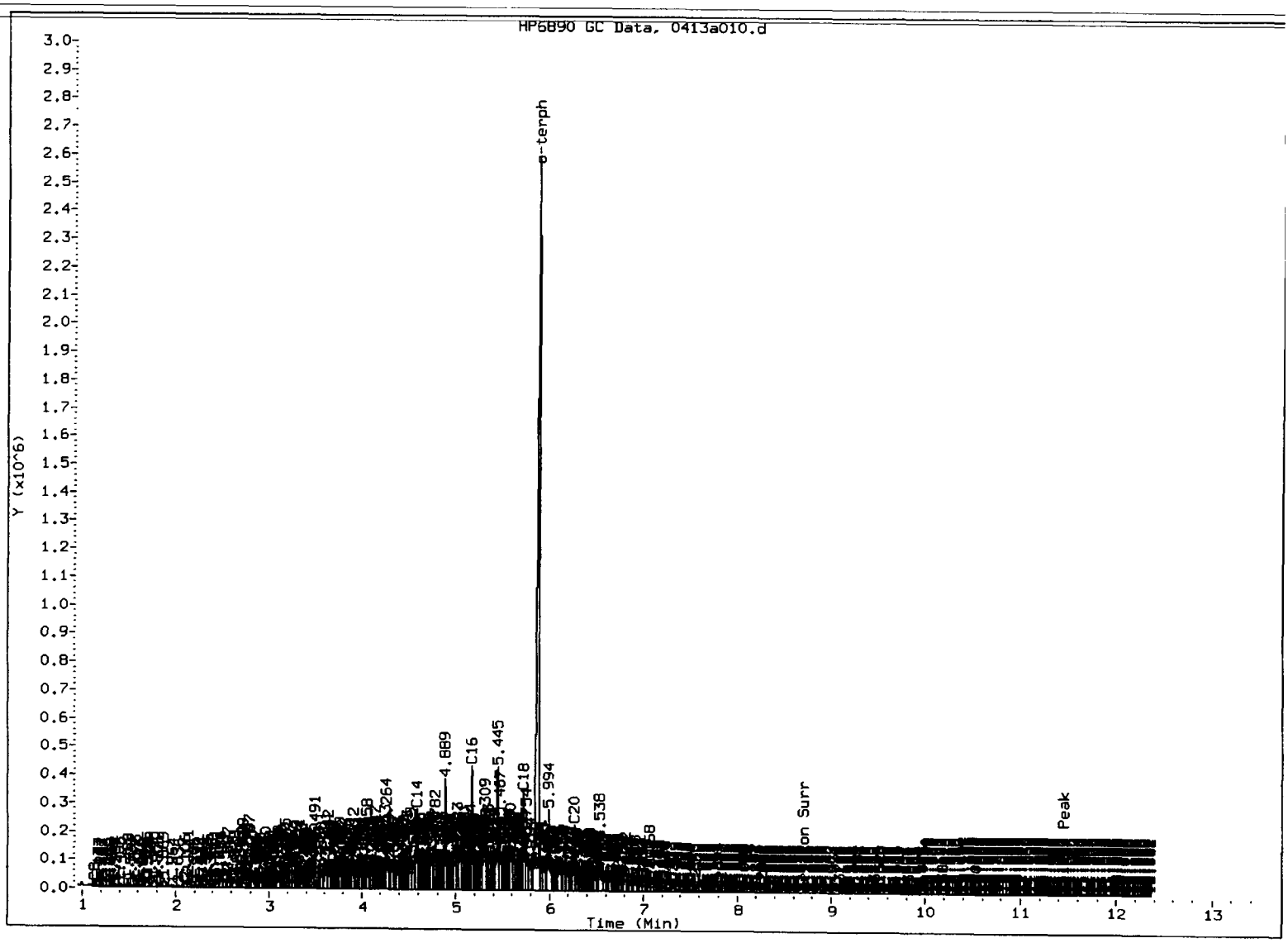
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 DIESEL1000 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 4/16/17

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a011.d
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 04/15/2013
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

ARI ID: DIESEL2500
Client ID:
Injection: 13-APR-2013 13:35

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	9276455	596.96
C8	1.134	-0.014	24908	33472	WATPHD	(C12-C24)	34774294	2395.83
C10	2.966	-0.002	252738	198288	WATPHM	(C24-C38)	305862	22.48
C12	3.910	0.001	400759	415390	AK102	(C10-C25)	41212082	2393.99
C14	4.594	0.006	611687	862603	AK103	(C25-C36)	206426	22.43
C16	5.178	0.006	943821	808157				
C18	5.727	0.010	671328	895926				
C20	6.274	0.006	489579	628809				
C22	6.808	-0.002	247196	289857	MIN.OIL	(C24-C38)	305862	17.93
C24	7.319	-0.007	75373	82766				
C25	7.566	-0.008	34345	42458				
C26	7.827	0.000	4044	3418				
C28	8.258	-0.012	1977	3055				
C32	9.090	0.009	48	61				
C34	9.458	0.000	70	50				
Filter Peak	11.449	0.007	1134	1190	CREOSOT	(C12-C22)	33616551	15407.01 M
C36	9.824	0.000	185	139				
C38	10.179	0.000	554	1390				
C40	10.541	0.008	631	435				
o-terph	5.903	0.042	4136741	8059957				
Triacon Surr	8.700	0.002	141	189				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	8059957	418.0	928.8 M
Triacontane	189	0.0	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

JW
4/16/13

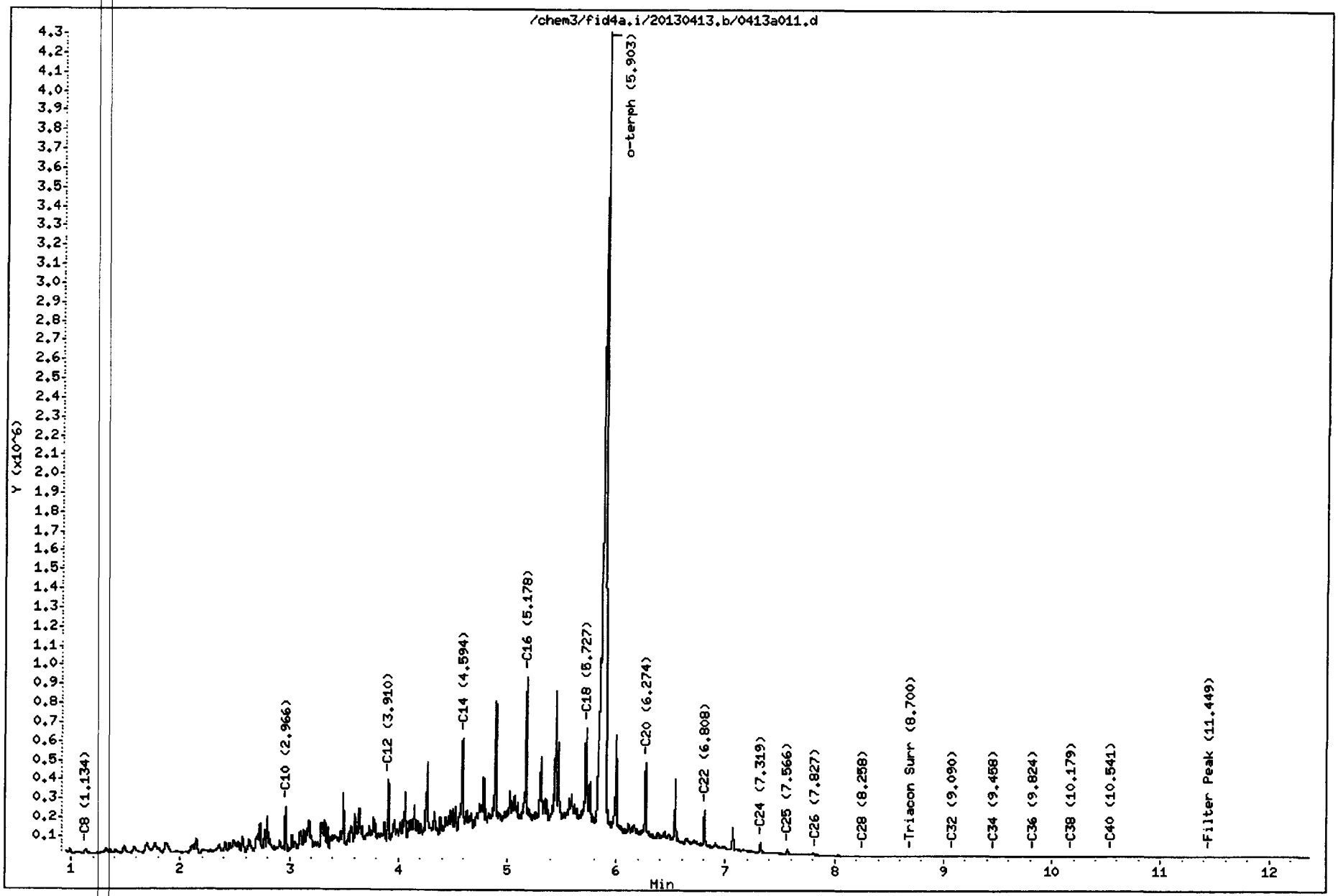
Data File: /chem3/fid4a.i/20130413.b/0413a011.d
Date : 13-APR-2013 13:35
Client ID:
Sample Info: DIESEL2500

Column phase: RTX-1

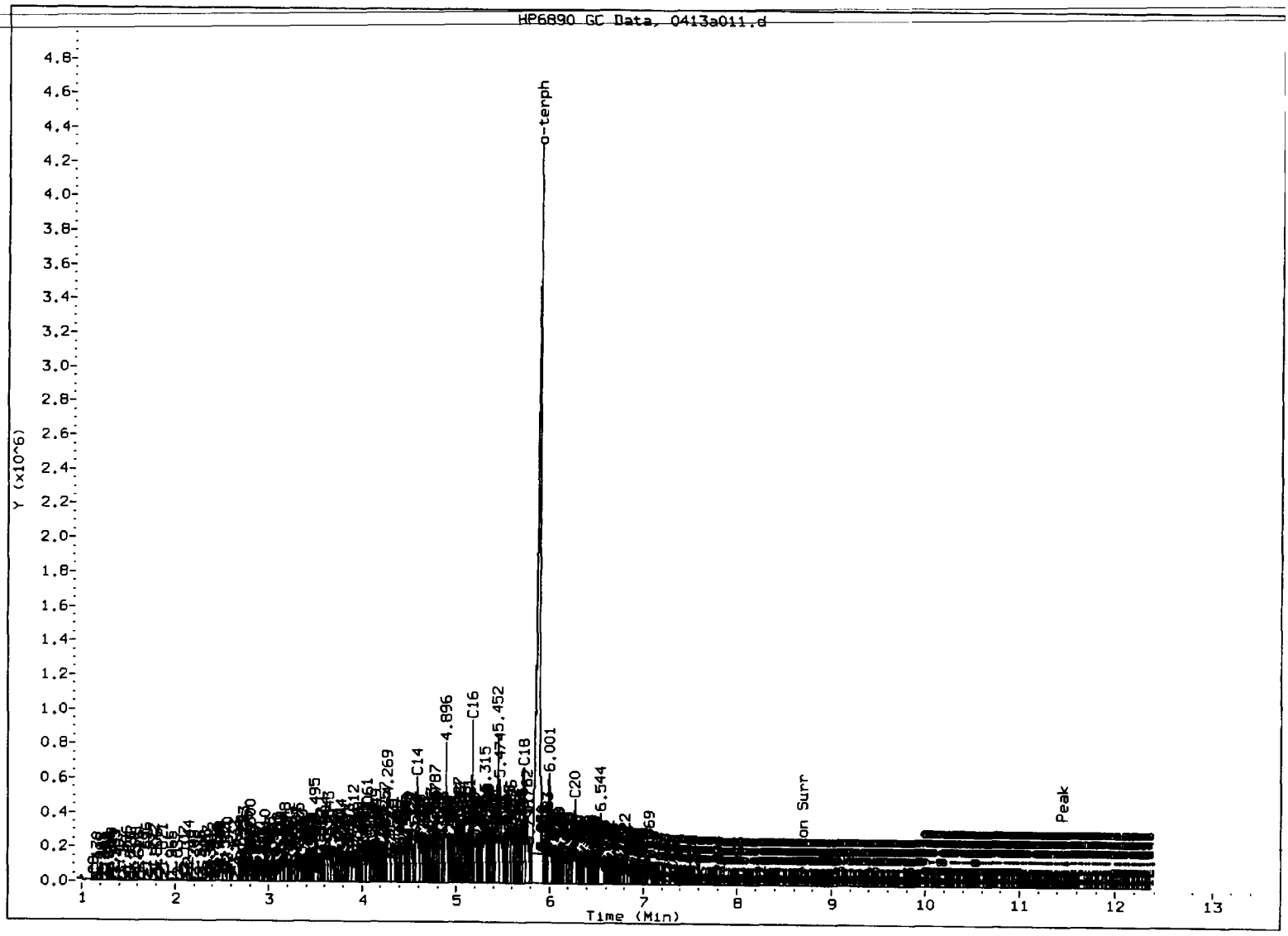
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

4/16/13



FID:4A-2C/RTX-1 DIESEL2500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 4/16/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130413.b/0413a012.d ARI ID: DIESELICV250
Method: /chem3/fid4a.i/20130413.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 13-APR-2013 13:56
Operator: JR/VTS/JW
Report Date: 04/15/2013 Dilution Factor: 1
Macro: 11-APR-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:13-APR-2013

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	1350128	86.88
C8	1.140	-0.007	5894	7549	WATPHD	(C12-C24)	3336568	229.88
C10	2.964	-0.004	74183	48425	WATPHM	(C24-C38)	48278	3.55
C12	3.904	-0.004	80279	63955	AK102	(C10-C25)	4352962	252.86
C14	4.584	-0.004	91502	86727	AK103	(C25-C36)	29685	3.23
C16	5.167	-0.004	92428	91538				
C18	5.712	-0.005	64635	71687				
C20	6.261	-0.007	38864	46617				
C22	6.800	-0.010	19895	20409	MIN.OIL	(C24-C38)	48278	2.83
C24	7.317	-0.010	6621	7048				
C25	7.563	-0.011	3543	3438				
C26	7.839	0.013	511	944				
C28	8.257	-0.012	249	388				
C32	9.086	0.005	66	27				
C34	9.457	0.000	126	85				
Filter Peak	11.447	0.005	1300	1415	CREOSOT	(C12-C22)	3246102	1487.74 M
C36	9.826	0.003	279	175				
C38	10.165	-0.014	702	1540				
C40	10.542	0.010	811	690				
o-terph	5.863	0.002	1066499	883180				
Triacon Surr	8.703	0.005	33	42				

Range Times: NW Diesel(3.908 - 7.326) AK102(2.97 - 7.57) Jet A(2.97 - 5.72)
NW M.Oil(7.33 - 10.18) AK103(7.57 - 9.82) OR Diesel(2.97 - 8.27)

Surrogate	Area	Amount	%Rec
o-Terphenyl	883180	45.8	101.8 M
Triacontane	42	0.0	0.0

M Indicates the peak was manually integrated

JW
4/16/13

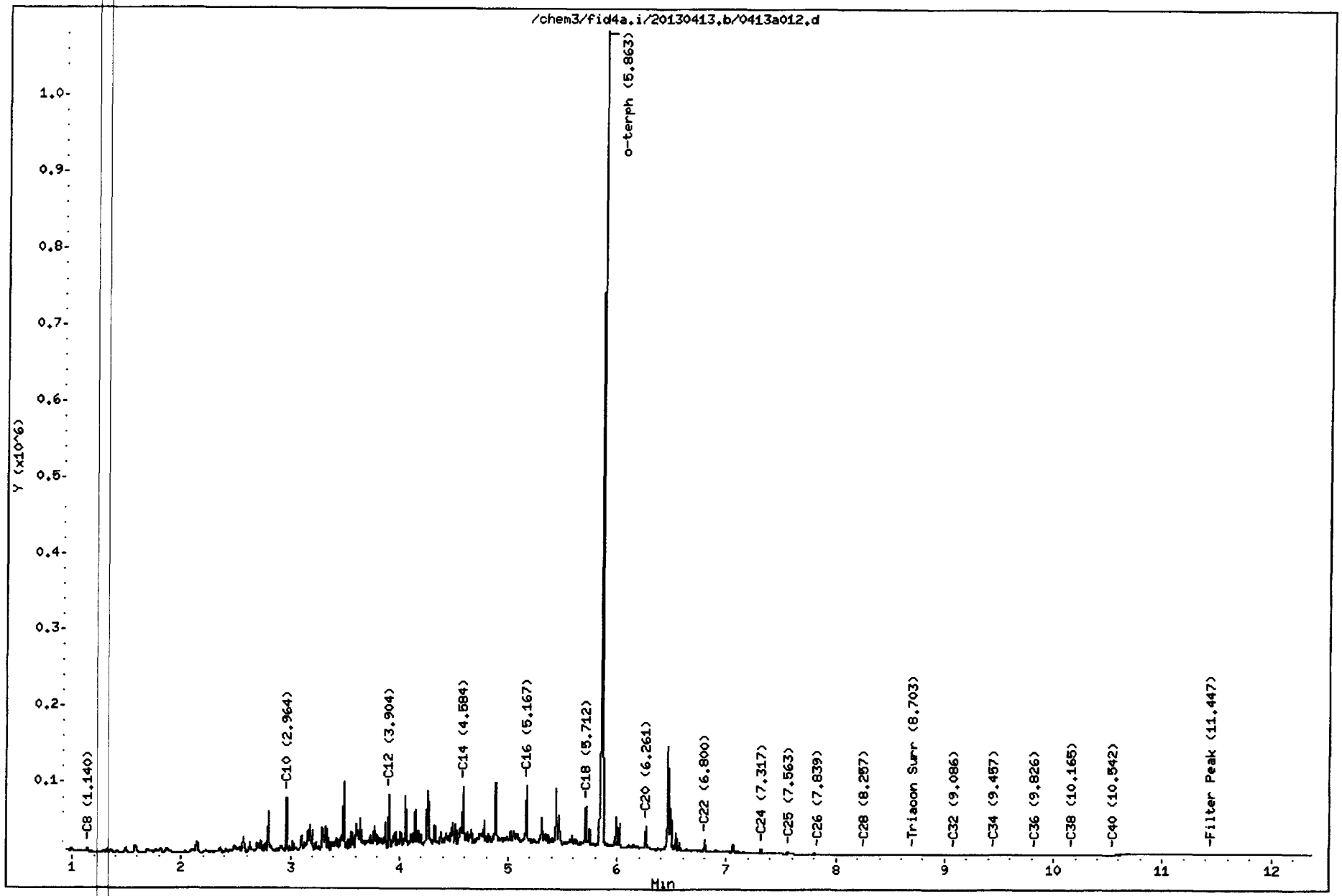
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	18196.2	13-APR-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	13604.0	13-APR-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Oil	17059.0	11-MAR-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130413.b/0413a012.d
Date : 13-APR-2013 13:56
Client ID:
Sample Info: DIESELICV250

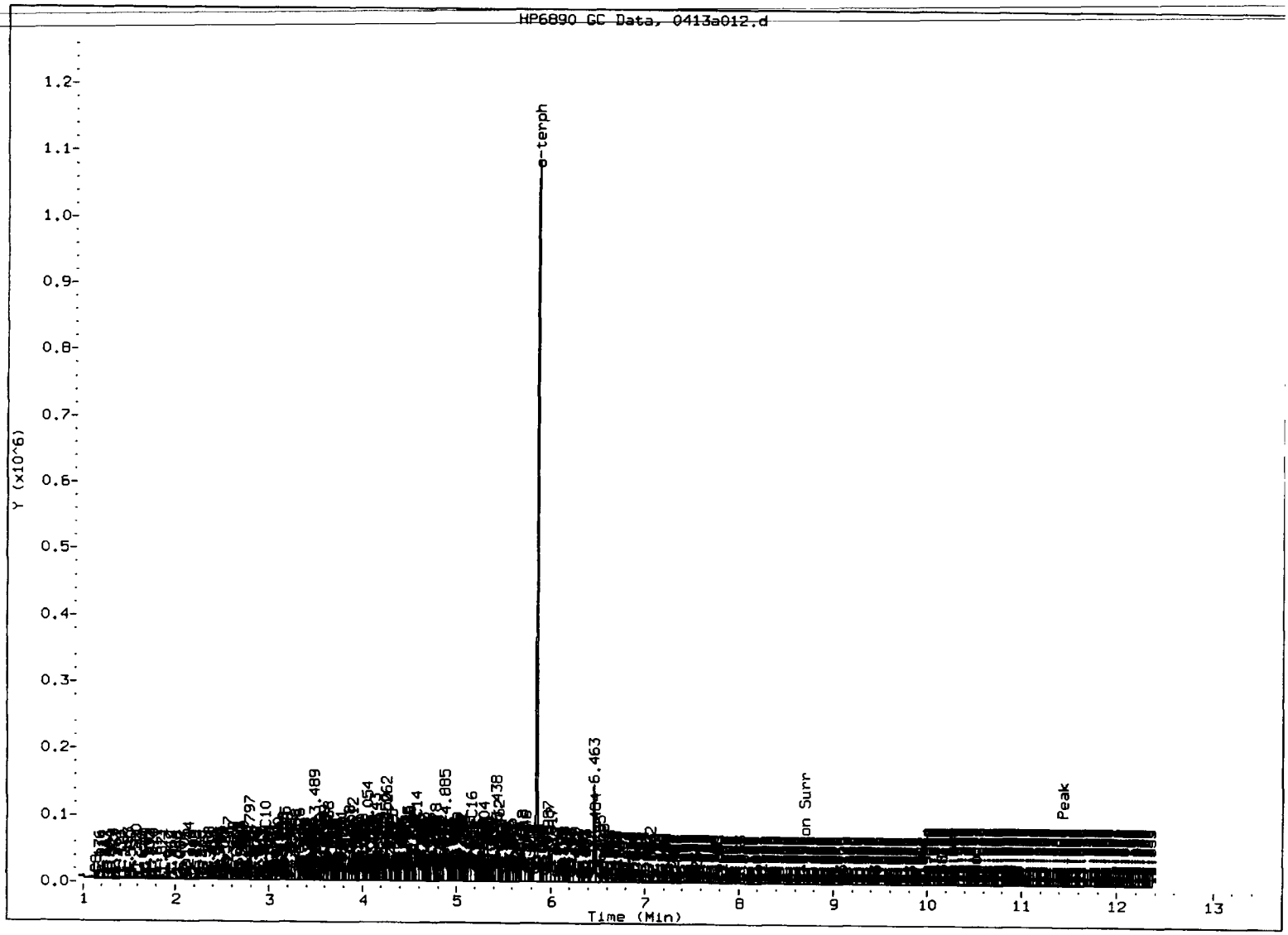
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 DIESELICV250 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 4/16/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest) **427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8 FID-9 ECD-1 ~~ECD-5~~ ECD-6 ECD-7 ECD-8

Curve Date(s): 5/22/13 Internal Standard ID N/A Expiration 11/27/13

Endrin/DDT Breakdown <15%? YES / NO / NA		ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria	YES / NO	ICV Exceeding ±30%?	YES / NO
Manual Integrations for ICal?	YES / NO	Linear Fits Used?	YES / NO
Minimum Response S/N Met	YES / NO	Quadratic Fits Used?	YES / NO
		Calibration Points Dropped?	YES / NO

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Motor oil	2041-4	11/27/13	Motor oil	2043-2	11/19/13
RT	2043-4	10/20/13			
DB	2043-3	10/20/13			

Detail problems, corrective actions and/or other pertinent information below:

High pt has triac surr outside QC shift allowance, but surr meets spk @ this level, no corrective action taken

Analyst: JW **Date:** 5/23/13

Reviewer: [signature] **Date:** 5/23/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130520.b
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0520a016	0520a017	0520a018	0520a019	0520a020	0520a021
INJ.DATE:	20-MAY-2013	20-MAY-2013	20-MAY-2013	20-MAY-2013	20-MAY-2013	20-MAY-2013
INJ.TIME:	17:53	18:13	18:34	18:55	19:15	19:36

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	0.745	0.645-0.845	+++++	+++++
	40 Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.023	0.973-1.073	+++++	+++++
	39 Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.542	0.492-0.592	+++++	+++++
	36 JetA	+++++	+++++	+++++	+++++	+++++	+++++	0.794	0.744-0.844	+++++	+++++
	37 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.729	0.679-0.779	+++++	+++++
	38 Hydraulic Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.197	1.147-1.247	+++++	+++++
	2 C8	+++++	+++++	+++++	+++++	+++++	+++++	0.944	0.844-1.044	+++++	+++++
	3 C10	2.810	2.809	2.808	2.809	2.808	2.807	2.807	2.757-2.857	2.809	0.001
	4 C12	3.785	3.785	3.783	3.784	3.785	3.784	3.784	3.734-3.834	3.784	0.001
	5 C14	4.470	4.467	4.467	4.465	4.466	4.466	4.466	4.416-4.516	4.467	0.002
	6 C16	5.042	5.046	5.048	5.047	5.048	5.047	5.047	4.997-5.097	5.046	0.002
	7 C18	5.586	5.581	5.582	5.580	5.581	5.582	5.582	5.532-5.632	5.582	0.002
$	8 o-terph	5.707	5.708	5.706	5.705	5.706	5.705	5.705	5.655-5.755	5.706	0.001
	9 C20	6.137	6.124	6.124	6.122	6.121	6.122	6.122	6.072-6.172	6.125	0.006
	10 C22	6.658	6.654	6.660	6.661	6.662	6.657	6.657	6.607-6.707	6.659	0.003
	11 C24	7.173	7.171	7.171	7.163	7.166	7.182	7.182	7.132-7.232	7.171	0.007
	12 C25	7.429	7.431	7.433	7.434	7.422	7.419	7.419	7.369-7.469	7.428	0.006

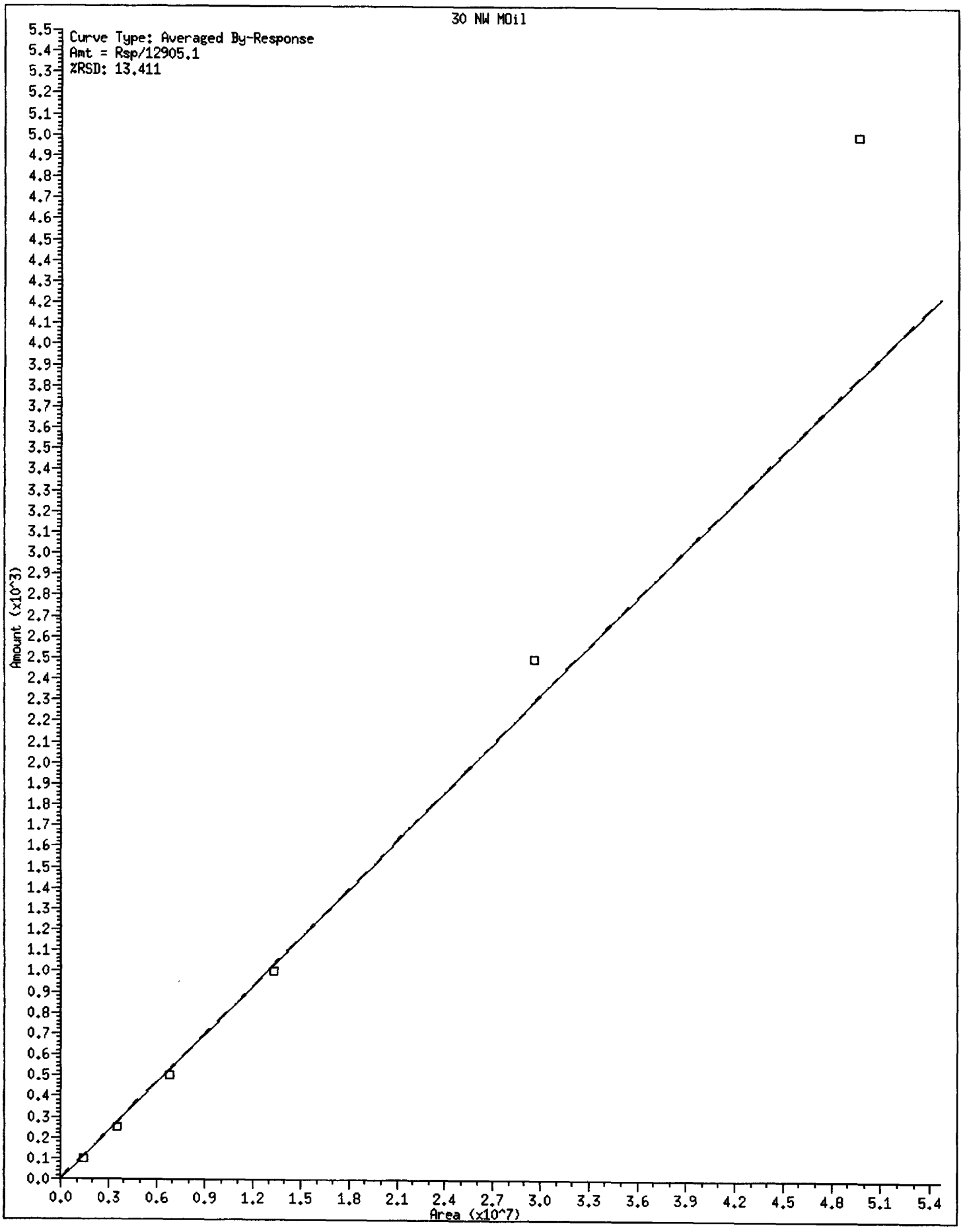
Reviewer 1 _____ Date: 5/23/13

Reviewer 2 _____ Date: 5/23/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20130520.b
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
13 C26	7.671	7.673	7.671	7.671	7.666	7.676	7.676	7.626-7.726	7.672	0.003
14 C28	8.109	8.113	8.110	8.112	8.101	8.117	8.117	8.067-8.167	8.110	0.005
$ 15 Triacon Surr	8.527	8.535	8.542	8.555	8.581	8.607	8.607	8.557-8.657	8.558	0.031
16 C32	8.903	8.909	8.907	8.910	8.921	8.913	8.913	8.863-8.963	8.911	0.006
17 C34	9.266	9.264	9.264	9.270	9.259	9.278	9.278	9.228-9.328	9.267	0.007
18 Filter Peak	11.425	11.424	11.423	11.412	11.420	11.424	11.424	11.324-11.524	11.421	0.005
19 C36	9.624	9.610	9.627	9.618	9.619	9.599	9.599	9.549-9.649	9.616	0.010
20 C38	9.959	9.953	9.958	9.960	9.966	9.956	9.956	9.906-10.006	9.959	0.004
21 C40	10.287	10.288	10.286	10.282	10.292	10.282	10.282	10.232-10.332	10.286	0.004
31 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
32 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.683	0.633-0.733	+++++	+++++
42 Cal(IT) Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.499	0.449-0.549	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	0.662	0.612-0.712	+++++	+++++
30 NW MOil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 CRUDE	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
35 AK MOil 103	+++++	+++++	+++++	+++++	+++++	+++++	0.615	0.565-0.665	+++++	+++++
41 ABUNKERC	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++


30 NW MOil
Curve Type: Averaged By-Response
Amt = Rsp/12905.1
%RSD: 13.411
Amount (x10^3)
Area (x10^7)
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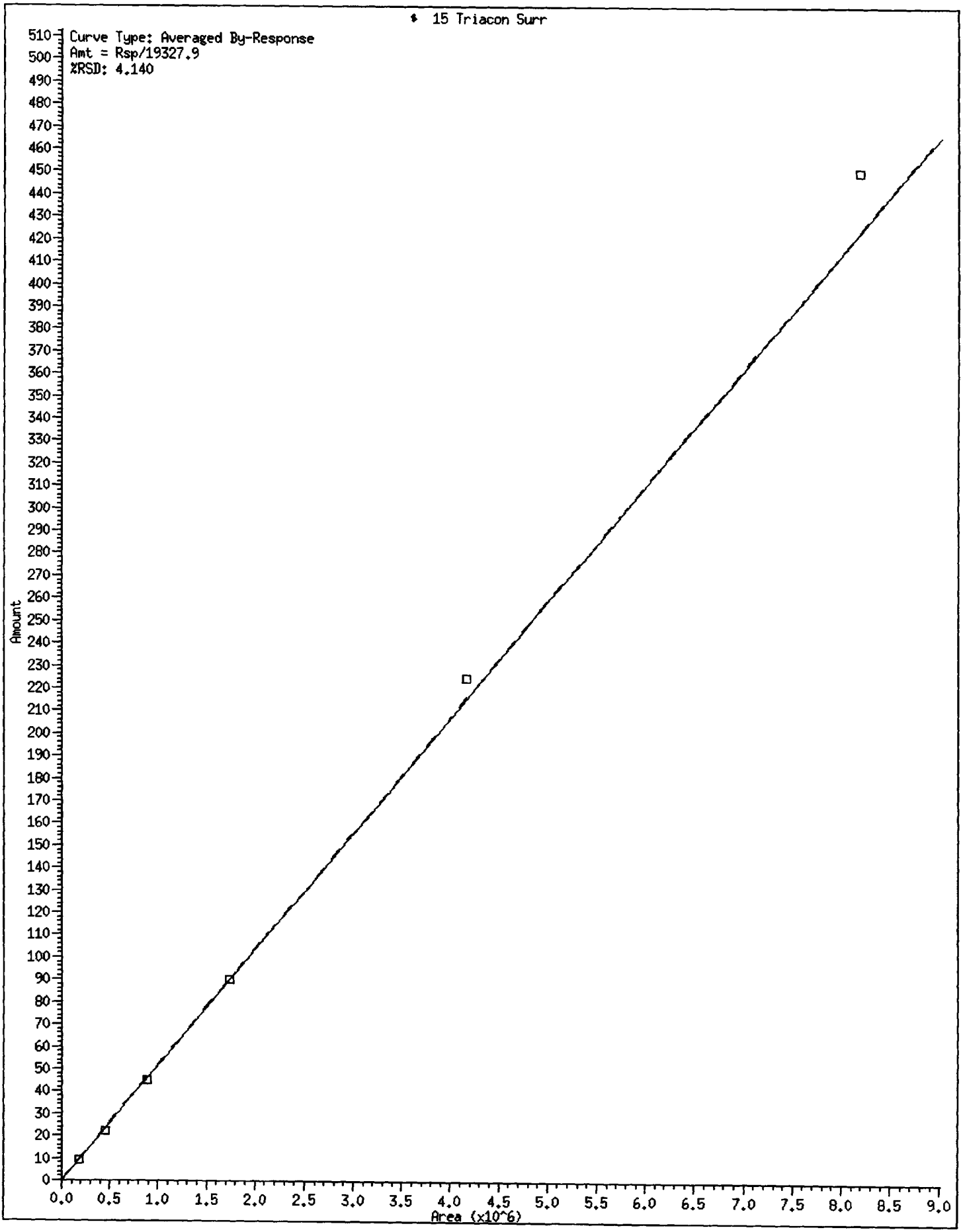

15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/19327.9
%RSD: 4.140
Amount
Area (x10^6)
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510

6a

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20130520

Instrument: FID4A.I Project:

Calibration Date: 20-MAY-2013 SDG No.: 20130520

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	14505	14238	13594	13326	11838	9930	12905	13.4
Triac Surr	19882	20137	19857	19391	18502	18199	19328	4.1

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0520a016.d	20-MAY-2013 17:53
0520a017.d	20-MAY-2013 18:13
0520a018.d	20-MAY-2013 18:34
0520a019.d	20-MAY-2013 18:55
0520a020.d	20-MAY-2013 19:15
0520a021.d	20-MAY-2013 19:36

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC Client:

SDG No.: 20130520 Project:

Instrument ID: FID4A GC Column: RTX-1

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 5.72 TRIAC: 8.54

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		MOIL 100	05/20/13	1753	5.71	8.53
02		MOIL 250	05/20/13	1813	5.71	8.54
03		MOIL 500	05/20/13	1834	5.71	8.54
04		MOIL 1000	05/20/13	1855	5.71	8.56
05		MOIL 2500	05/20/13	1915	5.71	8.58
06		MOIL 5000	05/20/13	1936	5.71	8.61*
07		MOIL ICV 500	05/20/13	1956	5.71	8.54

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a005.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: RT0520
Client ID:
Injection: 20-MAY-2013 12:23

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	0.745	0.000	458429	349936	WATPHG	(Tol-C12)	1329385	85.55
C8	0.944	0.000	250830	222442	WATPHD	(C12-C24)	2498653	172.15
C10	2.812	0.000	400263	330597	WATPHM	(C24-C38)	3674499	284.73
C12	3.787	0.000	510504	364559	AK102	(C10-C25)	3259418	189.34
C14	4.468	0.000	574937	369237	AK103	(C25-C36)	3264297	354.73
C16	5.050	0.000	511037	372681				
C18	5.585	0.000	421748	368573				
C20	6.126	0.000	446977	354696				
C22	6.660	0.000	446724	377771				
C24	7.174	0.000	445628	382138	MSPIRIT	(Tol-C12)	1329385	68.64
C25	7.421	0.000	433616	373615				
C26	7.670	0.000	1018783	1111203				
C28	8.114	0.000	425575	381899				
C32	8.912	0.000	394760	372027				
C34	9.273	0.000	423272	372307				
Filter Peak	11.428	0.000	2599	3049	CREOSOT	(C12-C22)	2051345	940.16 M
C36	9.618	0.000	333678	362304				
C38	9.955	0.000	361786	347994				
C40	10.282	0.000	290487	301460				
o-terph	5.715	0.000	931297	818561				
Triacon Surr	8.540	0.000	816029	971316				

Range Times: NW Diesel(3.787 - 7.174) AK102(2.81 - 7.42) Jet A(2.81 - 5.59)
NW M.Oil(7.17 - 9.96) AK103(7.42 - 9.62) OR Diesel(2.81 - 8.11)

Surrogate	Area	Amount	%Rec
o-Terphenyl	818561	42.4	94.3
Triacontane	971316	50.3	111.7

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

JC 5/23/13

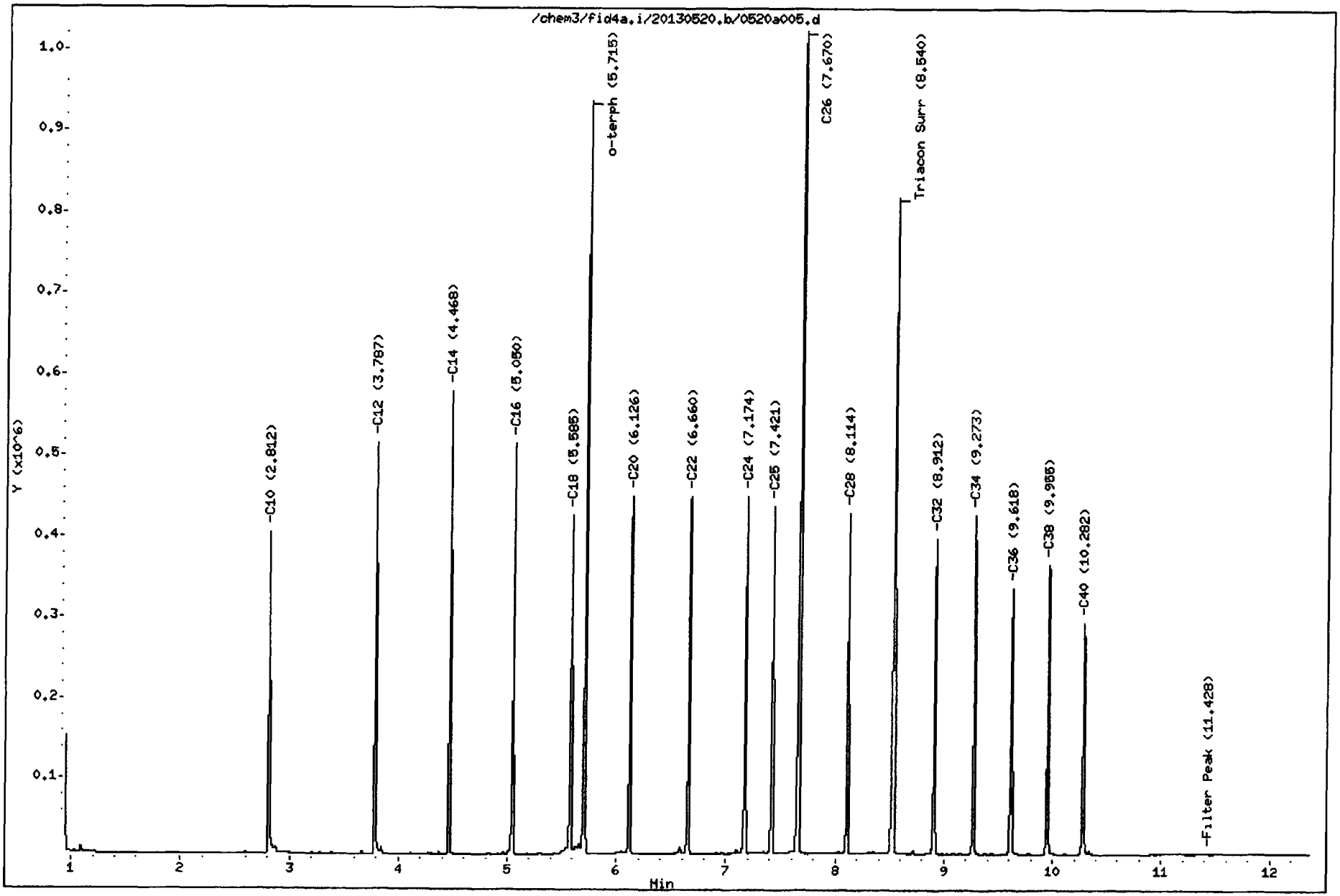
RT04-0464

Data File: /chem3/fid4a.i/20130520.b/0520a005.d
Date : 20-MAY-2013 12:23
Client ID:
Sample Info: RT0520

Column phase: RTX-1

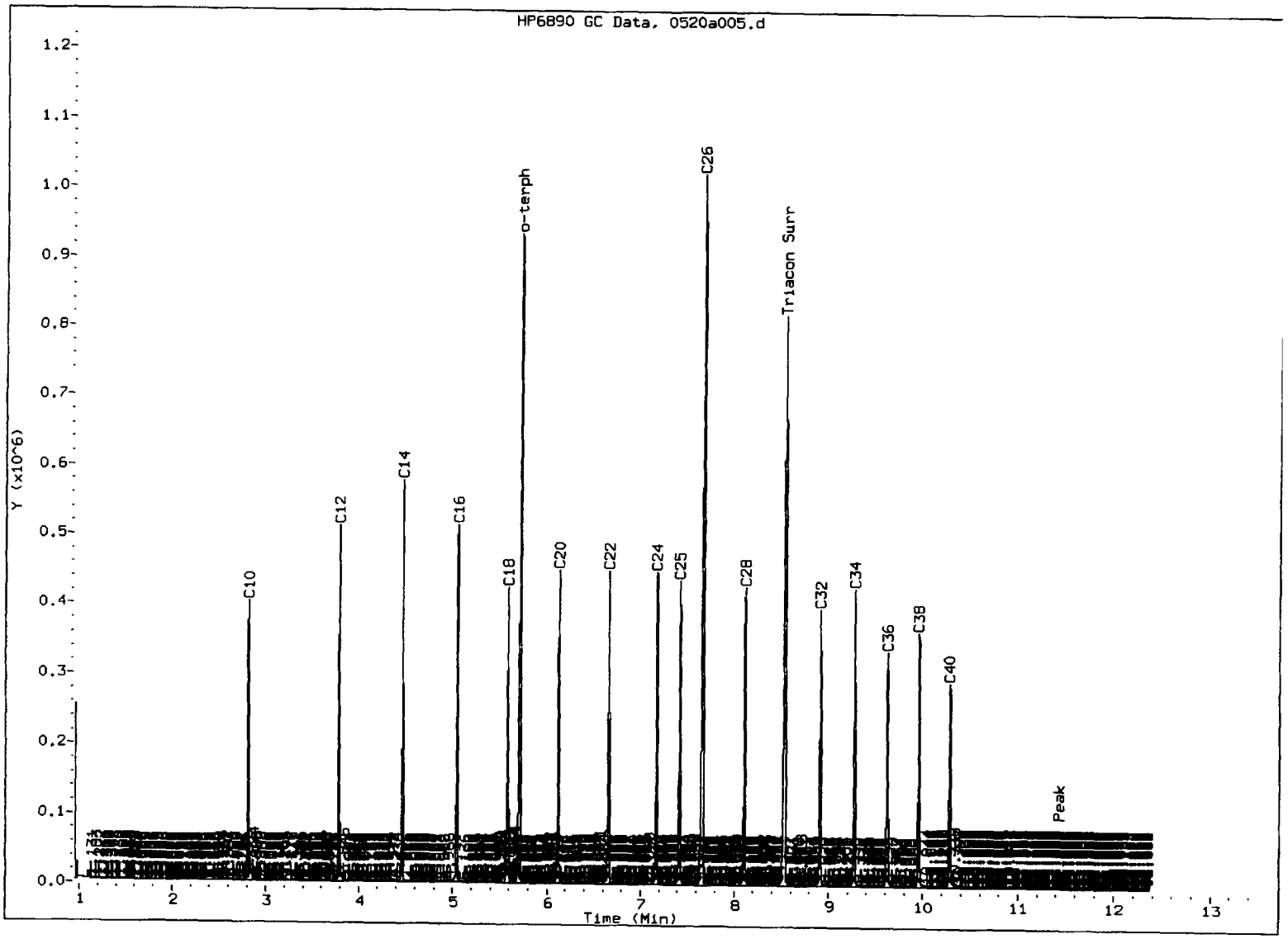
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 RT0520

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 5/23/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a006.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: IB0520
Client ID:
Injection: 20-MAY-2013 12:44

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	19455	1.25
C8	----				WATPHD	(C12-C24)	62411	4.30
C10	2.808	-0.004	644	685	WATPHM	(C24-C38)	111363	8.63
C12	3.784	-0.003	856	924	AK102	(C10-C25)	74545	4.33
C14	4.465	-0.003	1058	915	AK103	(C25-C36)	91693	9.96
C16	5.046	-0.004	1093	1041				
C18	5.579	-0.006	1118	1209				
C20	6.119	-0.007	1147	1356				
C22	6.653	-0.007	1104	1411				
C24	7.168	-0.006	1108	1417	MSPIRIT	(Tol-C12)	19455	1.00
C25	7.412	-0.009	1103	2120				
C26	7.652	-0.018	2660	3149				
C28	8.109	-0.005	1699	2863				
C32	8.909	-0.003	10617	11568				
C34	9.275	0.002	1445	2670				
Filter Peak	11.428	0.000	2375	3260	CREOSOT	(C12-C22)	52395	24.01 M
C36	9.628	0.010	1784	4636				
C38	9.946	-0.009	926	440				
C40	10.263	-0.019	1175	746				
o-terph	5.714	-0.001	971656	886821				
Triacon Surr	8.538	-0.002	788091	788120				

Range Times: NW Diesel(3.787 - 7.174) AK102(2.81 - 7.42) Jet A(2.81 - 5.59)
NW M.Oil(7.17 - 9.96) AK103(7.42 - 9.62) OR Diesel(2.81 - 8.11)

Surrogate	Area	Amount	%Rec
o-Terphenyl	886821	46.0	102.2
Triacontane	788120	40.8	90.6

M Indicates the peak was manually integrated

JW 5/23/13

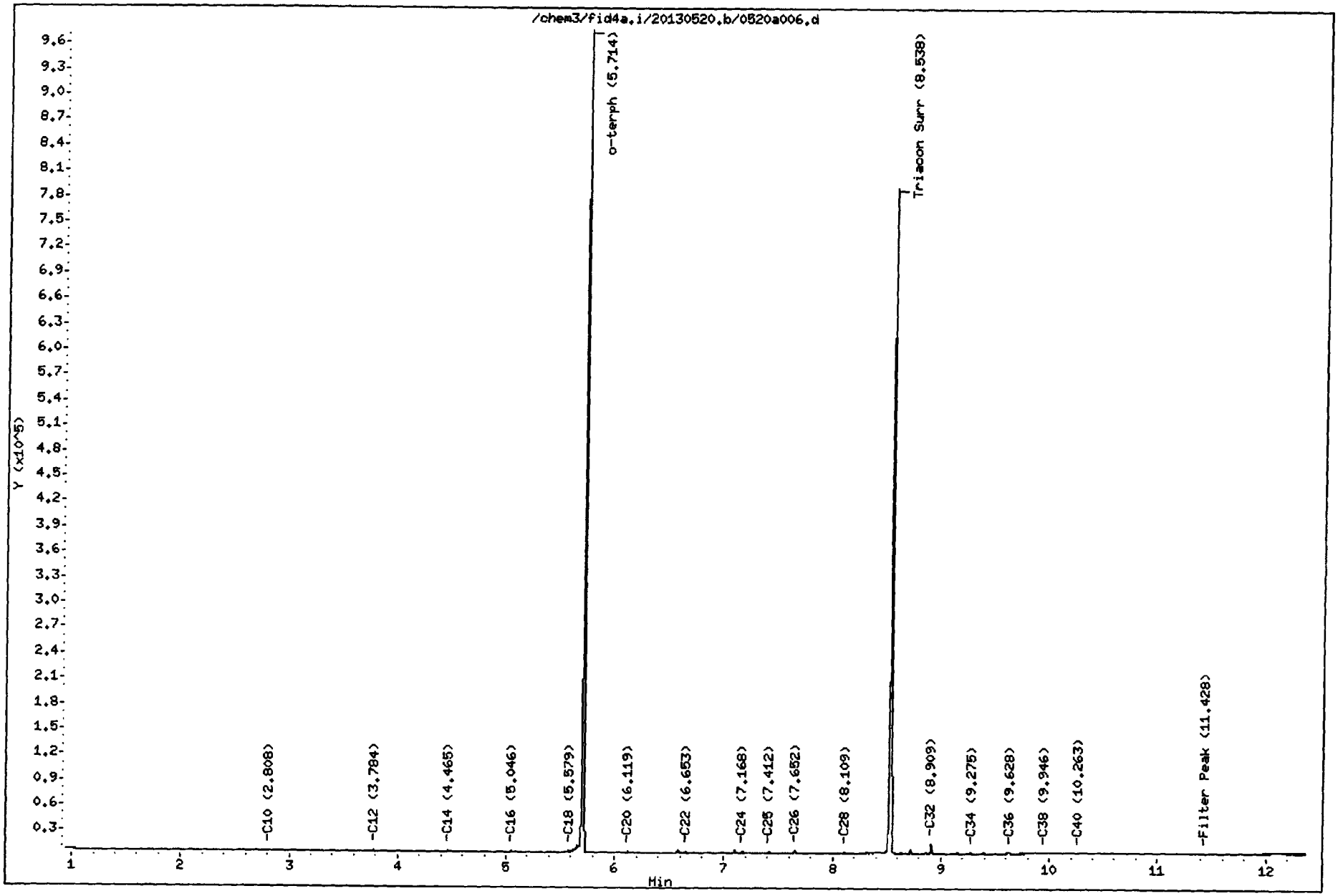
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130520.b/0520a006.d
Date : 20-MAY-2013 12:44
Client ID:
Sample Info: IB0520

Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a016.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 100
Client ID:
Injection: 20-MAY-2013 17:53

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	24175	1.56
C8	----				WATPHD	(C12-C24)	154034	10.61
C10	2.810	0.003	839	810	WATPHM	(C24-C38)	1450456	112.39
C12	3.785	0.001	280	287	AK102	(C10-C25)	205374	11.93
C14	4.470	0.003	106	119	AK103	(C25-C36)	1225986	133.23
C16	5.042	-0.006	98	112				
C18	5.586	0.004	173	270				
C20	6.137	0.015	374	145				
C22	6.658	0.000	1324	1202				
C24	7.173	-0.009	4926	6400	MSPIRIT	(Tol-C12)	24175	1.25
C25	7.429	0.010	57591	54800				
C26	7.671	-0.005	7704	5552				
C28	8.109	-0.008	8377	3449				
C32	8.903	-0.011	12259	13445				
C34	9.266	-0.012	10827	10349				
Filter Peak	11.425	0.001	1630	2427	CREOSOT	(C12-C22)	45869	21.02 M
C36	9.624	0.024	10200	15651				
C38	9.959	0.003	8744	11586				
C40	10.287	0.005	6623	3488				
o-terph	5.707	0.001	3717	2762				
Triacon Surr	8.527	-0.080	224693	178935				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2762	0.1	0.3
Triacontane	178935	9.3	20.6 M

5/23/13

M Indicates the peak was manually integrated

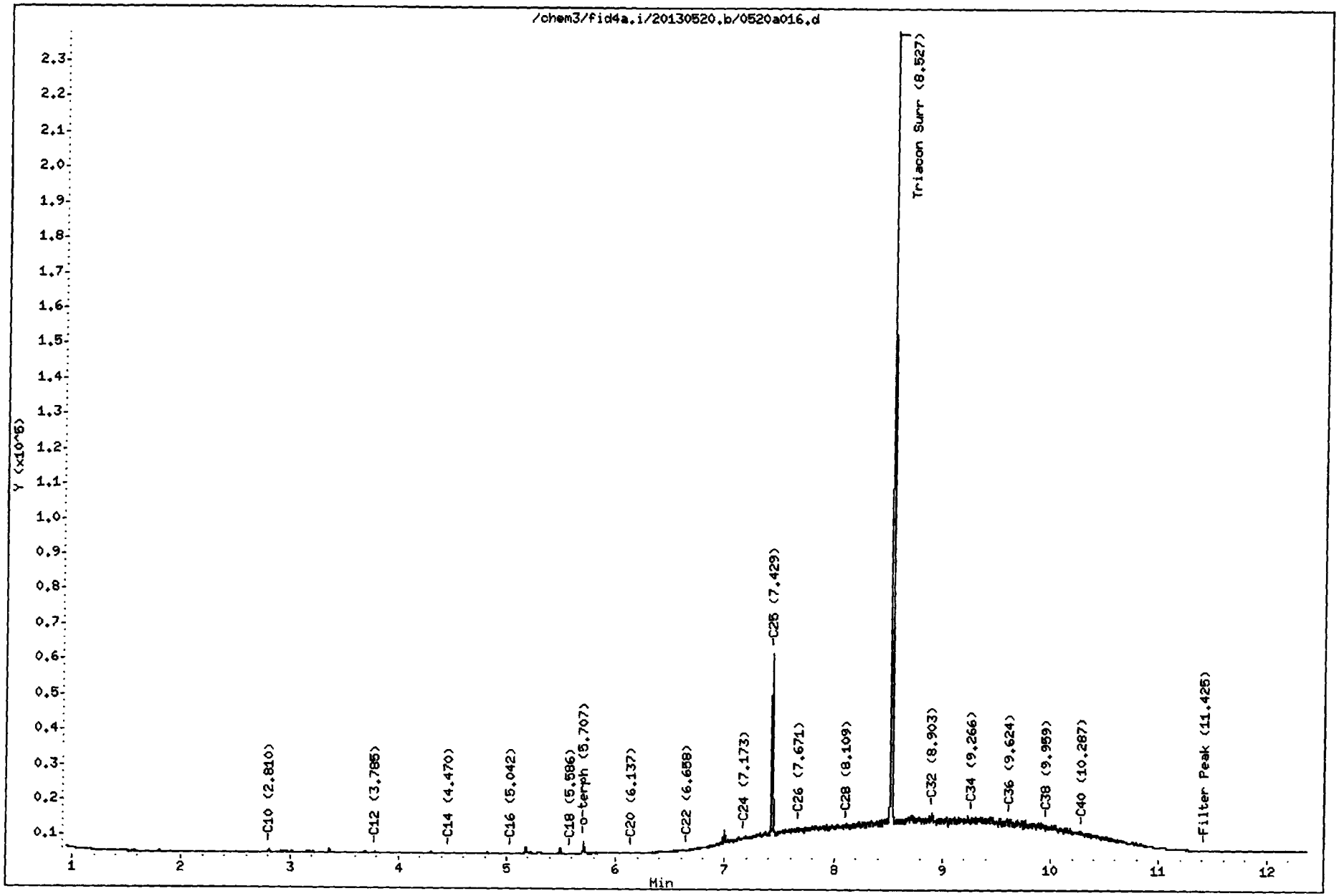
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130520.b/0520a016.d
Date : 20-MAY-2013 17:53
Client ID:
Sample Info: MOIL 100

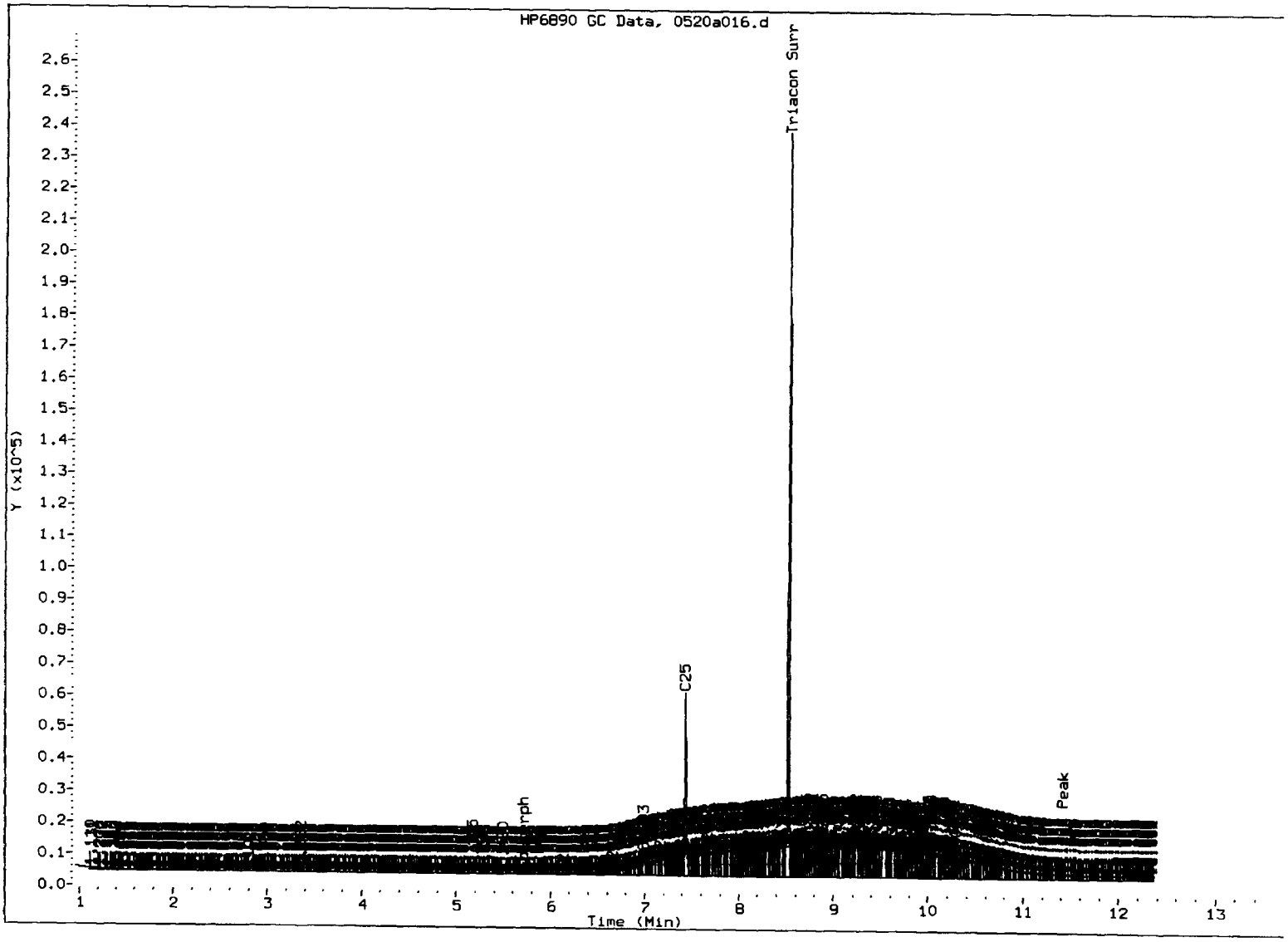
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 MOIL 100 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 5/20/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a017.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 250
Client ID:
Injection: 20-MAY-2013 18:13

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	15929	1.03
C8	----				WATPHD	(C12-C24)	355546	24.50
C10	2.809	0.001	248	299	WATPHM	(C24-C38)	3559558	275.83
C12	3.785	0.000	144	202	AK102	(C10-C25)	466103	27.08
C14	4.467	0.001	123	173	AK103	(C25-C36)	3038440	330.19
C16	5.046	-0.001	150	206				
C18	5.581	-0.001	313	424				
C20	6.124	0.002	851	976				
C22	6.654	-0.004	3205	2443				
C24	7.171	-0.011	11736	7509	MSPIRIT	(Tol-C12)	15929	0.82
C25	7.431	0.012	48032	71633				
C26	7.673	-0.003	18408	11317				
C28	8.113	-0.005	21350	11785				
C32	8.909	-0.005	33359	52688				
C34	9.264	-0.014	27373	35026				
Filter Peak	11.424	-0.001	1989	4930	CREOSOT	(C12-C22)	92145	42.23 M
C36	9.610	0.010	24082	31276				
C38	9.953	-0.004	20049	7424				
C40	10.288	0.005	16492	11133				
o-terph	5.708	0.002	1347	2100				
Triacon Surr	8.535	-0.072	490945	453086				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2100	0.1	0.2
Triacontane	453086	23.4	52.1 M

JC 5/23/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130520.b/0520a017.d

Date : 20-MAY-2013 18:13

Client ID:

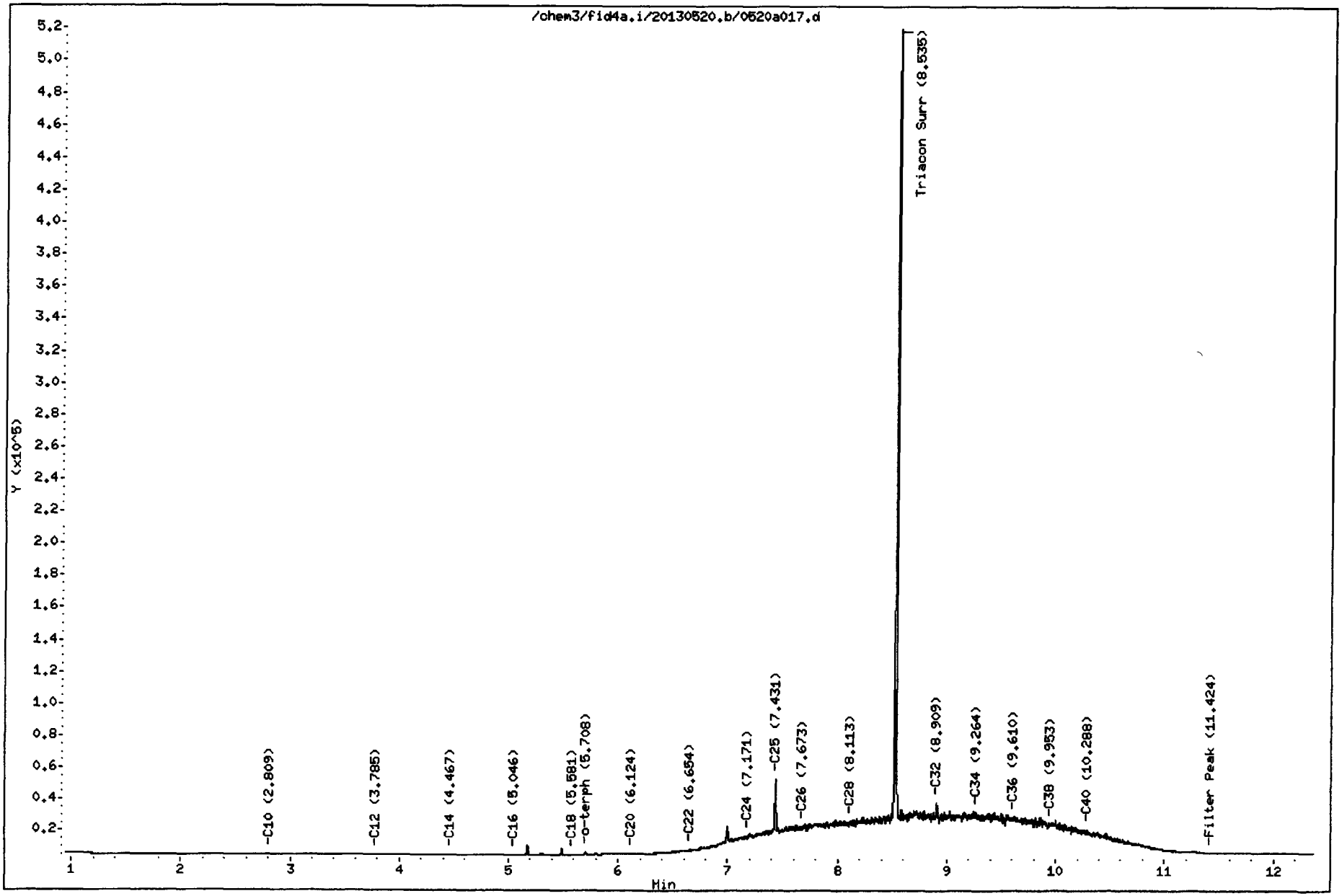
Sample Info: MOIL 250

Column phase: RTX-1

Instrument: fid4a.i

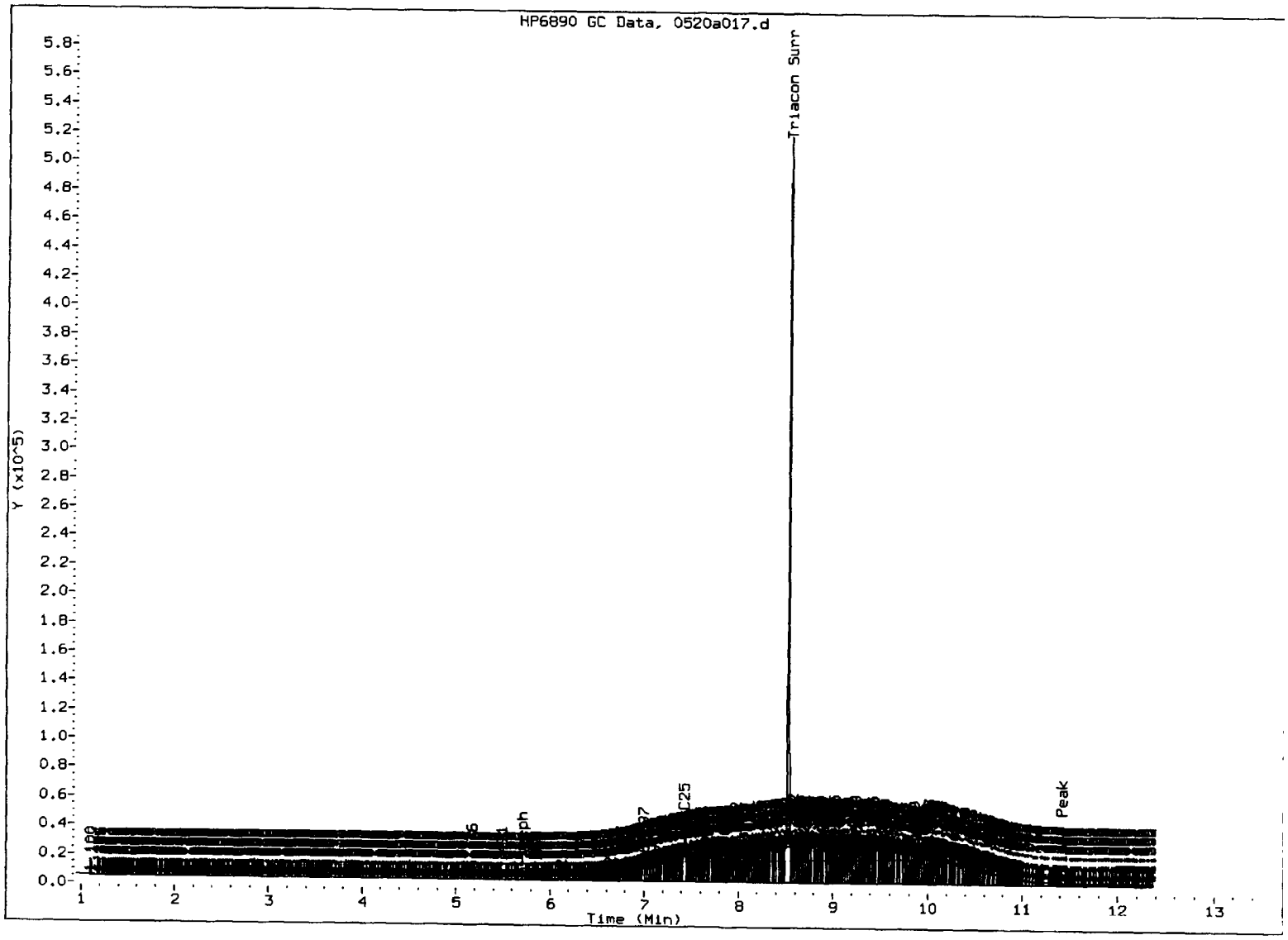
Operator: JR/VTS/JW

Column diameter: 0.25



FID:4A-2C/RTX-1 MOIL 250

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JD Date: 5/23/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a018.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 500
Client ID:
Injection: 20-MAY-2013 18:34

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	15567	1.00
C8	----				WATPHD	(C12-C24)	659844	45.46
C10	2.808	0.001	213	325	WATPHM	(C24-C38)	6797046	526.69
C12	3.783	-0.001	159	221	AK102	(C10-C25)	879485	51.09
C14	4.467	0.001	146	157	AK103	(C25-C36)	5767745	626.79
C16	5.048	0.001	219	247				
C18	5.582	0.000	589	874				
C20	6.124	0.002	1619	3260				
C22	6.660	0.003	6277	5710				
C24	7.171	-0.011	21659	12421	MSPIRIT	(Tol-C12)	15567	0.80
C25	7.433	0.014	97462	128308				
C26	7.671	-0.005	36765	19602				
C28	8.110	-0.007	42734	29194				
C32	8.907	-0.006	65803	143228				
C34	9.264	-0.014	58749	78583				
Filter Peak	11.423	-0.001	1976	2833	CREOSOT	(C12-C22)	180967	82.94 M
C36	9.627	0.027	43817	17074				
C38	9.958	0.002	40488	64989				
C40	10.286	0.004	25874	17280				
o-terph	5.706	0.000	1267	2262				
Triacon Surr	8.542	-0.065	803149	893545				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2262	0.1	0.3
Triacontane	893545	46.2	102.7 M

JW 5/23/13

M Indicates the peak was manually integrated

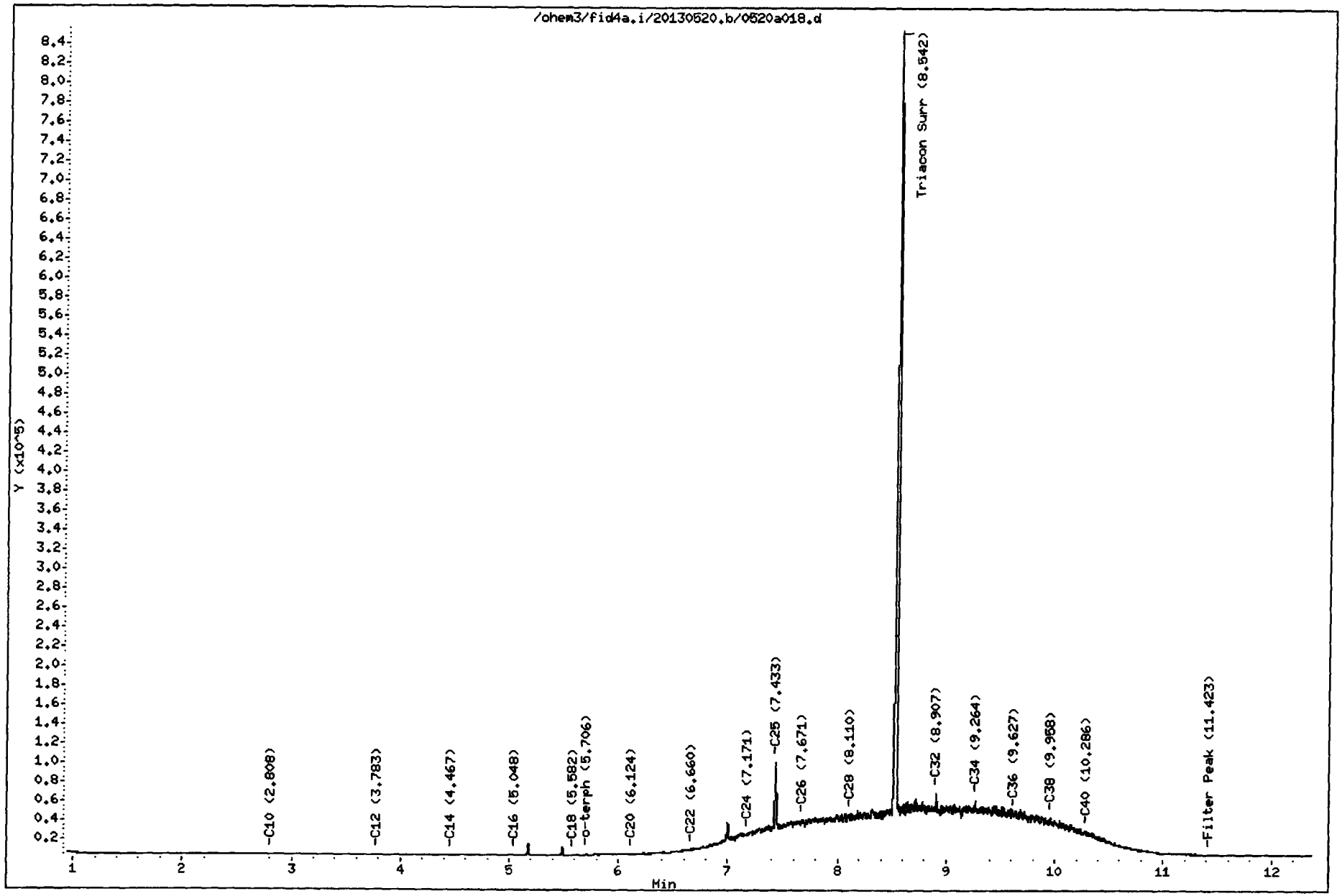
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130520.b/0520a018.d
Date : 20-MAY-2013 18:34
Client ID:
Sample Info: MOIL 500

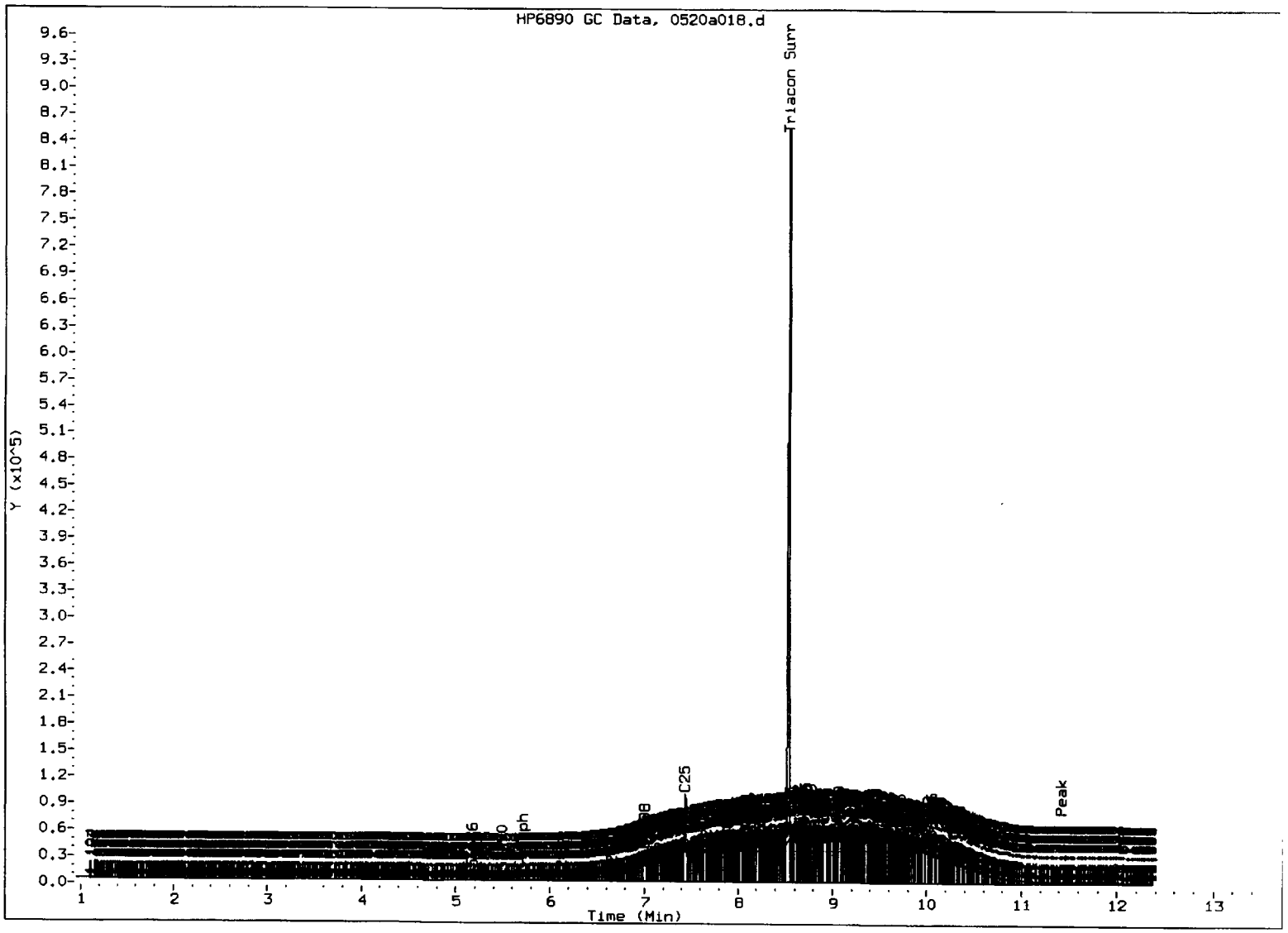
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 MOIL 500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5) Skimmed surrogate

Analyst: JW Date: 5/23/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a019.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 1000
Client ID:
Injection: 20-MAY-2013 18:55

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	17350	1.12
C8	----				WATPHD	(C12-C24)	1319892	90.94
C10	2.809	0.002	352	424	WATPHM	(C24-C38)	13325548	1032.58
C12	3.784	0.000	230	282	AK102	(C10-C25)	1790438	104.01
C14	4.465	-0.001	221	280	AK103	(C25-C36)	11532902	1253.29
C16	5.047	0.000	387	463				
C18	5.580	-0.002	989	1282				
C20	6.122	0.000	3397	7259				
C22	6.661	0.004	12270	7034				
C24	7.163	-0.019	46208	71041	MSPIRIT	(Tol-C12)	17350	0.90
C25	7.434	0.015	171873	249495				
C26	7.671	-0.005	67256	26289				
C28	8.112	-0.005	80777	37301				
C32	8.910	-0.003	124446	153622				
C34	9.270	-0.008	103096	131348				
Filter Peak	11.412	-0.012	2616	4789	CREOSOT	(C12-C22)	352836	161.71 M
C36	9.618	0.019	84748	39229				
C38	9.960	0.004	57815	59677				
C40	10.282	0.000	19968	29452				
o-terph	5.705	0.000	2163	3566				
Triacon Surr	8.555	-0.052	1341772	1745193				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	3566	0.2	0.4
Triacontane	1745193	90.3	200.7 M

JL 5/23/13

M Indicates the peak was manually integrated

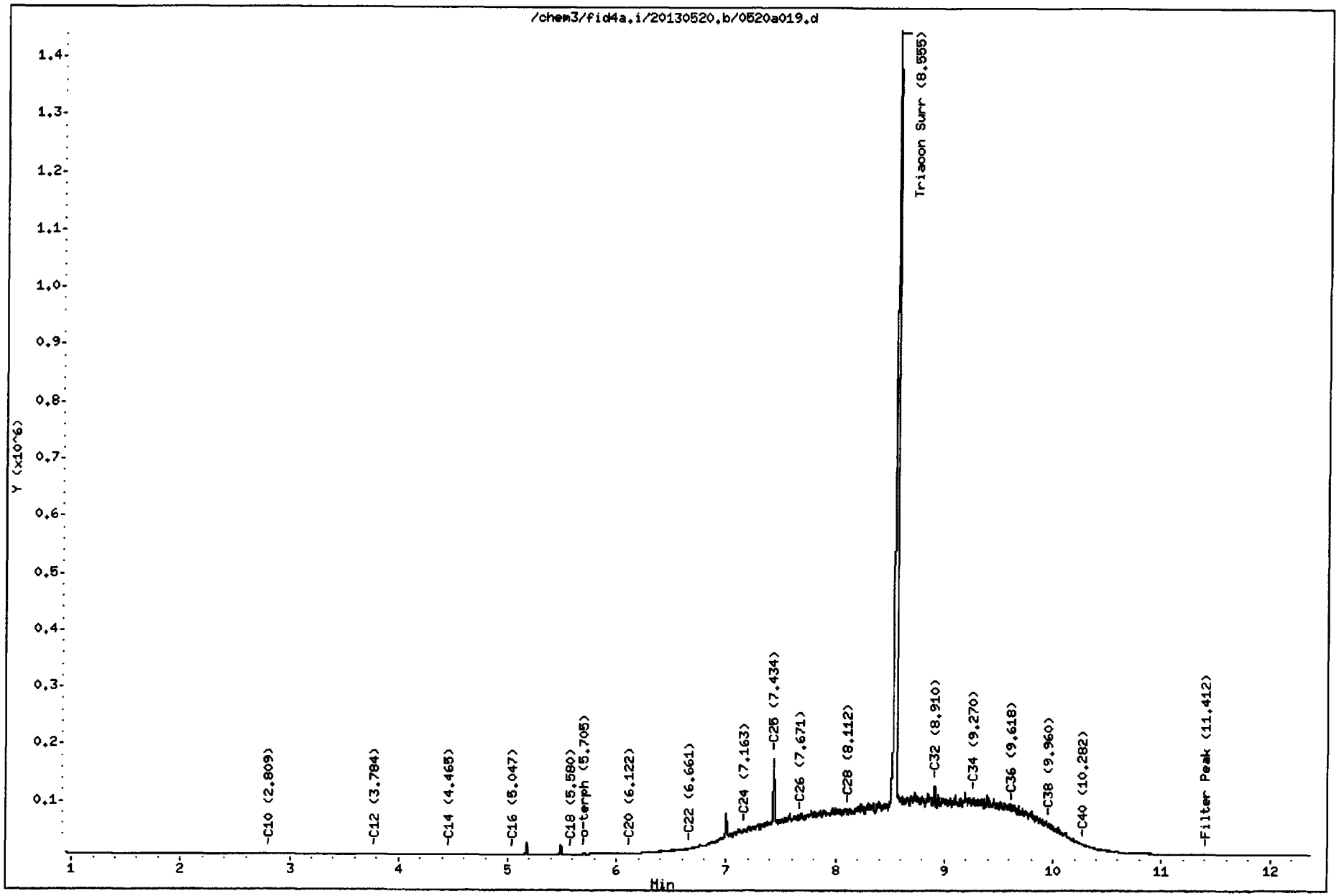
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130520.b/0520a019.d
Date : 20-MAY-2013 18:55
Client ID:
Sample Info: MOIL 1000

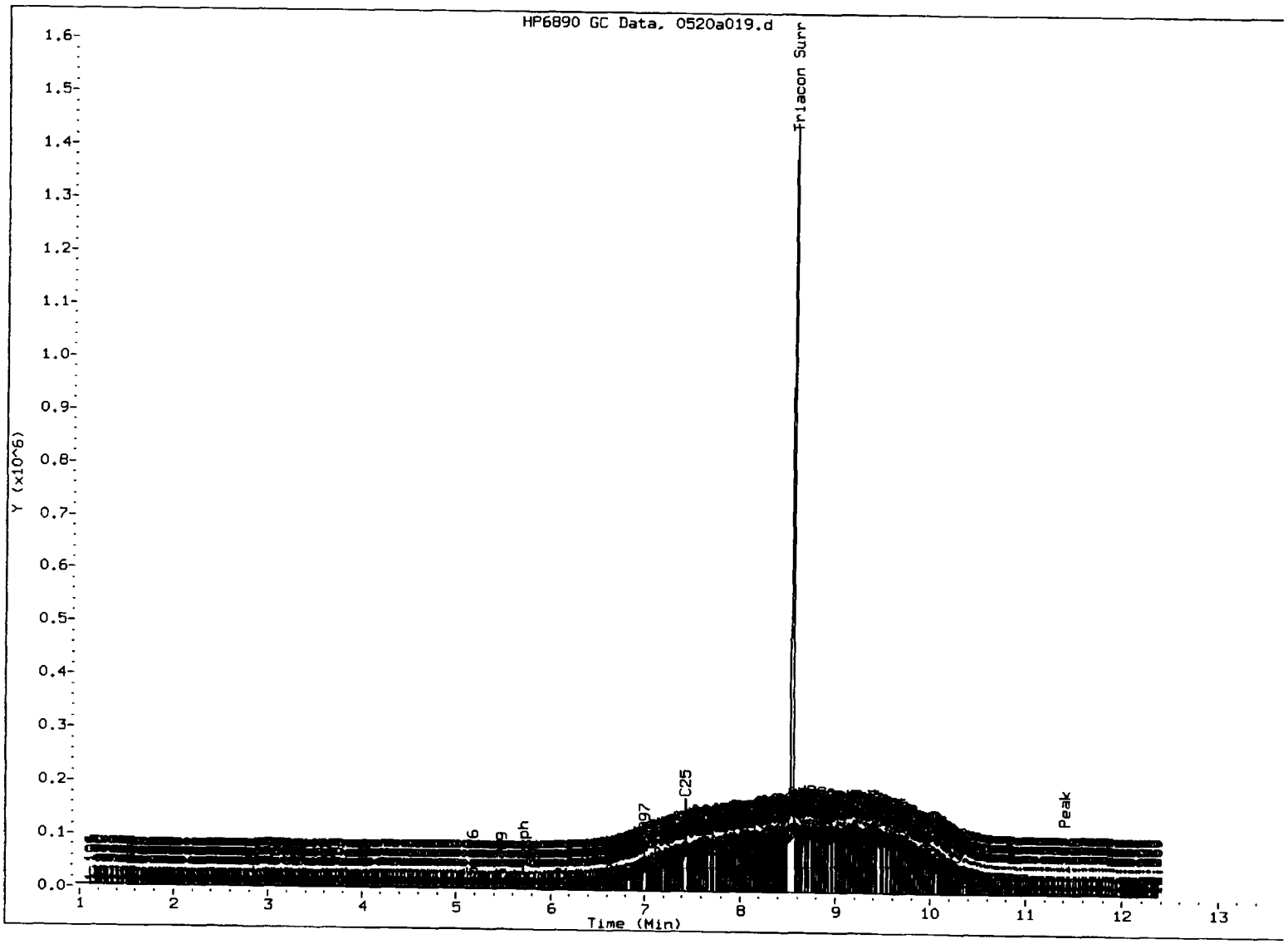
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 MOIL 1000 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: _____ Date: 5/23/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a020.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 2500
Client ID:
Injection: 20-MAY-2013 19:15

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	22896	1.47
C8	----				WATPHD	(C12-C24)	3182500	219.26
C10	2.808	0.001	728	889	WATPHM	(C24-C38)	29595565	2293.32
C12	3.785	0.001	215	274	AK102	(C10-C25)	4325726	251.28
C14	4.466	0.000	391	603	AK103	(C25-C36)	27414450	2979.16
C16	5.048	0.001	740	817				
C18	5.581	-0.001	2484	3604				
C20	6.121	-0.001	7642	9147				
C22	6.662	0.005	30689	31483				
C24	7.166	-0.016	111904	258300	MSPIRIT	(Tol-C12)	22896	1.18
C25	7.422	0.003	147494	83678				
C26	7.666	-0.010	173085	95317				
C28	8.101	-0.016	211796	369604				
C32	8.921	0.008	300754	572969				
C34	9.259	-0.019	234207	255186				
Filter Peak	11.420	-0.004	4557	9083	CREOSOT	(C12-C22)	828825	379.86 M
C36	9.619	0.020	127280	203181				
C38	9.966	0.010	29143	46278				
C40	10.292	0.010	11624	9653				
o-terph	5.706	0.001	4905	9021				
Triacon Surr	8.581	-0.026	2329349	4162846				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	9021	0.5	1.0
Triacontane	4162846	215.4	478.6 M

JW 5/21/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

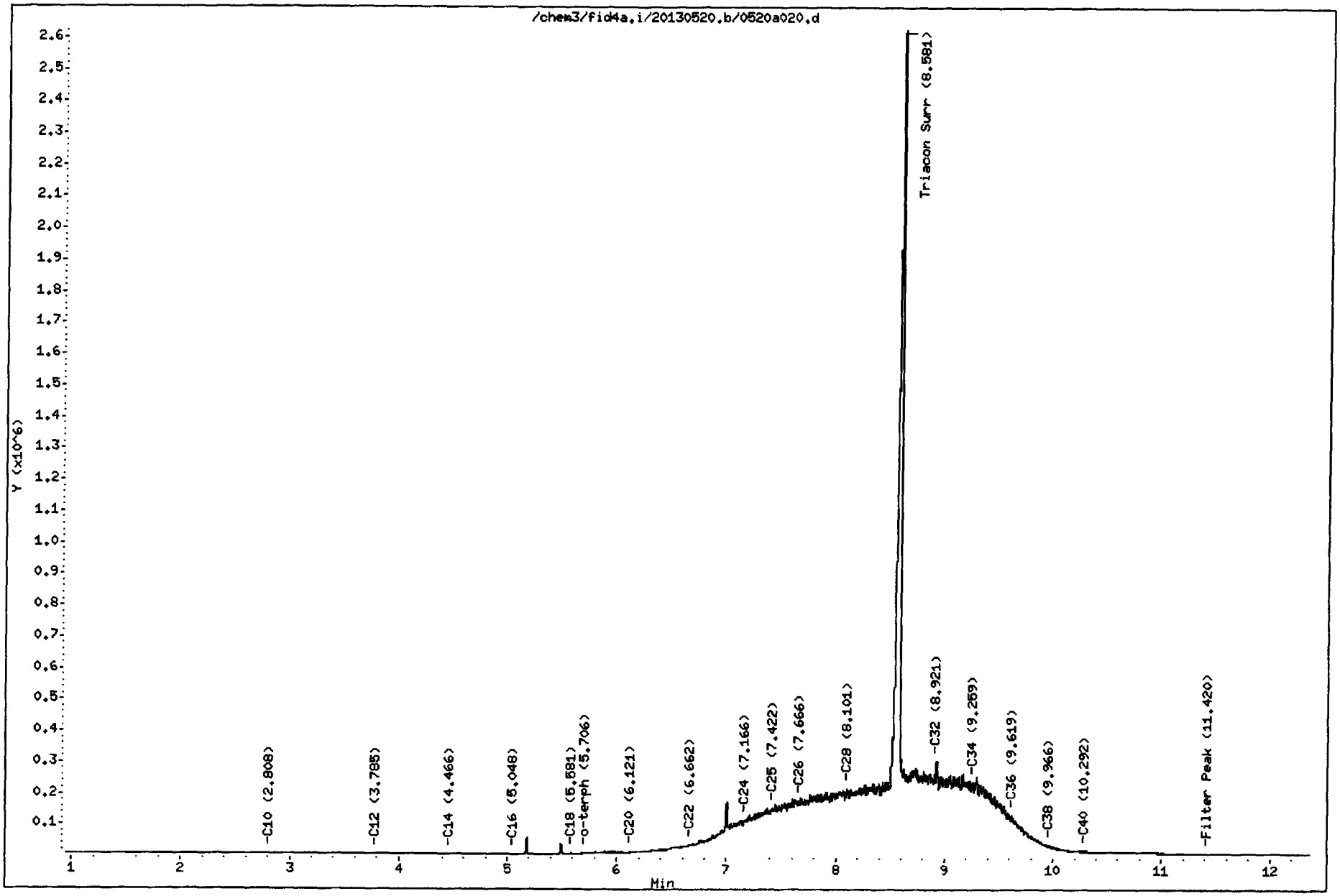
Data File: /chem3/fid4a.i/20130520.b/0520a020.d
Date : 20-MAY-2013 19:15
Client ID:
Sample Info: MOIL 2500

Column phase: RTX-1

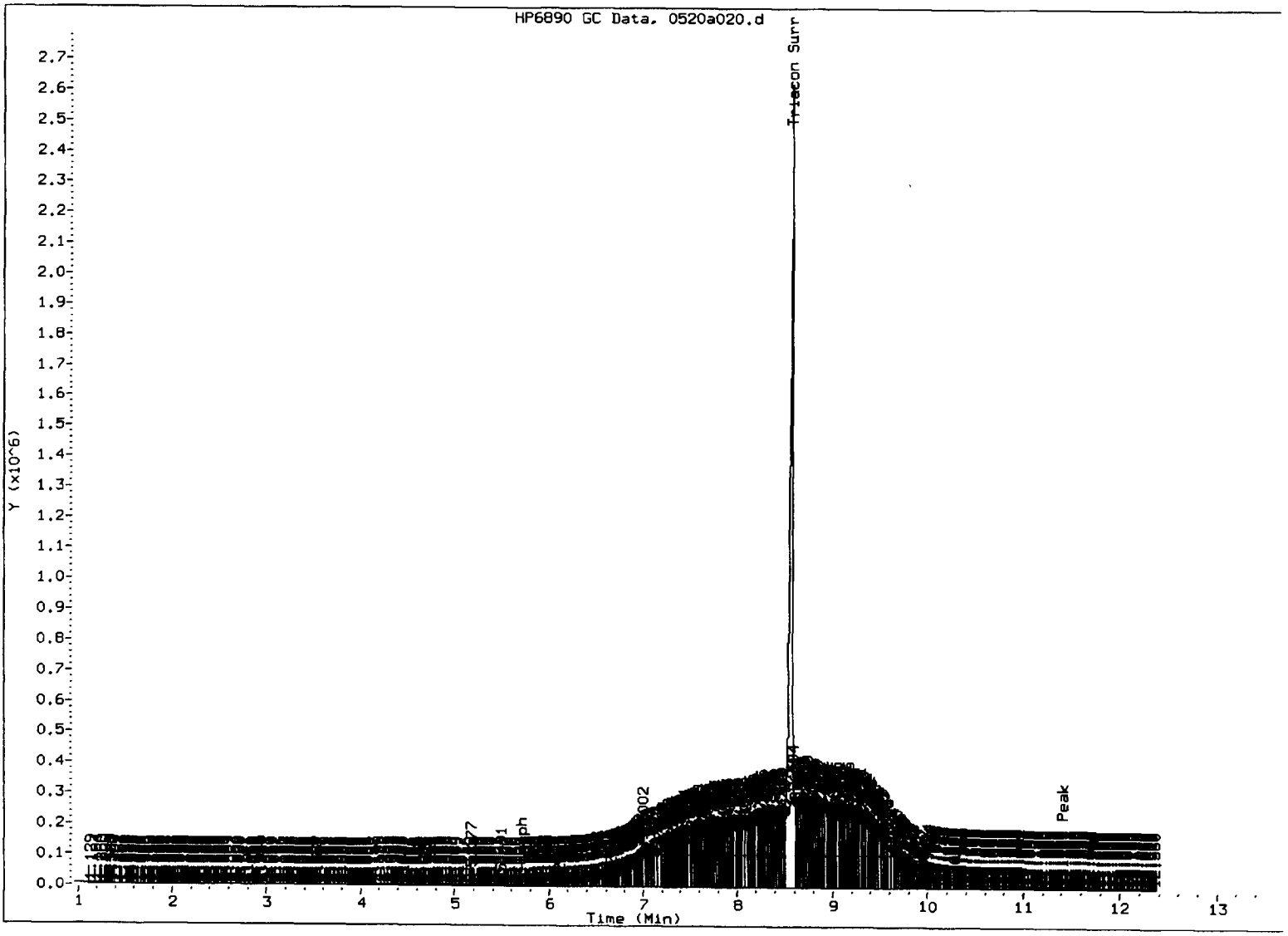
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

TC 5/23/13



FID:4A-2C/RTX-1 MOIL 2500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 5/23/0

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a021.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL 5000
Client ID:
Injection: 20-MAY-2013 19:36

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	36257	2.33
C8	----				WATPHD	(C12-C24)	6411801	441.75
C10	2.807	0.000	1267	1387	WATPHM	(C24-C38)	49649760	3847.30
C12	3.784	0.000	346	662	AK102	(C10-C25)	8386271	487.16
C14	4.466	0.000	721	1093	AK103	(C25-C36)	47071074	5115.27
C16	5.047	0.000	1442	1871				
C18	5.582	0.000	4780	4551				
C20	6.122	0.000	15200	15315				
C22	6.657	0.000	57089	32638				
C24	7.182	0.000	221919	252645	MSPIRIT	(Tol-C12)	36257	1.87
C25	7.419	0.000	298731	540419				
C26	7.676	0.000	348000	200434				
C28	8.117	0.000	402579	478996				
C32	8.913	0.000	462445	343691				
C34	9.278	0.000	233604	319943				
Filter Peak	11.424	0.000	8515	4748	CREOSOT	(C12-C22)	1658361	760.05 M
C36	9.599	0.000	58832	93060				
C38	9.956	0.000	23917	8060				
C40	10.282	0.000	18735	19357				
o-terph	5.705	0.000	9307	22785				
Triacon Surr	8.607	0.000	3266655	8189752				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	22785	1.2	2.6
Triacontane	8189752	423.7	941.6 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

JW 5/23/13

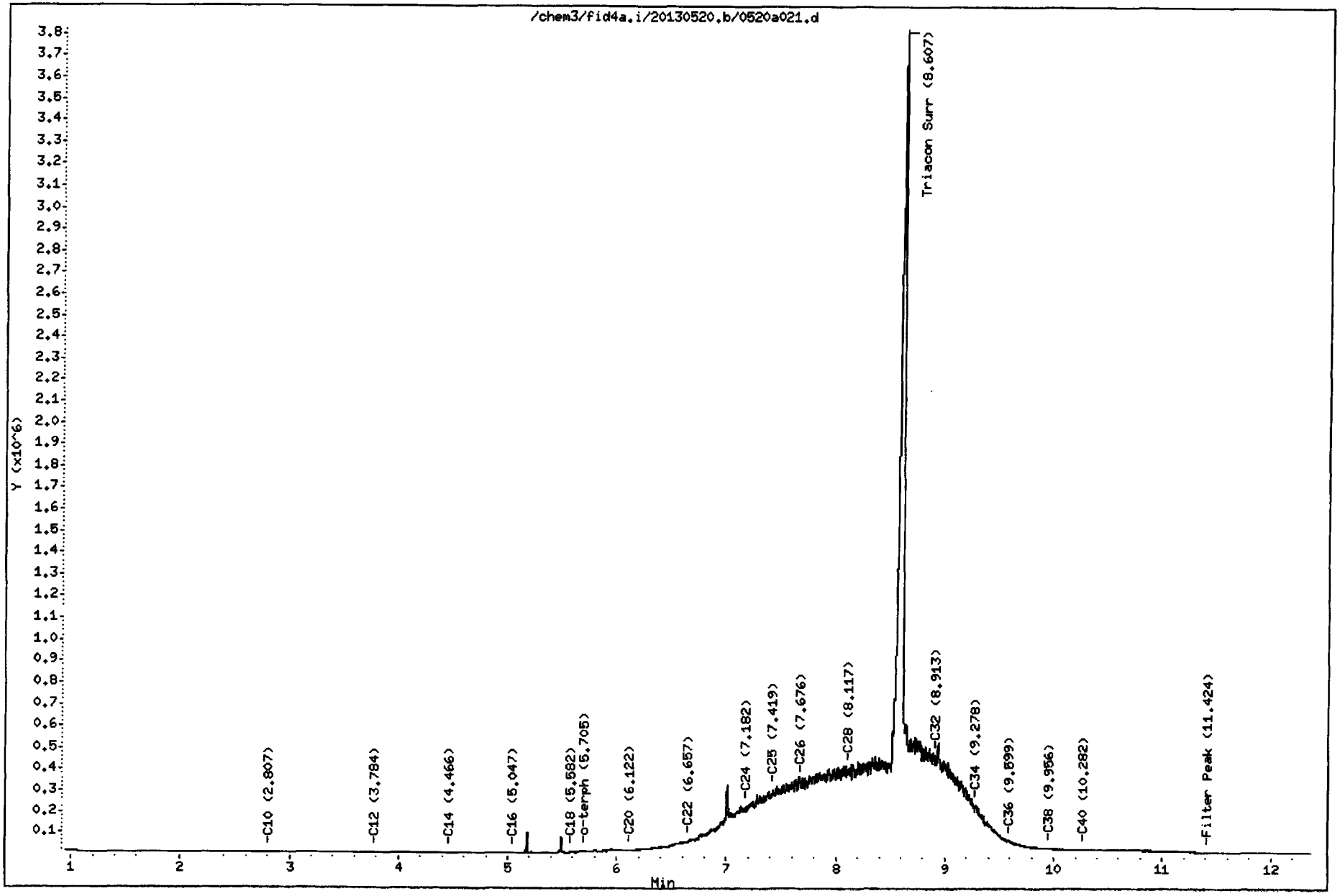
Data File: /chem3/fid4a.i/20130520.b/0520a021.d
Date : 20-MAY-2013 19:36
Client ID:
Sample Info: MOIL 5000

Column phase: RTX-1

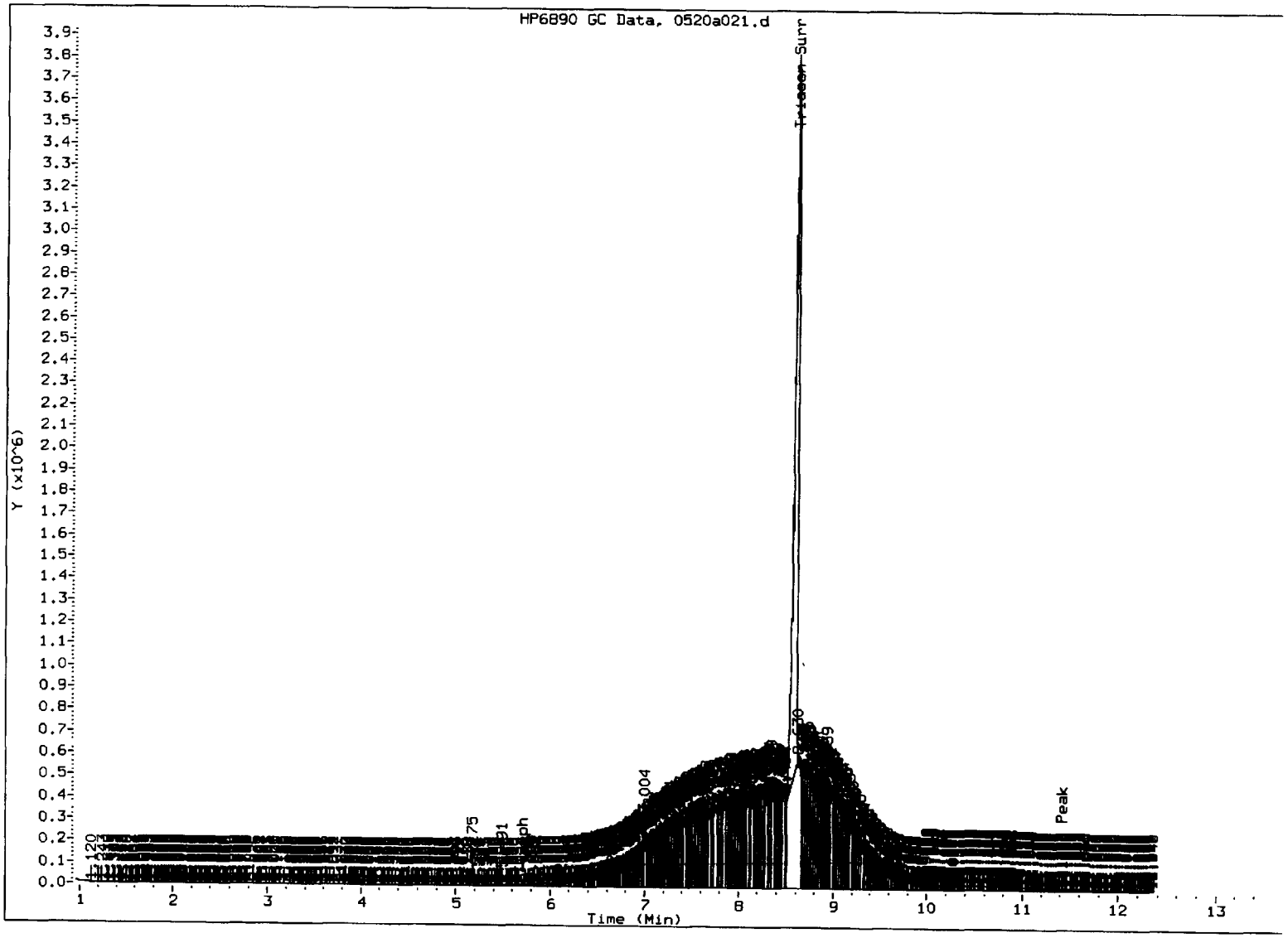
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

JW 5/22/13



FID:4A-2C/RTX-1 MOIL 5000 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: _____ Date: 5/23/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130520.b/0520a022.d
Method: /chem3/fid4a.i/20130520.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 05/21/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL ICV 500
Client ID:
Injection: 20-MAY-2013 19:56

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	----				WATPHG	(Tol-C12)	15771	1.01
C8	----				WATPHD	(C12-C24)	829880	57.18
C10	2.808	0.001	189	281	WATPHM	(C24-C38)	6674027	517.16
C12	3.784	-0.001	161	290	AK102	(C10-C25)	1068263	62.06
C14	4.465	-0.001	162	205	AK103	(C25-C36)	5572936	605.62
C16	5.046	-0.002	377	503				
C18	5.580	-0.002	835	1055				
C20	6.119	-0.003	1833	1822				
C22	6.651	-0.006	8261	5977				
C24	7.195	0.013	27115	53273	MSPIRIT	(Tol-C12)	15771	0.81
C25	7.413	-0.006	30803	22615				
C26	7.675	-0.002	34939	22778				
C28	8.113	-0.004	39970	57399				
C32	8.906	-0.008	57932	87155				
C34	9.282	0.003	48734	36271				
Filter Peak	11.414	-0.010	2959	5095	CREOSOT	(C12-C22)	248124	113.72 M
C36	9.597	-0.003	48854	35842				
C38	9.951	-0.005	36991	20913				
C40	10.279	-0.003	26781	24957				
o-terph	5.705	0.000	1096	1201				
Triacon Surr	8.541	-0.066	889882	879328				

Range Times: NW Diesel(3.784 - 7.182) AK102(2.81 - 7.42) Jet A(2.81 - 5.58)
NW M.Oil(7.18 - 9.96) AK103(7.42 - 9.60) OR Diesel(2.81 - 8.12)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1201	0.1	0.1
Triacontane	879328	45.5	101.1 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

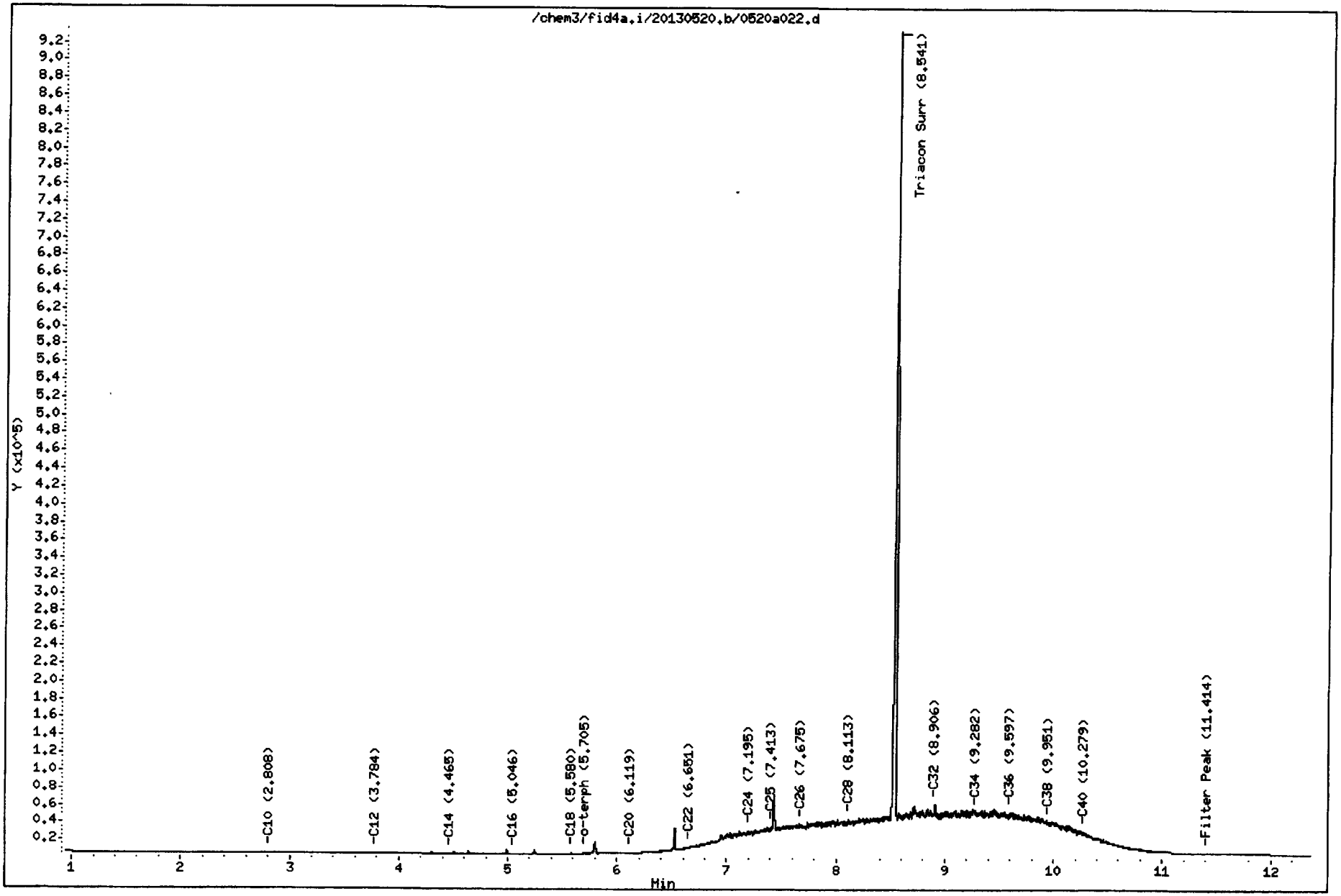
JW 5/23/13

Data File: /chem3/fid4a.i/20130520.b/0520a022.d
Date : 20-MAY-2013 19:56
Client ID:
Sample Info: MOIL ICV 500

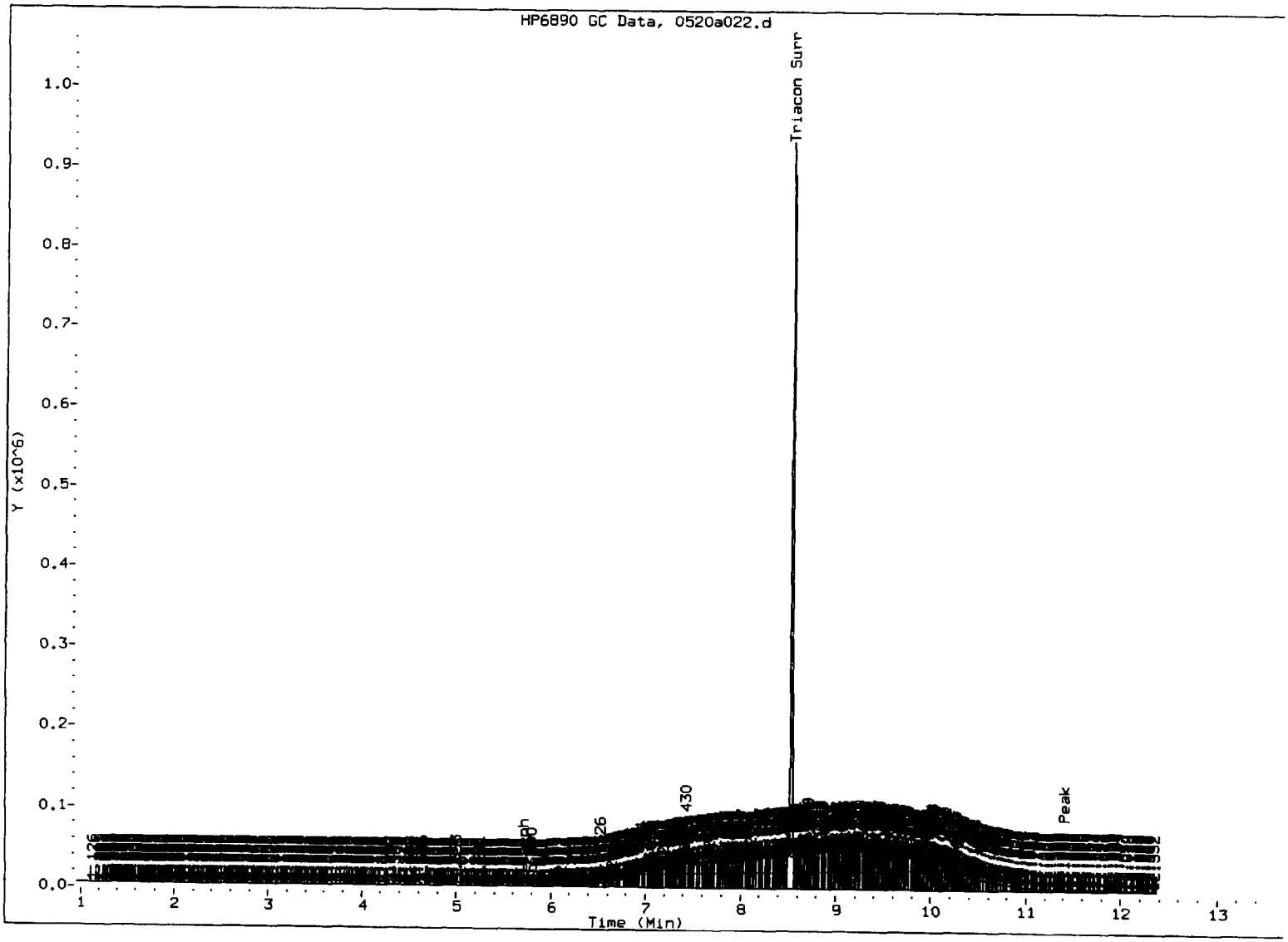
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 MOIL ICV 500 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JL Date: 5/23/10

TPHD Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and
Consultants

GC Analyst Notes / Data Review Checklist

ARI WORK Order: WT61 Client ID: SAIC

METHOD: **8082A**(PCB) **8151A**(Herb) **NW-TPH**(TPH-D) **NW-TPH**(HCID) **8041A**(PCP)
8081B(PEST) **8015B**(Dir Inj) **NW-EPH**(EPH) **8082A**(PBDE) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date: 4/13/13 & 5/20/13 Analysis Start Date: 6/18/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
Endrin/DDT B.D. ≤15%?	NA / Y / N / ✓	Method Blank in Control?	Y / N / ✓
Retention times within Windows?	Y / N / ✓	LCS / LCSD Recovery in Control?	Y / N / ✓
CCAL met %D Criteria?	Y / N / ✓	LCS / LCSD RPD ≤30%?	NA / ✓ 28%
Surrogate Recovery in Control?	Y / N / ✓	MS / MSD Recovery in Control?	Y / N / ✓
Internal STD. within 50-200%?	NA / Y / N / ✓	MS / MSD RPD ≤30%? (10X dil)	NA / 15%
Manual Integrations?	Y / N / ✓	Samples Diluted?	Y / N / ✓
Integration Summary?	Y / N / ✓	Special Analysis Request?	Y / N / ✓

Detail problems, corrective actions and/or other pertinent information below

6/18/13 - run failed due to CCAL failing low. 6/19/13 run failed high for CCAL on FID 9B. After inst. maint & diluting samples ran on 6/20/13 QC passed & all CCAL pass. Reported 6/20/13 data only.

A B & C - contain diesel and motor oil

(Review 1) Analyst: JW **Date:** 6/24/13

(Review 2) Reviewer: B **Date:** 6/24/13

WT61 : 6190.4

Analytical Resources Inc.: Organics Instrument Log
FID-4A Serial No.: US00003247

Date: 6/24/13 Analysis: TPHD Analyst: JW

Column 1 Serial No.: 1072005 Column Type: RTX-1

Column 2 Serial No.: ~~—~~ Column Type: ~~—~~

GC Method: TPH ICal Date: 4/10/13 & 5/20/13 Injection Volume: 1 uL

IS	Ical/Ccal	ICV
	2043-3,4	
	2041-2	
	2041-4	

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem3/fid4a.i/20130620.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	20-JUN-2013 08:35	0620a001.d	1	RINSE	
2	20-JUN-2013 08:55	0620a002.d	1	RT0620	
3	20-JUN-2013 09:16	0620a003.d	1	IB0620	
4	20-JUN-2013 09:36	0620a004.d	1	DIESEL#1	
5	20-JUN-2013 09:56	0620a005.d	1	MOIL#1	
6	20-JUN-2013 10:17	0620a006.d	1	WT86MBS1	WT86MBS1
7	20-JUN-2013 10:38	0620a007.d	1	WT48MBS1	WT48MBS1
8	20-JUN-2013 10:58	0620a008.d	1	WT48LCSS1	WT48LCSS1
9	20-JUN-2013 11:19	0620a009.d	1	WT48QLS	
10	20-JUN-2013 11:39	0620a010.d	10	WT48A	CS-060413<250
11	20-JUN-2013 12:00	0620a011.d	10	WT48B	HL-060413<250
12	20-JUN-2013 12:21	0620a012.d	1	DIESEL#2	
13	20-JUN-2013 12:41	0620a013.d	1	MOIL#2	
14	20-JUN-2013 13:02	0620a014.d	1	WT86MBS1	WT86MBS1
15	20-JUN-2013 13:23	0620a015.d	1	WT86LCSS1	WT86LCSS1
16	20-JUN-2013 13:43	0620a016.d	1	WT86LCSDS1	WT86LCSDS1
17	20-JUN-2013 14:04	0620a017.d	10	WT86A	CL-MH-SPS-20130605-
18	20-JUN-2013 14:24	0620a018.d	10	WT81B	AM-SF4-EFF-20130612
19	20-JUN-2013 14:45	0620a019.d	10	WT81BMS	AM-SF4-EFF-2013 MS
20	20-JUN-2013 15:05	0620a020.d	10	WT81BMSD	AM-SF4-EFF-2013 MSD
21	20-JUN-2013 15:26	0620a021.d	10	WT81C	AM-FD-01-20130612-S
22	20-JUN-2013 15:46	0620a022.d	1	DIESEL#3	
23	20-JUN-2013 16:06	0620a023.d	1	MOIL#3	

JW

JW 6/24/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/fid4a.i/20130620.b

ARI Job No.: RT06 Method: ftphfid4a.m Instrument: fid4a.i Date: 20-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0855	0620a002.d	RT0620		1	NO MANUAL INTEGRATION
0916	0620a003.d	IB0620		1	NO MANUAL INTEGRATION
1221	0620a012.d	DIESEL#2		1	o-terph,
1241	0620a013.d	MOIL#2		1	Triacon Surr,
1302	0620a014.d	WT86MBS1	WT86MBS1	1	NO MANUAL INTEGRATION
1323	0620a015.d	WT86LCSS1	WT86LCSS1	1	o-terph,
1343	0620a016.d	WT86LCSDS1	WT86LCSDS1	1	o-terph,
1424	0620a018.d	WT81B	AM-SF4-EFF	10	o-terph, Triacon Surr,
1445	0620a019.d	WT81BMS	AM-SF4-EFF	10	o-terph, Triacon Surr,
1505	0620a020.d	WT81BMSD	AM-SF4-EFF	10	o-terph, Triacon Surr,
1526	0620a021.d	WT81C	AM-FD-01-2	10	o-terph, Triacon Surr,
1546	0620a022.d	DIESEL#3		1	o-terph,
1606	0620a023.d	MOIL#3		1	Triacon Surr,

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a002.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: RT0620
Client ID:
Injection: 20-JUN-2013 08:55

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.348	0.000	336926	332245	WATPHG	(Tol-C12)	1464981	94.27
C8	1.670	0.000	218509	305666	WATPHD	(C12-C24)	2450116	168.80
C10	3.339	0.000	539946	325622	WATPHM	(C24-C38)	3697896	286.55
C12	4.240	0.000	610786	380570	AK102	(C10-C25)	3231882	187.74
C14	4.919	0.000	586178	383305	AK103	(C25-C36)	3260501	354.32
C16	5.513	0.000	558891	384808				
C18	6.095	0.000	462248	390156				
C20	6.671	0.000	465664	373511				
C22	7.230	0.000	469308	384572				
C24	7.759	0.000	484341	390499	MSPIRIT	(Tol-C12)	1464981	75.65
C25	8.010	0.000	474972	381535				
C26	8.264	0.000	1123816	1144192				
C28	8.711	0.000	489967	392432				
C32	9.554	0.000	480082	392279				
C34	9.953	0.000	453264	396689				
Filter Peak	11.555	0.000	2823	9776	CREOSOT	(C12-C22)	2034233	932.32 M
C36	10.342	0.000	435815	402109				
C38	10.723	0.000	403328	389328				
C40	11.097	0.000	381663	380548				
o-terph	6.255	0.000	944105	854822				
Triacon Surr	9.151	0.000	1017659	1024094				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	854822	44.3	98.5
Triacontane	1024094	53.0	117.7

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

JW 6/24/13

Data File: /chem3/fid4a.i/20130620.b/0620a002.d

Date : 20-JUN-2013 08:55

Client ID:

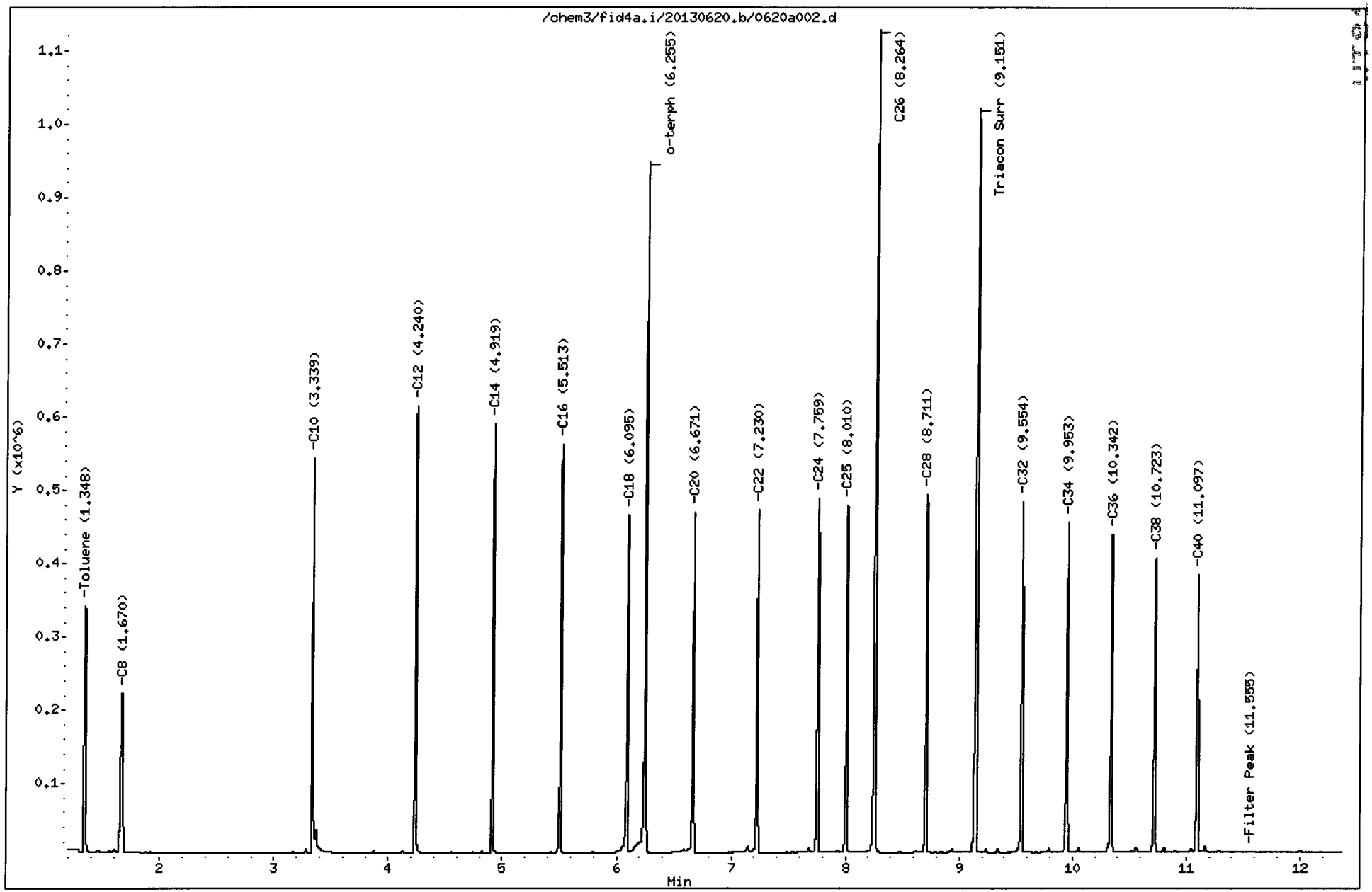
Sample Info: RT0620

Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a003.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: IB0620
Client ID:
Injection: 20-JUN-2013 09:16

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.349	0.001	1461	3028	WATPHG	(Tol-C12)	17530	1.13
C8	1.664	-0.006	206	506	WATPHD	(C12-C24)	85475	5.89
C10	3.336	-0.003	461	408	WATPHM	(C24-C38)	147038	11.39
C12	4.237	-0.003	359	346	AK102	(C10-C25)	93297	5.42
C14	4.916	-0.004	408	379	AK103	(C25-C36)	110386	12.00
C16	5.510	-0.003	395	324				
C18	6.091	-0.004	402	431				
C20	6.666	-0.005	458	465				
C22	7.224	-0.005	448	583				
C24	7.752	-0.007	481	509	MSPIRIT	(Tol-C12)	17530	0.91
C25	8.003	-0.007	452	491				
C26	8.246	-0.018	1099	1156				
C28	8.706	-0.005	1175	1383				
C32	9.556	0.002	11845	10161				
C34	9.958	0.005	1085	2381				
Filter Peak	11.558	0.003	2567	8647	CREOSOT	(C12-C22)	75489	34.60 M
C36	10.345	0.003	1490	2246				
C38	10.722	-0.001	2016	4394				
C40	11.091	-0.007	3060	7100				
o-terph	6.258	0.002	1096836	904902				
Triacon Surr	9.157	0.005	893990	845239				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	904902	46.9	104.3
Triacontane	845239	43.7	97.2

TW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a003.d

Date : 20-JUN-2013 09:16

Client ID:

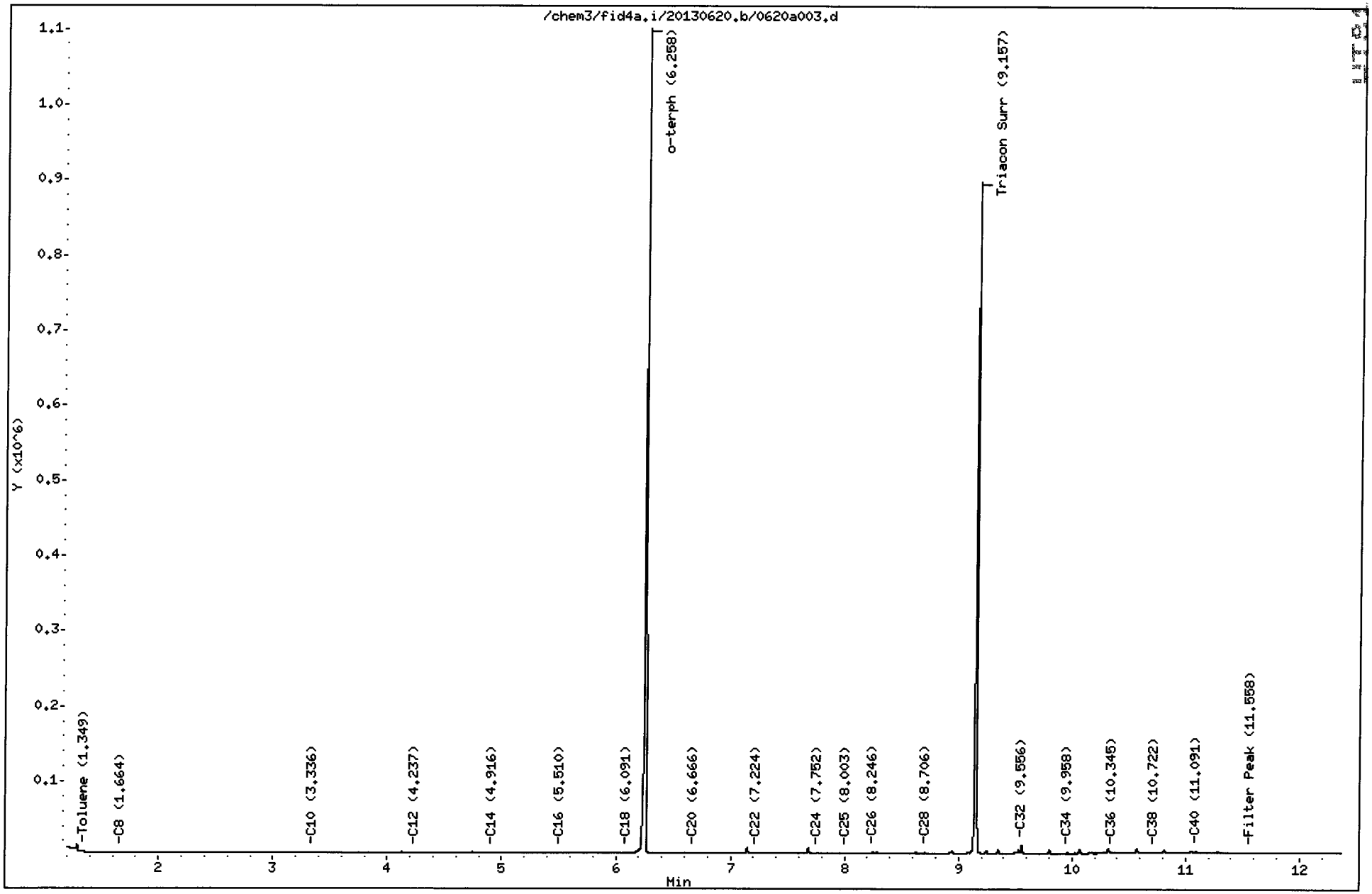
Sample Info: IB0620

Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a012.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: DIESEL#2
Client ID:
Injection: 20-JUN-2013 12:21

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.348	0.001	2343	2576	WATPHG	(Tol-C12)	918063	59.08
C8	1.664	-0.006	1929	3150	WATPHD	(C12-C24)	3701400	255.01
C10	3.337	-0.002	27077	16506	WATPHM	(C24-C38)	196373	15.22
C12	4.238	-0.002	44026	38166	AK102	(C10-C25)	4342081	252.23
C14	4.918	-0.001	78642	72804	AK103	(C25-C36)	137898	14.99
C16	5.512	-0.001	121361	88687				
C18	6.093	-0.002	94793	103776				
C20	6.668	-0.003	67445	66969				
C22	7.225	-0.005	34535	33763				
C24	7.752	-0.007	9350	8925	MSPIRIT	(Tol-C12)	918063	47.40
C25	8.003	-0.007	4124	4884				
C26	8.246	-0.018	1885	2623				
C28	8.719	0.008	546	627				
C32	9.544	-0.010	794	806				
C34	9.955	0.003	1200	1761				
Filter Peak	11.567	0.012	2318	878	CREOSOT	(C12-C22)	3569941	1636.16 M
C36	10.344	0.002	1473	1453				
C38	10.712	-0.010	3449	7026				
C40	11.098	0.001	2440	2366				
o-terph	6.259	0.004	1126023	824785				
Triacon Surr	9.165	0.014	781	1190				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	824785	42.8	95.1 M
Triacontane	1190	0.1	0.1

M Indicates the peak was manually integrated

JW 6/24/13

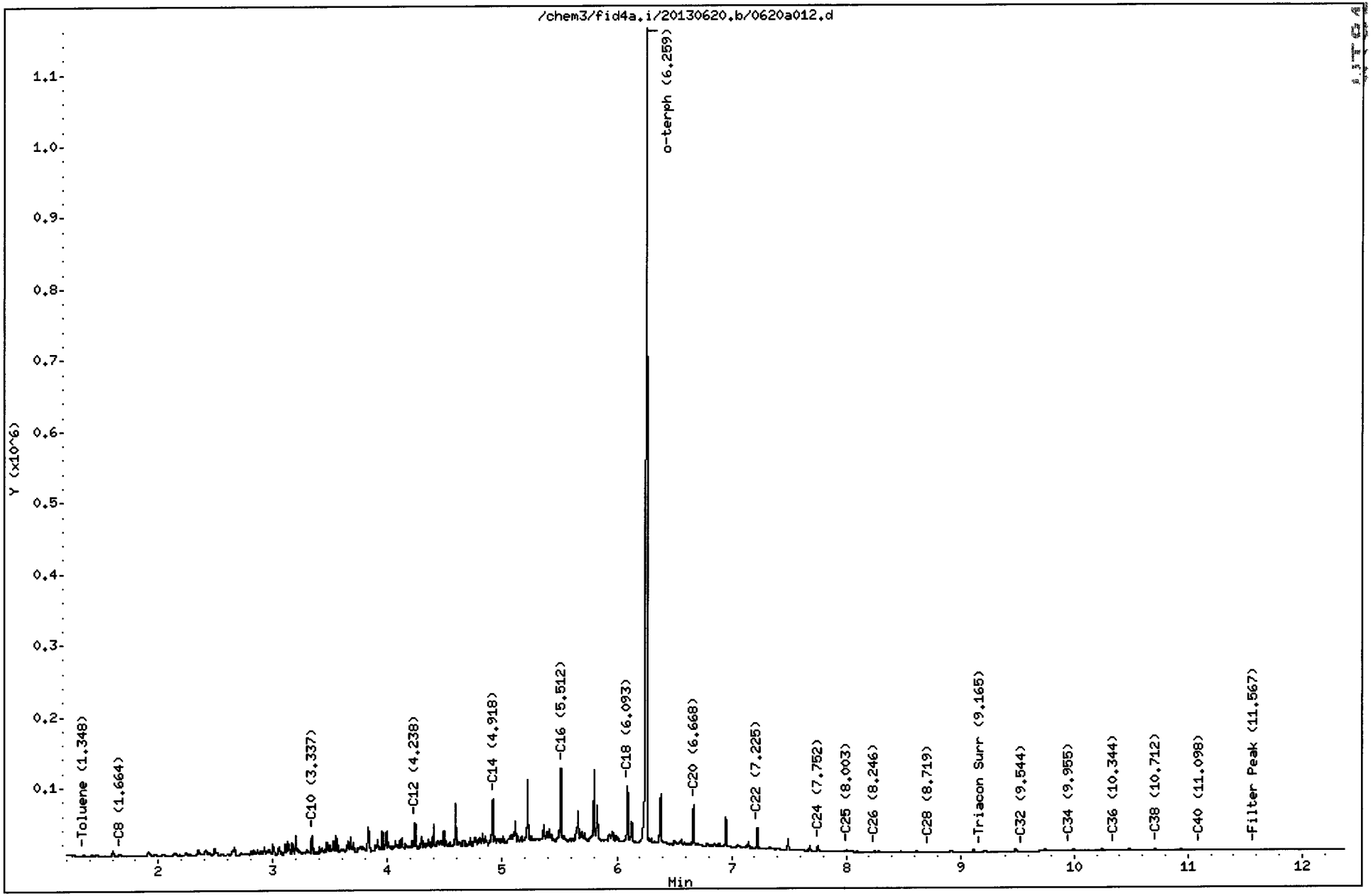
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a012.d
Date : 20-JUN-2013 12:21
Client ID:
Sample Info: DIESEL#2

Column phase: RTX-1

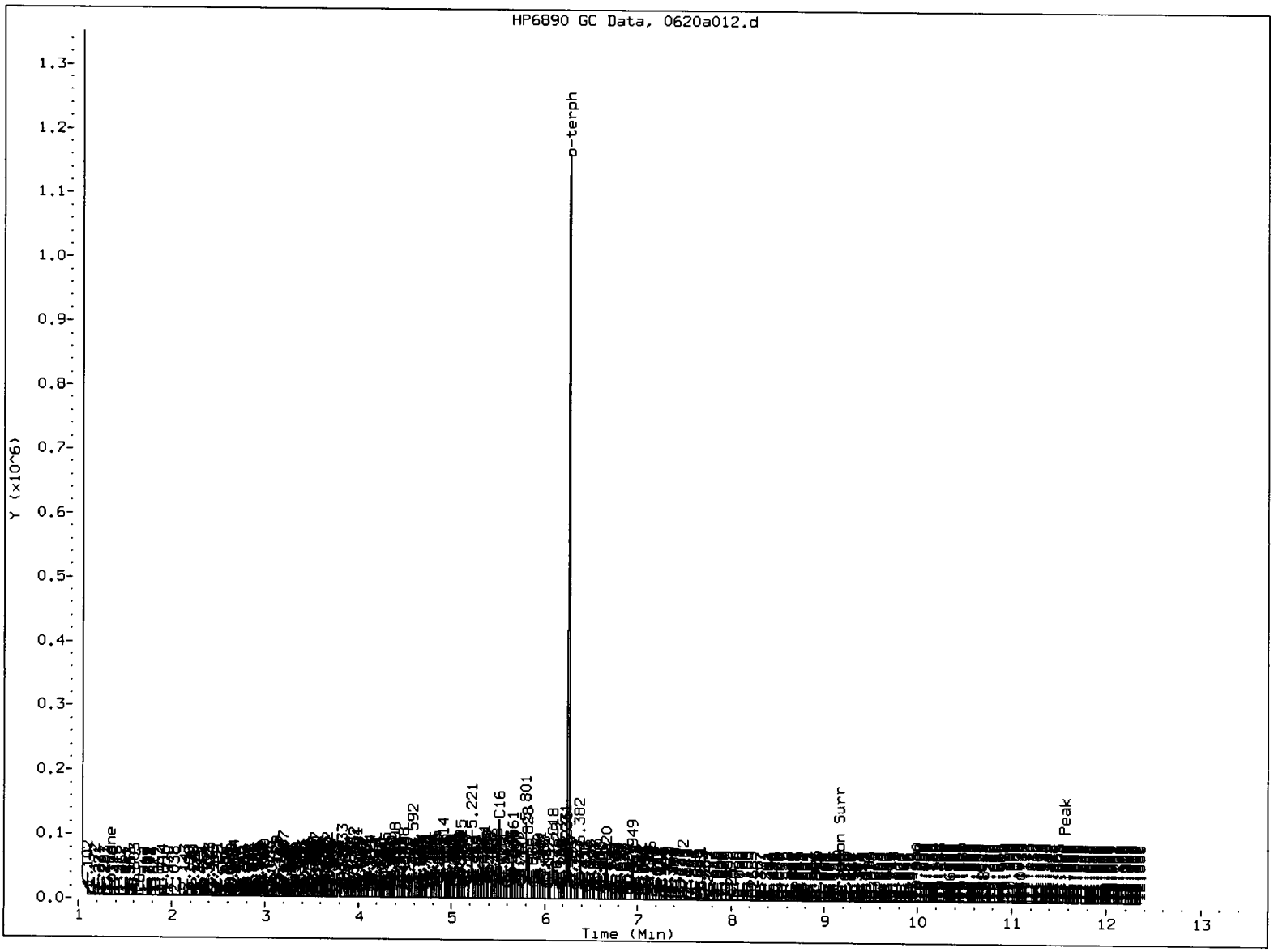
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 DIESEL#2

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5) Skimmed surrogate

Analyst: JW Date: 6/24/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a013.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL#2
Client ID:
Injection: 20-JUN-2013 12:41

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.340	-0.007	904	2643	WATPHG	(Tol-C12)	19839	1.28
C8	1.691	0.021	194	127	WATPHD	(C12-C24)	612637	42.21
C10	3.337	-0.002	338	493	WATPHM	(C24-C38)	6664874	516.45
C12	4.238	-0.002	132	145	AK102	(C10-C25)	802604	46.62
C14	4.918	-0.002	167	247	AK103	(C25-C36)	5657883	614.85
C16	5.501	-0.013	174	290				
C18	6.091	-0.004	493	846				
C20	6.667	-0.004	1535	3521				
C22	7.228	-0.001	5362	6207				
C24	7.759	0.000	20730	20927	MSPIRIT	(Tol-C12)	19839	1.02
C25	8.016	0.006	28535	20653				
C26	8.269	0.005	34204	46512				
C28	8.717	0.006	39945	83085				
C32	9.553	-0.001	45261	57635				
C34	9.960	0.007	44000	34030				
Filter Peak	11.552	-0.003	10347	18013	CREOSOT	(C12-C22)	163163	74.78 M
C36	10.339	-0.003	40492	34249				
C38	10.725	0.002	34387	28512				
C40	11.091	-0.007	24379	23773				
o-terph	6.246	-0.010	1503	2579				
Triacon Surr	9.139	-0.012	946985	862879				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2579	0.1	0.3
Triacontane	862879	44.6	99.2 M

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a013.d

Date : 20-JUN-2013 12:41

Client ID:

Sample Info: MOIL#2

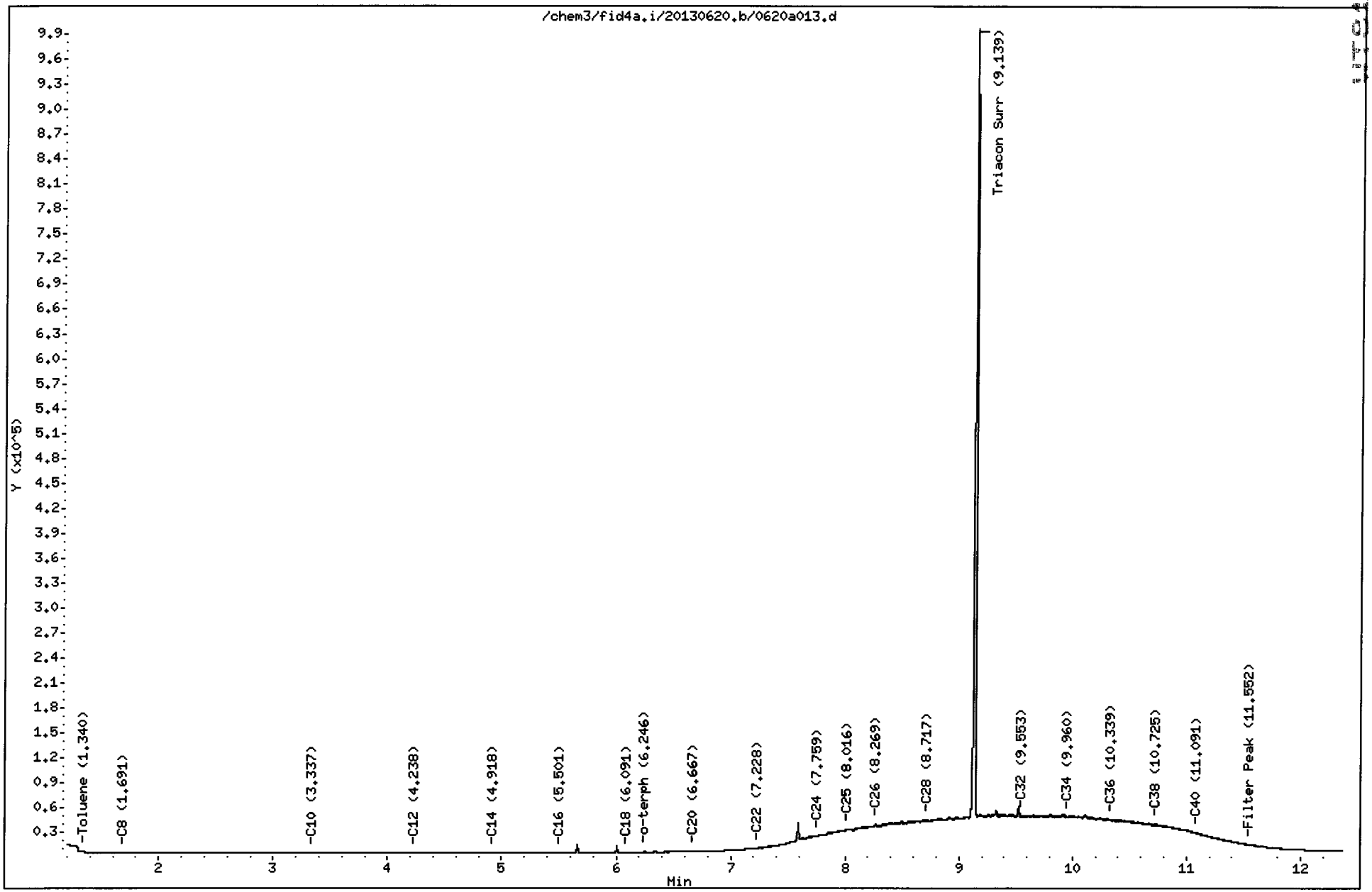
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW

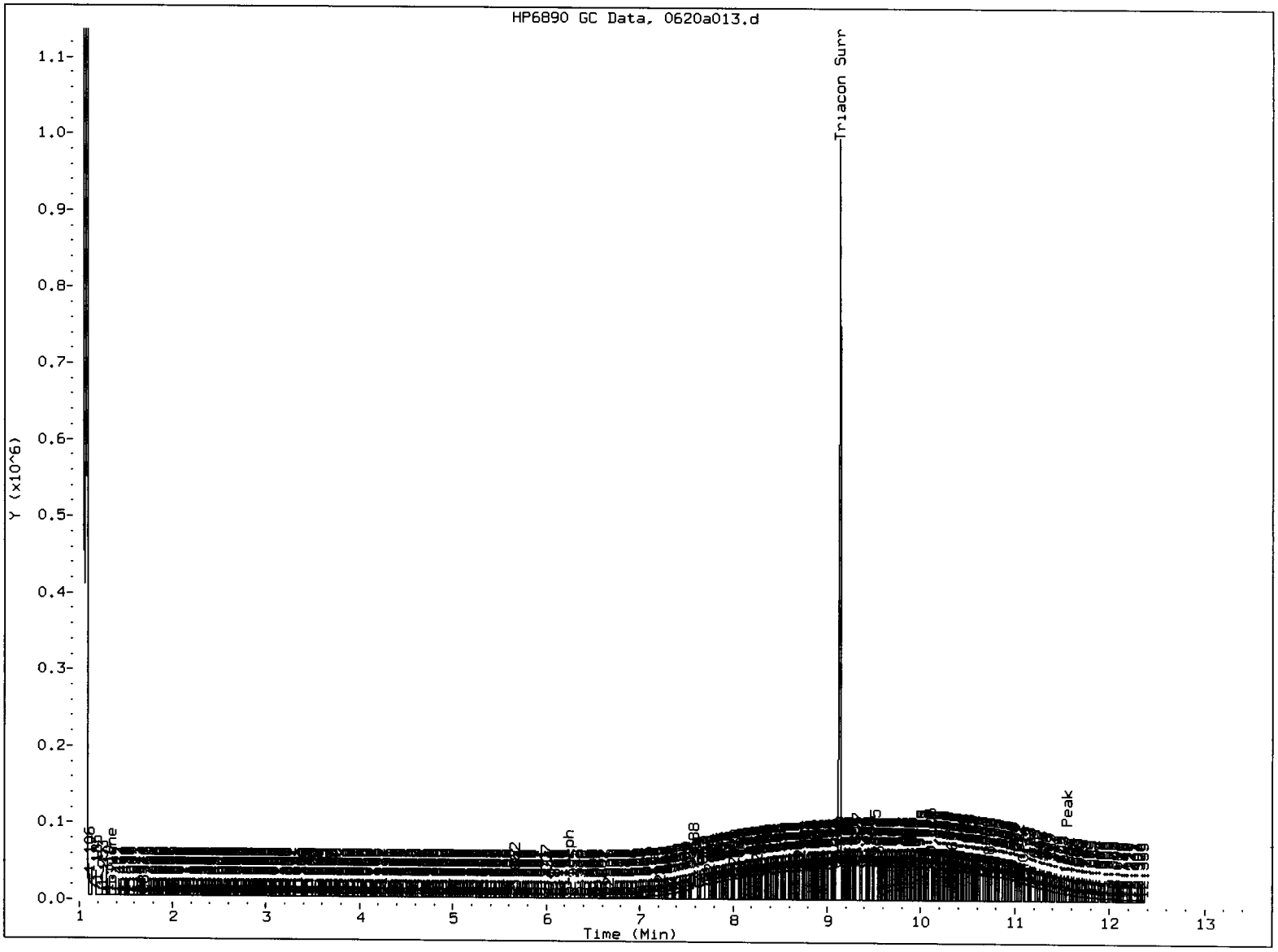
Column diameter: 0.25

JC 6/24/13



FID:4A-2C/RTX-1 MOIL#2

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: SW Date: 6/24/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a014.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT86MBS1
Client ID: WT86MBS1
Injection: 20-JUN-2013 13:02

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.360	0.012	1556	4681	WATPHG	(Tol-C12)	20236	1.30
C8	1.670	0.000	326	440	WATPHD	(C12-C24)	48765	3.36
C10	3.339	-0.001	203	261	WATPHM	(C24-C38)	106051	8.22
C12	4.238	-0.002	117	111	AK102	(C10-C25)	54070	3.14
C14	4.918	-0.001	95	90	AK103	(C25-C36)	76458	8.31
C16	5.513	-0.001	55	49				
C18	6.091	-0.004	67	89				
C20	6.668	-0.003	134	151				
C22	7.227	-0.003	113	182				
C24	7.747	-0.011	146	204	MSPIRIT	(Tol-C12)	20236	1.04
C25	8.004	-0.006	166	164				
C26	8.248	-0.016	219	293				
C28	8.703	-0.008	801	774				
C32	9.540	-0.013	9709	8941				
C34	9.958	0.005	743	438				
Filter Peak	11.549	-0.006	2167	1422	CREOSOT	(C12-C22)	44293	20.30 M
C36	10.346	0.004	1021	443				
C38	10.719	-0.004	1455	1149				
C40	11.097	0.000	2058	859				
o-terph	6.257	0.001	998055	750764				
Triacon Surr	9.146	-0.005	813975	723341				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	750764	38.9	86.5
Triacontane	723341	37.4	83.2

VTS 6/21/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a014.d

Date : 20-JUN-2013 13:02

Client ID: WT86MBS1

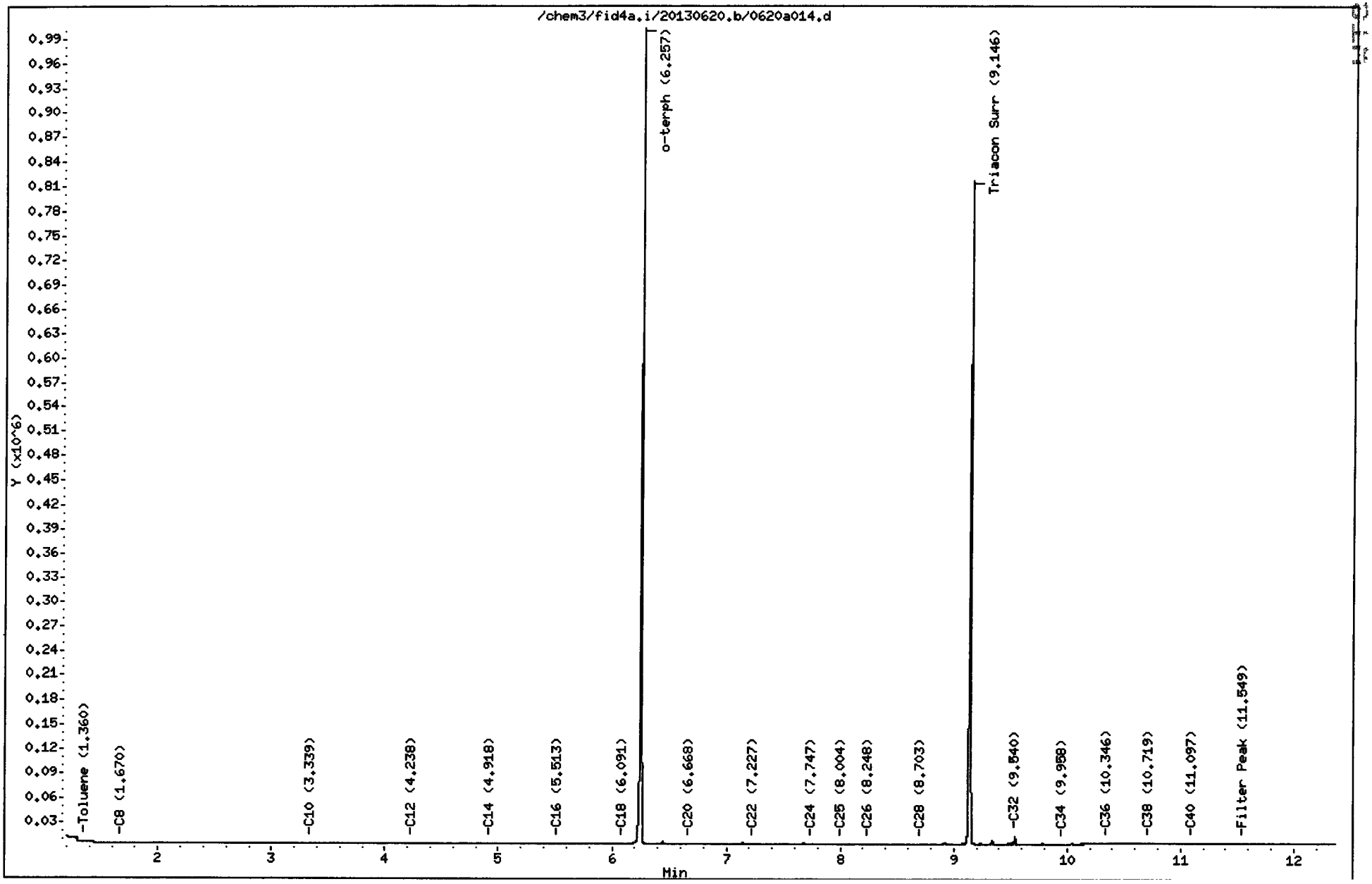
Sample Info: WT86MBS1

Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a015.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT86LCSS1
Client ID: WT86LCSS1
Injection: 20-JUN-2013 13:23

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.367	0.019	8758	11209	WATPHG	(Tol-C12)	4283860	275.68
C8	1.683	0.013	11266	18684	WATPHD	(C12-C24)	17482851	1204.51
C10	3.341	0.002	102686	66477	WATPHM	(C24-C38)	285702	22.14
C12	4.241	0.001	178071	173952	AK102	(C10-C25)	20546179	1193.52
C14	4.922	0.002	300480	443455	AK103	(C25-C36)	189818	20.63
C16	5.516	0.003	437909	384815				
C18	6.098	0.003	399043	525409				
C20	6.672	0.001	243068	293973				
C22	7.227	-0.003	115029	123612				
C24	7.753	-0.006	41685	44493	MSPIRIT	(Tol-C12)	4283860	221.20
C25	8.004	-0.006	21480	29107				
C26	8.246	-0.017	10911	13820				
C28	8.703	-0.008	2532	4344				
C32	9.543	-0.011	8842	7453				
C34	9.964	0.012	350	149				
Filter Peak	11.547	-0.008	1784	4194	CREOSOT	(C12-C22)	16914795	7752.32 M
C36	10.348	0.006	609	678				
C38	10.721	-0.002	974	656				
C40	11.100	0.003	1542	917				
o-terph	6.259	0.004	841278	632380				
Triacon Surr	9.145	-0.006	765773	670054				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	632380	32.8	72.9 M
Triacontane	670054	34.7	77.0

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

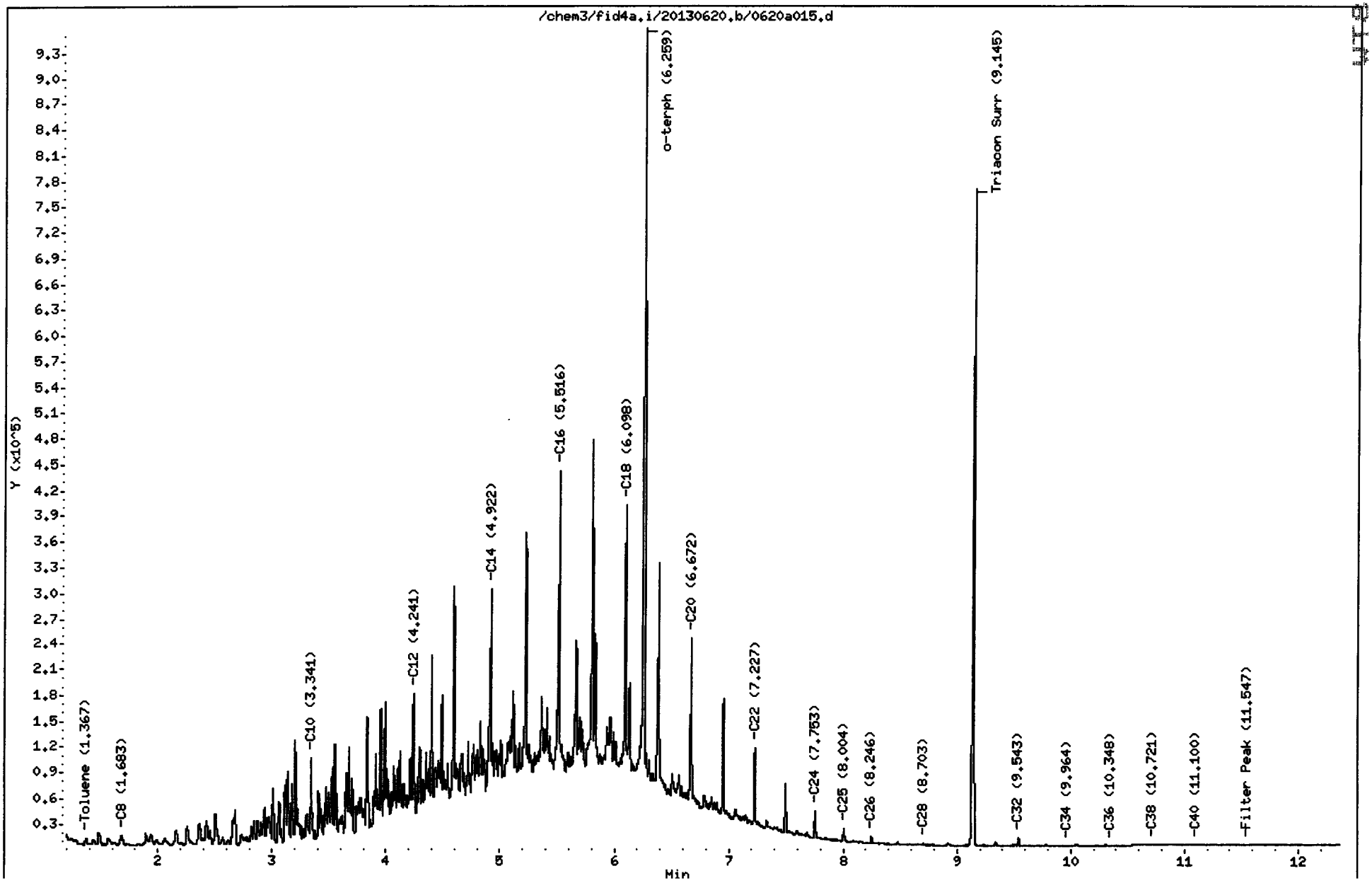
Data File: /chem3/fid4a.i/20130620.b/0620a015.d
Date : 20-JUN-2013 13:23
Client ID: WT86LCSS1
Sample Info: WT86LCSS1

Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25

6/24/13



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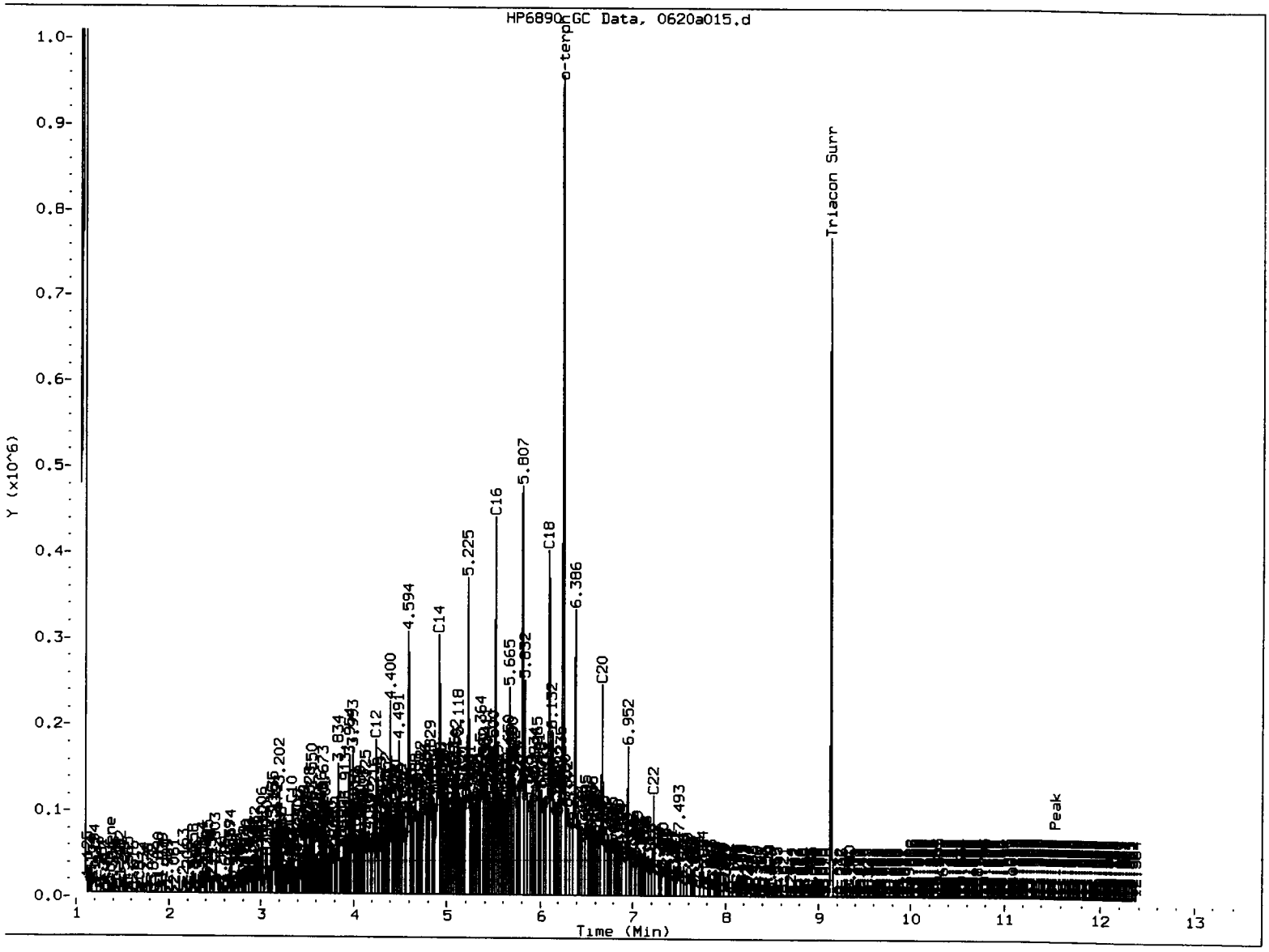


MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 6/24/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a016.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT86LCSDS1
Client ID: WT86LCSDS1
Injection: 20-JUN-2013 13:43

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.362	0.015	8002	11967	WATPHG	(Tol-C12)	4161404	267.80
C8	1.676	0.006	10511	18105	WATPHD	(C12-C24)	16732906	1152.84
C10	3.339	0.000	95747	64456	WATPHM	(C24-C38)	275061	21.31
C12	4.240	0.000	169141	182090	AK102	(C10-C25)	19703840	1144.59
C14	4.920	0.001	292991	244561	AK103	(C25-C36)	187838	20.41
C16	5.516	0.002	428550	349343				
C18	6.097	0.002	389367	506776				
C20	6.671	0.000	236731	274285				
C22	7.225	-0.004	112138	121916				
C24	7.751	-0.007	40543	36797	MSPIRIT	(Tol-C12)	4161404	214.88
C25	8.003	-0.007	20934	23339				
C26	8.245	-0.018	10516	13640				
C28	8.697	-0.014	2449	3793				
C32	9.573	0.019	272	410				
C34	9.956	0.004	392	189				
Filter Peak	11.556	0.001	1692	841	CREOSOT	(C12-C22)	16208975	7428.84 M
C36	10.348	0.007	674	676				
C38	10.721	-0.002	1818	4558				
C40	11.112	0.014	1609	1178				
o-terph	6.258	0.002	818242	610058				
Triacon Surr	9.131	-0.020	749462	645271				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	610058	31.6	70.3 M
Triacontane	645271	33.4	74.2

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a016.d

Date : 20-JUN-2013 13:43

Client ID: WT86LCSDS1

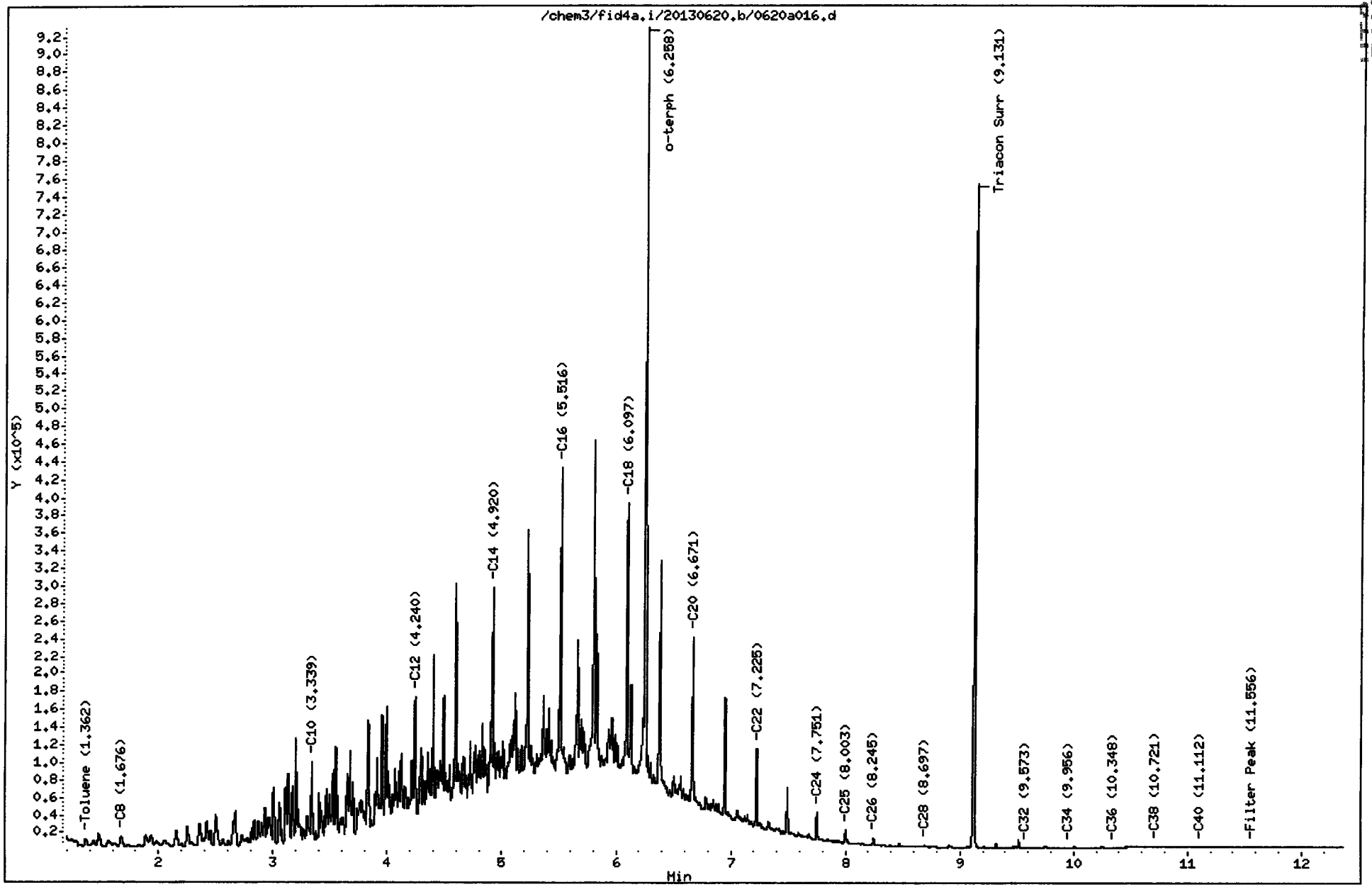
Sample Info: WT86LCSDS1

Instrument: fid4a.i

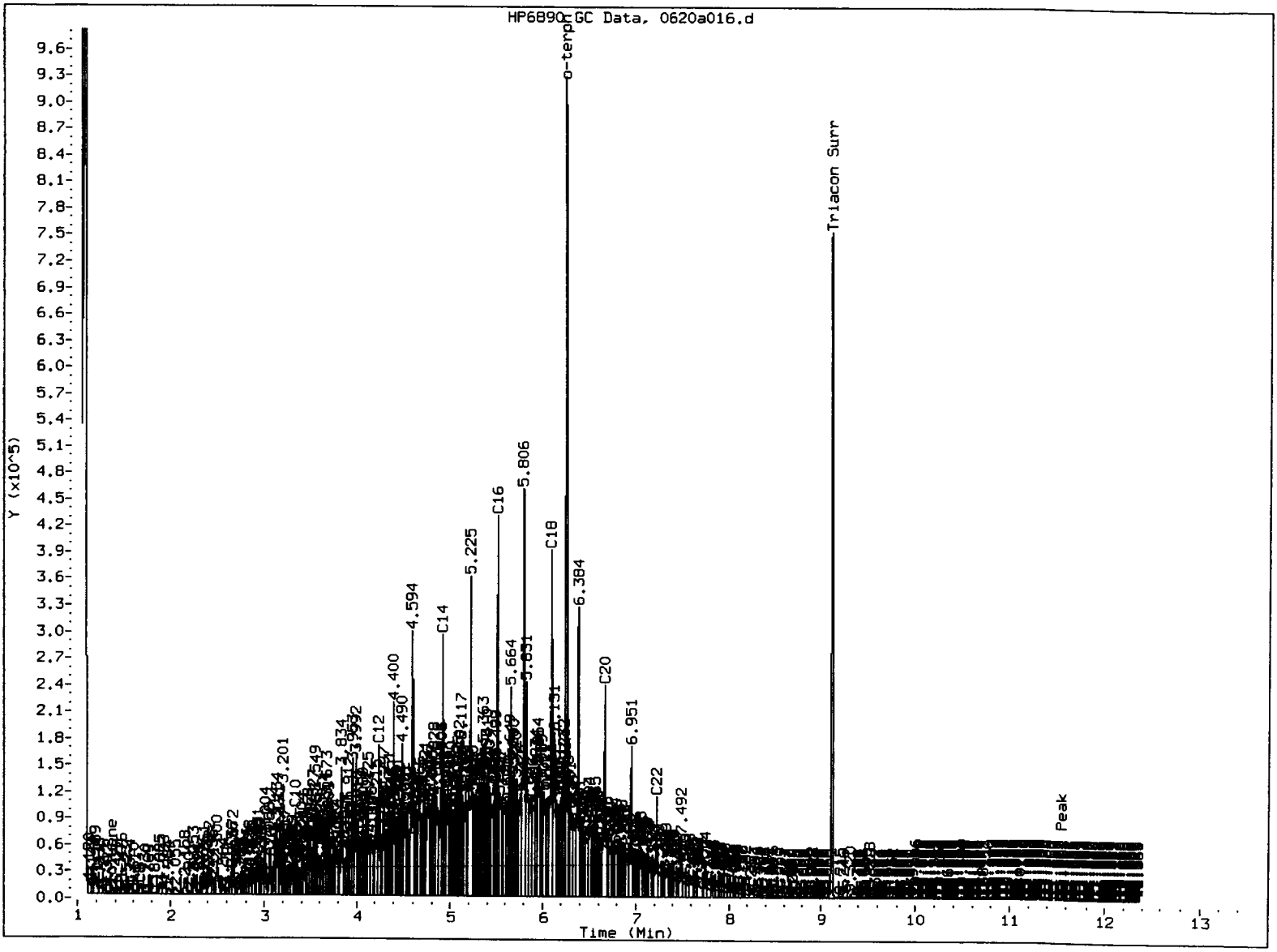
Operator: JR/VTS/JW

Column phase: RTX-1

Column diameter: 0.25



FID:4A-2C/RTX-1 WT86LCSDS1 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 6/24/0

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a018.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT81B
Client ID: AM-SF4-EFF-20130612
Injection: 20-JUN-2013 14:24

Dilution Factor: 10

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.345	-0.003	867	2564	WATPHG	(Tol-C12)	49324	3.17
C8	1.657	-0.013	297	390	WATPHD	(C12-C24)	1740302	119.90
C10	3.336	-0.003	235	245	WATPHM	(C24-C38)	6605739	511.87
C12	4.237	-0.003	648	725	AK102	(C10-C25)	2087236	121.25
C14	4.918	-0.001	3614	3235	AK103	(C25-C36)	5553191	603.47
C16	5.511	-0.003	4300	3343				
C18	6.090	-0.005	7125	8011				
C20	6.667	-0.004	11041	16423				
C22	7.225	-0.005	19885	40813				
C24	7.752	-0.006	36643	50173	MSPIRIT	(Tol-C12)	49324	2.55
C25	8.006	-0.004	42146	55788				
C26	8.249	-0.015	47147	105615				
C28	8.699	-0.012	56083	84023				
C32	9.549	-0.005	43057	61443				
C34	9.946	-0.007	40197	61269				
Filter Peak	11.557	0.002	10464	8666	CREOSOT	(C12-C22)	912813	418.36 M
C36	10.346	0.005	35754	24024				
C38	10.717	-0.006	31839	40434				
C40	11.092	-0.005	23225	32698				
o-terph	6.246	-0.009	88479	50793				
Triacon Surr	9.123	-0.028	99592	66252				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	50793	2.6	58.5 M
Triacontane	66252	3.4	76.2 M

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

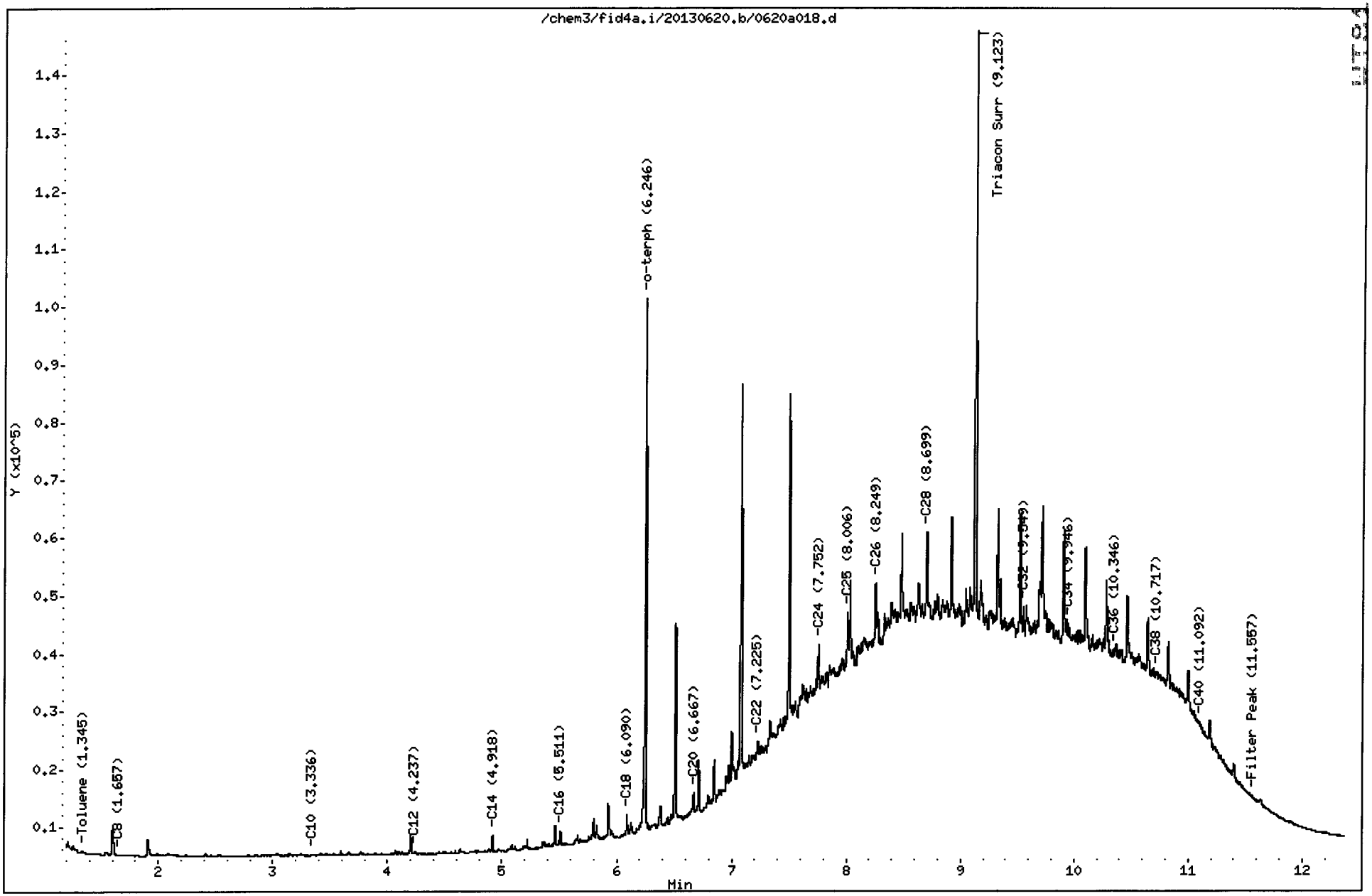
Data File: /chem3/fid4a.i/20130620.b/0620a018.d
Date : 20-JUN-2013 14:24
Client ID: AM-SF4-EFF-20130612
Sample Info: WT81B,10

Column phase: RTX-1

Instrument: fid4a.i

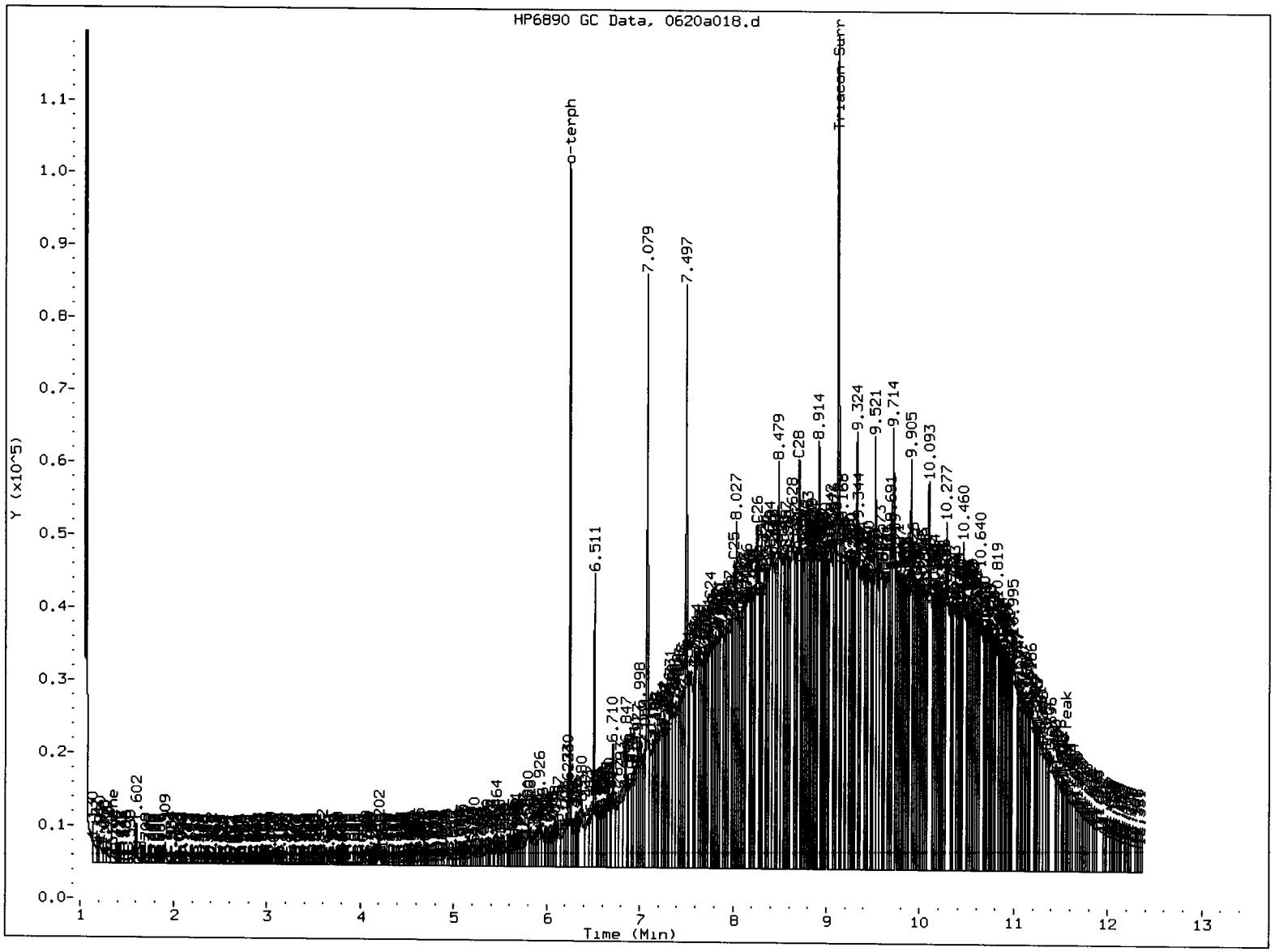
Operator: JR/VTS/JW
Column diameter: 0.25

JW 6/24/13



FID:4A-2C/RTX-1 WT81B

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 6/24/10

WT81 : 0196H

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a019.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT81BMS
Client ID: AM-SF4-EFF-2013 MS
Injection: 20-JUN-2013 14:45

Dilution Factor: 10

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.346	-0.001	1670	4219	WATPHG	(Tol-C12)	452259	29.10
C8	1.664	-0.006	1122	2265	WATPHD	(C12-C24)	3786611	260.88
C10	3.336	-0.003	9966	6484	WATPHM	(C24-C38)	7641589	592.14
C12	4.238	-0.002	18997	17541	AK102	(C10-C25)	4474662	259.93
C14	4.917	-0.002	36351	37657	AK103	(C25-C36)	6501002	706.47
C16	5.511	-0.003	51516	42444				
C18	6.090	-0.005	51951	69652				
C20	6.667	-0.004	36977	59856				
C22	7.225	-0.005	34830	57551				
C24	7.753	-0.006	45804	67298	MSPIRIT	(Tol-C12)	452259	23.35
C25	8.006	-0.004	50788	98950				
C26	8.267	0.003	48265	61993				
C28	8.701	-0.010	65314	188340				
C32	9.550	-0.003	49390	60923				
C34	9.947	-0.006	46161	92897				
Filter Peak	11.545	-0.010	9612	13814	CREOSOT	(C12-C22)	2762476	1266.09 M
C36	10.346	0.004	40355	10391				
C38	10.712	-0.010	34312	43187				
C40	11.090	-0.007	22985	30869				
o-terph	6.247	-0.009	100335	57732				
Triacon Surr	9.124	-0.027	111375	75950				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	57732	3.0	66.5 M
Triacontane	75950	3.9	87.3 M

JW 6/24/17

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a019.d
Date : 20-JUN-2013 14:45
Client ID: AM-SF4-EFF-2013 MS
Sample Info: WT81BMS,10

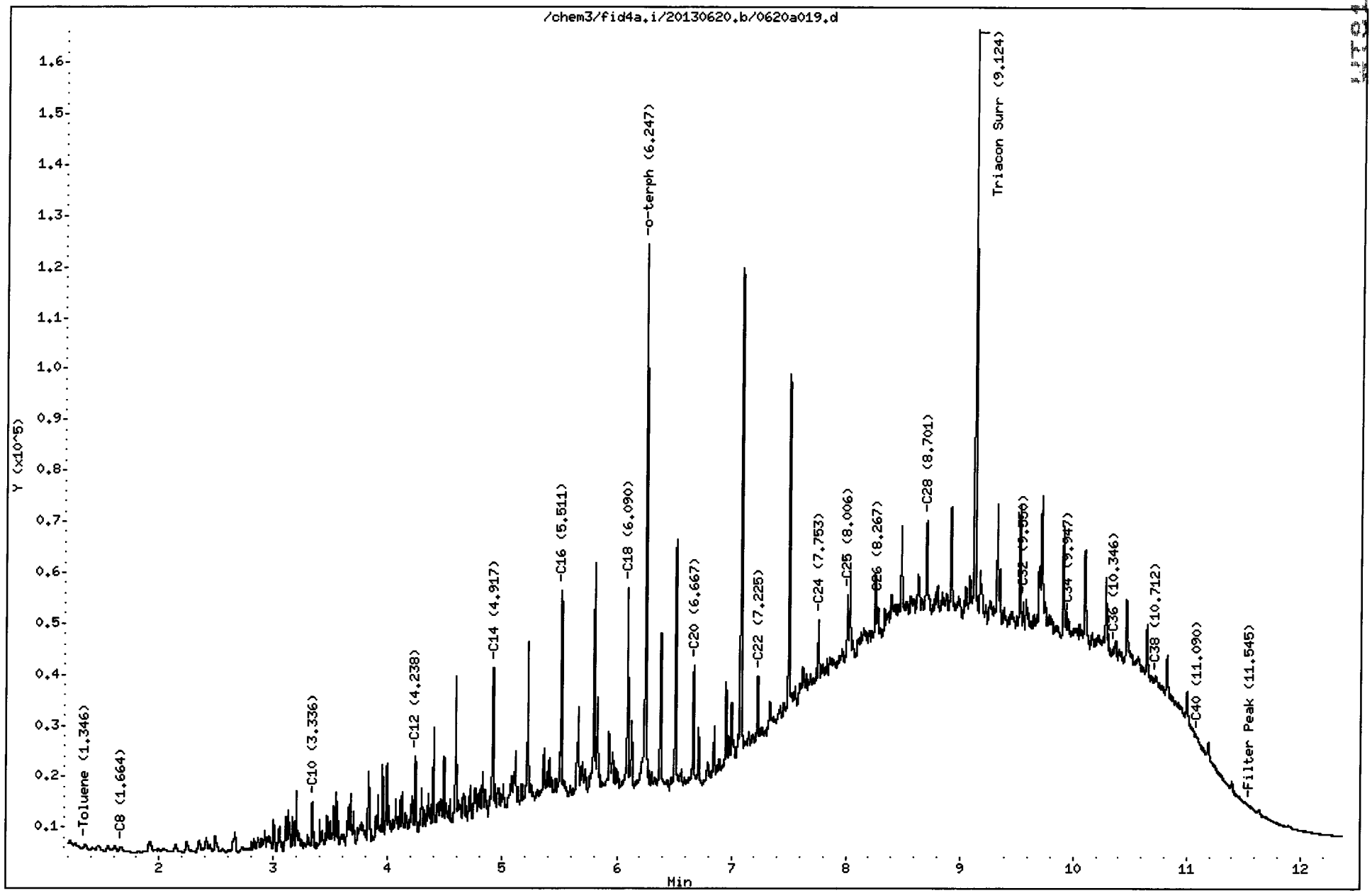
Column phase: RTX-1

Instrument: fid4a.i

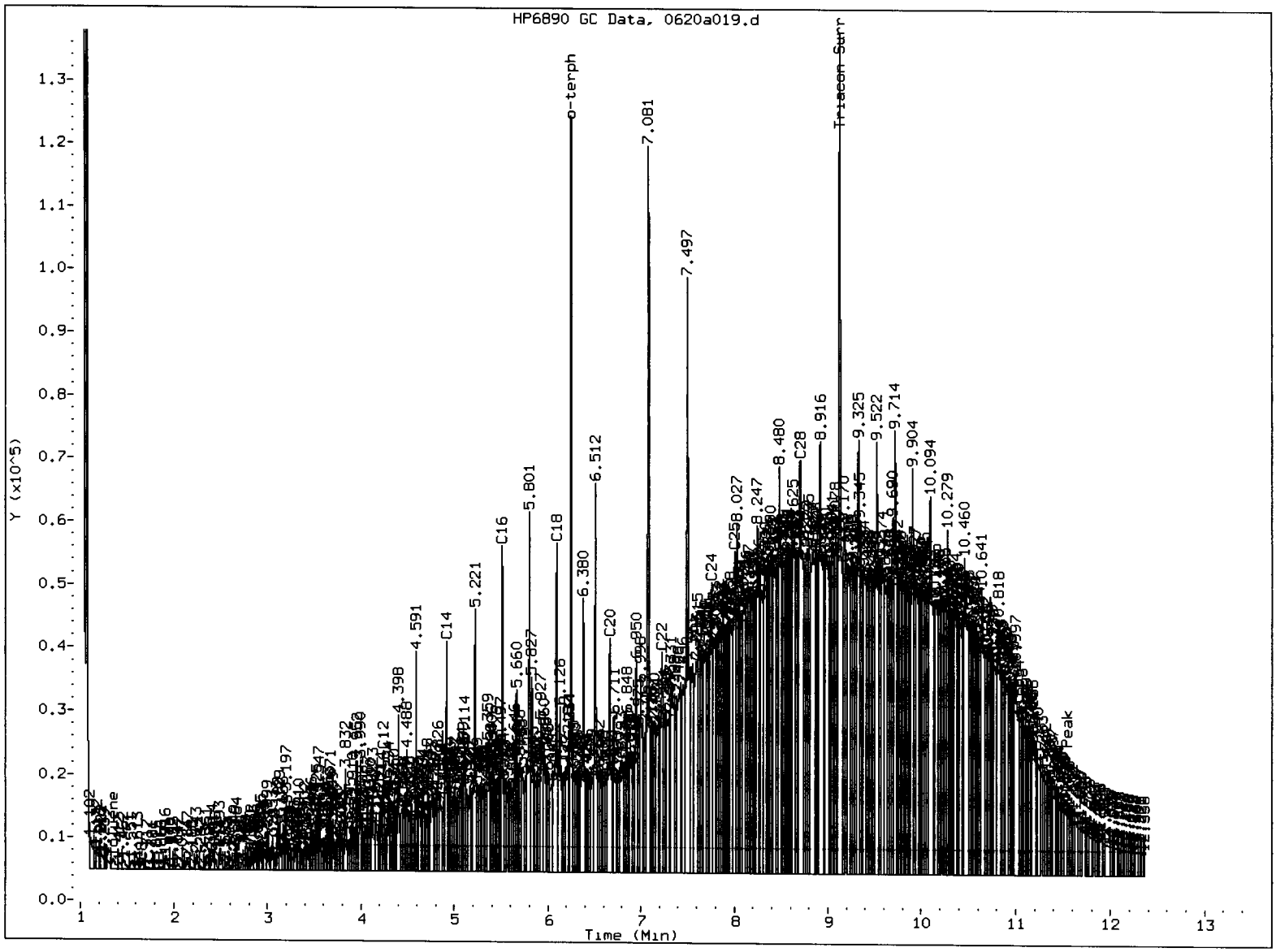
Operator: JR/VTS/JW
Column diameter: 0.25

JR 6/24/13

WT81 : 84065



FID:4A-2C/RTX-1 WT81BMS FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JU Date: 6/24/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a020.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT81BMSD
Client ID: AM-SF4-EFF-2013 MSD
Injection: 20-JUN-2013 15:05

Dilution Factor: 10

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.341	-0.007	1573	4130	WATPHG	(Tol-C12)	405175	26.07
C8	1.658	-0.012	1118	2154	WATPHD	(C12-C24)	3388119	233.43
C10	3.335	-0.005	8803	5743	WATPHM	(C24-C38)	7085530	549.05
C12	4.237	-0.003	16614	14982	AK102	(C10-C25)	4016194	233.30
C14	4.917	-0.003	32150	33647	AK103	(C25-C36)	6038648	656.23
C16	5.510	-0.003	44860	35571				
C18	6.090	-0.005	46559	39782				
C20	6.667	-0.004	33053	55334				
C22	7.224	-0.006	31144	49260				
C24	7.752	-0.007	42026	53835	MSPIRIT	(Tol-C12)	405175	20.92
C25	8.005	-0.005	45633	64879				
C26	8.269	0.005	44651	64948				
C28	8.698	-0.013	60372	181168				
C32	9.563	0.009	46298	86209				
C34	9.955	0.003	40522	34416				
Filter Peak	11.552	-0.003	9162	11424	CREOSOT	(C12-C22)	2480491	1136.85 M
C36	10.342	0.001	38938	45011				
C38	10.718	-0.004	31538	31529				
C40	11.093	-0.004	19974	22058				
o-terph	6.246	-0.009	89223	52088				
Triacon Surr	9.117	-0.034	103245	68691				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	52088	2.7	60.0 M
Triacontane	68691	3.6	79.0 M

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

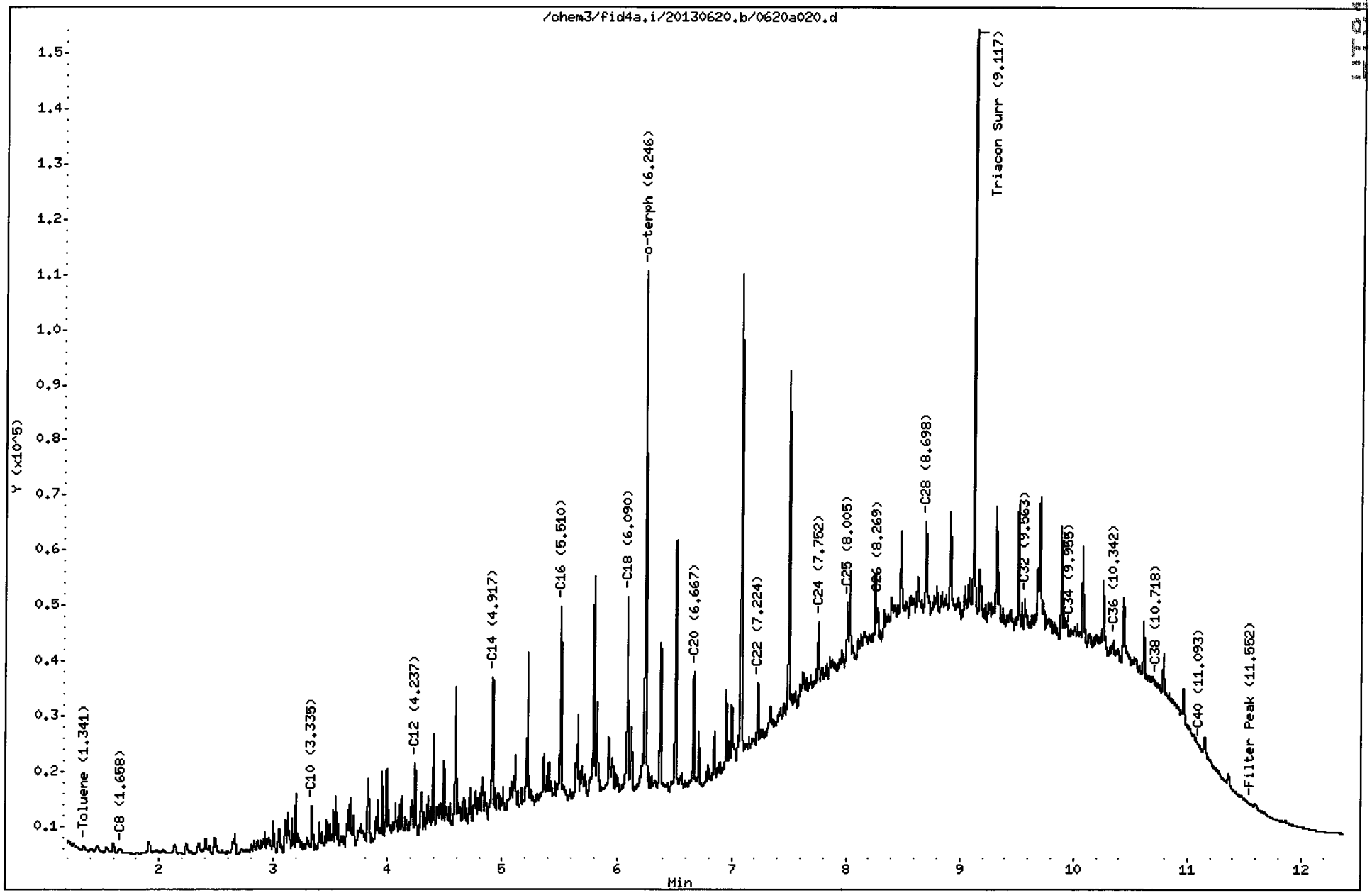
WT81 : 91869

Data File: /chem3/fid4a.i/20130620.b/0620a020.d
Date : 20-JUN-2013 15:05
Client ID: AM-SF4-EFF-2013 MSD
Sample Info: WT81BMSD,10

Column phase: RTX-1

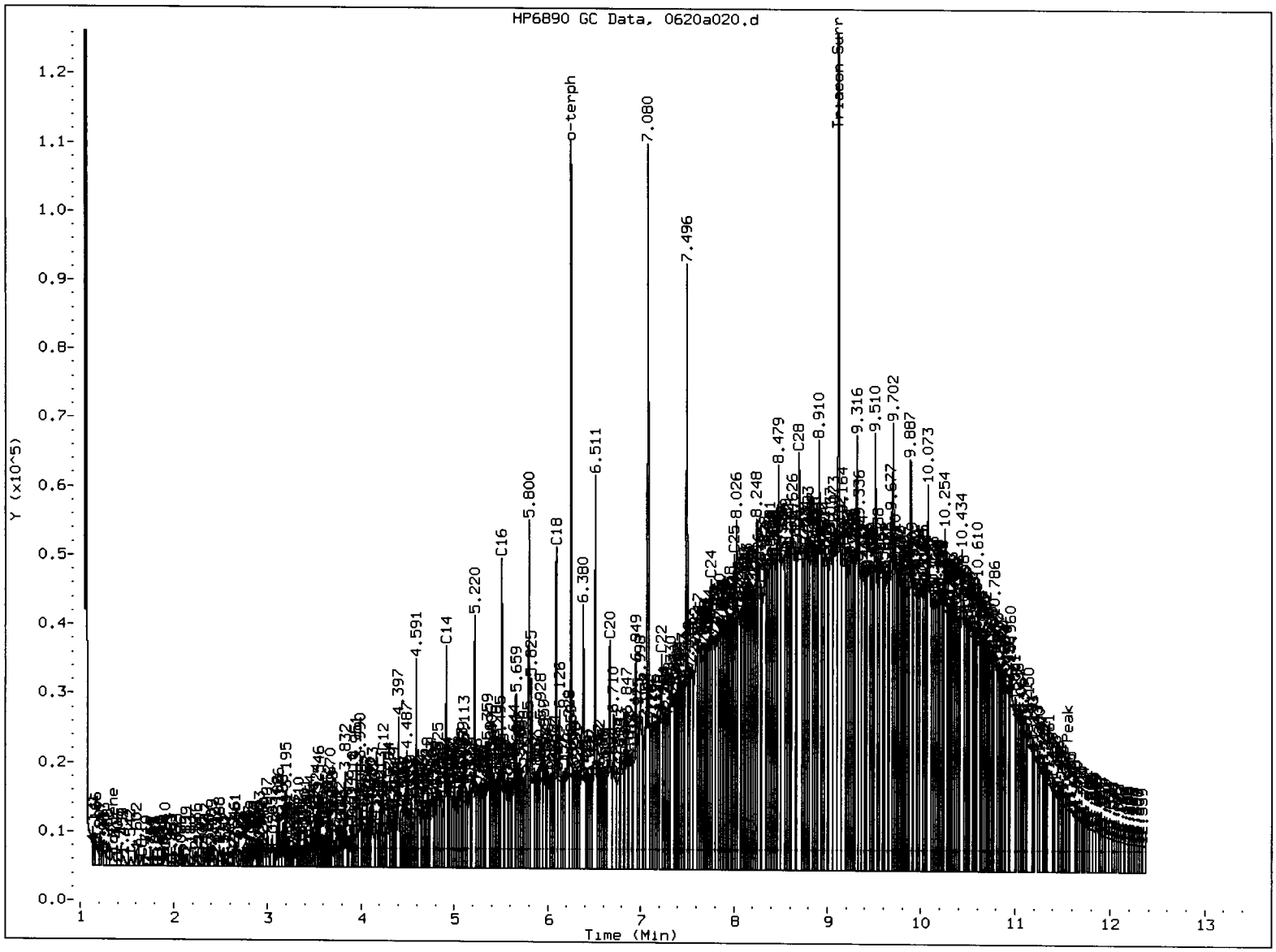
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 WT81BMSD

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 6/24/17

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a021.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: WT81C
Client ID: AM-FD-01-20130612-S
Injection: 20-JUN-2013 15:26

Dilution Factor: 10

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.348	0.001	963	2900	WATPHG	(Tol-C12)	48703	3.13
C8	1.667	-0.003	265	619	WATPHD	(C12-C24)	1876759	129.30
C10	3.338	-0.002	259	190	WATPHM	(C24-C38)	7129117	552.43
C12	4.238	-0.002	698	1189	AK102	(C10-C25)	2235511	129.86
C14	4.918	-0.001	4183	3555	AK103	(C25-C36)	6077079	660.40
C16	5.510	-0.003	4569	3725				
C18	6.090	-0.005	7620	10615				
C20	6.668	-0.003	11686	17973				
C22	7.227	-0.003	21119	38868				
C24	7.753	-0.006	38637	46818	MSPIRIT	(Tol-C12)	48703	2.51
C25	8.007	-0.003	44594	81131				
C26	8.271	0.008	44907	68368				
C28	8.698	-0.013	60657	107937				
C32	9.561	0.007	46630	124911				
C34	9.964	0.011	41050	46856				
Filter Peak	11.542	-0.013	9271	10209	CREOSOT	(C12-C22)	993524	455.35 M
C36	10.341	0.000	38800	65178				
C38	10.720	-0.003	30433	34811				
C40	11.129	0.032	18537	13562				
o-terph	6.247	-0.009	97637	55688				
Triacon Surr	9.116	-0.035	108488	72286				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	55688	2.9	64.2 M
Triacontane	72286	3.7	83.1 M

M Indicates the peak was manually integrated

JW
6/24/13

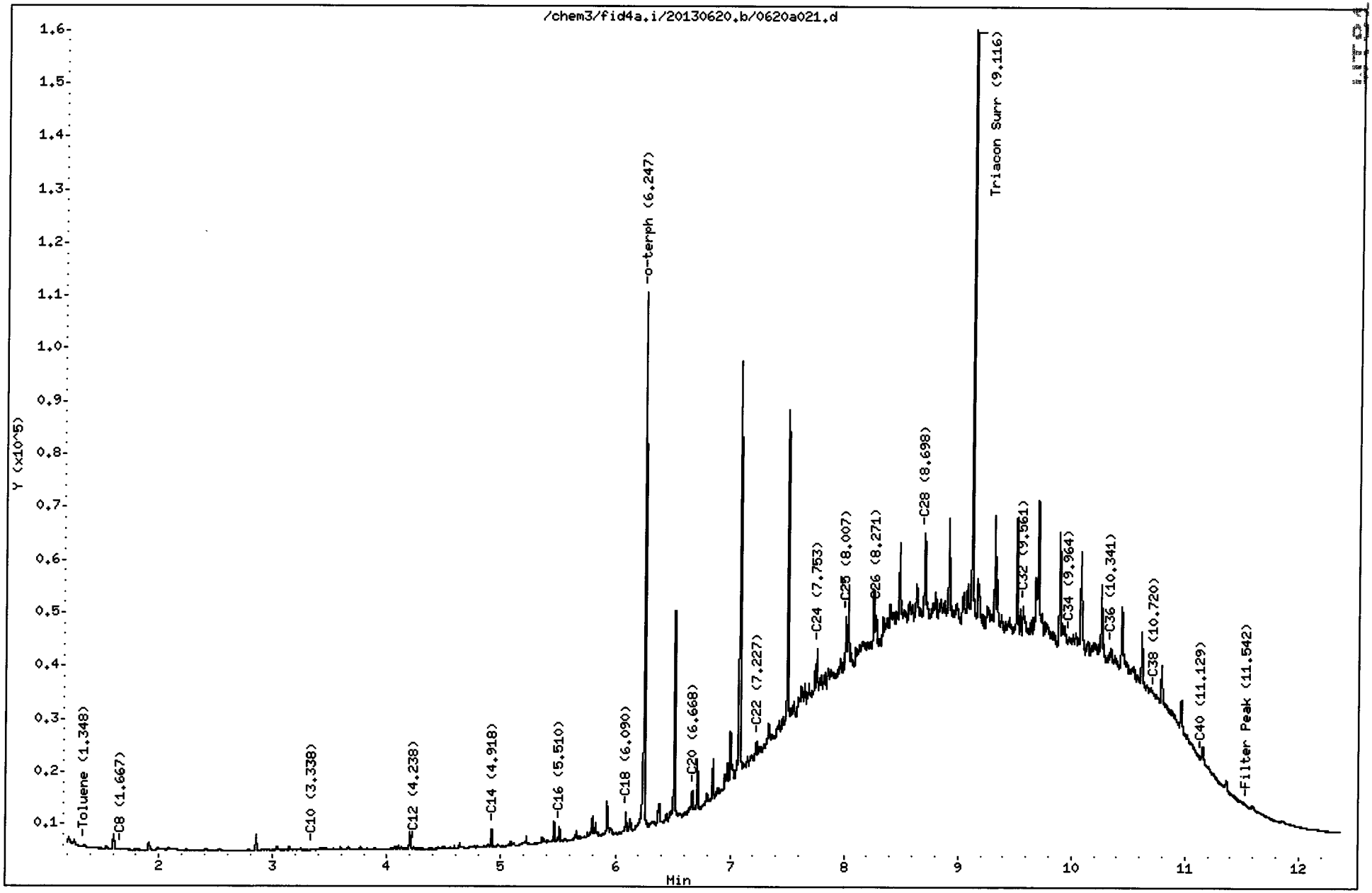
Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a021.d
Date : 20-JUN-2013 15:26
Client ID: AM-FD-01-20130612-S
Sample Info: WT81C,10

Column phase: RTX-1

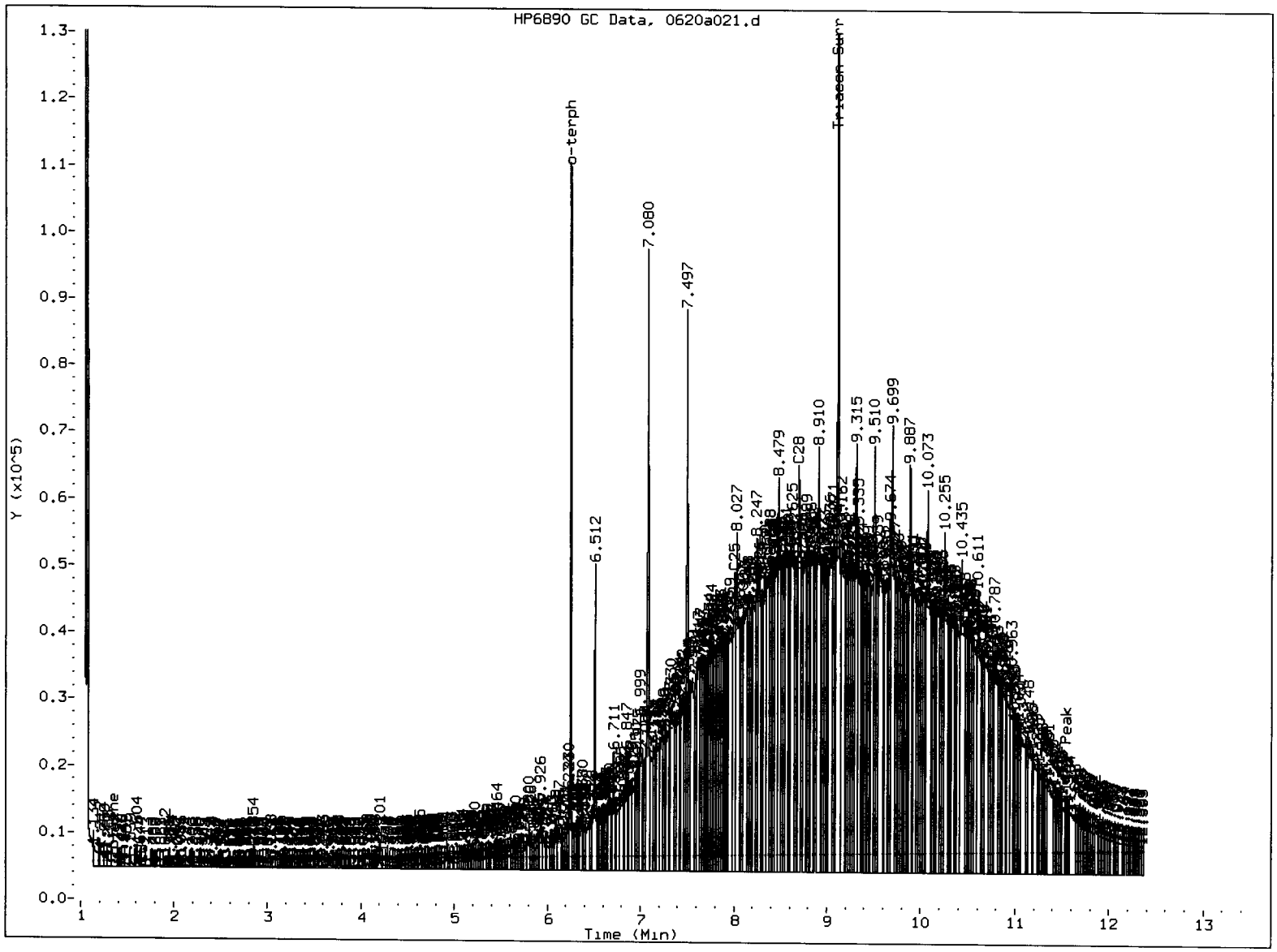
Instrument: fid4a.i

Operator: JR/VTS/JW
Column diameter: 0.25



FID:4A-2C/RTX-1 WT81C

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5.) Skimmed surrogate

Analyst: JU Date: 6/24/10

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a022.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: DIESEL#3
Client ID:
Injection: 20-JUN-2013 15:46

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.349	0.001	2382	3731	WATPHG	(Tol-C12)	928736	59.77
C8	1.662	-0.008	1852	3296	WATPHD	(C12-C24)	3773144	259.96
C10	3.336	-0.003	26541	16774	WATPHM	(C24-C38)	209662	16.25
C12	4.238	-0.002	43794	39677	AK102	(C10-C25)	4425565	257.08
C14	4.917	-0.002	77514	73157	AK103	(C25-C36)	144351	15.69
C16	5.511	-0.002	120325	87033				
C18	6.092	-0.003	93854	108311				
C20	6.667	-0.004	66889	68725				
C22	7.223	-0.006	34409	33704				
C24	7.750	-0.009	9523	10420	MSPIRIT	(Tol-C12)	928736	47.96
C25	8.002	-0.008	4215	5316				
C26	8.244	-0.020	1965	2480				
C28	8.716	0.005	588	589				
C32	9.570	0.016	1025	2314				
C34	9.944	-0.009	1242	538				
Filter Peak	11.560	0.005	3137	1684	CREOSOT	(C12-C22)	3631025	1664.16 M
C36	10.338	-0.004	1701	1996				
C38	10.734	0.012	3861	8232				
C40	11.099	0.002	3157	1887				
o-terph	6.258	0.002	1098304	830166				
Triacon Surr	9.163	0.012	809	1599				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	830166	43.1	95.7 M
Triacontane	1599	0.1	0.2

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a022.d

Date : 20-JUN-2013 15:46

Client ID:

Sample Info: DIESEL#3

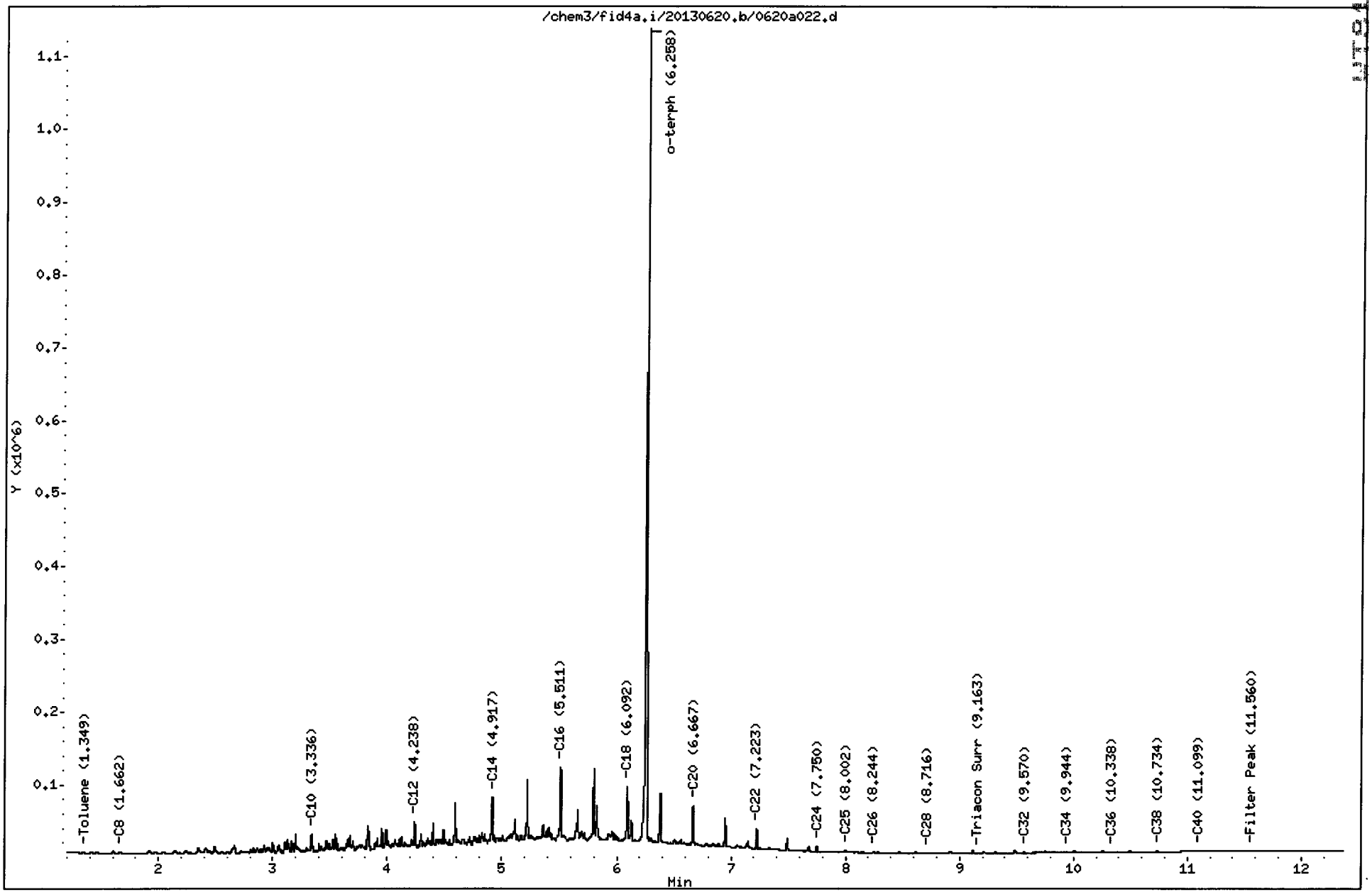
Column phase: RTX-1

Instrument: fid4a.i

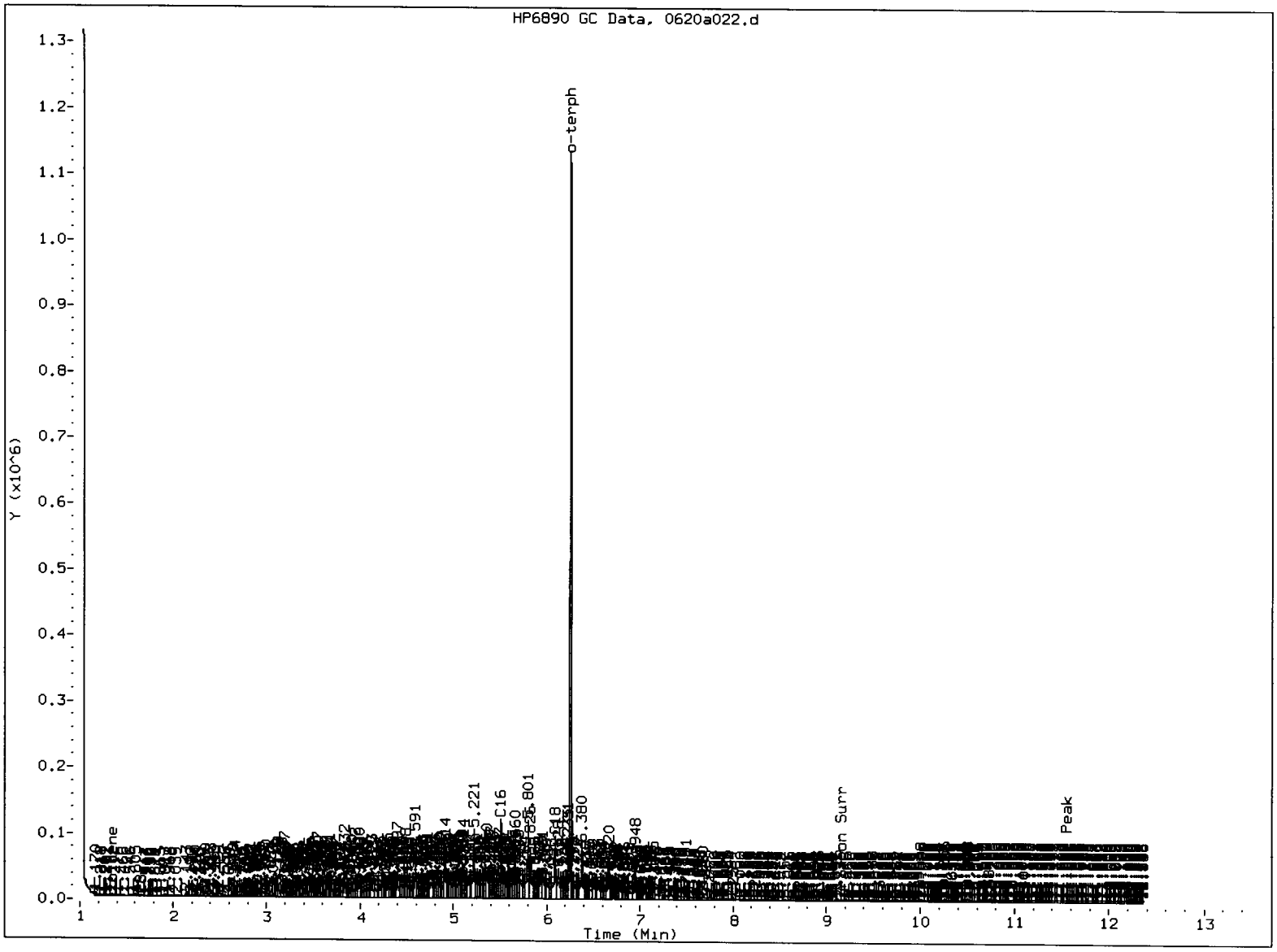
Operator: JR/VTS/JW

Column diameter: 0.25

6/24/13



FID:4A-2C/RTX-1 DIESEL#3 FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
(5) Skimmed surrogate

Analyst: JW Date: 6/24/13

Analytical Resources Inc.
TPH Quantitation Report

Data file: /chem3/fid4a.i/20130620.b/0620a023.d
Method: /chem3/fid4a.i/20130620.b/ftphfid4a.m
Instrument: fid4a.i
Operator: JR/VTS/JW
Report Date: 06/24/2013
Macro: 20-MAY-2013
Calibration Dates: Gas:21-MAR-2013 Diesel:13-APR-2013 M.Oil:20-MAY-2013

ARI ID: MOIL#3
Client ID:
Injection: 20-JUN-2013 16:06

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc
Toluene	1.341	-0.007	959	4212	WATPHG	(Tol-C12)	21294	1.37
C8	1.686	0.016	206	205	WATPHD	(C12-C24)	636996	43.89
C10	3.337	-0.003	341	329	WATPHM	(C24-C38)	6698604	519.07
C12	4.239	-0.001	120	186	AK102	(C10-C25)	884244	51.37
C14	4.916	-0.003	192	344	AK103	(C25-C36)	5669944	616.16
C16	5.509	-0.004	251	332				
C18	6.088	-0.007	500	928				
C20	6.666	-0.005	1578	3389				
C22	7.226	-0.004	5568	14150				
C24	7.759	0.000	21250	14347	MSPIRIT	(Tol-C12)	21294	1.10
C25	8.008	-0.002	28919	16023				
C26	8.261	-0.003	35002	59920				
C28	8.716	0.005	40701	47196				
C32	9.558	0.004	45481	23509				
C34	9.960	0.007	45085	63937				
Filter Peak	11.554	-0.001	8609	11589	CREOSOT	(C12-C22)	166120	76.14 M
C36	10.346	0.004	40385	17636				
C38	10.716	-0.007	33490	36509				
C40	11.108	0.010	21255	38594				
o-terph	6.245	-0.011	1627	2663				
Triacon Surr	9.141	-0.010	960234	878187				

Range Times: NW Diesel(4.240 - 7.759) AK102(3.34 - 8.01) Jet A(3.34 - 6.10)
NW M.Oil(7.76 - 10.72) AK103(8.01 - 10.34) OR Diesel(3.34 - 8.71)

Surrogate	Area	Amount	%Rec
o-Terphenyl	2663	0.1	0.3
Triacontane	878187	45.4	101.0 M

JW 6/24/13

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	19283.0	13-APR-2013
Triacon Surr	19327.9	20-MAY-2013
Gas	15539.5	21-MAR-2013
Diesel	14514.5	13-APR-2013
Motor Oil	12905.1	20-MAY-2013
AK102	17214.8	11-APR-2013
AK103	9202.1	25-SEP-2012
Min Spirit	19366.4	06-FEB-2013
Creosote	2181.9	04-FEB-2013

Data File: /chem3/fid4a.i/20130620.b/0620a023.d

Date : 20-JUN-2013 16:06

Client ID:

Sample Info: MOIL#3

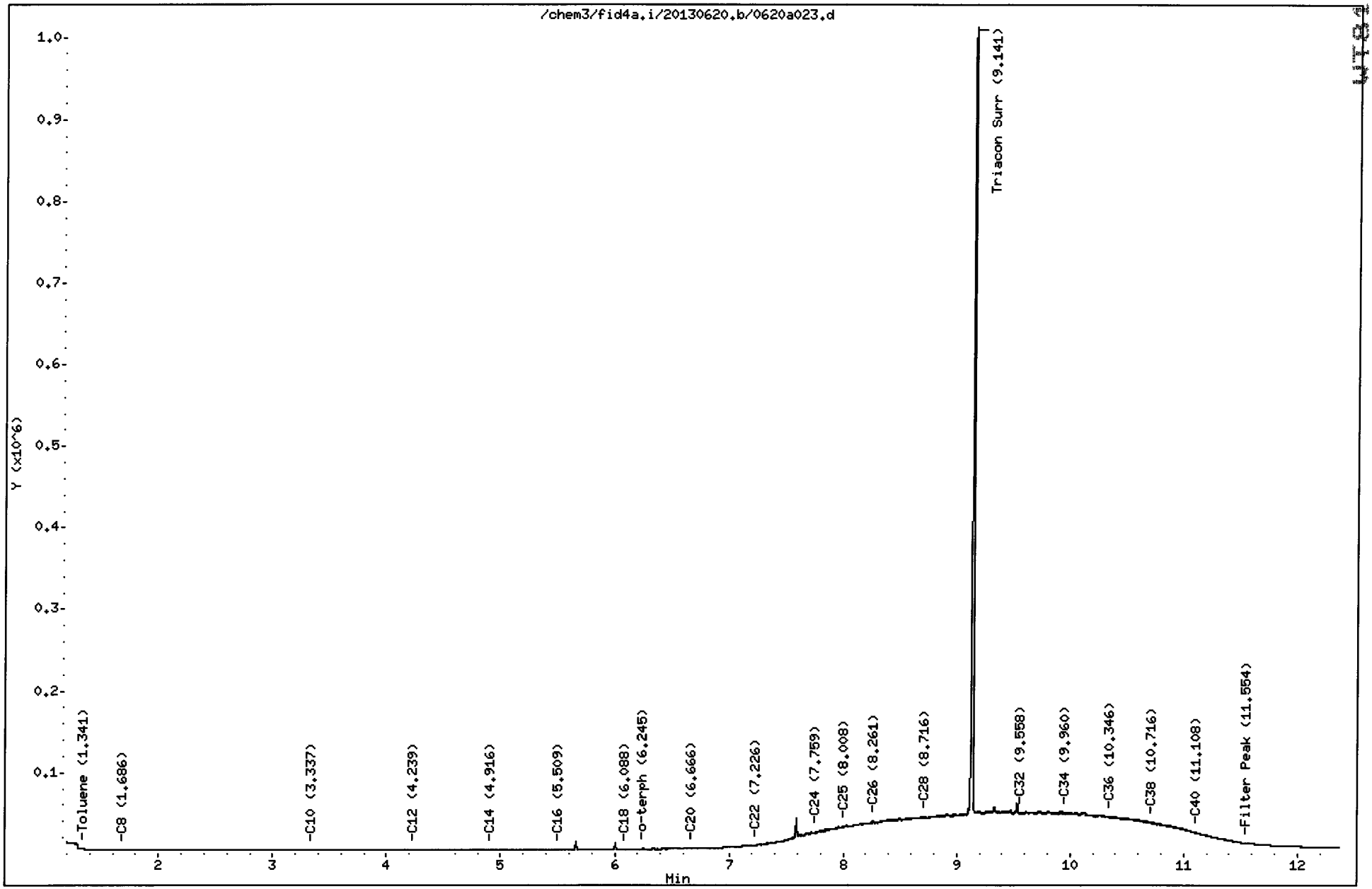
Column phase: RTX-1

Instrument: fid4a.i

Operator: JR/VTS/JW

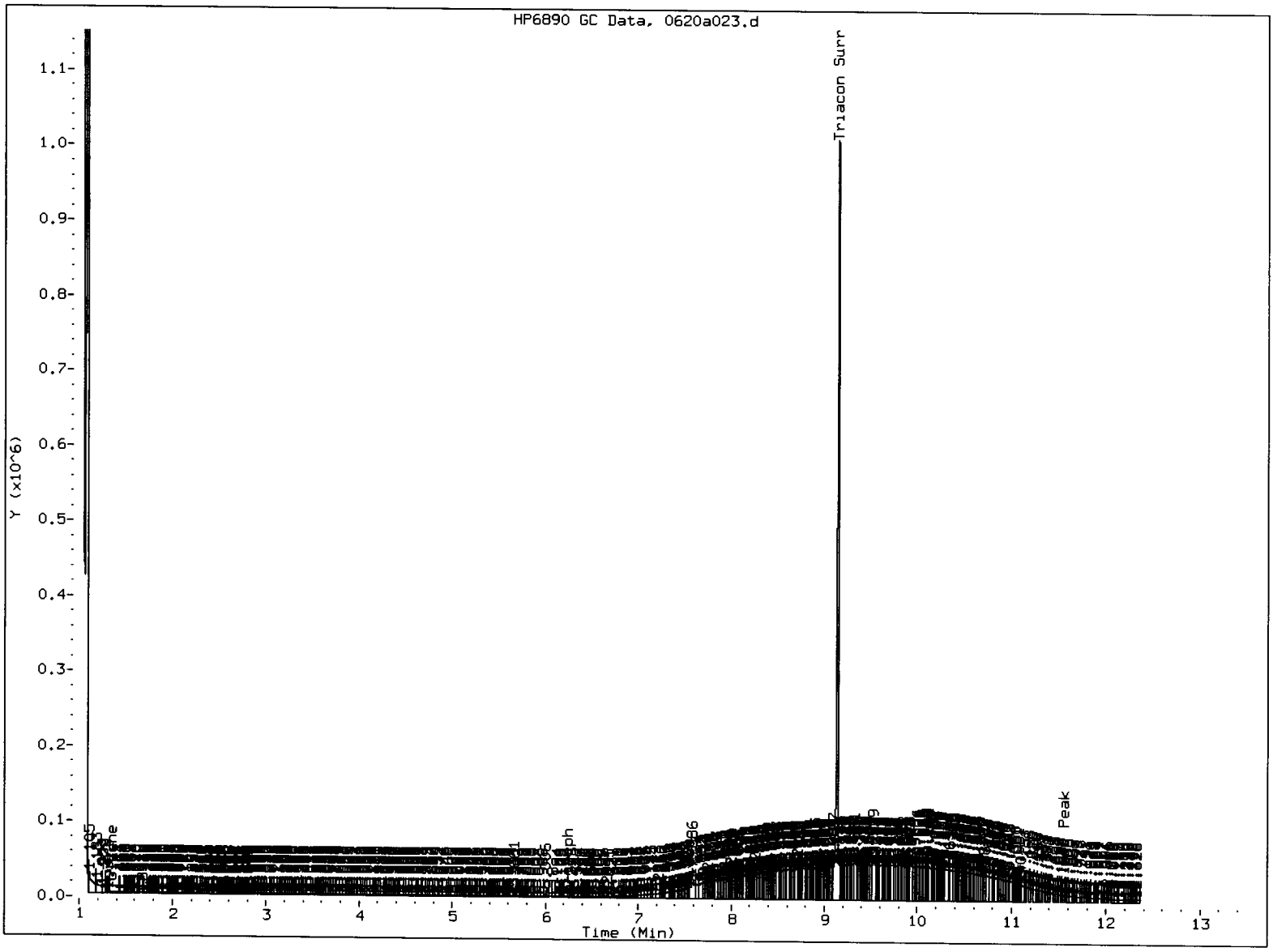
Column diameter: 0.25

JW 6/24/13



FID:4A-2C/RTX-1 MOIL#3

FID:4A SIGNAL



MANUAL INTEGRATION

1. Baseline correction
3. Peak not found
5. Skimmed surrogate

Analyst: JW Date: 6/24/10

TPHG Raw Data
Preparation Log

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Method 5035 Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No.	Client ID	Prep/Extraction Date	MeOH Lot No.	Analyst
		6/14/13	I7873	PC

	Lab ID	Vial No.	Preservative			Method 5035 Sample Weight					Comments
			$NaHSO_4$	CH_3OH	Lot #	Vial Weight (g)	Tare (from vial) (g)	Sample Weight (g)	Extract Volume (mL)	MeOH Spilt Volume (µL)	
1	WT52A	1						10,42	5	450	
2	LB	1						10,50			
3	WT86A	3						10,42			
4	WT96A	1						10,48			
5	B	2						10,46			
6	C	2						10,37			
7	D	1						10,56			
8	WT81B	1		x	DE695	33,03	27,902	5,128		900	
9	C	1		x	1	33,19	28,101	5,083		1	
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
					Balance ID:	4005006 Rtn2					

TPHG Raw Data
Initial Calibration Notes and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Initial Calibration Notes

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.3) **710S**(RSK-175)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 **PID-1** PID-2 PID-3 FID-6

Curve Date(s): 5/22/13 Surrogate ~~Internal~~ Standard ID VW795-2 Expiration 8/13/13
DAH 5/22/13

BFB Tune Meets Criteria?	N/A YES / NO	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	ICV Exceeding ±30%?	YES / NO
Q flag applied?	YES / NO	Linear Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Quadratic Fits Used?	YES / NO
Spectral Library Updated?	YES / NO	Calibration Points Dropped?	YES / NO DAH 5/22
Minimum Response Factors Met	YES / NO	Purge Volume (mL)	5mL

0.05 level on FID side for o-xylene

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Restek	VW795-2	8/13/13	Vitra	B000435	11/22/13
Restek	B000332	11/13/13			

Detail problems, corrective actions and/or other pertinent information below:

Calibration for BTEX and surrogates. Surrogates calibrated with BTEX to avoid hydrocarbon interference.

Dropped 0.25 part for o-xylene on the FID side.

Analyst: DAH **Date:** 5/22/13

Reviewer: [signature] **Date:** 5/23/13

Analytical Resources Inc.: Organics Instrument Log

PID-1 Serial No.: 2750A-17141

Date: 5/22/13 Analysis: BTEX/NWTPH-G Analyst: [signature]

Column 1 Serial No.: 82/726 Column Type: RTX502.2

Column 2 Serial No.: _____ Column Type: _____

GC Method: BETX ICal Date: 10/23/13, 5/22/13 Injection Volume: 5 mL

IS	Ical/Ccal	ICV
VW795-2, B000434	B000332 B000432 B000433	B000435 (ICV) B000332 (LCS)
[signature] 5/23/13	[signature] 5/23/13	[signature] 5/23/13

Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/pid1.i/20130522-1.b

	Time	Filename	LabID	ClientID	Vial#	pH	DF					
1	0833	0522a001.d	RINSE				1	23	1937	0522a023.d	BCAL 2	OK		1
2	0902	0522a002.d	BCAL0.25	BCAL0.25			1	24	2006	0522a024.d	BCAL 2	OK		1
3	0930	0522a003.d	BCAL0.5	BCAL0.5			1	25	2035	0522a025.d	WQ46N	A2-F13-S-6	1 Soil	1
4	0958	0522a004.d	BCAL1	BCAL1			1	26	2104	0522a026.d	WQ46N	A2-F14-S-6	3	1
5	1027	0522a005.d	BCAL5	BCAL5			1	27	2133	0522a027.d	WQ46O	A2-F15-S-6	2	1
6	1056	0522a006.d	BCAL25	BCAL25			1	28	2203	0522a028.d	WQ46P	A2-F16-S-6	3	1
7	1125	0522a007.d	BCAL50	BCAL50			1	29	2232	0522a029.d	WQ46Q	A2-F17-S-6	2	1
8	1155	0522a008.d	BCAL100	BCAL100			1	30	2301	0522a030.d	WQ46R	A2-F18-S-6	3	1
9	1224	0522a009.d	BCAL200	BCAL200			1	31	2330	0522a031.d	WQ46S	A2-F19-S-6	1	1
10	1253	0522a010.d	ICV25	ICV25			1	32	2359	0522a032.d	WQ46T	A2-F20-S-6	1	1
11	1339	0522a011.d	RT/BCAL 1				1	33	0029	0522a033.d	WQ38A	MW-R1	1 ≤2	1
12	1408	0522a012.d	BCAL 1				1	34	0058	0522a034.d	WQ49F	GTSP-GW-Q2-TB	1	1
13	1437	0522a013.d	LCS0522	LCS0522			1	35	0127	0522a035.d	BCAL 3	OK		1
14	1506	0522a014.d	LCSD0522	LCSD0522			1	36	0156	0522a036.d	BCAL 3	OK		1
15	1543	0522a015.d	MB0522				1	37	0225	0522a037.d	WQ48A	GTSP-S-GW-Q2-7-17	2 ≤2	1 Rerun
16	1612	0522a016.d	WQ46F	A2-F6-S-6	2	Soil	1	38	0255	0522a038.d	WQ49B	GTSP-SS-GW-Q2-7-17	2	1
17	1641	0522a017.d	WQ46G	A2-F7-S-6	2		1	39	0324	0522a039.d	WQ49C	GTSP-GW-Q2-EB	1	1
18	1711	0522a018.d	WQ46H	A2-F8-S-6	3		1	40	0353	0522a040.d	BCAL 4	Low		1
19	1740	0522a019.d	WQ46I	A2-F9-S-6	1		1							
20	1809	0522a020.d	WQ46J	A2-F10-S-6	2		1							
21	1838	0522a021.d	WQ46K	A2-F11-S-6	2		1							
22	1907	0522a022.d	WQ46L	A2-F12-S-6	1		1							

[signature] 5/23/13

* File 40 (BCAL 4 failed low, but BCAL 1 (file 3 on the following day) ran within 24 hours of the retention time standard and closed the bracket with a passing recovery.

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20130522-1.b/FID.m
Batch File: /chem3/pid1.i/20130522-1.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09
FILENAME:	0522a002	0522a003	0522a004	0522a005	0522a006	0522a007	0522a008	0522a009	0522a010
INJ.DATE:	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013
INJ.TIME:	09:02	09:30	09:58	10:27	10:56	11:25	11:55	12:24	12:53

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	NWTPHG	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.492	0.422-0.562	+++++	+++++
2	WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.937	0.867-1.007	+++++	+++++
3	AK101	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.251	1.181-1.321	+++++	+++++
4	8015GAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.539	1.469-1.609	+++++	+++++
5	2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.278	4.208-4.348	+++++	+++++
6	MTBE	4.530	4.540	4.538	4.539	4.537	4.537	4.539	4.538	4.539	4.530	4.460-4.600	4.537	0.003
7	nC6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.777	4.707-4.847	+++++	+++++
8	nC7	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.820	6.750-6.890	+++++	+++++
9	BENZENE	7.007	7.015	7.010	7.012	7.012	7.012	7.014	7.014	7.013	7.007	6.937-7.077	7.012	0.002
$ 10	TFT(Surr)	7.849	7.848	7.848	7.848	7.848	7.848	7.849	7.848	7.849	7.849	7.779-7.919	7.848	0.001
11	nC8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.481	9.411-9.551	+++++	+++++
12	Toluene	9.877	9.875	9.873	9.873	9.874	9.873	9.875	9.877	9.874	9.877	9.807-9.947	9.875	0.001
13	nC9	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.404	12.334-12.474	+++++	+++++
14	ETHYLBENZENE	12.763	12.766	12.766	12.764	12.765	12.765	12.767	12.770	12.766	12.763	12.693-12.833	12.766	0.002
15	M/P-XYLENE	12.927	12.929	12.924	12.925	12.926	12.927	12.930	12.935	12.927	12.927	12.857-12.997	12.928	0.003
16	O-XYLENE	13.863	13.873	13.873	13.874	13.874	13.873	13.876	13.879	13.875	13.863	13.793-13.933	13.873	0.004
17	nC10-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.205	15.135-15.275	+++++	+++++

Reviewer 1 _____ Date: 5/22/13
Reviewer 2 _____ Date: 5/23/13

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20130522-1.b/FID.m
Batch File: /chem3/pid1.i/20130522-1.b
Inst ID: pid1.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 18 BB(Surr)	15.383	15.382	15.383	15.382	15.382	15.382	15.382	15.383	15.383	15.383	15.313-15.453	15.383	0.001
$ 19 BFB(Surr)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.027	15.957-16.097	+++++	+++++
20 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.106	16.036-16.176	+++++	+++++
21 nc11	+++++	+++++	16.702	16.701	16.701	16.701	16.702	16.704	16.701	16.702	16.632-16.772	16.702	0.001
22 nC12-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.798	17.728-17.868	+++++	+++++
23 nC13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.602	18.532-18.672	+++++	+++++
24 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.800	18.730-18.870	+++++	+++++

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20130522-2.b/PIDB.m
Batch File: /chem3/pid1.i/20130522-2.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09
FILENAME:	0522a002	0522a003	0522a004	0522a005	0522a006	0522a007	0522a008	0522a009	0522a010
INJ.DATE:	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013	22-MAY-2013
INJ.TIME:	09:02	09:30	09:58	10:27	10:56	11:25	11:55	12:24	12:53

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	RT09	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 MTBE	4.550	4.550	4.543	4.547	4.545	4.545	4.547	4.545	4.546	4.550	4.500-4.600	4.546	0.002
	2 Benzene	7.017	7.020	7.020	7.020	7.020	7.020	7.022	7.021	7.021	7.017	6.967-7.067	7.020	0.001
$	3 TFT(Surr)	7.856	7.856	7.857	7.857	7.856	7.856	7.857	7.856	7.857	7.856	7.806-7.906	7.856	0.001
	4 Toluene	9.883	9.883	9.883	9.883	9.882	9.883	9.884	9.885	9.883	9.883	9.833-9.933	9.883	0.001
	5 Ethylbenzene	12.773	12.773	12.773	12.774	12.774	12.774	12.776	12.778	12.774	12.773	12.723-12.823	12.774	0.002
	6 M/P-Xylene	12.933	12.937	12.934	12.935	12.935	12.936	12.938	12.943	12.936	12.933	12.883-12.983	12.936	0.003
	7 O-Xylene	13.883	13.883	13.883	13.883	13.883	13.883	13.884	13.888	13.884	13.883	13.853-13.913	13.884	0.002
$	8 BB(Surr)	15.390	15.390	15.390	15.390	15.390	15.391	15.390	15.391	15.390	15.390	15.340-15.440	15.390	0.000

Reviewer 1 _____ Date: 5/22/13
Reviewer 2 _____ Date: 5/23/13

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid1.i/20130522-1.b

ARI Job No.: BCAL Method: FID.m Instrument: pid1.i Date: 22-MAY-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0902	0522a002.d	BCAL0.25	BCAL0.25	1	Toluene, MTBE, BENZENE, ETHYLBENZENE, M/P-XYLENE, O-XYLENE, BB(Surr),
0930	0522a003.d	BCAL0.5	BCAL0.5	1	O-XYLENE,
0958	0522a004.d	BCAL1	BCAL1	1	Toluene, BENZENE, O-XYLENE, BB(Surr),
1027	0522a005.d	BCAL5	BCAL5	1	NO MANUAL INTEGRATION
1056	0522a006.d	BCAL25	BCAL25	1	NO MANUAL INTEGRATION
1125	0522a007.d	BCAL50	BCAL50	1	NO MANUAL INTEGRATION
1155	0522a008.d	BCAL100	BCAL100	1	NO MANUAL INTEGRATION
1224	0522a009.d	BCAL200	BCAL200	1	NO MANUAL INTEGRATION
1253	0522a010.d	ICV25	ICV25	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid1.i/20130522-2.b

ARI Job No.: BCAL Method: PIDB.m Instrument: pid1.i Date: 22-MAY-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0902	0522a002.d	BCAL0.25	BCAL0.25	1	Benzene, Toluene, Ethylbenzene, M/P-Xylene, O-Xylene, MTBE, BB(Surr),
0930	0522a003.d	BCAL0.5	BCAL0.5	1	Benzene, Toluene, Ethylbenzene, M/P-Xylene, O-Xylene, MTBE,
0958	0522a004.d	BCAL1	BCAL1	1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
1027	0522a005.d	BCAL5	BCAL5	1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
1056	0522a006.d	BCAL25	BCAL25	1	Toluene,
1125	0522a007.d	BCAL50	BCAL50	1	Toluene, BB(Surr),
1155	0522a008.d	BCAL100	BCAL100	1	NO MANUAL INTEGRATION
1224	0522a009.d	BCAL200	BCAL200	1	NO MANUAL INTEGRATION
1253	0522a010.d	ICV25	ICV25	1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 13:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-1.b/FID.m
Cal Date : 22-May-2013 16:19 lanih
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/20130522-1.b/0522a011.d
Level 2: /chem3/pid1.i/20130522-1.b/0522a002.d
Level 3: /chem3/pid1.i/20130522-1.b/0522a003.d
Level 4: /chem3/pid1.i/20130522-1.b/0522a004.d
Level 5: /chem3/pid1.i/20130522-1.b/0522a005.d
Level 6: /chem3/pid1.i/20130522-1.b/0522a006.d
Level 7: /chem3/pid1.i/20130522-1.b/0522a007.d
Level 8: /chem3/pid1.i/20130522-1.b/0522a008.d
Level 9: /chem3/pid1.i/20130522-1.b/0522a009.d

Compound	0.000e+00 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	5.000 Level 5	25.000 Level 6	___ RRF	% RSD
	50.000 Level 7	100.000 Level 8	200.000 Level 9					
1 NWTPHG	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
2 WAGAS	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
3 AK101	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
4 8015GAS	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
5 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 13:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-1.b/FID.m
Cal Date : 22-May-2013 16:19 lanih
Curve Type : Average

Compound	0.000e+00 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	5.000 Level 5	25.000 Level 6	RRF	% RSD
	50.000 Level 7	100.000 Level 8	200.000 Level 9					
6 MTBE	+++++	856	1054	902	840	811		
	781	770	744				845	11.680
7 nC6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
8 nC7	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
9 BENZENE	+++++	1540	1502	1560	1515	1464		
	1399	1370	1331				1460	5.764
11 nC8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
12 Toluene	+++++	1480	1582	1694	1476	1414		
	1358	1315	1283				1450	9.565
13 nC9	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
14 ETHYLBENZENE	+++++	124	124	115	113	107		
	103	98.66000	96.17500				110	9.723
15 M/P-XYLENE	+++++	1384	1378	1288	1350	1266		
	1216	1168	1151				1275	7.170

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 13:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-1.b/FID.m
Cal Date : 22-May-2013 16:19 lanih
Curve Type : Average

Compound	0.000e+00 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	5.000 Level 5	25.000 Level 6	RRF	% RSD
	50.000 Level 7	100.000 Level 8	200.000 Level 9					
16 O-XYLENE	+++++	+++++	972	1265	1407	1326		
	1277	1226	1204				1239	10.946
17 nC10-Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
20 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
21 nc11	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
22 nC12-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
23 nC13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
24 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
$ 10 TFT(Surr)	+++++	30.63636	30.95455	30.54545	29.88060	29.37000		
	28.75188	28.18539	28.40000				29.59053	3.634
$ 18 BB(Surr)	+++++	20.63636	20.13636	20.50000	19.88060	19.80000		
	19.51128	19.17978	19.32000				19.87055	2.668

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 13:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-1.b/FID.m
Cal Date : 22-May-2013 16:19 lanih
Curve Type : Average

Compound	0.000e+00 Level 1	0.25000 Level 2	0.50000 Level 3	1.000 Level 4	5.000 Level 5	25.000 Level 6	RRF	% RSD	
	50.000 Level 7	100.000 Level 8	200.000 Level 9						
$ 19 BFB(Surr)	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++	+++++				+++++	+++++	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 13:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-1.b/FID.m
Cal Date : 22-May-2013 16:19 lanih
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 9.57176
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 12:24
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-2.b/PIDB.m
Cal Date : 22-May-2013 15:25 lanih
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/20130522-2.b/0522a002.d
Level 2: /chem3/pid1.i/20130522-2.b/0522a003.d
Level 3: /chem3/pid1.i/20130522-2.b/0522a004.d
Level 4: /chem3/pid1.i/20130522-2.b/0522a005.d
Level 5: /chem3/pid1.i/20130522-2.b/0522a006.d
Level 6: /chem3/pid1.i/20130522-2.b/0522a007.d
Level 7: /chem3/pid1.i/20130522-2.b/0522a008.d
Level 8: /chem3/pid1.i/20130522-2.b/0522a009.d

Compound	0.25000 Level 1	0.50000 Level 2	1.000 Level 3	5.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
1 MTBE	96.00000	76.00000	73.00000	88.80000	92.28000	90.78000		
	91.10000	89.51500					87.18438	9.361
2 Benzene	184	228	222	232	236	233		
	233	231					225	7.569
4 Toluene	176	178	195	204	210	206		
	207	209					198	6.985
5 Ethylbenzene	132	130	163	173	179	177		
	176	176					163	12.557
6 M/P-Xylene	156	167	172	185	191	189		
	188	191					180	7.306
7 O-Xylene	96.00000	122	143	149	157	156		
	155	159					142	15.542

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 12:24
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-2.b/PIDB.m
Cal Date : 22-May-2013 15:25 lanih
Curve Type : Average

Compound	0.25000 Level 1	0.50000 Level 2	1.000 Level 3	5.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
$ 3 TFT(Surr)	31.81818	32.40909	32.47727	32.23881	32.41000	32.24812		
	32.00562	32.27000					32.23464	0.691
$ 8 BB(Surr)	68.18182	69.86364	72.43182	71.70149	73.47000	73.45113		
	73.66854	75.61500					72.29793	3.258

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-MAY-2013 09:02
End Cal Date : 22-MAY-2013 12:24
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20130522-2.b/PIDB.m
Cal Date : 22-May-2013 15:25 lanih
Curve Type : Average

Average %RSD Results.	
Calculated Average %RSD =	7.90855
Maximun Average %RSD =	20.00000
* Passed Average %RSD Test.	

5/22/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a002.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a002.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL0.25
Client ID: BCAL0.25
Injection Date: 22-MAY-2013 09:02
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.849	0.000	337	4257	11.4	TFT(Surr)
15.383	0.000	227	1854	11.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.78 to 17.90)	358114	1959	0.005 M
8015C 2MP-TMB	(4.18 to 16.21)	723723	2559	0.004 M
AK101 nC6-nC10	(4.68 to 15.11)	582885	2345	0.004 M
NWTPHG Tol-Nap	(9.78 to 18.90)	375093	1959	0.005 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	350	10.9	TFT(Surr)
15.390	-0.001	750	10.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.017	-0.005	46	0.20N	Benzene
9.883	-0.001	44	0.22N	Toluene
12.773	-0.005	33	0.20N	Ethylbenzene
12.933	-0.010	78	0.43N	M/P-Xylene
13.883	-0.005	24	0.17N	O-Xylene
4.550	0.005	24	0.28N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a002.d
Lab Smp Id: BCAL0.25 Client Smp ID: BCAL0.25
Inj Date : 22-MAY-2013 09:02
Operator : LH Inst ID: pid1.i
Smp Info : BCAL0.25
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 09:02 Cal File: 0522a002.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	6 MTBE	4.530	4.538	-0.008	214	0.25000	0.253(M)
	9 BENZENE	7.007	7.014	-0.007	385	0.25000	0.264(M)
$	10 TFT(Surr)	7.849	7.848	0.001	337	11.0000	11.39
	12 Toluene	9.877	9.877	0.000	370	0.25000	0.255(M)
	14 ETHYLBENZENE	12.763	12.770	-0.007	31	0.25000	0.282(M)
	15 M/P-XYLENE	12.927	12.935	-0.008	692	0.50000	0.543(M)
	16 O-XYLENE	13.863	13.879	-0.016	547	0.25000	0.403(M)
$	18 BB(Surr)	15.383	15.383	0.000	227	11.0000	11.42(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/20130522-1.b/0522a002.d

Page 1

Date : 22-MAY-2013 09:02

Client ID: BCAL0.25

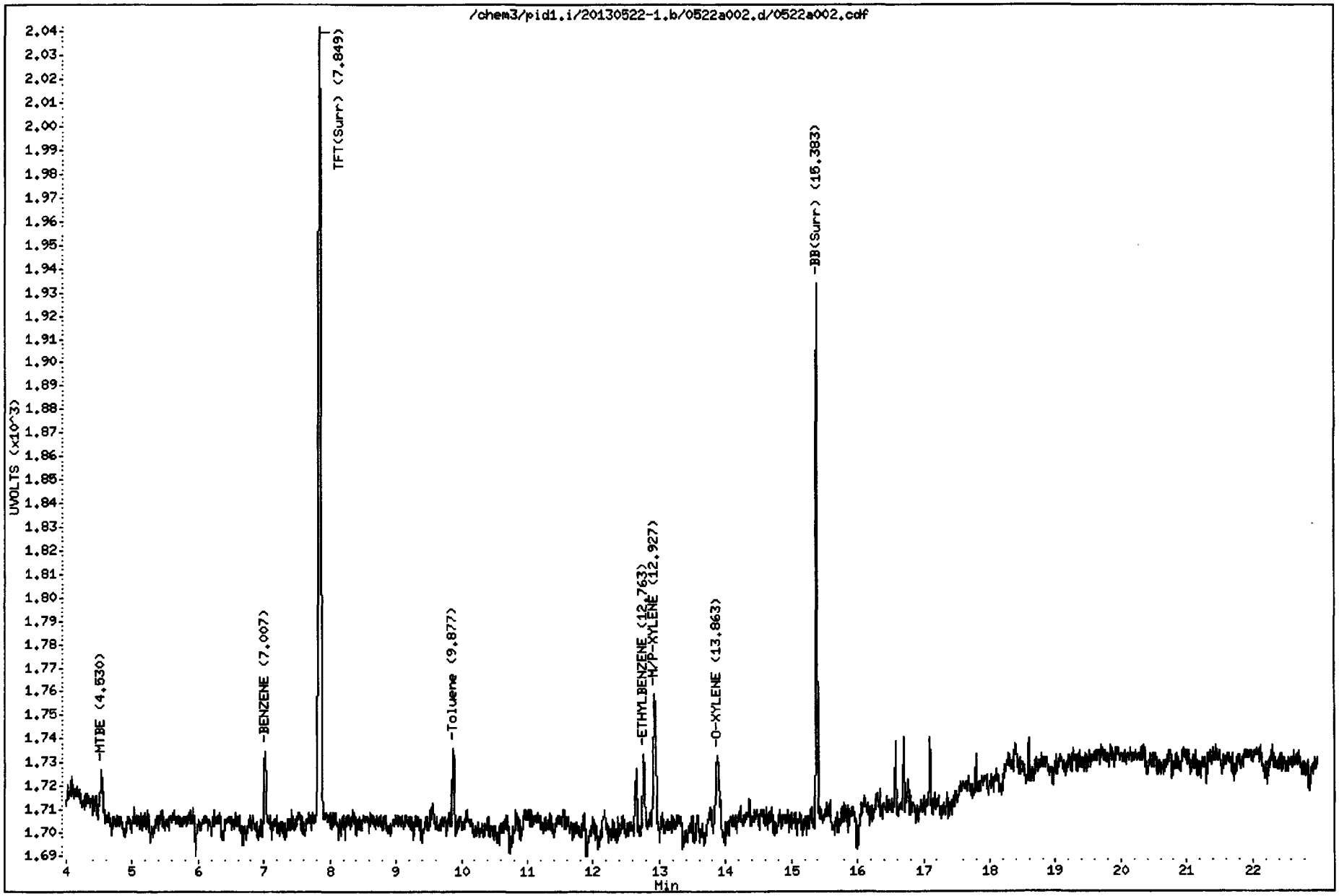
Instrument: pid1.i

Sample Info: BCAL0.25

Operator: LH

Column phase: RTX 502-2 FID

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a002.d

Date : 22-MAY-2013 09:02

Client ID: BCAL0.25

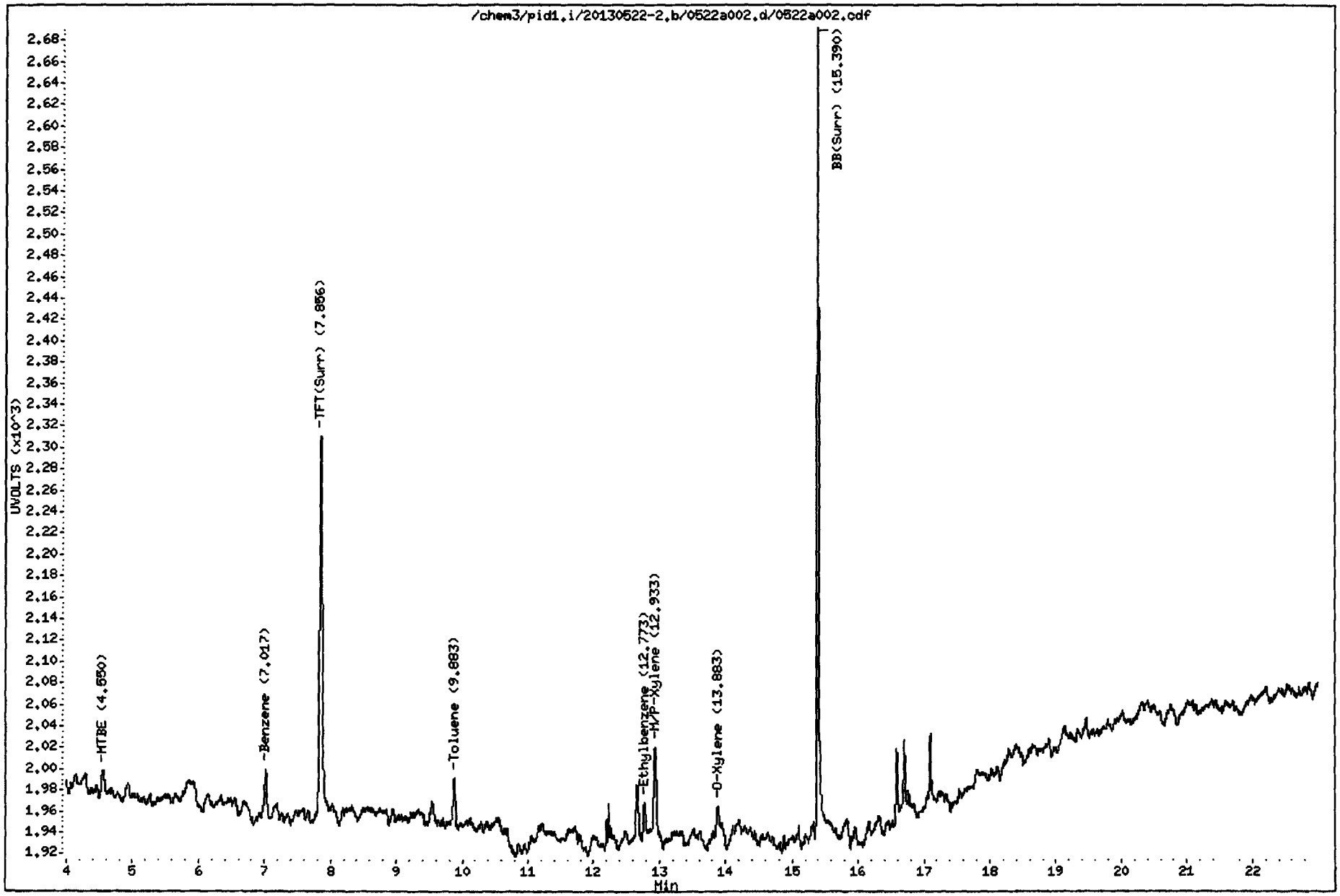
Sample Info: BCAL0.25

Column phase: RTX 502-2 PID

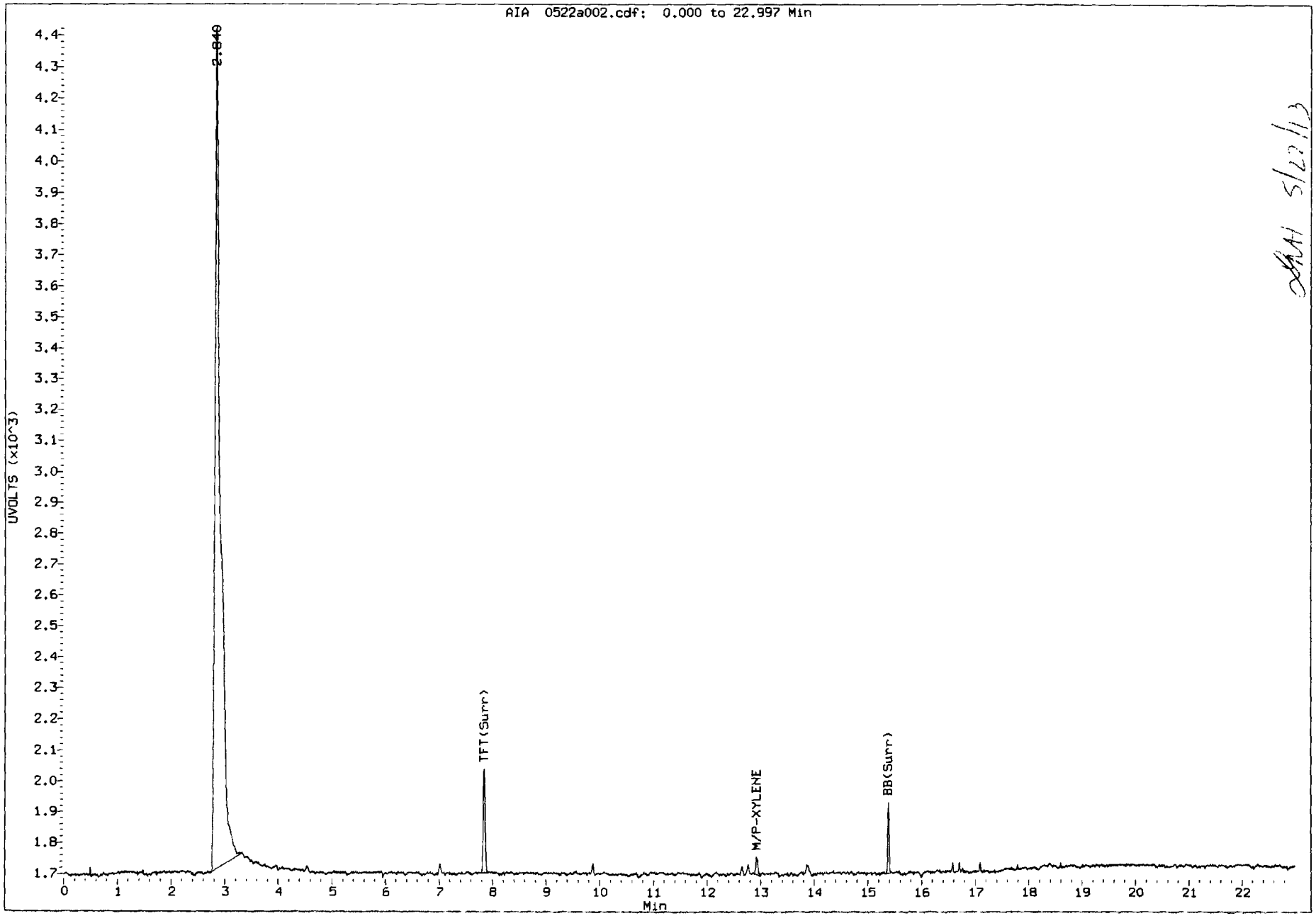
Instrument: pid1.i

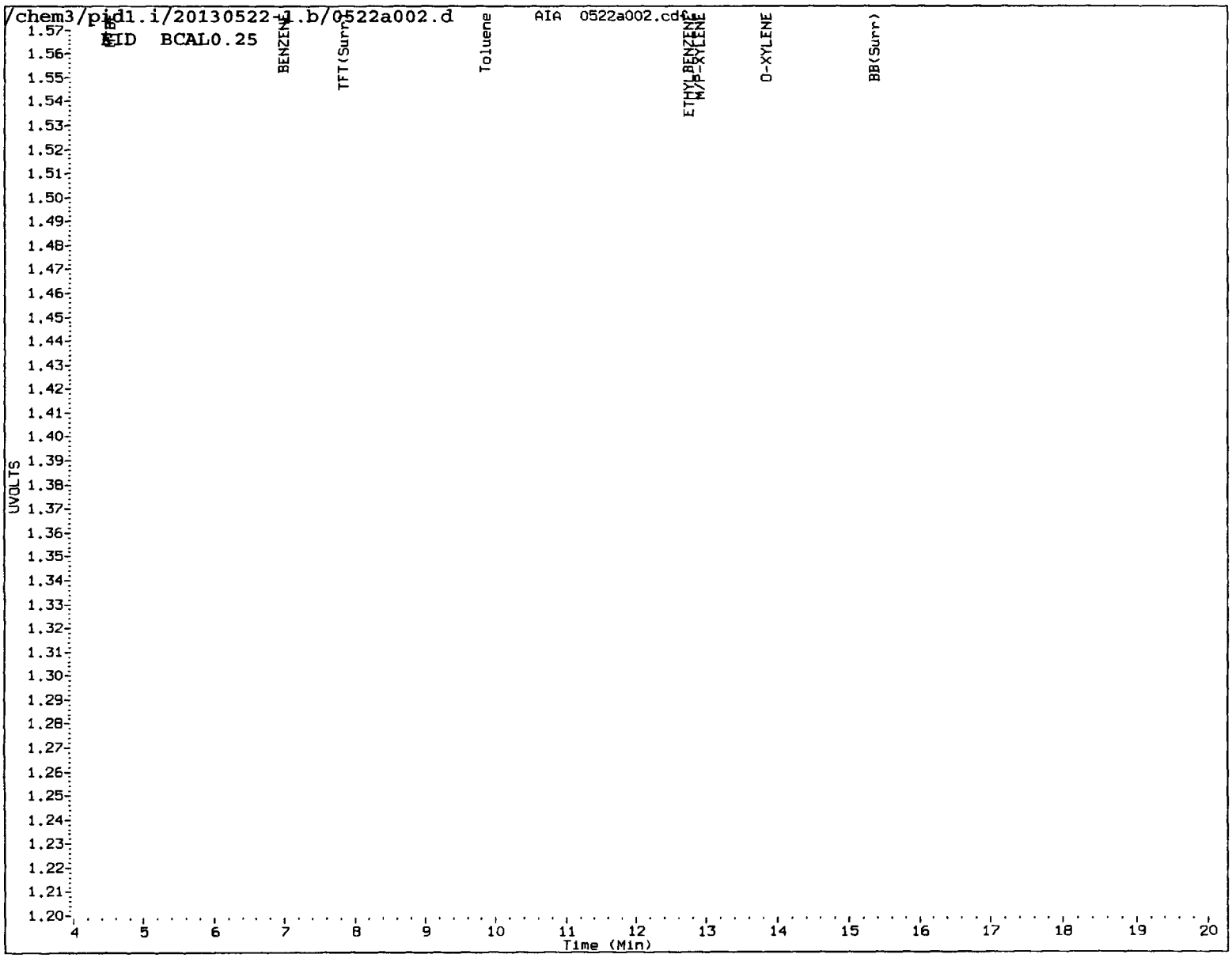
Operator: LH

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-1.b/0522a002.d/0522a002.cdf
Injection Date: 22-MAY-2013 09:02
Instrument: pid1.i
Client Sample ID: BCAL0.25





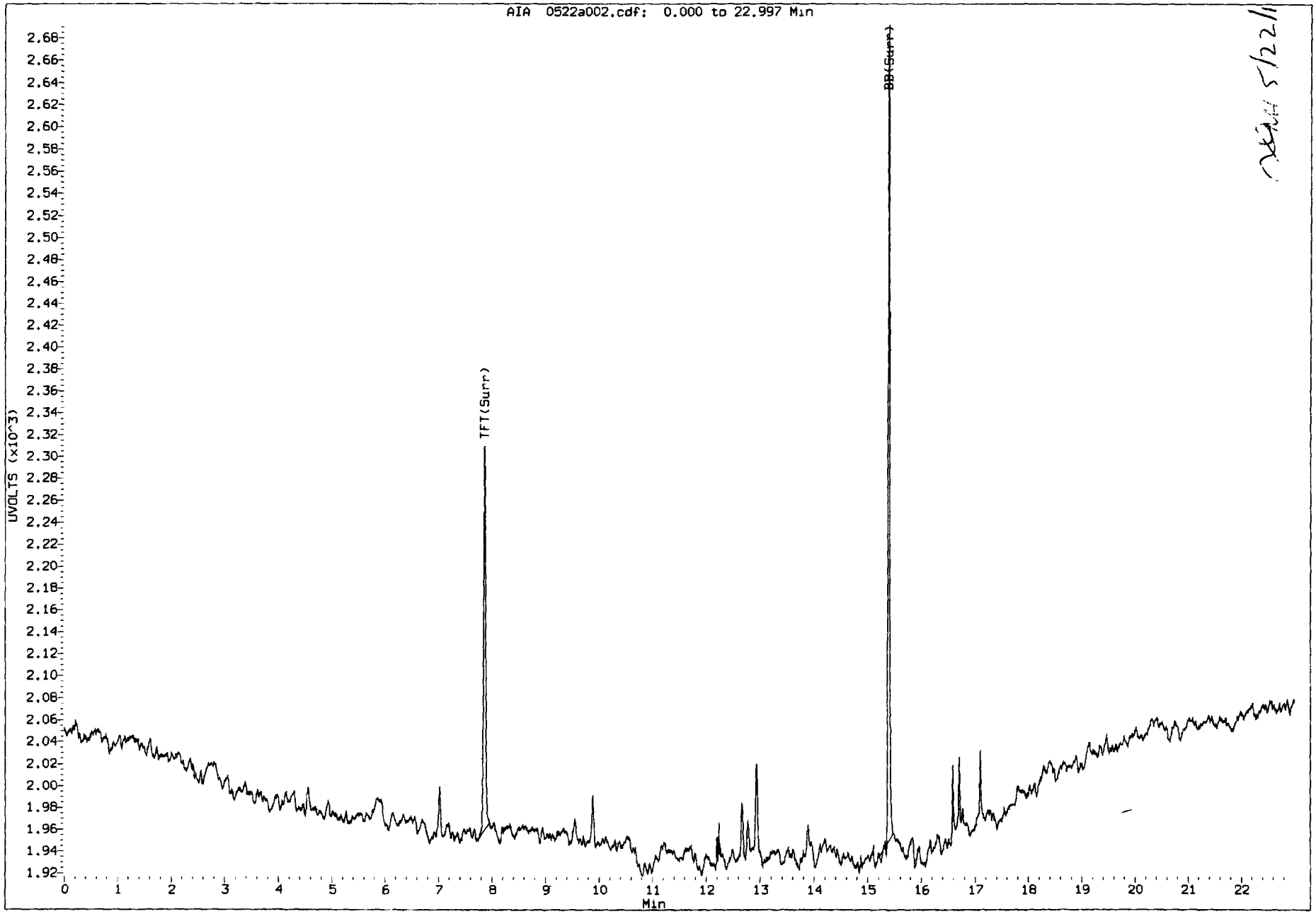
MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

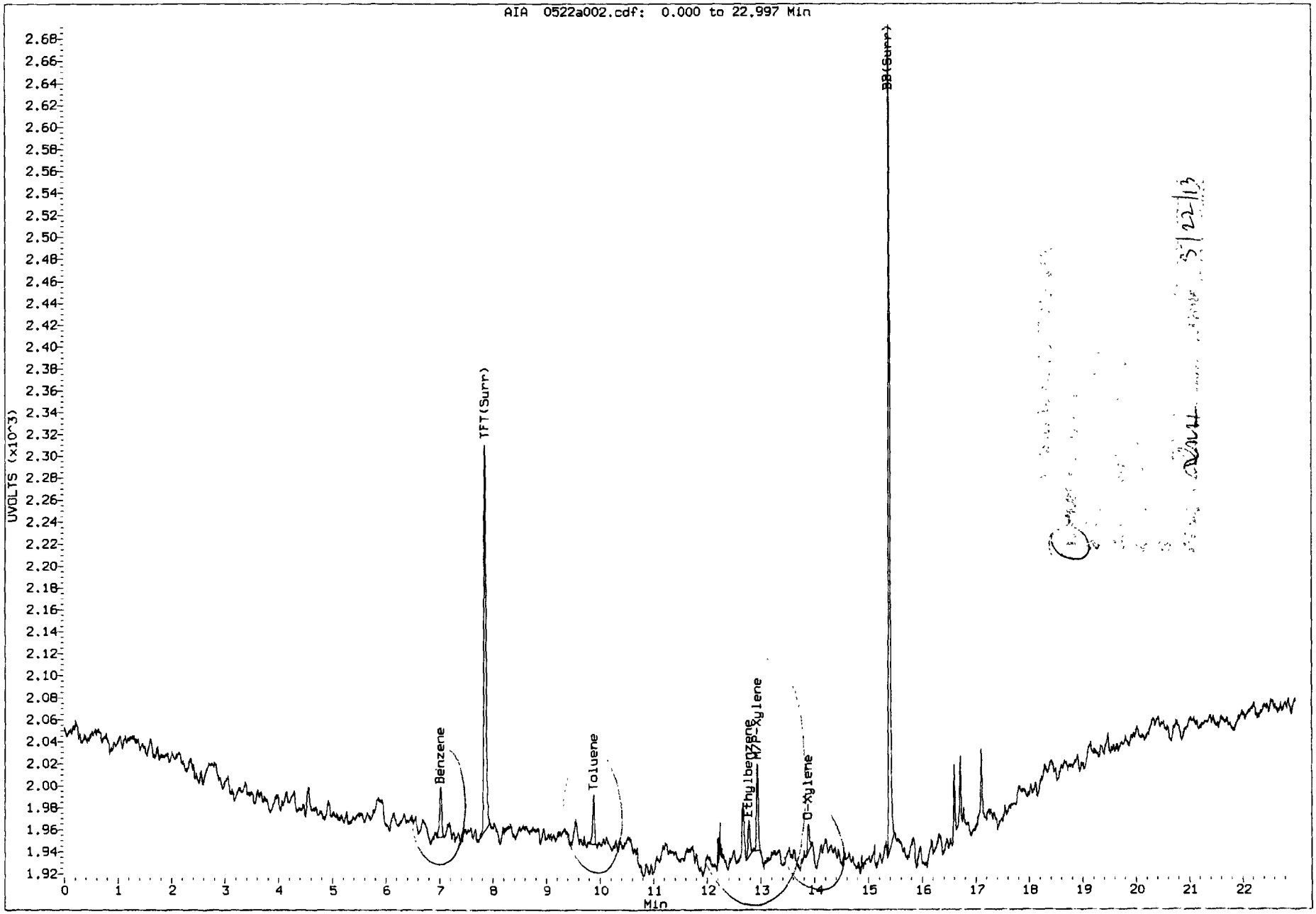
5. Other _____

Analyst: [signature] Date: 5/22/13

Data File: /chem3/pid1.i/20130522-2.b/0522a002.d/0522a002.cdf
Injection Date: 22-MAY-2013 09:02
Instrument: pid1.i
Client Sample ID: BCAL0.25



Data File: /chem3/pid1.i/20130522-2.b/0522a002.d/0522a002.cdf
Injection Date: 22-MAY-2013 09:02
Instrument: pid1.i
Client Sample ID: BCAL0.25



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a003.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a003.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL0.5
Client ID: BCAL0.5
Injection Date: 22-MAY-2013 09:30
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	681	8701	23.0	TFT(Surr)
15.382	0.000	443	3756	22.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.78 to 17.90)	358114	4249	0.012 M
8015C 2MP-TMB	(4.18 to 16.21)	723723	5527	0.008 M
AK101 nC6-nC10	(4.68 to 15.11)	582885	4999	0.009 M
NWTPHG Tol-Nap	(9.78 to 18.90)	375093	4249	0.011 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	713	22.1	TFT(Surr)
15.390	-0.001	1537	21.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.020	-0.001	114	0.51N	Benzene
9.883	-0.001	89	0.45N	Toluene
12.773	-0.005	65	0.40N	Ethylbenzene
12.937	-0.007	167	0.93N	M/P-Xylene
13.883	-0.005	61	0.43N	O-Xylene
4.550	0.005	38	0.44N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a003.d
Lab Smp Id: BCAL0.5 Client Smp ID: BCAL0.5
Inj Date : 22-MAY-2013 09:30
Operator : LH Inst ID: pid1.i
Smp Info : BCAL0.5
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 09:30 Cal File: 0522a003.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

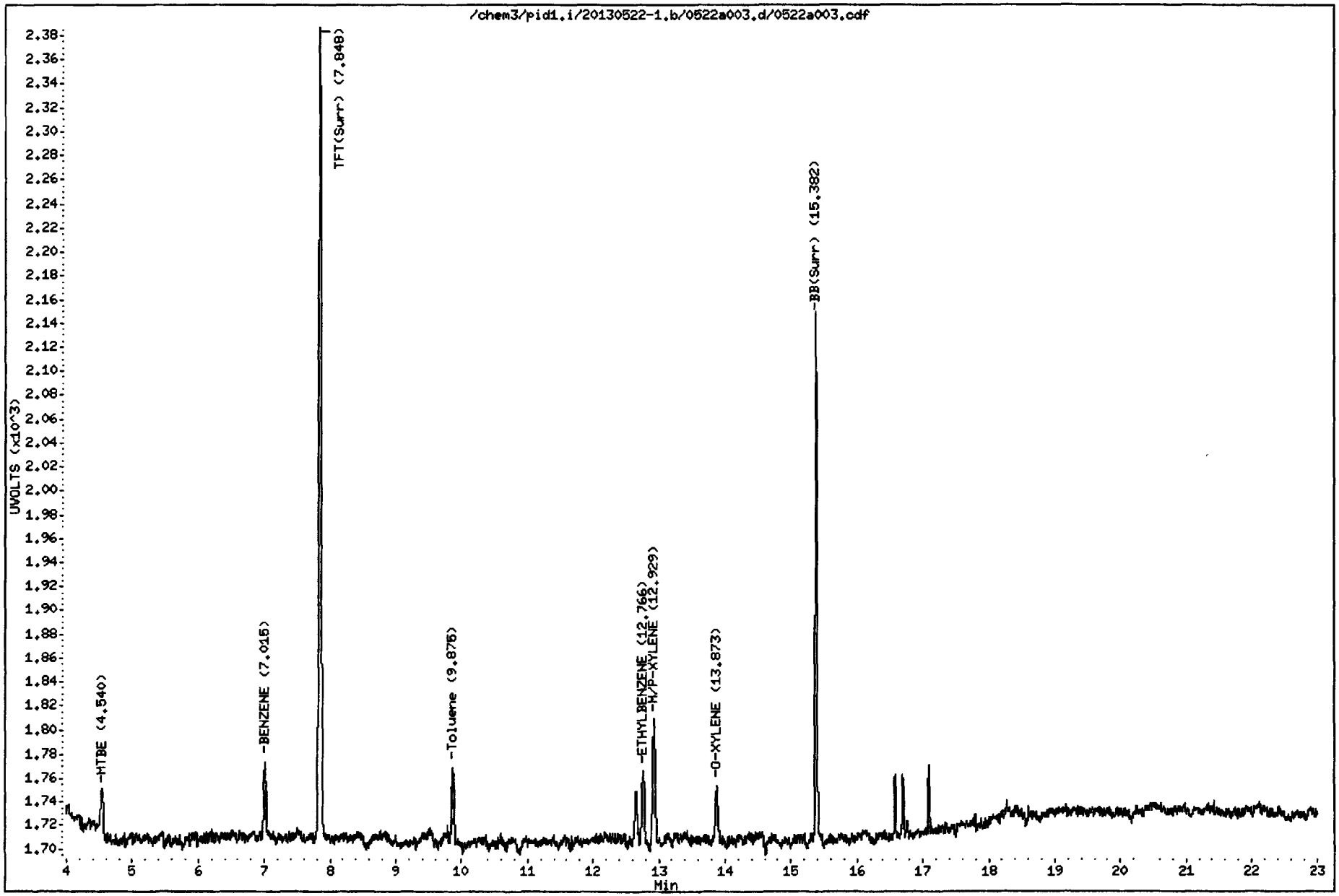
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
6 MTBE	4.540	4.540	0.000	527	0.50000	0.624
9 BENZENE	7.015	7.015	0.000	751	0.50000	0.514
$ 10 TFT(Surr)	7.848	7.848	0.000	681	22.0000	23.01
12 Toluene	9.875	9.875	0.000	791	0.50000	0.545
14 ETHYLBENZENE	12.766	12.766	0.000	62	0.50000	0.563
15 M/P-XYLENE	12.929	12.929	0.000	1378	1.00000	1.08
16 O-XYLENE	13.873	13.873	0.000	486	0.50000	0.358(M)
$ 18 BB(Surr)	15.382	15.382	0.000	443	22.0000	22.29

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/20130522-1.b/0522a003.d
Date : 22-MAY-2013 09:30
Client ID: BCAL0.5
Sample Info: BCAL0.5

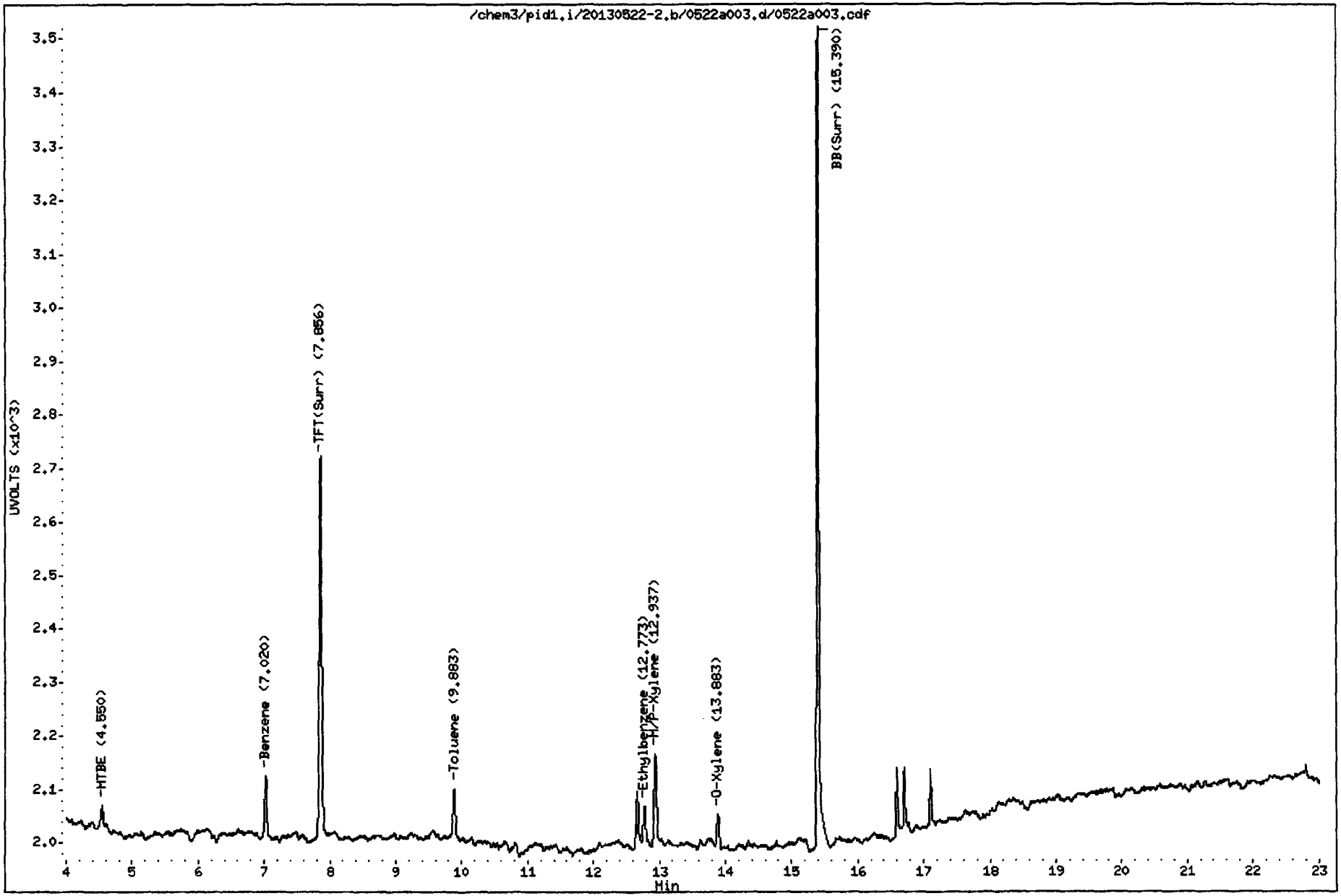
Instrument: pid1.i
Operator: LH
Column phase: RTX 502-2 FID
Column diameter: 0.18



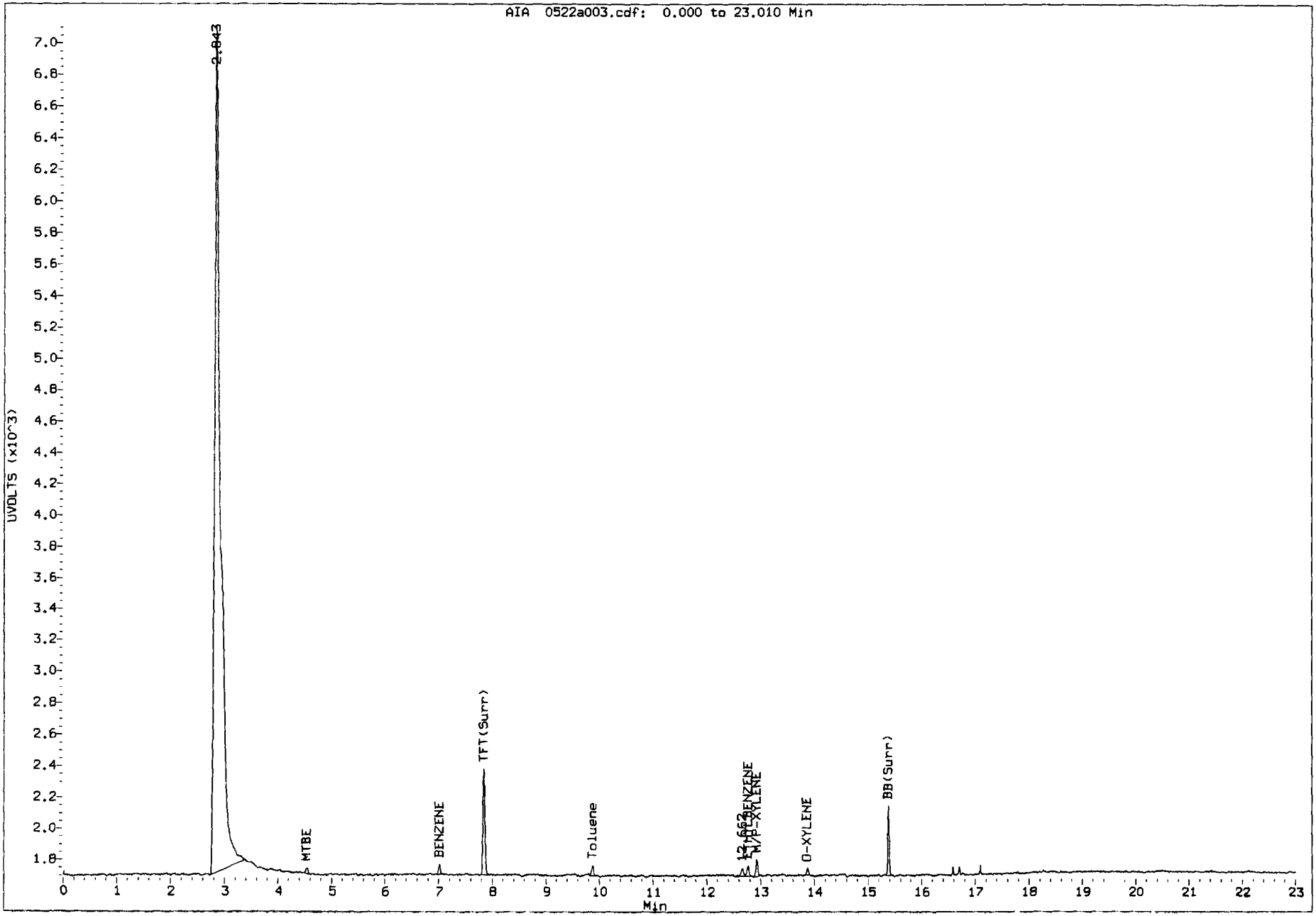
Data File: /chem3/pid1.i/20130522-2.b/0522a003.d
Date : 22-MAY-2013 09:30
Client ID: BCAL0.5
Sample Info: BCAL0.5

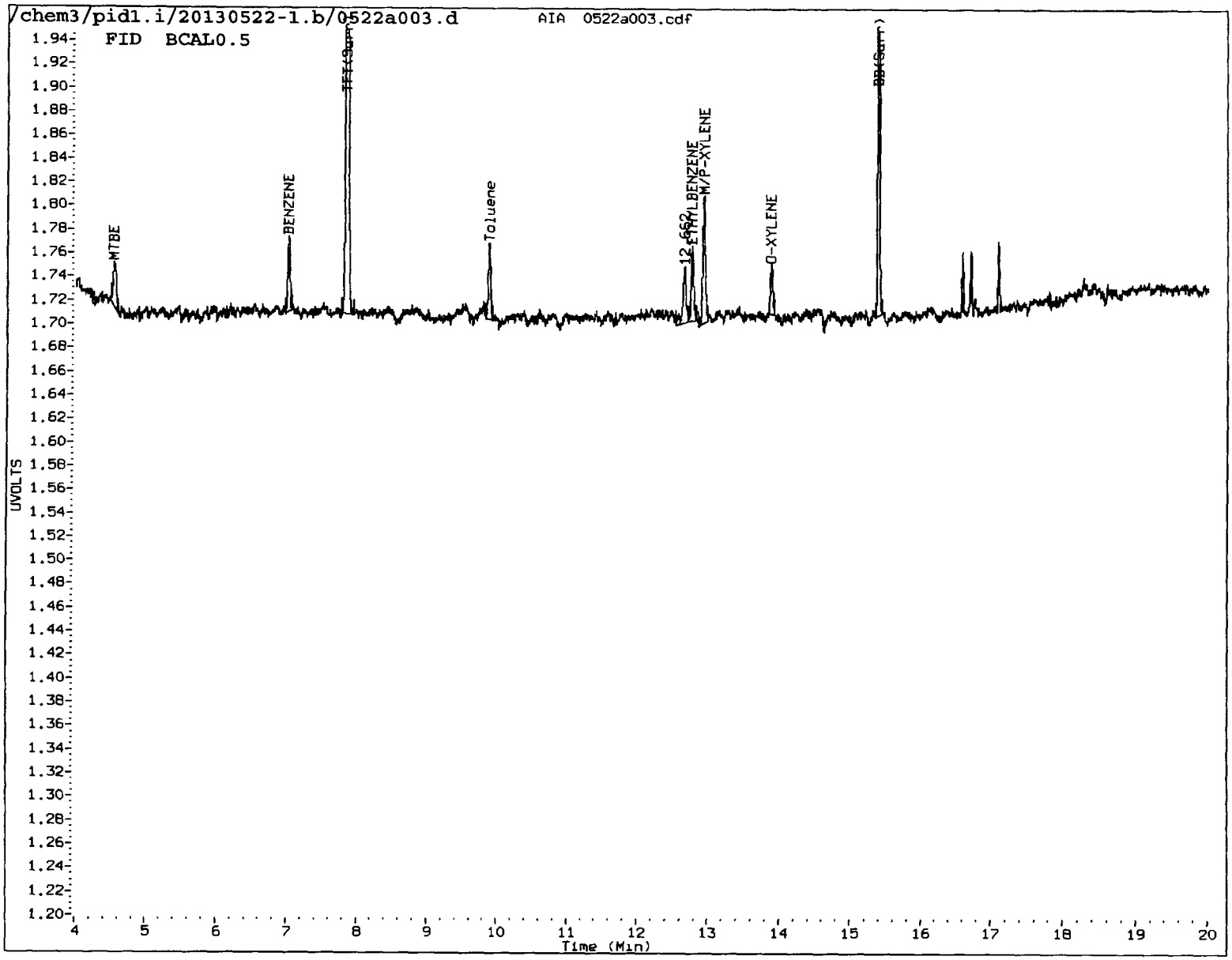
Instrument: pid1.i
Operator: LH
Column diameter: 0.18

Column phase: RTX 502-2 PID



Data File: /chem3/pid1.i/20130522-1.b/0522a003.d/0522a003.cdf
Injection Date: 22-MAY-2013 09:30
Instrument: pid1.i
Client Sample ID: BCAL0.5





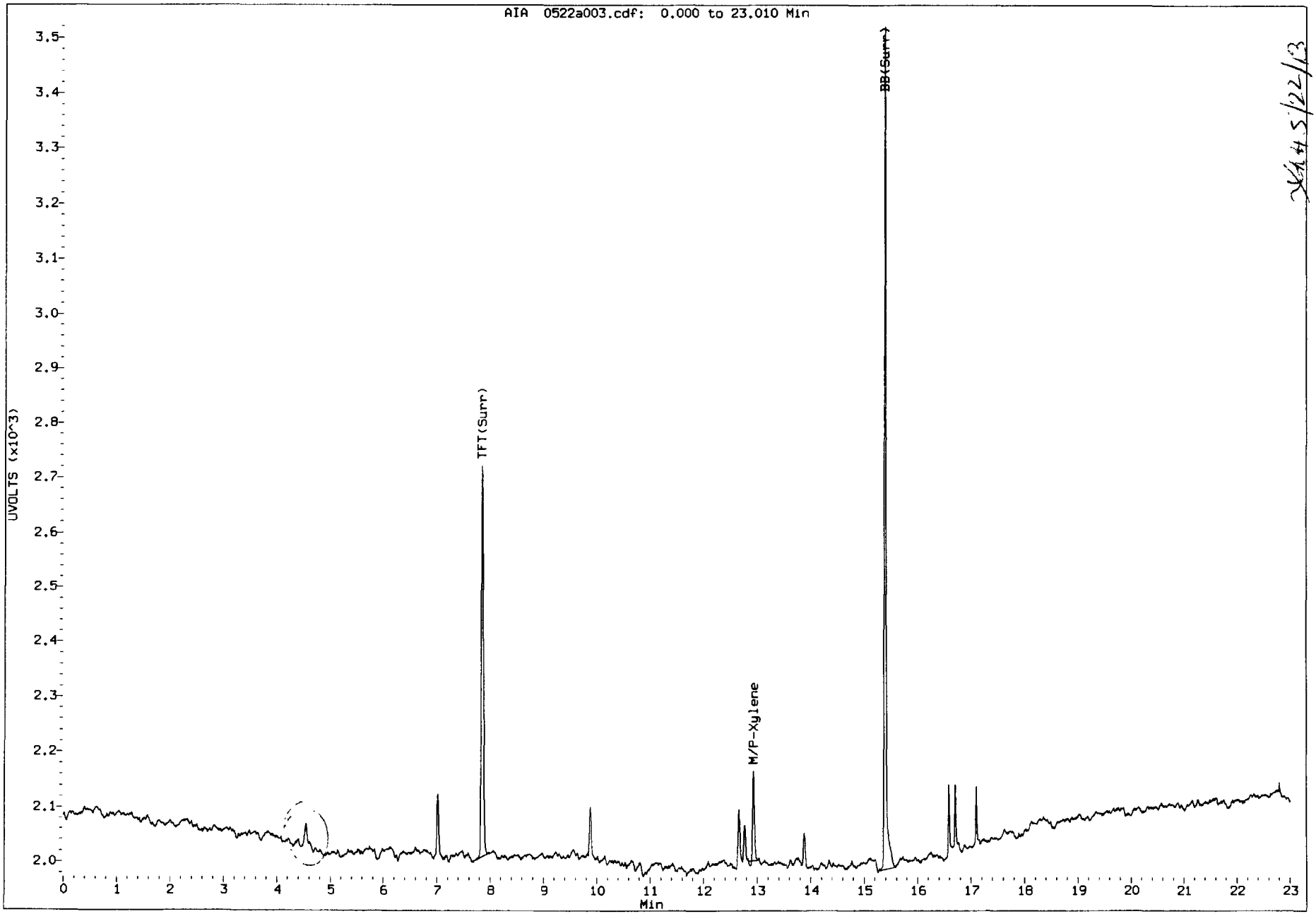
MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

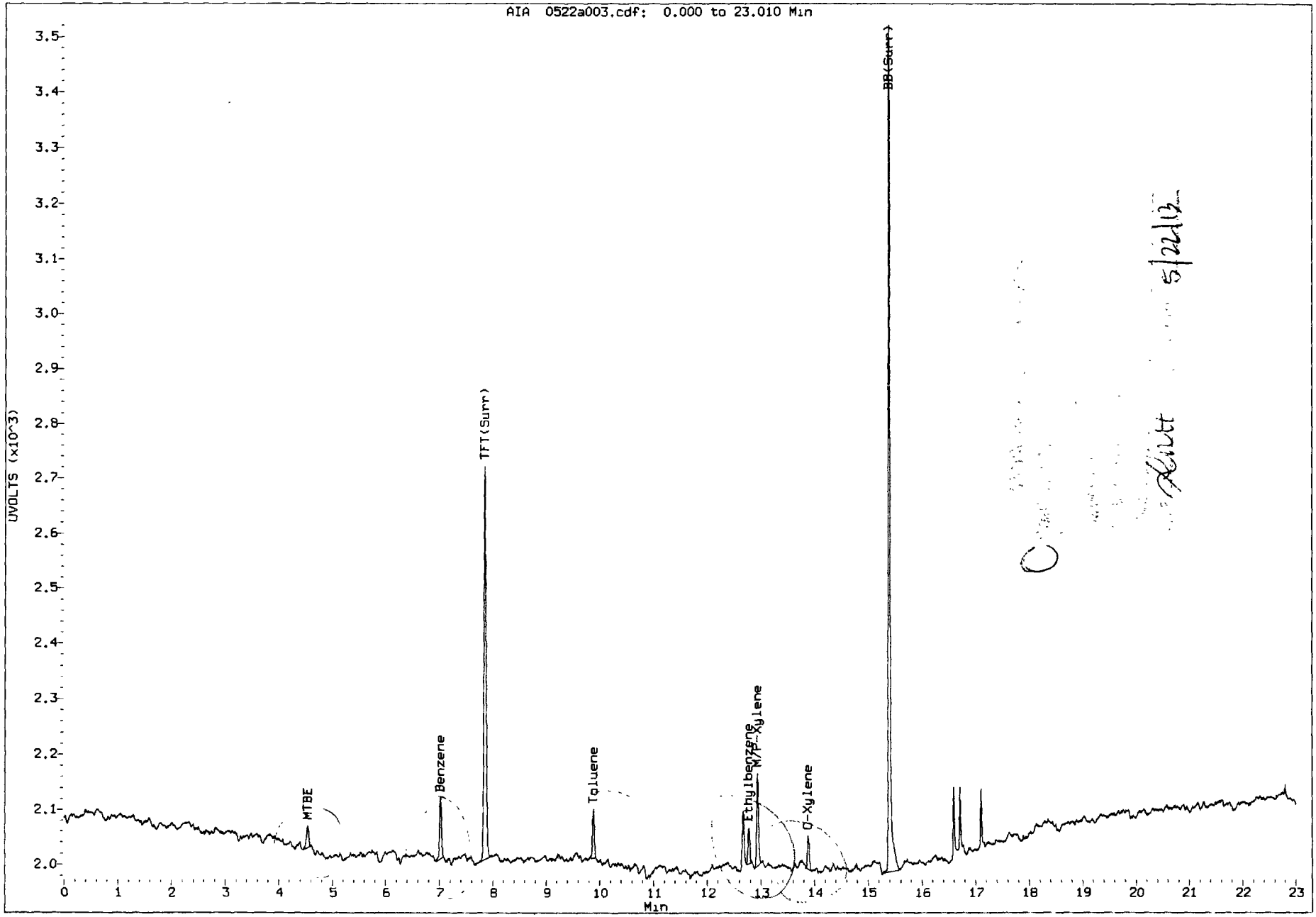
Analyst: _____ Date: 5/22/13

Data File: /chem3/pid1.i/20130522-2.b/0522a003.d/0522a003.cdf
Injection Date: 22-MAY-2013 09:30
Instrument: pid1.i
Client Sample ID: BCAL0.5



5/22/13

Data File: /chem3/pid1.i/20130522-2.b/0522a003.d/0522a003.cdf
Injection Date: 22-MAY-2013 09:30
Instrument: pid1.i
Client Sample ID: BCAL0.5



2nd rpt. 5/22/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a004.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a004.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL1
Client ID: BCAL1
Injection Date: 22-MAY-2013 09:58
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	1344	17101	45.4	TFT(Surr)
15.383	0.000	902	7548	45.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.90)	358114	10157	0.028 M
8015C 2MP-TMB	(4.18 to 16.21)	723723	10606	0.015 M
AK101 nC6-nC10	(4.68 to 15.11)	582885	9703	0.017 M
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	10157	0.027 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.857	0.001	1429	44.3	TFT(Surr)
15.390	-0.001	3187	44.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.020	-0.001	222	0.99N	Benzene
9.883	-0.001	195	0.98N	Toluene
12.773	-0.006	163	1.00	Ethylbenzene
12.934	-0.009	345	1.92	M/P-Xylene
13.883	-0.005	143	1.01N	O-Xylene
4.543	-0.002	73	0.84N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a004.d
Lab Smp Id: BCAL1 Client Smp ID: BCAL1
Inj Date : 22-MAY-2013 09:58
Operator : LH Inst ID: pid1.i
Smp Info : BCAL1
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 09:58 Cal File: 0522a004.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
6 MTBE	4.538	4.538	0.000	902	1.00000	1.07
9 BENZENE	7.010	7.010	0.000	1560	1.00000	1.07(M)
$ 10 TFT(Surr)	7.848	7.848	0.000	1344	44.0000	45.42
12 Toluene	9.873	9.873	0.000	1694	1.00000	1.17(M)
14 ETHYLBENZENE	12.766	12.766	0.000	115	1.00000	1.04
15 M/P-XYLENE	12.924	12.924	0.000	2576	2.00000	2.02
16 O-XYLENE	13.873	13.873	0.000	1265	1.00000	0.932(M)
$ 18 BB(Surr)	15.383	15.383	0.000	902	44.0000	45.39(M)
21 nc11	16.702	16.702	0.000	106	1.00000	

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/pid1.i/20130522-1.b/0522a004.d

Date : 22-MAY-2013 09:58

Client ID: BCAL1

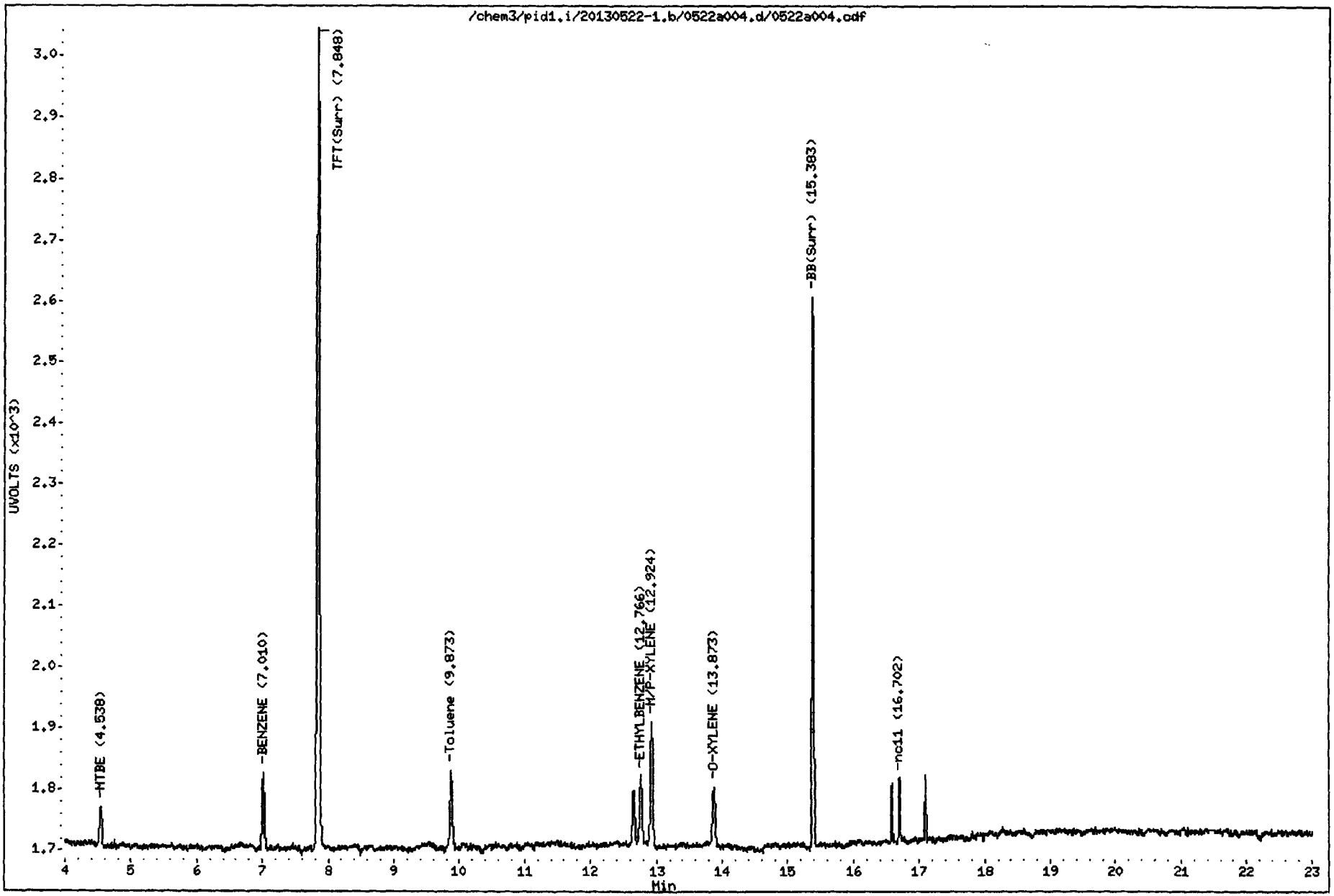
Sample Info: BCAL1

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: LH

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a004.d

Page 1

Date : 22-MAY-2013 09:58

Client ID: BCAL1

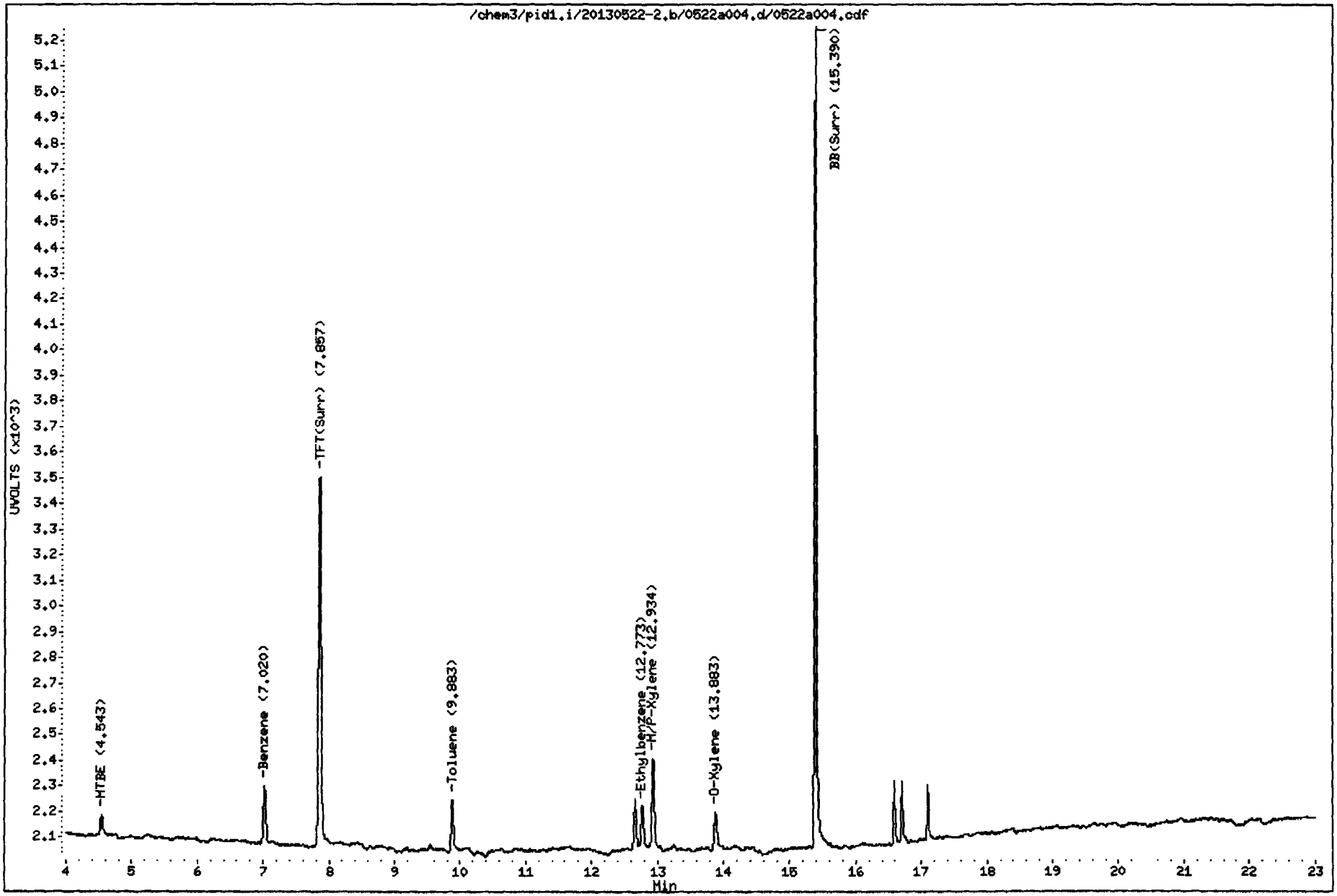
Instrument: pid1.i

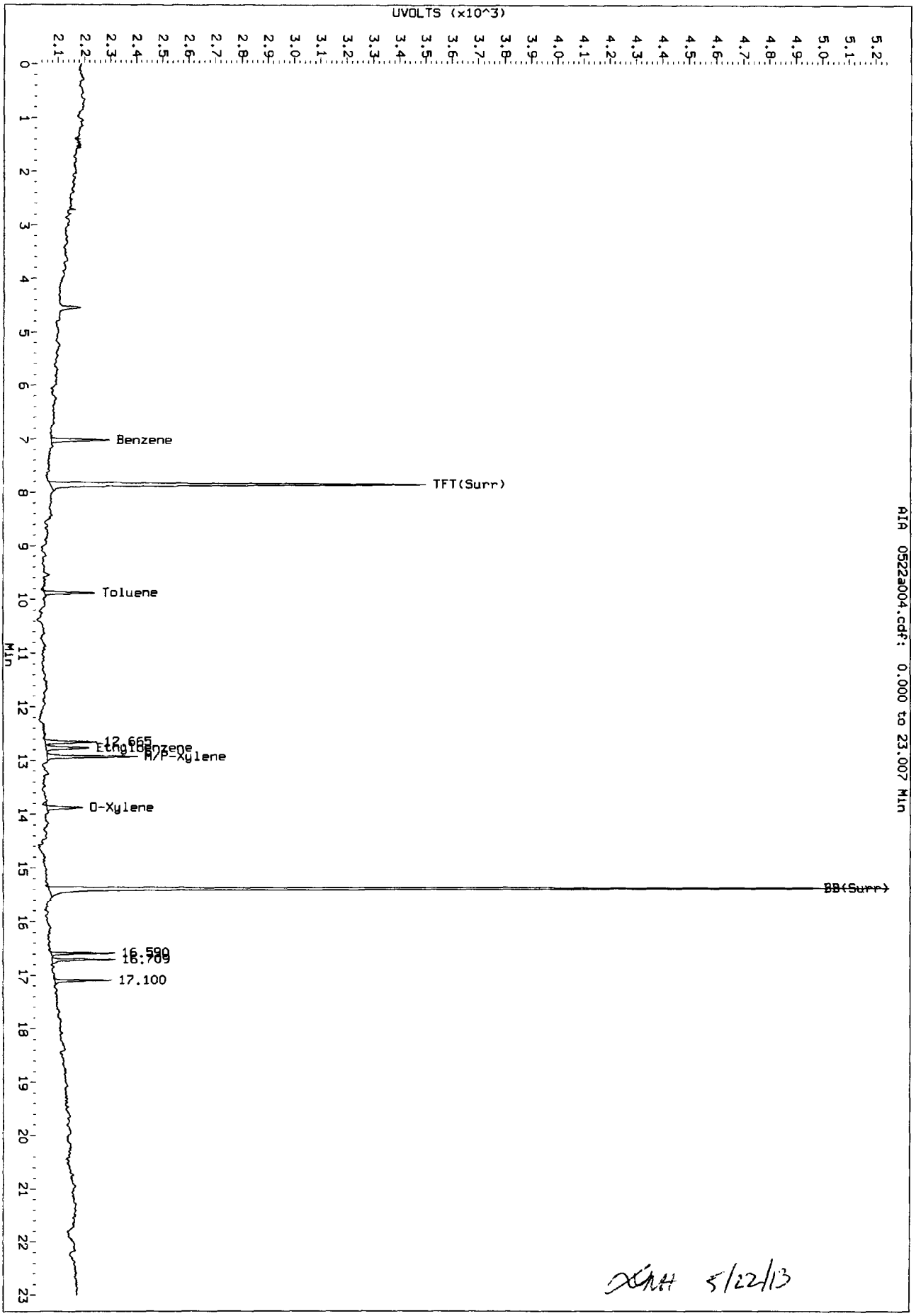
Sample Info: BCAL1

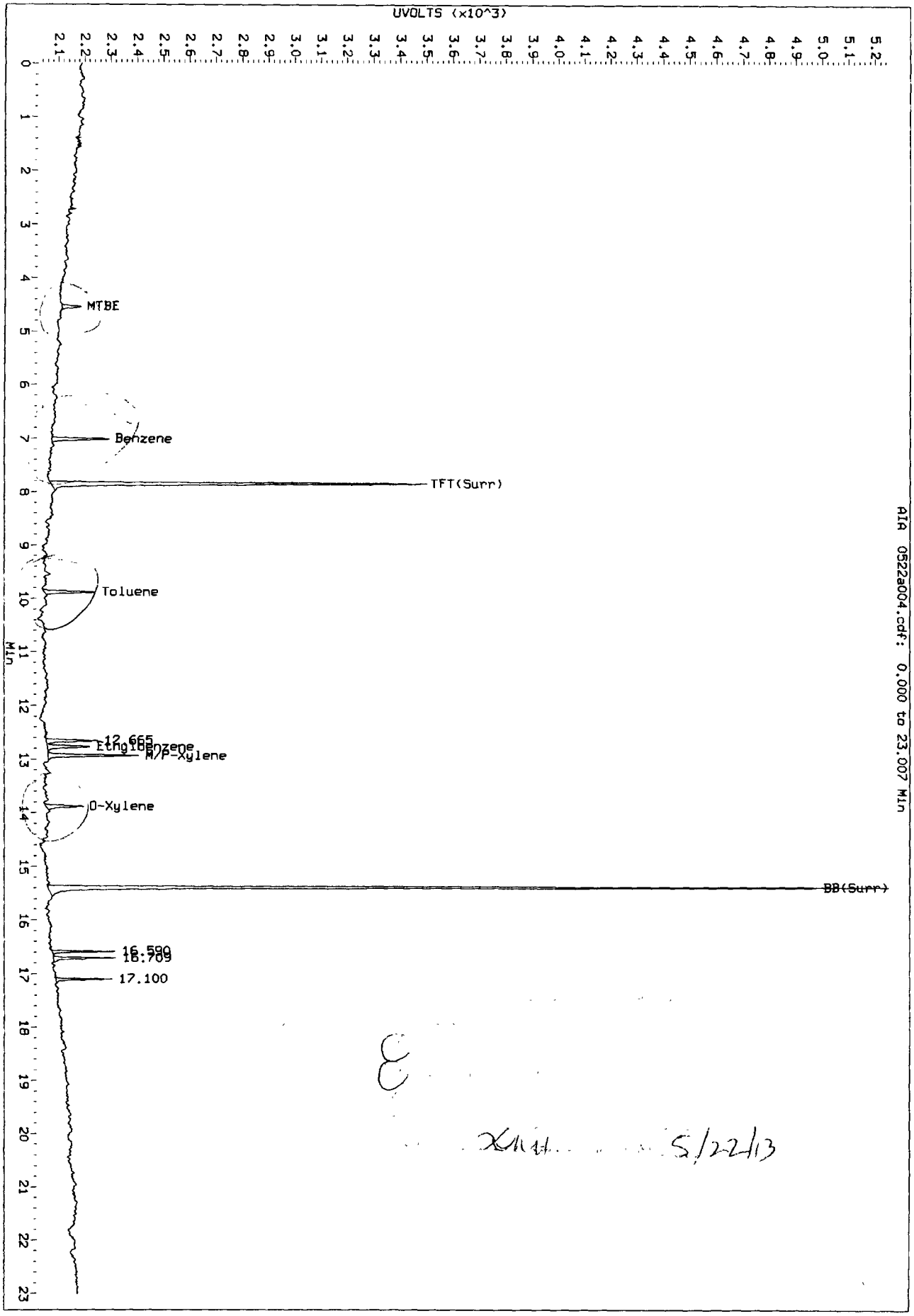
Operator: LH

Column phase: RTX 502-2 PID

Column diameter: 0.18



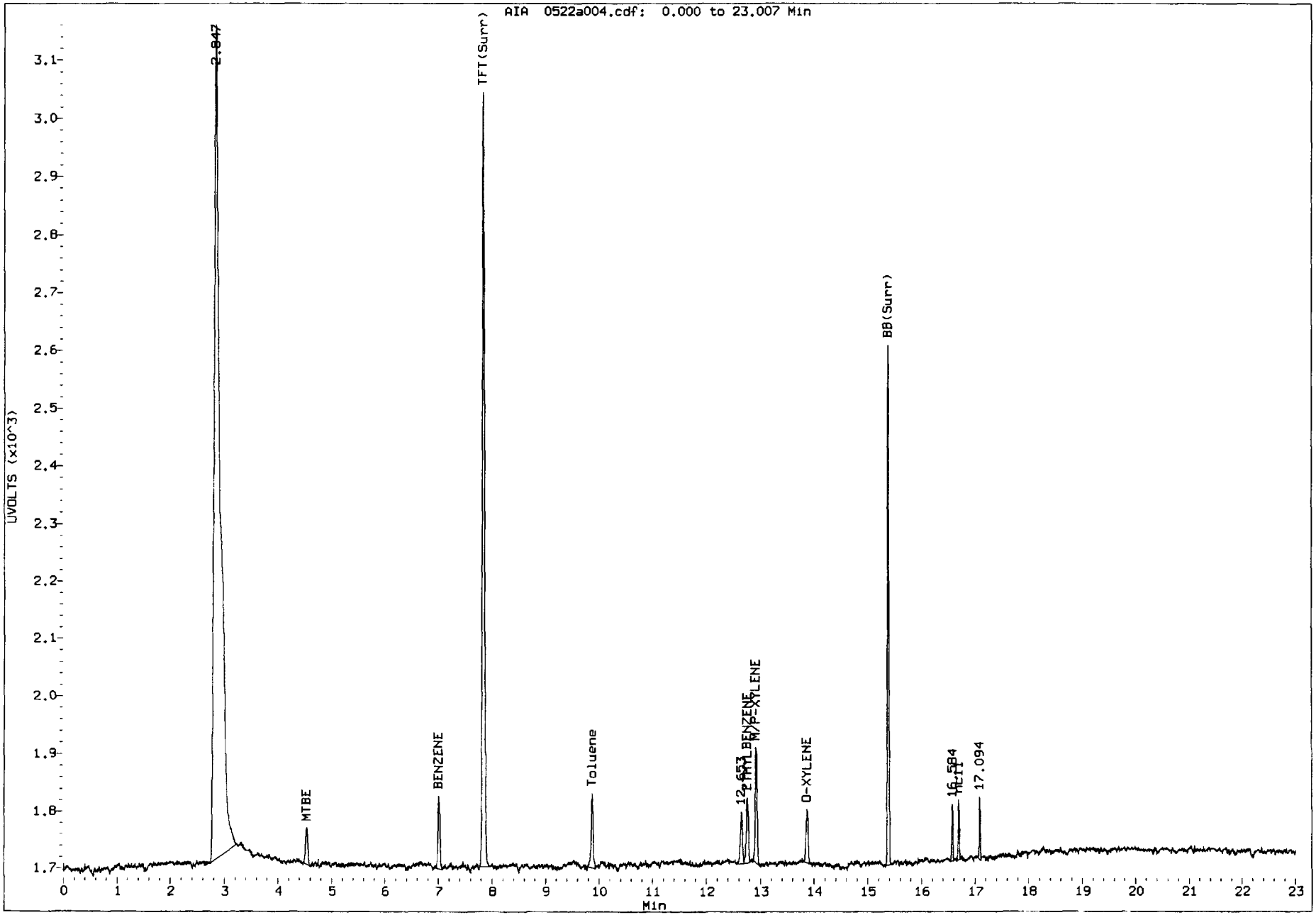

Data File: /chem3/pid1.i/20130522-2.b/0522a004.d/0522a004.cdf
Injection Date: 22-MAY-2013 09:58
Instrument: pid1.i
Client Sample ID: BCAL1
UVOLTS (x10^3)
Min
Benzene
TFT(Surr)
Toluene
12.665
Ethylbenzene
M/P-Xylene
O-Xylene
BB(Surr)
16.590
16.709
17.100
AIA 0522a004.cdf: 0.000 to 23.007 Min
5/22/13

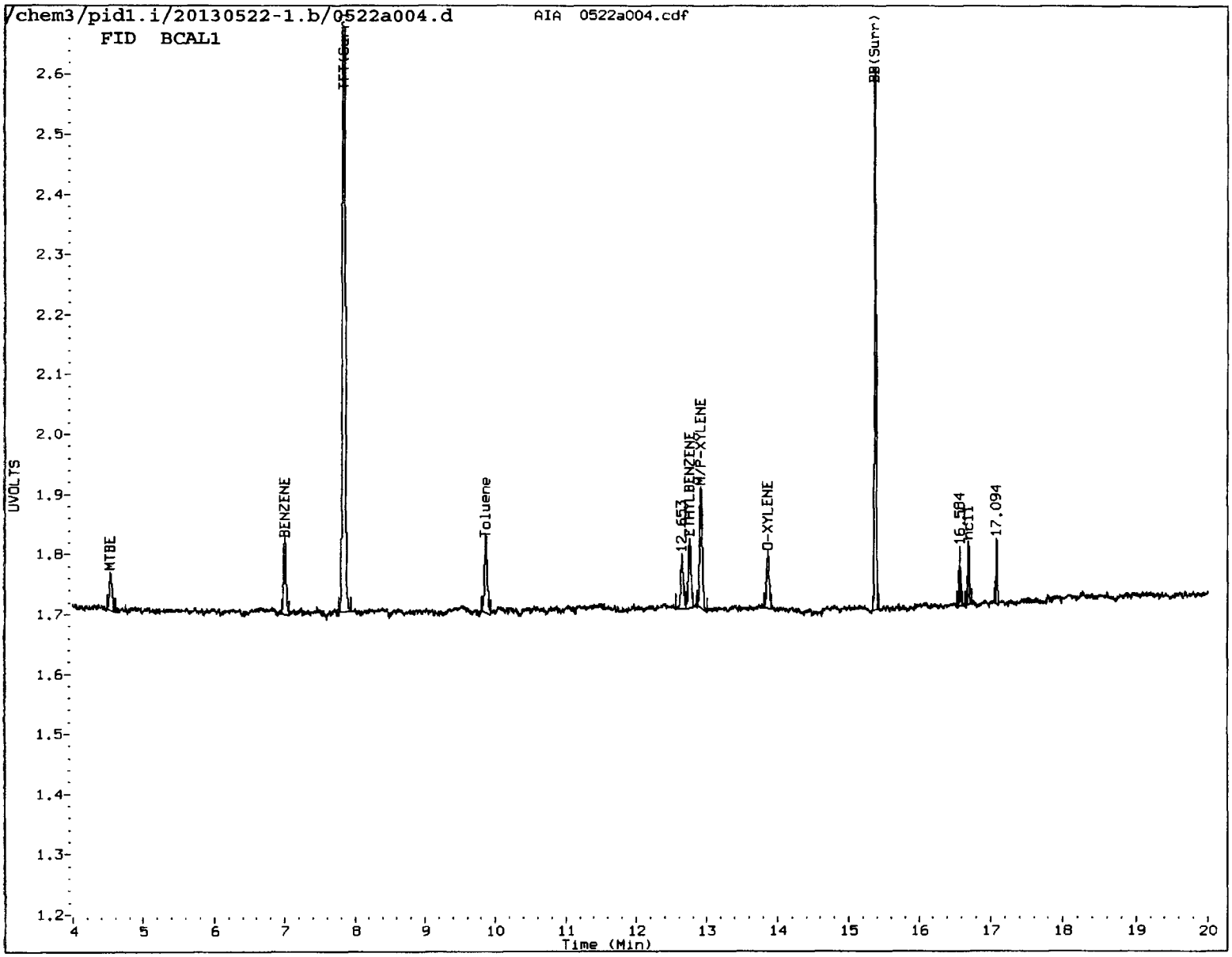

Data File: /chem3/pid1.i/20130522-2.b/0522a004.d/0522a004.cdf
Injection Date: 22-MAY-2013 09:58
Instrument: pid1.i
Client Sample ID: BCAL1
UVOLTS (x10^3)
MTBE
Benzene
TFT(Surr)
Toluene
12.665
Ethylbenzene
M/P-Xylene
O-Xylene
BB(Surr)
16.590
16.709
17.100
Min
AIA 0522a004.cdf: 0.000 to 23.007 Min

3

5/22/13

Data File: /chem3/pid1.i/20130522-1.b/0522a004.d/0522a004.cdf
Injection Date: 22-MAY-2013 09:58
Instrument: pid1.i
Client Sample ID: BCAL1





MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 5/22/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a005.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a005.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL5
Client ID: BCAL5
Injection Date: 22-MAY-2013 10:27
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	2002	25277	67.7	TFT(Surr)
15.382	0.000	1332	11311	67.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.90)	358114	49856	0.139
8015C 2MP-TMB	(4.18 to 16.21)	723723	51726	0.071
AK101 nC6-nC10	(4.68 to 15.11)	582885	47527	0.082
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	49856	0.133

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.857	0.001	2160	67.0	TFT(Surr)
15.390	-0.001	4804	66.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.020	-0.001	1158	5.15N	Benzene
9.883	-0.001	1018	5.14N	Toluene
12.774	-0.004	864	5.29	Ethylbenzene
12.935	-0.009	1851	10.29	M/P-Xylene
13.883	-0.005	747	5.26N	O-Xylene
4.547	0.002	444	5.09N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a005.d
Lab Smp Id: BCAL5 Client Smp ID: BCAL5
Inj Date : 22-MAY-2013 10:27
Operator : LH Inst ID: pid1.i
Smp Info : BCAL5
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 10:27 Cal File: 0522a005.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
6	MTBE	4.539	4.539	0.000	4199	5.00000	4.97
9	BENZENE	7.012	7.012	0.000	7573	5.00000	5.19
$ 10	TFT(Surr)	7.848	7.848	0.000	2002	67.0000	67.66
12	Toluene	9.873	9.873	0.000	7382	5.00000	5.09
14	ETHYLBENZENE	12.764	12.764	0.000	564	5.00000	5.12
15	M/P-XYLENE	12.925	12.925	0.000	13495	10.0000	10.58
16	O-XYLENE	13.874	13.874	0.000	7033	5.00000	5.18
$ 18	BB(Surr)	15.382	15.382	0.000	1332	67.0000	67.03
21	nc11	16.701	16.701	0.000	533	5.00000	

Data File: /chem3/pid1.i/20130522-1.b/0522a005.d

Date : 22-MAY-2013 10:27

Client ID: BCAL5

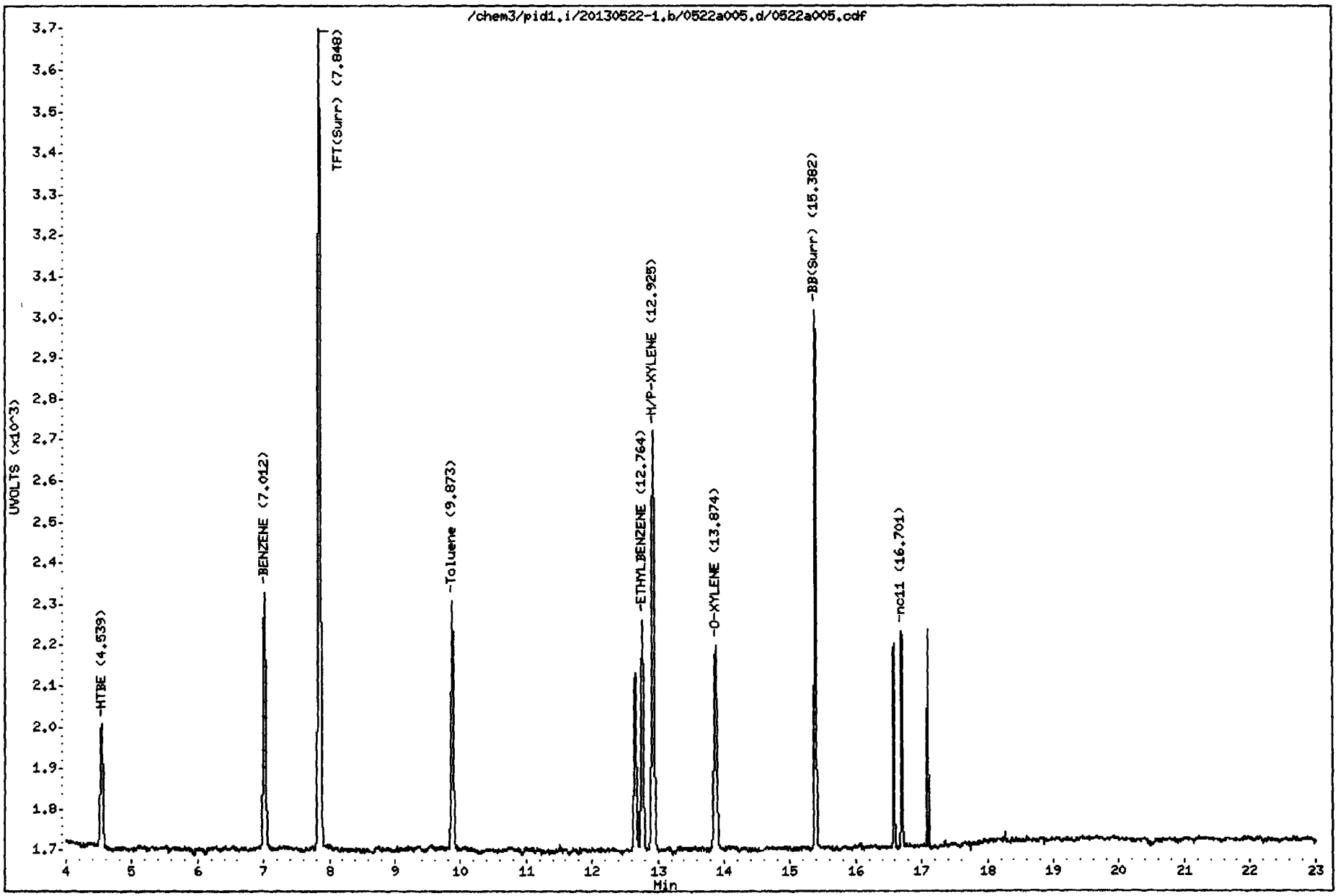
Sample Info: BCAL5

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: LH

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a005.d

Date : 22-MAY-2013 10:27

Client ID: BCAL5

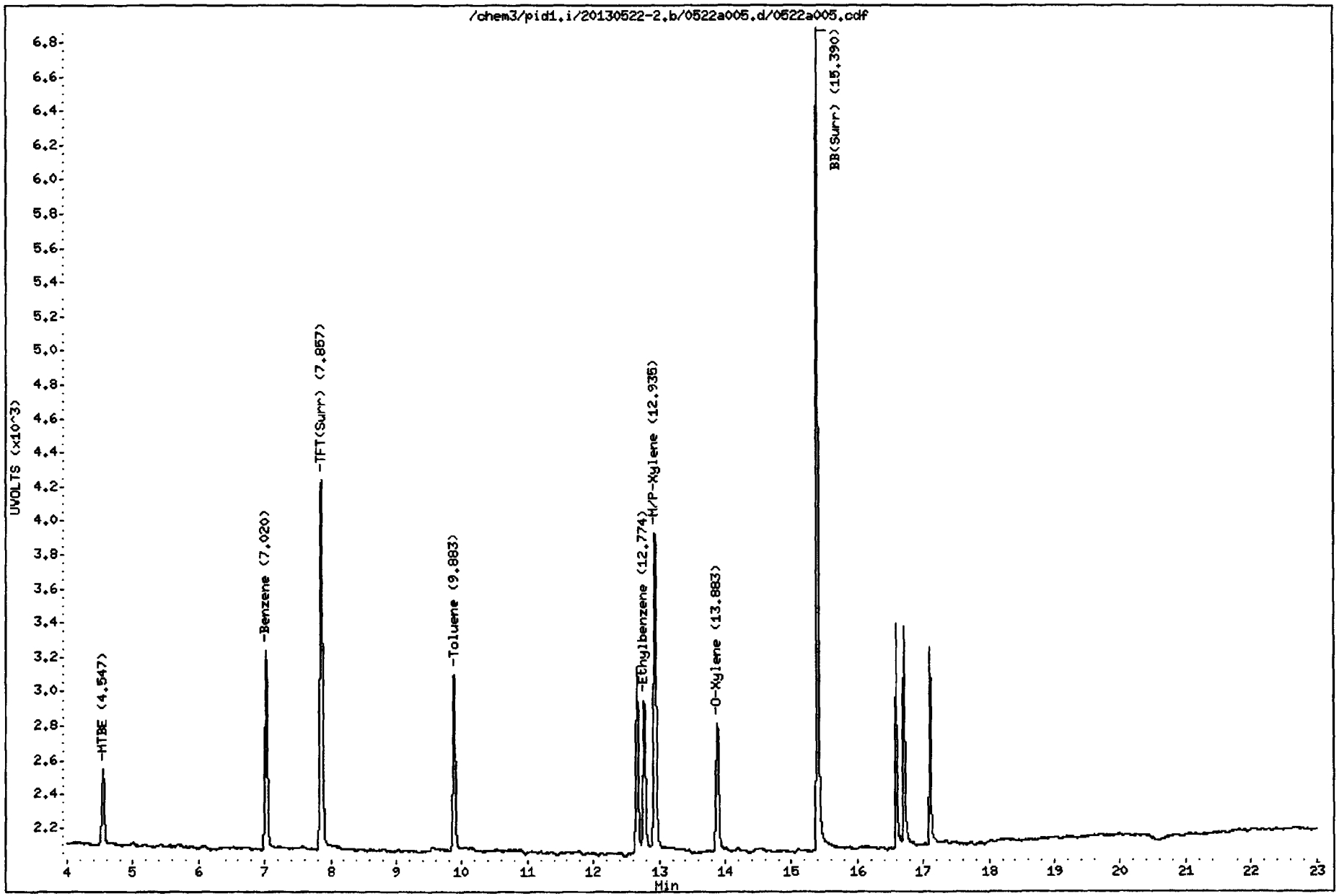
Sample Info: BCAL5

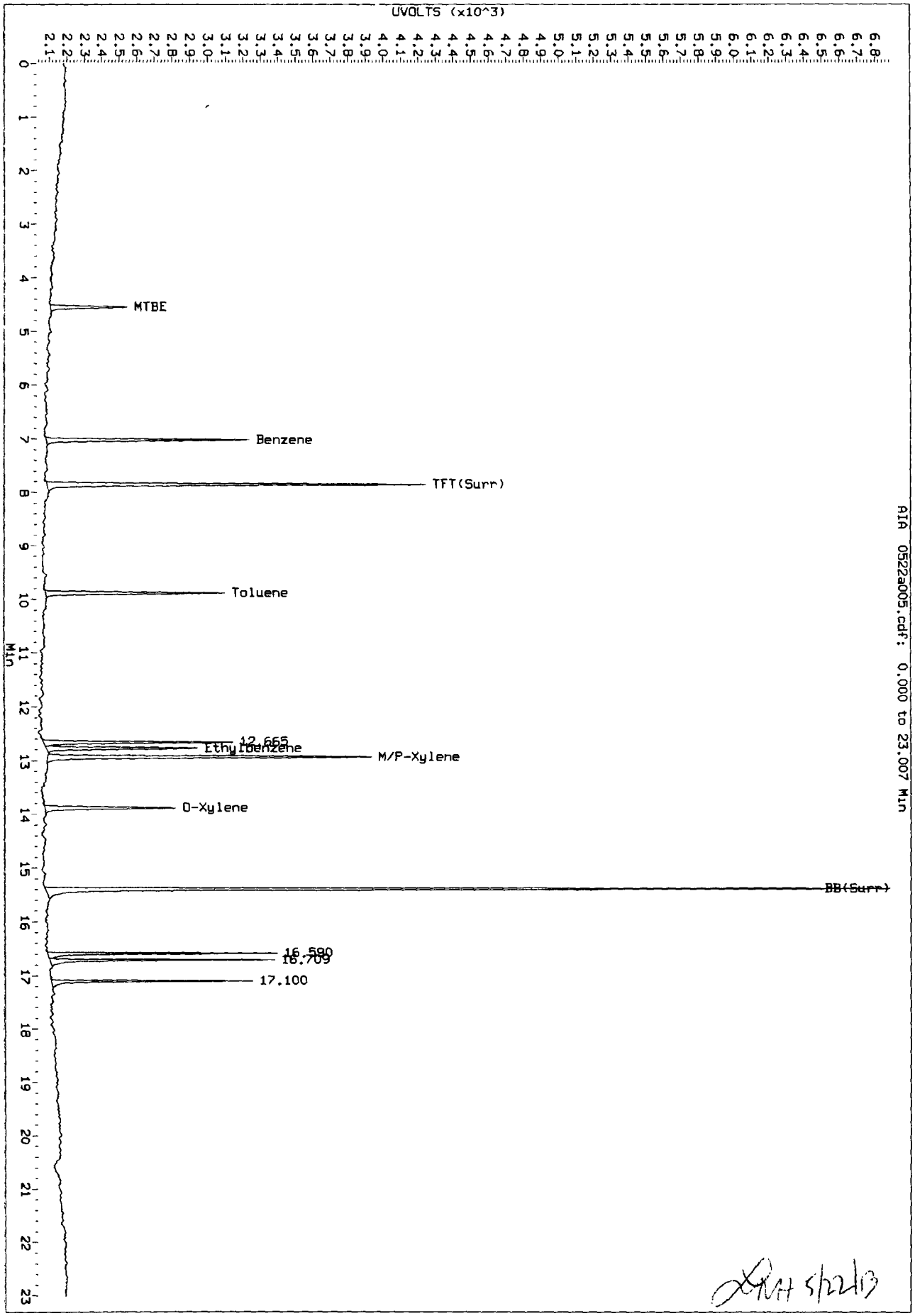
Column phase: RTX 502-2 PID

Instrument: pid1.i

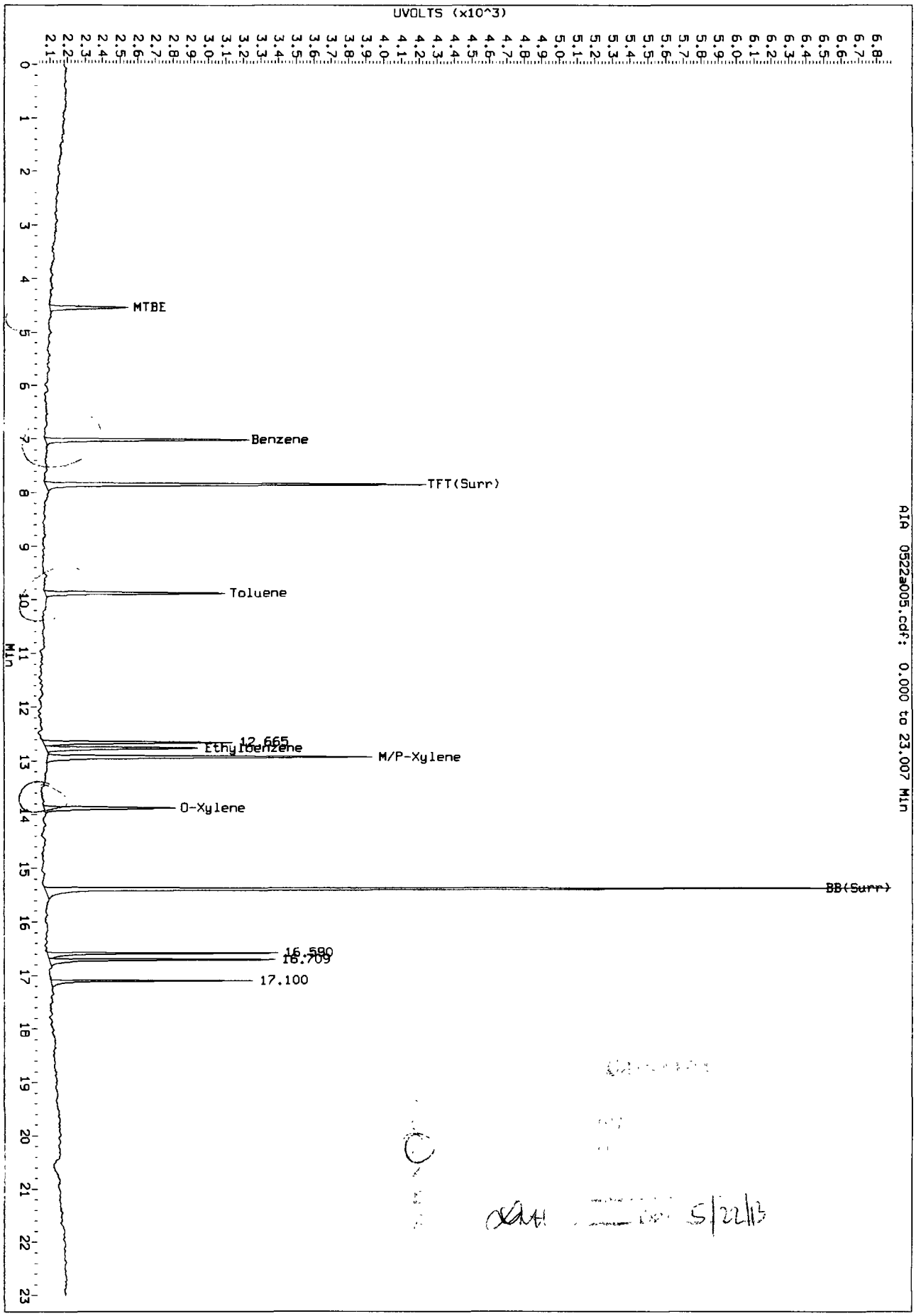
Operator: LH

Column diameter: 0.18




Data File: /chem3/pid1.i/20130522-2.b/0522a005.d/0522a005.cdf
Injection Date: 22-MAY-2013 10:27
Instrument: pid1.i
Client Sample ID: BCAL5
UVOLTS (x10^3)
Min
MTBE
Benzene
TFT(Surr)
Toluene
12.665
Ethylbenzene
M/P-Xylene
O-Xylene
BB(Surr)
16.590
16.709
17.100
AIA 0522a005.cdf: 0.000 to 23.007 Min

5/22/13


Data File: /chem3/pid1.i/20130522-2.b/0522a005.d/0522a005.cdf
Injection Date: 22-MAY-2013 10:27
Instrument: pid1.i
Client Sample ID: BCAL5
UVOLTS (x10^3)
Min
MTBE
Benzene
TFT(Surr)
Toluene
12.665
Ethylbenzene
M/P-Xylene
O-Xylene
BB(Surr)
16.590
16.709
17.100
AIA 0522a005.cdf: 0.000 to 23.007 Min

Analytical Resources Inc.
BETX/Gas Quantitation Report

5/22/13

Data file 1: /chem3/pid1.i/20130522-1.b/0522a006.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a006.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL25
Client ID: BCAL25
Injection Date: 22-MAY-2013 10:56
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	2937	37310	99.3	TFT(Surr)
15.382	0.000	1980	16732	99.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.90)	358114	236762	0.661
8015C 2MP-TMB	(4.18 to 16.21)	723723	245764	0.340
AK101 nC6-nC10	(4.68 to 15.11)	582885	225487	0.387
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	236762	0.631

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	3241	100.5	TFT(Surr)
15.390	-0.001	7347	101.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.020	-0.002	5901	26.25	Benzene
9.883	-0.001	5241	26.45N	Toluene
12.774	-0.005	4467	27.36	Ethylbenzene
12.935	-0.008	9545	53.05	M/P-Xylene
13.883	-0.005	3914	27.56	O-Xylene
4.545	0.000	2307	26.46	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a006.d
Lab Smp Id: BCAL25 Client Smp ID: BCAL25
Inj Date : 22-MAY-2013 10:56
Operator : LH Inst ID: pid1.i
Smp Info : BCAL25
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 10:56 Cal File: 0522a006.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
	6 MTBE	4.537	4.537	0.000	20276	25.0000	24.00
	9 BENZENE	7.012	7.012	0.000	36593	25.0000	25.06
$	10 TFT(Surr)	7.848	7.848	0.000	2937	100.000	99.25
	12 Toluene	9.874	9.874	0.000	35345	25.0000	24.37
	14 ETHYLBENZENE	12.765	12.765	0.000	2679	25.0000	24.33
	15 M/P-XYLENE	12.926	12.926	0.000	63276	50.0000	49.63
	16 O-XYLENE	13.874	13.874	0.000	33141	25.0000	24.40
$	18 BB(Surr)	15.382	15.382	0.000	1980	100.000	99.64
	21 nc11	16.701	16.701	0.000	2617	25.0000	

Data File: /chem3/pid1.i/20130522-1.b/0522a006.d

Date : 22-MAY-2013 10:56

Client ID: BCAL25

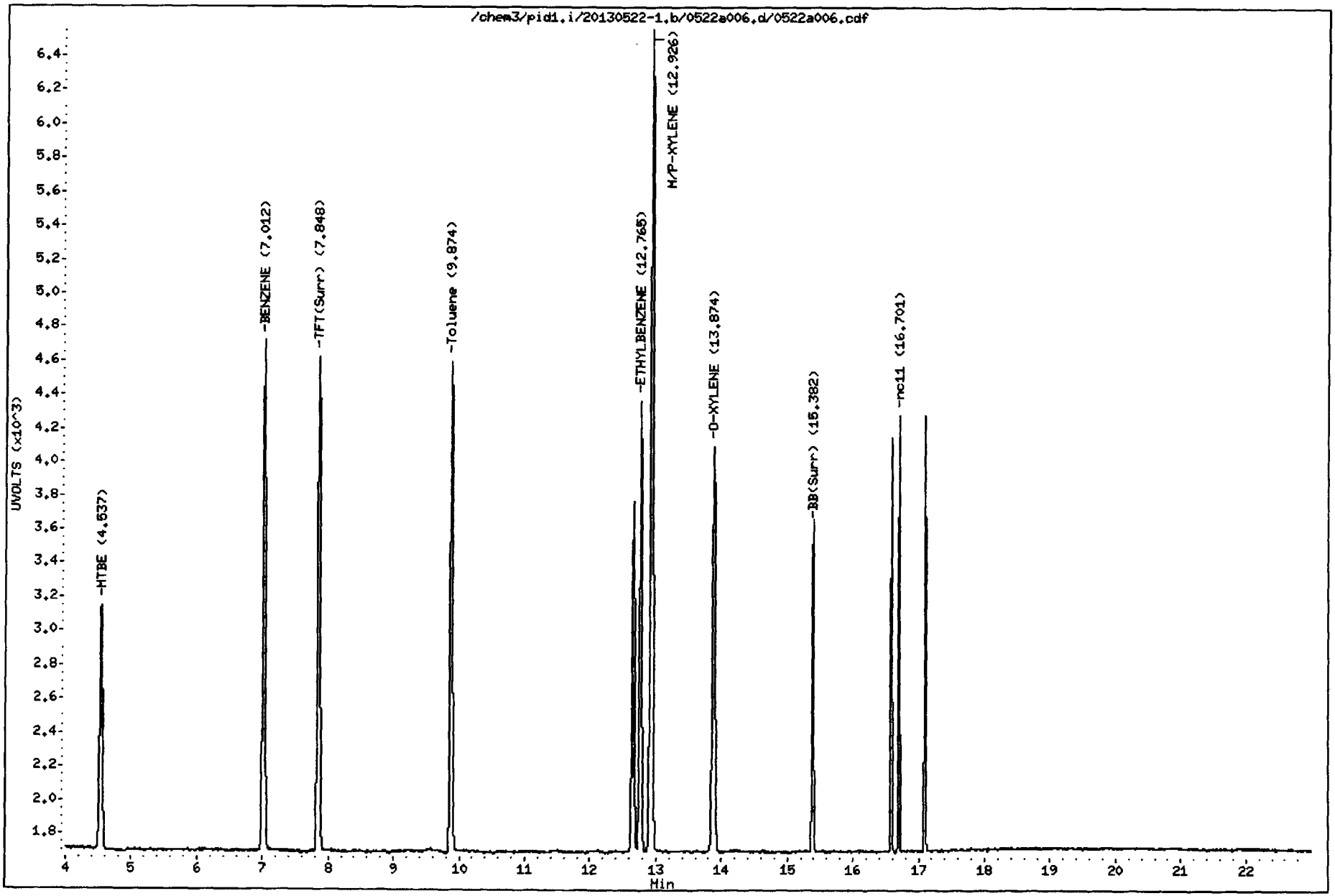
Sample Info: BCAL25

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: LH

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a006.d

Date : 22-MAY-2013 10:56

Client ID: BCAL25

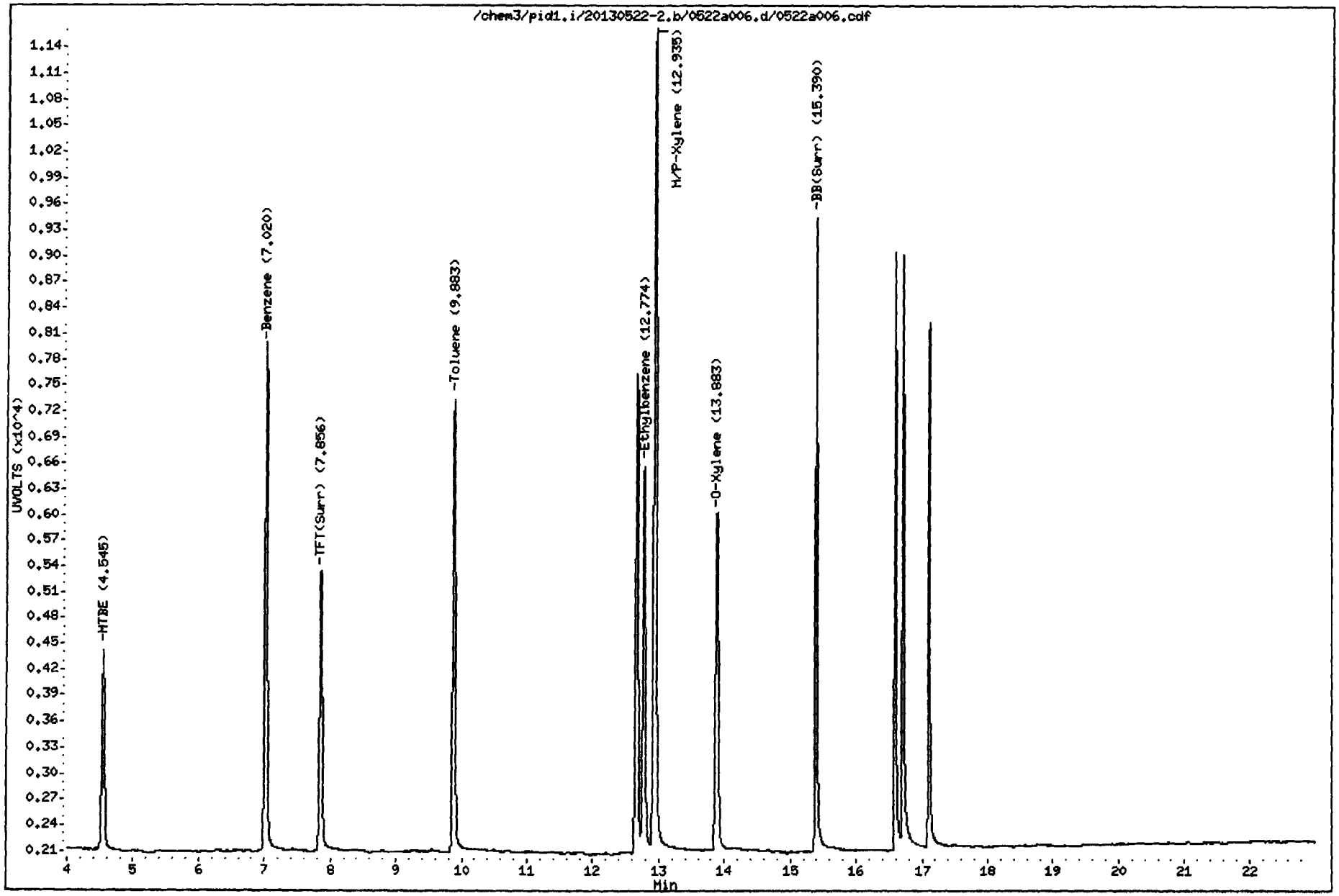
Sample Info: BCAL25

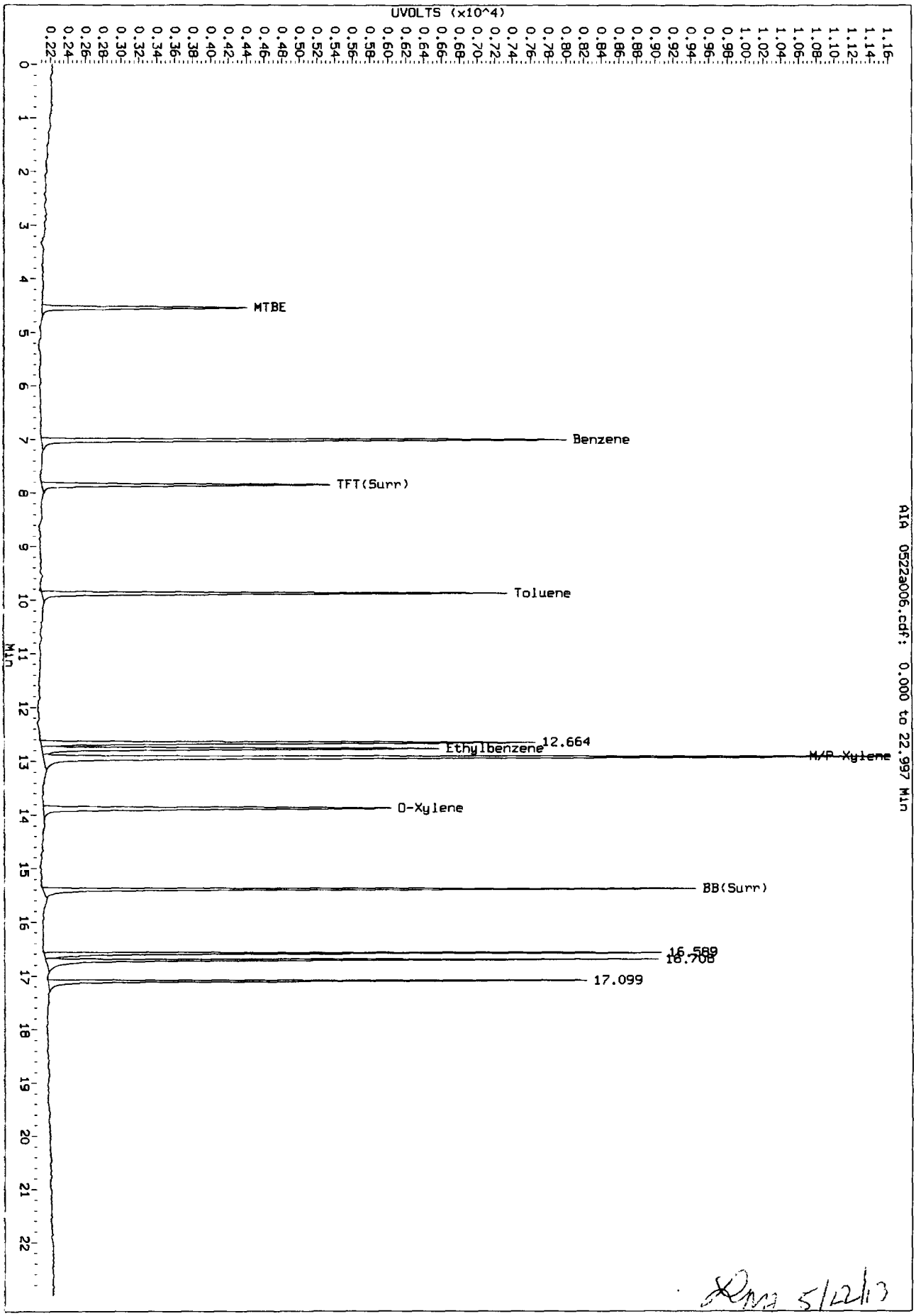
Column phase: RTX 502-2 PID

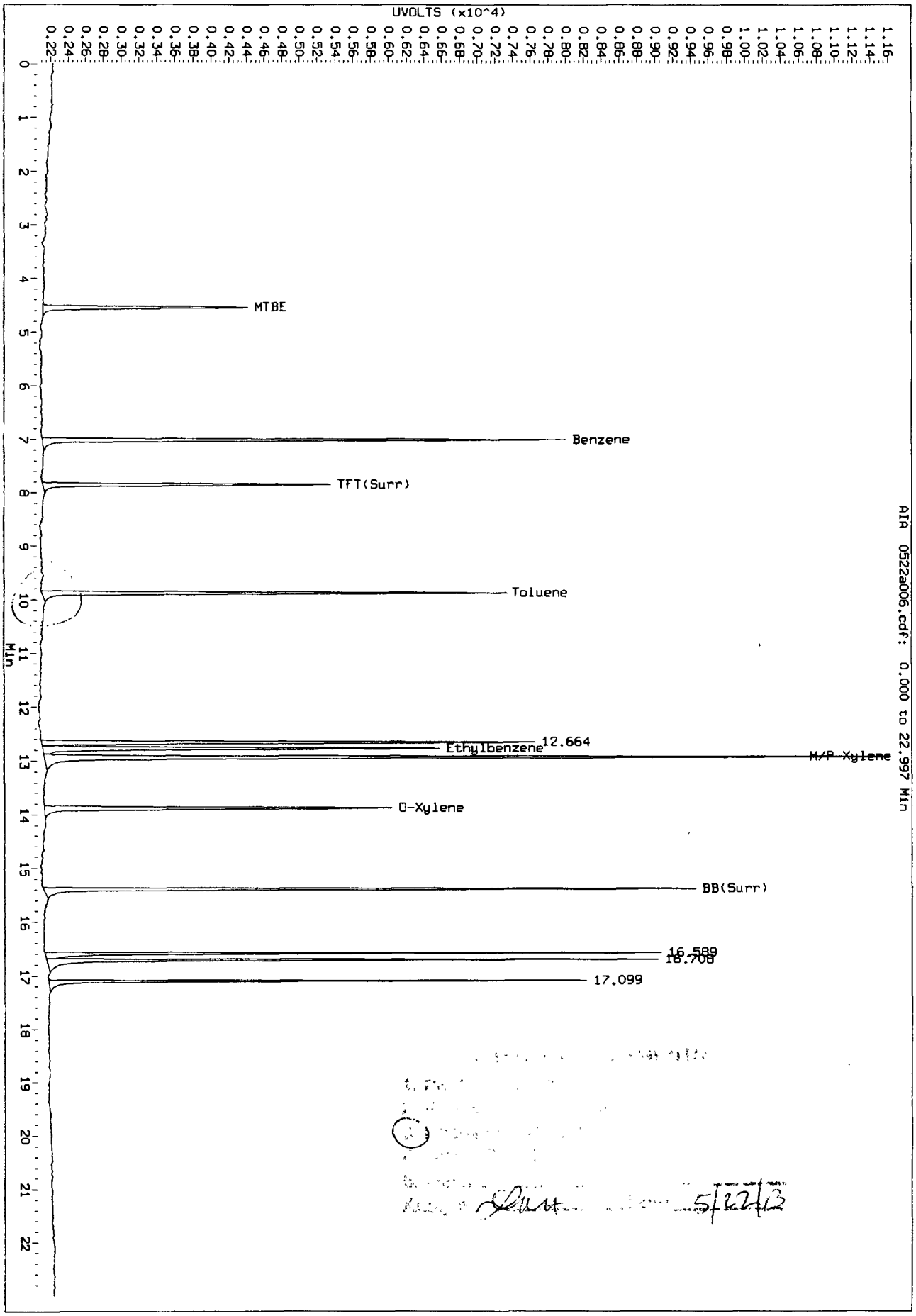
Instrument: pid1.i

Operator: LH

Column diameter: 0.18




Data File: /chemJ/pid1.i/20130522-2.b/0522a006.d/0522a006.cdf
Injection Date: 22-MAY-2013 10:56
Instrument: pid1.i
Client Sample ID: BCAL25
UVOLTS (x10^4)
MTBE
Benzene
TFT(Surr)
Toluene
Ethylbenzene
12.664
M/P-Xylene
O-Xylene
BB(Surr)
16.589
16.708
17.099
AIA 0522a006.cdf: 0.000 to 22.997 Min
Min
5/22/13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Injection Date: 22-MAY-2013 10:56
Instrument: pid1.i
Client Sample ID: BCAL25
UVOLTS (x10^4)
AIA 0522a006.cdf: 0.000 to 22.997 Min
Min
MTBE
Benzene
TFT(Surr)
Toluene
12.664
Ethylbenzene
M/P Xylene
O-Xylene
BB(Surr)
16.589
16.708
17.099
5/22/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

5/22/13

Data file 1: /chem3/pid1.i/20130522-1.b/0522a007.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a007.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL50
Client ID: BCAL50
Injection Date: 22-MAY-2013 11:25
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	3824	48740	129.2	TFT(Surr)
15.382	0.000	2595	21730	130.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.90)	358114	455449	1.272
8015C 2MP-TMB	(4.18 to 16.21)	723723	472875	0.653
AK101 nC6-nC10	(4.68 to 15.11)	582885	433822	0.744
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	455449	1.214

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	4289	133.1	TFT(Surr)
15.390	-0.001	9769	135.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.020	-0.001	11655	51.84	Benzene
9.883	-0.001	10315	52.06N	Toluene
12.774	-0.004	8873	54.35	Ethylbenzene
12.936	-0.007	18906	105.07	M/P-Xylene
13.883	-0.005	7783	54.81	O-Xylene
4.545	0.000	4539	52.06	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a007.d
Lab Smp Id: BCAL50 Client Smp ID: BCAL50
Inj Date : 22-MAY-2013 11:25
Operator : LH Inst ID: pid1.i
Smp Info : BCAL50
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 11:25 Cal File: 0522a007.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
6	MTBE	4.537	4.537	0.000	39052	50.0000	46.23
9	BENZENE	7.012	7.012	0.000	69936	50.0000	47.90
$ 10	TFT(Surr)	7.848	7.848	0.000	3824	133.000	129.2
12	Toluene	9.873	9.873	0.000	67882	50.0000	46.81
14	ETHYLBENZENE	12.765	12.765	0.000	5148	50.0000	46.76
15	M/P-XYLENE	12.927	12.927	0.000	121551	100.000	95.33
16	O-XYLENE	13.873	13.873	0.000	63859	50.0000	47.02
$ 18	BB(Surr)	15.382	15.382	0.000	2595	133.000	130.6
21	nc11	16.701	16.701	0.000	4942	50.0000	

Data File: /chem3/pid1.i/20130522-1.b/0522a007.d

Page 1

Date : 22-MAY-2013 11:25

Client ID: BCAL50

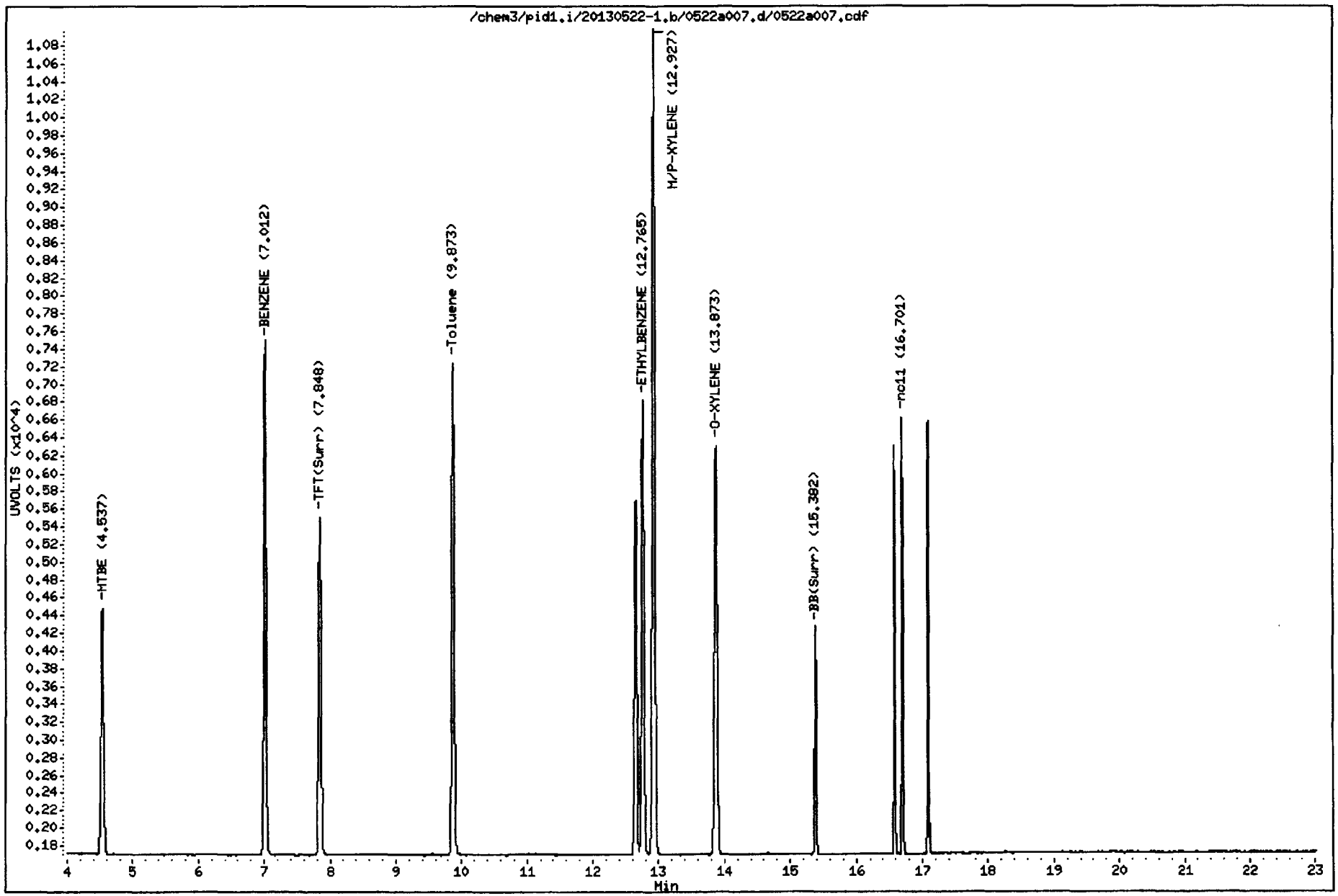
Instrument: pid1.i

Sample Info: BCAL50

Operator: LH

Column phase: RTX 502-2 FID

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a007.d

Date : 22-MAY-2013 11:25

Client ID: BCAL50

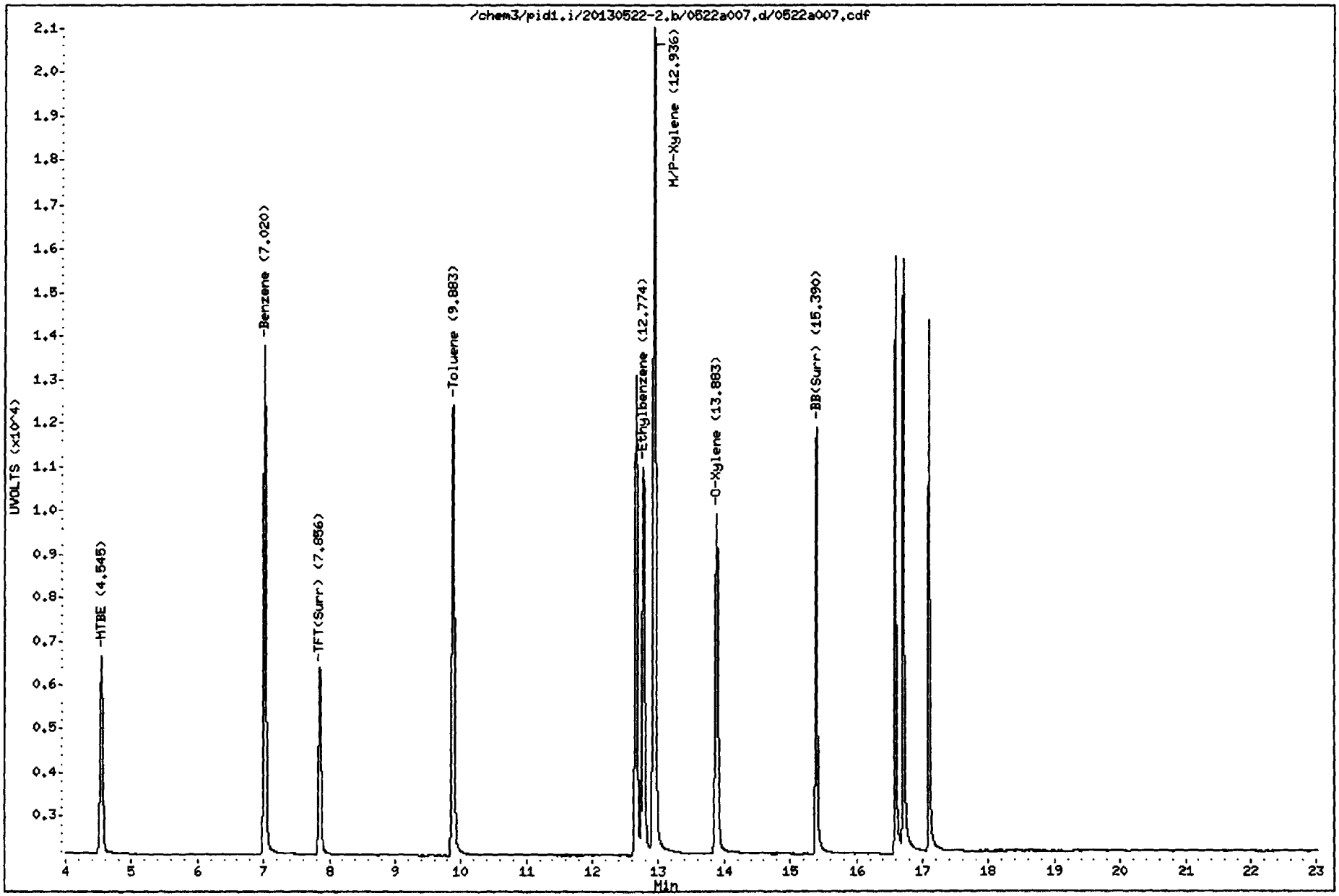
Sample Info: BCAL50

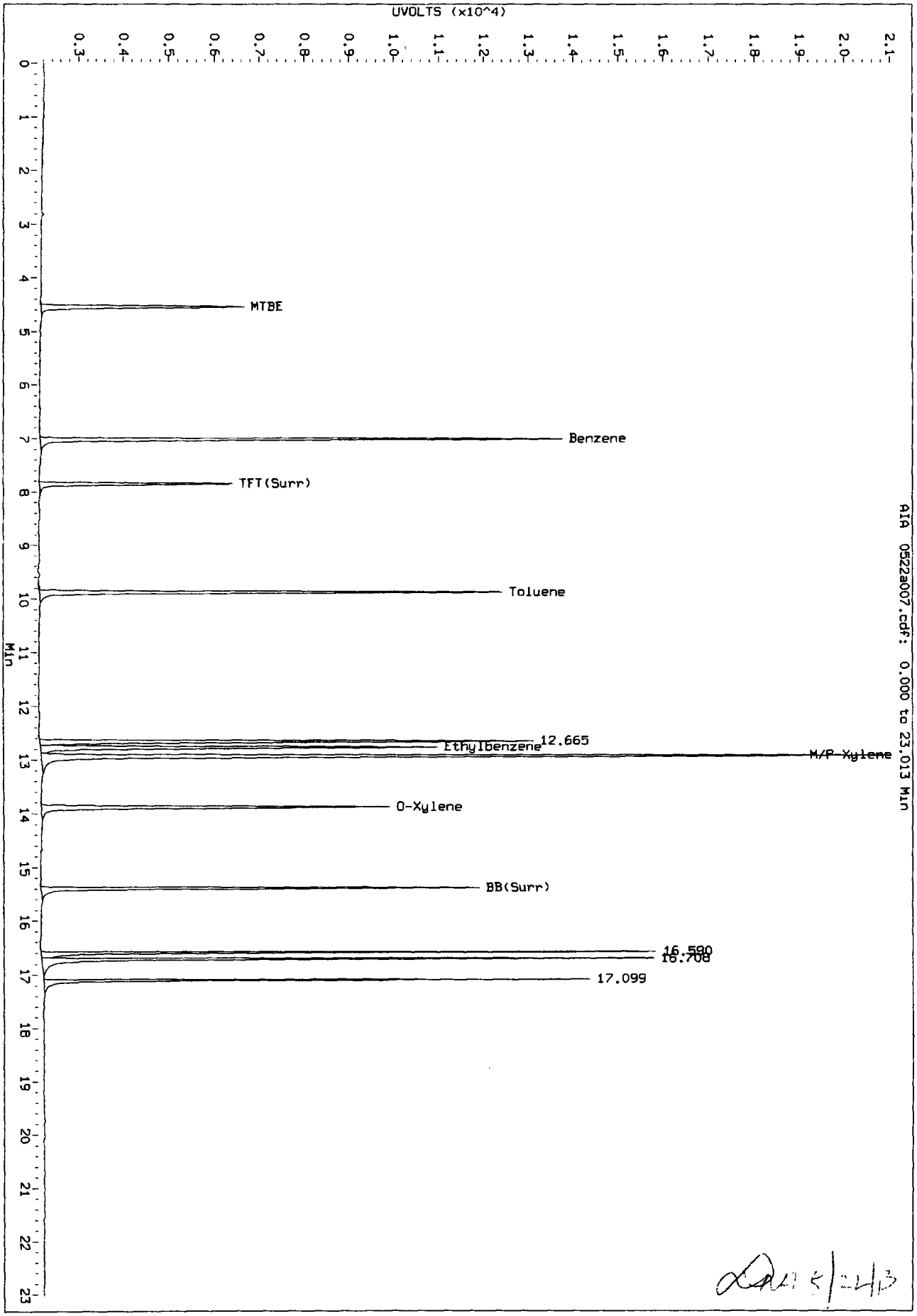
Column phase: RTX 502-2 PID

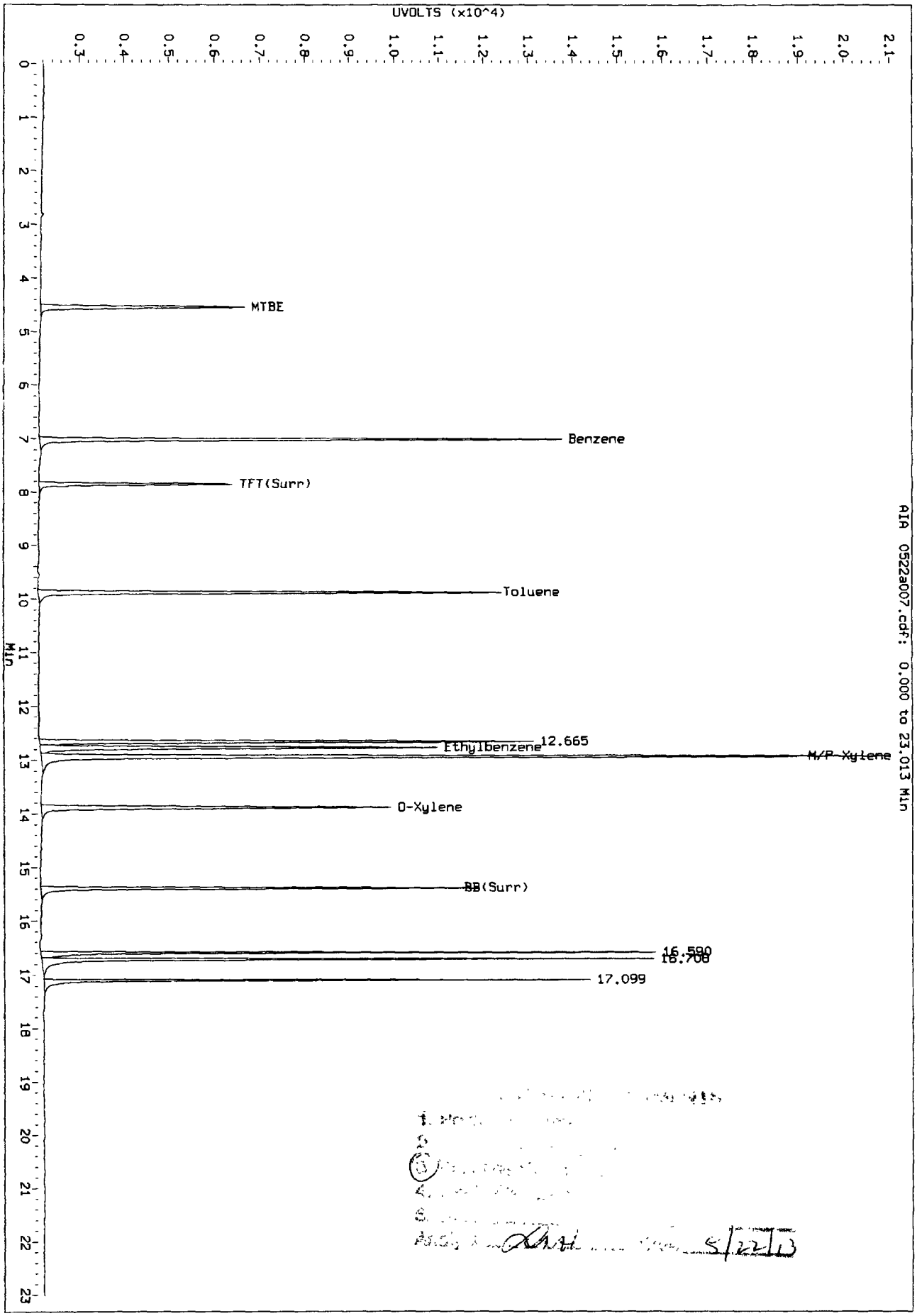
Instrument: pid1.i

Operator: LH

Column diameter: 0.18




Data File: /chem3/pid1.i/20130522-2.b/0522a007.d/0522a007.cdf
Injection Date: 22-MAY-2013 11:25
Instrument: pid1.i
Client Sample ID: BCAL50
UVOLTS (x10^4)
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
Min
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
MTBE
Benzene
TFT(Surr)
Toluene
12.665
Ethylbenzene
M/P Xylene
O-Xylene
BB(Surr)
16.590
16.708
17.099
AIA 0522a007.cdf: 0.000 to 23.013 Min


Data File: /chem3/pid1.i/20130522-2.b/0522a007.d/0522a007.cdf
Injection Date: 22-MAY-2013 11:25
Instrument: pid1.i
Client Sample ID: BCAL50
UVOLTS (x10^4)
Min
AIA 0522a007.cdf: 0.000 to 23.013 Min
MTBE
Benzene
TFT(Surr)
Toluene
Ethylbenzene
12.665
M/P-Xylene
O-Xylene
BB(Surr)
16.590
16.708
17.099

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Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a008.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a008.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL100
Client ID: BCAL100
Injection Date: 22-MAY-2013 11:55
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.849	0.000	5017	64017	169.5	TFT(Surr)
15.382	0.000	3414	28686	171.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.78 to 17.90)	358114	875862	2.446
8015C 2MP-TMB	(4.18 to 16.21)	723723	914919	1.264
AK101 nC6-nC10	(4.68 to 15.11)	582885	837947	1.438
NWTPHG Tol-Nap	(9.78 to 18.90)	375093	875862	2.335

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.857	0.001	5697	176.7	TFT(Surr)
15.390	0.000	13113	181.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.022	0.000	23264	103.47	Benzene
9.884	-0.001	20740	104.68	Toluene
12.776	-0.003	17573	107.64	Ethylbenzene
12.938	-0.005	37670	209.35	M/P-Xylene
13.884	-0.004	15483	109.03	O-Xylene
4.547	0.001	9110	104.49	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a008.d
Lab Smp Id: BCAL100 Client Smp ID: BCAL100
Inj Date : 22-MAY-2013 11:55
Operator : LH Inst ID: pid1.i
Smp Info : BCAL100
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 11:55 Cal File: 0522a008.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
	6 MTBE	4.539	4.539	0.000	76970	100.000	91.12
	9 BENZENE	7.014	7.014	0.000	137016	100.000	93.84
$	10 TFT(Surr)	7.849	7.849	0.000	5017	178.000	169.5
	12 Toluene	9.875	9.875	0.000	131470	100.000	90.66
	14 ETHYLBENZENE	12.767	12.767	0.000	9866	100.000	89.61
	15 M/P-XYLENE	12.930	12.930	0.000	233700	200.000	183.3
	16 O-XYLENE	13.876	13.876	0.000	122598	100.000	90.28
$	18 BB(Surr)	15.382	15.382	0.000	3414	178.000	171.8
	21 nc11	16.702	16.702	0.000	9535	100.000	

Data File: /chem3/pid1.i/20130522-1.b/0522a008.d

Date : 22-MAY-2013 11:55

Client ID: BCAL100

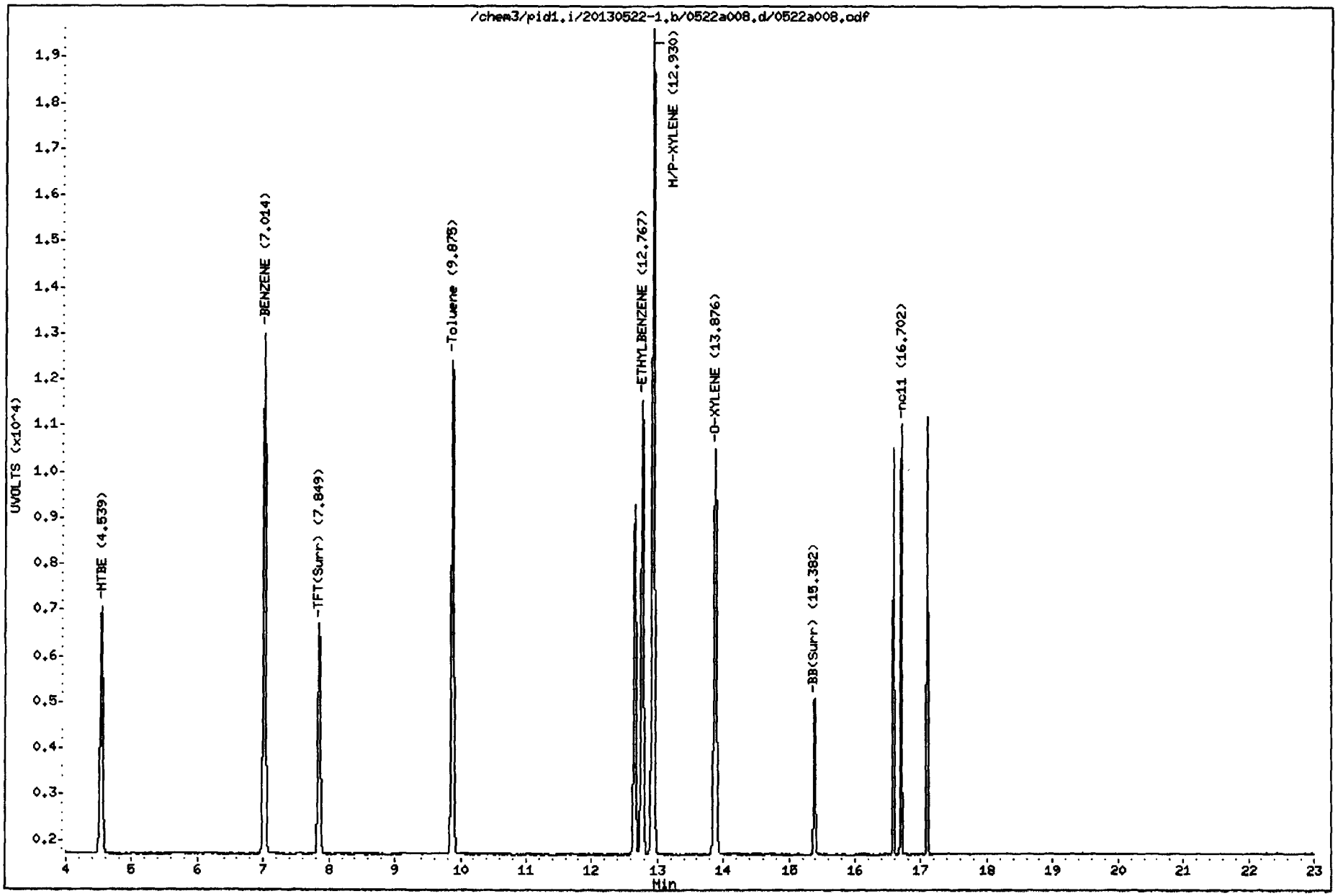
Sample Info: BCAL100

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: LH

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a008.d

Page 1

Date : 22-MAY-2013 11:55

Client ID: BCAL100

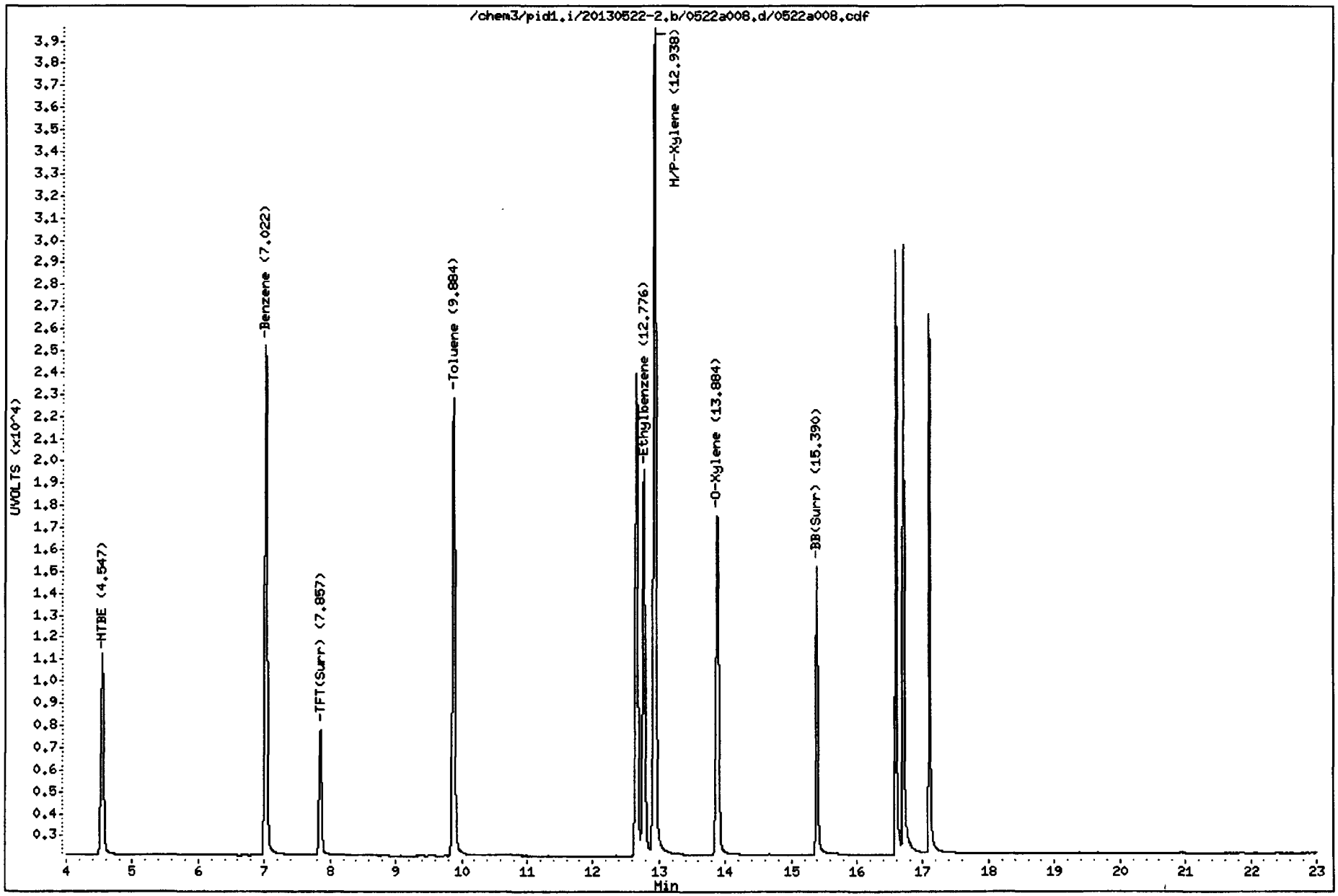
Instrument: pid1.i

Sample Info: BCAL100

Operator: LH

Column phase: RTX 502-2 PID

Column diameter: 0.18



JRH 5/22/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130522-1.b/0522a009.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a009.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: BCAL200
Client ID: BCAL200
Injection Date: 22-MAY-2013 12:24
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	5680	72811	192.0	TFT(Surr)
15.383	0.000	3864	32720	194.5	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.78 to 17.90)	358114	1723795	4.814
8015C 2MP-TMB	(4.18 to 16.21)	723723	1791026	2.475
AK101 nC6-nC10	(4.68 to 15.11)	582885	1642170	2.817
NWTPHG Tol-Nap	(9.78 to 18.90)	375093	1723795	4.596

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	6454	200.2	TFT(Surr)
15.391	0.000	15123	209.2	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.021	0.000	46248	205.70	Benzene
9.885	0.000	41824	211.09	Toluene
12.778	0.000	35277	216.08	Ethylbenzene
12.943	0.000	76231	423.66	M/P-Xylene
13.888	0.000	31715	223.34	O-Xylene
4.545	0.000	17903	205.35	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a009.d
Lab Smp Id: BCAL200 Client Smp ID: BCAL200
Inj Date : 22-MAY-2013 12:24
Operator : LH Inst ID: pid1.i
Smp Info : BCAL200
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 15:26 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 12:24 Cal File: 0522a009.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	6 MTBE	4.538	4.538	0.000	148855	200.000	176.2
	9 BENZENE	7.014	7.014	0.000	266241	200.000	182.4
$	10 TFT(Surr)	7.848	7.848	0.000	5680	200.000	192.0
	12 Toluene	9.877	9.877	0.000	256545	200.000	176.9
	14 ETHYLBENZENE	12.770	12.770	0.000	19235	200.000	174.7
	15 M/P-XYLENE	12.935	12.935	0.000	460498	400.000	361.2
	16 O-XYLENE	13.879	13.879	0.000	240735	200.000	177.3
$	18 BB(Surr)	15.383	15.383	0.000	3864	200.000	194.4
	21 nc11	16.704	16.704	0.000	18792	200.000	

Data File: /chem3/pid1.i/20130522-1.b/0522a009.d

Page 1

Date : 22-MAY-2013 12:24

Client ID: BCAL200

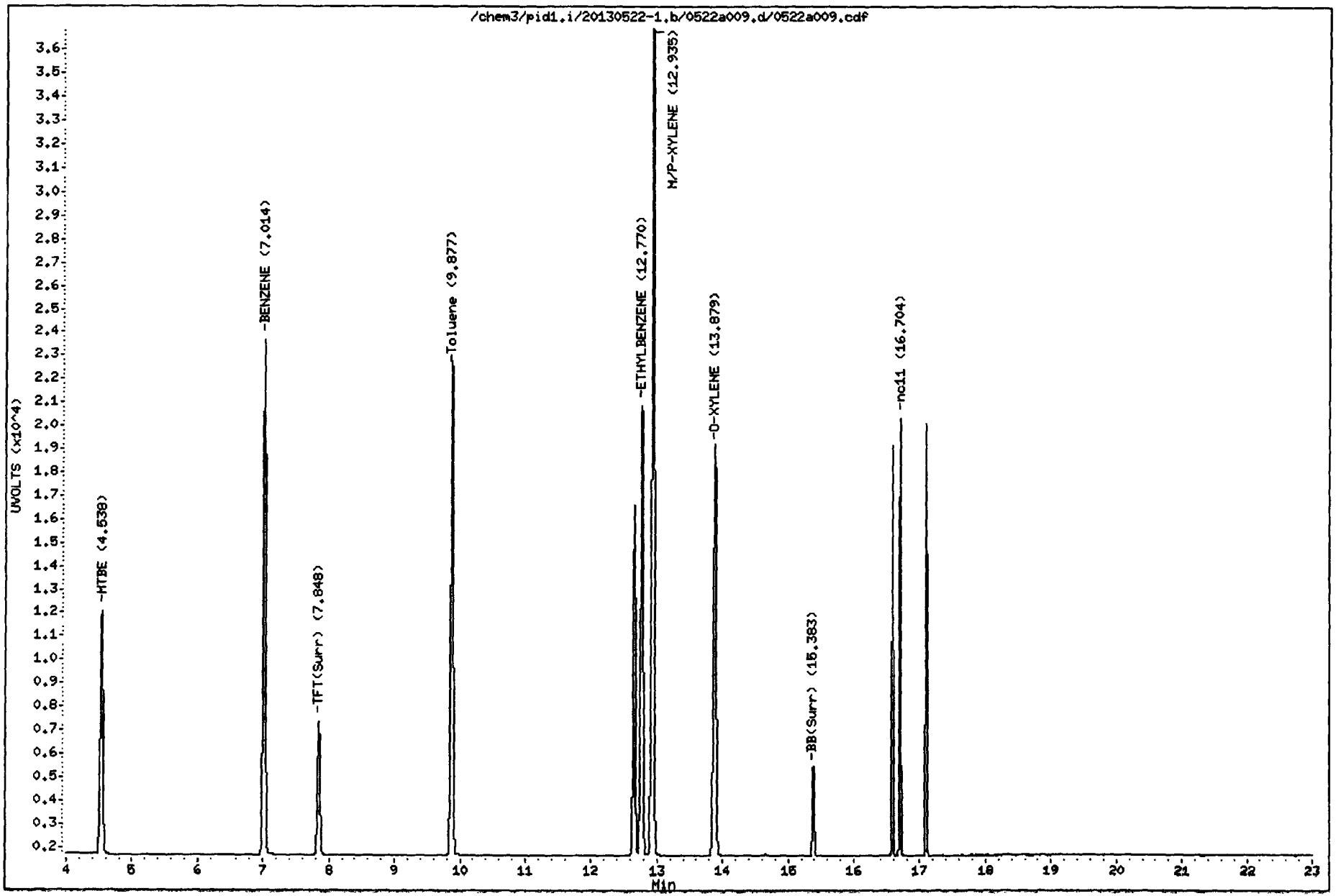
Instrument: pid1.i

Sample Info: BCAL200

Operator: LH

Column phase: RTX 502-2 FID

Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a009.d

Date : 22-MAY-2013 12:24

Client ID: BCAL200

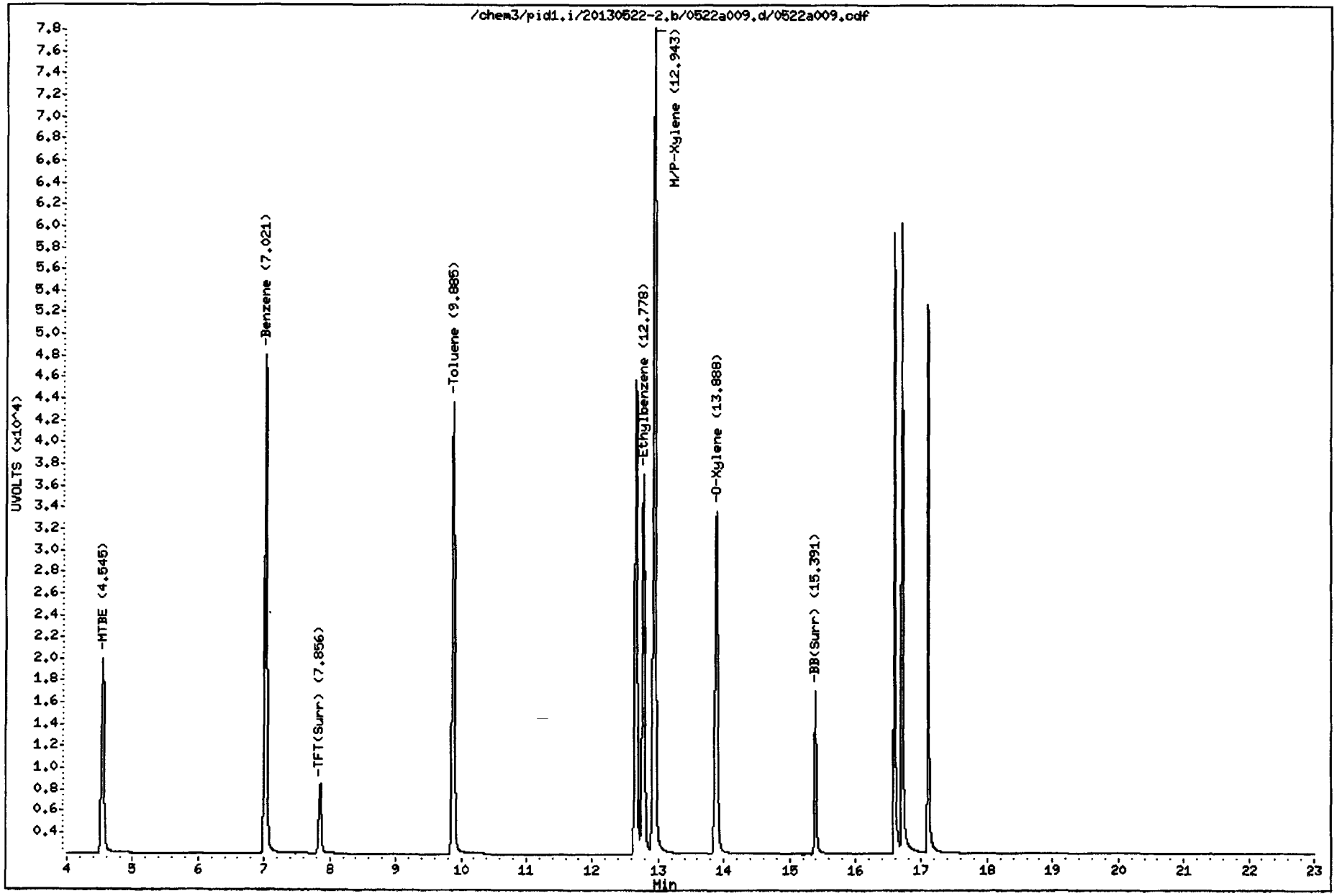
Sample Info: BCAL200

Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: LH

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

5/22/13

Data file 1: /chem3/pid1.i/20130522-1.b/0522a010.d
Data file 2: /chem3/pid1.i/20130522-2.b/0522a010.d
Method: /chem3/pid1.i/20130522-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: ICV25
Client ID: ICV25
Injection Date: 22-MAY-2013 12:53
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.849	0.001	2850	36275	96.3	TFT(Surr)
15.383	0.000	1968	16393	99.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.78 to 17.90)	358114	224528	0.627
8015C 2MP-TMB	(4.18 to 16.21)	723723	231562	0.320
AK101 nC6-nC10	(4.68 to 15.11)	582885	212642	0.365
NWTPHG Tol-Nap	(9.78 to 18.90)	375093	224528	0.599

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.857	0.001	3153	97.8	TFT(Surr)
15.390	-0.001	7281	100.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.021	-0.001	5554	24.70	Benzene
9.883	-0.002	4945	24.96	Toluene
12.774	-0.004	4229	25.90	Ethylbenzene
12.936	-0.008	9045	50.27	M/P-Xylene
13.884	-0.004	3733	26.29	O-Xylene
4.546	0.001	2105	24.14	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Analytical Resources, Inc.

Data file : /chem3/pid1.i/20130522-1.b/0522a010.d
Lab Smp Id: ICV25 Client Smp ID: ICV25
Inj Date : 22-MAY-2013 12:53
Operator : LH Inst ID: pid1.i
Smp Info : ICV25
Misc Info : 13-
Comment :
Method : /chem3/pid1.i/20130522-1.b/FID.m
Meth Date : 22-May-2013 16:19 lanih Quant Type: ESTD
Cal Date : 22-MAY-2013 12:24 Cal File: 0522a009.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: standard.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	6 MTBE	4.539	4.538	0.001	18919	22.3965	22.40
	9 BENZENE	7.013	7.014	-0.001	34225	23.4410	23.44
$	10 TFT(Surr)	7.849	7.848	0.001	2850	96.3146	96.31
	12 Toluene	9.874	9.877	-0.003	33117	22.8368	22.84
	14 ETHYLBENZENE	12.766	12.770	-0.004	2520	22.8895	22.89
	15 M/P-XYLENE	12.927	12.935	-0.008	59723	46.8403	46.84
	16 O-XYLENE	13.875	13.879	-0.004	31159	25.1396	25.14
$	18 BB(Surr)	15.383	15.383	0.000	1968	99.0411	99.04
	21 nc11	16.701	16.704	-0.003	2482		

Data File: /chem3/pid1.i/20130522-1.b/0522a010.d

Date : 22-MAY-2013 12:53

Client ID: ICV25

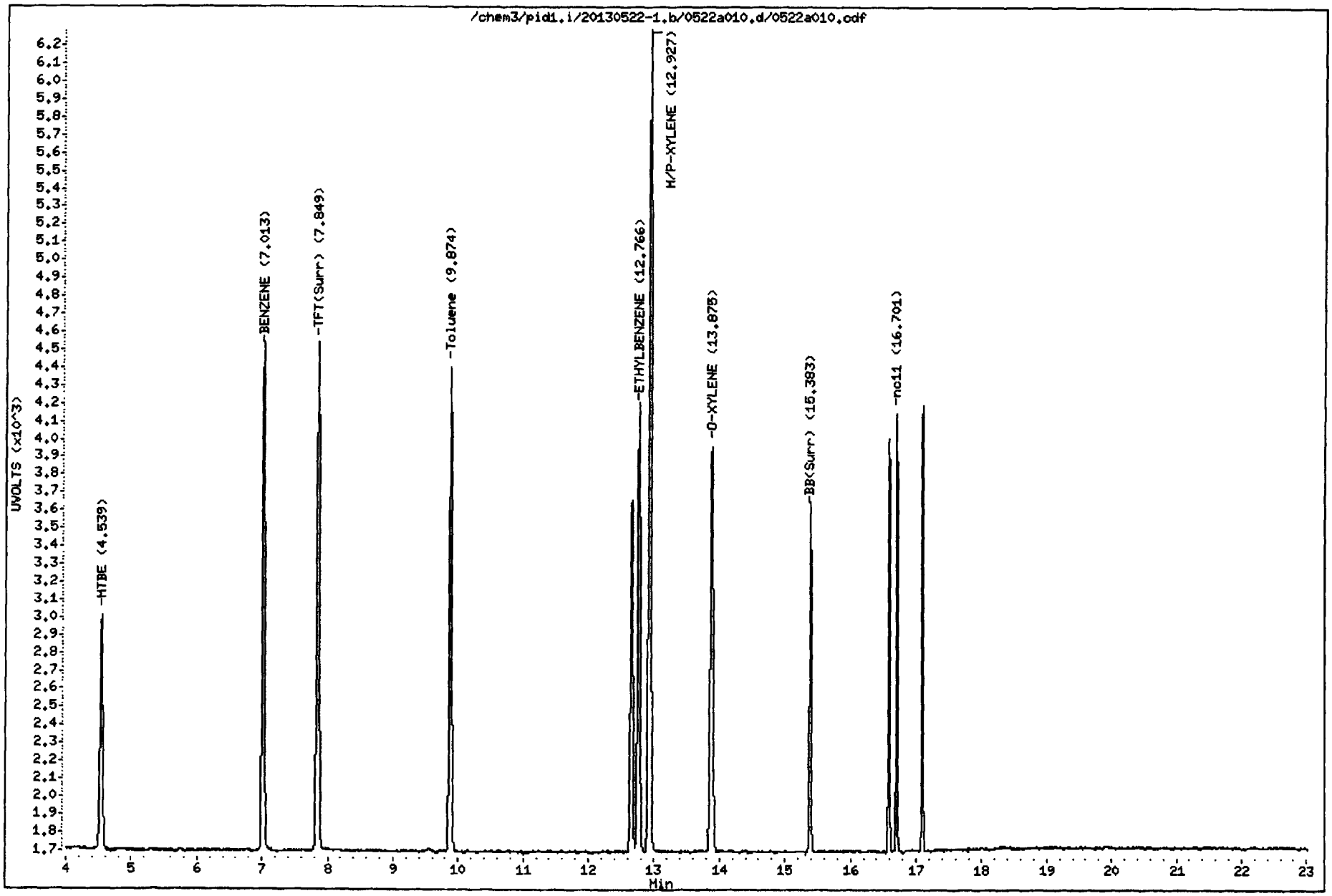
Sample Info: ICV25

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: LH

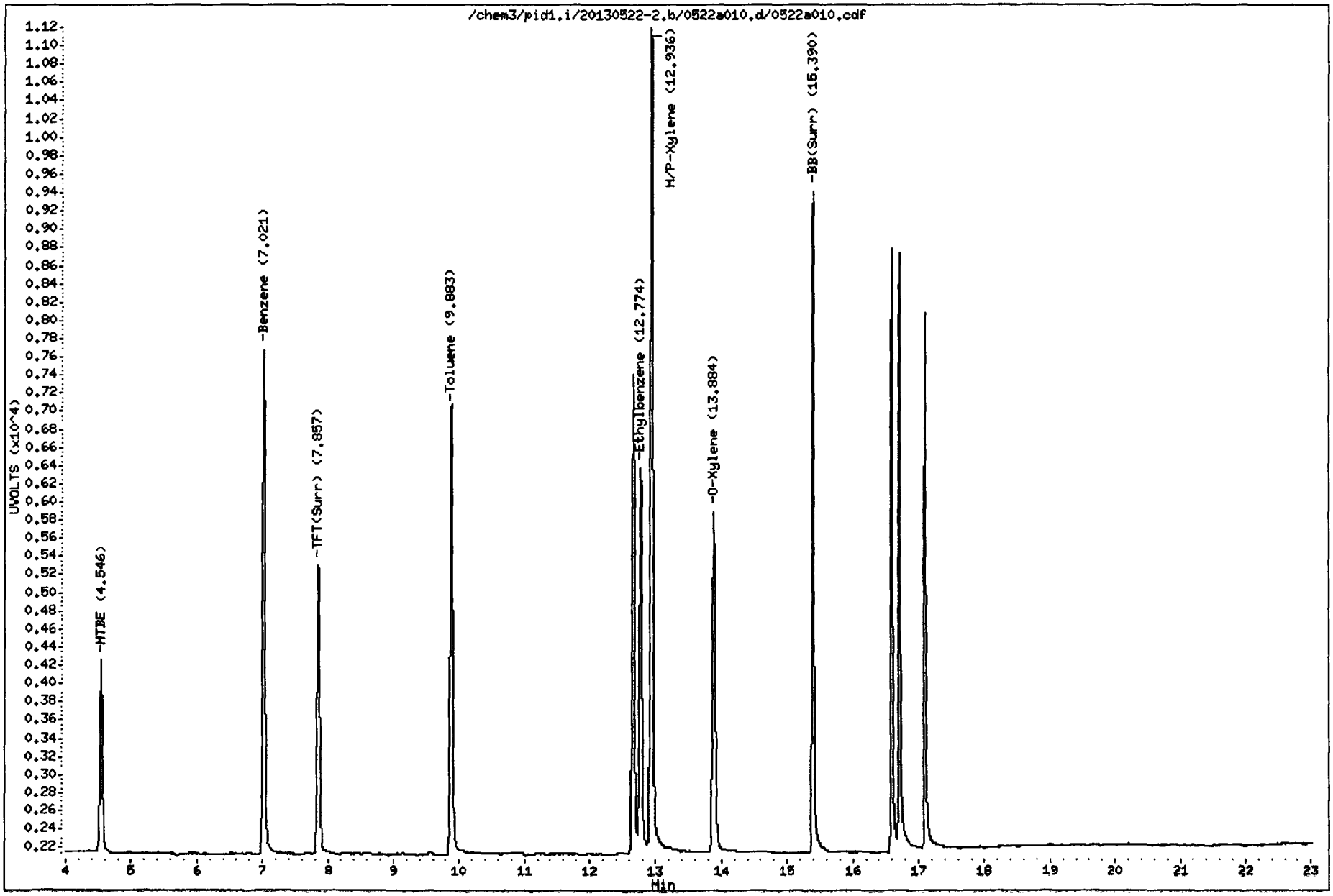
Column diameter: 0.18



Data File: /chem3/pid1.i/20130522-2.b/0522a010.d
Date : 22-MAY-2013 12:53
Client ID: ICV25
Sample Info: ICV25

Instrument: pid1.i
Operator: LH
Column diameter: 0.18

Column phase: RTX 502-2 PID



Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Initial Calibration Notes

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.3) **710S**(RSK-175)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 PID-1 PID-2 PID-3 FID-6

Curve Date(s): 10/23/12 Internal Standard ID N/A Expiration N/A

BFB Tune Meets Criteria?	N/A YES / NO	ICV Exceeding ±20%?	YES / NO
ICal Meets %RSD & r^2 Criteria?	YES / NO	ICV Exceeding ±30%?	YES / NO
Q flag applied?	YES / NO	Linear Fits Used?	YES / NO
Manual Integrations for ICal?	YES / NO	Quadratic Fits Used?	YES / NO
Spectral Library Updated?	N/A YES / NO	Calibration Points Dropped?	YES / NO
Minimum Response Factors Met	N/A YES / NO	Purge Volume (mL)	5

Primary Source	Standard #	Expiration	Secondary Source	Standard #	Expiration
Restek	VW758-3	2/1/13	Ultra Scientific	VW765-1	3/13/12
SPEX	VW254	2/2/12	SPEX	VW765-5	3/27/12

Detail problems, corrective actions and/or other pertinent information below:

MI's for peaks not found, baseline corrections.
TFT inflated on high pt of gas curve due to hydrocarbon interference.
MTBE @ 0.25 & 0.5 pts of BETX curve dropped & low pt FID confirmation dropped as well for MTBE

Analyst: JW **Date:** 10/25/12

Reviewer: [signature] **Date:** 10/26/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-OCT-2012 17:50
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-2.b/PIDB.m
Cal Date : 24-Oct-2012 10:09 jonw
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/20121023-2.b/1023a011.d
Level 2: /chem3/pid1.i/20121023-2.b/1023a010.d
Level 3: /chem3/pid1.i/20121023-2.b/1023a009.d
Level 4: /chem3/pid1.i/20121023-2.b/1023a008.d
Level 5: /chem3/pid1.i/20121023-2.b/1023a007.d
Level 6: /chem3/pid1.i/20121023-2.b/1023a006.d
Level 7: /chem3/pid1.i/20121023-2.b/1023a005.d
Level 8: /chem3/pid1.i/20121023-2.b/1023a004.d

Compound	0.25000 Level 1	0.50000 Level 2	1.000 Level 3	5.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
1 MTBE	+++++	+++++	72.00000	75.40000	71.84000	72.14000		
	72.39000	68.24000					72.00167	3.161
2 Benzene	228	254	260	255	246	248		
	247	246					248	3.847
4 Toluene	256	234	210	224	220	219		
	220	216					225	6.342
5 Ethylbenzene	192	200	198	201	196	198		
	199	193					197	1.663
6 M/P-Xylene	216	208	212	220	215	217		
	218	215					215	1.653
7 O-Xylene	160	158	168	171	172	171		
	173	170					168	3.365

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-OCT-2012 17:50
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-2.b/PIDB.m
Cal Date : 24-Oct-2012 10:09 jonw
Curve Type : Average

Compound	0.25000 Level 1	0.50000 Level 2	1.000 Level 3	5.000 Level 4	25.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
$ 3 TFT(Surr)	38.86364	37.09091	+++++	37.55224	37.30000	36.97744		
	38.10674	39.27500					37.88085	2.372
$ 8 BB(Surr)	81.36364	78.68182	+++++	80.38806	80.55000	80.24060		
	82.00562	79.97000					80.45710	1.310

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-OCT-2012 17:50
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-2.b/PIDB.m
Cal Date : 24-Oct-2012 10:09 jonw
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 2.96423
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2012 10:07
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-1.b/FID.m
Cal Date : 24-Oct-2012 10:39 jonw
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid1.i/20121023-1.b/1023a011.d/1023a011.cdf
Level 2: /chem3/pid1.i/20121023-1.b/1023a010.d/1023a010.cdf
Level 3: /chem3/pid1.i/20121023-1.b/1023a009.d/1023a009.cdf
Level 4: /chem3/pid1.i/20121023-1.b/1023a008.d/1023a008.cdf
Level 5: /chem3/pid1.i/20121023-1.b/1023a007.d/1023a007.cdf
Level 6: /chem3/pid1.i/20121023-1.b/1023a006.d/1023a006.cdf
Level 7: /chem3/pid1.i/20121023-1.b/1023a005.d/1023a005.cdf
Level 8: /chem3/pid1.i/20121023-1.b/1023a004.d/1023a004.cdf

Compound	0.000e+00 Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	RRF	% RSD	
1 NWTPHG	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
2 WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
3 AK101	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
4 8015GAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
5 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
6 MTBE	+++++	472	600	610	595	575	561	509	560	9.173	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2012 10:07
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-1.b/FID.m
Cal Date : 24-Oct-2012 10:39 jonw
Curve Type : Average

Compound	0.000e+00 Level 1	0.000e+00 Level 2	0.000e+00 Level 3	0.000e+00 Level 4	0.000e+00 Level 5	0.000e+00 Level 6	0.000e+00 Level 7	0.000e+00 Level 8	RRF	% RSD	
7 nC6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
8 nC7	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
9 BENZENE	1572	1618	1515	1498	1392	1352	1307	1232	1436	9.456	
11 nC8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
12 Toluene	1464	1522	1397	1472	1356	1326	1283	1207	1378	7.690	
13 nC9	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
14 ETHYLBENZENE	132	126	121	118	109	107	103	95.88000	114	10.830	
15 M/P-XYLENE	1612	1580	1476	1417	1290	1260	1226	1156	1377	12.313	
16 O-XYLENE	1504	1538	1492	1414	1330	1289	1249	1171	1373	9.739	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2012 10:07
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-1.b/FID.m
Cal Date : 24-Oct-2012 10:39 jonw
Curve Type : Average

Compound	0.000e+00 Level 1	0.000e+00 Level 2	0.000e+00 Level 3	0.000e+00 Level 4	0.000e+00 Level 5	0.000e+00 Level 6	0.000e+00 Level 7	0.000e+00 Level 8	RRF	% RSD	
17 nC10-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
20 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
21 nc11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
22 nC12-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
23 nC13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
24 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$ 10 TFT(Surr)	33.31818	31.81818	+++++	31.61194	31.34000	30.78195	30.91573	30.69500	31.49728	2.884	
$ 18 BB(Surr)	22.00000	20.54545	+++++	20.70149	20.31000	19.83459	19.84270	18.93000	20.30918	4.677	
$ 19 BFB(Surr)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-SEP-2012 10:07
End Cal Date : 23-OCT-2012 21:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid1.i/20121023-1.b/FID.m
Cal Date : 24-Oct-2012 10:39 jonw
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 10.58832
Maximun Average %RSD = 20.00000
* Passed Average %RSD Test.

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a004.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a004.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 200
Client ID:
Injection Date: 23-OCT-2012 17:50
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.887	0.000	6139	78345	194.1	TFT(Surr)
15.390	0.003	3786	32155	185.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	1708650	4.771 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	1708791	2.361 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	1600978	2.747 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	1713577	4.568 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.896	0.003	7855	207.4	TFT(Surr)
15.397	0.003	15994	198.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.078	0.001	49204	198.42	Benzene
9.910	0.003	43241	192.19N	Toluene
12.793	0.006	38665	196.10	Ethylbenzene
12.957	0.014	85891	399.48	M/P-Xylene
13.900	0.010	34089	203.10N	O-Xylene
4.650	-0.003	13648	189.55	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a004.d

Date : 23-OCT-2012 17:50

Client ID:

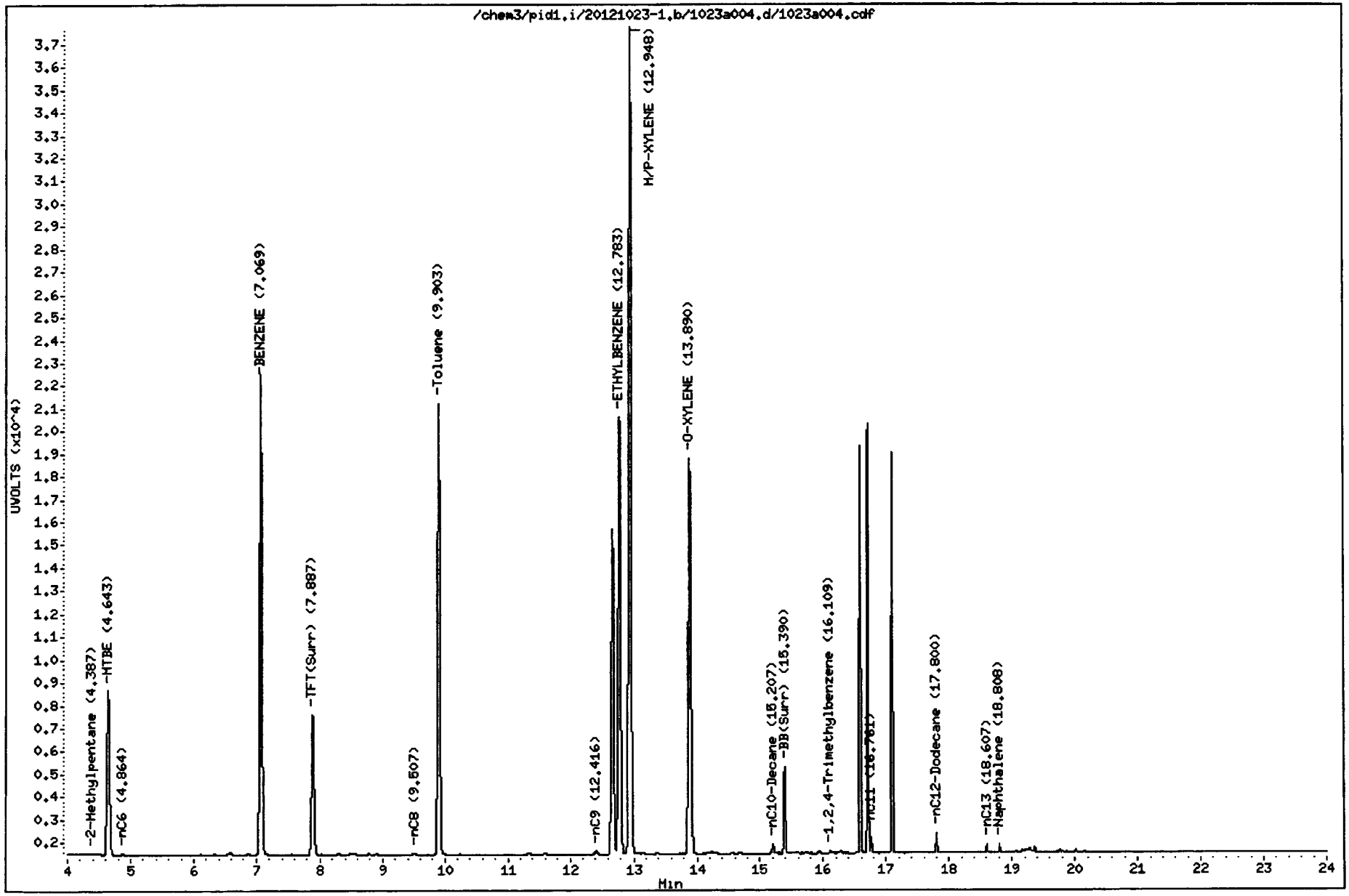
Sample Info: B 200

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a004.d

Date : 23-OCT-2012 17:50

Client ID:

Sample Info: B 200

Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

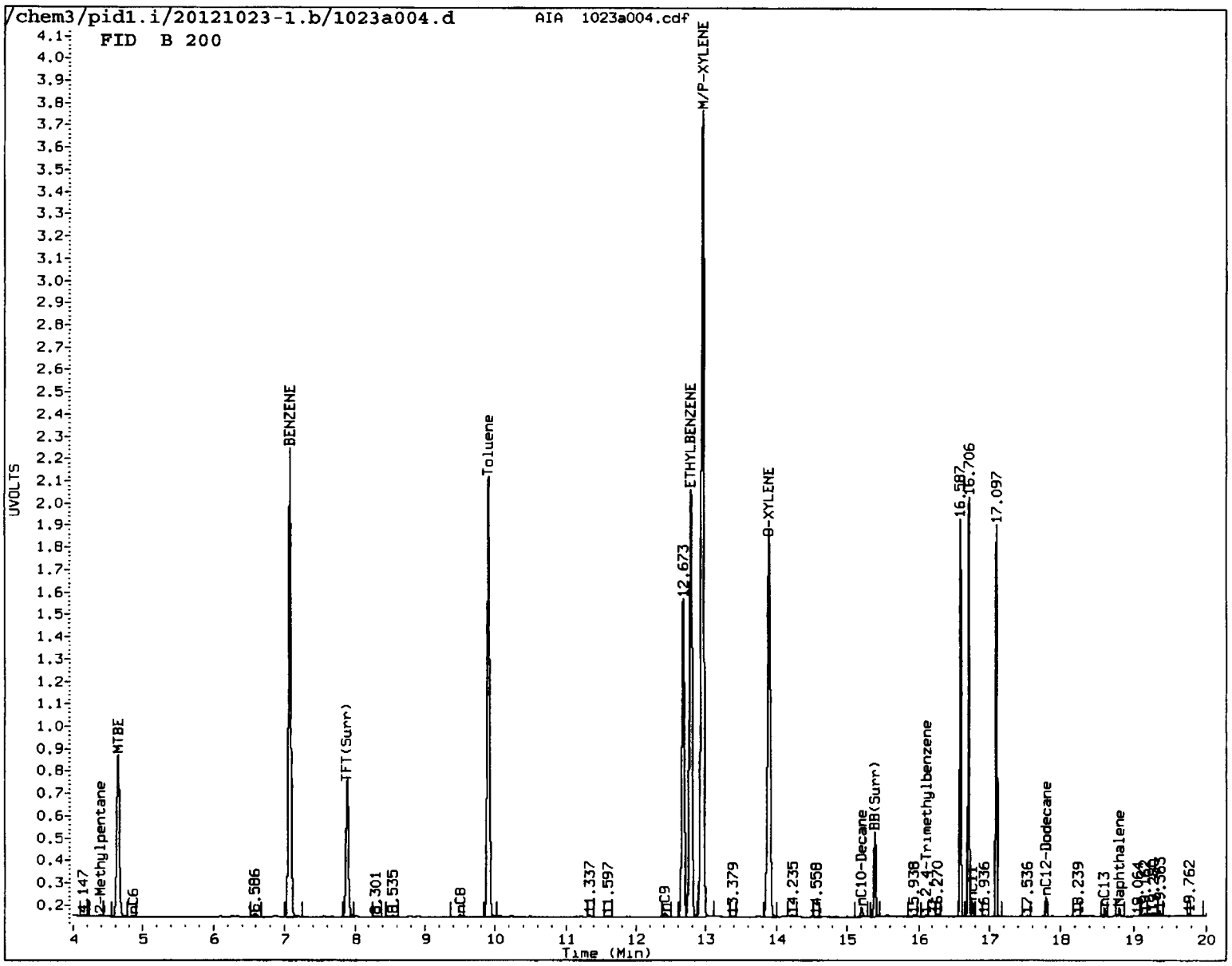
Column diameter: 0.18

/chem3/pid1.i/20121023-2.b/1023a004.d/1023a004.cdf

UVOLTS (x10^4)

-MTBE (4.650)
-Benzene (7.078)
-TFT(Surr) (7.896)
-Toluene (9.910)
-Ethylbenzene (12.793)
M/P-Xylene (12.957)
-O-Xylene (13.900)
-BB(Surr) (15.397)

Min



MANUAL INTEGRATION

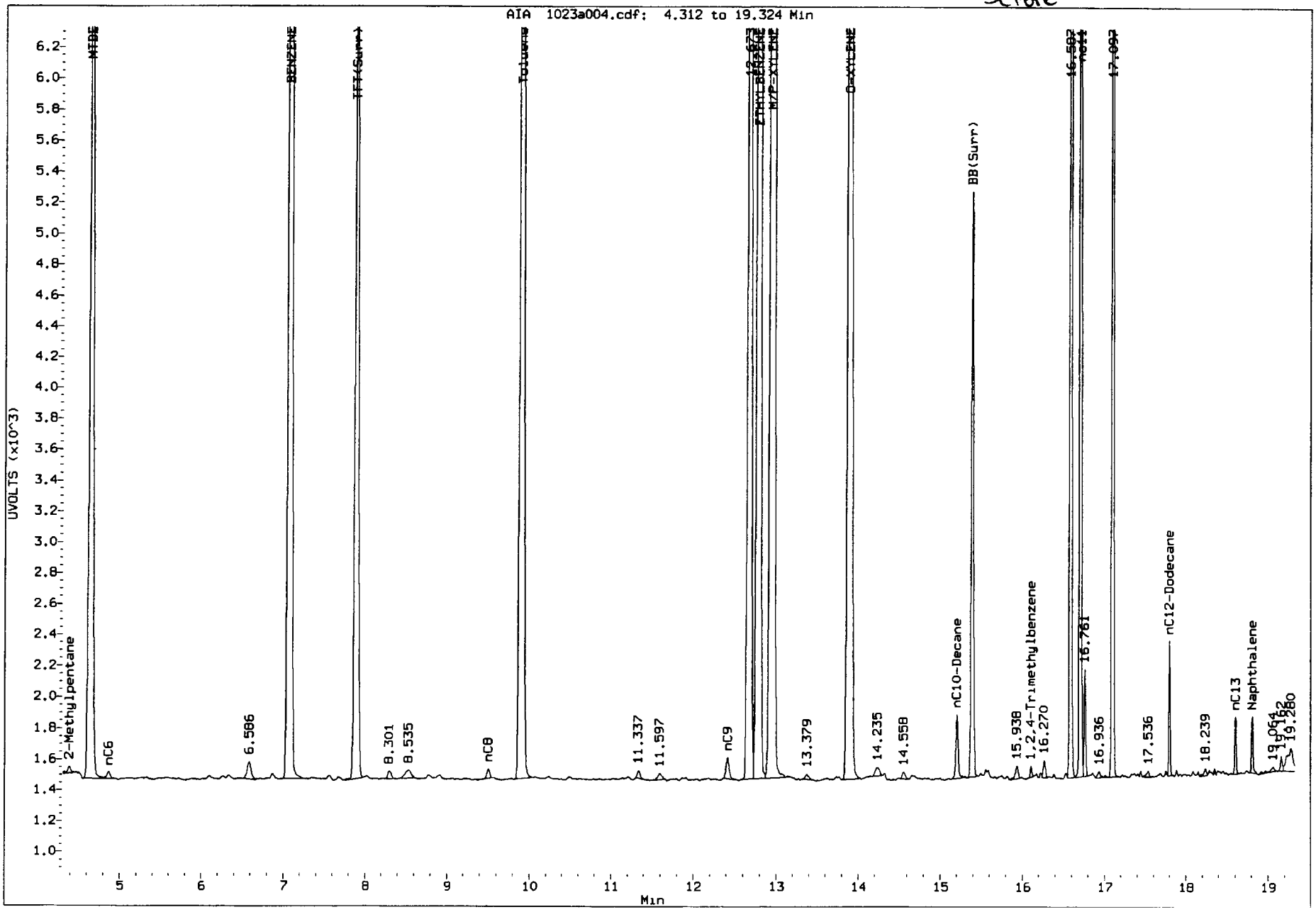
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

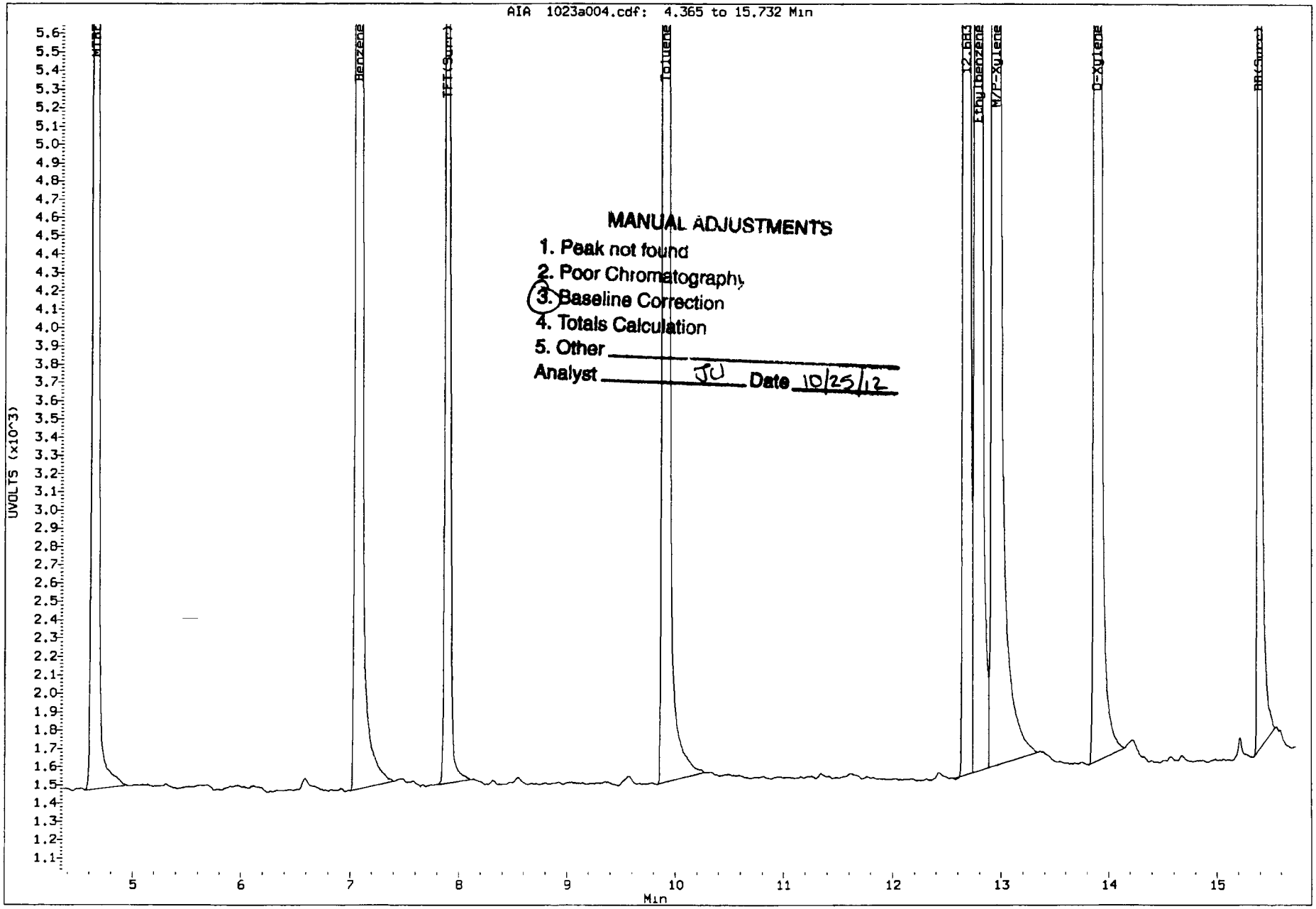
Analyst: JW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a004.d/1023a004.cdf
Injection Date: 23-OCT-2012 17:50
Instrument: pid1.i
Client Sample ID:

Before

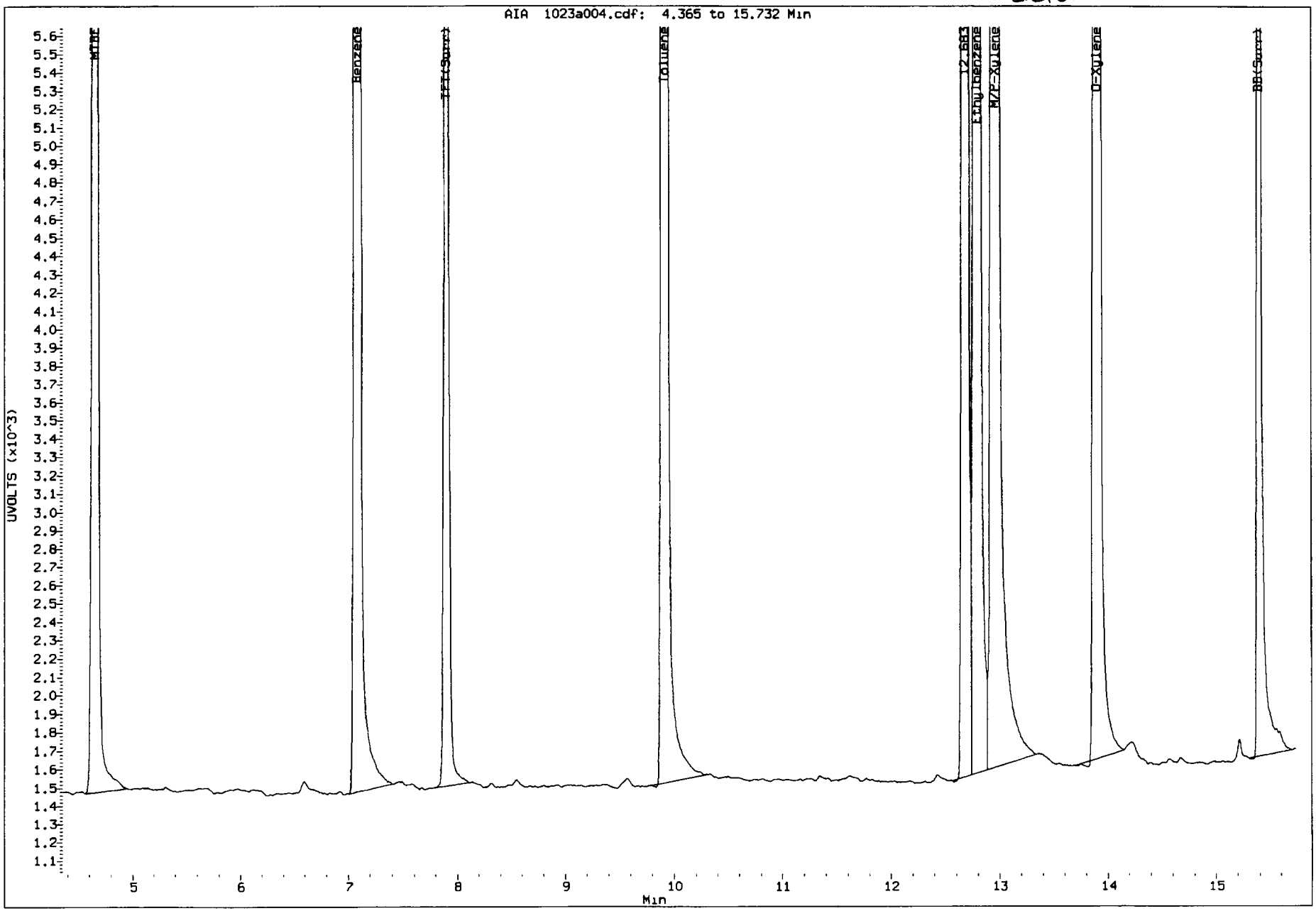


Data File: /chem3/pid1.i/20121023-2.b/1023a004.d/1023a004.cdf
Injection Date: 23-OCT-2012 17:50
Instrument: pid1.i
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a004.d/1023a004.cdf
Injection Date: 23-OCT-2012 17:50
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a005.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a005.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 100
Client ID:
Injection Date: 23-OCT-2012 18:20
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.883	-0.004	5503	70111	174.0	TFT(Surr)
15.387	0.000	3532	29720	173.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	905684	2.529 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	901622	1.246 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	845537	1.451 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	906863	2.418 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.890	-0.003	6783	179.1	TFT(Surr)
15.393	0.000	14597	181.4	BB(Surr)

SW8021 (PID)

JW 10/25/12

RT	Shift	Response	Amount	Compound
7.073	-0.003	24688	99.56N	Benzene
9.903	-0.003	22030	97.92N	Toluene
12.785	-0.002	19930	101.08	Ethylbenzene
12.948	0.004	43574	202.66	M/P-Xylene
13.893	0.003	17274	102.92N	O-Xylene
4.650	-0.003	7239	100.54N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a005.d

Date : 23-OCT-2012 18:20

Client ID:

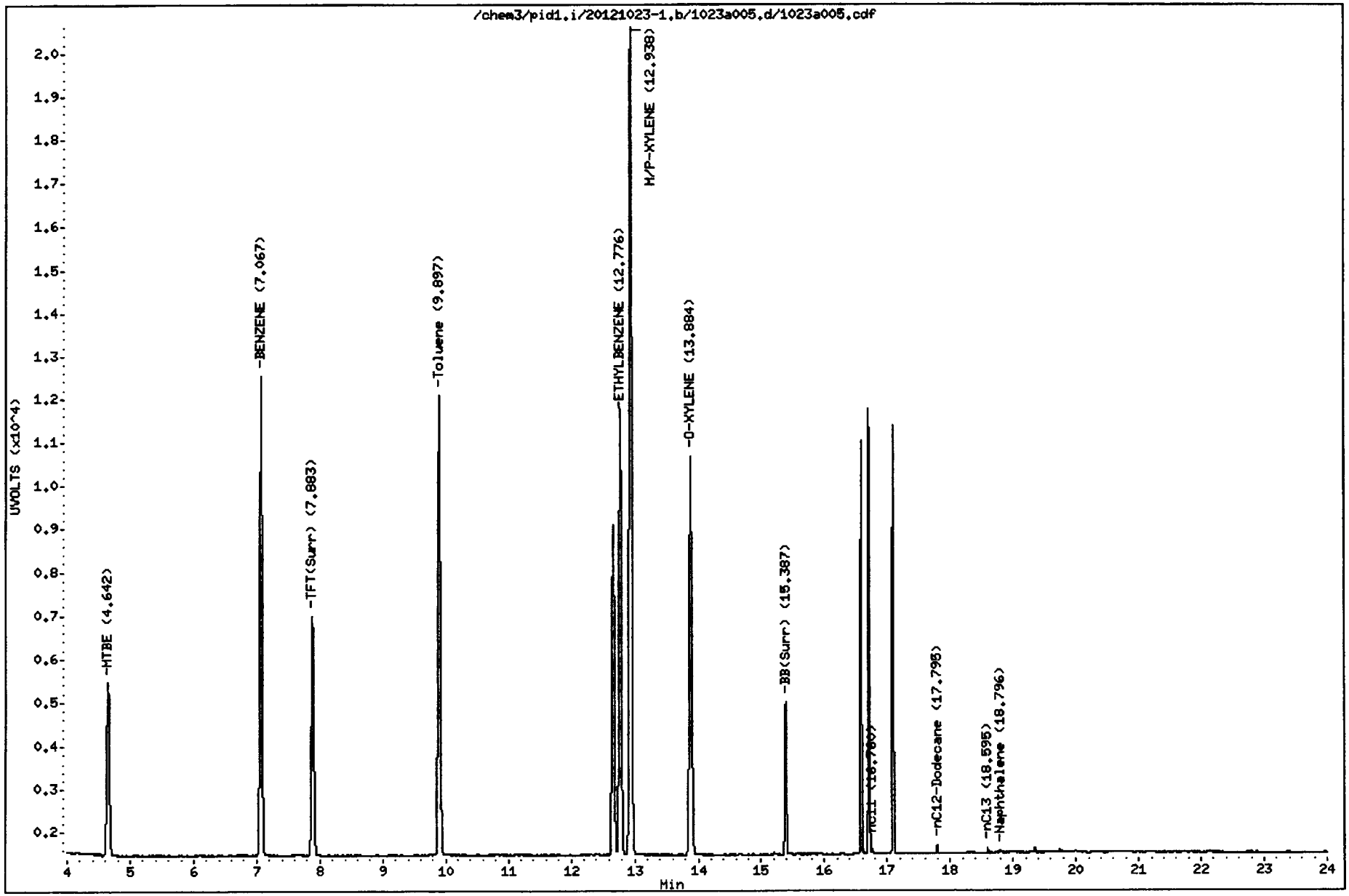
Sample Info: B 100

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a005.d

Page 1

Date : 23-OCT-2012 18:20

Client ID:

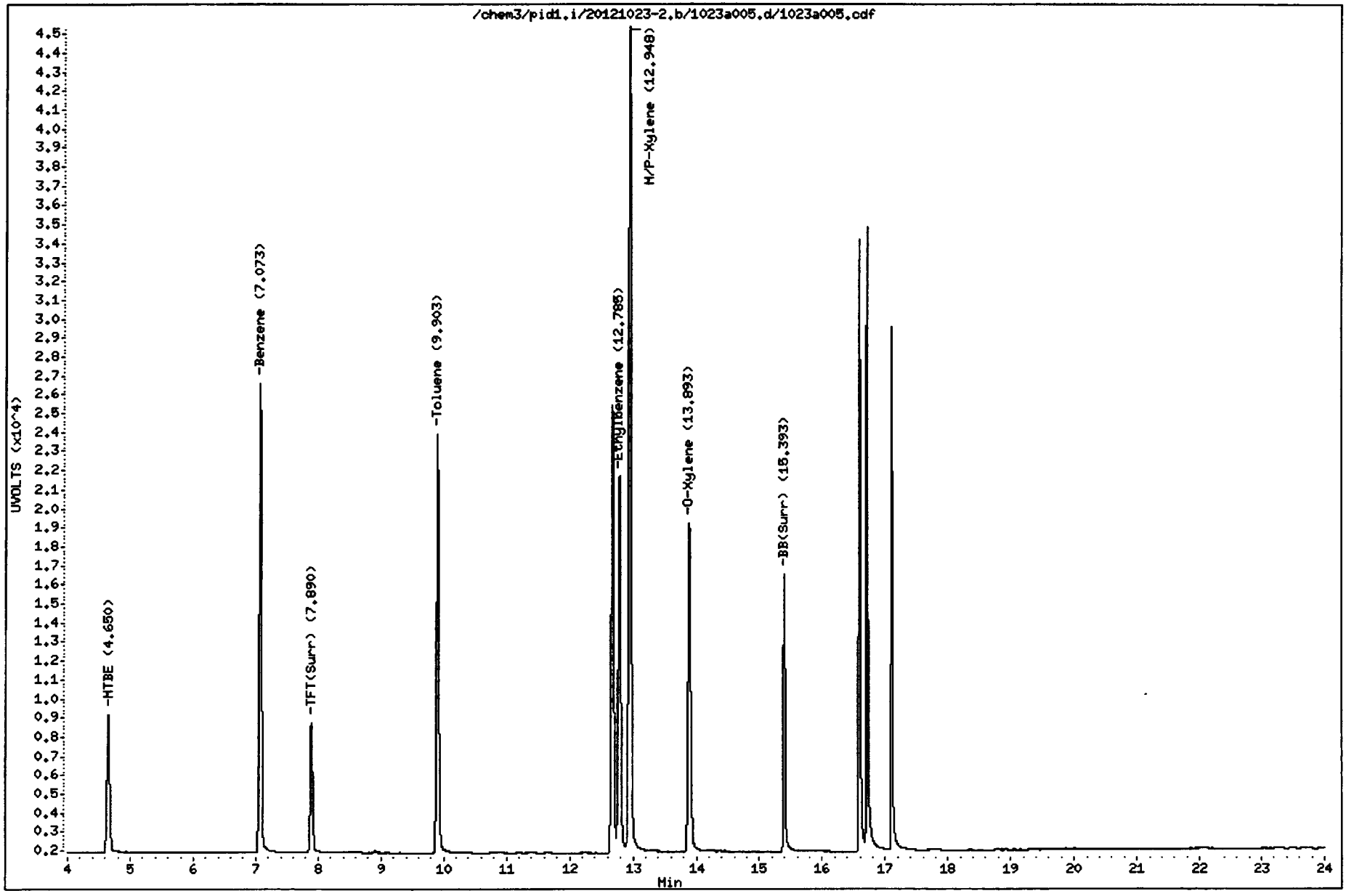
Instrument: pid1.i

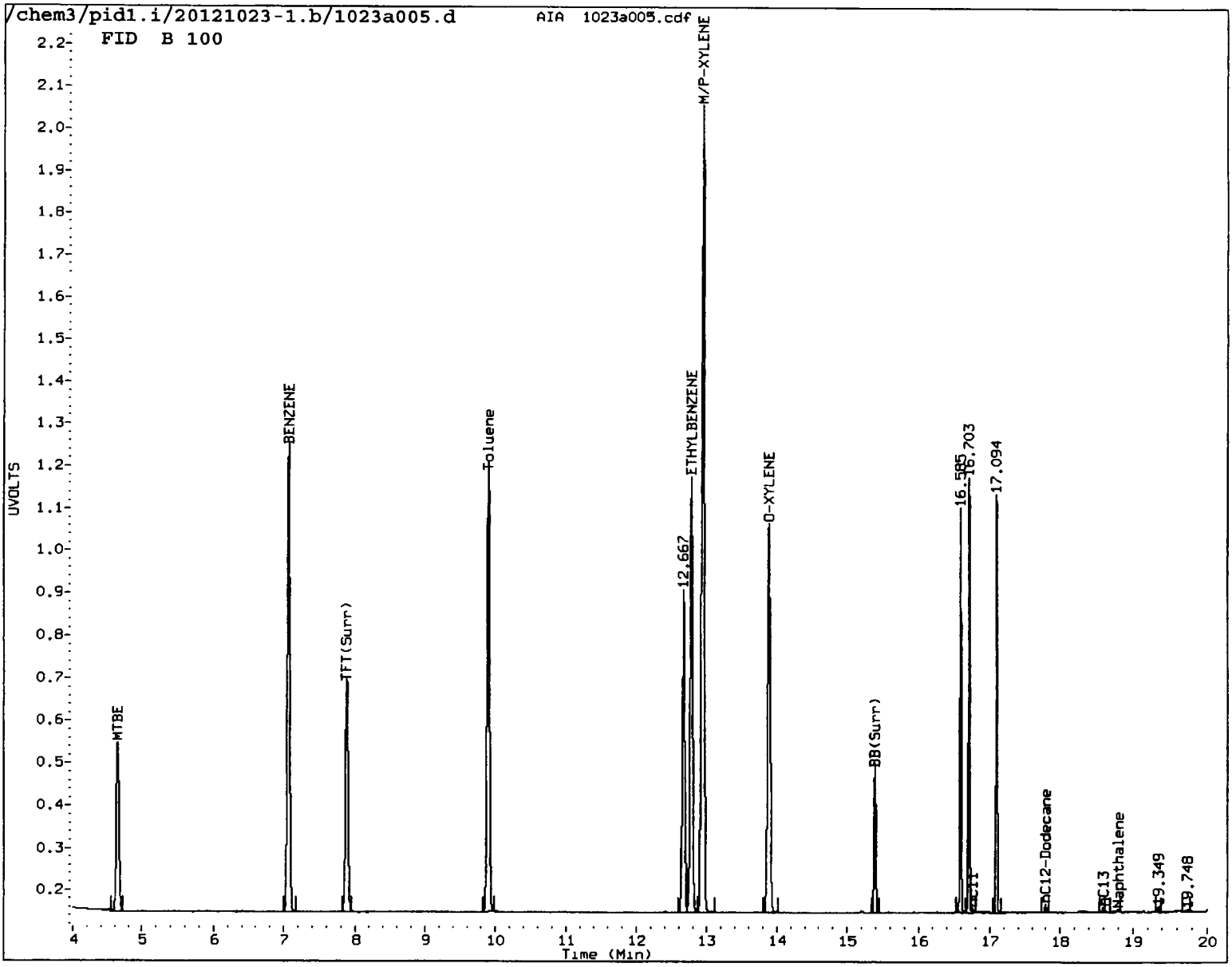
Sample Info: B 100

Operator: PC/JW

Column phase: RTX 502-2 PID

Column diameter: 0.18





MANUAL INTEGRATION

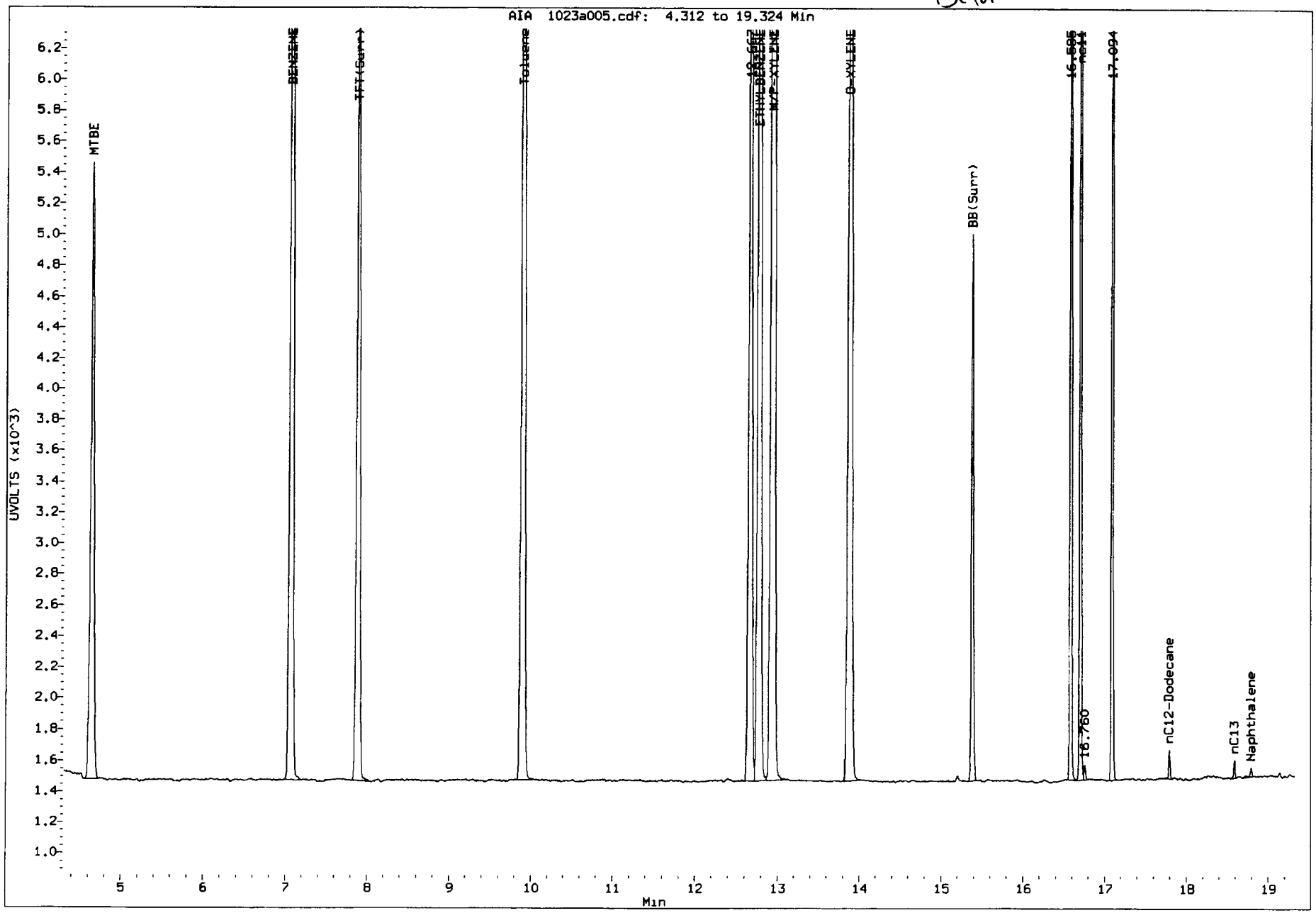
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

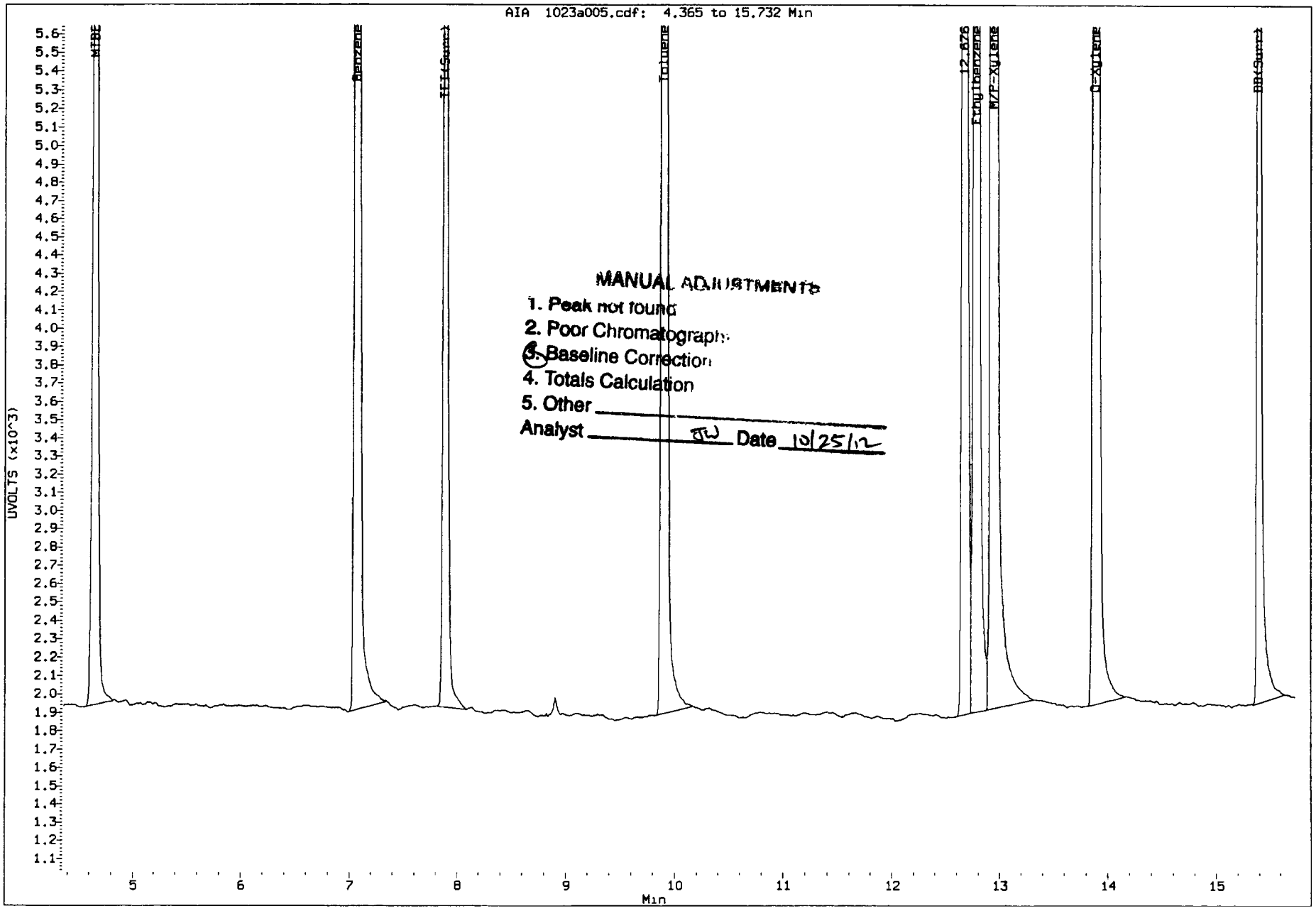
Analyst: JW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a005.d/1023a005.cdf
Injection Date: 23-OCT-2012 18:20
Instrument: pid1.i
Client Sample ID:

Before

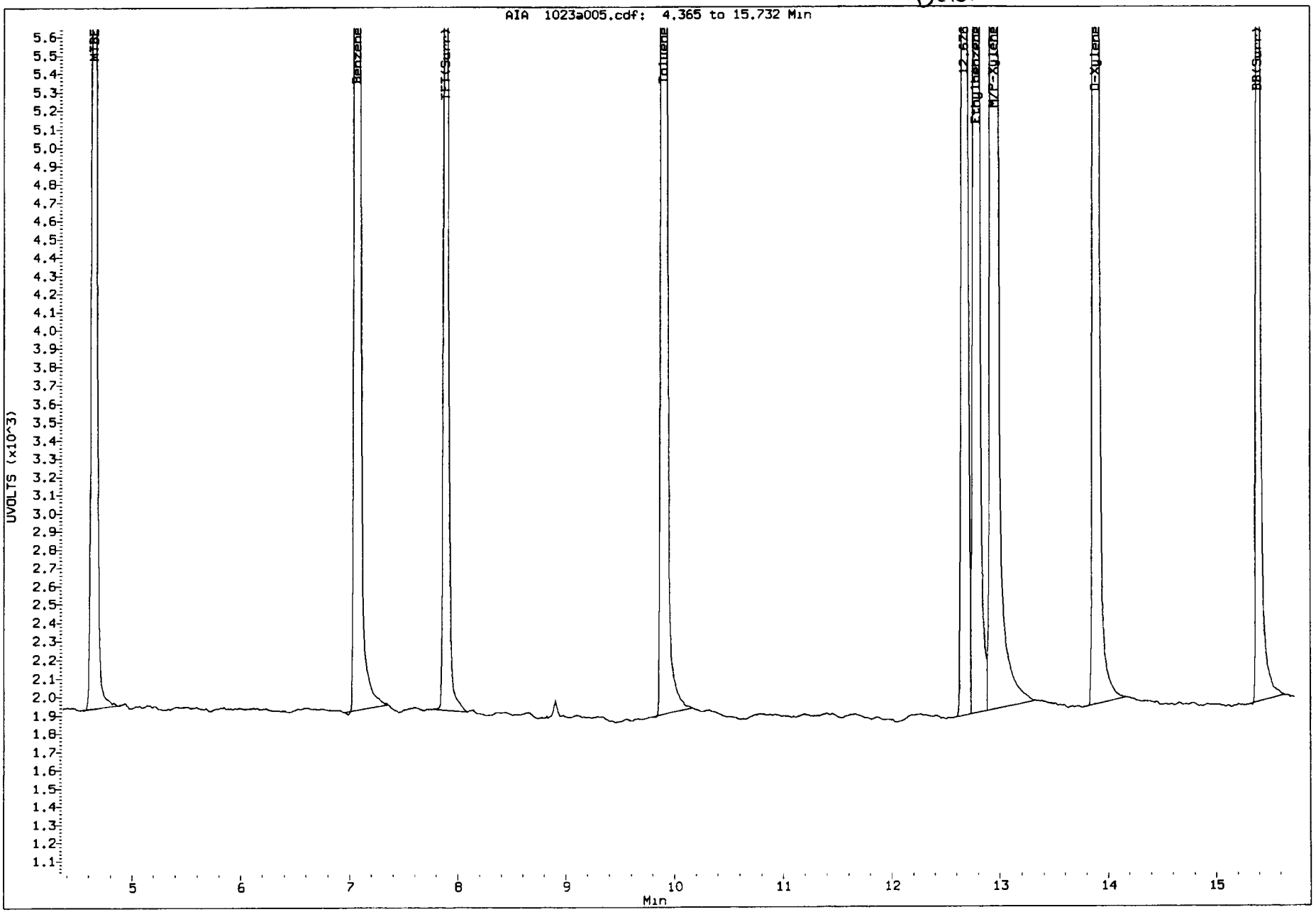


Data File: /chem3/pid1.i/20121023-2.b/1023a005.d/1023a005.cdf
Injection Date: 23-OCT-2012 18:20
Instrument: pid1.i
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a005.d/1023a005.cdf
Injection Date: 23-OCT-2012 18:20
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a006.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a006.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 50
Client ID:
Injection Date: 23-OCT-2012 18:49
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.883	-0.004	4094	52140	129.5	TFT(Surr)
15.387	0.000	2638	22027	129.5	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	466249	1.302 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	465082	0.643 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	436325	0.749 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	466249	1.243 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	4918	129.8	TFT(Surr)
15.393	0.000	10672	132.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.002	12380	49.92	Benzene
9.903	-0.003	10965	48.74N	Toluene
12.784	-0.003	9886	50.14	Ethylbenzene
12.946	0.002	21661	100.75	M/P-Xylene
13.890	0.000	8535	50.85N	O-Xylene
4.653	0.000	3607	50.10N	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a006.d

Date : 23-OCT-2012 18:49

Client ID:

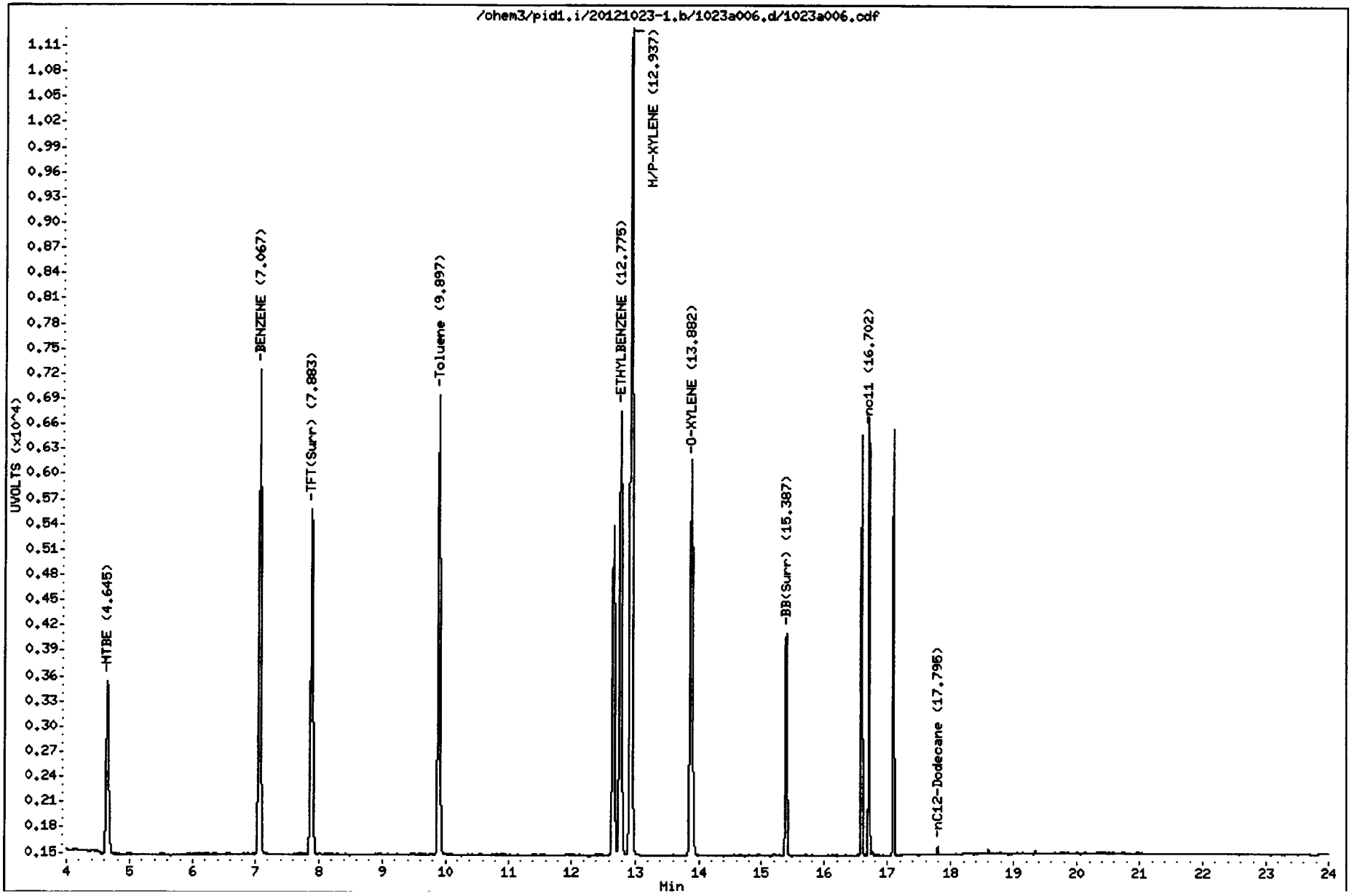
Sample Info: B 50

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a006.d

Page 1

Date : 23-OCT-2012 18:49

Client ID:

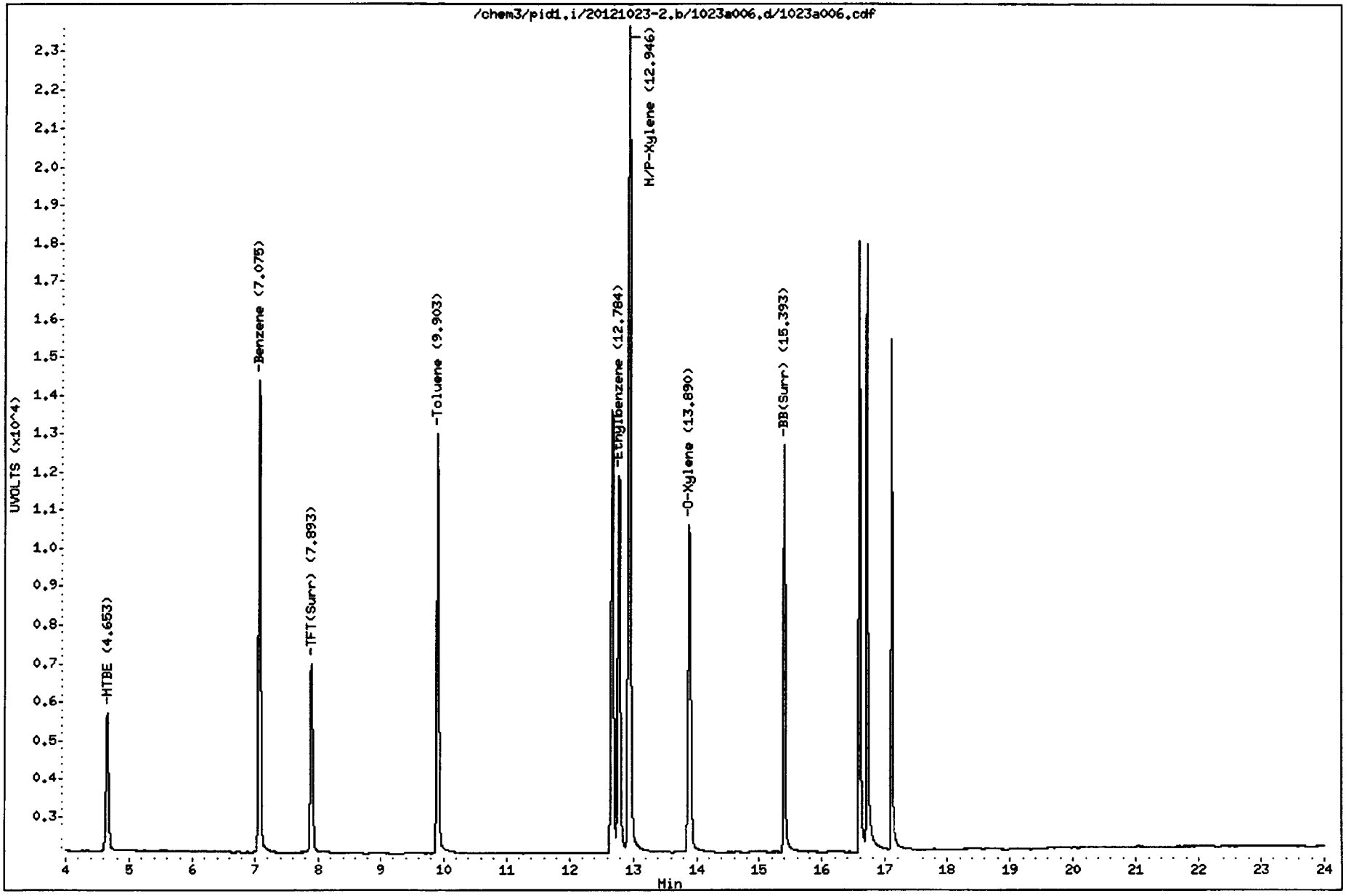
Instrument: pid1.i

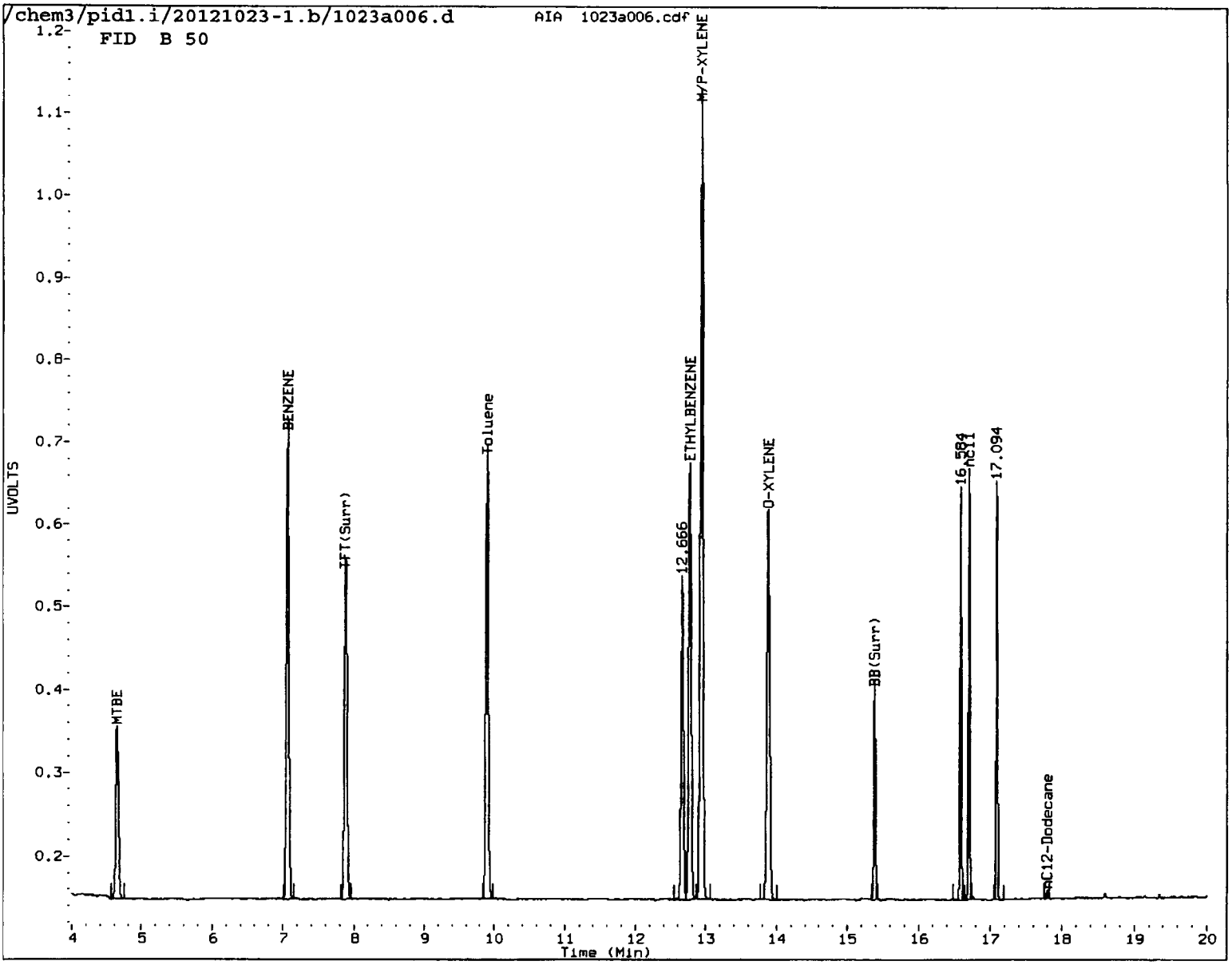
Sample Info: B 50

Operator: PC/JW

Column phase: RTX 502-2 PID

Column diameter: 0.18





MANUAL INTEGRATION

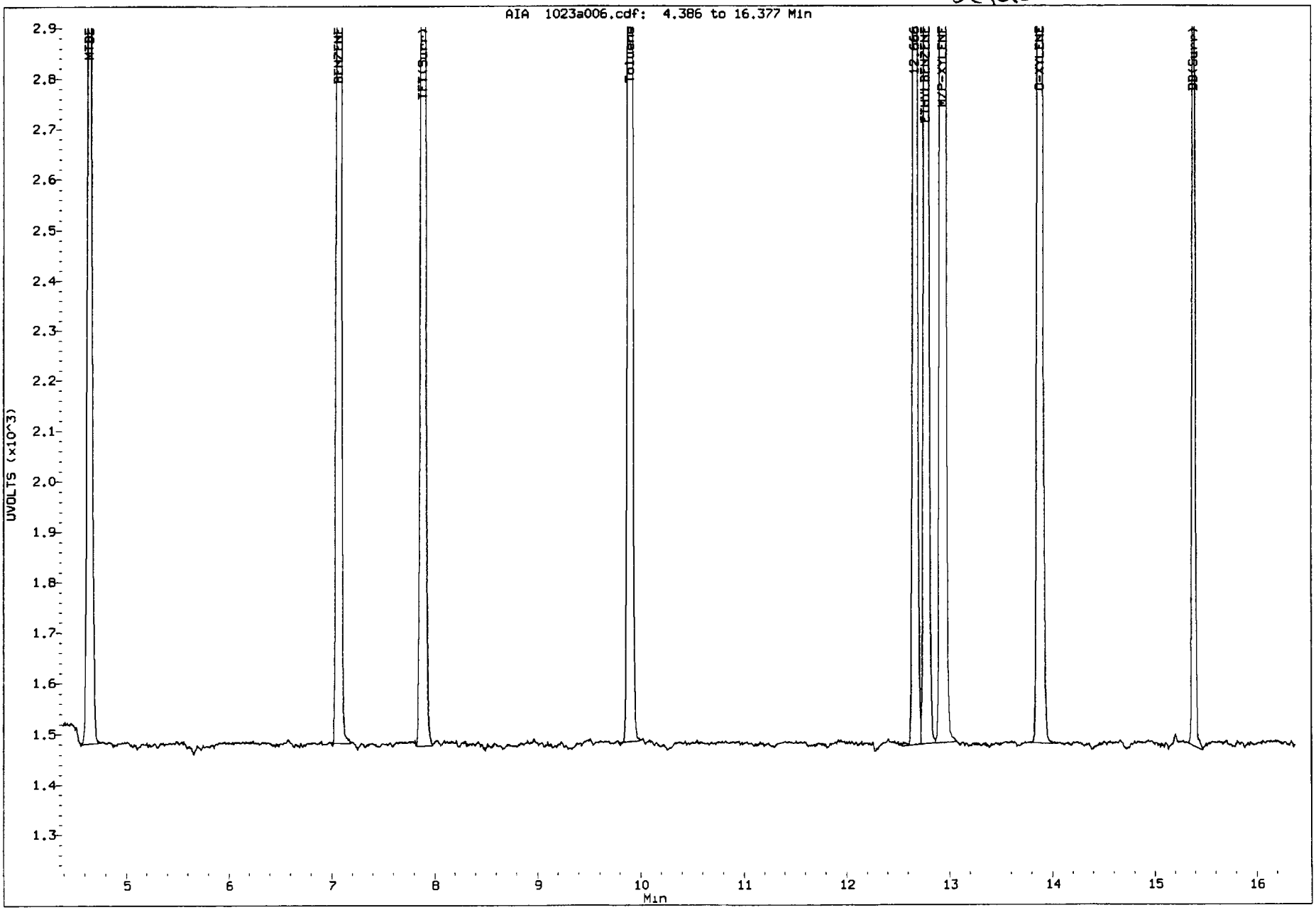
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JW Date: 10/25/12

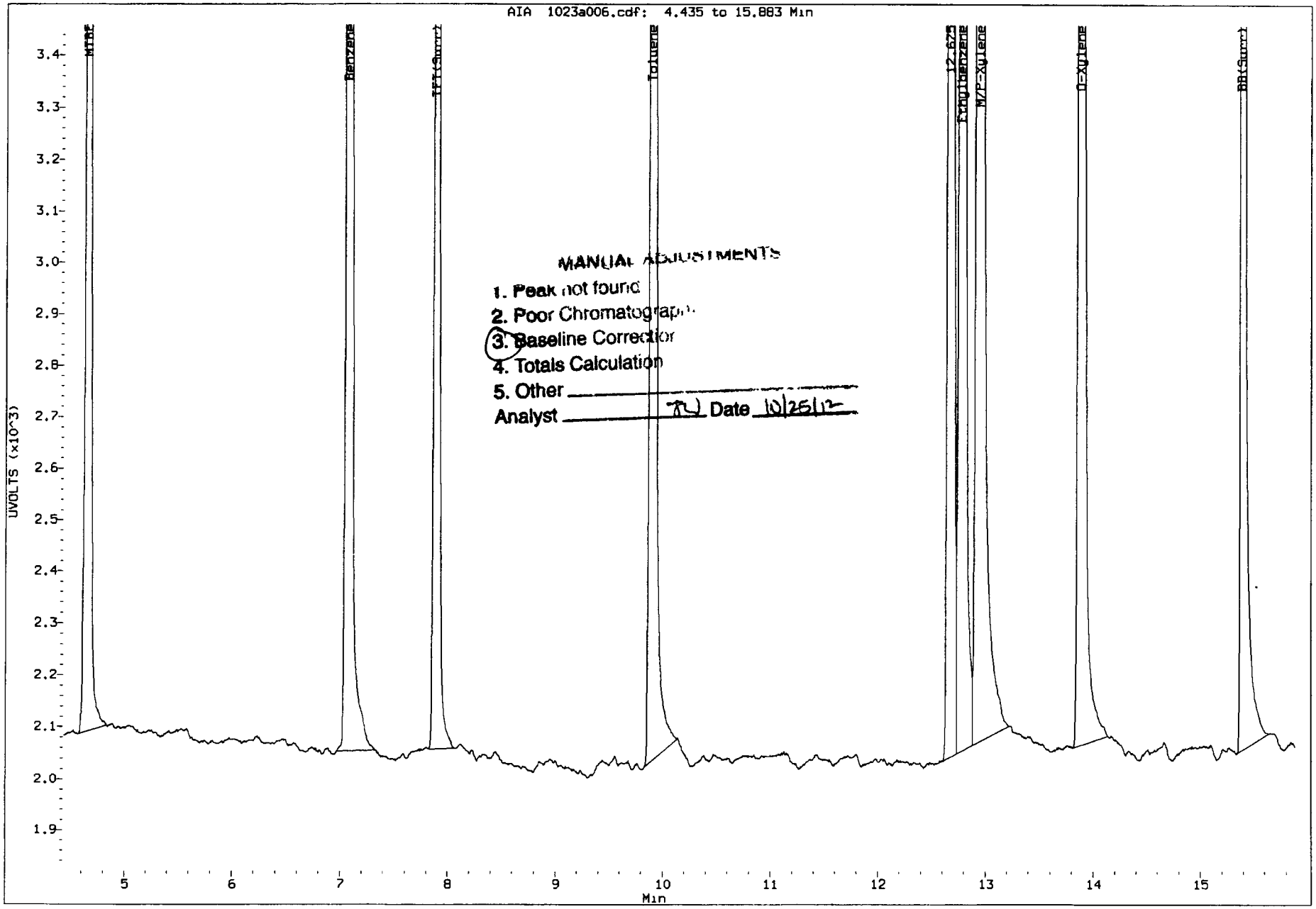
Data File: /chem3/pid1.i/20121023-1.b/1023a006.d/1023a006.cdf
Injection Date: 23-OCT-2012 18:49
Instrument: pid1.i
Client Sample ID:

Before



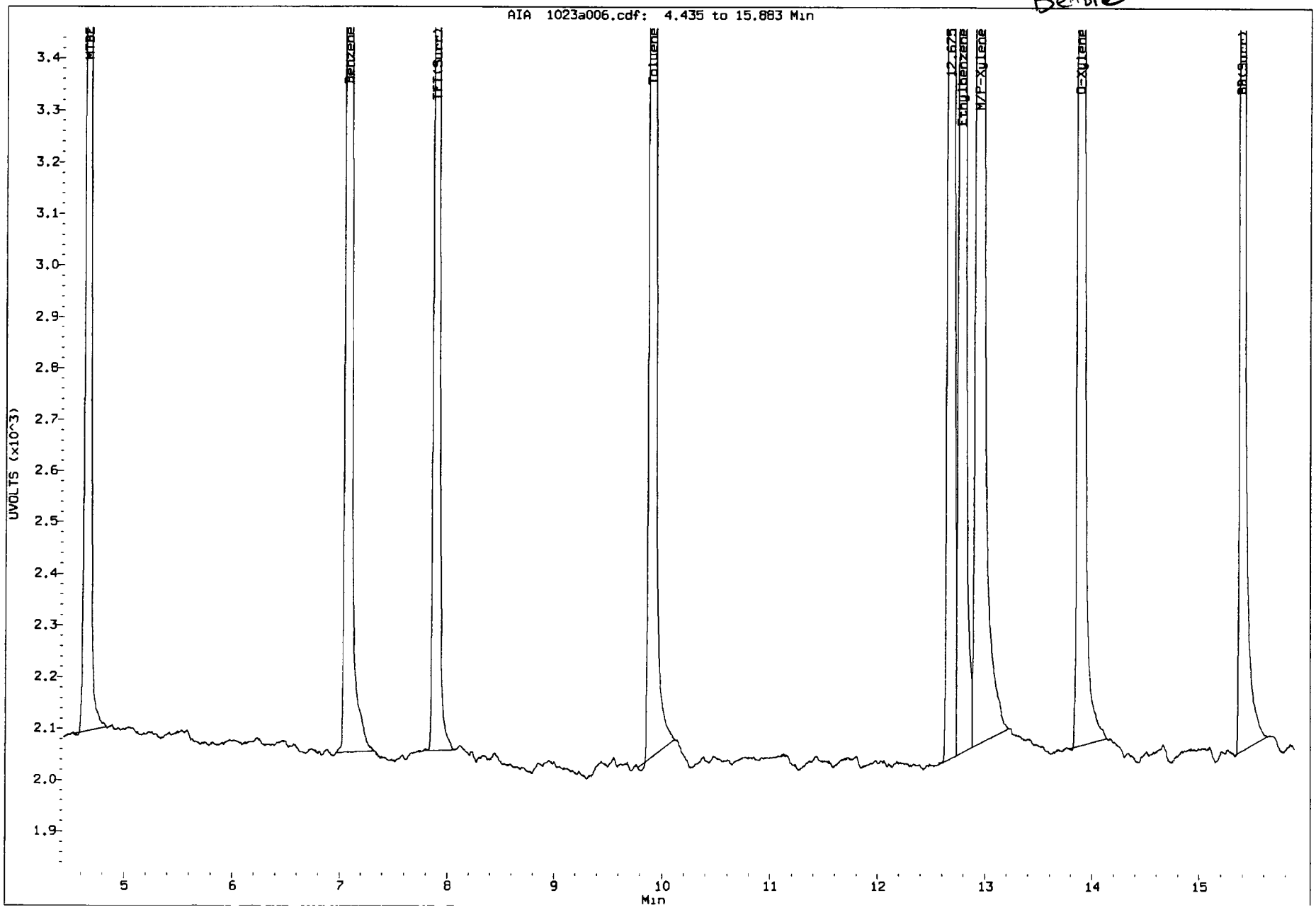
LIT04-044079

Data File: /chem3/pid1.i/20121023-2.b/1023a006.d/1023a006.cdf
Injection Date: 23-OCT-2012 18:49
Instrument: pid1.i
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a006.d/1023a006.cdf
Injection Date: 23-OCT-2012 18:49
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a007.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a007.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 25
Client ID:
Injection Date: 23-OCT-2012 19:18
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.887	0.000	3134	40267	99.2	TFT(Surr)
15.387	0.000	2031	17131	99.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	239603	0.669 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	238961	0.330 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	224080	0.384 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	239603	0.639 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	3730	98.5	TFT(Surr)
15.397	0.003	8055	100.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.077	0.000	6159	24.84N	Benzene
9.907	0.000	5498	24.44N	Toluene
12.785	-0.002	4891	24.81	Ethylbenzene
12.946	0.003	10737	49.94	M/P-Xylene
13.893	0.003	4292	25.57N	O-Xylene
4.653	0.000	1796	24.94N	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a007.d

Date : 23-OCT-2012 19:18

Client ID:

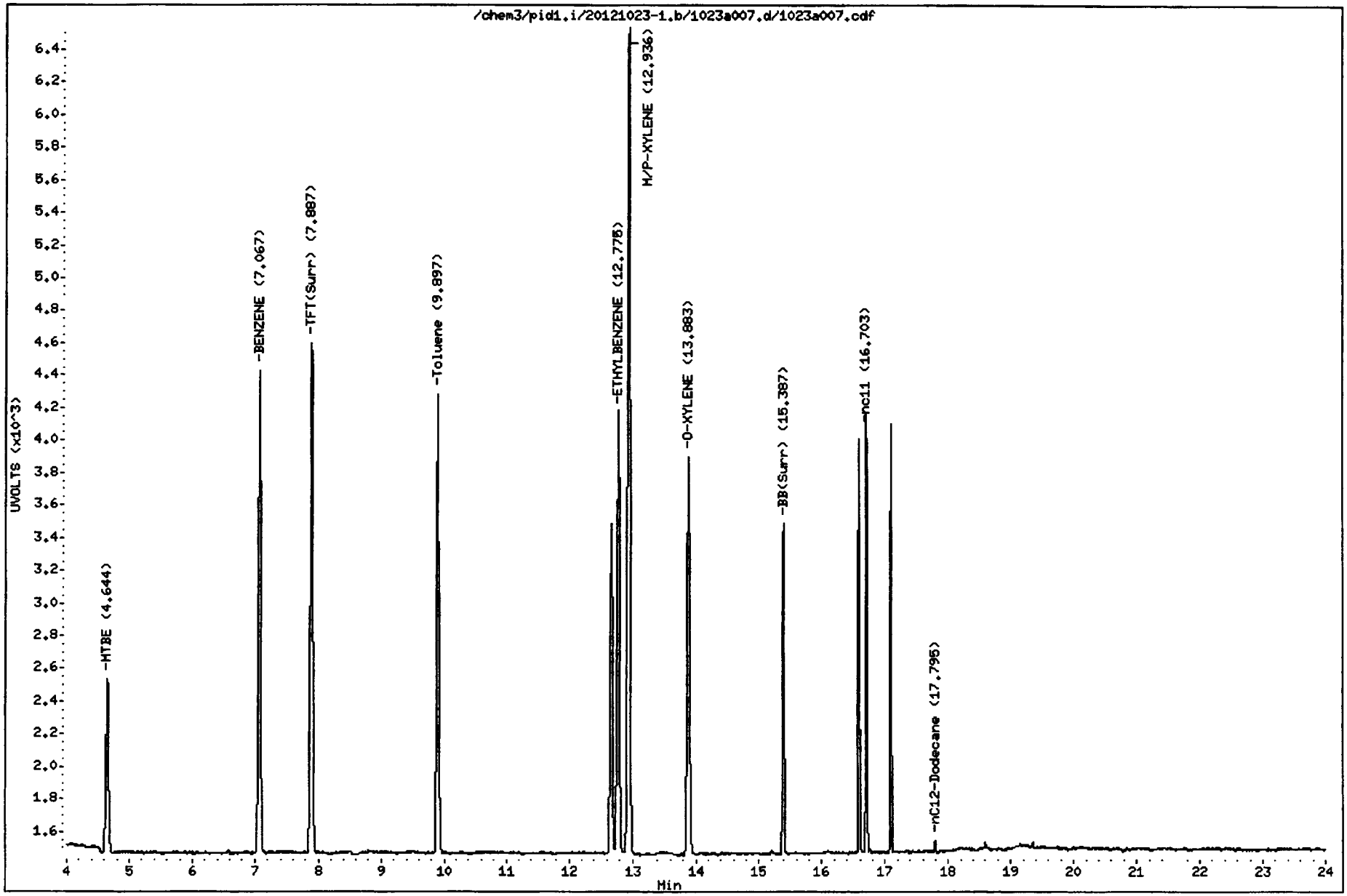
Sample Info: B 25

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a007.d

Date : 23-OCT-2012 19:18

Client ID:

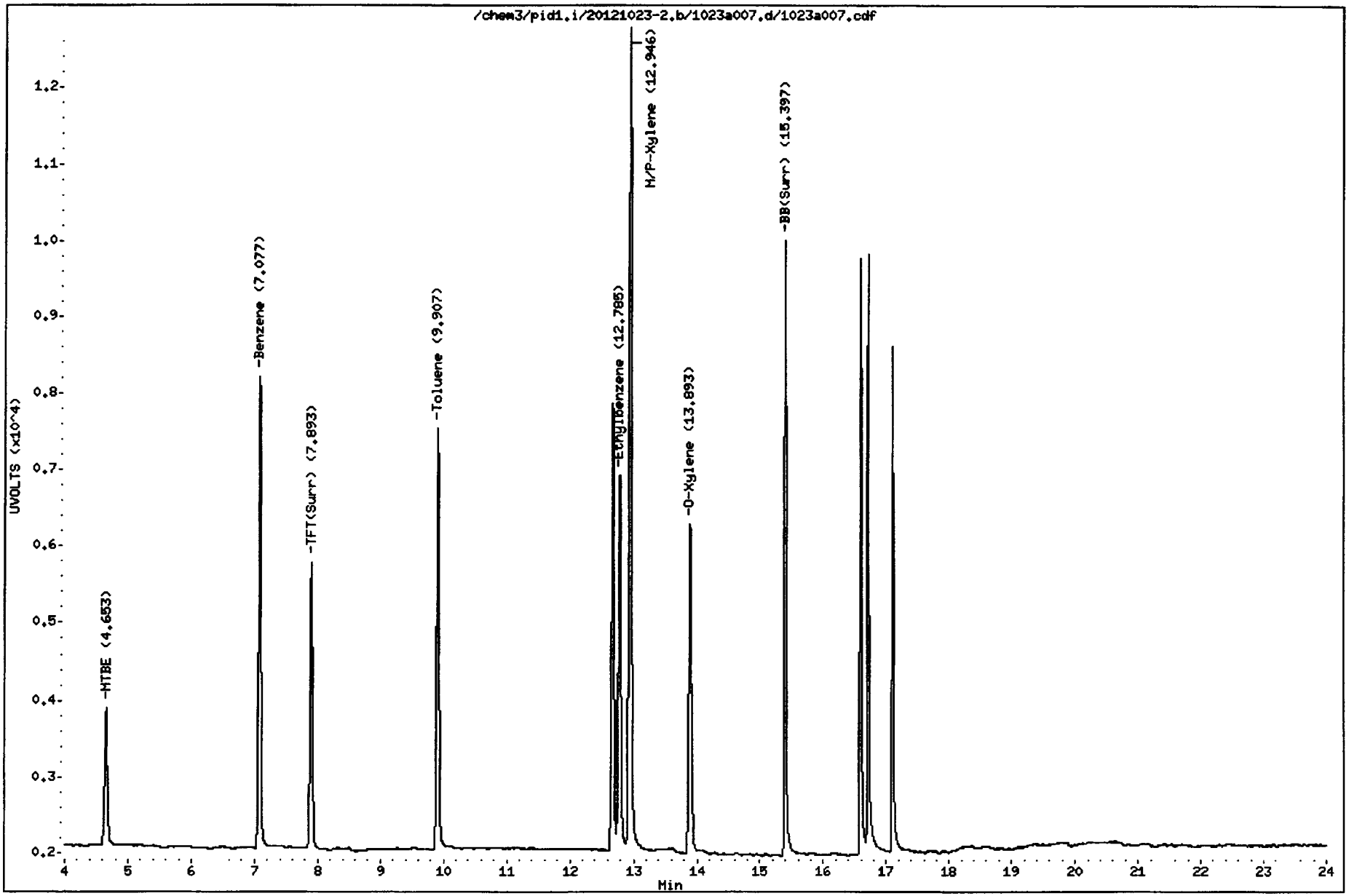
Sample Info: B 25

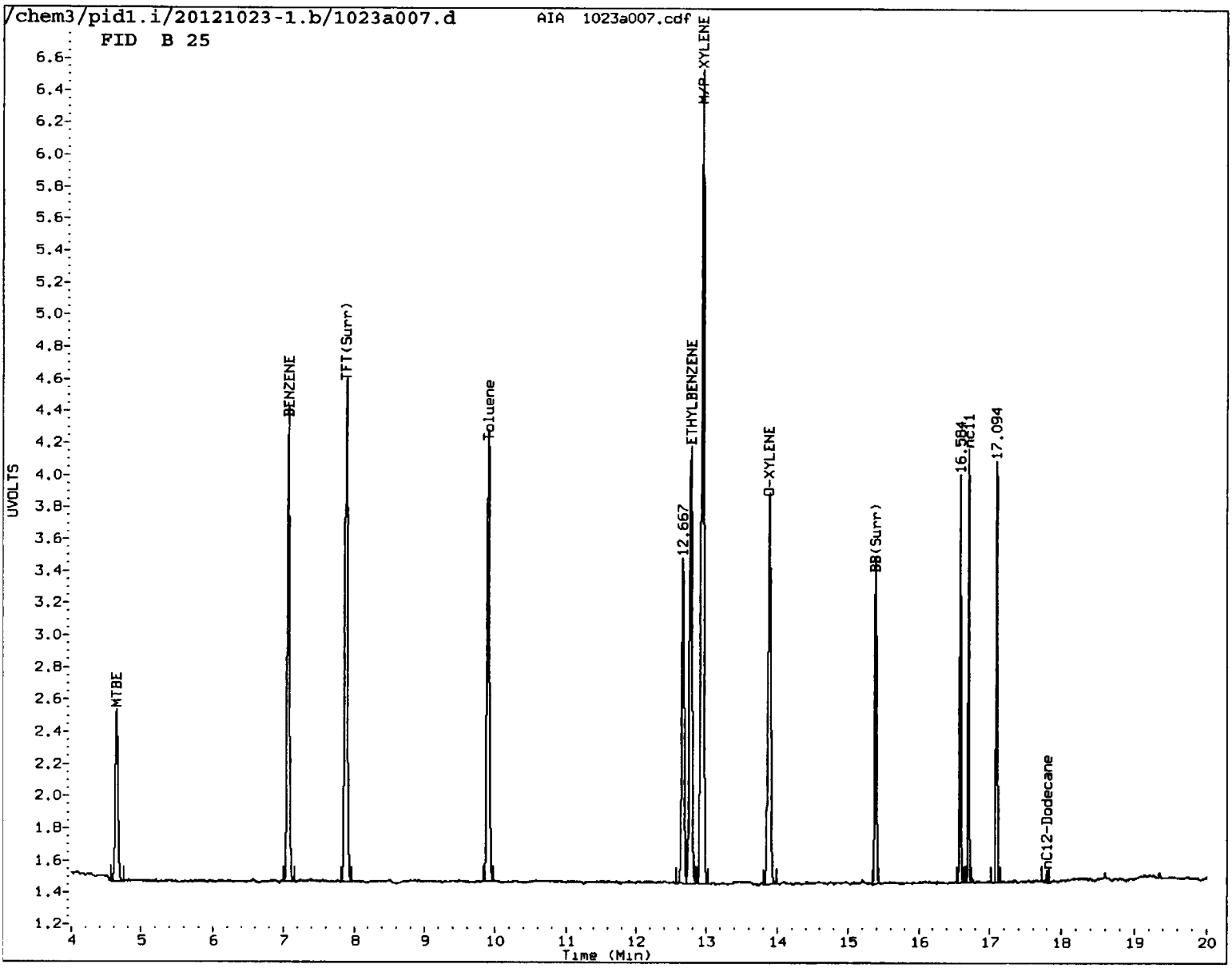
Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18





MANUAL INTEGRATION

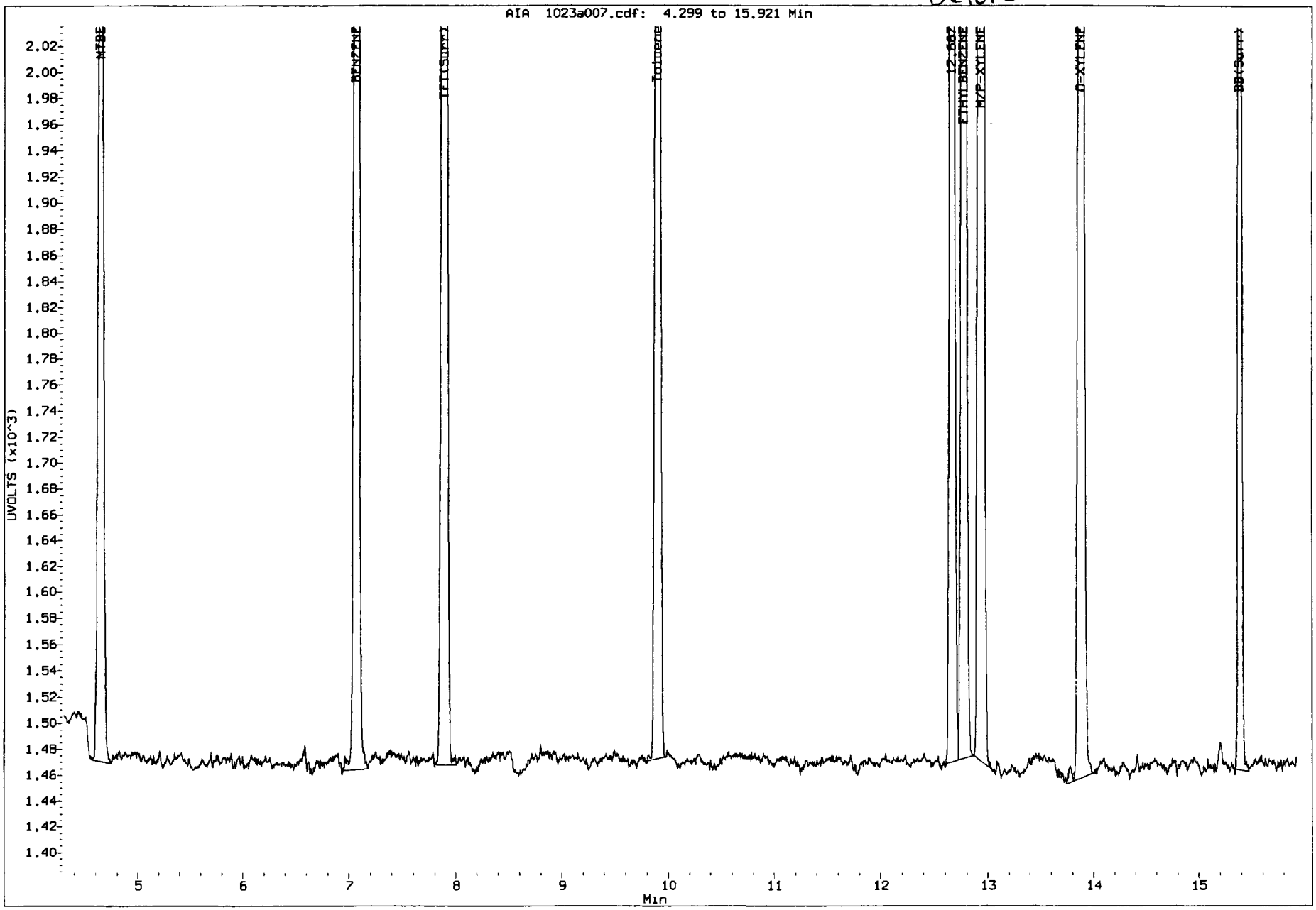
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

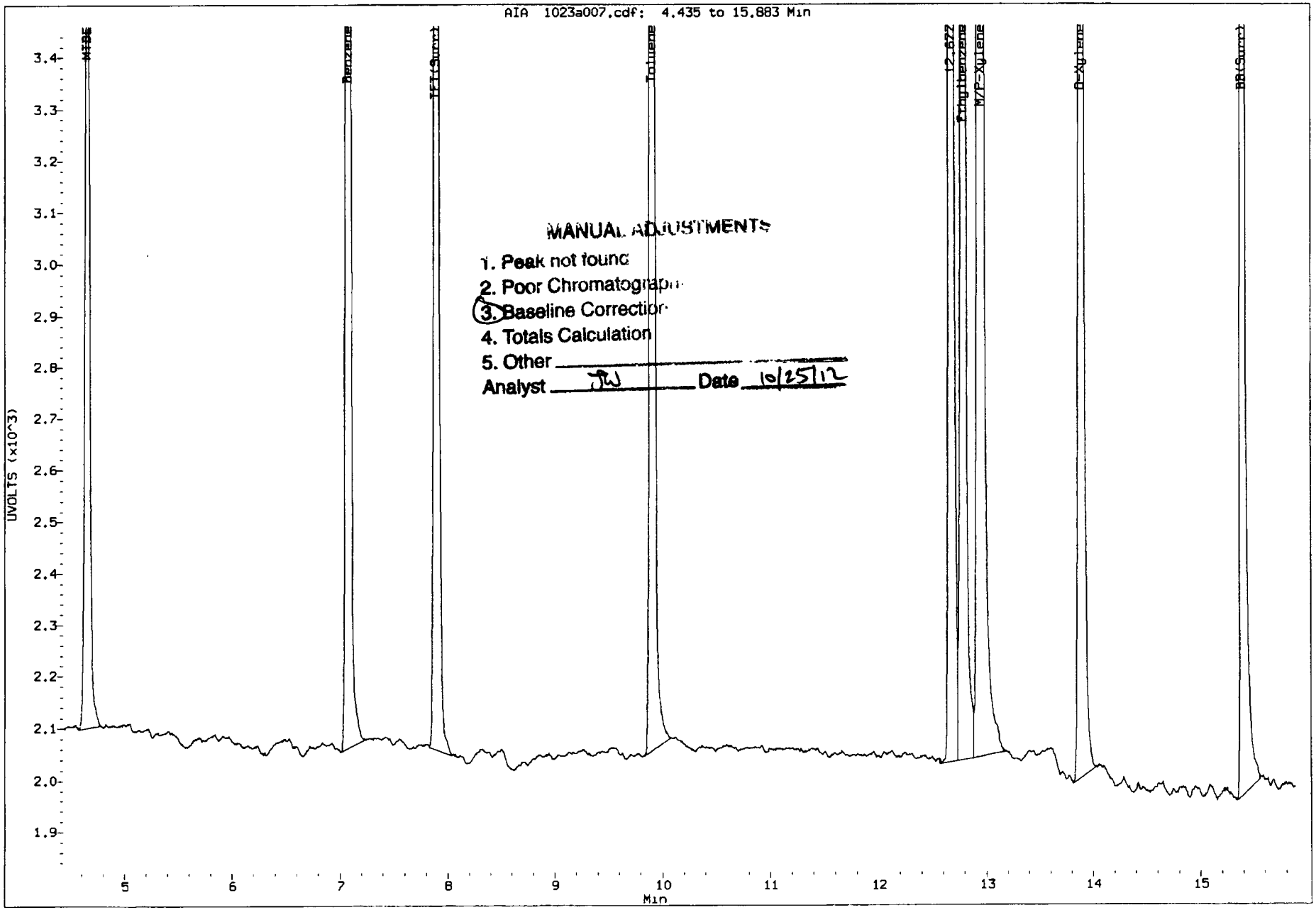
Analyst: JU Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a007.d/1023a007.cdf
Injection Date: 23-OCT-2012 19:18
Instrument: pid1.i
Client Sample ID:

Before



Data File: /chem3/pid1.i/20121023-2.b/1023a007.d/1023a007.cdf
Injection Date: 23-OCT-2012 19:18
Instrument: pid1.i
Client Sample ID:



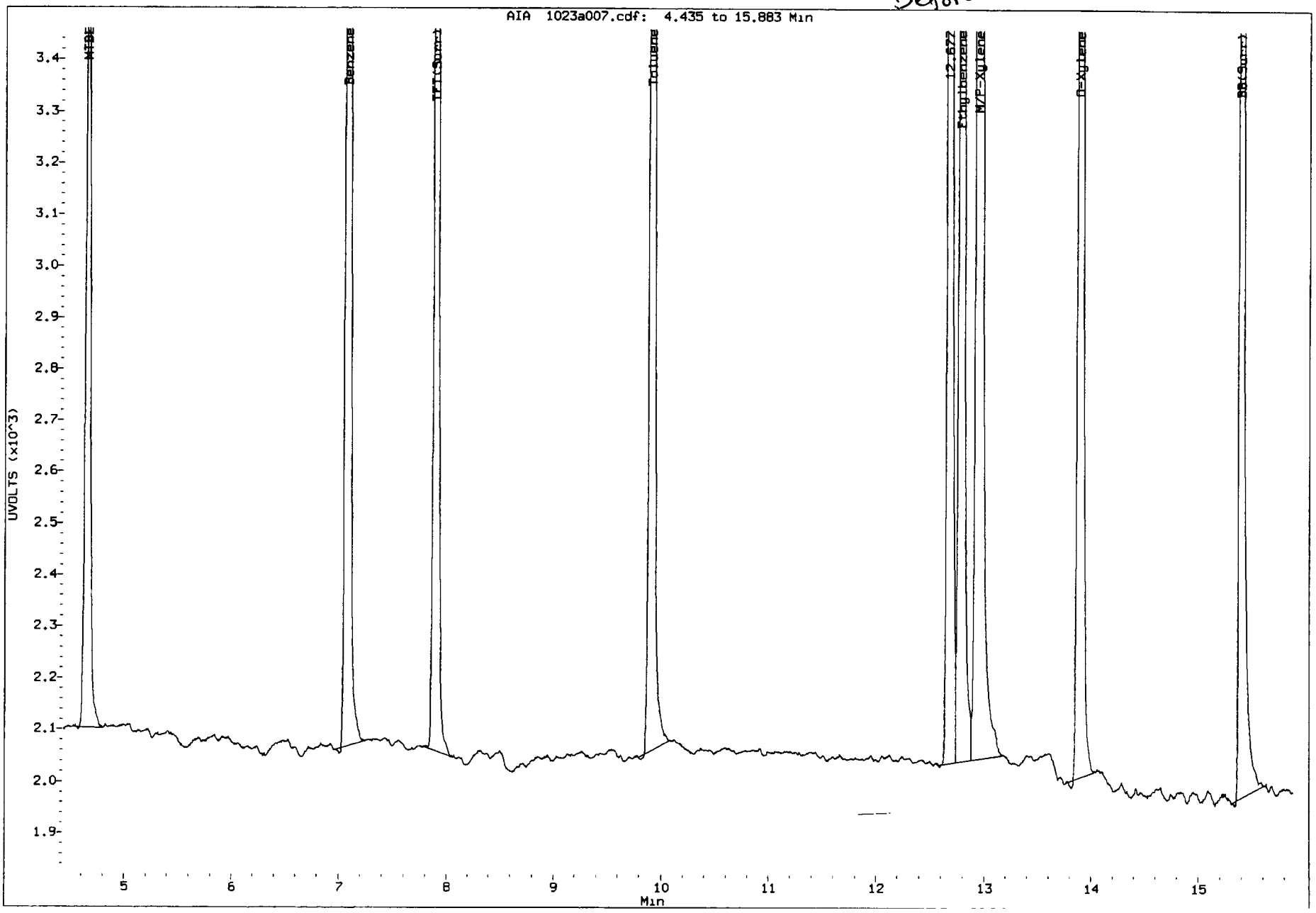
MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatograph
3. Baseline Correction
4. Totals Calculation
5. Other _____

Analyst JW Date 10/25/12

Data File: /chem3/pid1.i/20121023-2.b/1023a007.d/1023a007.cdf
Injection Date: 23-OCT-2012 19:18
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a008.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a008.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 5
Client ID:
Injection Date: 23-OCT-2012 19:47
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.883	-0.004	2118	27080	67.0	TFT(Surr)
15.387	0.000	1387	11721	68.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	52469	0.147 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	51824	0.072 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	48775	0.084 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	52469	0.140 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.890	-0.003	2516	66.4	TFT(Surr)
15.393	0.000	5386	66.9	BB(Surr)

JW 10/25/12

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.073	-0.003	1275	5.14N	Benzene
9.903	-0.003	1121	4.98N	Toluene
12.785	-0.002	1007	5.11	Ethylbenzene
12.945	0.002	2196	10.21	M/P-Xylene
13.893	0.003	856	5.10N	O-Xylene
4.647	-0.007	377	5.24N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
J Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a008.d

Date : 23-OCT-2012 19:47

Client ID:

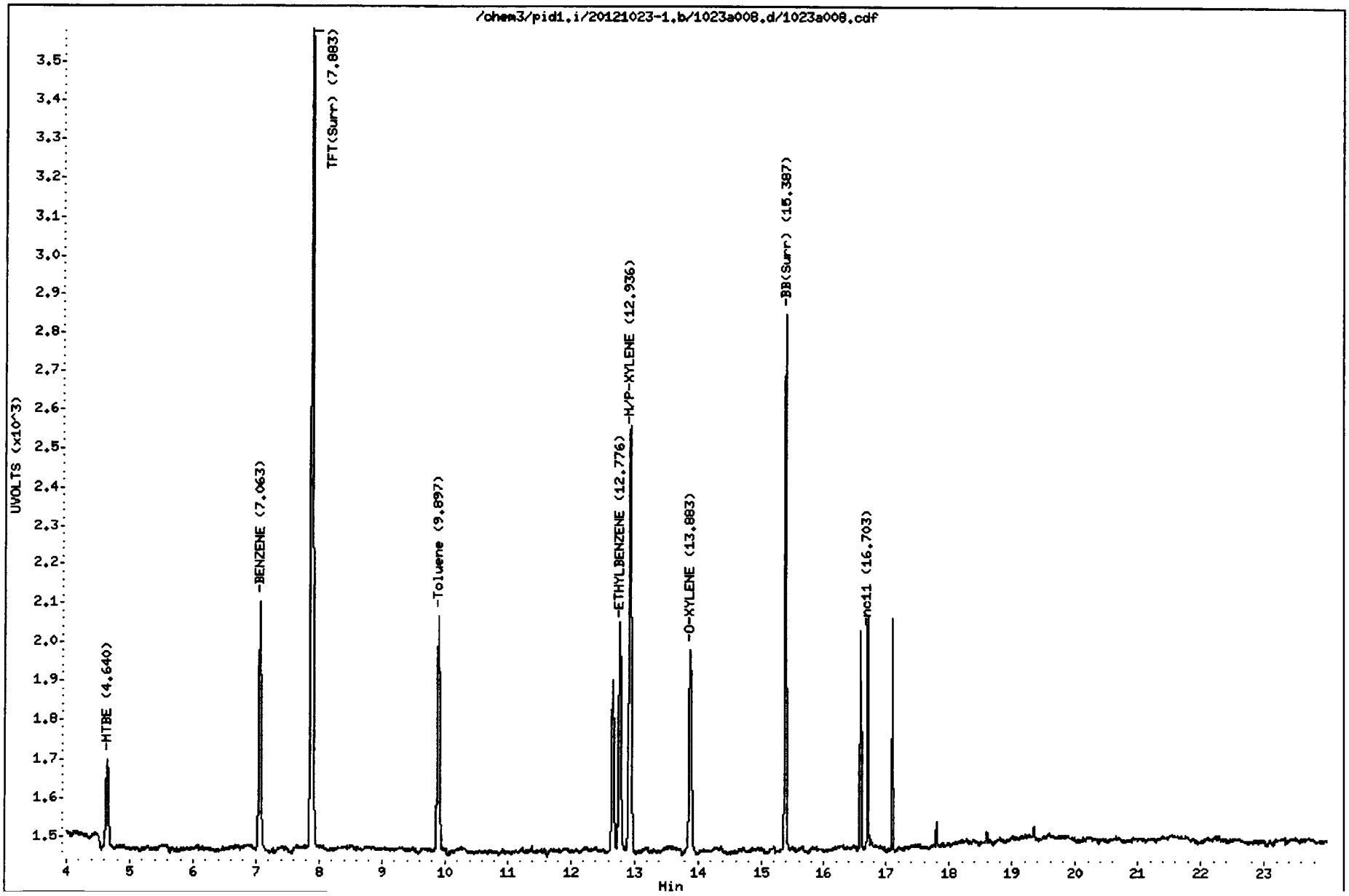
Sample Info: B 5

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a008.d

Date : 23-OCT-2012 19:47

Client ID:

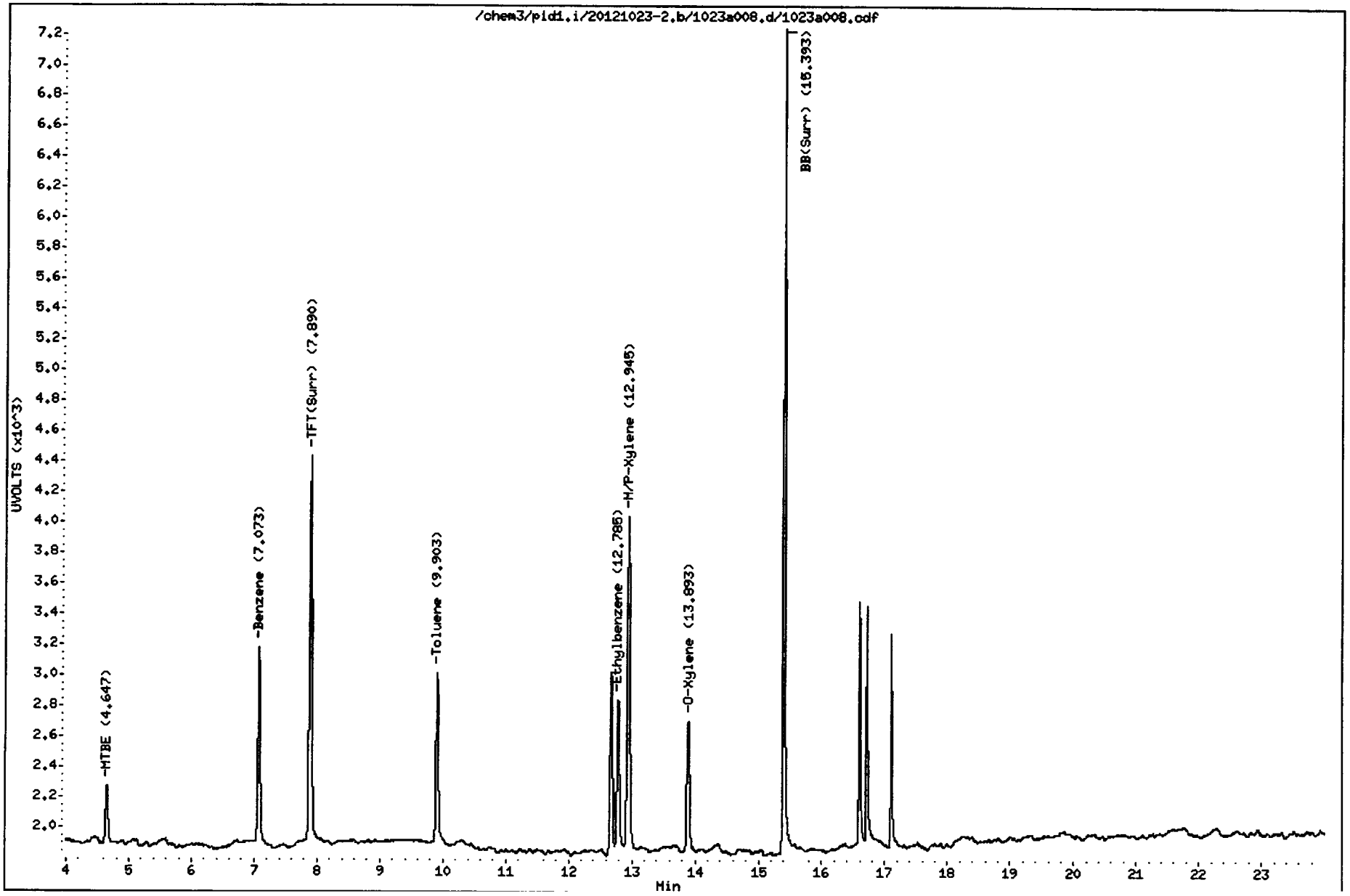
Sample Info: B 5

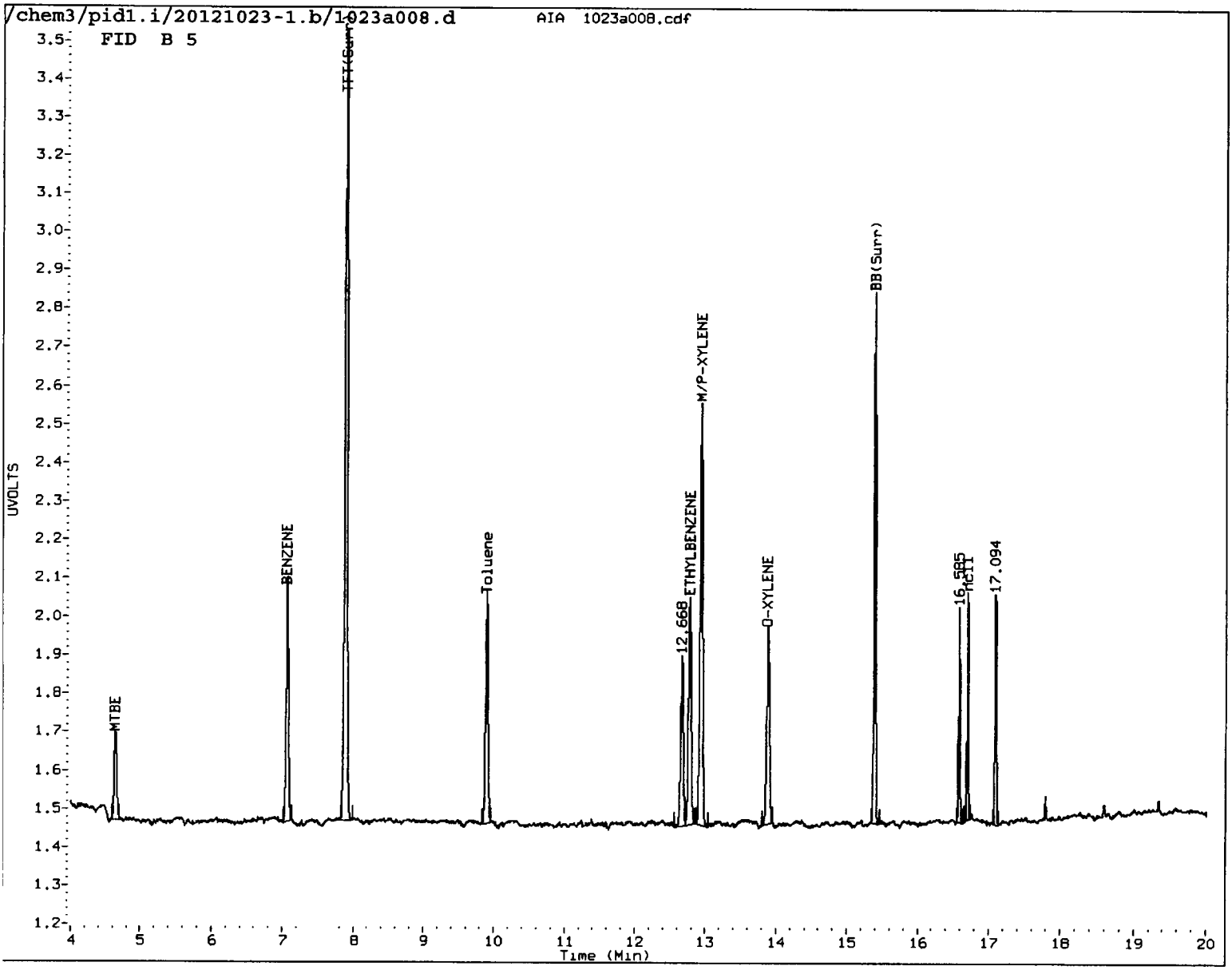
Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18





MANUAL INTEGRATION

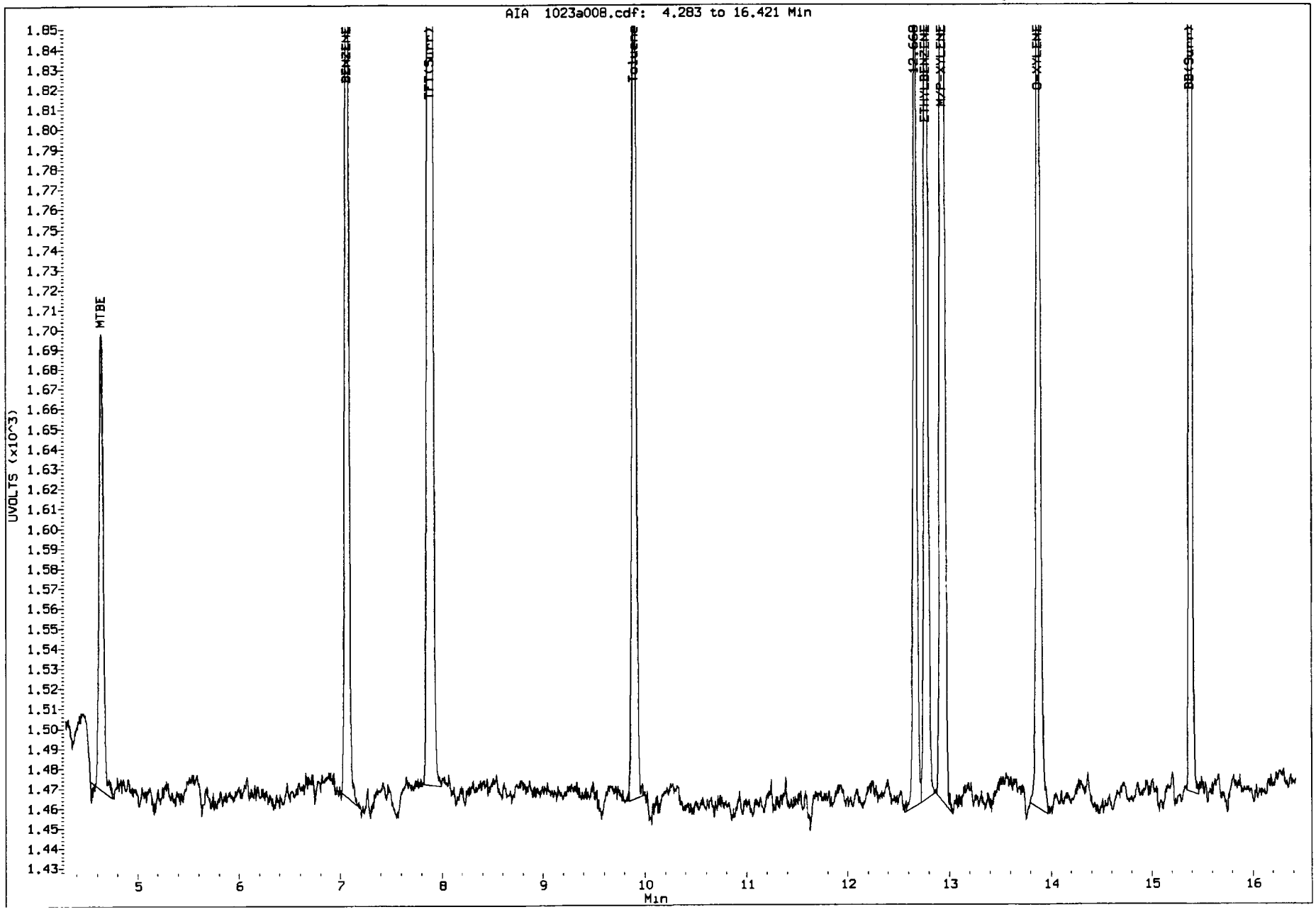
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

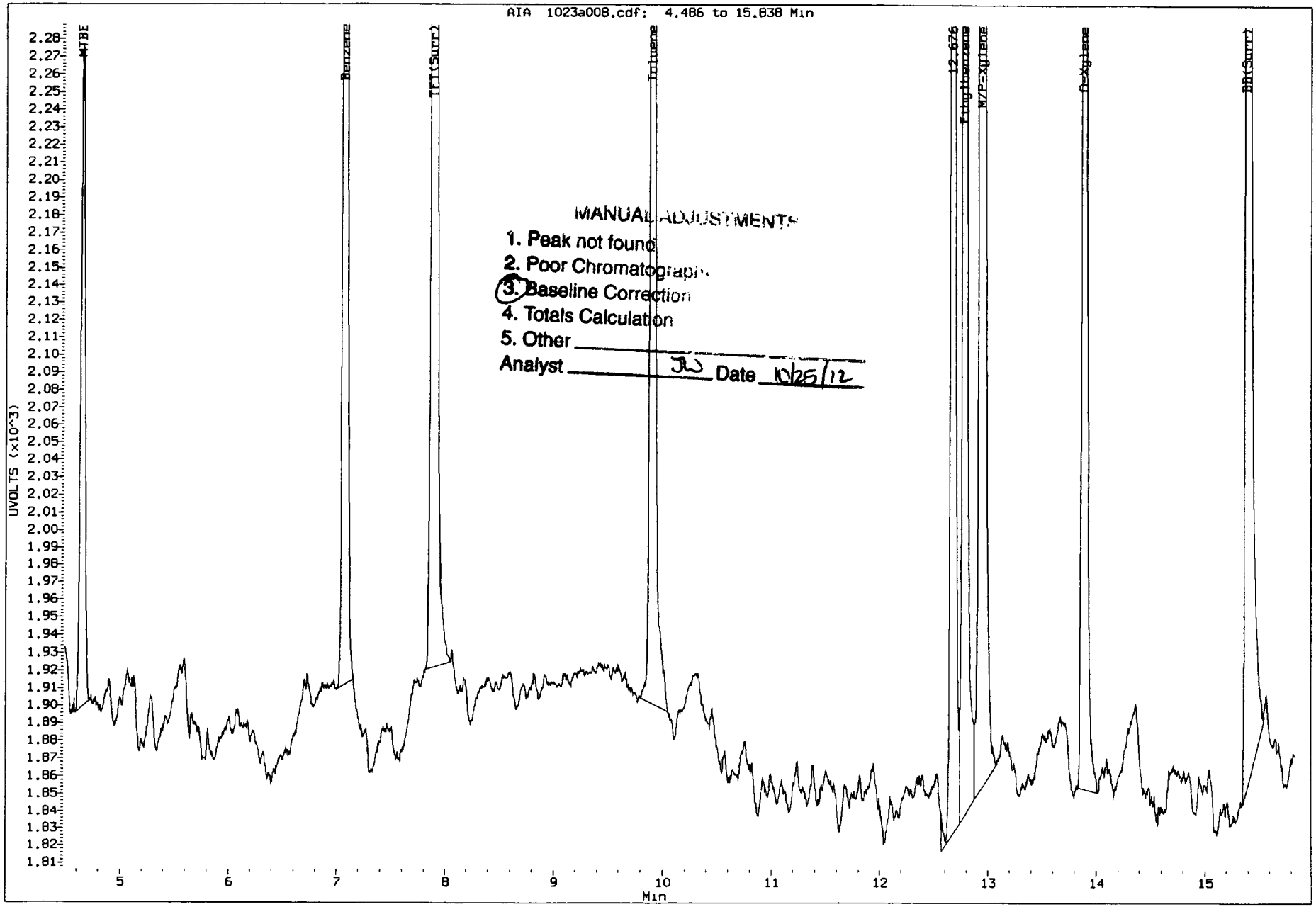
Analyst: _____ Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a008.d/1023a008.cdf
Injection Date: 23-OCT-2012 19:47
Instrument: pid1.i
Client Sample ID:

Before

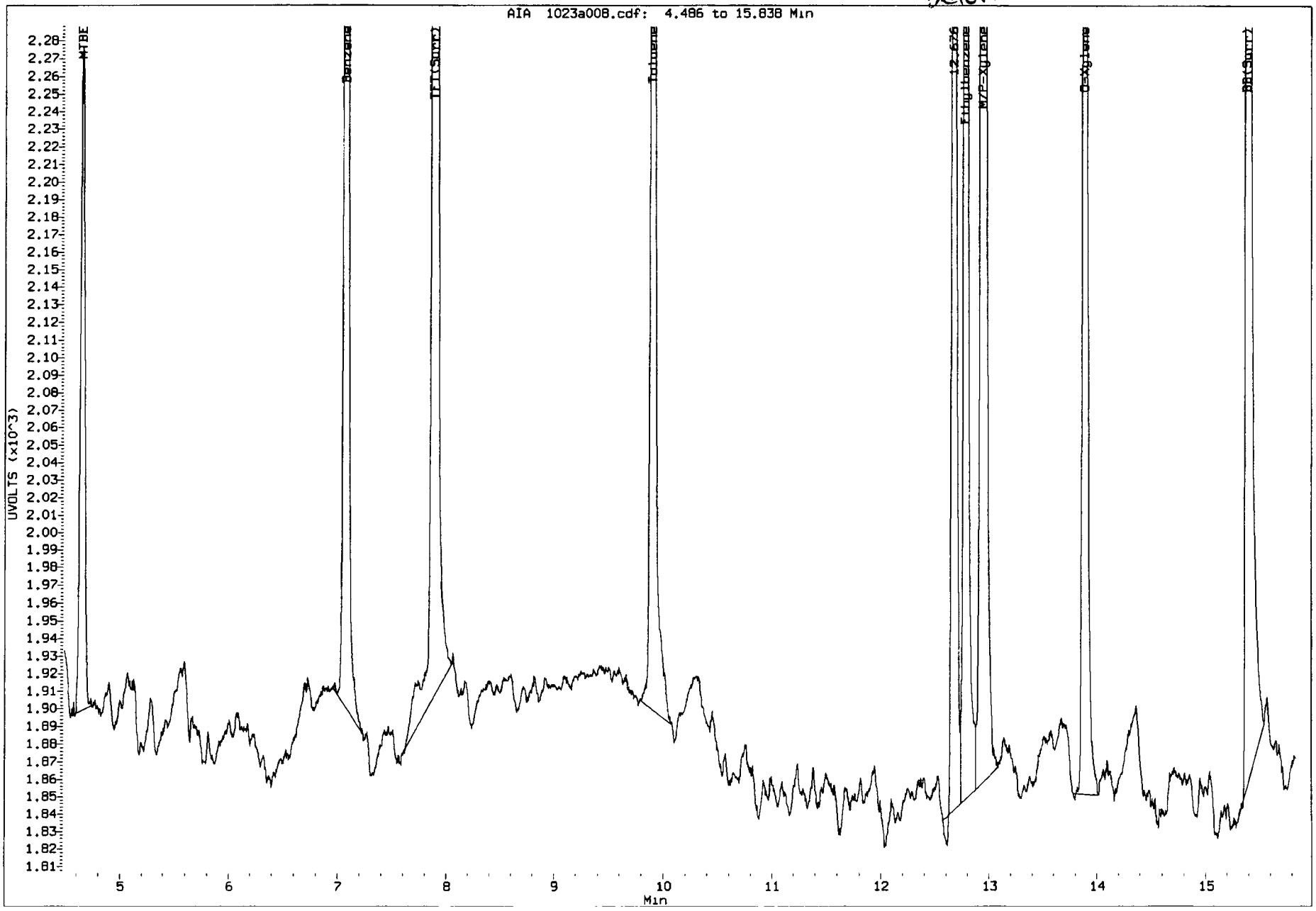


Data File: /chem3/pid1.i/20121023-2.b/1023a008.d/1023a008.cdf
Injection Date: 23-OCT-2012 19:47
Instrument: pid1.i
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a008.d/1023a008.cdf
Injection Date: 23-OCT-2012 19:47
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a009.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a009.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 1
Client ID:
Injection Date: 23-OCT-2012 20:16
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.884	-0.003	2094	27117	66.3	TFT(Surr)
15.387	0.000	1385	11445	68.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	10704	0.030 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	10312	0.014 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	9711	0.017 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	10704	0.029 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	2495	65.9	TFT(Surr)
15.393	0.000	5333	66.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.073	-0.003	260	1.05N	Benzene
9.907	0.000	210	0.93N	Toluene
12.785	-0.001	198	1.00	Ethylbenzene
12.946	0.002	425	1.98	M/P-Xylene
13.893	0.003	168	1.00N	O-Xylene
4.647	-0.007	72	1.00N	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a009.d

Date : 23-OCT-2012 20:16

Client ID:

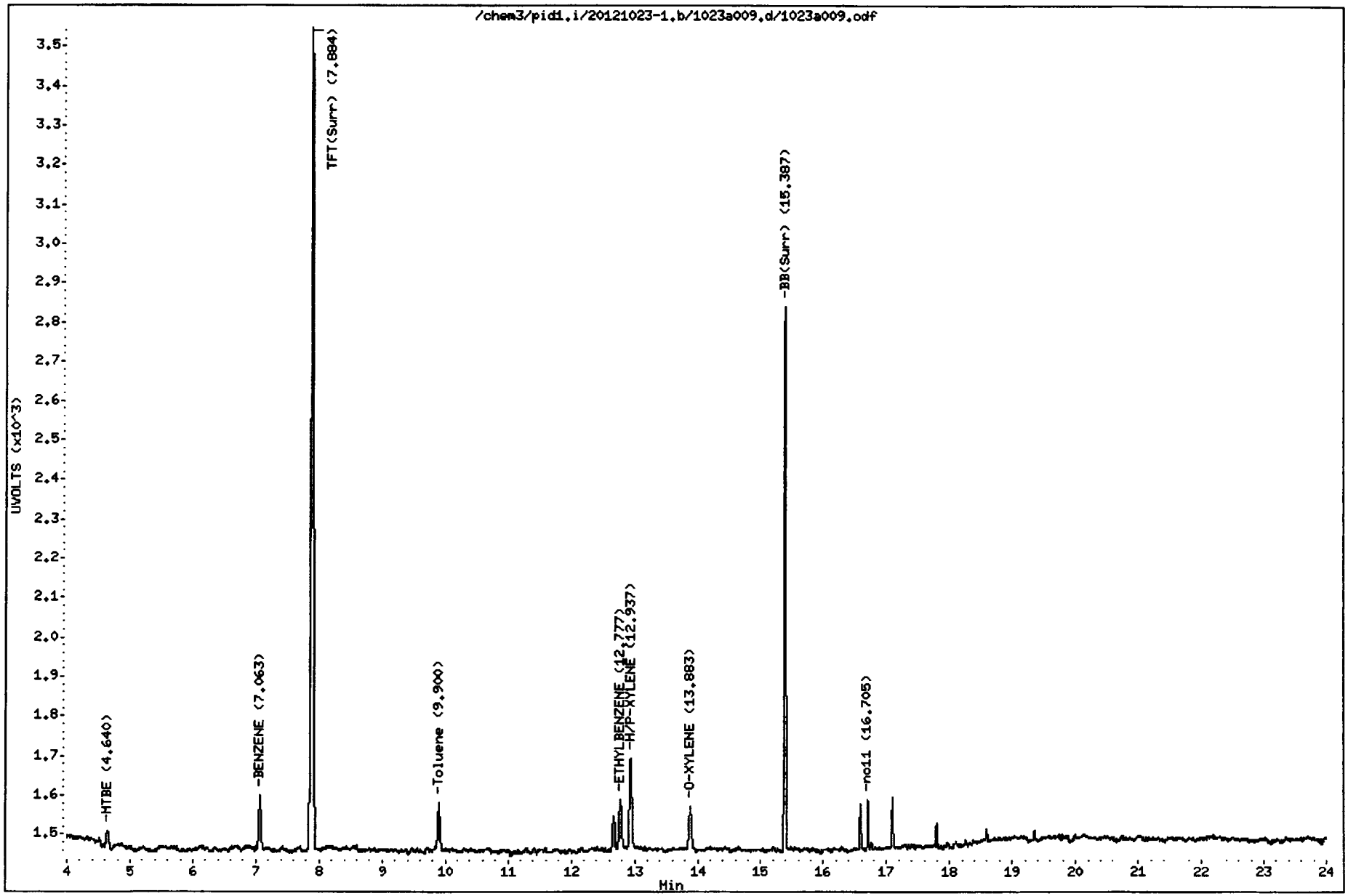
Sample Info: B 1

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a009.d

Date : 23-OCT-2012 20:16

Client ID:

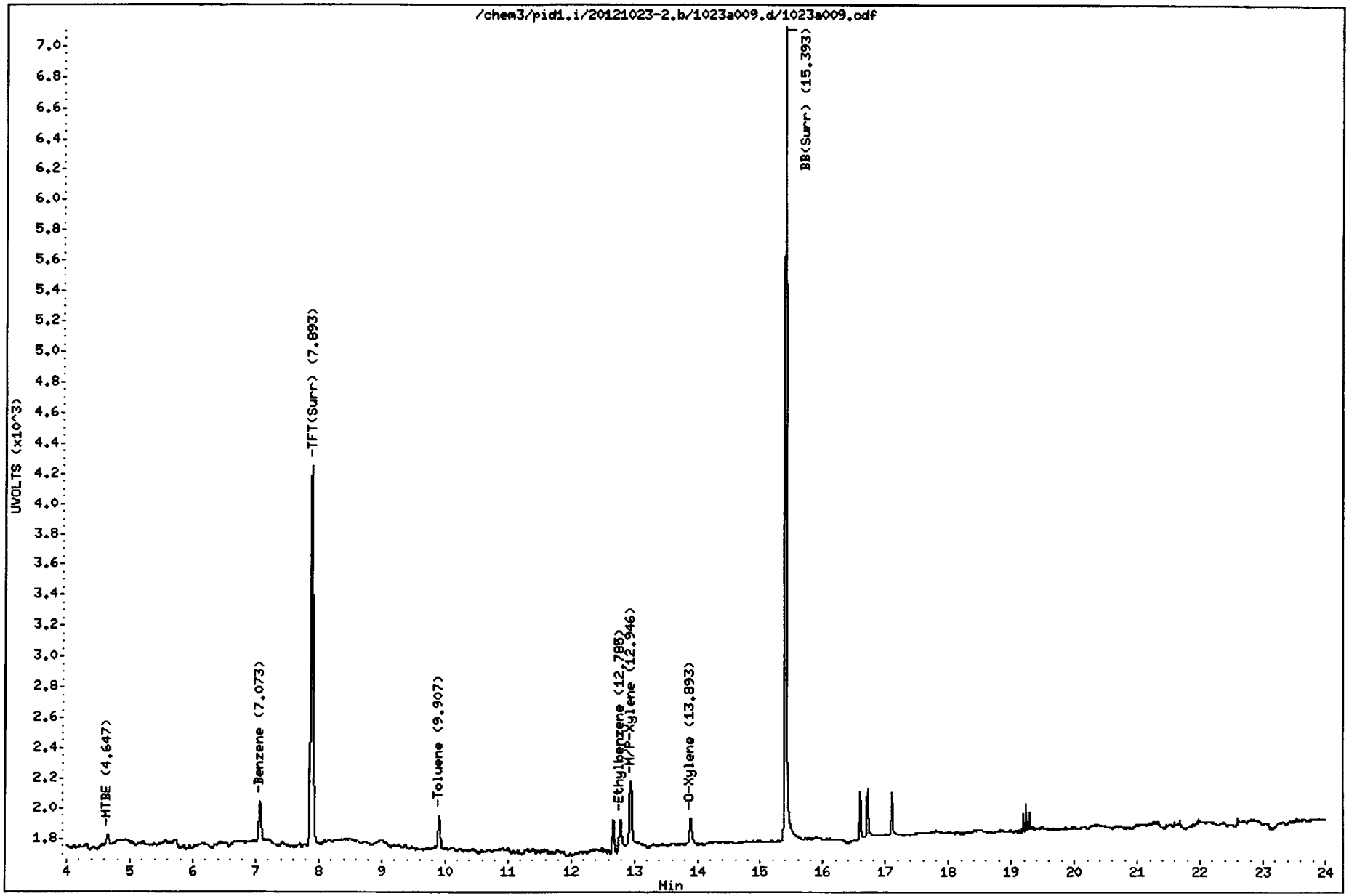
Sample Info: B 1

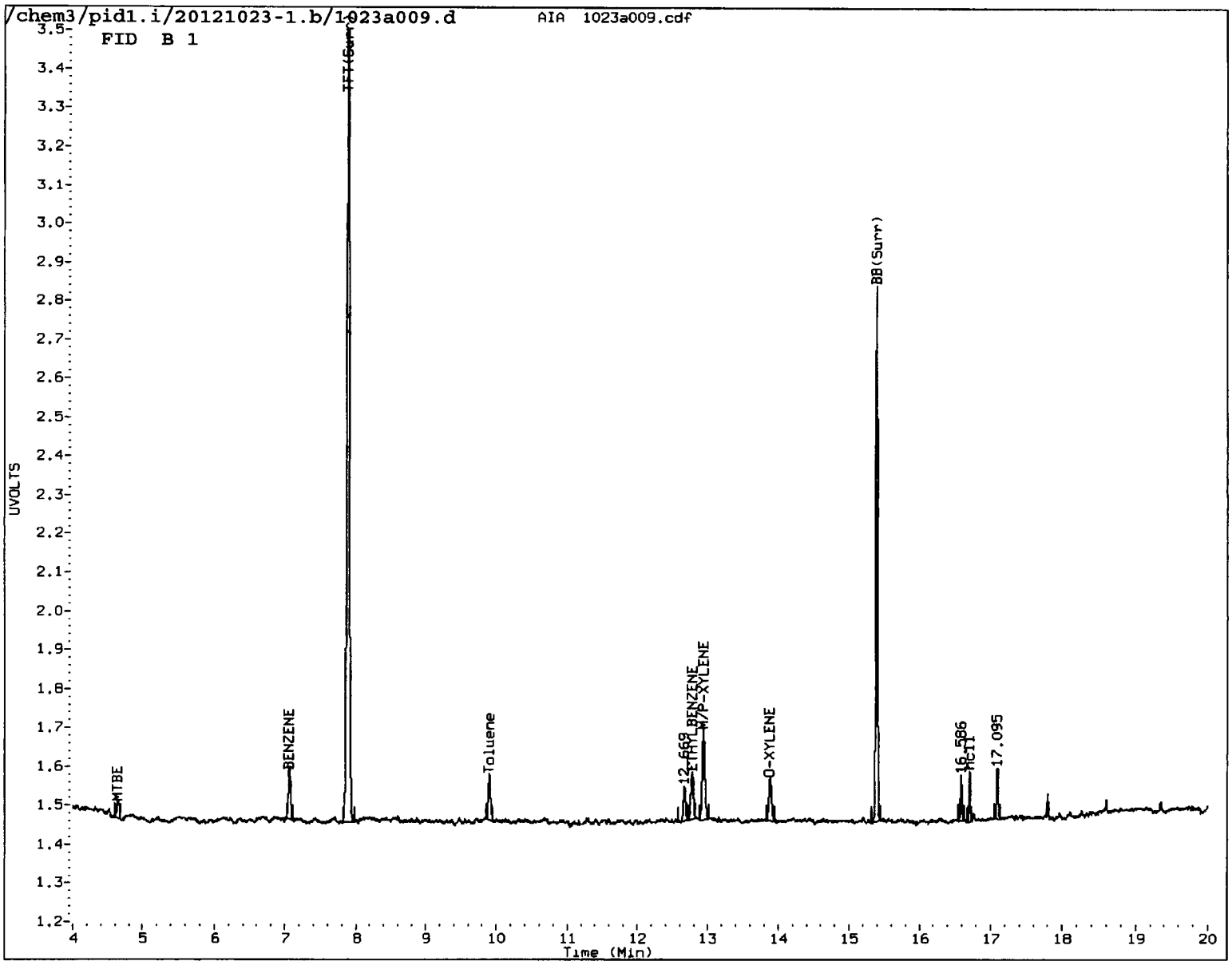
Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18





MANUAL INTEGRATION

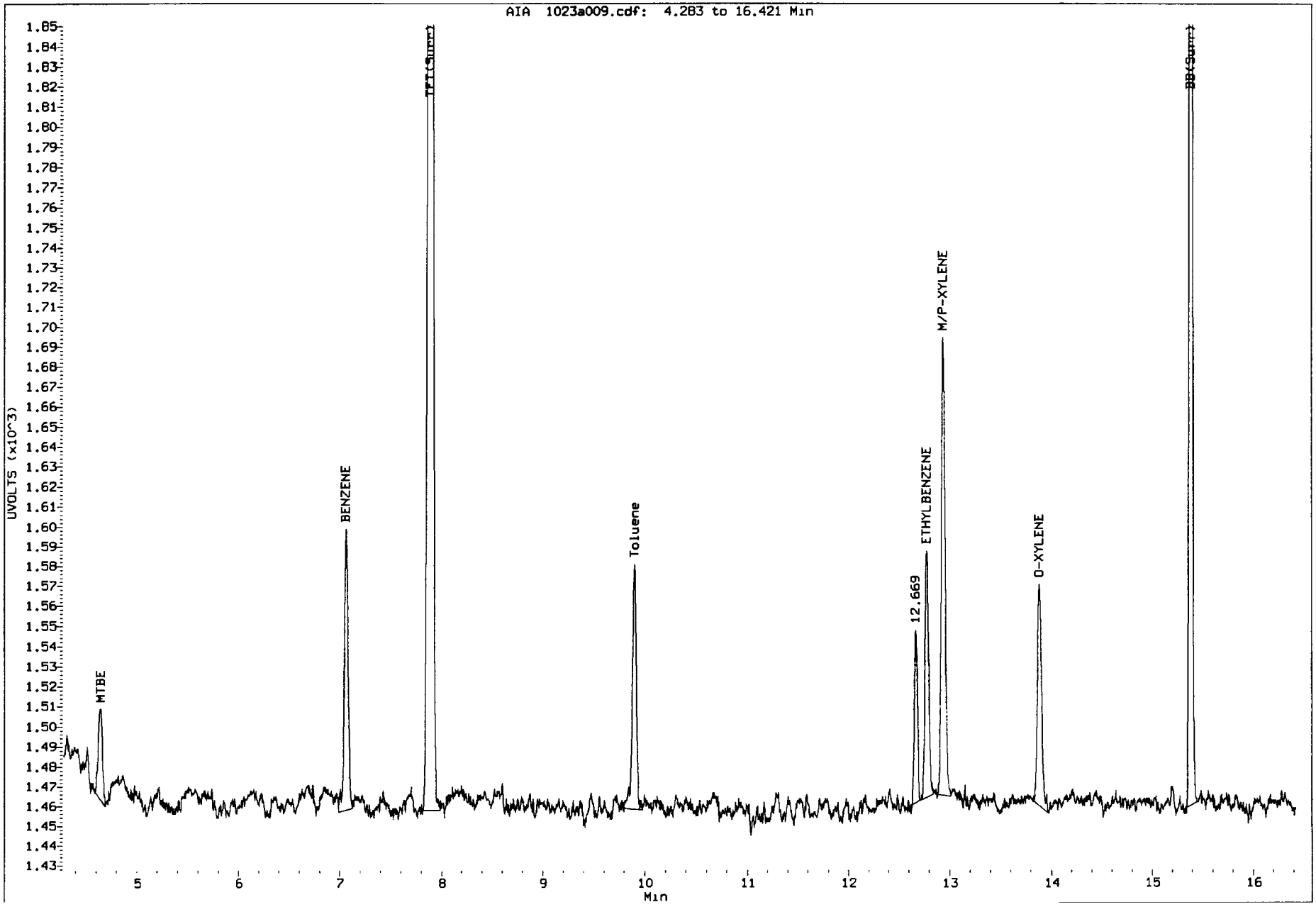
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

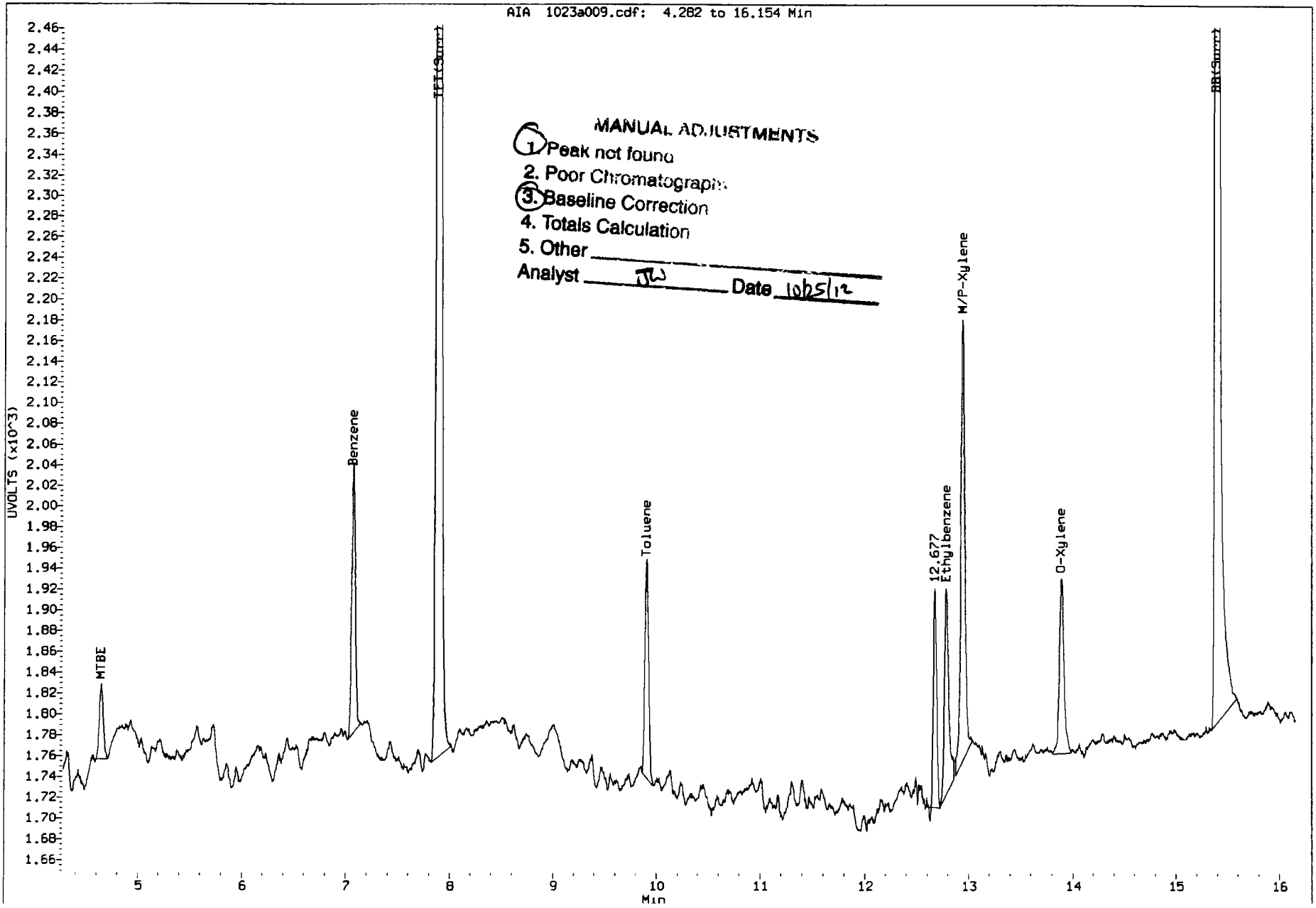
Analyst: JW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a009.d/1023a009.cdf
Injection Date: 23-OCT-2012 20:16
Instrument: pid1.i
Client Sample ID:

Before

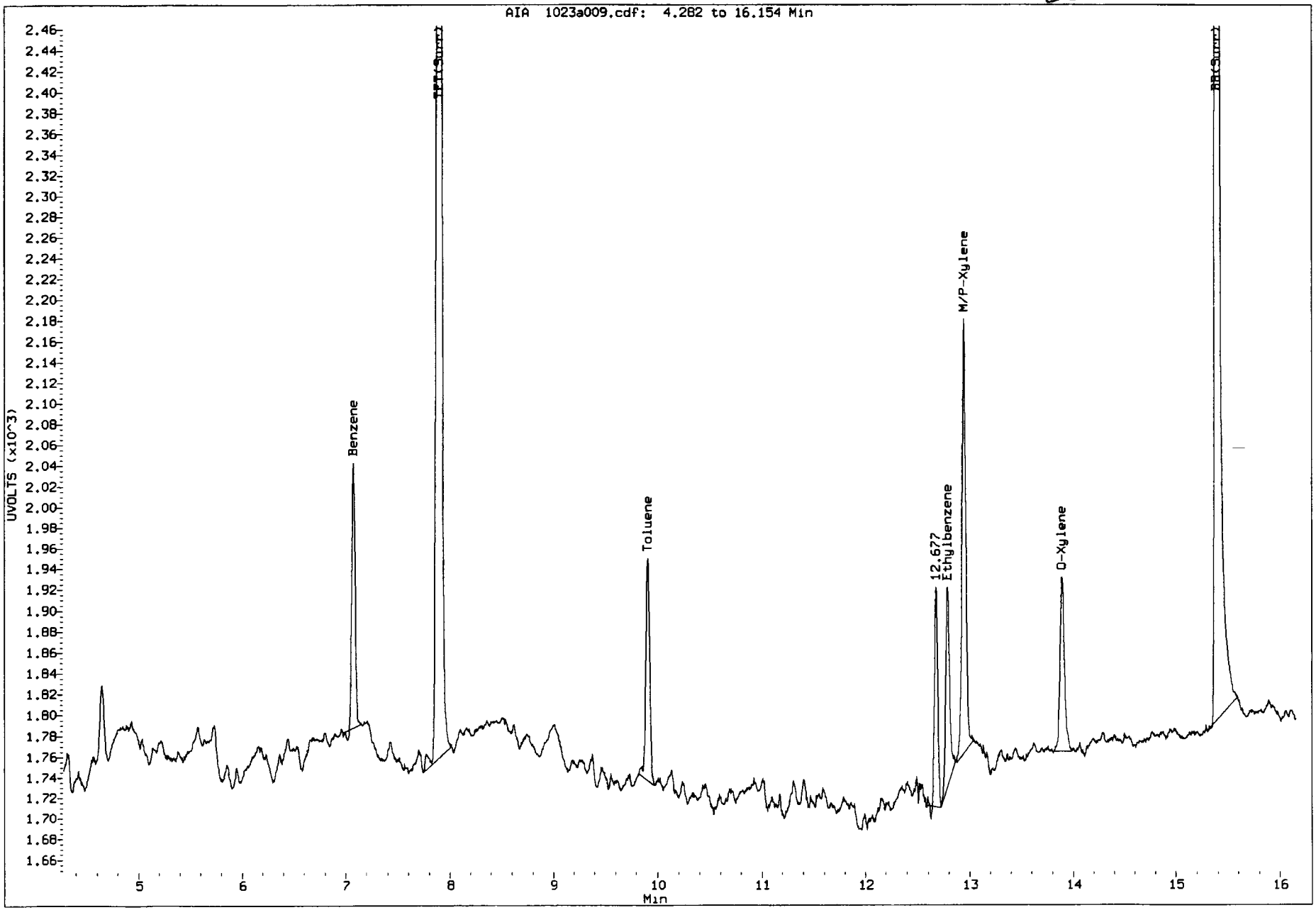


Data File: /chem3/pid1.i/20121023-2.b/1023a009.d/1023a009.cdf
Injection Date: 23-OCT-2012 20:16
Instrument: pid1.i
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a009.d/1023a009.cdf
Injection Date: 23-OCT-2012 20:16
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a010.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a010.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 0.5
Client ID:
Injection Date: 23-OCT-2012 20:45
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.883	-0.004	1400	18008	44.4	TFT(Surr)
15.387	0.000	904	7688	44.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	6242	0.017 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	5520	0.008 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	5284	0.009 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	8749	0.023 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	1632	43.1	TFT(Surr)
15.393	0.000	3462	43.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.073	-0.003	127	0.51N	Benzene
9.907	0.000	117	0.52N	Toluene
12.783	-0.003	100	0.51N	Ethylbenzene
12.947	0.003	208	0.97N	M/P-Xylene
13.893	0.003	79	0.47N	O-Xylene
4.653	0.000	32	0.44N	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a010.d

Date : 23-OCT-2012 20:45

Client ID:

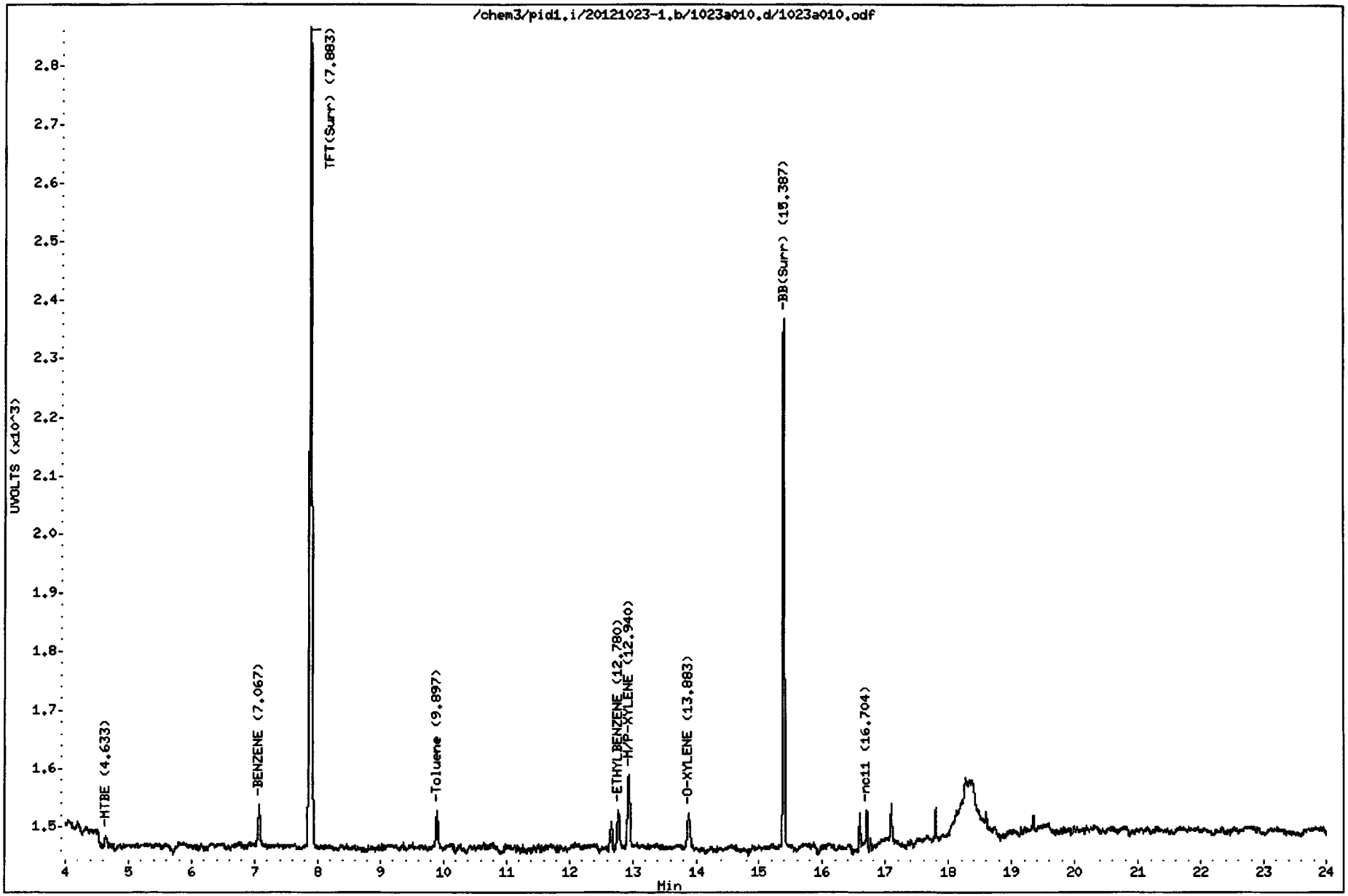
Sample Info: B 0.5

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a010.d

Date : 23-OCT-2012 20:45

Client ID:

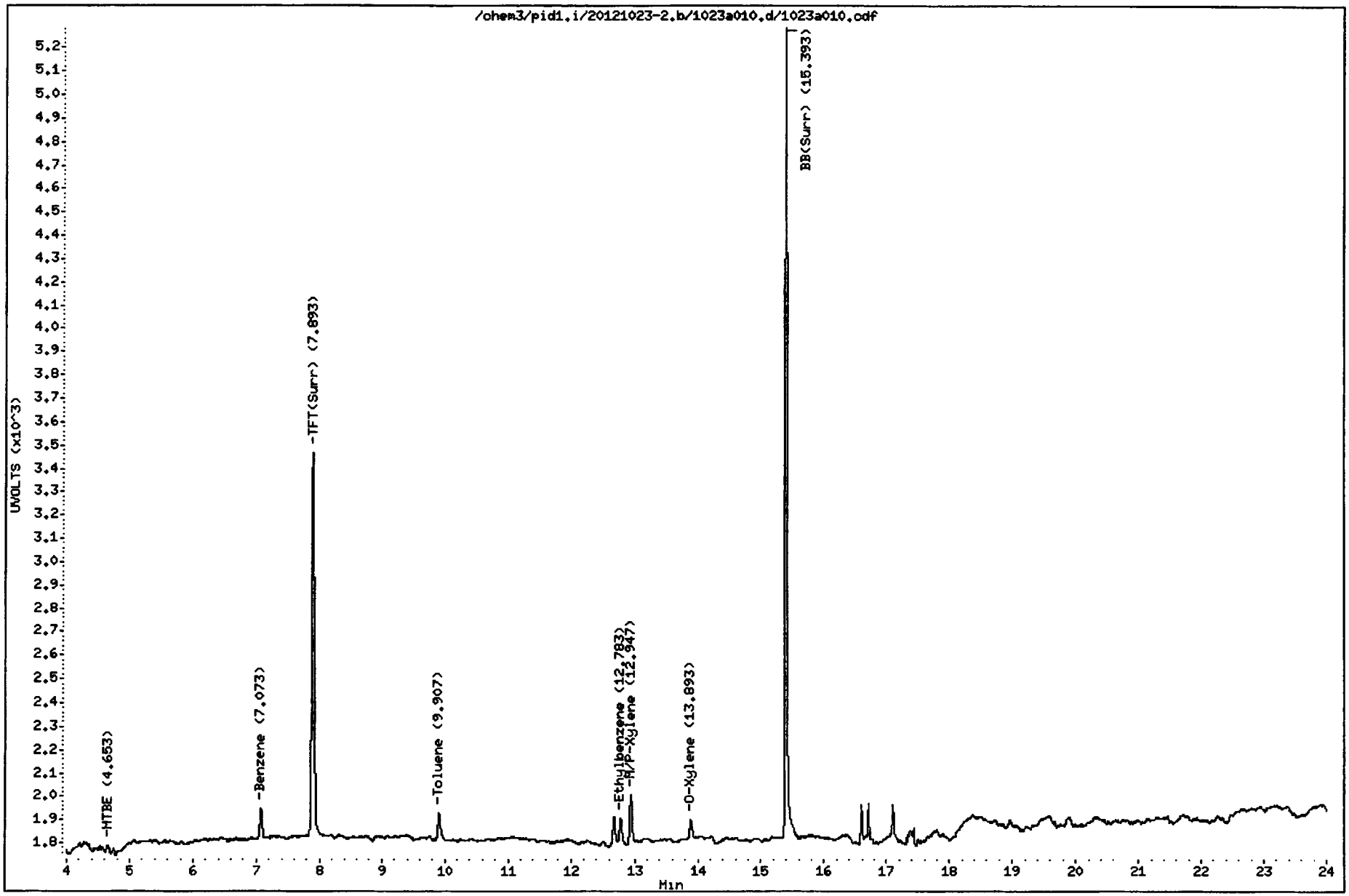
Sample Info: B 0.5

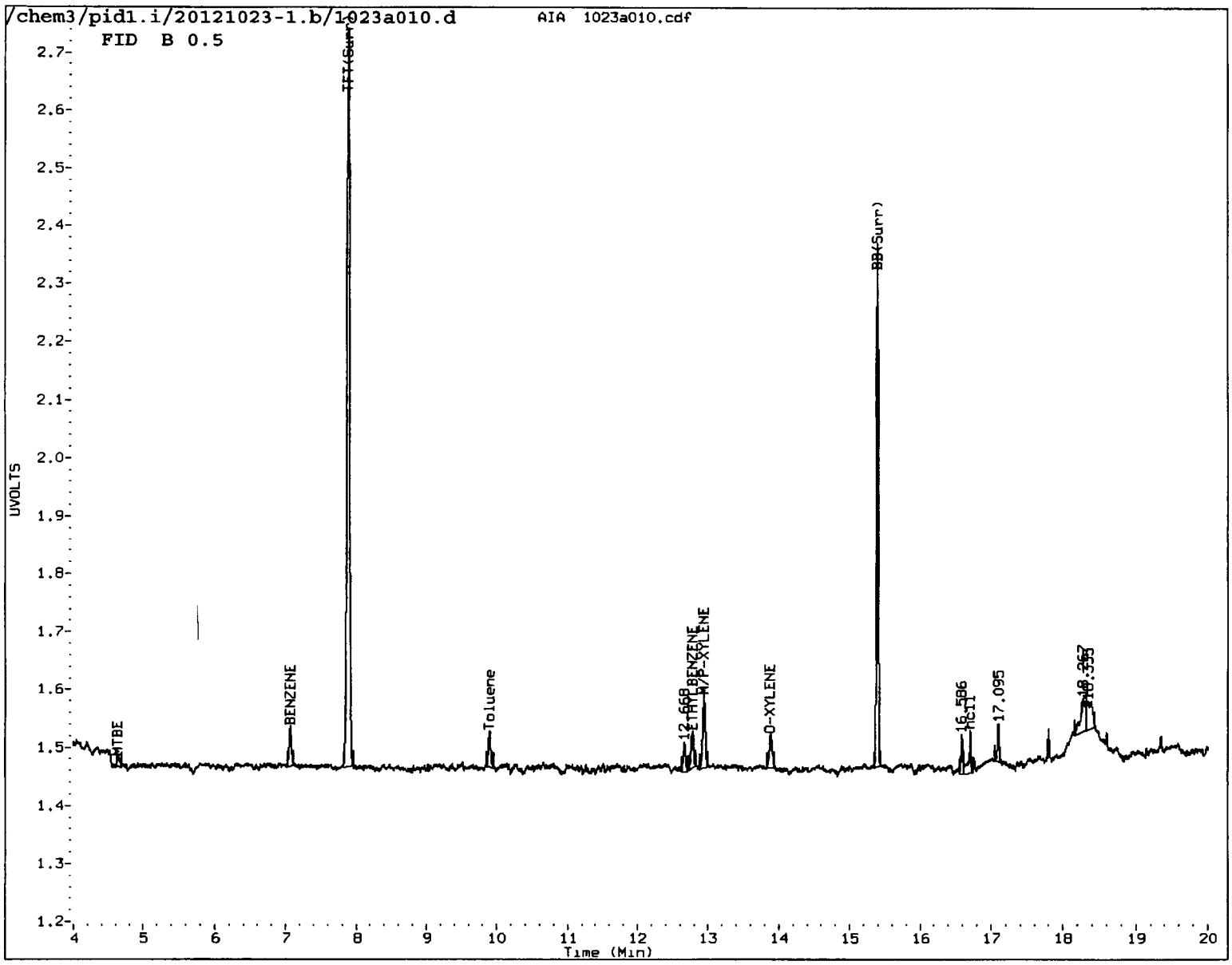
Instrument: pid1.i

Operator: PC/JW

Column phase: RTX 502-2 PID

Column diameter: 0.18





MANUAL INTEGRATION

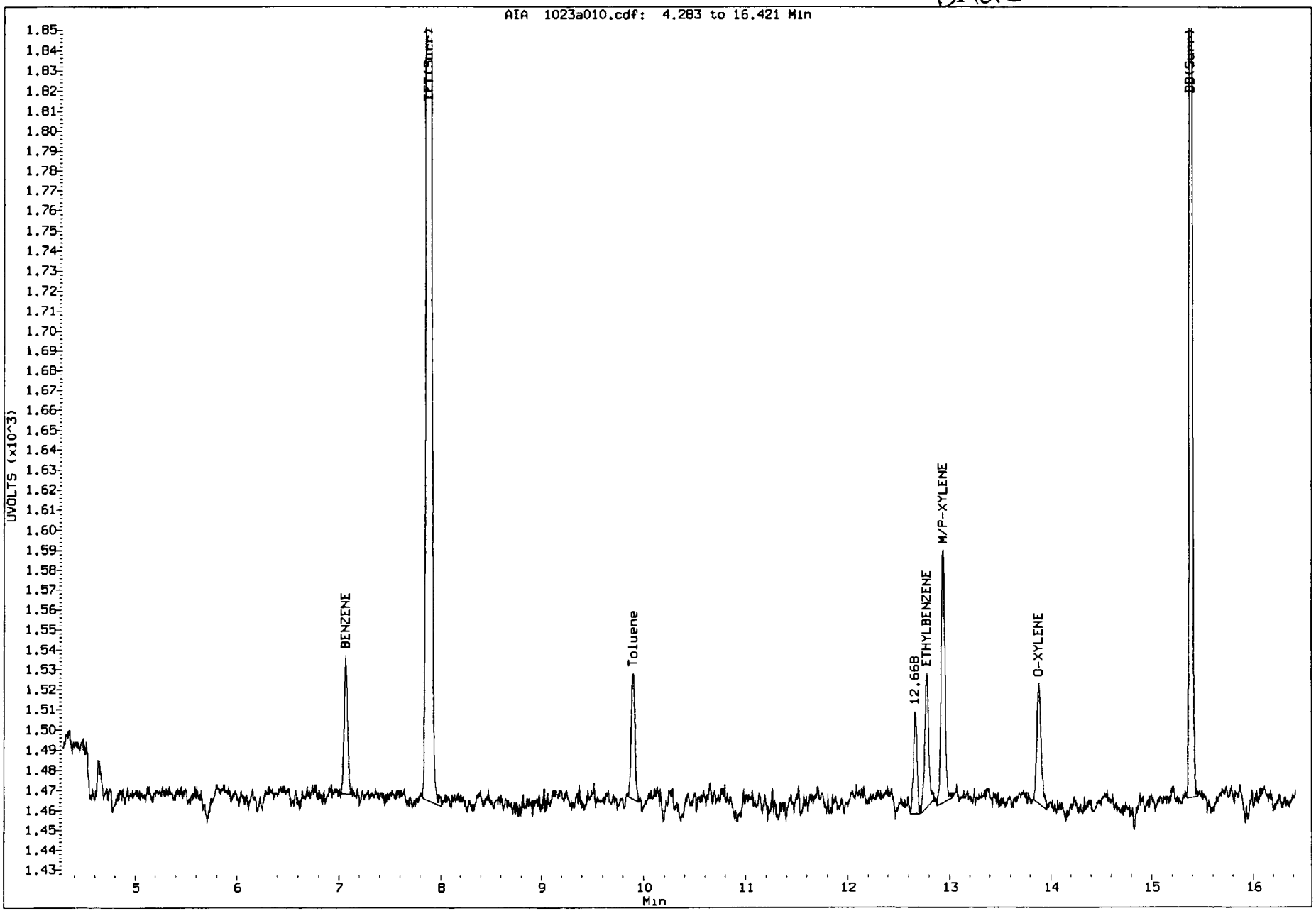
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

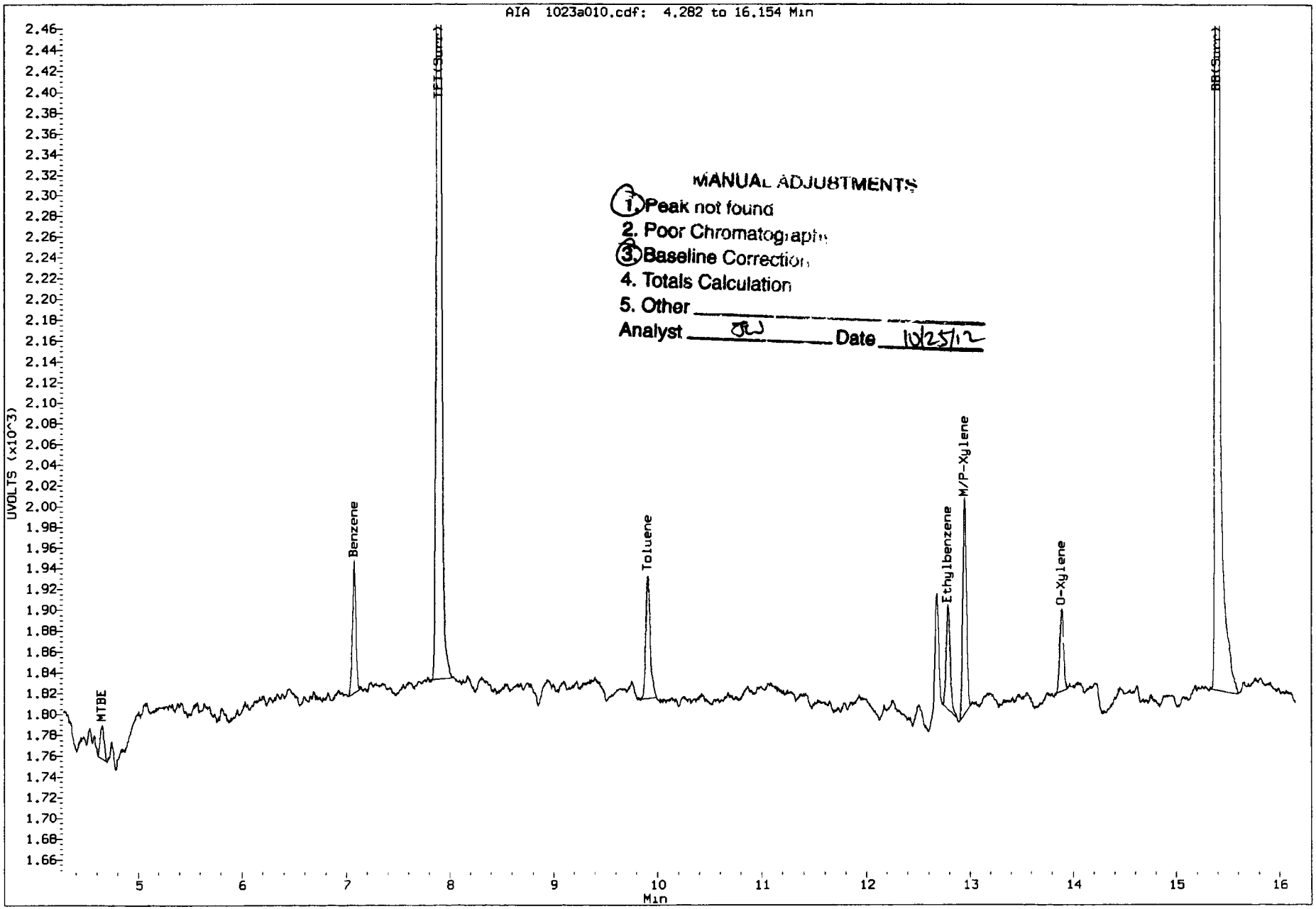
Analyst: JW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a010.d/1023a010.cdf
Injection Date: 23-OCT-2012 20:45
Instrument: pid1.i
Client Sample ID:

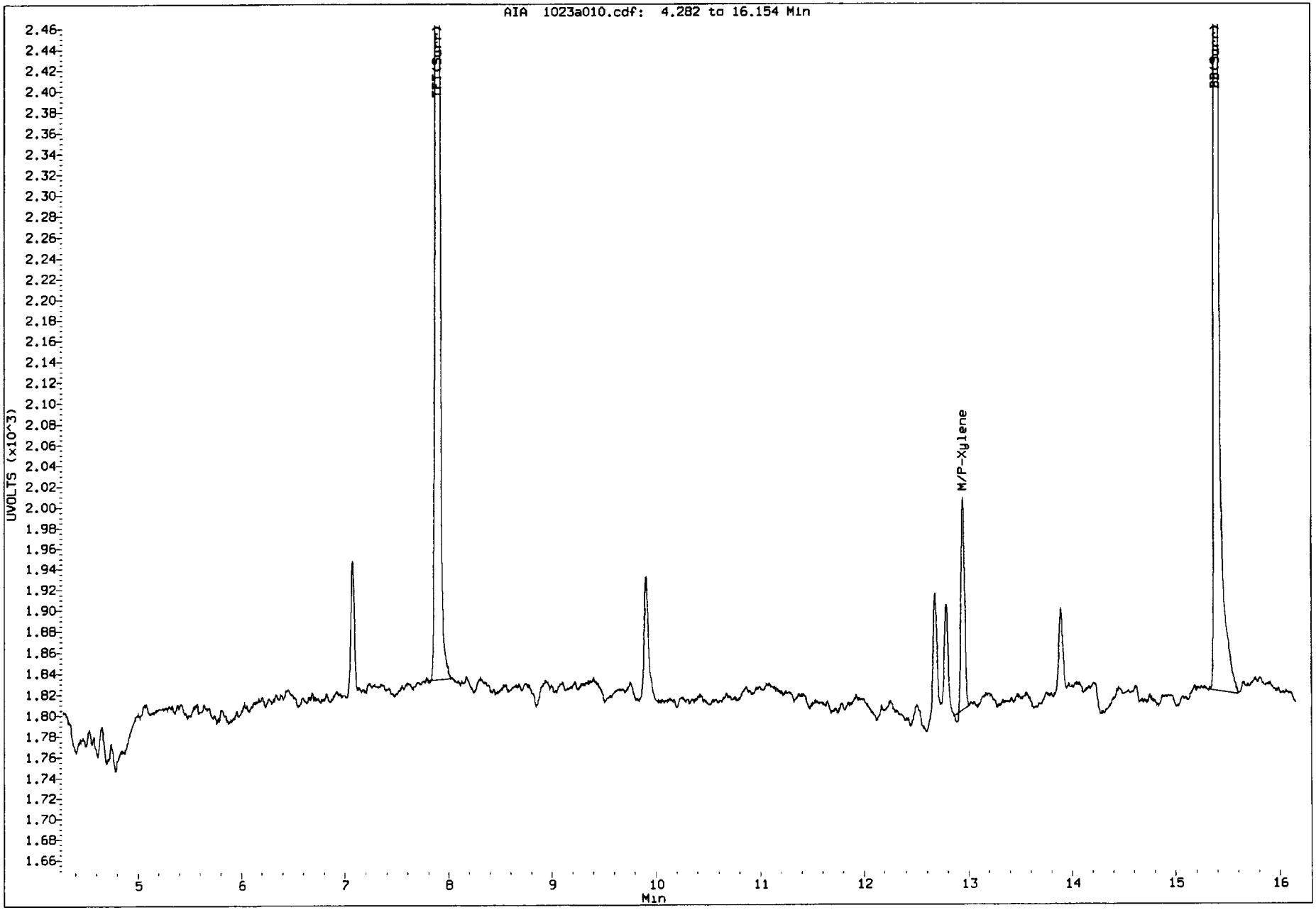
Before



Data File: /chem3/pid1.1/20121023-2.b/1023a010.d/1023a010.cdf
Injection Date: 23-OCT-2012 20:45
Instrument: pid1.1
Client Sample ID:



Data File: /chem3/pid1.i/20121023-2.b/1023a010.d/1023a010.cdf
Injection Date: 23-OCT-2012 20:45
Instrument: pid1.i
Client Sample ID:



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a011.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a011.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: B 0.25
Client ID:
Injection Date: 23-OCT-2012 21:15
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.887	0.000	733	9325	23.3	TFT(Surr)
15.387	0.000	484	4042	23.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	2310	0.006 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	2530	0.003 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	2276	0.004 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	2718	0.007 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	855	22.6	TFT(Surr)
15.393	0.000	1790	22.2	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.077	0.000	57	0.23N	Benzene
9.907	0.000	64	0.28N	Toluene
12.787	0.000	48	0.24N	Ethylbenzene
12.943	0.000	108	0.50N	M/P-Xylene
13.890	0.000	40	0.24N	O-Xylene
ND	---	---	---	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a011.d

Date : 23-OCT-2012 21:15

Client ID:

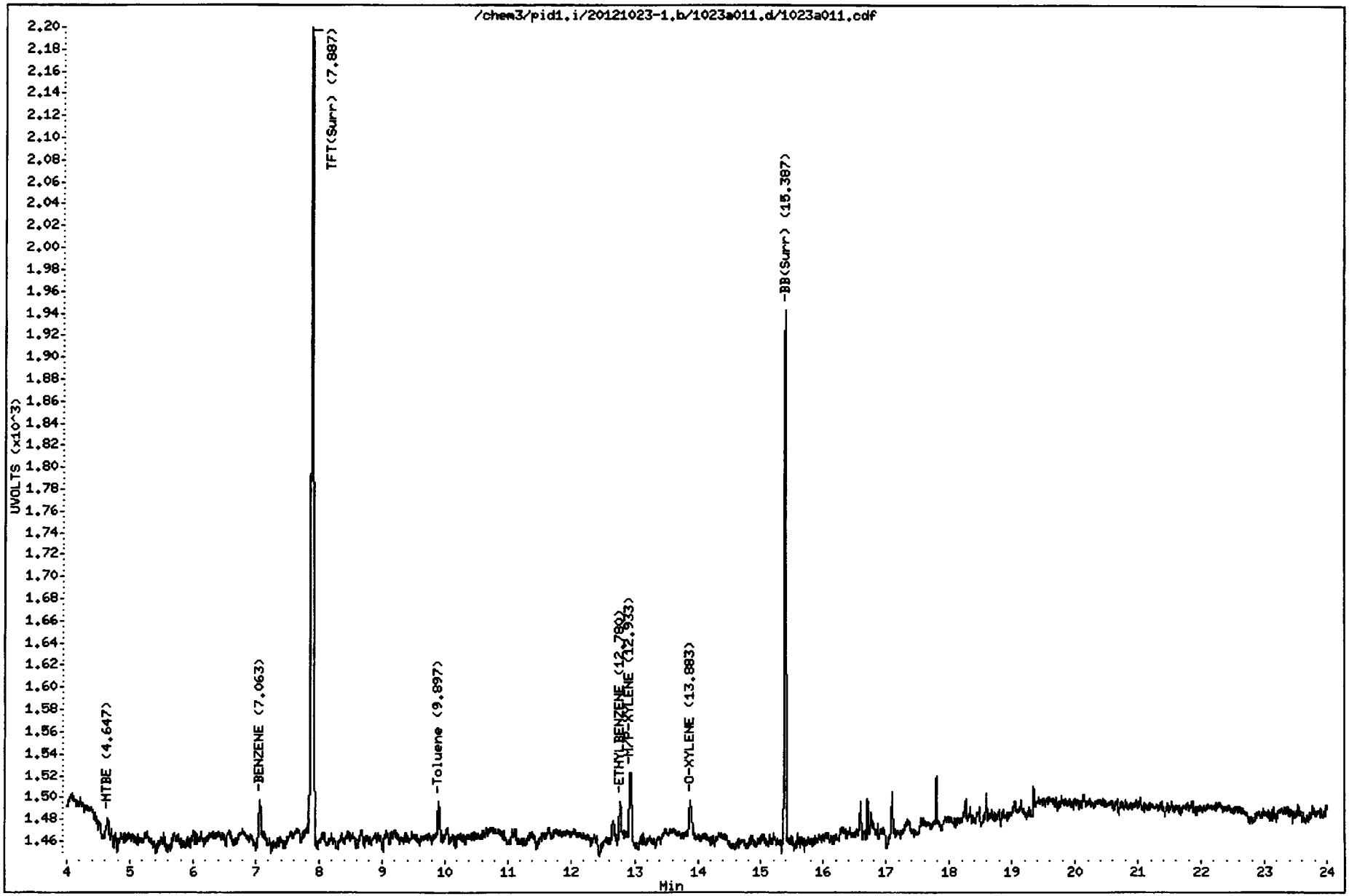
Sample Info: B 0.25

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a011.d

Date : 23-OCT-2012 21:15

Client ID:

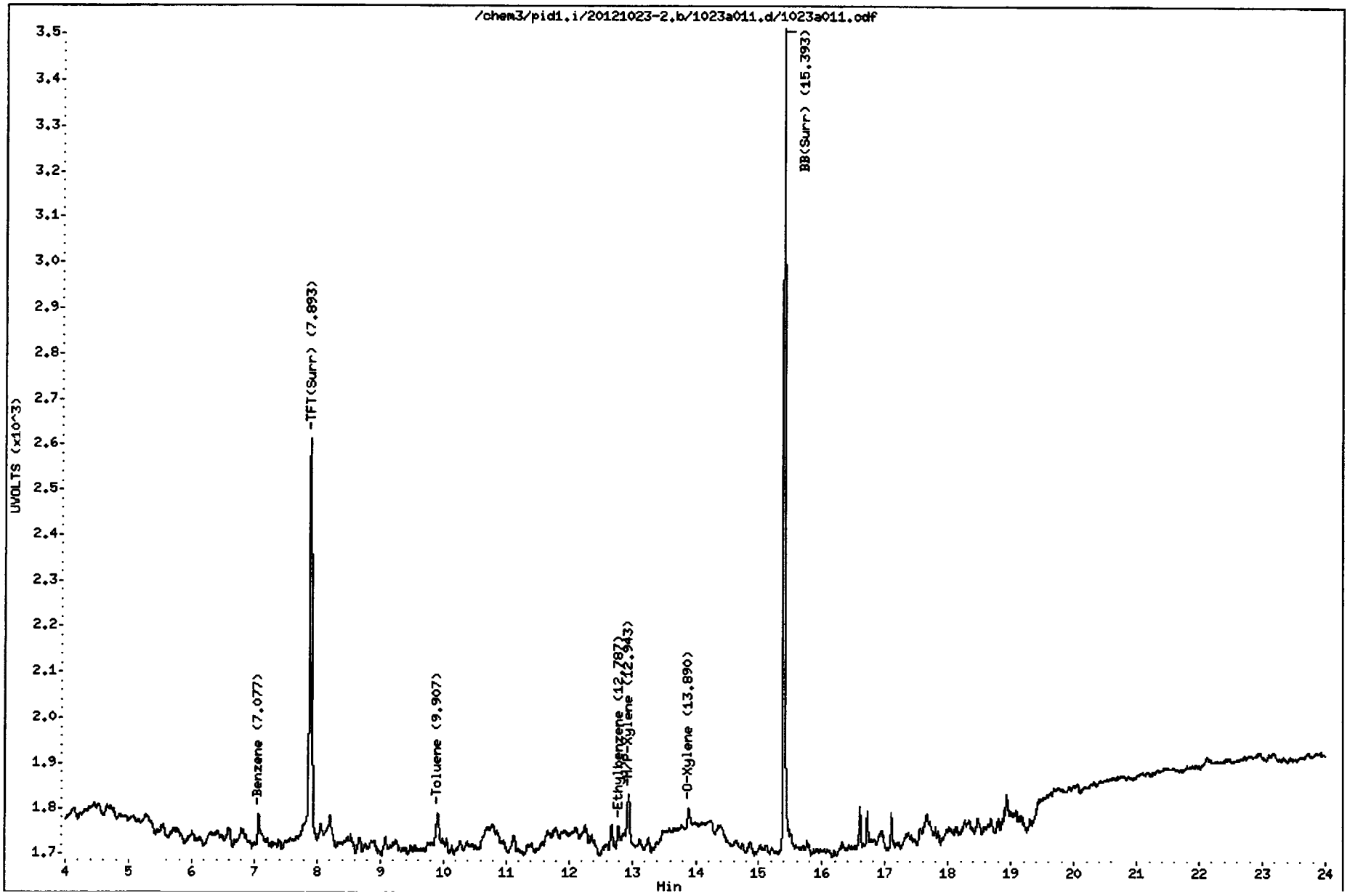
Sample Info: B 0.25

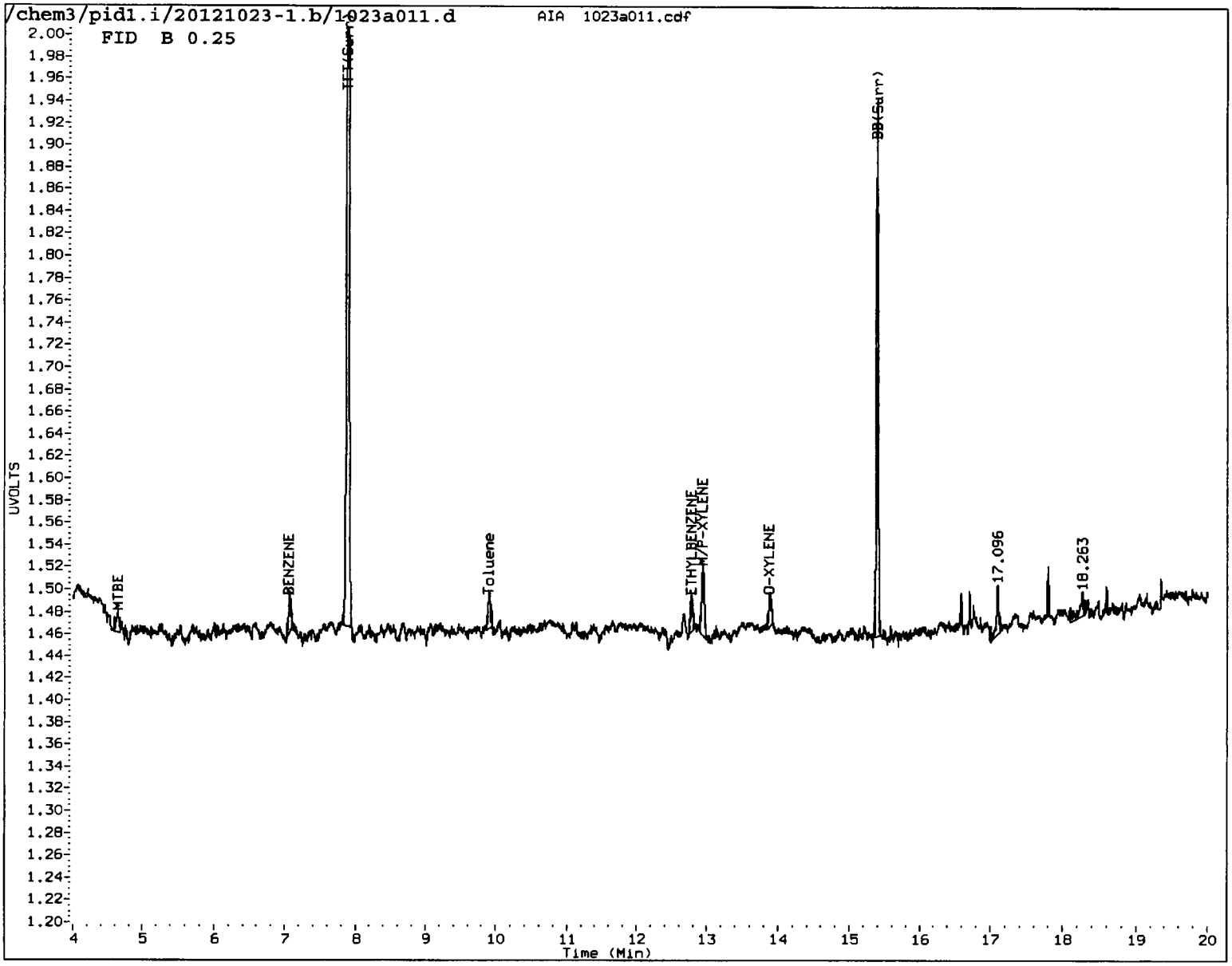
Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18





MANUAL INTEGRATION

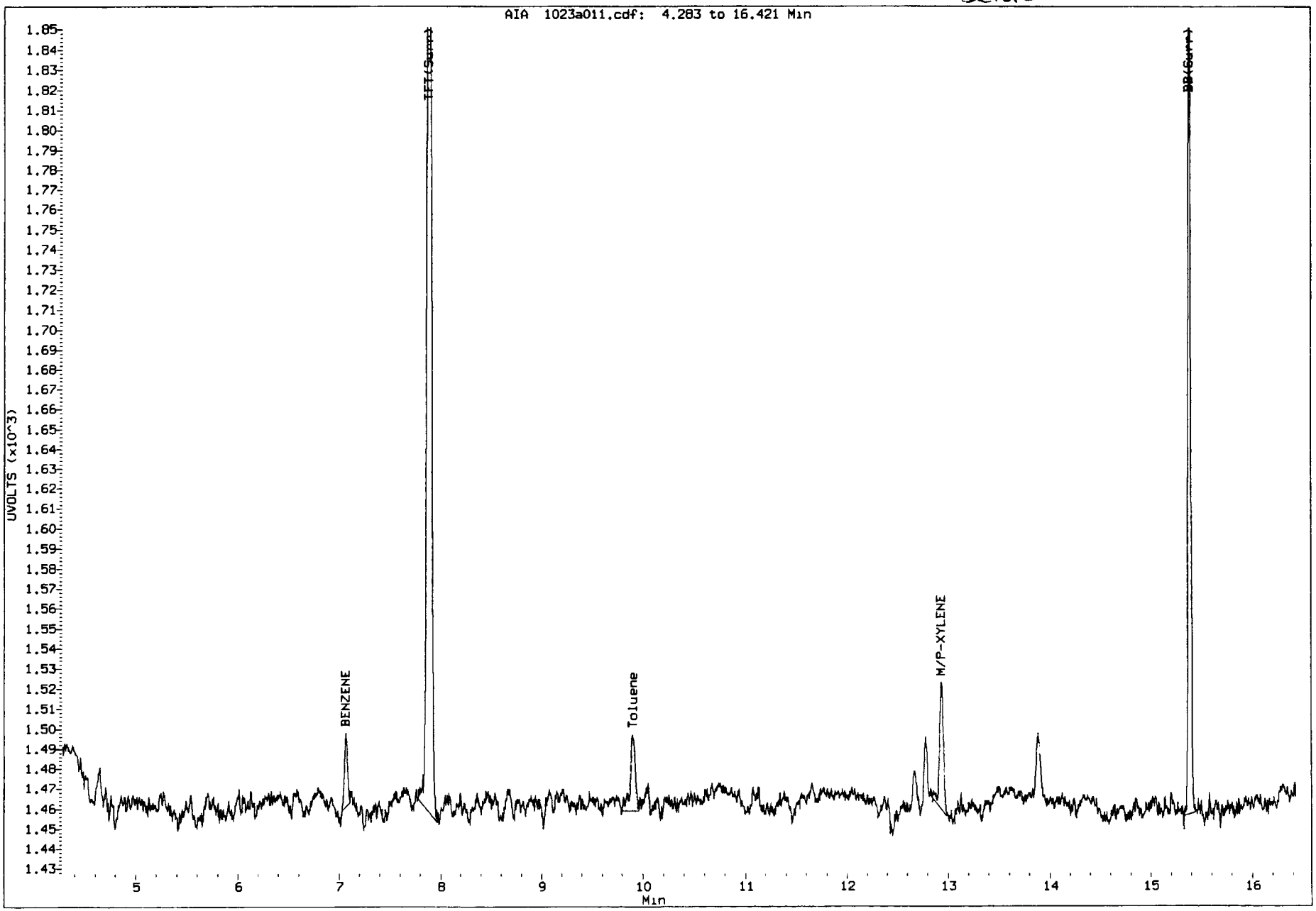
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

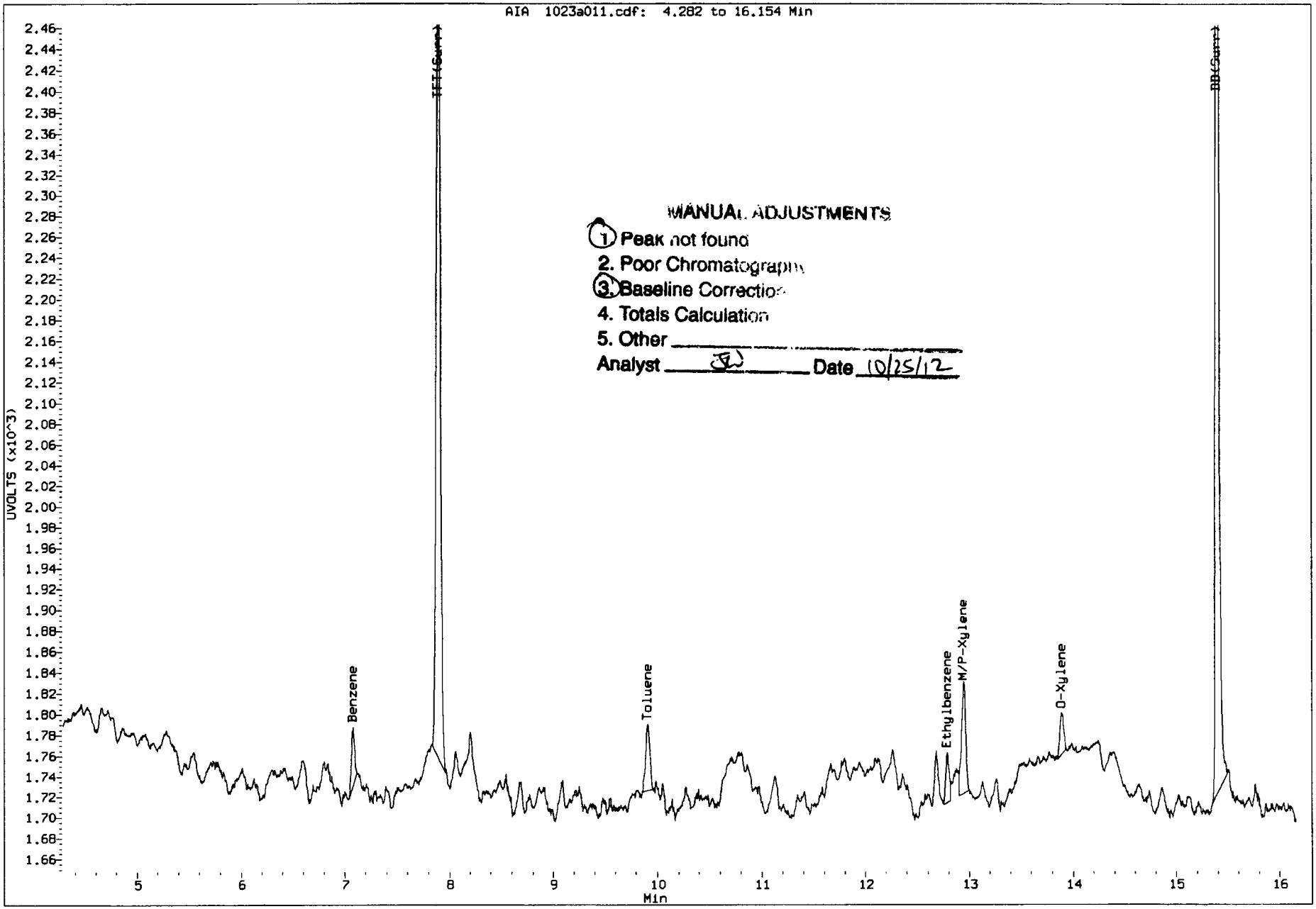
Analyst: JW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a011.d/1023a011.cdf
Injection Date: 23-OCT-2012 21:15
Instrument: pid1.i
Client Sample ID:

Before



Data File: /chem3/pid1.i/20121023-2.b/1023a011.d/1023a011.cdf
Injection Date: 23-OCT-2012 21:15
Instrument: pid1.i
Client Sample ID:



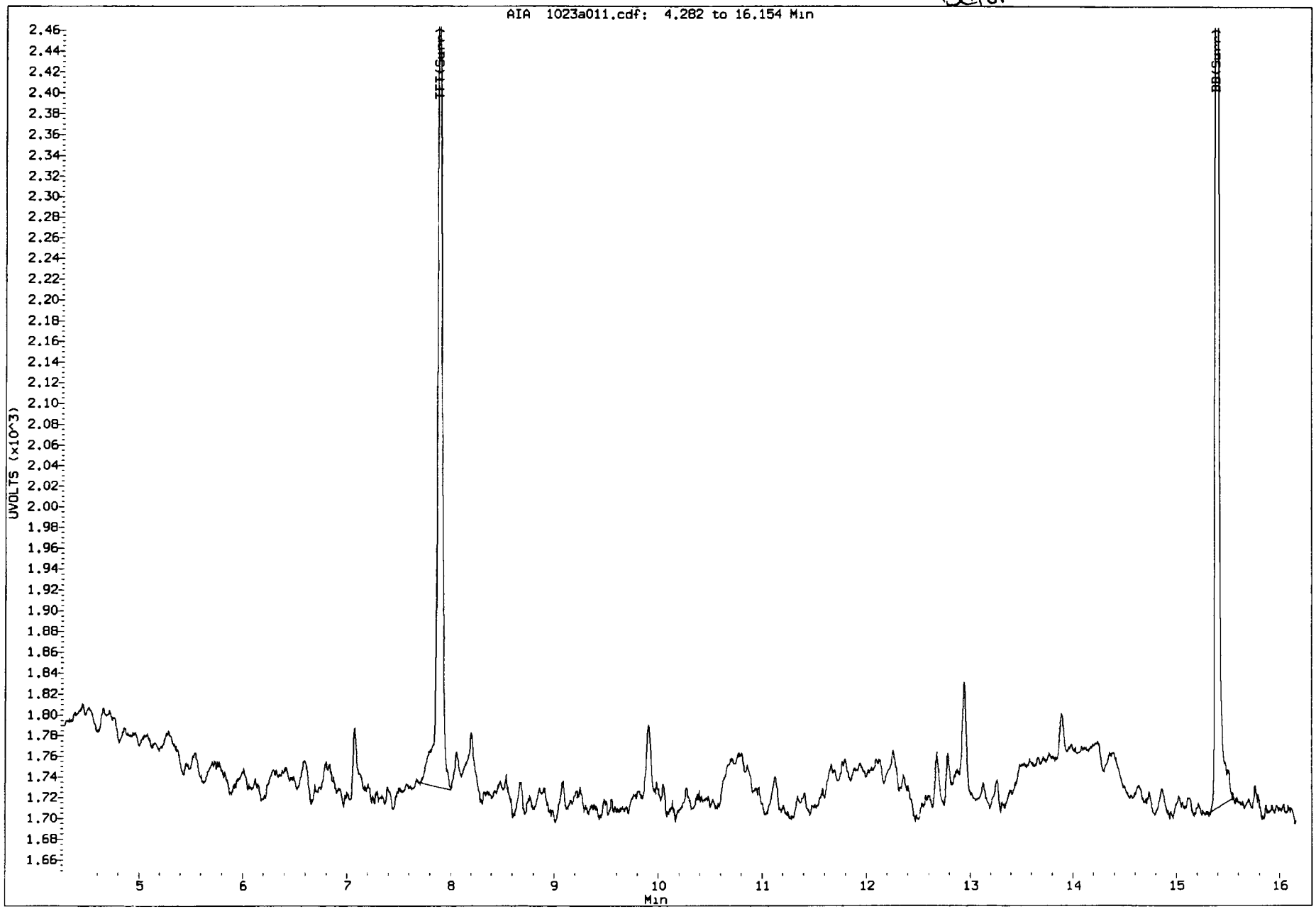
MANUAL ADJUSTMENTS

1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other _____

Analyst JD Date 10/25/12

Data File: /chem3/pid1.i/20121023-2.b/1023a011.d/1023a011.cdf
Injection Date: 23-OCT-2012 21:15
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a012.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a012.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: BICV
Client ID:
Injection Date: 23-OCT-2012 21:44
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.884	-0.003	2989	38262	94.9	TFT(Surr)
15.387	0.000	1972	16638	97.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	256090	0.715
8015C 2MP-TMB	(4.29 to 16.21)	723723	256713	0.355
AK101 nC6-nC10	(4.76 to 15.11)	582885	241615	0.415
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	256090	0.683

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.892	-0.001	3638	96.0	TFT(Surr)
15.395	0.002	7931	98.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.073	-0.004	6699	27.01	Benzene
9.905	-0.001	5955	26.47	Toluene
12.785	-0.002	5351	27.14	Ethylbenzene
12.946	0.003	11682	54.33	M/P-Xylene
13.894	0.004	4726	28.16	O-Xylene
4.646	-0.008	1898	26.36	MTBE

JW 10/25/12

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a012.d

Page 1

Date : 23-OCT-2012 21:44

Client ID:

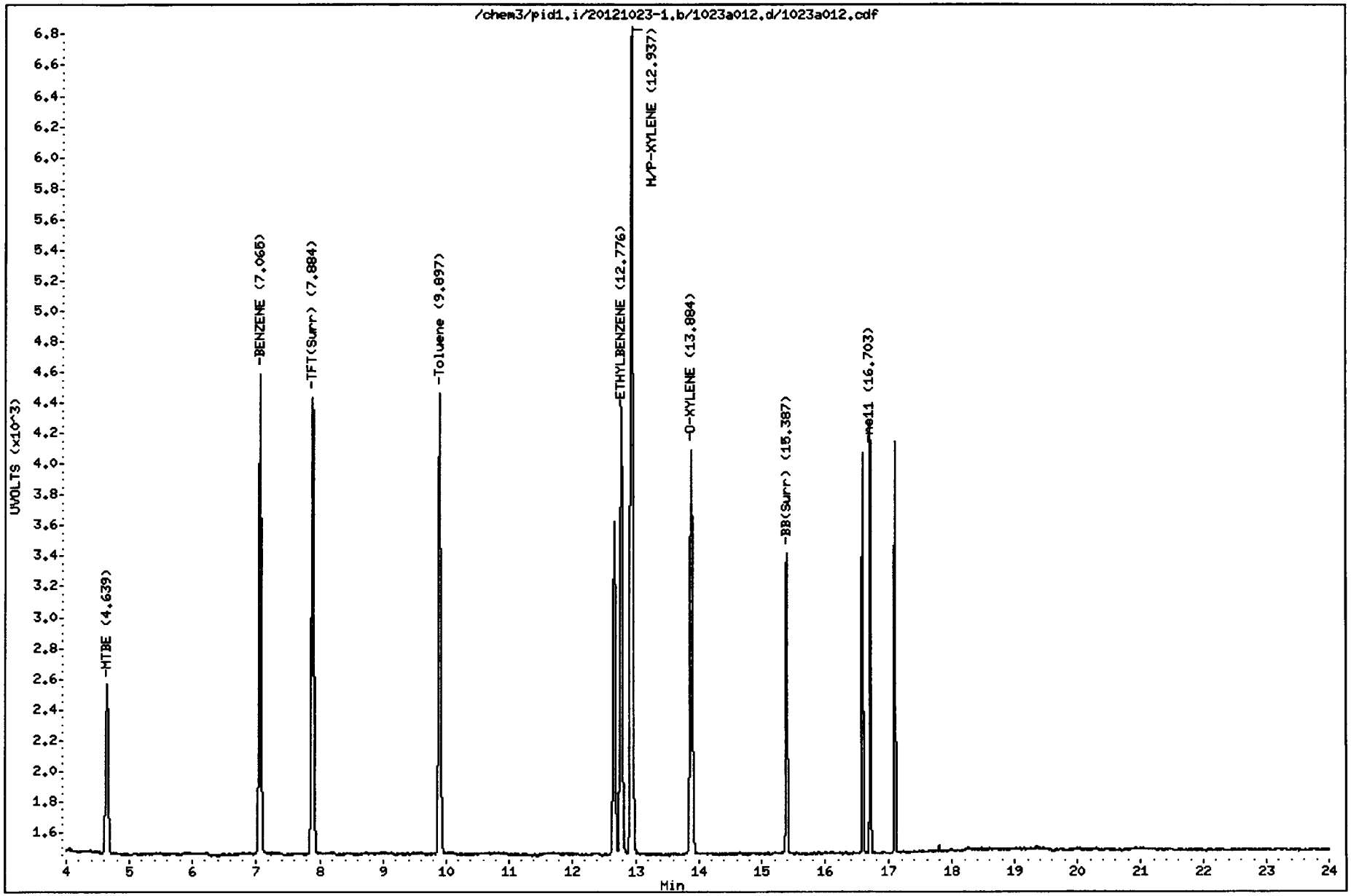
Instrument: pid1.i

Sample Info: BICV

Operator: PC/JW

Column phase: RTX 502-2 FID

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a012.d

Date : 23-OCT-2012 21:44

Client ID:

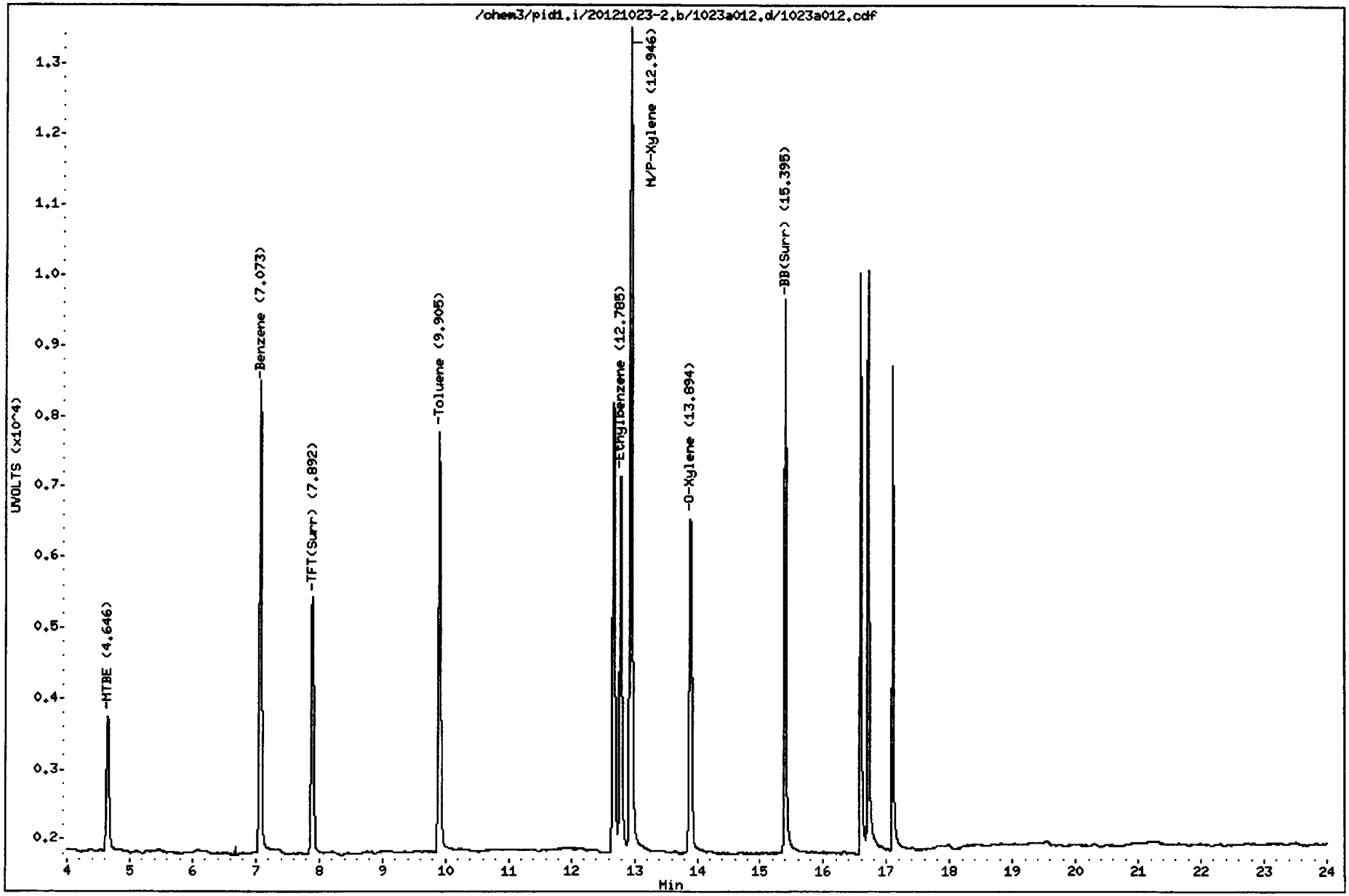
Sample Info: BICV

Instrument: pid1.i

Operator: PC/JW

Column phase: RTX 502-2 PID

Column diameter: 0.18



Report Date : 25-Oct-2012 17:27

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-1.b/FID.m
Batch File: /chem3/pid1.i/20121023-1.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	1023a004	1023a005	1023a006	1023a007	1023a008	1023a009	1023a010	1023a011
INJ.DATE:	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012
INJ.TIME:	17:50	18:20	18:49	19:18	19:47	20:16	20:45	21:15

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	NWTPHG	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.492	0.422-0.562	+++++	+++++
2	WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.937	0.867-1.007	+++++	+++++
3	AK101	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.251	1.181-1.321	+++++	+++++
4	8015GAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.539	1.469-1.609	+++++	+++++
5	2-Methylpentane	4.387	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.387	4.317-4.457	4.387	0.000
6	MTBE	4.643	4.642	4.645	4.644	4.640	4.640	4.633	4.647	4.643	4.573-4.713	4.642	0.004
7	nC6	4.864	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.864	4.794-4.934	4.864	0.000
8	nC7	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.864	6.794-6.934	+++++	+++++
9	BENZENE	7.069	7.067	7.067	7.067	7.063	7.063	7.067	7.063	7.069	6.999-7.139	7.066	0.002
$ 10	TFT(Surr)	7.887	7.883	7.883	7.887	7.883	7.884	7.883	7.887	7.887	7.817-7.957	7.885	0.002
11	nC8	9.507	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.507	9.437-9.577	9.507	0.000
12	Toluene	9.903	9.897	9.897	9.897	9.897	9.900	9.897	9.897	9.903	9.833-9.973	9.898	0.002
13	nC9	12.416	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.416	12.346-12.486	12.416	0.000
14	ETHYLBENZENE	12.783	12.776	12.775	12.775	12.776	12.777	12.780	12.780	12.783	12.713-12.853	12.778	0.003
15	M/P-XYLENE	12.948	12.938	12.937	12.936	12.936	12.937	12.940	12.933	12.948	12.878-13.018	12.938	0.004
16	O-XYLENE	13.890	13.884	13.882	13.883	13.883	13.883	13.883	13.883	13.890	13.820-13.960	13.884	0.002
17	nC10-Decane	15.207	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.207	15.137-15.277	15.207	0.000

Reviewer 1 _____ Date: 10/25/12
Reviewer 2 _____ Date: 10/26/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-1.b/FID.m
Batch File: /chem3/pid1.i/20121023-1.b
Inst ID: pid1.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 18 BB(Surr)	15.390	15.387	15.387	15.387	15.387	15.387	15.387	15.387	15.390	15.320-15.460	15.387	0.001
$ 19 BFB(Surr)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.027	15.957-16.097	+++++	+++++
20 1,2,4-Trimethylbenzene	16.109	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.109	16.039-16.179	16.109	0.000
21 nc11	16.761	16.760	16.702	16.703	16.703	16.705	16.704	+++++	16.761	16.691-16.831	16.720	0.028
22 nC12-Dodecane	17.800	17.795	17.795	17.795	+++++	+++++	+++++	+++++	17.800	17.730-17.870	17.796	0.003
23 nC13	18.607	18.595	+++++	+++++	+++++	+++++	+++++	+++++	18.607	18.537-18.677	18.601	0.008
24 Naphthalene	18.808	18.796	+++++	+++++	+++++	+++++	+++++	+++++	18.808	18.738-18.878	18.802	0.009

Report Date : 25-Oct-2012 17:27

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-2.b/PIDB.m
Batch File: /chem3/pid1.i/20121023-2.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	1023a004	1023a005	1023a006	1023a007	1023a008	1023a009	1023a010	1023a011
INJ.DATE:	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012
INJ.TIME:	17:50	18:20	18:49	19:18	19:47	20:16	20:45	21:15

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 MTBE	4.650	4.650	4.653	4.653	4.647	4.647	4.653	+++++	4.650	4.600-4.700	4.651	0.003
	2 Benzene	7.078	7.073	7.075	7.077	7.073	7.073	7.073	7.077	7.078	7.028-7.128	7.075	0.002
$	3 TFT(Surr)	7.896	7.890	7.893	7.893	7.890	7.893	7.893	7.893	7.896	7.846-7.946	7.893	0.002
	4 Toluene	9.910	9.903	9.903	9.907	9.903	9.907	9.907	9.907	9.910	9.860-9.960	9.906	0.002
	5 Ethylbenzene	12.793	12.785	12.784	12.785	12.785	12.785	12.783	12.787	12.793	12.743-12.843	12.786	0.003
	6 M/P-Xylene	12.957	12.948	12.946	12.946	12.945	12.946	12.947	12.943	12.957	12.908-13.008	12.947	0.004
	7 O-Xylene	13.900	13.893	13.890	13.893	13.893	13.893	13.893	13.890	13.900	13.870-13.930	13.893	0.003
$	8 BB(Surr)	15.397	15.393	15.393	15.397	15.393	15.393	15.393	15.393	15.397	15.347-15.447	15.394	0.002

Reviewer 1 JW Date: 10/25/12
Reviewer 2 Date: 10/24/12

6a
GAS INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20121023-1

Instrument/Det: PID1.I/RTX 502-2 FID Project:

Calibration Date: 23-OCT-2012 SDG No.: 20121023-1

Gas Range	RF1 0.1	RF2 0.25	RF3 1.0	RF4 2.5	RF5 5.0	RF6 10	Ave RF	%RSD
WA Gas	371020	379456	358654	339293	340260	360001	358114	4.5
AK Gas	579135	648986	585010	543304	542244	598628	582885	6.8
NW Gas	394025	395072	376837	353939	355113	375572	375093	4.8
Cal Gas	761375	793504	721427	674216	671666	730795	725497	6.6
8015Gas	742770	796044	725276	674926	670493	732827	723723	6.4

Surrogates Rel. Rec.	RF1 22	RF2 44	RF3 67	RF4 100	RF5 133	RF6 178	Ave RF	%RSD

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Quant Ranges :
- WA Gas: Toluene - nC12
- AK Gas: nC6 - nC10
- NW Gas: Toluene - Naphthalene
- Cal Gas: nC6 - nC12
- 8015 Gas: 2-Methylpentane - 1,2,4-Trimethylbenzene

Calibration Files	Analysis Time
1023a013.d	23-OCT-2012 22:13
1023a014.d	23-OCT-2012 22:42
1023a015.d	23-OCT-2012 23:11
1023a016.d	23-OCT-2012 23:40
1023a017.d	24-OCT-2012 00:10
1023a018.d	24-OCT-2012 00:39

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a002.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a002.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: RT1023+BCAL1
Client ID:
Injection Date: 23-OCT-2012 10:10
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.884	-0.003	3182	41284	101.0	TFT(Surr)
15.387	0.000	2019	16909	99.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	475541	1.328
8015C 2MP-TMB	(4.29 to 16.21)	723723	578928	0.800
AK101 nC6-nC10	(4.76 to 15.11)	582885	402341	0.690
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	504301	1.344

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.892	-0.002	3856	101.8	TFT(Surr)
15.394	0.001	8138	101.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.074	-0.003	6292	25.37	Benzene
9.904	-0.002	5539	24.62	Toluene
12.784	-0.002	4977	25.24	Ethylbenzene
12.945	0.002	10971	51.03	M/P-Xylene
13.892	0.002	4338	25.85	O-Xylene
4.650	-0.003	1700	23.61	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a002.d

Date : 23-OCT-2012 10:10

Client ID:

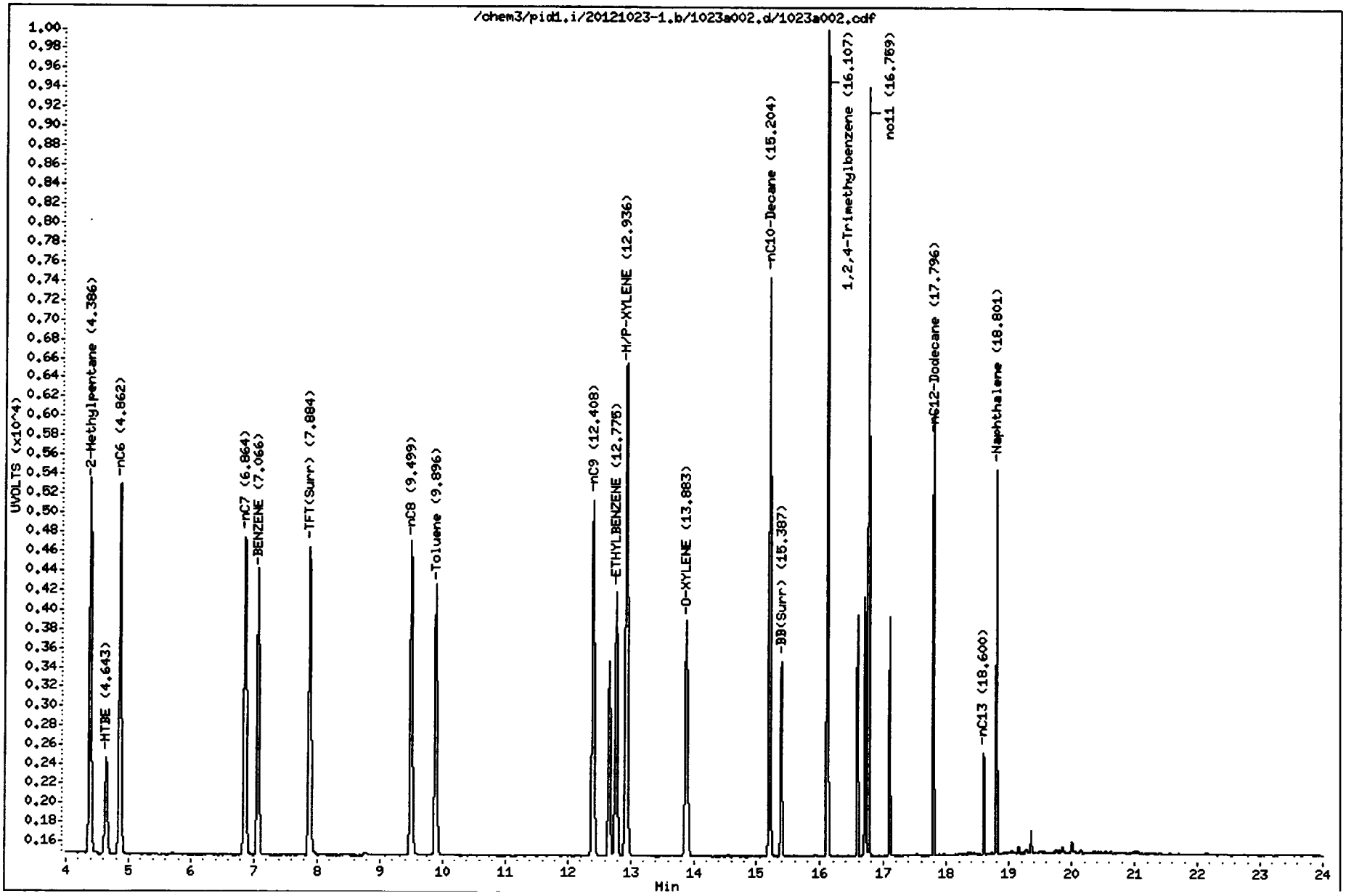
Sample Info: RT1023+BCAL1

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Data File: /chem3/pid1.i/20121023-2.b/1023a002.d

Date : 23-OCT-2012 10:10

Client ID:

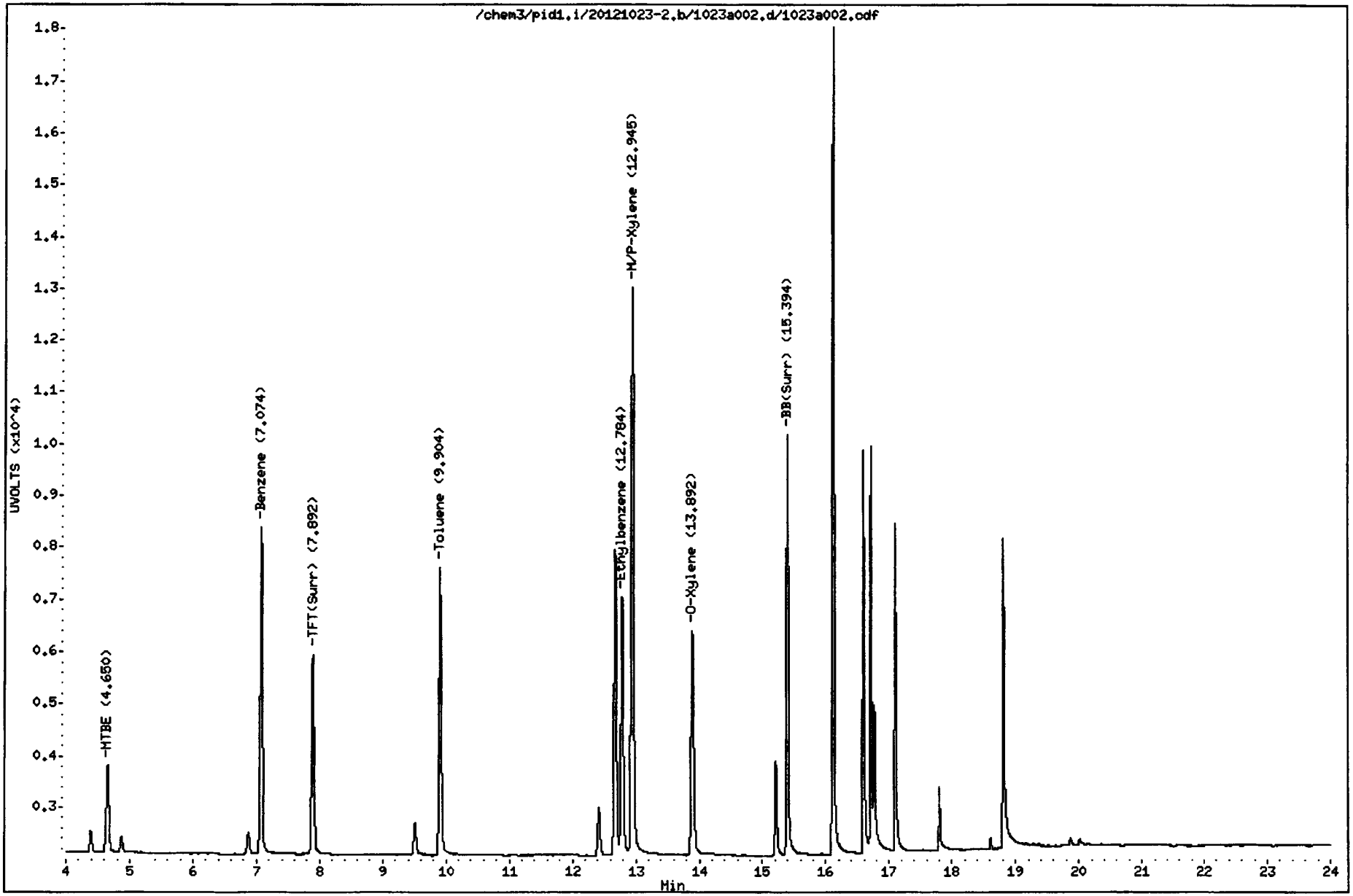
Sample Info: RT1023+BCAL1

Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a013.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a013.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 0.10
Client ID:
Injection Date: 23-OCT-2012 22:13
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.885	-0.002	2950	38720	93.7	TFT(Surr)
15.387	0.000	1950	16606	96.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	37102	0.104 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	74277	0.103 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	57914	0.099 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	39402	0.105 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	3536	93.3	TFT(Surr)
15.395	0.001	7790	96.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
9.907	0.000	902	4.01	Toluene
12.785	-0.001	223	1.13	Ethylbenzene
12.948	0.005	914	4.25	M/P-Xylene
13.893	0.003	346	2.06	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a013.d

Date : 23-OCT-2012 22:13

Client ID:

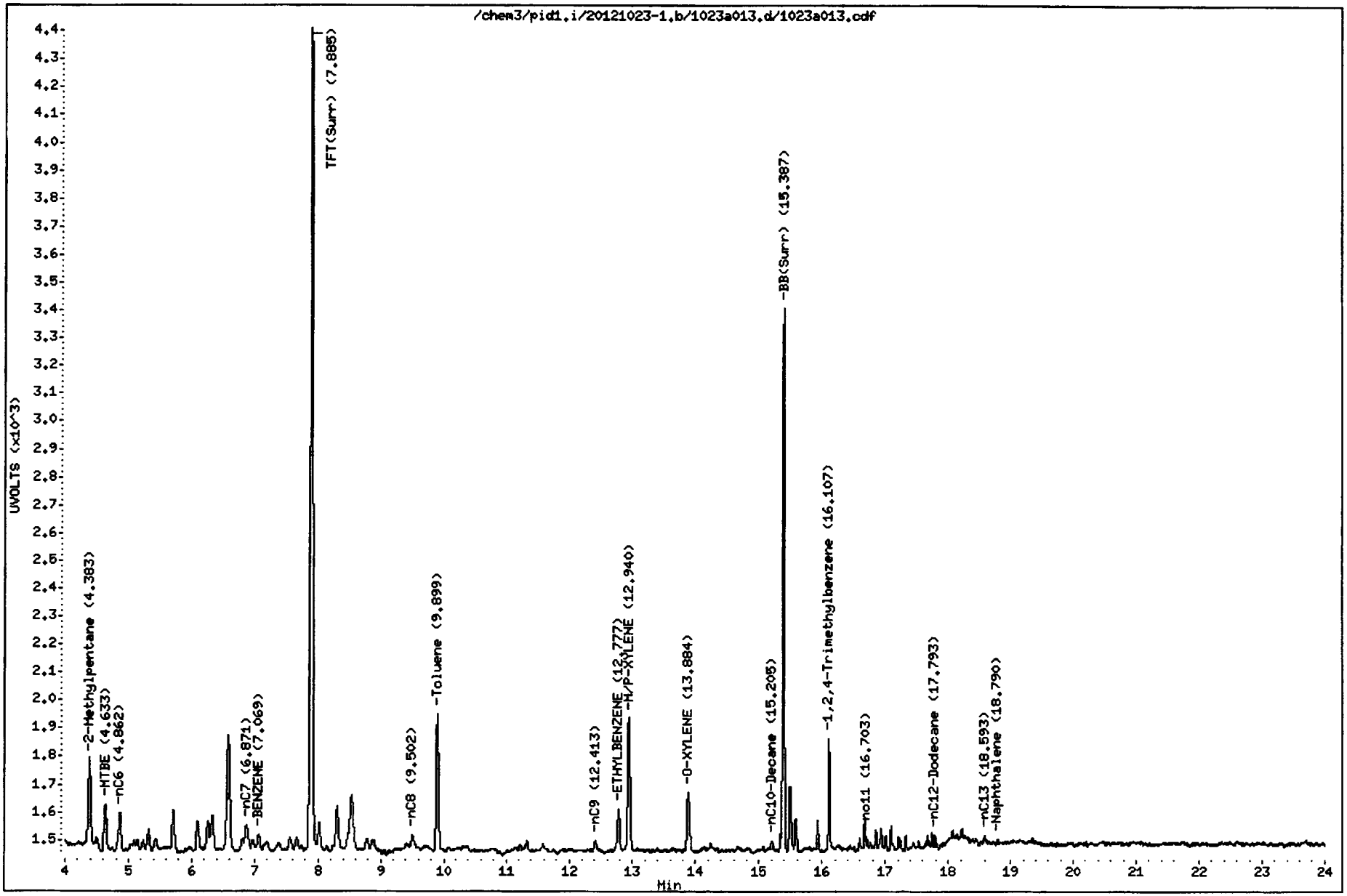
Sample Info: G 0.10

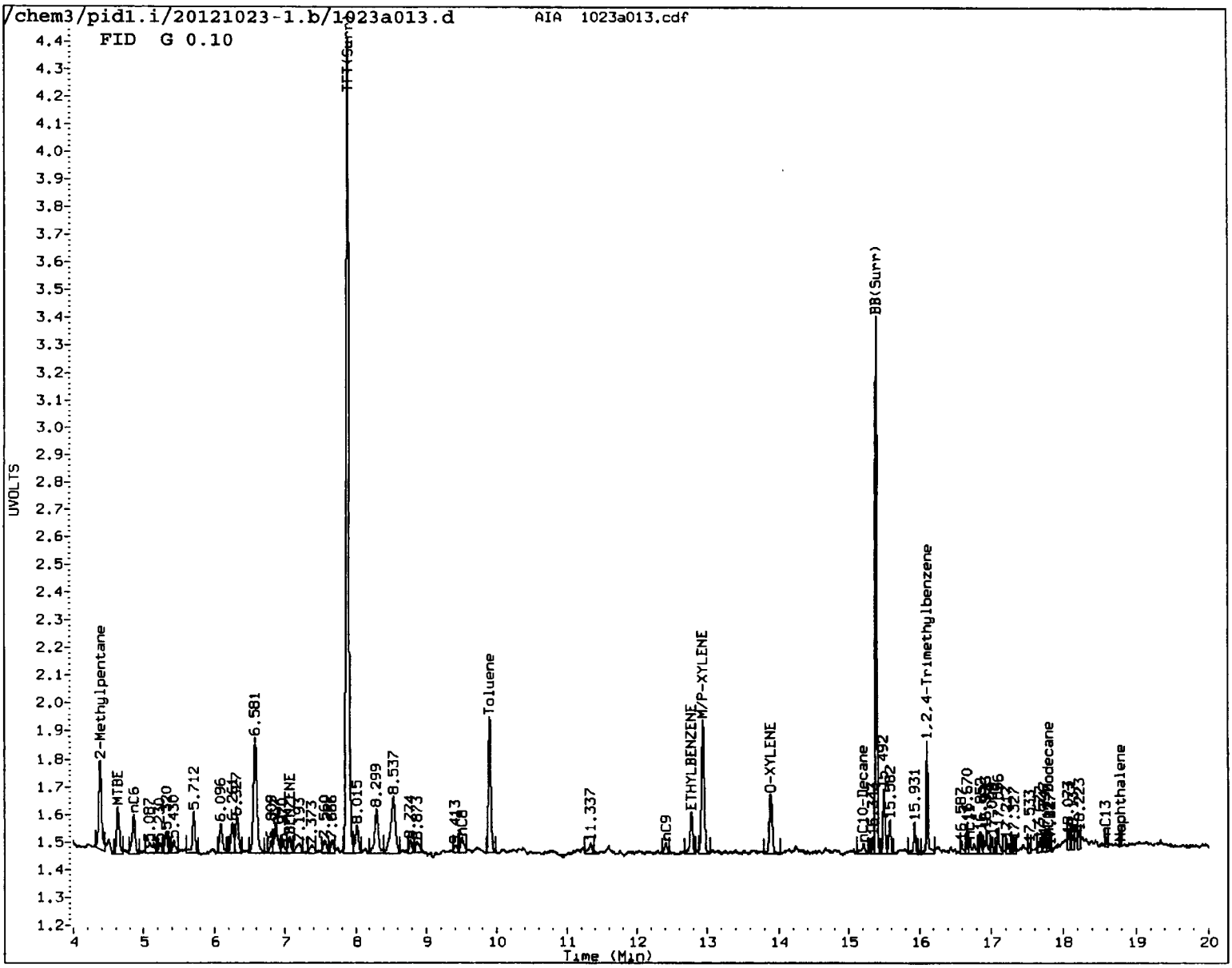
Instrument: pid1.i

Operator: PC/JW

Column phase: RTX 502-2 FID

Column diameter: 0.18





MANUAL INTEGRATION

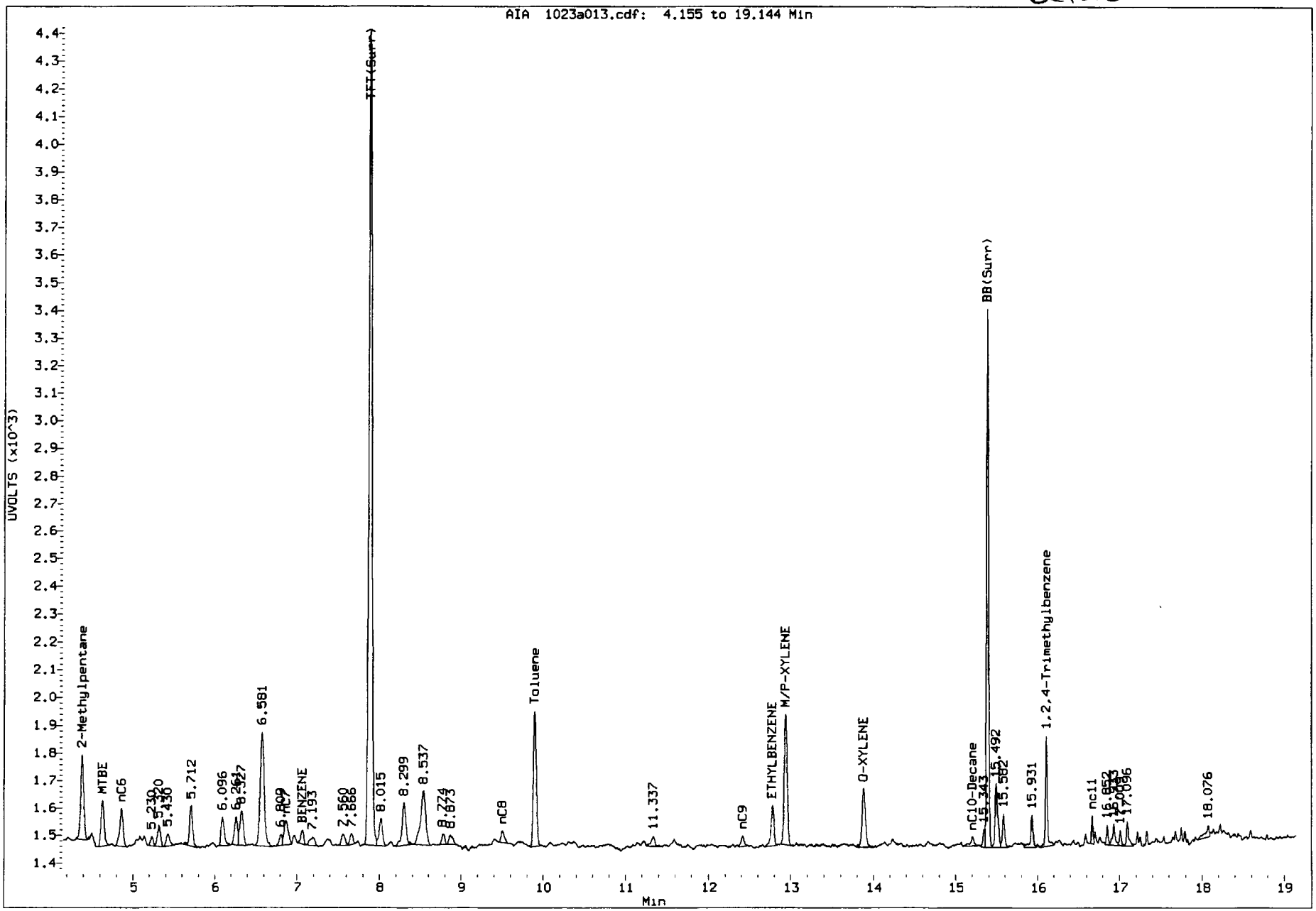
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: BW Date: 10/25/12

Data File: /chem3/pid1.i/20121023-1.b/1023a013.d/1023a013.cdf
Injection Date: 23-OCT-2012 22:13
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a014.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a014.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 0.25
Client ID:
Injection Date: 23-OCT-2012 22:42
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.886	-0.001	2975	39690	94.5	TFT(Surr)
15.388	0.001	1944	16963	95.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	94864	0.265 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	199011	0.275 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	162246	0.278 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	98768	0.263 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.894	0.000	3597	95.0	TFT(Surr)
15.396	0.002	7867	97.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.002	225	0.91	Benzene
9.906	0.000	2188	9.72	Toluene
12.786	-0.001	548	2.78	Ethylbenzene
12.948	0.005	2183	10.15	M/P-Xylene
13.894	0.004	795	4.74	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a014.d

Date : 23-OCT-2012 22:42

Client ID:

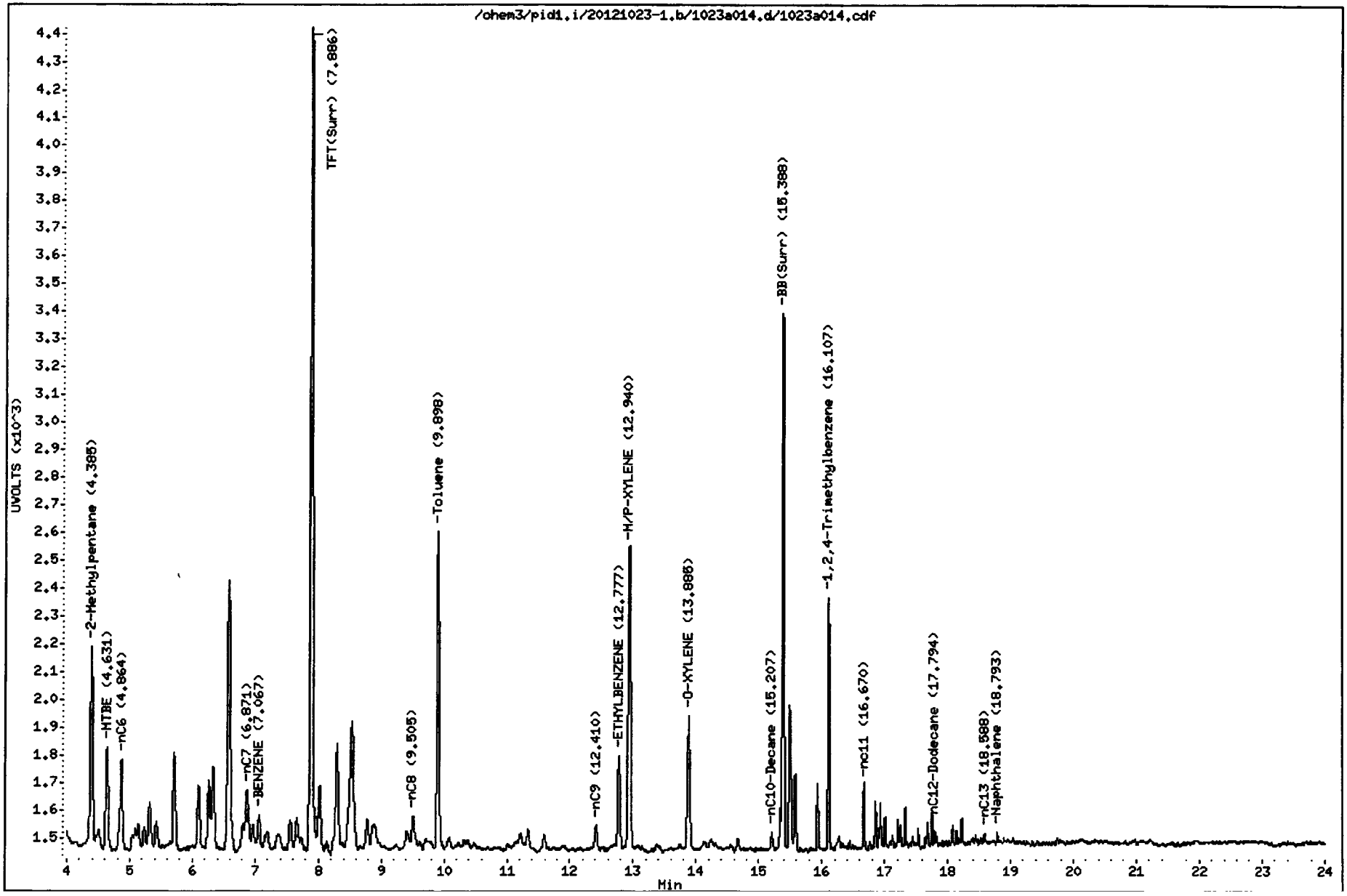
Sample Info: G 0.25

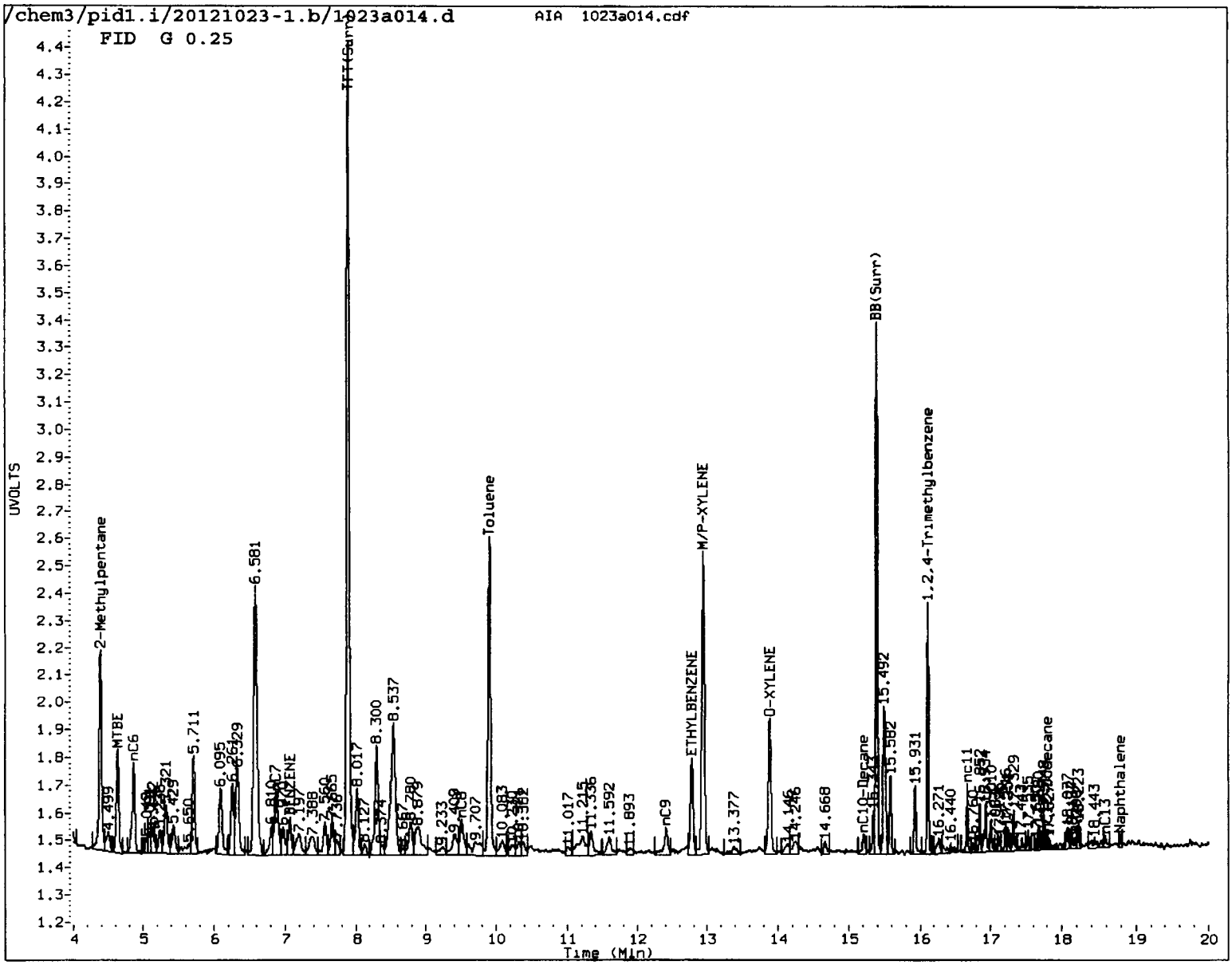
Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18





MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

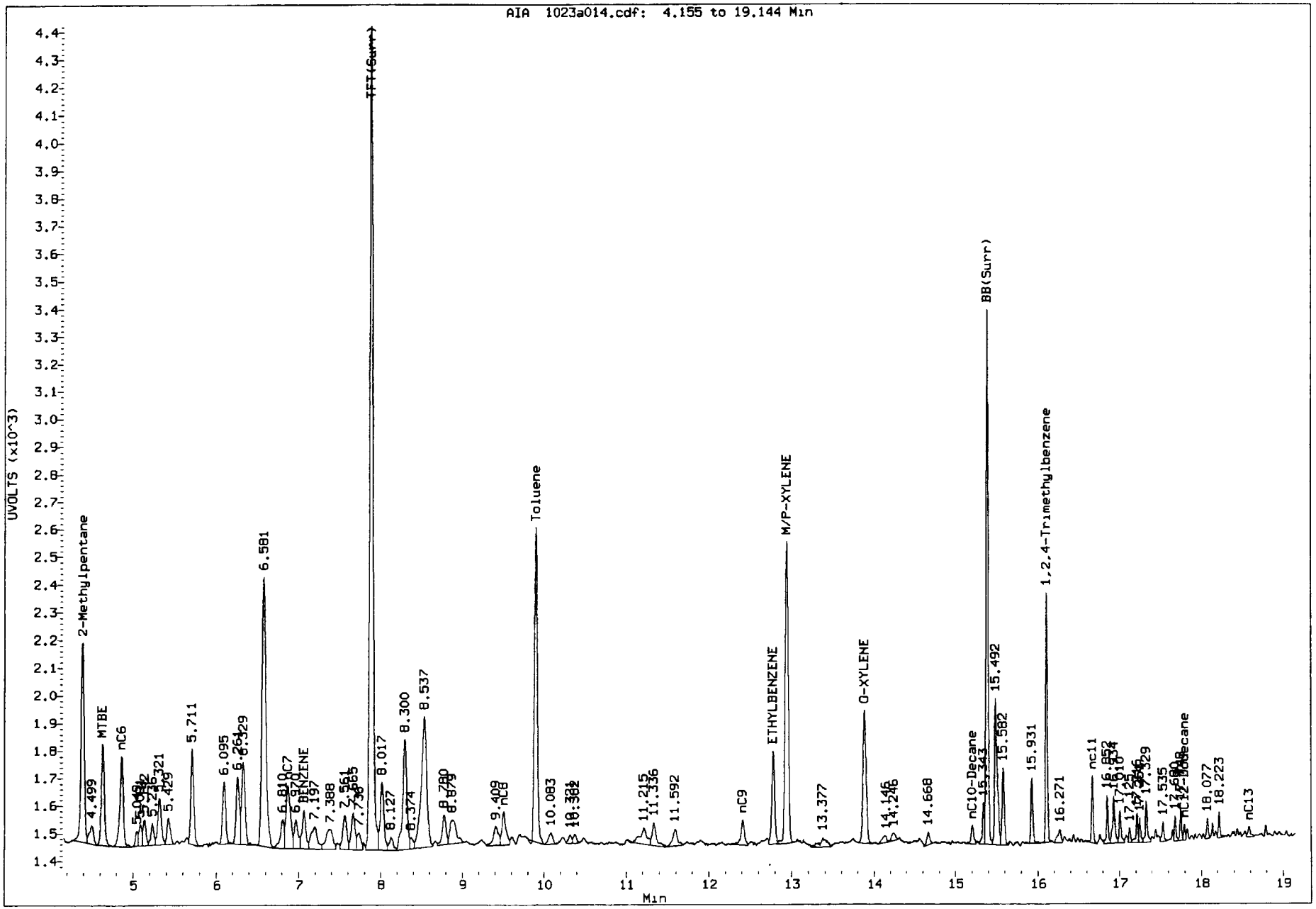
5. Other _____

Analyst: JW Date: 10/25/12

UT61:02602

Data File: /chem3/pid1.i/20121023-1.b/1023a014.d/1023a014.cdf
Injection Date: 23-OCT-2012 22:42
Instrument: pid1.i
Client Sample ID:

Before



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a015.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a015.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 1.0
Client ID:
Injection Date: 23-OCT-2012 23:11
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.886	-0.001	3079	44718	97.8	TFT(Surr)
15.387	0.000	1964	17721	96.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	358654	1.002 M
8015C 2MP-TMB	(4.29 to 16.21)	723723	725276	1.002 M
AK101 nC6-nC10	(4.76 to 15.11)	582885	585010	1.004 M
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	376837	1.005 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.894	0.001	3709	97.9	TFT(Surr)
15.395	0.002	7881	98.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.002	965	3.89	Benzene
9.906	0.000	9089	40.40	Toluene
12.786	-0.001	2253	11.43	Ethylbenzene
12.949	0.006	9128	42.45	M/P-Xylene
13.894	0.004	3286	19.58	O-Xylene
4.635	-0.019	211	2.93	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a015.d

Date : 23-OCT-2012 23:11

Client ID:

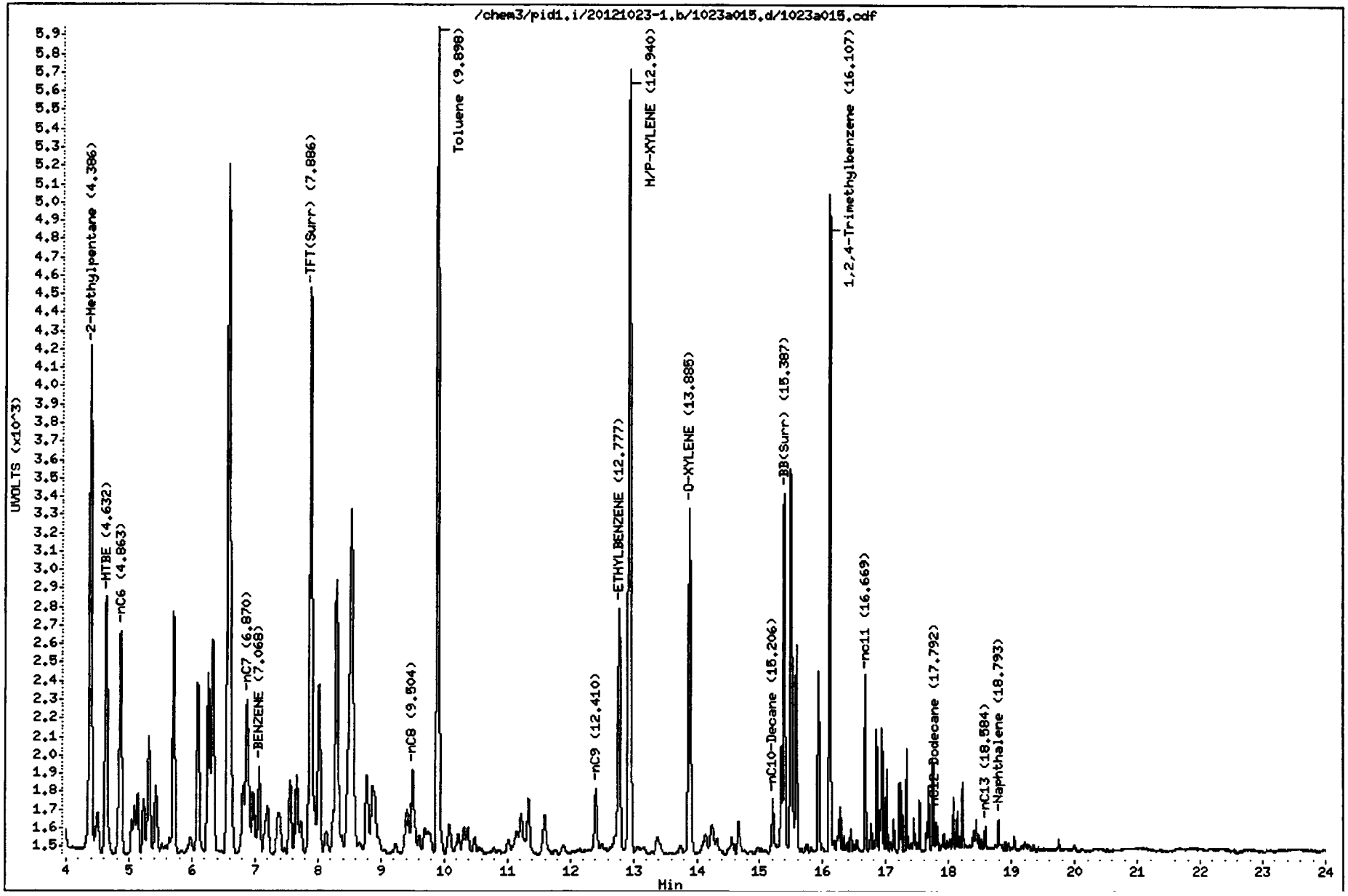
Sample Info: C 1.0

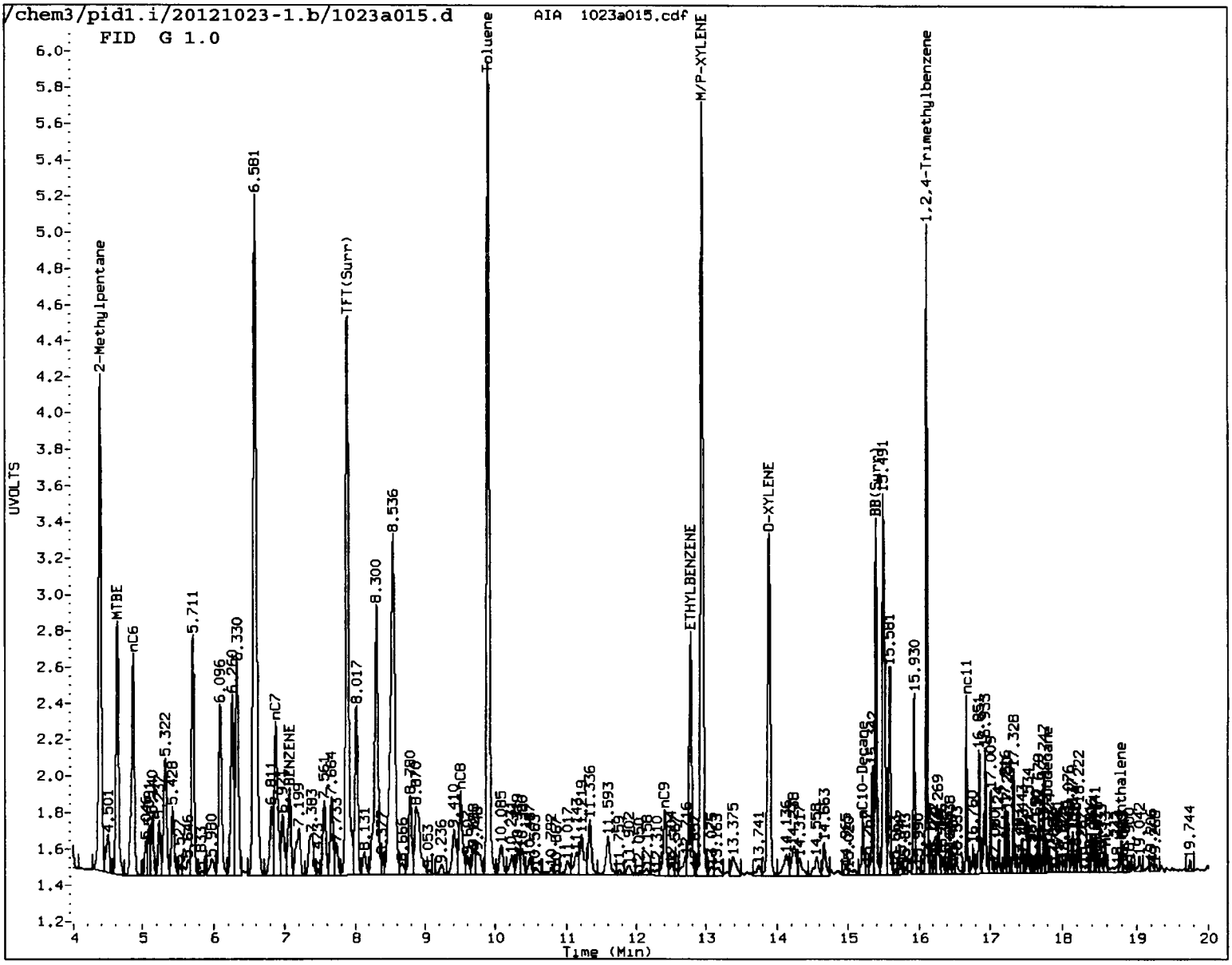
Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



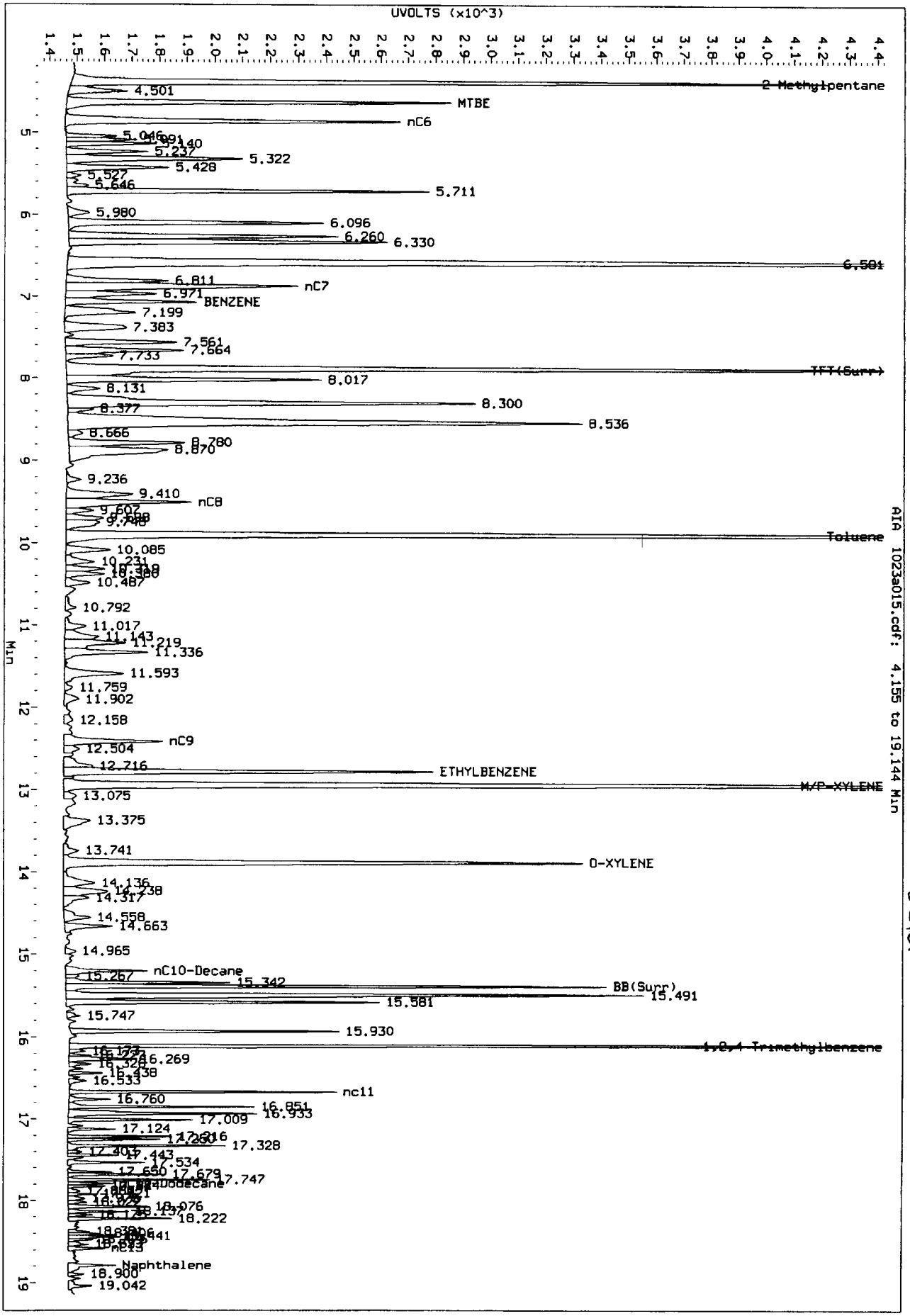


MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: BW Date: 10/25/12



Before

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a016.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a016.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 2.5
Client ID:
Injection Date: 23-OCT-2012 23:40
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.885	-0.002	3238	46993	102.8	TFT(Surr)
15.387	0.000	2003	18605	98.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	848232	2.369
8015C 2MP-TMB	(4.29 to 16.21)	723723	1687315	2.331
AK101 nC6-nC10	(4.76 to 15.11)	582885	1358261	2.330
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	884847	2.359

JW 10/25/12

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	3774	99.6	TFT(Surr)
15.395	0.002	8059	100.2	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.002	2255	9.09	Benzene
9.907	0.000	21750	96.67	Toluene
12.785	-0.001	5424	27.51	Ethylbenzene
12.950	0.007	21923	101.96	M/P-Xylene
13.894	0.004	7944	47.33	O-Xylene
4.635	-0.018	486	6.75	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a016.d

Date : 23-OCT-2012 23:40

Client ID:

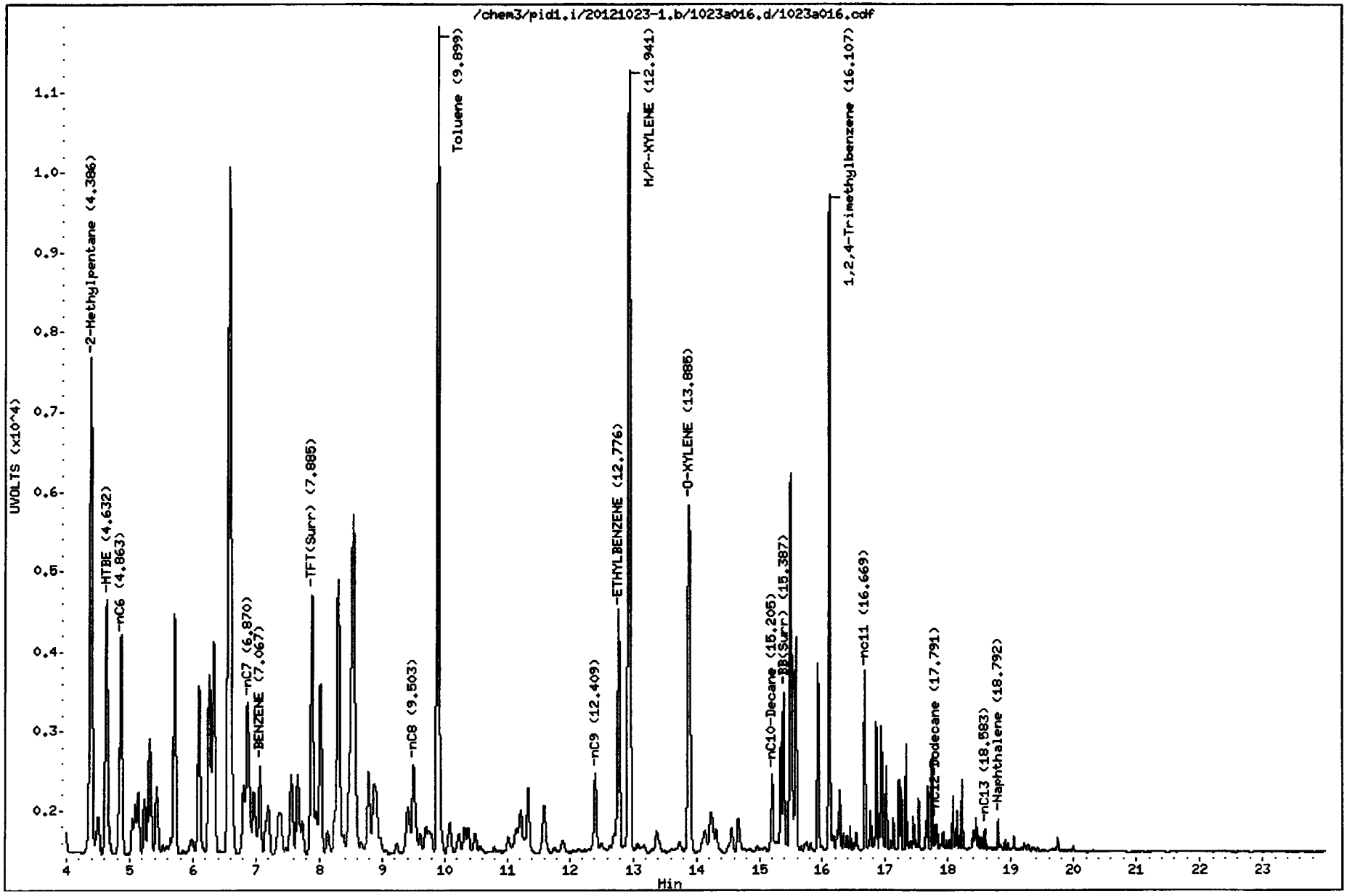
Sample Info: G 2.5

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a017.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a017.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 5.0
Client ID:
Injection Date: 24-OCT-2012 00:10
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.883	-0.004	3585	55360	113.8	TFT(Surr)
15.387	0.000	2115	18935	104.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	1701302	4.751
8015C 2MP-TMB	(4.29 to 16.21)	723723	3352467	4.632
AK101 nC6-nC10	(4.76 to 15.11)	582885	2711219	4.651
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	1775567	4.734

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.892	-0.001	4011	105.9	TFT(Surr)
15.395	0.001	8350	103.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.001	4431	17.87	Benzene
9.908	0.002	42408	188.49	Toluene
12.786	-0.001	10851	55.03	Ethylbenzene
12.952	0.009	43539	202.50	M/P-Xylene
13.895	0.005	15788	94.06	O-Xylene
4.636	-0.018	966	13.42	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a017.d

Date : 24-OCT-2012 00:10

Client ID:

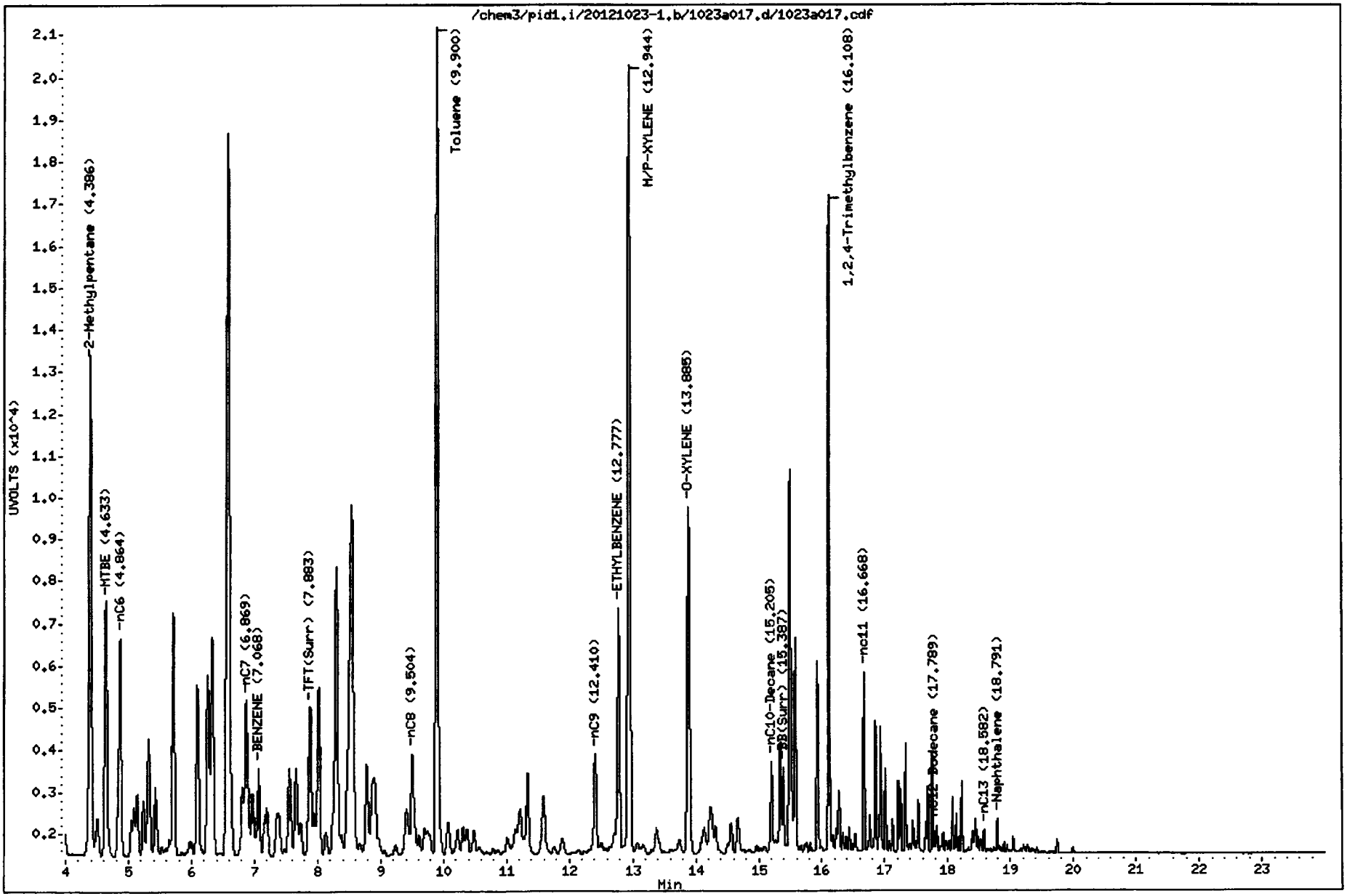
Sample Info: G 5.0

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC/JW

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a018.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a018.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: G 10
Client ID:
Injection Date: 24-OCT-2012 00:39
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.880	-0.007	4738	79062	150.4	TFT(Surr)
15.388	0.001	2439	22291	120.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	3600012	10.053
8015C 2MP-TMB	(4.29 to 16.21)	723723	7328267	10.126
AK101 nC6-nC10	(4.76 to 15.11)	582885	5986278	10.270
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	3755718	10.013

JW 10/25/12

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.891	-0.003	4903	129.4	TFT(Surr)
15.395	0.002	9209	114.5	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.076	-0.001	9254	37.32	Benzene
9.912	0.005	88764	394.52	Toluene
12.789	0.002	22870	115.99	Ethylbenzene
12.958	0.015	90897	422.77	M/P-Xylene
13.898	0.008	33138	197.43	O-Xylene
4.636	-0.017	2050	28.47	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a018.d

Page 1

Date : 24-OCT-2012 00:39

Client ID:

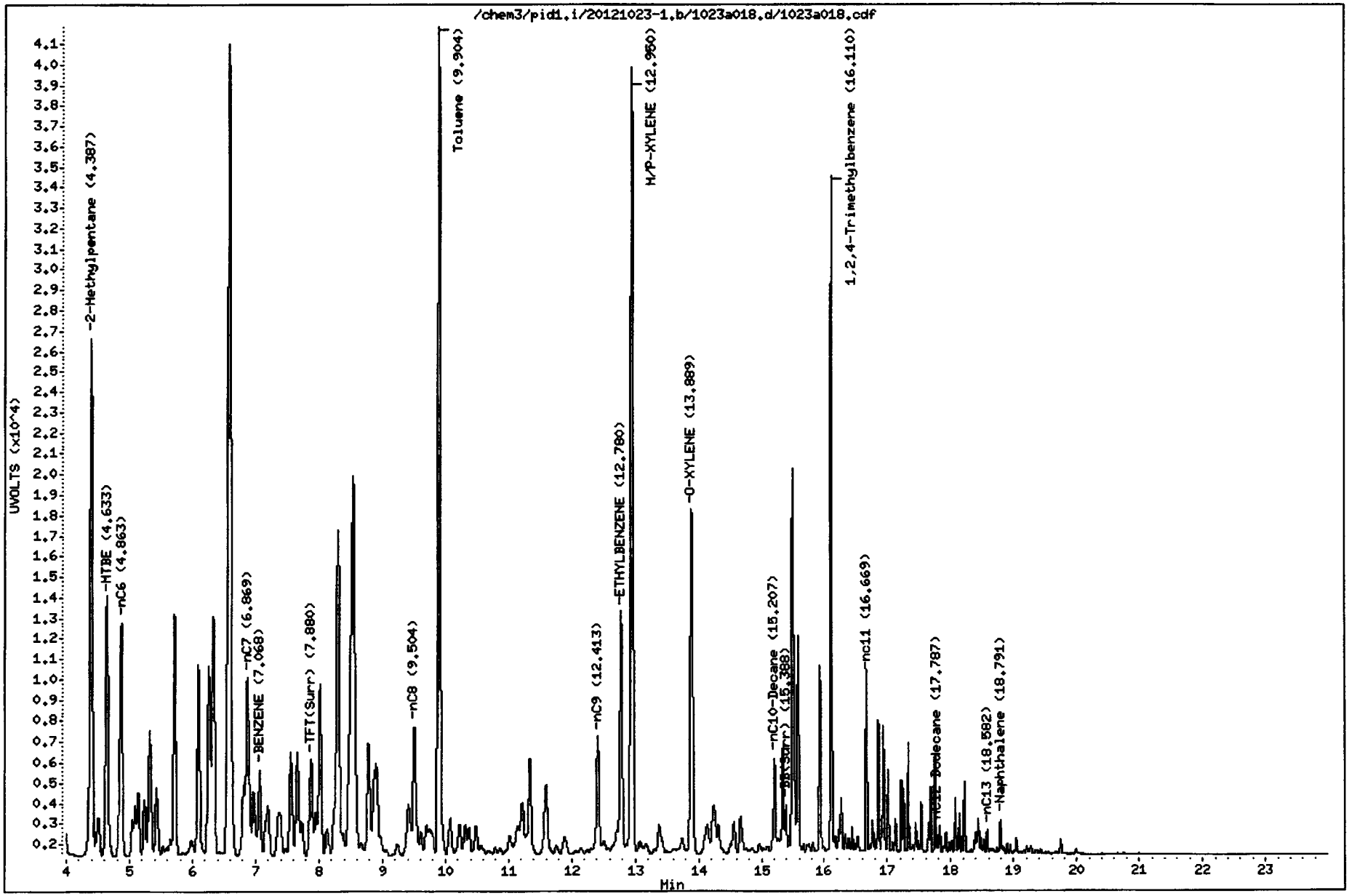
Instrument: pid1.i

Sample Info: G 10

Operator: PC/JW

Column phase: RTX 502-2 FID

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20121023-1.b/1023a019.d
Data file 2: /chem3/pid1.i/20121023-2.b/1023a019.d
Method: /chem3/pid1.i/20121023-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 23-OCT-2012

ARI ID: GICV
Client ID:
Injection Date: 24-OCT-2012 01:08
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.884	-0.003	3250	47497	103.2	TFT(Surr)
15.387	0.000	2019	19039	99.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.90)	358114	917898	2.563
8015C 2MP-TMB	(4.29 to 16.21)	723723	1759198	2.431
AK101 nC6-nC10	(4.76 to 15.11)	582885	1408754	2.417
NWTPHG Tol-Nap	(9.80 to 18.90)	375093	972996	2.594

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

JW 10/25/12

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.893	0.000	3791	100.1	TFT(Surr)
15.395	0.002	8074	100.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.075	-0.002	2306	9.30	Benzene
9.907	0.000	22198	98.66	Toluene
12.785	-0.001	5582	28.31	Ethylbenzene
12.950	0.007	22656	105.37	M/P-Xylene
13.894	0.004	8207	48.90	O-Xylene
4.635	-0.019	542	7.53	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20121023-1.b/1023a019.d

Date : 24-OCT-2012 01:08

Client ID:

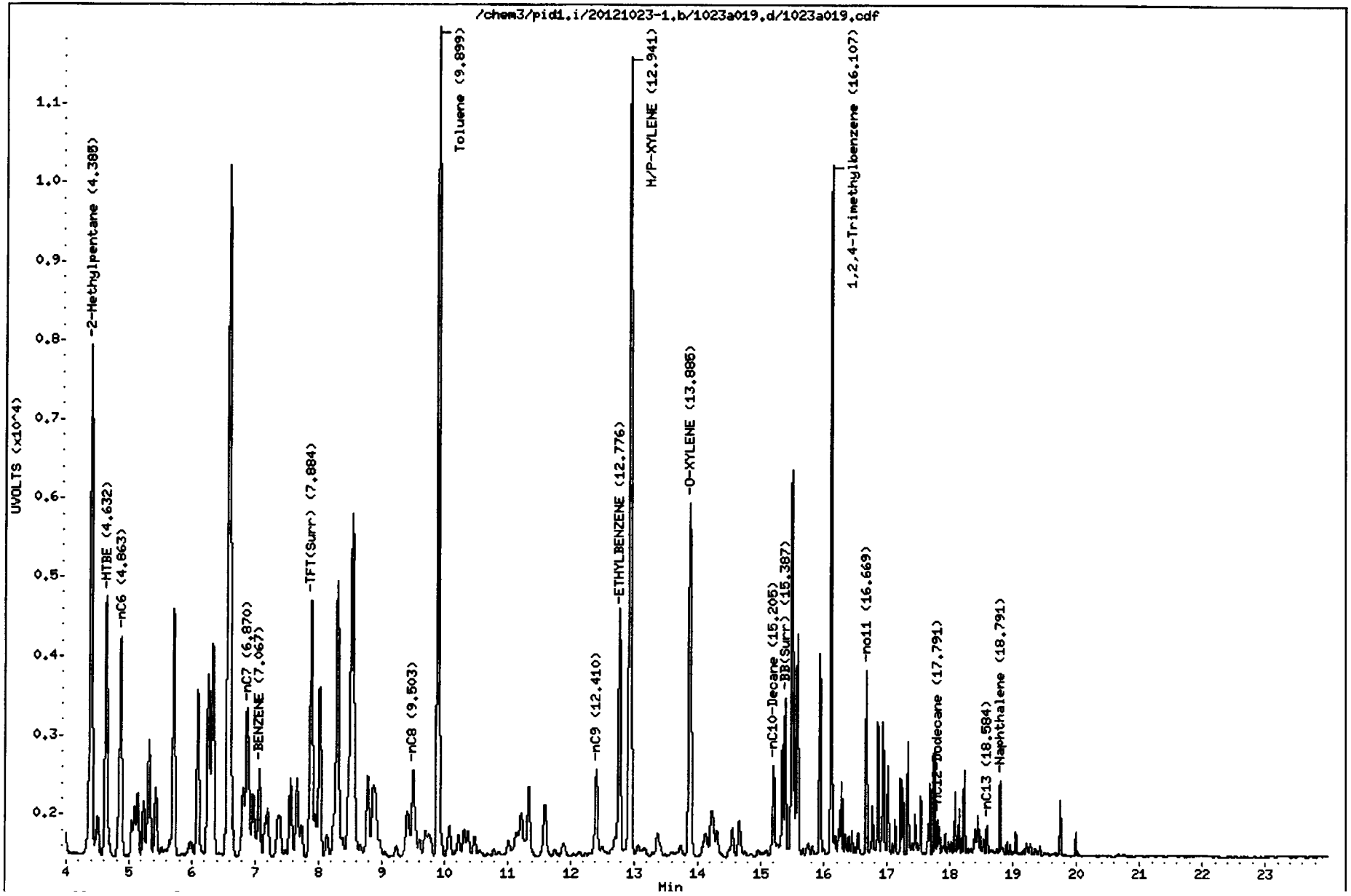
Sample Info: GICV

Instrument: pid1.i

Operator: PC/JW

Column phase: RTX 502-2 FID

Column diameter: 0.18



Report Date : 25-Oct-2012 17:27

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-1.b/FID.m
Batch File: /chem3/pid1.i/20121023-1.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1023a013	1023a014	1023a015	1023a016	1023a017	1023a018
INJ.DATE:	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	24-OCT-2012	24-OCT-2012
INJ.TIME:	22:13	22:42	23:11	23:40	00:10	00:39

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 NWTPHG	+++++	+++++	+++++	+++++	+++++	+++++	0.492	0.422-0.562	+++++	+++++
	2 WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	0.937	0.867-1.007	+++++	+++++
	3 AK101	+++++	+++++	+++++	+++++	+++++	+++++	1.251	1.181-1.321	+++++	+++++
	4 8015GAS	+++++	+++++	+++++	+++++	+++++	+++++	1.539	1.469-1.609	+++++	+++++
	5 2-Methylpentane	4.383	4.385	4.386	4.386	4.386	4.387	4.387	4.317-4.457	4.385	0.001
	6 MTBE	4.633	4.631	4.632	4.632	4.633	4.633	4.647	4.577-4.717	4.632	0.001
	7 nC6	4.862	4.864	4.863	4.863	4.864	4.863	4.864	4.794-4.934	4.863	0.001
	8 nC7	6.871	6.871	6.870	6.870	6.869	6.869	6.864	6.794-6.934	6.870	0.001
	9 BENZENE	7.069	7.067	7.068	7.067	7.068	7.068	7.063	6.993-7.133	7.068	0.001
$	10 TFT(Surr)	7.885	7.886	7.886	7.885	7.883	7.880	7.887	7.817-7.957	7.884	0.002
	11 nC8	9.502	9.505	9.504	9.503	9.504	9.504	9.507	9.437-9.577	9.504	0.001
	12 Toluene	9.899	9.898	9.898	9.899	9.900	9.904	9.897	9.827-9.967	9.900	0.002
	13 nC9	12.413	12.410	12.410	12.409	12.410	12.413	12.416	12.346-12.486	12.411	0.002
	14 ETHYLBENZENE	12.777	12.777	12.777	12.776	12.777	12.780	12.780	12.710-12.850	12.777	0.001
	15 M/P-XYLENE	12.940	12.940	12.940	12.941	12.944	12.950	12.933	12.863-13.003	12.942	0.004
	16 O-XYLENE	13.884	13.885	13.885	13.885	13.885	13.889	13.883	13.813-13.953	13.885	0.002
	17 nC10-Decane	15.205	15.207	15.206	15.205	15.205	15.207	15.207	15.137-15.277	15.206	0.001

Reviewer 1 _____ Date: 10/25/12
Reviewer 2 _____ Date: 10/26/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-1.b/FID.m
Batch File: /chem3/pid1.i/20121023-1.b
Inst ID: pid1.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$ 18 BB(Surr)	15.387	15.388	15.387	15.387	15.387	15.388	15.387	15.317-15.457	15.387	0.000
$ 19 BFB(Surr)	+++++	+++++	+++++	+++++	+++++	+++++	16.027	15.957-16.097	+++++	+++++
20 1,2,4-Trimethylbenzene	16.107	16.107	16.107	16.107	16.108	16.110	16.109	16.039-16.179	16.108	0.001
21 nc11	16.703	16.670	16.669	16.669	16.668	16.669	16.704	16.634-16.774	16.675	0.014
22 nC12-Dodecane	17.793	17.794	17.792	17.791	17.789	17.787	17.795	17.725-17.865	17.791	0.003
23 nC13	18.593	18.588	18.584	18.583	18.582	18.582	18.595	18.525-18.665	18.585	0.004
24 Naphthalene	18.790	18.793	18.793	18.792	18.791	18.791	18.796	18.726-18.866	18.792	0.001

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid1.i/20121023-2.b/PIDB.m
Batch File: /chem3/pid1.i/20121023-2.b
Inst ID: pid1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	1023a013	1023a014	1023a015	1023a016	1023a017	1023a018
INJ.DATE:	23-OCT-2012	23-OCT-2012	23-OCT-2012	23-OCT-2012	24-OCT-2012	24-OCT-2012
INJ.TIME:	22:13	22:42	23:11	23:40	00:10	00:39

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 MTBE	+++++	+++++	4.635	4.635	4.636	4.636	4.653	4.603-4.703	4.635	0.001
2 Benzene	+++++	7.075	7.075	7.075	7.075	7.076	7.077	7.027-7.127	7.075	0.000
$ 3 TFT(Surr)	7.893	7.894	7.894	7.893	7.892	7.891	7.893	7.843-7.943	7.893	0.001
4 Toluene	9.907	9.906	9.906	9.907	9.908	9.912	9.907	9.857-9.957	9.908	0.002
5 Ethylbenzene	12.785	12.786	12.786	12.785	12.786	12.789	12.787	12.737-12.837	12.786	0.001
6 M/P-Xylene	12.948	12.948	12.949	12.950	12.952	12.958	12.943	12.893-12.993	12.951	0.004
7 O-Xylene	13.893	13.894	13.894	13.894	13.895	13.898	13.890	13.860-13.920	13.895	0.002
$ 8 BB(Surr)	15.395	15.396	15.395	15.395	15.395	15.395	15.393	15.343-15.443	15.395	0.000

Reviewer 1 _____ Date: 10/25/12
Reviewer 2 _____ Date: 10/26/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid1.i/20121023-1.b

ARI Job No.: RINS Method: FID.m Instrument: pid1.i Date: 23-OCT-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0941	1023a001.d	RINSE		1	NO MANUAL INTEGRATION
1010	1023a002.d	RT1023+BCAL1		1	NO MANUAL INTEGRATION
1039	1023a003.d	GCAL1		1	NO MANUAL INTEGRATION
1750	1023a004.d	B 200		1	Toluene, O-XYLENE, TFT(Surr), BB(Surr),
1820	1023a005.d	B 100		1	Toluene, BENZENE, TFT(Surr), BB(Surr),
1849	1023a006.d	B 50		1	Toluene, BENZENE, TFT(Surr), BB(Surr),
1918	1023a007.d	B 25		1	Toluene, BENZENE, O-XYLENE, TFT(Surr), BB(Surr),
1947	1023a008.d	B 5		1	Toluene, MTBE, BENZENE, O-XYLENE,
2016	1023a009.d	B 1		1	Toluene, MTBE, BENZENE, ETHYLBENZENE, M/P-XYLENE, O-XYLENE,
2045	1023a010.d	B 0.5		1	Toluene, MTBE, BENZENE, ETHYLBENZENE, M/P-XYLENE, O-XYLENE, TFT(Surr), BB(Surr),
2115	1023a011.d	B 0.25		1	Toluene, MTBE, BENZENE, ETHYLBENZENE, M/P-XYLENE, O-XYLENE, TFT(Surr), BB(Surr),
2144	1023a012.d	BICV		1	NO MANUAL INTEGRATION
2213	1023a013.d	G 0.10		1	nC12-Dodecane, Naphthalene, nc11, nC13,
2242	1023a014.d	G 0.25		1	Naphthalene,
2311	1023a015.d	G 1.0		1	Naphthalene,
2340	1023a016.d	G 2.5		1	NO MANUAL INTEGRATION
0010	1023a017.d	G 5.0		1	NO MANUAL INTEGRATION
0039	1023a018.d	G 10		1	NO MANUAL INTEGRATION
0108	1023a019.d	GICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid1.i/20121023-2.b

ARI Job No.: RINS Method: PIDB.m Instrument: pid1.i Date: 23-OCT-2012

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0941	1023a001.d	RINSE		1	NO MANUAL INTEGRATION
1010	1023a002.d	RT1023+BCAL1		1	NO MANUAL INTEGRATION
1039	1023a003.d	GCAL1		1	NO MANUAL INTEGRATION
1750	1023a004.d	B 200		1	Toluene, O-Xylene, BB(Surr),
1820	1023a005.d	B 100		1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
1849	1023a006.d	B 50		1	Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
1918	1023a007.d	B 25		1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
1947	1023a008.d	B 5		1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
2016	1023a009.d	B 1		1	Benzene, Toluene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
2045	1023a010.d	B 0.5		1	Benzene, Toluene, Ethylbenzene, M/P-Xylene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
2115	1023a011.d	B 0.25		1	Benzene, Toluene, Ethylbenzene, M/P-Xylene, O-Xylene, TFT(Surr), BB(Surr),
2144	1023a012.d	BICV		1	NO MANUAL INTEGRATION
2213	1023a013.d	G 0.10		1	NO MANUAL INTEGRATION
2242	1023a014.d	G 0.25		1	NO MANUAL INTEGRATION
2311	1023a015.d	G 1.0		1	NO MANUAL INTEGRATION
2340	1023a016.d	G 2.5		1	NO MANUAL INTEGRATION
0010	1023a017.d	G 5.0		1	NO MANUAL INTEGRATION
0039	1023a018.d	G 10		1	NO MANUAL INTEGRATION
0108	1023a019.d	GICV		1	NO MANUAL INTEGRATION

TPHG Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: WT81

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Data Review Checklist

ARI WORK Order: iVT81 Client ID: SATC

METHOD: (**NW-TPH**(Gas)) **8021B**(BTEX) **NW-VPH**(VPH) **8260C**(VOA) **8260C**(SIM VOA) **524.3**(VOA) **RSK-175**(MEE)

Instrument: NT-2 NT-3 NT-5 NT-7 NT-9 (PID-1) PID-2 PID-3 FID-6

Purge Volume (mL) 5 Curve Date: 10/23/12 5/22/13 Analysis Start Date: 6/14/13

	REVIEW 1/REVIEW 2		REVIEW 1/REVIEW 2
PH ≤ 2.0 / 5035 Preserved?	NA / (Y) / N / ____	Method Blank In Control?	(Y) / N / ✓
BFB Tune Meets Criteria?	(NA) / Y / N / ____	Surrogate Recovery in Control?	(Y) / N / ✓
Internal STD within 50-200%?	(NA) / Y / N / ____	LCS / LCSD Recovery Met?	(Y) / N / ✓
CCAL Meets %D	(Y) / N / ✓	LCS / LCSD RPD ≤30%?	NA / ____
ICAL Q flag applied?	NA / Y / (N) / ____	MS / MSD Recovery Met?	(NA) / Y / N / ____
CCAL Q Flag applied	NA / Y / (N) / ____	MS / MSD RPD ≤30%?	NA / ____
Manual Integrations?	(Y) / N / ____	Samples Diluted?	Y / (N) / ____
Integration Summary?	(Y) / N / ____	Special Analysis Request?	Y / (N) / ____

Bubbles/Headspace: None (SM (≤ 2mm •) PB (2-4mm ●) LG (> 4mm) Head Space D

Detail problems, corrective actions and/or other pertinent information below:

No QC volume provided

(Review 1)Analyst: VC **Date:** 6/17/13

(Review 2)Reviewer: [signature] **Date:** 6/17

Analytical Resources Inc.: Organics Instrument Log

PID-1 Serial No.: 2750A-17141

Date: 6/14/13 Analysis: NWTPH-G/BTEX Analyst: PC

Column 1 Serial No.: 821726 Column Type: Rtx502.2

Column 2 Serial No.: — Column Type: —

GC Method: BTEX ICal Date: 10/23/12 5/22/13 Injection Volume: 5

IS	Ical/Ccal	ICV
B000656	VW7912	B000206
	B000332	
	B000206	

Document All Maintenance Tasks In StarLIMS

	Time	Filename	LabID	ClientID	Vial#	pH	DF
1	1048	0614a001.d	RINSE				1
2	1117	0614a002.d	RT0614+BCAL				1
3	1146	0614a003.d	GCAL 1				1
4	1307	0614a004.d	LCS0614				1
5	1336	0614a005.d	LCSD0614				1
6	1405	0614a006.d	MB0614				1
7	1539	0614a007.d	WT81B	AM-SF4-EFF-20130612	1	soil	1
8	1608	0614a008.d	WT81C	AM-FD-01-20130612-S	1	1	1
9	1638	0614a009.d	WT81D	AM-TB-01-20130612-W	1	02	1
10	1707	0614a010.d	WS78O	EAL #147523		soil	1
11	1736	0614a011.d	WT52A	EAL 147606			1
12	1805	0614a012.d	WT52B	EAL 147607			1
13	1834	0614a013.d	WT86A	CL-MH-SPS-20130605-			1
14	1904	0614a014.d	BCAL 2				1
15	1933	0614a015.d	GCAL 2				1
16	2002	0614a016.d	WU06A	EAL#147692		soil	1
17	2031	0614a017.d	WU06B	EAL#147693			1
18	2100	0614a018.d	WU06C	EAL#147694			1
19	2130	0614a019.d	WU06D	EAL#147695			1
20	2158	0614a020.d	WU06E	EAL#147696	1	02	1
21	2228	0614a021.d	WU06F	EAL#147697	1	1	1
22	2257	0614a022.d	BCAL 3				1
23	2326	0614a023.d	GCAL 3				1

PC 6/17/13

Every line must contain information or be lined out. Make all entries legible.
Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid1.i/20130614-1.b

ARI Job No.: LCS0 Method: FID.m Instrument: pid1.i Date: 14-JUN-2013

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1307	0614a004.d	LCS0614		1	NO MANUAL INTEGRATION
1336	0614a005.d	LCSD0614		1	nC7,
1405	0614a006.d	MB0614		1	NO MANUAL INTEGRATION
1539	0614a007.d	WT81B	AM-SF4-EFF	1	NO MANUAL INTEGRATION
1608	0614a008.d	WT81C	AM-FD-01-2	1	NO MANUAL INTEGRATION
1638	0614a009.d	WT81D	AM-TB-01-2	1	NO MANUAL INTEGRATION

VC
6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a002.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a002.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: RT0614+BCAL
Client ID:
Injection Date: 14-JUN-2013 11:17
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.847	0.000	3187	40646	107.7	TFT(Surr)
15.377	0.000	1937	17116	97.5	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	431189	1.204
8015C 2MP-TMB	(4.19 to 16.20)	723723	503699	0.696
AK101 nC6-nC10	(4.69 to 15.10)	582885	359039	0.616
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	457064	1.219

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.000	3544	109.9	TFT(Surr)
15.384	0.000	7600	105.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.024	0.000	5874	26.13	Benzene
9.878	0.000	5218	26.34	Toluene
12.767	0.000	4404	26.98	Ethylbenzene
12.928	0.000	9547	53.06	M/P-Xylene
13.874	0.000	3914	27.56	O-Xylene
4.564	0.000	1937	22.22	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a002.d

Date : 14-JUN-2013 11:17

Client ID:

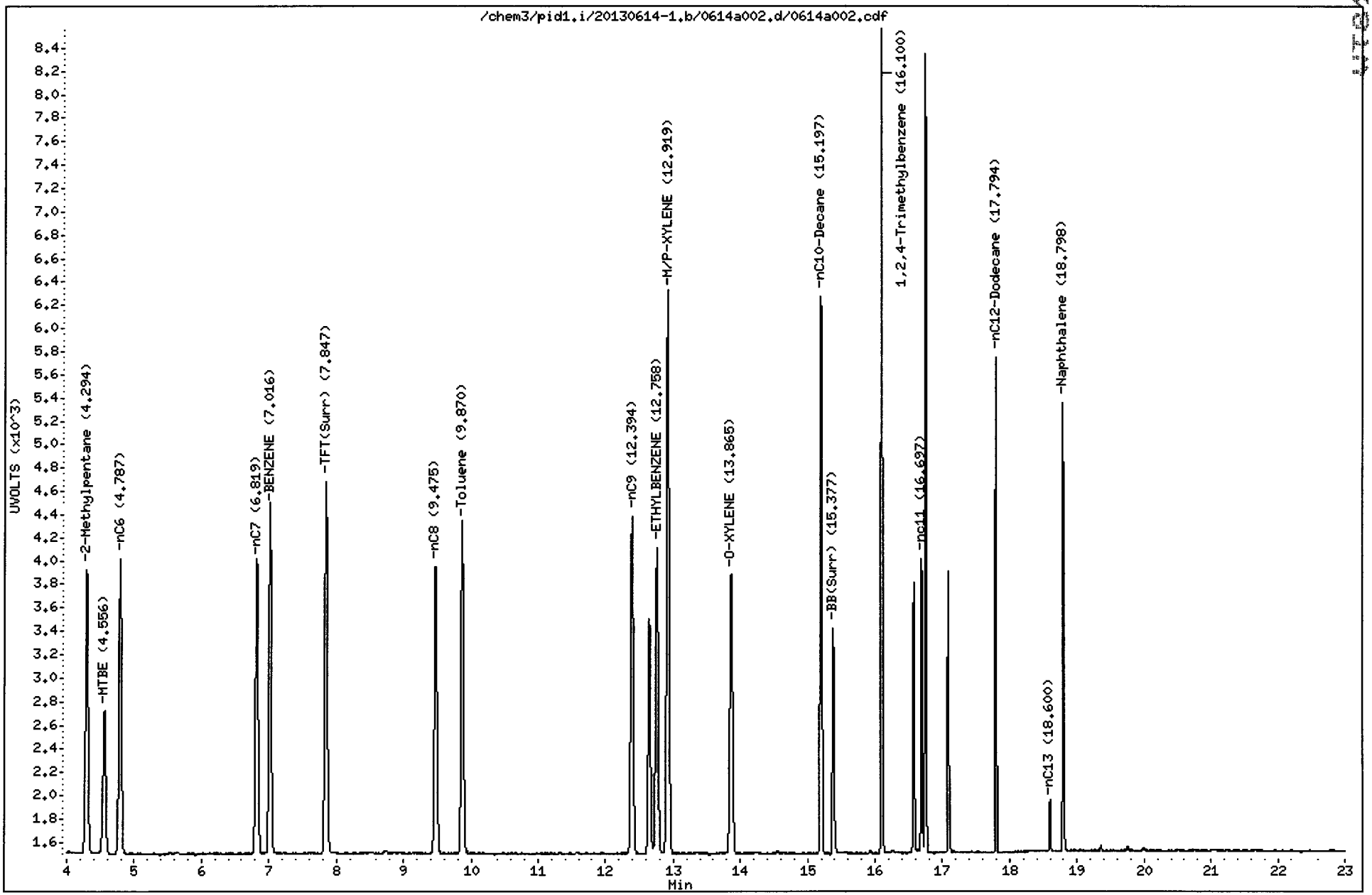
Sample Info: RT0614+BCAL

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a003.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a003.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: GCAL 1
Client ID:
Injection Date: 14-JUN-2013 11:46
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.848	0.000	3488	50481	117.9	TFT(Surr)
15.378	0.001	2075	18622	104.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	866612	2.420 M
8015C 2MP-TMB	(4.19 to 16.20)	723723	1711396	2.365 M
AK101 nC6-nC10	(4.69 to 15.10)	582885	1382220	2.371 M
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	917988	2.447 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.856	0.001	3750	116.3	TFT(Surr)
15.385	0.001	7818	108.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.025	0.001	2050	9.12	Benzene
9.880	0.002	20127	101.58	Toluene
12.768	0.001	4844	29.67	Ethylbenzene
12.933	0.005	19429	107.98	M/P-Xylene
13.876	0.002	7005	49.33	O-Xylene
4.552	-0.012	340	3.90	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a003.d

Date : 14-JUN-2013 11:46

Client ID:

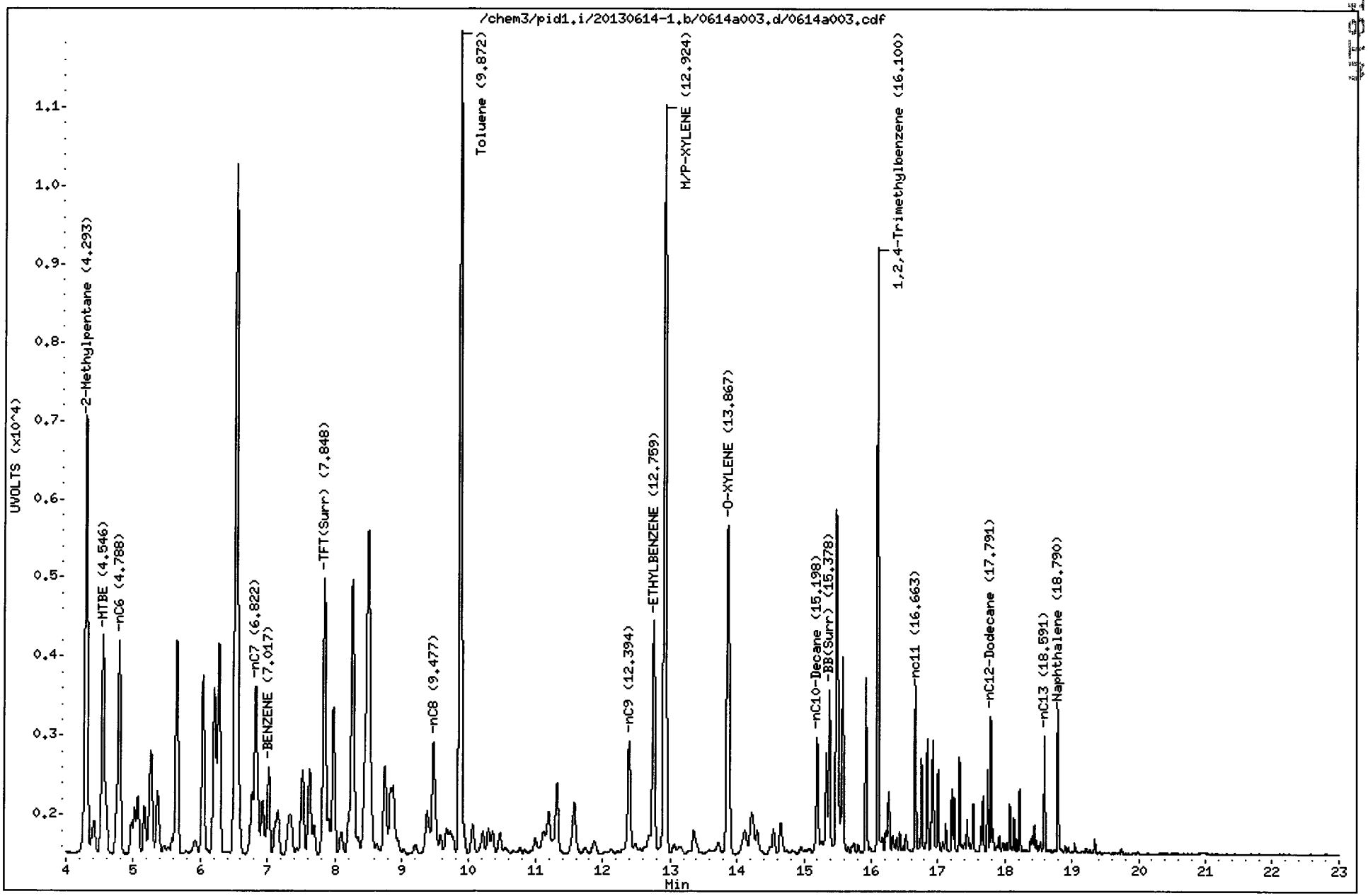
Sample Info: CCAL 1

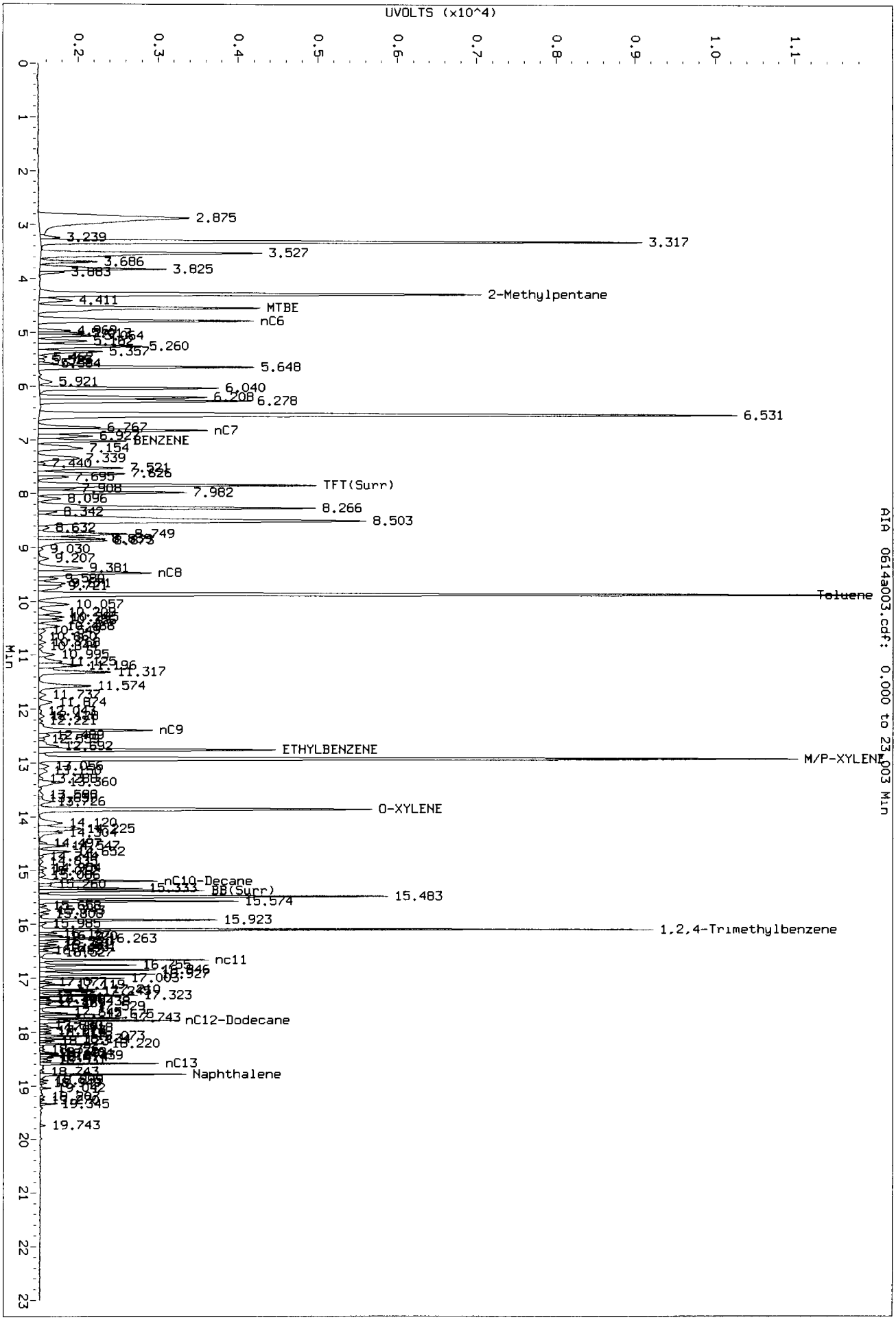
Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC

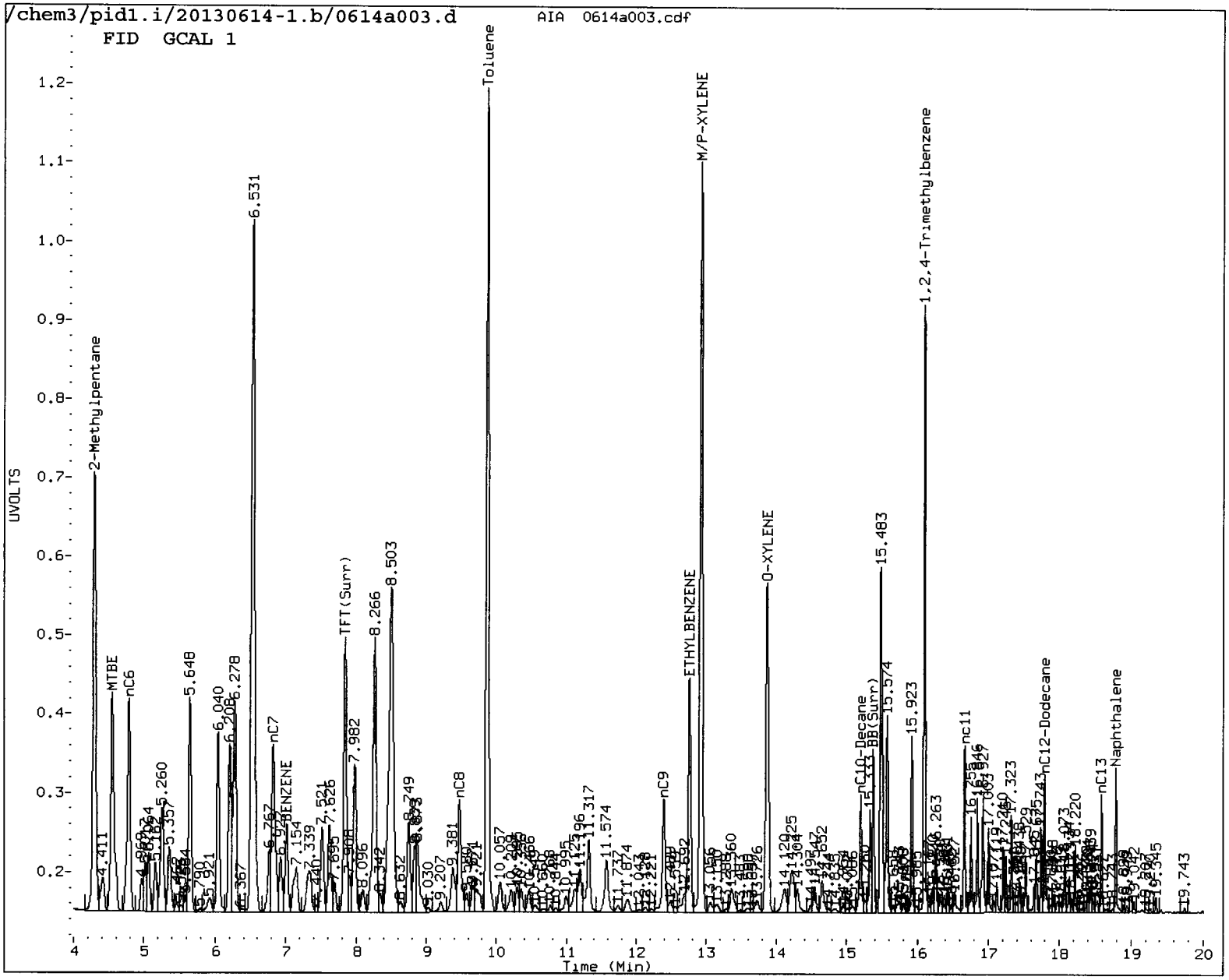
Column diameter: 0.18





Data File: /chem3/pid1.i/20130614-1.b/0614a003.d/0614a003.cdf
Injection Date: 14-JUN-2013 11:46
Instrument: pid1.i
Client Sample ID:

RC 6/17/13



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: KC Date: 6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a004.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a004.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: LCS0614
Client ID:
Injection Date: 14-JUN-2013 13:07
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.852	0.005	3266	45278	110.4	TFT(Surr)
15.380	0.003	1898	17739	95.5	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	340632	0.951 M
8015C 2MP-TMB	(4.19 to 16.20)	723723	688662	0.952 M
AK101 nC6-nC10	(4.69 to 15.10)	582885	553284	0.949 M
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	362424	0.966 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.860	0.005	3644	113.0	TFT(Surr)
15.388	0.003	7365	101.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.028	0.003	773	3.44	Benzene
9.883	0.005	7366	37.18	Toluene
12.772	0.005	1763	10.80	Ethylbenzene
12.936	0.008	7045	39.15	M/P-Xylene
13.880	0.006	2590	18.24	O-Xylene
4.552	-0.011	150	1.72	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a004.d

Date : 14-JUN-2013 13:07

Client ID:

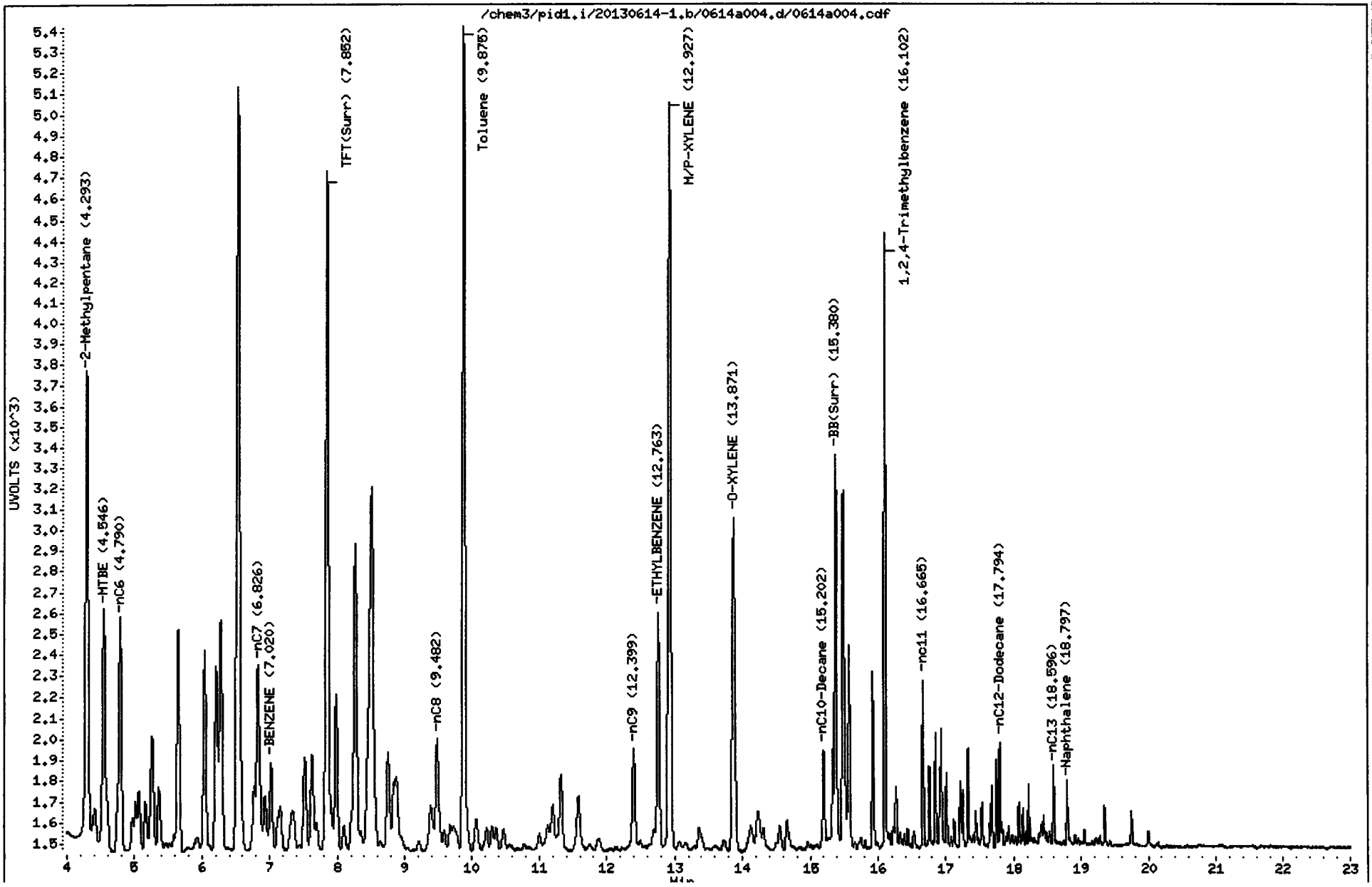
Sample Info: LCS0614

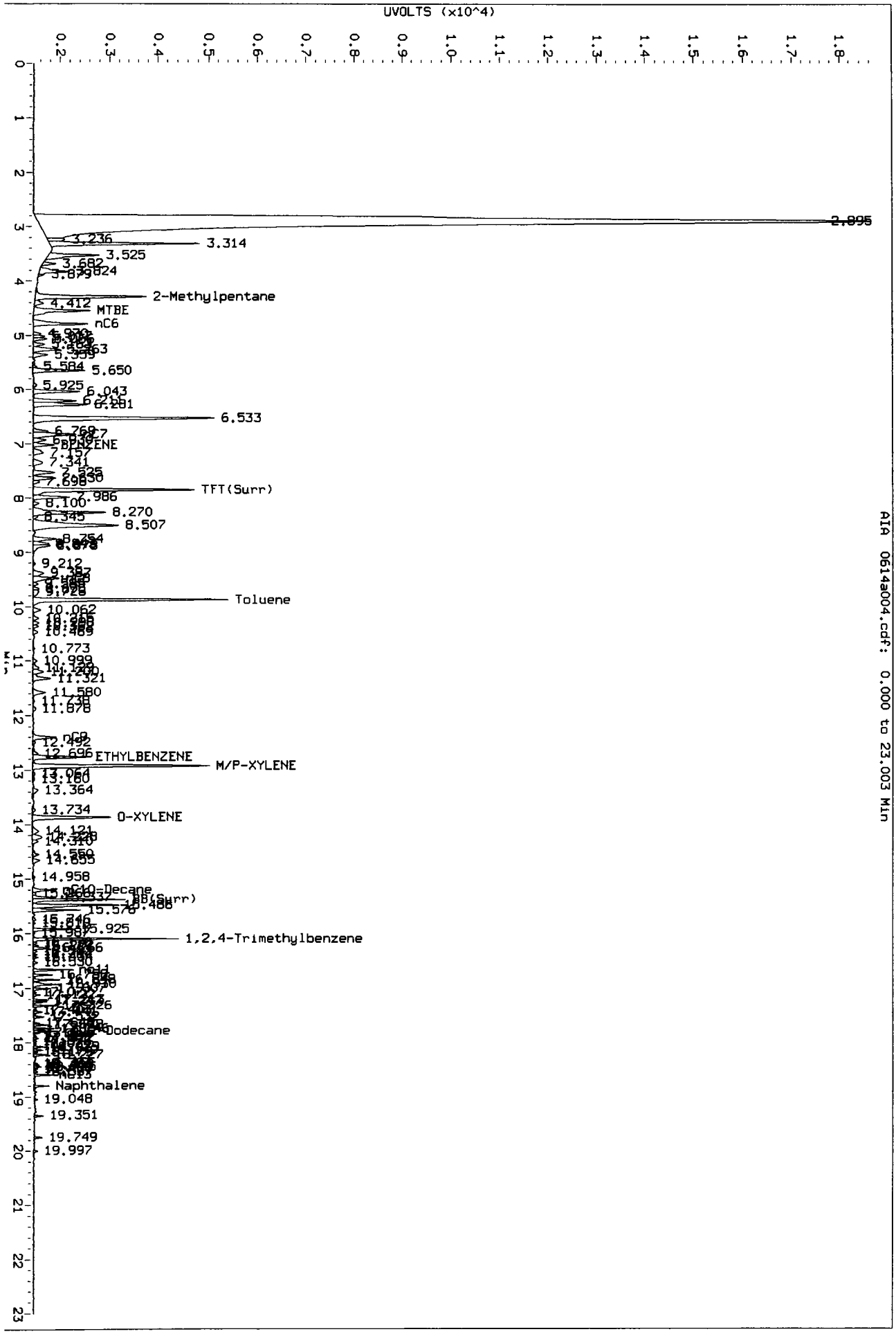
Column phase: RTX 502-2 FID

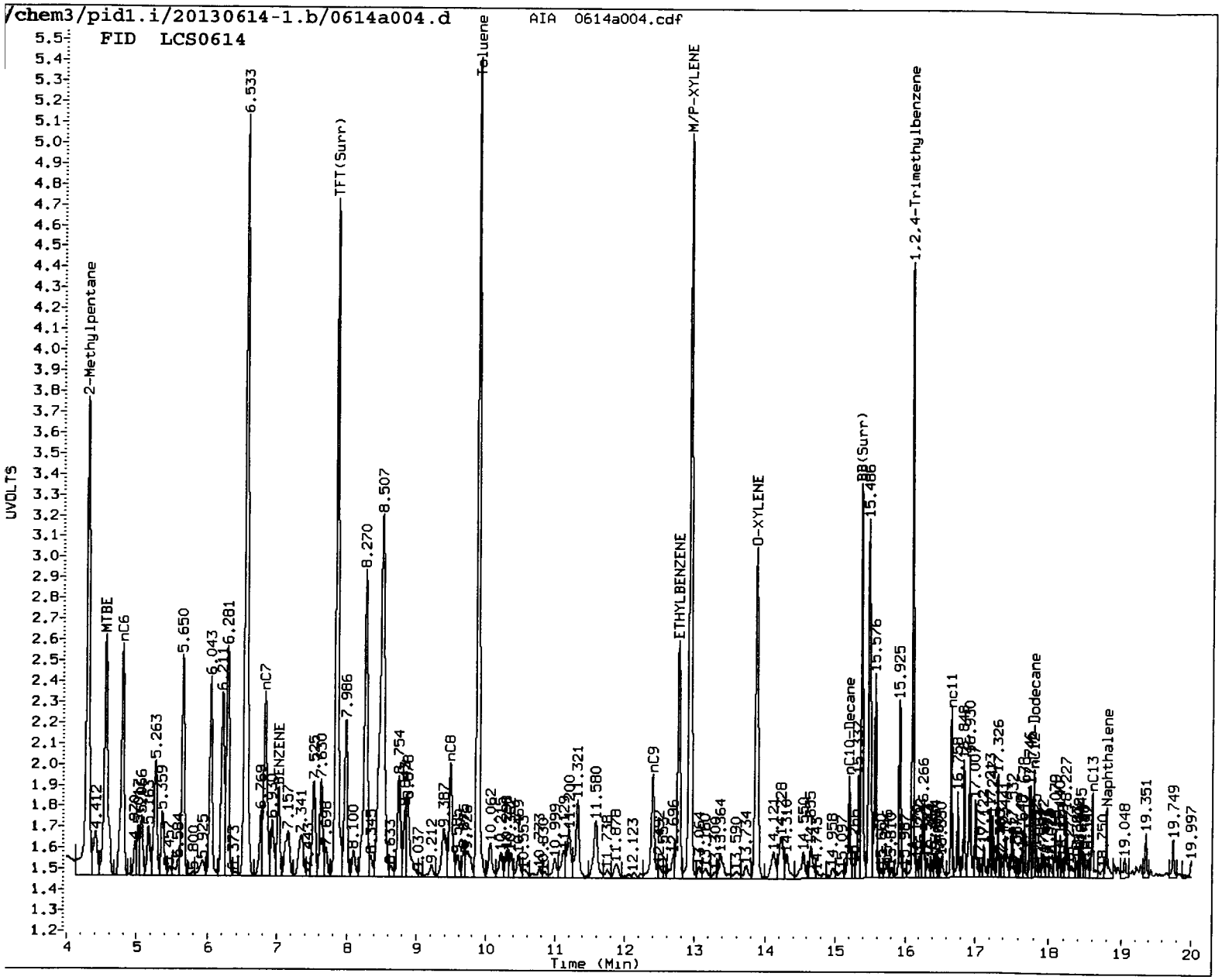
Instrument: pid1.i

Operator: PC

Column diameter: 0.18




UVOLTS (x10^4)
Data File: /chem3/pid1.i/20130614-1.b/0614a004.d/0614a004.cdf
Injection Date: 14-JUN-2013 13:07
Instrument: pid1.i
Client Sample ID:
AIA 0614a004.cdf: 0.000 to 23.003 Min
2.895
3.236
3.314
3.525
3.682
3.824
2-Methylpentane
4.412
MTBE
nC6
5.584
5.650
5.925
6.043
6.533
BENZENE
7.341
TFT(Surr)
8.100
8.270
8.345
8.507
9.212
Toluene
10.062
10.773
10.999
11.321
11.580
11.678
12.492
12.696
ETHYLBENZENE
M/P-XYLENE
13.364
13.734
O-XYLENE
14.121
14.310
14.655
14.958
nC10-Decane
15.576
15.925
1,2,4-Trimethylbenzene
Dodecane
Naphthalene
19.048
19.351
19.749
19.997



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ **Date:** 6/17/13

MC
6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a005.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a005.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: LCSD0614
Client ID:
Injection Date: 14-JUN-2013 13:36
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.849	0.002	3153	44152	106.6	TFT(Surr)
15.379	0.001	1892	17220	95.2	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	332442	0.928 M
8015C 2MP-TMB	(4.19 to 16.20)	723723	668350	0.923 M
AK101 nC6-nC10	(4.69 to 15.10)	582885	536181	0.920 M
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	350070	0.933 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.857	0.002	3449	107.0	TFT(Surr)
15.386	0.001	7181	99.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.025	0.001	751	3.34	Benzene
9.880	0.002	7292	36.80	Toluene
12.769	0.002	1742	10.67	Ethylbenzene
12.932	0.004	6934	38.54	M/P-Xylene
13.877	0.003	2543	17.91	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a005.d

Date : 14-JUN-2013 13:36

Client ID:

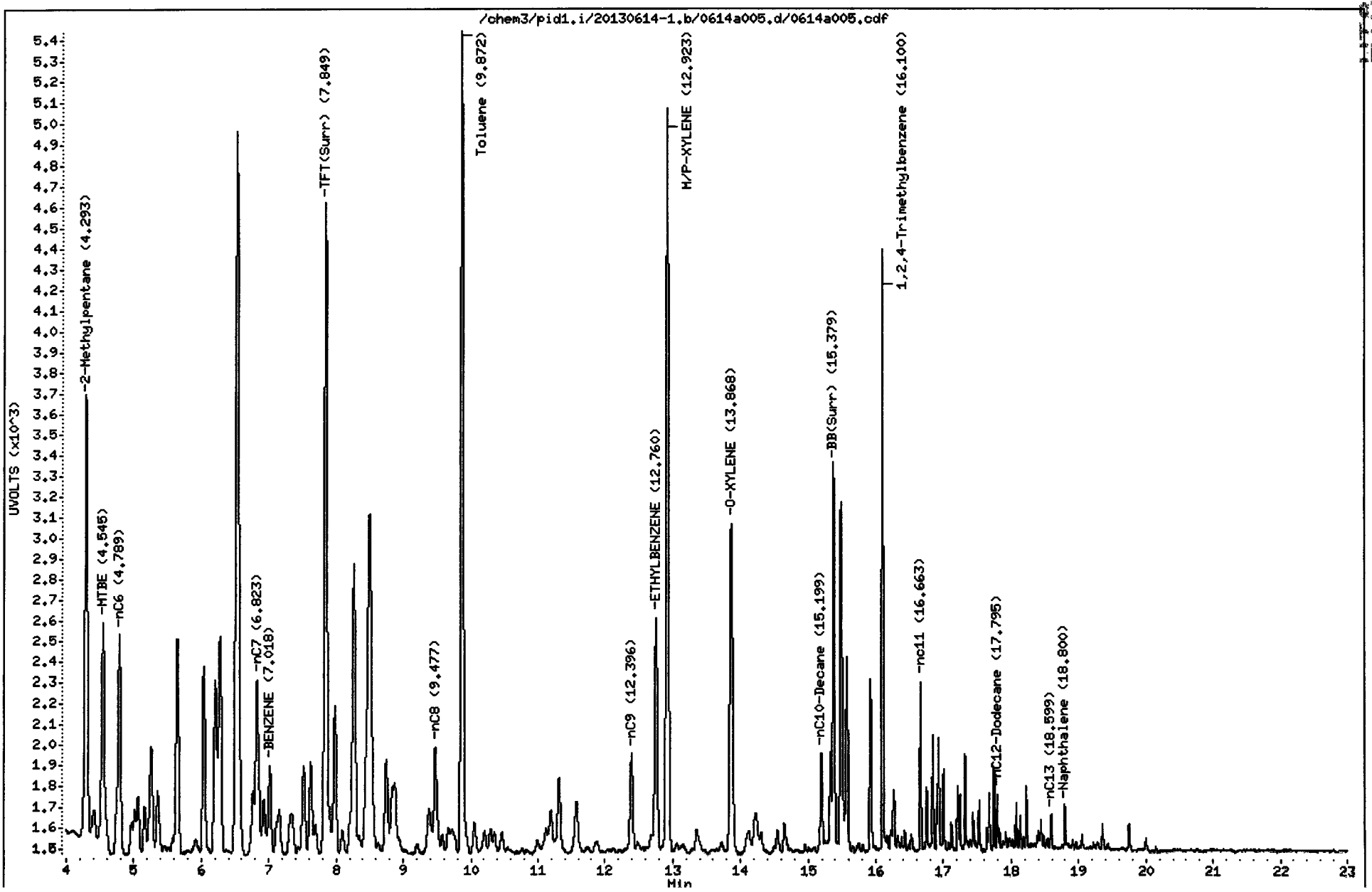
Sample Info: LCSD0614

Column phase: RTX 502-2 FID

Instrument: pid1.i

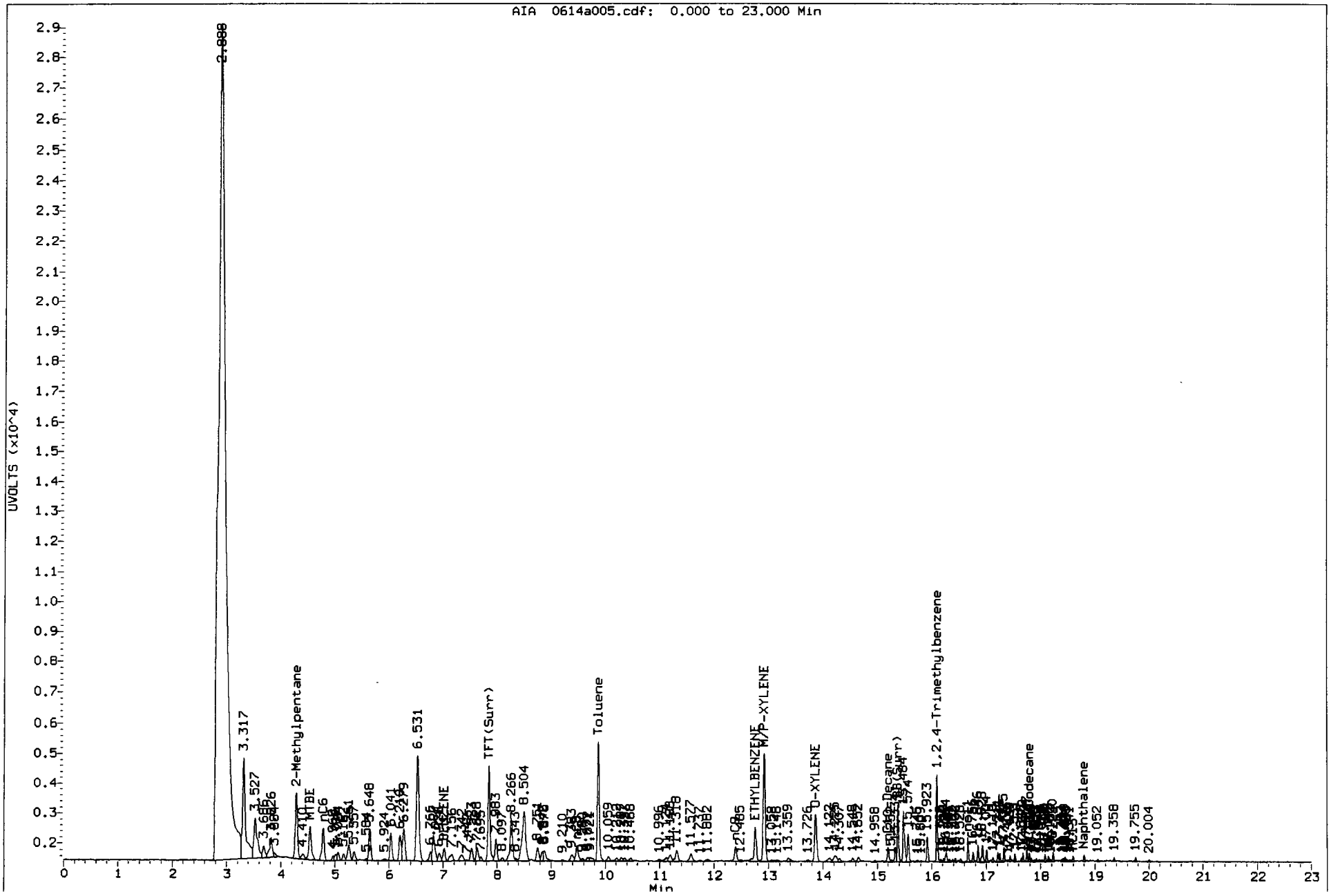
Operator: PC

Column diameter: 0.18

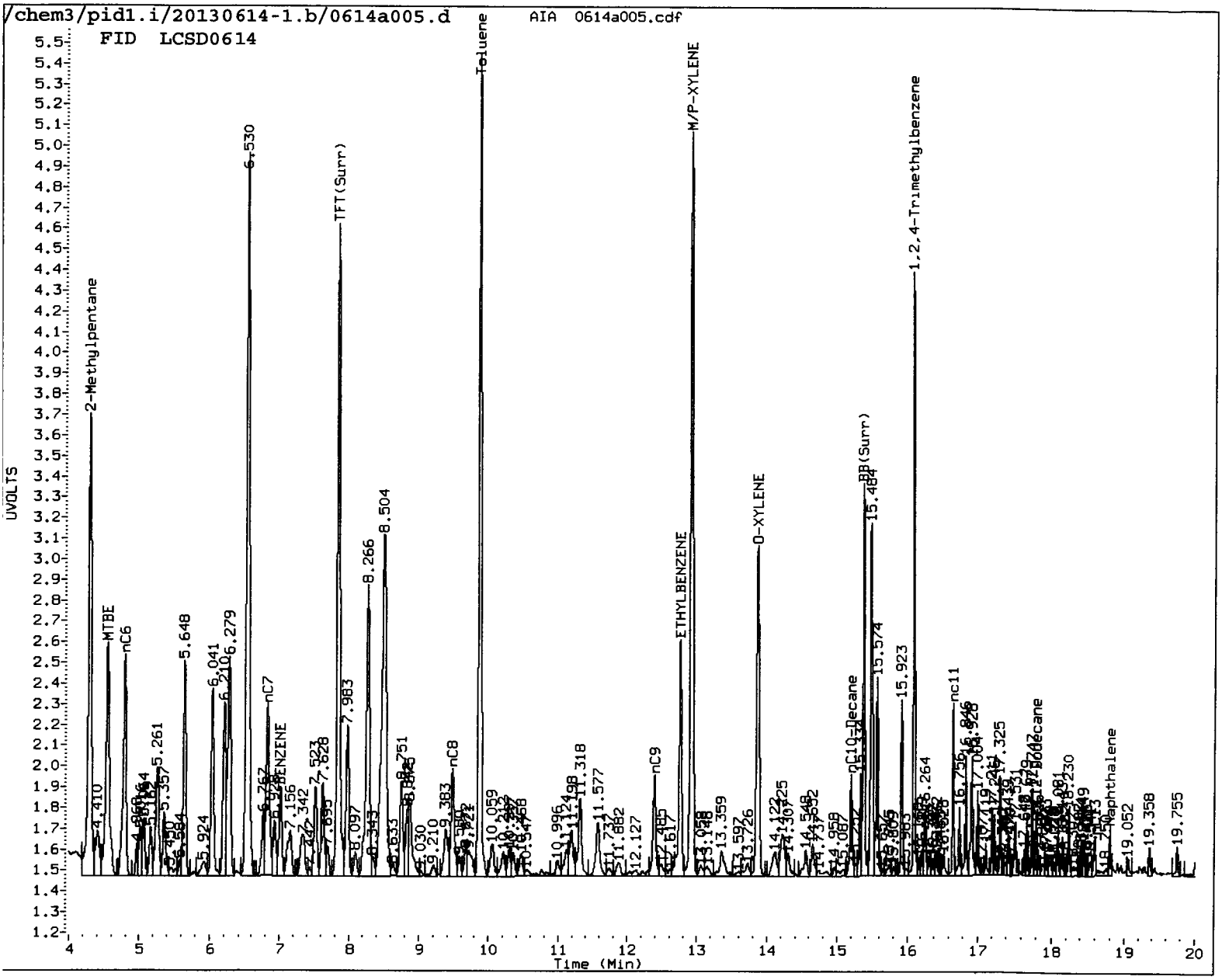


6/17/13

Data File: /chem3/pid1.i/20130614-1.b/0614a005.d/0614a005.cdf
Injection Date: 14-JUN-2013 13:36
Instrument: pid1.i
Client Sample ID:



LIT04 : 062657



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VC Date: 6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a006.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a006.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: MB0614
Client ID:
Injection Date: 14-JUN-2013 14:05
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.851	0.004	3039	38589	102.7	TFT(Surr)
15.379	0.001	1913	15919	96.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	3582	0.010
8015C 2MP-TMB	(4.19 to 16.20)	723723	8516	0.012
AK101 nC6-nC10	(4.69 to 15.10)	582885	6946	0.012
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	4020	0.011

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.859	0.004	3347	103.8	TFT(Surr)
15.386	0.002	7107	98.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a006.d

Date : 14-JUN-2013 14:05

Client ID:

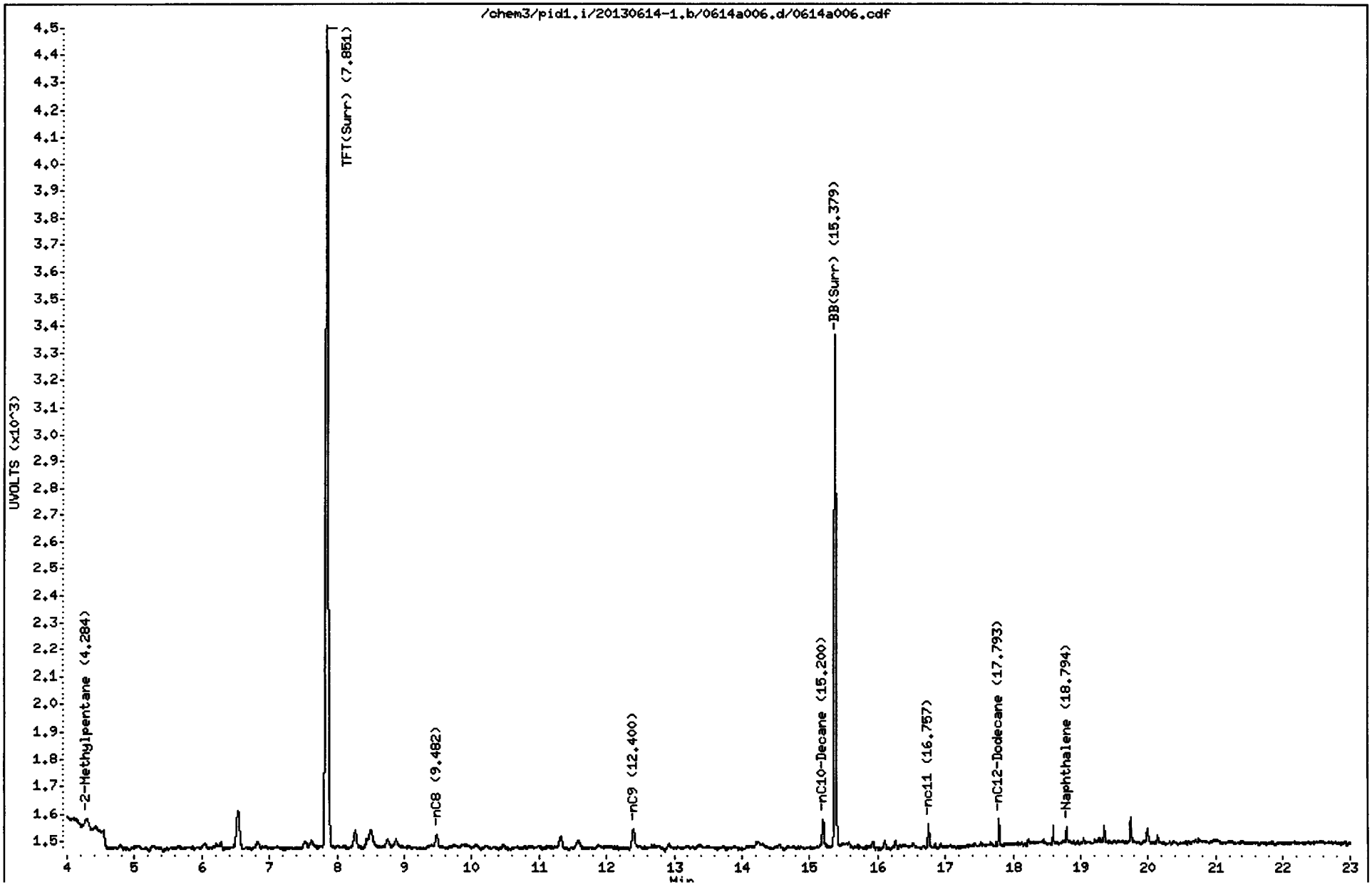
Sample Info: MB0614

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC

Column diameter: 0.18



RC 6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a007.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a007.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: WT81B
Client ID: AM-SF4-EFF-20130612
Injection Date: 14-JUN-2013 15:39
Matrix: SOIL
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.853	0.005	2922	37076	98.7	TFT(Surr)
15.381	0.004	1736	15406	87.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	2446	0.007
8015C 2MP-TMB	(4.19 to 16.20)	723723	2204	0.003
AK101 nC6-nC10	(4.69 to 15.10)	582885	873	0.001
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	3151	0.008

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.861	0.006	3280	101.8	TFT(Surr)
15.389	0.004	6775	93.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a007.d

Date : 14-JUN-2013 15:39

Client ID: AM-SF4-EFF-20130612

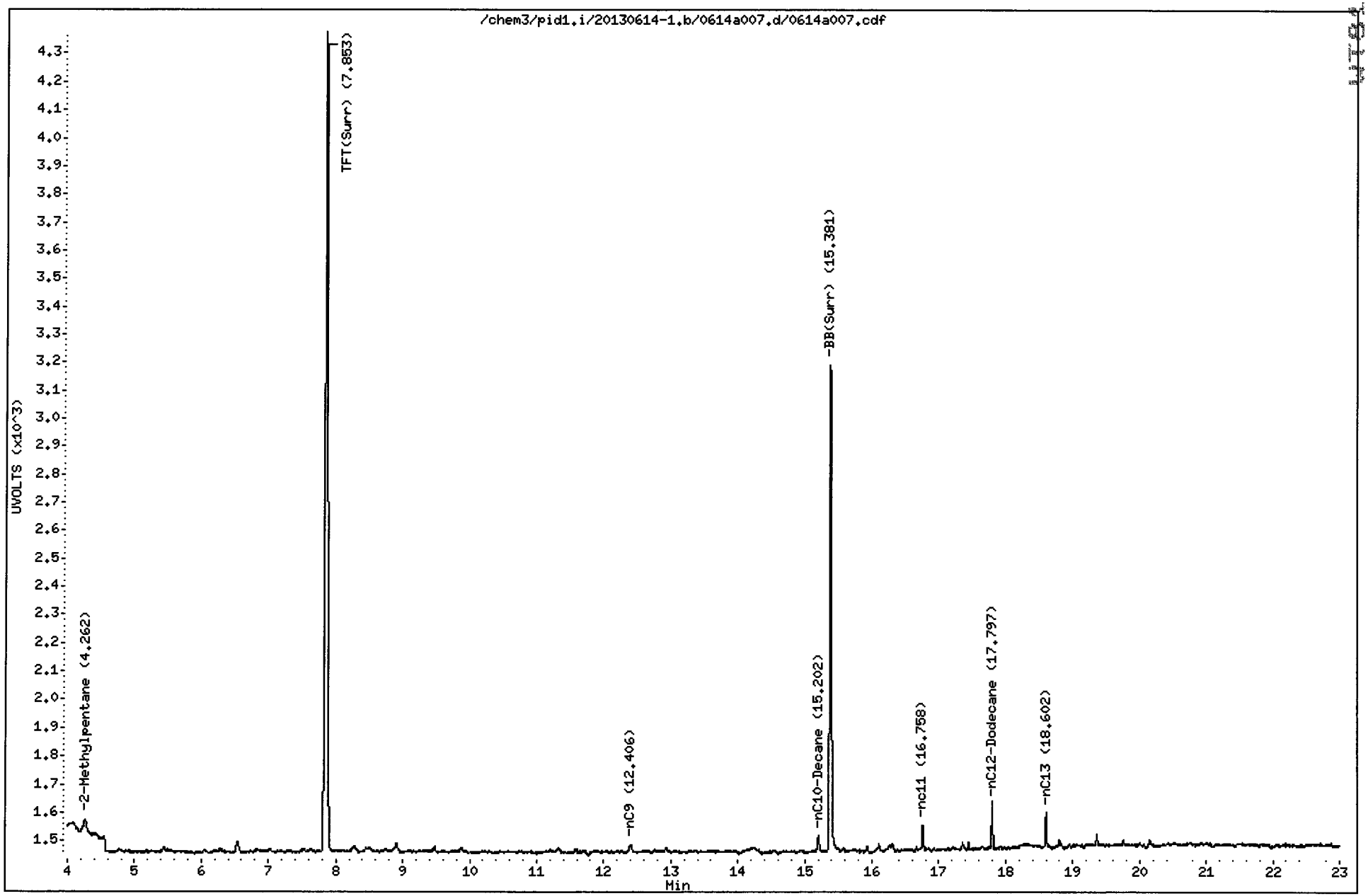
Sample Info: WT81B

Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC

Column diameter: 0.18



RC
6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a008.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a008.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: WT81C
Client ID: AM-FD-01-20130612-S
Injection Date: 14-JUN-2013 16:08
Matrix: SOIL
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.851	0.003	2971	37476	100.4	TFT(Surr)
15.380	0.003	1824	15239	91.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	2128	0.006
8015C 2MP-TMB	(4.19 to 16.20)	723723	1181	0.002
AK101 nC6-nC10	(4.69 to 15.10)	582885	1	0.000
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	2128	0.006

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.859	0.003	3264	101.3	TFT(Surr)
15.387	0.002	6916	95.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a008.d

Date : 14-JUN-2013 16:08

Client ID: AM-FD-01-20130612-S

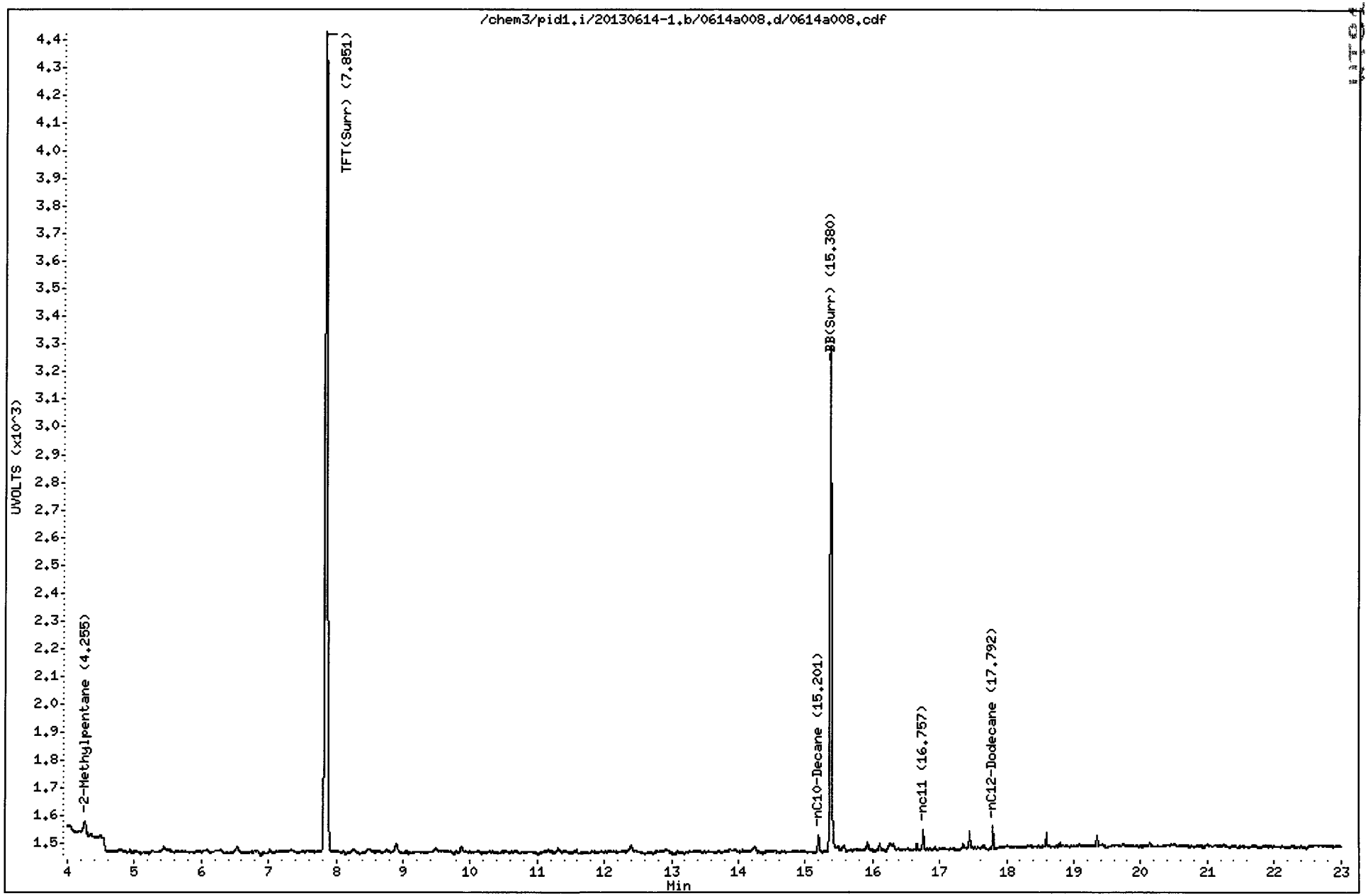
Instrument: pid1.i

Sample Info: WT81C

Operator: PC

Column phase: RTX 502-2 FID

Column diameter: 0.18



PE 6/17/13

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a009.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a009.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: WT81D
Client ID: AM-TB-01-20130612-W
Injection Date: 14-JUN-2013 16:38
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.850	0.003	3105	39543	104.9	TFT(Surr)
15.379	0.001	1970	16333	99.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	0	0.000
8015C 2MP-TMB	(4.19 to 16.20)	723723	1	0.000
AK101 nC6-nC10	(4.69 to 15.10)	582885	0	0.000
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	0	0.000

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.859	0.003	3397	105.4	TFT(Surr)
15.386	0.002	7261	100.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a009.d

Date : 14-JUN-2013 16:38

Client ID: AM-TB-01-20130612-W

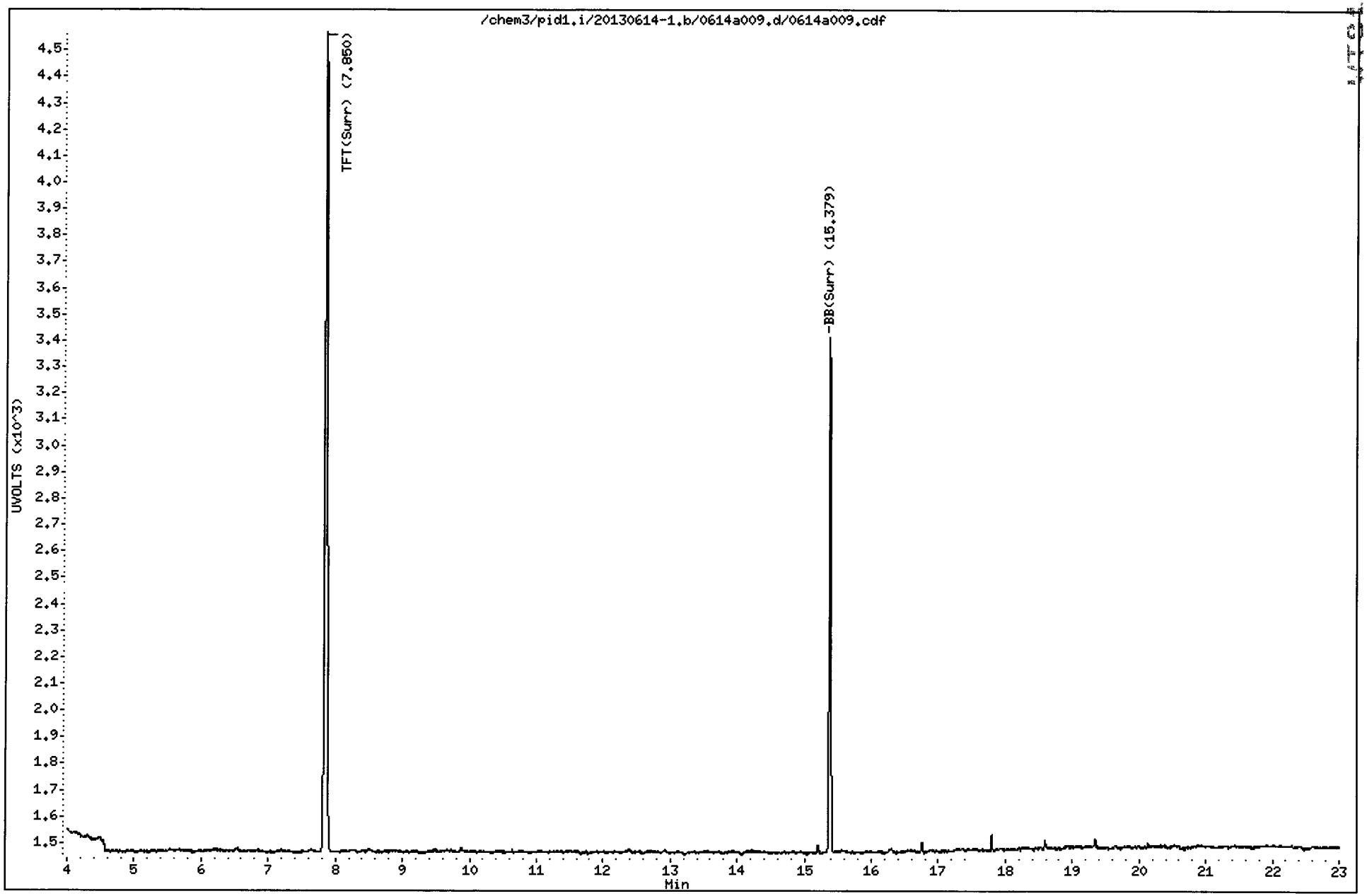
Instrument: pid1.i

Sample Info: WT81D

Operator: PC

Column phase: RTX 502-2 FID

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/20130614-1.b/0614a015.d
Data file 2: /chem3/pid1.i/20130614-2.b/0614a015.d
Method: /chem3/pid1.i/20130614-2.b/PIDB.m
Instrument: pid1.i
Gas Ical Date: 23-OCT-2012
BETX Ical Date: 22-MAY-2013

ARI ID: GCAL 2
Client ID:
Injection Date: 14-JUN-2013 19:33
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.851	0.004	3399	48900	114.9	TFT(Surr)
15.380	0.003	2086	19322	105.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.77 to 17.89)	358114	847400	2.366 M
8015C 2MP-TMB	(4.19 to 16.20)	723723	1652389	2.283 M
AK101 nC6-nC10	(4.69 to 15.10)	582885	1332386	2.286 M
NWTPHG Tol-Nap	(9.77 to 18.90)	375093	885238	2.360 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.860	0.005	3578	111.0	TFT(Surr)
15.388	0.004	7607	105.2	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.029	0.005	2035	9.05	Benzene
9.885	0.007	19892	100.40	Toluene
12.773	0.006	4850	29.71	Ethylbenzene
12.937	0.009	19116	106.24	M/P-Xylene
13.881	0.007	6928	48.79	O-Xylene
4.553	-0.010	303	3.48	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/20130614-1.b/0614a015.d

Date : 14-JUN-2013 19:33

Client ID:

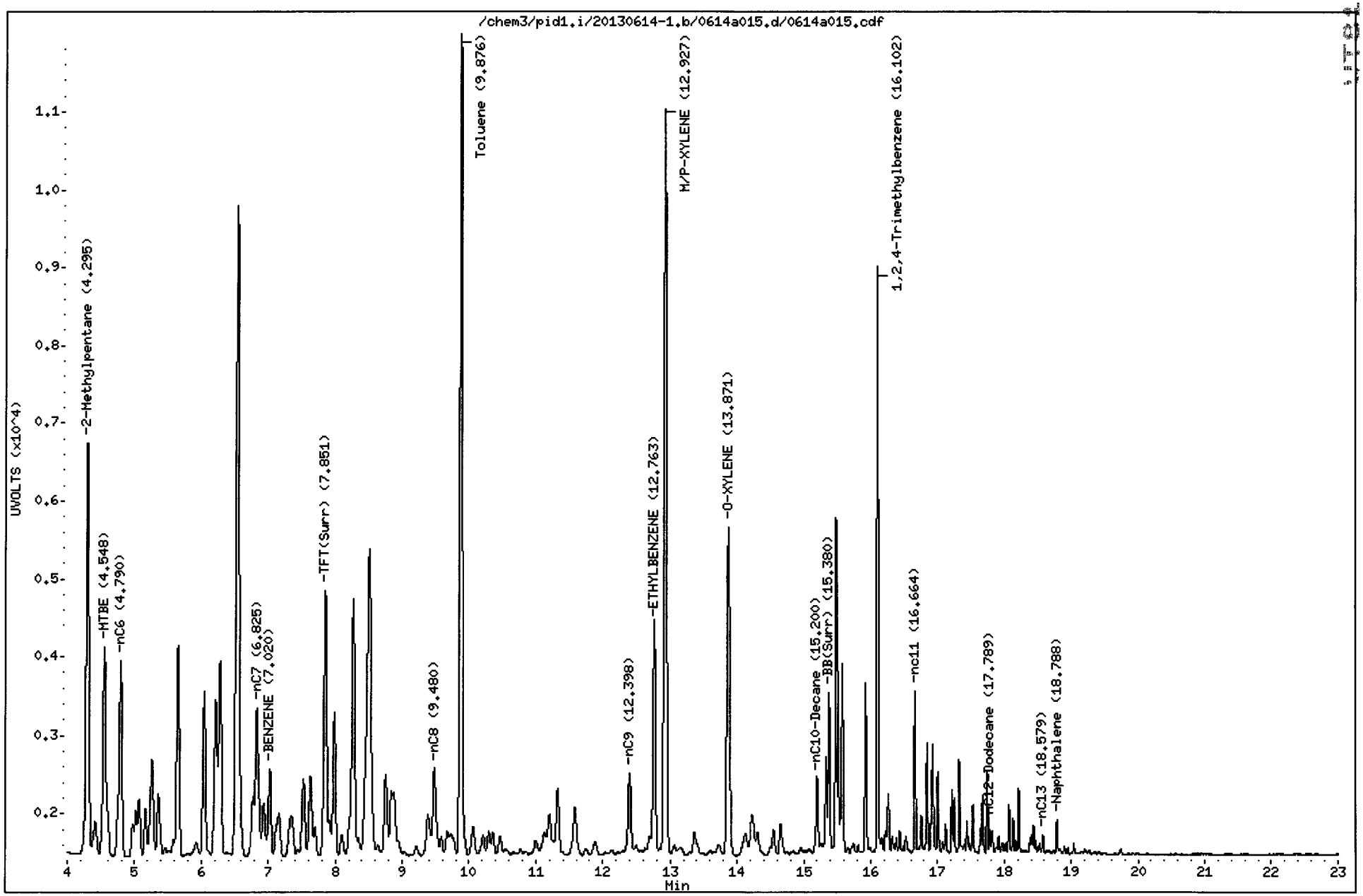
Sample Info: GCAL 2

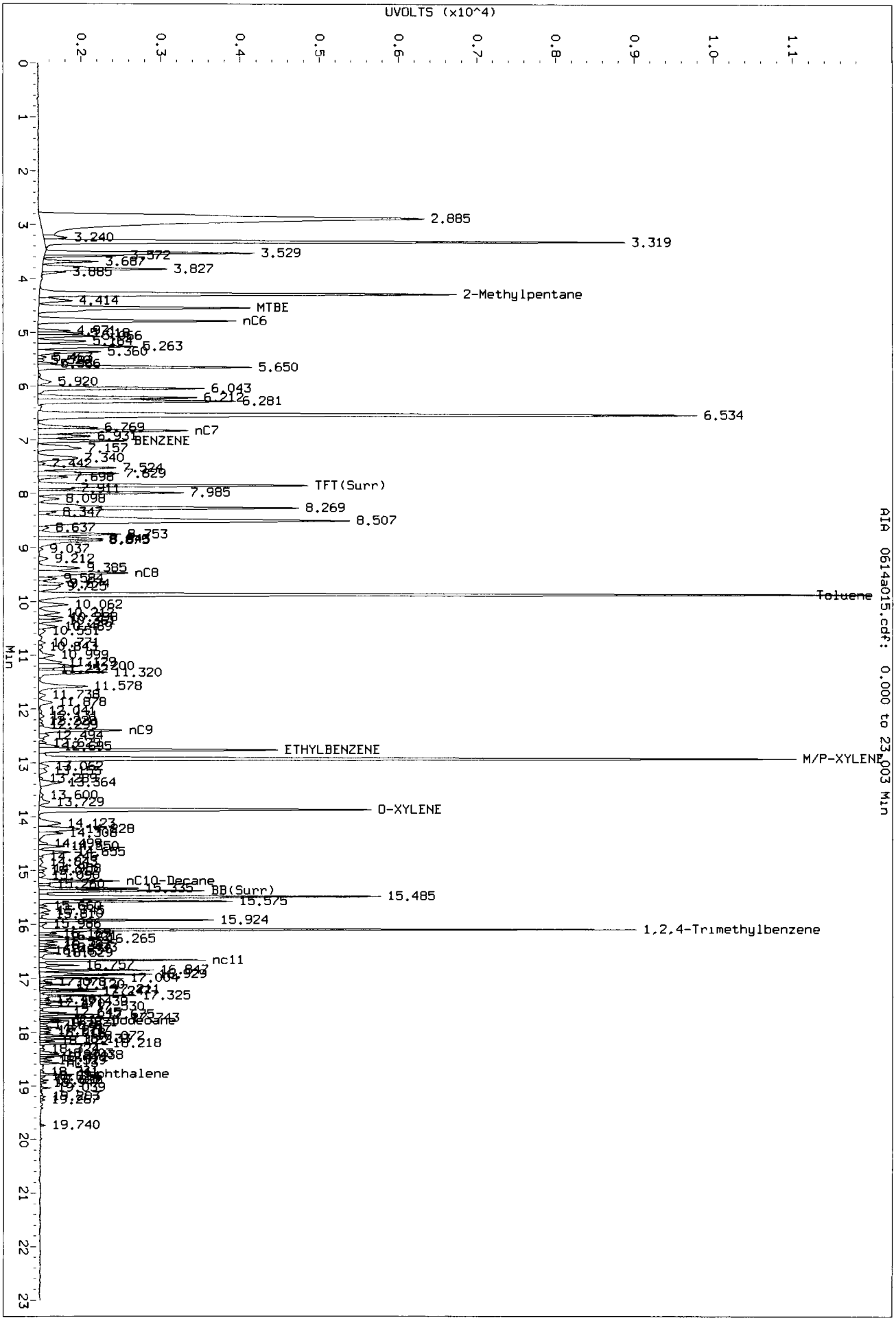
Column phase: RTX 502-2 FID

Instrument: pid1.i

Operator: PC

Column diameter: 0.18

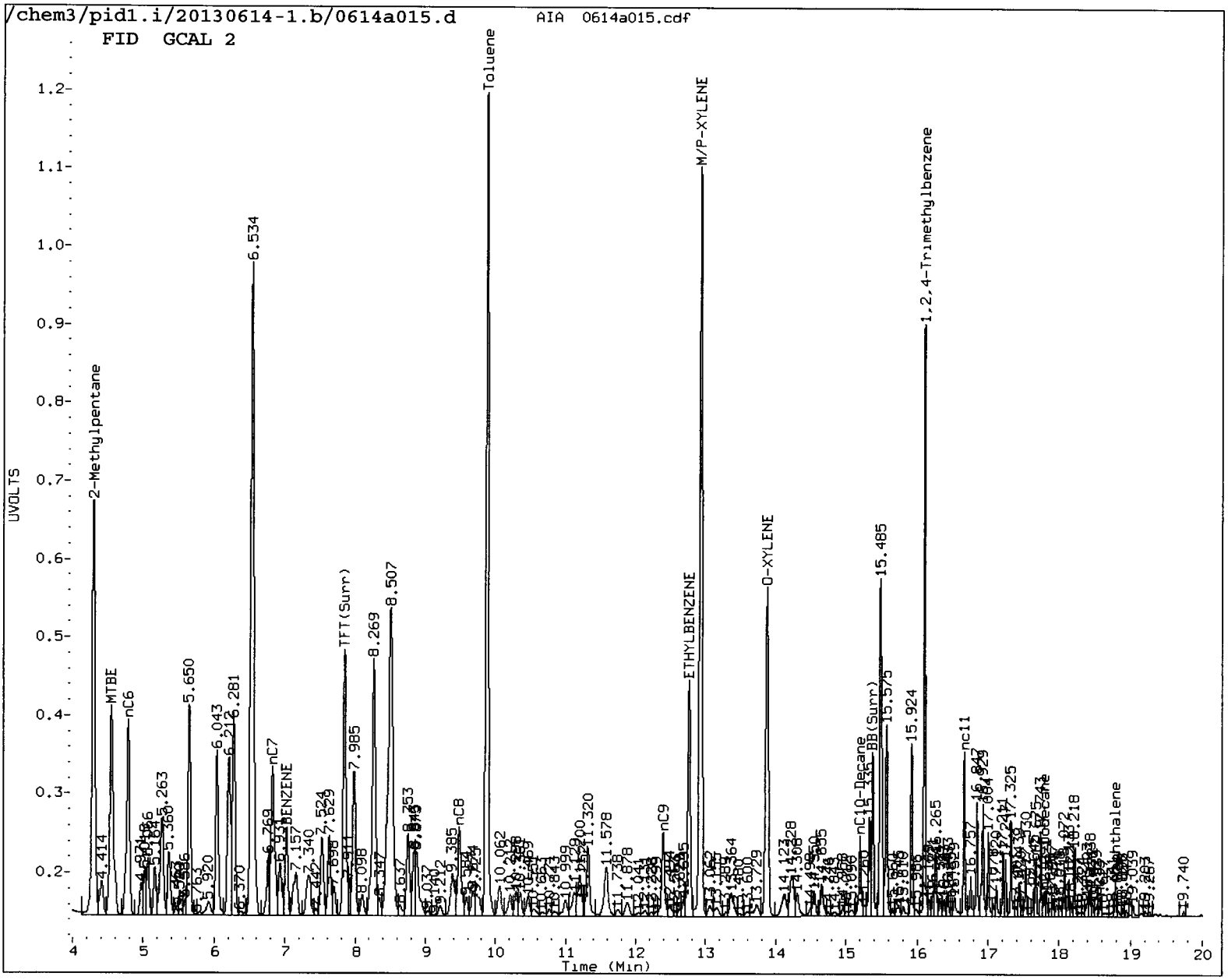




Data File: /chem3/pid1.i/20130614-1.b/0614a015.d/0614a015.cdf
Injection Date: 14-JUN-2013 19:33
Instrument: pid1.i
Client Sample ID:

AIA 0614a015.cdf: 0.000 to 23.003 Min

6/17/13



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: PC Date: 6/17/13

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WT81

Analytical Resources,Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 6-17-13

Final Volume 50.0

Final Volume (Hg): 50.0

Sample ID W781 ASPK, MBSPK

	Prepcode:	SWC		
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	BS07		
	Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50 ↓	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50 ↓	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	BS10	BS11	
	1.0	1.0	
Ag	25 ↓		
Al			500
As	25 ↓		
Ba	25		
Be	25		
Ca			500
Cd	25 ↓		
Co	25		
Cr	25 ↓		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ↓		
Pb	25 ↓		
Sb		25 ↓	
Se	80 ↓		
Tl	25 ↓		
U	25		
V	25		
Zn	80 ↓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	3007-13
Hg MBSPK	↓	CVA	1.0	0.10	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
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Digestion Log

Analyst: CB Date: 06-17-13 Time: 0915

Matrix: Soil Block ID: #5 Block Temp: 90°C Thermometer: MP60

ARI Sample ID	Btl #	pH<2	Prep Code: SWN Initial Wt (g) Vol (mL)	Prep Code: SWN Final Vol (mL)	Prep Code: SW5 Initial Wt (g) Vol (mL)	Prep Code: SW5 Final Vol (mL)	Comments
WT82 A	1	-	1.019	50.0			
" ADup	1	-	1.018				
" ASpk	1	-	1.016				
" MB1	-	-	-				
" MB1Spk	-	-	-				
WT83 B	1	-	1.041			CB 6-17-13	
" D	1	-	1.068				
" E	1	-	1.076				
" F	1	-	1.064				
" G	1	-	1.076				
" MB	-	-	-				
" MBSpk	-	-	-				
WT81 A	2	-	1.065		1.072	50.0	
" ADup	2	-	1.062		1.069		
" ASpk	2	-	1.061		1.069		
" B	7	-	1.072		1.004		
" C	7	-	1.016		1.002		
" MB1	-	-	-		-		
" MB1Spk	-	-	-	50.0	-		
WU18 C	1	-	-		1.040		
" MB	-	-	CB 6-17-13		-		
" MBSpk	-	-			-	50.0	
				CB 6-17-13			

Chemical/Reagent ID: HNO3: mp2508 I8169 H2O2: I8315 HCL: 8213 Tube lot #: MH21KK06

5061F

Analytical Resources, Incorporated
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Mercury Digestion Log

Prep Code: 5mm
Analyst: CB
Bath Temp: 95°C
Start Time: 0940
Matrix: Soil
Date: 6-17-13
End Time: 1010

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WT82 A	1	-	0.224	50.0	6/24 1	Y	
" ADup	1	-	0.219		1		
" ASpk	1	-	0.222		1		
" MBl	-	-	-		1		
" MBlSpk	-	-	-		1		
WT81 A	2	-	0.255		6/26 1		
" ADup	2	-	0.251		1		
" ASpk	2	-	0.254		1		
" B	7	-	0.209		1		
" C	7	-	0.221		1		
" MBl	-	-	-		1		
" MBlSpk	-	-	-		1	Y	
WW18 C	1	-	0.216		6/24 1	N	
" MB	-	-	-		1	N	
" MBSpk	-	-	-	50.0	1	N	
				FB 6-17-13			

Chemical/Reagent ID:

HNO_3: I8169
H_2SO_4: 258044
HCl: -
5% $K_2S_2O_8$: MB2491
5% $KMnO_4$: MB2502
Digest Tube Lot: M627KK03

Analytical Resources, Incorporated
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Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	WT81
Unacceptable Blank:	☐	Date of Event:	6-20-13
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

30%R for Ag and 6%R for Sb in Aspk

APost in control for both

Samples Affected:

Corrective Action Taken:

Send

Analyst Initials: AA **Supervisor:**

Date: 6-2013 **Date:** 6-21-13

5049F

Revision 007
6/11/10

WT81 : 02085

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WT81

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA **Analysis Date:** 6-21-13

I2	Analyst 6/24/13	Peer 6/24	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Narrative, Qualifiers and CRI's	✓	✓	

Analytical Resources, Incorporated
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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 6/10-13 Analysis Date: 6-21-13 Analyst: GL

LR Date: 6-10-13 Page: 1 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			B652
		2			B669
		3			B670
		4			B671
		5			B672
		ICV			B323
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		WW00 MB1	SWX	2	
		WW10 MB1			
	✓	WW00 A			Fe↑
		B			
		C			
		D			
		E			
		F			
		MB1SPK			
✓		MB1SPKD		✓	
		CCV2			
		CCB2			

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 6-21-13 Analyst: EL

LR Date: — Page: 2 of 3

All corrections made by analyst unless otherwise noted. EL 6-24-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WH10 O	SWC	2	
		P			
		Q			
		R			
		S			
		T			
		WDup		✓	
		W			
		W5pk		✓	
222		~~ZZZZZZ W Post~~			
		CCV3			
		CCB3			
		WT81 MB1	SWC	2	
		WH10 U			
		~~WT81 B~~			
	✓	WT81 C			Fe↑ RR×5
		WH00 A		5	
		WT81 ADup		2 ✓	
		A			
		~~A5pk~~		✓	
222		~~ZZZZZZ A Post~~			
		CCV4			
		CCB4			
		WT81 C	SWC	5	

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: ~ Analysis Date: 6-21-13 Analyst: JC

LR Date: ~ Page: 3 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		LOT 81 MB/spk	SWC	2 ✓	
		WH10 MB/spk	↓	↓ ✓	Zn slurry - DIC
		CCV 5			
		CCB 5			
		Rinse/DI			

6-21-13

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

6/21/2013 9:03:04 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): 0.000 Slit adjustment: 2

Analysis Begun

Start Time: 6/21/2013 9:04:06 AM **Plasma On Time: 6/21/2013 8:12:51 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif
Batch ID:
Results Data Set: FAST-Verify-Install
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST **Method Last Saved: 8/13/2012 7:13:22 AM**
IEC File: IEC061013.iec **MSF File:**
Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: B1 **Date Collected: 6/21/2013 9:04:15 AM**
Analyst: EL **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

6.21.13

Analysis Begun

Start Time: 6/21/2013 9:27:41 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 6/21/2013 8:12:51 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2130621
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 6/21/2013 9:27:42 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2960219.9	2056.91	0.07%	100.0	%
ScR 361.383	349488.7	2880.71	0.82%	100.0	%
Ag 328.068†	-101.9	24.78	24.31%	[0.00]	mg/L
Al 308.215†	151.7	6.74	4.44%	[0.00]	mg/L
As 188.979†	-4.7	3.32	69.92%	[0.00]	mg/L
B 249.677†	30.9	6.93	22.42%	[0.00]	mg/L
Ba 233.527†	14.3	0.51	3.58%	[0.00]	mg/L
Be 313.042†	744.1	22.45	3.02%	[0.00]	mg/L
Ca 317.933†	123.9	11.32	9.14%	[0.00]	mg/L
Cd 228.802†	303.6	1.05	0.35%	[0.00]	mg/L
Co 228.616†	-48.8	1.86	3.82%	[0.00]	mg/L
Cr 267.716†	-101.6	1.49	1.47%	[0.00]	mg/L
Cu 324.752†	2176.7	26.32	1.21%	[0.00]	mg/L
Fe 273.955†	17.2	1.51	8.79%	[0.00]	mg/L
K 766.490†	456.2	19.83	4.35%	[0.00]	mg/L
Mg 279.077†	67.1	7.58	11.29%	[0.00]	mg/L
Mn 257.610†	133.4	3.17	2.37%	[0.00]	mg/L
Mo 202.031†	42.3	3.17	7.49%	[0.00]	mg/L
Na 589.592†	-225.9	26.87	11.90%	[0.00]	mg/L
Na 330.237†	-185.0	10.28	5.56%	[0.00]	mg/L
Ni 231.604†	-10.1	1.19	11.83%	[0.00]	mg/L
Pb 220.353†	40.0	3.74	9.36%	[0.00]	mg/L
Sb 206.836†	44.8	2.57	5.73%	[0.00]	mg/L
Se 196.026†	-29.5	2.68	9.07%	[0.00]	mg/L
Si 288.158†	67.6	13.05	19.32%	[0.00]	mg/L
Sn 189.927†	-2.8	2.45	86.41%	[0.00]	mg/L
Sr 421.552†	292.7	36.46	12.46%	[0.00]	mg/L
Ti 334.903†	-65.2	7.83	12.00%	[0.00]	mg/L
Tl 190.801†	-23.8	1.66	6.99%	[0.00]	mg/L
V 292.402†	153.0	14.73	9.63%	[0.00]	mg/L
Zn 206.200†	9.9	1.52	15.33%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Autosampler Location: 2
Date Collected: 6/21/2013 9:31:56 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected	Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2879607.2	19432.38	0.67%	97.28	%
ScR 361.383	339656.0	2339.53	0.69%	97.19	%
Ba 233.527†	45227.6	46.21	0.10%	[10]	mg/L
Cd 228.802†	327178.3	1745.67	0.53%	[10]	mg/L
Co 228.616†	390598.0	1452.78	0.37%	[10]	mg/L
Cr 267.716†	63097.0	222.87	0.35%	[10]	mg/L
Cu 324.752†	3006747.0	13292.11	0.44%	[10]	mg/L
Mn 257.610†	382725.7	1609.18	0.42%	[10]	mg/L
V 292.402†	1394371.6	8338.48	0.60%	[10]	mg/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: STD3 **Date Collected: 6/21/2013 9:33:43 AM**
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2889640.3	5372.82	0.19%	97.62	%
ScR 361.383	338383.0	1378.91	0.41%	96.82	%
Ag 328.068†	200509.9	374.53	0.19%	[1.0]	mg/L
As 188.979†	16777.7	44.18	0.26%	[10]	mg/L
B 249.677†	75322.4	412.69	0.55%	[10]	mg/L
Be 313.042†	3104021.0	20753.94	0.67%	[5.0]	mg/L
Na 589.592†	725766.8	2138.56	0.29%	[50]	mg/L
Ni 231.604†	41362.8	322.05	0.78%	[10]	mg/L
Pb 220.353†	81766.7	225.82	0.28%	[10]	mg/L
Se 196.026†	13645.7	45.03	0.33%	[10]	mg/L
Sr 421.552†	5352700.1	26670.38	0.50%	[5]	mg/L
Tl 190.801†	22826.8	57.35	0.25%	[10]	mg/L
Zn 206.200†	38340.1	217.29	0.57%	[10]	mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: STD4 **Date Collected: 6/21/2013 9:36:17 AM**
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2969884.5	4282.93	0.14%	100.3	%
ScR 361.383	347907.5	2246.40	0.65%	99.55	%
Mo 202.031†	193269.7	389.15	0.20%	[10]	mg/L
Sb 206.836†	31901.4	28.31	0.09%	[10]	mg/L
Si 288.158†	20796.6	101.13	0.49%	[10]	mg/L
Sn 189.927†	34867.0	104.65	0.30%	[10]	mg/L
Ti 334.903†	215505.3	1493.82	0.69%	[10]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: STD5 **Date Collected: 6/21/2013 9:38:31 AM**
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2747464.8	11947.25	0.43%	92.81	%
ScR 361.383	339366.6	1982.36	0.58%	97.10	%
Al 308.215†	49739.4	526.11	1.06%	[30]	mg/L
Ca 317.933†	388306.2	670.39	0.17%	[30]	mg/L
Fe 273.955†	133775.7	852.39	0.64%	[100]	mg/L
K 766.490†	234074.7	1562.56	0.67%	[100]	mg/L
Mg 279.077†	38611.6	444.80	1.15%	[30]	mg/L
Na 330.237†	2893.2	16.09	0.56%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	200500	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1658	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1678	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7532	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4523	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	620800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	12940	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	32720	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	39060	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6310	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	300700	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1338	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2341	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1287	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	38270	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19330	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	14520	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	28.93	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4136	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	8177	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3190	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1365	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2080	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3487	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	1071000	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	21550	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2283	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	139400	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3834	0.00000	1.000000	

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Analysis Begun

Start Time: 6/21/2013 9:44:05 AM **Plasma On Time: 6/21/2013 8:12:51 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0621.sif
Batch ID:
Results Data Set: I2130621
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 6/21/2013 9:44:06 AM**
Analyst: EL **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2892734.8	97.72	%	0.287				0.29%
ScR 361.383	334819.2	95.80	%	0.334				0.35%
Ag 328.068†	209588.4	1.046	mg/L	0.0077	1.046	mg/L	0.0077	0.74%
Al 308.215†	3457.7	2.052	mg/L	0.0093	2.052	mg/L	0.0093	0.45%
As 188.979†	3344.4	2.022	mg/L	0.0033	2.022	mg/L	0.0033	0.16%
B 249.677†	7573.3	1.004	mg/L	0.0025	1.004	mg/L	0.0025	0.25%
Ba 233.527†	4583.6	1.013	mg/L	0.0055	1.013	mg/L	0.0055	0.55%
Be 313.042†	619394.3	0.9975	mg/L	0.00628	0.9975	mg/L	0.00628	0.63%
Ca 317.933†	25610.6	1.979	mg/L	0.0059	1.979	mg/L	0.0059	0.30%
Cd 228.802†	33216.7	1.005	mg/L	0.0057	1.005	mg/L	0.0057	0.56%
Co 228.616†	38362.2	0.9803	mg/L	0.00691	0.9803	mg/L	0.00691	0.71%
Cr 267.716†	6505.3	1.031	mg/L	0.0018	1.031	mg/L	0.0018	0.17%
Cu 324.752†	298881.8	0.9938	mg/L	0.00122	0.9938	mg/L	0.00122	0.12%
Fe 273.955†	2801.3	2.088	mg/L	0.0124	2.088	mg/L	0.0124	0.60%
K 766.490†	46688.3	19.95	mg/L	0.154	19.95	mg/L	0.154	0.77%
Mg 279.077†	2565.8	2.000	mg/L	0.0077	2.000	mg/L	0.0077	0.38%
Mn 257.610†	37034.2	0.9680	mg/L	0.00251	0.9680	mg/L	0.00251	0.26%
Mo 202.031†	19180.0	0.9923	mg/L	0.00679	0.9923	mg/L	0.00679	0.68%
Na 589.592†	734838.7	50.62	mg/L	0.427	50.62	mg/L	0.427	0.84%
Na 330.237†	1495.1	51.65	mg/L	0.258	51.65	mg/L	0.258	0.50%
Ni 231.604†	4183.7	1.012	mg/L	0.0045	1.012	mg/L	0.0045	0.44%
Pb 220.353†	16258.1	1.989	mg/L	0.0118	1.989	mg/L	0.0118	0.59%
Sb 206.836†	6707.5	2.102	mg/L	0.0021	2.102	mg/L	0.0021	0.10%
Se 196.026†	2744.8	2.010	mg/L	0.0027	2.010	mg/L	0.0027	0.13%
Si 288.158†	4287.1	2.066	mg/L	0.0169	2.066	mg/L	0.0169	0.82%
Sn 189.927†	3497.1	1.005	mg/L	0.0031	1.005	mg/L	0.0031	0.31%
Sr 421.552†	1076216.6	1.005	mg/L	0.0048	1.005	mg/L	0.0048	0.48%
Ti 334.903†	21869.5	1.014	mg/L	0.0038	1.014	mg/L	0.0038	0.37%
Tl 190.801†	4720.7	2.060	mg/L	0.0086	2.060	mg/L	0.0086	0.42%
V 292.402†	139889.7	1.007	mg/L	0.0059	1.007	mg/L	0.0059	0.58%
Zn 206.200†	3844.4	1.003	mg/L	0.0018	1.003	mg/L	0.0018	0.18%

Sequence No.: 2
Sample ID: CCB
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 9:48:10 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2965925.8	100.2	%	0.07				0.07%
ScR 361.383	346925.9	99.27	%	0.622				0.63%
Ag 328.068†	35.6	0.00018	mg/L	0.000191	0.00018	mg/L	0.000191	107.50%
Al 308.215†	11.0	0.00664	mg/L	0.003502	0.00664	mg/L	0.003502	52.76%
As 188.979†	0.7	0.00043	mg/L	0.000773	0.00043	mg/L	0.000773	181.74%
B 249.677†	25.5	0.00338	mg/L	0.000628	0.00338	mg/L	0.000628	18.57%
Ba 233.527†	0.3	0.00006	mg/L	0.000488	0.00006	mg/L	0.000488	840.84%
Be 313.042†	23.9	0.00004	mg/L	0.000060	0.00004	mg/L	0.000060	156.22%
Ca 317.933†	2.7	0.00021	mg/L	0.000209	0.00021	mg/L	0.000209	101.57%
Cd 228.802†	9.1	0.00028	mg/L	0.000071	0.00028	mg/L	0.000071	25.68%
Co 228.616†	4.2	0.00011	mg/L	0.000256	0.00011	mg/L	0.000256	242.83%
Cr 267.716†	-3.5	-0.00055	mg/L	0.000698	-0.00055	mg/L	0.000698	126.77%
Cu 324.752†	90.4	0.00030	mg/L	0.000054	0.00030	mg/L	0.000054	18.13%
Fe 273.955†	2.2	0.00165	mg/L	0.000398	0.00165	mg/L	0.000398	24.08%
K 766.490†	23.1	0.00986	mg/L	0.015115	0.00986	mg/L	0.015115	153.28%
Mg 279.077†	-4.3	-0.00333	mg/L	0.006350	-0.00333	mg/L	0.006350	190.87%
Mn 257.610†	-2.2	-0.00006	mg/L	0.000086	-0.00006	mg/L	0.000086	152.34%
Mo 202.031†	22.1	0.00114	mg/L	0.000274	0.00114	mg/L	0.000274	23.98%
Na 589.592†	141.7	0.00977	mg/L	0.002964	0.00977	mg/L	0.002964	30.35%
Na 330.237†	0.1	0.00249	mg/L	0.098884	0.00249	mg/L	0.098884	>999.9%
Ni 231.604†	-1.8	-0.00043	mg/L	0.000685	-0.00043	mg/L	0.000685	157.88%
Pb 220.353†	0.3	0.00003	mg/L	0.000813	0.00003	mg/L	0.000813	>999.9%
Sb 206.836†	16.0	0.00502	mg/L	0.002123	0.00502	mg/L	0.002123	42.26%
Se 196.026†	-3.8	-0.00280	mg/L	0.001242	-0.00280	mg/L	0.001242	44.35%
Si 288.158†	-6.4	-0.00306	mg/L	0.005381	-0.00306	mg/L	0.005381	175.79%
Sn 189.927†	3.5	0.00101	mg/L	0.000622	0.00101	mg/L	0.000622	61.85%
Sr 421.552†	17.8	0.00002	mg/L	0.000048	0.00002	mg/L	0.000048	291.50%
Ti 334.903†	11.8	0.00055	mg/L	0.000239	0.00055	mg/L	0.000239	43.57%
Tl 190.801†	-2.8	-0.00121	mg/L	0.001051	-0.00121	mg/L	0.001051	86.85%
V 292.402†	3.5	0.00002	mg/L	0.000146	0.00002	mg/L	0.000146	635.79%
Zn 206.200†	0.5	0.00013	mg/L	0.000053	0.00013	mg/L	0.000053	41.08%

Sequence No.: 3
Sample ID: CRI
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 6/21/2013 9:52:25 AM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2946492.5	99.54	%	0.250				0.25%
ScR 361.383	347110.1	99.32	%	0.261				0.26%
Ag 328.068†	616.5	0.00308	mg/L	0.000072	0.00308	mg/L	0.000072	2.34%
Al 308.215†	84.3	0.05072	mg/L	0.006237	0.05072	mg/L	0.006237	12.30%
As 188.979†	81.8	0.04890	mg/L	0.001733	0.04890	mg/L	0.001733	3.55%
B 249.677†	156.9	0.02084	mg/L	0.000107	0.02084	mg/L	0.000107	0.51%
Ba 233.527†	17.1	0.00377	mg/L	0.000122	0.00377	mg/L	0.000122	3.23%
Be 313.042†	558.0	0.00090	mg/L	0.000020	0.00090	mg/L	0.000020	2.25%
Ca 317.933†	603.1	0.04659	mg/L	0.000293	0.04659	mg/L	0.000293	0.63%
Cd 228.802†	78.7	0.00215	mg/L	0.000104	0.00215	mg/L	0.000104	4.85%
Co 228.616†	111.8	0.00285	mg/L	0.000141	0.00285	mg/L	0.000141	4.94%
Cr 267.716†	28.1	0.00445	mg/L	0.000247	0.00445	mg/L	0.000247	5.54%
Cu 324.752†	646.2	0.00215	mg/L	0.000157	0.00215	mg/L	0.000157	7.29%
Fe 273.955†	69.4	0.05186	mg/L	0.001388	0.05186	mg/L	0.001388	2.68%
K 766.490†	1143.8	0.4886	mg/L	0.01298	0.4886	mg/L	0.01298	2.66%
Mg 279.077†	61.1	0.04744	mg/L	0.001344	0.04744	mg/L	0.001344	2.83%
Mn 257.610†	35.6	0.00093	mg/L	0.000042	0.00093	mg/L	0.000042	4.52%
Mo 202.031†	100.9	0.00522	mg/L	0.000127	0.00522	mg/L	0.000127	2.44%
Na 589.592†	7071.5	0.4872	mg/L	0.00390	0.4872	mg/L	0.00390	0.80%
Na 330.237†	16.4	0.5648	mg/L	0.07159	0.5648	mg/L	0.07159	12.68%
Ni 231.604†	39.3	0.00951	mg/L	0.000405	0.00951	mg/L	0.000405	4.26%
Pb 220.353†	161.4	0.01975	mg/L	0.000464	0.01975	mg/L	0.000464	2.35%
Sb 206.836†	165.0	0.05176	mg/L	0.000800	0.05176	mg/L	0.000800	1.54%
Se 196.026†	66.3	0.04860	mg/L	0.001908	0.04860	mg/L	0.001908	3.93%
Si 288.158†	120.5	0.05798	mg/L	0.004349	0.05798	mg/L	0.004349	7.50%
Sn 189.927†	35.6	0.01025	mg/L	0.000357	0.01025	mg/L	0.000357	3.48%
Sr 421.552†	995.3	0.00093	mg/L	0.000028	0.00093	mg/L	0.000028	3.03%
Ti 334.903†	102.3	0.00474	mg/L	0.000546	0.00474	mg/L	0.000546	11.53%
Tl 190.801†	104.7	0.04584	mg/L	0.001700	0.04584	mg/L	0.001700	3.71%
V 292.402†	393.5	0.00284	mg/L	0.000090	0.00284	mg/L	0.000090	3.16%
Zn 206.200†	34.9	0.00912	mg/L	0.000256	0.00912	mg/L	0.000256	2.81%

Sequence No.: 4
Sample ID: ICSA
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 6/21/2013 9:56:41 AM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2814572.3	95.08	%	0.238				0.25%
ScR 361.383	333746.6	95.50	%	0.696				0.73%
Ag 328.068†	-249.4	-0.00124	mg/L	0.000108	-0.00124	mg/L	0.000108	8.73%
Al 308.215†	329229.7	198.6	mg/L	0.74	198.6	mg/L	0.74	0.37%
As 188.979†	40.8	0.01733	mg/L	0.002917	0.01733	mg/L	0.002917	16.84%
B 249.677†	-26.7	-0.00354	mg/L	0.001722	-0.00354	mg/L	0.001722	48.63%
Ba 233.527†	144.3	-0.00106	mg/L	0.001658	-0.00106	mg/L	0.001658	155.91%
Be 313.042†	49.7	0.00008	mg/L	0.000012	0.00008	mg/L	0.000012	14.98%
Ca 317.933†	1278222.2	98.75	mg/L	0.451	98.75	mg/L	0.451	0.46%
Cd 228.802†	18.6	0.00043	mg/L	0.000171	0.00043	mg/L	0.000171	39.38%
Co 228.616†	88.4	-0.00010	mg/L	0.000116	-0.00010	mg/L	0.000116	111.07%
Cr 267.716†	14.5	0.00060	mg/L	0.000409	0.00060	mg/L	0.000409	67.85%
Cu 324.752†	-2401.0	0.00011	mg/L	0.000210	0.00011	mg/L	0.000210	195.09%
Fe 273.955†	261928.8	195.8	mg/L	1.07	195.8	mg/L	1.07	0.55%
K 766.490†	-3.3	-0.00142	mg/L	0.016840	-0.00142	mg/L	0.016840	>999.9%
Mg 279.077†	133339.9	103.5	mg/L	1.13	103.5	mg/L	1.13	1.09%
Mn 257.610†	45.6	0.00051	mg/L	0.000189	0.00051	mg/L	0.000189	37.07%
Mo 202.031†	54.3	0.00155	mg/L	0.000285	0.00155	mg/L	0.000285	18.36%
Na 589.592†	166.3	0.01146	mg/L	0.001447	0.01146	mg/L	0.001447	12.63%
Na 330.237†	9.7	-0.09173	mg/L	0.186320	-0.09173	mg/L	0.186320	203.12%
Ni 231.604†	-3.7	-0.00087	mg/L	0.001147	-0.00087	mg/L	0.001147	132.21%
Pb 220.353†	-319.3	-0.00275	mg/L	0.001009	-0.00275	mg/L	0.001009	36.72%
Sb 206.836†	49.0	0.01517	mg/L	0.003818	0.01517	mg/L	0.003818	25.17%
Se 196.026†	44.8	0.01108	mg/L	0.006694	0.01108	mg/L	0.006694	60.42%
Si 288.158†	-38.7	-0.00687	mg/L	0.001217	-0.00687	mg/L	0.001217	17.71%
Sn 189.927†	-90.5	-0.01327	mg/L	0.000955	-0.01327	mg/L	0.000955	7.20%
Sr 421.552†	5708.0	0.00533	mg/L	0.000058	0.00533	mg/L	0.000058	1.08%
Ti 334.903†	190.0	0.00267	mg/L	0.000252	0.00267	mg/L	0.000252	9.46%
Tl 190.801†	-56.6	0.00204	mg/L	0.002753	0.00204	mg/L	0.002753	134.98%
V 292.402†	1613.2	0.00120	mg/L	0.000504	0.00120	mg/L	0.000504	42.10%
Zn 206.200†	14.9	0.00267	mg/L	0.000392	0.00267	mg/L	0.000392	14.69%

Sequence No.: 5
Sample ID: ICSAB
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 6/21/2013 10:00:57 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2813192.2	95.03	%	0.369				0.39%
ScR 361.383	331948.1	94.98	%	0.081				0.09%
Ag 328.068†	211342.3	1.054	mg/L	0.0034	1.054	mg/L	0.0034	0.32%
Al 308.215†	333143.3	200.9	mg/L	0.73	200.9	mg/L	0.73	0.36%
As 188.979†	1700.7	1.006	mg/L	0.0061	1.006	mg/L	0.0061	0.60%
B 249.677†	-24.6	-0.00521	mg/L	0.000227	-0.00521	mg/L	0.000227	4.35%
Ba 233.527†	4660.4	0.9971	mg/L	0.00452	0.9971	mg/L	0.00452	0.45%
Be 313.042†	603021.3	0.9711	mg/L	0.00892	0.9711	mg/L	0.00892	0.92%
Ca 317.933†	1286681.2	99.41	mg/L	0.103	99.41	mg/L	0.103	0.10%
Cd 228.802†	32686.3	0.9942	mg/L	0.00285	0.9942	mg/L	0.00285	0.29%
Co 228.616†	36281.9	0.9263	mg/L	0.00215	0.9263	mg/L	0.00215	0.23%
Cr 267.716†	6306.6	0.9979	mg/L	0.00320	0.9979	mg/L	0.00320	0.32%
Cu 324.752†	311075.8	1.043	mg/L	0.0020	1.043	mg/L	0.0020	0.19%
Fe 273.955†	263239.6	196.8	mg/L	0.76	196.8	mg/L	0.76	0.39%
K 766.490†	-54.4	-0.02326	mg/L	0.010176	-0.02326	mg/L	0.010176	43.74%
Mg 279.077†	127617.2	99.03	mg/L	0.118	99.03	mg/L	0.118	0.12%
Mn 257.610†	35927.7	0.9382	mg/L	0.00165	0.9382	mg/L	0.00165	0.18%
Mo 202.031†	59.0	0.00174	mg/L	0.000206	0.00174	mg/L	0.000206	11.86%
Na 589.592†	4.5	0.00031	mg/L	0.000948	0.00031	mg/L	0.000948	308.50%
Na 330.237†	24.8	0.1390	mg/L	0.04911	0.1390	mg/L	0.04911	35.32%
Ni 231.604†	3964.9	0.9588	mg/L	0.00329	0.9588	mg/L	0.00329	0.34%
Pb 220.353†	7671.0	0.9754	mg/L	0.00538	0.9754	mg/L	0.00538	0.55%
Sb 206.836†	3302.8	1.025	mg/L	0.0037	1.025	mg/L	0.0037	0.36%
Se 196.026†	1394.0	0.9985	mg/L	0.00776	0.9985	mg/L	0.00776	0.78%
Si 288.158†	-47.7	-0.00729	mg/L	0.001709	-0.00729	mg/L	0.001709	23.45%
Sn 189.927†	-86.5	-0.01150	mg/L	0.001383	-0.01150	mg/L	0.001383	12.03%
Sr 421.552†	5699.4	0.00532	mg/L	0.000012	0.00532	mg/L	0.000012	0.23%
Ti 334.903†	187.0	0.00230	mg/L	0.000217	0.00230	mg/L	0.000217	9.41%
Tl 190.801†	2068.2	0.9235	mg/L	0.00328	0.9235	mg/L	0.00328	0.36%
V 292.402†	136097.9	0.9697	mg/L	0.00163	0.9697	mg/L	0.00163	0.17%
Zn 206.200†	3627.7	0.9451	mg/L	0.00322	0.9451	mg/L	0.00322	0.34%

Cert.

Sequence No.: 6
Sample ID: CV
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 6/21/2013 10:06:03 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2881093.0	97.33	%	0.197				0.20%
ScR 361.383	335261.3	95.93	%	0.308				0.32%
Ag 328.068†	213027.0	1.063	mg/L	0.0044	1.063	mg/L	0.0044	0.41%
Al 308.215†	3497.3	2.075	mg/L	0.0075	2.075	mg/L	0.0075	0.36%
As 188.979†	3395.9	2.053	mg/L	0.0043	2.053	mg/L	0.0043	0.21%
B 249.677†	7638.7	1.013	mg/L	0.0043	1.013	mg/L	0.0043	0.43%
Ba 233.527†	4665.1	1.031	mg/L	0.0019	1.031	mg/L	0.0019	0.18%
Be 313.042†	619801.0	0.9981	mg/L	0.00081	0.9981	mg/L	0.00081	0.08%
Ca 317.933†	25981.6	2.007	mg/L	0.0059	2.007	mg/L	0.0059	0.29%
Cd 228.802†	33718.9	1.020	mg/L	0.0010	1.020	mg/L	0.0010	0.10%
Co 228.616†	38896.4	0.9939	mg/L	0.00440	0.9939	mg/L	0.00440	0.44%
Cr 267.716†	6586.2	1.043	mg/L	0.0037	1.043	mg/L	0.0037	0.35%
Cu 324.752†	302025.9	1.004	mg/L	0.0023	1.004	mg/L	0.0023	0.23%
Fe 273.955†	2830.4	2.110	mg/L	0.0089	2.110	mg/L	0.0089	0.42%
K 766.490†	47254.7	20.19	mg/L	0.170	20.19	mg/L	0.170	0.84%
Mg 279.077†	2603.9	2.030	mg/L	0.0041	2.030	mg/L	0.0041	0.20%
Mn 257.610†	37232.6	0.9732	mg/L	0.00258	0.9732	mg/L	0.00258	0.27%
Mo 202.031†	19505.5	1.009	mg/L	0.0018	1.009	mg/L	0.0018	0.18%
Na 589.592†	740494.7	51.01	mg/L	0.239	51.01	mg/L	0.239	0.47%
Na 330.237†	1510.7	52.19	mg/L	0.098	52.19	mg/L	0.098	0.19%
Ni 231.604†	4256.6	1.029	mg/L	0.0023	1.029	mg/L	0.0023	0.23%
Pb 220.353†	16554.6	2.026	mg/L	0.0048	2.026	mg/L	0.0048	0.23%
Sb 206.836†	6820.5	2.138	mg/L	0.0028	2.138	mg/L	0.0028	0.13%
Se 196.026†	2783.2	2.038	mg/L	0.0008	2.038	mg/L	0.0008	0.04%
Si 288.158†	4319.6	2.082	mg/L	0.0100	2.082	mg/L	0.0100	0.48%
Sn 189.927†	3554.7	1.021	mg/L	0.0015	1.021	mg/L	0.0015	0.14%
Sr 421.552†	1082909.6	1.012	mg/L	0.0048	1.012	mg/L	0.0048	0.47%
Ti 334.903†	21948.1	1.017	mg/L	0.0030	1.017	mg/L	0.0030	0.30%
Tl 190.801†	4796.7	2.093	mg/L	0.0033	2.093	mg/L	0.0033	0.16%
V 292.402†	142330.3	1.025	mg/L	0.0036	1.025	mg/L	0.0036	0.35%
Zn 206.200†	3898.3	1.017	mg/L	0.0032	1.017	mg/L	0.0032	0.32%

Sequence No.: 7
Sample ID: CB
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 10:11:11 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2881326.9	97.33	%	0.567				0.58%
ScR 361.383	339346.8	97.10	%	0.435				0.45%
Ag 328.068†	58.0	0.00029	mg/L	0.000180	0.00029	mg/L	0.000180	62.35%
Al 308.215†	3.7	0.00222	mg/L	0.000575	0.00222	mg/L	0.000575	25.93%
As 188.979†	-0.3	-0.00017	mg/L	0.000250	-0.00017	mg/L	0.000250	145.09%
B 249.677†	12.7	0.00168	mg/L	0.000446	0.00168	mg/L	0.000446	26.52%
Ba 233.527†	4.1	0.00090	mg/L	0.000281	0.00090	mg/L	0.000281	31.20%
Be 313.042†	41.0	0.00007	mg/L	0.000045	0.00007	mg/L	0.000045	68.00%
Ca 317.933†	21.4	0.00165	mg/L	0.000826	0.00165	mg/L	0.000826	49.93%
Cd 228.802†	6.6	0.00020	mg/L	0.000065	0.00020	mg/L	0.000065	31.94%
Co 228.616†	-0.2	-0.00001	mg/L	0.000145	-0.00001	mg/L	0.000145	>999.9%
Cr 267.716†	-2.6	-0.00042	mg/L	0.001330	-0.00042	mg/L	0.001330	318.55%
Cu 324.752†	179.5	0.00060	mg/L	0.000038	0.00060	mg/L	0.000038	6.33%
Fe 273.955†	5.7	0.00424	mg/L	0.000372	0.00424	mg/L	0.000372	8.77%
K 766.490†	41.3	0.01766	mg/L	0.011452	0.01766	mg/L	0.011452	64.84%
Mg 279.077†	0.6	0.00050	mg/L	0.004363	0.00050	mg/L	0.004363	880.00%
Mn 257.610†	5.5	0.00014	mg/L	0.000151	0.00014	mg/L	0.000151	104.14%
Mo 202.031†	19.5	0.00101	mg/L	0.000106	0.00101	mg/L	0.000106	10.51%
Na 589.592†	27.6	0.00190	mg/L	0.004701	0.00190	mg/L	0.004701	246.97%
Na 330.237†	4.7	0.1627	mg/L	0.33640	0.1627	mg/L	0.33640	206.73%
Ni 231.604†	-4.4	-0.00106	mg/L	0.001555	-0.00106	mg/L	0.001555	147.30%
Pb 220.353†	6.4	0.00078	mg/L	0.000547	0.00078	mg/L	0.000547	69.80%
Sb 206.836†	20.2	0.00635	mg/L	0.002226	0.00635	mg/L	0.002226	35.08%
Se 196.026†	-2.0	-0.00146	mg/L	0.004179	-0.00146	mg/L	0.004179	285.68%
Si 288.158†	4.5	0.00218	mg/L	0.004051	0.00218	mg/L	0.004051	185.69%
Sn 189.927†	1.4	0.00041	mg/L	0.000792	0.00041	mg/L	0.000792	193.41%
Sr 421.552†	-45.6	-0.00004	mg/L	0.000016	-0.00004	mg/L	0.000016	37.03%
Ti 334.903†	1.5	0.00007	mg/L	0.000578	0.00007	mg/L	0.000578	838.44%
Tl 190.801†	-2.4	-0.00105	mg/L	0.001048	-0.00105	mg/L	0.001048	99.47%
V 292.402†	14.0	0.00010	mg/L	0.000162	0.00010	mg/L	0.000162	163.35%
Zn 206.200†	2.5	0.00065	mg/L	0.000820	0.00065	mg/L	0.000820	126.40%

Sequence No.: 8
Sample ID: WU00 MB1 SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 304
Date Collected: 6/21/2013 10:15:26 AM
Data Type: Original

Nebulizer Parameters: WU00 MB1 SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU00 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2928435.9	98.93	%	0.553				0.56%
ScR 361.383	344792.2	98.66	%	0.705				0.71%
Ag 328.068†	7.3	0.00004	mg/L	0.000038	0.00007	mg/L	0.000075	102.78%
Al 308.215†	21.0	0.01263	mg/L	0.000879	0.02526	mg/L	0.001758	6.96%
As 188.979†	-2.0	-0.00117	mg/L	0.001870	-0.00234	mg/L	0.003739	159.96%
B 249.677†	12.3	0.00164	mg/L	0.000529	0.00327	mg/L	0.001059	32.35%
Ba 233.527†	2.2	0.00050	mg/L	0.000877	0.00099	mg/L	0.001753	176.94%
Be 313.042†	5.1	0.00001	mg/L	0.000015	0.00002	mg/L	0.000029	177.26%
Ca 317.933†	248.8	0.01922	mg/L	0.001012	0.03844	mg/L	0.002024	5.27%
Cd 228.802†	3.7	0.00012	mg/L	0.000068	0.00024	mg/L	0.000136	57.70%
Co 228.616†	-8.6	-0.00022	mg/L	0.000188	-0.00044	mg/L	0.000376	84.69%
Cr 267.716†	-6.0	-0.00096	mg/L	0.000515	-0.00192	mg/L	0.001030	53.72%
Cu 324.752†	130.3	0.00043	mg/L	0.000141	0.00087	mg/L	0.000282	32.48%
Fe 273.955†	8.0	0.00597	mg/L	0.000087	0.01194	mg/L	0.000174	1.46%
K 766.490†	-7.1	-0.00301	mg/L	0.008485	-0.00603	mg/L	0.016970	281.48%
Mg 279.077†	4.8	0.00374	mg/L	0.001915	0.00748	mg/L	0.003830	51.21%
Mn 257.610†	-0.6	-0.00002	mg/L	0.000098	-0.00003	mg/L	0.000196	651.03%
Mo 202.031†	5.6	0.00029	mg/L	0.000169	0.00058	mg/L	0.000337	57.97%
Na 589.592†	102.8	0.00708	mg/L	0.000289	0.01416	mg/L	0.000579	4.09%
Na 330.237†	-1.3	-0.04437	mg/L	0.218137	-0.08875	mg/L	0.436273	491.59%
Ni 231.604†	-2.1	-0.00052	mg/L	0.001070	-0.00103	mg/L	0.002141	206.87%
Pb 220.353†	2.5	0.00031	mg/L	0.000801	0.00062	mg/L	0.001602	260.00%
Sb 206.836†	4.4	0.00140	mg/L	0.000847	0.00280	mg/L	0.001694	60.49%
Se 196.026†	-0.6	-0.00044	mg/L	0.001915	-0.00087	mg/L	0.003830	439.74%
Si 288.158†	35.6	0.01714	mg/L	0.002589	0.03427	mg/L	0.005177	15.11%
Sn 189.927†	3.0	0.00085	mg/L	0.000869	0.00171	mg/L	0.001738	101.75%
Sr 421.552†	-21.9	-0.00002	mg/L	0.000004	-0.00004	mg/L	0.000008	18.72%
Ti 334.903†	10.8	0.00050	mg/L	0.000179	0.00100	mg/L	0.000359	35.87%
Tl 190.801†	-5.5	-0.00240	mg/L	0.000624	-0.00479	mg/L	0.001249	26.05%
V 292.402†	14.1	0.00010	mg/L	0.000144	0.00019	mg/L	0.000287	148.58%
Zn 206.200†	5.2	0.00135	mg/L	0.000338	0.00270	mg/L	0.000677	25.03%

Sequence No.: 9
Sample ID: WU10 MB1 SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 305
Date Collected: 6/21/2013 10:19:43 AM
Data Type: Original

Nebulizer Parameters: WU10 MB1 SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU10 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2971315.3	100.4	%	0.56				0.56%
ScR 361.383	350340.1	100.2	%	0.94				0.94%
Ag 328.068†	27.0	0.00013	mg/L	0.000124	0.00027	mg/L	0.000248	92.14%
Al 308.215†	92.6	0.05583	mg/L	0.003654	0.1117	mg/L	0.00731	6.55%
As 188.979†	-4.0	-0.00237	mg/L	0.001322	-0.00473	mg/L	0.002644	55.86%
B 249.677†	2.4	0.00032	mg/L	0.000379	0.00063	mg/L	0.000757	120.16%
Ba 233.527†	0.8	0.00017	mg/L	0.000306	0.00034	mg/L	0.000612	181.98%
Be 313.042†	-13.3	-0.00002	mg/L	0.000017	-0.00004	mg/L	0.000035	80.85%
Ca 317.933†	1081.8	0.08358	mg/L	0.000459	0.1672	mg/L	0.00092	0.55%
Cd 228.802†	0.1	0.00002	mg/L	0.000137	0.00003	mg/L	0.000274	830.79%
Co 228.616†	-1.7	-0.00005	mg/L	0.000095	-0.00009	mg/L	0.000189	205.01%
Cr 267.716†	-1.9	-0.00031	mg/L	0.000911	-0.00062	mg/L	0.001822	294.84%
Cu 324.752†	112.2	0.00037	mg/L	0.000150	0.00075	mg/L	0.000301	40.32%
Fe 273.955†	5.6	0.00416	mg/L	0.000940	0.00833	mg/L	0.001880	22.58%
K 766.490†	12.0	0.00512	mg/L	0.012616	0.01024	mg/L	0.025233	246.34%
Mg 279.077†	37.4	0.02908	mg/L	0.006385	0.05816	mg/L	0.012769	21.96%
Mn 257.610†	-2.5	-0.00006	mg/L	0.000059	-0.00013	mg/L	0.000118	91.42%
Mo 202.031†	5.4	0.00028	mg/L	0.000291	0.00056	mg/L	0.000582	104.65%
Na 589.592†	75.2	0.00518	mg/L	0.001365	0.01036	mg/L	0.002730	26.35%
Na 330.237†	-1.5	-0.05320	mg/L	0.115929	-0.1064	mg/L	0.23186	217.90%
Ni 231.604†	-1.8	-0.00043	mg/L	0.001402	-0.00087	mg/L	0.002805	323.38%
Pb 220.353†	-1.2	-0.00013	mg/L	0.000754	-0.00026	mg/L	0.001509	577.73%
Sb 206.836†	1.8	0.00056	mg/L	0.001109	0.00113	mg/L	0.002219	196.36%
Se 196.026†	-1.3	-0.00094	mg/L	0.003608	-0.00187	mg/L	0.007217	385.66%
Si 288.158†	39.7	0.01911	mg/L	0.003523	0.03822	mg/L	0.007047	18.44%
Sn 189.927†	0.9	0.00028	mg/L	0.000495	0.00055	mg/L	0.000990	179.21%
Sr 421.552†	-10.2	-0.00001	mg/L	0.000008	-0.00002	mg/L	0.000016	86.21%
Ti 334.903†	27.0	0.00125	mg/L	0.000207	0.00249	mg/L	0.000413	16.57%
Tl 190.801†	-2.1	-0.00092	mg/L	0.001921	-0.00185	mg/L	0.003841	207.69%
V 292.402†	-9.8	-0.00007	mg/L	0.000040	-0.00014	mg/L	0.000079	54.72%
Zn 206.200†	4.5	0.00117	mg/L	0.000374	0.00235	mg/L	0.000747	31.81%

Sequence No.: 10
Sample ID: WU00 A SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 306
Date Collected: 6/21/2013 10:23:58 AM
Data Type: Original

Nebulizer Parameters: WU00 A SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU00 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2815441.5	95.11	%	0.173				0.18%
ScR 361.383	333971.4	95.56	%	0.308				0.32%
Ag 328.068†	-270.7	-0.00121	mg/L	0.000057	-0.00242	mg/L	0.000115	4.74%
Al 308.215†	228622.6	137.9	mg/L	0.34	275.7	mg/L	0.67	0.24%
As 188.979†	-169.3	0.1621	mg/L	0.00161	0.3242	mg/L	0.00322	0.99%
B 249.677†	329.8	0.04359	mg/L	0.001811	0.08718	mg/L	0.003621	4.15%
Ba 233.527†	4671.8	0.9768	mg/L	0.00364	1.954	mg/L	0.0073	0.37%
Be 313.042†	1266.9	0.00183	mg/L	0.000008	0.00367	mg/L	0.000016	0.43%
Ca 317.933†	2681203.0	207.1	mg/L	0.29	414.3	mg/L	0.59	0.14%
Cd 228.802†	464.3	0.01524	mg/L	0.000192	0.03048	mg/L	0.000383	1.26%
Co 228.616†	4228.4	0.08913	mg/L	0.000259	0.1783	mg/L	0.00052	0.29%
Cr 267.716†	3779.7	0.6057	mg/L	0.00147	1.211	mg/L	0.0029	0.24%
Cu 324.752†	287503.8	0.9689	mg/L	0.00373	1.938	mg/L	0.0075	0.39%
Fe 273.955†	444461.1	332.2	mg/L	1.92	664.5	mg/L	3.84	0.58%
K 766.490†	18794.7	8.029	mg/L	0.0308	16.06	mg/L	0.062	0.38%
Mg 279.077†	74958.4	58.02	mg/L	0.078	116.0	mg/L	0.16	0.13%
Mn 257.610†	174601.8	4.563	mg/L	0.0141	9.125	mg/L	0.0282	0.31%
Mo 202.031†	610.0	0.02890	mg/L	0.000401	0.05780	mg/L	0.000801	1.39%
Na 589.592†	93464.2	6.439	mg/L	0.0160	12.88	mg/L	0.032	0.25%
Na 330.237†	223.0	6.598	mg/L	0.4587	13.20	mg/L	0.917	6.95%
Ni 231.604†	2352.2	0.5687	mg/L	0.00336	1.137	mg/L	0.0067	0.59%
Pb 220.353†	34387.1	4.220	mg/L	0.0138	8.441	mg/L	0.0276	0.33%
Sb 206.836†	97.4	0.03190	mg/L	0.002210	0.06379	mg/L	0.004419	6.93%
Se 196.026†	35.0	0.01019	mg/L	0.001364	0.02038	mg/L	0.002729	13.39%
Si 288.158†	5043.6	2.432	mg/L	0.0115	4.864	mg/L	0.0230	0.47%
Sn 189.927†	160.1	0.07450	mg/L	0.000735	0.1490	mg/L	0.00147	0.99%
Sr 421.552†	545359.6	0.5094	mg/L	0.00082	1.019	mg/L	0.0016	0.16%
Ti 334.903†	187046.5	8.666	mg/L	0.0084	17.33	mg/L	0.017	0.10%
Tl 190.801†	-95.8	0.00105	mg/L	0.000828	0.00210	mg/L	0.001657	79.07%
V 292.402†	67738.1	0.4665	mg/L	0.00166	0.9329	mg/L	0.00332	0.36%
Zn 206.200†	33758.9	8.803	mg/L	0.0194	17.61	mg/L	0.039	0.22%

Sequence No.: 11
Sample ID: WU00 B SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 307
Date Collected: 6/21/2013 10:27:16 AM
Data Type: Original

Nebulizer Parameters: WU00 B SWC

Analyte	Back Pressure	Flow
All	232.0 kPa	0.75 L/min

Mean Data: WU00 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2890156.1	97.63	%	0.307				0.31%
ScR 361.383	338189.8	96.77	%	0.630				0.65%
Ag 328.068†	161.2	0.00092	mg/L	0.000039	0.00185	mg/L	0.000077	4.17%
Al 308.215†	192269.7	115.9	mg/L	1.26	231.9	mg/L	2.52	1.09%
As 188.979†	-199.4	0.1010	mg/L	0.00221	0.2021	mg/L	0.00442	2.19%
B 249.677†	617.5	0.08183	mg/L	0.001269	0.1637	mg/L	0.00254	1.55%
Ba 233.527†	4758.6	1.015	mg/L	0.0107	2.030	mg/L	0.0214	1.06%
Be 313.042†	1150.4	0.00168	mg/L	0.000038	0.00336	mg/L	0.000077	2.28%
Ca 317.933†	1407462.3	108.7	mg/L	1.27	217.5	mg/L	2.55	1.17%
Cd 228.802†	285.9	0.00966	mg/L	0.000078	0.01932	mg/L	0.000156	0.81%
Co 228.616†	3319.4	0.06996	mg/L	0.000381	0.1399	mg/L	0.00076	0.55%
Cr 267.716†	2331.8	0.3735	mg/L	0.00656	0.7470	mg/L	0.01313	1.76%
Cu 324.752†	264890.6	0.8891	mg/L	0.01071	1.778	mg/L	0.0214	1.20%
Fe 273.955†	293568.6	219.4	mg/L	3.06	438.9	mg/L	6.11	1.39%
K 766.490†	24939.0	10.65	mg/L	0.165	21.31	mg/L	0.331	1.55%
Mg 279.077†	60616.5	46.95	mg/L	0.491	93.90	mg/L	0.982	1.05%
Mn 257.610†	141295.0	3.692	mg/L	0.0532	7.384	mg/L	0.1063	1.44%
Mo 202.031†	400.1	0.01930	mg/L	0.000300	0.03861	mg/L	0.000601	1.56%
Na 589.592†	113783.0	7.839	mg/L	0.0816	15.68	mg/L	0.163	1.04%
Na 330.237†	234.2	7.780	mg/L	0.0258	15.56	mg/L	0.052	0.33%
Ni 231.604†	1352.8	0.3271	mg/L	0.00666	0.6542	mg/L	0.01332	2.04%
Pb 220.353†	23974.0	2.947	mg/L	0.0239	5.894	mg/L	0.0478	0.81%
Sb 206.836†	62.5	0.02216	mg/L	0.002273	0.04432	mg/L	0.004545	10.25%
Se 196.026†	31.0	0.00975	mg/L	0.006163	0.01950	mg/L	0.012325	63.21%
Si 288.158†	3363.0	1.623	mg/L	0.0319	3.245	mg/L	0.0637	1.96%
Sn 189.927†	33.6	0.02519	mg/L	0.002675	0.05038	mg/L	0.005350	10.62%
Sr 421.552†	669951.1	0.6258	mg/L	0.00700	1.252	mg/L	0.0140	1.12%
Ti 334.903†	153072.4	7.096	mg/L	0.0832	14.19	mg/L	0.166	1.17%
Tl 190.801†	-63.0	0.00039	mg/L	0.001360	0.00079	mg/L	0.002721	345.94%
V 292.402†	58165.2	0.4036	mg/L	0.00507	0.8072	mg/L	0.01013	1.26%
Zn 206.200†	23493.5	6.127	mg/L	0.0962	12.25	mg/L	0.192	1.57%

Sequence No.: 12
Sample ID: WU00 C SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 308
Date Collected: 6/21/2013 10:31:19 AM
Data Type: Original

Nebulizer Parameters: WU00 C SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU00 C SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2901638.0	98.02	%	0.347				0.35%
ScR 361.383	345193.4	98.77	%	0.648				0.66%
Ag 328.068†	-90.8	-0.00038	mg/L	0.000106	-0.00075	mg/L	0.000212	28.13%
Al 308.215†	120849.5	72.88	mg/L	0.052	145.8	mg/L	0.10	0.07%
As 188.979†	-145.2	0.04508	mg/L	0.005888	0.09015	mg/L	0.011777	13.06%
B 249.677†	269.2	0.03563	mg/L	0.000178	0.07126	mg/L	0.000356	0.50%
Ba 233.527†	3359.8	0.7212	mg/L	0.00485	1.442	mg/L	0.0097	0.67%
Be 313.042†	897.5	0.00134	mg/L	0.000031	0.00268	mg/L	0.000062	2.33%
Ca 317.933†	607985.9	46.97	mg/L	0.123	93.94	mg/L	0.246	0.26%
Cd 228.802†	233.2	0.00778	mg/L	0.000029	0.01555	mg/L	0.000059	0.38%
Co 228.616†	2237.1	0.04838	mg/L	0.000621	0.09676	mg/L	0.001241	1.28%
Cr 267.716†	1178.8	0.1889	mg/L	0.00138	0.3777	mg/L	0.00276	0.73%
Cu 324.752†	98808.9	0.3333	mg/L	0.00246	0.6667	mg/L	0.00493	0.74%
Fe 273.955†	171310.4	128.1	mg/L	0.25	256.1	mg/L	0.50	0.19%
K 766.490†	10741.1	4.589	mg/L	0.0235	9.178	mg/L	0.0471	0.51%
Mg 279.077†	41467.8	32.14	mg/L	0.093	64.27	mg/L	0.186	0.29%
Mn 257.610†	143078.8	3.739	mg/L	0.0075	7.477	mg/L	0.0150	0.20%
Mo 202.031†	120.2	0.00561	mg/L	0.000058	0.01122	mg/L	0.000116	1.03%
Na 589.592†	47163.7	3.249	mg/L	0.0125	6.498	mg/L	0.0250	0.39%
Na 330.237†	88.9	3.266	mg/L	0.1282	6.531	mg/L	0.2564	3.93%
Ni 231.604†	854.7	0.2066	mg/L	0.00166	0.4133	mg/L	0.00333	0.81%
Pb 220.353†	9267.4	1.144	mg/L	0.0037	2.287	mg/L	0.0074	0.32%
Sb 206.836†	29.7	0.01124	mg/L	0.002227	0.02247	mg/L	0.004455	19.82%
Se 196.026†	24.0	0.00939	mg/L	0.004966	0.01878	mg/L	0.009932	52.90%
Si 288.158†	2716.9	1.310	mg/L	0.0107	2.620	mg/L	0.0215	0.82%
Sn 189.927†	-15.9	0.00241	mg/L	0.000983	0.00481	mg/L	0.001966	40.86%
Sr 421.552†	592515.3	0.5535	mg/L	0.00055	1.107	mg/L	0.0011	0.10%
Ti 334.903†	90701.0	4.206	mg/L	0.0070	8.412	mg/L	0.0141	0.17%
Tl 190.801†	-33.5	0.00153	mg/L	0.002509	0.00306	mg/L	0.005018	164.02%
V 292.402†	37090.2	0.2582	mg/L	0.00187	0.5164	mg/L	0.00373	0.72%
Zn 206.200†	10153.4	2.648	mg/L	0.0146	5.296	mg/L	0.0291	0.55%

Sequence No.: 13
Sample ID: WU00 D SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 309
Date Collected: 6/21/2013 10:35:20 AM
Data Type: Original

Nebulizer Parameters: WU00 D SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU00 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2978517.8	100.6	%	0.38				0.38%
ScR 361.383	353527.1	101.2	%	0.12				0.12%
Ag 328.068†	-149.4	-0.00067	mg/L	0.000207	-0.00134	mg/L	0.000414	30.87%
Al 308.215†	127450.5	76.86	mg/L	0.403	153.7	mg/L	0.81	0.52%
As 188.979†	-126.0	0.05269	mg/L	0.003162	0.1054	mg/L	0.00632	6.00%
B 249.677†	293.9	0.03890	mg/L	0.000813	0.07779	mg/L	0.001626	2.09%
Ba 233.527†	3254.5	0.6976	mg/L	0.00229	1.395	mg/L	0.0046	0.33%
Be 313.042†	872.9	0.00130	mg/L	0.000016	0.00260	mg/L	0.000033	1.25%
Ca 317.933†	705902.6	54.54	mg/L	0.232	109.1	mg/L	0.46	0.43%
Cd 228.802†	231.0	0.00766	mg/L	0.000120	0.01531	mg/L	0.000240	1.57%
Co 228.616†	2284.5	0.04975	mg/L	0.000094	0.09950	mg/L	0.000188	0.19%
Cr 267.716†	1065.6	0.1709	mg/L	0.00038	0.3418	mg/L	0.00076	0.22%
Cu 324.752†	83096.8	0.2812	mg/L	0.00167	0.5624	mg/L	0.00335	0.60%
Fe 273.955†	174282.7	130.3	mg/L	0.51	260.6	mg/L	1.02	0.39%
K 766.490†	11066.6	4.728	mg/L	0.0041	9.456	mg/L	0.0082	0.09%
Mg 279.077†	42625.8	33.03	mg/L	0.134	66.07	mg/L	0.267	0.40%
Mn 257.610†	139292.8	3.640	mg/L	0.0159	7.279	mg/L	0.0318	0.44%
Mo 202.031†	114.9	0.00524	mg/L	0.000292	0.01049	mg/L	0.000584	5.57%
Na 589.592†	62596.2	4.312	mg/L	0.0279	8.625	mg/L	0.0557	0.65%
Na 330.237†	126.6	4.496	mg/L	0.1613	8.992	mg/L	0.3226	3.59%
Ni 231.604†	901.2	0.2179	mg/L	0.00156	0.4358	mg/L	0.00312	0.72%
Pb 220.353†	9154.9	1.131	mg/L	0.0037	2.262	mg/L	0.0074	0.33%
Sb 206.836†	27.5	0.01070	mg/L	0.001632	0.02141	mg/L	0.003264	15.25%
Se 196.026†	27.9	0.01185	mg/L	0.004227	0.02371	mg/L	0.008455	35.66%
Si 288.158†	2821.1	1.360	mg/L	0.0152	2.721	mg/L	0.0305	1.12%
Sn 189.927†	-14.4	0.00377	mg/L	0.000996	0.00755	mg/L	0.001992	26.39%
Sr 421.552†	681486.8	0.6366	mg/L	0.00241	1.273	mg/L	0.0048	0.38%
Ti 334.903†	88453.4	4.101	mg/L	0.0138	8.202	mg/L	0.0276	0.34%
Tl 190.801†	-35.9	0.00081	mg/L	0.000784	0.00162	mg/L	0.001568	96.54%
V 292.402†	36093.8	0.2509	mg/L	0.00138	0.5018	mg/L	0.00276	0.55%
Zn 206.200†	10264.6	2.677	mg/L	0.0164	5.354	mg/L	0.0328	0.61%

Sequence No.: 14
Sample ID: WU00 E SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 310
Date Collected: 6/21/2013 10:39:21 AM
Data Type: Original

Nebulizer Parameters: WU00 E SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU00 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2996398.5	101.2	%	0.12				0.12%
ScR 361.383	356316.8	102.0	%	0.57				0.56%
Ag 328.068†	-110.2	-0.00049	mg/L	0.000122	-0.00097	mg/L	0.000244	25.07%
Al 308.215†	130516.4	78.71	mg/L	0.214	157.4	mg/L	0.43	0.27%
As 188.979†	-135.9	0.02266	mg/L	0.001809	0.04532	mg/L	0.003619	7.98%
B 249.677†	169.9	0.02247	mg/L	0.000308	0.04494	mg/L	0.000617	1.37%
Ba 233.527†	2636.4	0.5672	mg/L	0.00358	1.134	mg/L	0.0072	0.63%
Be 313.042†	702.8	0.00105	mg/L	0.000017	0.00209	mg/L	0.000033	1.59%
Ca 317.933†	437071.0	33.77	mg/L	0.127	67.53	mg/L	0.254	0.38%
Cd 228.802†	100.1	0.00362	mg/L	0.000173	0.00724	mg/L	0.000346	4.79%
Co 228.616†	1825.0	0.03983	mg/L	0.000087	0.07966	mg/L	0.000174	0.22%
Cr 267.716†	792.8	0.1269	mg/L	0.00172	0.2539	mg/L	0.00344	1.36%
Cu 324.752†	68739.4	0.2320	mg/L	0.00045	0.4640	mg/L	0.00090	0.19%
Fe 273.955†	124513.3	93.07	mg/L	0.362	186.1	mg/L	0.72	0.39%
K 766.490†	11713.9	5.004	mg/L	0.0061	10.01	mg/L	0.012	0.12%
Mg 279.077†	32955.8	25.55	mg/L	0.104	51.09	mg/L	0.209	0.41%
Mn 257.610†	49051.6	1.281	mg/L	0.0049	2.563	mg/L	0.0098	0.38%
Mo 202.031†	137.2	0.00666	mg/L	0.000228	0.01332	mg/L	0.000457	3.43%
Na 589.592†	28108.9	1.936	mg/L	0.0052	3.873	mg/L	0.0105	0.27%
Na 330.237†	60.9	2.110	mg/L	0.0854	4.219	mg/L	0.1707	4.05%
Ni 231.604†	592.1	0.1431	mg/L	0.00171	0.2863	mg/L	0.00342	1.19%
Pb 220.353†	1369.0	0.1809	mg/L	0.00030	0.3618	mg/L	0.00060	0.17%
Sb 206.836†	15.6	0.00687	mg/L	0.000633	0.01374	mg/L	0.001266	9.22%
Se 196.026†	19.4	0.00541	mg/L	0.003379	0.01082	mg/L	0.006758	62.46%
Si 288.158†	2923.5	1.409	mg/L	0.0073	2.817	mg/L	0.0145	0.52%
Sn 189.927†	33.7	0.01469	mg/L	0.000903	0.02937	mg/L	0.001806	6.15%
Sr 421.552†	330313.0	0.3085	mg/L	0.00057	0.6171	mg/L	0.00114	0.18%
Ti 334.903†	71231.4	3.303	mg/L	0.0094	6.606	mg/L	0.0188	0.28%
Tl 190.801†	-24.9	0.00074	mg/L	0.003299	0.00149	mg/L	0.006598	443.52%
V 292.402†	30769.4	0.2146	mg/L	0.00098	0.4292	mg/L	0.00196	0.46%
Zn 206.200†	9982.2	2.603	mg/L	0.0111	5.207	mg/L	0.0222	0.43%

Sequence No.: 15
Sample ID: WU00 F SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 311
Date Collected: 6/21/2013 10:43:21 AM
Data Type: Original

Nebulizer Parameters: WU00 F SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU00 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2960330.4	100.0	%	0.22				0.22%
ScR 361.383	351576.5	100.6	%	0.50				0.50%
Ag 328.068†	-92.1	-0.00039	mg/L	0.000117	-0.00079	mg/L	0.000233	29.72%
Al 308.215†	143003.2	86.24	mg/L	0.176	172.5	mg/L	0.35	0.20%
As 188.979†	-132.7	0.02605	mg/L	0.002221	0.05210	mg/L	0.004441	8.52%
B 249.677†	164.3	0.02171	mg/L	0.000221	0.04343	mg/L	0.000442	1.02%
Ba 233.527†	3271.7	0.7070	mg/L	0.00613	1.414	mg/L	0.0123	0.87%
Be 313.042†	870.1	0.00131	mg/L	0.000023	0.00262	mg/L	0.000046	1.77%
Ca 317.933†	444302.4	34.33	mg/L	0.189	68.65	mg/L	0.379	0.55%
Cd 228.802†	92.9	0.00339	mg/L	0.000056	0.00677	mg/L	0.000111	1.64%
Co 228.616†	1910.4	0.04188	mg/L	0.000487	0.08375	mg/L	0.000973	1.16%
Cr 267.716†	833.5	0.1336	mg/L	0.00137	0.2672	mg/L	0.00274	1.03%
Cu 324.752†	61240.8	0.2072	mg/L	0.00109	0.4144	mg/L	0.00218	0.53%
Fe 273.955†	129765.6	97.00	mg/L	0.812	194.0	mg/L	1.62	0.84%
K 766.490†	10994.7	4.697	mg/L	0.0198	9.394	mg/L	0.0395	0.42%
Mg 279.077†	32421.6	25.13	mg/L	0.154	50.26	mg/L	0.308	0.61%
Mn 257.610†	53470.3	1.397	mg/L	0.0117	2.794	mg/L	0.0233	0.84%
Mo 202.031†	174.8	0.00860	mg/L	0.000113	0.01720	mg/L	0.000226	1.31%
Na 589.592†	28916.6	1.992	mg/L	0.0045	3.984	mg/L	0.0090	0.23%
Na 330.237†	59.2	2.169	mg/L	0.1756	4.339	mg/L	0.3511	8.09%
Ni 231.604†	577.4	0.1396	mg/L	0.00208	0.2792	mg/L	0.00416	1.49%
Pb 220.353†	1221.3	0.1645	mg/L	0.00067	0.3289	mg/L	0.00133	0.41%
Sb 206.836†	26.8	0.01029	mg/L	0.000116	0.02058	mg/L	0.000233	1.13%
Se 196.026†	21.3	0.00596	mg/L	0.002714	0.01192	mg/L	0.005428	45.52%
Si 288.158†	3004.7	1.448	mg/L	0.0146	2.895	mg/L	0.0291	1.01%
Sn 189.927†	3.4	0.00609	mg/L	0.001165	0.01218	mg/L	0.002331	19.13%
Sr 421.552†	354385.1	0.3310	mg/L	0.00116	0.6621	mg/L	0.00233	0.35%
Ti 334.903†	72273.5	3.352	mg/L	0.0171	6.703	mg/L	0.0342	0.51%
Tl 190.801†	-26.8	0.00041	mg/L	0.001847	0.00082	mg/L	0.003694	449.05%
V 292.402†	32146.7	0.2243	mg/L	0.00125	0.4486	mg/L	0.00250	0.56%
Zn 206.200†	8623.7	2.249	mg/L	0.0131	4.498	mg/L	0.0261	0.58%

Sequence No.: 16
Sample ID: WU00 MB1SPK SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 312
Date Collected: 6/21/2013 10:47:22 AM
Data Type: Original

Nebulizer Parameters: WU00 MB1SPK SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU00 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3006880.9	101.6	%	0.27				0.26%
ScR 361.383	356167.2	101.9	%	0.16				0.15%
Ag 328.068†	101584.1	0.5068	mg/L	0.00213	1.014	mg/L	0.0043	0.42%
Al 308.215†	3300.2	1.983	mg/L	0.0097	3.966	mg/L	0.0194	0.49%
As 188.979†	3316.9	1.976	mg/L	0.0039	3.952	mg/L	0.0078	0.20%
B 249.677†	6.8	-0.00012	mg/L	0.000415	-0.00023	mg/L	0.000830	358.59%
Ba 233.527†	8994.5	1.988	mg/L	0.0115	3.977	mg/L	0.0229	0.58%
Be 313.042†	285676.8	0.4601	mg/L	0.00187	0.9201	mg/L	0.00375	0.41%
Ca 317.933†	123271.5	9.524	mg/L	0.0152	19.05	mg/L	0.030	0.16%
Cd 228.802†	16256.7	0.4864	mg/L	0.00096	0.9728	mg/L	0.00192	0.20%
Co 228.616†	18816.2	0.4815	mg/L	0.00225	0.9629	mg/L	0.00450	0.47%
Cr 267.716†	3169.5	0.5013	mg/L	0.00287	1.003	mg/L	0.0057	0.57%
Cu 324.752†	146584.9	0.4876	mg/L	0.00068	0.9753	mg/L	0.00135	0.14%
Fe 273.955†	2657.5	1.983	mg/L	0.0129	3.967	mg/L	0.0259	0.65%
K 766.490†	22541.2	9.630	mg/L	0.0266	19.26	mg/L	0.053	0.28%
Mg 279.077†	12728.7	9.889	mg/L	0.0450	19.78	mg/L	0.090	0.46%
Mn 257.610†	17767.5	0.4646	mg/L	0.00096	0.9291	mg/L	0.00193	0.21%
Mo 202.031†	20.9	0.00093	mg/L	0.000106	0.00187	mg/L	0.000211	11.31%
Na 589.592†	140352.0	9.669	mg/L	0.0067	19.34	mg/L	0.013	0.07%
Na 330.237†	297.1	10.08	mg/L	0.181	20.16	mg/L	0.361	1.79%
Ni 231.604†	1963.6	0.4739	mg/L	0.00219	0.9478	mg/L	0.00437	0.46%
Pb 220.353†	16089.7	1.968	mg/L	0.0097	3.937	mg/L	0.0194	0.49%
Sb 206.836†	21.9	0.00191	mg/L	0.001254	0.00381	mg/L	0.002509	65.79%
Se 196.026†	2705.3	1.982	mg/L	0.0074	3.964	mg/L	0.0149	0.37%
Si 288.158†	23.7	0.01472	mg/L	0.001786	0.02945	mg/L	0.003573	12.13%
Sn 189.927†	-24.8	-0.00580	mg/L	0.000516	-0.01160	mg/L	0.001032	8.90%
Sr 421.552†	514111.7	0.4802	mg/L	0.00050	0.9605	mg/L	0.00101	0.11%
Ti 334.903†	49.1	0.00159	mg/L	0.000153	0.00318	mg/L	0.000307	9.64%
Tl 190.801†	4476.1	1.956	mg/L	0.0036	3.913	mg/L	0.0072	0.18%
V 292.402†	68175.1	0.4909	mg/L	0.00241	0.9817	mg/L	0.00482	0.49%
Zn 206.200†	1826.8	0.4765	mg/L	0.00246	0.9530	mg/L	0.00491	0.52%

Sequence No.: 17
Sample ID: WU00 MB1SPKD SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 313
Date Collected: 6/21/2013 10:51:23 AM
Data Type: Original

Nebulizer Parameters: WU00 MB1SPKD SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU00 MB1SPKD SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2968623.8	100.3	%	0.16				0.15%
ScR 361.383	351596.1	100.6	%	0.70				0.70%
Ag 328.068†	103029.0	0.5140	mg/L	0.00300	1.028	mg/L	0.0060	0.58%
Al 308.215†	3348.9	2.012	mg/L	0.0145	4.024	mg/L	0.0289	0.72%
As 188.979†	3369.1	2.007	mg/L	0.0076	4.014	mg/L	0.0153	0.38%
B 249.677†	4.9	-0.00037	mg/L	0.000614	-0.00074	mg/L	0.001228	165.08%
Ba 233.527†	9152.2	2.023	mg/L	0.0169	4.046	mg/L	0.0338	0.83%
Be 313.042†	285836.6	0.4603	mg/L	0.00012	0.9206	mg/L	0.00025	0.03%
Ca 317.933†	124158.0	9.592	mg/L	0.0227	19.18	mg/L	0.045	0.24%
Cd 228.802†	16551.2	0.4952	mg/L	0.00054	0.9904	mg/L	0.00108	0.11%
Co 228.616†	19117.8	0.4892	mg/L	0.00076	0.9784	mg/L	0.00153	0.16%
Cr 267.716†	3221.4	0.5095	mg/L	0.00469	1.019	mg/L	0.0094	0.92%
Cu 324.752†	149047.7	0.4958	mg/L	0.00281	0.9917	mg/L	0.00562	0.57%
Fe 273.955†	2688.7	2.007	mg/L	0.0169	4.014	mg/L	0.0337	0.84%
K 766.490†	22777.9	9.731	mg/L	0.0286	19.46	mg/L	0.057	0.29%
Mg 279.077†	12970.8	10.08	mg/L	0.078	20.15	mg/L	0.155	0.77%
Mn 257.610†	17829.3	0.4662	mg/L	0.00045	0.9324	mg/L	0.00090	0.10%
Mo 202.031†	29.3	0.00137	mg/L	0.000219	0.00274	mg/L	0.000438	15.99%
Na 589.592†	141781.1	9.768	mg/L	0.0361	19.54	mg/L	0.072	0.37%
Na 330.237†	302.7	10.27	mg/L	0.174	20.55	mg/L	0.348	1.69%
Ni 231.604†	2002.8	0.4834	mg/L	0.00435	0.9667	mg/L	0.00871	0.90%
Pb 220.353†	16375.7	2.003	mg/L	0.0039	4.007	mg/L	0.0079	0.20%
Sb 206.836†	18.4	0.00073	mg/L	0.001140	0.00146	mg/L	0.002281	156.53%
Se 196.026†	2741.7	2.008	mg/L	0.0025	4.017	mg/L	0.0050	0.13%
Si 288.158†	17.7	0.01188	mg/L	0.003788	0.02376	mg/L	0.007576	31.88%
Sn 189.927†	-25.7	-0.00607	mg/L	0.000202	-0.01214	mg/L	0.000404	3.33%
Sr 421.552†	518769.3	0.4846	mg/L	0.00077	0.9692	mg/L	0.00155	0.16%
Ti 334.903†	33.3	0.00085	mg/L	0.000212	0.00170	mg/L	0.000425	25.04%
Tl 190.801†	4553.3	1.990	mg/L	0.0126	3.980	mg/L	0.0251	0.63%
V 292.402†	69410.5	0.4998	mg/L	0.00178	0.9995	mg/L	0.00355	0.36%
Zn 206.200†	1858.0	0.4846	mg/L	0.00422	0.9693	mg/L	0.00844	0.87%

Sequence No.: 18
Sample ID: CV 2
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 6/21/2013 10:55:24 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2919004.4	98.61	%	0.677				0.69%
ScR 361.383	341975.6	97.85	%	0.286				0.29%
Ag 328.068†	210811.0	1.052	mg/L	0.0127	1.052	mg/L	0.0127	1.21%
Al 308.215†	3424.1	2.032	mg/L	0.0062	2.032	mg/L	0.0062	0.31%
As 188.979†	3346.6	2.023	mg/L	0.0165	2.023	mg/L	0.0165	0.82%
B 249.677†	7491.0	0.9935	mg/L	0.00430	0.9935	mg/L	0.00430	0.43%
Ba 233.527†	4617.6	1.020	mg/L	0.0017	1.020	mg/L	0.0017	0.16%
Be 313.042†	608221.9	0.9795	mg/L	0.00354	0.9795	mg/L	0.00354	0.36%
Ca 317.933†	25422.6	1.964	mg/L	0.0030	1.964	mg/L	0.0030	0.15%
Cd 228.802†	33059.2	1.000	mg/L	0.0068	1.000	mg/L	0.0068	0.68%
Co 228.616†	38452.2	0.9826	mg/L	0.00910	0.9826	mg/L	0.00910	0.93%
Cr 267.716†	6464.5	1.024	mg/L	0.0052	1.024	mg/L	0.0052	0.51%
Cu 324.752†	297764.3	0.9901	mg/L	0.00317	0.9901	mg/L	0.00317	0.32%
Fe 273.955†	2745.2	2.046	mg/L	0.0080	2.046	mg/L	0.0080	0.39%
K 766.490†	46618.1	19.92	mg/L	0.035	19.92	mg/L	0.035	0.17%
Mg 279.077†	2555.9	1.992	mg/L	0.0110	1.992	mg/L	0.0110	0.55%
Mn 257.610†	36324.1	0.9494	mg/L	0.00646	0.9494	mg/L	0.00646	0.68%
Mo 202.031†	19115.2	0.9890	mg/L	0.00536	0.9890	mg/L	0.00536	0.54%
Na 589.592†	727875.3	50.15	mg/L	0.072	50.15	mg/L	0.072	0.14%
Na 330.237†	1481.2	51.17	mg/L	0.246	51.17	mg/L	0.246	0.48%
Ni 231.604†	4192.2	1.014	mg/L	0.0059	1.014	mg/L	0.0059	0.58%
Pb 220.353†	16257.6	1.989	mg/L	0.0130	1.989	mg/L	0.0130	0.65%
Sb 206.836†	6695.9	2.099	mg/L	0.0190	2.099	mg/L	0.0190	0.91%
Se 196.026†	2737.1	2.004	mg/L	0.0163	2.004	mg/L	0.0163	0.81%
Si 288.158†	4220.5	2.034	mg/L	0.0146	2.034	mg/L	0.0146	0.72%
Sn 189.927†	3481.2	1.0000	mg/L	0.00793	1.0000	mg/L	0.00793	0.79%
Sr 421.552†	1065492.6	0.9953	mg/L	0.00157	0.9953	mg/L	0.00157	0.16%
Ti 334.903†	21573.6	0.9998	mg/L	0.00395	0.9998	mg/L	0.00395	0.40%
Tl 190.801†	4747.0	2.071	mg/L	0.0162	2.071	mg/L	0.0162	0.78%
V 292.402†	140493.2	1.012	mg/L	0.0098	1.012	mg/L	0.0098	0.97%
Zn 206.200†	3833.8	1.000	mg/L	0.0029	1.000	mg/L	0.0029	0.29%

Sequence No.: 19
Sample ID: CB 2
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 11:00:31 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2929897.7	98.98	%	0.050				0.05%
ScR 361.383	344674.8	98.62	%	0.187				0.19%
Ag 328.068†	21.1	0.00011	mg/L	0.000029	0.00011	mg/L	0.000029	27.18%
Al 308.215†	7.4	0.00444	mg/L	0.001743	0.00444	mg/L	0.001743	39.26%
As 188.979†	-0.9	-0.00051	mg/L	0.000732	-0.00051	mg/L	0.000732	143.33%
B 249.677†	12.4	0.00165	mg/L	0.000280	0.00165	mg/L	0.000280	16.99%
Ba 233.527†	2.2	0.00050	mg/L	0.000058	0.00050	mg/L	0.000058	11.71%
Be 313.042†	23.1	0.00004	mg/L	0.000024	0.00004	mg/L	0.000024	65.10%
Ca 317.933†	10.0	0.00077	mg/L	0.000753	0.00077	mg/L	0.000753	97.79%
Cd 228.802†	6.6	0.00020	mg/L	0.000046	0.00020	mg/L	0.000046	22.43%
Co 228.616†	-0.6	-0.00002	mg/L	0.000201	-0.00002	mg/L	0.000201	>999.9%
Cr 267.716†	-4.0	-0.00063	mg/L	0.000510	-0.00063	mg/L	0.000510	80.89%
Cu 324.752†	179.7	0.00060	mg/L	0.000035	0.00060	mg/L	0.000035	5.87%
Fe 273.955†	2.6	0.00192	mg/L	0.000323	0.00192	mg/L	0.000323	16.82%
K 766.490†	-36.4	-0.01556	mg/L	0.011695	-0.01556	mg/L	0.011695	75.15%
Mg 279.077†	-0.2	-0.00018	mg/L	0.001291	-0.00018	mg/L	0.001291	733.56%
Mn 257.610†	3.5	0.00009	mg/L	0.000015	0.00009	mg/L	0.000015	16.39%
Mo 202.031†	21.2	0.00110	mg/L	0.000387	0.00110	mg/L	0.000387	35.32%
Na 589.592†	-7.0	-0.00048	mg/L	0.003058	-0.00048	mg/L	0.003058	636.29%
Na 330.237†	-0.3	-0.00875	mg/L	0.192031	-0.00875	mg/L	0.192031	>999.9%
Ni 231.604†	-3.7	-0.00090	mg/L	0.001341	-0.00090	mg/L	0.001341	148.59%
Pb 220.353†	3.5	0.00042	mg/L	0.000205	0.00042	mg/L	0.000205	48.62%
Sb 206.836†	15.7	0.00493	mg/L	0.001249	0.00493	mg/L	0.001249	25.35%
Se 196.026†	2.8	0.00207	mg/L	0.002125	0.00207	mg/L	0.002125	102.80%
Si 288.158†	-5.6	-0.00270	mg/L	0.005051	-0.00270	mg/L	0.005051	187.32%
Sn 189.927†	1.1	0.00033	mg/L	0.000400	0.00033	mg/L	0.000400	121.00%
Sr 421.552†	-18.1	-0.00002	mg/L	0.000017	-0.00002	mg/L	0.000017	97.99%
Ti 334.903†	12.0	0.00056	mg/L	0.000450	0.00056	mg/L	0.000450	80.81%
Tl 190.801†	-1.8	-0.00079	mg/L	0.001197	-0.00079	mg/L	0.001197	151.21%
V 292.402†	10.1	0.00007	mg/L	0.000195	0.00007	mg/L	0.000195	279.57%
Zn 206.200†	1.8	0.00048	mg/L	0.000526	0.00048	mg/L	0.000526	110.29%

Sequence No.: 20
Sample ID: WU10 O SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 314
Date Collected: 6/21/2013 11:04:46 AM
Data Type: Original

Nebulizer Parameters: WU10 O SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 O SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2927995.7	98.91	%	0.470				0.47%
ScR 361.383	348909.4	99.83	%	0.592				0.59%
Ag 328.068†	176.4	0.00096	mg/L	0.000099	0.00192	mg/L	0.000198	10.27%
Al 308.215†	166734.1	100.5	mg/L	0.15	201.1	mg/L	0.30	0.15%
As 188.979†	-214.8	0.03902	mg/L	0.002424	0.07805	mg/L	0.004847	6.21%
B 249.677†	347.3	0.04598	mg/L	0.000356	0.09196	mg/L	0.000712	0.77%
Ba 233.527†	1250.3	0.2540	mg/L	0.00328	0.5081	mg/L	0.00655	1.29%
Be 313.042†	1055.1	0.00158	mg/L	0.000036	0.00315	mg/L	0.000072	2.28%
Ca 317.933†	537447.3	41.52	mg/L	0.059	83.04	mg/L	0.118	0.14%
Cd 228.802†	110.4	0.00425	mg/L	0.000124	0.00850	mg/L	0.000247	2.91%
Co 228.616†	2628.8	0.05652	mg/L	0.000469	0.1130	mg/L	0.00094	0.83%
Cr 267.716†	1219.5	0.1952	mg/L	0.00140	0.3904	mg/L	0.00281	0.72%
Cu 324.752†	67584.7	0.2295	mg/L	0.00160	0.4589	mg/L	0.00321	0.70%
Fe 273.955†	177482.3	132.7	mg/L	0.37	265.3	mg/L	0.73	0.28%
K 766.490†	16066.1	6.864	mg/L	0.0114	13.73	mg/L	0.023	0.17%
Mg 279.077†	46676.6	36.18	mg/L	0.101	72.36	mg/L	0.201	0.28%
Mn 257.610†	66030.9	1.725	mg/L	0.0023	3.451	mg/L	0.0046	0.13%
Mo 202.031†	163.5	0.00792	mg/L	0.000123	0.01584	mg/L	0.000246	1.55%
Na 589.592†	52583.9	3.623	mg/L	0.0134	7.245	mg/L	0.0268	0.37%
Na 330.237†	78.8	3.863	mg/L	0.0396	7.726	mg/L	0.0792	1.03%
Ni 231.604†	864.0	0.2089	mg/L	0.00255	0.4178	mg/L	0.00510	1.22%
Pb 220.353†	5996.5	0.7501	mg/L	0.00447	1.500	mg/L	0.0089	0.60%
Sb 206.836†	32.2	0.01291	mg/L	0.002163	0.02581	mg/L	0.004325	16.76%
Se 196.026†	28.9	0.00993	mg/L	0.009215	0.01985	mg/L	0.018430	92.84%
Si 288.158†	4159.7	2.004	mg/L	0.0178	4.009	mg/L	0.0356	0.89%
Sn 189.927†	-16.3	0.00179	mg/L	0.002356	0.00357	mg/L	0.004713	131.84%
Sr 421.552†	326891.3	0.3054	mg/L	0.00031	0.6107	mg/L	0.00063	0.10%
Ti 334.903†	114158.9	5.295	mg/L	0.0095	10.59	mg/L	0.019	0.18%
Tl 190.801†	-43.4	-0.00229	mg/L	0.001637	-0.00457	mg/L	0.003274	71.58%
V 292.402†	39777.4	0.2763	mg/L	0.00296	0.5527	mg/L	0.00592	1.07%
Zn 206.200†	2519.7	0.6571	mg/L	0.00628	1.314	mg/L	0.0126	0.96%

Sequence No.: 21
Sample ID: WU10 P SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 315
Date Collected: 6/21/2013 11:08:49 AM
Data Type: Original

Nebulizer Parameters: WU10 P SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 P SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2940942.6	99.35	%	0.160				0.16%
ScR 361.383	350999.8	100.4	%	0.04				0.04%
Ag 328.068†	497.0	0.00257	mg/L	0.000084	0.00514	mg/L	0.000168	3.27%
Al 308.215†	197230.3	118.9	mg/L	0.60	237.9	mg/L	1.21	0.51%
As 188.979†	-237.1	0.03447	mg/L	0.002280	0.06893	mg/L	0.004560	6.62%
B 249.677†	443.8	0.05878	mg/L	0.000924	0.1176	mg/L	0.00185	1.57%
Ba 233.527†	1199.4	0.2408	mg/L	0.00189	0.4816	mg/L	0.00377	0.78%
Be 313.042†	1083.1	0.00161	mg/L	0.000006	0.00323	mg/L	0.000012	0.39%
Ca 317.933†	395499.5	30.56	mg/L	0.128	61.11	mg/L	0.257	0.42%
Cd 228.802†	168.9	0.00612	mg/L	0.000097	0.01223	mg/L	0.000195	1.59%
Co 228.616†	2776.2	0.05973	mg/L	0.000146	0.1195	mg/L	0.00029	0.25%
Cr 267.716†	1450.6	0.2322	mg/L	0.00120	0.4643	mg/L	0.00240	0.52%
Cu 324.752†	92145.5	0.3116	mg/L	0.00027	0.6232	mg/L	0.00053	0.09%
Fe 273.955†	192906.7	144.2	mg/L	0.79	288.4	mg/L	1.58	0.55%
K 766.490†	21023.5	8.982	mg/L	0.0444	17.96	mg/L	0.089	0.49%
Mg 279.077†	50503.2	39.15	mg/L	0.084	78.30	mg/L	0.168	0.21%
Mn 257.610†	50493.9	1.319	mg/L	0.0052	2.639	mg/L	0.0103	0.39%
Mo 202.031†	175.2	0.00867	mg/L	0.000314	0.01733	mg/L	0.000628	3.62%
Na 589.592†	123804.5	8.529	mg/L	0.0679	17.06	mg/L	0.136	0.80%
Na 330.237†	221.0	8.901	mg/L	0.2585	17.80	mg/L	0.517	2.90%
Ni 231.604†	913.1	0.2208	mg/L	0.00082	0.4415	mg/L	0.00163	0.37%
Pb 220.353†	6922.0	0.8669	mg/L	0.00240	1.734	mg/L	0.0048	0.28%
Sb 206.836†	24.9	0.01045	mg/L	0.002522	0.02091	mg/L	0.005044	24.13%
Se 196.026†	33.1	0.01099	mg/L	0.000994	0.02198	mg/L	0.001987	9.04%
Si 288.158†	3923.6	1.891	mg/L	0.0058	3.783	mg/L	0.0116	0.31%
Sn 189.927†	-8.1	0.00280	mg/L	0.001621	0.00560	mg/L	0.003242	57.92%
Sr 421.552†	274219.5	0.2562	mg/L	0.00109	0.5123	mg/L	0.00219	0.43%
Ti 334.903†	119508.5	5.544	mg/L	0.0135	11.09	mg/L	0.027	0.24%
Tl 190.801†	-37.7	0.00166	mg/L	0.002082	0.00332	mg/L	0.004164	125.54%
V 292.402†	43313.8	0.3010	mg/L	0.00025	0.6021	mg/L	0.00049	0.08%
Zn 206.200†	2441.9	0.6369	mg/L	0.00165	1.274	mg/L	0.0033	0.26%

Sequence No.: 22
Sample ID: WU10 Q SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 316
Date Collected: 6/21/2013 11:12:50 AM
Data Type: Original

Nebulizer Parameters: WU10 Q SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 Q SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2917712.4	98.56	%	0.471				0.48%
ScR 361.383	347052.7	99.30	%	0.631				0.64%
Ag 328.068†	927.3	0.00471	mg/L	0.000072	0.00942	mg/L	0.000144	1.53%
Al 308.215†	243072.6	146.6	mg/L	0.56	293.2	mg/L	1.12	0.38%
As 188.979†	-242.1	0.04796	mg/L	0.002571	0.09592	mg/L	0.005142	5.36%
B 249.677†	1234.6	0.1638	mg/L	0.00136	0.3276	mg/L	0.00273	0.83%
Ba 233.527†	1004.9	0.1960	mg/L	0.00087	0.3920	mg/L	0.00175	0.45%
Be 313.042†	1211.7	0.00182	mg/L	0.000015	0.00364	mg/L	0.000030	0.82%
Ca 317.933†	716426.9	55.35	mg/L	0.144	110.7	mg/L	0.29	0.26%
Cd 228.802†	422.1	0.01385	mg/L	0.000270	0.02771	mg/L	0.000539	1.95%
Co 228.616†	2467.0	0.05070	mg/L	0.000308	0.1014	mg/L	0.00062	0.61%
Cr 267.716†	1511.9	0.2420	mg/L	0.00205	0.4840	mg/L	0.00410	0.85%
Cu 324.752†	114909.9	0.3877	mg/L	0.00173	0.7753	mg/L	0.00346	0.45%
Fe 273.955†	207389.0	155.0	mg/L	1.03	310.1	mg/L	2.05	0.66%
K 766.490†	30913.7	13.21	mg/L	0.047	26.41	mg/L	0.095	0.36%
Mg 279.077†	52268.3	40.51	mg/L	0.123	81.02	mg/L	0.246	0.30%
Mn 257.610†	46826.1	1.223	mg/L	0.0076	2.446	mg/L	0.0153	0.62%
Mo 202.031†	370.0	0.01843	mg/L	0.000469	0.03685	mg/L	0.000938	2.55%
Na 589.592†	190509.7	13.12	mg/L	0.035	26.25	mg/L	0.070	0.27%
Na 330.237†	351.9	13.48	mg/L	0.028	26.96	mg/L	0.055	0.20%
Ni 231.604†	815.4	0.1972	mg/L	0.00043	0.3943	mg/L	0.00085	0.22%
Pb 220.353†	2851.9	0.3749	mg/L	0.00411	0.7499	mg/L	0.00822	1.10%
Sb 206.836†	24.9	0.01077	mg/L	0.001326	0.02154	mg/L	0.002651	12.31%
Se 196.026†	38.0	0.01157	mg/L	0.006273	0.02315	mg/L	0.012546	54.20%
Si 288.158†	3825.4	1.844	mg/L	0.0113	3.688	mg/L	0.0226	0.61%
Sn 189.927†	9.9	0.01123	mg/L	0.001504	0.02245	mg/L	0.003008	13.40%
Sr 421.552†	378294.5	0.3534	mg/L	0.00107	0.7067	mg/L	0.00214	0.30%
Ti 334.903†	131807.3	6.113	mg/L	0.0259	12.23	mg/L	0.052	0.42%
Tl 190.801†	-40.8	0.00191	mg/L	0.001028	0.00382	mg/L	0.002055	53.87%
V 292.402†	40511.7	0.2801	mg/L	0.00131	0.5602	mg/L	0.00263	0.47%
Zn 206.200†	2451.3	0.6390	mg/L	0.00220	1.278	mg/L	0.0044	0.34%

Sequence No.: 23
Sample ID: WU10 R SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 317
Date Collected: 6/21/2013 11:16:52 AM
Data Type: Original

Nebulizer Parameters: WU10 R SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU10 R SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2928039.5	98.91	%	0.083				0.08%
ScR 361.383	350231.9	100.2	%	0.40				0.40%
Ag 328.068†	585.4	0.00302	mg/L	0.000225	0.00603	mg/L	0.000450	7.45%
Al 308.215†	188532.7	113.7	mg/L	0.19	227.4	mg/L	0.39	0.17%
As 188.979†	-181.6	0.06304	mg/L	0.002913	0.1261	mg/L	0.00583	4.62%
B 249.677†	906.9	0.1203	mg/L	0.00036	0.2406	mg/L	0.00071	0.30%
Ba 233.527†	1773.1	0.3698	mg/L	0.00381	0.7397	mg/L	0.00761	1.03%
Be 313.042†	1096.6	0.00163	mg/L	0.000006	0.00326	mg/L	0.000013	0.39%
Ca 317.933†	435077.7	33.61	mg/L	0.192	67.23	mg/L	0.383	0.57%
Cd 228.802†	166.5	0.00589	mg/L	0.000105	0.01177	mg/L	0.000209	1.78%
Co 228.616†	2448.8	0.05171	mg/L	0.000284	0.1034	mg/L	0.00057	0.55%
Cr 267.716†	1701.5	0.2715	mg/L	0.00038	0.5430	mg/L	0.00076	0.14%
Cu 324.752†	74511.2	0.2524	mg/L	0.00114	0.5048	mg/L	0.00229	0.45%
Fe 273.955†	175700.5	131.3	mg/L	0.89	262.7	mg/L	1.79	0.68%
K 766.490†	20066.3	8.573	mg/L	0.0254	17.15	mg/L	0.051	0.30%
Mg 279.077†	47907.0	37.14	mg/L	0.124	74.28	mg/L	0.248	0.33%
Mn 257.610†	59363.4	1.551	mg/L	0.0089	3.102	mg/L	0.0178	0.57%
Mo 202.031†	161.8	0.00793	mg/L	0.000307	0.01586	mg/L	0.000615	3.87%
Na 589.592†	54207.6	3.735	mg/L	0.0095	7.469	mg/L	0.0189	0.25%
Na 330.237†	78.8	3.936	mg/L	0.0282	7.871	mg/L	0.0564	0.72%
Ni 231.604†	1017.1	0.2459	mg/L	0.00036	0.4918	mg/L	0.00071	0.15%
Pb 220.353†	3468.6	0.4441	mg/L	0.00218	0.8883	mg/L	0.00437	0.49%
Sb 206.836†	26.2	0.01053	mg/L	0.001914	0.02105	mg/L	0.003827	18.18%
Se 196.026†	33.2	0.01163	mg/L	0.002345	0.02327	mg/L	0.004690	20.15%
Si 288.158†	3298.4	1.590	mg/L	0.0042	3.181	mg/L	0.0085	0.27%
Sn 189.927†	78.0	0.02782	mg/L	0.001023	0.05564	mg/L	0.002046	3.68%
Sr 421.552†	342258.3	0.3197	mg/L	0.00066	0.6394	mg/L	0.00133	0.21%
Ti 334.903†	116687.5	5.412	mg/L	0.0108	10.82	mg/L	0.022	0.20%
Tl 190.801†	-29.6	0.00337	mg/L	0.003202	0.00673	mg/L	0.006403	95.14%
V 292.402†	46935.5	0.3280	mg/L	0.00228	0.6559	mg/L	0.00455	0.69%
Zn 206.200†	2445.3	0.6377	mg/L	0.00131	1.275	mg/L	0.0026	0.21%

Sequence No.: 24
Sample ID: WU10 S SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 318
Date Collected: 6/21/2013 11:20:52 AM
Data Type: Original

Nebulizer Parameters: WU10 S SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 S SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2956356.9	99.87	%	0.032				0.03%
ScR 361.383	350194.1	100.2	%	0.83				0.83%
Ag 328.068†	296.9	0.00160	mg/L	0.000443	0.00320	mg/L	0.000885	27.70%
Al 308.215†	206957.4	124.8	mg/L	0.35	249.6	mg/L	0.70	0.28%
As 188.979†	-220.4	0.06788	mg/L	0.003634	0.1358	mg/L	0.00727	5.35%
B 249.677†	941.0	0.1248	mg/L	0.00067	0.2496	mg/L	0.00133	0.53%
Ba 233.527†	1620.1	0.3351	mg/L	0.00209	0.6702	mg/L	0.00419	0.63%
Be 313.042†	1250.3	0.00185	mg/L	0.000032	0.00370	mg/L	0.000063	1.71%
Ca 317.933†	484833.0	37.46	mg/L	0.022	74.92	mg/L	0.044	0.06%
Cd 228.802†	141.2	0.00530	mg/L	0.000071	0.01059	mg/L	0.000142	1.34%
Co 228.616†	2624.7	0.05462	mg/L	0.000244	0.1092	mg/L	0.00049	0.45%
Cr 267.716†	2377.5	0.3785	mg/L	0.00175	0.7571	mg/L	0.00351	0.46%
Cu 324.752†	67914.7	0.2305	mg/L	0.00007	0.4610	mg/L	0.00014	0.03%
Fe 273.955†	182525.3	136.4	mg/L	0.54	272.9	mg/L	1.07	0.39%
K 766.490†	22842.2	9.759	mg/L	0.0330	19.52	mg/L	0.066	0.34%
Mg 279.077†	52026.3	40.34	mg/L	0.053	80.67	mg/L	0.106	0.13%
Mn 257.610†	55308.7	1.445	mg/L	0.0049	2.890	mg/L	0.0099	0.34%
Mo 202.031†	162.6	0.00792	mg/L	0.000256	0.01584	mg/L	0.000512	3.23%
Na 589.592†	43706.6	3.011	mg/L	0.0067	6.022	mg/L	0.0135	0.22%
Na 330.237†	59.1	3.532	mg/L	0.1260	7.065	mg/L	0.2520	3.57%
Ni 231.604†	1279.9	0.3094	mg/L	0.00394	0.6189	mg/L	0.00788	1.27%
Pb 220.353†	2056.4	0.2740	mg/L	0.00094	0.5479	mg/L	0.00188	0.34%
Sb 206.836†	23.2	0.00895	mg/L	0.001726	0.01790	mg/L	0.003451	19.28%
Se 196.026†	43.8	0.01816	mg/L	0.001741	0.03632	mg/L	0.003483	9.59%
Si 288.158†	3228.0	1.557	mg/L	0.0185	3.114	mg/L	0.0369	1.19%
Sn 189.927†	5.8	0.00778	mg/L	0.000826	0.01557	mg/L	0.001651	10.61%
Sr 421.552†	388620.0	0.3630	mg/L	0.00053	0.7260	mg/L	0.00106	0.15%
Ti 334.903†	135743.1	6.296	mg/L	0.0088	12.59	mg/L	0.018	0.14%
Tl 190.801†	-39.9	-0.00078	mg/L	0.003528	-0.00155	mg/L	0.007057	454.77%
V 292.402†	56608.6	0.3970	mg/L	0.00012	0.7939	mg/L	0.00024	0.03%
Zn 206.200†	1970.8	0.5139	mg/L	0.00493	1.028	mg/L	0.0099	0.96%

Sequence No.: 25
Sample ID: WU10 T SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 319
Date Collected: 6/21/2013 11:24:53 AM
Data Type: Original

Nebulizer Parameters: WU10 T SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 T SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2934965.1	99.15	%	0.130				0.13%
ScR 361.383	348567.4	99.74	%	0.471				0.47%
Ag 328.068†	3313.6	0.01662	mg/L	0.000087	0.03324	mg/L	0.000175	0.53%
Al 308.215†	210137.6	126.7	mg/L	0.74	253.4	mg/L	1.48	0.58%
As 188.979†	-259.1	0.05136	mg/L	0.002066	0.1027	mg/L	0.00413	4.02%
B 249.677†	808.5	0.1072	mg/L	0.00104	0.2144	mg/L	0.00209	0.97%
Ba 233.527†	1890.7	0.3936	mg/L	0.00112	0.7872	mg/L	0.00225	0.29%
Be 313.042†	1152.1	0.00171	mg/L	0.000016	0.00342	mg/L	0.000032	0.93%
Ca 317.933†	544175.1	42.04	mg/L	0.261	84.08	mg/L	0.523	0.62%
Cd 228.802†	242.9	0.00846	mg/L	0.000034	0.01693	mg/L	0.000067	0.40%
Co 228.616†	2602.0	0.05359	mg/L	0.000474	0.1072	mg/L	0.00095	0.88%
Cr 267.716†	1611.8	0.2575	mg/L	0.00148	0.5151	mg/L	0.00297	0.58%
Cu 324.752†	104527.2	0.3526	mg/L	0.00246	0.7052	mg/L	0.00492	0.70%
Fe 273.955†	193481.0	144.6	mg/L	0.91	289.3	mg/L	1.82	0.63%
K 766.490†	21695.7	9.269	mg/L	0.0426	18.54	mg/L	0.085	0.46%
Mg 279.077†	51583.0	39.99	mg/L	0.211	79.97	mg/L	0.423	0.53%
Mn 257.610†	64363.3	1.682	mg/L	0.0084	3.363	mg/L	0.0167	0.50%
Mo 202.031†	219.0	0.01078	mg/L	0.000559	0.02157	mg/L	0.001118	5.19%
Na 589.592†	43525.6	2.999	mg/L	0.0270	5.997	mg/L	0.0540	0.90%
Na 330.237†	54.7	3.242	mg/L	0.1534	6.484	mg/L	0.3067	4.73%
Ni 231.604†	963.7	0.2330	mg/L	0.00136	0.4660	mg/L	0.00273	0.59%
Pb 220.353†	4903.0	0.6218	mg/L	0.00342	1.244	mg/L	0.0068	0.55%
Sb 206.836†	20.4	0.00994	mg/L	0.003027	0.01989	mg/L	0.006053	30.44%
Se 196.026†	30.3	0.00812	mg/L	0.009301	0.01625	mg/L	0.018602	114.50%
Si 288.158†	3829.7	1.846	mg/L	0.0118	3.692	mg/L	0.0236	0.64%
Sn 189.927†	136.4	0.04590	mg/L	0.000715	0.09180	mg/L	0.001430	1.56%
Sr 421.552†	367735.8	0.3435	mg/L	0.00159	0.6870	mg/L	0.00318	0.46%
Ti 334.903†	140208.0	6.503	mg/L	0.0322	13.01	mg/L	0.064	0.49%
Tl 190.801†	-34.8	0.00290	mg/L	0.002048	0.00581	mg/L	0.004096	70.55%
V 292.402†	46627.3	0.3244	mg/L	0.00202	0.6488	mg/L	0.00403	0.62%
Zn 206.200†	4161.0	1.085	mg/L	0.0070	2.170	mg/L	0.0139	0.64%

Sequence No.: 26
Sample ID: WU10 NDUP SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 320
Date Collected: 6/21/2013 11:28:54 AM
Data Type: Original

Nebulizer Parameters: WU10 NDUP SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 NDUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2922609.3	98.73	%	0.439				0.44%
ScR 361.383	349000.9	99.86	%	0.741				0.74%
Ag 328.068†	911.0	0.00463	mg/L	0.000251	0.00926	mg/L	0.000501	5.42%
Al 308.215†	206632.3	124.6	mg/L	0.23	249.2	mg/L	0.46	0.18%
As 188.979†	-234.3	0.04439	mg/L	0.003997	0.08878	mg/L	0.007993	9.00%
B 249.677†	838.3	0.1112	mg/L	0.00166	0.2224	mg/L	0.00331	1.49%
Ba 233.527†	1065.9	0.2112	mg/L	0.00295	0.4223	mg/L	0.00590	1.40%
Be 313.042†	1052.7	0.00157	mg/L	0.000019	0.00313	mg/L	0.000037	1.19%
Ca 317.933†	435651.6	33.66	mg/L	0.077	67.32	mg/L	0.153	0.23%
Cd 228.802†	297.7	0.01002	mg/L	0.000169	0.02004	mg/L	0.000338	1.69%
Co 228.616†	2418.5	0.05011	mg/L	0.000266	0.1002	mg/L	0.00053	0.53%
Cr 267.716†	1433.1	0.2294	mg/L	0.00357	0.4589	mg/L	0.00714	1.56%
Cu 324.752†	107107.9	0.3613	mg/L	0.00051	0.7227	mg/L	0.00102	0.14%
Fe 273.955†	194005.4	145.0	mg/L	0.39	290.0	mg/L	0.79	0.27%
K 766.490†	24478.6	10.46	mg/L	0.035	20.92	mg/L	0.069	0.33%
Mg 279.077†	49922.5	38.70	mg/L	0.077	77.39	mg/L	0.153	0.20%
Mn 257.610†	46159.6	1.206	mg/L	0.0034	2.412	mg/L	0.0068	0.28%
Mo 202.031†	233.9	0.01166	mg/L	0.000317	0.02333	mg/L	0.000633	2.71%
Na 589.592†	289622.6	19.95	mg/L	0.026	39.91	mg/L	0.051	0.13%
Na 330.237†	557.6	20.57	mg/L	0.276	41.14	mg/L	0.553	1.34%
Ni 231.604†	787.0	0.1903	mg/L	0.00351	0.3806	mg/L	0.00701	1.84%
Pb 220.353†	9541.6	1.188	mg/L	0.0053	2.377	mg/L	0.0106	0.45%
Sb 206.836†	21.8	0.00973	mg/L	0.001647	0.01946	mg/L	0.003295	16.93%
Se 196.026†	33.6	0.01075	mg/L	0.005751	0.02150	mg/L	0.011501	53.50%
Si 288.158†	4651.9	2.241	mg/L	0.0215	4.483	mg/L	0.0429	0.96%
Sn 189.927†	12.2	0.00906	mg/L	0.000530	0.01813	mg/L	0.001061	5.85%
Sr 421.552†	305834.1	0.2857	mg/L	0.00071	0.5714	mg/L	0.00142	0.25%
Ti 334.903†	125197.7	5.807	mg/L	0.0106	11.61	mg/L	0.021	0.18%
Tl 190.801†	-29.5	0.00547	mg/L	0.006233	0.01094	mg/L	0.012466	113.99%
V 292.402†	41211.4	0.2857	mg/L	0.00071	0.5715	mg/L	0.00141	0.25%
Zn 206.200†	2801.9	0.7309	mg/L	0.00597	1.462	mg/L	0.0119	0.82%

Sequence No.: 27
Sample ID: WU10 N SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 321
Date Collected: 6/21/2013 11:32:55 AM
Data Type: Original

Nebulizer Parameters: WU10 N SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 N SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2911884.6	98.37	%	0.519				0.53%
ScR 361.383	346499.0	99.14	%	0.409				0.41%
Ag 328.068†	890.5	0.00452	mg/L	0.000099	0.00905	mg/L	0.000197	2.18%
Al 308.215†	207626.7	125.2	mg/L	0.16	250.4	mg/L	0.32	0.13%
As 188.979†	-240.5	0.04064	mg/L	0.003598	0.08128	mg/L	0.007195	8.85%
B 249.677†	838.4	0.1112	mg/L	0.00134	0.2224	mg/L	0.00268	1.21%
Ba 233.527†	1035.6	0.2043	mg/L	0.00041	0.4087	mg/L	0.00081	0.20%
Be 313.042†	1069.1	0.00159	mg/L	0.000008	0.00319	mg/L	0.000017	0.53%
Ca 317.933†	430732.3	33.28	mg/L	0.077	66.56	mg/L	0.154	0.23%
Cd 228.802†	304.6	0.01025	mg/L	0.000133	0.02051	mg/L	0.000266	1.29%
Co 228.616†	2383.0	0.04920	mg/L	0.000388	0.09839	mg/L	0.000776	0.79%
Cr 267.716†	1570.8	0.2513	mg/L	0.00056	0.5025	mg/L	0.00112	0.22%
Cu 324.752†	107231.0	0.3618	mg/L	0.00161	0.7236	mg/L	0.00322	0.44%
Fe 273.955†	194985.4	145.8	mg/L	0.74	291.5	mg/L	1.48	0.51%
K 766.490†	24609.8	10.51	mg/L	0.072	21.03	mg/L	0.144	0.69%
Mg 279.077†	50211.2	38.92	mg/L	0.143	77.84	mg/L	0.286	0.37%
Mn 257.610†	46582.6	1.217	mg/L	0.0049	2.434	mg/L	0.0099	0.41%
Mo 202.031†	235.8	0.01177	mg/L	0.000369	0.02353	mg/L	0.000738	3.14%
Na 589.592†	288166.9	19.85	mg/L	0.050	39.71	mg/L	0.099	0.25%
Na 330.237†	557.3	20.56	mg/L	0.120	41.12	mg/L	0.240	0.58%
Ni 231.604†	797.9	0.1929	mg/L	0.00187	0.3858	mg/L	0.00375	0.97%
Pb 220.353†	11117.9	1.381	mg/L	0.0080	2.763	mg/L	0.0160	0.58%
Sb 206.836†	21.6	0.00934	mg/L	0.001612	0.01867	mg/L	0.003223	17.26%
Se 196.026†	38.4	0.01418	mg/L	0.001607	0.02837	mg/L	0.003214	11.33%
Si 288.158†	4879.1	2.351	mg/L	0.0133	4.701	mg/L	0.0267	0.57%
Sn 189.927†	8.0	0.00783	mg/L	0.000897	0.01567	mg/L	0.001795	11.46%
Sr 421.552†	305330.8	0.2852	mg/L	0.00050	0.5704	mg/L	0.00100	0.18%
Ti 334.903†	125191.5	5.807	mg/L	0.0133	11.61	mg/L	0.027	0.23%
Tl 190.801†	-43.5	-0.00056	mg/L	0.003088	-0.00112	mg/L	0.006176	549.05%
V 292.402†	40301.7	0.2793	mg/L	0.00106	0.5585	mg/L	0.00211	0.38%
Zn 206.200†	2838.1	0.7403	mg/L	0.00284	1.481	mg/L	0.0057	0.38%

Sequence No.: 28
Sample ID: WU10 NSPK SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 322
Date Collected: 6/21/2013 11:36:56 AM
Data Type: Original

Nebulizer Parameters: WU10 NSPK SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 NSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2916197.7	98.51	%	0.351				0.36%
ScR 361.383	344582.6	98.60	%	0.497				0.50%
Ag 328.068†	98901.3	0.4935	mg/L	0.00468	0.9869	mg/L	0.00935	0.95%
Al 308.215†	209954.1	126.6	mg/L	0.11	253.2	mg/L	0.21	0.08%
As 188.979†	2988.3	1.960	mg/L	0.0085	3.919	mg/L	0.0169	0.43%
B 249.677†	820.5	0.1078	mg/L	0.00136	0.2156	mg/L	0.00272	1.26%
Ba 233.527†	9833.3	2.149	mg/L	0.0146	4.298	mg/L	0.0292	0.68%
Be 313.042†	285558.2	0.4597	mg/L	0.00180	0.9195	mg/L	0.00359	0.39%
Ca 317.933†	556602.3	43.00	mg/L	0.205	86.00	mg/L	0.410	0.48%
Cd 228.802†	16854.3	0.5059	mg/L	0.00202	1.012	mg/L	0.0040	0.40%
Co 228.616†	20918.8	0.5237	mg/L	0.00394	1.047	mg/L	0.0079	0.75%
Cr 267.716†	4528.9	0.7189	mg/L	0.00210	1.438	mg/L	0.0042	0.29%
Cu 324.752†	256444.4	0.8582	mg/L	0.00599	1.716	mg/L	0.0120	0.70%
Fe 273.955†	197157.6	147.4	mg/L	0.39	294.7	mg/L	0.78	0.26%
K 766.490†	47143.0	20.14	mg/L	0.057	40.28	mg/L	0.113	0.28%
Mg 279.077†	65434.6	50.75	mg/L	0.107	101.5	mg/L	0.21	0.21%
Mn 257.610†	63879.8	1.669	mg/L	0.0036	3.339	mg/L	0.0072	0.21%
Mo 202.031†	250.8	0.01239	mg/L	0.000554	0.02479	mg/L	0.001107	4.47%
Na 589.592†	439169.7	30.26	mg/L	0.063	60.51	mg/L	0.126	0.21%
Na 330.237†	844.6	30.27	mg/L	0.055	60.53	mg/L	0.110	0.18%
Ni 231.604†	2719.4	0.6567	mg/L	0.00114	1.313	mg/L	0.0023	0.17%
Pb 220.353†	25346.1	3.122	mg/L	0.0155	6.244	mg/L	0.0310	0.50%
Sb 206.836†	37.4	0.00960	mg/L	0.001509	0.01921	mg/L	0.003018	15.71%
Se 196.026†	2693.0	1.959	mg/L	0.0141	3.918	mg/L	0.0283	0.72%
Si 288.158†	5229.1	2.523	mg/L	0.0138	5.045	mg/L	0.0277	0.55%
Sn 189.927†	4.4	0.00808	mg/L	0.001785	0.01616	mg/L	0.003569	22.09%
Sr 421.552†	823734.9	0.7695	mg/L	0.00071	1.539	mg/L	0.0014	0.09%
Ti 334.903†	122171.8	5.666	mg/L	0.0059	11.33	mg/L	0.012	0.10%
Tl 190.801†	4189.3	1.849	mg/L	0.0127	3.699	mg/L	0.0255	0.69%
V 292.402†	104130.1	0.7389	mg/L	0.00613	1.478	mg/L	0.0123	0.83%
Zn 206.200†	4604.7	1.201	mg/L	0.0022	2.402	mg/L	0.0043	0.18%

Sequence No.: 29
Sample ID: ~~WU10 NPOST SWC~~ ZZZZZZ
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 323
Date Collected: 6/21/2013 11:40:14 AM
Data Type: Original

Nebulizer Parameters: WU10 NPOST SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 NPOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2917365.7	98.55	%	0.444				0.45%
ScR 361.383	345644.7	98.90	%	0.440				0.45%
Ag 328.068†	103193.8	0.5149	mg/L	0.00316	1.030	mg/L	0.0063	0.61%
Al 308.215†	210290.0	126.8	mg/L	0.34	253.6	mg/L	0.68	0.27%
As 188.979†	3091.3	2.024	mg/L	0.0094	4.049	mg/L	0.0189	0.47%
B 249.677†	821.1	0.1079	mg/L	0.00042	0.2157	mg/L	0.00084	0.39%
Ba 233.527†	10117.6	2.212	mg/L	0.0241	4.425	mg/L	0.0481	1.09%
Be 313.042†	290796.4	0.4682	mg/L	0.00305	0.9363	mg/L	0.00610	0.65%
Ca 317.933†	552785.8	42.71	mg/L	0.162	85.41	mg/L	0.324	0.38%
Cd 228.802†	17203.5	0.5162	mg/L	0.00262	1.032	mg/L	0.0052	0.51%
Co 228.616†	21367.0	0.5350	mg/L	0.00174	1.070	mg/L	0.0035	0.32%
Cr 267.716†	4693.5	0.7449	mg/L	0.00710	1.490	mg/L	0.0142	0.95%
Cu 324.752†	260379.3	0.8711	mg/L	0.00745	1.742	mg/L	0.0149	0.85%
Fe 273.955†	194385.5	145.3	mg/L	0.22	290.6	mg/L	0.44	0.15%
K 766.490†	48289.6	20.63	mg/L	0.033	41.26	mg/L	0.067	0.16%
Mg 279.077†	65336.0	50.67	mg/L	0.333	101.3	mg/L	0.67	0.66%
Mn 257.610†	64192.8	1.678	mg/L	0.0039	3.355	mg/L	0.0078	0.23%
Mo 202.031†	237.2	0.01169	mg/L	0.000306	0.02339	mg/L	0.000611	2.61%
Na 589.592†	437549.8	30.14	mg/L	0.133	60.29	mg/L	0.266	0.44%
Na 330.237†	844.8	30.30	mg/L	0.282	60.60	mg/L	0.564	0.93%
Ni 231.604†	2764.9	0.6677	mg/L	0.01006	1.335	mg/L	0.0201	1.51%
Pb 220.353†	27139.9	3.341	mg/L	0.0127	6.683	mg/L	0.0254	0.38%
Sb 206.836†	34.1	0.00840	mg/L	0.001492	0.01679	mg/L	0.002983	17.77%
Se 196.026†	2823.0	2.054	mg/L	0.0156	4.108	mg/L	0.0311	0.76%
Si 288.158†	4841.3	2.336	mg/L	0.0070	4.672	mg/L	0.0140	0.30%
Sn 189.927†	3.8	0.00789	mg/L	0.001091	0.01578	mg/L	0.002182	13.83%
Sr 421.552†	835761.9	0.7807	mg/L	0.00227	1.561	mg/L	0.0045	0.29%
Ti 334.903†	124414.8	5.770	mg/L	0.0125	11.54	mg/L	0.025	0.22%
Tl 190.801†	4313.7	1.903	mg/L	0.0062	3.807	mg/L	0.0124	0.32%
V 292.402†	107959.2	0.7665	mg/L	0.00498	1.533	mg/L	0.0100	0.65%
Zn 206.200†	4615.2	1.204	mg/L	0.0034	2.408	mg/L	0.0068	0.28%

Sequence No.: 30
Sample ID: CV3
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 6/21/2013 11:43:32 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2920594.3	98.66	%	0.246				0.25%
ScR 361.383	339191.4	97.05	%	0.681				0.70%
Ag 328.068†	212385.4	1.060	mg/L	0.0020	1.060	mg/L	0.0020	0.19%
Al 308.215†	3484.4	2.068	mg/L	0.0151	2.068	mg/L	0.0151	0.73%
As 188.979†	3360.9	2.032	mg/L	0.0029	2.032	mg/L	0.0029	0.14%
B 249.677†	7602.9	1.008	mg/L	0.0097	1.008	mg/L	0.0097	0.96%
Ba 233.527†	4694.1	1.037	mg/L	0.0061	1.037	mg/L	0.0061	0.59%
Be 313.042†	615727.4	0.9916	mg/L	0.00109	0.9916	mg/L	0.00109	0.11%
Ca 317.933†	25712.1	1.986	mg/L	0.0072	1.986	mg/L	0.0072	0.36%
Cd 228.802†	33121.3	1.002	mg/L	0.0050	1.002	mg/L	0.0050	0.50%
Co 228.616†	38762.7	0.9905	mg/L	0.00554	0.9905	mg/L	0.00554	0.56%
Cr 267.716†	6563.7	1.040	mg/L	0.0081	1.040	mg/L	0.0081	0.78%
Cu 324.752†	299581.9	0.9961	mg/L	0.00120	0.9961	mg/L	0.00120	0.12%
Fe 273.955†	2785.8	2.076	mg/L	0.0146	2.076	mg/L	0.0146	0.70%
K 766.490†	47054.4	20.10	mg/L	0.080	20.10	mg/L	0.080	0.40%
Mg 279.077†	2585.8	2.016	mg/L	0.0161	2.016	mg/L	0.0161	0.80%
Mn 257.610†	36644.7	0.9578	mg/L	0.00381	0.9578	mg/L	0.00381	0.40%
Mo 202.031†	19281.5	0.9976	mg/L	0.00221	0.9976	mg/L	0.00221	0.22%
Na 589.592†	737580.5	50.81	mg/L	0.215	50.81	mg/L	0.215	0.42%
Na 330.237†	1497.7	51.74	mg/L	0.281	51.74	mg/L	0.281	0.54%
Ni 231.604†	4255.1	1.029	mg/L	0.0106	1.029	mg/L	0.0106	1.03%
Pb 220.353†	16349.2	2.000	mg/L	0.0039	2.000	mg/L	0.0039	0.20%
Sb 206.836†	6739.5	2.112	mg/L	0.0041	2.112	mg/L	0.0041	0.19%
Se 196.026†	2745.0	2.010	mg/L	0.0063	2.010	mg/L	0.0063	0.31%
Si 288.158†	4274.9	2.060	mg/L	0.0284	2.060	mg/L	0.0284	1.38%
Sn 189.927†	3492.0	1.003	mg/L	0.0035	1.003	mg/L	0.0035	0.35%
Sr 421.552†	1074778.2	1.004	mg/L	0.0022	1.004	mg/L	0.0022	0.22%
Ti 334.903†	21762.0	1.009	mg/L	0.0036	1.009	mg/L	0.0036	0.35%
Tl 190.801†	4779.3	2.086	mg/L	0.0031	2.086	mg/L	0.0031	0.15%
V 292.402†	141801.8	1.021	mg/L	0.0007	1.021	mg/L	0.0007	0.07%
Zn 206.200†	3872.6	1.010	mg/L	0.0093	1.010	mg/L	0.0093	0.92%

Sequence No.: 31
Sample ID: CB 3
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 11:48:39 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2952816.4	99.75	%	0.214				0.21%
ScR 361.383	348735.1	99.78	%	0.539				0.54%
Ag 328.068†	17.2	0.00009	mg/L	0.000190	0.00009	mg/L	0.000190	220.59%
Al 308.215†	14.5	0.00876	mg/L	0.006264	0.00876	mg/L	0.006264	71.52%
As 188.979†	-2.5	-0.00144	mg/L	0.001317	-0.00144	mg/L	0.001317	91.20%
B 249.677†	9.8	0.00130	mg/L	0.000813	0.00130	mg/L	0.000813	62.46%
Ba 233.527†	5.2	0.00114	mg/L	0.000292	0.00114	mg/L	0.000292	25.62%
Be 313.042†	14.3	0.00002	mg/L	0.000025	0.00002	mg/L	0.000025	109.52%
Ca 317.933†	5.7	0.00044	mg/L	0.000447	0.00044	mg/L	0.000447	101.12%
Cd 228.802†	6.5	0.00021	mg/L	0.000208	0.00021	mg/L	0.000208	101.36%
Co 228.616†	-4.2	-0.00011	mg/L	0.000208	-0.00011	mg/L	0.000208	192.95%
Cr 267.716†	-2.2	-0.00034	mg/L	0.000395	-0.00034	mg/L	0.000395	115.06%
Cu 324.752†	116.9	0.00039	mg/L	0.000047	0.00039	mg/L	0.000047	11.97%
Fe 273.955†	4.7	0.00352	mg/L	0.000847	0.00352	mg/L	0.000847	24.09%
K 766.490†	9.5	0.00406	mg/L	0.019611	0.00406	mg/L	0.019611	482.78%
Mg 279.077†	-2.8	-0.00217	mg/L	0.000639	-0.00217	mg/L	0.000639	29.51%
Mn 257.610†	2.1	0.00006	mg/L	0.000074	0.00006	mg/L	0.000074	134.32%
Mo 202.031†	12.2	0.00063	mg/L	0.000160	0.00063	mg/L	0.000160	25.32%
Na 589.592†	-36.1	-0.00249	mg/L	0.001482	-0.00249	mg/L	0.001482	59.57%
Na 330.237†	4.2	0.1449	mg/L	0.14300	0.1449	mg/L	0.14300	98.71%
Ni 231.604†	-4.0	-0.00095	mg/L	0.000182	-0.00095	mg/L	0.000182	19.12%
Pb 220.353†	9.5	0.00116	mg/L	0.000798	0.00116	mg/L	0.000798	68.81%
Sb 206.836†	16.7	0.00523	mg/L	0.001252	0.00523	mg/L	0.001252	23.92%
Se 196.026†	-2.0	-0.00149	mg/L	0.002848	-0.00149	mg/L	0.002848	190.69%
Si 288.158†	-4.6	-0.00222	mg/L	0.004896	-0.00222	mg/L	0.004896	220.95%
Sn 189.927†	2.9	0.00083	mg/L	0.000564	0.00083	mg/L	0.000564	68.12%
Sr 421.552†	-10.9	-0.00001	mg/L	0.000035	-0.00001	mg/L	0.000035	345.04%
Ti 334.903†	15.3	0.00071	mg/L	0.000293	0.00071	mg/L	0.000293	41.27%
Tl 190.801†	-0.9	-0.00041	mg/L	0.001465	-0.00041	mg/L	0.001465	357.64%
V 292.402†	14.2	0.00010	mg/L	0.000106	0.00010	mg/L	0.000106	106.10%
Zn 206.200†	2.3	0.00060	mg/L	0.000830	0.00060	mg/L	0.000830	137.48%

Analysis Begun

Start Time: 6/21/2013 11:57:07 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 6/21/2013 8:12:51 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0621.sif
Batch ID:
Results Data Set: I2130621
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: WT81 MB1 SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 324
Date Collected: 6/21/2013 11:57:08 AM
Data Type: Original

Nebulizer Parameters: WT81 MB1 SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3020679.7	102.0	%	0.60				0.58%
ScR 361.383	359254.8	102.8	%	0.40				0.39%
Ag 328.068†	-33.8	-0.00017	mg/L	0.000082	-0.00034	mg/L	0.000165	48.84%
Al 308.215†	39.4	0.02375	mg/L	0.001723	0.04751	mg/L	0.003445	7.25%
As 188.979†	0.7	0.00047	mg/L	0.001718	0.00094	mg/L	0.003437	365.76%
B 249.677†	3.6	0.00048	mg/L	0.000193	0.00097	mg/L	0.000387	39.92%
Ba 233.527†	2.5	0.00055	mg/L	0.000316	0.00109	mg/L	0.000632	57.82%
Be 313.042†	-9.1	-0.00001	mg/L	0.000004	-0.00003	mg/L	0.000008	27.32%
Ca 317.933†	278.8	0.02154	mg/L	0.000868	0.04308	mg/L	0.001736	4.03%
Cd 228.802†	0.1	-0.00000	mg/L	0.000113	-0.00000	mg/L	0.000226	>999.9%
Co 228.616†	-3.8	-0.00010	mg/L	0.000118	-0.00020	mg/L	0.000236	119.61%
Cr 267.716†	2.1	0.00033	mg/L	0.000817	0.00067	mg/L	0.001634	244.02%
Cu 324.752†	117.6	0.00039	mg/L	0.000127	0.00078	mg/L	0.000255	32.51%
Fe 273.955†	26.3	0.01970	mg/L	0.001595	0.03939	mg/L	0.003190	8.10%
K 766.490†	-11.3	-0.00481	mg/L	0.008215	-0.00963	mg/L	0.016431	170.66%
Mg 279.077†	2.2	0.00172	mg/L	0.000207	0.00343	mg/L	0.000414	12.06%
Mn 257.610†	8.7	0.00023	mg/L	0.000028	0.00045	mg/L	0.000057	12.57%
Mo 202.031†	2.9	0.00015	mg/L	0.000113	0.00030	mg/L	0.000226	75.84%
Na 589.592†	38.3	0.00264	mg/L	0.002729	0.00528	mg/L	0.005457	103.29%
Na 330.237†	20.5	0.7083	mg/L	0.29229	1.417	mg/L	0.5846	41.27%
Ni 231.604†	-2.8	-0.00069	mg/L	0.001383	-0.00137	mg/L	0.002766	201.78%
Pb 220.353†	0.9	0.00012	mg/L	0.000417	0.00024	mg/L	0.000835	348.42%
Sb 206.836†	-5.3	-0.00168	mg/L	0.000944	-0.00335	mg/L	0.001889	56.36%
Se 196.026†	-1.6	-0.00117	mg/L	0.001469	-0.00234	mg/L	0.002937	125.78%
Si 288.158†	26.9	0.01296	mg/L	0.003582	0.02591	mg/L	0.007165	27.65%
Sn 189.927†	-0.3	-0.00007	mg/L	0.000792	-0.00015	mg/L	0.001585	>999.9%
Sr 421.552†	-4.8	-0.00000	mg/L	0.000013	-0.00001	mg/L	0.000026	295.99%
Ti 334.903†	22.3	0.00103	mg/L	0.000035	0.00206	mg/L	0.000070	3.38%
Tl 190.801†	-3.1	-0.00135	mg/L	0.002080	-0.00270	mg/L	0.004159	153.81%
V 292.402†	5.9	0.00004	mg/L	0.000176	0.00008	mg/L	0.000353	419.38%
Zn 206.200†	4.5	0.00118	mg/L	0.000362	0.00236	mg/L	0.000724	30.69%

Sequence No.: 2
Sample ID: WU10 U SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 325
Date Collected: 6/21/2013 12:01:24 PM
Data Type: Original

Nebulizer Parameters: WU10 U SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU10 U SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2990738.6	101.0	%	0.27				0.26%
ScR 361.383	355537.9	101.7	%	0.86				0.85%
Ag 328.068†	292.5	0.00158	mg/L	0.000120	0.00316	mg/L	0.000240	7.59%
Al 308.215†	253945.9	153.1	mg/L	0.57	306.3	mg/L	1.15	0.37%
As 188.979†	-362.9	0.05079	mg/L	0.004115	0.1016	mg/L	0.00823	8.10%
B 249.677†	303.7	0.04013	mg/L	0.000545	0.08027	mg/L	0.001089	1.36%
Ba 233.527†	2257.9	0.4668	mg/L	0.00275	0.9336	mg/L	0.00551	0.59%
Be 313.042†	1365.5	0.00201	mg/L	0.000025	0.00402	mg/L	0.000050	1.23%
Ca 317.933†	754994.2	58.33	mg/L	0.071	116.7	mg/L	0.14	0.12%
Cd 228.802†	232.1	0.00851	mg/L	0.000077	0.01702	mg/L	0.000154	0.91%
Co 228.616†	3585.0	0.07482	mg/L	0.000221	0.1496	mg/L	0.00044	0.29%
Cr 267.716†	1863.0	0.2976	mg/L	0.00148	0.5952	mg/L	0.00296	0.50%
Cu 324.752†	103777.5	0.3518	mg/L	0.00062	0.7035	mg/L	0.00124	0.18%
Fe 273.955†	256797.7	192.0	mg/L	0.73	383.9	mg/L	1.45	0.38%
K 766.490†	29438.0	12.58	mg/L	0.042	25.15	mg/L	0.085	0.34%
Mg 279.077†	74669.9	57.89	mg/L	0.217	115.8	mg/L	0.43	0.37%
Mn 257.610†	86612.7	2.263	mg/L	0.0072	4.526	mg/L	0.0143	0.32%
Mo 202.031†	222.2	0.01074	mg/L	0.000732	0.02148	mg/L	0.001464	6.81%
Na 589.592†	56401.0	3.886	mg/L	0.0137	7.771	mg/L	0.0274	0.35%
Na 330.237†	67.5	4.308	mg/L	0.1520	8.617	mg/L	0.3039	3.53%
Ni 231.604†	1168.0	0.2824	mg/L	0.00209	0.5648	mg/L	0.00418	0.74%
Pb 220.353†	1194.1	0.1720	mg/L	0.00123	0.3440	mg/L	0.00247	0.72%
Sb 206.836†	22.3	0.01165	mg/L	0.000832	0.02329	mg/L	0.001665	7.15%
Se 196.026†	40.4	0.01256	mg/L	0.007113	0.02512	mg/L	0.014226	56.63%
Si 288.158†	3379.3	1.632	mg/L	0.0138	3.263	mg/L	0.0277	0.85%
Sn 189.927†	17.2	0.01418	mg/L	0.000028	0.02836	mg/L	0.000056	0.20%
Sr 421.552†	407746.8	0.3809	mg/L	0.00131	0.7618	mg/L	0.00261	0.34%
Ti 334.903†	182108.7	8.447	mg/L	0.0255	16.89	mg/L	0.051	0.30%
Tl 190.801†	-52.2	0.00129	mg/L	0.001955	0.00259	mg/L	0.003909	150.98%
V 292.402†	58749.9	0.4080	mg/L	0.00045	0.8160	mg/L	0.00091	0.11%
Zn 206.200†	2464.8	0.6424	mg/L	0.00475	1.285	mg/L	0.0095	0.74%

Sequence No.: 3
Sample ID: WU10 Y SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 326
Date Collected: 6/21/2013 12:05:25 PM
Data Type: Original

Nebulizer Parameters: WU10 Y SWC

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: WU10 Y SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3032141.0	102.4	%	0.50				0.48%
ScR 361.383	357399.5	102.3	%	0.78				0.76%
Ag 328.068†	853.9	0.00433	mg/L	0.000253	0.00866	mg/L	0.000507	5.85%
Al 308.215†	190159.1	114.7	mg/L	0.29	229.4	mg/L	0.58	0.25%
As 188.979†	-242.4	0.03780	mg/L	0.000814	0.07560	mg/L	0.001627	2.15%
B 249.677†	1091.7	0.1448	mg/L	0.00130	0.2897	mg/L	0.00260	0.90%
Ba 233.527†	903.8	0.1794	mg/L	0.00068	0.3588	mg/L	0.00136	0.38%
Be 313.042†	905.0	0.00134	mg/L	0.000027	0.00268	mg/L	0.000053	1.99%
Ca 317.933†	410313.7	31.70	mg/L	0.086	63.40	mg/L	0.172	0.27%
Cd 228.802†	321.7	0.01075	mg/L	0.000154	0.02150	mg/L	0.000309	1.44%
Co 228.616†	2050.5	0.04109	mg/L	0.000335	0.08218	mg/L	0.000671	0.82%
Cr 267.716†	1239.9	0.1982	mg/L	0.00103	0.3963	mg/L	0.00205	0.52%
Cu 324.752†	86444.7	0.2916	mg/L	0.00092	0.5832	mg/L	0.00185	0.32%
Fe 273.955†	161846.8	121.0	mg/L	0.35	242.0	mg/L	0.70	0.29%
K 766.490†	24554.4	10.49	mg/L	0.016	20.98	mg/L	0.031	0.15%
Mg 279.077†	45129.3	34.99	mg/L	0.035	69.98	mg/L	0.070	0.10%
Mn 257.610†	39287.9	1.026	mg/L	0.0024	2.053	mg/L	0.0048	0.23%
Mo 202.031†	252.2	0.01263	mg/L	0.000204	0.02527	mg/L	0.000407	1.61%
Na 589.592†	571031.5	39.34	mg/L	0.121	78.68	mg/L	0.242	0.31%
Na 330.237†	1130.5	40.41	mg/L	0.129	80.83	mg/L	0.258	0.32%
Ni 231.604†	642.2	0.1553	mg/L	0.00013	0.3105	mg/L	0.00026	0.08%
Pb 220.353†	4762.8	0.6030	mg/L	0.00338	1.206	mg/L	0.0068	0.56%
Sb 206.836†	17.8	0.00865	mg/L	0.001072	0.01730	mg/L	0.002144	12.39%
Se 196.026†	35.6	0.01337	mg/L	0.004806	0.02674	mg/L	0.009613	35.95%
Si 288.158†	4374.5	2.108	mg/L	0.0189	4.215	mg/L	0.0378	0.90%
Sn 189.927†	13.5	0.00915	mg/L	0.001247	0.01829	mg/L	0.002495	13.64%
Sr 421.552†	277426.8	0.2591	mg/L	0.00060	0.5183	mg/L	0.00120	0.23%
Ti 334.903†	123901.8	5.747	mg/L	0.0096	11.49	mg/L	0.019	0.17%
Tl 190.801†	-32.5	0.00113	mg/L	0.002693	0.00227	mg/L	0.005386	237.57%
V 292.402†	33866.9	0.2342	mg/L	0.00102	0.4685	mg/L	0.00204	0.44%
Zn 206.200†	2167.6	0.5654	mg/L	0.00419	1.131	mg/L	0.0084	0.74%

Sequence No.: 4
Sample ID: WT81 B SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 327
Date Collected: 6/21/2013 12:09:28 PM
Data Type: Original

Nebulizer Parameters: WT81 B SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2990358.3	101.0	%	0.34				0.34%
ScR 361.383	355178.1	101.6	%	0.10				0.09%
Ag 328.068†	643.9	0.00330	mg/L	0.000258	0.00659	mg/L	0.000516	7.83%
Al 308.215†	123787.1	74.65	mg/L	0.174	149.3	mg/L	0.35	0.23%
As 188.979†	50.5	0.1695	mg/L	0.00188	0.3390	mg/L	0.00375	1.11%
B 249.677†	395.6	0.05246	mg/L	0.000856	0.1049	mg/L	0.00171	1.63%
Ba 233.527†	22402.0	4.913	mg/L	0.0216	9.826	mg/L	0.0432	0.44%
Be 313.042†	787.5	0.00115	mg/L	0.000015	0.00230	mg/L	0.000030	1.29%
Ca 317.933†	2340080.4	180.8	mg/L	0.77	361.6	mg/L	1.55	0.43%
Cd 228.802†	566.3	0.01731	mg/L	0.000253	0.03462	mg/L	0.000507	1.46%
Co 228.616†	2516.2	0.05287	mg/L	0.000390	0.1057	mg/L	0.00078	0.74%
Cr 267.716†	1556.7	0.2516	mg/L	0.00093	0.5032	mg/L	0.00186	0.37%
Cu 324.752†	242840.9	0.8171	mg/L	0.00530	1.634	mg/L	0.0106	0.65%
Fe 273.955†	319020.7	238.5	mg/L	1.14	476.9	mg/L	2.29	0.48%
K 766.490†	18867.5	8.060	mg/L	0.0136	16.12	mg/L	0.027	0.17%
Mg 279.077†	48604.6	37.60	mg/L	0.145	75.20	mg/L	0.290	0.39%
Mn 257.610†	123597.4	3.229	mg/L	0.0146	6.459	mg/L	0.0292	0.45%
Mo 202.031†	1393.8	0.06981	mg/L	0.000352	0.1396	mg/L	0.00070	0.50%
Na 589.592†	69188.3	4.767	mg/L	0.0187	9.533	mg/L	0.0374	0.39%
Na 330.237†	221.5	5.001	mg/L	0.2188	10.00	mg/L	0.438	4.37%
Ni 231.604†	856.7	0.2071	mg/L	0.00151	0.4143	mg/L	0.00303	0.73%
Pb 220.353†	8330.9	1.023	mg/L	0.0031	2.047	mg/L	0.0061	0.30%
Sb 206.836†	53.5	0.01849	mg/L	0.001711	0.03697	mg/L	0.003422	9.25%
Se 196.026†	29.4	0.01315	mg/L	0.000861	0.02629	mg/L	0.001722	6.55%
Si 288.158†	5066.1	2.441	mg/L	0.0061	4.881	mg/L	0.0123	0.25%
Sn 189.927†	-11.6	0.02093	mg/L	0.000983	0.04186	mg/L	0.001965	4.70%
Sr 421.552†	617036.5	0.5764	mg/L	0.00112	1.153	mg/L	0.0022	0.19%
Ti 334.903†	102676.8	4.753	mg/L	0.0119	9.506	mg/L	0.0238	0.25%
Tl 190.801†	-67.9	0.00155	mg/L	0.002677	0.00309	mg/L	0.005353	173.09%
V 292.402†	41024.8	0.2804	mg/L	0.00137	0.5609	mg/L	0.00273	0.49%
Zn 206.200†	40441.1	10.55	mg/L	0.027	21.09	mg/L	0.053	0.25%

Sequence No.: 5
Sample ID: WT81 C SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 328
Date Collected: 6/21/2013 12:13:31 PM
Data Type: Original

Nebulizer Parameters: WT81 C SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2881743.9	97.35	%	0.606				0.62%
ScR 361.383	341295.6	97.66	%	0.361				0.37%
Ag 328.068†	784.0	0.00400	mg/L	0.000089	0.00800	mg/L	0.000178	2.22%
Al 308.215†	135633.1	81.79	mg/L	0.390	163.6	mg/L	0.78	0.48%
As 188.979†	73.5	0.2043	mg/L	0.00283	0.4087	mg/L	0.00566	1.38%
B 249.677†	521.2	0.06913	mg/L	0.001378	0.1383	mg/L	0.00276	1.99%
Ba 233.527†	21782.5	4.772	mg/L	0.0494	9.545	mg/L	0.0987	1.03%
Be 313.042†	908.1	0.00133	mg/L	0.000011	0.00266	mg/L	0.000022	0.84%
Ca 317.933†	2290735.1	177.0	mg/L	0.51	354.0	mg/L	1.02	0.29%
Cd 228.802†	596.6	0.01818	mg/L	0.000251	0.03636	mg/L	0.000502	1.38%
Co 228.616†	2829.9	0.05954	mg/L	0.000429	0.1191	mg/L	0.00086	0.72%
Cr 267.716†	1767.8	0.2856	mg/L	0.00120	0.5713	mg/L	0.00240	0.42%
Cu 324.752†	285453.8	0.9596	mg/L	0.00651	1.919	mg/L	0.0130	0.68%
Fe 273.955†	346841.0	259.3	mg/L	0.78	518.5	mg/L	1.57	0.30%
K 766.490†	20564.0	8.785	mg/L	0.0373	17.57	mg/L	0.075	0.42%
Mg 279.077†	53382.9	41.30	mg/L	0.028	82.60	mg/L	0.055	0.07%
Mn 257.610†	131355.7	3.432	mg/L	0.0084	6.865	mg/L	0.0168	0.24%
Mo 202.031†	1562.8	0.07860	mg/L	0.000609	0.1572	mg/L	0.00122	0.78%
Na 589.592†	73734.5	5.080	mg/L	0.0320	10.16	mg/L	0.064	0.63%
Na 330.237†	227.4	5.078	mg/L	0.0588	10.16	mg/L	0.118	1.16%
Ni 231.604†	944.2	0.2283	mg/L	0.00088	0.4566	mg/L	0.00176	0.39%
Pb 220.353†	8898.8	1.093	mg/L	0.0097	2.187	mg/L	0.0195	0.89%
Sb 206.836†	58.7	0.02030	mg/L	0.002018	0.04060	mg/L	0.004036	9.94%
Se 196.026†	28.5	0.01167	mg/L	0.001236	0.02333	mg/L	0.002472	10.59%
Si 288.158†	5911.2	2.847	mg/L	0.0088	5.695	mg/L	0.0175	0.31%
Sn 189.927†	-3.5	0.02290	mg/L	0.002305	0.04580	mg/L	0.004610	10.07%
Sr 421.552†	618415.0	0.5777	mg/L	0.00201	1.155	mg/L	0.0040	0.35%
Ti 334.903†	116713.9	5.405	mg/L	0.0138	10.81	mg/L	0.028	0.26%
Tl 190.801†	-62.6	0.00661	mg/L	0.001674	0.01322	mg/L	0.003348	25.32%
V 292.402†	44575.8	0.3046	mg/L	0.00175	0.6092	mg/L	0.00349	0.57%
Zn 206.200†	44587.0	11.63	mg/L	0.033	23.26	mg/L	0.067	0.29%

Sequence No.: 6
Sample ID: WU00 A SWC
Analyst: EL
Dilution: 5.000000X

Autosampler Location: 329
Date Collected: 6/21/2013 12:17:34 PM
Data Type: Original

Nebulizer Parameters: WU00 A SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU00 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2908807.2	98.26	%	0.173				0.18%
ScR 361.383	343911.4	98.40	%	0.442				0.45%
Ag 328.068†	-107.8	-0.00048	mg/L	0.000092	-0.00241	mg/L	0.000462	19.21%
Al 308.215†	88982.4	53.66	mg/L	0.070	268.3	mg/L	0.35	0.13%
As 188.979†	-61.9	0.06749	mg/L	0.000947	0.3374	mg/L	0.00474	1.40%
B 249.677†	122.4	0.01617	mg/L	0.001399	0.08086	mg/L	0.006996	8.65%
Ba 233.527†	1906.2	0.3990	mg/L	0.00383	1.995	mg/L	0.0192	0.96%
Be 313.042†	502.7	0.00073	mg/L	0.000009	0.00364	mg/L	0.000044	1.20%
Ca 317.933†	1064980.0	82.28	mg/L	0.136	411.4	mg/L	0.68	0.17%
Cd 228.802†	176.9	0.00581	mg/L	0.000115	0.02904	mg/L	0.000573	1.97%
Co 228.616†	1744.0	0.03705	mg/L	0.000242	0.1852	mg/L	0.00121	0.65%
Cr 267.716†	1523.4	0.2441	mg/L	0.00164	1.221	mg/L	0.0082	0.67%
Cu 324.752†	111948.4	0.3774	mg/L	0.00189	1.887	mg/L	0.0095	0.50%
Fe 273.955†	177642.3	132.8	mg/L	0.40	663.9	mg/L	2.02	0.30%
K 766.490†	7187.0	3.070	mg/L	0.0052	15.35	mg/L	0.026	0.17%
Mg 279.077†	29773.5	23.04	mg/L	0.146	115.2	mg/L	0.73	0.63%
Mn 257.610†	69747.5	1.823	mg/L	0.0017	9.113	mg/L	0.0083	0.09%
Mo 202.031†	284.2	0.01365	mg/L	0.000153	0.06824	mg/L	0.000763	1.12%
Na 589.592†	37869.9	2.609	mg/L	0.0047	13.04	mg/L	0.024	0.18%
Na 330.237†	92.9	2.747	mg/L	0.1308	13.74	mg/L	0.654	4.76%
Ni 231.604†	950.3	0.2298	mg/L	0.00177	1.149	mg/L	0.0089	0.77%
Pb 220.353†	13726.7	1.684	mg/L	0.0182	8.422	mg/L	0.0910	1.08%
Sb 206.836†	35.9	0.01164	mg/L	0.000559	0.05822	mg/L	0.002797	4.80%
Se 196.026†	21.2	0.00950	mg/L	0.002909	0.04748	mg/L	0.014545	30.64%
Si 288.158†	1974.3	0.9521	mg/L	0.00909	4.761	mg/L	0.0455	0.96%
Sn 189.927†	26.0	0.01881	mg/L	0.000292	0.09406	mg/L	0.001461	1.55%
Sr 421.552†	215766.4	0.2015	mg/L	0.00039	1.008	mg/L	0.0020	0.20%
Ti 334.903†	74250.5	3.440	mg/L	0.0021	17.20	mg/L	0.011	0.06%
Tl 190.801†	-28.0	0.00492	mg/L	0.003008	0.02458	mg/L	0.015042	61.20%
V 292.402†	27248.1	0.1877	mg/L	0.00115	0.9385	mg/L	0.00574	0.61%
Zn 206.200†	13709.7	3.575	mg/L	0.0246	17.88	mg/L	0.123	0.69%

Sequence No.: 7
Sample ID: WT81 ADUP SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 330
Date Collected: 6/21/2013 12:21:37 PM
Data Type: Original

Nebulizer Parameters: WT81 ADUP SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2785089.8	94.08	%	0.212				0.23%
ScR 361.383	336156.7	96.19	%	0.512				0.53%
Ag 328.068†	-53.5	-0.00020	mg/L	0.000340	-0.00039	mg/L	0.000681	173.29%
Al 308.215†	120375.4	72.59	mg/L	0.297	145.2	mg/L	0.59	0.41%
As 188.979†	8.9	0.09200	mg/L	0.003052	0.1840	mg/L	0.00610	3.32%
B 249.677†	736.0	0.09766	mg/L	0.000293	0.1953	mg/L	0.00059	0.30%
Ba 233.527†	11899.7	2.613	mg/L	0.0050	5.227	mg/L	0.0101	0.19%
Be 313.042†	953.9	0.00144	mg/L	0.000019	0.00289	mg/L	0.000039	1.33%
Ca 317.933†	3442876.5	266.0	mg/L	1.95	532.0	mg/L	3.90	0.73%
Cd 228.802†	163.2	0.00502	mg/L	0.000171	0.01004	mg/L	0.000342	3.41%
Co 228.616†	1567.2	0.03292	mg/L	0.000174	0.06583	mg/L	0.000348	0.53%
Cr 267.716†	799.5	0.1250	mg/L	0.00134	0.2500	mg/L	0.00268	1.07%
Cu 324.752†	94104.1	0.3168	mg/L	0.00185	0.6335	mg/L	0.00370	0.58%
Fe 273.955†	139441.0	104.2	mg/L	0.48	208.5	mg/L	0.96	0.46%
K 766.490†	29870.5	12.76	mg/L	0.025	25.52	mg/L	0.050	0.20%
Mg 279.077†	50835.2	39.40	mg/L	0.142	78.80	mg/L	0.284	0.36%
Mn 257.610†	80728.0	2.108	mg/L	0.0099	4.217	mg/L	0.0198	0.47%
Mo 202.031†	552.4	0.02519	mg/L	0.000187	0.05038	mg/L	0.000374	0.74%
Na 589.592†	4359300.4	300.3	mg/L	2.85	600.6	mg/L	5.70	0.95%
Na 330.237†	8731.8	300.9	mg/L	1.40	601.7	mg/L	2.80	0.47%
Ni 231.604†	361.0	0.08728	mg/L	0.002352	0.1746	mg/L	0.00470	2.69%
Pb 220.353†	2479.9	0.3147	mg/L	0.00058	0.6293	mg/L	0.00116	0.18%
Sb 206.836†	27.5	0.01039	mg/L	0.002299	0.02078	mg/L	0.004598	22.13%
Se 196.026†	34.6	0.01726	mg/L	0.001097	0.03452	mg/L	0.002195	6.36%
Si 288.158†	5158.6	2.485	mg/L	0.0107	4.970	mg/L	0.0214	0.43%
Sn 189.927†	-74.6	0.01345	mg/L	0.001006	0.02690	mg/L	0.002012	7.48%
Sr 421.552†	883338.5	0.8251	mg/L	0.00350	1.650	mg/L	0.0070	0.42%
Ti 334.903†	71342.3	3.294	mg/L	0.0182	6.588	mg/L	0.0365	0.55%
Tl 190.801†	-17.6	0.00545	mg/L	0.002496	0.01091	mg/L	0.004992	45.77%
V 292.402†	34054.9	0.2377	mg/L	0.00117	0.4754	mg/L	0.00233	0.49%
Zn 206.200†	9258.0	2.412	mg/L	0.0160	4.824	mg/L	0.0319	0.66%

Sequence No.: 8
Sample ID: WT81 A SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 331
Date Collected: 6/21/2013 12:26:11 PM
Data Type: Original

Nebulizer Parameters: WT81 A SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2875667.8	97.14	%	0.401				0.41%
ScR 361.383	342708.3	98.06	%	0.649				0.66%
Ag 328.068†	9.7	0.00012	mg/L	0.000386	0.00024	mg/L	0.000772	326.24%
Al 308.215†	119564.4	72.10	mg/L	0.319	144.2	mg/L	0.64	0.44%
As 188.979†	14.1	0.09422	mg/L	0.002072	0.1884	mg/L	0.00414	2.20%
B 249.677†	693.5	0.09202	mg/L	0.000704	0.1840	mg/L	0.00141	0.76%
Ba 233.527†	11991.6	2.634	mg/L	0.0146	5.268	mg/L	0.0292	0.55%
Be 313.042†	953.7	0.00144	mg/L	0.000034	0.00289	mg/L	0.000068	2.36%
Ca 317.933†	3453099.9	266.8	mg/L	0.44	533.6	mg/L	0.88	0.17%
Cd 228.802†	160.0	0.00491	mg/L	0.000092	0.00982	mg/L	0.000183	1.86%
Co 228.616†	1541.1	0.03229	mg/L	0.000129	0.06459	mg/L	0.000258	0.40%
Cr 267.716†	854.7	0.1338	mg/L	0.00090	0.2675	mg/L	0.00179	0.67%
Cu 324.752†	94419.0	0.3178	mg/L	0.00076	0.6356	mg/L	0.00152	0.24%
Fe 273.955†	139001.5	103.9	mg/L	1.01	207.8	mg/L	2.03	0.98%
K 766.490†	29115.1	12.44	mg/L	0.066	24.88	mg/L	0.133	0.53%
Mg 279.077†	50658.3	39.26	mg/L	0.266	78.53	mg/L	0.532	0.68%
Mn 257.610†	80801.5	2.110	mg/L	0.0191	4.220	mg/L	0.0381	0.90%
Mo 202.031†	485.9	0.02174	mg/L	0.000157	0.04349	mg/L	0.000314	0.72%
Na 589.592†	4238515.9	292.0	mg/L	0.78	584.0	mg/L	1.56	0.27%
Na 330.237†	8424.7	290.2	mg/L	2.08	580.5	mg/L	4.16	0.72%
Ni 231.604†	368.2	0.08904	mg/L	0.000431	0.1781	mg/L	0.00086	0.48%
Pb 220.353†	2507.2	0.3179	mg/L	0.00215	0.6358	mg/L	0.00429	0.67%
Sb 206.836†	23.6	0.00902	mg/L	0.001383	0.01804	mg/L	0.002766	15.34%
Se 196.026†	39.7	0.02105	mg/L	0.001717	0.04209	mg/L	0.003433	8.16%
Si 288.158†	6546.0	3.152	mg/L	0.0245	6.304	mg/L	0.0490	0.78%
Sn 189.927†	-76.7	0.01295	mg/L	0.000605	0.02590	mg/L	0.001209	4.67%
Sr 421.552†	878294.4	0.8204	mg/L	0.00033	1.641	mg/L	0.0007	0.04%
Ti 334.903†	70789.0	3.268	mg/L	0.0156	6.536	mg/L	0.0312	0.48%
Tl 190.801†	-29.0	0.00042	mg/L	0.002274	0.00085	mg/L	0.004548	536.29%
V 292.402†	33704.5	0.2353	mg/L	0.00052	0.4705	mg/L	0.00103	0.22%
Zn 206.200†	9203.5	2.398	mg/L	0.0099	4.795	mg/L	0.0198	0.41%

Sequence No.: 9
Sample ID: WT81 ASPK SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 332
Date Collected: 6/21/2013 12:30:45 PM
Data Type: Original

Nebulizer Parameters: WT81 ASPK SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2830664.5	95.62	%	0.135				0.14%
ScR 361.383	340250.3	97.36	%	0.589				0.61%
Ag 328.068†	103247.2	0.5151	mg/L	0.00223	1.030	mg/L	0.0045	0.43%
Al 308.215†	119429.5	72.02	mg/L	0.474	144.0	mg/L	0.95	0.66%
As 188.979†	3388.3	2.101	mg/L	0.0048	4.202	mg/L	0.0096	0.23%
B 249.677†	744.5	0.09781	mg/L	0.000622	0.1956	mg/L	0.00124	0.64%
Ba 233.527†	20761.1	4.573	mg/L	0.0160	9.146	mg/L	0.0321	0.35%
Be 313.042†	284792.8	0.4585	mg/L	0.00415	0.9171	mg/L	0.00829	0.90%
Ca 317.933†	3594619.2	277.7	mg/L	3.08	555.4	mg/L	6.17	1.11%
Cd 228.802†	17173.3	0.5142	mg/L	0.00116	1.028	mg/L	0.0023	0.23%
Co 228.616†	19692.2	0.4970	mg/L	0.00079	0.9939	mg/L	0.00158	0.16%
Cr 267.716†	3907.9	0.6166	mg/L	0.00285	1.233	mg/L	0.0057	0.46%
Cu 324.752†	243309.2	0.8130	mg/L	0.00278	1.626	mg/L	0.0056	0.34%
Fe 273.955†	137195.7	102.6	mg/L	0.79	205.1	mg/L	1.59	0.77%
K 766.490†	51683.1	22.08	mg/L	0.286	44.16	mg/L	0.573	1.30%
Mg 279.077†	62087.7	48.15	mg/L	0.366	96.29	mg/L	0.731	0.76%
Mn 257.610†	95860.9	2.504	mg/L	0.0198	5.008	mg/L	0.0397	0.79%
Mo 202.031†	483.4	0.02145	mg/L	0.000237	0.04290	mg/L	0.000474	1.10%
Na 589.592†	4474078.0	308.2	mg/L	4.36	616.5	mg/L	8.71	1.41%
Na 330.237†	9145.5	314.9	mg/L	1.79	629.9	mg/L	3.58	0.57%
Ni 231.604†	2280.6	0.5506	mg/L	0.00412	1.101	mg/L	0.0082	0.75%
Pb 220.353†	18239.2	2.242	mg/L	0.0036	4.484	mg/L	0.0072	0.16%
Sb 206.836†	42.3	0.01008	mg/L	0.000861	0.02016	mg/L	0.001723	8.54%
Se 196.026†	2777.0	2.026	mg/L	0.0069	4.053	mg/L	0.0138	0.34%
Si 288.158†	4949.3	2.388	mg/L	0.0138	4.775	mg/L	0.0277	0.58%
Sn 189.927†	-78.4	0.01392	mg/L	0.001540	0.02784	mg/L	0.003080	11.06%
Sr 421.552†	1401600.8	1.309	mg/L	0.0098	2.618	mg/L	0.0196	0.75%
Ti 334.903†	68528.0	3.162	mg/L	0.0262	6.325	mg/L	0.0524	0.83%
Tl 190.801†	3969.5	1.747	mg/L	0.0045	3.494	mg/L	0.0089	0.25%
V 292.402†	100301.1	0.7150	mg/L	0.00268	1.430	mg/L	0.0054	0.37%
Zn 206.200†	10896.4	2.839	mg/L	0.0177	5.678	mg/L	0.0355	0.62%

Sequence No.: 10
Sample ID: ~~WT81 APOST SWC~~ 222267 6/24-17
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 333
Date Collected: 6/21/2013 12:35:06 PM
Data Type: Original

Nebulizer Parameters: WT81 APOST SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 APOST SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2840159.9	95.94	%	0.225				0.23%
ScR 361.383	342319.9	97.95	%	0.382				0.39%
Ag 328.068†	104244.7	0.5201	mg/L	0.00023	1.040	mg/L	0.0005	0.04%
Al 308.215†	118893.4	71.69	mg/L	0.079	143.4	mg/L	0.16	0.11%
As 188.979†	3408.1	2.113	mg/L	0.0069	4.226	mg/L	0.0139	0.33%
B 249.677†	685.6	0.08998	mg/L	0.003612	0.1800	mg/L	0.00722	4.01%
Ba 233.527†	20966.2	4.618	mg/L	0.0462	9.237	mg/L	0.0925	1.00%
Be 313.042†	282684.3	0.4551	mg/L	0.00104	0.9103	mg/L	0.00209	0.23%
Ca 317.933†	3556405.4	274.8	mg/L	0.77	549.5	mg/L	1.54	0.28%
Cd 228.802†	17111.9	0.5123	mg/L	0.00146	1.025	mg/L	0.0029	0.28%
Co 228.616†	19792.9	0.4995	mg/L	0.00138	0.9991	mg/L	0.00275	0.28%
Cr 267.716†	3927.0	0.6194	mg/L	0.00329	1.239	mg/L	0.0066	0.53%
Cu 324.752†	249703.2	0.8342	mg/L	0.00158	1.668	mg/L	0.0032	0.19%
Fe 273.955†	135557.5	101.3	mg/L	0.19	202.7	mg/L	0.37	0.18%
K 766.490†	52695.2	22.51	mg/L	0.047	45.02	mg/L	0.094	0.21%
Mg 279.077†	64714.1	50.19	mg/L	0.240	100.4	mg/L	0.48	0.48%
Mn 257.610†	95205.8	2.487	mg/L	0.0026	4.974	mg/L	0.0052	0.10%
Mo 202.031†	486.3	0.02164	mg/L	0.000445	0.04327	mg/L	0.000890	2.06%
Na 589.592†	4358159.9	300.2	mg/L	1.49	600.5	mg/L	2.98	0.50%
Na 330.237†	8844.0	304.6	mg/L	1.80	609.1	mg/L	3.59	0.59%
Ni 231.604†	2273.3	0.5489	mg/L	0.00576	1.098	mg/L	0.0115	1.05%
Pb 220.353†	18235.0	2.242	mg/L	0.0075	4.483	mg/L	0.0149	0.33%
Sb 206.836†	33.3	0.00725	mg/L	0.001799	0.01449	mg/L	0.003598	24.82%
Se 196.026†	2811.6	2.052	mg/L	0.0078	4.104	mg/L	0.0156	0.38%
Si 288.158†	6622.4	3.192	mg/L	0.0256	6.385	mg/L	0.0511	0.80%
Sn 189.927†	-80.9	0.01284	mg/L	0.000778	0.02568	mg/L	0.001556	6.06%
Sr 421.552†	1387524.4	1.296	mg/L	0.0012	2.592	mg/L	0.0025	0.10%
Ti 334.903†	68680.0	3.170	mg/L	0.0040	6.339	mg/L	0.0080	0.13%
Tl 190.801†	4068.1	1.790	mg/L	0.0069	3.580	mg/L	0.0139	0.39%
V 292.402†	101228.7	0.7217	mg/L	0.00215	1.443	mg/L	0.0043	0.30%
Zn 206.200†	10723.1	2.794	mg/L	0.0133	5.588	mg/L	0.0267	0.48%

Sequence No.: 11
Sample ID: CV4
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 6/21/2013 12:38:42 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2921376.7	98.69	%	0.583				0.59%
ScR 361.383	340648.6	97.47	%	0.217				0.22%
Ag 328.068†	212740.8	1.061	mg/L	0.0023	1.061	mg/L	0.0023	0.21%
Al 308.215†	3456.1	2.051	mg/L	0.0022	2.051	mg/L	0.0022	0.11%
As 188.979†	3374.5	2.040	mg/L	0.0113	2.040	mg/L	0.0113	0.55%
B 249.677†	7560.9	1.003	mg/L	0.0018	1.003	mg/L	0.0018	0.18%
Ba 233.527†	4666.9	1.031	mg/L	0.0075	1.031	mg/L	0.0075	0.73%
Be 313.042†	606978.3	0.9775	mg/L	0.00735	0.9775	mg/L	0.00735	0.75%
Ca 317.933†	25724.2	1.987	mg/L	0.0084	1.987	mg/L	0.0084	0.42%
Cd 228.802†	33336.3	1.009	mg/L	0.0024	1.009	mg/L	0.0024	0.24%
Co 228.616†	38800.1	0.9915	mg/L	0.00375	0.9915	mg/L	0.00375	0.38%
Cr 267.716†	6540.2	1.036	mg/L	0.0017	1.036	mg/L	0.0017	0.17%
Cu 324.752†	300194.8	0.9982	mg/L	0.00036	0.9982	mg/L	0.00036	0.04%
Fe 273.955†	2774.8	2.068	mg/L	0.0056	2.068	mg/L	0.0056	0.27%
K 766.490†	46916.3	20.04	mg/L	0.161	20.04	mg/L	0.161	0.81%
Mg 279.077†	2576.0	2.008	mg/L	0.0077	2.008	mg/L	0.0077	0.38%
Mn 257.610†	36518.9	0.9545	mg/L	0.00552	0.9545	mg/L	0.00552	0.58%
Mo 202.031†	19253.6	0.9961	mg/L	0.00308	0.9961	mg/L	0.00308	0.31%
Na 589.592†	733930.2	50.56	mg/L	0.306	50.56	mg/L	0.306	0.61%
Na 330.237†	1496.0	51.68	mg/L	0.107	51.68	mg/L	0.107	0.21%
Ni 231.604†	4241.2	1.026	mg/L	0.0009	1.026	mg/L	0.0009	0.09%
Pb 220.353†	16398.2	2.006	mg/L	0.0072	2.006	mg/L	0.0072	0.36%
Sb 206.836†	6743.0	2.113	mg/L	0.0164	2.113	mg/L	0.0164	0.78%
Se 196.026†	2745.1	2.010	mg/L	0.0066	2.010	mg/L	0.0066	0.33%
Si 288.158†	4258.2	2.052	mg/L	0.0162	2.052	mg/L	0.0162	0.79%
Sn 189.927†	3497.9	1.005	mg/L	0.0019	1.005	mg/L	0.0019	0.19%
Sr 421.552†	1069067.3	0.9986	mg/L	0.00570	0.9986	mg/L	0.00570	0.57%
Ti 334.903†	21664.6	1.004	mg/L	0.0056	1.004	mg/L	0.0056	0.56%
Tl 190.801†	4778.9	2.085	mg/L	0.0172	2.085	mg/L	0.0172	0.83%
V 292.402†	141771.1	1.021	mg/L	0.0014	1.021	mg/L	0.0014	0.14%
Zn 206.200†	3865.2	1.008	mg/L	0.0012	1.008	mg/L	0.0012	0.12%

Sequence No.: 12
Sample ID: CB 4
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 12:43:50 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2964012.6	100.1	%	0.20				0.20%
ScR 361.383	349656.1	100.0	%	0.23				0.23%
Ag 328.068†	30.3	0.00015	mg/L	0.000169	0.00015	mg/L	0.000169	111.52%
Al 308.215†	6.4	0.00385	mg/L	0.002294	0.00385	mg/L	0.002294	59.58%
As 188.979†	-1.3	-0.00075	mg/L	0.002678	-0.00075	mg/L	0.002678	358.76%
B 249.677†	4.0	0.00053	mg/L	0.000374	0.00053	mg/L	0.000374	71.20%
Ba 233.527†	1.7	0.00037	mg/L	0.000334	0.00037	mg/L	0.000334	90.51%
Be 313.042†	12.4	0.00002	mg/L	0.000012	0.00002	mg/L	0.000012	59.13%
Ca 317.933†	73.4	0.00567	mg/L	0.000705	0.00567	mg/L	0.000705	12.44%
Cd 228.802†	7.2	0.00023	mg/L	0.000128	0.00023	mg/L	0.000128	56.62%
Co 228.616†	2.5	0.00006	mg/L	0.000167	0.00006	mg/L	0.000167	262.68%
Cr 267.716†	-7.5	-0.00119	mg/L	0.000684	-0.00119	mg/L	0.000684	57.51%
Cu 324.752†	135.4	0.00045	mg/L	0.000126	0.00045	mg/L	0.000126	28.06%
Fe 273.955†	7.6	0.00565	mg/L	0.001309	0.00565	mg/L	0.001309	23.16%
K 766.490†	25.8	0.01102	mg/L	0.010673	0.01102	mg/L	0.010673	96.89%
Mg 279.077†	0.3	0.00023	mg/L	0.002151	0.00023	mg/L	0.002151	953.31%
Mn 257.610†	9.9	0.00026	mg/L	0.000119	0.00026	mg/L	0.000119	46.34%
Mo 202.031†	16.2	0.00084	mg/L	0.000337	0.00084	mg/L	0.000337	40.27%
Na 589.592†	1373.4	0.09462	mg/L	0.001893	0.09462	mg/L	0.001893	2.00%
Na 330.237†	5.1	0.1753	mg/L	0.14431	0.1753	mg/L	0.14431	82.34%
Ni 231.604†	-1.4	-0.00035	mg/L	0.001396	-0.00035	mg/L	0.001396	404.45%
Pb 220.353†	-2.0	-0.00024	mg/L	0.000258	-0.00024	mg/L	0.000258	106.73%
Sb 206.836†	13.0	0.00409	mg/L	0.000459	0.00409	mg/L	0.000459	11.23%
Se 196.026†	1.6	0.00116	mg/L	0.002786	0.00116	mg/L	0.002786	240.92%
Si 288.158†	-2.6	-0.00124	mg/L	0.004783	-0.00124	mg/L	0.004783	385.02%
Sn 189.927†	4.0	0.00115	mg/L	0.000739	0.00115	mg/L	0.000739	64.35%
Sr 421.552†	29.2	0.00003	mg/L	0.000018	0.00003	mg/L	0.000018	64.46%
Ti 334.903†	11.2	0.00052	mg/L	0.000013	0.00052	mg/L	0.000013	2.48%
Tl 190.801†	-1.6	-0.00070	mg/L	0.000030	-0.00070	mg/L	0.000030	4.22%
V 292.402†	24.2	0.00017	mg/L	0.000046	0.00017	mg/L	0.000046	27.09%
Zn 206.200†	4.0	0.00103	mg/L	0.000756	0.00103	mg/L	0.000756	73.38%

Analysis Begun

Start Time: 6/21/2013 12:52:14 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 6/21/2013 8:12:51 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0621.sif
Batch ID:
Results Data Set: I2130621
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: WT81 C SWC
Analyst: EL
Dilution: 5.000000X
Autosampler Location: 334
Date Collected: 6/21/2013 12:52:15 PM
Data Type: Original

Nebulizer Parameters: WT81 C SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2916909.2	98.54	%	0.496				0.50%
ScR 361.383	348904.2	99.83	%	0.260				0.26%
Ag 328.068†	377.0	0.00192	mg/L	0.000301	0.00958	mg/L	0.001506	15.71%
Al 308.215†	53469.3	32.24	mg/L	0.268	161.2	mg/L	1.34	0.83%
As 188.979†	37.1	0.08633	mg/L	0.004571	0.4317	mg/L	0.02286	5.30%
B 249.677†	199.0	0.02639	mg/L	0.000376	0.1319	mg/L	0.00188	1.42%
Ba 233.527†	8707.7	1.908	mg/L	0.0161	9.539	mg/L	0.0803	0.84%
Be 313.042†	382.4	0.00056	mg/L	0.000008	0.00282	mg/L	0.000038	1.34%
Ca 317.933†	912193.2	70.47	mg/L	0.665	352.4	mg/L	3.32	0.94%
Cd 228.802†	228.7	0.00694	mg/L	0.000287	0.03472	mg/L	0.001436	4.14%
Co 228.616†	1145.6	0.02416	mg/L	0.000402	0.1208	mg/L	0.00201	1.66%
Cr 267.716†	707.2	0.1143	mg/L	0.00252	0.5714	mg/L	0.01259	2.20%
Cu 324.752†	109662.6	0.3688	mg/L	0.00525	1.844	mg/L	0.0263	1.42%
Fe 273.955†	138884.1	103.8	mg/L	1.36	519.1	mg/L	6.79	1.31%
K 766.490†	8191.8	3.500	mg/L	0.0392	17.50	mg/L	0.196	1.12%
Mg 279.077†	21219.7	16.42	mg/L	0.150	82.08	mg/L	0.751	0.91%
Mn 257.610†	52414.8	1.370	mg/L	0.0148	6.848	mg/L	0.0739	1.08%
Mo 202.031†	651.9	0.03283	mg/L	0.000350	0.1641	mg/L	0.00175	1.07%
Na 589.592†	30033.5	2.069	mg/L	0.0243	10.35	mg/L	0.121	1.17%
Na 330.237†	94.8	2.184	mg/L	0.1210	10.92	mg/L	0.605	5.54%
Ni 231.604†	381.0	0.09213	mg/L	0.000766	0.4606	mg/L	0.00383	0.83%
Pb 220.353†	3559.6	0.4372	mg/L	0.00484	2.186	mg/L	0.0242	1.11%
Sb 206.836†	21.3	0.00736	mg/L	0.001154	0.03682	mg/L	0.005772	15.68%
Se 196.026†	13.7	0.00642	mg/L	0.003105	0.03212	mg/L	0.015526	48.34%
Si 288.158†	2650.6	1.277	mg/L	0.0085	6.383	mg/L	0.0425	0.67%
Sn 189.927†	-34.9	-0.00048	mg/L	0.002409	-0.00242	mg/L	0.012047	497.53%
Sr 421.552†	246086.5	0.2299	mg/L	0.00217	1.149	mg/L	0.0109	0.94%
Ti 334.903†	46687.3	2.162	mg/L	0.0196	10.81	mg/L	0.098	0.91%
Tl 190.801†	-21.6	0.00417	mg/L	0.002121	0.02085	mg/L	0.010604	50.86%
V 292.402†	17676.5	0.1207	mg/L	0.00168	0.6037	mg/L	0.00840	1.39%
Zn 206.200†	17576.7	4.584	mg/L	0.0331	22.92	mg/L	0.166	0.72%

Sequence No.: 2
Sample ID: WT81 MB1SPK SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 335
Date Collected: 6/21/2013 12:56:19 PM
Data Type: Original

Nebulizer Parameters: WT81 MB1SPK SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WT81 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2927244.2	98.89	%	0.453				0.46%
ScR 361.383	343606.3	98.32	%	0.223				0.23%
Ag 328.068†	107680.1	0.5372	mg/L	0.00475	1.074	mg/L	0.0095	0.89%
Al 308.215†	3541.5	2.128	mg/L	0.0157	4.256	mg/L	0.0313	0.74%
As 188.979†	3490.1	2.079	mg/L	0.0168	4.159	mg/L	0.0335	0.81%
B 249.677†	8.8	0.00010	mg/L	0.000115	0.00019	mg/L	0.000230	118.86%
Ba 233.527†	9555.6	2.112	mg/L	0.0084	4.225	mg/L	0.0169	0.40%
Be 313.042†	296721.8	0.4778	mg/L	0.00483	0.9557	mg/L	0.00965	1.01%
Ca 317.933†	130805.6	10.11	mg/L	0.065	20.21	mg/L	0.131	0.65%
Cd 228.802†	17147.4	0.5131	mg/L	0.00535	1.026	mg/L	0.0107	1.04%
Co 228.616†	19948.5	0.5104	mg/L	0.00524	1.021	mg/L	0.0105	1.03%
Cr 267.716†	3349.3	0.5297	mg/L	0.00312	1.059	mg/L	0.0062	0.59%
Cu 324.752†	155051.6	0.5158	mg/L	0.00495	1.032	mg/L	0.0099	0.96%
Fe 273.955†	2888.5	2.156	mg/L	0.0180	4.312	mg/L	0.0360	0.83%
K 766.490†	23642.3	10.10	mg/L	0.007	20.20	mg/L	0.013	0.07%
Mg 279.077†	13493.6	10.48	mg/L	0.057	20.97	mg/L	0.113	0.54%
Mn 257.610†	18434.3	0.4820	mg/L	0.00275	0.9640	mg/L	0.00550	0.57%
Mo 202.031†	31.9	0.00150	mg/L	0.000246	0.00299	mg/L	0.000491	16.42%
Na 589.592†	149328.7	10.29	mg/L	0.065	20.58	mg/L	0.130	0.63%
Na 330.237†	317.8	10.79	mg/L	0.238	21.57	mg/L	0.477	2.21%
Ni 231.604†	2082.7	0.5027	mg/L	0.00307	1.005	mg/L	0.0061	0.61%
Pb 220.353†	16972.5	2.076	mg/L	0.0206	4.153	mg/L	0.0413	0.99%
Sb 206.836†	17.4	0.00021	mg/L	0.001460	0.00042	mg/L	0.002921	687.69%
Se 196.026†	2830.0	2.073	mg/L	0.0144	4.146	mg/L	0.0288	0.69%
Si 288.158†	20.5	0.01336	mg/L	0.004776	0.02671	mg/L	0.009552	35.76%
Sn 189.927†	-23.4	-0.00533	mg/L	0.000999	-0.01066	mg/L	0.001998	18.75%
Sr 421.552†	536699.4	0.5013	mg/L	0.00238	1.003	mg/L	0.0048	0.48%
Ti 334.903†	70.0	0.00252	mg/L	0.000487	0.00504	mg/L	0.000973	19.33%
Tl 190.801†	4725.6	2.065	mg/L	0.0164	4.131	mg/L	0.0328	0.79%
V 292.402†	72196.2	0.5198	mg/L	0.00420	1.040	mg/L	0.0084	0.81%
Zn 206.200†	1943.9	0.5071	mg/L	0.00223	1.014	mg/L	0.0045	0.44%

Sequence No.: 3
Sample ID: WU10 MB1SPK SWC
Analyst: EL
Dilution: 2.000000X

Autosampler Location: 336
Date Collected: 6/21/2013 1:00:20 PM
Data Type: Original

Nebulizer Parameters: WU10 MB1SPK SWC

Analyte	Back Pressure	Flow
All	231.0 kPa	0.75 L/min

Mean Data: WU10 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3029532.3	102.3	%	0.47				0.45%
ScR 361.383	348538.9	99.73	%	2.173				2.18%
Ag 328.068†	93659.7	0.4672	mg/L	0.00664	0.9345	mg/L	0.01327	1.42%
Al 308.215†	3255.5	1.957	mg/L	0.0839	3.913	mg/L	0.1678	4.29%
As 188.979†	3015.6	1.796	mg/L	0.0446	3.593	mg/L	0.0891	2.48%
B 249.677†	9.1	0.00028	mg/L	0.000788	0.00055	mg/L	0.001576	285.99%
Ba 233.527†	8961.1	1.981	mg/L	0.0826	3.962	mg/L	0.1653	4.17%
Be 313.042†	284867.2	0.4588	mg/L	0.01767	0.9175	mg/L	0.03534	3.85%
Ca 317.933†	123497.6	9.541	mg/L	0.4127	19.08	mg/L	0.825	4.33%
Cd 228.802†	14933.5	0.4469	mg/L	0.00707	0.8938	mg/L	0.01415	1.58%
Co 228.616†	17292.8	0.4425	mg/L	0.00782	0.8849	mg/L	0.01564	1.77%
Cr 267.716†	3137.3	0.4962	mg/L	0.02042	0.9924	mg/L	0.04085	4.12%
Cu 324.752†	134244.5	0.4466	mg/L	0.00761	0.8932	mg/L	0.01522	1.70%
Fe 273.955†	2621.5	1.957	mg/L	0.0767	3.914	mg/L	0.1535	3.92%
K 766.490†	22564.0	9.640	mg/L	0.4755	19.28	mg/L	0.951	4.93%
Mg 279.077†	12642.1	9.821	mg/L	0.4005	19.64	mg/L	0.801	4.08%
Mn 257.610†	17615.8	0.4606	mg/L	0.01952	0.9211	mg/L	0.03904	4.24%
Mo 202.031†	22.7	0.00103	mg/L	0.000104	0.00205	mg/L	0.000209	10.15%
Na 589.592†	141612.8	9.756	mg/L	0.3931	19.51	mg/L	0.786	4.03%
Na 330.237†	289.8	9.829	mg/L	0.2723	19.66	mg/L	0.545	2.77%
Ni 231.604†	1951.9	0.4712	mg/L	0.01882	0.9423	mg/L	0.03764	3.99%
Pb 220.353†	14785.2	1.809	mg/L	0.0306	3.618	mg/L	0.0611	1.69%
Sb 206.836†	9.8	-0.00198	mg/L	0.000983	-0.00396	mg/L	0.001965	49.68%
Se 196.026†	2459.2	1.801	mg/L	0.0465	3.603	mg/L	0.0931	2.58%
Si 288.158†	12.0	0.00892	mg/L	0.001556	0.01784	mg/L	0.003112	17.45%
Sn 189.927†	-21.1	-0.00476	mg/L	0.000964	-0.00951	mg/L	0.001928	20.27%
Sr 421.552†	512820.6	0.4790	mg/L	0.02067	0.9581	mg/L	0.04133	4.31%
Ti 334.903†	36.8	0.00102	mg/L	0.000304	0.00204	mg/L	0.000608	29.79%
Tl 190.801†	4088.9	1.787	mg/L	0.0386	3.574	mg/L	0.0772	2.16%
V 292.402†	62630.3	0.4511	mg/L	0.00735	0.9022	mg/L	0.01469	1.63%
Zn 206.200†	1823.0	0.4755	mg/L	0.01917	0.9510	mg/L	0.03834	4.03%

Sequence No.: 4
Sample ID: CV 5
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 6/21/2013 1:04:21 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	232.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2908670.6	98.26	%	0.473				0.48%
ScR 361.383	339832.7	97.24	%	0.321				0.33%
Ag 328.068†	215282.8	1.074	mg/L	0.0045	1.074	mg/L	0.0045	0.42%
Al 308.215†	3476.8	2.063	mg/L	0.0077	2.063	mg/L	0.0077	0.38%
As 188.979†	3414.5	2.064	mg/L	0.0092	2.064	mg/L	0.0092	0.45%
B 249.677†	7621.2	1.011	mg/L	0.0039	1.011	mg/L	0.0039	0.38%
Ba 233.527†	4721.4	1.043	mg/L	0.0031	1.043	mg/L	0.0031	0.29%
Be 313.042†	615805.4	0.9917	mg/L	0.00221	0.9917	mg/L	0.00221	0.22%
Ca 317.933†	25840.8	1.996	mg/L	0.0089	1.996	mg/L	0.0089	0.44%
Cd 228.802†	33631.4	1.018	mg/L	0.0064	1.018	mg/L	0.0064	0.63%
Co 228.616†	39380.3	1.006	mg/L	0.0060	1.006	mg/L	0.0060	0.59%
Cr 267.716†	6581.7	1.043	mg/L	0.0046	1.043	mg/L	0.0046	0.44%
Cu 324.752†	301726.5	1.003	mg/L	0.0001	1.003	mg/L	0.0001	0.01%
Fe 273.955†	2778.4	2.071	mg/L	0.0040	2.071	mg/L	0.0040	0.19%
K 766.490†	47517.2	20.30	mg/L	0.093	20.30	mg/L	0.093	0.46%
Mg 279.077†	2600.3	2.027	mg/L	0.0017	2.027	mg/L	0.0017	0.09%
Mn 257.610†	36915.9	0.9649	mg/L	0.00446	0.9649	mg/L	0.00446	0.46%
Mo 202.031†	19523.1	1.010	mg/L	0.0053	1.010	mg/L	0.0053	0.53%
Na 589.592†	739229.8	50.93	mg/L	0.333	50.93	mg/L	0.333	0.65%
Na 330.237†	1505.7	52.01	mg/L	0.124	52.01	mg/L	0.124	0.24%
Ni 231.604†	4266.1	1.032	mg/L	0.0059	1.032	mg/L	0.0059	0.57%
Pb 220.353†	16656.2	2.038	mg/L	0.0143	2.038	mg/L	0.0143	0.70%
Sb 206.836†	6805.3	2.133	mg/L	0.0079	2.133	mg/L	0.0079	0.37%
Se 196.026†	2781.7	2.037	mg/L	0.0098	2.037	mg/L	0.0098	0.48%
Si 288.158†	4280.4	2.063	mg/L	0.0138	2.063	mg/L	0.0138	0.67%
Sn 189.927†	3538.7	1.016	mg/L	0.0022	1.016	mg/L	0.0022	0.21%
Sr 421.552†	1081043.7	1.010	mg/L	0.0029	1.010	mg/L	0.0029	0.28%
Ti 334.903†	21871.4	1.014	mg/L	0.0032	1.014	mg/L	0.0032	0.31%
Tl 190.801†	4837.8	2.111	mg/L	0.0114	2.111	mg/L	0.0114	0.54%
V 292.402†	143653.7	1.034	mg/L	0.0031	1.034	mg/L	0.0031	0.30%
Zn 206.200†	3907.6	1.019	mg/L	0.0033	1.019	mg/L	0.0033	0.32%

Sequence No.: 5
Sample ID: CB 5
Analyst: EL
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 6/21/2013 1:09:29 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	230.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2995255.2	101.2	%	0.10				0.10%
ScR 361.383	354233.1	101.4	%	0.46				0.45%
Ag 328.068†	44.5	0.00022	mg/L	0.000061	0.00022	mg/L	0.000061	27.57%
Al 308.215†	11.3	0.00678	mg/L	0.004251	0.00678	mg/L	0.004251	62.71%
As 188.979†	1.6	0.00100	mg/L	0.001014	0.00100	mg/L	0.001014	101.09%
B 249.677†	7.4	0.00099	mg/L	0.000180	0.00099	mg/L	0.000180	18.21%
Ba 233.527†	0.7	0.00015	mg/L	0.000493	0.00015	mg/L	0.000493	319.41%
Be 313.042†	8.8	0.00001	mg/L	0.000021	0.00001	mg/L	0.000021	145.41%
Ca 317.933†	2.2	0.00017	mg/L	0.000910	0.00017	mg/L	0.000910	526.44%
Cd 228.802†	7.5	0.00022	mg/L	0.000089	0.00022	mg/L	0.000089	39.73%
Co 228.616†	5.2	0.00013	mg/L	0.000317	0.00013	mg/L	0.000317	240.47%
Cr 267.716†	-3.4	-0.00054	mg/L	0.000546	-0.00054	mg/L	0.000546	100.72%
Cu 324.752†	110.7	0.00037	mg/L	0.000145	0.00037	mg/L	0.000145	39.51%
Fe 273.955†	0.4	0.00028	mg/L	0.001929	0.00028	mg/L	0.001929	691.08%
K 766.490†	56.3	0.02405	mg/L	0.013001	0.02405	mg/L	0.013001	54.05%
Mg 279.077†	1.7	0.00130	mg/L	0.004895	0.00130	mg/L	0.004895	375.07%
Mn 257.610†	0.9	0.00002	mg/L	0.000050	0.00002	mg/L	0.000050	212.08%
Mo 202.031†	18.3	0.00095	mg/L	0.000033	0.00095	mg/L	0.000033	3.49%
Na 589.592†	410.7	0.02830	mg/L	0.001978	0.02830	mg/L	0.001978	6.99%
Na 330.237†	2.7	0.09440	mg/L	0.178592	0.09440	mg/L	0.178592	189.19%
Ni 231.604†	-0.6	-0.00015	mg/L	0.000762	-0.00015	mg/L	0.000762	517.99%
Pb 220.353†	2.0	0.00024	mg/L	0.000935	0.00024	mg/L	0.000935	390.19%
Sb 206.836†	15.7	0.00493	mg/L	0.001595	0.00493	mg/L	0.001595	32.36%
Se 196.026†	1.5	0.00110	mg/L	0.002878	0.00110	mg/L	0.002878	261.54%
Si 288.158†	-6.3	-0.00301	mg/L	0.006712	-0.00301	mg/L	0.006712	222.68%
Sn 189.927†	2.0	0.00058	mg/L	0.000420	0.00058	mg/L	0.000420	72.54%
Sr 421.552†	-29.5	-0.00003	mg/L	0.000023	-0.00003	mg/L	0.000023	84.19%
Ti 334.903†	16.8	0.00078	mg/L	0.000270	0.00078	mg/L	0.000270	34.56%
Tl 190.801†	-0.8	-0.00033	mg/L	0.000191	-0.00033	mg/L	0.000191	57.92%
V 292.402†	-7.3	-0.00005	mg/L	0.000085	-0.00005	mg/L	0.000085	155.66%
Zn 206.200†	3.7	0.00096	mg/L	0.000381	0.00096	mg/L	0.000381	39.75%

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 6-20-13

M2 Nexion STD	Analyst 6-21	Peer 6-21-13	Comment
Logbooks			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	See Log
ICB/CCB	✓	✓	*
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See Log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	See Log
Matrix Spikes	✓	✓	WT81 WT86
Matrix Duplicates	✓	✓	WT86
Method Blanks	✓	✓	
Data Delivery			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Anomalies noted in CAF's	✓	✓	A.N WL03 WL04

CAF WT81 WT86

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-2013 **Analyst:** MT **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			B654
		1			B542
		2			B631
		3			B632
		4			B700
		5			B634
		Rinse Sample			
		ICV			B523
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{62}Ni ^{53}Cr high
		LR200			
		LR300			
		B1			
		B2			
		CCV2			
		CCB2 MB2 3			^{62}Ni high
		WT81 MB2	SWN	20	
		WT82 MB1		6	Ag
		A-L		100	
		A		20	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-20-13 **Analyst:** MK **Page:** 2 of 5

All corrections made by analyst unless otherwise noted. MK 6-20-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WT82 ADup #621	SWN	20	~~RR 20~~ Ag
		ASpk		✓	↓ ↓
ZZZ		ZZZZZZ ~~APost~~			
		WT81 B			RR3
		↓ C			RR3
		WT82 MBISpk	↓	↓	Ag
		CCV3			
		CCB3			^{62}Ni high
		WT86 MB	SWN	20	
		ADup			St Cd high RPD
		A			CAF
		ASpk			Sb low %R
		WT81 ADup			RR3
		A			~~CAF~~ RR3, Sb low %R
		ASpk			
		APost			0.20 mL spk #2 1:10 0.06 mL spk #1 1:10 Ag ↓ Sb
		MBISpk			RR As
		WT86 MB Spk	↓	↓	↓
		CCV4			^{62}Ni high
		CCB4			↓
		WT81 B	SWN	200	Zn
		C		↓	
		ADup		50 ✓	
		↓ A	↓	↓	↓

WT81 : 621115

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-2013 **Analyst:** AA **Page:** 3 of 5

All corrections made by analyst unless otherwise noted. AA 6-2013

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WT81 Aspl	SWN	50 ✓	
ZZZ		〃 ~~APost~~ ZZZZZZ	〃	〃	
		OCV5			^{62}Ni high
		CCB5			^{62}Ni As2 high
ZZZ		ZZZZZZ			
		STDO			
		CCV6			
		CCB6			
		WH03 MB1	REN	2	
		WT49 G		〃	
		〃 F		10	
		WH03 ADup		2 ✓	
		A			
		Aspk		✓	
		EDup		✓	
		E			
		〃 Espk		✓	
		WT49 MB2spk	〃	〃 ✓	
		CCV7			
		CCB7			
		STDO			
		CCV8			
		CCB8			^{62}Ni low
REN		WH03 MB2	REN	2	

5/6-21-13

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, June 20, 2013 08:12:34
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.2165
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	1670.8	1670.768	45.390	2.7	Standard
	Mg	24.0	18402.4	18402.437	373.406	2.0	Standard
	In	114.9	43738.5	43738.501	617.752	1.4	Standard
	Pb	208.0	25867.8	25867.821	177.298	0.7	Standard
	U	238.1	41217.6	41217.620	323.552	0.8	Standard
⌈	CeO	155.9	869.2	0.017	0.001	3.0	Standard
| >	Ce	139.9	51791.3	51791.327	621.249	1.2	Standard
⌊	Ce++	70.0	713.8	0.014	0.000	3.4	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.08	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/20/2013 8:12:31 AM
nd Time: 6/20/2013 8:24:15 AM

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 1670.77 - <Target not achieved>
Obtained Intensity (Mg 23.985): 18402.44 - <Target not achieved>
Obtained Intensity (In 114.904): 43738.50 - <Target not achieved>
Obtained Intensity (Pb 207.977): 25867.82
Obtained Intensity (U 238.05): 41217.62
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=869.25 / 51791.33)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=713.76 / 51791.33)

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.46 mm	-0.81 mm	56098.19

ebulizer Gas Flow STD/KED [NEB] - [Failed]
Error: no data meets the intensity and/or formula criteria.

SmartTune Wizard - Summary

ɔtimization Summary

nartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/20/2013 8:24:22 AM
nd Time: 6/20/2013 8:27:13 AM

ebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.07
Obtained Intensity (In 114.904): 51478.51
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=1081.07 / 57165.40)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/20/2013 8:27:32 AM
nd Time: 6/20/2013 8:38:49 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.686)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.691)

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.998; Intercept = -12.31

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2787.93 - <Target not achieved>
Obtained Intensity (Mg 23.985): 29190.21
Obtained Intensity (In 114.904): 75891.96
Obtained Intensity (Pb 207.977): 32642.56
Obtained Intensity (U 238.05): 56014.97
Obtained Intensity (Bkgd 220): 0.13
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1584.42 / 75051.40)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=931.59 / 75051.40)

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, June 20, 2013 08:36:15
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.2172
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	2787.9	2787.934	121.782	4.4	Standard
	Mg	24.0	29190.2	29190.211	945.526	3.2	Standard
	In	114.9	75892.0	75891.955	2430.076	3.2	Standard
	Pb	208.0	32642.6	32642.564	696.496	2.1	Standard
	U	238.1	56015.0	56014.973	1732.278	3.1	Standard
[	CeO	155.9	1584.4	0.021	0.002	8.4	Standard
| >	Ce	139.9	75051.4	75051.401	1800.060	2.4	Standard
[	Ce++	70.0	931.6	0.012	0.000	2.4	Standard
	Bkgd	220.0	0.1	0.133	0.139	104.6	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.07	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, June 20, 2013 09:15.30
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.2183
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	2974.8	2974.798	64.936	2.2	Standard
	Mg	24.0	31667.8	31667.757	837.328	2.6	Standard
	In	114.9	85096.2	85096.150	1270.229	1.5	Standard
	U	238.1	63177.5	63177.550	879.484	1.4	Standard
⌈	CeO	155.9	2179.5	0.027	0.001	5.2	Standard
| >	Ce	139.9	81629.5	81629.481	1409.041	1.7	Standard
⌊	Ce++	70.0	1133.0	0.014	0.000	3.0	Standard
	Bkgd	220.0	0.2	0.200	0.139	69.7	Standard

Current Conditions File Data

Current Value	Description
1.08	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.07	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq

SmartTune Wizard - Summary

ptimization Summary

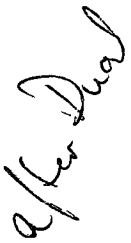
martTune file: C:\NexIONData\Wizard\SmartTune\DUALDET.swz

tart Time: 6/20/2013 9:15:30 AM
nd Time: 6/20/2013 9:17:49 AM

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2974.80 - <Target not achieved>
Obtained Intensity (Mg 23.985): 31667.76
Obtained Intensity (In 114.904): 85096.15
Obtained Intensity (U 238.05): 63177.55
Obtained Intensity (Bkgd 220): 0.20
Obtained Formula (CeO 155.9 / Ce 139.905): 0.027 (=2179.49 / 81629.48) - <Target not achieved>
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1133.01 / 81629.48)

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, June 20, 2013 09:18:58
Sample Description:
Method File: C:\NexION Data\Method\Daily Performance.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.2184
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0 00



Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	2508.1	2508.111	27.876	1.1	Standard
	Mg	24.0	27848.7	27848.724	179.918	0.6	Standard
	In	114.9	77501.6	77501.606	607.840	0.8	Standard
	U	238.1	58312.7	58312.657	523.212	0.9	Standard
[	CeO	155.9	1432.8	0.019	0.001	5.9	Standard
| >	Ce	139.9	75679.9	75679.912	631.054	0.8	Standard
[	Ce++	70.0	900.0	0.012	0.000	2.8	Standard
	Bkgd	220.0	0.2	0.233	0.365	156.5	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.07	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\DUALDET.swz

Start Time: 6/20/2013 9:18:58 AM
End Time: 6/20/2013 9:21:17 AM

Daily Performance Check - [Failed]
Obtained Intensity (Be 9.012): 2508.11 - <Target not achieved>
Obtained Intensity (Mg 23.985): 27848.72
Obtained Intensity (In 114.904): 77501.61
Obtained Intensity (U 238.05): 58312.66
Obtained Intensity (Bkgd 220): 0.23
Obtained Formula (CeO 155.9 / Ce 139.905): 0.019 (=1432.79 / 75679.91)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=899.98 / 75679.91)

NO Be run today

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:00:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				53177	1
	Cl	37		ug/L				3520933	1
>	Sc	45		ug/L				702035	3
	Cr	52		ug/L				18360	2
	Cr	53		ug/L				98	2
	Mn	55		ug/L				342	10
>	Ge	72		ug/L				449741	3
	Ni	60		ug/L				43	6
	Ni	62		ug/L				270	5
	Cu	63		ug/L				270	1
	Cu	65		ug/L				36	18
	Zn	66		ug/L				769	3
	Zn	67		ug/L				120	16
	Zn	68		ug/L				732	4
	As	75		ug/L				95	5
	As-1	75		ug/L				10170	0
	Se	82		ug/L				-9	27
	Se	78		ug/L				10290	0
	Y	89		ug/L				313112	1
	Kr	83		ug/L				347	5
>	In	115		ug/L				926753	0
	Ag	107		ug/L				39	15
	Cd	111		ug/L				86	7
	Cd	114		ug/L				35	10
	Sb	121		ug/L				149	5
	Sb	123		ug/L				102	3
>	Tb	159		ug/L				1051527	1
	Tl	205		ug/L				58	14
	Pb	208		ug/L				264	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:03:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	53009	0
	Cl	37		ug/L			3520933	3620456	4
>	Sc	45		ug/L			702035	717621	1
	Cr	52	0.500	ug/L	0.030	5	18360	24460	1
	Cr	53	0.500	ug/L	0.028	5	98	846	5
	Mn	55	0.500	ug/L	0.008	1	342	9146	1
>	Ge	72		ug/L			449741	453460	1
	Ni	60	0.500	ug/L	0.008	1	43	1590	1
	Ni	62	0.500	ug/L	0.083	16	270	458	5
	Cu	63	0.500	ug/L	0.012	2	270	4037	1
	Cu	65	0.500	ug/L	0.016	3	36	1733	1
	Zn	66	4.000	ug/L	0.028	0	769	8352	1
	Zn	67	4.000	ug/L	0.098	2	120	1197	1
	Zn	68	4.000	ug/L	0.061	1	732	5902	2
	As	75	0.200	ug/L	0.011	5	95	583	2
	As-1	75	0.200	ug/L	0.124	61	10170	10708	0
	Se	82	0.500	ug/L	0 027	5	-9	116	5
	Se	78	0.500	ug/L	0.436	87	10290	10660	0
	Y	89		ug/L			313112	318087	1
	Kr	83		ug/L			347	346	7
>	In	115		ug/L			926753	948826	0
	Ag	107	0.200	ug/L	0.007	3	39	2905	3
	Cd	111	0.100	ug/L	0.002	2	86	595	2
	Cd	114	0.100	ug/L	0.001	1	35	1270	1
	Sb	121	0.200	ug/L	0.003	1	149	2936	1
	Sb	123	0.200	ug/L	0.004	2	102	2243	1
>	Tb	159		ug/L			1051527	1077087	0
	Tl	205	0.200	ug/L	0.004	1	58	7572	1
	Pb	208	0.100	ug/L	0.002	2	264	5244	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:07:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			53177	53264	3
	Cl	37		ug/L			3520933	3430259	2
>	Sc	45		ug/L			702035	691347	2
	Cr	52	10.003	ug/L	0.311	3	18360	144308	0
	Cr	53	10.000	ug/L	0.172	1	98	14434	1
	Mn	55	10.000	ug/L	0.321	3	342	172446	0
>	Ge	72		ug/L			449741	435454	2
	Ni	60	10.001	ug/L	0 337	3	43	30357	1
	Ni	62	10.004	ug/L	0.127	1	270	4558	3
	Cu	63	9.999	ug/L	0.267	2	270	69635	1
	Cu	65	9.999	ug/L	0.127	1	36	31388	1
	Zn	66	10.057	ug/L	0.480	4	769	19701	2
	Zn	67	10.270	ug/L	0 341	3	120	3308	2
	Zn	68	10.111	ug/L	0.336	3	732	14175	2
	As	75	9.999	ug/L	0.168	1	95	18304	2
	As-1	75	9.999	ug/L	0.095	0	10170	27204	1
	Se	82	9.998	ug/L	0.356	3	-9	2220	2
	Se	78	9.996	ug/L	0.155	1	10290	14790	1
	Y	89		ug/L			313112	309085	0
	Kr	83		ug/L			347	355	3
>	In	115		ug/L			926753	912553	0
	Ag	107	10.000	ug/L	0.099	0	39	143267	0
	Cd	111	10.000	ug/L	0.099	0	86	49060	0
	Cd	114	10.000	ug/L	0.213	2	35	120468	1
	Sb	121	10.000	ug/L	0.189	1	149	137179	1
	Sb	123	10.000	ug/L	0.075	0	102	105643	0
>	Tb	159		ug/L			1051527	1046792	1
	Tl	205	10.000	ug/L	0.129	1	58	370867	1
	Pb	208	10.000	ug/L	0.017	0	264	484169	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:11:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	51844	4
	Cl	37		ug/L			3520933	3541696	1
>	Sc	45		ug/L			702035	706159	0
	Cr	52	19.950	ug/L	0.540	2	18360	273175	2
	Cr	53	20.000	ug/L	0.584	2	98	29399	3
	Mn	55	19.901	ug/L	0.351	1	342	343645	2
>	Ge	72		ug/L			449741	439836	0
	Ni	60	20.016	ug/L	0.408	2	43	61558	2
	Ni	62	19.994	ug/L	0.282	1	270	8927	1
	Cu	63	20.008	ug/L	1.006	5	270	140759	5
	Cu	65	20.007	ug/L	0.589	2	36	63495	2
	Zn	66	19.953	ug/L	0.145	0	769	38467	0
	Zn	67	19.921	ug/L	0.481	2	120	6289	2
	Zn	68	20.048	ug/L	0.159	0	732	27920	0
	As	75	19.938	ug/L	0.183	0	95	36334	1
	As-1	75	19.925	ug/L	0.124	0	10170	44375	0
	Se	82	19.987	ug/L	0.208	1	-9	4483	1
	Se	78	19.944	ug/L	0.502	2	10290	19685	1
	Y	89		ug/L			313112	307663	2
	Kr	83		ug/L			347	360	5
>	In	115		ug/L			926753	917896	0
	Ag	107	19.880	ug/L	0.133	0	39	279758	0
	Cd	111	19.968	ug/L	0.171	0	86	97830	1
	Cd	114	19.981	ug/L	0.153	0	35	241198	1
	Sb	121	20.009	ug/L	0.148	0	149	276476	1
	Sb	123	20.019	ug/L	0.182	0	102	213465	1
>	Tb	159		ug/L			1051527	1062782	2
	Tl	205	19.954	ug/L	0.489	2	58	744226	0
	Pb	208	19.965	ug/L	0.408	2	264	973882	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:15:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	49087	4
	Cl	37		ug/L			3520933	3554059	3
>	Sc	45		ug/L			702035	693992	0
	Cr	52	49.962	ug/L	0.616	1	18360	642715	1
	Cr	53	50.000	ug/L	0.934	1	98	72078	1
	Mn	55	49.870	ug/L	1.356	2	342	834749	2
>	Ge	72		ug/L			449741	438423	1
	Ni	60	49.769	ug/L	1.495	3	43	149033	2
	Ni	62	50.008	ug/L	0.861	1	270	21876	1
	Cu	63	49.810	ug/L	1.928	3	270	342264	2
	Cu	65	49.820	ug/L	0.672	1	36	154775	2
	Zn	66	49.665	ug/L	1.182	2	769	91366	1
	Zn	67	49.761	ug/L	1.583	3	120	15131	1
	Zn	68	49.813	ug/L	0.996	1	732	66879	0
	As	75	49.835	ug/L	0.803	1	95	88905	0
	As-1	75	49.846	ug/L	1.090	2	10170	94448	0
	Se	82	49.727	ug/L	0.390	0	-9	10836	0
	Se	78	49.733	ug/L	1.388	2	10290	33320	0
	Y	89		ug/L			313112	306840	1
	Kr	83		ug/L			347	347	3
>	In	115		ug/L			926753	891627	0
	Ag	107	50.127	ug/L	0.702	1	39	693998	2
	Cd	111	50.022	ug/L	0.692	1	86	238447	1
	Cd	114	50.069	ug/L	0.916	1	35	591017	0
	Sb	121	50.071	ug/L	0.398	0	149	676563	0
	Sb	123	49.946	ug/L	0.479	0	102	514406	0
>	Tb	159		ug/L			1051527	1051237	0
	Tl	205	49.852	ug/L	0.501	1	58	1812955	0
	Pb	208	49.902	ug/L	0.475	0	264	2384821	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:19:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
C	13		ug/L			53177	52109	2
Cl	37		ug/L			3520933	3555472	2
> Sc	45		ug/L			702035	699534	2
Cr	52	100.448	ug/L	1.594	1	18360	1302811	1
Cr	53	100.235	ug/L	1.993	1	98	146657	1
Mn	55	100.494	ug/L	1.950	1	342	1723200	1
> Ge	72		ug/L			449741	436791	1
Ni	60	99.953	ug/L	1.197	1	43	297723	0
Ni	62	99.392	ug/L	1.485	1	270	42213	1
Cu	63	99.891	ug/L	3.059	3	270	681232	2
Cu	65	99.716	ug/L	2.241	2	36	305688	2
Zn	66	100.042	ug/L	1.404	1	769	182902	2
Zn	67	99.998	ug/L	2.776	2	120	30178	1
Zn	68	98.994	ug/L	1.540	1	732	127496	0
As	75	99.945	ug/L	1.516	1	95	177233	1
As-1	75	100.043	ug/L	1.402	1	10170	179177	0
Se	82	99.601	ug/L	1.890	1	-9	21349	1
Se	78	99.908	ug/L	1.498	1	10290	56471	1
Y	89		ug/L			313112	308713	0
Kr	83		ug/L			347	392	4
> In	115		ug/L			926753	873035	0
Ag	107	99.751	ug/L	2.290	2	39	1340846	1
Cd	111	99.989	ug/L	1.369	1	86	466413	0
Cd	114	100.027	ug/L	1.092	1	35	1157183	0
Sb	121	100.155	ug/L	0.233	0	149	1331864	0
Sb	123	100.308	ug/L	1.218	1	102	1021915	0
> Tb	159		ug/L			1051527	1039831	1
Tl	205	100.144	ug/L	1.164	1	58	3619570	1
Pb	208	100.124	ug/L	0.826	0	264	4752599	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:24:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\061913c.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**		ug/L			53177	50168	0
	Cl	**37**		ug/L			3520933	3406247	1
>	**Sc**	**45**		ug/L			702035	679388	1
	Cr	**52**	**-0.029**	ug/L	0.041	139	18360	17398	1
	Cr	**53**	**0.013**	ug/L	0.006	47	98	113	6
	Mn	**55**	**0.009**	ug/L	0.007	74	342	487	22
>	**Ge**	**72**		ug/L			449741	430813	1
	Ni	**60**	**0.003**	ug/L	0.008	217	43	51	43
	Ni	**62**	**1.092**	ug/L	0.199	18	270	713	10
	Cu	**63**	**0.076**	ug/L	0.012	16	270	768	9
	Cu	**65**	**0.017**	ug/L	0.010	58	36	85	34
	Zn	**66**	**-0.043**	ug/L	0.039	89	769	658	9
	Zn	**67**	**-0.059**	ug/L	0.015	25	120	97	3
	Zn	**68**	**-0.060**	ug/L	0.060	100	732	625	10
	As	**75**	**0.029**	ug/L	0.008	28	95	143	8
	As-1	**75**	**0.216**	ug/L	0.135	62	10170	10100	1
	Se	**82**	**0.068**	ug/L	0.036	53	-9	5	141
	Se	**78**	**0.727**	ug/L	0.466	64	10290	10189	1
	Y	**89**		ug/L			313112	293888	1
	Kr	**83**		ug/L			347	319	3
>	**In**	**115**		ug/L			926753	890234	0
	Ag	**107**	**0.005**	ug/L	0.003	47	39	110	31
	Cd	**111**	**0.006**	ug/L	0.002	42	86	110	10
	Cd	**114**	**0.004**	ug/L	0.002	52	35	84	31
	Sb	**121**	**0.162**	ug/L	0.021	12	149	2337	11
	Sb	**123**	**0.168**	ug/L	0.014	8	102	1839	7
>	**Tb**	**159**		ug/L			1051527	1007309	1
	Tl	**205**	**0.012**	ug/L	0.005	43	58	484	40
	Pb	**208**	**0.007**	ug/L	0.006	83	264	566	46

Sample Information

Sample Date/Time: Thursday, June 20, 2013 10:19:58
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**1.0000**	0.018	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.025	0.50	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.016	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9998**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
As-1	75	**1.0000**	0.004	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.015	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.035	0.20	10	20	50	100
Pb	208	**1.0000**	0.046	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:31:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	54311	1
	Cl	37		ug/L			3520933	3551418	1
>	Sc	45		ug/L			702035	678605	3
	Cr	52	49.786	ug/L	0.745	1	18360	635325	1
	Cr	53	50.418	ug/L	0.439	0	98	71619	2
	Mn	55	50.220	ug/L	1.098	2	342	835615	2
>	Ge	72		ug/L			449741	429266	0
	Ni	60	49.552	ug/L	0.600	1	43	145085	1
	Ni	62	52.236	ug/L	0.865	1	270	21926	2
	Cu	63	50.013	ug/L	1.187	2	270	335359	1
	Cu	65	50.652	ug/L	0.552	1	36	152622	0
	Zn	66	49.315	ug/L	0.575	1	769	88969	0
	Zn	67	51.152	ug/L	0.297	0	120	15230	0
	Zn	68	51.244	ug/L	0.998	1	732	65199	1
	As	75	52.652	ug/L	0.414	0	95	91806	0
	As-1	75	51.536	ug/L	0.603	1	10170	95420	0
	Se	82	76.785	ug/L	0.734	0	-9	16015	0
	Se	78	76.004	ug/L	1.076	1	10290	44564	0
	Y	89		ug/L			313112	293260	1
	Kr	83		ug/L			347	363	5
>	In	115		ug/L			926753	869299	2
	Ag	107	49.345	ug/L	0.248	0	39	660491	1
	Cd	111	48.877	ug/L	1.270	2	86	227004	1
	Cd	114	48.228	ug/L	0.689	1	35	555502	0
	Sb	121	50.553	ug/L	0.870	1	149	669289	0
	Sb	123	50.451	ug/L	1.266	2	102	511699	0
>	Tb	159		ug/L			1051527	1016734	1
	Tl	205	49.874	ug/L	0.580	1	58	1762497	0
	Pb	208	50.264	ug/L	0.380	0	264	2332864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:37:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	51681	1
	Cl	37		ug/L			3520933	3415004	2
>	Sc	45		ug/L			702035	678915	1
	Cr	52	-0.001	ug/L	0.038	2663	18360	17735	2
	Cr	53	0.009	ug/L	0.014	157	98	107	18
	Mn	55	0.007	ug/L	0.009	141	342	439	35
>	Ge	72		ug/L			449741	436399	1
	Ni	60	0.000	ug/L	0.006	10561	43	42	43
	Ni	62	0.227	ug/L	0.020	8	270	358	3
	Cu	63	0.027	ug/L	0.011	38	270	448	17
	Cu	65	0.011	ug/L	0.008	75	36	69	38
	Zn	66	-0.065	ug/L	0.034	52	769	629	10
	Zn	67	-0.116	ug/L	0.024	20	120	81	9
	Zn	68	-0.072	ug/L	0.022	30	732	619	5
	As	75	0.029	ug/L	0.002	6	95	144	1
	As-1	75	0.151	ug/L	0.057	37	10170	10122	0
	Se	82	0.039	ug/L	0.016	39	-9	0	459
	Se	78	0.484	ug/L	0 231	47	10290	10209	0
	Y	89		ug/L			313112	297253	1
	Kr	83		ug/L			347	338	5
>	In	115		ug/L			926753	888353	0
	Ag	107	0.006	ug/L	0 009	141	39	120	97
	Cd	111	0.008	ug/L	0.010	123	86	122	39
	Cd	114	0.007	ug/L	0.009	132	35	110	92
	Sb	121	0.046	ug/L	0.007	14	149	773	12
	Sb	123	0.046	ug/L	0.006	14	102	572	12
>	Tb	159		ug/L			1051527	1018136	1
	Tl	205	0.009	ug/L	0.010	104	58	390	88
	Pb	208	0.006	ug/L	0.009	155	264	532	80

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:41:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	48869	0
	Cl	37		ug/L			3520933	3414330	1
>	Sc	45		ug/L			702035	661600	0
	Cr	52	50.703	ug/L	0.792	1	18360	630744	2
	Cr	53	50.530	ug/L	0.227	0	98	69990	0
	Mn	55	50.279	ug/L	0.864	1	342	815925	2
>	Ge	72		ug/L			449741	428708	0
	Ni	60	49.433	ug/L	0.651	1	43	144544	0
	Ni	62	50.564	ug/L	0.489	0	270	21204	0
	Cu	63	49.360	ug/L	0.456	0	270	330593	1
	Cu	65	49.287	ug/L	0.903	1	36	148326	2
	Zn	66	50.045	ug/L	1.650	3	769	90158	3
	Zn	67	50.607	ug/L	0.441	0	120	15049	1
	Zn	68	51.645	ug/L	1.196	2	732	65628	2
	As	75	49.677	ug/L	0.417	0	95	86513	0
	As-1	75	49.814	ug/L	0.421	0	10170	92438	0
	Se	82	49.659	ug/L	0.273	0	-9	10341	0
	Se	78	49.610	ug/L	0.517	1	10290	32459	1
	Y	89		ug/L			313112	287927	2
	Kr	83		ug/L			347	366	1
>	In	115		ug/L			926753	857861	1
	Ag	107	48.956	ug/L	0.381	0	39	646684	0
	Cd	111	50.371	ug/L	0.694	1	86	230929	1
	Cd	114	49.888	ug/L	0.294	0	35	567142	0
	Sb	121	50.770	ug/L	0.876	1	149	663414	1
	Sb	123	50.585	ug/L	0.783	1	102	506422	0
>	Tb	159		ug/L			1051527	1000909	0
	Tl	205	50.354	ug/L	0.415	0	58	1752001	1
	Pb	208	50.315	ug/L	0.071	0	264	2299036	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:47:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	49595	1
	Cl	37		ug/L			3520933	3350165	1
>	Sc	45		ug/L			702035	667390	2
	Cr	52	0.031	ug/L	0.030	96	18360	17825	1
	Cr	53	0.000	ug/L	0 004	2715	98	93	5
	Mn	55	0.002	ug/L	0.001	76	342	355	4
>	Ge	72		ug/L			449741	436276	1
	Ni	60	-0.004	ug/L	0.002	45	43	31	14
	Ni	62	0.232	ug/L	0.034	14	270	360	3
	Cu	63	0.015	ug/L	0.001	5	270	363	2
	Cu	65	0.008	ug/L	0.002	20	36	58	6
	Zn	66	-0.099	ug/L	0.014	14	769	565	4
	Zn	67	-0.120	ug/L	0.049	41	120	80	16
	Zn	68	-0.110	ug/L	0.022	20	732	569	3
	As	75	0.037	ug/L	0.015	41	95	159	15
	As-1	75	0.101	ug/L	0.067	66	10170	10034	0
	Se	82	0.039	ug/L	0.065	166	-9	0	1397
	Se	78	0.313	ug/L	0.249	79	10290	10127	0
	Y	89		ug/L			313112	285158	1
	Kr	83		ug/L			347	363	6
>	In	115		ug/L			926753	880027	1
	Ag	107	0.002	ug/L	0.002	90	39	68	42
	Cd	111	0.002	ug/L	0.002	87	86	90	7
	Cd	114	0.002	ug/L	0.002	102	35	54	40
	Sb	121	0.079	ug/L	0 017	21	149	1191	17
	Sb	123	0.084	ug/L	0.018	21	102	961	17
>	Tb	159		ug/L			1051527	992345	1
	Tl	205	0.004	ug/L	0.001	30	58	186	21
	Pb	208	0.001	ug/L	0.001	104	264	285	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:50:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			53177	50837	1
	Cl	37		ug/L			3520933	3330406	1
>	Sc	45		ug/L			702035	678100	0
	Cr	52	0.480	ug/L	0.043	8	18360	23689	1
	Cr	53	0.486	ug/L	0.017	3	98	784	3
	Mn	55	0.499	ug/L	0.005	1	342	8623	1
>	Ge	72		ug/L			449741	430981	0
	Ni	60	0.484	ug/L	0.009	1	43	1462	2
	Ni	62	0.655	ug/L	0.039	5	270	532	3
	Cu	63	0.510	ug/L	0.017	3	270	3690	3
	Cu	65	0.522	ug/L	0.018	3	36	1612	3
	Zn	66	3.976	ug/L	0.024	0	769	7878	0
	Zn	67	3.623	ug/L	0.162	4	120	1189	3
	Zn	68	3.890	ug/L	0.051	1	732	5619	1
	As	75	0.254	ug/L	0.018	7	95	535	5
	As-1	75	0.322	ug/L	0.065	20	10170	10283	0
	Se	82	0.516	ug/L	0.074	14	-9	99	15
	Se	78	0.878	ug/L	0.212	24	10290	10264	0
	Y	89		ug/L			313112	294170	2
	Kr	83		ug/L			347	376	6
>	In	115		ug/L			926753	885116	2
	Ag	107	0.193	ug/L	0.008	4	39	2671	3
	Cd	111	0.098	ug/L	0.002	1	86	547	1
	Cd	114	0.101	ug/L	0.002	1	35	1213	3
	Sb	121	0.219	ug/L	0.015	6	149	3086	4
	Sb	123	0.218	ug/L	0.006	2	102	2346	2
>	Tb	159		ug/L			1051527	987334	0
	Tl	205	0.208	ug/L	0.002	0	58	7203	1
	Pb	208	0.106	ug/L	0.001	1	264	5019	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 10:54:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	113597	3
	Cl	37		ug/L			3520933	10114833	4
>	Sc	45		ug/L			702035	762651	2
	Cr	52	0.687	ug/L	0 062	9	18360	29512	1
	Cr	53	5.565	ug/L	0.044	0	98	8981	2
	Mn	55	0.062	ug/L	0.002	3	342	1535	0
>	Ge	72		ug/L			449741	475497	2
	Ni	60	0.315	ug/L	0.024	7	43	1066	5
	Ni	62	3.688	ug/L	0.923	25	270	1985	23
	Cu	63	1.071	ug/L	0.079	7	270	8243	9
	Cu	65	0.334	ug/L	0.023	6	36	1153	7
	Zn	66	0.840	ug/L	0.052	6	769	2477	2
	Zn	67	7.037	ug/L	0.289	4	120	2428	1
	Zn	68	0.351	ug/L	0.024	6	732	1264	4
	As	75	0.271	ug/L	0.040	14	95	625	13
	As-1	75	0.729	ug/L	0.071	9	10170	12095	2
	Se	82	-0.110	ug/L	0 066	59	-9	-35	41
	Se	78	1.693	ug/L	0 362	21	10290	11737	2
	Y	89		ug/L			313112	308600	2
	Kr	83		ug/L			347	501	7
>	In	115		ug/L			926753	913559	2
	Ag	107	0.015	ug/L	0 002	11	39	253	11
	Cd	111	0.108	ug/L	0.005	4	86	613	4
	Cd	114	0.256	ug/L	0.010	3	35	3128	2
	Sb	121	0.072	ug/L	0.005	6	149	1149	8
	Sb	123	0.070	ug/L	0.006	8	102	846	9
>	Tb	159		ug/L			1051527	1098125	2
	Tl	205	0.025	ug/L	0.001	2	58	1008	4
	Pb	208	0.032	ug/L	0.000	1	264	1862	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:00:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	119205	2
	Cl	37		ug/L			3520933	10315821	4
>	Sc	45		ug/L			702035	804102	5
	Cr	52	19.579	ug/L	0.689	3	18360	308559	2
	Cr	53	24.363	ug/L	0.276	1	98	41057	4
	Mn	55	19.228	ug/L	0.440	2	342	379124	3
>	Ge	72		ug/L			449741	477016	1
	Ni	60	20.101	ug/L	0.190	0	43	65434	2
	Ni	62	24.524	ug/L	0.798	3	270	11593	4
	Cu	63	20.280	ug/L	0.555	2	270	151337	4
	Cu	65	19.341	ug/L	0.158	0	36	64793	2
	Zn	66	19.276	ug/L	0.463	2	769	39140	2
	Zn	67	22.958	ug/L	0.166	0	120	7666	1
	Zn	68	18.387	ug/L	0.646	3	732	26495	3
	As	75	17.606	ug/L	0.269	1	95	34189	3
	As-1	75	18.877	ug/L	0.372	1	10170	45683	3
	Se	82	-0.149	ug/L	0.056	37	-9	-44	29
	Se	78	1.686	ug/L	0.418	24	10290	11773	3
	Y	89		ug/L			313112	316626	0
	Kr	83		ug/L			347	545	8
>	In	115		ug/L			926753	938988	2
	Ag	107	17.505	ug/L	0.494	2	39	253032	0
	Cd	111	19.066	ug/L	0.206	1	86	95729	2
	Cd	114	19.279	ug/L	0.046	0	35	239928	2
	Sb	121	0.067	ug/L	0.005	7	149	1110	7
	Sb	123	0.069	ug/L	0.007	10	102	857	10
>	Tb	159		ug/L			1051527	1152858	2
	Tl	205	0.024	ug/L	0.002	7	58	1023	4
	Pb	208	0.032	ug/L	0.001	4	264	1974	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:06:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	52852	3
	Cl	37		ug/L			3520933	3491188	2
>	Sc	45		ug/L			702035	669041	1
	Cr	52	193.745	ug/L	3.142	1	18360	2387534	1
	Cr	53	190.959	ug/L	5.725	2	98	267163	2
	Mn	55	187.525	ug/L	3.294	1	342	3075820	0
>	Ge	72		ug/L			449741	402117	1
	Ni	60	193.787	ug/L	5.631	2	43	531291	1
	Ni	62	199.156	ug/L	2.255	1	270	77621	0
	Cu	63	193.650	ug/L	4.298	2	270	1215606	0
	Cu	65	193.929	ug/L	1.921	0	36	547267	0
	Zn	66	186.045	ug/L	3.984	2	769	312469	0
	Zn	67	186.833	ug/L	5.930	3	120	51833	4
	Zn	68	192.202	ug/L	2.051	1	732	227276	0
	As	75	205.420	ug/L	1.675	0	95	335269	0
	As-1	75	200.886	ug/L	2.064	1	10170	322057	0
	Se	82	215.507	ug/L	2.307	1	-9	42122	1
	Se	78	198.513	ug/L	3.792	1	10290	94202	1
	Y	89		ug/L			313112	311556	1
	Kr	83		ug/L			347	492	4
>	In	115		ug/L			926753	851580	0
	Ag	107	207.752	ug/L	2.322	1	39	2724144	1
	Cd	111	195.368	ug/L	0.740	0	86	888934	1
	Cd	114	195.741	ug/L	1.262	0	35	2208829	0
	Sb	121	202.902	ug/L	1.481	0	149	2631643	0
	Sb	123	198.575	ug/L	2.420	1	102	1973229	0
>	Tb	159		ug/L			1051527	1022807	0
	Tl	205	196.422	ug/L	0 381	0	58	6983409	0
	Pb	208	193.971	ug/L	1.232	0	264	9056257	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:13:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	51282	3
	Cl	37		ug/L			3520933	3445092	3
>	Sc	45		ug/L			702035	651695	3
	Cr	52	288.594	ug/L	6.467	2	18360	3454497	0
	Cr	53	288.036	ug/L	5 381	1	98	392425	1
	Mn	55	280.439	ug/L	8.189	2	342	4478263	0
>	Ge	72		ug/L			449741	387498	0
	Ni	60	291.476	ug/L	6.859	2	43	770221	2
	Ni	62	295.739	ug/L	5.443	1	270	110963	1
	Cu	63	286.850	ug/L	6.881	2	270	1735273	1
	Cu	65	285.494	ug/L	3.063	1	36	776404	0
	Zn	66	272.597	ug/L	4.725	1	769	440934	1
	Zn	67	270.562	ug/L	2.680	0	120	72277	1
	Zn	68	280.911	ug/L	3.466	1	732	319830	1
	As	75	297.628	ug/L	3.152	1	95	468095	1
	As-1	75	292.565	ug/L	3.684	1	10170	448010	1
	Se	82	306.114	ug/L	1.438	0	-9	57664	1
	Se	78	286.084	ug/L	4.058	1	10290	126917	0
	Y	89		ug/L			313112	294936	2
	Kr	83		ug/L			347	608	5
>	In	115		ug/L			926753	829574	1
	Ag	107	289.946	ug/L	2.299	0	39	3703377	1
	Cd	111	280.906	ug/L	3.055	1	86	1244979	1
	Cd	114	286.523	ug/L	8.233	2	35	3148716	1
	Sb	121	300.254	ug/L	5.731	1	149	3792919	0
	Sb	123	297.311	ug/L	4.275	1	102	2877737	1
>	Tb	159		ug/L			1051527	994275	1
	Tl	205	292.945	ug/L	5.678	1	58	10122473	0
	Pb	208	288.129	ug/L	5.289	1	264	13074420	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:19:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**		ug/L			53177	49880	0
	Cl	**37**		ug/L			3520933	3421648	1
>	**Sc**	**45**		ug/L			702035	658158	1
	Cr	**52**	**0.005**	ug/L	0.019	395	18360	17270	1
	Cr	**53**	**0.037**	ug/L	0.006	16	98	143	6
	Mn	**55**	**0.016**	ug/L	0.002	9	342	587	5
>	**Ge**	**72**		ug/L			449741	435479	0
	Ni	**60**	**0.017**	ug/L	0.004	22	43	91	12
	Ni	**62**	**2.908**	ug/L	0.117	4	270	1485	3
	Cu	**63**	**0.249**	ug/L	0.007	2	270	1957	2
	Cu	**65**	**0.086**	ug/L	0.007	7	36	299	5
	Zn	**66**	**0.396**	ug/L	0.032	7	769	1463	3
	Zn	**67**	**0.335**	ug/L	0.048	14	120	216	6
	Zn	**68**	**0.382**	ug/L	0.041	10	732	1197	3
	As	**75**	**0.056**	ug/L	0.005	8	95	192	4
	As-1	**75**	**0.275**	ug/L	0.063	22	10170	10311	0
	Se	**82**	**0.070**	ug/L	0.043	60	-9	5	157
	Se	**78**	**0.920**	ug/L	0.216	23	10290	10390	0
	Y	**89**		ug/L			313112	300199	1
	Kr	**83**		ug/L			347	368	6
>	**In**	**115**		ug/L			926753	878534	1
	Ag	**107**	**0.007**	ug/L	0.002	24	39	129	17
	Cd	**111**	**0.005**	ug/L	0.003	69	86	105	15
	Cd	**114**	**0.006**	ug/L	0.002	38	35	98	26
	Sb	**121**	**0.375**	ug/L	0.069	18	149	5151	16
	Sb	**123**	**0.370**	ug/L	0.070	18	102	3886	17
>	**Tb**	**159**		ug/L			1051527	993505	0
	Tl	**205**	**0.018**	ug/L	0.002	11	58	691	10
	Pb	**208**	**0.017**	ug/L	0.002	10	264	1015	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:26:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	50817	1
	Cl	37		ug/L			3520933	3362779	0
>	Sc	45		ug/L			702035	684535	1
	Cr	52	-0.030	ug/L	0.059	198	18360	17522	2
	Cr	53	0.013	ug/L	0.012	88	98	114	12
	Mn	55	0.011	ug/L	0.001	11	342	523	2
>	Ge	72		ug/L			449741	436595	3
	Ni	60	0.014	ug/L	0.003	24	43	83	10
	Ni	62	1.848	ug/L	0.021	1	270	1042	4
	Cu	63	0.182	ug/L	0.003	1	270	1503	1
	Cu	65	0.087	ug/L	0.005	5	36	301	5
	Zn	66	0.408	ug/L	0.012	2	769	1489	4
	Zn	67	0.359	ug/L	0.029	8	120	224	0
	Zn	68	0.431	ug/L	0.030	6	732	1262	1
	As	75	0.032	ug/L	0.014	45	95	149	20
	As-1	75	0.185	ug/L	0.162	87	10170	10179	0
	Se	82	0.052	ug/L	0.017	33	-9	2	179
	Se	78	0.645	ug/L	0.613	94	10290	10283	0
	Y	89		ug/L			313112	314780	0
	Kr	83		ug/L			347	358	4
>	In	115		ug/L			926753	920175	1
	Ag	107	0.002	ug/L	0.001	36	39	60	12
	Cd	111	0.003	ug/L	0.002	84	86	98	9
	Cd	114	0.001	ug/L	0.000	33	35	52	12
	Sb	121	0.054	ug/L	0.010	19	149	907	16
	Sb	123	0.055	ug/L	0.008	14	102	689	11
>	Tb	159		ug/L			1051527	1048445	0
	Tl	205	0.006	ug/L	0.001	9	58	274	8
	Pb	208	0.011	ug/L	0.000	1	264	804	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:32:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**		ug/L			53177	48487	2
	Cl	**37**		ug/L			3520933	3504912	2
>	**Sc**	**45**		ug/L			702035	698134	0
	Cr	**52**	**47.080**	ug/L	0.297	0	18360	619270	0
	Cr	**53**	**48.246**	ug/L	1.078	2	98	70516	1
	Mn	**55**	**49.183**	ug/L	1.607	3	342	842039	2
>	**Ge**	**72**		ug/L			449741	425534	1
	Ni	**60**	**48.594**	ug/L	1.008	2	43	141019	0
	Ni	**62**	**50.591**	ug/L	1.528	3	270	21054	2
	Cu	**63**	**50.444**	ug/L	0.807	1	270	335296	0
	Cu	**65**	**50.778**	ug/L	0.984	1	36	151663	1
	Zn	**66**	**49.880**	ug/L	0.825	1	769	89195	1
	Zn	**67**	**49.863**	ug/L	1.577	3	120	14715	1
	Zn	**68**	**50.475**	ug/L	1.346	2	732	63662	1
	As	**75**	**50.613**	ug/L	0.664	1	95	87480	0
	As-1	**75**	**50.101**	ug/L	0.913	1	10170	92215	0
	Se	**82**	**53.140**	ug/L	0.865	1	-9	10984	1
	Se	**78**	**51.192**	ug/L	1.233	2	10290	32930	0
	Y	**89**		ug/L			313112	316529	1
	Kr	**83**		ug/L			347	397	6
>	**In**	**115**		ug/L			926753	882063	0
	Ag	**107**	**51.322**	ug/L	0.200	0	39	697090	1
	Cd	**111**	**50.322**	ug/L	0.946	1	86	237251	2
	Cd	**114**	**50.108**	ug/L	0.795	1	35	585669	0
	Sb	**121**	**50.711**	ug/L	0.638	1	149	681345	0
	Sb	**123**	**49.946**	ug/L	0.412	0	102	514162	0
>	**Tb**	**159**		ug/L			1051527	1048419	1
	Tl	**205**	**49.535**	ug/L	0.837	1	58	1805029	0
	Pb	**208**	**49.037**	ug/L	0.582	1	264	2346744	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:38:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	50703	2
	Cl	37		ug/L			3520933	3437550	4
>	Sc	45		ug/L			702035	683822	1
	Cr	52	-0.027	ug/L	0.030	110	18360	17538	1
	Cr	53	0.011	ug/L	0.004	33	98	112	4
	Mn	55	0.007	ug/L	0.005	64	342	455	17
>	Ge	72		ug/L			449741	432558	0
	Ni	60	-0.001	ug/L	0.002	131	43	38	12
	Ni	62	1.287	ug/L	0.038	2	270	798	2
	Cu	63	0.073	ug/L	0.004	4	270	752	2
	Cu	65	0.010	ug/L	0.009	91	36	64	42
	Zn	66	-0.057	ug/L	0.005	8	769	636	1
	Zn	67	-0.090	ug/L	0.043	48	120	88	14
	Zn	68	-0.056	ug/L	0.004	6	732	633	0
	As	75	0.031	ug/L	0.010	32	95	147	12
	As-1	75	0.193	ug/L	0.019	9	10170	10104	0
	Se	82	0.017	ug/L	0.013	78	-9	-5	51
	Se	78	0.675	ug/L	0.092	13	10290	10208	0
	Y	89		ug/L			313112	308451	1
	Kr	83		ug/L			347	378	2
>	In	115		ug/L			926753	915002	0
	Ag	107	0.001	ug/L	0.001	49	39	59	17
	Cd	111	0.001	ug/L	0.002	194	86	91	13
	Cd	114	0.001	ug/L	0.001	50	35	49	15
	Sb	121	0.098	ug/L	0.023	23	149	1516	21
	Sb	123	0.095	ug/L	0.019	20	102	1117	18
>	Tb	159		ug/L			1051527	1039517	0
	Tl	205	0.004	ug/L	0.002	36	58	216	26
	Pb	208	0.004	ug/L	0.004	95	264	438	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:43:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
C	13		ug/L			53177	56759	2
Cl	37		ug/L			3520933	3414264	2
> Sc	45		ug/L			702035	705544	2
Cr	52	0.018	ug/L	0.040	227	18360	18676	2
Cr	53	0.023	ug/L	0.009	39	98	132	11
Mn	55	0.023	ug/L	0.002	8	342	737	2
> Ge	72		ug/L			449741	438981	0
Ni	60	0.005	ug/L	0 000	4	43	58	1
Ni	62	0.996	ug/L	0.018	1	270	686	1
Cu	63	0.059	ug/L	0.005	9	270	669	5
Cu	65	0.014	ug/L	0.003	23	36	78	12
Zn	66	0.067	ug/L	0.012	17	769	874	2
Zn	67	0.037	ug/L	0.038	103	120	128	8
Zn	68	0.067	ug/L	0.009	13	732	801	1
As	75	0.038	ug/L	0.016	42	95	161	17
As-1	75	0.198	ug/L	0.074	37	10170	10264	1
Se	82	0.022	ug/L	0.024	112	-9	-4	115
Se	78	0.686	ug/L	0.264	38	10290	10365	1
Y	89		ug/L			313112	315006	2
Kr	83		ug/L			347	390	4
> In	115		ug/L			926753	929969	2
Ag	107	0.002	ug/L	0.003	166	39	66	65
Cd	111	0.001	ug/L	0.002	283	86	90	12
Cd	114	0.001	ug/L	0.001	110	35	51	31
Sb	121	0.037	ug/L	0.010	27	149	667	18
Sb	123	0.038	ug/L	0.010	25	102	510	18
> Tb	159		ug/L			1051527	1052548	1
Tl	205	0.003	ug/L	0.001	39	58	184	25
Pb	208	0.006	ug/L	0.001	13	264	561	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:47:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	56002	2
	Cl	37		ug/L			3520933	3406709	0
>	Sc	45		ug/L			702035	701490	1
	Cr	52	0.024	ug/L	0.049	204	18360	18644	1
	Cr	53	0.025	ug/L	0.004	16	98	134	4
	Mn	55	0.018	ug/L	0.004	21	342	658	11
>	Ge	72		ug/L			449741	435005	1
	Ni	60	0.004	ug/L	0.003	64	43	53	14
	Ni	62	0.892	ug/L	0.046	5	270	636	2
	Cu	63	0.059	ug/L	0.004	6	270	664	4
	Cu	65	0.014	ug/L	0.001	6	36	76	2
	Zn	66	0.088	ug/L	0.022	24	769	903	3
	Zn	67	0.103	ug/L	0.029	27	120	147	6
	Zn	68	0.093	ug/L	0.009	9	732	826	2
	As	75	0.032	ug/L	0.006	18	95	148	7
	As-1	75	0.297	ug/L	0.058	19	10170	10337	0
	Se	82	0.026	ug/L	0.047	184	-9	-3	285
	Se	78	1.062	ug/L	0.200	18	10290	10444	0
	Y	89		ug/L			313112	318323	1
	Kr	83		ug/L			347	379	4
>	In	115		ug/L			926753	912739	0
	Ag	107	U 0.001	ug/L	0.001	69	39	50	16
	Cd	111	0.000	ug/L	0.001	1698	86	85	6
	Cd	114	0.002	ug/L	0.001	62	35	53	21
	Sb	121	0.019	ug/L	0.006	33	149	405	20
	Sb	123	0.020	ug/L	0.007	34	102	311	23
>	Tb	159		ug/L			1051527	1048863	1
	Tl	205	0.004	ug/L	0.002	59	58	187	42
	Pb	208	0.008	ug/L	0.003	34	264	631	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:51:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	52367	0
	Cl	37		ug/L			3520933	3429084	1
>	Sc	45		ug/L			702035	693252	1
	Cr	52	1.989	ug/L	0.030	1	18360	43348	1
	Cr	53	2.038	ug/L	0.028	1	98	3051	0
	Mn	55	13.833	ug/L	0.410	2	342	235380	1
>	Ge	72		ug/L			449741	434186	1
	Ni	60	1.015	ug/L	0.035	3	43	3046	2
	Ni	62	1.844	ug/L	0.103	5	270	1035	4
	Cu	63	1.584	ug/L	0.021	1	270	11000	2
	Cu	65	1.619	ug/L	0.031	1	36	4968	2
	Zn	66	4.259	ug/L	0.056	1	769	8450	1
	Zn	67	4.349	ug/L	0.066	1	120	1415	1
	Zn	68	4.346	ug/L	0.085	1	732	6239	0
	As	75	0.287	ug/L	0.016	5	95	597	4
	As-1	75	0.481	ug/L	0.078	16	10170	10626	0
	Se	82	0.076	ug/L	0.029	38	-9	7	87
	Se	78	0.811	ug/L	0.257	31	10290	10308	0
	Y	89		ug/L			313112	324610	0
	Kr	83		ug/L			347	374	4
>	In	115		ug/L			926753	916689	0
	Ag	107	0.003	ug/L	0.000	13	39	88	7
	Cd	111	0.024	ug/L	0.004	16	86	201	8
	Cd	114	0.010	ug/L	0.001	13	35	159	11
	Sb	121	0.013	ug/L	0.005	37	149	335	20
	Sb	123	0.014	ug/L	0.006	44	102	247	25
>	Tb	159		ug/L			1051527	1044459	0
	Tl	205	0.007	ug/L	0.000	4	58	302	3
	Pb	208	0.207	ug/L	0.002	1	264	10140	1

WT82 : 062178

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:54:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	59125	2
	Cl	37		ug/L			3520933	3544404	0
>	Sc	45		ug/L			702035	761239	4
	Cr	52	9.362	ug/L	0.298	3	18360	150126	2
	Cr	53	9.593	ug/L	0.403	4	98	15358	1
	Mn	55	66.200	ug/L	3.300	4	342	1234463	2
>	Ge	72		ug/L			449741	454028	0
	Ni	60	4.992	ug/L	0.112	2	43	15501	2
	Ni	62	6.609	ug/L	0.268	4	270	3173	4
	Cu	63	7.799	ug/L	0 027	0	270	55549	0
	Cu	65	7.974	ug/L	0.172	2	36	25445	2
	Zn	66	18.479	ug/L	0.048	0	769	35748	0
	Zn	67	20.301	ug/L	0.327	1	120	6466	2
	Zn	68	19.173	ug/L	0.108	0	732	26265	0
	As	75	1.225	ug/L	0.034	2	95	2353	2
	As-1	75	1.307	ug/L	0.013	0	10170	12565	0
	Se	82	0.055	ug/L	0.052	95	-9	2	437
	Se	78	0.364	ug/L	0.105	28	10290	10564	0
	Y	89		ug/L			313112	405387	2
	Kr	83		ug/L			347	481	4
>	In	115		ug/L			926753	928794	0
	Ag	107	0.022	ug/L	0.001	4	39	350	3
	Cd	111	0.105	ug/L	0.008	7	86	608	7
	Cd	114	0.049	ug/L	0.005	10	35	639	9
	Sb	121	0.016	ug/L	0.004	24	149	378	15
	Sb	123	0.016	ug/L	0.003	15	102	281	10
>	Tb	159		ug/L			1051527	1086034	0
	Tl	205	0.030	ug/L	0.001	1	58	1202	2
	Pb	208	0.999	ug/L	0.008	0	264	49790	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 11:58:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	56861	3
	Cl	37		ug/L			3520933	3535528	1
>	Sc	45		ug/L			702035	763041	3
	Cr	52	**9.332**	ug/L	0.286	3	18360	150091	1
	Cr	53	**9.544**	ug/L	0.070	0	98	15332	2
	Mn	55	**62.105**	ug/L	3.111	5	342	1161107	2
>	Ge	72		ug/L			449741	445267	1
	Ni	60	**4.539**	ug/L	0.007	0	43	13823	1
	Ni	62	**6.073**	ug/L	0.272	4	270	2879	2
	Cu	63	**7.399**	ug/L	0.045	0	270	51691	1
	Cu	65	**7.629**	ug/L	0.065	0	36	23877	2
	Zn	66	**17.584**	ug/L	0.391	2	769	33389	0
	Zn	67	**19.615**	ug/L	0.619	3	120	6132	4
	Zn	68	**18.350**	ug/L	0.503	2	732	24677	0
	As	75	**1.186**	ug/L	0.016	1	95	2238	1
	As-1	75	**1.296**	ug/L	0.114	8	10170	12303	0
	Se	82	**0.074**	ug/L	0.024	32	-9	6	78
	Se	78	**0.484**	ug/L	0.386	79	10290	10416	0
	Y	89		ug/L			313112	400313	0
	Kr	83		ug/L			347	466	0
>	In	115		ug/L			926753	923626	0
	Ag	107	**0.022**	ug/L	0.002	7	39	351	6
	Cd	111	**0.104**	ug/L	0 011	10	86	602	9
	Cd	114	**0.048**	ug/L	0.002	4	35	627	4
	Sb	121	**0.013**	ug/L	0.006	47	149	327	26
	Sb	123	**0.013**	ug/L	0.003	24	102	241	14
>	Tb	159		ug/L			1051527	1080967	0
	Tl	205	**0.026**	ug/L	0.000	1	58	1048	2
	Pb	208	**0.944**	ug/L	0.010	1	264	46826	0

WT82 : 62182

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:01:47
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	58741	2
	Cl	37		ug/L			3520933	3654177	2
>	Sc	45		ug/L			702035	772420	1
	Cr	52	34.360	ug/L	1.108	3	18360	505375	2
	Cr	53	33.320	ug/L	0.499	1	98	53922	2
	Mn	55	87.145	ug/L	2.078	2	342	1650689	3
>	Ge	72		ug/L			449741	463785	2
	Ni	60	29.593	ug/L	0.866	2	43	93592	1
	Ni	62	32.024	ug/L	0.484	1	270	14628	1
	Cu	63	33.484	ug/L	0.183	0	270	242717	2
	Cu	65	33.764	ug/L	0 936	2	36	109893	1
	Zn	66	98.672	ug/L	2.156	2	769	191486	0
	Zn	67	91.960	ug/L	3.321	3	120	29467	1
	Zn	68	98.652	ug/L	1.501	1	732	134895	1
	As	75	31.823	ug/L	0.693	2	95	59978	1
	As-1	75	28.622	ug/L	0.764	2	10170	61901	0
	Se	82	81.701	ug/L	0.734	0	-9	18411	1
	Se	78	77.845	ug/L	1.603	2	10290	49048	0
	Y	89		ug/L			313112	408258	1
	Kr	83		ug/L			347	471	3
>	In	115		ug/L			926753	936070	1
	Ag	107	25.036	ug/L	0.479	1	39	360819	0
	Cd	111	25.391	ug/L	0.464	1	86	127051	1
	Cd	114	24.915	ug/L	0.220	0	35	309101	2
	Sb	121	0.014	ug/L	0.002	13	149	355	6
	Sb	123	0.017	ug/L	0.005	28	102	289	16
>	Tb	159		ug/L			1051527	1095122	2
	Tl	205	25.103	ug/L	0.159	0	58	955559	1
	Pb	208	26.344	ug/L	0.520	1	264	1316784	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WT82 APOST SWN~~ ZZZZZZ
Sample Dil Factor: 20
Comments: 6-20-13
Sample Date/Time: Thursday, June 20, 2013 12:05:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	59491	4
	Cl	37		ug/L			3520933	3488547	2
>	Sc	45		ug/L			702035	743771	0
	Cr	52	33.590	ug/L	0.628	1	18360	476239	1
	Cr	53	33.072	ug/L	0.617	1	98	51532	1
	Mn	55	85.753	ug/L	0.882	1	342	1564050	1
>	Ge	72		ug/L			449741	448819	2
	Ni	60	29.637	ug/L	1.013	3	43	90695	1
	Ni	62	31.187	ug/L	0.365	1	270	13794	1
	Cu	63	33.236	ug/L	1.006	3	270	233047	2
	Cu	65	32.975	ug/L	1.304	3	36	103836	1
	Zn	66	99.783	ug/L	2.086	2	769	187379	0
	Zn	67	93.420	ug/L	3.460	3	120	28966	1
	Zn	68	95.967	ug/L	2.752	2	732	126978	0
	As	75	32.732	ug/L	1.017	3	95	59681	0
	As-1	75	29.371	ug/L	0.843	2	10170	61202	0
	Se	82	83.401	ug/L	2.531	3	-9	18180	0
	Se	78	79.076	ug/L	2.183	2	10290	48049	0
	Y	89		ug/L			313112	401005	0
	Kr	83		ug/L			347	454	4
>	In	115		ug/L			926753	916952	1
	Ag	107	25.980	ug/L	0.741	2	39	366738	1
	Cd	111	24.956	ug/L	0.720	2	86	122301	1
	Cd	114	24.737	ug/L	0.590	2	35	300562	1
	Sb	121	0.013	ug/L	0.003	21	149	330	12
	Sb	123	0.014	ug/L	0.003	19	102	250	13
>	Tb	159		ug/L			1051527	1073588	1
	Tl	205	25.123	ug/L	0.268	1	58	937535	1
	Pb	208	26.064	ug/L	0.245	0	264	1277448	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:08:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

RDZn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	82602	1
	Cl	37		ug/L			3520933	3653490	2
>	Sc	45		ug/L			702035	738135	1
	Cr	52	**28.099**	ug/L	0.095	0	18360	398572	1
	Cr	53	**27.948**	ug/L	0.483	1	98	43230	0
	Mn	55	**370.681**	ug/L	2.332	0	342	6708356	1
>	Ge	72		ug/L			449741	423195	1
	Ni	60	**25.424**	ug/L	1.014	3	43	73382	2
	Ni	62	**27.107**	ug/L	0.856	3	270	11336	1
	Cu	63	**93.437**	ug/L	1.140	1	270	617465	0
	Cu	65	**92.660**	ug/L	1.681	1	36	275191	1
	Zn	66	**1267.233**	ug/L	12.960	1	769	2235993	1
	Zn	67	**1157.519**	ug/L	32.728	2	120	337235	1
	Zn	68	**1232.209**	ug/L	12.449	1	732	1529696	0
	As	75	**16.652**	ug/L	0.283	1	95	28682	0
	As-1	75	**17.626**	ug/L	0.382	2	10170	38465	0
	Se	82	**0.280**	ug/L	0.043	15	-9	48	18
	Se	78	**1.254**	ug/L	0.366	29	10290	10247	0
	Y	89		ug/L			313112	393077	2
	Kr	83		ug/L			347	473	3
>	In	115		ug/L			926753	893030	1
	Ag	107	**0.616**	ug/L	0.012	1	39	8501	0
	Cd	111	**2.231**	ug/L	0 028	1	86	10728	0
	Cd	114	**2.164**	ug/L	0.042	1	35	25641	0
	Sb	121	**0.096**	ug/L	0 003	3	149	1453	2
	Sb	123	**0.093**	ug/L	0.002	1	102	1069	2
>	Tb	159		ug/L			1051527	1064960	0
	Tl	205	**0.119**	ug/L	0.007	6	58	4473	6
	Pb	208	**124.916**	ug/L	1.064	0	264	6072372	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:12:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			53177	84154	1
	Cl	37		ug/L			3520933	3584913	1
>	Sc	45		ug/L			702035	746844	1
	Cr	52	27.064	ug/L	1.140	4	18360	388958	2
	Cr	53	27.512	ug/L	0.544	1	98	43055	0
	Mn	55	353.552	ug/L	11.632	3	342	6471392	1
>	Ge	72		ug/L			449741	427273	0
	Ni	60	24.402	ug/L	0.537	2	43	71138	2
	Ni	62	25.767	ug/L	0.403	1	270	10895	1
	Cu	63	88.397	ug/L	0.181	0	270	589853	0
	Cu	65	90.874	ug/L	3 331	3	36	272532	3
	Zn	66	1215.162	ug/L	9.245	0	769	2164863	0
	Zn	67	1080.003	ug/L	11.348	1	120	317774	1
	Zn	68	1174.574	ug/L	29.249	2	732	1472221	1
	As	75	16.092	ug/L	0.099	0	95	27991	0
	As-1	75	17.018	ug/L	0.134	0	10170	37835	0
	Se	82	0.245	ug/L	0.015	6	-9	42	7
	Se	78	1.177	ug/L	0.117	9	10290	10312	0
	Y	89		ug/L			313112	388778	0
	Kr	83		ug/L			347	500	3
>	In	115		ug/L			926753	911460	1
	Ag	107	0.569	ug/L	0.014	2	39	8024	1
	Cd	111	1.849	ug/L	0.040	2	86	9085	1
	Cd	114	1.784	ug/L	0.057	3	35	21572	2
	Sb	121	0.101	ug/L	0.005	4	149	1543	5
	Sb	123	0.101	ug/L	0.003	3	102	1173	2
>	Tb	159		ug/L			1051527	1057514	0
	Tl	205	0.116	ug/L	0.005	4	58	4321	3
	Pb	208	123.732	ug/L	1.132	0	264	5972893	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT82 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	52603	1
	Cl	37		ug/L			3520933	3637627	2
>	Sc	45		ug/L			702035	702321	3
	Cr	52	24.491	ug/L	0.169	0	18360	332853	3
	Cr	53	24.762	ug/L	0.588	2	98	36440	1
	Mn	55	25.312	ug/L	0.766	3	342	435878	1
>	Ge	72		ug/L			449741	428722	0
	Ni	60	26.024	ug/L	0.436	1	43	76120	1
	Ni	62	26.214	ug/L	0.090	0	270	11117	0
	Cu	63	26.597	ug/L	0.298	1	270	178266	1
	Cu	65	26.477	ug/L	0.143	0	36	79695	0
	Zn	66	84.018	ug/L	0.791	0	769	150872	0
	Zn	67	76.174	ug/L	1.517	1	120	22595	1
	Zn	68	84.109	ug/L	2.144	2	732	106440	2
	As	75	33.147	ug/L	0.258	0	95	57760	1
	As-1	75	29.175	ug/L	0.204	0	10170	58158	0
	Se	82	87.702	ug/L	1.227	1	-9	18272	1
	Se	78	81.730	ug/L	0.889	1	10290	47126	1
	Y	89		ug/L			313112	324542	1
	Kr	83		ug/L			347	409	2
>	In	115		ug/L			926753	915189	0
	Ag	107	26.681	ug/L	0.345	1	39	376052	2
	Cd	111	25.070	ug/L	0 274	1	86	122659	0
	Cd	114	24.932	ug/L	0.188	0	35	302399	0
	Sb	121	0.002	ug/L	0.003	150	149	172	21
	Sb	123	0.003	ug/L	0.002	69	102	129	15
>	Tb	159		ug/L			1051527	1034871	1
	Tl	205	25.368	ug/L	0.213	0	58	912561	0
	Pb	208	25.628	ug/L	0.118	0	264	1210872	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:20:50
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	48489	4
	Cl	37		ug/L			3520933	3425082	1
>	Sc	45		ug/L			702035	656555	3
	Cr	52	50.590	ug/L	2.367	4	18360	623831	1
	Cr	53	50.705	ug/L	1.668	3	98	69650	2
	Mn	55	50.228	ug/L	0.797	1	342	808640	3
>	Ge	72		ug/L			449741	411683	3
	Ni	60	49.806	ug/L	1.090	2	43	139796	1
	Ni	62	50.405	ug/L	1.518	3	270	20287	1
	Cu	63	50.079	ug/L	1.738	3	270	321843	1
	Cu	65	50.763	ug/L	1.221	2	36	146619	1
	Zn	66	49.887	ug/L	0.881	1	769	86278	1
	Zn	67	50.346	ug/L	1.389	2	120	14369	1
	Zn	68	52.020	ug/L	0.271	0	732	63463	3
	As	75	51.729	ug/L	1.038	2	95	86471	1
	As-1	75	50.959	ug/L	1.397	2	10170	90550	1
	Se	82	54.769	ug/L	1.049	1	-9	10948	1
	Se	78	51.989	ug/L	2.294	4	10290	32192	1
	Y	89		ug/L			313112	304046	2
	Kr	83		ug/L			347	405	3
>	In	115		ug/L			926753	865425	2
	Ag	107	50.988	ug/L	0.529	1	39	679491	2
	Cd	111	50.655	ug/L	1.474	2	86	234203	1
	Cd	114	50.041	ug/L	1.033	2	35	573760	0
	Sb	121	50.757	ug/L	0.441	0	149	669087	1
	Sb	123	51.121	ug/L	1.106	2	102	516207	0
>	Tb	159		ug/L			1051527	1006895	2
	Tl	205	50.555	ug/L	1.131	2	58	1768785	0
	Pb	208	50.585	ug/L	1.088	2	264	2324321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:27:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			53177	51337	3
	Cl	37		ug/L			3520933	3333642	0
>	Sc	45		ug/L			702035	665178	0
	Cr	52	-0.061	ug/L	0.030	48	18360	16651	1
	Cr	53	0.007	ug/L	0.005	67	98	103	6
	Mn	55	0.004	ug/L	0.002	45	342	382	7
>	Ge	72		ug/L			449741	425377	1
	Ni	60	-0.005	ug/L	0.001	26	43	25	14
	Ni	62	0.728	ug/L	0.078	10	270	554	3
	Cu	63	0.040	ug/L	0.001	3	270	522	1
	Cu	65	0.008	ug/L	0.005	61	36	57	26
	Zn	66	-0.100	ug/L	0.027	27	769	551	10
	Zn	67	-0.086	ug/L	0.058	66	120	88	20
	Zn	68	-0.080	ug/L	0.030	36	732	593	7
	As	75	0.055	ug/L	0.004	7	95	184	3
	As-1	75	0.262	ug/L	0.064	24	10170	10049	1
	Se	82	0.054	ug/L	0.031	56	-9	2	282
	Se	78	0.892	ug/L	0.254	28	10290	10136	0
	Y	89		ug/L			313112	294743	0
	Kr	83		ug/L			347	378	3
>	In	115		ug/L			926753	890423	0
	Ag	107	0.003	ug/L	0.002	62	39	79	32
	Cd	111	0.001	ug/L	0.001	48	86	88	3
	Cd	114	0.002	ug/L	0.001	38	35	61	16
	Sb	121	0.071	ug/L	0.014	20	149	1109	18
	Sb	123	0.073	ug/L	0.018	24	102	861	22
>	Tb	159		ug/L			1051527	1002837	0
	Tl	205	0.004	ug/L	0.001	13	58	188	9
	Pb	208	0.003	ug/L	0.001	39	264	403	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 MB SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:32:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			53177	54786	2
Cl	37		ug/L			3520933	3380716	4
> Sc	45		ug/L			702035	674747	1
Cr	52	0.027	ug/L	0.042	152	18360	17988	3
Cr	53	0.028	ug/L	0.009	34	98	133	10
Mn	55	0.030	ug/L	0.001	2	342	823	0
> Ge	72		ug/L			449741	430735	3
Ni	60	0.003	ug/L	0.003	108	43	33	27
Ni	62	0.422	ug/L	0.038	8	270	434	2
Cu	63	0.031	ug/L	0.004	11	270	465	3
Cu	65	0.009	ug/L	0.002	24	36	62	9
Zn	66	-0.009	ug/L	0.004	44	769	720	4
Zn	67	-0.031	ug/L	0.027	87	120	106	10
Zn	68	-0.011	ug/L	0.010	88	732	687	2
As	75	0.045	ug/L	0.016	36	95	169	13
As-1	75	0.233	ug/L	0.155	66	10170	10122	1
Se	82	0.000	ug/L	0.014	20193	-9	-8	28
Se	78	0.792	ug/L	0.566	71	10290	10213	1
Y	89		ug/L			313112	302848	2
Kr	83		ug/L			347	400	8
> In	115		ug/L			926753	900696	0
Ag	107	0.000	ug/L	0.001	141	39	45	21
Cd	111	0.003	ug/L	0.000	8	86	99	1
Cd	114	0.001	ug/L	0.001	59	35	48	17
Sb	121	0.020	ug/L	0.005	25	149	419	17
Sb	123	0.022	ug/L	0.004	20	102	326	15
> Tb	159		ug/L			1051527	1012717	1
Tl	205	0.001	ug/L	0.000	34	58	101	17
Pb	208	0.004	ug/L	0.000	8	264	443	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:36:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	58953	5
	Cl	37		ug/L			3520933	3556965	2
>	Sc	45		ug/L			702035	732134	3
	Cr	52	13.294	ug/L	0.147	1	18360	197076	2
	Cr	53	13.468	ug/L	0.507	3	98	20702	1
	Mn	55	192.545	ug/L	7.573	3	342	3453398	1
>	Ge	72		ug/L			449741	431645	1
	Ni	60	14.499	ug/L	0.265	1	43	42707	0
	Ni	62	16.364	ug/L	0.472	2	270	7083	1
	Cu	63	37.698	ug/L	0.378	1	270	254256	1
	Cu	65	38.400	ug/L	0.653	1	36	116344	1
	Zn	66	106.502	ug/L	2.053	1	769	192376	3
	Zn	67	106.430	ug/L	2.135	2	120	31740	2
	Zn	68	112.383	ug/L	2.211	1	732	142930	1
	As	75	2.301	ug/L	0.020	0	95	4121	1
	As-1	75	2.532	ug/L	0.082	3	10170	13993	1
	Se	82	0.167	ug/L	0.054	32	-9	25	43
	Se	78	0.912	ug/L	0.304	33	10290	10294	1
	Y	89		ug/L			313112	374772	2
	Kr	83		ug/L			347	494	1
>	In	115		ug/L			926753	893399	0
	Ag	107	0.118	ug/L	0.001	0	39	1660	1
	Cd	111	0.450	ug/L	0.017	3	86	2231	4
	Cd	114	0.361	ug/L	0.008	2	35	4305	1
	Sb	121	0.075	ug/L	0.001	1	149	1169	1
	Sb	123	0.077	ug/L	0.004	5	102	897	5
>	Tb	159		ug/L			1051527	1049745	1
	Tl	205	0.027	ug/L	0.001	3	58	1034	2
	Pb	208	5.826	ug/L	0.055	0	264	279409	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:40:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	59970	0
	Cl	37		ug/L			3520933	3661019	1
>	Sc	45		ug/L			702035	771099	2
	Cr	52	14.834	ug/L	0.243	1	18360	229252	1
	Cr	53	15.084	ug/L	0.034	0	98	24428	2
	Mn	55	184.133	ug/L	2.330	1	342	3482118	4
>	Ge	72		ug/L			449741	438977	2
	Ni	60	11.876	ug/L	0.401	3	43	35576	2
	Ni	62	13.639	ug/L	0.544	3	270	6045	1
	Cu	63	35.590	ug/L	0.675	1	270	244087	1
	Cu	65	36.118	ug/L	0 903	2	36	111261	1
	Zn	66	122.785	ug/L	1.293	1	769	225424	3
	Zn	67	118.534	ug/L	4.385	3	120	35918	2
	Zn	68	126.777	ug/L	4.257	3	732	163824	1
	As	75	2.807	ug/L	0.052	1	95	5092	2
	As-1	75	3.019	ug/L	0.198	6	10170	15056	0
	Se	82	0.278	ug/L	0.047	16	-9	50	19
	Se	78	0.885	ug/L	0.584	65	10290	10453	0
	Y	89		ug/L			313112	390517	3
	Kr	83		ug/L			347	500	4
>	In	115		ug/L			926753	929121	3
	Ag	107	0.143	ug/L	0.006	3	39	2085	0
	Cd	111	0.267	ug/L	0.015	5	86	1413	2
	Cd	114	0.152	ug/L	0.004	2	35	1911	3
	Sb	121	0.087	ug/L	0.003	3	149	1387	2
	Sb	123	0.089	ug/L	0 004	4	102	1071	0
>	Tb	159		ug/L			1051527	1068642	1
	Tl	205	0.031	ug/L	0.000	1	58	1208	2
	Pb	208	5.414	ug/L	0.017	0	264	264362	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:43:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	56759	2
	Cl	37		ug/L			3520933	3563595	3
>	Sc	45		ug/L			702035	765415	1
	Cr	52	34.509	ug/L	0.875	2	18360	502925	1
	Cr	53	35.598	ug/L	0.447	1	98	57073	0
	Mn	55	221.515	ug/L	3.460	1	342	4156687	0
>	Ge	72		ug/L			449741	436379	0
	Ni	60	35.721	ug/L	0.392	1	43	106331	0
	Ni	62	37.918	ug/L	0.953	2	270	16251	2
	Cu	63	57.928	ug/L	1.459	2	270	394891	2
	Cu	65	58.772	ug/L	0.847	1	36	180014	0
	Zn	66	189.509	ug/L	2.239	1	769	345452	1
	Zn	67	176.723	ug/L	3.261	1	120	53205	2
	Zn	68	191.754	ug/L	3.214	1	732	246102	2
	As	75	32.261	ug/L	0.087	0	95	57221	0
	As-1	75	29.519	ug/L	0.421	1	10170	59775	0
	Se	82	78.122	ug/L	0.532	0	-9	16565	1
	Se	78	75.346	ug/L	1.191	1	10290	44997	0
	Y	89		ug/L			313112	377866	0
	Kr	83		ug/L			347	480	3
>	In	115		ug/L			926753	912932	0
	Ag	107	22.663	ug/L	0.066	0	39	318611	0
	Cd	111	23.634	ug/L	0.297	1	86	115351	0
	Cd	114	23.689	ug/L	0.153	0	35	286627	1
	Sb	121	1.138	ug/L	0.024	2	149	15964	1
	Sb	123	1.128	ug/L	0.028	2	102	12124	3
>	Tb	159		ug/L			1051527	1070158	0
	Tl	205	23.787	ug/L	0.323	1	58	884909	1
	Pb	208	28.539	ug/L	0.235	0	264	1394372	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:47:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	74150	4
	Cl	37		ug/L			3520933	3567756	1
>	Sc	45		ug/L			702035	715024	1
	Cr	52	11.701	ug/L	0.361	3	18360	171658	1
	Cr	53	11.559	ug/L	0.309	2	98	17378	1
	Mn	55	204.578	ug/L	4.026	1	342	3586067	0
>	Ge	72		ug/L			449741	424436	0
	Ni	60	9.041	ug/L	0.150	1	43	26209	2
	Ni	62	17.638	ug/L	4.548	25	270	7491	24
	Cu	63	30.754	ug/L	0.312	1	270	204011	0
	Cu	65	29.132	ug/L	0.104	0	36	86807	0
	Zn	66	231.002	ug/L	7.085	3	769	409384	2
	Zn	67	235.787	ug/L	1.074	0	120	69007	1
	Zn	68	241.809	ug/L	3.903	1	732	301628	0
	As	75	6.618	ug/L	0.029	0	95	11489	1
	As-1	75	7.145	ug/L	0.029	0	10170	21347	0
	Se	82	0.195	ug/L	0.065	33	-9	31	43
	Se	78	1.294	ug/L	0.149	11	10290	10296	0
	Y	89		ug/L			313112	365411	0
	Kr	83		ug/L			347	496	3
>	In	115		ug/L			926753	858402	1
	Ag	107	0.162	ug/L	0.013	7	39	2183	8
	Cd	111	0.497	ug/L	0.014	2	86	2360	1
	Cd	114	0.450	ug/L	0.010	2	35	5156	2
	Sb	121	0.054	ug/L	0.003	5	149	838	4
	Sb	123	0.055	ug/L	0.005	8	102	646	7
>	Tb	159		ug/L			1051527	1029243	0
	Tl	205	0.051	ug/L	0.006	11	58	1893	11
	Pb	208	32.240	ug/L	0.559	1	264	1514973	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:50:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	69907	3
	Cl	37		ug/L			3520933	3491043	3
>	Sc	45		ug/L			702035	709296	2
	Cr	52	12.344	ug/L	0.350	2	18360	178587	1
	Cr	53	12.537	ug/L	0.340	2	98	18685	0
	Mn	55	219.068	ug/L	7.172	3	342	3808231	1
>	Ge	72		ug/L			449741	410239	1
	Ni	60	9.636	ug/L	0.518	5	43	26981	3
	Ni	62	27.039	ug/L	1.815	6	270	10962	6
	Cu	63	32.968	ug/L	0.685	2	270	211371	2
	Cu	65	31.402	ug/L	0.628	1	36	90424	0
	Zn	66	248.383	ug/L	4.817	1	769	425450	2
	Zn	67	243.937	ug/L	3.202	1	120	68997	1
	Zn	68	255.529	ug/L	4.512	1	732	308039	1
	As	75	7.187	ug/L	0.208	2	95	12050	2
	As-1	75	7.950	ug/L	0.329	4	10170	21910	1
	Se	82	0.191	ug/L	0.019	10	-9	29	14
	Se	78	2.041	ug/L	0.520	25	10290	10276	0
	Y	89		ug/L			313112	373820	1
	Kr	83		ug/L			347	474	1
>	In	115		ug/L			926753	859594	2
	Ag	107	0.158	ug/L	0.001	0	39	2122	1
	Cd	111	0.511	ug/L	0.009	1	86	2428	3
	Cd	114	0.474	ug/L	0.005	1	35	5431	2
	Sb	121	0.050	ug/L	0 002	3	149	792	1
	Sb	123	0.052	ug/L	0.001	2	102	618	2
>	Tb	159		ug/L			1051527	1025348	1
	Tl	205	0.050	ug/L	0.003	5	58	1829	3
	Pb	208	33.570	ug/L	0.436	1	264	1571217	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:54:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	63942	0
	Cl	37		ug/L			3520933	3474520	0
>	Sc	45		ug/L			702035	699542	2
	Cr	52	**33.488**	ug/L	0.661	1	18360	446511	0
	Cr	53	**33.655**	ug/L	1.299	3	98	49289	1
	Mn	55	**213.491**	ug/L	5.981	2	342	3659935	0
>	Ge	72		ug/L			449741	406977	0
	Ni	60	**32.828**	ug/L	0.887	2	43	91138	2
	Ni	62	**54.862**	ug/L	1.707	3	270	21823	3
	Cu	63	**54.262**	ug/L	1.090	2	270	344970	2
	Cu	65	**52.356**	ug/L	1.199	2	36	149581	2
	Zn	66	**299.564**	ug/L	1.507	0	769	508859	0
	Zn	67	**290.224**	ug/L	1.192	0	120	81417	0
	Zn	68	**306.345**	ug/L	1.196	0	732	366270	1
	As	75	**37.213**	ug/L	0.366	0	95	61542	0
	As-1	75	**34.815**	ug/L	0.431	1	10170	64102	1
	Se	82	**80.605**	ug/L	1.001	1	-9	15940	1
	Se	78	**78.649**	ug/L	0.423	0	10290	43400	1
	Y	89		ug/L			313112	359684	1
	Kr	83		ug/L			347	462	3
>	In	115		ug/L			926753	869389	2
	Ag	107	**7.561**	ug/L	0.094	1	39	101231	1
	Cd	111	**24.050**	ug/L	0.417	1	86	111757	0
	Cd	114	**24.232**	ug/L	0.329	1	35	279172	1
	Sb	121	**1.619**	ug/L	0.036	2	149	21575	1
	Sb	123	**1.614**	ug/L	0.032	1	102	16463	0
>	Tb	159		ug/L			1051527	1018683	0
	Tl	205	**23.285**	ug/L	0 150	0	58	824549	0
	Pb	208	**53.928**	ug/L	0.177	0	264	2507819	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 12:58:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			53177	71776	2
Cl	37		ug/L			3520933	3614751	3
> Sc	45		ug/L			702035	710609	2
Cr	52	35.306	ug/L	0.877	2	18360	477242	1
Cr	53	35.254	ug/L	0.974	2	98	52472	2
Mn	55	238.745	ug/L	6.406	2	342	4158101	0
> Ge	72		ug/L			449741	419150	1
Ni	60	33.174	ug/L	0.781	2	43	94830	0
Ni	62	55.861	ug/L	2.946	5	270	22862	3
Cu	63	55.866	ug/L	1.344	2	270	365682	0
Cu	65	54.560	ug/L	0.947	1	36	160497	1
Zn	66	316.358	ug/L	0.830	0	769	553455	2
Zn	67	304.908	ug/L	1.985	0	120	88091	2
Zn	68	320.717	ug/L	1.891	0	732	394857	1
As	75	37.694	ug/L	0.609	1	95	64194	1
As-1	75	35.685	ug/L	0.475	1	10170	67425	1
Se	82	78.739	ug/L	1.365	1	-9	16034	1
Se	78	77.836	ug/L	0.998	1	10290	44330	1
Y	89		ug/L			313112	376168	0
Kr	83		ug/L			347	490	3
> In	115		ug/L			926753	871283	1
Ag	107	24.242	ug/L	0.477	1	39	325300	3
Cd	111	24.203	ug/L	0.504	2	86	112716	0
Cd	114	24.214	ug/L	0.085	0	35	279606	1
Sb	121	24.677	ug/L	0.603	2	149	327582	2
Sb	123	24.686	ug/L	0.263	1	102	251050	0
> Tb	159		ug/L			1051527	1049410	1
Tl	205	23.666	ug/L	0.352	1	58	863242	0
Pb	208	56.318	ug/L	0.284	0	264	2697854	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:01:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

DRAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	48990	1
	Cl	37		ug/L			3520933	3489326	2
>	Sc	45		ug/L			702035	671448	2
	Cr	52	23.968	ug/L	0.281	1	18360	311811	1
	Cr	53	25.075	ug/L	0.693	2	98	35282	0
	Mn	55	24.635	ug/L	0.548	2	342	405723	0
>	Ge	72		ug/L			449741	418851	1
	Ni	60	25.296	ug/L	0.457	1	43	72274	0
	Ni	62	34.691	ug/L	0.385	1	270	14291	1
	Cu	63	26.196	ug/L	0.804	3	270	171475	1
	Cu	65	26.374	ug/L	0.615	2	36	77540	1
	Zn	66	81.185	ug/L	2.250	2	769	142415	1
	Zn	67	74.536	ug/L	1.066	1	120	21605	2
	Zn	68	81.257	ug/L	0.944	1	732	100474	1
	As	75	31.301	ug/L	0.780	2	95	53275	0
	As-1	75	28.333	ug/L	0.675	2	10170	55440	0
	Se	82	82.282	ug/L	1.815	2	-9	16742	0
	Se	78	79.360	ug/L	1.574	1	10290	44974	0
	Y	89		ug/L			313112	292558	1
	Kr	83		ug/L			347	373	5
>	In	115		ug/L			926753	870090	0
	Ag	107	26.124	ug/L	0.435	1	39	350020	1
	Cd	111	25.407	ug/L	0.213	0	86	118181	0
	Cd	114	25.560	ug/L	0 122	0	35	294739	0
	Sb	121	25.385	ug/L	0.460	1	149	336512	1
	Sb	123	25.412	ug/L	0.168	0	102	258103	0
>	Tb	159		ug/L			1051527	996398	0
	Tl	205	25.978	ug/L	0.032	0	58	899788	0
	Pb	208	26.006	ug/L	0.020	0	264	1183054	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 MBSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:05:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

RLAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	50276	2
	Cl	37		ug/L			3520933	3439241	1
>	Sc	45		ug/L			702035	655064	1
	Cr	52	25.181	ug/L	0.250	0	18360	318723	0
	Cr	53	24.562	ug/L	0.282	1	98	33729	0
	Mn	55	25.139	ug/L	1.101	4	342	403858	2
>	Ge	72		ug/L			449741	411907	2
	Ni	60	25.222	ug/L	0.308	1	43	70871	1
	Ni	62	34.118	ug/L	1.408	4	270	13820	2
	Cu	63	26.102	ug/L	0.762	2	270	168027	1
	Cu	65	25.665	ug/L	1.081	4	36	74182	2
	Zn	66	79.155	ug/L	2.535	3	769	136566	2
	Zn	67	71.359	ug/L	2.834	3	120	20333	2
	Zn	68	79.523	ug/L	3.641	4	732	96680	3
	As	75	30.744	ug/L	0.995	3	95	51456	1
	As-1	75	28.018	ug/L	0.966	3	10170	54010	0
	Se	82	79.626	ug/L	2.501	3	-9	15931	1
	Se	78	77.241	ug/L	2.609	3	10290	43291	0
	Y	89		ug/L			313112	291747	1
	Kr	83		ug/L			347	359	2
>	In	115		ug/L			926753	880322	1
	Ag	107	24.821	ug/L	0.195	0	39	336456	1
	Cd	111	24.302	ug/L	0.557	2	86	114352	1
	Cd	114	24.263	ug/L	0.516	2	35	283032	1
	Sb	121	24.891	ug/L	0.527	2	149	333837	2
	Sb	123	24.768	ug/L	0.606	2	102	254461	0
>	Tb	159		ug/L			1051527	991849	1
	Tl	205	25.663	ug/L	0.606	2	58	884586	0
	Pb	208	25.615	ug/L	0.325	1	264	1159784	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:09:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			53177	46442	4
	Cl	37		ug/L			3520933	3502429	4
>	Sc	45		ug/L			702035	655397	2
	Cr	52	49.950	ug/L	0.395	0	18360	615718	1
	Cr	53	49.942	ug/L	0.990	1	98	68511	0
	Mn	55	49.575	ug/L	0.603	1	342	796911	2
>	Ge	72		ug/L			449741	409994	1
	Ni	60	50.121	ug/L	0.703	1	43	140187	3
	Ni	62	57.582	ug/L	1.411	2	270	23057	2
	Cu	63	49.444	ug/L	0.909	1	270	316733	3
	Cu	65	50.950	ug/L	0.653	1	36	146628	1
	Zn	66	49.876	ug/L	0.479	0	769	85927	1
	Zn	67	49.837	ug/L	0.495	0	120	14173	0
	Zn	68	50.490	ug/L	1.086	2	732	61358	1
	As	75	50.670	ug/L	0.378	0	95	84399	2
	As-1	75	50.756	ug/L	0.171	0	10170	89902	2
	Se	82	50.837	ug/L	0 656	1	-9	10126	3
	Se	78	50.699	ug/L	1.029	2	10290	31515	1
	Y	89		ug/L			313112	292463	0
	Kr	83		ug/L			347	395	2
>	In	115		ug/L			926753	863440	3
	Ag	107	49.663	ug/L	0.217	0	39	660273	2
	Cd	111	49.716	ug/L	0.413	0	86	229430	3
	Cd	114	49.919	ug/L	0.765	1	35	571020	1
	Sb	121	50.580	ug/L	0.792	1	149	665083	1
	Sb	123	50.521	ug/L	1.305	2	102	508885	1
>	Tb	159		ug/L			1051527	1002308	1
	Tl	205	50.263	ug/L	0.220	0	58	1751253	1
	Pb	208	50.198	ug/L	0.203	0	264	2296902	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**			ug/L			53177	48391	2
	Cl	**37**			ug/L			3520933	3272739	2
>	**Sc**	**45**			ug/L			702035	644967	1
	Cr	**52**	**-0.068**		ug/L	0.041	59	18360	16070	4
	Cr	**53**	**0.001**		ug/L	0.008	523	98	92	11
	Mn	**55**	**0.003**		ug/L	0.002	53	342	365	7
>	**Ge**	**72**			ug/L			449741	408842	1
	Ni	**60**	**-0.005**		ug/L	0.002	33	43	24	20
	Ni	**62**	**6.604**		ug/L	0.088	1	270	2854	1
	Cu	**63**	**0.320**		ug/L	0.010	3	270	2289	2
	Cu	**65**	**0.008**		ug/L	0.005	61	36	54	24
	Zn	**66**	**-0.118**		ug/L	0.016	13	769	497	7
	Zn	**67**	**-0.127**		ug/L	0.013	10	120	73	5
	Zn	**68**	**-0.105**		ug/L	0.038	36	732	540	9
	As	**75**	**0.042**		ug/L	0.016	38	95	157	18
	As-1	**75**	**0.418**	<	ug/L	0.129	30	10170	9905	0
	Se	**82**	**0.070**		ug/L	0.068	96	-9	5	245
	Se	**78**	**1.482**		ug/L	0.488	32	10290	9998	0
	Y	**89**			ug/L			313112	274269	1
	Kr	**83**			ug/L			347	341	5
>	**In**	**115**			ug/L			926753	860716	0
	Ag	**107**	**0.001**		ug/L	0.001	76	39	55	25
	Cd	**111**	**0.001**		ug/L	0.002	116	86	86	9
	Cd	**114**	**0.002**		ug/L	0.002	90	35	55	37
	Sb	**121**	**0.076**		ug/L	0.018	23	149	1133	21
	Sb	**123**	**0.077**		ug/L	0.017	22	102	869	20
>	**Tb**	**159**			ug/L			1051527	976600	0
	Tl	**205**	**0.004**		ug/L	0.001	28	58	192	20
	Pb	**208**	**0.003**		ug/L	0.001	35	264	401	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 B SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:21:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
C	13		ug/L			53177	49474	3
Cl	37		ug/L			3520933	3374785	2
> Sc	45		ug/L			702035	629864	4
Cr	52	**3.015**	ug/L	0.235	7	18360	51137	2
Cr	53	**3.077**	ug/L	0.063	2	98	4138	2
Mn	55	**41.611**	ug/L	2.147	5	342	641977	1
> Ge	72		ug/L			449741	402779	0
Ni	60	**2.591**	ug/L	0.074	2	43	7154	1
Ni	62	**8.289**	ug/L	0.277	3	270	3469	3
Cu	63	**9.790**	ug/L	0.188	1	270	61793	1
Cu	65	**9.803**	ug/L	0.164	1	36	27740	0
Zn	66	**134.991**	ug/L	3.131	2	769	227320	2
Zn	67	**123.541**	ug/L	2.940	2	120	34356	1
Zn	68	**134.846**	ug/L	3.385	2	732	159901	1
As	75	**1.765**	ug/L	0.037	2	95	2970	1
As-1	75	**2.275**	ug/L	0.100	4	10170	12658	0
Se	82	**0.064**	ug/L	0.033	50	-9	4	151
Se	78	**1.748**	ug/L	0.422	24	10290	9965	1
Y	89		ug/L			313112	284344	1
Kr	83		ug/L			347	379	5
> In	115		ug/L			926753	852596	1
Ag	107	**0.063**	ug/L	0.003	3	39	861	3
Cd	111	**0.232**	ug/L	0.007	2	86	1135	1
Cd	114	**0.233**	ug/L	0.005	2	35	2669	1
Sb	121	**0.029**	ug/L	0.003	11	149	511	7
Sb	123	**0.029**	ug/L	0.005	18	102	379	12
> Tb	159		ug/L			1051527	970318	2
Tl	205	**0.014**	ug/L	0.000	1	58	538	1
Pb	208	**13.245**	ug/L	0.324	2	264	586647	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 C SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:25:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			53177	49352	3
	Cl	37		ug/L			3520933	3379131	0
>	Sc	45		ug/L			702035	647133	1
	Cr	52	2.887	ug/L	0.019	0	18360	51087	1
	Cr	53	3.003	ug/L	0.119	3	98	4151	2
	Mn	55	39.053	ug/L	0.720	1	342	620024	3
>	Ge	72		ug/L			449741	406760	2
	Ni	60	2.444	ug/L	0.064	2	43	6816	1
	Ni	62	7.625	ug/L	0.313	4	270	3239	1
	Cu	63	9.528	ug/L	0.428	4	270	60692	1
	Cu	65	9.368	ug/L	0.242	2	36	26766	2
	Zn	66	127.924	ug/L	1.967	1	769	217527	1
	Zn	67	118.155	ug/L	2.135	1	120	33182	1
	Zn	68	127.529	ug/L	2.863	2	732	152723	1
	As	75	1.696	ug/L	0.063	3	95	2884	1
	As-1	75	2.127	ug/L	0.233	10	10170	12544	0
	Se	82	0.089	ug/L	0.013	14	-9	9	26
	Se	78	1.476	ug/L	0.655	44	10290	9941	0
	Y	89		ug/L			313112	286446	0
	Kr	83		ug/L			347	369	5
>	In	115		ug/L			926753	853255	0
	Ag	107	0.058	ug/L	0.002	3	39	792	2
	Cd	111	0.207	ug/L	0.004	1	86	1021	2
	Cd	114	0.192	ug/L	0.002	1	35	2206	0
	Sb	121	0.016	ug/L	0.002	9	149	347	5
	Sb	123	0.018	ug/L	0.006	31	102	272	20
>	Tb	159		ug/L			1051527	981669	0
	Tl	205	0.013	ug/L	0.001	8	58	506	7
	Pb	208	12.893	ug/L	0.055	0	264	577988	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 ADUP SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:29:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			53177	53870	2
	Cl	37		ug/L			3520933	3354960	1
>	Sc	45		ug/L			702035	644297	2
	Cr	52	**4.824**	ug/L	0.052	1	18360	73687	2
	Cr	53	**4.773**	ug/L	0.143	3	98	6517	0
	Mn	55	**84.468**	ug/L	1.567	1	342	1334182	0
>	Ge	72		ug/L			449741	408751	1
	Ni	60	**3.587**	ug/L	0.054	1	43	10038	2
	Ni	62	**13.064**	ug/L	2.476	18	270	5398	17
	Cu	63	**12.232**	ug/L	0.197	1	270	78283	0
	Cu	65	**11.657**	ug/L	0.199	1	36	33467	1
	Zn	66	**101.983**	ug/L	1.616	1	769	174477	2
	Zn	67	**98.831**	ug/L	0.576	0	120	27917	0
	Zn	68	**105.279**	ug/L	1.462	1	732	126844	0
	As	75	**2.666**	ug/L	0.074	2	95	4508	1
	As-1	75	**3.156**	ug/L	0.092	2	10170	14240	0
	Se	82	**0.114**	ug/L	0.031	27	-9	14	43
	Se	78	**1.615**	ug/L	0.208	12	10290	10055	0
	Y	89		ug/L			313112	307072	2
	Kr	83		ug/L			347	405	0
>	In	115		ug/L			926753	852214	0
	Ag	107	**0.058**	ug/L	0.001	2	39	793	2
	Cd	111	**0.191**	ug/L	0.006	3	86	948	3
	Cd	114	**0.173**	ug/L	0.007	3	35	1990	3
	Sb	121	**0.023**	ug/L	0.003	12	149	435	8
	Sb	123	**0.027**	ug/L	0.003	9	102	365	7
>	Tb	159		ug/L			1051527	984191	1
	Tl	205	**0.020**	ug/L	0.000	2	58	724	3
	Pb	208	**13.128**	ug/L	0.231	1	264	589942	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 A SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:32:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	53481	2
	Cl	37		ug/L			3520933	3284415	2
>	Sc	45		ug/L			702035	645927	1
	Cr	52	5.155	ug/L	0.070	1	18360	77772	0
	Cr	53	5.245	ug/L	0.107	2	98	7172	0
	Mn	55	90.676	ug/L	3.541	3	342	1435585	2
>	Ge	72		ug/L			449741	402588	2
	Ni	60	3.857	ug/L	0.193	4	43	10619	2
	Ni	62	17.105	ug/L	1.407	8	270	6896	8
	Cu	63	13.634	ug/L	0.469	3	270	85877	1
	Cu	65	12.305	ug/L	0.260	2	36	34787	0
	Zn	66	102.072	ug/L	1.571	1	769	171931	0
	Zn	67	99.132	ug/L	2.692	2	120	27568	0
	Zn	68	104.363	ug/L	2.051	1	732	123822	0
	As	75	2.900	ug/L	0.058	2	95	4821	1
	As-1	75	3.455	ug/L	0.214	6	10170	14487	0
	Se	82	0.110	ug/L	0.012	10	-9	13	15
	Se	78	1.811	ug/L	0.646	35	10290	9983	0
	Y	89		ug/L			313112	300967	0
	Kr	83		ug/L			347	401	1
>	In	115		ug/L			926753	831286	1
	Ag	107	0.065	ug/L	0.002	3	39	869	2
	Cd	111	0.219	ug/L	0.003	1	86	1049	1
	Cd	114	0.204	ug/L	0.010	4	35	2274	4
	Sb	121	0.021	ug/L	0.002	11	149	396	8
	Sb	123	0.023	ug/L	0.001	5	102	315	3
>	Tb	159		ug/L			1051527	988294	1
	Tl	205	0.021	ug/L	0.001	5	58	758	4
	Pb	208	13.814	ug/L	0 133	0	264	623400	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 ASPK SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:36:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	50048	1
	Cl	37		ug/L			3520933	3283900	0
>	Sc	45		ug/L			702035	644245	0
	Cr	52	14.203	ug/L	0.137	0	18360	184155	0
	Cr	53	14.583	ug/L	0.460	3	98	19737	3
	Mn	55	93.569	ug/L	1.291	1	342	1478304	2
>	Ge	72		ug/L			449741	399206	2
	Ni	60	13.418	ug/L	0.450	3	43	36546	1
	Ni	62	29.982	ug/L	0.697	2	270	11808	4
	Cu	63	22.840	ug/L	0.459	2	270	142557	2
	Cu	65	22.064	ug/L	0.427	1	36	61830	0
	Zn	66	127.875	ug/L	5.485	4	769	213336	2
	Zn	67	123.274	ug/L	1.864	1	120	33976	0
	Zn	68	131.671	ug/L	4.038	3	732	154723	1
	As	75	15.370	ug/L	0.338	2	95	24978	1
	As-1	75	14.874	ug/L	0.300	2	10170	32027	0
	Se	82	33.684	ug/L	0.795	2	-9	6527	1
	Se	78	34.768	ug/L	0.662	1	10290	23911	1
	Y	89		ug/L			313112	305176	1
	Kr	83		ug/L			347	389	11
>	In	115		ug/L			926753	846375	1
	Ag	107	3.099	ug/L	0.072	2	39	40416	2
	Cd	111	10.358	ug/L	0.236	2	86	46904	0
	Cd	114	10.285	ug/L	0.095	0	35	115377	0
	Sb	121	0.709	ug/L	0.013	1	149	9275	0
	Sb	123	0.712	ug/L	0.003	0	102	7122	2
>	Tb	159		ug/L			1051527	980270	1
	Tl	205	9.716	ug/L	0.179	1	58	331070	0
	Pb	208	22.832	ug/L	0.366	1	264	1021763	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WT81 APOST SWN~~ 222222
Sample Dil Factor: 50
Comments: 6-2013
Sample Date/Time: Thursday, June 20, 2013 13:39:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			53177	51948	4
	Cl	37		ug/L			3520933	3304293	2
>	Sc	45		ug/L			702035	647433	1
	Cr	52	29.171	ug/L	1.248	4	18360	362159	2
	Cr	53	29.215	ug/L	0.347	1	98	39642	2
	Mn	55	108.923	ug/L	1.984	1	342	1729020	1
>	Ge	72		ug/L			449741	396873	1
	Ni	60	28.864	ug/L	0.755	2	43	78131	1
	Ni	62	44.774	ug/L	1.169	2	270	17405	1
	Cu	63	37.751	ug/L	1.028	2	270	234070	1
	Cu	65	37.536	ug/L	0.218	0	36	104574	0
	Zn	66	180.287	ug/L	8.090	4	769	298800	3
	Zn	67	172.614	ug/L	4.412	2	120	47254	1
	Zn	68	183.461	ug/L	7.200	3	732	214084	2
	As	75	34.612	ug/L	0.458	1	95	55821	0
	As-1	75	32.276	ug/L	0.490	1	10170	58599	0
	Se	82	83.695	ug/L	1.436	1	-9	16138	0
	Se	78	82.782	ug/L	1.619	1	10290	44062	0
	Y	89		ug/L			313112	308089	2
	Kr	83		ug/L			347	387	6
>	In	115		ug/L			926753	847084	1
	Ag	107	24.488	ug/L	0.612	2	39	319376	1
	Cd	111	25.102	ug/L	0.382	1	86	113659	0
	Cd	114	25.174	ug/L	0.600	2	35	282560	1
	Sb	121	0.024	ug/L	0.002	9	149	443	5
	Sb	123	0.024	ug/L	0.002	9	102	325	5
>	Tb	159		ug/L			1051527	983595	0
	Tl	205	25.091	ug/L	0.227	0	58	857918	1
	Pb	208	38.190	ug/L	0.327	0	264	1714853	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:43:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	45522	4
	Cl	37		ug/L			3520933	3344895	2
>	Sc	45		ug/L			702035	646342	2
	Cr	52	48.662	ug/L	2.073	4	18360	591605	1
	Cr	53	49.519	ug/L	0.832	1	98	67000	2
	Mn	55	49.031	ug/L	2.395	4	342	776649	2
>	Ge	72		ug/L			449741	408797	0
	Ni	60	49.090	ug/L	0.455	0	43	136877	0
	Ni	62	58.658	ug/L	0.599	1	270	23416	0
	Cu	63	48.946	ug/L	0.565	1	270	312614	1
	Cu	65	48.853	ug/L	1.027	2	36	140200	2
	Zn	66	48.987	ug/L	0.342	0	769	84170	0
	Zn	67	50.129	ug/L	0.863	1	120	14216	1
	Zn	68	51.101	ug/L	1.126	2	732	61922	2
	As	75	49.524	ug/L	0.499	1	95	82243	1
	As-1	75	49.922	ug/L	0.354	0	10170	88315	0
	Se	82	49.803	ug/L	0.608	1	-9	9890	1
	Se	78	50.817	ug/L	0.653	1	10290	31475	0
	Y	89		ug/L			313112	279518	0
	Kr	83		ug/L			347	387	7
>	In	115		ug/L			926753	845425	0
	Ag	107	49.489	ug/L	0.326	0	39	644252	0
	Cd	111	50.068	ug/L	0.437	0	86	226211	0
	Cd	114	49.727	ug/L	0.279	0	35	557116	0
	Sb	121	51.090	ug/L	0.690	1	149	657940	0
	Sb	123	50.516	ug/L	0.461	0	102	498440	0
>	Tb	159		ug/L			1051527	994354	0
	Tl	205	49.820	ug/L	0.325	0	58	1722014	0
	Pb	208	49.779	ug/L	0.396	0	264	2259655	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 20, 2013 13:49:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			53177	47775	3
	Cl	37		ug/L			3520933	3264959	1
>	Sc	45		ug/L			702035	624314	2
	Cr	52	0.035	ug/L	0.053	149	18360	16723	2
	Cr	53	0.005	ug/L	0.005	105	98	94	8
	Mn	55	0.004	ug/L	0.004	89	342	368	15
>	Ge	72		ug/L			449741	405283	1
	Ni	60	-0.005	ug/L	0.001	21	43	24	13
	Ni	62	7.129	ug/L	0.168	2	270	3035	0
	Cu	63	0.356	ug/L	0.021	6	270	2491	4
	Cu	65	0.006	ug/L	0.003	51	36	49	18
	Zn	66	-0.145	ug/L	0.017	11	769	448	5
	Zn	67	-0.156	ug/L	0.022	14	120	64	8
	Zn	68	-0.141	ug/L	0.035	24	732	492	9
	As	75	0.043	ug/L	0.021	48	95	157	22
	As-1	75	0.514	ug/L	0.129	25	10170	9970	1
	Se	82	0.041	ug/L	0.054	131	-9	0	4069
	Se	78	1.843	ug/L	0.455	24	10290	10067	1
	Y	89		ug/L			313112	277174	1
	Kr	83		ug/L			347	365	4
>	In	115		ug/L			926753	843177	0
	Ag	107	0.003	ug/L	0.002	76	39	72	37
	Cd	111	0.004	ug/L	0.003	88	86	96	15
	Cd	114	0.002	ug/L	0.001	80	35	50	28
	Sb	121	0.065	ug/L	0.011	17	149	966	15
	Sb	123	0.067	ug/L	0.020	29	102	747	26
>	Tb	159		ug/L			1051527	965659	0
	Tl	205	0.007	ug/L	0.000	5	58	272	4
	Pb	208	0.004	ug/L	0.001	34	264	427	14

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA **Analysis Date:** 6-21-13

Nexion STD MZ	Analyst 6-24-13	Peer 6-24-13	Comment
Logbooks:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See Log ↓
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See Log ↓
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analyses Noted and CAF's	—	—	

UTGA-022202

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-21-13 **Analyst:** MS **Page:** 1 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			B654
		1			B543
		2			B631
		3			B632
		4			B700
		5			B634
		Rinse Sample			
		ICV			B523
		ICB			
		CCV1			
		CCB1			
		Low Check			^{62}Ni high
		ICSA			
		ICSAB			^{53}Cr ^{62}Ni high
		LR200			
		LR300			
		B1			
		CCV2			
		CCB2			^{62}Ni high
		W579 MB1	RHN	5	
		MB2			
		E			
		MB1spk		✓	
		MB2spk		✓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-21-13 **Analyst:** M **Page:** 2 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WU04 DSpk	REN	2	As
		MB1Spk			
		MB2Spk			
		WT81 MB1Spk	SWN	20	
		WT86 MB5Spk			
		CCV3			
		CCB3			^{62}Ni high
		WS79 F	RHN	5	
		G			
		T			
		U			
		V			
		A		50	Cu Zn
		B			
		H			
		L			
		M			
		CCV4			
		CCB4			^{62}Ni high
		WU75 MB	REN	2	
		A			
		B			
		C			
		D			

At 6-24-13

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, June 21, 2013 08:24:45
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.2186
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	2559.9	2559.927	27.915	1.1	Standard
	Mg	24.0	29634.5	29634.466	108.841	0.4	Standard
	In	114.9	79113.5	79113.530	849.161	1.1	Standard
	Pb	208.0	34557.2	34557.240	245.505	0.7	Standard
	U	238.1	58732.2	58732.249	392.760	0.7	Standard
	CeO	155.9	1728.5	0.021	0.001	4.2	Standard
>	Ce	139.9	82273.0	82273.012	442.770	0.5	Standard
	Ce++	70.0	1104.8	0.013	0.001	3.9	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.09	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.07	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B
0.00	KED RPa

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/21/2013 8:24:38 AM
nd Time: 6/21/2013 8:29:49 AM

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2559.93 - <Target not achieved>
Obtained Intensity (Mg 23.985): 29634.47
Obtained Intensity (In 114.904): 79113.53
Obtained Intensity (Pb 207.977): 34557.24
Obtained Intensity (U 238.05): 58732.25
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1728.51 / 82273.01)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1104.81 / 82273.01)

orch Alignment - [Failed]
Error: optimum could not be found.

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 6/21/2013 8:29:56 AM
ıd Time: 6/21/2013 8:34:37 AM

ɔrch Alignment - [Failed]
Error: optimum could not be found.

ebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.08
Obtained Intensity (In 114.904): 72820.79
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1493.13 / 71131.29)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/21/2013 8:34:44 AM
nd Time: 6/21/2013 8:35:40 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.74 mm	-0.87 mm	85878.24

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/21/2013 8:35:53 AM
nd Time: 6/21/2013 8:38:04 AM

lass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.695)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/21/2013 8:38:43 AM
nd Time: 6/21/2013 8:42:53 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.67

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 6/21/2013 8:43:02 AM
nd Time: 6/21/2013 8:45:36 AM

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2950.06 - <Target not achieved>
Obtained Intensity (Mg 23.985): 28080.50
Obtained Intensity (In 114.904): 76177.16
Obtained Intensity (Pb 207.977): 35794.51
Obtained Intensity (U 238.05): 58858.93
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=1824.60 / 77948.01)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1097.47 / 77948.01)

N.R. No be Running

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:09:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				56794	1
	Cl	37		ug/L				3296936	2
>	Sc	45		ug/L				782363	1
	Cr	52		ug/L				23652	2
	Cr	53		ug/L				110	11
	Mn	55		ug/L				722	5
>	Ge	72		ug/L				588715	2
	Ni	60		ug/L				32	24
	Ni	62		ug/L				835	2
	Cu	63		ug/L				669	1
	Cu	65		ug/L				40	29
	Zn	66		ug/L				606	1
	Zn	67		ug/L				97	14
	Zn	68		ug/L				564	4
	As	75		ug/L				11	145
	As-1	75		ug/L				12464	0
	Se	82		ug/L				0	6318
	Se	78		ug/L				12659	0
	Y	89		ug/L				343426	2
	Kr	83		ug/L				315	7
>	In	115		ug/L				1011060	0
	Ag	107		ug/L				23	10
	Cd	111		ug/L				71	16
	Cd	114		ug/L				34	22
	Sb	121		ug/L				36	36
	Sb	123		ug/L				27	38
>	Tb	159		ug/L				1287275	1
	Tl	205		ug/L				39	7
	Pb	208		ug/L				312	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:12:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	56945	0
	Cl	37		ug/L			3296936	3187256	0
>	Sc	45		ug/L			782363	759575	3
	Cr	52	0.500	ug/L	0.068	13	23652	28953	3
	Cr	53	0.500	ug/L	0.040	8	110	955	4
	Mn	55	0.500	ug/L	0.015	2	722	10182	1
>	Ge	72		ug/L			588715	568148	4
	Ni	60	0.500	ug/L	0.022	4	32	1737	0
	Ni	62	0.500	ug/L	0.107	21	835	1073	1
	Cu	63	0.500	ug/L	0.021	4	669	4899	2
	Cu	65	0.500	ug/L	0.015	3	40	1927	2
	Zn	66	4.000	ug/L	0.328	8	606	9235	4
	Zn	67	4.000	ug/L	0.161	4	97	1444	5
	Zn	68	4.000	ug/L	0.189	4	564	6672	1
	As	75	0.200	ug/L	0.007	3	11	442	4
	As-1	75	0.200	ug/L	0.128	64	12464	12733	0
	Se	82	0.500	ug/L	0.072	14	0	90	10
	Se	78	0.500	ug/L	0.459	91	12659	12733	0
	Y	89		ug/L			343426	331489	0
	Kr	83		ug/L			315	323	4
>	In	115		ug/L			1011060	966814	2
	Ag	107	0.200	ug/L	0.008	4	23	2202	3
	Cd	111	0.100	ug/L	0.005	4	71	536	4
	Cd	114	0.100	ug/L	0.001	0	34	1207	1
	Sb	121	0.200	ug/L	0.002	0	36	2672	2
	Sb	123	0.200	ug/L	0.008	4	27	2041	3
>	Tb	159		ug/L			1287275	1255647	1
	Tl	205	0.200	ug/L	0.004	1	39	7854	1
	Pb	208	0.100	ug/L	0.002	1	312	5579	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:16:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	55704	3
	Cl	37		ug/L			3296936	3104494	3
>	Sc	45		ug/L			782363	740781	2
	Cr	52	10.004	ug/L	0.589	5	23652	160227	2
	Cr	53	9.999	ug/L	0.414	4	110	16089	1
	Mn	55	10.001	ug/L	0.161	1	722	196387	1
>	Ge	72		ug/L			588715	562393	4
	Ni	60	10.000	ug/L	0.526	5	32	34287	1
	Ni	62	9.997	ug/L	0.315	3	835	5599	1
	Cu	63	9.999	ug/L	0.382	3	669	80654	2
	Cu	65	9.999	ug/L	0.454	4	40	36654	2
	Zn	66	10.063	ug/L	0.313	3	606	23035	1
	Zn	67	10.143	ug/L	0.337	3	97	3812	1
	Zn	68	10.122	ug/L	0.469	4	564	17149	0
	As	75	10.000	ug/L	0.407	4	11	19574	0
	As-1	75	9.997	ug/L	0.661	6	12464	32223	0
	Se	82	10.002	ug/L	0.392	3	0	1930	1
	Se	78	9.979	ug/L	1.256	12	12659	17760	0
	Y	89		ug/L			343426	328982	1
	Kr	83		ug/L			315	317	7
>	In	115		ug/L			1011060	972114	3
	Ag	107	10.000	ug/L	0.456	4	23	107897	1
	Cd	111	10.000	ug/L	0.393	3	71	46370	1
	Cd	114	10.000	ug/L	0.531	5	34	118041	2
	Sb	121	10.000	ug/L	0.460	4	36	132432	1
	Sb	123	10.000	ug/L	0.462	4	27	102133	1
>	Tb	159		ug/L			1287275	1250062	2
	Tl	205	10.000	ug/L	0.348	3	39	385835	1
	Pb	208	10.000	ug/L	0.248	2	312	512297	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:20:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	55274	4
	Cl	37		ug/L			3296936	3171631	3
>	Sc	45		ug/L			782363	757173	4
	Cr	52	19.896	ug/L	0.371	1	23652	297545	3
	Cr	53	19.938	ug/L	0.692	3	110	32275	1
	Mn	55	19.960	ug/L	0.459	2	722	396635	3
>	Ge	72		ug/L			588715	570948	2
	Ni	60	19.933	ug/L	0.274	1	32	68527	1
	Ni	62	20.012	ug/L	0.493	2	835	10596	2
	Cu	63	19.963	ug/L	0.167	0	669	161760	1
	Cu	65	19.969	ug/L	0.122	0	40	73904	2
	Zn	66	19.800	ug/L	0.076	0	606	43981	2
	Zn	67	19.861	ug/L	0.404	2	97	7318	0
	Zn	68	19.765	ug/L	0.130	0	564	32230	2
	As	75	19.898	ug/L	0.262	1	11	38776	1
	As-1	75	19.882	ug/L	0.510	2	12464	52216	0
	Se	82	19.909	ug/L	0.265	1	0	3834	1
	Se	78	19.840	ug/L	1.168	5	12659	23387	0
	Y	89		ug/L			343426	333585	2
	Kr	83		ug/L			315	323	6
>	In	115		ug/L			1011060	969196	1
	Ag	107	20.060	ug/L	0.408	2	23	218603	1
	Cd	111	20.024	ug/L	0.483	2	71	93010	1
	Cd	114	19.928	ug/L	0.204	1	34	231402	1
	Sb	121	20.055	ug/L	0.314	1	36	267958	0
	Sb	123	20.012	ug/L	0.424	2	27	204360	0
>	Tb	159		ug/L			1287275	1256313	3
	Tl	205	20.001	ug/L	0 785	3	39	775466	1
	Pb	208	19.996	ug/L	0.423	2	312	1028279	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:24:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	52390	3
	Cl	37		ug/L			3296936	3295219	1
>	Sc	45		ug/L			782363	755963	1
	Cr	52	49.807	ug/L	0.892	1	23652	696555	1
	Cr	53	49.843	ug/L	1.522	3	110	79219	2
	Mn	55	49.766	ug/L	1.459	2	722	964046	1
>	Ge	72		ug/L			588715	575254	1
	Ni	60	49.566	ug/L	0.647	1	32	164519	1
	Ni	62	49.698	ug/L	0.937	1	835	24588	1
	Cu	63	49.430	ug/L	0.955	1	669	380889	0
	Cu	65	49.578	ug/L	0.175	0	40	177330	1
	Zn	66	49.605	ug/L	1.258	2	606	106060	1
	Zn	67	49.807	ug/L	0.685	1	97	18018	1
	Zn	68	49.466	ug/L	1.026	2	564	76503	0
	As	75	49.768	ug/L	1.043	2	11	95482	0
	As-1	75	49.688	ug/L	0.850	1	12464	110194	0
	Se	82	49.771	ug/L	1.348	2	0	9441	1
	Se	78	49.473	ug/L	0.920	1	12659	38907	0
	Y	89		ug/L			343426	334289	1
	Kr	83		ug/L			315	337	4
>	In	115		ug/L			1011060	983938	0
	Ag	107	49.759	ug/L	0.660	1	23	537602	1
	Cd	111	49.766	ug/L	0.496	0	71	229254	0
	Cd	114	49.673	ug/L	0 638	1	34	567049	1
	Sb	121	49.661	ug/L	0.219	0	36	651568	0
	Sb	123	49.632	ug/L	0.576	1	27	496410	1
>	Tb	159		ug/L			1287275	1256807	0
	Tl	205	49.822	ug/L	0.416	0	39	1900094	0
	Pb	208	49.818	ug/L	0.886	1	312	2517573	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:28:39
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	53964	3
	Cl	37		ug/L			3296936	3227105	4
>	Sc	45		ug/L			782363	736287	2
	Cr	52	100.449	ug/L	3.029	3	23652	1365230	0
	Cr	53	100.143	ug/L	1.161	1	110	155737	3
	Mn	55	99.834	ug/L	1.503	1	722	1872590	1
>	Ge	72		ug/L			588715	568751	2
	Ni	60	99.654	ug/L	2.740	2	32	323309	3
	Ni	62	99.836	ug/L	1.762	1	835	47760	1
	Cu	63	100.287	ug/L	1.537	1	669	770892	2
	Cu	65	98.965	ug/L	1.066	1	40	338283	2
	Zn	66	99.413	ug/L	1.310	1	606	205597	1
	Zn	67	99.783	ug/L	2.196	2	97	35334	1
	Zn	68	98.922	ug/L	0.720	0	564	145549	1
	As	75	99.833	ug/L	0.495	0	11	188362	2
	As-1	75	99.840	ug/L	0.810	0	12464	205764	2
	Se	82	99.535	ug/L	1.249	1	0	18384	0
	Se	78	99.580	ug/L	2.246	2	12659	64310	1
	Y	89		ug/L			343426	330883	1
	Kr	83		ug/L			315	349	2
>	In	115		ug/L			1011060	944000	1
	Ag	107	100.162	ug/L	0.981	0	23	1043834	2
	Cd	111	99.945	ug/L	1.252	1	71	440905	2
	Cd	114	100.087	ug/L	1.536	1	34	1099318	1
	Sb	121	100.489	ug/L	0 553	0	36	1285931	1
	Sb	123	100.341	ug/L	0.517	0	27	973856	1
>	Tb	159		ug/L			1287275	1243929	1
	Tl	205	100.308	ug/L	0.607	0	39	3825239	1
	Pb	208	99.762	ug/L	0.600	0	312	4950183	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:33:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	53977	0
	Cl	37		ug/L			3296936	3204572	2
>	Sc	45		ug/L			782363	721663	1
	Cr	52	-0.039	ug/L	0.028	72	23652	21311	1
	Cr	53	0.016	ug/L	0.000	0	110	126	1
	Mn	55	0.003	ug/L	0.006	187	722	727	15
>	Ge	72		ug/L			588715	562032	1
	Ni	60	0.003	ug/L	0.002	85	32	39	20
	Ni	62	0.709	ug/L	0.135	19	835	1127	6
	Cu	63	0.046	ug/L	0.004	9	669	986	4
	Cu	65	0.008	ug/L	0.003	36	40	66	15
	Zn	66	-0.030	ug/L	0.009	29	606	518	5
	Zn	67	-0.034	ug/L	0.016	47	97	81	5
	Zn	68	0.027	ug/L	0.012	45	564	578	3
	As	75	0.023	ug/L	0.024	108	11	53	85
	As-1	75	0.209	ug/L	0.071	33	12464	12299	0
	Se	82	0.015	ug/L	0.022	146	0	3	133
	Se	78	0.721	ug/L	0.299	41	12659	12457	0
	Y	89		ug/L			343426	321716	0
	Kr	83		ug/L			315	311	9
>	In	115		ug/L			1011060	940611	2
	Ag	107	0.014	ug/L	0.011	79	23	163	68
	Cd	111	0.020	ug/L	0.015	73	71	154	40
	Cd	114	0.012	ug/L	0.011	91	34	167	73
	Sb	121	0.192	ug/L	0.031	16	36	2478	15
	Sb	123	0.199	ug/L	0.034	16	27	1953	16
>	Tb	159		ug/L			1287275	1200371	1
	Tl	205	0.015	ug/L	0.007	48	39	580	44
	Pb	208	0.008	ug/L	0.006	74	312	690	42

Sample Information

Sample Date/Time: Friday, June 21, 2013 09:28:39
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**1.0000**	0.018	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.025	0.50	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.014	0.50	10	20	50	100
Cu	65	**0.9998**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9997**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**0.9999**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.031	0.20	10	20	50	100
Pb	208	**1.0000**	0.040	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:39:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			56794	56113	0
	Cl	37		ug/L			3296936	3268592	2
>	Sc	45		ug/L			782363	731257	0
	Cr	52	51.463	ug/L	0.317	0	23652	705796	0
	Cr	53	50.606	ug/L	0 606	1	110	78193	0
	Mn	55	51.759	ug/L	1.411	2	722	964756	2
>	Ge	72		ug/L			588715	561254	1
	Ni	60	52.124	ug/L	0 694	1	32	166876	1
	Ni	62	51.856	ug/L	1.204	2	835	24870	2
	Cu	63	52.384	ug/L	0.812	1	669	397640	1
	Cu	65	52.633	ug/L	0.379	0	40	177553	1
	Zn	66	51.941	ug/L	0.583	1	606	106286	0
	Zn	67	50.397	ug/L	0.808	1	97	17664	2
	Zn	68	53.099	ug/L	0.608	1	564	77360	2
	As	75	52.134	ug/L	0.301	0	11	97064	0
	As-1	75	53.367	ug/L	0.335	0	12464	114061	0
	Se	82	79.285	ug/L	1 015	1	0	14308	1
	Se	78	80.332	ug/L	0.443	0	12659	53533	1
	Y	89		ug/L			343426	329634	1
	Kr	83		ug/L			315	324	6
>	In	115		ug/L			1011060	950264	0
	Ag	107	49.376	ug/L	0 664	1	23	517996	1
	Cd	111	48.819	ug/L	0.353	0	71	216809	1
	Cd	114	49.373	ug/L	0.676	1	34	545931	1
	Sb	121	50.608	ug/L	0.167	0	36	651900	0
	Sb	123	51.305	ug/L	0.564	1	27	501279	1
>	Tb	159		ug/L			1287275	1233855	1
	Tl	205	49.894	ug/L	0.369	0	39	1887409	0
	Pb	208	50.849	ug/L	0.558	1	312	2502982	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:46:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	55334	2
	Cl	37		ug/L			3296936	3265184	3
>	Sc	45		ug/L			782363	724912	1
	Cr	52	-0.001	ug/L	0.043	4029	23652	21901	3
	Cr	53	0.023	ug/L	0.006	28	110	137	5
	Mn	55	-0.002	ug/L	0.002	92	722	629	6
>	Ge	72		ug/L			588715	567241	1
	Ni	60	0.000	ug/L	0.003	613	32	32	28
	Ni	62	0.360	ug/L	0.071	19	835	973	4
	Cu	63	0.020	ug/L	0.002	9	669	797	0
	Cu	65	0.004	ug/L	0.003	86	40	52	23
	Zn	66	-0.024	ug/L	0.017	73	606	535	7
	Zn	67	-0.014	ug/L	0.020	137	97	88	7
	Zn	68	0.020	ug/L	0.015	76	564	573	4
	As	75	0.025	ug/L	0.002	9	11	58	7
	As-1	75	0.283	ug/L	0.090	31	12464	12556	0
	Se	82	0.039	ug/L	0.022	57	0	7	54
	Se	78	1.019	ug/L	0.336	32	12659	12727	0
	Y	89		ug/L			343426	328684	1
	Kr	83		ug/L			315	321	5
>	In	115		ug/L			1011060	953902	0
	Ag	107	0.001	ug/L	0.000	21	23	37	8
	Cd	111	0.002	ug/L	0.002	76	71	78	10
	Cd	114	0.001	ug/L	0.001	60	34	49	20
	Sb	121	0.046	ug/L	0.014	29	36	624	27
	Sb	123	0.044	ug/L	0.011	26	27	454	23
>	Tb	159		ug/L			1287275	1222815	0
	Tl	205	0.004	ug/L	0 001	22	39	186	18
	Pb	208	0.001	ug/L	0.001	95	312	353	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:49:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	52902	2
	Cl	37		ug/L			3296936	3190888	2
>	Sc	45		ug/L			782363	750075	2
	Cr	52	50.146	ug/L	0.730	1	23652	705997	2
	Cr	53	48.861	ug/L	0.576	1	110	77444	2
	Mn	55	49.471	ug/L	0.525	1	722	945794	1
>	Ge	72		ug/L			588715	576952	2
	Ni	60	49.725	ug/L	0.410	0	32	163672	2
	Ni	62	49.284	ug/L	1.803	3	835	24330	2
	Cu	63	48.761	ug/L	0.738	1	669	380499	1
	Cu	65	50.285	ug/L	0.695	1	40	174371	2
	Zn	66	50.132	ug/L	0.682	1	606	105485	2
	Zn	67	48.801	ug/L	0.905	1	97	17582	2
	Zn	68	51.653	ug/L	0.899	1	564	77379	3
	As	75	49.628	ug/L	0.414	0	11	94975	1
	As-1	75	49.613	ug/L	0.883	1	12464	109842	0
	Se	82	50.791	ug/L	0.511	1	0	9422	2
	Se	78	50.144	ug/L	1 891	3	12659	38999	0
	Y	89		ug/L			343426	335459	1
	Kr	83		ug/L			315	321	4
>	In	115		ug/L			1011060	961369	1
	Ag	107	49.268	ug/L	0.823	1	23	522870	1
	Cd	111	49.577	ug/L	0.541	1	71	222754	1
	Cd	114	50.474	ug/L	0.597	1	34	564574	0
	Sb	121	48.949	ug/L	0.902	1	36	637954	2
	Sb	123	49.519	ug/L	0.744	1	27	489433	0
>	Tb	159		ug/L			1287275	1252061	1
	Tl	205	49.273	ug/L	0.145	0	39	1891445	1
	Pb	208	49.282	ug/L	0.199	0	312	2461717	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:55:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	55373	4
	Cl	37		ug/L			3296936	3236218	3
>	Sc	45		ug/L			782363	734138	0
	Cr	52	-0.001	ug/L	0.034	6613	23652	22187	2
	Cr	53	0.006	ug/L	0.010	175	110	112	14
	Mn	55	-0.004	ug/L	0.002	37	722	597	4
>	Ge	72		ug/L			588715	569547	1
	Ni	60	-0.002	ug/L	0.002	130	32	25	28
	Ni	62	0.433	ug/L	0.013	2	835	1011	1
	Cu	63	0.026	ug/L	0.003	11	669	850	4
	Cu	65	0.003	ug/L	0.003	88	40	49	16
	Zn	66	-0.033	ug/L	0.007	21	606	518	3
	Zn	67	-0.016	ug/L	0.050	312	97	88	21
	Zn	68	0.034	ug/L	0.012	36	564	595	2
	As	75	0.021	ug/L	0.025	117	11	51	90
	As-1	75	0.251	ug/L	0.098	39	12464	12545	0
	Se	82	0.006	ug/L	0.078	1394	0	1	1208
	Se	78	0.904	ug/L	0.317	35	12659	12719	0
	Y	89		ug/L			343426	333059	4
	Kr	83		ug/L			315	335	6
>	In	115		ug/L			1011060	966399	2
	Ag	107	0.002	ug/L	0.001	36	23	42	16
	Cd	111	0.002	ug/L	0.002	80	71	78	8
	Cd	114	0.000	ug/L	0.001	234	34	36	22
	Sb	121	0.085	ug/L	0.014	16	36	1153	15
	Sb	123	0.084	ug/L	0.016	19	27	856	18
>	Tb	159		ug/L			1287275	1229916	1
	Tl	205	0.004	ug/L	0.001	14	39	193	9
	Pb	208	0.001	ug/L	0.000	46	312	338	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 09:59:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	54430	0
	Cl	37		ug/L			3296936	3105220	1
>	Sc	45		ug/L			782363	708687	3
	Cr	52	0.551	ug/L	0.085	15	23652	28490	1
	Cr	53	0.518	ug/L	0.020	3	110	873	1
	Mn	55	0.526	ug/L	0.039	7	722	10139	3
>	Ge	72		ug/L			588715	552170	0
	Ni	60	0.521	ug/L	0.020	3	32	1670	3
	Ni	62	1.004	ug/L	0.057	5	835	1241	1
	Cu	63	0.551	ug/L	0.013	2	669	4737	1
	Cu	65	0.526	ug/L	0.025	4	40	1783	4
	Zn	66	4.343	ug/L	0.203	4	606	9264	4
	Zn	67	3.771	ug/L	0.077	2	97	1384	1
	Zn	68	4.218	ug/L	0.091	2	564	6531	1
	As	75	0.240	ug/L	0.001	0	11	450	0
	As-1	75	0.610	ug/L	0.026	4	12464	12839	0
	Se	82	0.540	ug/L	0.007	1	0	96	1
	Se	78	1.906	ug/L	0.091	4	12659	12841	0
	Y	89		ug/L			343426	321802	0
	Kr	83		ug/L			315	317	4
>	In	115		ug/L			1011060	937415	2
	Ag	107	0.203	ug/L	0.010	4	23	2117	4
	Cd	111	0.108	ug/L	0.006	5	71	539	6
	Cd	114	0.107	ug/L	0.002	1	34	1202	0
	Sb	121	0.229	ug/L	0.012	5	36	2943	3
	Sb	123	0.231	ug/L	0.014	6	27	2249	5
>	Tb	159		ug/L			1287275	1197406	1
	Tl	205	0.211	ug/L	0.003	1	39	7764	1
	Pb	208	0.105	ug/L	0.003	2	312	5291	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:03:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	104300	0
	Cl	37		ug/L			3296936	9097991	2
>	Sc	45		ug/L			782363	773772	4
	Cr	52	0.585	ug/L	0.117	20	23652	31570	2
	Cr	53	4.660	ug/L	0.087	1	110	7715	2
	Mn	55	0.054	ug/L	0.004	6	722	1770	2
>	Ge	72		ug/L			588715	578427	2
	Ni	60	0.309	ug/L	0.015	4	32	1051	5
	Ni	62	5.898	ug/L	1.375	23	835	3653	20
	Cu	63	1.352	ug/L	0.078	5	669	11226	7
	Cu	65	0.352	ug/L	0.012	3	40	1262	5
	Zn	66	0.899	ug/L	0.045	4	606	2479	0
	Zn	67	7.311	ug/L	0.057	0	97	2722	2
	Zn	68	0.406	ug/L	0.014	3	564	1160	3
	As	75	0.271	ug/L	0.024	8	11	531	5
	As-1	75	0.849	ug/L	0.141	16	12464	13916	0
	Se	82	-0.215	ug/L	0.091	42	0	-39	44
	Se	78	2.278	ug/L	0 465	20	12659	13645	1
	Y	89		ug/L			343426	333359	3
	Kr	83		ug/L			315	515	8
>	In	115		ug/L			1011060	965455	3
	Ag	107	0.017	ug/L	0 000	2	23	199	4
	Cd	111	0.135	ug/L	0.011	8	71	678	9
	Cd	114	0.260	ug/L	0.008	3	34	2951	1
	Sb	121	0.074	ug/L	0 001	1	36	1007	3
	Sb	123	0.073	ug/L	0.008	11	27	747	12
>	Tb	159		ug/L			1287275	1262908	2
	Tl	205	0.027	ug/L	0.001	2	39	1068	0
	Pb	208	0.035	ug/L	0.003	8	312	2071	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:09:04
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	**13**		ug/L			56794	104439	2
	Cl	**37**		ug/L			3296936	9542049	2
>	**Sc**	**45**		ug/L			782363	787215	1
	Cr	**52**	**20.277**	ug/L	0.451	2	23652	313760	1
	Cr	**53**	**24.591**	ug/L	0.375	1	110	40965	2
	Mn	**55**	**20.062**	ug/L	0.228	1	722	402994	0
>	**Ge**	**72**		ug/L			588715	576980	1
	Ni	**60**	**20.643**	ug/L	0.158	0	32	67962	1
	Ni	**62**	**27.534**	ug/L	0.888	3	835	13961	4
	Cu	**63**	**21.086**	ug/L	0.605	2	669	164957	3
	Cu	**65**	**20.592**	ug/L	0.480	2	40	71448	3
	Zn	**66**	**19.809**	ug/L	0.241	1	606	42037	0
	Zn	**67**	**23.693**	ug/L	0.771	3	97	8587	3
	Zn	**68**	**19.283**	ug/L	0.228	1	564	29230	1
	As	**75**	**19.393**	ug/L	0.157	0	11	37124	0
	As-1	**75**	**19.413**	ug/L	0.182	0	12464	50424	0
	Se	**82**	**-0.136**	ug/L	0.018	13	0	-25	13
	Se	**78**	**2.229**	ug/L	0 141	6	12659	13589	1
	Y	**89**		ug/L			343426	328768	1
	Kr	**83**		ug/L			315	504	5
>	**In**	**115**		ug/L			1011060	985567	1
	Ag	**107**	**20.169**	ug/L	0 394	1	23	219415	1
	Cd	**111**	**19.521**	ug/L	0.243	1	71	89954	2
	Cd	**114**	**19.763**	ug/L	0.501	2	34	226585	0
	Sb	**121**	**0.072**	ug/L	0.005	7	36	1003	7
	Sb	**123**	**0.073**	ug/L	0.002	2	27	764	4
>	**Tb**	**159**		ug/L			1287275	1269855	1
	Tl	**205**	**0.026**	ug/L	0.001	3	39	1054	2
	Pb	**208**	**0.037**	ug/L	0.001	3	312	2201	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:15:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	55150	3
	Cl	37		ug/L			3296936	3307199	1
>	Sc	45		ug/L			782363	753187	3
	Cr	52	191.487	ug/L	9.008	4	23652	2640566	1
	Cr	53	186.936	ug/L	8.893	4	110	296952	1
	Mn	55	187.353	ug/L	6.333	3	722	3593018	1
>	Ge	72		ug/L			588715	532735	1
	Ni	60	198.913	ug/L	4.575	2	32	604252	0
	Ni	62	199.004	ug/L	6.445	3	835	88407	1
	Cu	63	194.193	ug/L	6.707	3	669	1397144	2
	Cu	65	195.412	ug/L	7.035	3	40	625435	2
	Zn	66	190.552	ug/L	9.206	4	606	368459	3
	Zn	67	186.977	ug/L	2.991	1	97	61957	2
	Zn	68	195.115	ug/L	9.396	4	564	268278	3
	As	75	200.269	ug/L	4.814	2	11	353801	0
	As-1	75	198.987	ug/L	5.188	2	12464	372805	0
	Se	82	198.125	ug/L	4.821	2	0	33927	1
	Se	78	191.965	ug/L	5.975	3	12659	105471	1
	Y	89		ug/L			343426	318117	2
	Kr	83		ug/L			315	462	9
>	In	115		ug/L			1011060	950276	3
	Ag	107	216.486	ug/L	7.001	3	23	2269844	2
	Cd	111	195.283	ug/L	5.687	2	71	866531	0
	Cd	114	203.136	ug/L	9.829	4	34	2243791	1
	Sb	121	202.640	ug/L	8.510	4	36	2607918	1
	Sb	123	194.926	ug/L	8.115	4	27	1902861	1
>	Tb	159		ug/L			1287275	1205289	2
	Tl	205	196.266	ug/L	4.982	2	39	7249752	0
	Pb	208	197.112	ug/L	6.969	3	312	9472086	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:21:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			56794	55613	0
	Cl	37		ug/L			3296936	3347339	3
>	Sc	45		ug/L			782363	709818	1
	Cr	52	297.071	ug/L	4.905	1	23652	3851902	0
	Cr	53	290.925	ug/L	8.643	2	110	435799	2
	Mn	55	293.441	ug/L	2.181	0	722	5306438	1
>	Ge	72		ug/L			588715	501267	0
	Ni	60	309.750	ug/L	8.649	2	32	885554	2
	Ni	62	308.007	ug/L	4.499	1	835	128402	0
	Cu	63	313.420	ug/L	3.310	1	669	2122186	1
	Cu	65	303.372	ug/L	4.799	1	40	913815	1
	Zn	66	291.370	ug/L	2.469	0	606	530144	0
	Zn	67	286.890	ug/L	1.581	0	97	89407	0
	Zn	68	294.725	ug/L	3.381	1	564	381284	1
	As	75	307.638	ug/L	0.986	0	11	511517	0
	As-1	75	305.719	ug/L	1 334	0	12464	533399	0
	Se	82	303.760	ug/L	2.859	0	0	48959	1
	Se	78	294.632	ug/L	2.306	0	12659	146603	0
	Y	89		ug/L			343426	305486	0
	Kr	83		ug/L			315	573	2
>	In	115		ug/L			1011060	900307	2
	Ag	107	322.653	ug/L	6 633	2	23	3205656	1
	Cd	111	295.694	ug/L	8.079	2	71	1243218	0
	Cd	114	308.576	ug/L	11.420	3	34	3230302	1
	Sb	121	308.251	ug/L	9.194	2	36	3759929	1
	Sb	123	311.063	ug/L	13.238	4	27	2877185	1
>	Tb	159		ug/L			1287275	1161414	1
	Tl	205	297.340	ug/L	5.004	1	39	10586291	0
	Pb	208	294.920	ug/L	5.728	1	312	13661517	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:28:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			56794	55802	1
	Cl	37		ug/L			3296936	3249902	5
>	Sc	45		ug/L			782363	747969	2
	Cr	52	-0.032	ug/L	0.023	73	23652	22175	1
	Cr	53	0.046	ug/L	0.013	27	110	178	8
	Mn	55	0.019	ug/L	0.003	14	722	1057	3
>	Ge	72		ug/L			588715	568706	1
	Ni	60	0.039	ug/L	0.004	9	32	158	7
	Ni	62	3.402	ug/L	0.462	13	835	2405	8
	Cu	63	0.312	ug/L	0.018	5	669	3039	4
	Cu	65	0.122	ug/L	0.004	2	40	454	1
	Zn	66	1.206	ug/L	0.069	5	606	3071	3
	Zn	67	1.093	ug/L	0.133	12	97	480	9
	Zn	68	1.264	ug/L	0.032	2	564	2397	1
	As	75	0.048	ug/L	0.012	24	11	102	20
	As-1	75	0.270	ug/L	0.147	54	12464	12562	0
	Se	82	0.021	ug/L	0.024	111	0	4	103
	Se	78	0.889	ug/L	0.533	59	12659	12691	0
	Y	89		ug/L			343426	326001	1
	Kr	83		ug/L			315	333	4
>	In	115		ug/L			1011060	989809	1
	Ag	107	0.006	ug/L	0.001	17	23	91	11
	Cd	111	0.008	ug/L	0 003	41	71	106	12
	Cd	114	0.004	ug/L	0.002	39	34	81	21
	Sb	121	0.372	ug/L	0.076	20	36	5026	19
	Sb	123	0.378	ug/L	0.058	15	27	3873	14
>	Tb	159		ug/L			1287275	1242893	1
	Tl	205	0.022	ug/L	0 003	13	39	859	12
	Pb	208	0.030	ug/L	0.002	7	312	1780	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:33:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	55487	0
	Cl	37		ug/L			3296936	3505691	1
>	Sc	45		ug/L			782363	776184	2
	Cr	52	49.491	ug/L	1.007	2	23652	721170	1
	Cr	53	50.117	ug/L	0.898	1	110	82174	0
	Mn	55	49.634	ug/L	1.556	3	722	981632	1
>	Ge	72		ug/L			588715	578044	0
	Ni	60	52.076	ug/L	1.128	2	32	171724	2
	Ni	62	53.405	ug/L	0.369	0	835	26353	1
	Cu	63	50.728	ug/L	0.312	0	669	396632	0
	Cu	65	51.869	ug/L	1.571	3	40	180200	2
	Zn	66	51.808	ug/L	1 045	2	606	109198	2
	Zn	67	51.356	ug/L	1.597	3	97	18533	2
	Zn	68	53.359	ug/L	0.674	1	564	80051	0
	As	75	51.158	ug/L	0.771	1	11	98098	1
	As-1	75	51.071	ug/L	0.717	1	12464	112948	1
	Se	82	52.120	ug/L	1.094	2	0	9686	1
	Se	78	51.241	ug/L	0.528	1	12659	39670	0
	Y	89		ug/L			343426	332888	2
	Kr	83		ug/L			315	341	5
>	In	115		ug/L			1011060	994124	2
	Ag	107	52.709	ug/L	0.897	1	23	578283	1
	Cd	111	51.595	ug/L	0.821	1	71	239635	1
	Cd	114	51.352	ug/L	0.749	1	34	593860	1
	Sb	121	50.415	ug/L	1.404	2	36	679025	0
	Sb	123	50.597	ug/L	1.275	2	27	516918	0
>	Tb	159		ug/L			1287275	1270461	1
	Tl	205	50.297	ug/L	0.666	1	39	1958848	0
	Pb	208	50.690	ug/L	0.825	1	312	2568741	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 10:39:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	54425	2
	Cl	37		ug/L			3296936	3209287	2
>	Sc	45		ug/L			782363	761991	6
	Cr	52	-0.042	ug/L	0.115	275	23652	22402	3
	Cr	53	0.021	ug/L	0.015	72	110	140	12
	Mn	55	0.004	ug/L	0.003	81	722	774	9
>	Ge	72		ug/L			588715	575334	2
	Ni	60	0.003	ug/L	0.006	228	32	39	46
	Ni	62	1.852	ug/L	0.103	5	835	1696	2
	Cu	63	0.104	ug/L	0.008	8	669	1465	4
	Cu	65	0.009	ug/L	0.005	61	40	69	25
	Zn	66	0.004	ug/L	0.023	588	606	600	7
	Zn	67	-0.046	ug/L	0.040	86	97	78	19
	Zn	68	0.039	ug/L	0.005	12	564	609	3
	As	75	0.035	ug/L	0.021	61	11	77	50
	As-1	75	0.187	ug/L	0 194	103	12464	12541	0
	Se	82	0.008	ug/L	0.070	884	0	1	765
	Se	78	0.625	ug/L	0.700	112	12659	12696	0
	Y	89		ug/L			343426	334644	2
	Kr	83		ug/L			315	342	6
>	In	115		ug/L			1011060	1003380	1
	Ag	107	0.003	ug/L	0.001	39	23	55	23
	Cd	111	0.005	ug/L	0.003	63	71	95	16
	Cd	114	0.002	ug/L	0.001	64	34	52	22
	Sb	121	0.124	ug/L	0.022	17	36	1720	16
	Sb	123	0.129	ug/L	0.020	15	27	1353	14
>	Tb	159		ug/L			1287275	1264203	0
	Tl	205	0.007	ug/L	0.000	6	39	319	5
	Pb	208	0.004	ug/L	0.001	22	312	490	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 MB1 RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 10:49:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	58076	2
	Cl	37		ug/L			3296936	3265514	0
>	Sc	45		ug/L			782363	753415	1
	Cr	52	-0.023	ug/L	0.044	190	23652	22454	2
	Cr	53	0.031	ug/L	0.008	27	110	155	10
	Mn	55	0.087	ug/L	0.008	9	722	2359	6
>	Ge	72		ug/L			588715	575200	2
	Ni	60	0.016	ug/L	0.003	20	32	85	14
	Ni	62	1.306	ug/L	0.176	13	835	1435	3
	Cu	63	0.127	ug/L	0.007	5	669	1642	2
	Cu	65	0.065	ug/L	0.004	5	40	262	7
	Zn	66	2.036	ug/L	0.113	5	606	4836	4
	Zn	67	1.724	ug/L	0 096	5	97	711	6
	Zn	68	2.088	ug/L	0.030	1	564	3646	1
	As	75	0.040	ug/L	0.006	14	11	87	14
	As-1	75	0.140	ug/L	0.154	110	12464	12446	0
	Se	82	0.012	ug/L	0.059	477	0	2	398
	Se	78	0.448	ug/L	0.603	134	12659	12600	0
	Y	89		ug/L			343426	337759	2
	Kr	83		ug/L			315	349	8
>	In	115		ug/L			1011060	1019970	2
	Ag	107	0.001	ug/L	0.001	61	23	33	18
	Cd	111	0.002	ug/L	0.002	106	71	82	15
	Cd	114	0.002	ug/L	0.001	33	34	53	13
	Sb	121	0.059	ug/L	0.013	22	36	849	23
	Sb	123	0.057	ug/L	0.011	19	27	626	20
>	Tb	159		ug/L			1287275	1278198	2
	Tl	205	0.008	ug/L	0.001	13	39	362	15
	Pb	208	0.028	ug/L	0 005	18	312	1722	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 MB2 RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 10:52:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			56794	56396	2
	Cl	37		ug/L			3296936	3218454	3
>	Sc	45		ug/L			782363	765983	1
	Cr	52	-0.049	ug/L	0.053	109	23652	22477	3
	Cr	53	0.030	ug/L	0.005	18	110	157	7
	Mn	55	0.006	ug/L	0.002	34	722	822	6
>	Ge	72		ug/L			588715	576774	0
	Ni	60	0.012	ug/L	0.002	13	32	69	7
	Ni	62	1.136	ug/L	0.021	1	835	1359	0
	Cu	63	0.123	ug/L	0.004	3	669	1614	1
	Cu	65	0.074	ug/L	0.004	5	40	295	5
	Zn	66	1.279	ug/L	0.059	4	606	3269	4
	Zn	67	1.125	ug/L	0.106	9	97	498	6
	Zn	68	1.290	ug/L	0.042	3	564	2470	2
	As	75	0.034	ug/L	0.010	28	11	76	23
	As-1	75	0.103	ug/L	0.068	65	12464	12413	0
	Se	82	0.011	ug/L	0.017	160	0	2	141
	Se	78	0.319	ug/L	0.240	75	12659	12571	0
	Y	89		ug/L			343426	330014	0
	Kr	83		ug/L			315	343	5
>	In	115		ug/L			1011060	1005592	0
	Ag	107	0.001	ug/L	0.001	81	23	33	24
	Cd	111	0.002	ug/L	0 003	152	71	80	15
	Cd	114	0.001	ug/L	0.000	26	34	51	8
	Sb	121	0.028	ug/L	0.007	23	36	411	22
	Sb	123	0.028	ug/L	0.004	15	27	313	14
>	Tb	159		ug/L			1287275	1267703	0
	Tl	205	0.003	ug/L	0.000	11	39	154	7
	Pb	208	0.082	ug/L	0.001	1	312	4449	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 E RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 10:56:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	57053	2
	Cl	37		ug/L			3296936	3124663	0
>	Sc	45		ug/L			782363	768678	2
	Cr	52	-0.055	ug/L	0.035	63	23652	22470	1
	Cr	53	0.078	ug/L	0.001	1	110	235	1
	Mn	55	0.606	ug/L	0.021	3	722	12576	2
>	Ge	72		ug/L			588715	570349	0
	Ni	60	0.184	ug/L	0.012	6	32	629	6
	Ni	62	1.238	ug/L	0.278	22	835	1393	9
	Cu	63	1.086	ug/L	0.016	1	669	9013	1
	Cu	65	0.989	ug/L	0.047	4	40	3430	4
	Zn	66	2.874	ug/L	0.056	1	606	6531	1
	Zn	67	2.661	ug/L	0.082	3	97	1037	2
	Zn	68	3.646	ug/L	0.017	0	564	5906	0
	As	75	0.153	ug/L	0.020	12	11	301	12
	As-1	75	0.305	ug/L	0.005	1	12464	12668	0
	Se	82	0.051	ug/L	0.057	113	0	9	109
	Se	78	0.683	ug/L	0.057	8	12659	12623	0
	Y	89		ug/L			343426	327375	1
	Kr	83		ug/L			315	346	3
>	In	115		ug/L			1011060	984661	3
	Ag	107	0.002	ug/L	0.000	21	23	47	8
	Cd	111	0.021	ug/L	0.007	35	71	166	17
	Cd	114	0.024	ug/L	0.002	6	34	309	2
	Sb	121	0.034	ug/L	0.005	15	36	494	17
	Sb	123	0.035	ug/L	0.005	13	27	378	14
>	Tb	159		ug/L			1287275	1242247	1
	Tl	205	0.009	ug/L	0.001	11	39	397	9
	Pb	208	0.092	ug/L	0.001	0	312	4865	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 MB1SPK RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:00:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	56559	3
	Cl	37		ug/L			3296936	3225797	6
>	Sc	45		ug/L			782363	774975	1
	Cr	52	4.953	ug/L	0.165	3	23652	93148	1
	Cr	53	4.959	ug/L	0.049	0	110	8218	0
	Mn	55	5.066	ug/L	0.118	2	722	100692	0
>	Ge	72		ug/L			588715	586326	1
	Ni	60	5.069	ug/L	0.139	2	32	16978	1
	Ni	62	6.444	ug/L	0.044	0	835	3956	1
	Cu	63	5.217	ug/L	0.177	3	669	41963	1
	Cu	65	5.193	ug/L	0.148	2	40	18332	1
	Zn	66	16.939	ug/L	0.394	2	606	36611	0
	Zn	67	15.156	ug/L	0.254	1	97	5616	1
	Zn	68	16.568	ug/L	0.173	1	564	25597	0
	As	75	5.221	ug/L	0.022	0	11	10165	1
	As-1	75	5.308	ug/L	0.238	4	12464	23026	0
	Se	82	15.798	ug/L	0.087	0	0	2978	1
	Se	78	14.920	ug/L	0.758	5	12659	20649	0
	Y	89		ug/L			343426	334848	0
	Kr	83		ug/L			315	338	4
>	In	115		ug/L			1011060	991114	0
	Ag	107	5.123	ug/L	0.082	1	23	56071	1
	Cd	111	4.988	ug/L	0.135	2	71	23167	2
	Cd	114	5.008	ug/L	0.082	1	34	57785	1
	Sb	121	0.018	ug/L	0.003	16	36	280	14
	Sb	123	0.019	ug/L	0.004	19	27	216	16
>	Tb	159		ug/L			1287275	1246589	0
	Tl	205	5.016	ug/L	0.104	2	39	191741	1
	Pb	208	5.133	ug/L	0.069	1	312	255526	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 MB2SPK RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:03:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	56915	2
	Cl	37		ug/L			3296936	3135427	3
>	Sc	45		ug/L			782363	757706	5
	Cr	52	4.987	ug/L	0.238	4	23652	91438	2
	Cr	53	5.078	ug/L	0.207	4	110	8214	1
	Mn	55	5.108	ug/L	0.164	3	722	99207	3
>	Ge	72		ug/L			588715	565104	2
	Ni	60	5.309	ug/L	0.080	1	32	17138	1
	Ni	62	6.551	ug/L	0.116	1	835	3863	2
	Cu	63	5.433	ug/L	0.050	0	669	42107	3
	Cu	65	5.325	ug/L	0.043	0	40	18120	2
	Zn	66	18.228	ug/L	0.231	1	606	37931	2
	Zn	67	15.874	ug/L	0.442	2	97	5666	4
	Zn	68	17.805	ug/L	0.309	1	564	26482	3
	As	75	5.446	ug/L	0 181	3	11	10222	5
	As-1	75	5.905	ug/L	0.174	2	12464	23347	2
	Se	82	16.855	ug/L	0.733	4	0	3063	5
	Se	78	17.285	ug/L	0.721	4	12659	21132	2
	Y	89		ug/L			343426	331776	4
	Kr	83		ug/L			315	343	5
>	In	115		ug/L			1011060	990192	5
	Ag	107	5.172	ug/L	0.039	0	23	56545	4
	Cd	111	5.009	ug/L	0.093	1	71	23226	3
	Cd	114	5.073	ug/L	0.030	0	34	58470	4
	Sb	121	0.015	ug/L	0.004	26	36	238	27
	Sb	123	0.015	ug/L	0.002	16	27	180	17
>	Tb	159		ug/L			1287275	1222054	3
	Tl	205	5.147	ug/L	0 044	0	39	192857	2
	Pb	208	5.239	ug/L	0.070	1	312	255645	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU04 DSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 11:07:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			56794	60022	3
	Cl	37		ug/L			3296936	3428318	3
>	Sc	45		ug/L			782363	798117	1
	Cr	52	31.902	ug/L	0.279	0	23652	486754	2
	Cr	53	32.050	ug/L	0.760	2	110	54081	1
	Mn	55	27.503	ug/L	0.276	1	722	559837	1
>	Ge	72		ug/L			588715	567123	2
	Ni	60	37.245	ug/L	0.615	1	32	120480	1
	Ni	62	37.246	ug/L	1.112	2	835	18270	2
	Cu	63	28.414	ug/L	1.316	4	669	218092	2
	Cu	65	27.702	ug/L	0.772	2	40	94403	0
	Zn	66	82.679	ug/L	3.421	4	606	170518	2
	Zn	67	73.266	ug/L	3.209	4	97	25884	1
	Zn	68	83.781	ug/L	2.645	3	564	122961	1
	As	75	29.604	ug/L	0.773	2	11	55681	1
	As-1	75	30.790	ug/L	1.261	4	12464	71542	1
	Se	82	81.371	ug/L	1.562	1	0	14833	1
	Se	78	79.746	ug/L	3.291	4	12659	53763	1
	Y	89		ug/L			343426	334780	2
	Kr	83		ug/L			315	356	11
>	In	115		ug/L			1011060	973476	0
	Ag	107	28.758	ug/L	0.525	1	23	309057	1
	Cd	111	26.379	ug/L	0.467	1	71	120039	1
	Cd	114	26.391	ug/L	0.578	2	34	298938	1
	Sb	121	0.064	ug/L	0.004	6	36	884	6
	Sb	123	0.066	ug/L	0.002	2	27	689	2
>	Tb	159		ug/L			1287275	1257325	1
	Tl	205	26.297	ug/L	0.380	1	39	1013618	0
	Pb	208	26.766	ug/L	0.269	1	312	1342623	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU04 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 11:10:45
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	59146	4
	Cl	37		ug/L			3296936	3199923	1
>	Sc	45		ug/L			782363	746516	2
	Cr	52	25.572	ug/L	0.996	3	23652	369155	1
	Cr	53	25.495	ug/L	1.019	3	110	40240	1
	Mn	55	25.912	ug/L	1.071	4	722	493111	2
>	Ge	72		ug/L			588715	548948	1
	Ni	60	27.207	ug/L	0.917	3	32	85182	1
	Ni	62	28.500	ug/L	1.461	5	835	13711	3
	Cu	63	27.127	ug/L	0.563	2	669	201676	1
	Cu	65	27.522	ug/L	0.791	2	40	90797	1
	Zn	66	85.252	ug/L	2.124	2	606	170241	1
	Zn	67	75.500	ug/L	1.205	1	97	25829	0
	Zn	68	85.023	ug/L	2.018	2	564	120802	1
	As	75	27.065	ug/L	0.133	0	11	49291	1
	As-1	75	28.560	ug/L	0 308	1	12464	65101	1
	Se	82	80.769	ug/L	0.512	0	0	14255	1
	Se	78	80.091	ug/L	1.087	1	12659	52232	0
	Y	89		ug/L			343426	319782	0
	Kr	83		ug/L			315	344	7
>	In	115		ug/L			1011060	958821	1
	Ag	107	26.655	ug/L	0.201	0	23	282149	1
	Cd	111	25.377	ug/L	0.197	0	71	113740	1
	Cd	114	25.921	ug/L	0.211	0	34	289205	1
	Sb	121	0.013	ug/L	0.002	11	36	209	9
	Sb	123	0.014	ug/L	0.002	11	27	163	10
>	Tb	159		ug/L			1287275	1197213	1
	Tl	205	26.186	ug/L	0.187	0	39	961158	0
	Pb	208	26.816	ug/L	0.135	0	312	1280974	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU04 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 11:14:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	59714	2
	Cl	37		ug/L			3296936	3265329	1
>	Sc	45		ug/L			782363	757455	0
	Cr	52	25.322	ug/L	0.302	1	23652	371360	1
	Cr	53	25.381	ug/L	0.756	2	110	40677	3
	Mn	55	25.700	ug/L	0.430	1	722	496574	1
>	Ge	72		ug/L			588715	564963	1
	Ni	60	26.252	ug/L	0.026	0	32	84620	1
	Ni	62	27.097	ug/L	0.161	0	835	13463	1
	Cu	63	26.633	ug/L	0.436	1	669	203813	0
	Cu	65	26.811	ug/L	0.523	1	40	91068	2
	Zn	66	82.889	ug/L	1.827	2	606	170389	2
	Zn	67	72.616	ug/L	1.831	2	97	25574	2
	Zn	68	82.768	ug/L	1.873	2	564	121089	3
	As	75	26.100	ug/L	0.380	1	11	48922	1
	As-1	75	27.753	ug/L	0.387	1	12464	65454	2
	Se	82	77.172	ug/L	0.500	0	0	14018	0
	Se	78	77.399	ug/L	0.353	0	12659	52365	1
	Y	89		ug/L			343426	326852	0
	Kr	83		ug/L			315	364	2
>	In	115		ug/L			1011060	971910	2
	Ag	107	26.681	ug/L	0.708	2	23	286189	2
	Cd	111	25.651	ug/L	0.329	1	71	116519	1
	Cd	114	25.453	ug/L	0.612	2	34	287744	0
	Sb	121	0.013	ug/L	0.002	14	36	209	12
	Sb	123	0.013	ug/L	0.001	8	27	154	8
>	Tb	159		ug/L			1287275	1239826	1
	Tl	205	25.431	ug/L	0 199	0	39	966685	0
	Pb	208	26.040	ug/L	0.149	0	312	1288109	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT81 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, June 21, 2013 11:17:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	57610	1
	Cl	37		ug/L			3296936	3189898	1
>	Sc	45		ug/L			782363	752288	2
	Cr	52	25.866	ug/L	0.179	0	23652	376241	1
	Cr	53	26.308	ug/L	0.700	2	110	41861	2
	Mn	55	26.765	ug/L	0.566	2	722	513474	1
>	Ge	72		ug/L			588715	557009	1
	Ni	60	28.054	ug/L	0.751	2	32	89141	2
	Ni	62	28.133	ug/L	0 381	1	835	13751	2
	Cu	63	27.797	ug/L	0.696	2	669	209706	2
	Cu	65	28.040	ug/L	0.224	0	40	93886	0
	Zn	66	88.041	ug/L	0.853	0	606	178409	1
	Zn	67	79.076	ug/L	2.429	3	97	27450	3
	Zn	68	87.361	ug/L	2.733	3	564	125924	1
	As	75	27.854	ug/L	0.324	1	11	51469	1
	As-1	75	29.352	ug/L	0.252	0	12464	67564	0
	Se	82	84.508	ug/L	0.550	0	0	15134	1
	Se	78	83.512	ug/L	0.283	0	12659	54756	1
	Y	89		ug/L			343426	318538	2
	Kr	83		ug/L			315	354	7
>	In	115		ug/L			1011060	984135	1
	Ag	107	27.288	ug/L	0.553	2	23	296458	2
	Cd	111	26.100	ug/L	0 685	2	71	120035	0
	Cd	114	26.355	ug/L	0.225	0	34	301796	1
	Sb	121	25.231	ug/L	0 145	0	36	336590	1
	Sb	123	25.496	ug/L	0.497	1	27	257955	1
>	Tb	159		ug/L			1287275	1217952	1
	Tl	205	26.749	ug/L	0.414	1	39	998713	0
	Pb	208	27.106	ug/L	0.234	0	312	1317085	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WT86 MBSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, June 21, 2013 11:21:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			56794	58768	3
	Cl	37		ug/L			3296936	3322402	4
>	Sc	45		ug/L			782363	772664	3
	Cr	52	24.966	ug/L	0.693	2	23652	373634	2
	Cr	53	25.050	ug/L	0.705	2	110	40933	2
	Mn	55	25.385	ug/L	0.933	3	722	499907	0
>	Ge	72		ug/L			588715	576943	3
	Ni	60	26.352	ug/L	1 104	4	32	86668	1
	Ni	62	26.697	ug/L	0.550	2	835	13552	1
	Cu	63	26.194	ug/L	0.517	1	669	204648	1
	Cu	65	26.418	ug/L	0.395	1	40	91625	3
	Zn	66	83.564	ug/L	0.869	1	606	175392	2
	Zn	67	74.804	ug/L	1.911	2	97	26888	1
	Zn	68	81.494	ug/L	0.871	1	564	121717	2
	As	75	26.395	ug/L	0.690	2	11	50499	1
	As-1	75	27.795	ug/L	1.088	3	12464	66875	0
	Se	82	80.043	ug/L	1.485	1	0	14845	2
	Se	78	79.024	ug/L	2.674	3	12659	54304	0
	Y	89		ug/L			343426	331787	3
	Kr	83		ug/L			315	357	1
>	In	115		ug/L			1011060	983395	1
	Ag	107	26.946	ug/L	0.600	2	23	292622	4
	Cd	111	25.787	ug/L	0.203	0	71	118535	1
	Cd	114	25.837	ug/L	0.616	2	34	295626	2
	Sb	121	25.429	ug/L	0.024	0	36	339007	1
	Sb	123	25.649	ug/L	0.406	1	27	259305	0
>	Tb	159		ug/L			1287275	1251034	1
	Tl	205	25.471	ug/L	0.547	2	39	976927	2
	Pb	208	25.984	ug/L	0 387	1	312	1296915	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 11:26:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	54004	2
	Cl	37		ug/L			3296936	3328002	2
>	Sc	45		ug/L			782363	724879	1
	Cr	52	50.882	ug/L	0.609	1	23652	691908	0
	Cr	53	51.832	ug/L	1.333	2	110	79367	0
	Mn	55	51.777	ug/L	1.701	3	722	956400	1
>	Ge	72		ug/L			588715	557904	2
	Ni	60	51.552	ug/L	1.653	3	32	163996	1
	Ni	62	51.836	ug/L	0.517	0	835	24708	1
	Cu	63	50.854	ug/L	0.922	1	669	383724	2
	Cu	65	51.548	ug/L	1.567	3	40	172785	1
	Zn	66	51.128	ug/L	0.208	0	606	104018	2
	Zn	67	50.984	ug/L	0.801	1	97	17756	1
	Zn	68	53.443	ug/L	1.319	2	564	77360	0
	As	75	51.703	ug/L	0.900	1	11	95667	0
	As-1	75	51.789	ug/L	1.004	1	12464	110352	0
	Se	82	52.233	ug/L	0.803	1	0	9368	1
	Se	78	52.099	ug/L	1.129	2	12659	38720	0
	Y	89		ug/L			343426	317348	1
	Kr	83		ug/L			315	371	7
>	In	115		ug/L			1011060	960644	1
	Ag	107	53.747	ug/L	1.161	2	23	569861	0
	Cd	111	51.443	ug/L	0.386	0	71	230932	0
	Cd	114	52.265	ug/L	0.609	1	34	584147	0
	Sb	121	50.818	ug/L	0.543	1	36	661680	0
	Sb	123	51.153	ug/L	1.045	2	27	505143	0
>	Tb	159		ug/L			1287275	1219673	1
	Tl	205	50.544	ug/L	0 559	1	39	1889919	0
	Pb	208	51.464	ug/L	0.893	1	312	2503788	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 11:32:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	54381	1
	Cl	37		ug/L			3296936	3274324	3
>	Sc	45		ug/L			782363	741934	1
	Cr	52	-0.025	ug/L	0.030	121	23652	22094	0
	Cr	53	0.011	ug/L	0.007	63	110	122	8
	Mn	55	0.002	ug/L	0.002	83	722	729	3
>	Ge	72		ug/L			588715	553708	1
	Ni	60	0.001	ug/L	0.004	530	32	32	36
	Ni	62	1.326	ug/L	0.099	7	835	1392	2
	Cu	63	0.065	ug/L	0.009	13	669	1112	4
	Cu	65	0.005	ug/L	0.003	55	40	53	16
	Zn	66	-0.015	ug/L	0.007	46	606	540	2
	Zn	67	-0.047	ug/L	0.006	12	97	75	3
	Zn	68	0.041	ug/L	0.030	73	564	588	6
	As	75	0.053	ug/L	0.006	10	11	108	8
	As-1	75	0.266	ug/L	0.052	19	12464	12224	0
	Se	82	0.004	ug/L	0.008	198	0	1	147
	Se	78	0.883	ug/L	0.200	22	12659	12355	0
	Y	89		ug/L			343426	319687	0
	Kr	83		ug/L			315	351	4
>	In	115		ug/L			1011060	966409	1
	Ag	107	0.003	ug/L	0.002	64	23	57	40
	Cd	111	0.004	ug/L	0.000	8	71	86	2
	Cd	114	0.002	ug/L	0.001	35	34	59	16
	Sb	121	0.082	ug/L	0.020	23	36	1108	21
	Sb	123	0.083	ug/L	0.017	20	27	852	18
>	Tb	159		ug/L			1287275	1217690	0
	Tl	205	0.005	ug/L	0.000	7	39	209	5
	Pb	208	0.005	ug/L	0.001	25	312	549	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 F RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:36:10
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	57675	1
	Cl	37		ug/L			3296936	3193437	1
>	Sc	45		ug/L			782363	802493	4
	Cr	52	-0.078	ug/L	0 089	114	23652	23097	3
	Cr	53	0.069	ug/L	0 007	10	110	229	2
	Mn	55	0.119	ug/L	0 004	3	722	3171	3
>	Ge	72		ug/L			588715	582868	5
	Ni	60	0.113	ug/L	0 002	1	32	407	4
	Ni	62	1.054	ug/L	0 193	18	835	1331	2
	Cu	63	1.829	ug/L	0.048	2	669	15042	2
	Cu	65	1.729	ug/L	0.058	3	40	6087	2
	Zn	66	2.448	ug/L	0 071	2	606	5773	4
	Zn	67	2.276	ug/L	0.128	5	97	919	2
	Zn	68	3.186	ug/L	0 106	3	564	5340	2
	As	75	0.057	ug/L	0.010	17	11	121	19
	As-1	75	0.100	ug/L	0 232	231	12464	12524	1
	Se	82	0.039	ug/L	0 052	135	0	7	128
	Se	78	0.282	ug/L	0 909	322	12659	12668	1
	Y	89		ug/L			343426	333871	4
	Kr	83		ug/L			315	366	1
>	In	115		ug/L			1011060	1003590	3
	Ag	107	0.002	ug/L	0.001	59	23	47	32
	Cd	111	0.003	ug/L	0.004	126	71	86	20
	Cd	114	0.005	ug/L	0.001	24	34	96	12
	Sb	121	0.039	ug/L	0.005	11	36	567	14
	Sb	123	0.038	ug/L	0 003	7	27	421	10
>	Tb	159		ug/L			1287275	1255742	1
	Tl	205	0.009	ug/L	0 001	8	39	375	7
	Pb	208	0.025	ug/L	0 001	2	312	1567	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 G RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:39:45
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	54719	0
	Cl	37		ug/L			3296936	3193134	5
>	Sc	45		ug/L			782363	759918	2
	Cr	52	0.692	ug/L	0.029	4	23652	32524	1
	Cr	53	0.808	ug/L	0.019	2	110	1402	1
	Mn	55	13.215	ug/L	0 379	2	722	256509	3
>	Ge	72		ug/L			588715	556705	0
	Ni	60	0.608	ug/L	0 023	3	32	1960	3
	Ni	62	2.033	ug/L	0 076	3	835	1725	2
	Cu	63	35.967	ug/L	0.542	1	669	271014	1
	Cu	65	36.316	ug/L	1.093	3	40	121530	3
	Zn	66	62.284	ug/L	0.608	0	606	126314	1
	Zn	67	57.090	ug/L	0 742	1	97	19832	0
	Zn	68	62.202	ug/L	1.434	2	564	89792	2
	As	75	0.183	ug/L	0.012	6	11	349	5
	As-1	75	0.405	ug/L	0 015	3	12464	12555	0
	Se	82	0.399	ug/L	0 087	21	0	71	21
	Se	78	1.287	ug/L	0 075	5	12659	12630	0
	Y	89		ug/L			343426	323791	1
	Kr	83		ug/L			315	359	2
>	In	115		ug/L			1011060	961163	0
	Ag	107	0.026	ug/L	0.001	4	23	300	4
	Cd	111	0.553	ug/L	0 016	2	71	2550	3
	Cd	114	0.547	ug/L	0 013	2	34	6152	2
	Sb	121	0.116	ug/L	0.003	2	36	1546	2
	Sb	123	0.117	ug/L	0.005	4	27	1186	3
>	Tb	159		ug/L			1287275	1226860	1
	Tl	205	0.024	ug/L	0.001	4	39	937	4
	Pb	208	3.708	ug/L	0 014	0	312	181773	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 T RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:43:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	57591	1
	Cl	37		ug/L			3296936	3228056	0
>	Sc	45		ug/L			782363	803383	1
	Cr	52	-0.098	ug/L	0 068	69	23652	22847	3
	Cr	53	0.056	ug/L	0 017	31	110	207	13
	Mn	55	0.430	ug/L	0 008	1	722	9536	0
>	Ge	72		ug/L			588715	587097	0
	Ni	60	0.556	ug/L	0 012	2	32	1894	1
	Ni	62	1.557	ug/L	0 158	10	835	1589	5
	Cu	63	1.150	ug/L	0.048	4	669	9782	3
	Cu	65	1.055	ug/L	0.033	3	40	3761	2
	Zn	66	3.394	ug/L	0.084	2	606	7829	1
	Zn	67	3.042	ug/L	0 072	2	97	1206	1
	Zn	68	4.085	ug/L	0.088	2	564	6744	2
	As	75	0.120	ug/L	0.015	12	11	244	11
	As-1	75	0.106	ug/L	0 031	29	12464	12642	0
	Se	82	0.072	ug/L	0 042	57	0	13	56
	Se	78	0.108	ug/L	0 078	72	12659	12683	0
	Y	89		ug/L			343426	339831	2
	Kr	83		ug/L			315	369	1
>	In	115		ug/L			1011060	1028586	1
	Ag	107	0.002	ug/L	0.000	16	23	52	9
	Cd	111	0.023	ug/L	0.002	9	71	182	6
	Cd	114	0.023	ug/L	0 001	3	34	306	3
	Sb	121	0.024	ug/L	0 004	16	36	367	14
	Sb	123	0.024	ug/L	0 004	15	27	277	13
>	Tb	159		ug/L			1287275	1279105	1
	Tl	205	0.005	ug/L	0 002	40	39	226	31
	Pb	208	0.041	ug/L	0.004	10	312	2374	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 U RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:46:56
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			56794	57333	1
	Cl	37		ug/L			3296936	3316828	3
>	Sc	45		ug/L			782363	790386	4
	Cr	52	-0.084	ug/L	0 060	70	23652	22658	0
	Cr	53	0.065	ug/L	0 008	11	110	220	8
	Mn	55	0.156	ug/L	0.011	7	722	3859	3
>	Ge	72		ug/L			588715	570284	3
	Ni	60	0.144	ug/L	0.004	2	32	499	4
	Ni	62	1.247	ug/L	0.143	11	835	1395	0
	Cu	63	2.483	ug/L	0 060	2	669	19761	1
	Cu	65	2.467	ug/L	0.130	5	40	8484	2
	Zn	66	3.173	ug/L	0.029	0	606	7147	3
	Zn	67	2.982	ug/L	0.048	1	97	1150	2
	Zn	68	3.987	ug/L	0 146	3	564	6401	0
	As	75	0.051	ug/L	0 014	26	11	107	19
	As-1	75	0.156	ug/L	0 269	172	12464	12363	0
	Se	82	0.073	ug/L	0 016	22	0	13	17
	Se	78	0.535	ug/L	0 982	183	12659	12530	0
	Y	89		ug/L			343426	336826	3
	Kr	83		ug/L			315	356	1
>	In	115		ug/L			1011060	1003496	2
	Ag	107	0.001	ug/L	0 001	101	23	35	35
	Cd	111	0.006	ug/L	0 001	12	71	98	4
	Cd	114	0.008	ug/L	0.000	4	34	125	0
	Sb	121	0.018	ug/L	0 003	16	36	273	12
	Sb	123	0.019	ug/L	0 001	6	27	219	7
>	Tb	159		ug/L			1287275	1238927	2
	Tl	205	0.004	ug/L	0 000	9	39	197	7
	Pb	208	0.024	ug/L	0 001	3	312	1469	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 V RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 21, 2013 11:50:31
Number of Replicates: 3
Method File: C.\NexIONData\Method\200.8GFA7++ mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	55006	3
	Cl	37		ug/L			3296936	3119894	1
>	Sc	45		ug/L			782363	773078	2
	Cr	52	0.428	ug/L	0 044	10	23652	29383	3
	Cr	53	0.536	ug/L	0 009	1	110	984	3
	Mn	55	8.264	ug/L	0 249	3	722	163379	0
>	Ge	72		ug/L			588715	548050	1
	Ni	60	0.540	ug/L	0 003	0	32	1716	0
	Ni	62	1.759	ug/L	0.113	6	835	1574	1
	Cu	63	6.021	ug/L	0.098	1	669	45180	1
	Cu	65	6.105	ug/L	0.128	2	40	20137	0
	Zn	66	43.436	ug/L	1.162	2	606	86865	1
	Zn	67	39.957	ug/L	0 282	0	97	13692	1
	Zn	68	44.610	ug/L	0 447	1	564	63535	0
	As	75	0.122	ug/L	0 018	14	11	233	15
	As-1	75	0.386	ug/L	0.015	4	12464	12325	1
	Se	82	0.347	ug/L	0 063	18	0	61	18
	Se	78	1.400	ug/L	0 111	7	12659	12490	1
	Y	89		ug/L			343426	324975	1
	Kr	83		ug/L			315	358	6
>	In	115		ug/L			1011060	990108	0
	Ag	107	0.001	ug/L	0 001	109	23	35	37
	Cd	111	0.431	ug/L	0 016	3	71	2064	3
	Cd	114	0.432	ug/L	0 005	1	34	5012	1
	Sb	121	0.098	ug/L	0.006	6	36	1347	5
	Sb	123	0.098	ug/L	0.006	5	27	1026	5
>	Tb	159		ug/L			1287275	1251682	1
	Tl	205	0.019	ug/L	0.002	10	39	778	8
	Pb	208	0.055	ug/L	0 001	2	312	3069	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 A RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 21, 2013 11:54:06
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	53434	1
	Cl	37		ug/L			3296936	3130685	2
>	Sc	45		ug/L			782363	738183	0
	Cr	52	-0.130	ug/L	0 082	63	23652	20580	5
	Cr	53	0.032	ug/L	0.002	7	110	153	1
	Mn	55	1.725	ug/L	0 015	0	722	33127	1
>	Ge	72		ug/L			588715	542251	0
	Ni	60	0.374	ug/L	0.017	4	32	1186	3
	Ni	62	1.540	ug/L	0.050	3	835	1459	2
	Cu	63	138.603	ug/L	3 900	2	669	1015599	3
	Cu	65	142.402	ug/L	2.381	1	40	464008	1
	Zn	66	95.774	ug/L	1 010	1	606	188874	0
	Zn	67	82.876	ug/L	1 811	2	97	28002	2
	Zn	68	95.916	ug/L	1.098	1	564	134570	0
	As	75	0.052	ug/L	0.007	14	11	103	13
	As-1	75	0.332	ug/L	0.055	16	12464	12095	0
	Se	82	0.002	ug/L	0.062	3064	0	0	1576
	Se	78	1.160	ug/L	0 201	17	12659	12238	0
	Y	89		ug/L			343426	312592	1
	Kr	83		ug/L			315	362	5
>	In	115		ug/L			1011060	967616	1
	Ag	107	0.005	ug/L	0 001	17	23	79	10
	Cd	111	0.748	ug/L	0.028	3	71	3448	2
	Cd	114	0.746	ug/L	0 018	2	34	8433	1
	Sb	121	0.008	ug/L	0 003	36	36	136	25
	Sb	123	0.008	ug/L	0 002	18	27	107	13
>	Tb	159		ug/L			1287275	1196858	0
	Tl	205	0.008	ug/L	0 000	0	39	342	0
	Pb	208	1.232	ug/L	0.018	1	312	59121	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 B RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 21, 2013 11:57:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			56794	53494	2
	Cl	37		ug/L			3296936	3150511	4
>	Sc	45		ug/L			782363	734538	1
	Cr	52	-0.123	ug/L	0 039	31	23652	20565	2
	Cr	53	0.031	ug/L	0 002	7	110	152	2
	Mn	55	10.097	ug/L	0 270	2	722	189542	1
>	Ge	72		ug/L			588715	542356	2
	Ni	60	0.370	ug/L	0 014	3	32	1173	2
	Ni	62	1.544	ug/L	0.078	5	835	1461	0
	Cu	63	116.198	ug/L	2.524	2	669	851413	0
	Cu	65	119.532	ug/L	4 040	3	40	389421	1
	Zn	66	58.775	ug/L	1.487	2	606	116113	0
	Zn	67	51.780	ug/L	0.733	1	97	17530	1
	Zn	68	60.249	ug/L	1.989	3	564	84707	1
	As	75	0.060	ug/L	0.012	19	11	119	17
	As-1	75	0.240	ug/L	0 161	67	12464	11922	0
	Se	82	0.132	ug/L	0 036	27	0	23	27
	Se	78	0.871	ug/L	0 577	66	12659	12093	0
	Y	89		ug/L			343426	315136	1
	Kr	83		ug/L			315	343	5
>	In	115		ug/L			1011060	960855	1
	Ag	107	0.001	ug/L	0 001	88	23	35	32
	Cd	111	0.479	ug/L	0.004	0	71	2217	1
	Cd	114	0.466	ug/L	0 010	2	34	5245	1
	Sb	121	0.007	ug/L	0.002	27	36	120	19
	Sb	123	0.007	ug/L	0 003	41	27	100	31
>	Tb	159		ug/L			1287275	1225970	0
	Tl	205	0.007	ug/L	0 000	3	39	285	3
	Pb	208	0.188	ug/L	0 002	1	312	9505	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 H RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 21, 2013 12:01:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File. C.\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113 cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			56794	53999	3
	Cl	37		ug/L			3296936	3106871	1
>	Sc	45		ug/L			782363	717519	0
	Cr	52	-0.034	ug/L	0 077	223	23652	21241	3
	Cr	53	0.083	ug/L	0.011	13	110	227	6
	Mn	55	5.552	ug/L	0.093	1	722	102135	1
>	Ge	72		ug/L			588715	547131	0
	Ni	60	0.349	ug/L	0.013	3	32	1118	3
	Ni	62	1.400	ug/L	0 157	11	835	1409	4
	Cu	63	145.756	ug/L	2 462	1	669	1077516	1
	Cu	65	145.181	ug/L	5 528	3	40	477291	3
	Zn	66	80.061	ug/L	2 055	2	606	159396	2
	Zn	67	71.110	ug/L	0 169	0	97	24256	0
	Zn	68	79.243	ug/L	1 317	1	564	112274	1
	As	75	0.273	ug/L	0 012	4	11	505	3
	As-1	75	0.435	ug/L	0 045	10	12464	12395	0
	Se	82	0.020	ug/L	0 052	259	0	3	243
	Se	78	0.732	ug/L	0 144	19	12659	12133	0
	Y	89		ug/L			343426	314338	1
	Kr	83		ug/L			315	347	3
>	In	115		ug/L			1011060	964823	0
	Ag	107	0.001	ug/L	0 001	67	23	32	20
	Cd	111	0.678	ug/L	0.016	2	71	3125	2
	Cd	114	0.675	ug/L	0 012	1	34	7605	1
	Sb	121	0.011	ug/L	0.002	20	36	174	16
	Sb	123	0.011	ug/L	0.002	14	27	131	11
>	Tb	159		ug/L			1287275	1217077	0
	Tl	205	0.002	ug/L	0 000	8	39	106	5
	Pb	208	0.060	ug/L	0.001	1	312	3186	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 L RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 21, 2013 12:04:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	54137	3
	Cl	37		ug/L			3296936	3136312	2
>	Sc	45		ug/L			782363	720283	2
	Cr	52	-0.049	ug/L	0 037	75	23652	21126	1
	Cr	53	0.033	ug/L	0.001	3	110	152	2
	Mn	55	5.213	ug/L	0 087	1	722	96283	0
>	Ge	72		ug/L			588715	540954	0
	Ni	60	0.686	ug/L	0 038	5	32	2145	4
	Ni	62	1.654	ug/L	0.069	4	835	1507	1
	Cu	63	187.658	ug/L	1 408	0	669	1371480	1
	Cu	65	191.179	ug/L	3 786	1	40	621468	1
	Zn	66	197.514	ug/L	4.502	2	606	387964	1
	Zn	67	170.565	ug/L	4 672	2	97	57391	1
	Zn	68	194.876	ug/L	5 471	2	564	272204	2
	As	75	0.048	ug/L	0.006	12	11	96	12
	As-1	75	0.266	ug/L	0.027	10	12464	11943	0
	Se	82	0.004	ug/L	0 035	788	0	1	608
	Se	78	0.922	ug/L	0.110	11	12659	12091	0
	Y	89		ug/L			343426	313884	2
	Kr	83		ug/L			315	357	7
>	In	115		ug/L			1011060	973195	1
	Ag	107	0.003	ug/L	0.001	27	23	50	15
	Cd	111	0.995	ug/L	0.016	1	71	4592	2
	Cd	114	0.990	ug/L	0.025	2	34	11236	0
	Sb	121	0.005	ug/L	0 002	42	36	100	27
	Sb	123	0.006	ug/L	0 002	27	27	85	18
>	Tb	159		ug/L			1287275	1203811	1
	Tl	205	0.004	ug/L	0.000	10	39	178	6
	Pb	208	0.021	ug/L	0 001	5	312	1287	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WS79 M RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 21, 2013 12:08:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	54890	2
	Cl	37		ug/L			3296936	3282038	1
>	Sc	45		ug/L			782363	766479	2
	Cr	52	-0.086	ug/L	0 052	60	23652	21963	2
	Cr	53	0.026	ug/L	0.011	41	110	149	11
	Mn	55	5.208	ug/L	0.191	3	722	102348	2
>	Ge	72		ug/L			588715	566826	0
	Ni	60	0.698	ug/L	0 018	2	32	2287	2
	Ni	62	1.665	ug/L	0.093	5	835	1584	2
	Cu	63	191.592	ug/L	2 664	1	669	1467231	1
	Cu	65	192.600	ug/L	2 004	1	40	656048	0
	Zn	66	198.921	ug/L	1.924	0	606	409468	1
	Zn	67	171.992	ug/L	4 539	2	97	60644	2
	Zn	68	195.145	ug/L	5.885	3	564	285670	3
	As	75	0.056	ug/L	0.005	8	11	116	7
	As-1	75	0.043	ug/L	0 067	154	12464	12084	1
	Se	82	0.042	ug/L	0.045	107	0	7	103
	Se	78	0.089	ug/L	0 248	277	12659	12235	0
	Y	89		ug/L			343426	331597	2
	Kr	83		ug/L			315	364	3
>	In	115		ug/L			1011060	1005051	1
	Ag	107	0.003	ug/L	0.001	29	23	55	16
	Cd	111	1.018	ug/L	0 015	1	71	4850	1
	Cd	114	1.002	ug/L	0.013	1	34	11756	2
	Sb	121	0.005	ug/L	0 002	33	36	109	23
	Sb	123	0.004	ug/L	0.002	42	27	70	26
>	Tb	159		ug/L			1287275	1246460	1
	Tl	205	0.005	ug/L	0.000	5	39	211	4
	Pb	208	0.011	ug/L	0 000	2	312	839	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 12:13:08
Number of Replicates: 3
Method File. C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C.\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	52929	1
	Cl	37		ug/L			3296936	3310263	3
>	Sc	45		ug/L			782363	738371	4
	Cr	52	48.338	ug/L	1.586	3	23652	670147	1
	Cr	53	48.894	ug/L	1.515	3	110	76241	2
	Mn	55	49.405	ug/L	0 551	1	722	929688	3
>	Ge	72		ug/L			588715	548947	2
	Ni	60	50.709	ug/L	1 458	2	32	158727	1
	Ni	62	49.849	ug/L	0.524	1	835	23408	1
	Cu	63	51.172	ug/L	0 886	1	669	380036	3
	Cu	65	50.768	ug/L	0 440	0	40	167513	2
	Zn	66	50.274	ug/L	1.130	2	606	100635	3
	Zn	67	49.725	ug/L	0.916	1	97	17047	3
	Zn	68	51.936	ug/L	0.999	1	564	73998	2
	As	75	50.818	ug/L	0.588	1	11	92536	2
	As-1	75	50.334	ug/L	0 599	1	12464	105875	2
	Se	82	52.316	ug/L	0 505	0	0	9233	1
	Se	78	49.968	ug/L	0.566	1	12659	37027	2
	Y	89		ug/L			343426	319355	1
	Kr	83		ug/L			315	359	1
>	In	115		ug/L			1011060	972139	1
	Ag	107	54.699	ug/L	0 842	1	23	587107	2
	Cd	111	50.776	ug/L	0 624	1	71	230711	2
	Cd	114	51.053	ug/L	0 725	1	34	577518	2
	Sb	121	49.855	ug/L	0.439	0	36	657037	2
	Sb	123	49.739	ug/L	0.529	1	27	497126	1
>	Tb	159		ug/L			1287275	1224430	1
	Tl	205	50.139	ug/L	1 378	2	39	1882157	2
	Pb	208	50.532	ug/L	0 907	1	312	2468316	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 12:19:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113 cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			56794	54024	3
	Cl	37		ug/L			3296936	3231107	3
>	Sc	45		ug/L			782363	718252	1
	Cr	52	-0.070	ug/L	0.071	101	23652	20793	2
	Cr	53	0.021	ug/L	0.013	59	110	133	12
	Mn	55	-0.002	ug/L	0.003	219	722	635	11
>	Ge	72		ug/L			588715	543401	0
	Ni	60	0.001	ug/L	0.002	234	32	32	20
	Ni	62	0.965	ug/L	0.072	7	835	1204	3
	Cu	63	0.055	ug/L	0 007	12	669	1022	4
	Cu	65	0.008	ug/L	0.009	112	40	64	47
	Zn	66	-0.018	ug/L	0.009	50	606	524	3
	Zn	67	-0.043	ug/L	0 011	26	97	75	5
	Zn	68	0.039	ug/L	0 008	20	564	575	1
	As	75	0.049	ug/L	0 014	29	11	99	26
	As-1	75	0.306	ug/L	0 041	13	12464	12072	0
	Se	82	-0.034	ug/L	0 008	23	0	-5	24
	Se	78	1.048	ug/L	0.147	14	12659	12208	0
	Y	89		ug/L			343426	314418	1
	Kr	83		ug/L			315	368	3
>	In	115		ug/L			1011060	967259	1
	Ag	107	0.010	ug/L	0 014	142	23	126	118
	Cd	111	0.010	ug/L	0.011	110	71	116	46
	Cd	114	0.007	ug/L	0 011	166	34	108	115
	Sb	121	0.084	ug/L	0 022	25	36	1142	26
	Sb	123	0.084	ug/L	0.020	24	27	859	25
>	Tb	159		ug/L			1287275	1206818	0
	Tl	205	0.008	ug/L	0 008	99	39	319	88
	Pb	208	0.006	ug/L	0.006	99	312	597	51

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:25:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	57123	1
	Cl	37		ug/L			3296936	3367098	4
>	Sc	45		ug/L			782363	716914	2
	Cr	52	0.033	ug/L	0.029	86	23652	22109	3
	Cr	53	0.026	ug/L	0.008	31	110	140	9
	Mn	55	0.086	ug/L	0 005	6	722	2231	4
>	Ge	72		ug/L			588715	544129	2
	Ni	60	0.011	ug/L	0 002	17	32	63	8
	Ni	62	0.937	ug/L	0 065	6	835	1193	0
	Cu	63	0.071	ug/L	0 003	3	669	1139	0
	Cu	65	0.023	ug/L	0.003	14	40	112	10
	Zn	66	0.327	ug/L	0.014	4	606	1205	1
	Zn	67	0.282	ug/L	0 014	4	97	185	2
	Zn	68	0.364	ug/L	0 031	8	564	1032	2
	As	75	0.046	ug/L	0.014	29	11	92	24
	As-1	75	0.395	ug/L	0.068	17	12464	12251	1
	Se	82	0.018	ug/L	0 025	136	0	3	127
	Se	78	1.422	ug/L	0 243	17	12659	12410	1
	Y	89		ug/L			343426	313278	2
	Kr	83		ug/L			315	360	2
>	In	115		ug/L			1011060	957509	1
	Ag	107	0.003	ug/L	0 003	87	23	55	52
	Cd	111	0.004	ug/L	0.003	70	71	86	14
	Cd	114	0.001	ug/L	0.003	180	34	48	57
	Sb	121	0.027	ug/L	0 006	23	36	388	22
	Sb	123	0.026	ug/L	0 005	18	27	285	18
>	Tb	159		ug/L			1287275	1194561	1
	Tl	205	0.006	ug/L	0.001	20	39	242	18
	Pb	208	0.009	ug/L	0 001	12	312	711	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:29:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	51203	0
	Cl	37		ug/L			3296936	5748195	5
>	Sc	45		ug/L			782363	686615	1
	Cr	52	0.257	ug/L	0.087	33	23652	23948	2
	Cr	53	3.146	ug/L	0 113	3	110	4654	3
	Mn	55	5.329	ug/L	0.175	3	722	93800	1
>	Ge	72		ug/L			588715	482182	3
	Ni	60	0.191	ug/L	0 008	4	32	550	2
	Ni	62	153.286	ug/L	47 213	30	835	62208	33
	Cu	63	35.933	ug/L	4 613	12	669	235147	15
	Cu	65	0.928	ug/L	0 066	7	40	2726	9
	Zn	66	1.090	ug/L	0 028	2	606	2401	1
	Zn	67	4.032	ug/L	0 060	1	97	1287	2
	Zn	68	3.698	ug/L	0.059	1	564	5057	2
	As	75	5.141	ug/L	0.027	0	11	8231	2
	As-1	75	7.757	ug/L	0.536	6	12464	22986	6
	Se	82	-0.475	ug/L	0 168	35	0	-73	38
	Se	78	10.498	ug/L	1.971	18	12659	15042	8
	Y	89		ug/L			343426	310285	1
	Kr	83		ug/L			315	665	9
>	In	115		ug/L			1011060	797317	3
	Ag	107	0.003	ug/L	0 001	33	23	45	18
	Cd	111	-0.062	ug/L	0.025	40	71	-171	52
	Cd	114	0.005	ug/L	0 001	27	34	72	18
	Sb	121	1.280	ug/L	0 034	2	36	13854	1
	Sb	123	1.291	ug/L	0 029	2	27	10595	1
>	Tb	159		ug/L			1287275	1116103	1
	Tl	205	0.008	ug/L	0 001	12	39	306	11
	Pb	208	0.057	ug/L	0.002	4	312	2787	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:32:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	55083	1
	Cl	37		ug/L			3296936	7244176	2
>	Sc	45		ug/L			782363	755725	1
	Cr	52	3.912	ug/L	0 101	2	23652	76542	0
	Cr	53	8.846	ug/L	0 111	1	110	14213	1
	Mn	55	813.735	ug/L	6 896	0	722	15666796	2
>	Ge	72		ug/L			588715	549201	2
	Ni	60	3.769	ug/L	0 021	0	32	11834	2
	Ni	62	161.797	ug/L	27 186	16	835	74433	18
	Cu	63	30.395	ug/L	1 573	5	669	226199	7
	Cu	65	9.379	ug/L	0 090	0	40	30986	1
	Zn	66	20.333	ug/L	0.241	1	606	41053	1
	Zn	67	24.185	ug/L	0.112	0	97	8341	2
	Zn	68	24.477	ug/L	0.703	2	564	35182	4
	As	75	13.483	ug/L	0.010	0	11	24572	2
	As-1	75	15.456	ug/L	0.080	0	12464	40586	2
	Se	82	-0.282	ug/L	0 022	7	0	-49	6
	Se	78	9.001	ug/L	0 318	3	12659	16357	2
	Y	89		ug/L			343426	396308	2
	Kr	83		ug/L			315	661	2
>	In	115		ug/L			1011060	826998	1
	Ag	107	0.092	ug/L	0 002	1	23	858	3
	Cd	111	4 0.040	ug/L	0 010	25	71	213	20
	Cd	114	0.041	ug/L	0 001	2	34	426	0
	Sb	121	1.078	ug/L	0 020	1	36	12115	0
	Sb	123	1.111	ug/L	0 027	2	27	9468	2
>	Tb	159		ug/L			1287275	1195661	0
	Tl	205	4 0.026	ug/L	0 000	1	39	994	1
	Pb	208	6.445	ug/L	0 065	1	312	307669	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:36:19
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA7++.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File. C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	47545	3
	Cl	37		ug/L			3296936	5611808	4
>	Sc	45		ug/L			782363	651354	3
	Cr	52	0.522	ug/L	0 034	6	23652	25859	3
	Cr	53	4.017	ug/L	0.078	1	110	5612	3
	Mn	55	4.753	ug/L	0.042	0	722	79457	4
>	Ge	72		ug/L			588715	490549	1
	Ni	60	0.145	ug/L	0.009	6	32	431	7
	Ni	62	332.824	ug/L	5 565	1	835	135716	1
	Cu	63	52.028	ug/L	0 290	0	669	345234	2
	Cu	65	1.009	ug/L	0 045	4	40	3008	5
	Zn	66	0.698	ug/L	0.021	2	606	1746	2
	Zn	67	3.167	ug/L	0.059	1	97	1046	3
	Zn	68	2.799	ug/L	0 081	2	564	4008	1
	As	75	5.614	ug/L	0 053	0	11	9145	1
	As-1	75	10.299	ug/L	0 540	5	12464	27611	1
	Se	82	-0.443	ug/L	0 096	21	0	-69	21
	Se	78	18.176	ug/L	1.929	10	12659	18738	2
	Y	89		ug/L			343426	322431	2
	Kr	83		ug/L			315	647	7
>	In	115		ug/L			1011060	737286	3
	Ag	107	0.001	ug/L	0.000	42	23	25	17
	Cd	111	-0.068	ug/L	0.005	7	71	-183	12
	Cd	114	0.006	ug/L	0.000	3	34	79	5
	Sb	121	1.331	ug/L	0 023	1	36	13319	2
	Sb	123	1.337	ug/L	0 054	4	27	10142	0
>	Tb	159		ug/L			1287275	1082220	2
	Tl	205	0.006	ug/L	0.000	1	39	240	1
	Pb	208	0.046	ug/L	0.001	3	312	2261	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:39:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File C.\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			56794	52615	2
	Cl	37		ug/L			3296936	5711530	5
>	Sc	45		ug/L			782363	711599	1
	Cr	52	**2.475**	ug/L	0 047	1	23652	53513	1
	Cr	53	**5.761**	ug/L	0.116	2	110	8749	0
	Mn	55	**1091.526**	ug/L	5 226	0	722	19786314	1
>	Ge	72		ug/L			588715	554254	0
	Ni	60	**3.024**	ug/L	0 037	1	32	9591	1
	Ni	62	**170.712**	ug/L	17.462	10	835	79019	9
	Cu	63	**23.580**	ug/L	1 613	6	669	177094	6
	Cu	65	**7.854**	ug/L	0 099	1	40	26194	0
	Zn	66	**19.022**	ug/L	0 308	1	606	38803	1
	Zn	67	**21.391**	ug/L	0.257	1	97	7455	1
	Zn	68	**22.551**	ug/L	0 123	0	564	32747	1
	As	75	**13.181**	ug/L	0.080	0	11	24242	0
	As-1	75	**15.567**	ug/L	0 156	1	12464	41167	0
	Se	82	**-0.013**	ug/L	0 109	840	0	-1	992
	Se	78	**10.453**	ug/L	0 315	3	12659	17246	0
	Y	89		ug/L			343426	374728	2
	Kr	83		ug/L			315	486	9
>	In	115		ug/L			1011060	823956	0
	Ag	107	**0.057**	ug/L	0 002	4	23	535	3
	Cd	111	**0.030**	ug/L	0.004	12	71	173	7
	Cd	114	**0.035**	ug/L	0.002	6	34	362	5
	Sb	121	**0.714**	ug/L	0 020	2	36	8006	2
	Sb	123	**0.723**	ug/L	0.014	1	27	6146	2
>	Tb	159		ug/L			1287275	1185853	1
	Tl	205	**0.019**	ug/L	0.001	5	39	720	4
	Pb	208	**3.892**	ug/L	0 031	0	312	184406	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:43:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	47283	2
	Cl	37		ug/L			3296936	5283388	6
>	Sc	45		ug/L			782363	635117	3
	Cr	52	0.727	ug/L	0.065	8	23652	27578	2
	Cr	53	4.298	ug/L	0.098	2	110	5851	4
	Mn	55	3.733	ug/L	0.049	1	722	60974	2
>	Ge	72		ug/L			588715	489215	2
	Ni	60	0.192	ug/L	0.001	0	32	561	3
	Ni	62	398.107	ug/L	12.081	3	835	161721	2
	Cu	63	50.891	ug/L	1.925	3	669	336613	2
	Cu	65	1.115	ug/L	0 058	5	40	3307	3
	Zn	66	1.212	ug/L	0.022	1	606	2655	3
	Zn	67	2.958	ug/L	0 088	2	97	979	2
	Zn	68	2.776	ug/L	0.117	4	564	3967	1
	As	75	3.641	ug/L	0.085	2	11	5916	1
	As-1	75	10.679	ug/L	1 272	11	12464	28168	6
	Se	82	-0.427	ug/L	0 049	11	0	-67	13
	Se	78	26.628	ug/L	4 757	17	12659	22489	8
	Y	89		ug/L			343426	324738	1
	Kr	83		ug/L			315	612	0
>	In	115		ug/L			1011060	741095	1
	Ag	107	0.001	ug/L	0.001	112	23	23	31
	Cd	111	-0.074	ug/L	0 043	57	71	-205	73
	Cd	114	0.006	ug/L	0.001	10	34	80	8
	Sb	121	0.993	ug/L	0.026	2	36	9996	2
	Sb	123	1.008	ug/L	0.018	1	27	7705	3
>	Tb	159		ug/L			1287275	1092562	2
	Tl	205	0.006	ug/L	0 001	9	39	240	4
	Pb	208	0.088	ug/L	0 002	2	312	4077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:47:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C \NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	47662	1
	Cl	37		ug/L			3296936	3886323	2
>	Sc	45		ug/L			782363	640179	0
	Cr	52	8.049	ug/L	0.153	1	23652	112969	1
	Cr	53	9.693	ug/L	0 160	1	110	13184	1
	Mn	55	873.151	ug/L	7 534	0	722	14238784	0
>	Ge	72		ug/L			588715	484465	0
	Ni	60	6.612	ug/L	0 191	2	32	18291	1
	Ni	62	325.075	ug/L	18 244	5	835	130982	6
	Cu	63	42.763	ug/L	1 993	4	669	280372	5
	Cu	65	16.012	ug/L	0 155	0	40	46647	1
	Zn	66	36.169	ug/L	1 038	2	606	64038	2
	Zn	67	41.486	ug/L	0.196	0	97	12564	1
	Zn	68	41.293	ug/L	1.245	3	564	52027	3
	As	75	16.151	ug/L	0 185	1	11	25961	0
	As-1	75	27.292	ug/L	0 647	2	12464	55357	0
	Se	82	-0.021	ug/L	0.071	339	0	-2	368
	Se	78	43.358	ug/L	1.839	4	12659	29730	1
	Y	89		ug/L			343426	376472	1
	Kr	83		ug/L			315	561	7
>	In	115		ug/L			1011060	732985	2
	Ag	107	0.285	ug/L	0 013	4	23	2324	5
	Cd	111	0.071	ug/L	0 010	13	71	294	9
	Cd	114	0.067	ug/L	0.002	3	34	593	4
	Sb	121	1.511	ug/L	0 036	2	36	15033	3
	Sb	123	1.510	ug/L	0.035	2	27	11393	1
>	Tb	159		ug/L			1287275	1069236	1
	Tl	205	0.048	ug/L	0.000	0	39	1592	1
	Pb	208	12.134	ug/L	0 051	0	312	517802	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:50:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	50626	3
	Cl	37		ug/L			3296936	3935788	1
>	Sc	45		ug/L			782363	666987	5
	Cr	52	**8.185**	ug/L	0 212	2	23652	119258	3
	Cr	53	**9.738**	ug/L	0 201	2	110	13791	3
	Mn	55	**854.052**	ug/L	35.627	4	722	14491385	1
>	Ge	72		ug/L			588715	504379	3
	Ni	60	**6.794**	ug/L	0.071	1	32	19575	4
	Ni	62	**341.709**	ug/L	8.276	2	835	143303	4
	Cu	63	**44.601**	ug/L	0 161	0	669	304375	3
	Cu	65	**16.514**	ug/L	0 281	1	40	50075	2
	Zn	66	**36.724**	ug/L	0 478	1	606	67680	2
	Zn	67	**41.625**	ug/L	1 321	3	97	13115	0
	Zn	68	**42.512**	ug/L	1.441	3	564	55711	0
	As	75	**16.127**	ug/L	0.065	0	11	26992	3
	As-1	75	**24.539**	ug/L	0 087	0	12464	52900	3
	Se	82	**-0.057**	ug/L	0 038	65	0	-9	65
	Se	78	**33.208**	ug/L	0.346	1	12659	26246	2
	Y	89		ug/L			343426	388996	2
	Kr	83		ug/L			315	570	3
>	In	115		ug/L			1011060	773202	3
	Ag	107	**0.268**	ug/L	0 006	2	23	2306	2
	Cd	111	**0.080**	ug/L	0 011	13	71	342	9
	Cd	114	**0.068**	ug/L	0 003	4	34	637	7
	Sb	121	**1.435**	ug/L	0 032	2	36	15061	1
	Sb	123	**1.430**	ug/L	0 053	3	27	11376	0
>	Tb	159		ug/L			1287275	1124348	2
	Tl	205	**0.046**	ug/L	0.001	2	39	1613	0
	Pb	208	**11.999**	ug/L	0.131	1	312	538411	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:54:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	49305	0
	Cl	37		ug/L			3296936	4007547	3
>	Sc	45		ug/L			782363	692942	2
	Cr	52	31.162	ug/L	0.561	1	23652	413149	0
	Cr	53	32.647	ug/L	1.035	3	110	47818	1
	Mn	55	860.864	ug/L	32.608	3	722	15187960	1
>	Ge	72		ug/L			588715	513391	3
	Ni	60	31.017	ug/L	0.186	0	32	90858	3
	Ni	62	393.656	ug/L	20 563	5	835	167928	6
	Cu	63	69.376	ug/L	2 023	2	669	481519	3
	Cu	65	40.064	ug/L	0 892	2	40	123579	1
	Zn	66	104.709	ug/L	3 211	3	606	195347	0
	Zn	67	101.717	ug/L	1 352	1	97	32515	2
	Zn	68	111.169	ug/L	1.992	1	564	147547	1
	As	75	40.889	ug/L	0.765	1	11	69615	1
	As-1	75	51.101	ug/L	0 905	1	12464	100344	2
	Se	82	69.344	ug/L	0 943	1	0	11444	1
	Se	78	104.005	ug/L	2 248	2	12659	60140	3
	Y	89		ug/L			343426	394641	1
	Kr	83		ug/L			315	570	2
>	In	115		ug/L			1011060	782373	1
	Ag	107	20.556	ug/L	0 595	2	23	177506	1
	Cd	111	22.089	ug/L	0.257	1	71	80786	0
	Cd	114	22.810	ug/L	0 590	2	34	207610	1
	Sb	121	1.398	ug/L	0 021	1	36	14850	0
	Sb	123	1.414	ug/L	0 031	2	27	11390	1
>	Tb	159		ug/L			1287275	1157762	1
	Tl	205	22.534	ug/L	0 457	2	39	799755	1
	Pb	208	34.322	ug/L	0.387	1	312	1585204	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 12:57:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113 cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			56794	48631	1
	Cl	37		ug/L			3296936	2830504	3
>	Sc	45		ug/L			782363	661649	0
	Cr	52	26.478	ug/L	0 614	2	23652	338326	3
	Cr	53	27.119	ug/L	0.309	1	110	37960	2
	Mn	55	27.806	ug/L	0 323	1	722	469297	2
>	Ge	72		ug/L			588715	557312	1
	Ni	60	26.180	ug/L	0.892	3	32	83215	1
	Ni	62	335.544	ug/L	13 188	3	835	155483	4
	Cu	63	41.117	ug/L	0.608	1	669	310131	3
	Cu	65	27.607	ug/L	0 842	3	40	92490	3
	Zn	66	82.312	ug/L	1 514	1	606	166901	1
	Zn	67	73.517	ug/L	1 028	1	97	25537	1
	Zn	68	82.277	ug/L	1.483	1	564	118731	2
	As	75	26.401	ug/L	0.233	0	11	48812	1
	As-1	75	37.098	ug/L	0 925	2	12464	82339	3
	Se	82	76.826	ug/L	1 374	1	0	13763	0
	Se	78	110.601	ug/L	3 238	2	12659	68676	3
	Y	89		ug/L			343426	324723	2
	Kr	83		ug/L			315	390	1
>	In	115		ug/L			1011060	857702	1
	Ag	107	22.973	ug/L	0 068	0	23	217535	1
	Cd	111	24.895	ug/L	0 358	1	71	99807	0
	Cd	114	25.666	ug/L	0 299	1	34	256142	0
	Sb	121	0.007	ug/L	0 002	25	36	112	19
	Sb	123	0.006	ug/L	0.001	14	27	77	9
>	Tb	159		ug/L			1287275	1182824	0
	Tl	205	25.750	ug/L	0 049	0	39	933838	0
	Pb	208	26.355	ug/L	0.025	0	312	1243776	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:02:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			56794	45354	3
	Cl	37		ug/L			3296936	2851756	1
>	Sc	45		ug/L			782363	609141	1
	Cr	52	53.819	ug/L	1.302	2	23652	613880	0
	Cr	53	53.508	ug/L	1.282	2	110	68852	0
	Mn	55	54.794	ug/L	1 521	2	722	850610	1
>	Ge	72		ug/L			588715	533605	4
	Ni	60	49.569	ug/L	1 897	3	32	150734	0
	Ni	62	276.268	ug/L	3 034	1	835	122658	3
	Cu	63	60.684	ug/L	1 006	1	669	437728	2
	Cu	65	50.454	ug/L	0 993	1	40	161756	2
	Zn	66	50.392	ug/L	1 475	2	606	97981	1
	Zn	67	50.685	ug/L	1.900	3	97	16870	0
	Zn	68	51.620	ug/L	2.361	4	564	71433	2
	As	75	51.348	ug/L	2.151	4	11	90793	0
	As-1	75	56.242	ug/L	2 198	3	12464	113571	0
	Se	82	51.111	ug/L	2 207	4	0	8759	1
	Se	78	68.847	ug/L	2 335	3	12659	45229	1
	Y	89		ug/L			343426	309545	3
	Kr	83		ug/L			315	358	4
>	In	115		ug/L			1011060	808729	2
	Ag	107	45.219	ug/L	1.195	2	23	403525	1
	Cd	111	50.857	ug/L	1 149	2	71	192134	0
	Cd	114	52.175	ug/L	1 264	2	34	490744	0
	Sb	121	50.605	ug/L	1.976	3	36	554362	1
	Sb	123	51.283	ug/L	1.380	2	27	426204	0
>	Tb	159		ug/L			1287275	1127638	3
	Tl	205	50.113	ug/L	2 004	3	39	1731170	1
	Pb	208	50.641	ug/L	1 834	3	312	2276455	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:08:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	45614	2
	Cl	37		ug/L			3296936	2911245	3
>	Sc	45		ug/L			782363	614149	3
	Cr	52	0.017	ug/L	0.088	506	23652	18736	1
	Cr	53	0.049	ug/L	0.004	8	110	150	2
	Mn	55	0.028	ug/L	0 002	7	722	999	1
>	Ge	72		ug/L			588715	520894	1
	Ni	60	0.001	ug/L	0.002	185	32	31	17
	Ni	62	155.385	ug/L	5.330	3	835	67702	4
	Cu	63	7.290	ug/L	0 296	4	669	51886	5
	Cu	65	0.090	ug/L	0.003	2	40	316	3
	Zn	66	0.002	ug/L	0.020	1095	606	539	6
	Zn	67	0.005	ug/L	0 066	1260	97	87	23
	Zn	68	0.067	ug/L	0.025	37	564	588	4
	As	75	0.054	ug/L	0.017	32	11	103	30
	As-1	75	2.934	ug/L	0 056	1	12464	16241	1
	Se	82	-0.015	ug/L	0.082	552	0	-2	645
	Se	78	10.772	ug/L	0 151	1	12659	16361	1
	Y	89		ug/L			343426	299698	2
	Kr	83		ug/L			315	359	3
>	In	115		ug/L			1011060	812157	1
	Ag	107	0.002	ug/L	0.001	31	23	34	13
	Cd	111	0.001	ug/L	0 001	76	71	60	2
	Cd	114	0.001	ug/L	0 000	38	34	40	12
	Sb	121	0.084	ug/L	0.014	17	36	950	16
	Sb	123	0.083	ug/L	0.015	18	27	718	18
>	Tb	159		ug/L			1287275	1125624	1
	Tl	205	0.005	ug/L	0 001	21	39	201	18
	Pb	208	0.004	ug/L	0 000	12	312	440	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 13:14:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C.\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	51025	2
	Cl	37		ug/L			3296936	5394204	2
>	Sc	45		ug/L			782363	644240	0
	Cr	52	**5.630**	ug/L	0 092	1	23652	85368	0
	Cr	53	**8.089**	ug/L	0 290	3	110	11087	3
	Mn	55	**1322.385**	ug/L	17 231	1	722	21700738	0
>	Ge	72		ug/L			588715	479433	1
	Ni	60	**6.348**	ug/L	0.260	4	32	17386	4
	Ni	62	**284.359**	ug/L	43.616	15	835	113559	16
	Cu	63	**33.752**	ug/L	2 713	8	669	219182	9
	Cu	65	**9.077**	ug/L	0 345	3	40	26178	3
	Zn	66	**20.613**	ug/L	0 605	2	606	36327	2
	Zn	67	**23.997**	ug/L	0 108	0	97	7225	0
	Zn	68	**24.050**	ug/L	0.717	2	564	30173	1
	As	75	**16.979**	ug/L	0 292	1	11	27007	1
	As-1	75	**20.830**	ug/L	0 101	0	12464	44218	1
	Se	82	**-0.251**	ug/L	0 062	24	0	-38	24
	Se	78	**16.298**	ug/L	0 807	4	12659	17498	3
	Y	89		ug/L			343426	329185	0
	Kr	83		ug/L			315	562	7
>	In	115		ug/L			1011060	762169	1
	Ag	107	**0.109**	ug/L	0 004	3	23	938	3
	Cd	111	**0.050**	ug/L	0 010	19	71	232	16
	Cd	114	**0.039**	ug/L	0 003	6	34	375	6
	Sb	121	**0.837**	ug/L	0 009	1	36	8671	1
	Sb	123	**0.855**	ug/L	0 018	2	27	6723	1
>	Tb	159		ug/L			1287275	1119201	0
	Tl	205	**0.025**	ug/L	0 000	1	39	903	2
	Pb	208	**4.711**	ug/L	0 045	0	312	210591	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 13:17:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File. C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	48690	4
	Cl	37		ug/L			3296936	5468473	5
>	Sc	45		ug/L			782363	647976	3
	Cr	52	**0.645**	ug/L	0 024	3	23652	27177	2
	Cr	53	**3.656**	ug/L	0.092	2	110	5090	4
	Mn	55	**3.177**	ug/L	0.029	0	722	53028	3
>	Ge	72		ug/L			588715	486831	3
	Ni	60	**0.350**	ug/L	0 010	2	32	997	1
	Ni	62	**551.399**	ug/L	37.889	6	835	222393	3
	Cu	63	**61.448**	ug/L	1.424	2	669	404331	0
	Cu	65	**1.233**	ug/L	0 041	3	40	3644	6
	Zn	66	**6.418**	ug/L	0.242	3	606	11823	1
	Zn	67	**7.614**	ug/L	0 385	5	97	2381	3
	Zn	68	**7.843**	ug/L	0.319	4	564	10305	3
	As	75	**2.918**	ug/L	0 063	2	11	4719	1
	As-1	75	**10.599**	ug/L	1 582	14	12464	27854	6
	Se	82	**-0.545**	ug/L	0 042	7	0	-85	10
	Se	78	**28.935**	ug/L	5 638	19	12659	23370	7
	Y	89		ug/L			343426	305054	3
	Kr	83		ug/L			315	671	5
>	In	115		ug/L			1011060	764842	4
	Ag	107	**0.002**	ug/L	0 000	32	23	30	13
	Cd	111	**-0.040**	ug/L	0.011	28	71	-87	45
	Cd	114	**0.009**	ug/L	0 002	19	34	106	13
	Sb	121	**0.909**	ug/L	0 008	0	36	9447	4
	Sb	123	**0.911**	ug/L	0 018	2	27	7181	2
>	Tb	159		ug/L			1287275	1117833	3
	Tl	205	**0.007**	ug/L	0 000	5	39	279	4
	Pb	208	**0.795**	ug/L	0 030	3	312	35677	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 I ~~WMN~~ DEN
Sample Dil Factor: 2
Comments: MG-213
Sample Date/Time: Friday, June 21, 2013 13:21:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			56794	50028	2
	Cl	37		ug/L			3296936	5347685	0
>	Sc	45		ug/L			782363	696213	2
	Cr	52	**4.961**	ug/L	0 129	2	23652	83829	4
	Cr	53	**7.601**	ug/L	0 062	0	110	11266	2
	Mn	55	**1236.751**	ug/L	33.244	2	722	21942573	4
>	Ge	72		ug/L			588715	526378	2
	Ni	60	**5.469**	ug/L	0 180	3	32	16439	1
	Ni	62	**424.278**	ug/L	26 885	6	835	185289	4
	Cu	63	**40.348**	ug/L	1 863	4	669	287203	2
	Cu	65	**8.176**	ug/L	0 024	0	40	25896	2
	Zn	66	**18.140**	ug/L	0 367	2	606	35169	3
	Zn	67	**21.243**	ug/L	0.069	0	97	7032	2
	Zn	68	**22.066**	ug/L	0.138	0	564	30442	2
	As	75	**15.341**	ug/L	0 141	0	11	26791	1
	As-1	75	**21.339**	ug/L	0 544	2	12464	49449	0
	Se	82	**-0.134**	ug/L	0 050	37	0	-22	35
	Se	78	**24.047**	ug/L	1 596	6	12659	22949	1
	Y	89		ug/L			343426	354261	1
	Kr	83		ug/L			315	539	2
>	In	115		ug/L			1011060	830203	2
	Ag	107	**0.072**	ug/L	0.002	3	23	675	4
	Cd	111	**0.025** U	ug/L	0 019	73	71	156	44
	Cd	114	**0.034**	ug/L	0.002	5	34	357	2
	Sb	121	**0.760**	ug/L	0.013	1	36	8577	1
	Sb	123	**0.762**	ug/L	0.024	3	27	6525	0
>	Tb	159		ug/L			1287275	1200249	1
	Tl	205	**0.022** U	ug/L	0.001	3	39	853	4
	Pb	208	**4.288**	ug/L	0 013	0	312	205583	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 13:24:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			56794	46439	2
	Cl	37		ug/L			3296936	5179902	8
>	Sc	45		ug/L			782363	654376	2
	Cr	52	**0.471**	ug/L	0 049	10	23652	25384	2
	Cr	53	**3.478**	ug/L	0 030	0	110	4894	2
	Mn	55	**3.518**	ug/L	0 064	1	722	59225	1
>	Ge	72		ug/L			588715	488687	3
	Ni	60	**0.197**	ug/L	0.004	2	32	575	1
	Ni	62	**616.072**	ug/L	14.775	2	835	249669	3
	Cu	63	**59.523**	ug/L	1 346	2	669	393211	1
	Cu	65	**0.879**	ug/L	0.052	5	40	2612	2
	Zn	66	**0.859**	ug/L	0.034	3	606	2023	0
	Zn	67	**2.630**	ug/L	0.039	1	97	879	3
	Zn	68	**2.547**	ug/L	0.092	3	564	3674	0
	As	75	**2.345**	ug/L	0.057	2	11	3809	1
	As-1	75	**12.020**	ug/L	0 787	6	12464	30397	6
	Se	82	**-0.390**	ug/L	0 097	24	0	-60	24
	Se	78	**36.218**	ug/L	2.927	8	12659	26800	7
	Y	89		ug/L			343426	303113	5
	Kr	83		ug/L			315	580	6
>	In	115		ug/L			1011060	782112	2
	Ag	107	**0.000**	ug/L	0 000	506	23	18	16
	Cd	111	**-0.037**	ug/L	0 022	59	71	-79	99
	Cd	114	**0.005**	ug/L	0 002	30	34	71	17
	Sb	121	**0.786**	ug/L	0.012	1	36	8361	2
	Sb	123	**0.796**	ug/L	0 023	2	27	6418	0
>	Tb	159		ug/L			1287275	1159247	1
	Tl	205	**0.006**	ug/L	0 001	13	39	234	10
	Pb	208	**0.082**	ug/L	0 001	0	312	4069	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WU75 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 21, 2013 13:28:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	51384	1
	Cl	37		ug/L			3296936	3067339	5
>	Sc	45		ug/L			782363	737816	1
	Cr	52	**0.048**	ug/L	0.043	89	23652	22952	3
	Cr	53	**0.234**	ug/L	0 027	11	110	468	8
	Mn	55	**1.222**	ug/L	0 015	1	722	23638	1
>	Ge	72		ug/L			588715	606158	2
	Ni	60	**0.135**	ug/L	0.007	4	32	501	6
	Ni	62	**276.608**	ug/L	30 453	11	835	139533	11
	Cu	63	**14.228**	ug/L	1 481	10	669	117155	10
	Cu	65	**0.845**	ug/L	0 026	3	40	3118	1
	Zn	66	**0.496**	ug/L	0.037	7	606	1715	4
	Zn	67	**0.758**	ug/L	0.086	11	97	385	5
	Zn	68	**1.092**	ug/L	0 084	7	564	2286	5
	As	75	**0.323**	ug/L	0 013	4	11	661	1
	As-1	75	**4.054**	ug/L	0 572	14	12464	21217	6
	Se	82	**-0.007**	ug/L	0 069	925	0	-1	999
	Se	78	**13.946**	ug/L	2.121	15	12659	20810	6
	Y	89		ug/L			343426	355561	1
	Kr	83		ug/L			315	414	4
>	In	115		ug/L			1011060	958800	0
	Ag	107	**0.001**	ug/L	0.001	70	23	32	22
	Cd	111	**0.008**	ug/L	0 003	44	71	103	15
	Cd	114	**0.007**	ug/L	0 001	18	34	113	13
	Sb	121	**0.027**	ug/L	0 002	5	36	382	5
	Sb	123	**0.027**	ug/L	0 002	5	27	296	6
>	Tb	159		ug/L			1287275	1319049	0
	Tl	205	**0.006**	ug/L	0.002	37	39	288	31
	Pb	208	**0.040**	ug/L	0 001	2	312	2413	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:34:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			56794	48881	1
	Cl	37		ug/L			3296936	3251395	1
>	Sc	45		ug/L			782363	651653	1
	Cr	52	54.764	ug/L	1 078	1	23652	668038	2
	Cr	53	55.415	ug/L	1.288	2	110	76284	1
	Mn	55	56.560	ug/L	0 966	1	722	939645	3
>	Ge	72		ug/L			588715	559214	1
	Ni	60	50.379	ug/L	0 257	0	32	160718	1
	Ni	62	245.542	ug/L	10 843	4	835	114313	2
	Cu	63	60.305	ug/L	0.898	1	669	455991	1
	Cu	65	52.751	ug/L	1 026	1	40	177270	0
	Zn	66	51.012	ug/L	0.211	0	606	104019	1
	Zn	67	50.069	ug/L	1 321	2	97	17480	1
	Zn	68	52.736	ug/L	0 774	1	564	76538	0
	As	75	51.471	ug/L	0 628	1	11	95473	0
	As-1	75	54.295	ug/L	0 986	1	12464	115402	0
	Se	82	51.477	ug/L	0 780	1	0	9254	0
	Se	78	61.533	ug/L	2 055	3	12659	43660	0
	Y	89		ug/L			343426	320224	1
	Kr	83		ug/L			315	374	6
>	In	115		ug/L			1011060	864966	2
	Ag	107	47.185	ug/L	1 160	2	23	450363	0
	Cd	111	51.840	ug/L	0.591	1	71	209519	2
	Cd	114	53.540	ug/L	0 612	1	34	538758	1
	Sb	121	51.408	ug/L	0.068	0	36	602746	2
	Sb	123	51.931	ug/L	0.459	0	27	461769	1
>	Tb	159		ug/L			1287275	1193605	0
	Tl	205	50.246	ug/L	0 836	1	39	1838617	0
	Pb	208	50.894	ug/L	1 225	2	312	2423226	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:40:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	48980	2
	Cl	37		ug/L			3296936	3149296	2
>	Sc	45		ug/L			782363	702873	0
	Cr	52	0.024	ug/L	0 014	56	23652	21558	1
	Cr	53	0.054	ug/L	0.003	5	110	179	2
	Mn	55	0.015	ug/L	0 002	13	722	920	3
>	Ge	72		ug/L			588715	566763	1
	Ni	60	-0.001	ug/L	0 001	69	32	28	7
	Ni	62	134.201	ug/L	8 409	6	835	63662	4
	Cu	63	6.331	ug/L	0.373	5	669	49062	4
	Cu	65	0.076	ug/L	0 014	18	40	296	14
	Zn	66	-0.017	ug/L	0.018	108	606	548	5
	Zn	67	-0.023	ug/L	0 022	95	97	85	7
	Zn	68	0.024	ug/L	0.028	113	564	578	5
	As	75	0.052	ug/L	0 005	9	11	109	8
	As-1	75	1.711	ug/L	0 222	12	12464	15302	1
	Se	82	0.026	ug/L	0.022	86	0	5	80
	Se	78	6.267	ug/L	0 802	12	12659	15448	0
	Y	89		ug/L			343426	329775	0
	Kr	83		ug/L			315	373	2
>	In	115		ug/L			1011060	924304	1
	Ag	107	0.001	ug/L	0.000	8	23	30	3
	Cd	111	0.003	ug/L	0.001	27	71	76	3
	Cd	114	0.000	ug/L	0.000	90	34	36	11
	Sb	121	0.081	ug/L	0.009	11	36	1045	12
	Sb	123	0.081	ug/L	0.008	10	27	791	11
>	Tb	159		ug/L			1287275	1234649	1
	Tl	205	0.004	ug/L	0 001	15	39	203	13
	Pb	208	0.001	ug/L	0 000	29	312	364	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~1~~ B 1
Sample Dil Factor:
Comments: #6-21-17
Sample Date/Time: Friday, June 21, 2013 13:44:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			56794	48455	1
	Cl	37		ug/L			3296936	3011733	1
>	Sc	45		ug/L			782363	681746	2
	Cr	52	0.069	ug/L	0 043	61	23652	21479	5
	Cr	53	0.050	ug/L	0 014	28	110	168	12
	Mn	55	0.009	ug/L	0 002	25	722	784	3
>	Ge	72		ug/L			588715	560261	1
	Ni	60	0.003	ug/L	0 002	68	32	40	16
	Ni	62	110.607	ug/L	5 045	4	835	52036	3
	Cu	63	5.159	ug/L	0 271	5	669	39658	4
	Cu	65	0.065	ug/L	0 002	3	40	257	1
	Zn	66	0.227	ug/L	0.008	3	606	1037	1
	Zn	67	0.164	ug/L	0.042	25	97	149	10
	Zn	68	0.256	ug/L	0 017	6	564	907	2
	As	75	0.047	ug/L	0.005	10	11	99	8
	As-1	75	1.370	ug/L	0 135	9	12464	14479	1
	Se	82	0.003	ug/L	0.018	533	0	0	356
	Se	78	4.994	ug/L	0 484	9	12659	14619	1
	Y	89		ug/L			343426	314331	1
	Kr	83		ug/L			315	362	0
>	In	115		ug/L			1011060	893525	1
	Ag	107	0.000	ug/L	0 001	139	23	25	25
	Cd	111	0.002	ug/L	0.002	74	71	73	10
	Cd	114	0.001	ug/L	0 001	71	34	40	18
	Sb	121	0.024	ug/L	0 006	23	36	319	23
	Sb	123	0.026	ug/L	0.002	8	27	261	8
>	Tb	159		ug/L			1287275	1227522	1
	Tl	205	0.002	ug/L	0 000	24	39	104	15
	Pb	208	0.001	ug/L	0 000	31	312	349	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:48:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	50705	1
	Cl	37		ug/L			3296936	3054290	3
>	Sc	45		ug/L			782363	712805	3
	Cr	52	0.034	ug/L	0 025	74	23652	21977	1
	Cr	53	0.047	ug/L	0.018	37	110	170	12
	Mn	55	0.005	ug/L	0.003	62	722	743	4
>	Ge	72		ug/L			588715	578226	0
	Ni	60	0.006	ug/L	0.002	28	32	49	9
	Ni	62	90.879	ug/L	4.033	4	835	44275	3
	Cu	63	4.174	ug/L	0.143	3	669	33243	2
	Cu	65	0.054	ug/L	0 008	14	40	228	11
	Zn	66	0.201	ug/L	0.011	5	606	1016	2
	Zn	67	0.182	ug/L	0 028	15	97	161	6
	Zn	68	0.247	ug/L	0.030	12	564	922	5
	As	75	0.042	ug/L	0 007	16	11	92	14
	As-1	75	0.959	ug/L	0 053	5	12464	14132	0
	Se	82	0.025	ug/L	0 006	23	0	4	21
	Se	78	3.488	ug/L	0.194	5	12659	14288	0
	Y	89		ug/L			343426	320691	0
	Kr	83		ug/L			315	359	1
>	In	115		ug/L			1011060	936595	2
	Ag	107	0.001	ug/L	0 000	18	23	28	7
	Cd	111	0.003	ug/L	0 001	18	71	79	4
	Cd	114	-0.000	ug/L	0 000	413	34	31	9
	Sb	121	0.013	ug/L	0 002	17	36	194	15
	Sb	123	0.013	ug/L	0 002	19	27	146	17
>	Tb	159		ug/L			1287275	1244591	1
	Tl	205	0.001	ug/L	0 000	6	39	89	2
	Pb	208	0.001	ug/L	0 001	45	312	361	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:51:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			56794	50217	1
	Cl	37		ug/L			3296936	3100571	2
>	Sc	45		ug/L			782363	739455	3
	Cr	52	-0.044	ug/L	0.038	85	23652	21770	4
	Cr	53	0.054	ug/L	0 010	19	110	187	5
	Mn	55	-0.000	ug/L	0 001	1691	722	681	4
>	Ge	72		ug/L			588715	579861	1
	Ni	60	0.003	ug/L	0.002	52	32	42	14
	Ni	62	78.607	ug/L	1 476	1	835	38520	1
	Cu	63	3.689	ug/L	0.082	2	669	29542	2
	Cu	65	0.047	ug/L	0 004	8	40	203	5
	Zn	66	0.224	ug/L	0 011	4	606	1067	3
	Zn	67	0.193	ug/L	0 061	31	97	165	12
	Zn	68	0.245	ug/L	0 019	7	564	922	4
	As	75	0.049	ug/L	0 002	4	11	105	3
	As-1	75	0.887	ug/L	0 164	18	12464	14029	1
	Se	82	0.031	ug/L	0 067	214	0	6	200
	Se	78	3.215	ug/L	0 601	18	12659	14181	1
	Y	89		ug/L			343426	329555	0
	Kr	83		ug/L			315	365	3
>	In	115		ug/L			1011060	960007	3
	Ag	107	0.000	ug/L	0.000	9	23	27	4
	Cd	111	0.002	ug/L	0 003	165	71	75	14
	Cd	114	0.000	ug/L	0.000	96	34	38	10
	Sb	121	0.010	ug/L	0.001	13	36	164	10
	Sb	123	0.008	ug/L	0 002	21	27	106	19
>	Tb	159		ug/L			1287275	1263897	1
	Tl	205	0.001	ug/L	0.000	15	39	80	6
	Pb	208	0.001	ug/L	0.000	26	312	357	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:55:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	51330	1
	Cl	37		ug/L			3296936	3138082	6
>	Sc	45		ug/L			782363	715481	2
	Cr	52	0.015	ug/L	0 045	306	23652	21828	5
	Cr	53	0.047	ug/L	0.006	12	110	172	5
	Mn	55	0.001	ug/L	0 001	107	722	684	6
>	Ge	72		ug/L			588715	572981	1
	Ni	60	0.001	ug/L	0 004	325	32	35	35
	Ni	62	71.511	ug/L	3 045	4	835	34687	2
	Cu	63	3.298	ug/L	0 121	3	669	26161	2
	Cu	65	0.039	ug/L	0 004	10	40	174	6
	Zn	66	0.065	ug/L	0.014	21	606	726	5
	Zn	67	0.059	ug/L	0 061	103	97	115	16
	Zn	68	0.109	ug/L	0 025	22	564	710	3
	As	75	0.047	ug/L	0.017	36	11	99	30
	As-1	75	0.788	ug/L	0.201	25	12464	13666	0
	Se	82	0.015	ug/L	0.059	396	0	2	372
	Se	78	2.830	ug/L	0.733	25	12659	13807	0
	Y	89		ug/L			343426	326679	1
	Kr	83		ug/L			315	354	1
>	In	115		ug/L			1011060	935362	1
	Ag	107	0.001	ug/L	0 001	101	23	27	21
	Cd	111	0.002	ug/L	0 002	102	71	73	10
	Cd	114	0.001	ug/L	0.001	108	34	42	27
	Sb	121	0.012	ug/L	0 001	4	36	182	2
	Sb	123	0.013	ug/L	0.002	17	27	148	13
>	Tb	159		ug/L			1287275	1249071	0
	Tl	205	0.001	ug/L	0 000	15	39	72	6
	Pb	208	0.001	ug/L	0 000	33	312	354	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 13:59:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			56794	50175	2
	Cl	37		ug/L			3296936	3163996	2
>	Sc	45		ug/L			782363	717616	0
	Cr	52	-0.038	ug/L	0 072	189	23652	21204	4
	Cr	53	0.037	ug/L	0 009	23	110	157	8
	Mn	55	0.002	ug/L	0 003	158	722	693	7
>	Ge	72		ug/L			588715	569722	2
	Ni	60	0.001	ug/L	0.001	184	32	33	11
	Ni	62	64.301	ug/L	0 867	1	835	31102	1
	Cu	63	2.954	ug/L	0.045	1	669	23368	1
	Cu	65	0.040	ug/L	0 001	2	40	177	4
	Zn	66	0.066	ug/L	0.003	5	606	722	1
	Zn	67	0.068	ug/L	0 012	17	97	118	1
	Zn	68	0.125	ug/L	0.023	18	564	729	2
	As	75	0.033	ug/L	0.019	57	11	73	50
	As-1	75	0.761	ug/L	0 164	21	12464	13534	0
	Se	82	-0.017	ug/L	0 078	464	0	-2	557
	Se	78	2.783	ug/L	0 593	21	12659	13704	0
	Y	89		ug/L			343426	323097	1
	Kr	83		ug/L			315	373	1
>	In	115		ug/L			1011060	941532	1
	Ag	107	-0.000	ug/L	0 001	1432	23	21	43
	Cd	111	0.001	ug/L	0.002	146	71	73	12
	Cd	114	0.001	ug/L	0 000	35	34	41	6
	Sb	121	0.010	ug/L	0 001	11	36	157	8
	Sb	123	0.010	ug/L	0.002	15	27	125	11
>	Tb	159		ug/L			1287275	1241138	1
	Tl	205	0.001	ug/L	0 000	16	39	70	7
	Pb	208	0.001	ug/L	0.000	27	312	356	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 16 * 62113
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:13:06
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA7++ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			56794	50769	2
	Cl	37		ug/L			3296936	3244962	1
>	Sc	45		ug/L			782363	724228	1
	Cr	52	-0.053	ug/L	0 033	61	23652	21200	3
	Cr	53	0.034	ug/L	0 005	15	110	154	3
	Mn	55	-0.001	ug/L	0 001	190	722	654	2
>	Ge	72		ug/L			588715	572377	1
	Ni	60	0.002	ug/L	0 004	235	32	36	31
	Ni	62	43.573	ug/L	1 502	3	835	21431	1
	Cu	63	1.965	ug/L	0.047	2	669	15834	0
	Cu	65	0.026	ug/L	0 002	5	40	129	3
	Zn	66	0.034	ug/L	0.016	47	606	660	5
	Zn	67	-0.005	ug/L	0 013	266	97	93	6
	Zn	68	0.109	ug/L	0 016	14	564	709	4
	As	75	0.054	ug/L	0 016	29	11	113	25
	As-1	75	0.508	ug/L	0 087	17	12464	13108	0
	Se	82	0.017	ug/L	0 041	238	0	3	215
	Se	78	1.797	ug/L	0 280	15	12659	13252	0
	Y	89		ug/L			343426	331655	3
	Kr	83		ug/L			315	370	0
>	In	115		ug/L			1011060	964593	1
	Ag	107	-0.000	ug/L	0 001	206	23	19	30
	Cd	111	0.001	ug/L	0.000	37	71	73	1
	Cd	114	0.000	ug/L	0 000	90	34	38	13
	Sb	121	0.010	ug/L	0 002	23	36	159	18
	Sb	123	0.010	ug/L	0 001	11	27	123	9
>	Tb	159		ug/L			1287275	1273457	0
	Tl	205	0.000	ug/L	0.000	56	39	58	19
	Pb	208	0.001	ug/L	0 001	54	312	356	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 8 7 6-21-13
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:16:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File. C.\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			56794	51113	2
	Cl	37		ug/L			3296936	3170099	1
>	Sc	45		ug/L			782363	724017	0
	Cr	52	-0.045	ug/L	0.032	71	23652	21293	2
	Cr	53	0.039	ug/L	0 011	27	110	162	9
	Mn	55	-0.000	ug/L	0 001	127	722	659	2
>	Ge	72		ug/L			588715	583617	1
	Ni	60	-0.000	ug/L	0.002	779	32	31	20
	Ni	62	38.758	ug/L	1 479	3	835	19528	2
	Cu	63	1.777	ug/L	0 083	4	669	14662	2
	Cu	65	0.024	ug/L	0 002	8	40	125	4
	Zn	66	0.023	ug/L	0.011	49	606	650	4
	Zn	67	0.002	ug/L	0 042	2266	97	97	17
	Zn	68	0.080	ug/L	0 020	25	564	680	3
	As	75	0.052	ug/L	0.020	38	11	111	33
	As-1	75	0.357	ug/L	0 164	45	12464	13062	0
	Se	82	0.022	ug/L	0.091	414	0	4	393
	Se	78	1.245	ug/L	0 583	46	12659	13214	0
	Y	89		ug/L			343426	332915	0
	Kr	83		ug/L			315	375	8
>	In	115		ug/L			1011060	969853	1
	Ag	107	0.000	ug/L	0 000	107	23	24	8
	Cd	111	0.001	ug/L	0 001	117	71	74	9
	Cd	114	0.000	ug/L	0 000	365	34	34	15
	Sb	121	0.005	ug/L	0.002	44	36	104	31
	Sb	123	0.006	ug/L	0 001	12	27	83	8
>	Tb	159		ug/L			1287275	1264816	0
	Tl	205	0.000	ug/L	0 000	28	39	53	8
	Pb	208	0.001	ug/L	0 000	15	312	357	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 3B
Sample Dil Factor: 10 6-21-13
Comments:
Sample Date/Time: Friday, June 21, 2013 14:20:16
Number of Replicates: 3
Method File. C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	50943	1
	Cl	37		ug/L			3296936	3129563	2
>	Sc	45		ug/L			782363	739337	0
	Cr	52	-0.036	ug/L	0.042	116	23652	21866	2
	Cr	53	0.028	ug/L	0.003	11	110	148	3
	Mn	55	-0.004	ug/L	0 001	31	722	611	3
>	Ge	72		ug/L			588715	577272	0
	Ni	60	-0.001	ug/L	0.001	191	32	29	15
	Ni	62	35.404	ug/L	1.237	3	835	17720	2
	Cu	63	1.633	ug/L	0 050	3	669	13382	2
	Cu	65	0.024	ug/L	0 002	6	40	122	3
	Zn	66	0.026	ug/L	0.021	79	606	649	6
	Zn	67	0.018	ug/L	0 030	165	97	102	11
	Zn	68	0.070	ug/L	0 017	24	564	657	4
	As	75	0.046	ug/L	0.017	36	11	98	31
	As-1	75	0.365	ug/L	0 113	30	12464	12939	1
	Se	82	-0.014	ug/L	0.044	321	0	-2	362
	Se	78	1.259	ug/L	0 383	30	12659	13081	1
	Y	89		ug/L			343426	330656	1
	Kr	83		ug/L			315	367	3
>	In	115		ug/L			1011060	971503	1
	Ag	107	0.000	ug/L	0 000	923	23	23	23
	Cd	111	0.002	ug/L	0.002	78	71	79	9
	Cd	114	0.001	ug/L	0 001	233	34	40	39
	Sb	121	0.004	ug/L	0 001	19	36	90	13
	Sb	123	0.004	ug/L	0 001	26	27	63	16
>	Tb	159		ug/L			1287275	1251068	1
	Tl	205	0.000	ug/L	0 000	43	39	48	8
	Pb	208	0.001	ug/L	0.000	21	312	353	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 49 #6-2172
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:23:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	51683	3
	Cl	37		ug/L			3296936	3240260	2
>	Sc	45		ug/L			782363	736109	0
	Cr	52	-0.048	ug/L	0 019	39	23652	21616	1
	Cr	53	0.033	ug/L	0 012	36	110	154	11
	Mn	55	-0.003	ug/L	0 000	9	722	617	0
>	Ge	72		ug/L			588715	576231	2
	Ni	60	0.001	ug/L	0 002	369	32	33	18
	Ni	62	32.075	ug/L	1 241	3	835	16097	2
	Cu	63	1.478	ug/L	0 057	3	669	12155	3
	Cu	65	0.020	ug/L	0 002	8	40	109	7
	Zn	66	0.031	ug/L	0.020	66	606	657	7
	Zn	67	-0.019	ug/L	0 016	85	97	88	7
	Zn	68	0.074	ug/L	0 022	29	564	662	2
	As	75	0.044	ug/L	0.013	28	11	96	25
	As-1	75	0.375	ug/L	0.129	34	12464	12934	0
	Se	82	0.020	ug/L	0 046	233	0	3	211
	Se	78	1.304	ug/L	0.493	37	12659	13078	0
	Y	89		ug/L			343426	335139	4
	Kr	83		ug/L			315	347	1
>	In	115		ug/L			1011060	980579	1
	Ag	107	-0.000	ug/L	0 000	43	23	19	9
	Cd	111	0.001	ug/L	0 001	92	71	74	5
	Cd	114	-0.000	ug/L	0 000	207	34	32	10
	Sb	121	0.004	ug/L	0 001	31	36	87	19
	Sb	123	0.004	ug/L	0.000	11	27	63	6
>	Tb	159		ug/L			1287275	1266344	2
	Tl	205	0.000	ug/L	0.000	44	39	57	12
	Pb	208	0.001	ug/L	0.001	71	312	360	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 5 10 6-21-13
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:27:26
Number of Replicates: 3
Method File: C.\NexIONData\Method\200.8GFA7++.mth
Tuning File. C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File. C.\NexIONData\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			56794	50482	1
	Cl	37		ug/L			3296936	3135044	2
>	Sc	45		ug/L			782363	753819	0
	Cr	52	-0.085	ug/L	0 025	29	23652	21629	1
	Cr	53	0.027	ug/L	0 004	14	110	150	4
	Mn	55	-0.005	ug/L	0.001	12	722	606	2
>	Ge	72		ug/L			588715	579929	0
	Ni	60	0.001	ug/L	0 002	239	32	33	15
	Ni	62	29.480	ug/L	0.694	2	835	14962	1
	Cu	63	1.366	ug/L	0 021	1	669	11354	1
	Cu	65	0.021	ug/L	0.004	20	40	111	12
	Zn	66	0.016	ug/L	0.024	151	606	630	7
	Zn	67	-0.037	ug/L	0 024	65	97	82	10
	Zn	68	0.052	ug/L	0.026	50	564	634	6
	As	75	0.048	ug/L	0.003	7	11	102	5
	As-1	75	0.276	ug/L	0.090	32	12464	12824	0
	Se	82	0.016	ug/L	0 024	147	0	3	134
	Se	78	0.941	ug/L	0.320	34	12659	12972	0
	Y	89		ug/L			343426	331170	2
	Kr	83		ug/L			315	362	5
>	In	115		ug/L			1011060	973404	0
	Ag	107	0.000	ug/L	0.000	474	23	23	17
	Cd	111	0.001	ug/L	0.001	63	71	75	4
	Cd	114	0.000	ug/L	0.001	110	34	38	14
	Sb	121	0.004	ug/L	0.001	33	36	83	18
	Sb	123	0.004	ug/L	0 001	23	27	63	13
>	Tb	159		ug/L			1287275	1285446	1
	Tl	205	0.000	ug/L	0 000	79	39	54	23
	Pb	208	0.001	ug/L	0 000	12	312	364	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:31:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			56794	52449	1
	Cl	37		ug/L			3296936	3346322	1
>	Sc	45		ug/L			782363	740390	1
	Cr	52	49.866	ug/L	1.065	2	23652	693091	1
	Cr	53	50.470	ug/L	0.257	0	110	78958	0
	Mn	55	50.708	ug/L	0.899	1	722	956904	0
>	Ge	72		ug/L			588715	575100	3
	Ni	60	51.179	ug/L	2 003	3	32	167828	3
	Ni	62	84.191	ug/L	3 429	4	835	40832	1
	Cu	63	51.703	ug/L	1.995	3	669	401869	0
	Cu	65	51.773	ug/L	2.262	4	40	178797	1
	Zn	66	52.128	ug/L	1.791	3	606	109231	1
	Zn	67	50.764	ug/L	1 848	3	97	18222	3
	Zn	68	52.266	ug/L	1 434	2	564	77990	1
	As	75	50.923	ug/L	1 868	3	11	97079	0
	As-1	75	51.212	ug/L	1.868	3	12464	112575	0
	Se	82	50.589	ug/L	1.556	3	0	9348	0
	Se	78	51.293	ug/L	1.567	3	12659	39478	1
	Y	89		ug/L			343426	323535	3
	Kr	83		ug/L			315	370	2
>	In	115		ug/L			1011060	970900	2
	Ag	107	47.786	ug/L	1 171	2	23	511992	0
	Cd	111	49.951	ug/L	1.245	2	71	226574	1
	Cd	114	51.306	ug/L	1.042	2	34	579429	0
	Sb	121	48.987	ug/L	1.154	2	36	644487	0
	Sb	123	48.916	ug/L	1.368	2	27	488090	0
>	Tb	159		ug/L			1287275	1281906	2
	Tl	205	49.052	ug/L	1.273	2	39	1927184	1
	Pb	208	49.408	ug/L	1 313	2	312	2525817	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 21, 2013 14:37:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA7++.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\062113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			56794	52863	3
	Cl	37		ug/L			3296936	3228862	1
>	Sc	45		ug/L			782363	728273	2
	Cr	52	-0.019	ug/L	0.055	292	23652	21773	4
	Cr	53	0.037	ug/L	0.000	1	110	159	2
	Mn	55	0.005	ug/L	0.012	217	722	776	30
>	Ge	72		ug/L			588715	572714	0
	Ni	60	0.002	ug/L	0 007	314	32	38	59
	Ni	62	29.402	ug/L	1 276	4	835	14737	3
	Cu	63	1.365	ug/L	0.043	3	669	11207	2
	Cu	65	0.025	ug/L	0 014	57	40	125	39
	Zn	66	0.962	ug/L	0 018	1	606	2587	2
	Zn	67	0.764	ug/L	0.007	0	97	366	1
	Zn	68	1.020	ug/L	0 030	2	564	2055	2
	As	75	0.048	ug/L	0.011	23	11	103	20
	As-1	75	0.294	ug/L	0 038	12	12464	12700	0
	Se	82	0.024	ug/L	0.036	148	0	4	140
	Se	78	1.012	ug/L	0 124	12	12659	12848	0
	Y	89		ug/L			343426	319887	1
	Kr	83		ug/L			315	357	4
>	In	115		ug/L			1011060	946097	0
	Ag	107	0.002	ug/L	0.003	147	23	45	76
	Cd	111	0.003	ug/L	0 003	92	71	81	15
	Cd	114	0.002	ug/L	0.003	108	34	59	48
	Sb	121	0.076	ug/L	0 010	12	36	1010	12
	Sb	123	0.078	ug/L	0 014	18	27	780	18
>	Tb	159		ug/L			1287275	1242096	0
	Tl	205	0.007	ug/L	0.005	71	39	322	62
	Pb	208	0.008	ug/L	0.011	142	312	696	80

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 6-20-13

	Analyst 6-20 DM	Peer 6/20/13	Comment
Log			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Sample			
RSD's & SD's	✓	✓	
Internal Standards	–	–	
Carry-over	–	–	
Matrix			
CRI/CRA	✓	✓	
ICSA/ICSAB	–	–	
Post Spikes/Serial Dilutions	–	–	
Analytic Spikes	–	–	
Method			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See RUN LOG
Matrix Duplicates	✓	✓	See RUN LOG
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	See RUN LOG

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 6-20-19

Page: 1 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
STD	0.0	SMM	1X		
"	0.1				
"	0.5				
"	1.0				
"	2.0				
"	5.0				
"	10.0				
ICV				7.89	Begin CLP %R=99 ✓
ICB				-0.02	✓
CCV1				4.18	%R=105 ✓
CCB1				-0.01	✓
CRA				0.10	✓
WTB2	MB1			0.01	✓
"	MB1SPK			2.09	%R=105 ✓
"	A			0.05	
"	ADUP			0.12	✓
"	ASPK			1.13	%R=113 ✓
WTB1	MB1			0.00	✓
"	MB1SPK			1.97	%R=99 ✓
"	A			0.30	
"	ADUP			0.30	✓
CCV2				4.19	%R=105 ✓
CCB2				-0.01	✓
WTB1	ASPK			1.34	%R=104 ✓
"	B				
"	C				
WL01	MB1			-0.00	✓
"	MB1SPK			2.13	%R=107 ✓
"	N			0.56	
"	NDUP	↓	↓	0.59	RPD=5.21 ✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2511

14% NH_2OH/NaCl: MP2477

Standard ID:

Standard: 3051-4

ICV/CCV: 59-6

Mercury Analysis Log

ALL CORRECTIONS BY DM 6.20.13

Analyst: DM

Instrument: CETAC

Date: 6.20.13

Page: 2 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WU01 NBPK	5mM	1X	1.72	%R=116 ✓
" O				
" P				
CCV3			4.11	%R=103 ✓
CCB3			-0.01	✓
WU10 Q				
" R				
" S				
" T				
" U				
" Y				
WU12 MB1			0.00	✓
" MB1SPK			2.04	%R=102 ✓
" B			6.63	
" BDUP			14.08	RPD=71.9 High X
CCV4			4.11	%R=103 ✓
CCB4			-0.02	✓
WU12 BSPK			10.20	RPD=%R=357 High X
WU00 MB1			-0.03	DM 6.20.13 ✓
" MB1SPK			2.09	%R=105 ✓
" ~~A~~ MB1SPD			2.16	%R=108 ✓
" ~~B~~ A				
" ~~C~~ B				
" ~~D~~ C				
" ~~E~~ D				
" ~~F~~ E				
CCV5 F				
CCV5			4.14	%R=104 ✓
CCB5			-0.02	END CLP ✓
WU18 MB			0.00	✓

Chemical/Reagent ID:

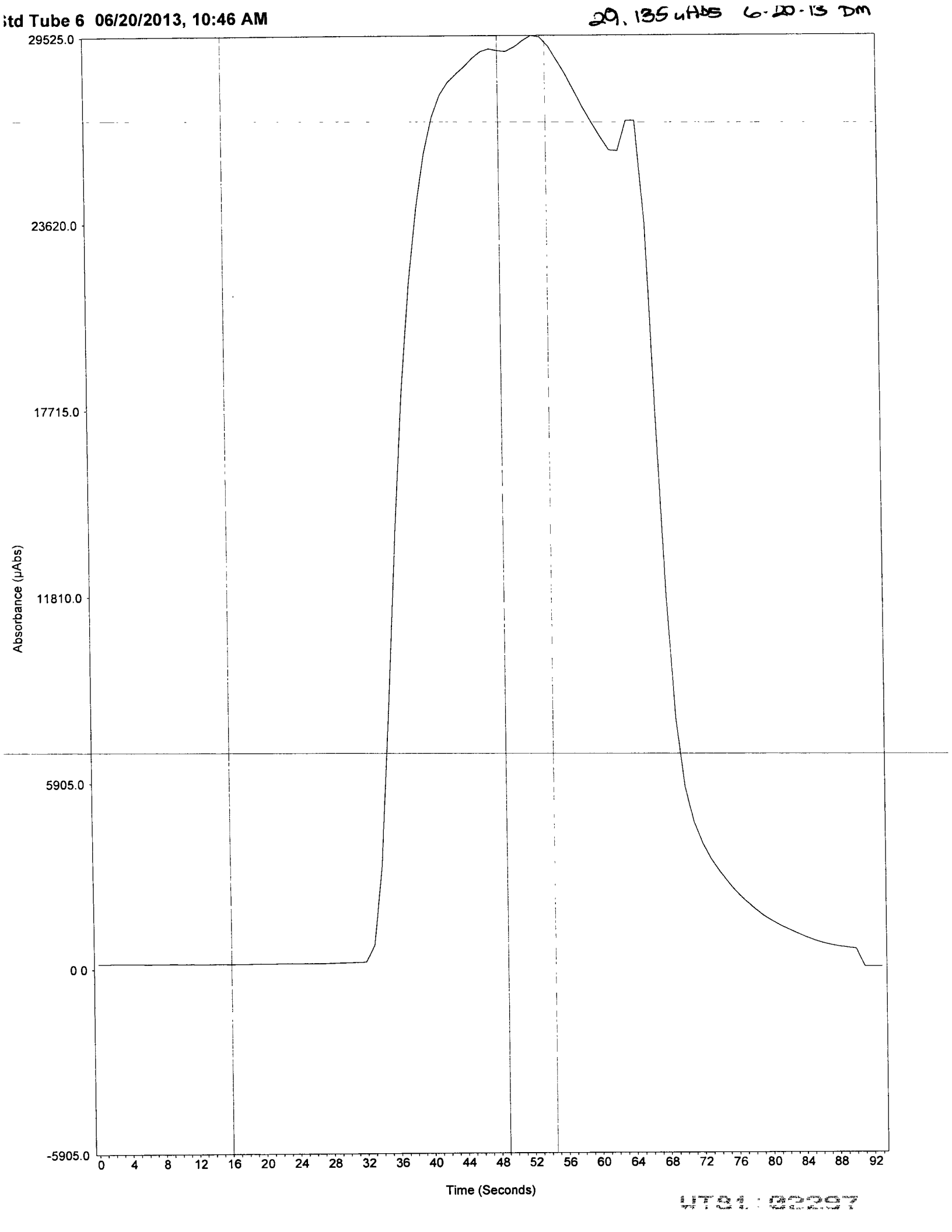
10% $SnCl_2$: MP2511

14% NH_2OH/NaCl: MP2477

Standard ID:

Standard: 3037-4

ICV/CCV: 59-6


Std Tube 6 06/20/2013, 10:46 AM
29,135 uAbs 6-20-13 DM
29525.0
23620.0
17715.0
11810.0
5905.0
0 0
-5905.0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)

CETAC Hg Analysis Report - 13062000.DB - Thursday, June 20, 2013, 1:52:40 PM

Analyst
Date Started Thursday, June 20, 2013, 10:46:22
Worksheet ARI 10ppb CALIB
Comment

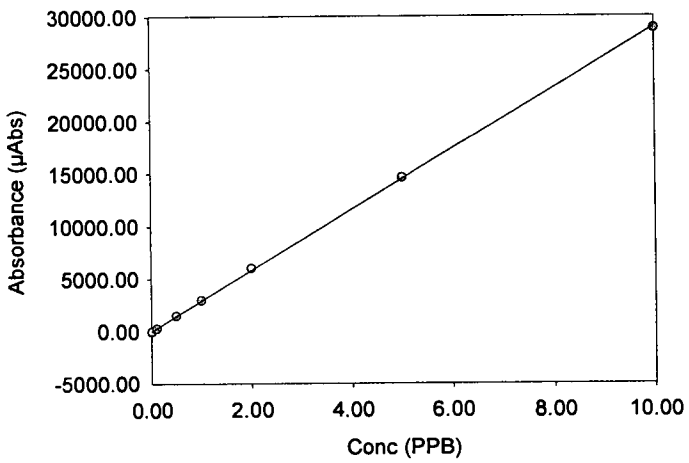
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	20-Jun-2013, 10:46	10.00	0.78	29100.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	20-Jun-2013, 10:48	0.00	21.30	-26.10	1.00	
Standard #1	20-Jun-2013, 10:50	0.10	0.62	288.00	1.00	
Standard #2	20-Jun-2013, 10:51	0.50	0.83	1490.00	1.00	
Standard #3	20-Jun-2013, 10:53	1.00	0.27	2990.00	1.00	
Standard #4	20-Jun-2013, 10:55	2.00	0.29	6050.00	1.00	
Standard #5	20-Jun-2013, 10:56	5.00	0.18	14600.00	1.00	
Standard #6	20-Jun-2013, 10:58	10.00	0.68	28900.00	1.00	

SMM

Calibration Data



Int.	0.000
Slope	2900.767
Correlation	0.99992

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	20-Jun-2013, 11:06	7.89	0.21	22900.00	1.00	
ICB	20-Jun-2013, 11:08	-0.02	5.75	-54.10	1.00	

Begin CUP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	20-Jun-2013, 11:10	4.18	0.17	12100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	20-Jun-2013, 11:11	-0.01	23.60	-17.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	20-Jun-2013, 11:13	0.10	0.85	290.00	1.00	
WT82 MB1 SMM	20-Jun-2013, 11:14	0.01	10.90	20.10	1.00	
WT82 MB1SPK SMM	20-Jun-2013, 11:16	2.09	0.33	6050.00	1.00	
WT82 A SMM	20-Jun-2013, 11:18	0.05	0.69	139.00	1.00	
WT82 ADUP SMM	20-Jun-2013, 11:19	0.12	1.88	341.00	1.00	
WT82 ASPK SMM	20-Jun-2013, 11:21	1.13	1.13	3270.00	1.00	
WT81 MB1 SMM	20-Jun-2013, 11:22	0.00	39.40	2.38	1.00	
WT81 MB1SPK SMM	20-Jun-2013, 11:24	1.97	0.25	5720.00	1.00	
WT81 A SMM	20-Jun-2013, 11:26	0.30	1.49	872.00	1.00	
WT81 ADUP SMM	20-Jun-2013, 11:27	0.30	0.44	864.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	20-Jun-2013, 11:29	4.19	0.22	12200.00	1.00	

CETAC Hg Analysis Report - 13062000.DB - Thursday, June 20, 2013, 1:52:41 PM

Analyst
Date Started Thursday, June 20, 2013, 11:31:08
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	20-Jun-2013, 11:31	-0.01	15.10	-40.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WT81 ASPK SMM	20-Jun-2013, 11:32	1.34	0.16	3890.00	1.00	
WT81 B SMM	20-Jun-2013, 11:34	0.74	0.59	2150.00	1.00	
WT81 C SMM	20-Jun-2013, 11:35	0.81	0.45	2340.00	1.00	
WU10 MB1 SMM	20-Jun-2013, 11:37	-0.00	71.70	-5.74	1.00	
WU10 MB1SPK SMM	20-Jun-2013, 11:39	2.13	0.37	6170.00	1.00	
WU10 N SMM	20-Jun-2013, 11:40	0.56	0.55	1620.00	1.00	
WU10 NDUP SMM	20-Jun-2013, 11:42	0.59	0.72	1710.00	1.00	
WU10 NSPK SMM	20-Jun-2013, 11:43	1.72	0.83	4990.00	1.00	
WU10 O SMM	20-Jun-2013, 11:45	0.23	0.59	668.00	1.00	
WU10 P SMM	20-Jun-2013, 11:47	0.52	0.15	1510.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	20-Jun-2013, 11:48	4.11	0.35	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	20-Jun-2013, 11:50	-0.01	15.30	-17.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WU10 Q SMM	20-Jun-2013, 11:52	0.96	0.18	2780.00	1.00	
WU10 R SMM	20-Jun-2013, 11:53	0.78	1.11	2280.00	1.00	
WU10 S SMM	20-Jun-2013, 11:55	0.52	0.17	1490.00	1.00	
WU10 T SMM	20-Jun-2013, 11:57	1.33	0.03	3860.00	1.00	
WU10 U SMM	20-Jun-2013, 11:58	0.77	1.12	2240.00	1.00	
WU10 Y SMM	20-Jun-2013, 12:00	0.50	0.12	1460.00	1.00	
WU12 MB1 SMM	20-Jun-2013, 12:01	0.00	18.10	8.63	1.00	
WU12 MB1SPK SMM	20-Jun-2013, 12:03	2.04	0.78	5920.00	1.00	
WU12 B SMM	20-Jun-2013, 12:05	6.63	1.38	19200.00	1.00	
WU12 BDUP SMM	20-Jun-2013, 12:06	14.10	0.19	40800.00	1.00	O - High

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	20-Jun-2013, 12:09	4.11	1.06	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	20-Jun-2013, 12:11	-0.02	9.97	-49.60	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WU12 BSPK SMM	20-Jun-2013, 12:12	10.20	1.45	29600.00	1.00	O - High
WU00 MB1 SMM	20-Jun-2013, 12:14	-0.03	2.44	-86.20	1.00	
WU00 MB1SPK SMM	20-Jun-2013, 12:16	2.09	0.26	6050.00	1.00	
WU00 MB1SPD SMM	20-Jun-2013, 12:17	2.16	0.12	6270.00	1.00	
WU00 A SMM	20-Jun-2013, 12:19	0.74	0.31	2130.00	1.00	
WU00 B SMM	20-Jun-2013, 12:20	0.90	0.08	2620.00	1.00	
WU00 C SMM	20-Jun-2013, 12:22	0.27	0.42	796.00	1.00	
WU00 D SMM	20-Jun-2013, 12:24	0.45	0.89	1310.00	1.00	
WU00 E SMM	20-Jun-2013, 12:25	0.21	0.85	596.00	1.00	
WU00 F SMM	20-Jun-2013, 12:27	0.10	0.73	283.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	20-Jun-2013, 12:29	4.14	0.29	12000.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	20-Jun-2013, 12:30	-0.02	21.10	-44.10	1.00	END CLP

CETAC Hg Analysis Report - 13062000.DB - Thursday, June 20, 2013, 1:52:42 PM

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	

Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: SMM Instrument: CETAC

Analyst: CB Date: 6-17-13

Bath Temp: 90°C Start Time: 1420 End Time: 1450

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	–	0.00	50.0	0.0	3
STD1	3037-4	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA	↓	0.01		0.1	1
ICB/CCB	–	0.00		0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I8169 H_2SO_4: I8044 HCl: –

5% $K_2S_2O_8$: MP2491 5% $KMnO_4$: MP2502

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: 5mm
Analyst: CB
Bath Temp: 95°C
Start Time: 0940
Matrix: Soil
Date: 6-17-13
End Time: 1010

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WT82 A	1	-	0.224	50.0	6/24 1	Y	
" ADup	1	-	0.219		1		
" ASpk	1	-	0.222		1		
" mB1	-	-	-		1		
" mBlsoA	-	-	-		1		
WT81 A	2	-	0.255		6/26 1		
" ADup	2	-	0.251		1		
" ASpk	2	-	0.254		1		
" B	7	-	0.209		1		
" C	7	-	0.221		1		
" mB1	-	-	-		1		
" mBlspk	-	-	-		1	Y	
WU18 C	1	-	0.216		6/24 1	N	
" mB	-	-	-		1	N	
" mBSpk	-	-	-	50.0	1	N	
				CB 6-17-13			

Chemical/Reagent ID:

HNO_3: I81b9
H_2SO_4: 28044
HCl: -
5% $K_2S_2O_8$: MB2491
5% $KMnO_4$: MB2502
Digest Tube Lot: M427KK03

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: WT81

J
6-19-13

TOC Solids Prep Log

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

DATE:	6/17/13 (C)
ANALYST:	KE 14:50

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597 HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			12.9657		12.9656	0.1 mg	
WS91 A7		-	13.1196	18.8064	15.3600	39.40%	
WS91 A7 dup		-	13.0413	18.8331	15.3299	39.51%	RPD = 0.30%
WS91 A7 trip		-	13.0406	18.4794	15.1002	37.87%	RSD = 2.36%
WT81 A1		-	13.1813	18.8548	15.6415	43.36%	
WT81 B1		-	13.1817	18.0770	15.2128	41.49%	
WT81 C1		-	13.0731	18.8206	15.4432	41.24%	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst 6-17-13 (W) 14:50 Date 6-17-13 (A)

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			12.9657	Ø	12.9656		
WS91 A7		—	13.1196	18.8064	15.3600		Very wet Soil + rocks
↓ A7		—	13.0413	18.8331	15.3299		↓
↓ A7		—	13.0406	18.4794	15.1002		
WT81 A1		—	13.1803	18.8548	15.6415		Very wet Soil
↓ B1		—	13.1817	18.0770	15.2128		↓
↓ C1		—	13.0731	18.8206	15.4432		

6-17-13 (W)

6-19-13

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 6/17/13 (A)

ANALYST: KE 11:16

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

6/17/2013 13:16 date/time in oven KE

6/18/2013 6:36 date/time out KE

elapsed hrs = 17.3

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID		CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
Date & Time		6/17/13 11:40 KE	6/17/13 11:02 KE	6/18/13 6:52 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
record weights to 4 places		Cal OK!	Cal OK!	Cal OK!										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0948	1.0948			0.00							
WS91 A7		6.2969	1.0985	2.8638			1.77	28.06%						
WS91 A7 dup		6.8698	1.0875	3.1129			2.03	29.54%						
							RPD =	5.10%				RPD =		NA
WS91 A7 trp		6.9312	1.0942	3.2581			2.16	31.17%						
							RSD =	4.48%				RSD =		NA
WT81 A1		8.3457	1.1019	4.1235			3.02	41.71%						
WT81 B6		6.4819	1.0947	3.2199			2.13	39.48%						
WT81 C6		7.2823	1.0865	3.5293			2.44	39.43%						

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Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W)		Date: 6-17-13 (A) 11:16		Oven ID:	D17 (2) 8.345 7 6-14-13 (D)	Balance ID:	1123230597
Time in Oven:	13:16	Time Out of Oven:	6:36	Elapsed Time (> 12 Hrs):			

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		6-17-13 15:46	6-17-13 11:02	6-18-13 6:52						
Cal Weight (10.0000):		10.0000 (W)	10.0000 (A)	10.0000 (W)						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	1	0	1.0948	1.0948						
WS91 A7	2	6.2969	1.0985	2.8638						
↓ nA7	3	6.8698	1.0875	3.1129						
↓ fA7	4	6.9312	1.0942	3.2581						
WT81 A1	5	~~8.02~~ (D)	1.1019	4.1235						
↓ B6	6	6.4819	1.0947	3.2199						
↓ C6	7	7.2823	1.0865	3.5293						

6-17-13 (A)

TOC, Solids Data Analysis

DATE: 6/25/2013

Instrument: Apollo 1 — ANALYST: KE 10:10

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C* — Balance ID:

Calibration Data

Cal Curve ID: **6/18/2013** — *Conc:* 5,000 *ppm*

Calibration Curve Standard: **00136-09** — *Curve Date:* **05/16/13**

CalFact: ***1.384E+05*** *intercept:* **-1324** *r2 :* **0.99907**

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard Source: ***ERA# 0409-12-01*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

	Replicate determinations						Mean	RSD	condition

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
ICV				1.00		40.0	946	946	*94.60%*
Blank				1.00		40.0	2.99	3	*Blank OK*
~~NIST 1941B~~				~~1.00~~		~~1.6~~	~~21520~~	~~21,520~~	~~*74.97%*~~
NIST 1941B				1.00		1.2	24255	24,255	*81.12%*
WT36 A1				1.00		2.5	12043	12,043	*Range OK!*
WT36 A1 dup				1.00		2.5	11497	11,497	*RPD=4.6%*
~~WT36 A1 trp~~				~~1.00~~		~~2.6~~	~~8497~~	~~8,497~~	~~*RSD=17.9%*~~
WT36 A1 trp				1.00		2.8	8974	8,974	*RSD=15.1%*
~~WT36 A1 ms~~				~~1.00~~	~~10~~	~~1.8~~	~~22007~~	~~22,007~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*1.8*~~	~~*mg samp=*~~	~~*13,880*~~	~~*ppm*~~		~~*72%*~~	
WT36 A1 ms				1.00	10	2.3	20108	20,108	*Range OK!*
Spike =	*0.025*	*mg C to*	*2.3*	*mg samp=*	*10,870*	*ppm*		*74%*	

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike (µL Std)	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor		Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
WT54 A1				1.00		2.1	3153	3,153	*Low Scale*
WT81 A1				1.00		1.0	52878	52,878	*Range OK!*
CCV				1.00		40.0	971	971	*97.10%*
Blank				1.00		40.0	5.92	6	*Blank OK*
WT81 B6				1.00		0.7	107784	107,784	*Range OK!*
WT81 C1				1.00		0.7	120693	120,693	*Range OK!*
~~NIST 1941B~~			-	~~1.00~~		~~1.4~~	~~21108~~	~~21,108~~	~~70.60%~~
NIST 1941B				1.00		1.1	25189	25,189	*84.24%*
CCV				1.00		40.0	925	925	*92.50%*
Blank				1.00		40.0	40.23	40	*Blank OK*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

① 6-25-13 @

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler		
Standards:	Source		Conc (ppm)		Analyst:	(W)
Calibration:	ARI - 00136-09		5000		Date:	6-25-13
Verification:	ERA - 0409-12-01		5000 to 1000 for CVS		Time:	10:10
SRM:	NBS - (1941b) or 8704		Method: PSEP 1986-MOD		Balance ID	B146454145
Sample Sequence:						

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941 B			1.6			low
NBS 1941 B			1.2			
WT36 A1			2.5			
↓ dl A1			2.5			
dp A1			*2.6/2.8		2.5 not 2.6	*wrong # injected
ms A1			1.8	2500	10	low
msd A1			2.3	2500	10	
WT54 A2			2.1			
WT81 A1			1.0			
CCV			240			
CCB			40			
WT81 B6			0.7			
↓ C1			0.7			
NBS 1941 B			1.4/1.1			2 inserts
CCV			40			
CCB			40			

6-25-13

6-25-13 (W)

Detailed Analysis Report Print Date/Time: 2013/06/25 14:17:54

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06250858
Timestamp: 2013/06/25 09:02
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	946.2043	37.8482	5235351	30.309	31.307	153

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251005
Timestamp: 2013/06/25 10:09
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2.9862	0.1194	15203	30.430	30.400	120

Last Message: Low Sample Detected

6-25-13 (W)

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251021
Timestamp: 2013/06/25 10:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21519.8164	34.4317	4762648	30.195	31.195	209

Last Message: Out of Calibration

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251033
Timestamp: 2013/06/25 10:38
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24254.8105	29.1058	4025752	30.250	31.246	226

Sample ID: WT36 A1
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251048
Timestamp: 2013/06/25 11:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12043.0273	30.1076	4165685	30.358	32.170	300

Last Message: Max Integration Time Reached

Sample ID: WT36 A1 DUP
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251149
Timestamp: 2013/06/25 11:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11497.4570	28.7436	3976972	32.154	33.153	130

6-25-13 (W)

Sample ID: WT36 A1 TRIP
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Mode: TOC
Filename: 06251156
Timestamp: 2013/06/25 12:00

UT041 : 022914

Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8497.0312	22.0923	3056689	32.332	33.329	119

Sample ID: WT36 A1 TRIP
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251225
Timestamp: 2013/06/25 12:32
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8973.7275	25.1264	3476495	32.969	33.967	126

Sample ID: WT36 A1 MS
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251236
Timestamp: 2013/06/25 12:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22007.3164	39.6132	5480880	33.273	34.271	140

Sample ID: WT36 A1 MS
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251247
Timestamp: 2013/06/25 12:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20108.3262	46.2492	6399035	33.294	34.292	151

Sample ID: WT54 A1
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251303
Timestamp: 2013/06/25 13:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	3152.7117	6.6207	916040	33.444	34.443	85

Sample ID: WT81 A1
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251318
Timestamp: 2013/06/25 13:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	52877.5352	52.8775	7316138	33.149	34.145	155

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251324
Timestamp: 2013/06/25 13:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	970.7058	38.8282	5370952	33.039	34.037	137

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251330
Timestamp: 2013/06/25 13:34
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.9245	0.2370	31465	32.928	32.957	120

Last Message: Low Sample Detected

Sample ID: WT81 B6
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251336
Timestamp: 2013/06/25 13:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	107783.8125	75.4487	10439081	32.864	33.862	173

Sample ID: WT81 C1
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251342
Timestamp: 2013/06/25 13:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	120693.2500	84.4853	11689387	32.880	33.879	175

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251349
Timestamp: 2013/06/25 13:54
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21107.5645	29.5506	4087297	32.866	33.862	204

Last Message: Out of Calibration

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251357
Timestamp: 2013/06/25 14:02
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25189.2734	27.7082	3832384	32.655	33.654	217

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251403
Timestamp: 2013/06/25 14:07
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	924.5686	36.9827	5115610	32.583	33.580	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06251408
Timestamp: 2013/06/25 14:11
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	40.2298	1.6092	221324	32.665	33.659	84

Calibration Report Print Date/Time: 2013/06/18 15:54:45

Cal. Curve ID: 061813 BOAT CAL
Created: 2013/06/18 15:54
Calibration Factor (m): 1.384e+05
Y Intercept (b): -1324
r-squared: 0.99907

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	29217	0.000	0.221	Low Sample De	2013/06/18 08:38
200 ppm	1009602	8.000	7.306		2013/06/18 09:18
500 ppm	2627379	20.000	18.999		2013/06/18 09:59
1000 ppm	5813974	40.000	42.030	Max Integrati	2013/06/18 10:48
2500 ppm	13757697	100.000	99.444		2013/06/18 15:51

Detailed Analysis Report Print Date/Time: 2013/06/18 16:29:10

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06180822
Timestamp: 2013/06/18 08:38
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			37339	28.074	28.043	120
2			31175	28.007	28.004	120
3			19136	28.044	27.973	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 29217 Std Dev: 9258 RSD: 31.69

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06180843
Timestamp: 2013/06/18 09:18
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			945900	28.051	29.048	85
2			1029190	28.091	29.087	103
3			1053715	28.052	29.048	97

<<<Statistics>>> Mean: 1009602 Std Dev: 56514 RSD: 5.60

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06180935
Timestamp: 2013/06/18 09:59
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2389295	28.085	29.085	136
2			2724105	28.126	29.123	171
3			2768736	28.126	29.123	222

<<<Statistics>>> Mean: 2627379 Std Dev: 207391 RSD: 7.89

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06181006
Timestamp: 2013/06/18 10:10
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2323107	62.057	62.990	69

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06181013
Timestamp: 2013/06/18 10:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5616615	28.126	29.126	215
2			5893458	28.047	29.191	300
3			5931846	28.428	29.695	301

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 5813974 Std Dev: 171991 RSD: 2.96

Sample ID: 2500 ppm
Method: Boat Sampler
Mode: TOC
Filename: 06181522

Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Timestamp: 2013/06/18 15:51
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			14807623	35.544	36.544	267
2			13072873	35.114	36.489	300
3			13392597	34.765	35.763	287

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 13757697 Std Dev: 923208 RSD: 6.71

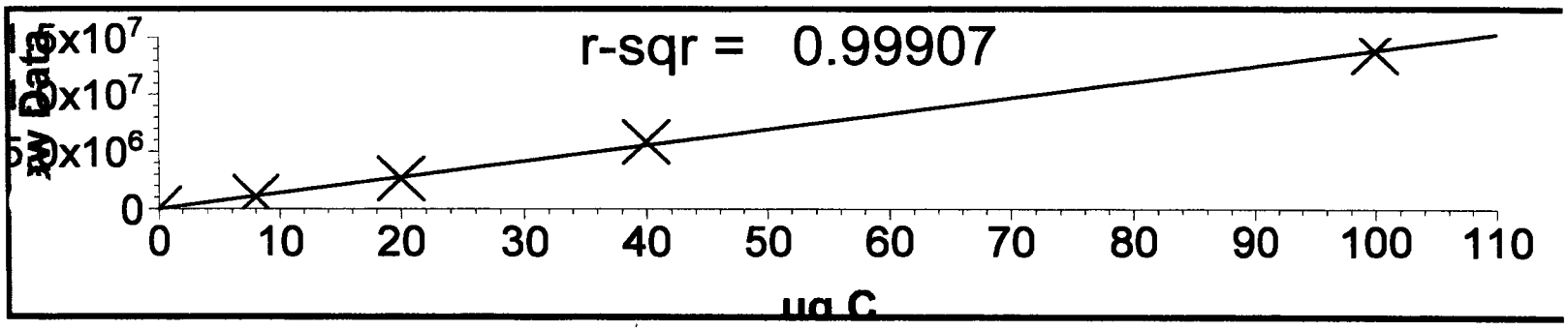
Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06181555
Timestamp: 2013/06/18 16:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1165.1791	46.6072	6447246	33.971	35.062	301

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 061813 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 06181622
Timestamp: 2013/06/18 16:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1024.3831	40.9753	5668023	33.285	34.285	166


r-sqr = 0.99907
x10^7
x10^7
x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: WT81

~~RESULTS~~ ey

ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. A-1 Client Sample No. AM-VT-INF-20130612

Set-up Date: 6/27/13 Sample Description: CLAYEY-SILT, ORGANIC DEBRIS, strong fuel-like odor

Sieve Set # 1 Date Sieved: 6/28/13 White residue on oven dried material.

SOLIDS CONTENT

Moisture Content	Initials JG
Container No.	152
Tare Weight	1.5488
Wet Weight + Tare	32.6607
Dry Weight + Tare	14.4255

Test Sample	Initials JG
Container No.	152
Tare Weight	51.0343
Wet Weight + Tare	68.5866
Washed Sample Dry Weight + Tare	51.5398

SIEVE ANALYSIS
Initials JG

Sieve Size	Weight Retained
Tare	51.0782
4	~~51.1197~~ JG 51.0782
10	51.1197
18	51.1631
35	51.2040
60	51.2838 JG
120	51.3940
230	51.4988
PAN	0.0403

SEDIGRAPH ANALYSIS
Initials ey
Date Sedigraphed 7-1-13

Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI WATER

Beaker ID	YELLOW LABEL (WT) A

* less than *230 material flocculated and settled out quickly after homogenization. ey

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-1.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 9:02:32AM
Reported: 7/1/2013 1:09:50PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	98.8	0.0	117.78540
917.3	0.125	98.7	0.0	104.97634
866.0	0.208	98.7	0.0	93.56027
817.5	0.291	98.6	0.0	83.38567
771.8	0.374	98.6	0.0	74.31756
728.6	0.457	98.6	0.0	66.23560
687.9	0.540	98.5	0.0	59.03254
649.4	0.623	98.5	0.0	52.61280
613.1	0.706	98.5	0.0	46.89121
578.8	0.789	98.4	0.0	41.79184
546.4	0.872	98.4	0.0	37.24701
515.8	0.955	98.3	0.0	33.19643
487.0	1.038	98.3	0.1	29.58635
459.7	1.121	98.2	0.1	26.36887
434.0	1.204	98.2	0.1	23.50128
409.7	1.287	98.1	0.1	20.94553
386.8	1.370	98.0	0.1	18.66773
365.2	1.453	97.9	0.1	16.63763
344.7	1.536	97.8	0.1	14.82830
325.5	1.619	97.7	0.1	13.21574
307.3	1.702	97.6	0.1	11.77854
290.1	1.786	97.5	0.1	10.49763
273.8	1.869	97.4	0.1	9.35603
258.5	1.952	97.3	0.1	8.33857
244.1	2.035	97.1	0.1	7.43176
230.4	2.118	97.0	0.1	6.62356
217.5	2.201	96.9	0.1	5.90325
205.4	2.284	96.8	0.1	5.26128
193.9	2.367	96.6	0.1	4.68912
183.0	2.450	96.5	0.1	4.17918
172.8	2.533	96.4	0.1	3.72470
163.1	2.616	96.3	0.1	3.31964
154.0	2.699	96.2	0.1	2.95864
145.4	2.782	96.0	0.1	2.63689
137.2	2.865	95.9	0.1	2.35013
129.6	2.948	95.8	0.1	2.09455
122.3	3.031	95.7	0.1	1.86677
115.5	3.114	95.5	0.1	1.66376
109.0	3.197	95.4	0.1	1.48283
102.9	3.280	95.3	0.1	1.32157

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-1.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 9:02:32AM
Reported: 7/1/2013 1:09:50PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	95.2	0.1	1.17785
91.73	3.447	95.0	0.1	1.04976
86.60	3.530	94.9	0.1	0.93560
81.75	3.613	94.8	0.1	0.83386
77.18	3.696	94.7	0.1	0.74318
72.86	3.779	94.5	0.1	0.66236
68.79	3.862	94.4	0.1	0.59033
64.94	3.945	94.3	0.1	0.52613
61.31	4.028	94.2	0.1	0.46891
57.88	4.111	94.2	0.0	0.41792
54.64	4.194	94.1	0.0	0.37247
51.58	4.277	94.0	0.1	0.33196
48.70	4.360	93.9	0.1	0.29586
45.97	4.443	93.8	0.1	0.26369
43.40	4.526	93.7	0.1	0.23501
40.97	4.609	93.5	0.1	0.20946
38.68	4.692	93.4	0.1	0.18668
36.52	4.775	93.4	0.1	0.16638
34.47	4.858	93.4	0.0	0.14828
32.55	4.941	93.4	0.0	0.13216
30.73	5.024	93.4	0.0	0.11779
29.01	5.107	93.4	0.0	0.10498
27.38	5.191	93.3	0.1	0.09356
25.85	5.274	93.1	0.2	0.08339
24.41	5.357	92.8	0.3	0.07432
23.04	5.440	92.5	0.3	0.06624
21.75	5.523	92.2	0.3	0.05903
20.54	5.606	91.8	0.4	0.05261
19.39	5.689	91.4	0.5	0.04689
18.30	5.772	90.8	0.6	0.04179
17.28	5.855	90.0	0.8	0.03725
16.31	5.938	89.0	1.0	0.03320
15.40	6.021	87.7	1.2	0.02959
14.54	6.104	86.3	1.5	0.02637
13.72	6.187	84.6	1.7	0.02350
12.96	6.270	82.6	2.0	0.02095
12.23	6.353	80.3	2.3	0.01867
11.55	6.436	77.8	2.5	0.01664
10.90	6.519	75.0	2.8	0.01483
10.29	6.602	71.9	3.1	0.01322

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-1.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 9:02:32AM
Reported: 7/1/2013 1:09:50PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	68.6	3.3	0.01178
9.173	6.768	65.1	3.5	0.01050
8.660	6.851	61.6	3.6	0.00936
8.175	6.935	58.0	3.6	0.00834
7.718	7.018	54.5	3.5	0.00743
7.286	7.101	51.2	3.3	0.00662
6.879	7.184	48.2	3.0	0.00590
6.494	7.267	45.5	2.7	0.00526
6.131	7.350	43.2	2.3	0.00469
5.788	7.433	41.3	1.9	0.00418
5.464	7.516	39.9	1.5	0.00372
5.158	7.599	38.7	1.2	0.00332
4.870	7.682	37.7	1.0	0.00296
4.597	7.765	36.9	0.9	0.00264
4.340	7.848	36.0	0.8	0.00235
4.097	7.931	35.2	0.8	0.00209
3.868	8.014	34.4	0.8	0.00187
3.652	8.097	33.6	0.8	0.00166
3.447	8.180	32.8	0.8	0.00148
3.255	8.263	31.9	0.8	0.00132
3.073	8.346	31.1	0.8	0.00118
2.901	8.429	30.4	0.8	0.00105
2.738	8.512	29.6	0.7	0.00094
2.585	8.595	29.0	0.7	0.00083
2.441	8.679	28.4	0.6	0.00074
2.304	8.762	27.8	0.5	0.00066
2.175	8.845	27.3	0.5	0.00059
2.054	8.928	26.8	0.5	0.00053
1.939	9.011	26.4	0.5	0.00047
1.830	9.094	25.9	0.4	0.00042
1.728	9.177	25.6	0.4	0.00037
1.631	9.260	25.3	0.3	0.00033
1.540	9.343	25.0	0.3	0.00030
1.454	9.426	24.7	0.3	0.00026
1.372	9.509	24.4	0.3	0.00024
1.296	9.592	24.0	0.3	0.00021
1.223	9.675	23.8	0.3	0.00019
1.155	9.758	23.6	0.2	0.00017
1.090	9.841	23.6	0.0	0.00015
1.029	9.924	23.8	-0.2	0.00013

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-1.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 9:02:32AM
Reported: 7/1/2013 1:09:51PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Table

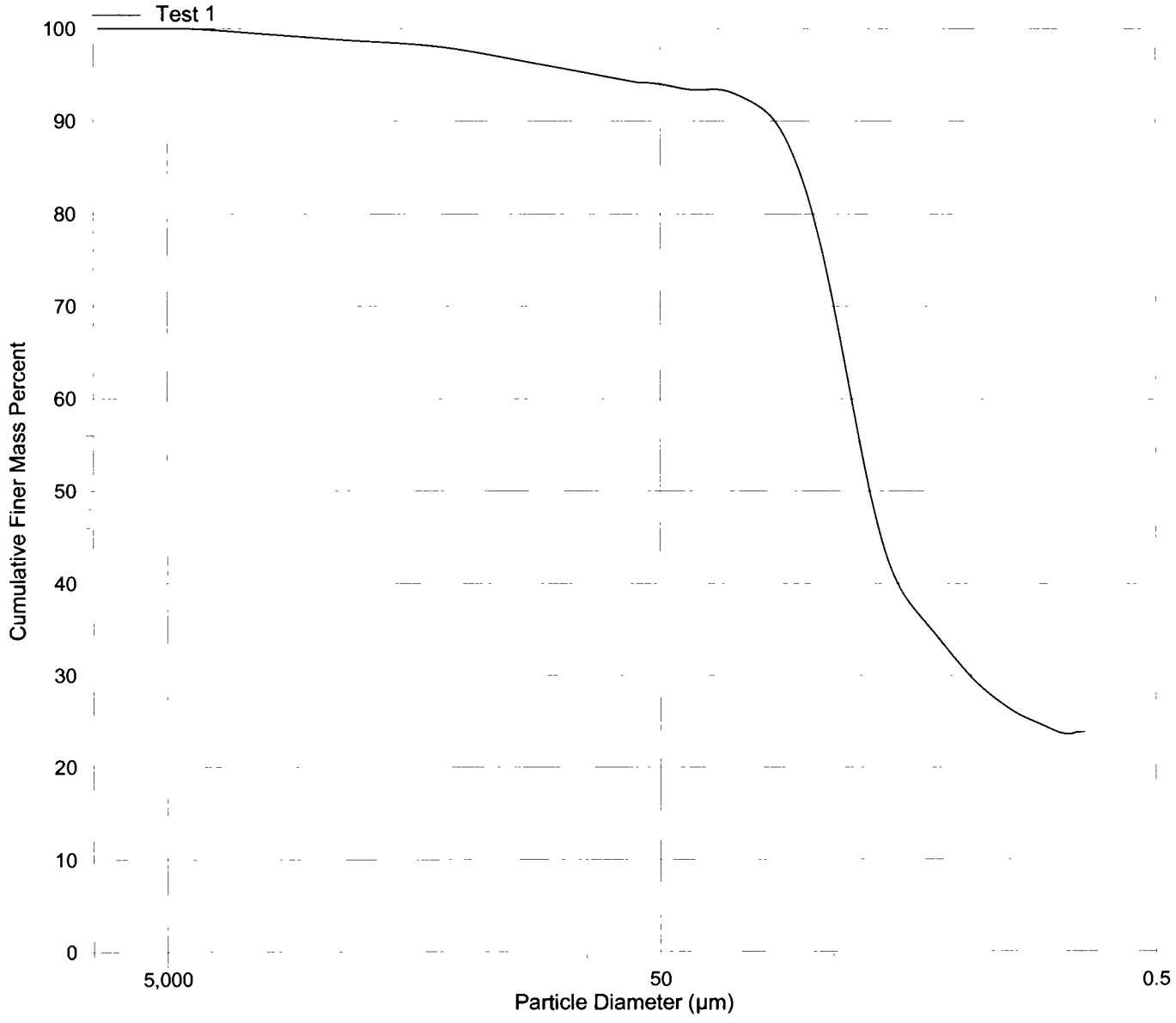
Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	94.2	1.5
4750	100.0	0.0	31.00	93.4	0.8
2000	99.4	0.6	15.60	88.0	5.4
1000	98.8	0.6	7.800	55.1	32.9
500.0	98.3	0.5	3.900	34.5	20.6
250.0	97.2	1.1	2.000	26.6	7.9
125.0	95.7	1.5	1.000	23.8	2.8

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-1.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 9:02:32AM
Reported: 7/1/2013 1:09:51PM
Liquid Visc: 0.7226 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



~~RESPLIT~~ eg

ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. A-2 Client Sample No. AM-VT-INF-20130612

Set-up Date: 6/27/13 Sample Description: CLAYEY-SILT, ORGANIC DEBRIS, Strong fuel-like odor

Sieve Set # 2 Date Sieved: 6/28/13 white residue on oven dried material

SOLIDS CONTENT

Moisture Content	Initials JA
Container No.	209
Tare Weight	1.5578 5JA
Wet Weight + Tare	37.6815
Dry Weight + Tare	16.5250

Test Sample	Initials JA
Container No.	209
Tare Weight	49.6175
Wet Weight + Tare	68.0900
Washed Sample Dry Weight + Tare	50.1154 6/JA

SIEVE ANALYSIS
Initials JA

Sieve Size	Weight Retained
Tare	49.6685 JA
4	49.6655
10	49.6711
18	49.6972
35	49.7360
60	49.8200
120	49.9408
230	50.0536
PAN	0.0640

SEDIGRAPH ANALYSIS
Initials JA
Date Sedigraphed 7-1-13

Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI WATER

Beaker ID	YELLOW LABEL (WT81) A2

* less than* 230 material flocculated and settled out quickly after homogenized eg

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-2.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 10:12:35AM
Reported: 7/1/2013 1:11:35PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 76 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	99.6	0.0	117.79979
917.3	0.125	99.6	0.0	104.98917
866.0	0.208	99.5	0.0	93.57170
817.5	0.291	99.5	0.0	83.39587
771.8	0.374	99.4	0.0	74.32664
728.6	0.457	99.4	0.0	66.24369
687.9	0.540	99.4	0.0	59.03975
649.4	0.623	99.3	0.0	52.61923
613.1	0.706	99.3	0.0	46.89694
578.8	0.789	99.2	0.0	41.79694
546.4	0.872	99.2	0.1	37.25156
515.8	0.955	99.1	0.1	33.20049
487.0	1.038	99.1	0.1	29.58997
459.7	1.121	99.0	0.1	26.37209
434.0	1.204	98.9	0.1	23.50415
409.7	1.287	98.9	0.1	20.94809
386.8	1.370	98.8	0.1	18.67001
365.2	1.453	98.7	0.1	16.63966
344.7	1.536	98.6	0.1	14.83012
325.5	1.619	98.5	0.1	13.21735
307.3	1.702	98.4	0.1	11.77998
290.1	1.786	98.3	0.1	10.49892
273.8	1.869	98.2	0.1	9.35717
258.5	1.952	98.1	0.1	8.33959
244.1	2.035	97.9	0.1	7.43266
230.4	2.118	97.8	0.1	6.62437
217.5	2.201	97.7	0.1	5.90398
205.4	2.284	97.6	0.1	5.26192
193.9	2.367	97.4	0.1	4.68969
183.0	2.450	97.3	0.1	4.17969
172.8	2.533	97.1	0.1	3.72516
163.1	2.616	97.0	0.1	3.32005
154.0	2.699	96.9	0.1	2.95900
145.4	2.782	96.7	0.1	2.63721
137.2	2.865	96.6	0.1	2.35041
129.6	2.948	96.5	0.1	2.09481
122.3	3.031	96.4	0.1	1.86700
115.5	3.114	96.2	0.1	1.66397
109.0	3.197	96.1	0.1	1.48301
102.9	3.280	96.0	0.1	1.32174

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-2.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 10:12:35AM
Reported: 7/1/2013 1:11:35PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 76 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	95.9	0.1	1.17800
91.73	3.447	95.7	0.1	1.04989
86.60	3.530	95.6	0.1	0.93572
81.75	3.613	95.5	0.1	0.83396
77.18	3.696	95.4	0.1	0.74327
72.86	3.779	95.3	0.1	0.66244
68.79	3.862	95.1	0.1	0.59040
64.94	3.945	95.0	0.1	0.52619
61.31	4.028	94.9	0.1	0.46897
57.88	4.111	94.7	0.2	0.41797
54.64	4.194	94.5	0.2	0.37252
51.58	4.277	94.4	0.1	0.33200
48.70	4.360	94.3	0.1	0.29590
45.97	4.443	94.3	0.0	0.26372
43.40	4.526	94.4	-0.1	0.23504
40.97	4.609	94.5	-0.1	0.20948
38.68	4.692	94.7	-0.2	0.18670
36.52	4.775	94.8	-0.1	0.16640
34.47	4.858	94.9	-0.1	0.14830
32.55	4.941	94.9	0.0	0.13217
30.73	5.024	94.8	0.1	0.11780
29.01	5.107	94.6	0.2	0.10499
27.38	5.191	94.3	0.3	0.09357
25.85	5.274	94.0	0.3	0.08340
24.41	5.357	93.8	0.3	0.07433
23.04	5.440	93.5	0.3	0.06624
21.75	5.523	93.1	0.3	0.05904
20.54	5.606	92.8	0.4	0.05262
19.39	5.689	92.3	0.5	0.04690
18.30	5.772	91.7	0.6	0.04180
17.28	5.855	90.9	0.8	0.03725
16.31	5.938	89.9	1.1	0.03320
15.40	6.021	88.4	1.4	0.02959
14.54	6.104	86.6	1.8	0.02637
13.72	6.187	84.3	2.3	0.02350
12.96	6.270	81.7	2.7	0.02095
12.23	6.353	78.7	3.0	0.01867
11.55	6.436	75.5	3.2	0.01664
10.90	6.519	72.1	3.4	0.01483
10.29	6.602	68.7	3.4	0.01322

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-2.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 10:12:35AM
Reported: 7/1/2013 1:11:35PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 76 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	65.2	3.4	0.01178
9.173	6.768	61.8	3.4	0.01050
8.660	6.851	58.5	3.3	0.00936
8.175	6.935	55.3	3.2	0.00834
7.718	7.018	52.4	2.9	0.00743
7.286	7.101	49.8	2.6	0.00662
6.879	7.184	47.5	2.3	0.00590
6.494	7.267	45.6	1.9	0.00526
6.131	7.350	44.0	1.6	0.00469
5.788	7.433	42.6	1.4	0.00418
5.464	7.516	41.4	1.2	0.00373
5.158	7.599	40.3	1.1	0.00332
4.870	7.682	39.2	1.0	0.00296
4.597	7.765	38.3	1.0	0.00264
4.340	7.848	37.3	0.9	0.00235
4.097	7.931	36.4	0.9	0.00209
3.868	8.014	35.5	0.9	0.00187
3.652	8.097	34.7	0.8	0.00166
3.447	8.180	33.9	0.8	0.00148
3.255	8.263	33.2	0.7	0.00132
3.073	8.346	32.6	0.7	0.00118
2.901	8.429	31.9	0.7	0.00105
2.738	8.512	31.2	0.7	0.00094
2.585	8.595	30.6	0.7	0.00083
2.441	8.679	29.9	0.6	0.00074
2.304	8.762	29.3	0.6	0.00066
2.175	8.845	28.7	0.6	0.00059
2.054	8.928	28.1	0.6	0.00053
1.939	9.011	27.5	0.6	0.00047
1.830	9.094	26.9	0.6	0.00042
1.728	9.177	26.4	0.6	0.00037
1.631	9.260	25.8	0.5	0.00033
1.540	9.343	25.4	0.4	0.00030
1.454	9.426	25.0	0.3	0.00026
1.372	9.509	24.8	0.3	0.00024
1.296	9.592	24.6	0.2	0.00021
1.223	9.675	24.4	0.2	0.00019
1.155	9.758	24.2	0.2	0.00017
1.090	9.841	23.9	0.3	0.00015
1.029	9.924	23.4	0.5	0.00013

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-2.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 10:12:35AM
Reported: 7/1/2013 1:11:35PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 76 kCnts/s
Reynolds Number: 0.42

Report by Size Table

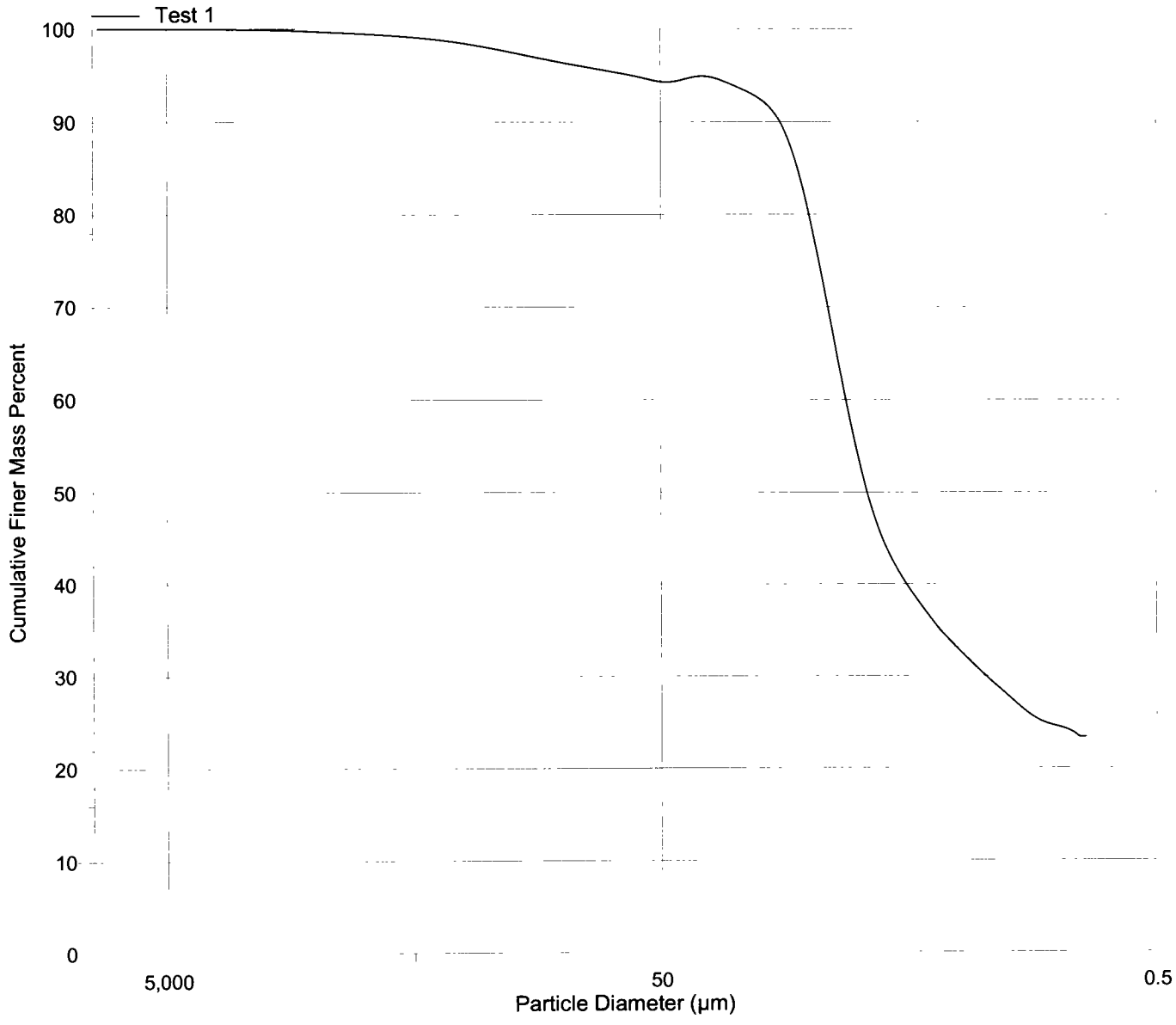
Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	94.9	1.5
4750	100.0	0.0	31.00	94.8	0.1
2000	99.9	0.1	15.60	88.8	6.0
1000	99.6	0.3	7.800	52.9	35.9
500.0	99.1	0.5	3.900	35.6	17.3
250.0	98.0	1.1	2.000	27.9	7.8
125.0	96.4	1.6	1.000	23.4	4.5

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-2.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 10:12:35AM
Reported: 7/1/2013 1:11:35PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 76 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



~~RESULT~~ eg

ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WTB1 ARI Sample No. A-3 Client Sample No. AM-VT-INF-20130612

Set-up Date: 6/27/13 Sample Description: CLAYEY-SILT, ORGANIC DEBRIS, Strong fuel-like odor.

Sieve Set # 1 Date Sieved: 6/13/13 white residue on oven dried material.

SOLIDS CONTENT

Moisture Content	Initials JG
Container No.	227
Tare Weight	1.5359
Wet Weight + Tare	31.8616
Dry Weight + Tare	14.0127

Test Sample	Initials JG
Container No.	227
Tare Weight	50.4419
Wet Weight + Tare	70.6650
Washed Sample Dry Weight + Tare	51.0473 JG

SIEVE ANALYSIS
Initials JG

Sieve Size	Weight Retained
Tare	50.4859
4	50.4859
10	50.4950 JG
18	50.5528
35	50.6105
60	50.7151
120	50.8466
230	50.9726
PAN	0.0681

SEDIGRAPH ANALYSIS
Initials eg
Date Sedigraphed 7-1-13

Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI WATER

Beaker ID	YELLOW LABEL (WTB1) AD

* less than #230 material flocculated and settled out quickly after homogenization eg.

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-3C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 12:49:52PM
Reported: 7/1/2013 1:11:57PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 75 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	99.2	0.1	117.80554
917.3	0.125	99.1	0.1	104.99430
866.0	0.208	99.1	0.1	93.57627
817.5	0.291	99.0	0.1	83.39994
771.8	0.374	99.0	0.1	74.33027
728.6	0.457	98.9	0.1	66.24693
687.9	0.540	98.9	0.1	59.04263
649.4	0.623	98.8	0.1	52.62180
613.1	0.706	98.7	0.1	46.89923
578.8	0.789	98.7	0.1	41.79898
546.4	0.872	98.6	0.1	37.25338
515.8	0.955	98.5	0.1	33.20211
487.0	1.038	98.5	0.1	29.59141
459.7	1.121	98.4	0.1	26.37338
434.0	1.204	98.3	0.1	23.50530
409.7	1.287	98.2	0.1	20.94912
386.8	1.370	98.1	0.1	18.67092
365.2	1.453	98.0	0.1	16.64048
344.7	1.536	97.9	0.1	14.83084
325.5	1.619	97.8	0.1	13.21800
307.3	1.702	97.6	0.1	11.78055
290.1	1.786	97.5	0.1	10.49943
273.8	1.869	97.4	0.1	9.35763
258.5	1.952	97.3	0.1	8.33999
244.1	2.035	97.1	0.1	7.43303
230.4	2.118	97.0	0.1	6.62469
217.5	2.201	96.9	0.1	5.90426
205.4	2.284	96.8	0.1	5.26218
193.9	2.367	96.6	0.1	4.68992
183.0	2.450	96.5	0.1	4.17990
172.8	2.533	96.4	0.1	3.72534
163.1	2.616	96.3	0.1	3.32021
154.0	2.699	96.2	0.1	2.95914
145.4	2.782	96.0	0.1	2.63734
137.2	2.865	95.9	0.1	2.35053
129.6	2.948	95.8	0.1	2.09491
122.3	3.031	95.7	0.1	1.86709
115.5	3.114	95.5	0.1	1.66405
109.0	3.197	95.4	0.1	1.48308
102.9	3.280	95.3	0.1	1.32180

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-3C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 12:49:52PM
Reported: 7/1/2013 1:11:57PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 75 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	95.2	0.1	1.17806
91.73	3.447	95.0	0.1	1.04994
86.60	3.530	94.9	0.1	0.93576
81.75	3.613	94.8	0.1	0.83400
77.18	3.696	94.7	0.1	0.74330
72.86	3.779	94.5	0.1	0.66247
68.79	3.862	94.4	0.1	0.59043
64.94	3.945	94.3	0.1	0.52622
61.31	4.028	94.2	0.1	0.46899
57.88	4.111	94.2	0.0	0.41799
54.64	4.194	94.2	0.0	0.37253
51.58	4.277	94.1	0.0	0.33202
48.70	4.360	94.1	0.1	0.29591
45.97	4.443	94.0	0.1	0.26373
43.40	4.526	93.9	0.1	0.23505
40.97	4.609	93.7	0.1	0.20949
38.68	4.692	93.6	0.1	0.18671
36.52	4.775	93.4	0.1	0.16640
34.47	4.858	93.3	0.1	0.14831
32.55	4.941	93.3	0.1	0.13218
30.73	5.024	93.2	0.0	0.11781
29.01	5.107	93.2	0.1	0.10499
27.38	5.191	93.1	0.1	0.09358
25.85	5.274	92.9	0.2	0.08340
24.41	5.357	92.6	0.3	0.07433
23.04	5.440	92.1	0.4	0.06625
21.75	5.523	91.6	0.6	0.05904
20.54	5.606	90.9	0.7	0.05262
19.39	5.689	90.2	0.7	0.04690
18.30	5.772	89.4	0.8	0.04180
17.28	5.855	88.5	0.9	0.03725
16.31	5.938	87.4	1.0	0.03320
15.40	6.021	86.2	1.2	0.02959
14.54	6.104	84.8	1.5	0.02637
13.72	6.187	83.0	1.8	0.02351
12.96	6.270	80.8	2.2	0.02095
12.23	6.353	78.2	2.6	0.01867
11.55	6.436	75.2	3.0	0.01664
10.90	6.519	72.0	3.3	0.01483
10.29	6.602	68.5	3.5	0.01322

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-3C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 12:49:52PM
Reported: 7/1/2013 1:11:57PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 75 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	65.0	3.5	0.01178
9.173	6.768	61.5	3.5	0.01050
8.660	6.851	58.1	3.4	0.00936
8.175	6.935	55.0	3.2	0.00834
7.718	7.018	52.0	2.9	0.00743
7.286	7.101	49.4	2.7	0.00662
6.879	7.184	47.0	2.4	0.00590
6.494	7.267	44.8	2.1	0.00526
6.131	7.350	43.0	1.8	0.00469
5.788	7.433	41.4	1.6	0.00418
5.464	7.516	40.0	1.4	0.00373
5.158	7.599	38.8	1.2	0.00332
4.870	7.682	37.7	1.1	0.00296
4.597	7.765	36.7	1.0	0.00264
4.340	7.848	35.8	0.9	0.00235
4.097	7.931	35.0	0.8	0.00209
3.868	8.014	34.2	0.8	0.00187
3.652	8.097	33.5	0.7	0.00166
3.447	8.180	32.7	0.8	0.00148
3.255	8.263	31.9	0.8	0.00132
3.073	8.346	31.0	0.8	0.00118
2.901	8.429	30.2	0.8	0.00105
2.738	8.512	29.5	0.8	0.00094
2.585	8.595	28.8	0.6	0.00083
2.441	8.679	28.3	0.5	0.00074
2.304	8.762	27.8	0.4	0.00066
2.175	8.845	27.5	0.4	0.00059
2.054	8.928	27.1	0.4	0.00053
1.939	9.011	26.6	0.4	0.00047
1.830	9.094	26.2	0.4	0.00042
1.728	9.177	25.8	0.4	0.00037
1.631	9.260	25.4	0.4	0.00033
1.540	9.343	25.1	0.3	0.00030
1.454	9.426	24.9	0.3	0.00026
1.372	9.509	24.7	0.2	0.00024
1.296	9.592	24.5	0.1	0.00021
1.223	9.675	24.5	0.1	0.00019
1.155	9.758	24.6	-0.1	0.00017
1.090	9.841	24.9	-0.3	0.00015
1.029	9.924	25.4	-0.5	0.00013

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-3C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 12:49:52PM
Reported: 7/1/2013 1:11:57PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 75 kCnts/s
Reynolds Number: 0.42

Report by Size Table

Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	94.2	1.5
4750	100.0	0.0	31.00	93.2	1.0
2000	99.8	0.2	15.60	86.5	6.7
1000	99.2	0.6	7.800	52.6	34.0
500.0	98.5	0.7	3.900	34.3	18.2
250.0	97.2	1.3	2.000	26.9	7.5
125.0	95.7	1.5	1.000	25.4	1.5

Sample: AM-VT-INF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81A-3C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
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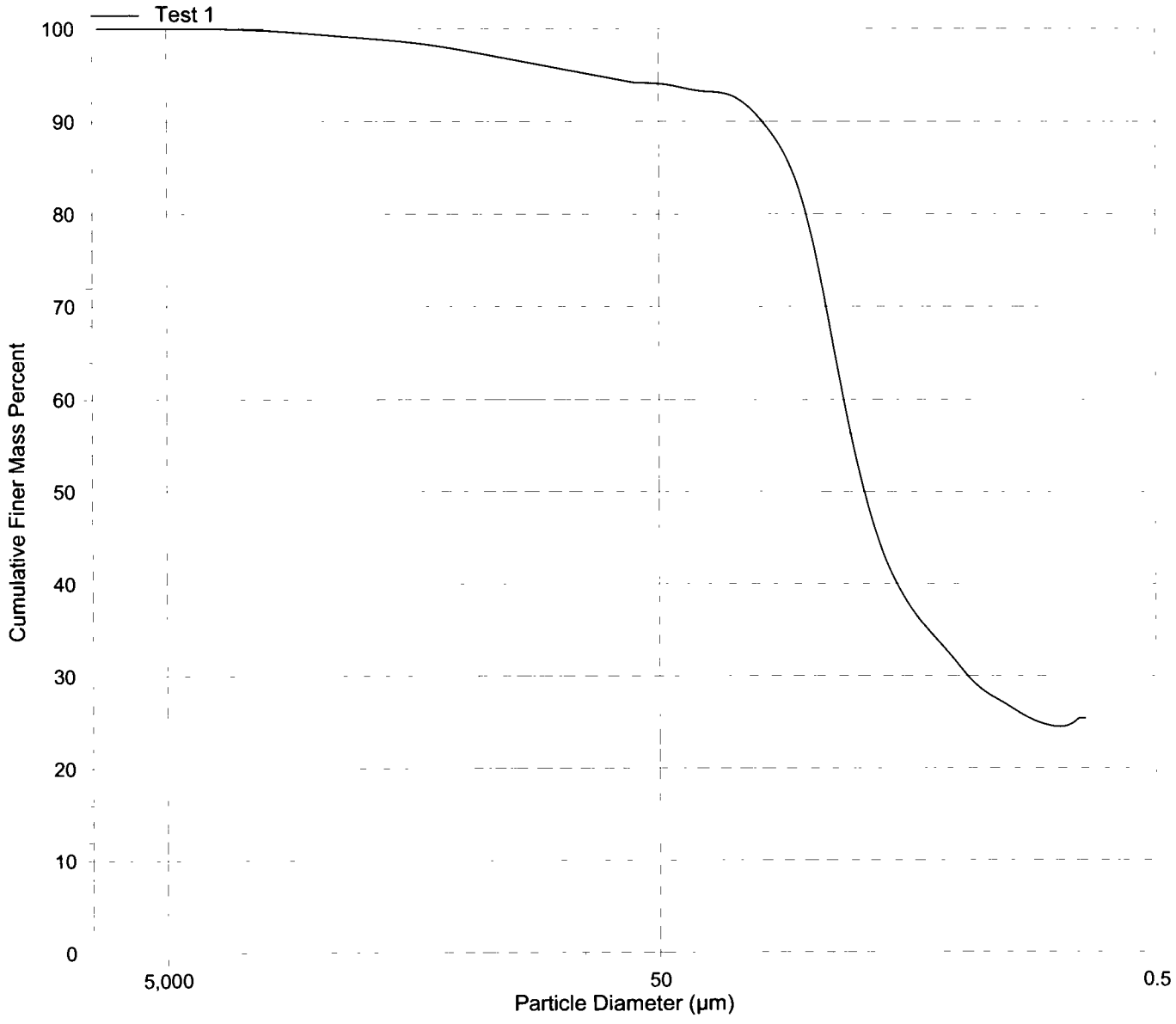
Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 75 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. B Client Sample No. AM-SPT-EFF-20130612-S

Set-up Date: 06-26-2013 Sample Description: CLAYEY SILT, DEBRIS

Sieve Set # 2 Date Sieved: 6/27/13

SOLIDS CONTENT

Moisture Content	Initials kb
Container No.	139
Tare Weight	1.5999
Wet Weight + Tare	56.9188
Dry Weight + Tare	24.3333

Test Sample	Initials kb
Container No.	139
Tare Weight	49.9827
Wet Weight + Tare	90.2763
Washed Sample Dry Weight + Tare	55.9799

SIEVE ANALYSIS
Initials JG

Sieve Size	Weight Retained
Tare	50.0248
4	50.1309
10	50.4010
18	50.8889
35	51.4191
60	51.9479 82 JG
120	52.6518
230	53.4830
PAN	1.2678

SEDIGRAPH ANALYSIS
Initials lg
Date Sedigraphed 7-1-13

Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI WATER

Beaker ID	WT81 B

Sample: AM-SF4-EFF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81B_B.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 11:44:02AM
Reported: 7/1/2013 11:55:17AM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 60 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	94.7	0.3	117.79979
917.3	0.125	94.4	0.3	104.98917
866.0	0.208	94.1	0.3	93.57170
817.5	0.291	93.9	0.3	83.39587
771.8	0.374	93.6	0.3	74.32664
728.6	0.457	93.3	0.3	66.24369
687.9	0.540	93.1	0.3	59.03975
649.4	0.623	92.8	0.3	52.61923
613.1	0.706	92.5	0.3	46.89694
578.8	0.789	92.3	0.3	41.79694
546.4	0.872	92.0	0.3	37.25156
515.8	0.955	91.7	0.3	33.20049
487.0	1.038	91.5	0.3	29.58997
459.7	1.121	91.2	0.3	26.37209
434.0	1.204	90.9	0.3	23.50415
409.7	1.287	90.7	0.3	20.94809
386.8	1.370	90.4	0.3	18.67001
365.2	1.453	90.1	0.3	16.63966
344.7	1.536	89.9	0.3	14.83012
325.5	1.619	89.6	0.3	13.21735
307.3	1.702	89.4	0.3	11.77998
290.1	1.786	89.1	0.3	10.49892
273.8	1.869	88.8	0.3	9.35717
258.5	1.952	88.6	0.3	8.33959
244.1	2.035	88.3	0.3	7.43266
230.4	2.118	88.0	0.3	6.62437
217.5	2.201	87.7	0.3	5.90398
205.4	2.284	87.3	0.3	5.26192
193.9	2.367	87.0	0.4	4.68969
183.0	2.450	86.6	0.4	4.17969
172.8	2.533	86.3	0.4	3.72516
163.1	2.616	85.9	0.4	3.32005
154.0	2.699	85.5	0.4	2.95900
145.4	2.782	85.1	0.4	2.63721
137.2	2.865	84.7	0.4	2.35041
129.6	2.948	84.3	0.4	2.09481
122.3	3.031	84.0	0.4	1.86700
115.5	3.114	83.5	0.4	1.66397
109.0	3.197	83.1	0.4	1.48301
102.9	3.280	82.6	0.5	1.32174

Sample: AM-SF4-EFF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81B_B.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 11:44:02AM
Reported: 7/1/2013 11:55:17AM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 60 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	82.1	0.5	1.17800
91.73	3.447	81.7	0.5	1.04989
86.60	3.530	81.2	0.5	0.93572
81.75	3.613	80.7	0.5	0.83396
77.18	3.696	80.3	0.4	0.74327
72.86	3.779	79.9	0.4	0.66244
68.79	3.862	79.5	0.3	0.59040
64.94	3.945	79.2	0.3	0.52619
61.31	4.028	79.1	0.2	0.46897
57.88	4.111	79.0	0.0	0.41797
54.64	4.194	79.0	0.1	0.37252
51.58	4.277	78.8	0.1	0.33200
48.70	4.360	78.7	0.1	0.29590
45.97	4.443	78.6	0.1	0.26372
43.40	4.526	78.5	0.1	0.23504
40.97	4.609	78.4	0.1	0.20948
38.68	4.692	78.3	0.1	0.18670
36.52	4.775	78.2	0.1	0.16640
34.47	4.858	78.2	0.0	0.14830
32.55	4.941	78.1	0.1	0.13217
30.73	5.024	78.0	0.1	0.11780
29.01	5.107	77.9	0.1	0.10499
27.38	5.191	77.7	0.2	0.09357
25.85	5.274	77.5	0.3	0.08340
24.41	5.357	77.1	0.4	0.07433
23.04	5.440	76.6	0.5	0.06624
21.75	5.523	75.8	0.8	0.05904
20.54	5.606	74.7	1.1	0.05262
19.39	5.689	73.3	1.4	0.04690
18.30	5.772	71.4	1.9	0.04180
17.28	5.855	68.9	2.5	0.03725
16.31	5.938	65.7	3.2	0.03320
15.40	6.021	61.7	4.0	0.02959
14.54	6.104	57.1	4.6	0.02637
13.72	6.187	52.3	4.8	0.02350
12.96	6.270	47.7	4.6	0.02095
12.23	6.353	43.8	4.0	0.01867
11.55	6.436	40.6	3.1	0.01664
10.90	6.519	38.3	2.3	0.01483
10.29	6.602	36.7	1.6	0.01322

Sample: AM-SF4-EFF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81B_B.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 11:44:02AM
Reported: 7/1/2013 11:55:17AM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 60 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	35.5	1.2	0.01178
9.173	6.768	34.6	0.9	0.01050
8.660	6.851	33.7	0.9	0.00936
8.175	6.935	32.9	0.8	0.00834
7.718	7.018	32.1	0.8	0.00743
7.286	7.101	31.3	0.8	0.00662
6.879	7.184	30.5	0.8	0.00590
6.494	7.267	29.7	0.7	0.00526
6.131	7.350	29.0	0.7	0.00469
5.788	7.433	28.4	0.7	0.00418
5.464	7.516	27.7	0.6	0.00373
5.158	7.599	27.2	0.6	0.00332
4.870	7.682	26.6	0.5	0.00296
4.597	7.765	26.1	0.5	0.00264
4.340	7.848	25.6	0.5	0.00235
4.097	7.931	25.1	0.5	0.00209
3.868	8.014	24.6	0.5	0.00187
3.652	8.097	24.1	0.5	0.00166
3.447	8.180	23.6	0.5	0.00148
3.255	8.263	23.1	0.5	0.00132
3.073	8.346	22.5	0.5	0.00118
2.901	8.429	22.0	0.6	0.00105
2.738	8.512	21.4	0.6	0.00094
2.585	8.595	20.8	0.6	0.00083
2.441	8.679	20.2	0.6	0.00074
2.304	8.762	19.5	0.6	0.00066
2.175	8.845	18.9	0.7	0.00059
2.054	8.928	18.1	0.7	0.00053
1.939	9.011	17.4	0.8	0.00047
1.830	9.094	16.5	0.8	0.00042
1.728	9.177	15.7	0.9	0.00037
1.631	9.260	14.8	0.9	0.00033
1.540	9.343	14.0	0.9	0.00030
1.454	9.426	13.1	0.8	0.00026
1.372	9.509	12.3	0.8	0.00024
1.296	9.592	11.5	0.8	0.00021
1.223	9.675	10.7	0.8	0.00019
1.155	9.758	9.9	0.8	0.00017
1.090	9.841	9.0	0.9	0.00015
1.029	9.924	7.9	1.1	0.00013

Sample: AM-SF4-EFF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81B_B.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 11:44:02AM
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Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 60 kCnts/s
Reynolds Number: 0.42

Report by Size Table

Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	79.1	5.0
4750	99.4	0.6	31.00	78.1	1.1
2000	97.7	1.7	15.60	62.7	15.4
1000	94.8	2.9	7.800	32.2	30.4
500.0	91.6	3.2	3.900	24.7	7.5
250.0	88.4	3.2	2.000	17.8	6.9
125.0	84.1	4.3	1.000	7.9	9.9

Sample: AM-SF4-EFF-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81B_B.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 11:44:02AM
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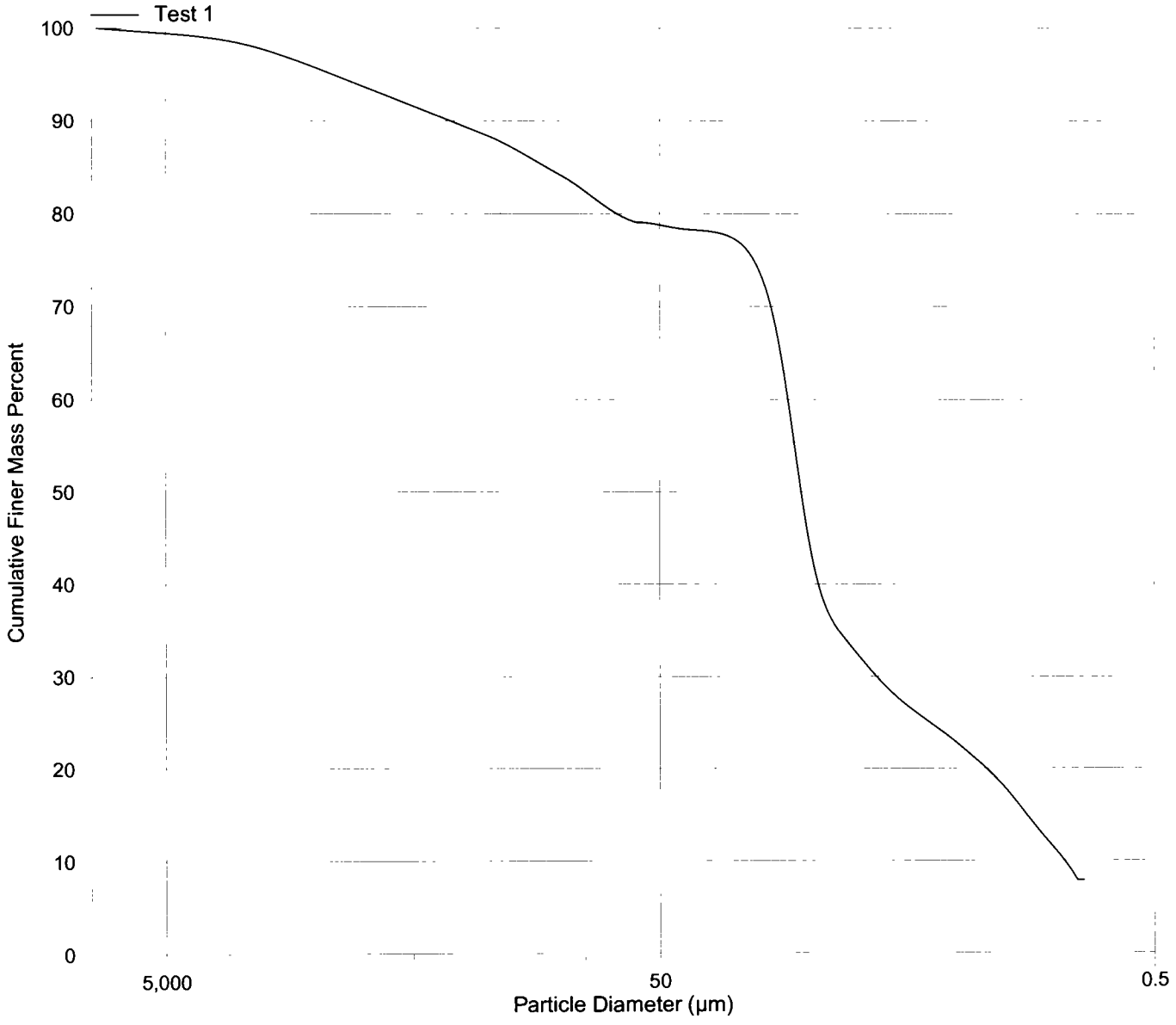
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 60 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. C Client Sample No. AM-DUP-01-20130612S

Set-up Date: 06-26-2013 Sample Description: CLAYEY SILT, DEBRIS

Sieve Set # 7/8a Date Sieved: 6/27/13

SOLIDS CONTENT

Moisture Content	Initials JLB
Container No.	169
Tare Weight	1.6055
Wet Weight + Tare	80.4678
Dry Weight + Tare	34.2324

Test Sample	Initials JLB
Container No.	169
Tare Weight	50.0142
Wet Weight + Tare	90.8535
Washed Sample Dry Weight + Tare	58.9218

SIEVE ANALYSIS
Initials 8a

Sieve Size	Weight Retained
Tare	50.0479
4	50.0479
10	50.0832
18	50.2718
35	50.9638
60	52.2143
120	53.6768
230	55.2290 8808a
PAN	3.3835

SEDIGRAPH ANALYSIS
Initials MP
Date Sedigraphed 7-1-13

Centrifuged ☐ Oven Dried ☐
Suspension Liquid DI WATER

Beaker ID	WT81 C

Sample: AM-DUP-01-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
Calculation Method: Stokes sedimentation and Beer's law of extinction

Test Number: 1
Analyzed: 7/1/2013 1:17:17PM
Reported: 7/1/2013 1:27:16PM
Liquid Visc: 0.7225 mPa·s
Analysis Temp: 35.0 °C

Analysis Type: High Speed(Adj)
Run Time: 0:05 hrs:min
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
971.6	0.042	98.6	0.1	117.80699
917.3	0.125	98.4	0.2	104.99559
866.0	0.208	98.2	0.2	93.57742
817.5	0.291	98.0	0.2	83.40096
771.8	0.374	97.7	0.3	74.33119
728.6	0.457	97.4	0.3	66.24774
687.9	0.540	97.1	0.3	59.04336
649.4	0.623	96.7	0.4	52.62245
613.1	0.706	96.3	0.4	46.89981
578.8	0.789	95.8	0.4	41.79950
546.4	0.872	95.4	0.5	37.25384
515.8	0.955	94.9	0.5	33.20252
487.0	1.038	94.4	0.5	29.59178
459.7	1.121	93.8	0.5	26.37370
434.0	1.204	93.3	0.6	23.50558
409.7	1.287	92.7	0.6	20.94937
386.8	1.370	92.1	0.6	18.67115
365.2	1.453	91.5	0.6	16.64068
344.7	1.536	90.9	0.6	14.83102
325.5	1.619	90.3	0.6	13.21816
307.3	1.702	89.6	0.6	11.78070
290.1	1.786	89.0	0.7	10.49956
273.8	1.869	88.3	0.7	9.35774
258.5	1.952	87.6	0.7	8.34010
244.1	2.035	86.9	0.7	7.43312
230.4	2.118	86.2	0.7	6.62477
217.5	2.201	85.5	0.7	5.90434
205.4	2.284	84.8	0.7	5.26224
193.9	2.367	84.0	0.7	4.68998
183.0	2.450	83.3	0.7	4.17995
172.8	2.533	82.6	0.7	3.72538
163.1	2.616	81.9	0.7	3.32025
154.0	2.699	81.1	0.7	2.95918
145.4	2.782	80.4	0.7	2.63737
137.2	2.865	79.7	0.7	2.35056
129.6	2.948	79.0	0.7	2.09494
122.3	3.031	78.2	0.7	1.86711
115.5	3.114	77.4	0.8	1.66407
109.0	3.197	76.6	0.9	1.48310
102.9	3.280	75.7	0.9	1.32182

Sample: AM-DUP-01-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
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Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
97.16	3.363	74.8	0.9	1.17807
91.73	3.447	73.9	0.9	1.04996
86.60	3.530	73.0	0.9	0.93577
81.75	3.613	72.1	0.8	0.83401
77.18	3.696	71.3	0.8	0.74331
72.86	3.779	70.6	0.7	0.66248
68.79	3.862	70.0	0.6	0.59043
64.94	3.945	69.5	0.5	0.52622
61.31	4.028	69.2	0.3	0.46900
57.88	4.111	69.2	0.0	0.41799
54.64	4.194	69.1	0.1	0.37254
51.58	4.277	69.0	0.1	0.33203
48.70	4.360	68.9	0.1	0.29592
45.97	4.443	68.8	0.1	0.26374
43.40	4.526	68.6	0.2	0.23506
40.97	4.609	68.4	0.2	0.20949
38.68	4.692	68.1	0.3	0.18671
36.52	4.775	67.8	0.4	0.16641
34.47	4.858	67.3	0.4	0.14831
32.55	4.941	66.8	0.5	0.13218
30.73	5.024	66.2	0.6	0.11781
29.01	5.107	65.5	0.7	0.10500
27.38	5.191	64.5	1.0	0.09358
25.85	5.274	63.2	1.3	0.08340
24.41	5.357	61.6	1.7	0.07433
23.04	5.440	59.5	2.1	0.06625
21.75	5.523	56.9	2.6	0.05904
20.54	5.606	54.0	2.9	0.05262
19.39	5.689	50.9	3.1	0.04690
18.30	5.772	47.7	3.2	0.04180
17.28	5.855	44.6	3.1	0.03725
16.31	5.938	41.9	2.8	0.03320
15.40	6.021	39.4	2.4	0.02959
14.54	6.104	37.4	2.0	0.02637
13.72	6.187	35.8	1.6	0.02351
12.96	6.270	34.4	1.3	0.02095
12.23	6.353	33.3	1.1	0.01867
11.55	6.436	32.4	1.0	0.01664
10.90	6.519	31.4	0.9	0.01483
10.29	6.602	30.6	0.9	0.01322

Sample: AM-DUP-01-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
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Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Class

Low Diameter (µm)	Particle Size (Phi)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Settling Velocity (cm/s)
9.716	6.685	29.7	0.9	0.01178
9.173	6.768	28.9	0.8	0.01050
8.660	6.851	28.1	0.8	0.00936
8.175	6.935	27.4	0.7	0.00834
7.718	7.018	26.6	0.7	0.00743
7.286	7.101	26.0	0.7	0.00662
6.879	7.184	25.3	0.7	0.00590
6.494	7.267	24.6	0.7	0.00526
6.131	7.350	24.0	0.6	0.00469
5.788	7.433	23.4	0.6	0.00418
5.464	7.516	22.9	0.5	0.00373
5.158	7.599	22.5	0.4	0.00332
4.870	7.682	22.1	0.4	0.00296
4.597	7.765	21.7	0.4	0.00264
4.340	7.848	21.3	0.4	0.00235
4.097	7.931	20.9	0.4	0.00209
3.868	8.014	20.5	0.4	0.00187
3.652	8.097	20.1	0.4	0.00166
3.447	8.180	19.6	0.5	0.00148
3.255	8.263	19.0	0.5	0.00132
3.073	8.346	18.4	0.6	0.00118
2.901	8.429	17.8	0.6	0.00105
2.738	8.512	17.2	0.6	0.00094
2.585	8.595	16.6	0.6	0.00083
2.441	8.679	16.1	0.5	0.00074
2.304	8.762	15.6	0.5	0.00066
2.175	8.845	15.0	0.5	0.00059
2.054	8.928	14.4	0.6	0.00053
1.939	9.011	13.7	0.7	0.00047
1.830	9.094	13.0	0.7	0.00042
1.728	9.177	12.3	0.7	0.00037
1.631	9.260	11.7	0.7	0.00033
1.540	9.343	11.0	0.6	0.00030
1.454	9.426	10.4	0.6	0.00026
1.372	9.509	9.8	0.6	0.00024
1.296	9.592	9.2	0.6	0.00021
1.223	9.675	8.7	0.5	0.00019
1.155	9.758	8.3	0.4	0.00017
1.090	9.841	8.1	0.3	0.00015
1.029	9.924	7.9	0.2	0.00013

Sample: AM-DUP-01-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81C.SMP
Material/Liquid: AriSamp / Water
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Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Report by Size Table

Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)	Low Diameter (µm)	Cumulative Mass Finer (Percent)	Mass Frequency (Percent)
9500	100.0	0.0	63.00	69.3	9.2
4750	100.0	0.0	31.00	66.3	3.0
2000	99.8	0.2	15.60	39.9	26.4
1000	98.7	1.1	7.800	26.8	13.2
500.0	94.6	4.1	3.900	20.6	6.2
250.0	87.2	7.4	2.000	14.1	6.5
125.0	78.5	8.7	1.000	7.9	6.2

Sample: AM-DUP-01-20130612-S
Operator: eg
Submitter: SAIC
File: C:\5120\DATA\WT81\WT81C.SMP
Material/Liquid: AriSamp / Water
Measurement Principle: X-Ray monitored gravity sedimentation
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Analysis Type: High Speed(Adj)
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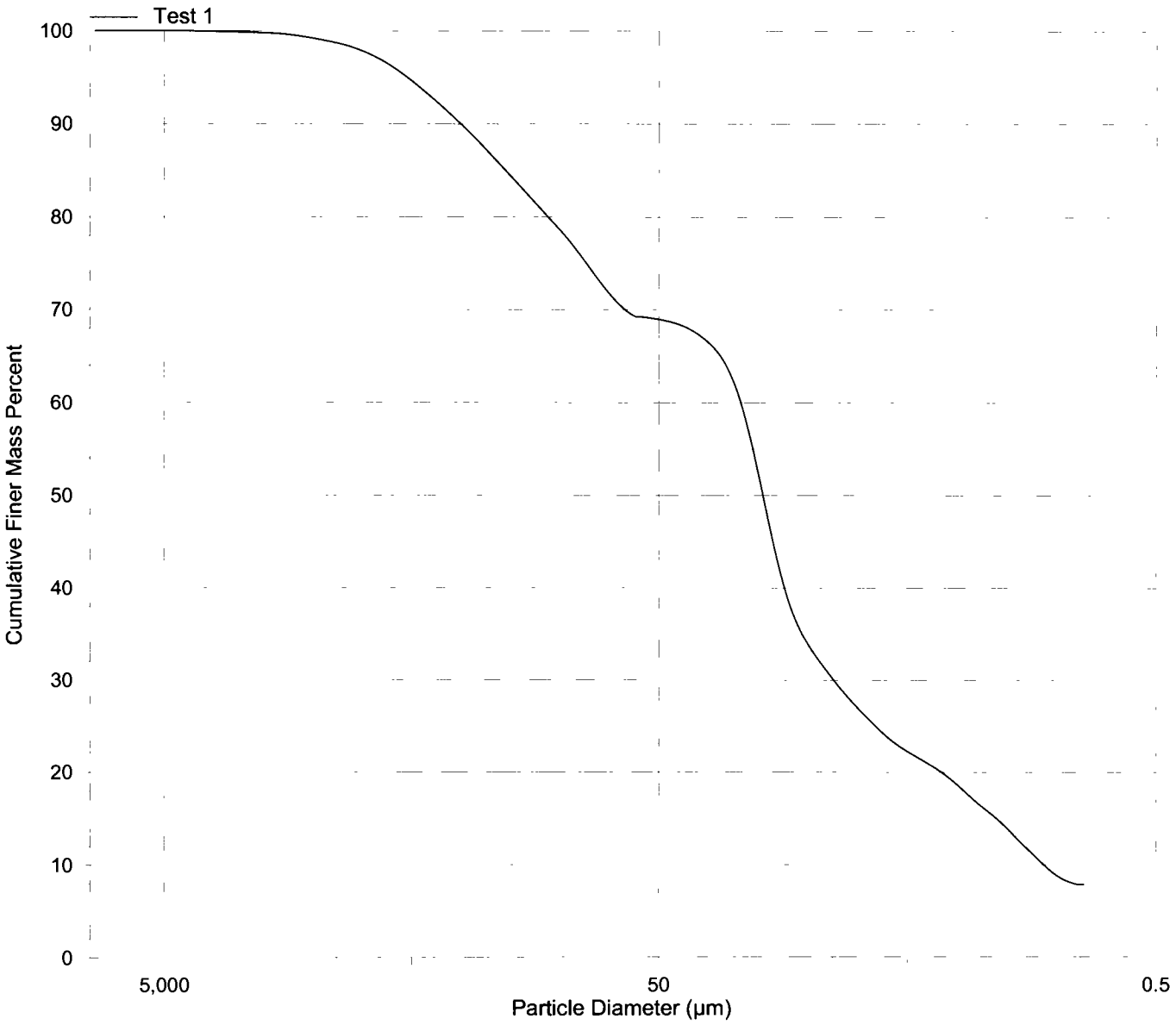
Sample Density: 2.650 g/cm³
Liquid Density: 0.9941 g/cm³
Base/Full Scale: 107 / 73 kCnts/s
Reynolds Number: 0.42

Cumulative Finer Mass Percent vs. Diameter



RESPLIT

ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. A-1 Client Sample No. AM-VT-INF-20130612-S

Set-up Date: 06-26-2013 Sample Description: CLAYEY SILT, DEBRIS, ORGANIC DEBRIS, WHITE RESIDUE AFTER SIEVING BOUND FINES TOGETHER

Sieve Set # 1 Date Sieved: 6/27/13 OVEN-DRIED

SOLIDS CONTENT

Moisture Content	Initials MS
Container No.	102A
Tare Weight	1.6016
Wet Weight + Tare	28.8741
Dry Weight + Tare	12.9103

Test Sample	Initials MS
Container No.	102A
Tare Weight	49.4572
Wet Weight + Tare	89.9043
Washed Sample Dry Weight + Tare	55.5294

SIEVE ANALYSIS
Initials JG

Sieve Size	Weight Retained
Tare	49.5576
4	49.5576
10	49.5878
18	49.6829 26 JG
35	50.1569
60	51.0755
120	52.3653
230	53.4617
PAN	2.0308

SEDIGRAPH ANALYSIS
Initials _____
Date Sedigraphed _____

Centrifuged ☑ Oven Dried ☐
Suspension Liquid _____

Beaker ID	WT81 A-1 (ORANGE)

RESPLIT

ANALYTICAL RESOURCES, INC.

SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. A-2 Client Sample No. AM-WT-INF-20130612-S

Set-up Date: 06.26.2013 Sample Description: CLAYEY SILT, DEBRIS, ORGANIC DEBRIS, WHITE RESIDUE AFTER OVEN DRYING BOUND FINES TOGETHER

Sieve Set # 2 Date Sieved: 6/27/13

SOLIDS CONTENT

Moisture Content	Initials JdB
Container No.	109A
Tare Weight	1.6030
Wet Weight + Tare	28.8086
Dry Weight + Tare	12.8400

Test Sample	Initials JdB
Container No.	109A
Tare Weight	51.1339
Wet Weight + Tare	91.5904
Washed Sample Dry Weight + Tare	54.8497 500 JA

SIEVE ANALYSIS

Initials JA

Sieve Size	Weight Retained
Tare	51.2439
4	51.29~~39~~ 2439 JA JA
10	51.2964
18	51.605~~8~~ 4553A
35	52.1382
60	52.8224
120	53.7796
230	54.~~48~~ 4841 JA
PAN	1.1271

SEDIGRAPH ANALYSIS

Initials _____

Date Sedigraphed _____

Centrifuged ☐ Oven Dried ☐

Suspension Liquid _____

Beaker ID	WT81 A-2 (ORANGE)

RESPLIT

ANALYTICAL RESOURCES, INC.
SEDIGRAPH GRAIN SIZE ANALYSIS

Job No. WT81 ARI Sample No. A-3 Client Sample No. AM-VT-INF-20130612-S

Set-up Date: 06·26·13 Sample Description: CLAYEY SILT, DEBRIS; ORGANIC DEBRIS; WHITE RESIDUE AFTER SIEVING OVEN DRYING BOUND FINES TOGETHER

Sieve Set # 1 Date Sieved: 6/27/13

SOLIDS CONTENT

Moisture Content	Initials JG
Container No.	116
Tare Weight	1.6017
Wet Weight + Tare	28.6543
Dry Weight + Tare	12.8274

Test Sample	Initials JG
Container No.	116
Tare Weight	51.2142
Wet Weight + Tare	91.9865
Washed Sample Dry Weight + Tare	53.7971

SIEVE ANALYSIS
Initials JG

Sieve Size	Weight Retained
Tare	51.3183
4	51.3183
10	51.3777
18	51.4378
35	51.5795
60	51.8485
120	52.3638 40 JG
230	52.9014
PAN	0.7025

SEDIGRAPH ANALYSIS
Initials _____

Date Sedigraphed _____

Centrifuged ☐ Oven Dried ☐

Suspension Liquid _____

Beaker ID	WT81 A-3

Table of Contents: ARI Job WW85

Client: SAIC

Project: 209977 NPDES Sampling Support

Signature

July-11-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 12, 2013

Christine Nancarrow
SAIC
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

RE: Project: NPDES Sampling Support, 209977
ARI Job No.: WW85

Dear Christine:

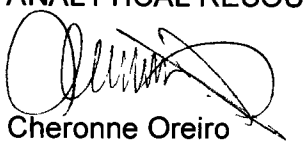
Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this data package will be kept on file with ARI. Should you have any questions or problems, please feel free to contact me at any time.

Sincerely,

ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WW85

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WW85

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WJ801	Turn-around Requested: Standard 10 d TAT	Date: 12 June 2013	
ARI Client Company: SAIC	Phone: 206.300.2144 nancarrowc@saic.com	Page: 1 of 1	
Client Contact: Christine Nancarrow		No. of Coolers: 1	Cooler Temps: 6.0
Client Project Name: NPDES Sampling Support			
Client Project #: 209977	Samplers: CN/AW		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	PCB Aroclors (EPA 8082)	SVOCs/PAHs (EPA 8270 / EPA 8270-SIM)	Pesticides (EPA 8081)	Dioxins/Furans (EPA 1613B)	TPH-Diesel (NWTPH-DW)	VOCs (EPA8260)	Metals (EPA 6010/200.8)	Mercury (EPA 7471)	TOC (Plumb 1981)	Total Solids (SM2540B)	Particle Size Distribution (Sedigraph)	NWTPH-Gas (NWTPH-Gx)	Notes/Comments
AM-SF4-EFF-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-DUP-01-20130612-S	6/12/13	1003	Sed.	11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
AM-TB-01-20130612-W	6/12/13	1005	H2O	2						✓						✓	
AM-VT-INF-20130612-S	6/12/13	1306	Sed.	6	✓	✓	✓	✓			✓	✓	✓	✓	✓		

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Do not discard samples w/out prior written authorization from the SAIC PM.	Printed Name: CNANCARROW	Printed Name: Jennifer Millsap	Printed Name:	Printed Name:
	Company: SAIC	Company: ARI	Company:	Company:
	Date & Time: 6/12/13 @1410	Date & Time: 6/12/13 1410	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: SAIC
Project Name: NPDES Sampling Support
COC No(s): _____ (NA)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No: WT81
Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry)	6.0	

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90877952

Cooler Accepted by: JM Date: 6/12/13 Time: 1410

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	(NO)
Were all VOC vials free of air bubbles?	NA	YES	(NO)
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA	4/15/13	

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 6/12/13 Time: 1441

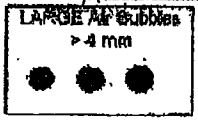
*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

AM-TB-01-20130612-W = sm in 1 of 2

By: JM Date: 6/12/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles >4 mm
		

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WW85

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: SAIC
Project: NPDES Sampling Support, 209977
ARI Job No.: WW85

Sample Receipt

Three sediment samples were removed from frozen archive and re-logged under ARI job WW85. The samples were analyzed for Zinc. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Zinc by SW6010C

The samples were digested and analyzed within method recommended holding times.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WW85
Client: SAIC
Project Event: 209977
Project Name: NPDES Sampling Support

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	AM-VT-INF-20130612-S	WW85A	13-14379	Sediment	06/12/13 13:06	06/12/13 14:10
2.	AM-SF4-EFF-20130612-S	WW85B	13-14380	Sediment	06/12/13 10:03	06/12/13 14:10
3.	AM-DUP-01-20130612-S	WW85C	13-14381	Sediment	06/12/13 10:03	06/12/13 14:10

Quality Control Parameters for Metals Analysis-ICP-OES EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$
(6) ARI does not analyze for Silicon in solids or tissue samples

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WW85

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
AM-VT-INF-20130612	WW85A	13-14379	
PBS	WW85MB1	13-14379	
LCSS	WW85MB1SPK	13-14379	
AM-SF4-EFF-2013061	WW85B	13-14380	
AM-DUP-01-20130612	WW85C	13-14381	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 7/11/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-VT-INF-20130612-S
SAMPLE

Lab Sample ID: WW85A
LIMS ID: 13-14379
Matrix: Sediment
Data Release Authorized:
Reported: 07/11/13

QC Report No: WW85-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 43.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	07/09/13	6010C	07/10/13	**7440-66-6**	**Zinc**	2	**564**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-SF4-EFF-20130612-S
SAMPLE

Lab Sample ID: WW85B
LIMS ID: 13-14380
Matrix: Sediment
Data Release Authorized:
Reported: 07/11/13

QC Report No: WW85-SAIC
Project: NPDES Sampling Support
209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 32.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	07/09/13	6010C	07/10/13	**7440-66-6**	**Zinc**	3	**3,030**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

WW85 : 20012

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: AM-DUP-01-20130612-S
SAMPLE

Lab Sample ID: WW85C
LIMS ID: 13-14381
Matrix: Sediment
Data Release Authorized:
Reported: 07/11/13

QC Report No: WW85-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: 06/12/13
Date Received: 06/12/13

Percent Total Solids: 40.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	07/09/13	6010C	07/10/13	**7440-66-6**	**Zinc**	6	**3,010**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WW85LCS
LIMS ID: 13-14379
Matrix: Sediment
Data Release Authorized:
Reported: 07/11/13

QC Report No: WW85-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Zinc	6010C	51	50	102%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: WW85MB
LIMS ID: 13-14379
Matrix: Sediment
Data Release Authorized:
Reported: 07/11/13

QC Report No: WW85-SAIC
Project: NPDES Sampling Support 209977
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	07/09/13	6010C	07/10/13	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Zinc	ZN	ICP	IP071071	1000.0	1011.88	**101.2**	1000.0	1010.14	**101.0**	1000.88	**100.1**	1011.15	**101.1**	1011.09	**101.1**	1016.78	**101.7**

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Zinc	ZN	ICP	IP071071		10.0	10.02	**100.2**	9.87	**98.7**								

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Zinc	ZN	ICP	IP071071	20.0	10.0	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

ICS SOURCE: I.V.

RUNID: IP071071

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	202749.7	202425.4	**101.2**	202050.7	202625.5	**101.3**			
Antimony		1000	18.1	1030.2	**103.0**	16.0	1020.4	**102.0**			
Arsenic		1000	27.5	1038.3	**103.8**	24.9	1024.6	**102.5**			
Barium		1000	-4.3	1021.8	**102.2**	-3.9	1051.1	**105.1**			
Beryllium		1000	0.1	978.2	**97.8**	0.1	968.5	**96.9**			
Boron			-7.5	-9.0		-6.3	-8.5				
Cadmium		1000	0.5	1031.4	**103.1**	0.5	1016.4	**101.6**			
Calcium	100000	100000	100488.8	100219.7	**100.2**	100649.5	100574.3	**100.6**			
Chromium		1000	0.8	1024.8	**102.5**	1.2	1041.6	**104.2**			
Cobalt		1000	-0.3	978.8	**97.9**	-0.2	975.1	**97.5**			
Copper		1000	0.0	1072.8	**107.3**	-0.1	1057.4	**105.7**			
Iron	200000	200000	199835.9	200229.0	**100.1**	197721.7	198251.3	**99.1**			
Lead		1000	-9.5	953.7	**95.4**	-10.2	949.0	**94.9**			
Magnesium	100000	100000	104330.9	99547.1	**99.5**	105125.8	100287.8	**100.3**			
Manganese		1000	0.7	963.4	**96.3**	0.8	965.4	**96.5**			
Molybdenum			4.6	4.7		4.2	4.8				
Nickel		1000	-0.3	949.2	**94.9**	-0.3	969.8	**97.0**			
Potassium			28.3	26.9		41.1	2.4				
Selenium		1000	23.7	1029.0	**102.9**	16.6	1008.3	**100.8**			
Silicon			-3.0	-4.5		-9.0	-5.3				
Silver		1000	-1.2	1060.9	**106.1**	-0.9	1053.6	**105.4**			
Sodium			6.4	6.4		8.9	2.3				
Strontium			5.4	5.3		5.5	5.4				
Thallium		1000	5.0	954.7	**95.5**	5.7	947.7	**94.8**			
Tin			-12.7	-11.8		-13.3	-14.0				
Titanium			2.7	2.6		3.4	2.9				
Vanadium		1000	-0.9	1002.1	**100.2**	-0.8	991.9	**99.2**			
Zinc		1000	1.7	940.7	**94.1**	1.8	959.0	**95.9**			

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

SDG: WW85

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Zinc	ZN	ICP	OPTIMA ICP 2	213.86		20	10.0	4/1/2012	100000.0	6/10/2013

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 6/10/2013

SDG: WW85

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	13.5116900	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0733590	0.0000000	-1.1562270	1.6205640	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1808730	0.0000000	0.0000000	0.1684250
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.67	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	2.1037380	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.4930220	0.0000000	0.0000000	0.0000000	0.0000000	0.1385480	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0970800	0.0000000	0.0000000	0.0000000	0.0000000	-0.0418440
Cobalt	228.62	0.0000000	0.0000000	0.0906750	0.0000000	0.0000000	0.0000000	0.0000000	-0.0404570	0.0000000	0.0120010
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1617900	0.0000000	0.0000000	-0.0440960
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.0775070	0.0000000	0.0000000
Lead	220.35	-0.2330880	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1375770	-1.7455340	1.4164220	0.0510640
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1238020	0.0000000	-1.6776030	-1.2063230	0.0000000	0.6021300
Manganese	257.61	0.0056830	0.0000000	0.0000000	0.0000000	0.0040290	0.0000000	0.0000000	0.0000000	0.0000000	-0.0043570
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0127170	0.0000000	0.0000000	0.0494370	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.1095620	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5156780	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.7783440	0.0000000	-0.6443870	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	4.3373140	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.9719930	0.4226130	0.0000000	-0.1373360
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1284010	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0622130	0.0000000	0.0000000	0.1906300	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.9208100	0.0000000	0.0530020
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0123920	0.0000000	0.0000000	-0.0659320	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo

IEC DATE: 6/10/2013

SDG: WW85

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	16.0812590	0.0000000	0.0000000	0.0000000	1.9531650	0.0000000	15.6704600	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.8263670	0.0000000	-3.8485090	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.4165090	0.0000000	0.0000000	0.0000000	-32.1596340	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1266550	0.0000000	0.0000000	0.0000000	0.0000000	0.2235440	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0102770	0.0000000	0.2401990	0.0000000
Boron	249.67	0.0000000	0.0000000	-1.0759410	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9387840	0.0000000	0.0000000	0.0000000	0.0000000	0.0597550	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0860990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3212800	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1256200	0.1682020	0.0000000	0.0000000	1.7253070	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0058198	0.0000000	0.3004190	0.0000000	0.0000000	0.0000000	0.1851800	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	7.2530080	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.2138260	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1832430	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5439300	0.0000000	0.4201630	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5911140	0.0000000
Silicon	288.16	-0.1130470	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2887870	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	287.1603720	0.0000000	0.0000000	306.9999840
Thallium	190.80	0.0000000	0.0000000	-1.5891790	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6439390	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0384380	-0.4873020	-0.2074990	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.9474070	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1525200	-0.5409400	0.0000000	0.0000000	0.0000000	0.5527510	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2376970	0.0000000	-0.0608720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

ANALYSIS METHOD: ICP

PROJECT: NPDES Sampling Suppo

ARI PREP CODE: SWC

SDG: WW85

PREPDATE: 7/9/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
AM-VT-INF-20130612	WW85A	1.040	0.0	50.0
AM-SF4-EFF-2013061	WW85B	1.071	0.0	50.0
AM-DUP-01-20130612	WW85C	1.076	0.0	50.0
PBS	WW85MB1	1.000	0.0	50.0
LCSS	WW85MB1SPK	1.000	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 7/10/2013

SDG: WW85 | RUNID: IP071071 | METHOD: ICP | END DATE: 7/10/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08454																														X
S2	S2	1.00	08495																														
S3	S3	1.00	08515																														X
S4	S4	1.00	08543																														
S5	S5	1.00	08564																														
ICV	ICV	1.00	09094																														X
ICB	ICB	1.00	09132																														X
CRI	CRII	1.00	09174																														X
ICSA	ICSAI	1.00	09220																														X
ICSAB	ICSABI	1.00	09261																														X
CCV	CCV1	1.00	09301																														X
CCB	CCB1	1.00	09342																														X
ZZZZZZ	WW69MB1	2.00	09383																														
ZZZZZZ	WW69A-L	10.00	09425																														
ZZZZZZ	WW69A	2.00	09465																														
ZZZZZZ	WW69ADUP	2.00	09505																														
ZZZZZZ	WW69ASPK	2.00	09545																														
ZZZZZZ	ZZZZZZ	2.00	09585																														
ZZZZZZ	WW69REF1	2.00	10025																														
ZZZZZZ	WW69MB1SPK	2.00	10065																														
CCV	CCV2	1.00	10105																														X
CCB	CCB2	1.00	10150																														X
CRI	CRIF	1.00	10191																														X
ICSA	ICSAF	1.00	10233																														X
ICSAB	ICSABF	1.00	10275																														X
CCV	CCV3	1.00	10315																														X
CCB	CCB3	1.00	10355																														X
PBS	WW85MB1	2.00	10401																														X
AM-VT-INF-20130612	WW85A	2.00	10442																														X
AM-SF4-EFF-2013061	WW85B	2.00	10485																														X
AM-DUP-01-20130612	WW85C	2.00	10525																														
LCSS	WW85MB1SPK	2.00	10565																														X
CCV	CCV4	1.00	11005																														X
CCB	CCB4	1.00	11050																														X
ZZZZZZ	WW16RMB1	2.00	11091																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: SAIC

PROJECT: NPDES Sampling Suppo | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 7/10/2013

SDG: WW85 | RUNID: IP071071 | METHOD: ICP | END DATE: 7/10/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
AM-DUP-01-20130612	WW85C	5.00	11133																														X
ZZZZZZ	WW16RADUP	2.00	11173																														
ZZZZZZ	WW16RA	2.00	11220																														
ZZZZZZ	WW16RASPK	2.00	11262																														
ZZZZZZ	WW16RREF1	2.00	11295																														
ZZZZZZ	WW16RMB1SPK	2.00	11335																														
CCV	CCV5	1.00	11375																														X
CCB	CCB5	1.00	11420																														X

Total Solids

ARI Job ID: WW85

Solids Data Entry Report Checked by: DM Date: 7/10/13
Date: 07/10/13 Data Analyst: CB

Solids Determination performed on 07/09/13 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WW85	A	AM-VT-INF-20130612-	1.010	10.734	5.242	43.52
WW85	B	AM-SF4-EFF-20130612	1.010	10.063	3.928	32.23
WW85	C	AM-DUP-01-20130612-	0.995	10.811	4.982	40.62

WW85 : 20827

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Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 Balance ID: 068755

Samples in Oven: Date: 7-09-13 Time: 1600 Temp: 101°C Analyst: DM

Removed from Oven: Date: 7-10-13 Time: 0920 Temp: 100°C Analyst: CB

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
WWC9 A	0.993	10.717	5.481	—	√
WW85 A	1.010	10.734	5.242	—	√
" B	1.010	10.068	3.928	—	√
" C	0.995	10.811	4.982	—	√
WWC8 A	0.989	10.510	5.600	—	√
" B	0.996	10.482	5.212	—	√
		7.9.13	DM		

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WW85

Analytical Resources,Incorporated
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SPIKING LOG

Analyst: TDM

Date: 7-09-13

Final Volume 50

Final Volume (Hg):

Sample ID WW655 MBISPK

Prepcode:		SW2		
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No :		B507		
Vol Added (mL):		1.0		
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50 ✓	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 7-09-13 Time: 1615

Matrix: Soil Block ID: #6 Block Temp: 94°C Thermometer: MP40

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
WW19 A	1	—	1.078	50.0	1.087	50.0	
" AOUP	1	—	1.074		1.089		
" AFSPK	1	—	1.077		1.089		
" REF1	0053	—	1.006		1.009		
" MB1	—	—	—		—		
" MB1SPK	—	—	—		—	50.0	
WW66 A	1	—	1.040				
" B	1	—	1.071				
" C	1	—	1.076				
" MB1	—	—	—				
" MB1SPK	—	—	—				
WW16R A	3	—	1.062				
" AOUP	3	—	1.064				
" AFSPK	3	—	1.061				
" REF1	0053	—	1.004				
" MB1	—	—	—				
" MB1SPK	—	—	—	50.0			

7-9-13 DM

Chemical/Reagent ID: HNO3 : MP2519 IB272 H2O2 IS135 HCl IB213 Tube LOT # MH21KK0C

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WW85

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA **Analysis Date:** 7-10-13

ICP2	Analyst BA 7-10-13	Peer 7-11-13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	WW16R
Matrix Spikes	✓	✓	WW16R
Matrix Duplicates	✓	✓	↓
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF - WW16R

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 6-10-13 Analysis Date: 7-10-13 Analyst: BA

LR Date: 6-10-13 Page: 1 of 3

All corrections made by analyst unless otherwise noted. BA 7-10-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			B934
		2			B970
		3			B971
		4			B972
		5			B973
		ICV			B323
		ICB			
		CRI			Ba ↑
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		WW69 MB1	SWC	2	
		A-L		10	
		A		2	
		ADUP			
		ASPK			
zzz		~~APDST~~ zzzzzz			
		REF1			
		MB1SPK			
		CCV2			
		CCB2			
		CRI			
		ICSA			

WBS : 8883H

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: ___ Analysis Date: 7-10-13 Analyst: BA

LR Date: ___ Page: 2 of 3

All corrections made by analyst unless otherwise noted. BA 7-10-13

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		ICSAB			
		CCV3			
		CCB3			End WW69
		WW85 MB1	SWC	2	
		A			
		B			
	✓	C			Fe > LR
		MB1SPK			
		CCV4			
		CCB4			
		WW68R MB1	SWC	2	
		WW85 C		5	
	✓	WW68R ADUP		2	
	✓	A			Ca > RB
	✓	ASPK			↓
	✓	REF1			As Cu Ni Pb ↓ ~~CAF~~
		MB1SPK			
		CCV5			
		CCB5			End WW85
		WW59 MB	TWC		
		ADUP	BA		
		A	7/10/13		
		ASPK			
		B			

WW85 : 00035

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Analysis Begun

Start Time: 7/10/2013 8:24:22 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 7/10/2013 7:35:29 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif
Batch ID:
Results Data Set: I2130710
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: ~~IE073012A.iec~~ IEC061213.iec BA 7/10/13
Method Description: 12Axial Elements

Method Last Saved: 8/13/2012 7:13:22 AM
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.67[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.52	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.93[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.80[illegible]	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.71[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 238.355	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.49[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.07[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.[illegible]	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.83[illegible]	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sr 169.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: B1

Autosampler Location: 1
Date Collected: 7/10/2013 8:24:28 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Analysis Begun

Start Time: 7/10/2013 8:45:40 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 7/10/2013 7:35:29 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0710.sif
Batch ID:
Results Data Set: I2130710
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 7/10/2013 8:45:41 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
[illegible]	3574923.4	10911.30	0.31	100.0	%
[illegible]	373443.8	1040.53	0.28	100.0	%
Mg 279.079†	-142.0	20.72	14.60%	[0.00]	mg/L
Al 308.215†	176.0	4.03	2.29%	[0.00]	mg/L
As 188.979†	-9.6	1.69	17.31	[0.00]	mg/L
B 249.677†	19.9	2.22	11.15%	[0.00]	mg/L
Ba 233.527†	25.2	6.21	24.67%	[0.00]	mg/L
Be 313.042†	612.5	14.71	2.40%	[0.00]	mg/L
Ca 317.933†	121.7	4.21	3.46%	[0.00]	mg/L
Co 228.802†	302.4	1.09	0.36%	[0.00]	mg/L
Cr 267.716†	-152.3	0.83	0.55%	[0.00]	mg/L
Cu 324.754†	2133.0	23.14	0.87%	[0.00]	mg/L
Fe 238.863†	23.7	1.68	7.08%	[0.00]	mg/L
K 766.491†	441.4	19.10	4.33	[0.00]	mg/L
Mn 257.610†	184.4	5.40	2.93	[0.00]	mg/L
Mo 202.031†	55.2	0.72	1.30%	[0.00]	mg/L
Na 589.592†	-516.7	27.41	5.31%	[0.00]	mg/L
Ni 231.604†	-194.2	13.11	6.75%	[0.00]	mg/L
P 213.617†	5.2	3.76	999.99	[0.00]	mg/L
Sb 206.836†	29.9	3.50	11.70%	[0.00]	mg/L
Sn 189.989†	40.7	1.43	3.52	[0.00]	mg/L
Se 196.026†	-31.9	6.72	21.08%	[0.00]	mg/L
Si 288.158†	60.3	7.59	12.58%	[0.00]	mg/L
Sn 189.989†	-1.7	3.71	221.94	[0.00]	mg/L
Sr 421.552†	266.6	7.95	2.98%	[0.00]	mg/L
Ti 334.903†	-82.2	19.52	23.74%	[0.00]	mg/L
Tl 190.801†	-30.4	1.67	5.50%	[0.00]	mg/L
V 292.402†	116.1	6.70	5.77%	[0.00]	mg/L
Zn 206.200†	2.4	1.83	75.45%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Autosampler Location: 2
Date Collected: 7/10/2013 8:49:56 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected			Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 7/10/2013 8:51:58 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	[illegible] kPa	[illegible] L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3475977.6	10483.18	0.30%	97.23	%
ScR 361.383	363191.7	1342.93	0.37%	97.25	%
Ag 328.068†	208792.5	770.42	0.37%	[1.0]	mg/L
As 188.979†	13990.6	32.57	0.26%	[10]	mg/L
B 249.677†	70961.3	869.30	1.23%	[10]	mg/L
Ba 313.042†	2750120.8	7635.44	0.28%	[5.0]	mg/L
Na 568.821†	656346.5	1217.25	0.18%	[50]	mg/L
Ni 231.604†	41113.5	624.66	1.52%	[10]	mg/L
Pb 220.353†	75290.9	264.15	0.35%	[10]	mg/L
Se 196.026†	11392.6	55.90	0.49%	[10]	mg/L
Sr 421.552†	4745570.9	18036.40	0.38	[5]	mg/L
Tl 190.801†	18714.5	109.50	0.59%	[10]	mg/L
Zn 206.200†	39153.3	582.48	1.49%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 7/10/2013 8:54:32 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	234.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3558292.1	4924.71	0.14%	99.53	%
ScR 361.383	373386.6	1851.21	0.50%	99.98	%
Mo 202.031†	160206.8	1629.71	1.02%	[10]	mg/L
Sb 206.836†	26654.4	262.19	0.98%	[10]	mg/L
Si 288.158†	18895.2	295.55	1.56%	[10]	mg/L
Sn 189.927†	31237.6	436.87	1.40%	[10]	mg/L
Ti 334.903†	201545.9	414.67	0.21%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 7/10/2013 8:56:47 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3321065.2	12064.96	0.36%	5.0	
ScR 361.383	663746.1	1674.14	0.25%	5.04	
Al 308.215+	426691.4	267.48	0.06%	[10]	mg/L
Ca 317.933+	3437[illegible]	871.20	0.25%	[illegible]	mg/L
Fe 238.95 +	191191.3	438.71	0.23%	[1.0]	mg/L
K 766.491+	208016.5	554.25	0.27%	[100]	mg/L
Mg 279.077+	33788.0	160.44	0.48%	[.50]	mg/L
Na 330.237+	2801.7	14.31	0.51%	[2.0]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru [illegible]	0.0	208900	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	[illegible]	1423	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	2.53	0.0000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7096	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4735	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	550000	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11460	0.00000	1.000000	
Cd 226.502	1	Lin Thru 0	0.0	25620	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	37080	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5778	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	275100	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1312	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2080	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1125	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	36950	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	16020	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	13170	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.54	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4111	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7589	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2665	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1139	0.00000	1.000000	
Si 288.159	1	Lin Thru 0	0.0	1890	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3124	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	949100	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	20150	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1671	0.00000	1.000000	
V 292.401	1	Lin Thru 0	0.0	134200	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3915	0.00000	1.000000	

Analysis Begun

Start Time: 7/10/2013 9:09:44 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 7/10/2013 7:35:29 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\0710.sif
Batch ID:
Results Data Set: I2130710
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Autosampler Location: 7
Date Collected: 7/10/2013 9:09:45 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
Ar	233.9 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	3504432.1	98.03	%	0.287				0.29%
ScR 361.383	364878.5	97.71	%	0.342				0.35%
Ag 328.068†	218643.7	1.047	mg/L	0.0028	1.047	mg/L	0.0028	0.26%
Al 308.215†	2985.5	2.064	mg/L	0.0075	2.064	mg/L	0.0075	0.36%
As 188.979†	1818.8	2.043	mg/L	0.0050	2.043	mg/L	0.0050	0.24%
B 249.677†	7203.5	1.014	mg/L	0.0043	1.014	mg/L	0.0043	0.42%
Ba 233.527†	4792.9	1.056	mg/L	0.0042	1.056	mg/L	0.0042	0.40%
Be 313.042†	544577.1	0.9898	mg/L	0.00805	0.9898	mg/L	0.00805	0.81%
Ca 317.933†	22755.8	1.986	mg/L	0.0062	1.986	mg/L	0.0062	0.31%
Cd 228.802†	26942.9	1.042	mg/L	0.0023	1.042	mg/L	0.0023	0.22%
Co 228.616†	37789.6	1.017	mg/L	0.0037	1.017	mg/L	0.0037	0.37%
Cr 267.716†	6157.5	1.065	mg/L	0.0024	1.065	mg/L	0.0024	0.23%
Cu 224.752†	282142.4	1.026	mg/L	0.0010	1.026	mg/L	0.0010	0.10%
Fe 273.955†	2760.8	2.098	mg/L	0.0116	2.098	mg/L	0.0116	0.55%
K 766.490†	41611.3	20.00	mg/L	0.007	20.00	mg/L	0.007	0.03%
Mg 279.077†	2266.5	2.021	mg/L	0.0149	2.021	mg/L	0.0149	0.74%
Mn 257.610†	36868.5	0.9981	mg/L	0.00504	0.9981	mg/L	0.00504	0.50%
Mo 202.031†	15941.7	0.9950	mg/L	0.00232	0.9950	mg/L	0.00232	0.23%
Na 589.592†	656665.8	49.87	mg/L	0.222	49.87	mg/L	0.222	0.44%
Na 330.237†	1392.0	52.43	mg/L	0.075	52.43	mg/L	0.075	0.14%
Ni 231.604†	4201.9	1.022	mg/L	0.0047	1.022	mg/L	0.0047	0.46%
Pb 220.353†	14918.0	1.907	mg/L	0.0047	1.907	mg/L	0.0047	0.25%
Sb 206.836†	5586.5	2.095	mg/L	0.0070	2.095	mg/L	0.0070	0.34%
Se 196.026†	2320.0	2.035	mg/L	0.0115	2.035	mg/L	0.0115	0.56%
Si 288.158†	3647.6	2.041	mg/L	0.0231	2.041	mg/L	0.0231	1.13%
Sn 189.927†	3147.1	1.009	mg/L	0.0028	1.009	mg/L	0.0028	0.28%
Sr 421.552†	946639.5	0.9974	mg/L	0.00573	0.9974	mg/L	0.00573	0.57%
Ti 334.903†	20208.7	1.001	mg/L	0.0046	1.001	mg/L	0.0046	0.46%
Tl 190.801†	3915.8	2.084	mg/L	0.0099	2.084	mg/L	0.0099	0.47%
V 292.402†	138646.2	1.037	mg/L	0.0007	1.037	mg/L	0.0007	0.07%
Zn 206.200†	3960.8	1.012	mg/L	0.0069	1.012	mg/L	0.0069	0.68%

User canceled analysis.

~~Analysis Begun~~

~~Start Time: 7/10/2013 9:13:27 AM~~
~~Logged In Analyst: Metals~~
~~Spectrometer: Optima 7300 DV, S/N 077C8121202~~
Plasma On Time: 7/10/2013 7:35:29 AM
Technique: ICP Continuous
Autosampler: ESI

BA 7/10/13

~~Sample Information File: C:\pe\metals\Sample Information\0710.sif~~
~~Batch ID:~~
~~Results Data Set: I2130710~~
~~Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb~~

WBS: 98818

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 7/10/2013 9:13:28 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	[illegible]	[illegible]

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
CaA 357.203	3526820.7	98.65		0.290				
CaF 361.383	372021.1	99.62		0.460				
Ag 328.068†	15.9	0.00009	mg/L	0.000217	0.00009	mg/L	[illegible]	[illegible]
Al 308.215†	1.3	0.00086	mg/L	0.005659	0.00086	mg/L	0.005659	644.50%
As 188.979†	1.1	0.00077	mg/L	0.001247	0.00077	mg/L	0.001247	161.95%
B 249.677†	10.6	0.00150	mg/L	0.001497	0.00150	mg/L	0.001497	99.7%
Ba 233.527†	4.1	0.00091	mg/L	0.000611	0.00091	mg/L	0.000611	67.1%
Be 313.042†	17.5	0.00003	mg/L	0.000028	0.00003	mg/L	0.000028	89.07%
Ca 317.933†	2.4	0.00021	mg/L	0.000264	0.00021	mg/L	0.000264	125.59%
Cd 228.802†	6.1	0.00023	mg/L	0.000112	0.00023	mg/L	0.000112	47.9%
Co 228.616†	0.3	0.00001	mg/L	0.000102	0.00001	mg/L	0.000102	>999.9
Cr 267.716†	-0.5	-0.00009	mg/L	0.000674	-0.00009	mg/L	0.000674	736.1%
Cu 324.752†	156.4	0.00057	mg/L	0.000199	0.00057	mg/L	0.000199	35.1
Fe 273.955†	-2.0	-0.00152	mg/L	0.002628	-0.00152	mg/L	0.002628	173.66%
K 766.490†	79.4	0.03817	mg/L	0.011558	0.03817	mg/L	0.011558	30.28%
Mg 279.077†	-5.2	-0.00457	mg/L	0.007844	-0.00457	mg/L	0.007844	171.64
Mn 257.610†	2.5	0.00007	mg/L	0.000053	0.00007	mg/L	0.000053	75.19%
Mo 202.032†	30.0	0.00187	mg/L	0.000529	0.00187	mg/L	0.000529	28.29%
Na 589.592†	43.7	0.00332	mg/L	0.002770	0.00332	mg/L	0.002770	83.41%
Na 330.237†	3.3	0.1261	mg/L	0.22339	0.1261	mg/L	0.22339	177.17%
Ni 231.604†	4.1	0.00100	mg/L	0.000799	0.00100	mg/L	0.000799	79.52%
Pb 220.353†	-5.8	-0.00050	mg/L	0.000117	-0.00050	mg/L	0.000117	23.36%
Sb 206.836†	23.3	0.00876	mg/L	0.002059	0.00876	mg/L	0.002059	23.5%
Se 196.026†	2.4	0.00211	mg/L	0.003441	0.00211	mg/L	0.003441	163.04%
Si 288.158†	-2.5	-0.00131	mg/L	0.007046	-0.00131	mg/L	0.007046	537.32%
Sn 189.927†	0.4	0.00012	mg/L	0.000901	0.00012	mg/L	0.000901	761.4%
Sr 421.552†	34.3	0.00004	mg/L	0.000050	0.00004	mg/L	0.000050	138.1%
Ti 334.903†	12.4	0.00061	mg/L	0.000233	0.00061	mg/L	0.000233	38.3
Tl 190.801†	-0.4	-0.00023	mg/L	0.001888	-0.00023	mg/L	0.001888	809.4
V 292.402†	2.0	0.00002	mg/L	0.000237	0.00002	mg/L	0.000237	>999.9%
Zn 206.200†	2.4	0.00060	mg/L	0.000513	0.00060	mg/L	0.000513	84.9%

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 301
Date Collected: 7/10/2013 9:17:44 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
Ar I	272.1 kPa	1.15 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3522424.5	98.53	%	0.308				0.31%
ScR 361.383	370301.3	99.16	%	0.468				0.47%
Ag 328.068†	692.2	0.00327	mg/L	0.000254	0.00327	mg/L	0.000254	7.79%
Al 308.215†	74.1	0.05195	mg/L	0.002936	0.05195	mg/L	0.002936	5.65%
As 188.979†	71.4	0.05116	mg/L	0.001378	0.05116	mg/L	0.001378	2.69%
B 249.677†	146.8	0.02069	mg/L	0.000573	0.02069	mg/L	0.000573	2.77%
Ba 233.527†	20.5	0.00451	mg/L	0.000841	0.00451	mg/L	0.000841	18.66%
Be 313.042†	566.3	0.00103	mg/L	0.000016	0.00103	mg/L	0.000016	1.60%
Ca 317.933†	692.2	0.06042	mg/L	0.000350	0.06042	mg/L	0.000350	0.58%
Cd 228.502†	69.5	0.00244	mg/L	0.000083	0.00244	mg/L	0.000083	3.38%
Co 228.616†	109.9	0.00295	mg/L	0.000062	0.00295	mg/L	0.000062	2.10%
Cr 267.716†	29.7	0.00514	mg/L	0.001017	0.00514	mg/L	0.001017	19.79%
Cu 324.752†	652.5	0.00237	mg/L	0.000168	0.00237	mg/L	0.000168	7.10%
Fe 273.955†	68.4	0.05213	mg/L	0.001823	0.05213	mg/L	0.001823	3.50%
K 766.490†	1077.7	0.5181	mg/L	0.00702	0.5181	mg/L	0.00702	1.35%
Mg 279.077†	59.5	0.05287	mg/L	0.007905	0.05287	mg/L	0.007905	14.95%
Mn 257.610†	36.8	0.00100	mg/L	0.000050	0.00100	mg/L	0.000050	5.02%
Mo 202.031†	89.4	0.00558	mg/L	0.000161	0.00558	mg/L	0.000161	2.88%
Na 589.592†	6586.0	0.5002	mg/L	0.00111	0.5002	mg/L	0.00111	0.22%
Na 330.237†	30.0	1.129	mg/L	0.3263	1.129	mg/L	0.3263	28.91%
Ni 231.604†	44.6	0.01085	mg/L	0.000820	0.01085	mg/L	0.000820	7.56%
Pb 220.353†	146.1	0.01927	mg/L	0.000695	0.01927	mg/L	0.000695	3.61%
Sb 206.836†	143.6	0.05392	mg/L	0.002174	0.05392	mg/L	0.002174	4.03%
Se 196.026†	59.8	0.05245	mg/L	0.004351	0.05245	mg/L	0.004351	8.29%
Si 285.158†	112.1	0.05935	mg/L	0.009204	0.05935	mg/L	0.009204	15.51%
Sn 189.927†	29.9	0.00962	mg/L	0.000639	0.00962	mg/L	0.000639	6.64%
Sr 421.552†	928.6	0.00098	mg/L	0.000008	0.00098	mg/L	0.000008	0.96%
Ti 334.903†	110.7	0.00548	mg/L	0.001199	0.00548	mg/L	0.001199	21.87%
Tl 190.801†	93.8	0.05013	mg/L	0.002171	0.05013	mg/L	0.002171	4.33%
V 292.402†	413.2	0.00310	mg/L	0.000047	0.00310	mg/L	0.000047	1.53%
Zn 206.200†	39.2	0.01002	mg/L	0.000158	0.01002	mg/L	0.000158	1.58%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 7/10/2013 9:22:00 AM
Data Type: Original

Dilution. 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
Ali	131.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3378245.6	94.56	%	0.187				0.2%
ScF 361.383	359910.4	96.38	%	0.806				0.84
Ag 328.068†	-260.0	-0.00124	mg/L	0.000682	-0.00124	mg/L	0.000682	54.74
Al 308.215†	256522.9	202.7	mg/L	1.66	202.7	mg/L	1.66	0.49%
As 188.979†	48.5	0.02753	mg/L	0.002249	0.02753	mg/L	0.002249	8.17%
B 249.677†	-53.5	-0.00754	mg/L	0.000851	-0.00754	mg/L	0.000851	11.29%
Ba 233.527†	132.9	-0.00435	mg/L	0.001043	-0.00435	mg/L	0.001043	23.98%
Be 313.042†	73.2	0.00013	mg/L	0.000016	0.00013	mg/L	0.000016	12.08%
Ca 317.933†	1151300.9	100.5	mg/L	0.51	100.5	mg/L	0.51	0.51%
Cd 228.802†	18.4	0.00053	mg/L	0.000015	0.00053	mg/L	0.000015	2.89%
Co 228.616†	78.2	-0.00031	mg/L	0.000074	-0.00031	mg/L	0.000074	24.06%
Cr 267.716†	13.6	0.00075	mg/L	0.002028	0.00075	mg/L	0.002028	270.00%
Cu 324.752†	-2274.9	-0.00000	mg/L	0.000077	-0.00000	mg/L	0.000077	>999.9%
Fe 238.355†	262167.4	199.8	mg/L	0.37	199.8	mg/L	0.37	0.18%
K 766.490†	58.8	0.02826	mg/L	0.006344	0.02826	mg/L	0.006344	22.45%
Mg 279.077†	117539.0	104.3	mg/L	0.38	104.3	mg/L	0.38	0.37%
Mn 257.610†	49.7	0.00065	mg/L	0.000093	0.00065	mg/L	0.000093	14.33%
Mo 202.031†	93.5	0.00456	mg/L	0.000679	0.00456	mg/L	0.000679	14.89%
Na 589.592†	64.9	0.00645	mg/L	0.000536	0.00645	mg/L	0.000536	8.31%
Na 330.237†	5.2	-0.2380	mg/L	0.28565	-0.2380	mg/L	0.28565	120.04%
Ni 231.604†	-1.1	-0.00026	mg/L	0.000438	-0.00026	mg/L	0.000438	168.58%
Pb 220.353†	-353.2	-0.00947	mg/L	0.000947	-0.00947	mg/L	0.000947	10.01%
Sb 206.836†	48.8	0.01810	mg/L	0.002646	0.01810	mg/L	0.002646	14.62%
Se 196.026†	52.4	0.02375	mg/L	0.008372	0.02375	mg/L	0.008372	35.25%
Si 288.158†	-28.0	-0.00302	mg/L	0.003495	-0.00302	mg/L	0.003495	115.69%
Sn 189.927†	-79.9	-0.01265	mg/L	0.000296	-0.01265	mg/L	0.000296	2.34%
Sr 421.552†	5143.2	0.00542	mg/L	Conf. 0.000022	0.00542	mg/L	0.000022	0.40%
Ti 334.903†	180.0	0.00268	mg/L	0.000124	0.00268	mg/L	0.000124	4.62
Tl 190.801†	-42.0	0.00498	mg/L	0.005460	0.00498	mg/L	0.005460	109.67%
V 292.402†	1302.0	-0.00088	mg/L	0.000216	-0.00088	mg/L	0.000216	24.48%
Zn 206.200†	11.7	0.00174	mg/L	0.001233	0.00174	mg/L	0.001233	70.65%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 7/10/2013 9:26:16 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
Al	234.5 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc[illegible]	3382159.1	94.61	%	0.440				[illegible]
[illegible]	364507.3	97.61	%	0.064				[illegible]
[illegible]	[illegible]	[illegible]	mg/L	[illegible]	[illegible]	mg/L	[illegible]	[illegible]
Al 396.152†	998083.4	202.4	mg/L	0.41	202.4	mg/L	0.41	0.20%
As 188.979†	1463.3	1.038	mg/L	0.0050	1.038	mg/L	0.0050	0.48%
B 249.677†	-49.3	-0.00900	mg/L	0.000753	-0.00900	mg/L	0.000753	8.37%
Ba 233.527†	4787.9	1.022	mg/L	0.0124	1.022	mg/L	0.0124	1.21%
Be 313.042†	538187.4	0.9782	mg/L	0.00275	0.9782	mg/L	0.00275	0.28%
Ca 317.933†	1148218.0	100.2	mg/L	0.20	100.2	mg/L	0.20	0.20%
Cd 228.802†	26548.9	1.031	mg/L	0.0018	1.031	mg/L	0.0018	0.17%
Co 228.616†	36395.0	0.9786	mg/L	0.00693	0.9786	mg/L	0.00693	0.71%
Cr 267.716†	5929.9	1.025	mg/L	0.0045	1.025	mg/L	0.0045	0.44%
Cu 324.752†	292753.7	1.073	mg/L	0.0013	1.073	mg/L	0.0013	0.12%
Fe 273.955†	262691.1	200.2	mg/L	1.08	200.2	mg/L	1.08	0.54%
K 766.490†	56.0	0.02694	mg/L	0.018365	0.02694	mg/L	0.018365	68.18%
Mg 279.077†	112153.4	99.55	mg/L	0.257	99.55	mg/L	0.257	0.26%
Mn 257.610†	35620.6	0.9634	mg/L	0.00431	0.9634	mg/L	0.00431	0.45%
Mo 202.031†	96.6	0.00471	mg/L	0.000261	0.00471	mg/L	0.000261	5.54%
Na 589.592†	84.8	0.00644	mg/L	0.004473	0.00644	mg/L	0.004473	69.42%
Na 330.237†	22.4	0.1211	mg/L	0.03620	0.1211	mg/L	0.03620	29.89%
Ni 231.604†	5901.8	0.9492	mg/L	0.00307	0.9492	mg/L	0.00307	0.32%
Pb 220.353†	6954.0	0.9537	mg/L	0.00547	0.9537	mg/L	0.00547	0.57%
Sb 206.836†	2773.0	1.030	mg/L	0.0072	1.030	mg/L	0.0072	0.70%
Se 196.026†	1198.9	1.029	mg/L	0.0090	1.029	mg/L	0.0090	0.88%
Si 288.158†	-38.4	-0.00447	mg/L	0.003551	-0.00447	mg/L	0.003551	79.46%
Sn 189.927†	-78.9	-0.01184	mg/L	0.000449	-0.01184	mg/L	0.000449	3.79%
Sr 421.552†	5071.7	0.00534	mg/L Conf.	0.000037	0.00534	mg/L	0.000037	0.69%
Ta 240.903†	182.3	0.00261	mg/L	0.000107	0.00261	mg/L	0.000107	4.09%
Tl 190.801†	1753.8	0.9547	mg/L	0.00511	0.9547	mg/L	0.00511	0.54%
V 292.402†	135341.6	1.002	mg/L	0.0010	1.002	mg/L	0.0010	0.10%
Zn 206.200†	3687.5	0.9407	mg/L	0.00397	0.9407	mg/L	0.00397	0.42%

Sequence No.: 6
Sample ID: CV|

Autosampler Location: 7
Date Collected: 7/10/2013 9:30:17 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
Ar	256.3 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3514739.1	98.32	%	0.671				0.68%
[illegible]	367047.8	98.29	%	0.377				0.38%
[illegible]	217213.6	1.041	mg/L	0.0049	1.041	mg/L	0.0049	0.47%
[illegible]	2991.2	2.068	mg/L	0.0184	2.066	mg/L	0.0184	0.89%
[illegible]	2606.7	2.034	mg/L	0.0166	2.034	mg/L	0.0166	0.82%
[illegible]	7157.7	1.008	mg/L	0.0059	1.008	mg/L	0.0059	0.59%
Ba 233.527+	4794.0	1.056	mg/L	0.0040	1.056	mg/L	0.0040	0.38%
Be 313.042+	542092.9	0.9853	mg/L	0.00340	0.9853	mg/L	0.00340	0.34%
Ca 317.933+	22815.9	1.991	mg/L	0.0096	1.991	mg/L	0.0096	0.48%
Cd 228.802+	26783.8	1.035	mg/L	0.0052	1.035	mg/L	0.0052	0.51%
Co 228.616+	37649.9	1.013	mg/L	0.0033	1.013	mg/L	0.0033	0.33%
Cr 267.716+	6145.0	1.063	mg/L	0.0054	1.063	mg/L	0.0054	0.51%
Cu 324.752+	282202.4	1.026	mg/L	0.0033	1.026	mg/L	0.0033	0.32%
Fe 273.955+	2761.8	2.099	mg/L	0.0156	2.099	mg/L	0.0156	0.74%
[illegible]	41782.4	20.09	mg/L	0.012	20.09	mg/L	0.012	0.06%
Mg 279.077+	2264.3	2.019	mg/L	0.0073	2.019	mg/L	0.0073	0.36%
Mn 257.610+	36627.2	0.9915	mg/L	0.00376	0.9915	mg/L	0.00376	0.38%
Mo 202.031+	15821.4	0.9875	mg/L	0.00559	0.9875	mg/L	0.00559	0.57%
Na 589.592+	659444.7	50.08	mg/L	0.042	50.08	mg/L	0.042	0.08%
Ni 352.237+	1389.2	52.32	mg/L	0.190	52.32	mg/L	0.190	0.36%
Ni 231.604+	4201.8	1.022	mg/L	0.0051	1.022	mg/L	0.0051	0.50%
Pb 220.353+	14834.2	1.956	mg/L	0.0052	1.956	mg/L	0.0052	0.27%
Sb 206.836+	5600.7	2.101	mg/L	0.0151	2.101	mg/L	0.0151	0.71%
Se 196.090+	2305.7	2.023	mg/L	0.0184	2.023	mg/L	0.0184	0.91%
Si 288.158+	3822.8	2.028	mg/L	0.0140	2.028	mg/L	0.0140	0.69%
Sn 189.927+	3120.7	1.001	mg/L	0.0114	1.001	mg/L	0.0114	1.14%
Sr 421.552+	945636.7	0.9963	mg/L	0.00114	0.9963	mg/L	0.00114	0.11%
Ti 334.903+	20176.3	0.9999	mg/L	0.00095	0.9999	mg/L	0.00095	0.09%
Tl 190.801+	3908.7	2.080	mg/L	0.0142	2.080	mg/L	0.0142	0.68%
V 292.402+	137780.9	1.031	mg/L	0.0047	1.031	mg/L	0.0047	0.45%
Zn 206.200+	3954.0	1.010	mg/L	0.0045	1.010	mg/L	0.0045	0.45%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 7/10/2013 9:34:22 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
[illegible]	9551564.7	99.35	%	0.367				0.37%
[illegible]	371934.1	99.60	%	0.618				1.62%
[illegible]	46.6	0.00322	mg/L	0.000195	0.00323	mg/L	0.000195	83.4%
[illegible]	7.0	0.00491	mg/L	0.007879	0.00491	mg/L	0.007879	160.4%
[illegible]	-1.4	-0.00097	mg/L	0.002932	-0.00097	mg/L	0.002932	301.44%
P 249.477+	11.3	0.00159	mg/L	0.001170	0.00159	mg/L	0.001170	73.56%
[illegible]	4.4	0.00097	mg/L	0.000302	0.00097	mg/L	0.000302	31.29%
[illegible]	43.1	0.00008	mg/L	0.000005	0.00008	mg/L	0.000005	6.87%
[illegible]	7.4	0.00064	mg/L	0.000938	0.00064	mg/L	0.000938	145.62%
[illegible]	3.9	0.00016	mg/L	0.000087	0.00016	mg/L	0.000087	54.38%
[illegible]	-0.4	-0.00001	mg/L	0.000126	-0.00001	mg/L	0.000126	>999.9%
[illegible]	-4.6	-0.00080	mg/L	0.000861	-0.00080	mg/L	0.000861	107.42%
[illegible]	76.9	0.00029	mg/L	0.000027	0.00029	mg/L	0.000027	9.52%
[illegible]	5.3	0.00405	mg/L	0.001361	0.00405	mg/L	0.001361	33.62%
[illegible]	81.4	0.03915	mg/L	0.010265	0.03915	mg/L	0.010265	26.22%
[illegible]	0.2	0.00019	mg/L	0.008875	0.00019	mg/L	0.008875	>999.9%
[illegible]	6.3	0.00017	mg/L	0.000081	0.00017	mg/L	0.000081	47.58%
[illegible]	20.6	0.00129	mg/L	0.000229	0.00129	mg/L	0.000229	17.93%
[illegible]	42.6	0.00323	mg/L	0.003025	0.00323	mg/L	0.003025	93.52%
[illegible]	10.5	0.3972	mg/L	0.05238	0.3972	mg/L	0.05238	13.19%
[illegible]	-3.4	-0.00081	mg/L	0.000444	-0.00081	mg/L	0.000444	54.51%
[illegible]	1.2	0.00016	mg/L	0.001643	0.00016	mg/L	0.001643	>999.9%
[illegible]	17.6	0.01036	mg/L	0.001218	0.01036	mg/L	0.001218	11.75
[illegible]	0.8	0.00074	mg/L	0.003092	0.00074	mg/L	0.003092	416.70%
[illegible]	-1.0	-0.00051	mg/L	0.002399	-0.00051	mg/L	0.002399	472.73%
[illegible]	-0.6	-0.00025	mg/L	0.000910	-0.00025	mg/L	0.000910	362.42%
[illegible]	29.8	0.00003	mg/L	0.000032	0.00003	mg/L	0.000032	102.89%
[illegible]	18.2	0.00090	mg/L	0.000645	0.00090	mg/L	0.000645	71.67%
[illegible]	0.8	0.00044	mg/L	0.003282	0.00044	mg/L	0.003282	744.75%
V 292.402+	38.4	0.00028	mg/L	0.000155	0.00028	mg/L	0.000155	54.89%
[illegible]	1.6	0.00042	mg/L	0.000383	0.00042	mg/L	0.000383	91.31%

Sequence No.: 8
Sample ID: WW69 MB1 SWC

Autosampler Location: 304
Date Collected: 7/10/2013 9:38:37 AM
Data Type: Original

Dilution. 2.000000X

Nebulizer Parameters: WW69 MB1 SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	0.79 L/min.

Mean Data. WW69 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3590742.4	100.4	%	0.09				0.09%
[illegible]	3748675.2	100.4	%	0.37				0.37%
[illegible]	29.9	0.00011	mg/L	0.000022	0.00029	mg/L	0.000045	15.75%
[illegible]	51.2	0.03660	mg/L	0.002251	0.07199	mg/L	0.004502	6.25%
[illegible]	1.1	0.00093	mg/L	0.001931	0.00165	mg/L	0.003862	233.55%
K 249.677+	-0.1	-0.00001	mg/L	0.000278	-0.00002	mg/L	0.000556	>999.9%
[illegible]	1.9	0.00040	mg/L	0.000558	0.00079	mg/L	0.001115	140.32%
[illegible]	14.8	0.00003	mg/L	0.000027	0.00005	mg/L	0.000054	100.14%
[illegible]	147.5	0.04778	mg/L	0.001548	0.09557	mg/L	0.003095	3.24%
[illegible]	3.2	0.00012	mg/L	0.000136	0.00024	mg/L	0.000271	113.26%
[illegible]	0.7	0.00002	mg/L	0.000104	0.00004	mg/L	0.000207	555.99%
[illegible]	1.5	0.00023	mg/L	0.000349	0.00046	mg/L	0.000698	152.19%
[illegible]	5.7	0.00036	mg/L	0.000039	0.00071	mg/L	0.000078	11.03%
[illegible]	8.1	0.00617	mg/L	0.001854	0.01235	mg/L	0.003709	30.04%
[illegible]	22.3	0.01070	mg/L	0.014289	0.02141	mg/L	0.028579	133.50%
Mg 279.077+	19.6	0.01741	mg/L	0.003474	0.03483	mg/L	0.006948	19.95%
Mn 257.610+	4.9	0.00013	mg/L	0.000040	0.00027	mg/L	0.000081	30.44%
[illegible]	4.9	0.00031	mg/L	0.000154	0.00062	mg/L	0.000309	50.17%
[illegible]	195.0	0.01481	mg/L	0.002515	0.02961	mg/L	0.005030	16.99%
[illegible]	17.9	0.6741	mg/L	0.31188	1.346	mg/L	0.6238	46.27%
[illegible]	-1.2	-0.00030	mg/L	0.000954	-0.00060	mg/L	0.000509	84.56%
[illegible]	-4.0	-0.00052	mg/L	0.000380	-0.00104	mg/L	0.000761	72.85%
[illegible]	5.4	0.00201	mg/L	0.001634	0.00402	mg/L	0.003666	91.34%
Se 196.026+	-0.4	-0.00032	mg/L	0.003477	-0.00065	mg/L	0.006955	>999.9%
[illegible]	37.2	0.01971	mg/L	0.002580	0.03941	mg/L	0.005159	13.09
[illegible]	-4.4	-0.00140	mg/L	0.000794	-0.00280	mg/L	0.001588	56.69%
Sr 421.552+	15.8	0.00002	mg/L	0.000039	0.00003	mg/L	0.000079	236.19%
Ti 334.903+	14.5	0.00072	mg/L	0.000765	0.00143	mg/L	0.001530	109.41%
Tl 190.801+	1.4	0.00076	mg/L	0.000375	0.00152	mg/L	0.000751	49.36%
V 292.402+	8.2	0.00006	mg/L	0.000131	0.00012	mg/L	0.000263	213.23%
Zn 206.200+	4.8	0.00123	mg/L	0.000767	0.00246	mg/L	0.001535	62.30%

Sequence No.: 9
Sample ID: WW69 A-L SWC

Autosampler Location: 305
Date Collected: 7/10/2013 9:42:54 AM
Data Type: Original

Dilution: 10.000000X

Nebulizer Parameters: WW69 A-L SWC

Analyte	Back Pressure	Flow
Ar	[illegible] kPa	[illegible] L/min

Mean Data: WW69 A-L SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
[illegible]	[illegible]	99.38	%	0.388				0.39
[illegible]	[illegible]	[illegible]	%	0.17				0.17
[illegible]	5.1	-0.00004	mg/L	0.000169	0.00041	mg/L	0.001681	412.41
Al 308.215+	15337.5	10.77	mg/L	0.061	107.7	mg/L	0.61	0.57
As 99.97+	-41.9	-0.00437	mg/L	0.001352	0.04369	mg/L	0.013524	30.96
[illegible]	9.7	0.00134	mg/L	0.000890	0.01343	mg/L	0.008902	66.31
Ba [illegible]	[illegible]	[illegible]	mg/L	0.000346	0.2458	mg/L	0.00346	1.41
Be [illegible]	80.4	0.00023	mg/L	0.000008	0.00230	mg/L	0.000083	3.61
Ca 317.933+	36273.1	5.086	mg/L	0.0350	50.86	mg/L	0.350	0.69
Co 228.802+	3.4	0.00031	mg/L	0.000094	0.00307	mg/L	0.000938	30.57
Cr [illegible]	349.7	0.00737	mg/L	0.000163	0.07372	mg/L	0.001626	2.21
Cr 267.716+	207.6	0.03618	mg/L	0.000491	0.3618	mg/L	0.00491	1.36
Cu 324.752+	4592.1	0.01717	mg/L	0.000379	0.1717	mg/L	0.00379	2.20
Fe 2 [illegible]	20665.9	15.77	mg/L	0.140	157.7	mg/L	1.40	0.89
K 766.490+	1892.0	0.9096	mg/L	0.00376	9.096	mg/L	0.0376	0.41
Mg [illegible]	4554.5	4.038	mg/L	0.0347	40.38	mg/L	0.347	0.86
Mn 257.610+	5214.7	0.1414	mg/L	0.00088	1.414	mg/L	0.0088	0.62
Mo [illegible]	35.2	0.00213	mg/L	0.000139	0.02132	mg/L	0.001387	6.51
Na 589.592+	38348.8	1.394	mg/L	0.0113	13.94	mg/L	0.113	0.81
Na 330.237+	44.4	1.950	mg/L	0.1464	19.50	mg/L	1.464	7.51
Ni [illegible]	60.4	0.01470	mg/L	0.000891	0.1470	mg/L	0.00891	6.06
Pb 220.353+	-5.1	0.00106	mg/L	0.000629	0.01061	mg/L	0.006289	59.29
Sb 206.836+	4.7	0.00216	mg/L	0.001641	0.02178	mg/L	0.016409	75.34
Se 196.026+	4.4	0.00265	mg/L	0.006104	0.02647	mg/L	0.061045	230.59
Si 288.158+	448.0	0.2376	mg/L	0.00526	2.376	mg/L	0.0526	2.21
Sr 189.977+	-12.7	-0.00320	mg/L	0.001607	-0.03199	mg/L	0.016068	50.23
Ti 421.612+	46373.9	0.04949	mg/L	0.000309	0.4949	mg/L	0.00309	0.62
Tl 334.940+	21795.5	1.081	mg/L	0.0060	10.81	mg/L	0.060	0.55
Tl 190.801+	-1.6	0.00101	mg/L	0.001484	0.01013	mg/L	0.014835	146.40
V 292.402+	7689.4	0.05603	mg/L	0.001277	0.5603	mg/L	0.01277	2.28
Zn 206.200+	154.9	0.03955	mg/L	0.000962	0.3955	mg/L	0.00962	2.43

Sequence No.: 10
Sample ID: WW69 A SWC

Autosampler Location: 306
Date Collected: 7/10/2013 9:46:54 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW69 A SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible] Pa	[illegible] L min

Mean Data: WW69 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]	%	0.257				0.26%
[illegible]	[illegible]	[illegible]	%	0.18				0.16%
[illegible]	[illegible]	[illegible]	mg/L	0.000241	-0.00164	mg/L	0.000482	29.19%
Al 396.152†	76316.5	53.61	mg/L	0.239	107.2	mg/L	0.48	0.45%
[illegible]	[illegible]	[illegible]	mg/L	0.003670	0.00889	mg/L	0.007340	82.58%
B 249.677†	40.5	0.00562	mg/L	0.001136	0.01124	mg/L	0.002212	19.67%
Ba 233.527†	591.3	0.1172	mg/L	0.00169	0.2344	mg/L	0.00337	1.44%
Be 313.042†	490.6	0.00077	mg/L	0.000004	0.00153	mg/L	0.000008	0.50%
Ca 317.933†	291834.0	25.47	mg/L	0.075	50.94	mg/L	0.149	0.29%
Cd 226.502†	24.2	0.00190	mg/L	0.000173	0.00380	mg/L	0.000345	9.09%
Co 228.616†	1726.8	0.03637	mg/L	0.000109	0.07273	mg/L	0.000217	0.30%
Cr 267.716†	995.3	0.1736	mg/L	0.00098	0.3471	mg/L	0.00196	0.57%
Cu 324.752†	23952.3	0.08943	mg/L	0.000314	0.1789	mg/L	0.00063	0.35%
Fe 273.955†	102071.2	77.80	mg/L	0.264	155.6	mg/L	0.53	0.34%
[illegible]	9207.7	4.426	mg/L	0.0112	8.853	mg/L	0.0224	0.25%
Mg 279.077†	21364.3	18.94	mg/L	0.047	37.88	mg/L	0.094	0.25%
Mn 257.610†	25518.4	0.6905	mg/L	0.00087	1.381	mg/L	0.0017	0.13%
[illegible]	144.2	0.00867	mg/L	0.000085	0.01734	mg/L	0.000170	0.98%
Na 589.592†	91095.6	6.919	mg/L	0.0353	13.84	mg/L	0.071	0.51%
Na 330.237†	166.9	7.656	mg/L	0.1400	15.31	mg/L	0.280	1.83%
Ni 231.604†	296.1	0.07129	mg/L	0.000630	0.1426	mg/L	0.00126	0.88%
Pb 220.353†	-12.7	0.00704	mg/L	0.001018	0.01407	mg/L	0.002037	14.47%
Sb 206.836†	13.6	0.00829	mg/L	0.002032	0.01658	mg/L	0.004065	24.52%
Se 196.026†	18.6	0.01029	mg/L	0.005710	0.02058	mg/L	0.011421	55.50%
Si 288.158†	2201.6	1.168	mg/L	0.0181	2.336	mg/L	0.0363	1.55%
Sn 189.927†	-30.6	-0.00732	mg/L	0.000349	-0.01464	mg/L	0.000697	4.76%
Sr 421.552†	230954.7	0.2433	mg/L	0.00106	0.4867	mg/L	0.00213	0.44%
[illegible]	108052.6	5.360	mg/L	0.086	10.72	mg/L	0.037	0.35%
Ti 190.801†	-9.6	0.00417	mg/L	0.003166	0.00833	mg/L	0.006332	75.98%
V 292.402†	39196.4	0.2858	mg/L	0.00049	0.5716	mg/L	0.00098	0.17%
Zn 206.200†	756.8	0.1962	mg/L	0.00221	0.3864	mg/L	0.00442	1.14%

Sequence No.: 11
Sample ID: WW69 ADUP SWC

Autosampler Location: 307
Date Collected: 7/10/2013 9:50:54 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW69 ADUP SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: WW69 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]		[illegible]				[illegible]
[illegible]	[illegible]	[illegible]		[illegible]				[illegible]
[illegible]	-215.	[illegible]	mg/L	[illegible]	-0.00189	mg/L	0.000374	19.75%
Al 396.215+	76858.7	53.99	mg/L	0.074	106.0	mg/L	0.15	0.14%
As 189.979+	-255.5	0.00038	mg/L	0.000356	0.00077	mg/L	0.004712	614.24%
B 249.677+	38.4	0.00032	mg/L	0.000966	0.01063	mg/L	0.001931	18.16%
Ba 233.527+	634.2	0.1265	mg/L	0.00066	0.2530	mg/L	0.00132	0.52%
Be 313.042+	518.1	0.00081	mg/L	0.000038	0.00162	mg/L	0.000076	4.71%
Ca 317.933+	39262.1	25.51	mg/L	0.041	51.02	mg/L	0.082	0.16%
Cd 226.502+	24.2	0.00199	mg/L	0.000232	0.00398	mg/L	0.000463	11.65%
Co 228.616+	1784.9	0.03724	mg/L	0.000214	0.07446	mg/L	0.000428	0.57%
Cr 267.716+	1077.6	0.1879	mg/L	0.00089	0.3757	mg/L	0.00177	0.47%
Cu 324.752+	24269.0	0.09055	mg/L	0.000285	0.1811	mg/L	0.00057	0.31%
Fe 273.955+	103435.2	78.84	mg/L	0.200	157.7	mg/L	0.40	0.25%
K 766.491+	9522.5	4.578	mg/L	0.0095	9.156	mg/L	0.0190	0.21%
Mg 279.077+	20691.0	18.52	mg/L	0.062	37.03	mg/L	0.125	0.34%
Mn 257.610+	24951.2	0.6724	mg/L	0.00114	1.345	mg/L	0.0023	0.17%
Mo 202.031+	151.3	0.00911	mg/L	0.000354	0.01822	mg/L	0.000708	3.89%
Na 589.592+	93872.2	7.129	mg/L	0.0423	14.26	mg/L	0.085	0.59%
Na 330.237+	171.2	7.936	mg/L	0.2237	15.87	mg/L	0.447	2.82%
Ni 231.604+	791.9	0.06856	mg/L	0.000856	0.1371	mg/L	0.00171	1.25%
Pb 220.353+	-14.9	0.00680	mg/L	0.000864	0.01361	mg/L	0.001728	12.70%
Sb 206.836+	44.5	0.00878	mg/L	0.001496	0.01755	mg/L	0.002993	17.05%
Se 196.026+	13.8	0.00596	mg/L	-0.001956	0.01191	mg/L	0.003980	33.41%
Si 288.158+	2222.2	1.176	mg/L	0.0048	2.357	mg/L	0.0095	0.40%
Sn 189.927+	-34.0	-0.00642	mg/L	0.001649	-0.01284	mg/L	0.003298	25.68%
Sr 421.552+	296171.1	0.3121	mg/L	0.00050	0.6241	mg/L	0.00100	0.16%
Ti 334.903+	116026.8	5.755	mg/L	0.0020	11.51	mg/L	0.004	0.03%
Tl 190.801+	-11.9	0.00301	mg/L	0.001091	0.00602	mg/L	0.002183	36.21%
V 292.402+	41193.2	0.3004	mg/L	0.00092	0.6009	mg/L	0.00185	0.31%
Zn 206.200+	755.6	0.1929	mg/L	0.00262	0.3857	mg/L	0.00524	1.36%

Sequence No.: 12
Sample ID: WW69 ASPK SWC

Autosampler Location: 308
Date Collected: 7/10/2013 9:54:54 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW69 ASPK SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	[illegible] L/min

Mean Data: WW69 ASPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3523659.9	[illegible]	%	0.11				0.11%
[illegible]	374693.9	[illegible]	%	0.02				0.5%
Ag 328.068+	105557.9	0.0202	mg/L	[illegible]	1.040	mg/L	0.0055	0.53%
Al 396.152+	95493.2	67.08	mg/L	0.070	124.2	mg/L	0.25	0.11%
As 188.979+	2598.8	2.032	mg/L	0.0008	4.063	mg/L	0.0016	0.04%
B 249.677+	47.8	0.00556	mg/L	0.000461	0.01111	mg/L	0.000923	8.30%
Ba 233.527+	10216.3	2.233	mg/L	0.0149	4.476	mg/L	0.0298	0.67%
Be 313.042+	264246.7	0.4602	mg/L	0.00267	0.9604	mg/L	0.00535	0.56%
Ca 317.933+	480955.1	41.98	mg/L	0.083	83.96	mg/L	0.165	0.20%
Cd 228.802+	13725.3	0.5260	mg/L	0.00366	1.052	mg/L	0.0073	0.7%
Co 228.616+	20360.2	0.5393	mg/L	0.00383	1.077	mg/L	0.0077	0.71%
Cr 267.716+	3999.4	0.6924	mg/L	0.00256	1.385	mg/L	0.0051	0.37%
Cu 324.752+	173514.4	0.6332	mg/L	0.00543	1.266	mg/L	0.0109	0.86%
Fe 273.955+	103715.9	72.03	mg/L	0.500	156.1	mg/L	1.00	0.63%
K 766.490+	30498.4	14.06	mg/L	0.057	29.32	mg/L	0.115	0.39%
Mg 279.077+	32339.3	28.69	mg/L	0.156	57.36	mg/L	0.311	0.54%
Mn 257.611+	43893.5	1.189	mg/L	0.0058	2.376	mg/L	0.0116	0.49%
Mo 202.031+	167.2	0.00991	mg/L	0.000355	0.01982	mg/L	0.000710	3.58%
Na 589.592+	245193.8	18.62	mg/L	0.045	37.24	mg/L	0.091	0.24%
Ni 231.604+	491.3	19.71	mg/L	0.039	39.42	mg/L	0.077	0.20%
P 213.617+	2262.5	0.5495	mg/L	0.00257	1.099	mg/L	0.0051	0.47%
Pb 220.353+	14866.2	1.971	mg/L	0.0153	3.942	mg/L	0.0306	0.78%
Sb 206.836+	22.5	0.00663	mg/L	0.001437	0.01325	mg/L	0.002874	21.69%
Se 196.026+	1345.2	2.051	mg/L	0.0084	4.102	mg/L	0.0168	0.41%
Si 288.158+	3029.0	1.609	mg/L	0.0189	3.219	mg/L	0.0377	1.17%
Sn 189.927+	-49.7	-0.00929	mg/L	0.000497	-0.01858	mg/L	0.000994	5.35%
Sr 421.552+	773562.2	0.8156	mg/L	0.00045	1.630	mg/L	0.0009	0.06%
Ti 334.903+	111434.7	5.526	mg/L	0.0071	11.05	mg/L	0.014	0.13%
Tl 190.871+	3723.1	1.994	mg/L	0.0055	3.988	mg/L	0.0109	0.27%
V 292.402+	108940.9	0.8075	mg/L	0.00587	1.615	mg/L	0.0117	0.73%
Zn 206.200+	2659.4	0.6791	mg/L	0.00324	1.359	mg/L	0.0065	0.48%

Sequence No.: 13
Sample ID: ~~WW69 APOST SWC~~ zzzzzz
BA 7/10/13

Dilution: 2.000000X

Autosampler Location: 309
Date Collected: 7/10/2013 9:58:55 AM
Data Type: Original

Nebulizer Parameters: WW69 APOST SWC

Analyte	Back Pressure	Flow
Ar	203.0 kPa	1.02 L/min

Mean Data: WW69 APOST SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	5549583.4	99.39	%	0.366				0.37
ScP 361.383	375030.2	100.4	%	0.21				0.21
Ag 328.068†	11644.5	0.5567	mg/L	0.0227	1.114	mg/L	0.020	2.03
Al 396.215†	78015.5	34.58	mg/L	0.467	109.6	mg/L	0.93	0.85
As 188.979†	2898.6	2.238	mg/L	0.0395	4.475	mg/L	0.0791	1.77
B 249.677†	43.2	0.00484	mg/L	0.000256	0.00967	mg/L	0.000592	6.12
Ba 233.527†	105867.7	2.321	mg/L	0.0350	4.642	mg/L	0.0659	1.42
Be 313.042†	272753.8	0.4956	mg/L	0.00950	0.9913	mg/L	0.01901	1.92
Ca 317.933†	404423.9	35.30	mg/L	0.102	70.60	mg/L	0.205	0.29
Cd 228.802†	15178.9	0.5816	mg/L	0.01129	1.163	mg/L	0.0226	1.94
Co 226.616†	22329.3	0.5919	mg/L	0.01116	1.184	mg/L	0.0224	1.89
Cr 267.716†	4161.1	0.7702	mg/L	0.00755	1.440	mg/L	0.0151	1.05
Cu 324.752†	179747.6	0.6559	mg/L	0.01313	1.312	mg/L	0.0263	2.00
Fe 273.955†	101846.2	77.63	mg/L	0.569	155.3	mg/L	1.14	0.73
K 766.490†	30696.7	14.76	mg/L	0.145	29.51	mg/L	0.290	0.98
Mg 279.077†	34160.5	30.31	mg/L	0.034	60.62	mg/L	0.068	0.11
Mn 257.610†	43648.6	1.187	mg/L	0.0039	2.374	mg/L	0.0078	0.33
Mo 202.031†	151.9	0.00900	mg/L	0.000157	0.01799	mg/L	0.000315	1.75
Na 589.592†	226169.6	17.18	mg/L	0.105	34.36	mg/L	0.211	0.61
Na 330.237†	450.2	18.11	mg/L	0.133	36.22	mg/L	0.267	0.74
Nj 231.604†	2371.8	0.5760	mg/L	0.00843	1.152	mg/L	0.0169	1.46
Pb 220.353†	16483.7	2.181	mg/L	0.0420	4.363	mg/L	0.0839	1.92
Sb 206.836†	26.3	0.00753	mg/L	0.000645	0.01506	mg/L	0.001290	8.57
Se 196.026†	3582.1	2.260	mg/L	0.0511	4.519	mg/L	0.1021	2.26
Si 288.158†	2103.9	1.154	mg/L	0.0138	2.309	mg/L	0.0276	1.20
Sn 189.927†	-44.8	-0.00865	mg/L	0.000228	-0.01729	mg/L	0.000456	2.64
Sr 421.552†	711471.3	0.7496	mg/L	0.00731	1.499	mg/L	0.0146	0.98
Ti 334.903†	139267.4	5.250	mg/L	0.0512	10.50	mg/L	0.102	0.98
Tl 190.801†	4036.4	2.161	mg/L	0.0455	4.321	mg/L	0.0911	2.11
V 292.402†	111485.6	0.8268	mg/L	0.01315	1.654	mg/L	0.0263	1.59
Zn 206.200†	2729.6	0.6971	mg/L	0.00727	1.394	mg/L	0.0145	1.04

Sequence No.: 14
Sample ID: WW69 REF1 SWC

Autosampler Location: 310
Date Collected: 7/10/2013 10:02:56 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW69 REF1 SWC

Analyte	Back Pressure	Flow
All	233.3 kPa	0.75 L/min

Mean Data: WW69 REF1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
S[%] 257.253	3533128.8	98.63	%	1.146				0.15
Mo[+] 281.389	379825.3	101.7	%	0.47				0.46
Ag 328.068†	204254.3	.9735	mg/L	0.00 34	1.957	mg/L	0.007	0.14
Al 308.215†	107832.1	75.75	mg/L	0.020	151.5	mg/L	0.02	0.01
As 189.979†	1588.9	1.194	mg/L	0.0039	2.387	mg/L	0.0078	0.328
B 249.677†	6625.8	0.9328	mg/L	0.00161	1.866	mg/L	0.0032	0.17
Ba 233.527†	13436.3	2.939	mg/L	0.0099	5.878	mg/L	0.0198	0.34
Be 313.042†	420121.4	0.7636	mg/L	0.00199	1.527	mg/L	0.0040	0.26
Ca 317.933†	397172.3	34.67	mg/L	0.129	69.33	mg/L	0.257	0.37
Cd 228.802†	16492.1	0.6379	mg/L	0.00337	1.276	mg/L	0.0067	0.53
Co 228.616†	24779.0	0.6629	mg/L	0.00231	1.326	mg/L	0.0046	0.35
Cr 267.716†	3865.7	0.6723	mg/L	0.00057	1.345	mg/L	0.0011	0.08
Cu 324.752†	170514.2	0.6249	mg/L	0.00299	1.250	mg/L	0.0060	0.48
Fe 273.955†	183211.4	139.6	mg/L	1.28	279.3	mg/L	2.55	0.91
K 766.490†	64436.9	30.98	mg/L	0.139	61.96	mg/L	0.279	0.45
Mg 279.077†	27167.3	24.06	mg/L	0.066	48.12	mg/L	0.132	0.27
Mn 257.610†	146566.6	3.9e7	mg/L	0.0267	7.934	mg/L	0.0533	0.67
Mo 202.031†	6579.2	0.4102	mg/L	0.00169	0.8204	mg/L	0.00338	0.41
Na 589.592†	65656.6	4.987	mg/L	0.0154	9.973	mg/L	0.0308	0.31
Na 330.237†	141.2	5.256	mg/L	0.2023	10.51	mg/L	0.406	3.86
Ni 231.604†	1995.0	0.4850	mg/L	0.00067	0.9701	mg/L	0.00134	0.14
Pb 220.353†	8494.7	1.130	mg/L	0.0066	2.261	mg/L	0.0131	0.58
Sb 206.836†	1411.0	0.5391	mg/L	0.00351	1.078	mg/L	0.007	0.65
Se 196.026†	1761.3	1.484	mg/L	0.0081	2.968	mg/L	0.0163	0.55
Si 288.158†	7402.6	3.934	mg/L	0.0059	7.868	mg/L	0.0117	0.15
Sn 189.927†	4987.9	1.605	mg/L	0.0110	3.210	mg/L	0.0221	0.69
Sr 421.552†	459737.3	0.4844	mg/L	0.00027	0.9688	mg/L	0.00055	0.06
Ti 334.903†	39055.3	1.935	mg/L	0.0048	3.870	mg/L	0.0097	0.25
Tl 190.801†	2192.9	1.179	mg/L	0.0078	2.358	mg/L	0.0157	0.66
V 292.402†	102158.7	0.7563	mg/L	0.00300	1.513	mg/L	0.0060	0.40
Zn 206.200†	6020.0	1.538	mg/L	0.0053	3.076	mg/L	0.0107	0.35

Sequence No.: 15
Sample ID: WW69 MB1SPK SWC

Autosampler Location: 311
Date Collected: 7/10/2013 10:06:57 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW69 MB1SPK SWC

Analyte	Back Pressure	Flow
Ar	239.0 kPa	1.[illegible] L/min

Mean Data: WW69 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible] 357.253	3545503.6	[illegible]	%	0.344				[illegible]
[illegible] 361.383	375326.3	[illegible]	%	0.12				[illegible]
Ag 328.068†	108377.4	0.5142	mg/L	[illegible]	[illegible]	mg/L	[illegible]	[illegible]
Al 308.215†	2892.9	2.025	mg/L	0.011	4.050	mg/L	[illegible]	[illegible]
As 188.979†	2866.3	2.048	mg/L	0.0063	4.096	mg/L	[illegible]	0.31%
B 249.677†	13.2	0.00079	mg/L	[illegible]	[illegible]	mg/L	[illegible]	[illegible]
Ba 233.527†	9613.1	2.119	mg/L	0.0049	4.238	mg/L	[illegible]	[illegible]
Be 313.042†	261696.1	0.4757	mg/L	0.00181	0.9513	mg/L	[illegible]	[illegible]
Ca 317.933†	113148.1	9.876	mg/L	0.0135	19.75	mg/L	0.027	[illegible]
Cd 228.802†	13551.5	0.5182	mg/L	0.00163	1.036	mg/L	[illegible]	[illegible]
Co 228.616†	18624.9	0.5074	mg/L	0.00035	1.015	mg/L	[illegible]	[illegible]
Cr 267.716†	3060.5	0.5287	mg/L	0.00236	1.057	mg/L	0.0047	[illegible]
Cu 324.752†	143226.5	0.5209	mg/L	[illegible]	1.042	mg/L	[illegible]	[illegible]
Fe 273.955†	2679.9	2.040	mg/L	0.0156	4.079	mg/L	[illegible]	[illegible]
K 766.490†	20839.7	10.02	mg/L	0.052	20.04	mg/L	0.104	[illegible]
Mg 279.078†	11517.9	10.24	mg/L	0.019	20.47	mg/L	[illegible]	[illegible]
Mn 257.610†	18840.2	0.5162	mg/L	0.00286	1.020	mg/L	[illegible]	[illegible]
Mo 202.031†	34.3	0.00199	mg/L	0.000119	0.00398	mg/L	[illegible]	[illegible]
Na 589.592†	131468.4	9.985	mg/L	0.0156	19.97	mg/L	[illegible]	[illegible]
Ni 231.237†	289.8	10.73	mg/L	[illegible]	21.46	mg/L	[illegible]	[illegible]
P 213.604†	2015.2	0.4899	mg/L	0.00279	0.9786	mg/L	[illegible]	[illegible]
Pb 220.353†	11968.6	1.973	mg/L	0.0014	3.946	mg/L	[illegible]	[illegible]
Sb 206.836†	56.0	0.00960	mg/L	[illegible]	0.01659	mg/L	[illegible]	[illegible]
Se 196.026†	2323.7	2.048	mg/L	0.0104	4.095	mg/L	[illegible]	[illegible]
Si 288.158†	35.2	0.02214	mg/L	[illegible]	0.04429	mg/L	[illegible]	[illegible]
Sn 189.927†	-14.1	-0.00317	mg/L	[illegible]	-0.00635	mg/L	[illegible]	[illegible]
Sr 421.552†	469275.4	0.4944	mg/L	0.00038	0.9889	mg/L	[illegible]	[illegible]
Ti 334.903†	59.4	0.00223	mg/L	[illegible]	0.00446	mg/L	[illegible]	[illegible]
Tl 190.801†	3828.1	2.041	mg/L	0.0081	4.081	mg/L	[illegible]	[illegible]
V 292.402†	68978.3	0.5161	mg/L	0.00240	1.032	mg/L	0.0048	[illegible]
Zn 206.200†	1923.4	0.4913	mg/L	0.00280	0.9826	mg/L	0.00560	[illegible]

Sequence No.: 16
Sample ID: CV 2

Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 7/10/2013 10:10:58 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	234.0 kPa	1.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev	RSD
ScA 357.253	3531535.2	98.79	%	0.744				0.75%
ScR 361.383	372125.5	99.65	%	0.471				0.47%
Ag 328.068†	219262.4	1.050	mg/L	0.0115	1.050	mg/L	0.0115	1.1%
Al 308.215†	2962.0	2.048	mg/L	0.0132	2.048	mg/L	0.0132	0.65%
As 188.979†	2806.4	2.034	mg/L	0.0150	2.034	mg/L	0.0150	0.74%
B 249.677†	7127.0	1.003	mg/L	0.0092	1.003	mg/L	0.0092	0.92%
Ba 233.527†	4901.5	1.056	mg/L	0.0113	1.056	mg/L	0.0113	1.0%
Be 313.042†	541563.0	0.9844	mg/L	0.00419	0.9844	mg/L	0.00419	0.43%
Ca 317.933†	22708.3	1.982	mg/L	0.0091	1.982	mg/L	0.0091	0.46%
Cd 228.802†	26752.4	1.034	mg/L	0.0076	1.034	mg/L	0.0076	0.73%
Co 228.616†	37651.8	1.014	mg/L	0.0093	1.014	mg/L	0.0093	0.91%
Cr 267.716†	6107.0	1.057	mg/L	0.0083	1.057	mg/L	0.0083	0.79%
Cu 324.752†	282282.5	1.026	mg/L	0.0012	1.026	mg/L	0.0012	0.12%
Fe 273.955†	2714.0	2.062	mg/L	0.0158	2.062	mg/L	0.0158	0.77%
K 766.490†	41947.3	20.17	mg/L	0.079	20.17	mg/L	0.079	0.39%
Mg 279.077†	2256.2	2.012	mg/L	0.0183	2.012	mg/L	0.0183	0.91%
Mn 257.610†	36295.6	0.9826	mg/L	0.00441	0.9826	mg/L	0.00441	0.45%
Mo 202.031†	15772.1	0.9844	mg/L	0.00751	0.9844	mg/L	0.00751	0.76%
Na 589.592†	659249.6	50.07	mg/L	0.135	50.07	mg/L	0.135	0.27%
Na 330.237†	1364.3	52.14	mg/L	0.352	52.14	mg/L	0.352	0.67%
Ni 231.604†	4186.8	1.019	mg/L	0.0110	1.019	mg/L	0.0110	1.08%
Pb 220.353†	14809.5	1.952	mg/L	0.0154	1.952	mg/L	0.0154	0.79%
Sb 206.836†	5564.9	2.087	mg/L	0.0176	2.087	mg/L	0.0176	0.84%
Se 196.026†	2306.8	2.023	mg/L	0.0316	2.023	mg/L	0.0316	1.5%
Si 288.158†	3798.0	2.015	mg/L	0.0302	2.015	mg/L	0.0302	1.5%
Sn 189.927†	3124.1	1.002	mg/L	0.0140	1.002	mg/L	0.0140	1.3%
Sr 421.552†	945792.8	0.9965	mg/L	0.00316	0.9965	mg/L	0.00316	0.32%
Ti 334.903†	20125.4	0.9973	mg/L	0.00393	0.9973	mg/L	0.00393	0.39%
Tl 190.801†	3907.1	2.079	mg/L	0.0174	2.079	mg/L	0.0174	0.84%
V 292.402†	138794.7	1.038	mg/L	0.0119	1.038	mg/L	0.0119	1.14%
Zn 206.200†	3917.7	1.001	mg/L	0.0080	1.001	mg/L	0.0080	0.80%

Sequence No.: 17
Sample ID: CB 2

Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 7/10/2013 10:15:02 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	334.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ICA 357.253	3561072.9	99.61	%	0.055				0.05
ISR 361.383	376699.0	100.9	%	0.56				0.47
Ag 328.068	27.9	0.00013	mg/L	0.000303	0.00013	mg/L	0.00035	269.56
Al 396.215†	10.0	0.00699	mg/L	0.007467	0.00699	mg/L	0.007467	106.77
As 188.979†	-3.4	-0.00240	mg/L	0.000407	-0.00240	mg/L	0.000407	16.96%
B 249.677†	9.3	0.00131	mg/L	0.001187	0.00131	mg/L	0.001187	90.48
Ba 233.527†	2.6	0.00057	mg/L	0.000214	0.00057	mg/L	0.000214	37.56%
Be 313.042†	43.4	0.00008	mg/L	0.000030	0.00008	mg/L	0.000030	36.13%
Ca 317.933†	4.8	0.00042	mg/L	0.000283	0.00042	mg/L	0.000283	67.60%
Cd 228.802†	7.7	0.00032	mg/L	0.000112	0.00032	mg/L	0.000112	35.36%
Co 228.616†	1.7	0.00005	mg/L	0.000137	0.00005	mg/L	0.000137	300.38%
Cr 267.716†	-2.1	-0.00037	mg/L	0.000888	-0.00037	mg/L	0.000888	240.73%
Cu 324.752†	140.5	0.00051	mg/L	0.000076	0.00051	mg/L	0.000076	14.92%
Fe 273.955†	4.1	0.00313	mg/L	0.000821	0.00313	mg/L	0.000821	26.23%
K 766.490†	54.9	0.02637	mg/L	0.012969	0.02637	mg/L	0.012969	49.18%
Mg 279.077†	-6.4	-0.00566	mg/L	0.008550	-0.00566	mg/L	0.008550	151.16%
Mn 257.610†	0.1	0.00014	mg/L	0.000058	0.00014	mg/L	0.000058	42.62%
Mo 202.031†	31.2	0.00195	mg/L	0.000183	0.00195	mg/L	0.000183	9.36%
Na 589.592†	58.5	0.00444	mg/L	0.001660	0.00444	mg/L	0.001660	37.37%
Na 330.237†	11.5	0.4343	mg/L	0.20221	0.4343	mg/L	0.20221	46.56%
Ni 231.604†	0.2	0.00005	mg/L	0.000577	0.00005	mg/L	0.000577	>999.9%
Pb 220.353†	2.8	0.00037	mg/L	0.00045	0.00037	mg/L	0.000458	124.50%
Sb 206.836†	24.4	0.00915	mg/L	0.002598	0.00915	mg/L	0.002598	28.39%
Se 196.026†	1.7	0.00149	mg/L	0.00415	0.00149	mg/L	0.004156	278.74
Si 288.158†	-6.1	-0.00324	mg/L	0.005557	-0.00324	mg/L	0.005557	171.5
Sn 189.927†	1.0	0.00033	mg/L	0.000660	0.00033	mg/L	0.000660	198.41
Sr 421.552†	45.8	0.00005	mg/L	0.000038	0.00005	mg/L	0.000038	77.72%
Ti 334.903†	15.7	0.00078	mg/L	0.000220	0.00078	mg/L	0.000220	28.30%
Tl 190.801†	1.9	0.00103	mg/L	0.001771	0.00103	mg/L	0.001771	171.42
V 292.402†	22.5	0.00017	mg/L	0.000030	0.00017	mg/L	0.000030	17.85%
Zn 206.200†	0.2	0.00006	mg/L	0.000640	0.00006	mg/L	0.000640	>999.9%

Sequence No.: 18
Sample ID: CRI

Autosampler Location: 301
Date Collected: 7/10/2013 10:19:17 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	233.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3548370.8	99.26	%	0.635				0.64
ScR 361.383	375166.6	100.5	%	0.43				0.43
Ag 328.068†	656.9	0.00315	mg/L	0.000156	0.00315	mg/L	0.000156	4.95
Al 308.215†	61.1	0.05666	mg/L	0.003319	0.05666	mg/L	0.003319	5.86
As 188.979†	70.2	0.05033	mg/L	0.002144	0.05033	mg/L	0.002144	4.26%
B 249.677†	143.8	0.02026	mg/L	0.000761	0.02026	mg/L	0.000761	3.75
Ba 233.527†	18.4	0.00404	mg/L	0.000370	0.00404	mg/L	0.000370	9.16
Be 313.042†	529.6	0.00096	mg/L	0.000028	0.00096	mg/L	0.000028	2.86%
Ca 317.933†	617.3	0.05388	mg/L	0.000910	0.05388	mg/L	0.000910	1.69
Cd 228.802†	69.1	0.00243	mg/L	0.000090	0.00243	mg/L	0.000090	3.72%
Co 228.616†	111.4	0.00299	mg/L	0.000144	0.00299	mg/L	0.000144	4.81%
Cr 267.716†	30.1	0.00521	mg/L	0.000634	0.00521	mg/L	0.000634	12.17%
Cu 324.752†	689.1	0.00251	mg/L	0.000070	0.00251	mg/L	0.000070	2.78
Fe 273.955†	67.3	0.05128	mg/L	0.001900	0.05128	mg/L	0.001900	3.70
K 766.490†	1108.2	0.5328	mg/L	0.01550	0.5328	mg/L	0.01550	2.91
Mg 279.077†	60.9	0.05416	mg/L	0.003899	0.05416	mg/L	0.003899	7.20
Mn 257.610†	39.4	0.00107	mg/L	0.00009	0.00107	mg/L	0.000096	8.41
Mo 202.031†	83.1	0.00519	mg/L	0.000234	0.00519	mg/L	0.000234	4.50
Na 589.592†	6513.9	0.4947	mg/L	0.00748	0.4947	mg/L	0.00748	1.51
Na 330.237†	23.3	0.8770	mg/L	0.24809	0.8770	mg/L	0.24809	28.29%
Ni 231.604†	41.0	0.00997	mg/L	0.001383	0.00997	mg/L	0.001383	13.87
Pb 220.353†	145.1	0.01914	mg/L	0.000074	0.01914	mg/L	0.000074	0.39%
Sb 206.836†	140.0	0.05257	mg/L	0.002460	0.05257	mg/L	0.002460	4.68
Se 196.026†	64.9	0.05693	mg/L	0.001772	0.05693	mg/L	0.001772	3.11%
Si 288.158†	114.5	0.06062	mg/L	0.008153	0.06062	mg/L	0.008153	13.45%
Sn 189.927†	29.1	0.00936	mg/L	0.000315	0.00936	mg/L	0.000315	3.36
Sr 421.552†	951.6	0.00100	mg/L	0.000021	0.00100	mg/L	0.000021	2.09%
Ti 334.903†	102.0	0.00505	mg/L	0.000383	0.00505	mg/L	0.000383	7.56%
Tl 190.801†	93.7	0.05004	mg/L	0.000506	0.05004	mg/L	0.000506	1.01%
V 292.402†	431.4	0.00323	mg/L	0.000181	0.00323	mg/L	0.000181	5.59%
Zn 206.200†	38.6	0.00987	mg/L	0.000420	0.00987	mg/L	0.000420	4.25%

Sequence No.: 19
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 7/10/2013 10:23:34 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	194.1 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3424066.9	95.78	%	0.362				[illegible]
[illegible]	363192.2	97.25	%	0.716				[illegible]
Ag 328.068†	-160.6	-0.00086	mg/L	0.000208	-0.00086	mg/L	0.000208	24.14%
Al 396.215†	287528.2	202.1	mg/L	0.43	202.1	mg/L	0.43	0.21%
As 189.979†	44.8	0.02489	mg/L	0.002421	0.02489	mg/L	0.002421	9.73%
B 249.677†	-44.4	-0.00626	mg/L	0.001437	-0.00626	mg/L	0.001437	22.97%
Ba 233.527†	133.3	-0.00391	mg/L	0.000842	-0.00391	mg/L	0.000842	21.51%
Be 313.042†	76.8	0.00014	mg/L	0.000014	0.00014	mg/L	0.000014	9.94%
Ca 317.933†	1153142.6	100.6	mg/L	0.31	100.6	mg/L	0.31	0.31%
Cd 228.802†	17.4	0.00050	mg/L	0.000114	0.00050	mg/L	0.000114	22.67%
Co 228.616†	82.4	-0.00017	mg/L	0.000167	-0.00017	mg/L	0.000167	98.62%
Cr 267.716†	16.9	0.00116	mg/L	0.000999	0.00116	mg/L	0.000999	86.40%
Cu 324.752†	-2281.1	-0.00012	mg/L	0.000018	-0.00012	mg/L	0.000018	14.62%
Fe 273.955†	259393.8	197.7	mg/L	0.82	197.7	mg/L	0.82	0.41%
K 766.490†	85.5	0.04108	mg/L	0.004821	0.04108	mg/L	0.004821	11.74%
Mg 279.077†	118432.0	105.1	mg/L	0.36	105.1	mg/L	0.36	0.34%
Mn 257.610†	53.7	0.00075	mg/L	0.000208	0.00075	mg/L	0.000208	27.64%
Mo 202.031†	98.6	0.00425	mg/L	0.000568	0.00425	mg/L	0.000568	13.36%
Na 589.592†	117.2	0.00890	mg/L	0.001994	0.00890	mg/L	0.001994	22.39%
Na 330.237†	7.2	-0.1646	mg/L	0.09402	-0.1646	mg/L	0.09402	57.11%
Ni 231.604†	-1.3	-0.00030	mg/L	0.000967	-0.00030	mg/L	0.000967	324.21%
Pb 220.353†	-358.7	-0.01025	mg/L	0.001354	-0.01025	mg/L	0.001354	13.22%
Sb 206.836†	43.3	0.01603	mg/L	0.002449	0.01603	mg/L	0.002449	15.28%
Se 196.026†	44.1	0.01658	mg/L	0.001028	0.01658	mg/L	0.001028	6.20%
Si 185.156†	-39.4	-0.00896	mg/L	0.002400	-0.00896	mg/L	0.002400	26.79%
Sn 189.927†	-82.0	-0.01332	mg/L	0.000665	-0.01332	mg/L	0.000665	4.99%
Sr 421.552†	5174.8	0.00545	mg/L Conf.	0.000076	0.00545	mg/L	0.000076	1.40%
Ti 334.903†	193.9	0.00335	mg/L	0.000658	0.00335	mg/L	0.000658	19.64%
Tl 190.801†	-46.1	0.00571	mg/L	0.000519	0.00571	mg/L	0.000519	9.10%
V 292.402†	1295.8	-0.00081	mg/L	0.000207	-0.00081	mg/L	0.000207	25.37%
Zn 206.200†	12.0	0.00182	mg/L	0.001057	0.00182	mg/L	0.001057	58.06%

Sequence No.: 20
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 7/10/2013 10:27:50 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
[illegible]	233.0 kPa	[illegible] L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3412714.8	95.46	%	0.219				[illegible]
[illegible]	382138.6	96.97	%	0.290				[illegible]
[illegible]	219016.8	1.054	mg/L	0.0034	1.054	mg/L	0.0034	[illegible]
[illegible]	268368.0	202.6	mg/L	0.44	202.6	mg/L	0.44	[illegible]
As 188.979+	1444.2	1.025	mg/L	0.0048	1.025	mg/L	0.0048	0.47%
B 249.677+	-45.6	-0.00848	mg/L	0.000778	-0.00848	mg/L	0.000778	9.18%
Ba 233.527+	4919.3	1.051	mg/L	0.0018	1.051	mg/L	0.0018	0.17%
Be 313.042+	532850.4	0.9685	mg/L	0.00165	0.9685	mg/L	0.00165	0.17%
Ca 317.933+	1152280.6	100.6	mg/L	0.28	100.6	mg/L	0.28	0.28%
Cd 226.502+	26160.5	1.016	mg/L	0.0105	1.016	mg/L	0.0105	1.03%
Co 228.616+	36257.2	0.9751	mg/L	0.00251	0.9751	mg/L	0.00251	0.26%
Cr 267.716+	6027.3	1.042	mg/L	0.0038	1.042	mg/L	0.0038	0.36%
Cu 324.752+	288556.6	1.057	mg/L	0.0092	1.057	mg/L	0.0092	0.87%
Fe 27[illegible]	260096.5	198.3	mg/L	1.31	198.3	mg/L	1.31	0.66%
K 766.490+	5.1	0.00243	mg/L	0.016182	0.00243	mg/L	0.016182	664.60%
Mg 279.0[illegible]+	112985.5	100.3	mg/L	0.14	100.3	mg/L	0.14	0.14%
Mn 257.610+	35093.2	0.9654	mg/L	0.00532	0.9654	mg/L	0.00532	0.55%
Mo 202.031+	97.4	0.00475	mg/L	0.000343	0.00475	mg/L	0.000343	7.22%
Na 589.[illegible]62+	30.2	0.00229	mg/L	0.002957	0.00229	mg/L	0.002957	129.06%
Ni 231.604+	3996.6	0.9698	mg/L	0.00240	0.9698	mg/L	0.00240	0.25%
Pb 220.353+	6917.1	0.9490	mg/L	0.00338	0.9490	mg/L	0.00338	0.36%
Sb 206.836+	2747.7	1.020	mg/L	0.0037	1.020	mg/L	0.0037	0.36%
Se 196.026+	1175.3	1.008	mg/L	0.0148	1.008	mg/L	0.0148	1.47%
Si 288.158+	-40.1	-0.00535	mg/L	0.004634	-0.00535	mg/L	0.004634	86.68%
Sn 189.927+	-85.9	-0.01404	mg/L	0.001359	-0.01404	mg/L	0.001359	9.68%
Sr 421.552+	5130.6	0.00541	mg/L Conf.	0.000029	0.00541	mg/L	0.000029	0.53%
Ti 334.903+	189.8	0.00290	mg/L	0.000078	0.00290	mg/L	0.000078	2.67%
Tl 190.801+	1741.1	0.9477	mg/L	0.00337	0.9477	mg/L	0.00337	0.36%
V 292.402+	133944.4	0.9919	mg/L	0.00862	0.9919	mg/L	0.00862	0.87%
Zn 206.200+	3759.4	0.9590	mg/L	0.00160	0.9590	mg/L	0.00160	0.17%

Sequence No.: 21
Sample ID: CV3

Autosampler Location: 7
Date Collected: 7/10/2013 10:31:53 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible] 377.2[illegible]	3523306.5	98.53	%	0.324				0.33%
[illegible] 1.380	307390.3	98.38	%	0.164				0.17%
[illegible] 328.164+	220182.1	1.055	mg/L	0.0026	1.055	mg/L	0.0026	0.25%
Al 308.215+	3004.4	2.077	mg/L	0.0059	2.077	mg/L	0.0059	0.28%
[illegible] 196.874+	2806.6	2.034	mg/L	0.0095	2.034	mg/L	0.0095	0.47%
B 249.677+	7196.3	1.013	mg/L	0.0013	1.013	mg/L	0.0013	0.13%
Ba 233.52[illegible]	4834.5	1.065	mg/L	0.0020	1.065	mg/L	0.0020	0.19%
Be 31[illegible].04[illegible]	542336.6	0.9858	mg/L	0.00947	0.9858	mg/L	0.00947	0.96%
Ca 317.933+	22844.9	1.994	mg/L	0.0063	1.994	mg/L	0.0063	0.31%
Cd 228.802+	26687.5	1.032	mg/L	0.0022	1.032	mg/L	0.0022	0.21%
Co 228.61[illegible]+	37635.9	1.013	mg/L	0.0020	1.013	mg/L	0.0020	0.20%
Cr 267.716+	6169.6	1.067	mg/L	0.0040	1.067	mg/L	0.0040	0.37%
Cu 324.752+	283083.9	1.029	mg/L	0.0035	1.029	mg/L	0.0035	0.34%
Fe 273.955+	2760.9	2.098	mg/L	0.0083	2.098	mg/L	0.0083	0.39%
K 76[illegible].49[illegible]+	41899.6	20.14	mg/L	0.069	20.14	mg/L	0.069	0.34%
Mg 27[illegible].[illegible]+	2275.6	2.029	mg/L	0.0108	2.029	mg/L	0.0108	0.53%
Mn 257.61[illegible]	36367.6	0.9845	mg/L	0.00420	0.9845	mg/L	0.00420	0.43%
Mo 202.031+	15816.2	0.9871	mg/L	0.00212	0.9871	mg/L	0.00212	0.21%
Na 589.592+	663697.0	50.41	mg/L	0.270	50.41	mg/L	0.270	0.54%
Na 330.237+	1388.6	52.29	mg/L	0.257	52.29	mg/L	0.257	0.49%
Ni 231.6[illegible]+	4222.1	1.027	mg/L	0.0042	1.027	mg/L	0.0042	0.40%
P 213.353+	14841.1	1.957	mg/L	0.0036	1.957	mg/L	0.0036	0.18%
Pb [illegible].636+	5588.4	2.096	mg/L	0.0112	2.096	mg/L	0.0112	0.53%
S 196.026+	2303.1	2.020	mg/L	0.0067	2.020	mg/L	0.0067	0.33%
Sb 206.156+	3834.8	2.034	mg/L	0.0201	2.034	mg/L	0.0201	0.99%
Se 196.02[illegible]	3111.9	0.9978	mg/L	0.00082	0.9978	mg/L	0.00082	0.08%
Sr 421.552+	947412.4	0.9982	mg/L	0.00386	0.9982	mg/L	0.00386	0.39%
Ti 334.903+	20169.8	0.9995	mg/L	0.00264	0.9995	mg/L	0.00264	0.26%
Tl 190.801+	3911.0	2.081	mg/L	0.0091	2.081	mg/L	0.0091	0.44%
V 292.402+	139114.3	1.041	mg/L	0.0021	1.041	mg/L	0.0021	0.20%
Zn 206.200+	3957.9	1.011	mg/L	0.0021	1.011	mg/L	0.0021	0.21%

Sequence No.: 22
Sample ID: CB 3

Autosampler Location: 1
Date Collected: 7/10/2013 10:35:58 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3551613.9	99.35	%	0.222				0.22%
[illegible]	374362.4	100.2		0.52				0.52%
Mn 279.[illegible]+	48.3	0.00023	mg/L	0.000659	0.00023	mg/L	0.000659	285.65%
Al 308.215+	7.6	0.00533	mg/L	0.008771	0.00533	mg/L	0.008771	164.73%
Li [illegible] 670+	0.9	0.00068	mg/L	0.001418	0.00068	mg/L	0.001418	209.59%
[illegible] 670.[illegible]+	4.6	0.00064	mg/L	0.000758	0.00064	mg/L	0.000758	117.67%
Ba 233.527+	2.9	0.00064	mg/L	0.000790	0.00064	mg/L	0.000790	124.08%
Be 313.042+	22.9	0.00004	mg/L	0.000051	0.00004	mg/L	0.000051	122.62%
Ca 317.933+	9.1	0.00079	mg/L	0.000830	0.00079	mg/L	0.000830	104.70%
Cd 228.802+	6.1	0.00023	mg/L	0.000190	0.00023	mg/L	0.000190	81.11%
Co 228.616+	1.9	0.00005	mg/L	0.000016	0.00005	mg/L	0.000016	31.46%
Cr 267.7[illegible]+	0.1	0.00002	mg/L	0.000790	0.00002	mg/L	0.000790	>999.9%
Cu 324.752+	138.1	0.00050	mg/L	0.000046	0.00050	mg/L	0.000046	9.16%
Fe 273.955+	7.8	0.00591	mg/L	0.002966	0.00591	mg/L	0.002966	50.21%
K 766.490+	97.5	0.04686	mg/L	0.003925	0.04686	mg/L	0.003925	8.38%
Mg 279.077+	1.4	0.00123	mg/L	0.002589	0.00123	mg/L	0.002589	209.72%
Mn 257.610+	2.3	0.00006	mg/L	0.000022	0.00006	mg/L	0.000022	35.15%
Mo 202.[illegible]+	23.2	0.00145	mg/L	0.000515	0.00145	mg/L	0.000515	35.65%
Na 589.592+	28.5	0.00217	mg/L	0.003115	0.00217	mg/L	0.003115	143.75%
Ni [illegible].237+	1.9	0.07018	mg/L	0.249333	0.07018	mg/L	0.249333	355.30%
P 213.604+	2.9	0.00071	mg/L	0.000621	0.00071	mg/L	0.000621	87.69%
Pb [illegible].353+	-3.4	-0.00045	mg/L	0.000171	-0.00045	mg/L	0.000171	38.35%
Sb 206.836+	32.3	0.01214	mg/L	0.000516	0.01214	mg/L	0.000516	4.25
Se 196.026+	1.8	0.00154	mg/L	0.002640	0.00154	mg/L	0.002640	171.65%
Si [illegible].156+	-9.7	-0.00516	mg/L	0.006657	-0.00516	mg/L	0.006657	129.07%
Sn 189.927+	2.3	0.00073	mg/L	0.000778	0.00073	mg/L	0.000778	105.91%
Sr [illegible].552+	6.6	0.00001	mg/L	0.000036	0.00001	mg/L	0.000036	512.32%
Ti [illegible].902+	22.0	0.00109	mg/L	0.000740	0.00109	mg/L	0.000740	67.84%
Tl 190.801+	2.0	0.00108	mg/L	0.001551	0.00108	mg/L	0.001551	143.81%
V 292.402+	41.0	0.00031	mg/L	0.000049	0.00031	mg/L	0.000049	16.10%
Zn 206.[illegible]+	-0.5	-0.00013	mg/L	0.000351	-0.00013	mg/L	0.000351	263.66%

Sequence No.: 23
Sample ID: WW85 MB1 SWC

Autosampler Location: 312
Date Collected: 7/10/2013 10:40:13 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW85 MB1 SWC

Analyte	Back Pressure	Flow
Ti	[illegible] kPa	0.75 L/min

Mean Data: WW85 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
[illegible]	3556871.4	100.3	%	0.70				0.70
[illegible]	374911.2	100.4	%	0.86				0.86
[illegible]	16.3	0.00009	mg/L	0.000070	0.00018	mg/L	0.000241	133.21
[illegible]	24.5	0.01724	mg/L	0.001858	0.03447	mg/L	0.003715	10.78
[illegible]	3.8	0.00272	mg/L	0.001428	0.00544	mg/L	0.002856	52.49
[illegible]	-1.5	-0.00021	mg/L	0.000244	-0.00042	mg/L	0.000489	116.21
[illegible]	3.3	0.00074	mg/L	0.000592	0.00148	mg/L	0.001185	80.49
[illegible]	22.6	0.00004	mg/L	0.000033	0.00008	mg/L	0.000066	79.79
[illegible]	330.3	0.02709	mg/L	0.000861	0.05417	mg/L	0.001722	3.18
[illegible]	3.6	0.00013	mg/L	0.000230	0.00027	mg/L	0.000459	170.43
[illegible]	0.7	0.00002	mg/L	0.000151	0.00004	mg/L	0.000301	785.03
[illegible]	3.8	0.00066	mg/L	0.000519	0.00131	mg/L	0.001038	79.05
[illegible]	70.9	0.00026	mg/L	0.000036	0.00052	mg/L	0.000073	14.11
[illegible]	4.9	0.00373	mg/L	0.000535	0.00746	mg/L	0.001070	14.35
[illegible]	35.9	0.01723	mg/L	0.011302	0.03447	mg/L	0.022604	65.58
Mg 279.077‡	8.1	0.00716	mg/L	0.003964	0.01432	mg/L	0.007928	55.35
[illegible]	1.3	0.00004	mg/L	0.000038	0.00007	mg/L	0.000075	104.27
[illegible]	5.8	0.00036	mg/L	0.000082	0.00072	mg/L	0.000164	22.77
Na 589.592‡	44.9	0.00341	mg/L	0.004363	0.00682	mg/L	0.008726	127.89
Na 330.237‡	21.7	0.8176	mg/L	0.19558	1.635	mg/L	0.3912	23.92
Ni 231.604‡	2.6	0.00062	mg/L	0.002110	0.00125	mg/L	0.004221	338.54
Pb 220.353‡	-9.4	-0.00110	mg/L	0.001329	-0.00220	mg/L	0.002659	121.09
S 266.283‡	6.8	0.00254	mg/L	0.000686	0.00507	mg/L	0.001373	27.05
Sb 206.833‡	1.2	0.00106	mg/L	0.004557	0.00212	mg/L	0.009114	429.63
Si 288.158‡	24.7	0.01307	mg/L	0.002056	0.02614	mg/L	0.004112	15.73
Sn [illegible]	-1.5	-0.00048	mg/L	0.001106	-0.00096	mg/L	0.002212	229.73
Sr 421.55‡	44.7	0.00005	mg/L	0.000021	0.00009	mg/L	0.000041	43.59
Ti 334.903‡	8.3	0.00041	mg/L	0.000268	0.00082	mg/L	0.000535	65.35
Tl 19[illegible]	-0.5	-0.00028	mg/L	0.001588	-0.00056	mg/L	0.003176	565.17
V 292.402‡	29.5	0.00022	mg/L	0.000166	0.00044	mg/L	0.000333	74.74
Zn 206.200‡	4.0	0.00102	mg/L	0.000177	0.00203	mg/L	0.000353	17.38

Sequence No.: 24
Sample ID: WW85 A SWC

Autosampler Location: 313
Date Collected: 7/10/2013 10:44:29 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW85 A SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: WW85 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3390494.5	94.17	%	0.166				0.19%
[illegible]	361550.4	96.62	%	0.502				0.52%
[illegible]	-57.4	-0.00020	mg/L	0.000164	-0.00040	mg/L	0.000329	82.23%
Al 308.215+	10642.1	74.76	mg/L	0.400	149.6	mg/L	0.80	0.54
[illegible]	11.5	0.00577	mg/L	0.003338	0.1915	mg/L	0.00668	3.49%
[illegible]	693.5	0.09767	mg/L	0.000635	0.1953	mg/L	0.00127	0.65%
Ba 233.527+	14292.5	3.133	mg/L	0.0273	6.266	mg/L	0.0545	0.87%
Be 313.042+	932.3	0.00160	mg/L	0.000006	0.00320	mg/L	0.000013	0.41%
Ca 317.933+	3242065.2	283.0	mg/L	1.28	566.0	mg/L	2.56	0.45%
Cd 228.802+	135.6	0.00529	mg/L	0.000206	0.01059	mg/L	0.000411	3.88%
Co 228.616+	1618.6	0.03623	mg/L	0.000234	0.07246	mg/L	0.000469	0.65%
Cr 267.716+	803.2	0.1382	mg/L	0.00004	0.2765	mg/L	0.00008	0.03%
Cu 324.752+	45097.1	0.3497	mg/L	0.00202	0.6993	mg/L	0.00405	0.58%
Fe 273.955+	142235.5	108.4	mg/L	0.59	216.8	mg/L	1.17	0.54%
K 766.490+	27006.7	12.98	mg/L	0.042	25.97	mg/L	0.085	0.33%
Mg 279.077+	46224.4	40.98	mg/L	0.199	81.96	mg/L	0.399	0.49%
Mn 257.610+	82371.6	2.233	mg/L	0.0097	4.467	mg/L	0.0195	0.44%
Mo 202.031+	408.7	0.02560	mg/L	0.000601	0.05121	mg/L	0.001202	2.35%
Na 588.995+	3795114.0	288.2	mg/L	1.25	576.5	mg/L	2.50	0.43%
Sr 350.231+	7926.6	297.8	mg/L	1.88	595.6	mg/L	3.75	0.63%
Ni 231.604+	349.9	0.09484	mg/L	0.000922	0.1897	mg/L	0.00184	0.97%
Pb 220.353+	2389.5	0.3265	mg/L	0.00196	0.6530	mg/L	0.00392	0.60%
Sb 206.836+	26.2	0.01146	mg/L	0.004093	0.02293	mg/L	0.008186	35.70%
Se 196.026+	30.1	0.01803	mg/L	0.002405	0.03606	mg/L	0.004811	13.34%
Si 299.119+	4617.8	2.445	mg/L	0.0240	4.890	mg/L	0.0480	0.98%
Sn 189.927+	-77.6	0.01222	mg/L	0.000728	0.02444	mg/L	0.001456	5.96%
Sr 421.552+	626896.0	0.8712	mg/L	0.00446	1.742	mg/L	0.0089	0.51%
Ti 334.903+	68565.5	3.360	mg/L	0.0135	6.719	mg/L	0.0270	0.40%
Tl 190.801+	-12.5	0.00698	mg/L	0.001558	0.01397	mg/L	0.003116	22.31%
V 292.402+	35089.3	0.2548	mg/L	0.00097	0.5096	mg/L	0.00194	0.38%
Zn 206.200+	10013.8	2.555	mg/L	0.0154	5.109	mg/L	0.0308	0.60%

Sequence No.: 25
Sample ID: WW85 B SWC

Autosampler Location: 314
Date Collected: 7/10/2013 10:48:50 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW85 B SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	[illegible] L/min

Mean Data: WW85 B SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3404304.1	97.74	%	0.155				0.16%
[illegible]	3[illegible]64.4	99.05	%	0.299				0.30%
[illegible]	670.8	0.07330	mg/L	0.000327	0.00659	mg/L	0.000059	0.90%
Al 308.215+	100366.8	74.69	mg/L	0.129	148.4	mg/L	0.26	0.17%
As [illegible]	23.9	0.1561	mg/L	0.00144	0.3121	mg/L	0.00288	0.92%
B 249.677+	339.5	0.04764	mg/L	0.001555	0.09528	mg/L	0.003109	3.26
Ba 233.527+	22956.6	5.023	mg/L	0.0283	10.05	mg/L	0.057	0.56%
Be 313.042+	767.8	0.00122	mg/L	0.000022	0.00255	mg/L	0.000045	1.75%
Ca 317.933+	2024422.1	176.7	mg/L	0.58	353.4	mg/L	1.16	0.33%
Cd 228.502+	446.5	0.01752	mg/L	0.000009	0.03505	mg/L	0.000017	0.05%
Co 228.616+	2431.2	0.05409	mg/L	0.000336	0.1082	mg/L	0.00067	0.62%
Cr 267.716+	1463.6	0.2581	mg/L	0.00071	0.5162	mg/L	0.00143	0.28%
Cu 324.754+	230567.2	0.8475	mg/L	0.00287	1.695	mg/L	0.0057	0.34%
Fe 273.955+	307650.7	234.5	mg/L	1.17	469.0	mg/L	2.34	0.50%
K 766.491+	16771.1	8.063	mg/L	0.0418	16.13	mg/L	0.084	0.52%
Mg 279.077+	41971.8	37.14	mg/L	0.162	74.28	mg/L	0.325	0.44%
Mn 257.610+	119722.7	3.240	mg/L	0.0107	6.480	mg/L	0.0214	0.33%
Mo 202.031+	1171.6	0.07087	mg/L	0.000301	0.1417	mg/L	0.00060	0.42%
Na 588.592+	63152.7	4.796	mg/L	0.0026	9.593	mg/L	0.0052	0.05%
Nb 309.237+	206.1	5.132	mg/L	0.1253	10.30	mg/L	0.251	2.43%
Ni 231.604+	914.8	0.2237	mg/L	0.00181	0.4475	mg/L	0.00362	0.81%
Pb 220.353+	4333.7	0.9710	mg/L	0.00248	1.942	mg/L	0.0050	0.26%
Sb 206.836+	51.4	0.02085	mg/L	0.003504	0.04170	mg/L	0.007009	16.81%
Se 196.026+	32.5	0.02013	mg/L	0.003597	0.04027	mg/L	0.007194	17.87%
Si 252.156+	3233.2	1.716	mg/L	0.0083	3.431	mg/L	0.0166	0.48%
Sn 189.927+	-16.7	0.01837	mg/L	0.000423	0.03673	mg/L	0.000847	2.31%
Sr 421.552+	540486.6	0.5695	mg/L	0.00139	1.139	mg/L	0.0028	0.24%
Ti [illegible]	25343.1	4.732	mg/L	0.0126	9.464	mg/L	0.0251	0.27%
Tl 190.801+	-36.2	0.01143	mg/L	0.001438	0.02286	mg/L	0.002876	12.58%
V 292.402+	39240.2	0.2789	mg/L	0.00084	0.5578	mg/L	0.00168	0.30%
Zn 206.200+	40929.1	10.45	mg/L	0.047	20.90	mg/L	0.093	0.45%

Sequence No.: 26
Sample ID: WW85 C SWC

D2

Dilution: 2.000000X

Autosampler Location: 315
Date Collected: 7/10/2013 10:52:53 AM
Data Type: Original

Nebulizer Parameters: WW85 C SWC

Analyte	Back Pressure	Flow
All	[illegible] kPa	[illegible] L/min

Mean Data: WW85 C SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]	%	0.174				[illegible]
[illegible]	[illegible]	[illegible]	%	0.796				0.10%
[illegible]	[illegible]	[illegible]	mg/L	[illegible]	[illegible]	mg/L	[illegible]	[illegible]
Al 396.215†	126331.8	[illegible]	mg/L	0.346	160.3	mg/L	0.69	0.38%
As 188.979†	34.9	0.1988	mg/L	0.00174	0.3776	mg/L	0.00349	0.92%
B 249.677†	369.1	0.05477	mg/L	0.000105	0.1095	mg/L	0.00210	1.92%
Ba 233.527†	27855.1	[illegible]	mg/L	0.0495	12.20	mg/L	0.099	0.81%
Be 313.042†	910.0	[illegible]	mg/L	0.000006	0.00302	mg/L	0.000012	0.40%
Ca 317.933†	2477004.9	216.2	mg/L	0.71	432.4	mg/L	1.43	0.33%
Cd 228.802†	570.1	0.07232	mg/L	0.000177	0.04465	mg/L	0.000354	0.79%
Co 228.616†	2931.8	0.06583	mg/L	0.000201	0.1317	mg/L	0.00040	0.31%
Cr 267.716†	1793.4	0.3147	mg/L	0.00167	0.6294	mg/L	0.00334	0.53%
Cu 324.752†	281405.3	1.035	mg/L	0.0045	2.069	mg/L	0.0090	0.43%
Fe 273.955†	360155.2	289.8	mg/L	0.75	579.5	mg/L	1.51	0.26%
K 766.490†	19660.2	9.451	mg/L	0.0399	18.90	mg/L	0.080	0.42%
Mg 279.077†	51154.6	45.26	mg/L	0.085	90.53	mg/L	0.170	0.19%
Mn 257.610†	147591.0	3.994	mg/L	0.0138	7.988	mg/L	0.0275	0.34%
Mo 202.031†	3559.5	0.09458	mg/L	0.000568	0.1892	mg/L	0.00114	0.60%
Na 589.592†	73825.3	5.607	mg/L	0.0219	11.21	mg/L	0.044	0.39%
Ni 231.604†	1021.5	0.2485	mg/L	0.00201	0.4970	mg/L	0.00402	0.81%
P 213.618†	9116.8	1.207	mg/L	0.0016	2.413	mg/L	0.0033	0.14%
Pb 220.353†	52.4	0.02148	mg/L	0.003652	0.04299	mg/L	0.007304	16.99%
Se 196.026†	31.9	0.01791	mg/L	0.005134	0.03582	mg/L	0.010268	28.66%
Si 288.158†	3293.4	1.748	mg/L	0.0146	3.497	mg/L	0.0292	1.84%
Sn 189.927†	-6.2	0.02698	mg/L	0.001498	0.05397	mg/L	0.002995	5.55%
Sr 421.552†	952382.2	0.6875	mg/L	0.00277	1.375	mg/L	0.0055	0.40%
Ti 334.904†	176491.0	5.611	mg/L	0.0206	11.23	mg/L	0.041	0.37%
Tl 190.801†	-50.2	0.01124	mg/L	0.002065	0.02248	mg/L	0.004129	18.37%
V 292.402†	47814.1	0.3397	mg/L	0.00098	0.6794	mg/L	0.00197	0.29%
Zn 206.200†	49265.4	12.56	mg/L	0.028	25.16	mg/L	0.055	0.22%

WW85 : 09805

Sequence No.: 27
Sample ID: WW85 MB1SPK SWC

Autosampler Location: 316
Date Collected: 7/10/2013 10:56:57 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW85 MB1SPK SWC

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: WW85 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	mg/L	[illegible]	[illegible]	mg/L	[illegible]	[illegible]
Al 396.215+	3008.0	2.106	mg/L	0.0170	4.211	mg/L	0.0340	0.81%
As 188.979+	2864.3	2.047	mg/L	0.0055	4.093	mg/L	0.0111	0.27%
B [illegible]	2.5	-0.00072	mg/L	0.001208	-0.00145	mg/L	0.002417	167.11%
Ba [illegible]	9743.2	2.140	mg/L	0.0203	4.280	mg/L	0.0405	0.95%
Be 313.042+	261656.8	0.4759	mg/L	0.00207	0.9518	mg/L	0.00415	0.44%
Ca 317.933+	114854.7	10.02	mg/L	0.038	20.05	mg/L	0.077	0.38%
Cd 228.802+	13643.6	0.5218	mg/L	0.00323	1.044	mg/L	0.0065	0.62%
Co 228.616+	19067.4	0.5144	mg/L	0.00249	1.029	mg/L	0.0050	0.45%
Cr 267.716+	3065.3	0.5329	mg/L	0.00529	1.066	mg/L	0.0106	0.99%
Cu 324.752+	144740.0	0.5263	mg/L	0.00263	1.053	mg/L	0.0053	0.50%
Fe [illegible]	2939.9	2.237	mg/L	0.0211	4.475	mg/L	0.0401	0.90%
K 766.490+	26943.4	10.07	mg/L	0.080	20.14	mg/L	0.160	0.79%
Mg 279.077+	116263.1	10.33	mg/L	0.034	20.66	mg/L	0.187	0.91%
Mn 257.610+	19025.2	0.5182	mg/L	0.00463	1.036	mg/L	0.0097	0.94%
Mo 202.031+	38.0	0.00191	mg/L	0.000276	0.00381	mg/L	0.000552	14.49%
Na 589.592+	132261.4	10.04	mg/L	0.026	20.09	mg/L	0.057	0.28%
Ni 231.297+	267.6	16.64	mg/L	0.253	21.28	mg/L	0.507	2.38%
P [illegible]	2033.7	0.4938	mg/L	0.00373	0.9876	mg/L	0.00746	0.76%
Pb [illegible]	15168.9	1.999	mg/L	0.0143	3.999	mg/L	0.0295	0.75%
Sb 206.833+	15.6	0.00053	mg/L	0.001053	0.00070	mg/L	0.002106	298.78%
Se 196.026+	2339.8	2.048	mg/L	0.0340	4.095	mg/L	0.0680	0.20%
Si 288.158+	33.3	0.02106	mg/L	0.004204	0.04201	mg/L	0.008327	20.30%
Sn 189.927+	-19.2	-0.00477	mg/L	0.000510	-0.00954	mg/L	0.001019	10.69%
Sr [illegible]	471905.6	0.4972	mg/L	0.00171	0.9944	mg/L	0.00341	0.34%
Ti 334.940+	145.6	0.00646	mg/L	0.000634	0.01293	mg/L	0.001265	9.79%
Tl 190.801+	3826.8	2.040	mg/L	0.0046	4.080	mg/L	0.0093	0.23%
W 202.402+	69943.3	0.5233	mg/L	0.00129	1.047	mg/L	0.0026	0.25%
Zn 206.200+	1977.2	0.5050	mg/L	0.00310	1.010	mg/L	0.0062	0.61%

Sequence No.: 28
Sample ID: CV 4

Autosampler Location: 7
Date Collected: 7/10/2013 11:00:58 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
S-A 357.[illegible]	[illegible]	99.63	%	[illegible]				0.13
ScF 361.[illegible]	[illegible]	99.62		[illegible]				0.55
Ag 328.0[illegible]	[illegible]	1.054	mg/L	[illegible]	[illegible]	mg/L	0.0038	[illegible]
Al 396.215[illegible]	2991.3	2.068	mg/L	0.0142	2.068	mg/L	0.0142	0.69
As 188.979+	2786.3	2.020	mg/L	0.0037	2.020	mg/L	0.0037	0.18
B 249.677+	7199.8	1.014	mg/L	0.0047	1.014	mg/L	0.0047	0.46
Ba 233.5[illegible]	4859.1	1.071	mg/L	0.0065	1.071	mg/L	0.0065	0.61
Be 313.042+	539515.1	0.9806	mg/L	0.00427	0.9806	mg/L	0.00427	0.44
Ce 417.933+	22778.5	1.988	mg/L	0.0030	1.988	mg/L	0.0030	0.15
Cd 228.802+	26659.9	1.031	mg/L	0.0023	1.031	mg/L	0.0023	0.22
Co 228.616+	57702.3	1.015	mg/L	0.0011	1.015	mg/L	0.0011	0.11%
Cr 267.716+	6166.7	1.067	mg/L	0.0051	1.067	mg/L	0.0051	0.48%
Cu 324.752+	283284.2	1.030	mg/L	0.0022	1.030	mg/L	0.0022	0.21%
Fe 273.955+	2734.2	2.078	mg/L	0.0155	2.078	mg/L	0.0155	0.75%
K 766.490+	41999.4	20.19	mg/L	0.035	20.19	mg/L	0.035	0.03%
Mg 279.077+	2269.7	2.024	mg/L	0.0182	2.024	mg/L	0.0182	0.90%
Mn 257.610+	36327.2	0.9834	mg/L	0.00352	0.9834	mg/L	0.00352	0.36%
Mo 202.031+	15760.1	0.9836	mg/L	0.00281	0.9836	mg/L	0.00281	0.29%
Na 588.994+	660962.2	50.20	mg/L	0.193	50.20	mg/L	0.193	0.38
Ni 230.299+	1393.1	52.46	mg/L	0.060	52.46	mg/L	0.060	0.11%
Pb 231.604+	4224.7	1.028	mg/L	0.0090	1.028	mg/L	0.0090	0.87
Pb 220.353+	14626.1	1.955	mg/L	0.0071	1.955	mg/L	0.0071	0.36
Sb 206.836+	5529.2	2.074	mg/L	0.0038	2.074	mg/L	0.0038	0.19
Se 196.026+	2286.3	2.006	mg/L	0.0045	2.006	mg/L	0.0045	0.22
Si 288.158+	3821.1	2.027	mg/L	0.0127	2.027	mg/L	0.0127	0.62
Sn 189.927+	3035.0	0.9891	mg/L	0.00467	0.9891	mg/L	0.00467	0.47
Sr 421.552+	9[illegible]	0.9983	mg/L	0.00143	0.9983	mg/L	0.00143	0.14
Ti 334.903+	[illegible]	1.000	mg/L	0.0065	1.000	mg/L	0.0065	0.65
Tl 190.801+	3998.7	2.075	mg/L	0.0068	2.075	mg/L	0.0068	0.33
V 292.402+	139183.2	1.041	mg/L	0.0047	1.041	mg/L	0.0047	0.45%
Zn 206.200+	3957.7	1.011	mg/L	0.0062	1.011	mg/L	0.0062	0.62

Sequence No.: 29
Sample ID: CB 4

Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 7/10/2013 11.05:03 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Al 308.215†	-0.9	-0.00063	mg/L	0.002037	-0.00063	mg/L	0.002037	322.00%
As 188.979†	-2.5	-0.00177	mg/L	0.000721	-0.00177	mg/L	0.000721	40.76%
B 249.677†	6.2	0.00087	mg/L	0.000869	0.00087	mg/L	0.000869	99.45%
Ba 233.527†	[illegible]	[illegible]	mg/L	0.000679	[illegible]	mg/L	0.000679	[illegible]
Be 313.042†	39.7	0.00007	mg/L	0.000037	0.00007	mg/L	0.000037	51.20%
Ca 317.933†	45.9	0.00401	mg/L	0.001148	0.00401	mg/L	0.001148	28.65%
Cd 228.802†	5.5	0.00022	mg/L	0.000117	0.00022	mg/L	0.000117	52.32%
Co 228.616†	-0.0	-0.00000	mg/L	0.000128	-0.00000	mg/L	0.000128	[illegible]
Cr 267.716†	4.5	0.00078	mg/L	0.000579	0.00078	mg/L	0.000579	74.00%
Cu 324.752†	118.6	0.00043	mg/L	0.000067	0.00043	mg/L	0.000067	15.65%
Fe 273.955†	4.7	0.00361	mg/L	0.001579	0.00361	mg/L	0.001579	43.79%
K 766.490†	[illegible]	[illegible]	mg/L	0.022452	[illegible]	mg/L	0.022452	253.93%
Mg 279.077†	-1.1	-0.00103	mg/L	0.002683	-0.00103	mg/L	0.002683	261.06%
Mn 257.610†	3.9	0.00011	mg/L	0.000087	0.00011	mg/L	0.000087	82.07
Mo 202.031†	24.5	0.00153	mg/L	0.000541	0.00153	mg/L	0.000541	35.33%
Na 589.592†	108.5	0.00824	mg/L	0.003385	0.00824	mg/L	0.003385	41.02%
Ni 231.604†	9.4	0.3549	mg/L	0.05191	0.3549	mg/L	0.05191	14.63%
P 213.617†	0.0	0.00001	mg/L	0.001606	0.00001	mg/L	[illegible]	>999.9%
Pb 220.353†	-4.3	-0.00057	mg/L	0.000683	-0.00057	mg/L	0.000683	120.39%
Sb 206.836†	10.4	0.00726	mg/L	0.001740	0.00726	mg/L	0.001740	23.94%
Se 196.026†	-0.9	-0.00075	mg/L	0.001462	-0.00075	mg/L	0.001462	195.13%
Si 288.158†	-6.8	-0.00341	mg/L	0.008475	-0.00341	mg/L	0.008475	248.53%
Sn 189.927†	-2.2	-0.00070	mg/L	0.000632	-0.00070	mg/L	0.000632	90.42%
Sr 421.552†	32.2	0.00003	mg/L	0.000017	0.00003	mg/L	0.000017	51.19%
Th 234.903†	3.6	0.00016	mg/L	0.001319	0.00016	mg/L	0.001319	745.05%
Ti 190.801†	1.9	0.00097	mg/L	0.001865	0.00097	mg/L	0.001865	191.43%
V 292.402†	21.9	0.00017	mg/L	0.000109	0.00017	mg/L	0.000109	65.63%
Zn 206.200†	0.5	0.00013	mg/L	0.000796	0.00013	mg/L	0.000796	608.26%

Sequence No.: 30
Sample ID: WW16R MB1 SWC

Autosampler Location: 317
Date Collected: 7/10/2013 11:09:18 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW16R MB1 SWC

Analyte	Back Pressure	Flow
Ar	231.6 kPa	0.75 L/min

Mean Data: WW16R MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3583058.9	100.2	%	0.54				.5%
ScF 361.383	380060.6	101.3	%	0.02				0%
Ag 328.[illegible]3†	40.6	0.00019	mg/L	0.000064	[illegible]	mg/L	0.000038	[illegible]
Al 308.215†	45.3	0.03182	mg/L	0.000016	0.06367	mg/L	0.0 [illegible]	[illegible]
As 188.979†	1.2	0.00087	mg/L	0.000550	0.00173	mg/L	0.001113	64.23%
B 249.677†	-1.0	-0.00015	mg/L	0.000702	-0.00029	mg/L	0.001404	491.89%
Ba 233.527†	5.0	0.00111	mg/L	0.000432	0.00221	mg/L	0.000865	39.14%
Be 313.042†	18.7	0.00003	mg/L	0.000020	0.00007	mg/L	0.000039	57.68%
Ca 317.933†	622.3	0.05431	mg/L	0.000534	0.1086	mg/L	0.00107	0.98%
Cd 226.502†	5.6	0.00022	mg/L	0.000125	0.00043	mg/L	0.000249	57.80%
Co 228.616†	-4.7	-0.00013	mg/L	0.000125	-0.00026	mg/L	0.000250	96.47%
Cr 267.716†	7.2	0.00125	mg/L	0.001078	0.00250	mg/L	0.002156	86.36%
Cu 324.752†	141.6	0.00051	mg/L	0.000105	0.00103	mg/L	0.000210	20.41%
Fe 273.955†	6.7	0.00511	mg/L	0.001079	0.01021	mg/L	0.002157	21.12%
K 766.490†	45.9	0.02256	mg/L	0.010288	0.04416	mg/L	0.020577	46.60%
Mg 279.077†	20.1	0.01787	mg/L	0.001480	0.03574	mg/L	0.002960	8.28%
Mn 257.610†	-0.3	-0.00001	mg/L	0.000114	-0.00002	mg/L	0.000227	>999.9%
Mo 202.031†	3.1	0.00019	mg/L	0.000117	0.00038	mg/L	0.000234	61.14%
Na 589.592†	110.9	0.00840	mg/L	0.002278	0.01685	mg/L	0.004557	27.04%
Na 330.237†	14.7	0.5519	mg/L	0.30422	1.104	mg/L	0.6084	55.12%
Ni 231.604†	2.0	0.00049	mg/L	0.000776	0.00097	mg/L	0.001552	159.46%
Pb 220.353†	-3.2	-0.00041	mg/L	0.000160	-0.00082	mg/L	0.000319	38.87%
Sb 206.836†	5.7	0.00213	mg/L	0.001461	0.00426	mg/L	0.002922	68.64%
Se 196.026†	3.4	0.00301	mg/L	0.002169	0.00603	mg/L	0.004337	71.95%
Si 288.158†	26.8	0.01420	mg/L	0.003345	0.02839	mg/L	0.006691	23.57%
Sn 189.927†	0.2	0.00009	mg/L	0.000332	0.00017	mg/L	0.000664	389.96%
Sr 421.552†	51.8	0.00005	mg/L	0.000015	0.00011	mg/L	0.000031	27.71%
Ti 334.903†	19.5	0.00146	mg/L	0.000511	0.00292	mg/L	0.001023	35.07%
Tl 190.801†	0.7	0.00036	mg/L	0.001350	0.00073	mg/L	0.002701	372.30%
V 292.402†	45.2	0.00034	mg/L	0.000208	0.00068	mg/L	0.000415	60.94%
Zn 206.200†	5.2	0.00132	mg/L	0.000058	0.00265	mg/L	0.000117	4.40%

Sequence No.: 31
Sample ID: WW85 C SWC

Autosampler Location: 329
Date Collected: 7/10/2013 11:13.34 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: WW85 C SWC

Analyte	Back Pressure	Flow
All	234.0 kPa	0.75 L/min

Mean Data: WW85 C SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3493117.1	97.71	%	0.47				0.48%
ScR 361.383	366673.7	98.24	%	0.50				0.51
Ag 328.068†	391.1	0.00191	mg/L	0.000164	0.00955	mg/L	[illegible]	8.57%
Al 308.215†	50780.4	25.68	mg/L	0.067	128.4	mg/L	1.33	0.10%
As 188.979†	32.1	0.08890	mg/L	0.000630	0.4443	mg/L	0.00315	0.71
B 249.677†	147.5	0.02076	mg/L	0.000252	0.1038	mg/L	0.00126	1.21%
Ba 233.527†	11267.2	2.469	mg/L	0.0220	12.35	mg/L	0.110	0.89%
Be 313.042†	393.3	0.00066	mg/L	0.000022	0.00329	mg/L	0.000108	3.26
Ca 317.933†	984085.4	85.69	mg/L	0.237	429.5	mg/L	1.19	0.28%
Cd 228.802†	212.0	0.00824	mg/L	0.000124	0.04118	mg/L	0.000622	1.51%
Co 228.616†	1222.3	0.02744	mg/L	0.000455	0.1372	mg/L	0.00227	1.66%
Cr 267.716†	712.7	0.1257	mg/L	0.00086	0.6285	mg/L	0.00431	0.69%
Cu 324.752†	110381.4	0.4059	mg/L	0.00209	2.030	mg/L	0.0104	0.51%
Fe 273.955†	152591.4	116.3	mg/L	0.31	581.6	mg/L	1.55	0.27%
K 766.490†	7717.5	3.710	mg/L	0.0037	18.55	mg/L	0.018	0.10%
Mg 279.077†	21432.4	18.97	mg/L	0.071	94.84	mg/L	0.356	0.38%
Mn 257.610†	59322.4	1.605	mg/L	0.0031	8.027	mg/L	0.0154	0.19%
Mo 202.032†	664.3	0.04037	mg/L	0.000853	0.2018	mg/L	0.00426	2.11%
Na 589.592†	29259.7	2.222	mg/L	0.0094	11.11	mg/L	0.047	0.42%
Na 330.237†	107.0	2.693	mg/L	0.2054	13.46	mg/L	1.027	7.63%
Ni 231.604†	419.5	0.1020	mg/L	0.00021	0.5102	mg/L	0.00106	0.21%
Pb 220.353†	3705.1	0.4902	mg/L	0.00341	2.451	mg/L	0.0170	0.69%
Se 206.836†	26.1	0.01120	mg/L	0.002572	0.05600	mg/L	0.012859	22.96%
Se 196.026†	25.5	0.01636	mg/L	0.006179	0.09182	mg/L	0.030894	33.64%
Si 288.158†	1286.9	0.6833	mg/L	0.00604	3.417	mg/L	0.0302	0.88%
Sn 189.927†	-34.4	0.00050	mg/L	0.000899	0.00252	mg/L	0.004497	178.47%
Sr 421.552†	261269.5	0.2753	mg/L	0.00057	1.376	mg/L	0.0028	0.21%
Ti 334.903†	45480.6	2.251	mg/L	0.0056	11.26	mg/L	0.028	0.25%
Tl 190.801†	-15.1	0.00722	mg/L	0.003414	0.03610	mg/L	0.017068	47.28%
V 292.402†	19238.0	0.1367	mg/L	0.00066	0.6835	mg/L	0.00329	0.48%
Zn 206.200†	20584.0	5.256	mg/L	0.0270	26.28	mg/L	0.135	0.51%

Sequence No.: 32
Sample ID: WW16R ADUP SWC

Dilution: 2.000000X

Autosampler Location: 318
Date Collected: 7/10/2013 11:17:38 AM
Data Type: Original

Nebulizer Parameters: WW16R ADUP SWC

Analyte	Back Pressure	Flow
Ir	234.0 kPa	0.75 L/min

Mean Data: WW16R ADUP SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
SrA 35[illegible]	3441487.4	96.27	%	0.234				[illegible]
SrP [illegible]	371665.1	99.52	%	0.526				[illegible]
Ag 328.068†	-610.5	-0.00284	mg/L	0.000120	[illegible]	mg/L	0.000240	[illegible]
Al 308.215†	122400.5	86.00	mg/L	0.284	172.0	mg/L	0.57	0.33%
As 188.979†	-165.6	0.02813	mg/L	0.004997	0.05627	mg/L	0.009994	17.76%
B 249.677†	1694.3	0.2386	mg/L	0.00179	0.4773	mg/L	0.00357	0.75%
Ba 233.527†	1553.8	0.3183	mg/L	0.00222	0.6366	mg/L	0.00444	0.70%
Be 313.042†	836.5	0.00139	mg/L	0.000014	0.00279	mg/L	0.000029	1.05%
Ca 317.933†	5298343.8	462.5	mg/L	0.65	924.9	mg/L	1.25	0.14%
Cd 226.802†	94.2	0.00450	mg/L	0.000064	0.00901	mg/L	0.000129	1.43%
Co 228.616†	2444.1	0.05443	mg/L	0.000148	0.1089	mg/L	0.00030	0.27%
Cr 267.716†	1312.6	0.2227	mg/L	0.00127	0.4453	mg/L	0.00255	0.57%
Cu 324.752†	63571.8	0.2361	mg/L	0.00021	0.4721	mg/L	0.00041	0.09%
Fe 273.955†	188767.3	143.9	mg/L	2.12	287.8	mg/L	4.25	1.48%
K 766.490†	26898.7	12.93	mg/L	0.014	25.86	mg/L	0.029	0.11%
Mg 279.077†	77973.0	69.16	mg/L	0.276	138.3	mg/L	0.55	0.40%
Mn 257.610†	106721.1	2.940	mg/L	0.0299	5.881	mg/L	0.0598	1.02%
Mo 202.031†	356.7	0.01638	mg/L	0.000657	0.03275	mg/L	0.001314	4.01%
Na 589.592†	769875.7	58.47	mg/L	0.105	116.9	mg/L	0.21	0.18%
Na 330.237†	1594.4	59.51	mg/L	0.407	119.0	mg/L	0.81	0.68%
Ni 231.604†	878.8	0.2138	mg/L	0.00373	0.4275	mg/L	0.00745	1.74%
Pb 220.353†	431.3	0.06961	mg/L	0.000405	0.1392	mg/L	0.00081	0.58%
Sb 206.836†	23.4	0.01118	mg/L	0.003169	0.02237	mg/L	0.006337	28.34%
Se 196.026†	47.6	0.03216	mg/L	0.002434	0.06432	mg/L	0.004865	7.57%
Si 218.158†	7857.2	4.166	mg/L	0.0728	8.333	mg/L	0.0655	1.79%
Sn 189.927†	-105.5	0.02678	mg/L	0.000392	0.05357	mg/L	0.000785	1.46%
Sr 421.552†	3049902.4	3.213	mg/L	0.0176	6.427	mg/L	0.0352	0.55%
Ti 334.903†	113316.7	5.594	mg/L	0.0270	11.19	mg/L	0.054	0.48%
Tl 190.801†	-25.1	0.00483	mg/L	0.000573	0.00966	mg/L	0.001146	11.86%
V 292.402†	39334.3	0.2837	mg/L	0.00119	0.5675	mg/L	0.00239	0.42%
Zn 206.200†	2337.8	0.5921	mg/L	0.00289	1.184	mg/L	0.0058	0.49%

WQS : 00071

Sequence No.: 33
Sample ID: WW16R A SWC

Del

Dilution: 2.000000X

Autosampler Location: 319
Date Collected: 7/10/2013 11:22:00 AM
Data Type: Original

Nebulizer Parameters: WW16R A SWC

Analyte	Back Pressure	Flow
All	134.0 kPa	0.75 L/min

Mean Data: WW16R A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	3368996.1	94.24	%	0.328				0.35
ScR 361.383	363157.0	97.25	%	0.389				0.400
B 249.773†	-706.9	-0.00831	mg/L	0.00166	-0.00661	mg/L	0.00014	2.13
Al 308.215†	115773.3	21.34	mg/L	0.028	162.7	mg/L	3.98	0.79
As 188.979†	-154.8	0.01783	mg/L	0.005437	0.03566	mg/L	0.010873	30.49%
B 249.677†	1232.0	0.1735	mg/L	0.00079	0.3470	mg/L	0.00140	0.40
Ba 233.527†	1723.1	0.3566	mg/L	0.00203	0.7133	mg/L	0.00465	0.57
Be 313.042†	784.0	0.00130	mg/L	0.000020	0.00261	mg/L	0.000039	1.51%
Ca 317.933†	6595299.5	575.7	mg/L	4.71	1151	mg/L	9.42	0.82%
Cd 228.802†	102.9	0.00480	mg/L	0.000200	0.00960	mg/L	0.000400	4.16%
Co 228.616†	2208.4	0.04866	mg/L	0.000380	0.09733	mg/L	0.000760	0.78
Cr 267.716†	1260.8	0.2160	mg/L	0.00251	0.4321	mg/L	0.00502	1.16
Cs 326.752†	88429.2	0.3262	mg/L	0.00060	0.6525	mg/L	0.00121	0.18
Fe 273.955†	150690.7	137.7	mg/L	1.12	275.5	mg/L	2.25	0.82
K 766.490†	27495.4	13.22	mg/L	0.070	26.44	mg/L	0.140	0.53
Mg 279.077†	74769.1	66.32	mg/L	0.039	132.6	mg/L	0.08	0.06
Mn 257.610†	65578.9	2.314	mg/L	0.0126	4.627	mg/L	0.0251	0.54
Mo 202.031†	318.3	0.01254	mg/L	0.000395	0.02508	mg/L	0.000789	3.15
Na 589.592†	787284.4	59.79	mg/L	0.181	119.6	mg/L	0.36	0.31
Na 330.237†	1639.8	60.59	mg/L	0.216	121.2	mg/L	0.43	0.36
Ni 231.604†	882.2	0.2146	mg/L	0.00242	0.4292	mg/L	0.00484	1.13
Pb 220.353†	507.1	0.07868	mg/L	0.000242	0.1574	mg/L	0.00048	0.31
Se 206.836†	29.9	0.01299	mg/L	0.001428	0.02597	mg/L	0.002857	11.00
Se 196.026†	41.9	0.02764	mg/L	0.007673	0.05527	mg/L	0.015345	27.76
Si 288.158†	8724.3	4.625	mg/L	0.0360	9.250	mg/L	0.0721	0.78
Sn 189.927†	-121.3	0.03620	mg/L	0.001718	0.07240	mg/L	0.003435	4.75
Sr 421.552†	4432591.8	4.670	mg/L	0.0130	9.340	mg/L	0.0260	0.28
Ti 334.903†	107214.2	5.284	mg/L	0.0087	10.57	mg/L	0.017	0.16
Tl 190.801†	-17.0	0.00838	mg/L	0.001765	0.01676	mg/L	0.003530	21.06
V 292.402†	37498.5	0.2704	mg/L	0.00077	0.5409	mg/L	0.00153	0.28
Zn 206.200†	2971.5	0.7526	mg/L	0.00386	1.505	mg/L	0.0077	0.51

Sequence No.: 34
Sample ID: WW16R ASPK SWC

Dil

Dilution: 2.000000X

Autosampler Location: 320
Date Collected: 7/10/2013 11:26:21 AM
Data Type: Original

Nebulizer Parameters: WW16R ASPK SWC

Analyte	Back Pressure	Flow
All	234.0 kPa	0.75 L/min

Mean Data: WW16R ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3343412.1	93.52	%	0.583				0.62%
[illegible]	362544.5	97.06	%	0.536				0.55%
As [illegible]	109116.0	0.5126	mg/L	0.00233	1.04[illegible]	mg/L	[illegible]	[illegible]%
Al 308.215†	125278.6	98.01	mg/L	0.170	176.0	mg/L	1.34	0.19%
Ag 188.979†	2688.3	2.050	mg/L	0.0101	4.101	mg/L	0.0205	0.49%
B 249.677†	1190.1	0.1666	mg/L	0.00085	0.3332	mg/L	0.00170	0.51%
Ba 233.527†	10885.1	2.374	mg/L	0.0030	4.748	mg/L	0.0061	0.13%
Be 313.042†	254683.2	0.4628	mg/L	0.00349	0.9256	mg/L	0.00698	0.75%
Ca 317.933†	6000672.8	523.6	mg/L	2.06	1048	mg/L	4.11	0.39%
Cd 228.802†	13799.2	0.5287	mg/L	0.00237	1.057	mg/L	0.0047	0.45%
Co 228.616†	20337.2	0.5373	mg/L	0.00305	1.075	mg/L	0.0061	0.57%
Cr 267.716†	4305.6	0.7393	mg/L	0.00362	1.479	mg/L	0.0072	0.49%
Cu 324.752†	237618.5	0.8693	mg/L	0.00574	1.739	mg/L	0.0115	0.66%
Fe 273.955†	201386.1	153.5	mg/L	0.36	307.0	mg/L	0.72	0.24%
K 766.490†	47594.0	22.88	mg/L	0.035	45.76	mg/L	0.071	0.15%
Mg 279.077†	91856.1	81.48	mg/L	0.101	163.0	mg/L	0.20	0.12%
Mn 257.610†	117147.1	3.169	mg/L	0.0067	6.337	mg/L	0.0134	0.21%
Mo 202.031†	370.5	0.01643	mg/L	0.000509	0.03285	mg/L	0.001018	3.10%
Na 589.592†	920941.9	69.94	mg/L	0.153	139.9	mg/L	0.31	0.22%
Na 330.237†	1883.6	69.75	mg/L	0.686	139.5	mg/L	1.37	0.98%
Ni 231.604†	2908.3	0.7068	mg/L	0.00257	1.414	mg/L	0.0051	0.36%
Pb 220.353†	14690.9	1.949	mg/L	0.0085	3.897	mg/L	0.0170	0.44%
Sb 217.581†	929.5	0.3456	mg/L	0.00256	0.6913	mg/L	0.00512	0.74%
Se 196.026†	2328.1	2.033	mg/L	0.0110	4.066	mg/L	0.0219	0.54%
Si 288.158†	7564.0	4.015	mg/L	0.0163	8.030	mg/L	0.0327	0.41%
Sn 189.927†	-112.4	0.03258	mg/L	0.001110	0.06517	mg/L	0.002219	3.41%
Sr 421.552†	4589634.5	4.836	mg/L	0.0125	9.671	mg/L	0.0251	0.26%
Ti 334.903†	105176.9	5.186	mg/L	0.0163	10.37	mg/L	0.033	0.32%
Tl 190.801†	3405.5	1.834	mg/L	0.0117	3.669	mg/L	0.0234	0.64%
V 292.402†	103945.8	0.7670	mg/L	0.00345	1.534	mg/L	0.0069	0.45%
Zn 206.200†	5872.5	1.494	mg/L	0.0060	2.985	mg/L	0.0120	0.40%

Sequence No.: 35
Sample ID: WW16R REF1 SWC

Del

Dilution: 2.000000X

Autosampler Location: 321
Date Collected: 7/10/2013 11:29:57 AM
Data Type: Original

Nebulizer Parameters: WW16R REF1 SWC

Analyte	Back Pressure	Flow
Ar1	233.0 kPa	0.75 L/min

Mean Data: WW16R REF1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	3566229.5	99.61	%	0.306				[illegible]
[illegible]	382204.2	102.3	%	0.23				[illegible]
[illegible]	181674.1	0.8703	mg/L	0.00262	1.741	mg/L	[illegible]	[illegible]
Al 396.215+	97129.7	68.23	mg/L	0.281	136.5	mg/L	0.56	0.41
As 188.979+	1400.0	1.061	mg/L	0.0057	2.122	mg/L	[illegible]	[illegible]
B 249.[illegible]+	5983.6	0.8424	mg/L	0.00340	1.685	mg/L	[illegible]	[illegible]
Ba 233.527+	12226.6	2.673	mg/L	0.0165	5.346	mg/L	[illegible]	[illegible]
Be 313.042+	378755.7	0.6884	mg/L	0.00879	1.377	mg/L	[illegible]	[illegible]
Ca 317.933+	362667.6	31.65	mg/L	0.239	63.31	mg/L	0.479	0.76%
Cd 226.502+	14236.7	0.5506	mg/L	0.00487	1.101	mg/L	[illegible]	[illegible]
Co [illegible]	22356.8	0.5976	mg/L	0.00493	1.195	mg/L	[illegible]	[illegible]
Cr 267.716+	3618.7	0.6295	mg/L	0.00206	1.259	mg/L	0.0041	0.33%
Cu 324.752+	153589.5	0.5638	mg/L	0.00073	1.128	mg/L	[illegible]	[illegible]
Fe 273.955+	176207.5	134.3	mg/L	1.15	268.6	mg/L	2.29	0.85%
K 766.490+	58714.3	28.23	mg/L	0.053	56.45	mg/L	0.107	0.19%
Mg 279.077+	24910.2	22.06	mg/L	0.114	44.12	mg/L	[illegible]	[illegible]
Mn 257.610+	130920.2	3.543	mg/L	0.0259	7.086	mg/L	0.0518	0.73%
Mo 202.031+	6048.3	0.3771	mg/L	0.00334	0.7542	mg/L	[illegible]	[illegible]
Na [illegible]	59396.2	4.511	mg/L	0.0237	9.022	mg/L	[illegible]	[illegible]
Na 330.2[illegible]	129.4	4.881	mg/L	0.0559	9.762	mg/L	[illegible]	[illegible]
[illegible]	1847.5	0.4492	mg/L	0.00309	0.8985	mg/L	[illegible]	[illegible]
Pb 220.353+	7427.9	0.9882	mg/L	0.00755	1.976	mg/L	[illegible]	[illegible]
Sb 206.836+	1434.1	0.5475	mg/L	0.00795	1.095	mg/L	[illegible]	[illegible]
Se [illegible]	1519.1	1.325	mg/L	0.0138	2.650	mg/L	[illegible]	[illegible]
Si 288.158+	7338.9	3.889	mg/L	0.0084	7.778	mg/L	[illegible]	[illegible]
Sn 189.927+	4759.7	1.528	mg/L	0.0116	3.057	mg/L	[illegible]	[illegible]
Sr 421.552+	410626.0	0.4326	mg/L	0.00182	0.8653	mg/L	[illegible]	[illegible]
Ti 334.903+	40319.7	1.998	mg/L	0.0074	3.996	mg/L	[illegible]	[illegible]
Tl 190.801+	1897.5	1.027	mg/L	0.0079	2.053	mg/L	[illegible]	[illegible]
V 292.402+	93790.4	0.6939	mg/L	0.00180	1.388	mg/L	[illegible]	[illegible]
Zn 206.200+	5535.2	1.414	mg/L	0.0076	2.828	mg/L	[illegible]	[illegible]

Sequence No.: 36
Sample ID: WW16R MB1SPK SWC

Autosampler Location: 322
Date Collected: 7/10/2013 11:33:58 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WW16R MB1SPK SWC

Analyte	Back Pressure	Flow
Ar	233.0 kPa	0.75 L/min

Mean Data: WW16R MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	99.61	-	0.208				[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	0.26				[illegible]
Ag [illegible]	[illegible]	0.5198	mg/L	0.00097	[illegible]	mg/L	[illegible]	[illegible]
Al [illegible]	2991.4	[illegible]	mg/L	0.0014	4.034	mg/L	[illegible]	[illegible]
As 188.979+	2818.6	2.013	mg/L	0.0047	4.027	mg/L	0.0094	0.23%
B 249.677+	14.1	0.00092	mg/L	0.001110	0.00185	mg/L	0.002221	120.21%
Ba [illegible]	9665.9	2.131	mg/L	0.0081	4.262	mg/L	0.0161	[illegible]
Be 313.042+	258517.1	0.4699	mg/L	0.00300	0.9398	mg/L	0.00599	0.64%
Ca 317.933+	112836.5	9.849	mg/L	0.0605	19.70	mg/L	0.121	0.61%
Co 228.902+	13417.4	0.5131	mg/L	0.00196	1.026	mg/L	0.0039	0.38%
Cr 206.160+	18867.4	0.5065	mg/L	0.00268	1.017	mg/L	0.0054	0.53%
Cu 267.716+	3065.2	0.5295	mg/L	0.00415	1.059	mg/L	0.0083	0.78%
Fe 314.752+	143120.3	0.5204	mg/L	0.00130	1.041	mg/L	0.0026	0.25%
K 273.955+	2656.3	2.022	mg/L	0.0055	4.043	mg/L	0.0109	0.27%
L [illegible]	20719.4	9.960	mg/L	0.0423	19.92	mg/L	0.085	0.42%
Mg 279.077+	114994.4	10.22	mg/L	0.056	20.44	mg/L	0.112	0.55%
Mn 257.610+	18700.3	0.5064	mg/L	0.00225	1.013	mg/L	0.0045	0.44%
Mo 202.032+	38.7	0.00226	mg/L	0.000130	0.00452	mg/L	0.000260	5.74%
Na 589.592+	131171.6	9.962	mg/L	0.0157	19.92	mg/L	0.031	0.16%
Na 330.237+	290.7	10.76	mg/L	0.173	21.52	mg/L	0.346	1.61%
Ni 231.604+	2007.2	0.4885	mg/L	0.00084	0.9769	mg/L	0.00169	0.17%
P 213.353+	14956.0	1.971	mg/L	0.0111	3.943	mg/L	0.0223	0.57%
Pb 206.836+	5426.5	2.031	mg/L	0.0060	4.061	mg/L	0.0119	0.29%
Se 196.026+	2285.1	2.005	mg/L	0.0067	4.010	mg/L	0.0134	0.33%
Si 251.158+	24.0	0.01616	mg/L	0.003180	0.03232	mg/L	0.006359	19.67%
Sn 189.927+	-21.4	-0.00453	mg/L	0.000635	-0.00905	mg/L	0.001271	14.04%
Sr 421.552+	467430.4	0.4914	mg/L	0.00081	0.9829	mg/L	0.00162	0.17%
Ti 334.903+	51.1	0.00182	mg/L	0.000416	0.00364	mg/L	0.000832	22.85%
Tl 190.801+	3792.6	2.022	mg/L	0.0053	4.043	mg/L	0.0107	0.26%
V 292.402+	69070.5	0.5168	mg/L	0.00165	1.034	mg/L	0.0033	0.32%
Zn 206.200+	1923.6	0.4913	mg/L	0.00333	0.9826	mg/L	0.00667	0.68%

Sequence No.: 37
Sample ID: CV 5

Autosampler Location: 7
Date Collected: 7/10/2013 11:37:59 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
[illegible]	[illegible] kPa	[illegible] L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	99.71	%	0.216				[illegible]
[illegible]	[illegible]	99.60	%	0.402				0.40%
[illegible]	[illegible]	[illegible]	mg/L	0.0065	1.056	mg/L	0.0065	0.62%
Al 308.215i	2999.9	2.074	mg/L	0.0216	2.074	mg/L	0.0216	1.04%
As 188.979i	2803.6	2.032	mg/L	0.0074	2.032	mg/L	0.0074	0.36%
B 249.677i	7298.7	1.018	mg/L	0.0045	1.018	mg/L	0.0045	0.45%
Ba 233.527i	4903.6	1.081	mg/L	0.0079	1.081	mg/L	0.0079	0.73%
Be 313.042i	559613.6	0.9812	mg/L	0.00227	0.9812	mg/L	0.00227	0.23%
Ca 317.933i	22896.6	1.996	mg/L	0.0076	1.996	mg/L	0.0076	0.38%
Cd 226.502i	26525.0	1.025	mg/L	0.0016	1.025	mg/L	0.0016	0.16%
Co 228.616i	37756.9	1.016	mg/L	0.0019	1.016	mg/L	0.0019	0.19%
Cr 267.716i	6196.9	1.072	mg/L	0.0049	1.072	mg/L	0.0049	0.46%
Cu 324.752i	283192.1	1.029	mg/L	0.0020	1.029	mg/L	0.0020	0.20%
Fe 273.955i	2728.0	2.073	mg/L	0.0122	2.073	mg/L	0.0122	0.59%
K 766.490i	42151.6	20.26	mg/L	0.078	20.26	mg/L	0.078	0.39%
Mg 279.077i	2274.4	2.028	mg/L	0.0039	2.028	mg/L	0.0039	0.19%
Mn 257.610i	36387.5	0.9851	mg/L	0.00220	0.9851	mg/L	0.00220	0.22%
Mo 202.031i	15699.1	0.9798	mg/L	0.00028	0.9798	mg/L	0.00028	0.03%
Na 589.592i	665387.2	50.53	mg/L	0.213	50.53	mg/L	0.213	0.42%
Na 330.237i	1304.2	52.51	mg/L	0.466	52.51	mg/L	0.466	0.89%
Ni 231.604i	4259.9	1.036	mg/L	0.0077	1.036	mg/L	0.0077	0.74%
Pb 220.353i	14601.8	1.951	mg/L	0.0064	1.951	mg/L	0.0064	0.33%
Sb 206.836i	5607.4	2.103	mg/L	0.0092	2.103	mg/L	0.0092	0.44%
Se 196.026i	2282.6	2.002	mg/L	0.0112	2.002	mg/L	0.0112	0.56%
Si 288.158i	3826.8	2.030	mg/L	0.0096	2.030	mg/L	0.0096	0.47%
Sn 189.927i	3686.3	0.9895	mg/L	0.00393	0.9895	mg/L	0.00393	0.40%
Sr 421.552i	951042.4	1.002	mg/L	0.0015	1.002	mg/L	0.0015	0.15%
Ti 334.941i	70204.5	1.001	mg/L	0.0021	1.001	mg/L	0.0021	0.21%
Tl 190.801i	3916.7	2.084	mg/L	0.0072	2.084	mg/L	0.0072	0.34%
V 292.402i	139338.5	1.043	mg/L	0.0053	1.043	mg/L	0.0053	0.51%
Zn 206.200i	3980.0	1.017	mg/L	0.0070	1.017	mg/L	0.0070	0.69%

Sequence No.: 38
Sample ID: CB 5

Autosampler Location: 1
Date Collected: 7/10/2013 11:42:04 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
[illegible]	[illegible]	[illegible]

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
[illegible]	[illegible]	[illegible]	%	0.26				[illegible]
[illegible]	[illegible]	[illegible]	%	0.87				[illegible]
[illegible]	[illegible]	[illegible]	mg/L	0.000253	0.00007	mg/L	0.000253	92.07%
[illegible]	[illegible]	[illegible]	mg/L	0.006150	0.00302	mg/L	0.006150	203.51%
[illegible]	[illegible]	[illegible]	mg/L	0.001157	-0.00039	mg/L	0.001157	293.64%
[illegible]	[illegible]	[illegible]	mg/L	0.001120	0.00041	mg/L	0.001120	270.50%
[illegible]	[illegible]	[illegible]	mg/L	0.000991	0.00057	mg/L	0.000991	173.77%
[illegible]	[illegible]	[illegible]	mg/L	0.000011	0.00009	mg/L	0.000011	12.15%
[illegible]	[illegible]	[illegible]	mg/L	0.000805	0.00558	mg/L	0.000805	14.44%
[illegible]	[illegible]	[illegible]	mg/L	0.000201	0.00044	mg/L	0.000201	45.30%
[illegible]	[illegible]	[illegible]	mg/L	0.000214	0.00007	mg/L	0.000214	297.75%
[illegible]	[illegible]	[illegible]	mg/L	0.000481	0.00069	mg/L	0.000481	69.34%
[illegible]	[illegible]	[illegible]	mg/L	0.000121	0.00072	mg/L	0.000121	16.79%
[illegible]	[illegible]	[illegible]	mg/L	0.000809	0.00249	mg/L	0.000809	32.52%
[illegible]	[illegible]	[illegible]	mg/L	0.011544	0.04303	mg/L	0.011544	26.83%
[illegible]	[illegible]	[illegible]	mg/L	0.005449	-0.00023	mg/L	0.005449	>999.9%
[illegible]	[illegible]	[illegible]	mg/L	0.000081	-0.00002	mg/L	0.000081	523.49%
[illegible]	[illegible]	[illegible]	mg/L	0.000402	0.00165	mg/L	0.000402	24.33%
[illegible]	[illegible]	[illegible]	mg/L	0.003385	0.00958	mg/L	0.003385	35.32%
[illegible]	[illegible]	[illegible]	mg/L	0.46371	0.4202	mg/L	0.46371	110.36%
[illegible]	[illegible]	[illegible]	mg/L	0.000287	-0.00002	mg/L	0.000287	>999.9%
[illegible]	[illegible]	[illegible]	mg/L	0.001040	-0.00020	mg/L	0.001040	520.67%
[illegible]	[illegible]	[illegible]	mg/L	0.001905	0.01338	mg/L	0.001905	14.24%
[illegible]	[illegible]	[illegible]	mg/L	0.002117	0.00229	mg/L	0.002117	92.63%
[illegible]	[illegible]	[illegible]	mg/L	0.003438	-0.00317	mg/L	0.003438	108.45%
[illegible]	[illegible]	[illegible]	mg/L	0.001224	-0.00096	mg/L	0.001224	127.45%
[illegible]	[illegible]	[illegible]	mg/L	0.000038	0.00008	mg/L	0.000038	49.01%
[illegible]	[illegible]	[illegible]	mg/L	0.000665	0.00144	mg/L	0.000665	46.14%
[illegible]	[illegible]	[illegible]	mg/L	0.001684	0.00198	mg/L	0.001684	85.17%
V 292.402†	19.2	0.00015	mg/L	0.000177	0.00015	mg/L	0.000177	121.67%
[illegible]	[illegible]	[illegible]	mg/L	0.000701	0.00077	mg/L	0.000701	91.00%

Attachment I-5
Ecology Inspection Report

State of Washington Department of Ecology
Northwest Regional Office

STORMWATER COMPLIANCE INSPECTION REPORT

WADOE Stormwater Compliance Inspection Form (last file update 4-04.)

Facility Type: ☒ Industrial ☐ Boatyard ☐ Construction ☐ S & G

Section A: General Data

Inspection Date	NPDES Permit #	County	Receiving Waters
6/12/2013	**WAR001365**	King	Duwamish River

Discharges to: Surface Water ☒ Ground Water ☐ | Weather at time of inspection: Mostly Sunny

Section B: Facility Data

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Alaska Marine Lines 5600 W. Marginal Way S.W. PO Box 24348 Seattle, WA 98106	8:00 am	1-01-10
	Exit Time	Permit Expiration Date
	3:30 pm	1-01-15

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Mark Gaska/ Terminal Manager/ 206-764-5740
Zed Runyun/ Seattle Dock Operations Manager/ 206-768-3557
Andrew Heuscher/ Regulatory Complaince Director/ 907-463-9325

Other Participants:
Christine Nancarrow, SAIC
Corey Wilson, SAIC

Name, Address of Responsible Official/Title/Phone and Fax Number.
Mark Gaska
5600 W. Marginal Way SW
Seattle, WA 98106
Phone Number 206-396-1298 Fax Contacted? ☒Yes ☐ No

	Yes	No
Samples Taken?	☒	☐
Photos Taken?	☒	☐

Section C: Areas Evaluated During Inspection.

☒	NPDES Permit Available	☐	Wet & Dry Season Inspection Reports	☒	Operations & Maintenance	☐	Effluent/Receiving Water
☒	Storm Water Pollution Prevention Plan Available	☐	Employee Training Records	☒	Oil/Water Separator	☐	Pretreatment
☒	SPCC Plan & Equipment	☐	Compliance Schedules	☐	Solid Waste Disposal	☐	Laboratory
☐	Erosion and Sediment Control Plans	☒	Monitoring Plan	☒	Catch Basins	☐	0.5 inch Inspection Logs
☒	DMR Submittals	☒	Fuel/Chemical Storage	☒	Track out / Wheel wash	☐	
☐		☐		☐		☐	
☐		☐		☐		☐	

Section D: Summary of Findings/Comments

Background:

This compliance inspection was conducted as part of a Department of Ecology inspection program to control the potential sources of pollutants discharged to the Duwamish waterway through storm drainage systems. The previous Department of Ecology, Water Quality Program compliance inspection at this facility was October 26, 2010. As part of this inspection, storm drain lines and structures were reviewed and compared with existing site maps and source trace samples of catch basin solids and stormwater were collected. Ecology will review sample results and consider the need to monitor for additional parameters or conduct further source tracing.

Alaska Marine Lines provides marine cargo service to Alaska. The 17-acre Seattle facility is located on the west bank of the lower Duwamish Waterway, just south of the Lafarge Portland Cement Plant. Freight is trucked in, stored, consolidated and loaded onto barges for marine transport. A variety of maintenance related and fueling activities are conducted.

Inspection/Observations:

I arrived at the facility at approximately 8:00 am and met with Mr. Mark Gaska, Terminal Manager, Zed Runyan, Operations Manager and Andrew Heuscher, Director of Regulatory Compliance. Mark Gaska is the facility lead for NPDES permit compliance. The site map was reviewed and we explained that sampling of stormwater and/or catch basin solids was planned.

Alaska Marine Lines has three outfalls to the river. DP-1 is the northern outfall and drains Zone B and sometimes C. This outfall seems to rarely discharge. DP-2 is the discharge from the ConTech Storm Filter vaults and is primarily from Zone D. Zone D is at the southeast corner of the facility that was formerly occupied by Duwamish Shipyard. DP-3 is the discharge from the StormwateRx Aquip treatment system and is primarily Zone A, the largest drainage. The facility must include a more detailed diagram of the Contech Vortechs and Storm Filter vaults, StormwaterRx system, tanks, pumps and piping.

The SWPPP needs to address improved source control measures in Zone D. The SWPPP must also more clearly address the maintenance frequencies for the oil/water separator and Contech stormwater treatment systems.

Approximately 20 percent of the northern portion of the site flows to a series of trench-type sand filters along the northern edge of the property. Two catch basins near the north docks also connect to the downstream end of the collection system, which discharges to DP-1. There were containers full of municipal garbage that appeared to be leaking garbage leachate. Leachate must not be allowed to flow into storm drains. Outfall # DP-1 is not monitored each quarter. The monitoring plan SWPPP must include an explanation of how they can be sure DP-1 does not discharge during a quarter and/or include a monitoring plan that explains when, why and how DP-1 Is monitored.

Zone C has a diesel fuel tank truck parked on a shipping flat that is used to fuel forklifts. This tanker truck is only used at this location. A mobile fuel company (Nelson) comes on-site to fuel large equipment at the wash pad station. All fueling at this facility must be conducted in compliance with all permit requirements:

Do not lock shut-off fueling nozzles in the open position. Do not "topoff" tanks being refueled. Block, plug or cover storm drains that receive runoff from areas where fueling, during fueling. Use drip pans or equivalent containment measures during all petroleum transfer operations. Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas). Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible. Drain fluids from equipment and vehicles prior to on-site storage or disposal. Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time clean-up completed, notifications made and staff involved.

Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units. At a minimum, spill kits shall include:
i) Oil absorbents capable of absorbing 15 gallons of fuel.
ii) A storm drain plug or cover kit.
iii) A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity.
iv) A non-metallic shovel.
v) Two five-gallon buckets with lids.

The SWPPP shall include BMPs to inspect and maintain the stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater. The SWPPP shall include the schedule/frequency for completing each maintenance task. The Permittee must:
a) Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.
b) Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and vehicles out of service or prevent leaks from spilling on the ground until repaired.
c) Immediately clean up spills and leaks (e.g., using absorbents, vacuuming, etc.) to prevent the discharge of pollutants.

The Permittee shall vacuum paved surfaces with a vacuum sweeper to remove accumulated pollutants a minimum of once per quarter. Clean up leaks and spills as they occur and employ the spill plan when necessary.

Prohibit any and all wash-waters from entering storms drains or surface waters.

Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.

Issues & Requirements:

The following must be completed in order to come into compliance with your Industrial Stormwater Permit:

The SWPPP needs to address improved source control measures in Zone D.

Prohibit the discharge of wash-water to surface waters or storm drains.

Update the site map in the SWPPP to accurately depict all storm drain lines, structures and connects. Accurately delineate the footprint of all areas of the facility that flow to the sanitary sewer in the site map. Include a detailed diagram of the storm drain piping and plumbing in the vicinity of the StormwateRx system, including pumps, pipes, tanks, vaults and bypasses.

All liquid chemical and petroleum products and wastes stored outside must be provided with proper cover and containment.

All dumpsters and scrap metal bins must be kept under cover or fit with a lid that must remain closed when not in use.

All fueling at this facility must be conducted in compliance with all permit requirements.

Prevent the discharge of leachate to storm drains.

The portion of the facility located west of W. Marginal Way SW needs separate coverage under the Industrial Stormwater General Permit or expand your existing SWPPP to include it.

The updated SWPPP needs to be to Ecology within 30 days.

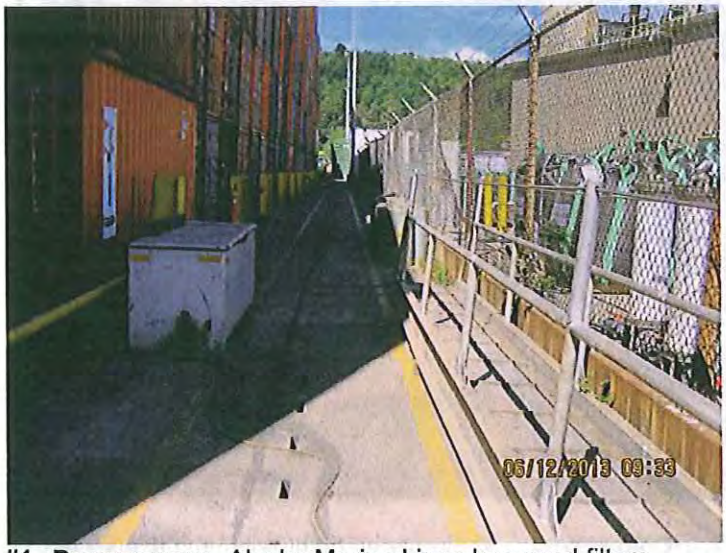
Contact Robert Wright at 206-909-6640 with any questions or concerns regarding this report.

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Robert Wright	WA Dept. of Ecology/ NW Regional Office/ 425-649-7060 3190 160th Ave SE, Bellevue, WA 98008-5452	8-2-13
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	
	WA Dept. of Ecology/NWRO/ (425) 649-7000 Fax (425) 649-7098	8/13/13

ANNOUNCED Inspection

June 12, 2013 WAR001365

Alaska Marine Lines, Seattle



#1. DESCRIPTION: Alaska Marine Lines has sand filters along the northern property boundary. Lafarge borders the facility on the north (far side of fence).

#2. DESCRIPTION: Approximately 20 percent of the site drains to the sand filters the northern edge of the property. Outfall # DP-1, seen above, rarely discharges.

#3. DESCRIPTION: The treatment system and tanks seen in Photos # 4 -6 are located just beyond the silver pipe. Outfall # DP-2 (arrow) discharges here.

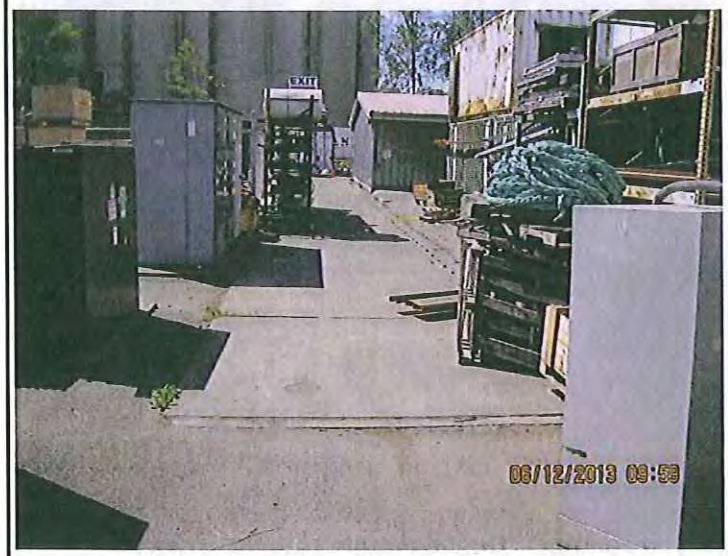
#4. DESCRIPTION: The StormwateRx system treats all stormwater from Zones A and D which comprises approximately 70 percent of the facility.

June 12, 2013 WAR001365

Alaska Marine Lines, Seattle

#5. DESCRIPTION: These tanks collect and store stormwater that feeds the treatment system.

#6. DESCRIPTION: The stormwater plumbing in this area is complicated. The facility must include a more detailed diagram of the Contech Vortechs and Storm Filter vaults, tanks, pumps and piping in this area.



#7. DESCRIPTION: Sand Filter # 8 is connected to the area around the Bull Shop (see Photos # 11, 12).

#8. DESCRIPTION: The area at the southeast corner of the facility is Zone "D". This could use improved source control measures to stabilize the bare soils.

Alaska Marine Lines, Seattle

#9. DESCRIPTION: The Reefer Shop has trench drains along the interior of the north and south walls (see Photo # 10). Containers are washed within this building and washwater flows into trench drains which then convey washwater to the sanitary sewer with King County Industrial Waste authorization.

#10. DESCRIPTION: There is a strip drain along the perimeter walls of the refer shop. Wastewater is collected and routed to the sanitary sewer.

#11. DESCRIPTION: The green building is referred to as the Bull Shop. The site map has this area shaded as if it is all tributary to the sanitary sewer system. The site map indicates two catch basins along the fence line (to the right of yellow equipment) that connect to outfall # DP-3. The map needs to be updated to clarify which areas flow to the storm drainage system and which to the sanitary sewer.

#12. DESCRIPTION: The stormwater site map indicates there are two storm drain catch basins along this fence-line that do not connect to the sanitary sewer.

Alaska Marine Lines, Seattle

#13. DESCRIPTION: The storm drain catch basin indicated by the black arrow is mapped to be connected to the sanitary sewer. The manhole under the steel plates (green arrow), does not have a mapped connection in the site map. The drains and structures in this area should be verified and accurately reflected on the site map.

#14. DESCRIPTION: The slotted metal plate is the wash pad. Vehicles and equipment are washed and fueled here. A tanker truck is situated on a shipping flat, white arrow, just out of view (see also Photo # 16). It is used for fueling forklifts. An off-site mobile fueler comes on site to refuel large equipment at this location. This pad was later determined by Seattle Public Utilities to have a connection to the storm drain system

#15. DESCRIPTION: The SWPPP indicates that the storm drains in this area can be directed to the sanitary sewer or to Zone "B", which flows to Outfall # DP-1. SPU later determined that there are no sanitary sewer connections in this area.

#16. DESCRIPTION: The fuel truck (white arrow) is located near the wash pad. All proper fueling BMPs must be provided.